

JOHNSON FERRY ROAD AT PEACHTREE DUNWOODY ROAD

INTERSECTION SCOPING STUDY



SANDY SPRINGS
GEORGIA

S2103 Intersection Scoping Study

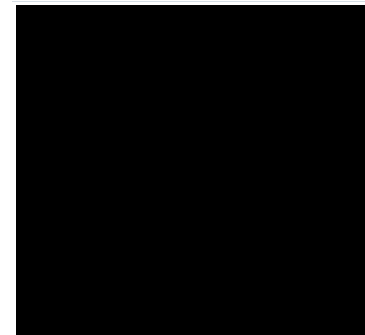


Agenda

- Project need and purpose
- Intersection improvement options
- Next steps



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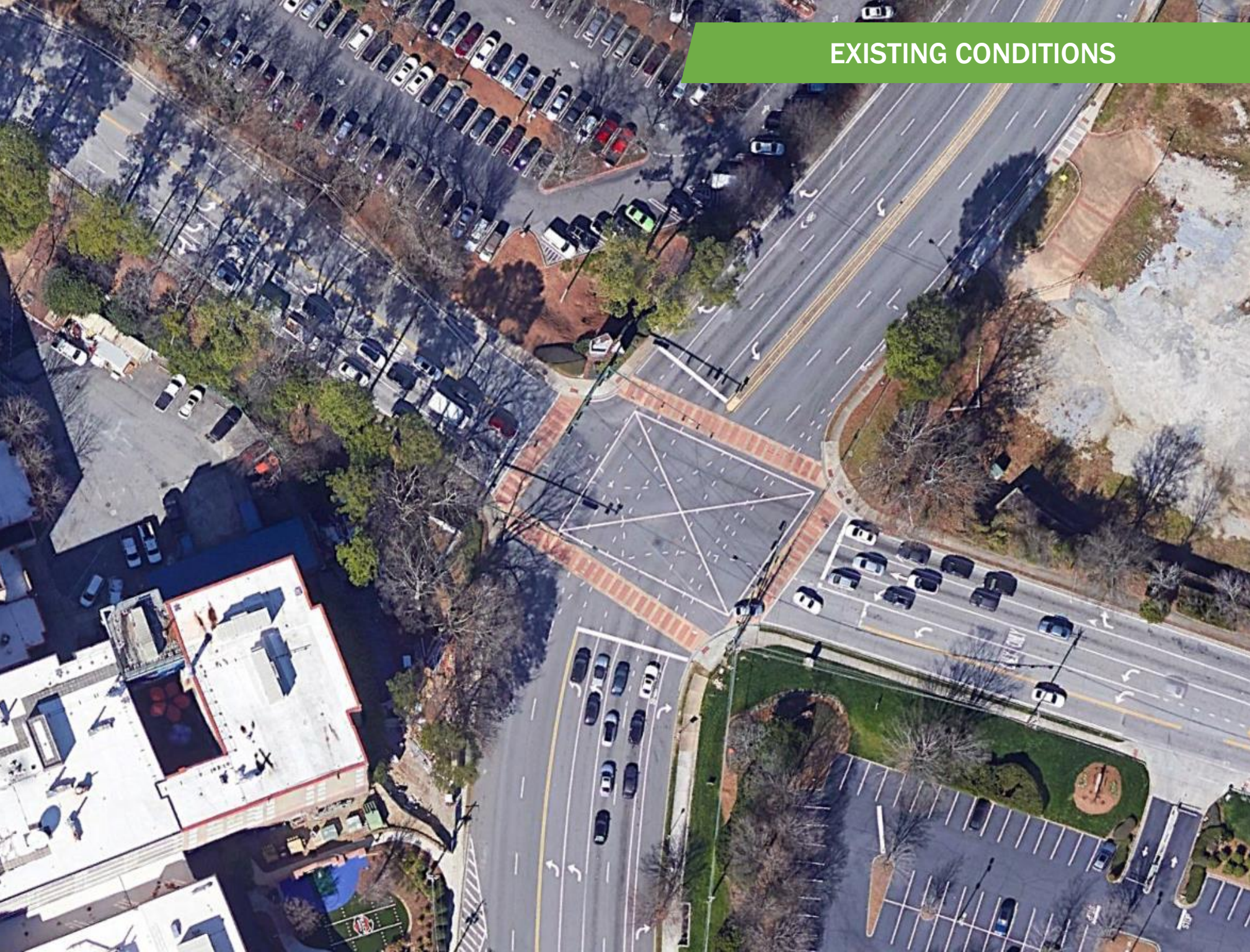
EXISTING CONDITIONS



Peachtree Dunwoody Road at Johnson Ferry Road



EXISTING CONDITIONS



EXISTING CONDITIONS



Project identified in Medical District Roadway Safety Analysis

T-7241 MEDICAL DISTRICT ROADWAY SAFETY ANALYSIS		PROJECT FACT SHEET
Project ID	6	
Project Category	Intersection	
Project Location	Peachtree Dunwoody Road at Johnson Ferry Road	
Project Description	Geometric reconstruction to include pedestrian and vehicular upgrades	
Limits	n/a	
Implementation Tier	2	
Additional Project Information		
Project Addresses Concern	• Pedestrian Safety • Vehicle safety and operations	
Other:	• Backplates mentioned in separate project	
See separate Concept Layout for details		
Preliminary Cost Estimate:		
Preliminary Eng.:		
ROW Cost:		
Construction Cost:		
Contingency:		
Total Project Cost:		
A Safety Benefit/Cost Ratio of 0.46 was calculated for this project The expected annual reduction in crashes was calculated as: 17.2 crashes (51 percent) This project improves both safety and operations. Operational benefits have not been quantified by this safety study, which can be addressed in the concept phase of preliminary engineering		
		
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Safety Concern:

- Average of 33 crashes per year
- Highest two crash types are rear end (49%) and sideswipe-same direction (40%)
- 84% are Property Damage Only crashes
- Highest crash location within the Medical District Road Safety Analysis study area

Traffic Volumes:

- During 12-hour period a total of 215 pedestrians, 11 bicyclists, 41,834 vehicles
- Intersection capacity:
 - AM peak hour: LOS D
 - PM peak hour: LOS E

Updated values:

- Total project cost: [REDACTED]
- Safety Benefit/Cost ratio is in the range of 0.22 to 0.34

Project Need and Purpose



Address safety concerns due to the high number of sideswipe and rear-end collisions



Address geometric concerns regarding driver's visibility and ability to maintain proper lane



Provide improved multimodal and pedestrian accessibility



Support the medical district: an important economic and health service area for the community and region

Phase 1 and Phase 2 projects reduce the project footprint compared to the Medical District Roadway Safety Analysis concept. This was to:

- reduce property impacts,
- reduce total project cost,
- and focus on safety improvements.

Phase 1 Project

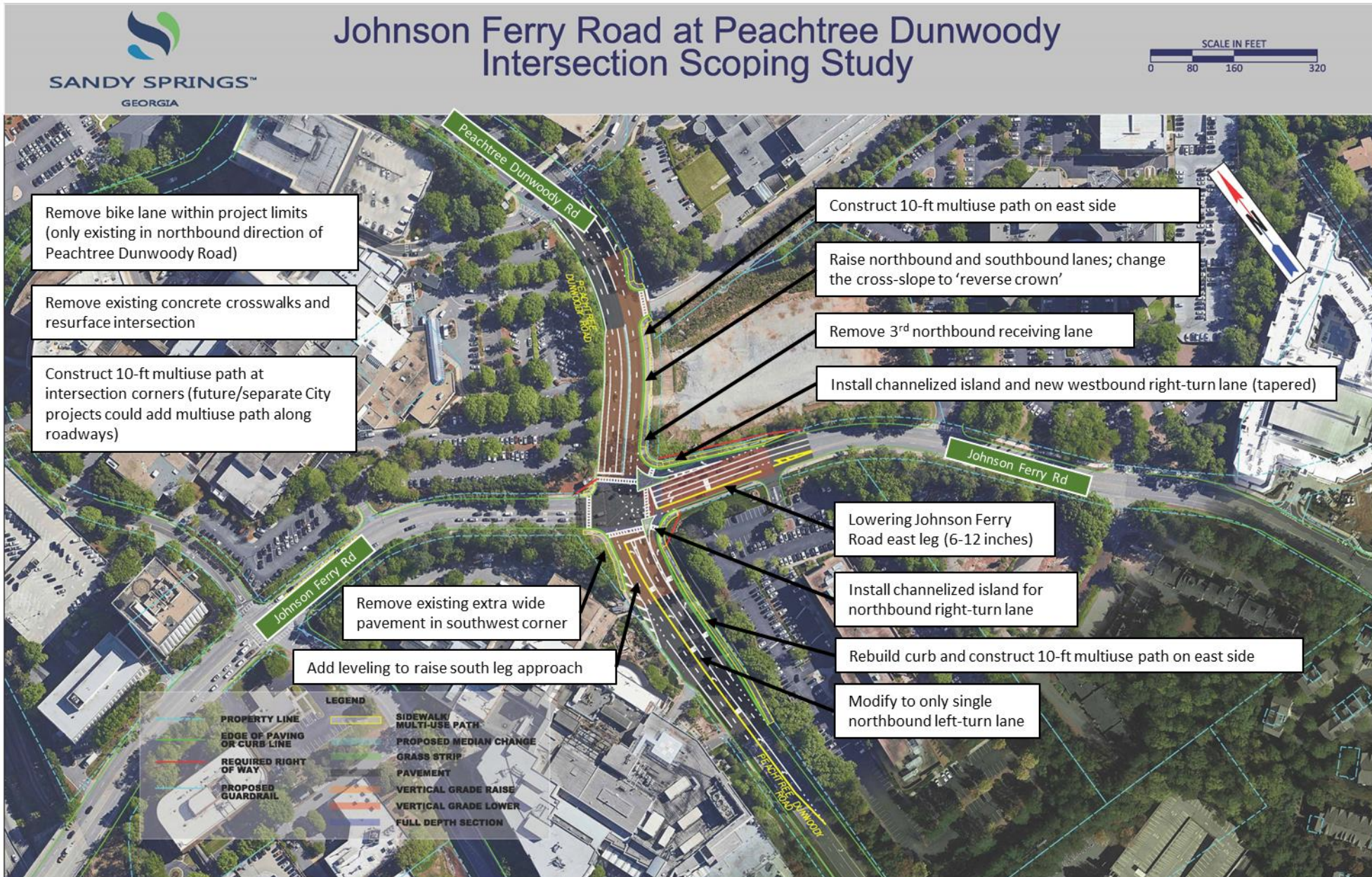
Phase 2 Project

PHASE 1 PROJECT

Project includes signage and signal improvements



Project elements annotated



SCOPING CONCEPT PLAN – PHASE 1

Feature	Phase 1 Project
Safety Benefits	*Improves driver's ability to maintain proper lane in eastbound direction of Johnson Ferry Road *Increase visibility of traffic signal heads *Safety Benefit/Cost ratio is in the range of 3.44 to 6.87 *The expected annual reduction in crashes is in the range of 2.2 to 4.3; which equates to 7% to 13% of all crashes.
Traffic Operations	n/a
Geometric Improvement	n/a
Multimodal Improvement	n/a
Future Development in NE property	n/a
ROW / Easements	No properties impacted
Utility Impact	None expected
Estimated Total Cost	\$70,000

SCOPING CONCEPT PLAN – PHASE 2

Feature	Phase 2 Project
Safety Benefits	*Reduces crashes and improves driver's ability to maintain proper lane in northbound direction of Peachtree Dunwoody Road *Adds channelized island for northbound right-turn *Safety Benefit/Cost ratio is in the range of 0.91 to 1.16 *The expected annual reduction in crashes is in the range of 10.4 to 12.9; which equates to 31% to 39% of all crashes.
Traffic Operations	*Adds dedicated westbound right-turn lane with channelized island *Improves AM peak hour intersection Level of Service
Geometric Improvement	*Improved vertical profile (via leveling) along Peachtree Dunwoody Road (expected to be more improved than Alternative 2) *Improved horizontal alignment of Peachtree Dunwoody Rd (by removing one northbound left-turn lane) *Addition of two channelized islands (aids pedestrian crossings)
Multimodal Improvement	*Improved crosswalks conditions *Intersection corners reconstructed to accommodate future multiuse paths; 10-foot multiuse path constructed along east side of Peachtree Dunwoody Rd to tie into existing sidewalk and ramp to bike lane *Reduced crosswalk length on south leg of intersection
Future Development in NE property	Potential for project to modify roadway prior to development occurring
ROW / Easements	Three properties impacted; limited impact to northwest corner, will avoid impact to Northside Hospital monument sign
Utility Impact	Multiple (TBD)
Estimated Total Cost	\$4,500,000



Stakeholder Discussion



Finalize Scoping Concept Plan



Proceed with Full Design