

MEMORANDUM

To: Mayor and City Council

From: Mindy Sanders, Capital Projects Manager

Date: February 9, 2015

Subject: **Discussion of Intersection Improvement for Chamblee Dunwoody Road at North Shallowford Road**

ITEM DESCRIPTION

Discussion of conceptual design alternatives developed for the intersection improvement of Chamblee Dunwoody Road at North Shallowford Road/Peeler Road, including improvements along Chamblee Dunwoody Road through Vermack Road.

BACKGROUND

The intersection at Chamblee Dunwoody Road at North Shallowford Road/Peeler Road has been identified in the City's Comprehensive Transportation Plan (CTP), adopted in 2011, as a high priority project. Insufficient turning lanes, poor operations, and minimal pedestrian facilities at this intersection compromise safety and cause longer traffic queues and delays along Chamblee Dunwoody Road. It is the goal of this phase of the project to identify solutions to address these deficiencies.

In March 2014, the City partnered with design consultant, AECOM (formerly URS) to complete a concept-level design solution for this intersection as it relates to future improvements of the Chamblee Dunwoody Corridor from Cotillion Drive to this intersection. They were also challenged to investigate the traffic patterns along Chamblee Dunwoody Road between this intersection and Vermack Road to identify an ultimate build for this section of the corridor.

Public Involvement

The city has conducted extensive public outreach for this project in conjunction with the Chamblee Dunwoody Gateway project. Before beginning any conceptual design work, the city held a round table workshop attended by invited community stakeholders. The attendees were provided an opportunity to assert their opinions of what the biggest problems are within this section of Chamblee Dunwoody Road and what their concerns were with the proposed project. Traffic congestion and pedestrian connectivity were identified as the biggest problems with the existing infrastructure.

Two concepts were developed for the intersection with considerations given to the concerns of the stakeholders. A Public Information Open House (PIOH) was held on December 11th, 2014 to present the concepts and gather additional input from the community. Representatives of the City and the design consultant were present to provide information and receive feedback.

ALTERNATIVES

A description of the viable alternatives is included below:

Alternate A: Moderate Intersection Expansion

This alternative results in fair traffic conditions, a fair opportunity for a gateway treatment, and retention of the existing character of the corridor.

Estimated Cost: \$2.7M - \$3.2M

Alternate B: Modern Roundabout

This alternative results in good traffic conditions, a good opportunity for a gateway treatment, and retention of the existing character of the corridor.

Estimated Cost: \$3.4M - \$3.9M

Alternate C: Major Intersection Expansion

This alternative results in good traffic conditions, a poor opportunity for a gateway treatment, and a negative impact to the existing character of the corridor.

Estimated Cost: \$3.6M - \$4.1M

To maximize the operational improvements at the intersection of Chamblee Dunwoody Road and North Shallowford Road/Peeler Road, improvements at Vermack Road and along Chamblee Dunwoody Road between these two intersections have been incorporated in each of the above described alternatives and cost estimates. The improvements along this section of Chamblee Dunwoody Road include adding extended right turn lanes in each direction as well as a center turn lane, which allows refuge for left-turning vehicles onto side roads and driveways located along the corridor.

Alternative C has been developed in the time since the public meeting as an alternate designed to improve the traffic conditions in a similar manner as the roundabout design presented in Alternative B. This alternate shows that slightly higher parcel impacts and construction costs are required with this alternate. A less tangible consequence of this alternate would be a reduction in the neighborhood quality of this intersection.

RECOMMENDED ACTION

Each of the alternates developed will improve traffic flow and safety at the intersection and are consistent with the recommendations of the City's transportation plan. With consideration given to costs, resulting traffic improvements, and corridor character, Alternative B provides the greatest benefit to the community. The scope of the final design contract will include additional public involvement to satisfactorily ensure that Alternate B fully addresses the needs and concerns of the community.

Chamblee Dunwoody Rd – Operational Enhancements

Quality of Life

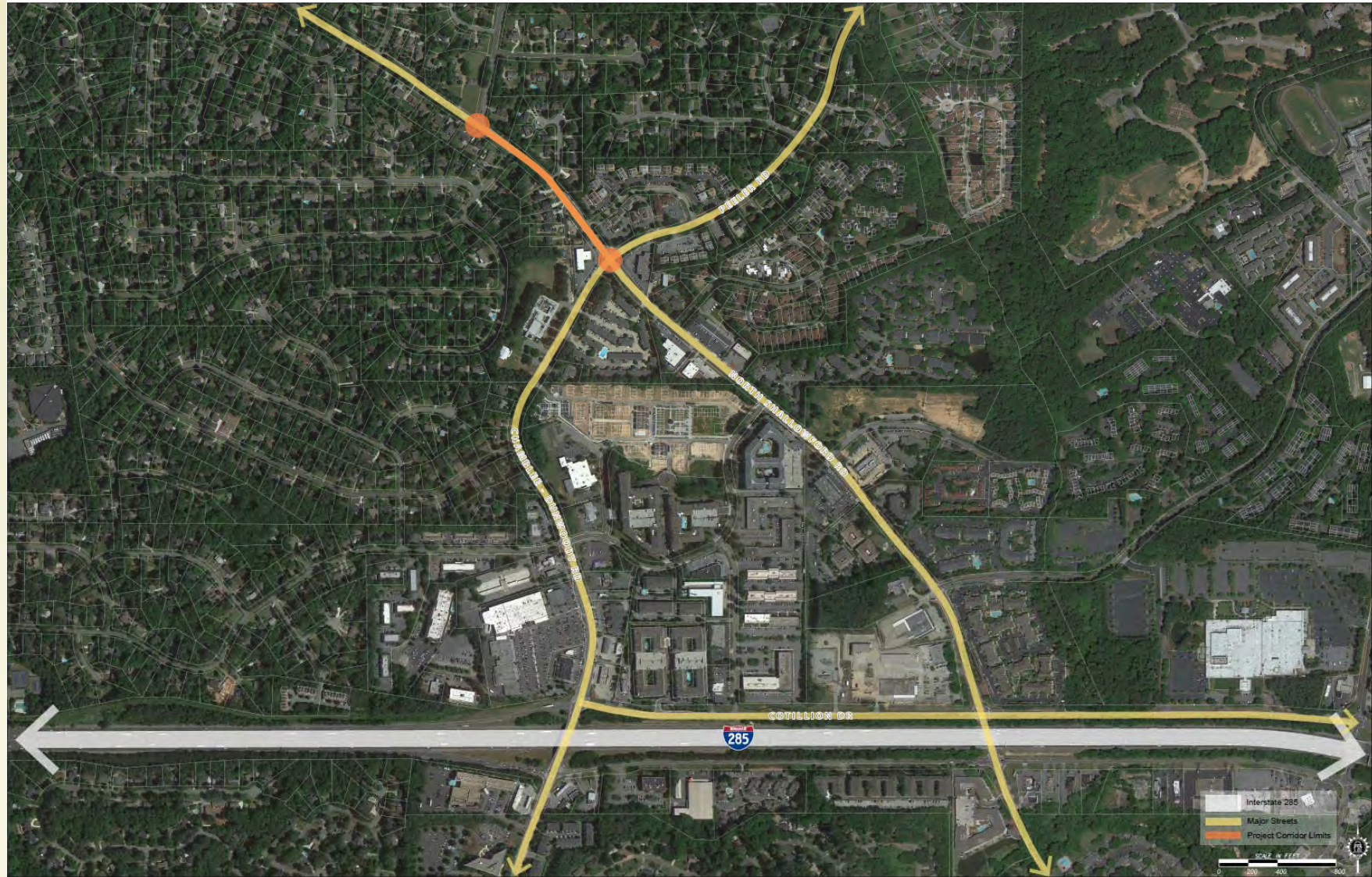


Operations



Traffic Flow

AREA OVERVIEW – Location



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AREA OVERVIEW – Location



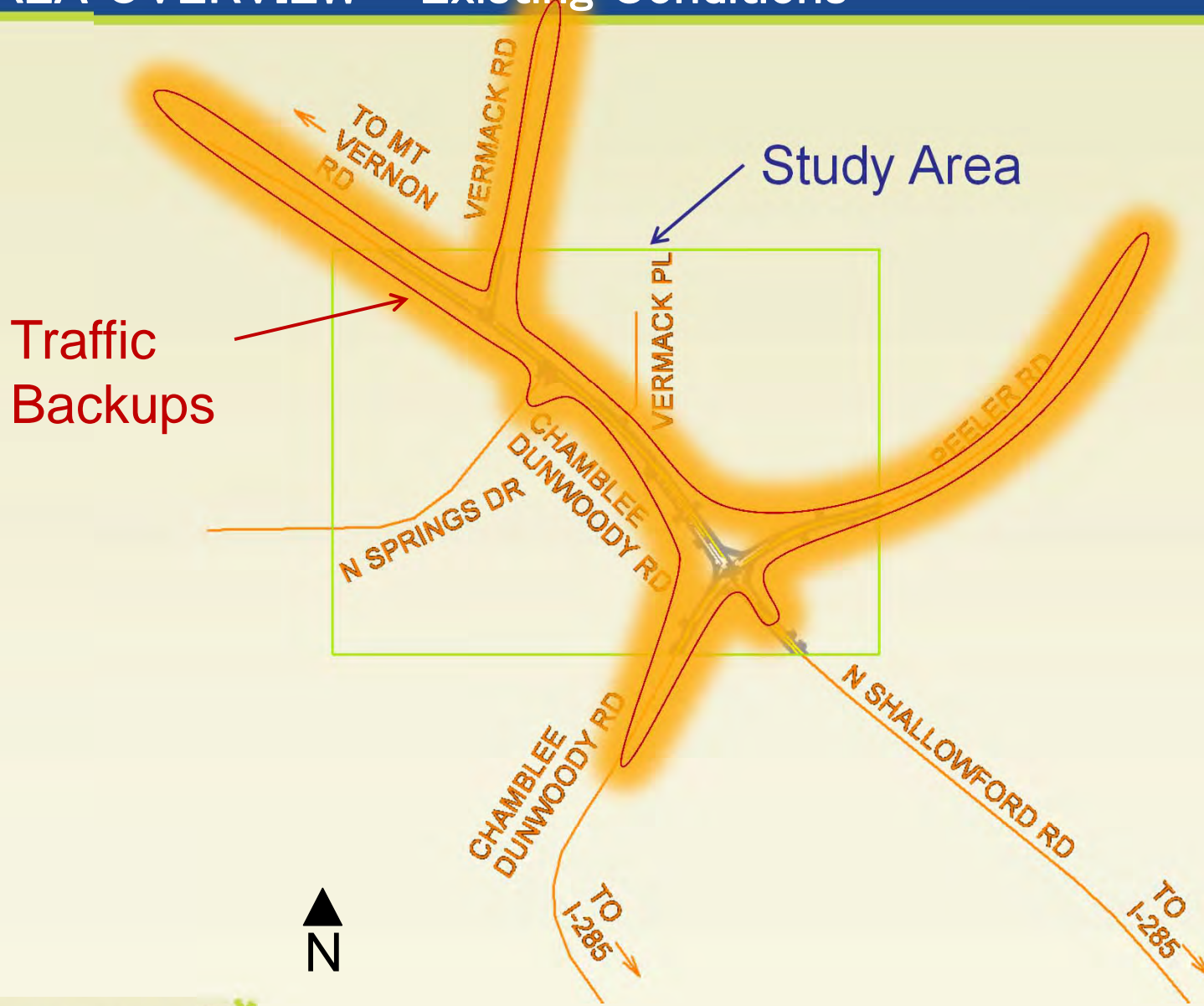
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AREA OVERVIEW – Location



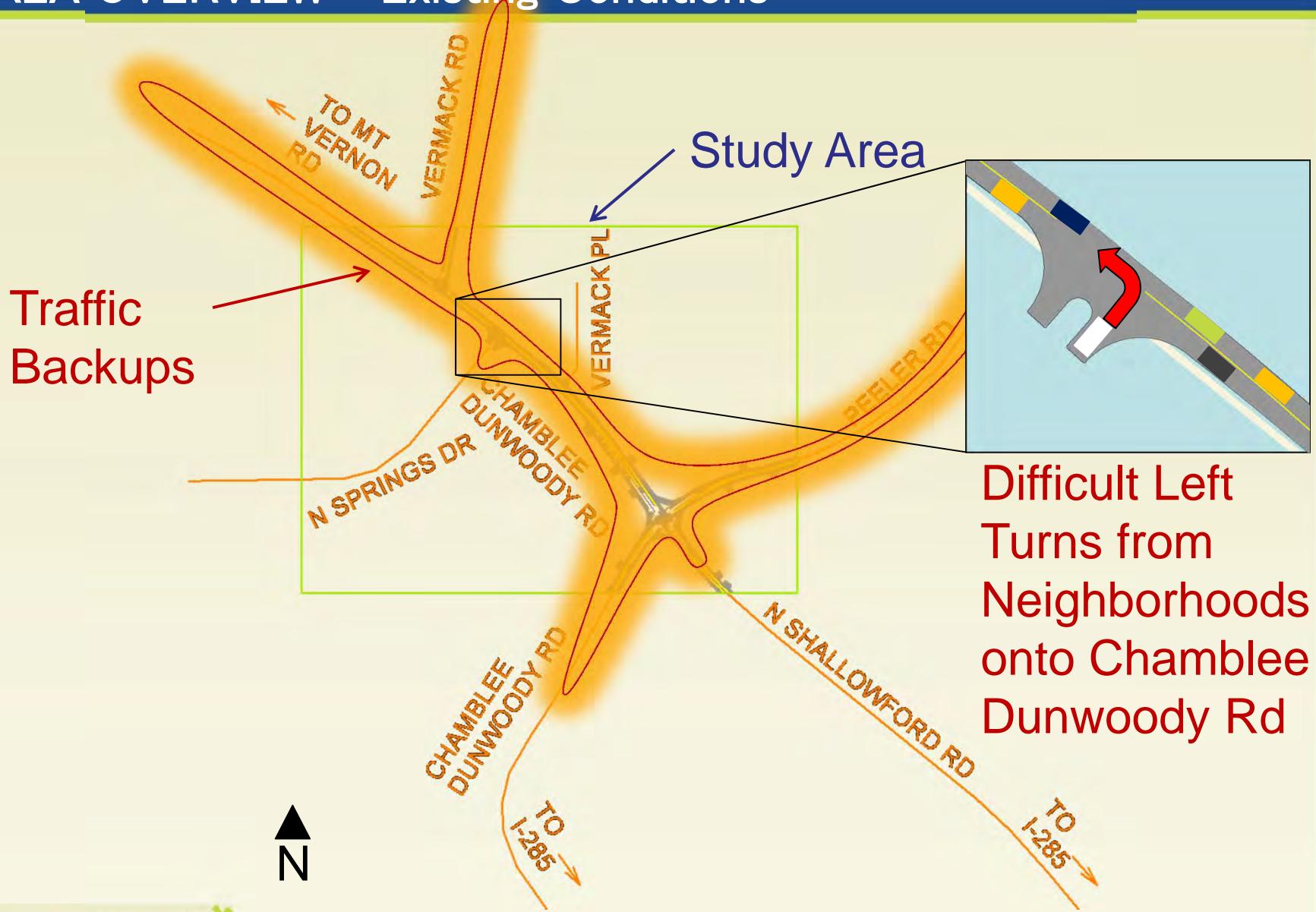
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AREA OVERVIEW – Existing Conditions



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AREA OVERVIEW – Existing Conditions



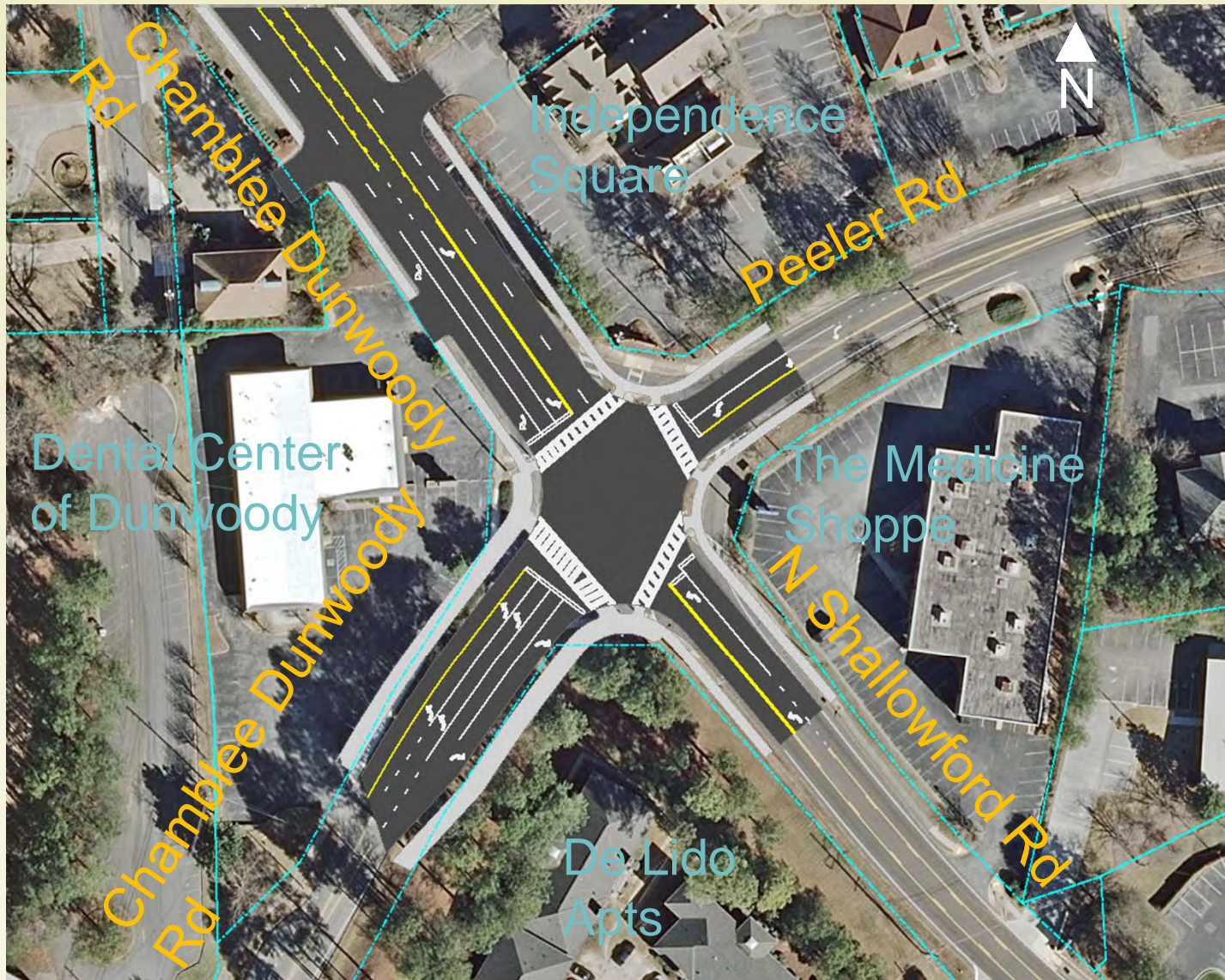
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Alt A: Moderate Intersection Expansion, Additional Lanes



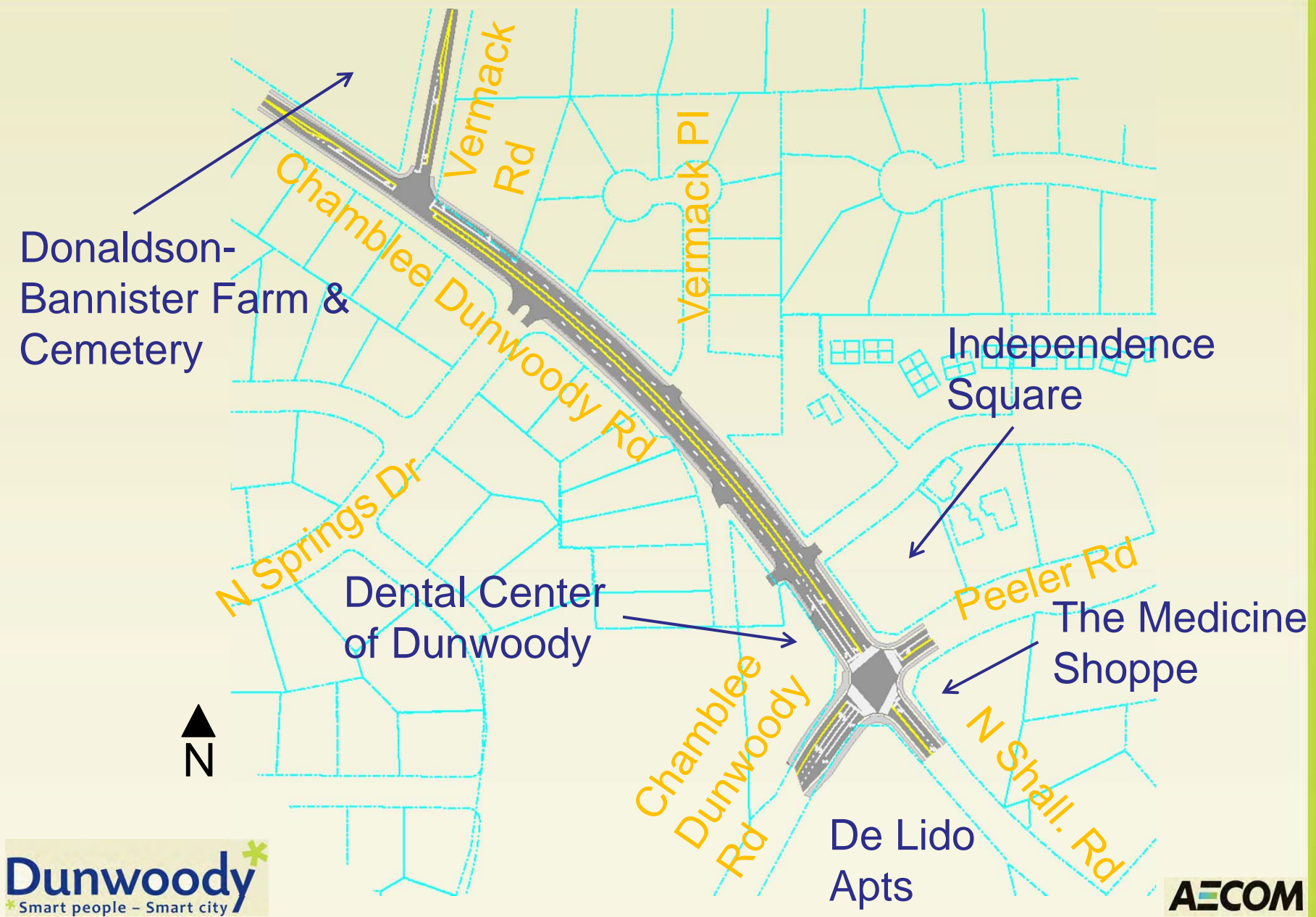
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Alt A: Moderate Intersection Expansion, Additional Lanes



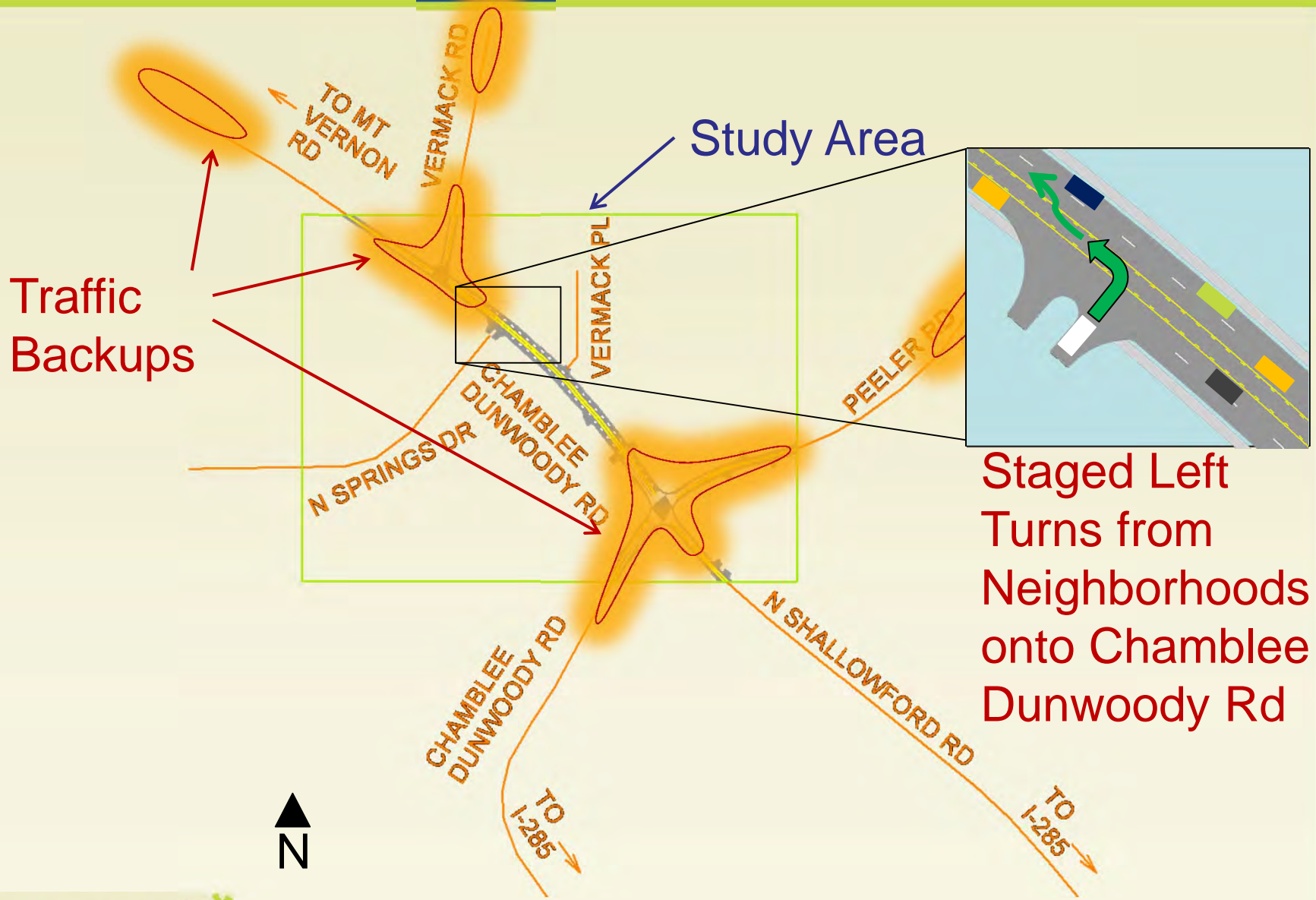
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Alt A: Moderate Intersection Expansion, Additional Lanes



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Alt A: Moderate Intersection Expansion, Additional Lanes



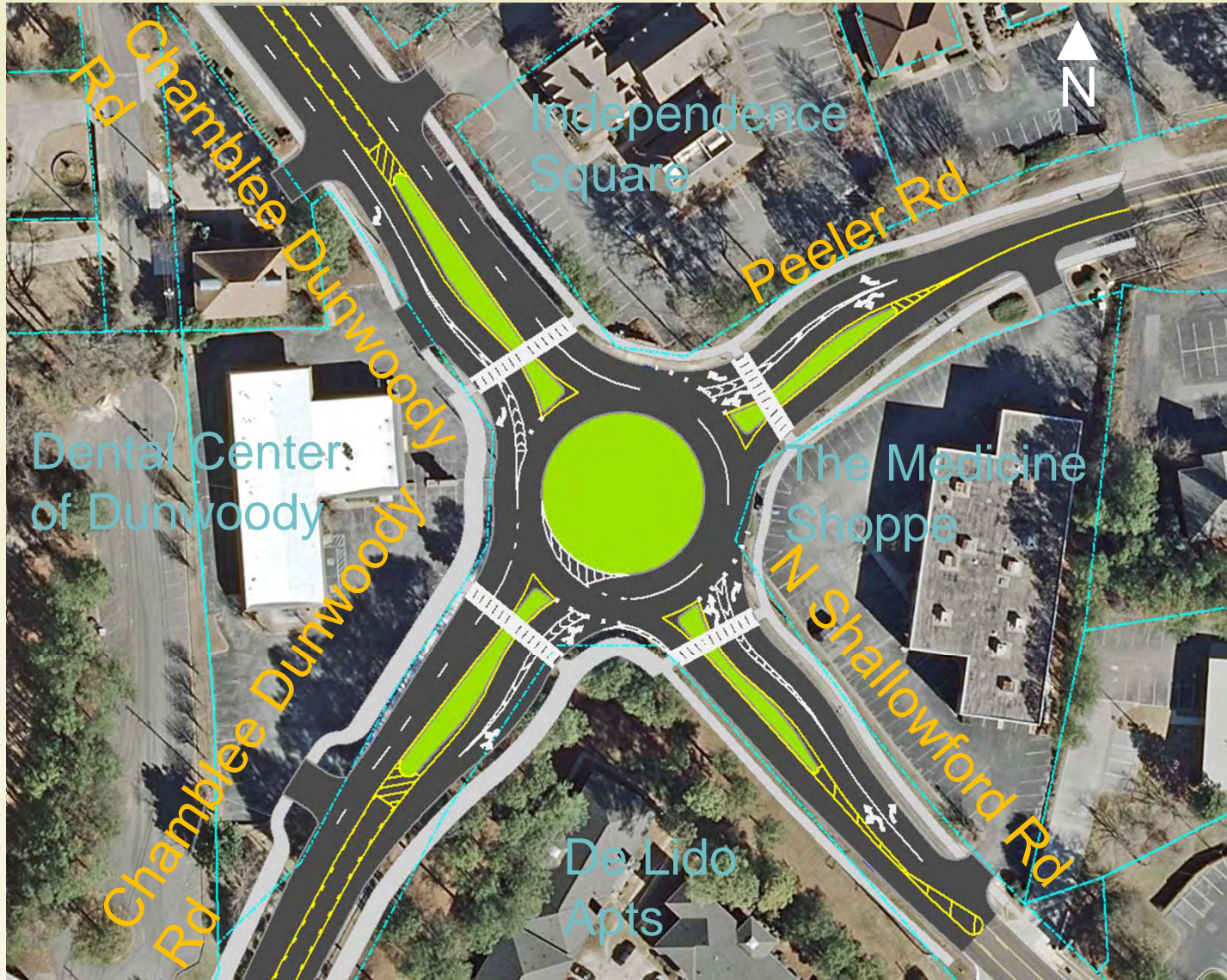
Traffic Backups

Study Area

Staged Left Turns from Neighborhoods onto Chamblee Dunwoody Rd



Alt B: Roundabout, Additional Lanes



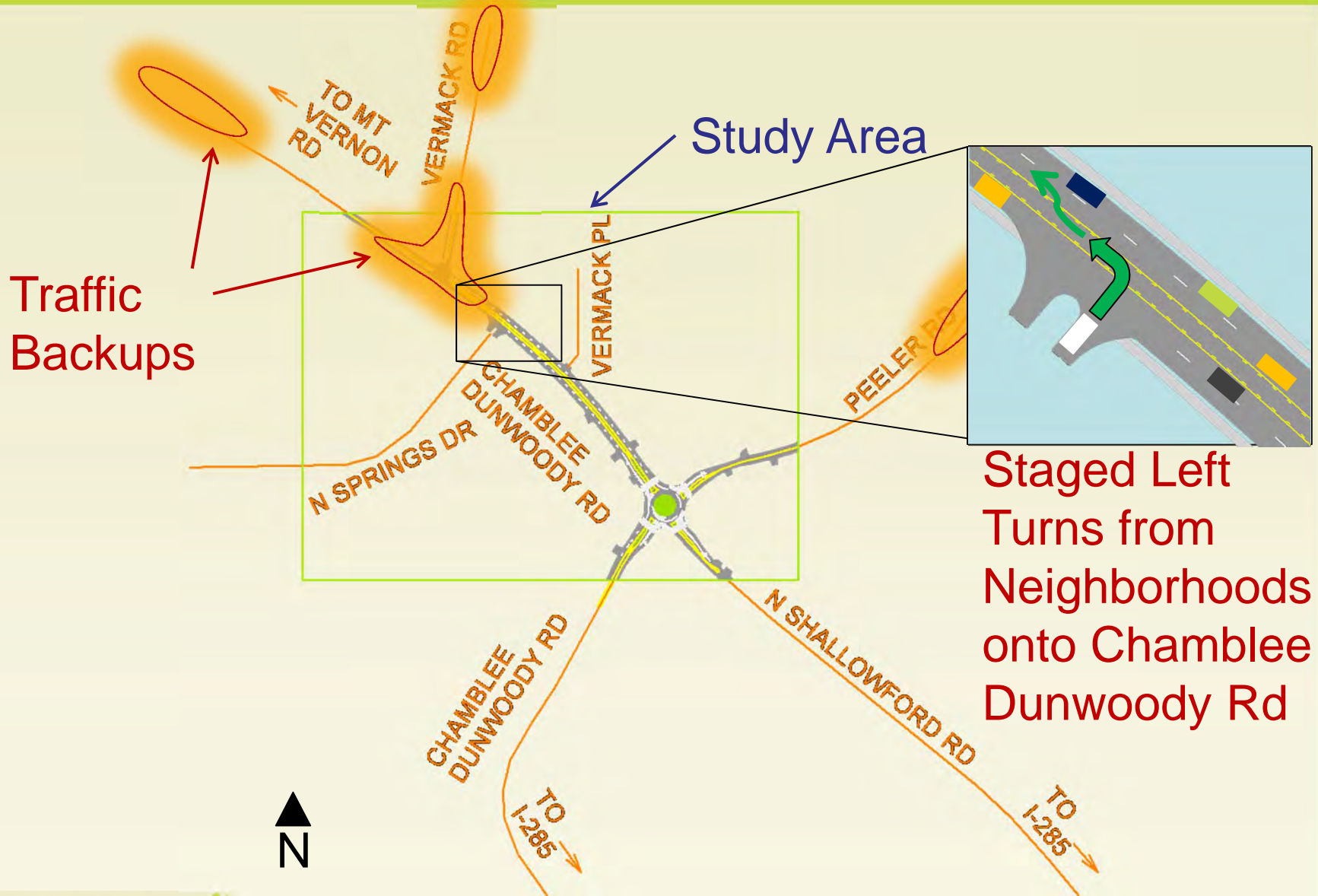
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Alt B: Roundabout, Additional Lanes



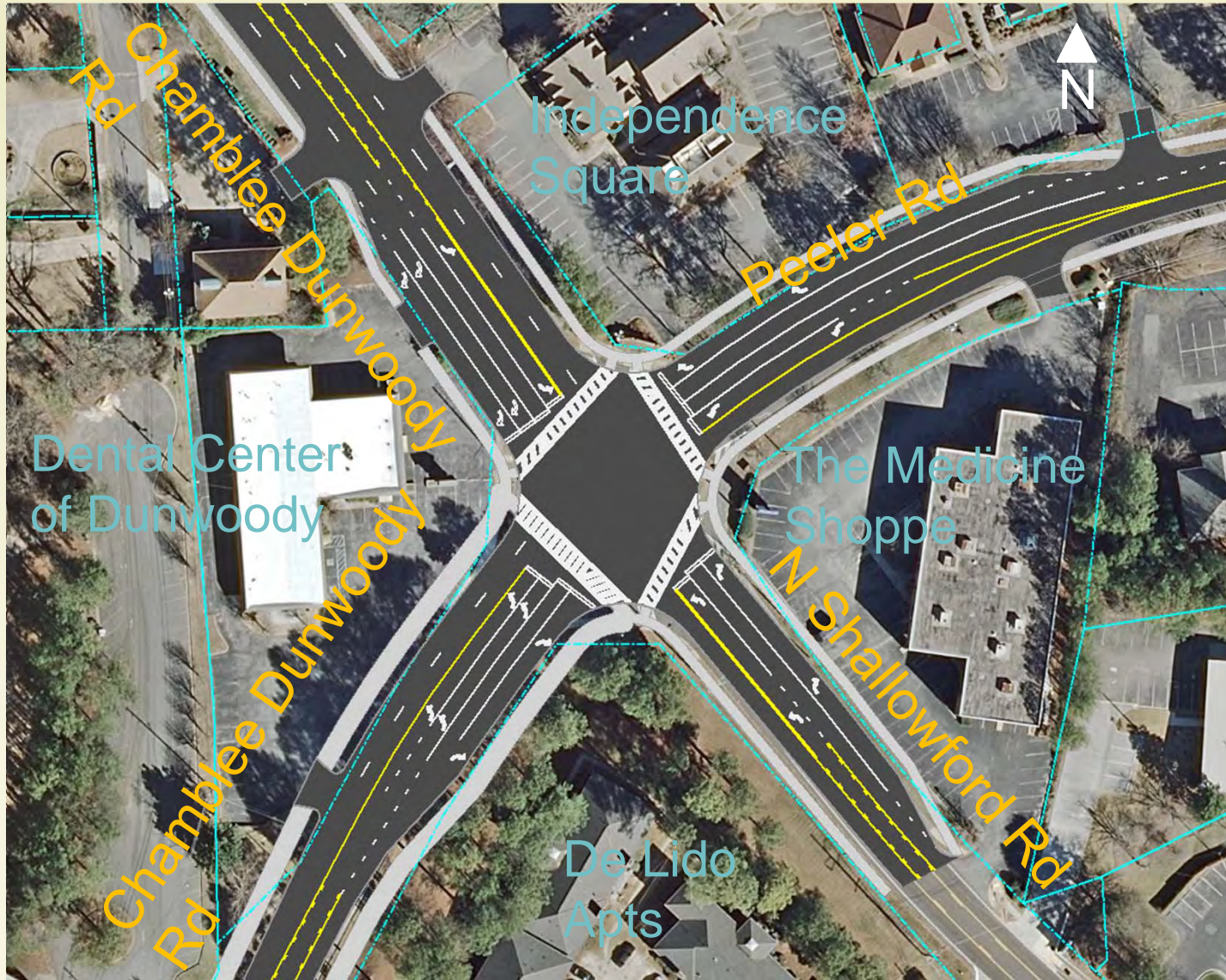
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Alt B: Roundabout, Additional Lanes



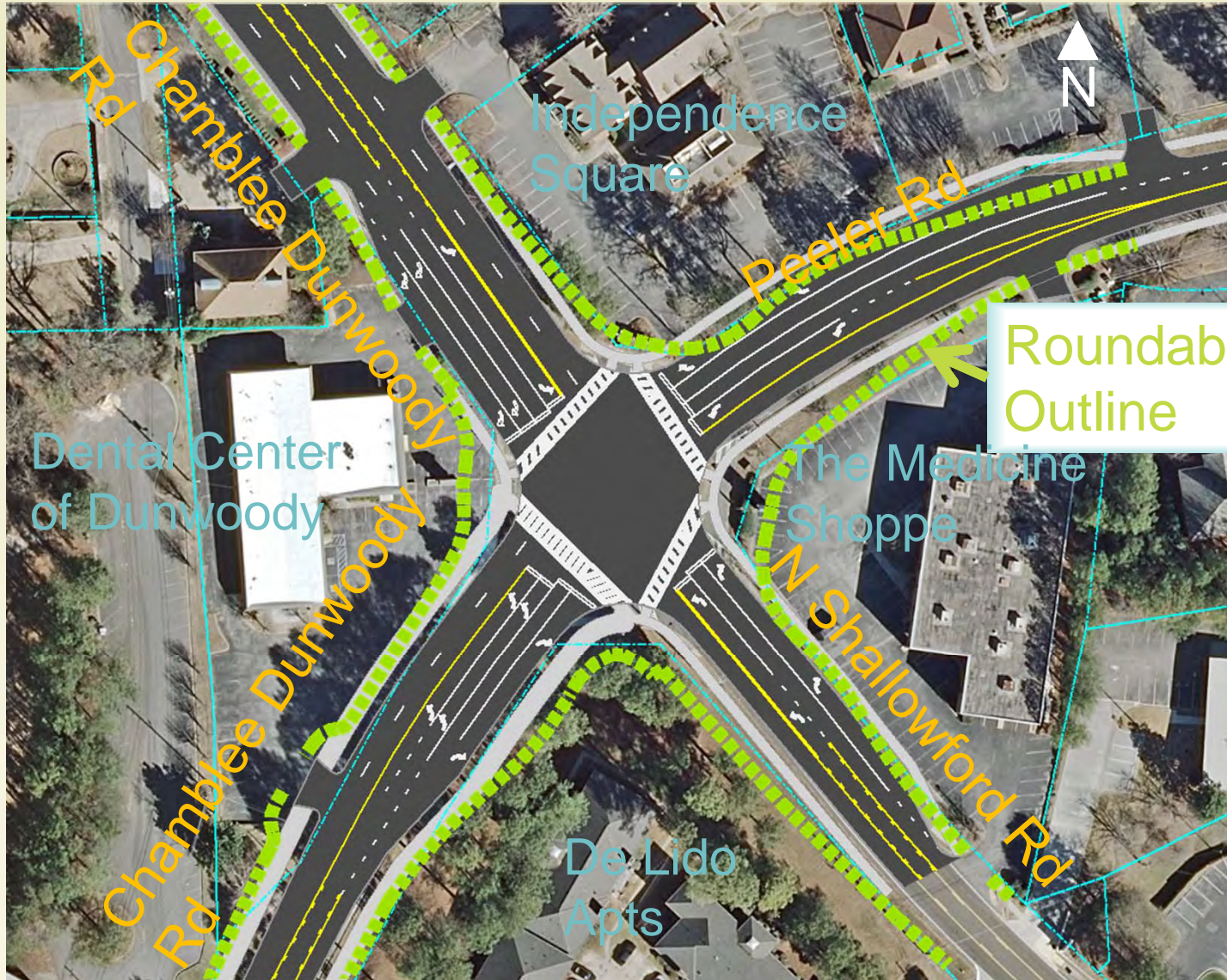
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Alt C: Major Intersection Expansion, Additional Lanes



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Alt C: Major Intersection Expansion, Additional Lanes



Roundabout Outline

Comparison

	Traffic Conditions	Gateway Opportunities	Character of Neighborhood	# Parcels Impacted	Constr. Cost
Existing	<i>B</i>	<i>B</i>	<i>Z</i> (baseline)	0	\$0
Moderate Intersection Expansion	<i>Z</i>	<i>Z</i>	<i>Z</i>	4	\$2.7-3.2M
Roundabout	<i>b</i>	<i>b</i>	<i>Z</i>	7	\$3.4-3.9M
Major Intersection Expansion	<i>b</i>	<i>B</i>	<i>B</i>	8	\$3.6-4.1M

Note: *b* = good *Z* = fair *B* = poor

All alternatives besides “Existing” include widening of Chamblee Dunwoody Rd between Peeler Rd and Vermack Rd (see previous slides).

Next Steps

- Complete Concept Report and Traffic Study
- Provide Final Recommendation
- Negotiate Design Contract with Consultant

Questions?

Quality of Life



Operations

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Traffic Flow

VIDEO – Existing Conditions Traffic Simulation

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VIDEO – Moderate Intersection Expansion Traffic Simulation

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VIDEO – Roundabout Traffic Simulation

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