



**City of
Tucker**

Chamblee Tucker Road Safety Improvements Corridor Study

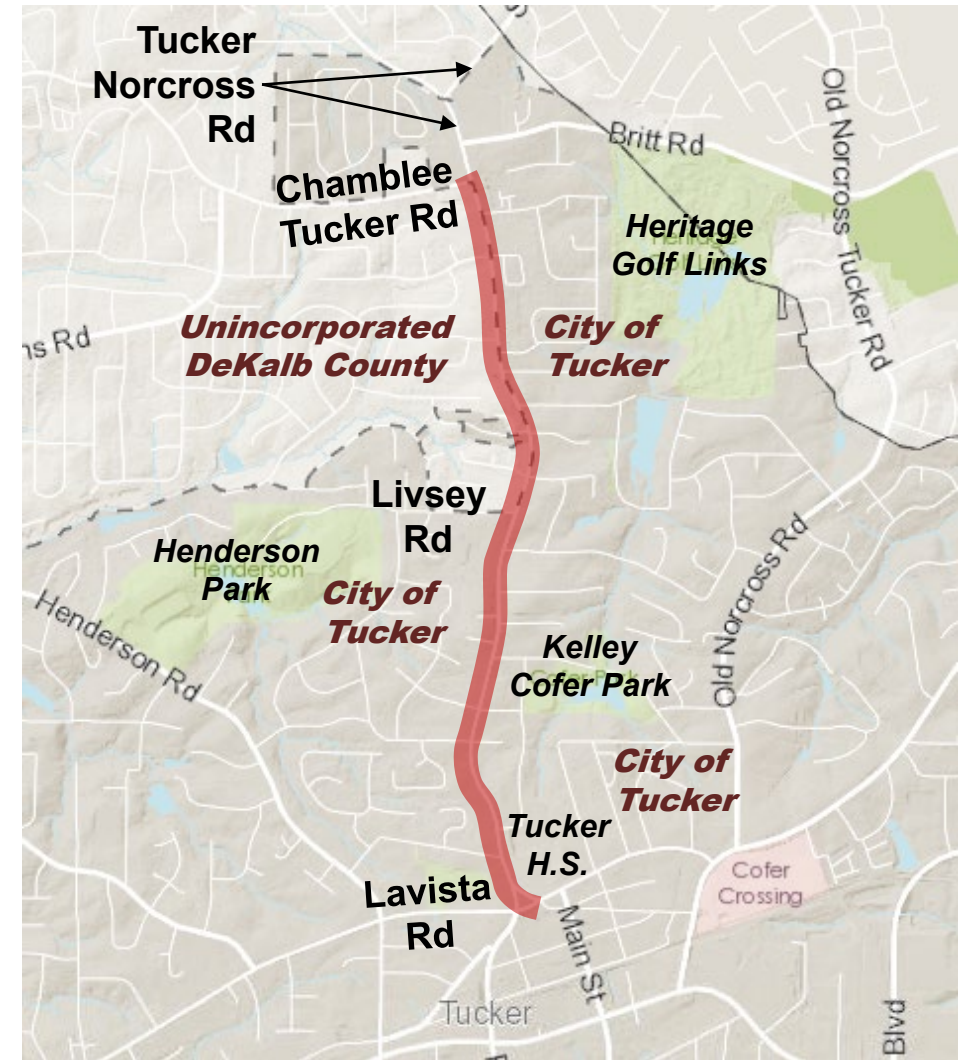
Work Session Briefing

March 22, 2021



Overview

- Study Area
 - Chamblee Tucker Road from Lavista Road to Tucker Norcross Road
 - Lavista Road to Livsey Road is Wholly in the City of Tucker
 - The West Side from Livsey Road to Tucker Norcross Road is Unincorporated DeKalb County
- Study Purpose
 - Identify Additional Safe Pedestrian Crossings Across Chamblee Tucker Road
 - Conduct Speed Studies and Identify Opportunities to Control Speeds
- Separate Study Underway at Lavista Road “Triangle”



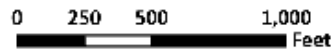
Roadway Classifications

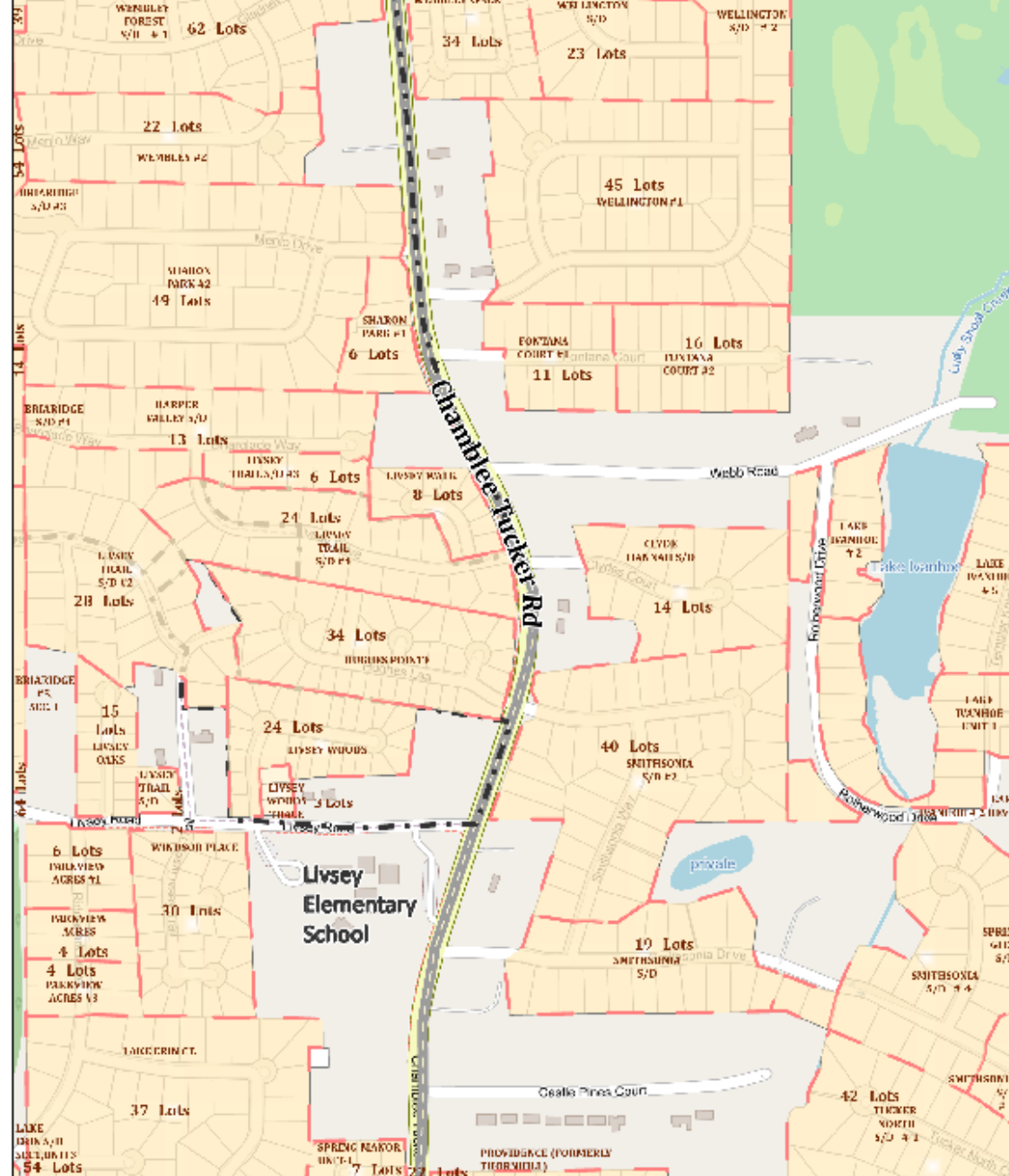
- **Minor Arterial** – Provides a link between between major arterials.
 - Typically 4 lanes with turn lanes
 - Heavier traffic volumes
 - May provide transit
 - Higher speeds
- **Collector** - A through street having the primary function of connecting and distributing traffic between neighborhoods and arterials.
 - 2 lanes
 - Moderate traffic volumes
 - Emphasis on lower speeds, pedestrian connectivity



Chamblee Tucker Road Study Lavista Road Access

- Subdivisions
- Municipal Boundary





**Chamblee Tucker Road Study
Livsey Elementary**

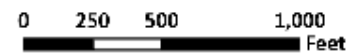
Subdivisions
Municipal Boundary





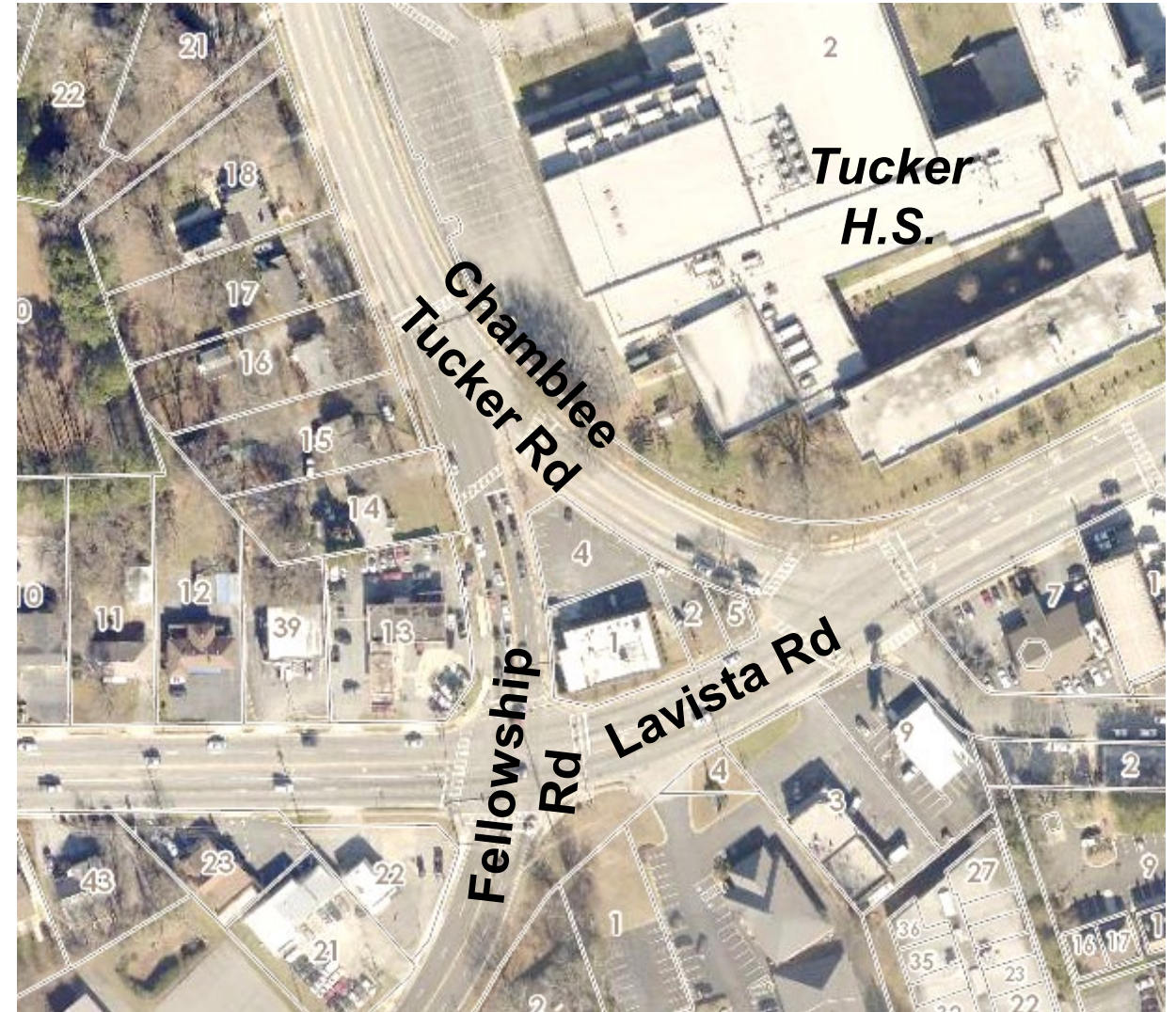
**Chamblee Tucker Road Study
Tucker Norcross Rd Access**

- - - Submissions
- Municipal Boundary



Separate Study at Lavista Road

- Ongoing Study to Analyze and Recommend Operational and Safety Improvements for Triangle Formed by
 - Chamblee Tucker Road
 - Lavista Road
 - Fellowship Road



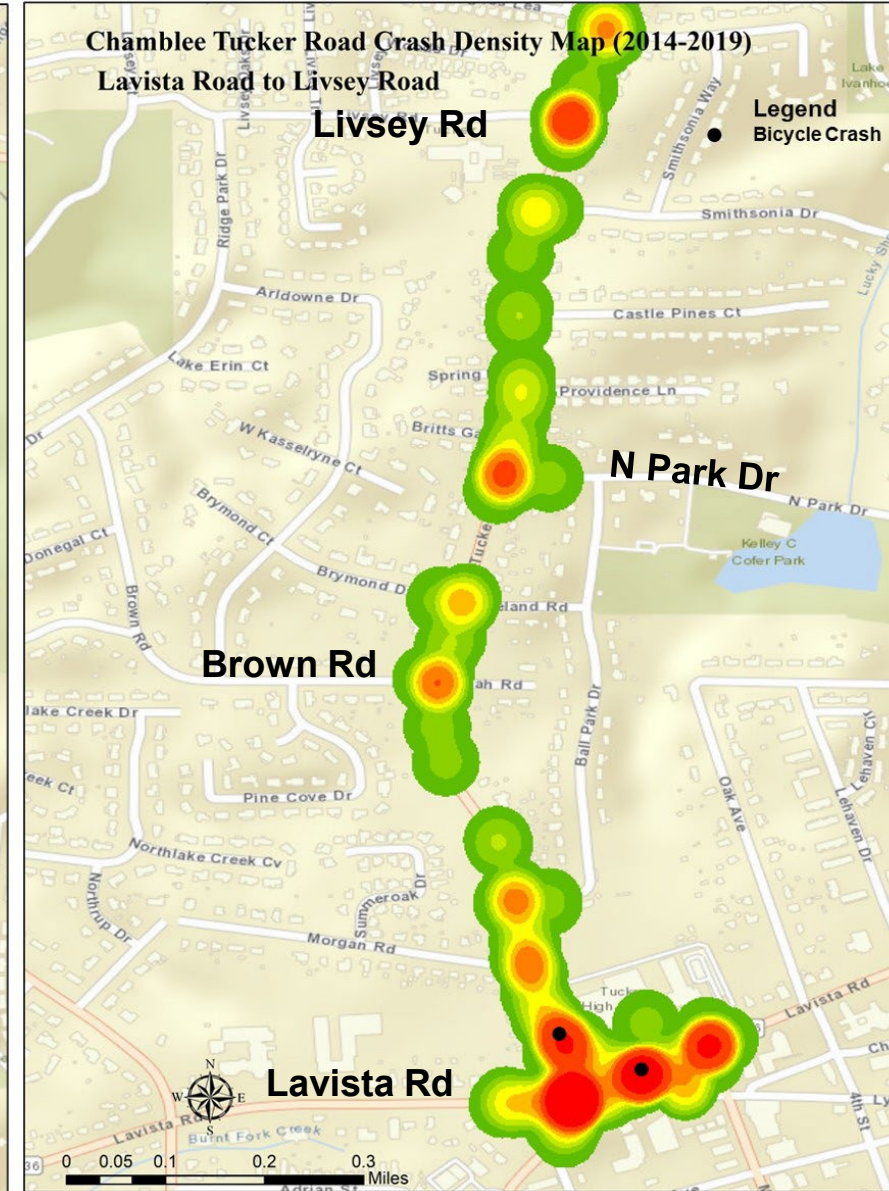
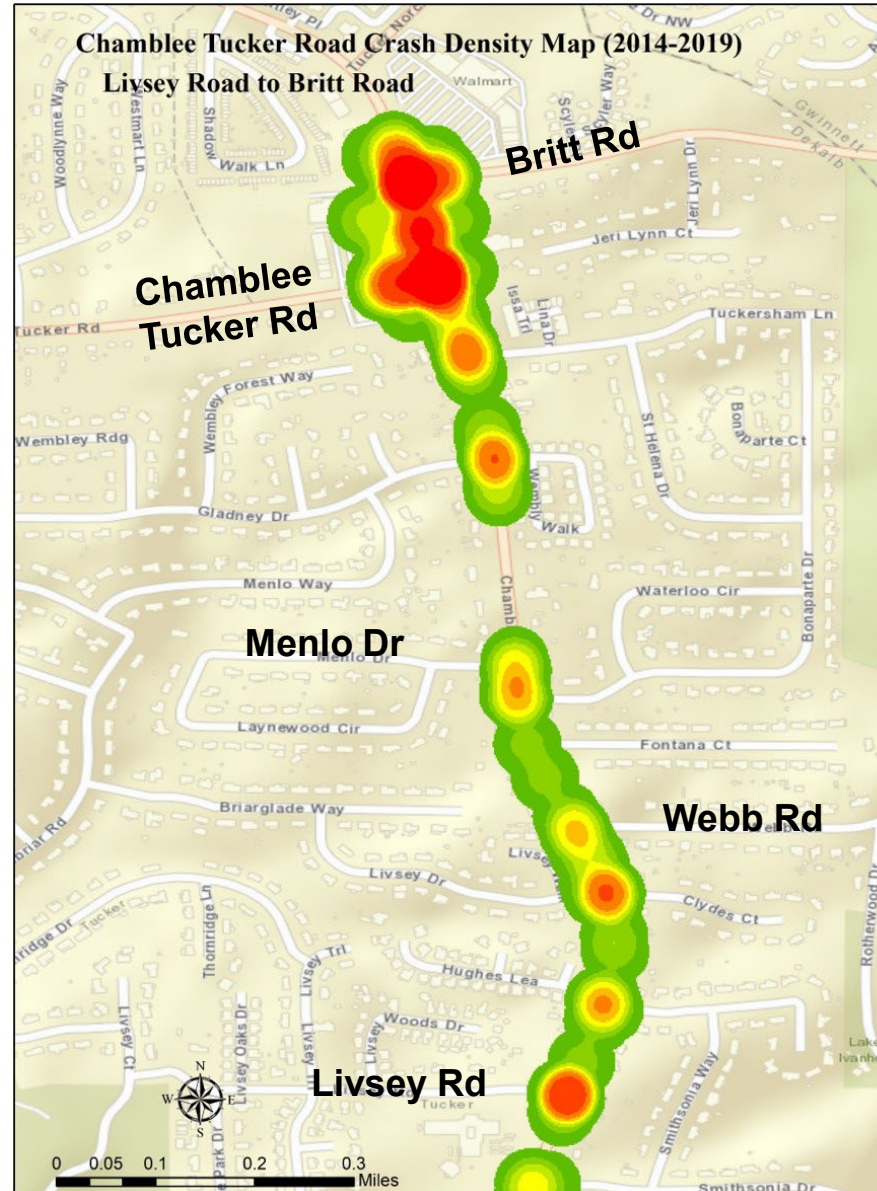
Traffic Volumes and Speed Data

- Data Collected October 2019
- Average Daily Vehicular Volume: 20,700
- Speed Data South of Livsey Elementary
 - Speed Limit: 40 mph
 - Average Speed: 43 mph

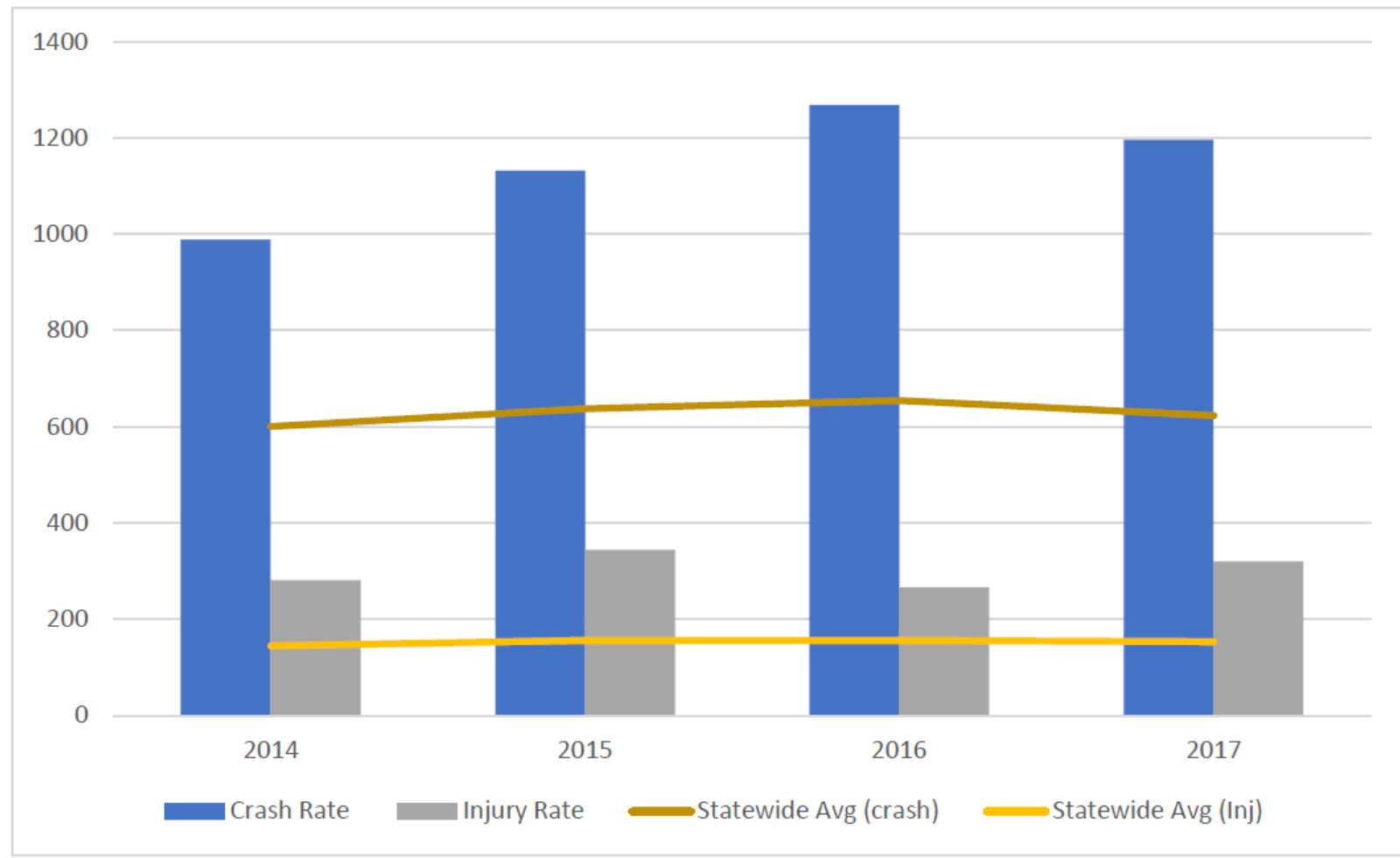
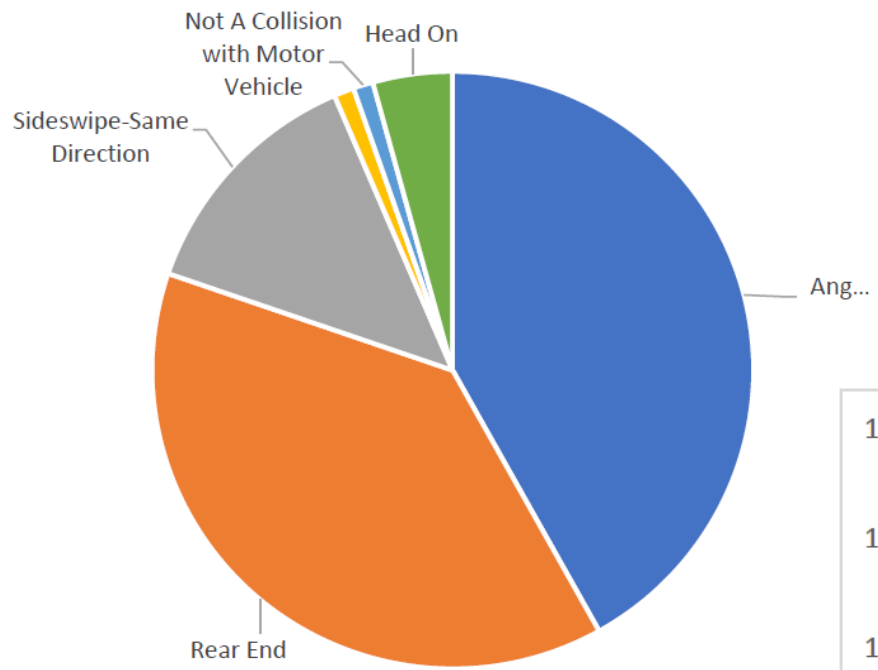


Crash Data

- Crash Density Maps of 2014-2019 Data From GDOT
- 2 Bicycle Involved Crashes at Fellowship Rd and Lavista Rd
- No Pedestrian Involved Crashes Reported
- No fatalities reported

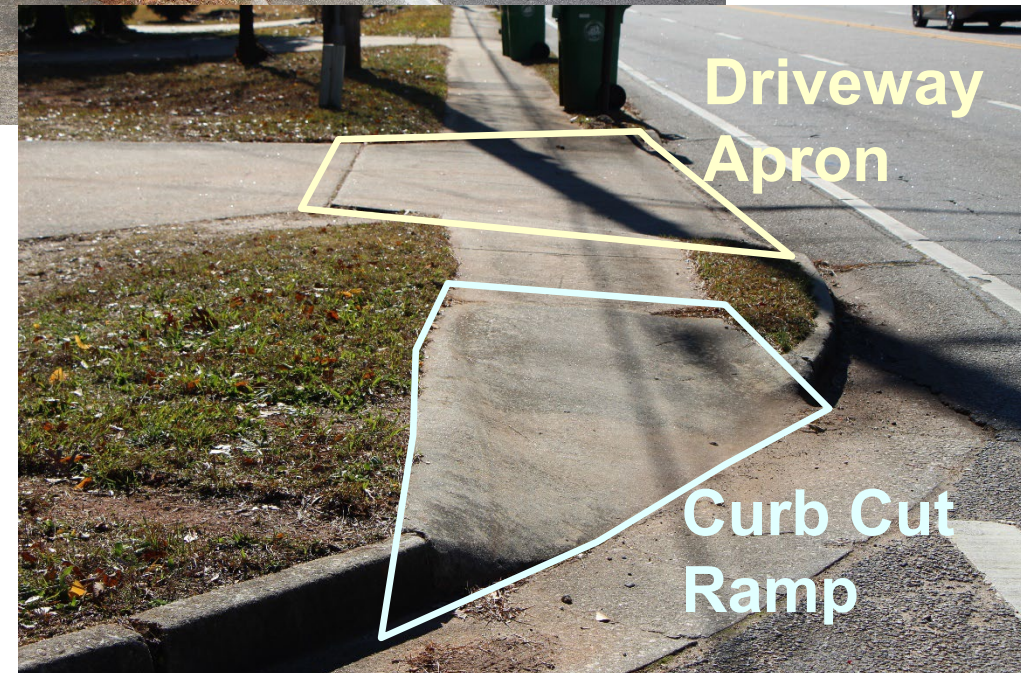


Item		Year					
		2014	2015	2016	2017	2018	2019
Crash Type	Angle	65	71	64	82	70	76
	Rear End	39	62	92	66	63	55
	Sideswipe-Same Direction	18	20	24	33	17	29
	Sideswipe-Opposite Direction	2	1	0	3	3	1
	Not A Collision with Motor Vehicle	0	4	2	1	2	0
	Head On	10	7	9	6	4	5
Total Crashes		134	165	191	191	159	166
Total Non-Fatal Injury Crashes		38	50	40	51	53	44
Total Fatality Crashes		0	0	0	0	0	0
AADT		22,500	24,200	25,000	26,500	21,300	17,200
Distance		1.7	1.7	1.7	1.7	1.7	1.7
Crash Rate (per 100 MVMT)		989	1132	1269	1197	1239	1603
<i>Statewide Crash Rate (per 100 MVMT)</i>		601	637	655	623	<i>n/a</i>	<i>n/a</i>
Non-Fatality Injury Crash Rate (per 100MVMT)		280	343	266	320	413	425
<i>Statewide Non-Fatality Injury Crash Rate (per 100 MVMT)</i>		145	156	156	153	<i>n/a</i>	<i>n/a</i>
Fatality Crash Rate (per 100 MVMT)		0.00	0.00	0.00	0.00	0.00	0.00
<i>Statewide Fatality Crash Rate (per 100 MVMT)</i>		1.25	1.75	1.60	1.46	<i>n/a</i>	<i>n/a</i>

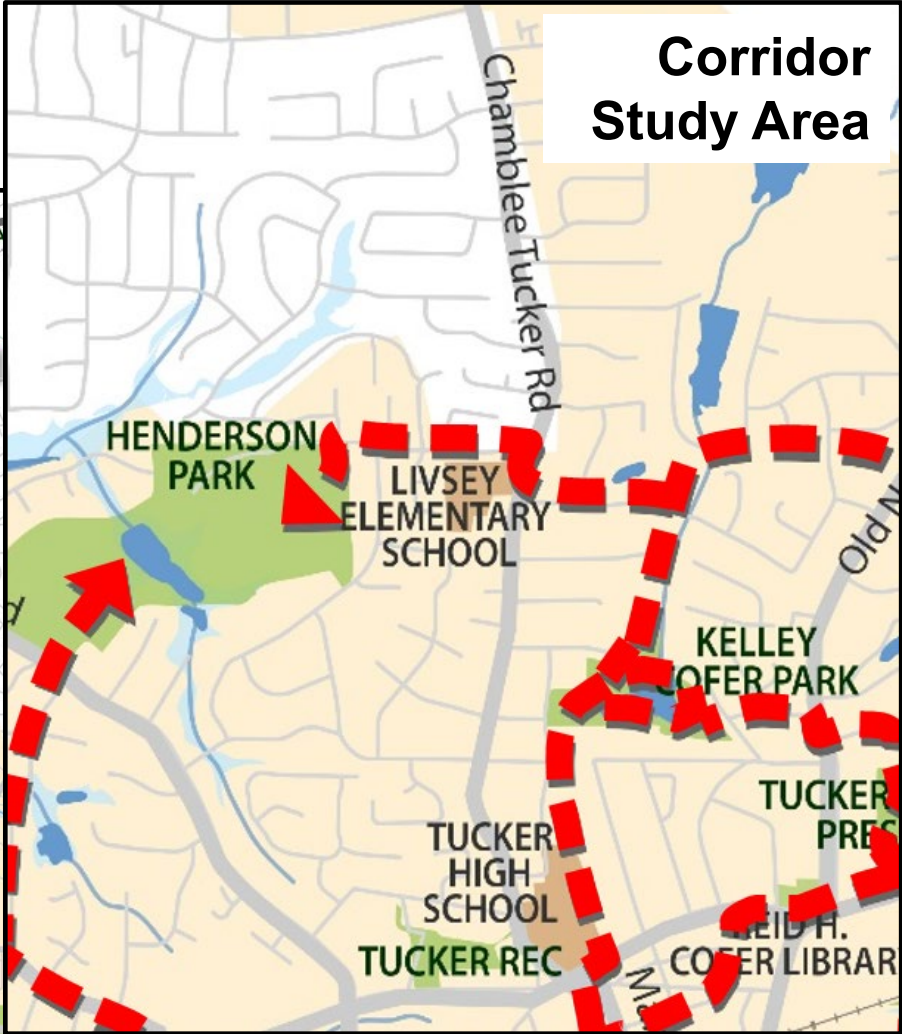
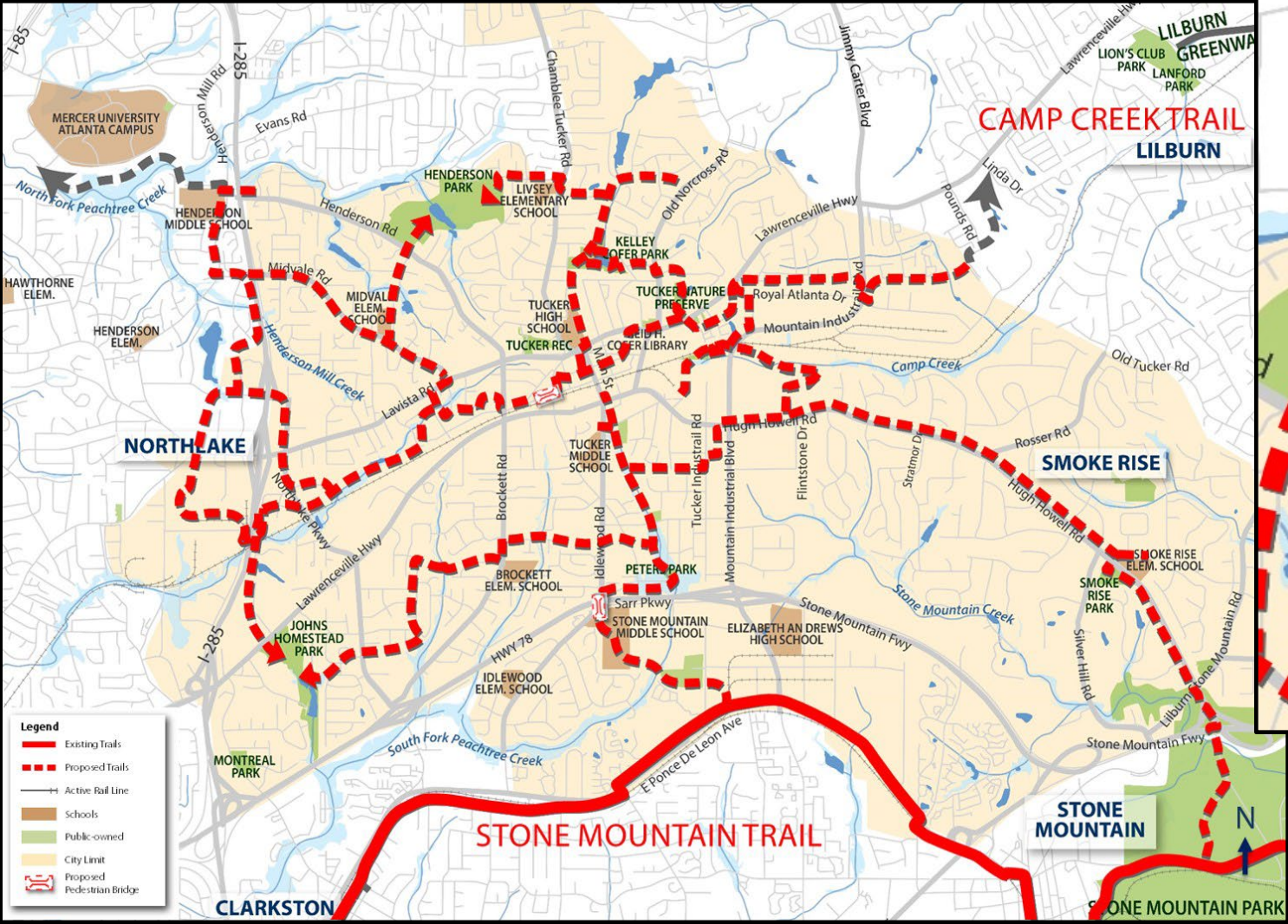


Existing Sidewalks

- Existing Sidewalks on Both Sides of Chamblee Tucker Road Throughout Corridor in Acceptable Condition
- Most Sidewalks are 4-Foot Wide, Substandard per ADA Guidance of 5-Foot Minimum Width
- Most Curb Cut Ramps at Crosswalks and Driveways Aprons Do Not Comply With ADA Guidelines Regarding Grades, Cross-Slopes and Detectable Warnings



Tucker Trail Master Plan



- Proposed Trail Between Henderson Park and Kelley Cofer Park Crosses Corridor at Livsey Road

Improvements Considered

- **Reduce Speed Limit from 40 mph to 35 mph**
 - GDOT Will Need to Review and Approve a Radar Permit to Reduce Speed Limit
- **Reconstruct Sidewalks, Driveway Aprons and Curb Cut Ramps to Comply With ADA**
 - Consider Budgeting Funds for Citywide Replacement of ADA Non-Compliant Curb Cut Ramps
- **Provide Additional Pedestrian Crossings Across Chamblee Tucker Road**
 - Consider Alternatives to Provide Additional Crossings
- **Implement Lane Diet**
 - Convert Roadway to One Lane in Each Direction With Center Turn Lane and Bike Lanes
 - Improves Conditions for Pedestrian Crossings Across Chamblee Tucker Road
 - Could be Catalyst to Reduce Speeds

Implementation Plan

- Addresses Providing Additional Pedestrian Crossings Across Chamblee Tucker Road and Potential Implementation of Lane Diet
 - **Alternative No. 1**
Existing Four-Lane Roadway Typical Section With Pedestrian Hybrid Beacon Crossings
 - **Alternative No. 2**
Lane Diet/Three-Lane Roadway Typical Section With Rectangular Rapid Flashing Beacon (RRFB) Pedestrian Crossings, Reducing Speed Limit Will be Considered
- Plan Does Not Address
 - Reconstructing Sidewalks, Driveway Aprons and Curb Cut Ramps to Comply With ADA

Alternative No. 1

Existing Roadway Typical Section
With Pedestrian Hybrid Beacon
Crossings

Alternative No. 1 – Existing Roadway Typical Section With Pedestrian Hybrid Beacon Crossings

- Roadway Typical Section

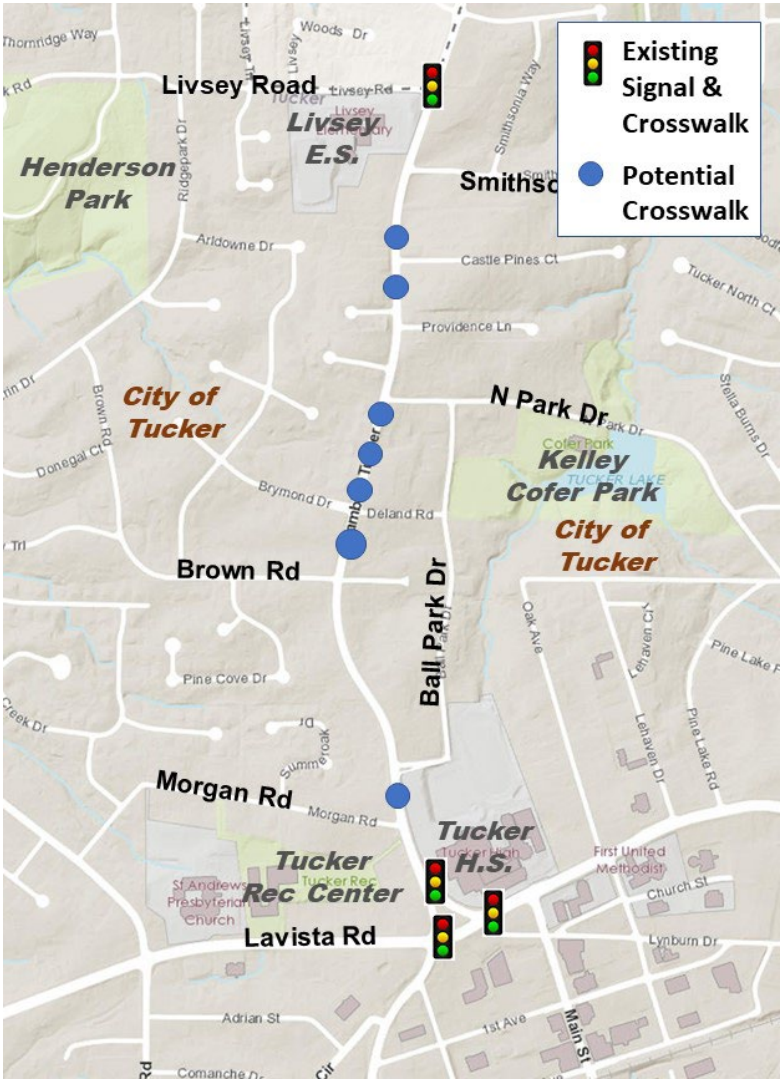
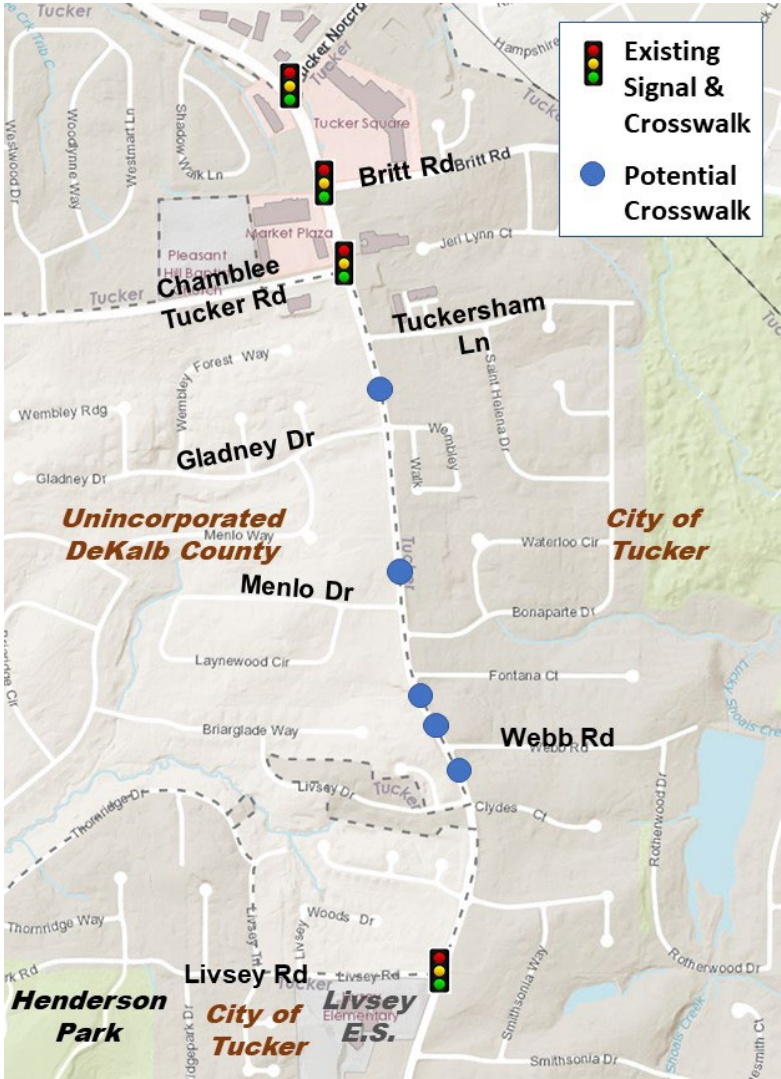


- Proposed Crossings Similar to Crosswalk With Pedestrian Hybrid Beacon on Glenwood Road



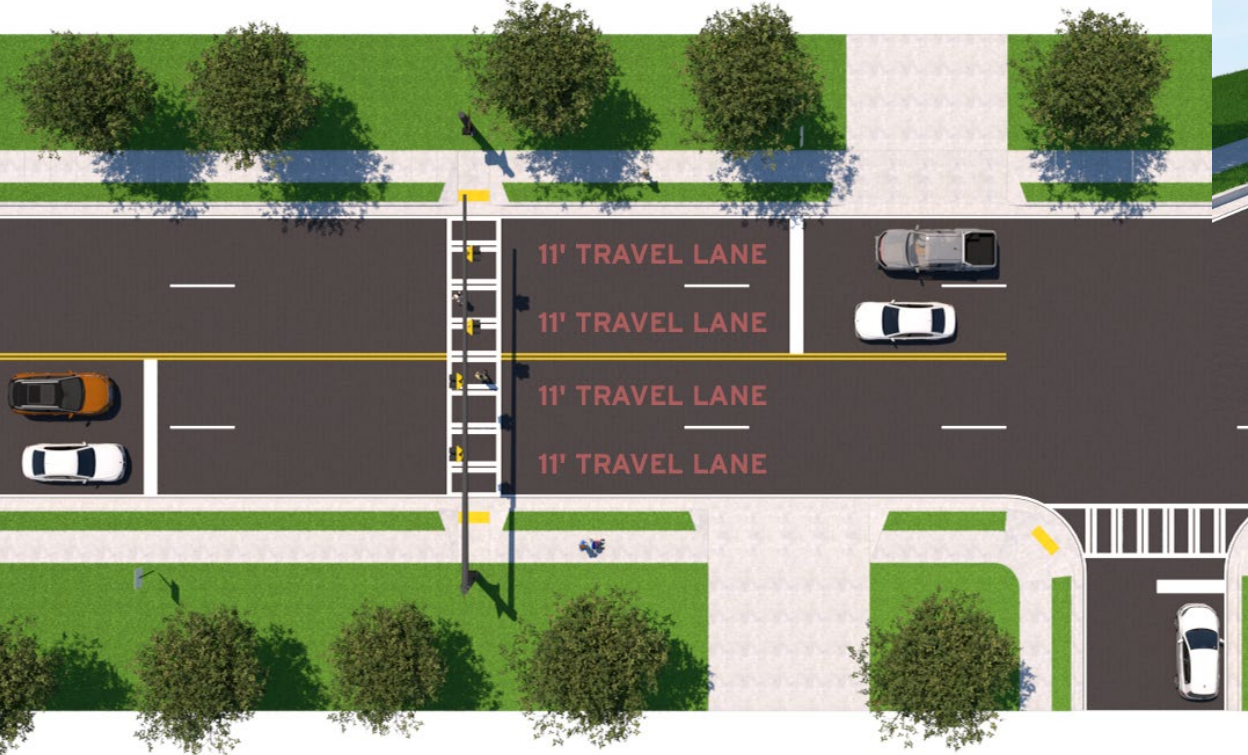
Alternative No. 1 – Existing Roadway Typical Section With Pedestrian Hybrid Beacon Crossings

- Maps Show:
 - Existing Signals With Crosswalks
 - Potential Pedestrian Crossing Locations
- Would Not Install Crossings at All Potential Locations



Alternative No. 1 – Existing Roadway Typical Section With Pedestrian Hybrid Beacon Crossings

- Plan and Perspective Views of Typical Pedestrian Crossing



Alternative No. 2

Lane Diet/Three-Lane Roadway

Typical Section With RRFB

Pedestrian Crossings

Alternative No. 2 – Lane Diet/Three-Lane Roadway Typical Section With RRFB Pedestrian Crossings

- Proposed Roadway Typical Section for Lane Diet



- Proposed Lane Diet Almost Identical to Lane Diet Implemented on North Decatur Road at Emory
- Traffic Volumes on North Decatur Road are Similar to Chamblee Tucker Road Volumes



Alternative No. 2 – Lane Diet/Three-Lane Roadway Typical Section With RRFB Pedestrian Crossings

Lane Diet Alternative Could be Implemented With the Next Pavement Resurfacing Project

- Facilitates Clean Removal of Existing Pavement Markings
- Reduces Cost of Implementing the Lane Diet
- **Anticipate Needing to Resurface the Pavement in 3 to 4 Years**



Alternative No. 2 – Lane Diet/Three-Lane Roadway Typical Section With RRFB Pedestrian Crossings

- Proposed Roadway Typical Section for Lane Diet With Raised Island



- Example Crosswalk With Median Island on Parsons Road in Johns Creek



Lane Diet Intersection Operational Analysis

- Through Lanes on Chamblee Tucker Road Reduced at Livsey Road Intersection:
 - One Lane in Each Direction Southbound and Northbound, Plus Center Left Turn Lane
 - Intersection Will Operate Acceptably During Peak Periods
- No Lane Reductions at Lavista Road, Fellowship Road or Tucker Norcross Road Intersections

Intersection	Intersection Level of Service (LOS)			
	AM Peak		PM Peak	
	Four-Lane (Existing)	Three-Lane (Road Diet)	Four-Lane (Existing)	Three-Lane (Road Diet)
Chamblee Tucker Rd @ Livsey Rd	B	C	A	E

LOS A:

Little or no delay

LOS B:

Short delays

LOS C:

Average delays

LOS D:

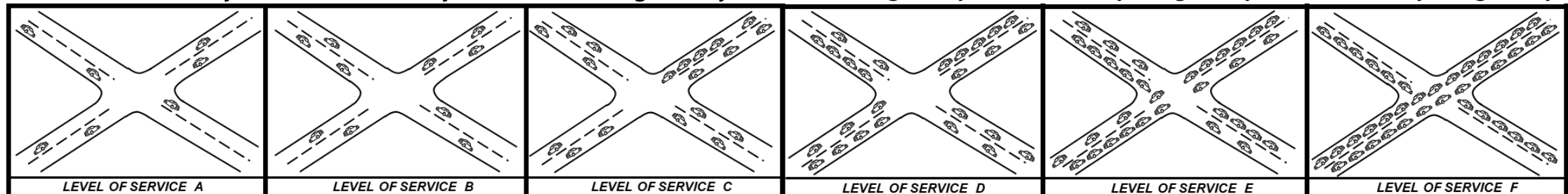
Long delays

LOS E:

Very long delays

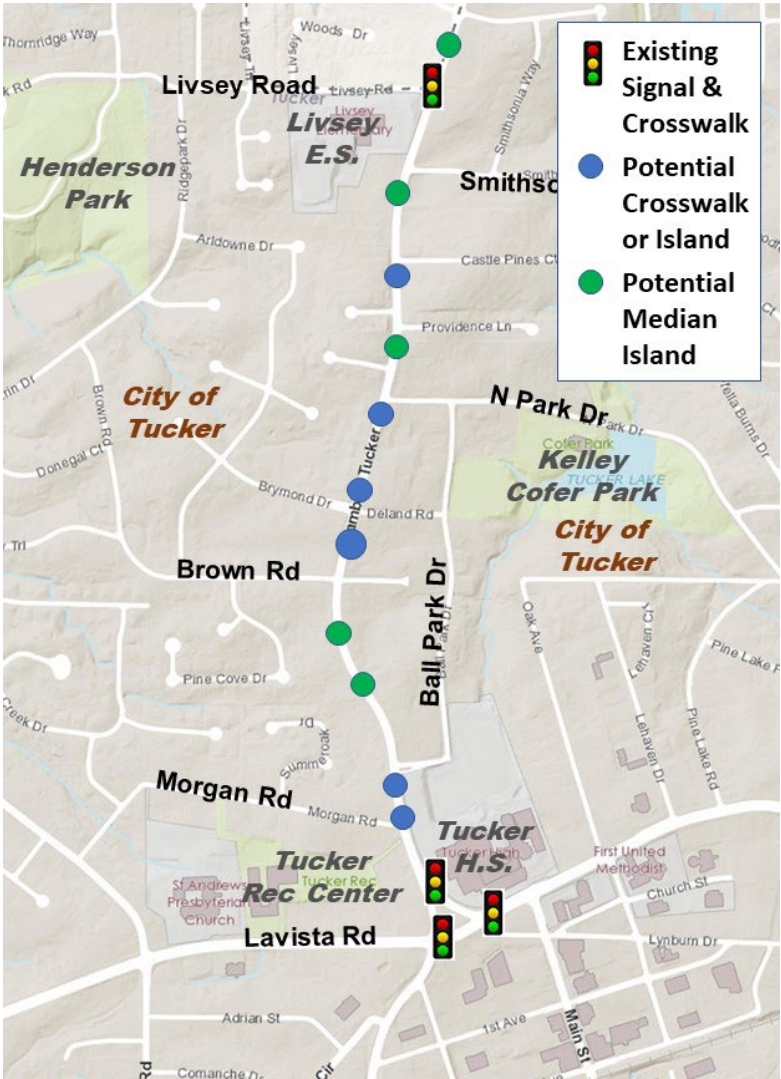
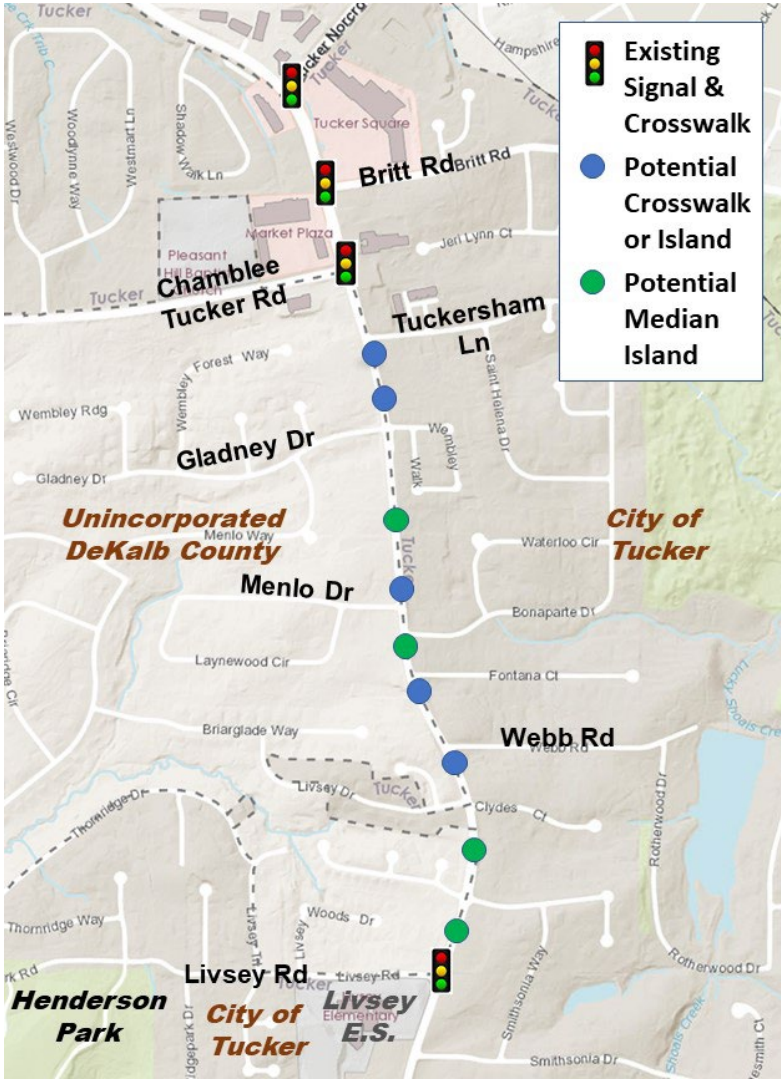
LOS F:

Excessively long delays



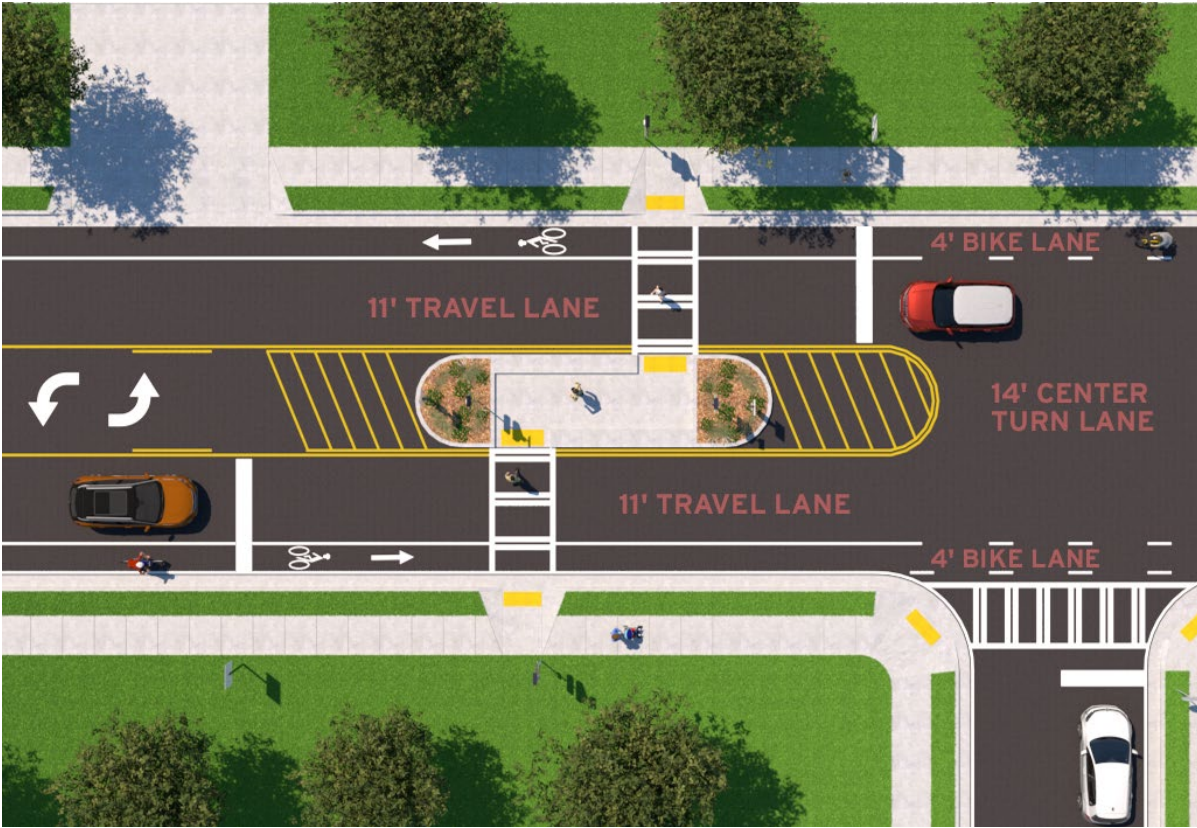
Alternative No. 2 – Lane Diet/Three-Lane Roadway Typical Section With RRFB Pedestrian Crossings

- Maps Show:
 - Existing Signals With Crosswalks
 - Potential Pedestrian Crossings Locations With Median Islands
 - Potential Median Island Locations Without Pedestrian Crossings
- Would Not Install Crossings or Median Islands at All Potential Locations



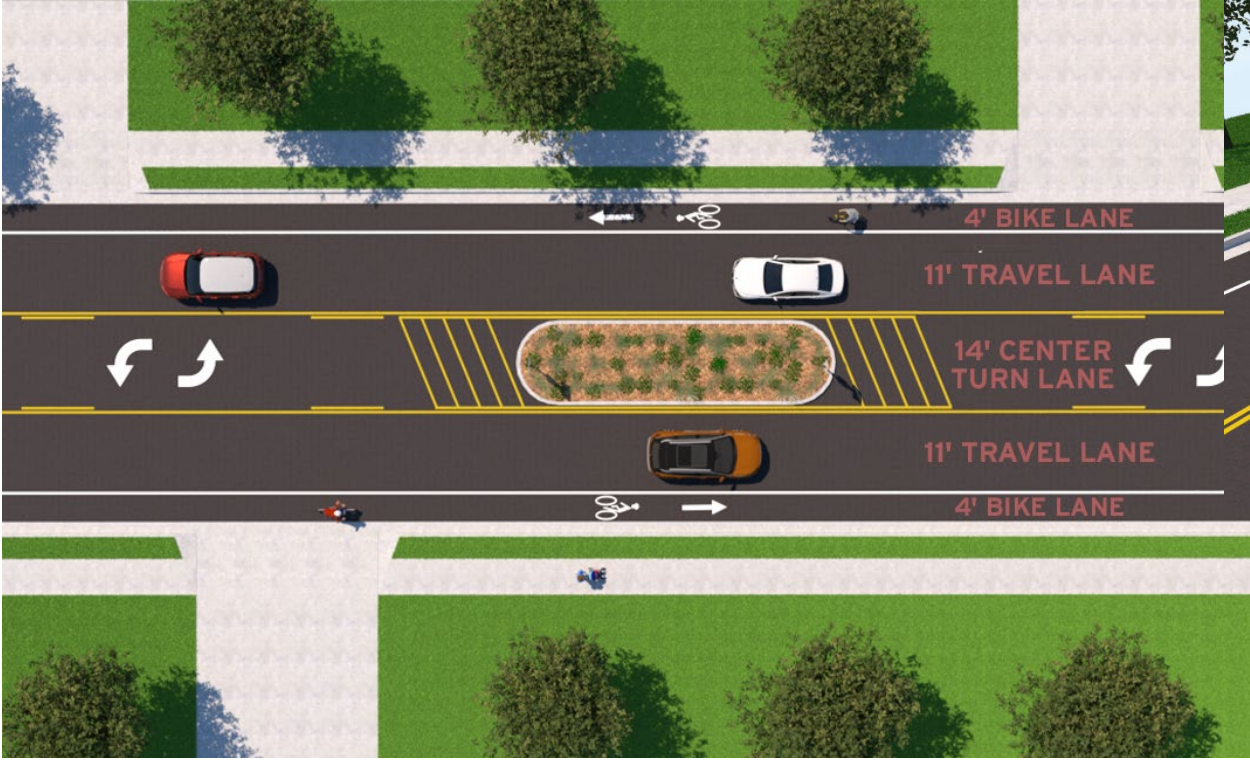
Alternative No. 2 – Lane Diet/Three-Lane Roadway Typical Section With RRFB Pedestrian Crossings

- Plan and Perspective Views of Typical Pedestrian Crossing With Median Island



Alternative No. 2 – Lane Diet/Three-Lane Roadway Typical Section With RRFB Pedestrian Crossings

- Plan and Perspective Views of Typical Median Island Without Pedestrian Crossing



Comparative Costs of Alternatives

- **Alternative No. 1 – Existing Four-Lane Roadway Typical Section**

- Typical Cost of Each Pedestrian Crossing: \$140,000
- Anticipate **4 to 6 Pedestrian Crossings**
- Total Alternative Cost: **\$560,000 to \$840,000**



- **Alternative No. 2 – Lane Diet/Three-Lane Roadway Typical Section**

- Additional Cost for Implementing Lane Diet During Resurfacing: \$40,000
- Typical Cost of Each Pedestrian Crossing With Median Island: \$60,000
- Typical Cost of Each Median Island Without Pedestrian Crossing: \$20,000
- Anticipate **6 to 8 Pedestrian Crossings and 4 to 6 Median Islands**
- Total Alternative Cost: **\$480,000 to \$640,000**



Next Steps

- Address Comments
- Finalize Study Report
- Determine Desired Improvements
- Identify Funding
- Prepare Construction Plans
- Construct Improvements