

# Woodruff Road Congestion Relief Project

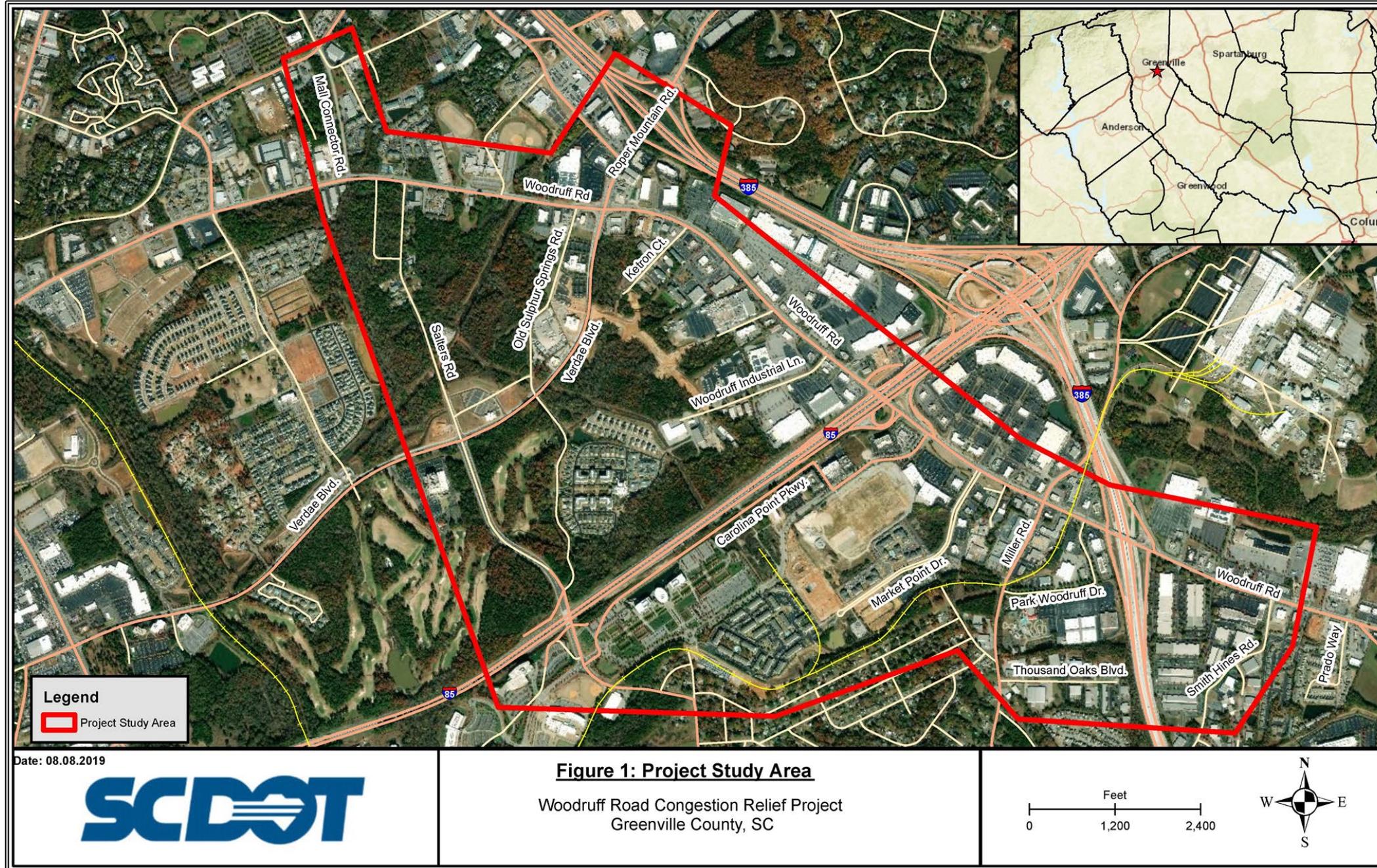


city of  
**greenville**

## Virtual Public Hearing

July 7, 2020 to August 7, 2020

# Project Location



# Project Overview

- ▶ The project study area is bounded by Woodruff Road, Salters Road, and south of I-85 from Carolina Point Parkway and Smith-Hines Road.
- ▶ Multiple large shopping centers in this area generate a high volume of traffic.
- ▶ A series of SCDOT and City projects have recently been completed or are currently underway in the area:
  - ❑ I-85/I-385 Gateway Project (Intersection Improvement and Signal Timing)
  - ❑ Salters Road Project
  - ❑ Woodruff Road Sidewalk Project (raised median from Magnolia Park to I-85)
  - ❑ SC 146/296 Signal Improvement and Cameras
  - ❑ Piedmont Natural Gas (PNG) Connector Road (i.e. Woodruff Road Bypass)

# Purpose and Need

- ▶ The purpose of the project is to improve operational efficiency and alleviate traffic congestion on Woodruff Road to improve mobility in the busy commercial area between I-385 and Roper Mountain Road/Verdae Boulevard.
  - ▶ Multiple traffic studies have been conducted to analyze the existing and future traffic conditions along the corridor.
  - ▶ Average daily traffic (ADT) volumes are in excess of 40,000 vehicles per day.
  - ▶ Heavily congested corridor with multiple access points with substandard operational efficiency.

# Alternative Analysis/Screening

- ▶ To ensure the project's purpose and need are addressed in compliance with the National Environmental Policy Act, or NEPA, SCDOT evaluated potential impacts to the human and natural environment and analyzed multiple alternatives.
- ▶ The primary factors evaluated include:
  - how each alternative addressed traffic operations
  - impacts to environmental resources such as streams and wetlands
  - potential relocations of residences or business
  - amount of new right-of-way needed for construction
  - overall cost for each alternative

# Alternative Analysis Process

Potential “nodes” and roadway segments were identified along existing and new routes  
(see display from 2017 public meeting)

17 preliminary alternatives were developed and analyzed, which included variations of the same alignment

5 reasonable build alternatives were further developed and analyzed

Alternative 6c was selected as the Preferred Alternative

# 2017 PUBLIC INFORMATION MEETING DISPLAY PRELIMINARY ALTERNATIVE DEVELOPMENT



NOTE: CORRIDOR WIDTHS REPRESENT THE POTENTIAL AREA WHERE AN ALTERNATIVE ROADWAY CENTERLINE CAN BE LOCATED WITHIN THE PROJECT STUDY AREA WITH LESSER TO NO ENVIRONMENTAL IMPACTS (INCLUDING EXISTING BUILDINGS/STRUCTURES). THE DIFFERENT CORRIDOR SHADING COLORS REPRESENT ALTERNATE CORRIDOR SEGMENTS THAT ARE BEING CONSIDERED. BUSINESS NAMES SHOWN IN THE DISPLAY ARE LABELED FOR MAPPING ORIENTATION PURPOSES.

SCALE 1" = 300'

### LEGEND

-  WETLAND BOUNDARY
-  STREAM
-  FUTURE DEVELOPMENT/NEWLY DEVELOPED AREA NOT SHOWN IN AERIAL MAPPING
-  FUTURE ALTERNATE ROUTE/CORRIDOR BOUNDARY
-  EXISTING ALTERNATE ROUTE/CORRIDOR BOUNDARY WITH WIDENING PROPOSED (SALTERS ROAD SOUTH OF VERDAE EXCLUDED)
-  CORRIDOR CENTERLINE
-  CORRIDOR NODE
-  RIGHT OF WAY OR PROPERTY LINE
-  STUDY AREA BOUNDARY

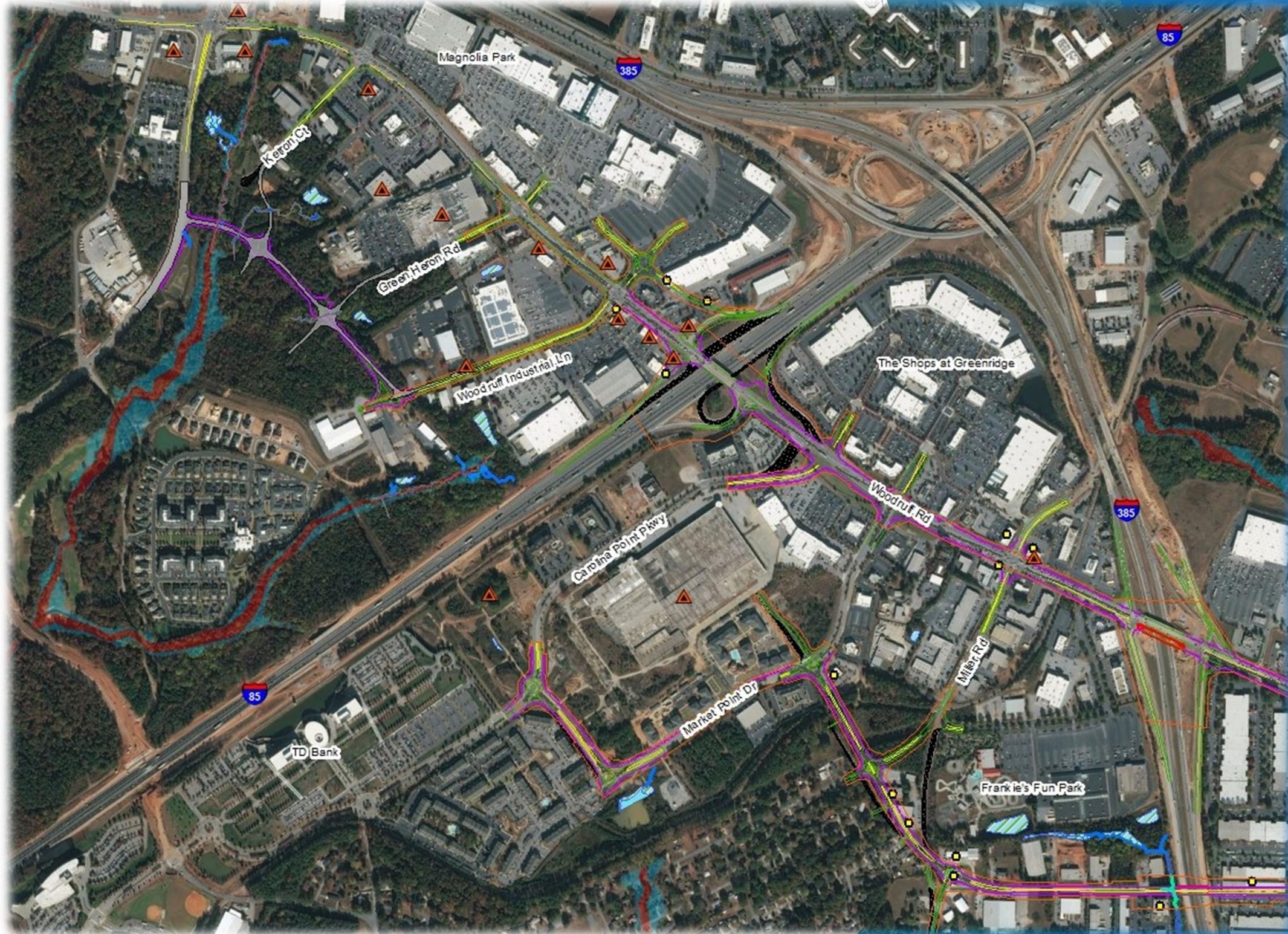
# Alternative 1

- ▶ Widen Woodruff Road to 7 lanes with improvements to intersections and side roads



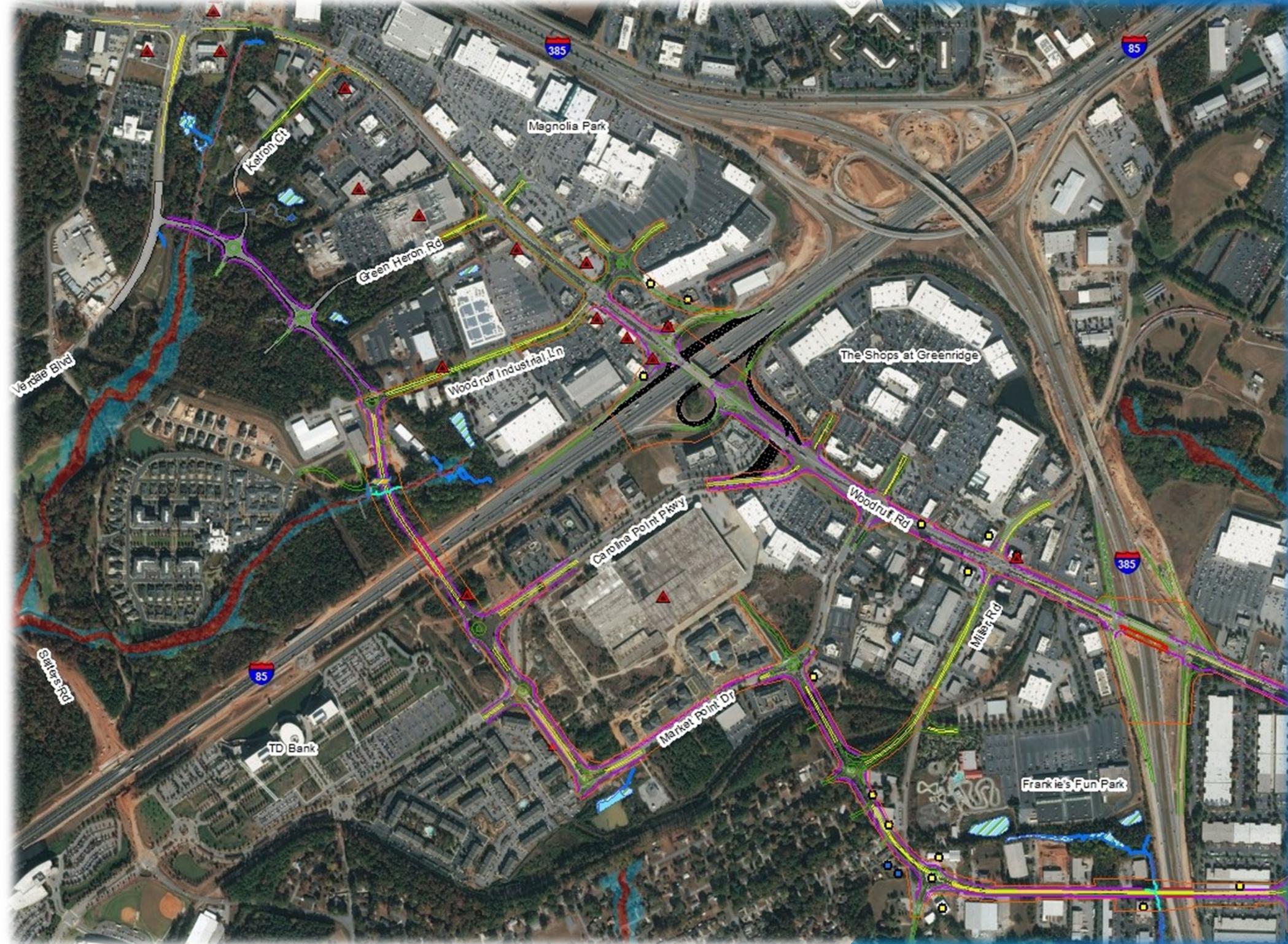
# Alternative 2C

- ▶ Widen Woodruff Road to 7 lanes with improvements to intersections and side roads
- ▶ Construct new 3-lane roadway from Carolina Point Pkwy to Smith Hines Road
- ▶ Existing Salters Road and new roadway would provide alternate route for Woodruff Road



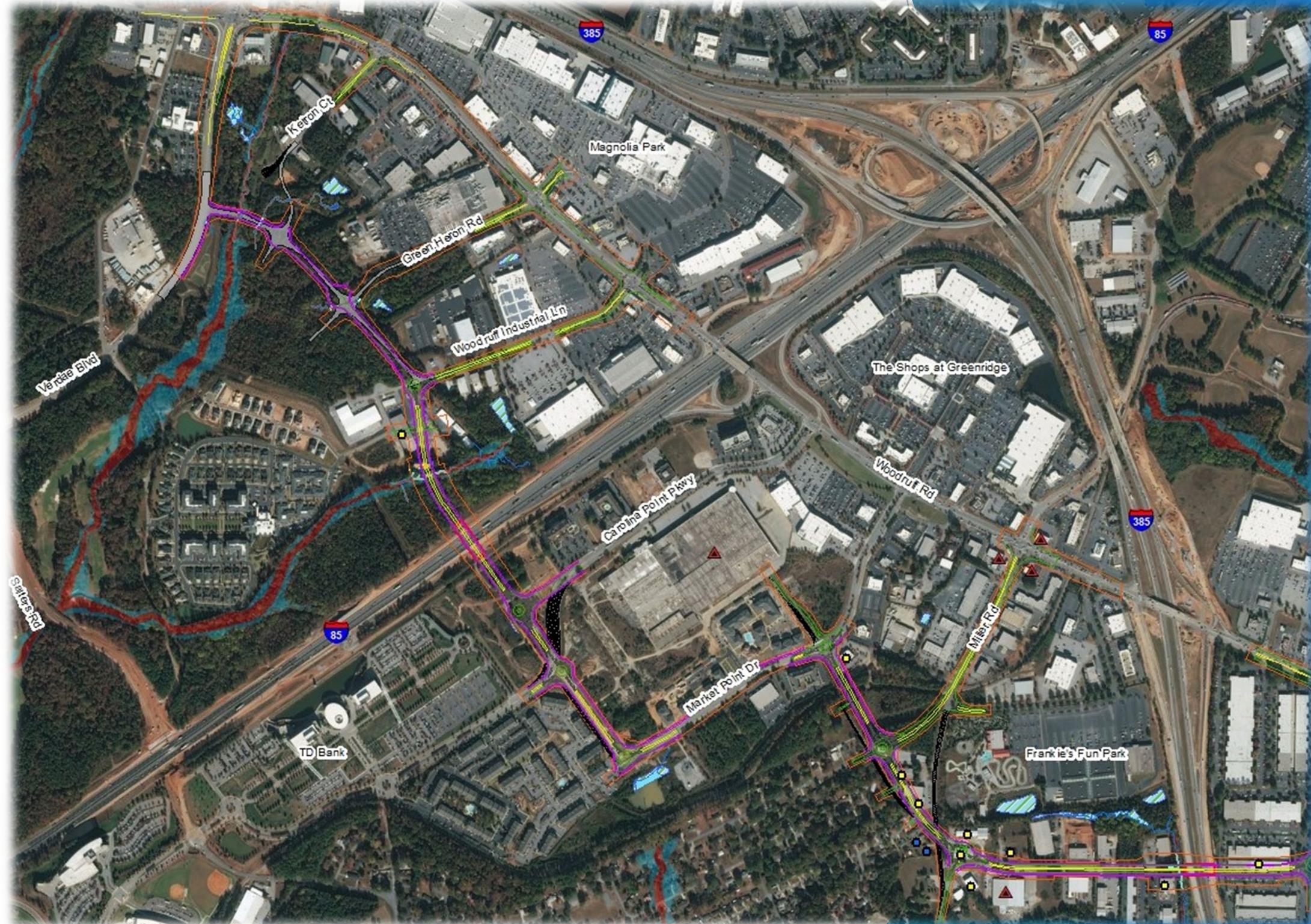
# Alternative 3C

- ▶ Widen Woodruff Road to 7 lanes with improvements to intersections and side roads
- ▶ Construct new 3-lane roadway from Woodruff Road Bypass to Smith Hines Road utilizing existing (i.e. Market Point Drive) and new roadways
- ▶ Would provide continuous alternate route for Woodruff Road from Miller Road to Verdae Blvd.



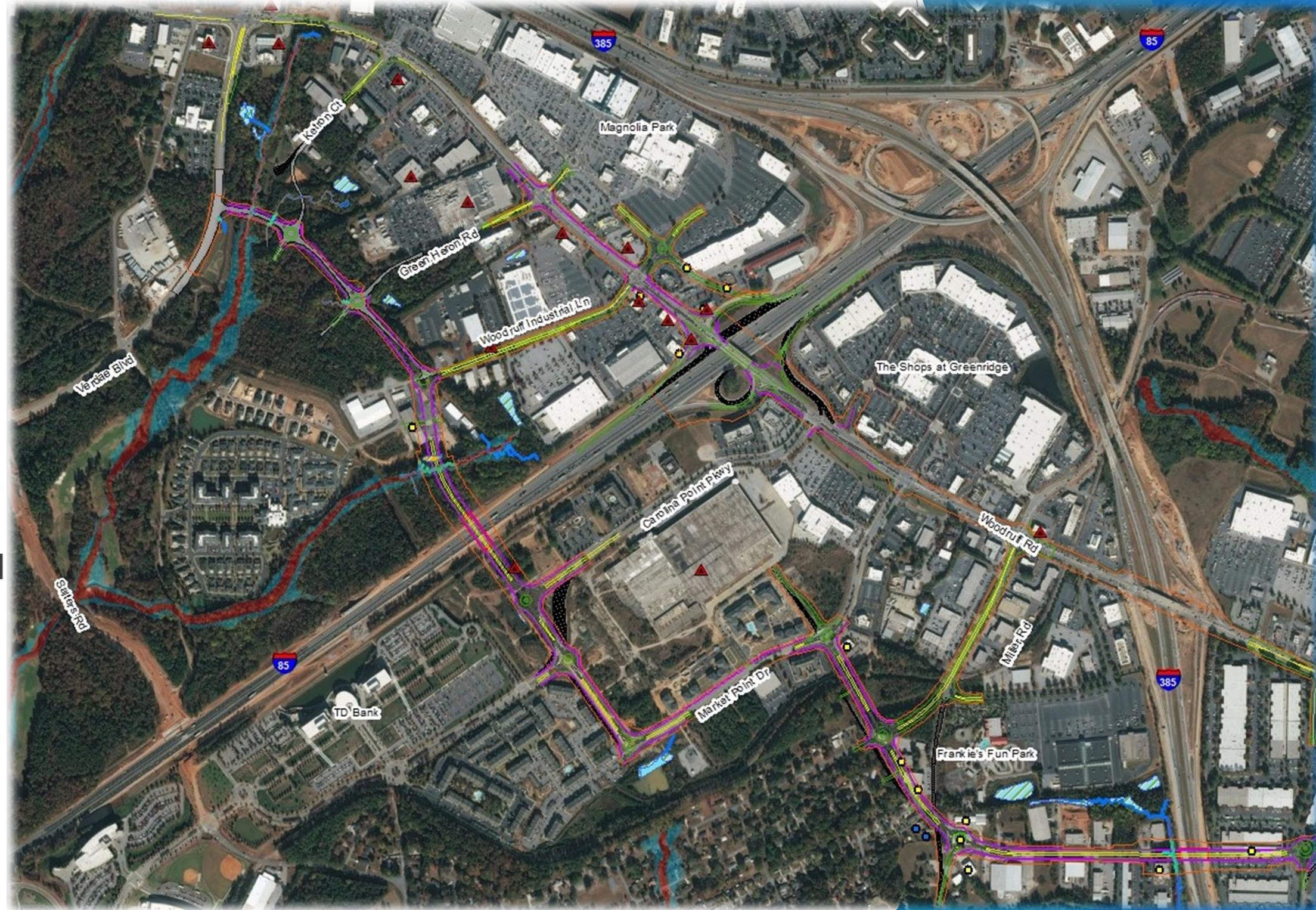
# Alternative 6C (Preferred Alternative)

- ▶ Construct new 5-lane roadway from Woodruff Road Bypass to Smith Hines Road utilizing existing (i.e. Market Point Drive) and new roadways
- ▶ Would provide continuous alternate route for Woodruff Road from Smith Hines Road to Verdae Blvd.
- ▶ Isolated improvements along Woodruff Road



# Alternative 6D

- ▶ Construct new 5-lane roadway from Woodruff Road Bypass to Smith Hines Road utilizing existing (i.e. Market Point Drive) and new roadways
- ▶ Would provide continuous alternate route for Woodruff Road from Smith Hines Road to Verdae Blvd.
- ▶ Isolated improvements along Woodruff Road



# Alternative Analysis - Impacts

Impact Category	No-Build	Alternative 1	Alternative 2C	Alternative 3C	Alternative 6C*	Alternative 6D
2045 Woodruff Intersections (%) Improved LOS (AM, Midday, PM Peak)	N/A	16 of 48 (33%)	22 of 48 (46%)	25 of 48 (52%)	25 of 48 (52%)	22 of 48 (46%)
2045 Woodruff Road Average Travel Speed (MPH) and LOS	9.5-13.1 (LOS F-E)	11.4-16.3 (LOS F-E)	12.9-17.3 (LOS F-D)	13.8-18.6 (LOS E-D)	15.4-19.2 (LOS E-D)	15.4-19.5 (LOS E-D)
Residential Relocations	0	0	0	2	2	2
Commercial Relocations/Displacements	0	8	39	41	40	41
ROW (acres)	0	11	23	32	40	46
Farmland (acres)	0	0	0	0	0	0
Floodplains (acres)	0	0	.2	.6	.8	.8
Wetlands (acres)	0	0	0	0.15	0.15	0.15
Streams (linear feet)	0	0	355	655	1,050	975
Wetland Permit	None	None	Individual 404/401	Individual 404/401	Individual 404/401	Individual 404/401
Threatened/Endangered Species	No Effect	No Effect	No Effect	No Effect	No Effect	No Effect
Cultural Resources - Architectural	0	0	0	0	0	0
Cultural Resources - Archaeological	0	0	0	0	0	0
Section 4(F) Resources	0	0	0	0	0	0
Noise-Impacted Receptors	24	19	19	19	25	25
Hazardous Material Sites	0	8	9	10	10	10
Project Cost (\$ millions)	0	\$62	\$111.4	\$145.1	\$121.1	\$138.8

## \*Alternative 6C Preferred

- ▶ Greatest level of improvement for traffic
- ▶ Lesser right-of-way impacts than other new location alternatives
- ▶ Greatest level of improvement when considering overall project cost

LOS = level of service, or measurement of traffic operations/conditions based on six levels from A to F, with A being the best and F being the worst

# Alternative Analysis - Ranking

	Alternative 1	Alternative 2C	Alternative 3C	Alternative 6C	Alternative 6D
Description	Widening of Woodruff Road from 5 to 7 lanes from Woodruff Industrial Road to Smith Hines Road	Widening of Woodruff Road from 5 to 7 lanes from Woodruff Industrial Road to Smith Hines Road; construction of a new location 3-lane route from Carolina Point Parkway to Smith-Hines Road.	Widening of Woodruff Road from 5 to 7 lanes from Woodruff Industrial Road to Smith Hines Road; construction of a new location 3-lane route from Woodruff Road Bypass to Market Point Drive and from Market Point Drive to Smith Hines Road.	Construction of a new location 5-lane route tying into Woodruff Road Bypass from Woodruff Industrial Road to Smith-Hines Road and widening of Woodruff Road Bypass to 5 lanes.	Construction of a new location 5-lane route tying into the constructed Woodruff Road Bypass from Woodruff Industrial Road to Smith-Hines Road; widening of Woodruff Road Bypass to 5 lanes, and the construction of a diverging diamond interchange (DDI) at Woodruff Road and I-85.
Traffic Improvement (Ranking)	5	4	3	1	2
Environmental Impacts (Ranking)	1	2	3	4	5
Cost (\$Millions) (Ranking)	1 (\$62)	2 (\$111.4)	5 (\$145.7)	3 (\$121.1)	4 (138.8)

- ▶ Summary rankings of environmental impacts associated with each alternative

# Preferred Alternative - 6C

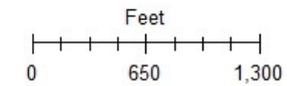


Prepared:  
02/07/2020



## Build Alternative 6C

Woodruff Road Congestion Relief Project  
Greenville County, SC



# Details of Proposed Improvements

- ▶ Five-lane limited-access alternate parallel route to Woodruff Road that extends from Verdae Boulevard to Smith Hines Road
- ▶ Roadway would consist of four travel lanes, median, curb and gutter, sidewalk, and multiuse path
- ▶ New bridge crossings at I-85 and I-385
- ▶ Located along both new alignment and existing roadways, the proposed parallel route would be an extension of the new Piedmont Natural Gas Connector (now named the Woodruff Road Bypass)
- ▶ Roundabouts are proposed at the various intersections, including Carolina Point Parkway, Market Point Drive, Miller Road, Thousand Oaks Boulevard, and Smith Hines Road
- ▶ Isolated intersection improvements would also be implemented throughout the project study area

# What is Next?

Virtual Public Hearing/Response to Comments	July to October 2020
FHWA Decision Document	December 2020
Finalize Right-of-Way Design Plans	January 2022
Begin Right-of-Way Acquisition	Spring 2022
Final Construction Plans	Winter 2023
Begin Construction	Spring 2024

# Additional Information

## Virtual Public Hearing

July 7, 2020 to August 7, 2020

### Telephone “Hotline” Q&A

888-877-9151

July 14, 2020	10 a.m. to 12 noon
July 22, 2020	1 p.m. to 3 p.m.
July 30, 2020	5 p.m. to 7 p.m.
August 4, 2020	3 p.m. to 5 p.m.

Casey Lucas, PE

SCDOT

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or

803-737-1087

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