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MODEL DEVELOPMENT APPENDIX

NC 98 TRM SUBAREA ANALYSIS



MODEL DEVELOPMENT APPENDIX NC 98 TRM SUBAREA ANALYSIS

1 BACKGROUND

The calibrated and adopted Triangle Regional Model (TRMV6) is the preferred tool of regional planning partners in support of corridor and subarea studies in the Triangle region. The TRM, by definition, focused on a regional calibration of parameters and highway volumes, therefore careful application of the model is required. The desire for the NC 98 corridor study is to be able to understand flows on NC 98 but to evaluate the interaction of NC 98 with other potential regional projects like the Northern Durham Freeway and the widening of Sherron Road.

Instead of directly applying the TRM model results, a model validation was first conducted to verify the models ability to understand travel along the NC 98 corridor and the surrounding areas. A comparison of the model assignment results to the observed daily traffic counts was performed using only counts located within a specified subarea region surrounding the corridor (see Figure 1).

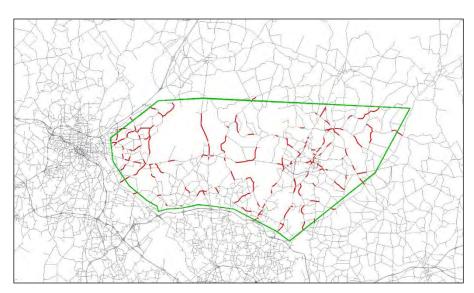


Figure 1: Count Locations Used for Corridor Validation

As shown in Figure 2, the model assignment volumes (total flow) near the NC 98 corridor do not seem to produce reasonable results as compared to the observed daily counts. The overall R-squared value of 0.20 is well below a normal acceptable value above .80, indicating the existing flow patterns in the NC 98 corridor are not properly represented in the TRM. It is critical for the study to be able to forecast future travel but based on existing calibration along the corridor, adjustments are required to produce more reliable future year volume estimates.

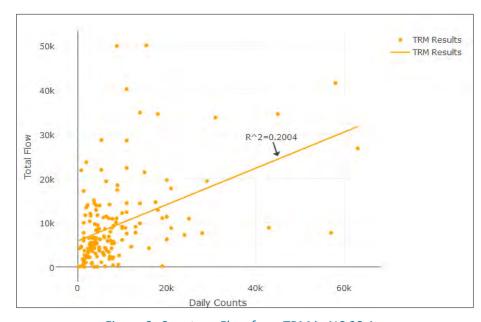


Figure 2: Counts vs Flow from TRM in NC 98 Area

Instead of investing resources in making substantial adjustments to the TRM, the decision was made to utilize the TRM and create a subarea model that could focus solely on updating the travel patterns along the entire NC 98 corridor from Wake Forest to Durham.

An existing subarea tool developed originally by the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO) was leveraged for this work to create efficiencies in the corridor analysis. The existing tool was already fully scripted in GISDK and included an embedded Origin Destination Matrix Estimation (ODME) procedure that allows for easier calibration of link flows with link counts.

This Appendix describes the work performed to apply the Subarea tool for the NC 98 corridor analysis. The document is divided into the following sections:

- Subarea tool introduction
- Analysis procedure
- Analysis results

In addition, this Appendix provides the details of the delay allocation method used to assist in the prioritization of the NC 98 segments as discussed in the full project report.



2 SUBAREA MODEL DEVELOPMENT

2.1 SUBAREA TOOL INTRODUCTION

The Subarea model is an add-on tool of the TRM-V6 model that allows users to perform a more refined analysis for a specified smaller regional geography. The tool is designed to run as a standalone module, fully scripted in GISDK, the native TransCad language. Starting from the extraction of the subarea network and OD flows from the original TRM model, an ODME procedure is then applied to adjust the OD flows based on a more comprehensive set of supplemental counts.

The ODME procedure refines the initial OD vehicle matrices from the TRM by comparing the subarea model traffic assignment to counts and then adjusts the OD matrix until the demand in the matrix can estimate the link level travel flows that match the counts estimated inside the subarea region. This produces a matrix in the subarea that is different from the TRM trip tables but is a better representation of localized travel. The ODME procedure outputs base year matrix adjustment factors between the original TRM subarea OD flows and the OD flows resulting from the ODME process. This same adjustment factor matrix is applied to the trip table produced by running the future year TRM for the subarea. This method for conducting subarea analysis produces reasonable localized corridor estimates without the need to invest significant effort in the coding of additional detail into the regional model. Figure 3 is a flowchart of how the subarea tool operates.

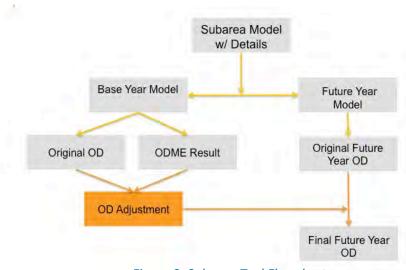


Figure 3: Subarea Tool Flowchart

2.2 ANALYSIS PROCEDURE

There are a total of six steps in this Subarea analysis for NC 98.

2.2.1 Defining the Subarea boundary and creating Subarea network

A subarea is the area of influence for a travel corridor or a defined region that explains the travel patterns impacting the corridor. The subarea boundary defined in Figure 4 was determined by the availability of detailed counts, by understanding the regional influences of existing roadways near NC 98 and by the ability to clearly define a boundary that had limited crossings of major facilities. The subarea region encompasses the NC 98 corridor from Wake Forest to Durham using an approximate 5 mile north/south buffer along the NC 98 roadway. The boundary avoids crossing

the I-540 and US 70 roadways to alleviate complicated traffic flows that could introduce patterns that are not directly related to NC 98. The roadways enclosed by the green boundary of Figure 4 are referred to as the subarea network in this documentation.

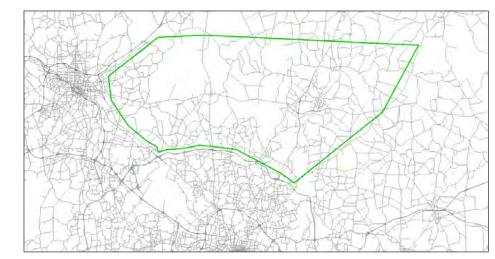


Figure 4: NC 98 Subarea Region

2.2.2 Generating Subarea OD Trip Table

The subarea OD trip tables are generated during the highway assignment procedure of the regional model in which the ODs from the regional model for the selected subarea are removed based on the boundary of the subarea. The resultant table contains the trip flows for the selected subarea region and includes zone interchanges that are completely within the subarea, have at least one trip end within the subarea, and trips that pass through the subarea via one of the subarea external stations.

For this task, the subarea OD table is produced by performing a static assignment within TransCAD for the PM peak hour.

2.2.3 Count information to validate OD table

The subarea tool was developed to validate against a total peak hour count, however, due to the insufficiency of peak hour traffic counts, total daily counts were used as an initial estimate but adjusted to get a PM peak hour traffic count estimate. A 10.7 factor was assumed and applied to convert all total daily counts in the subarea to PM peak hour volumes.

2.2.4 Origin Destination Matrix Estimation (ODME)

As described in the introduction of this Appendix, the ODME procedure is aimed at producing an OD trip table that is consistent with the observed link counts in the subarea. The ODME procedure in TransCAD requires several inputs, including a sufficient number of observed link counts, a base OD matrix, and some other inputs required for the static assignment method. The following are the conditions upon which this procedure runs:

- A 50/50 directional factor is assumed for all the link counts
- The inputs all represent the same time period (PM Peak hour), e.g. link capacities, traffic counts, and OD flows



2.2.5 Development of adjustment factors

The adjustment factors are developed by comparing the resulting ODME flows to the initial subarea OD flows by using the percent difference method. This method computes the adjustment factors as the ratio of the ODME flows to the initial subarea flows. To avoid unrealistically high adjustment factors in the percent difference method, the adjustment factors are capped between 0.1 and 2.

2.2.6 Development of future year OD matrix and future year link flow

The future year initial OD matrix is extracted from the TRM model using the subarea tool. To finalize an OD matrix for the future, the OD adjustment matrix developed from the base year is applied to the future trip table.

The adjusted future year matrix is then assigned to the subarea network to generate the future year link flows.

2.3 SUBAREA MODEL RESULTS

Subarea model results are provided in this section. A comparison of the subarea link counts and flows is first conducted to ensure the link performance improvement. Following that, a few scenarios of base year and future year, as well as different combinations of projects are tested using the subarea tool. Traffic volumes along NC 98 and its crossing links are presented. Traffic turning movements at several key intersections are also generated for traffic engineers for more detailed analysis.

2.3.1 Subarea Counts vs Flows

Figure 5 presents the daily counts vs total flow before and after ODME. The TRM model assignment in the subarea is not producing reasonable results as compared to the observed counts. The overall R-squared value is 0.20, while the R-squared value improves to 0.875 after ODME.

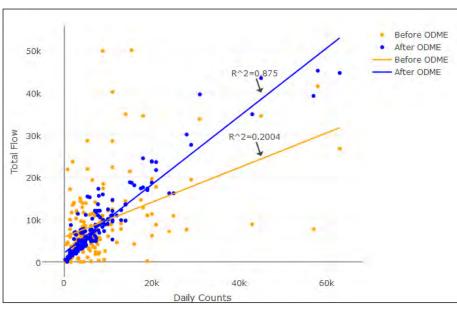


Figure 5: Subarea Counts vs Flows (Before and After ODME)

In addition to R-squared, a review of the Root Mean Square Error (RMSE) for the corridor region revealed that most of the link volumes were not in acceptable ranges. Figure YYY shows that before the ODME process that no facility types were less than 72% RMSE and normal ranges are near 40%. After the ODME process, Figure 6 shows a large improvement in the RMSE and that two of the three facility types are within the acceptable range of around 40%.

Table 1: Subarea RMSE

Before ODME

After ODME

FacilityType Code	Facility Description	Number of Links	Percent RMSE	FacilityType Code	Facility Description	Number of Links	Percent RMSE
9	Major Arterial	16	72.32	9	Major Arterial	16	27.95
10	Minor Arterial	111	136.3	10	Minor Arterial	111	43.92
12	Collector/Local	32	105.23	12	Collector/Local	32	68.71
Total	All	159	122.07	Total	All	159	43.83

Adjustments to the model assignment in the subarea was necessary and produced more accurate results throughout the corridor region. The base and future link volumes generated after ODME are more reliable.

2.3.2 NC 98 Scenarios

A total of 6 scenarios were conducted using the subarea tool to get traffic volumes. Different alternatives tested were:

- 2013 base year
- 2045 Future No build: 2-Lane NC 98
- 2045 Future Build: 4-Lane NC 98
- 2045 Future Build: 4-Lane NC 98; 2-Lane Sherron Rd; No Northern Durham Pkwy
- 2045 Future Build: 3-Lane NC 98 from Sherron Rd to US 70
- 2045 Future Build: 3-Lane NC 98 from Sherron Rd to US 70; 2-Lane Sherron Rd; No Northern Durham Pkwy

Figure 6 through Figure 11are the network maps color-coded by number of lanes and width-scaled by traffic volumes for each scenario. The figures are provided to document the roadway attributes in the subarea analysis. The detailed modeled volumes along NC 98 as well as its crossing links are available in a separate interactive html file called Subarea Flow single.html. Volume details are also documented in the main NC 98 study document.



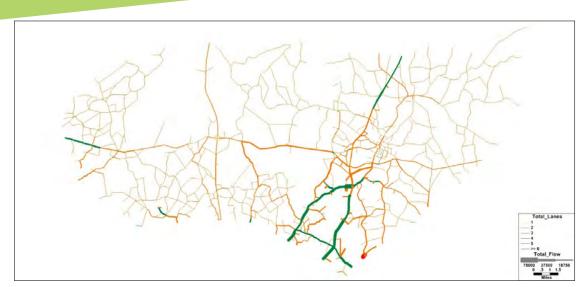


Figure 6: NC 98 Network - 2013 Base

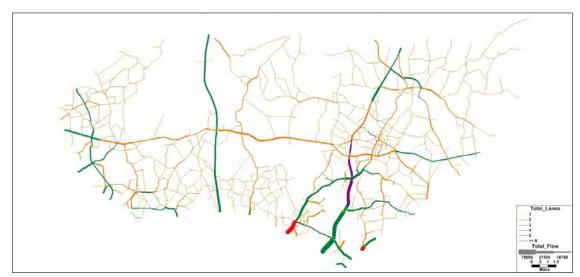


Figure 7: NC 98 Network – 2045 No Build

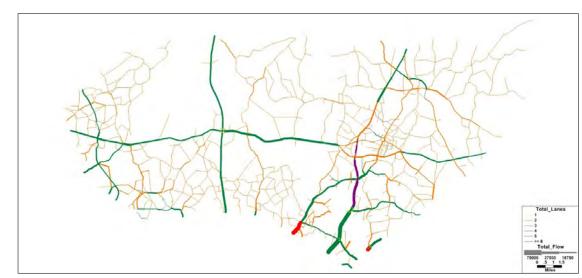


Figure 8: NC 98 Network – 2045 Build

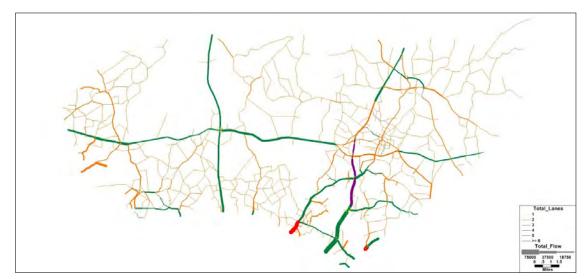


Figure 9: NC 98 Network – 2045 Build with 2-Lane Sherron Rd and without Northern Durham Pkwy

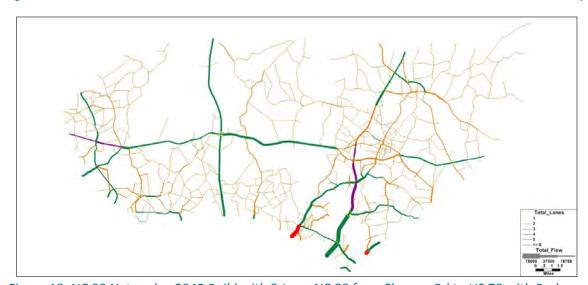


Figure 10: NC 98 Network – 2045 Build with 3-Lane NC 98 from Sherron Rd to US 70 with Parkway

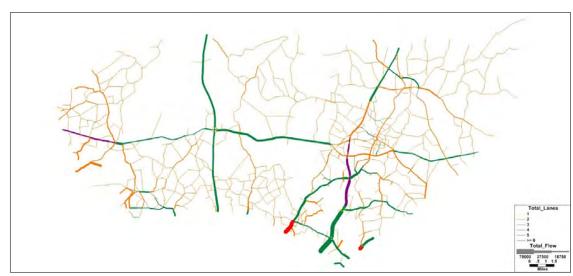


Figure 11: NC 98 Network – 2045 Build with 3-Lane NC 98 from Sherron Rd to US 70, with 2-Lane Sherron Rd and without Northern Durham Pkwy



3 PROJECT RANKING USING THE DELAY ALLOCATION METHOD FOR THE NC 98 CORRIDOR STUDY

For the NC 98 corridor level analysis the WSP created "delay-allocation method" was used to determine the segment with the largest project benefits. The method uses two alternatives, a "do nothing" and "do everything" alternative, to derive which projects are responsible for the observed system-level benefits. In addition to greatly reducing run time, this approach captures the interaction between projects that can be either complimentary, requiring both projects to produce benefit, or exclusionary, where projects represent a duplication of effort. This allows planners to make smarter decisions when allocating transportation dollars. In addition, it helps planners focus detailed analysis on fewer projects by screening out poorly performing projects early in the process. For the NC 98 corridor the MPO transportation projects were included in the do nothing(or no-build) and then do everything included the entire NC 98 corridor broken into segments.

The remainder of this section provides a step by step description of the process for reference.

3.1 DELAY ALLOCATION METHOD

3.1.1 Delay

The base scenario network and the comprehensive future scenario network can be compared directly at the link level using delay as the metric. Using delay has the advantage of combining congestion severity, most often reported using v/c ratio, with the number of users experiencing the congestion. Such a comparison allows interstates and local streets to be compared fairly, because the large volume difference does not bias results; however, a fair comparison depends on proper use of volume-delay functions in the model. With delay calculated on the base and comprehensive networks, their differences can be calculated. Links with widening projects will generally have a reduction in delay. New-location links, because they do not exist in the base scenario, will all show increases in delay. Nearby links without projects will have delay increases or decreases as traffic reroutes

Link delay is the difference in travel time between free-flow(ff) and congested(cong) conditions multiplied by the number of vehicles traveling on the link:

Delay =
$$(Time_{ff} - Time_{cong}) * Volume$$

It provides a metric that can be used to compare interstates to local streets directly, and is critical to this methodology. The free flow speeds are the posted speeds from the TRMv6 and the congested speeds pivot off of the TRM volume/delay functions. For this project the speeds calculated by the model are used directly without any editing or review.

3.2 METHODOLOGY

For this approach, two model scenarios were run for NC 98:

- No-build
 - Base year highway network plus committed projects as identified by the MPO
 - Existing plus committed transit routes as identified by the MPO
 - Forecasted socio-economic data for 2040
- Build
 - The no-build scenario plus all projects in the moderate MTP scenario as identified by the MPO(including the NC 98 corridor coded into segments)
 - Existing plus committed transit routes as identified by the MPO
 - Forecasted socio-economic data for 2040

The build scenario, with many additional projects, had less link delay. The aggregate reduction in delay over the entire network is the total benefit of adding all projects.

There are five processing steps in the delay allocation method:

- 1. Split reductions in link delay into primary and secondary benefits.
- Allocate primary benefits to projects.
- Allocate secondary benefits to projects.
- Summarize total benefits by project.
- Compare benefits to project costs.

3.2.1 Step 1-Split primary and secondary benefits

The analyst can now combine the base and comprehensive networks to produce a difference network that contains the change in delay for each link. The analyst must classify those changes as primary or secondary benefits. Primary benefits are reductions in delay on a roadway, for example, that is widened, while secondary benefits occur on the surrounding nearby links as vehicles divert to use the widened facility. For the vast majority of links, the analyst can follow a simple rule set to determine primary and secondary benefits based on the change in capacity, volume, and delay. For new-location links, all changes in delay, which always increase, are primary by definition. For links that do not change capacity, all changes in delay are secondary due to other projects. For project links that are not new location, the rule set is shown in Table 2. As an example, a road diet could decrease the capacity on an arterial link. At the same time, a nearby widening project could divert enough volume that the link still experiences a decrease in total delay. From Table 2, any reduction in delay on a project link with reduced capacity is assumed to result from other projects.

Table 2: Rules for Primary and Secondary Benefit Determination

CAPACITY	VOLUME	DE	LAY	
CAPACITY	VOLUME	Decrease	Increase	
Increase				
Increase		Primary Benefit	Secondary Benefit	
	Decrease	Both	N/A	
Decrease				
Increase		N/A	Both	
	Decrease	Secondary Benefit	Primary Benefit	



As shown in Table 2, specific situations exist where the change in delay on a project link could be a mix of primary and secondary effects. A widening project that experiences both an increase in capacity and a decrease in volume is one example. Both capacity and volume change from base scenario to comprehensive scenario contribute to a decrease in delay. In this case, a ratio is taken to compare the percentage change in capacity and volume. Absolute values are used because decreases in volume and increases in capacity have the same effect on travel time.

% Primary Effect =
$$\frac{(|\% \text{ change in capacity}|)}{(|\% \text{ change in capacity}|+|\% \text{ change in volume}|)}$$

Table 3 presents a hypothetical link where the travel time between the base and comprehensive scenarios decreases by 1.83 minutes. This change in delay is due to a 20 percent decrease in volume and a 30 percent increase in capacity. Because the majority of the benefit is due to the capacity change, most is assigned as primary benefit. The remainder is a result of volume diversion to other routes and is secondary.

- 1. Benefits on links without projects are secondary.
- Benefits on links with projects are usually primary.
 - a) If volume on the project link decreased in the build scenario, the benefit is split according to a ratio of capacity and volume changes.

	Table 3	: Example Cal	culation for Mixed	i-Benefit Link		
				SCENARIOS		
		Base	Comprehensive		Percent	Change
Volume	vpd	20,000	16,000		-20	%
Capacity	vpd	20,000	26,000		+30	%
α		10	10			
V/C		1.00	0.62			
VDF Factor		2.00	1.09			
Free-Flow Travel Time	min	2	2			
					Differ	ence
Congested Travel Time	min	4	2.17		1.83	min
			Effects			
		•	Drimary	2 17 * 20/50-	1 10	min

Table 2: Example Calculation for Mixed Penefit Link

Effects		
Primary	2.17 * 30/50=	1.10 <i>min</i>
Secondary	2.17 * 20/50=	0.73 min

3.2.2 Step 2- Allocate primary benefits to projects

This step simply sums primary benefits on project links by their project IDs to get a total primary benefit for each project ID in the region. Any benefits directly generated on the project link are primary benefits and therefore are allocated to that project.

3.2.3 Step 3- Allocate secondary benefits to projects

In this step, secondary benefits on links are divided between nearby projects based on usage characteristics.

- Projects closer to the link get more credit for secondary benefits.
- · Highly utilized projects get more credit for secondary benefits.

In this way, a balance is achieved between nearby projects with low usage and projects further away that are used more heavily. The details of that calculation and an example are described to allow better understanding.

Secondary benefit allocation requires spatial analysis. For a given project, the analyst sums the lengths of its links to determine the total project length. The analyst then creates a buffer around the project links with a radius that is 75 percent of the project length, but with a minimum radius of 1.5 miles. The buffer becomes the project's impact radius, and is searched to find potential secondary benefits. The primary justification for scaling project impact areas involves capturing parallel routes. As the length of a project increases, the analyst must account for more parallel, competing paths that might be impacted. Figure 12 demonstrates this scaling. The scaling of project impact areas differentiates between statewide, regional, and local projects without requiring additional input from the analyst.

It is also important to discuss bottle necks, both in this delay allocation method and travel demand models in general. In reality, alleviating a short bottleneck section on a major interstate could have impacts far beyond what would be implied by the length of the project. In most travel models, however, this is not the case. In these models, the use of volume delay functions and aggregate assignment methods does not assume any spill back or queuing across network links. As a result, bottlenecks are not created, and scaling project impact areas based on project length is appropriate. This assumption is not appropriate for micro-simulation models, which better-capture bottleneck behavior. A possible accommodation for such models, which would require further analysis, would be to set different minimum radii based on link facility types.

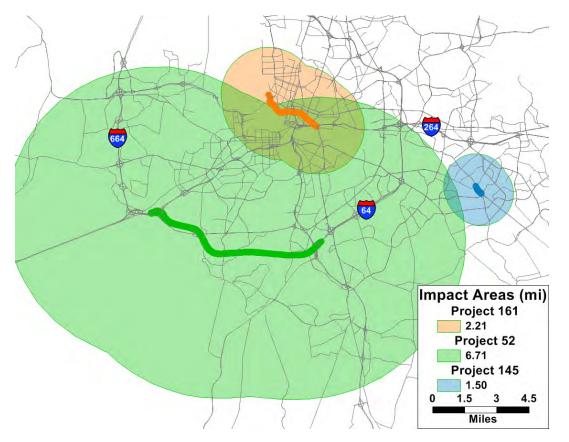


Figure 12: Project Impact Areas Scaled by Project Length



Figure 12 shows how project impact areas can overlap. In these overlapping impact areas, projects share the secondary benefit proportional to the change in project vehicle-miles traveled (VMT) within the search radius. When analyzing a link in the overlap of Projects 52 and 145, the entire VMT of Project 52 is not used to allocate the secondary benefit of the link. Instead, the analyst only includes the Project VMT within 6.71 miles, the length of Project 52. This prevents a disproportionate award of secondary benefits to long projects.

3.2.4 Step 4- Summarize total benefits by project

In this step, the primary and secondary benefits are combined for each project using the project ID to calculate total the total benefits generated by the project.

3.2.5 Step 5- Compare benefits to project costs

This step normalizes total benefits across projects by their costs. In this way, large interstate projects can be compared to local or regional projects. Recall that as a result of the method of derivation, these cost-benefit ratios are only useful in the context of project prioritization. In addition, the benefits calculated are only those resulting in travel time savings. The ratios do not include the other factors, such as safety, mentioned previously. As a result, the cost-benefit ratios based on delay allocation should not be viewed in terms of project justification. In practice, when presenting the project ranking, these ratios should be normalized to a 100-point scale. Normalization preserves important information about relative position, but prevents the ratios from being used as an absolute measure of project effectiveness.

Costs for the projects were based on the existing MPO MTP values from the most recently adopted plans as of July 2017. The final results can be found in the NC 98 main report.

3.3 **ADVANTAGES**

This approach has many benefits over traditional alternatives analysis or project comparisons using a large number of single-project networks. Compared to alternatives analysis, this method provides a prioritized list of projects based on their cost effectiveness at alleviating delay. This delay allocation method also scores competing projects more accurately. Two parallel projects serving the same flow patterns may both score strongly when measured individually. By including both projects in the same run, the model is able to use all the pathing and preference information to determine which project is more likely to be used. In addition, the delay allocation method is significantly faster than performing individual model runs for each project, which allows for further analysis (e.g. varying SE data assumptions).





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PUBLIC ENGAGEMENT APPENDIX



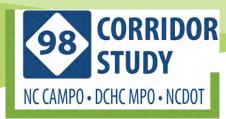
5. Please circle your answer choice for each statement.

	ANSWER A	ANSWER B	ANSWER C	ANSWER D
The roadway lane widths are	too narrow	adequate	too wide	n/a
I feel making left turns without lights.	unsafe	safe	very safe	n/a
I feel making right turns.	unsafe	safe	very safe	n/a
The number of bus stops on N.C. 98	are more than adequate	meet my needs	are not adequate	n/a
The sidewalk facilities on N.C. 98	are more than adequate	meet my needs	are not adequate	n/a
Bicycle lanes are appropriate to implement on N.C. 98.	true	not sure	false	n/a
6. Would you like to see the corridor c	hange or rema	ain the same	? Explain.	
7. What constraints do you experience	along the co	rridor?		
3. What opportunities do you envision	along the cor	ridor?		

discrimination under any of the Capital Are (CAMPO) and/or Durham—Chapel Hill—Car	ion in, denied the benefits of, or subjected to a Metropolitan Planning Organization's rrboro (DCHC) MPO's programs, policies, or al origin, disability, age, income, or gender. ta collection and public involvement
Gender:	Have a Disability?
☐ Female ☐ Male	☐ Yes ☐ No
National Origin: (if born outside the U.S.) Mexican Central American Puerto Rican Chinese Vietnamese Korean Other:	Race/Ethnicity: White Black/African American Asian Native Hawaiian/Pacific Islander Hispanic/Latino American Indian/Alaskan Native Other:
Total Household Income: \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 \$12,000 <t< td=""><td>\$70,000—\$93,999</td></t<>	\$70,000—\$93,999
Age: ☐ Less than 18 ☐ 18-29 ☐ 30-	44 45-64 65 & older
Other comments/questions:	

	Strongly Agree	Somewhat Agree	Neutral	Somewhat Disagree	Strongly Disagree		
Informational boards provided the appropriate project information.							
Interactive activities were engaging and helpful.							
I left the meeting informed about the N.C. 98 Corridor Study.							
Please return this comment card before leaving today. If you need to return this form later, please email or mail it before April 6, 2017 to: Will Letchworth, PE, letchworthw@pbworld.com 434 Fayetteville Street, Suite 1500							
	•	•		om			
•	Raleigh, N	•					
Visit the website, www.NC98	corridor.cor	n for more inf	ormation o	n this project.			

WSP | Parsons Brinckerhoff ATTN: Will Letchworth, PE, 434 Fayetteville Street, Suite 1500 Raleigh, NC 27601 POSTAGE



Please fill out the information below and submit to the project team. This information is for reporting purposes only.

Include your email below to receive future project updates. Name: Home Zip Code: Work Zip Code: Email: 1. How did you hear about this workshop? Email ☐ Newspaper/Radio/TV Project Website Other: Social Media Nextdoor Website 2. How often do you travel on N.C. 98? Five days a week Once a week ☐ Daily ☐ A few times a month ☐ A few times a year Prefer not to answer 3. What modes of transportation do you use on N.C. 98? (Select all that apply) ☐ Carpool/Rideshare Personal Vehicle Bicycle Other: _____ ☐ Walk ☐ Transit (bus) 4. Why do you travel the corridor? Rank your top uses from 1 to 5 (with 1 being the top reason). ___ Traveling to and from work. My job requires me to drive on the corridor (e.g. deliveries) ____ Family/Personal Reasons (shopping, errands, etc.) ____ Recreation (e.g. cycling, going to the park/lake) ___ Other: _____

WELCOME! ¡BIENVENIDOS!

NC 98 Corridor Study (Estudio Del Corredor NC 98)

www.NC98corridor.com #NC98study





WHERE & WHAT

Project Study Area:

• 27-miles from U.S. 70 in Durham Co. through Wake Co. to U.S. 401 in Franklin Co. (approximately a quarter mile (1/4) on either side of N.C. 98)

This study will evaluate:



Safety & Mobility



Planned & Existing Roads

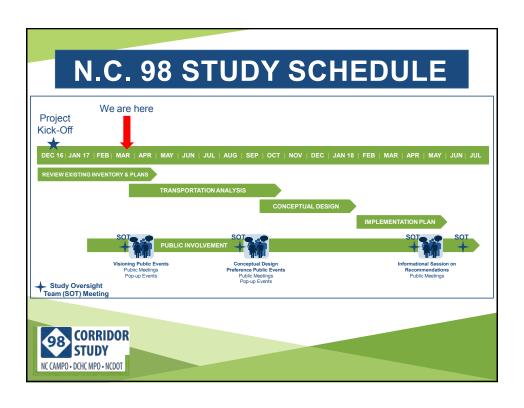


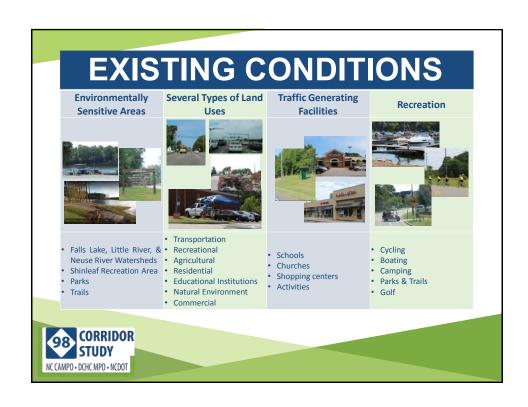
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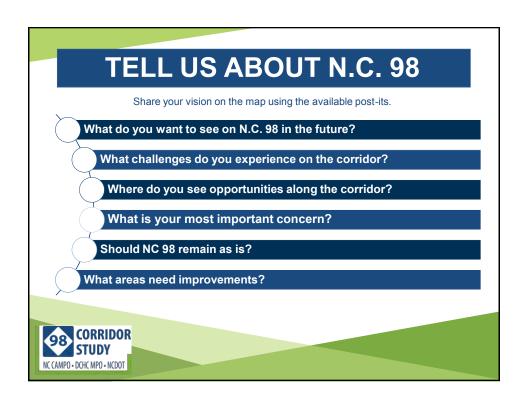


Bicycle/ Pedestrian **Facilities**











THANK YOU FOR ATTENDING

GRACIAS POR ASISTIR



NC 98 CORRIDOR STUDY

WHAT AND WHERE IS THE NC 98 CORRIDOR STUDY?

Together, the Capital Area Metropolitan Planning Agency (CAMPO), the Durham — Chapel Hill — Carrboro Metropolitan Planning Organization (DCHC MPO), and the North Carolina Department of Transportation (NCDOT) are studying the N.C. 98 corridor from U.S. 70 in Durham County through Wake County to U.S. 401 in Franklin County, North Carolina.

This study will evaluate the <u>safety and congestion</u>, <u>planned and existing roads</u>, <u>bicycle/pedestrian facilities</u> and <u>transit uses of N.C. 98</u>. The study limits will be approximately a quarter mile (1/4) on either side of the 27 -mile section of N.C. 98.



WHY IS THIS IMPORTANT?

A corridor study is the first step in planning for the future of a transportation facility. By defining the corridor's needs, the corridor plan will help focus planning efforts on the most significant problems and identify the best transportation solutions. This project started in December 2016 and will continue through July 2018.



ESTUDIO DEL CORREDOR NC 98

¿QUÉ Y DÓNDE ESTÁ EL ESTUDIO DE NC 98?

La Agencia de Planificación Metropolitana del Área Capital (CAMPO—por sus siglas en inglés) en conjunto con la Organización de Planificación Metropolitana de Durham—Chapel Hill—Carrboro (DCHC MPO por sus siglas en inglés) y el Departamento de Transporte de Carolina del Norte (NCDOT) está estudiando el corredor de NC 98 desde la US 70 en el condado de Durham a través del condado de Wake a la US 401 en el condado de Franklin, Carolina del Norte.

Este estudio evaluará la seguridad y congestión, carreteras en proyecto y existentes, infraestructuras para bicicletas/peatones y uso de tránsito por la NC 98. El área del proyecto en estudio será aproximadamente de un cuarto de milla (1/4) en cualquier lado de la sección de 27 millas de NC 98.



¿POR QUÉ ES ESTO IMPORTANTE?

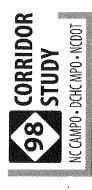
Un estudio de corredor es el primer paso en la planificación para el futuro de una infraestructura de transporte. Al definir las necesidades del corredor, el plan ayudará a centrar los esfuerzos de planificación en los problemas más significativos y identificar las soluciones mejores de transporte. Este proyecto comenzó en diciembre de 2016 y continuará hasta julio de 2018.





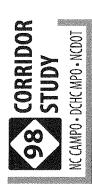
Name	Organization	E-mail
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Tim John SOU		7
Topa Buthellon	chzinfres	Meiner got 2 beebalm yahoo.com

3/21/17 WOKE FOREST



E-mail	Pilani bramsnicom		Shannon burnett a egalisi.	scot jlowe @ yalloo.com	allestin@enburganoil.com			The state of the s
Organization					C, T, Z < 2			
Name	Lacrie Barrett	CHRIS MILLERZ	Mannan Burnett	Jund Lowe	Martha Loftin			

3/21/17 Wake Forest



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Organization						Wake Forest Fire Dept.	RESIDENT/HAR BEDFORD (50498)		Retined
Name	Lory GUANGUA	Jamie Grego	Omes and	Je Com & Jerry Chita	Lorny Y. Cay	Matt Strawbridge	Ka Jermings	Wend y Lipkin	Noy d (roesus

3/21/17 Wake Forest



E-mail	terryhaxbor @ smail.com	hughen2 To as 1. com	aldenhanson 05@gmail.com	danny. Johnson@ Rolesulle. nc. 600	KStanford @ +heinc.net	du RWARD MATHENM (2) EMBAROMAIL.	lguillana @ coastal feu.org	JY69N73B nc. RE. Con	rosert.slade 49@gmail.com
Organization				Town of Rolesuille	THC, INC	Citizen of WF	Castal Crodit Union	CL711 204	
Name	Terrence S. Haxton	MICHEN NOURSE	Alden Hanson	PRINKY JOHNSON	AATH Stanfood	DURWARD MATHENY	Louis Guillama	Jerry Yount	Bh Slade

3/21/17 wate Forest



Name	Organization	E-mail
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FEIC KERAVUORI	TOUF	ekeravaori@walkeforestnc.gov
Parill + At Merrill		Surperson Tout to the gray nom
Robert Coper	Lowe on 1 or	
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Marcu Bryant	14-medua,1	MARCUS Ray 67@ Smarc. Com
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less Aller	Musper	todd & wateverty, com

221117 Wake FOREST



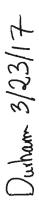
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Lisa Hannin	WFTAB	lorthe nc.w.com
Michael Recol		(red @ inex ora)
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Rich Wemi		rich-niemi Ogmail·com
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Amne Reeve	Town of	areeve@wakelovestne.gov
Tory Gordon		TONY STEEMBANGMAIT. CON
		9/10/11

3/21/17 Wakest



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3/21/17 WOKE





CORRIDOR N.C. 98 Corridor Study STUDY March 2017

Name	Organization	E-mail
William Mr Roy Li		CASIEFERNCH Fam. Pensif Con
Leslie Traces	City of Derhan Sot	City of Durhan DoT leshe. tracey a durhanne, gov
Elen Beckmann	Cuty of Durham	City of Dulam Man Deckmann a durhamic, gov
Andy Henry	DCHC WUPD	
Sabora Even		
Anne Conton	Bille	anne. Eshleman Egmail. wur
Darvion Smith		Darvious 1 @ 49 her. com
David Keilson	NC DOT	Spkrilson Onedt.gov



STUDY N.C. 98 Corridor Study **March 2017**

Name	Organization	E-mail
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Cartis PRAKS		CPECK SOrtachingallminas. Com
Dethy Thomas	Citizen	bb loomers farm & grad, com
Clark Thomas	Citizen	

Thank you for your participation!

Please return this comment card before leaving today. If you need to return this form later, please email or mail it **before October 5, 2017** to:

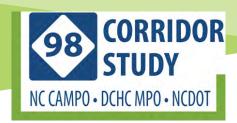
Will Letchworth, PE, will.letchworth@wsp.com 434 Fayetteville Street, Suite 1500 Raleigh, NC 27601

Visit the website, www.NC98corridor.com for more information on this project.

POSTAGE

WSP
ATTN: Will Letchworth, PE,
434 Fayetteville Street, Suite 1500
Raleigh, NC 27601

Fold along this line into thirds and mail



Please fill out the information below and submit to the project team. This information is for reporting purposes only.

Include your email below to receive future project updates.

Name:		Home Zip Code:
Email:		Work Zip Code:
1. How did you hear at	oout this workshop?	
Email	Newspaper/Radio/TV	Project Website
Social Media	Nextdoor Website	Other:
2. How often do you tr	avel on N.C. 98?	
Daily	Five days a week	Once a week
A few times a mon	th A few times a year	Prefer not to answer
3. Did you attend or pathis project?	erticipate during the Marc	ch 2017 public participation period for
☐ YES [NO	
After reviewing the pro	oject material please ans	wer the following:
•	ncerns about the potention ight? If so, please explain	al long-term intersection treatment n.

A road diet provides bicycle and pedestrian accommodations and will eliminate conflict points. A road diet can typically handle up to 20,000 vehicles per day. The road diet between US 70 to Sherron Road is dependent upon the widening of Sherron Road and if the Northern Durham Parkway is constructed.

As shown in the chart below road diet encourages less through movement (on NC 98) as vehicles will use alternate routes such as; Stallings Road, Mineral Springs Road, Sherron Road, and the Northern Durham Parkway.

Cross Section	2045 Volume West of Sherron	2045 Volume East of Sherron
NC 98 - 4 Lanes (median) Northern Durham Parkway - 4 lanes Sherron Road- 4 lanes	22,000	33,000
ROAD DIET: NC 98 - 2 Lanes Northern Durham Parkway - 4 lanes Sherron Road- 4 lanes	17,000	32,600
NC 98 - 4 Lanes (median) No Parkway & Sherron Road – 2 lanes		35,000

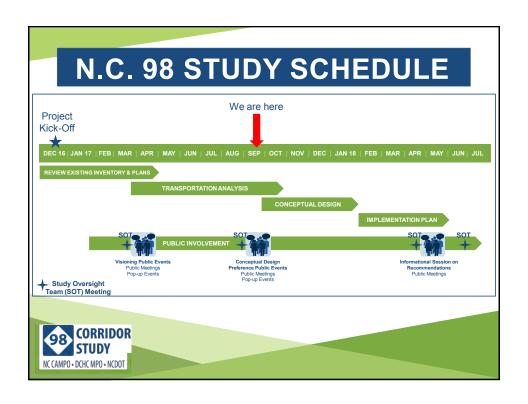
5. Based on the in between US 70 to	formation presented toda Sherron Road?	y, would you support a	road diet on NC 98
☐ Yes	☐ Not sure	□ No	
6. If you responde	d no, please explain why.		
,			

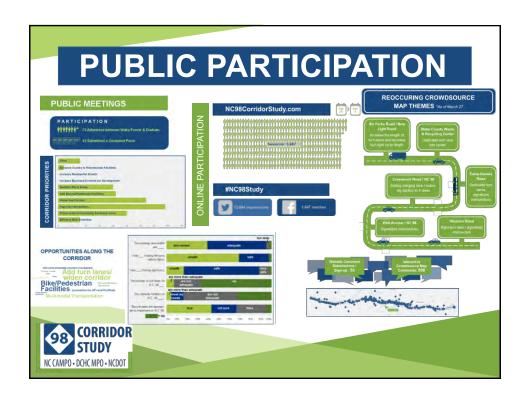
7. Below is a chart that shows the short-term improvements as shown on the display that will require construction. (Please note the roundabout at NC 96 and the Moores Pond Road improvements are part of a separate project.) **Please mark an "x" under your answer below:**

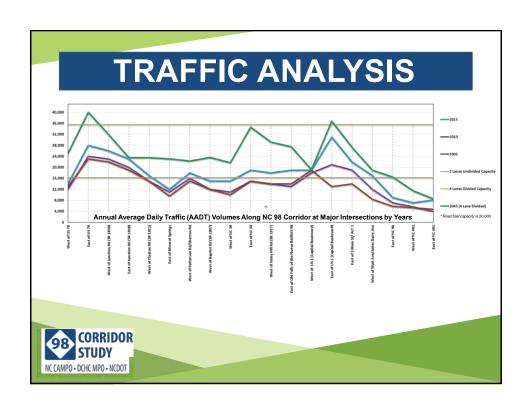
Intersection	Improvement	In Favor of	Not Sure	Not in Favor of
Mineral Springs Road	Add right turn lanes at all four approaches			
NC 50	Add auxiliary lanes			
Six Forks Road	Add right turn lanes for eastbound and northbound approaches			
Camp Kanata Road	Install eastbound left turn lanes			
S Main Street	Install dual left turn lanes			

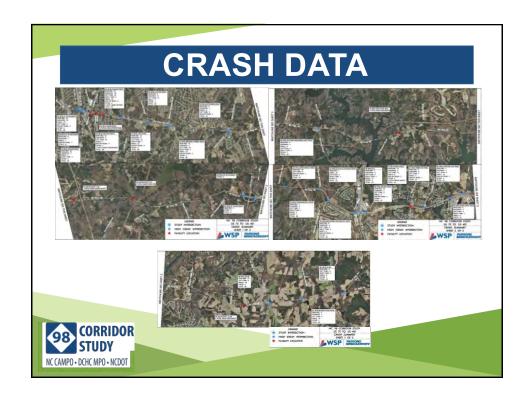
person(s) shall be discrimination und (CAMPO) and/or D	n Title VI of the Civil excluded from part ler any of the Capita urham—Chapel Hill n their race, color, i	icipation al Area M I—Carrbo	n in, denied th Metropolitan P oro (DCHC) M	e benefits lanning O PO's prog	of, or subje rganization' grams, polici	cted to s ies, or
1 -	formation helps me Title VI and NEPA, a			-		
Gender:			Have a Disa	bility?		
Female	Male		Yes		☐ No	
National Origin: (in	f born outside the Central American	·	Race/Ethnic	city:	☐ Black/Afric	an American
South American	Puerto Rican		Asian		Native Have Pacific Isla	
Chinese	☐ Vietnamese		Hispanic/L	_atino	Pacific Isla American I Alaskan N	Indian/
☐ Korean	Other:		Other:			
Total Household Income: Less than \$12,000 \$12,000—\$19,999 \$20,000—\$30,999 \$31,000—\$46,999 \$47,000—\$69,999 \$70,000—\$93,999 \$94,000—\$117,999 \$118,000 or greater						
Age: Less than 18	<u> </u>	30-44		! 5-64	65 &	older
		Strongl Agree	-	Neutral	Somewhat Disagree	Strongly Disagree
Informational boards project info						
Do you feel public input proposed imp						

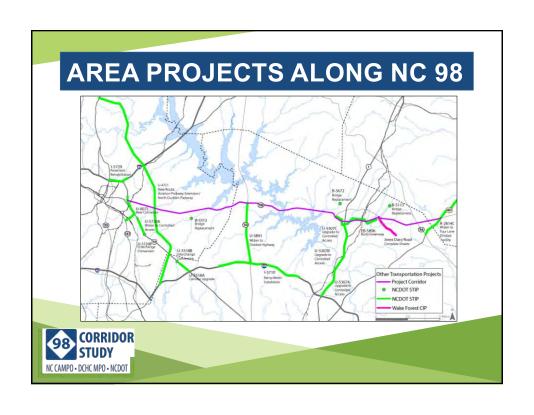
I left the meeting informed about the N.C. 98 Corridor Study.

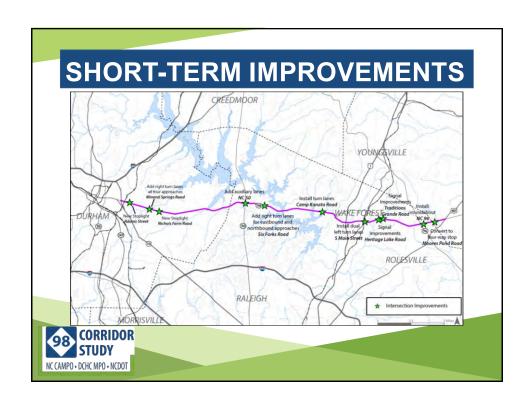




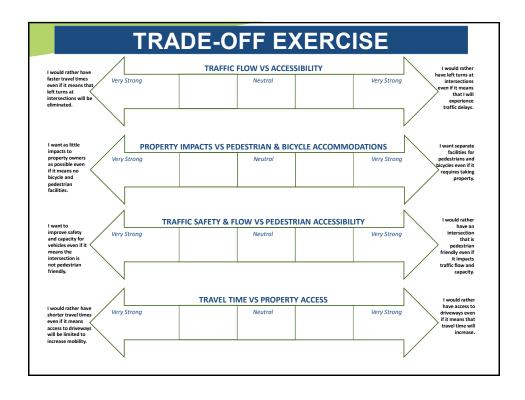






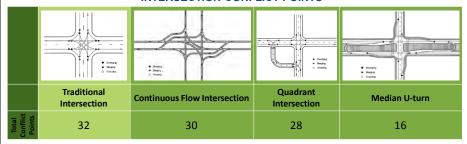






INTERSECTION TREATMENTS

INTERSECTION CONFLICT POINTS



Indirect Left-Turn Treatments:

- Remove the left-turning vehicles from the flow of traffic without causing them to stop in a through-traffic lane (as a traditional intersection may)
- Improve safety by reducing the number of conflict points as shown above
- · Reduce the number of signal phases to provide more green time for traffic
- Increase capacity



PEDESTRIAN & BICYCLE

POTENTIAL BICYCLE AND PEDESTRIAN FACILITIES



Description

i shared-use path's claffred as a trait permitting none than one type of user Paths serve as part of transportation consustion system and support subplie recreation opportunities such as waters scycling, and either stating A shared-use path is systeady separated from motor variouser traffic elft an opportunities.

Description

A median refuge or island provides in-steed refuge along the issue of a pedieshilar crossing. The refuge width is ideally 7× to 8t bicycles. The perposit to vehicle travel larves must be ADAcompliant.



 Bite larves designate an exclusive space for bisystic brough the use of government markings drapes, and agroups. The bate sine is couldn't adjoint to motor vehicle travel saves and flows in the same describe an endor which staffs. Bis arries are typically on the light sold of the street. Bismettin include providing options space on the load for cyclists and sending a message to other load sort and open displacements.



High visitelity singang should be used at creasing areas.

A 4 minimum width chould be used for ADAaccessible curb comps.

A push buffor with auditire status should be

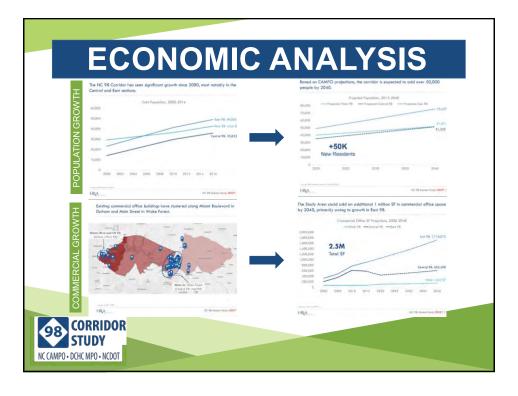


A buffered broycle lane is a bite lane with additional striping in tratifying druffer) adjacent to The buffer may supposts the broycle lane from inster whicle brees, parking, or both



back flashing beacons are used to increase inshifty of pedient ions as they costs the reaching it uncontentiand consension. Pris treacon is pediestrian-activated (i.e., the signal will only flash if a pediestrian has pushed a button prisolate that flash used to come the charge.







September 2017

Project Website:

www.nc98corridor.com

MEETING PURPOSE:

- Present the public feedback received during the first phase of public involvement
- Present project data and analysis completed since last spring
- Provide details about the identified intersection treatments
- Discuss any concerns and answer questions on the potential alternative intersection design treatments
- Provide a forum to receive comments on the alternative intersection treatments

MEETING FORMAT:

- This meeting is an "open house" style. Staff are available to discuss the project with you and answer your questions.
- Displays showing the project information are stationed around the room.
- Please fill out the comment form and return no later than October 5, 2017.

Project Manager: Will Letchworth, PE

WSP

Phone: 984-269-4652

Email: will.letchworth@wsp.com

PROJECT DESCRIPTION:

Together, the Capital Area Metropolitan Planning Agency (CAMPO), the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), and the North Carolina Department of Transportation (NCDOT) are studying the N.C. 98 corridor from U.S. 70 in Durham County through Wake County to U.S. 401 in Franklin County, North Carolina.

This study will evaluate the <u>safety and mobility</u>, <u>planned and existing roads</u>, <u>bicycle/pedestrian</u> <u>facilities</u> and <u>transit uses of N.C. 98</u>. The study limits will be approximately a quarter mile (1/4) on either side of the 27-mile section of N.C. 98.



A corridor study is the first step in planning for the future of a transportation facility. By defining the corridor's needs, the corridor plan will help focus planning efforts on the most significant problems and act as catalyst for discussion about how best to invest in the corridor.

PROJECT UPDATE:

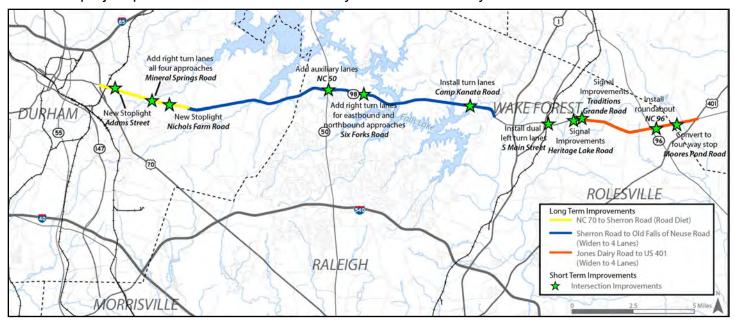
The first phase of public engagement was conducted in spring 2017. During that period the Project Team solicited public input to develop the priorities and vision for the N.C. 98 corridor. After reviewing forecasted traffic for the corridor, the Project Team identified short-term and long-term improvements.

(see back)

PROJECT UPDATE:

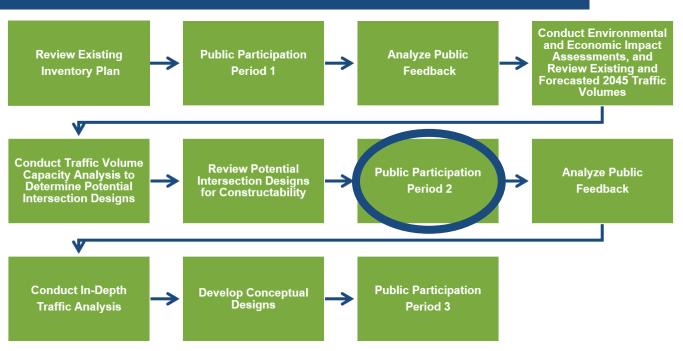
The stars on the map below represent improvements that may be implemented in the near future. The short-term improvements are temporary solutions to reduce congestion until the long-term improvements can be analyzed in a separate study and undergo the project planning process. The long-term projects include widening NC 98 between Sherron Road and Old Falls Neuse Road, and Jones Diary Road to US 401. Widening the corridor more than four lanes is not warranted; however, the intersections will be redesigned to optimize the flow of traffic. Several intersection treatments are being evaluated that would improve traffic flow throughout the corridor.

The alternative intersection treatments are on the map displays. These areas will need to go through the formal project process to determine feasibility and construction year.



*Road Diet is dependent on Sherron Road being widened to 4 lanes and the Northern Durham Parkway being built.

PROJECT PROCESS & NEXT STEPS:





N.C. 98 Corridor Study September 2017

Set Coccolote	Bary Borgerson	Demis Kindsbells	NED JONES	Mary Jo Van Horne	Paul Burk	Tinu Diwer	Name
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Name	Organization	E-mail
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Tim Johnson		
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WILLY LARSEN		Vvilly. Jarsenagment, com
John + Kethy Mc Dermot		1 johnesox o gimail. com
Chip Russell	WI	crussellewalebrestno.god
Ratherine Solymans		Kabobre @ eathlinkinet
Biake Hamin		Biare. Hamisa @ gmass. con
James Holding		jbholding 421 @gmat. com
Kerin Maddas	73	Minuldox 1 Q MC. VV. COV



Marguel Stimet	Organization	E-mail
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LIZ SIMPER	Ymca	LSIMPERS @ gnail com
Carol Telosi	WEGAZER	cupelosia ast. om
Bruce Matheny	2	bruce matheny yahou com



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Mahallharun		ddeh3 @col. Com
CHARLES CLIFTON		coliftan 919@gmail.com
bahan Drown		
Estaban Bostin	BORRACI	abortina agrail.com

Photographs taken at this meeting may be used in project documentation and to publicize future meetings.



Purham Resident	Name	Organization	E-mail
Purham Resident	Andy Henry	RHC MPO	andrew henry advinaming.
	purham resident		

Photographs taken at this meeting may be used in project documentation and to publicize future meetings.

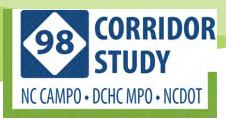


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Duright of Selvice Walters		okwatters 56 @ yahoo. com
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CYAREA MICHAEL MATTI		mati.chareca gmail.com
Dishumo Speciesto		SSP5724@ smail com
Wyne Sell		WDSILK@MAC, COM



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Stolling & How		(Sh 180504 chas am
Dale McKeel	City or Durkey	delancheele duranna. god
Mary Late Morrokian	Gotriangle	mnoros lian@ gotnangle, ora
Ret John	Resident	
REGINA CROUSE	Resi Deut	Resina crows @ smair.com
GERALD Dudash	Resident	Jdudash @ msn. com.

Photographs taken at this meeting may be used in project documentation and to publicize future meetings.



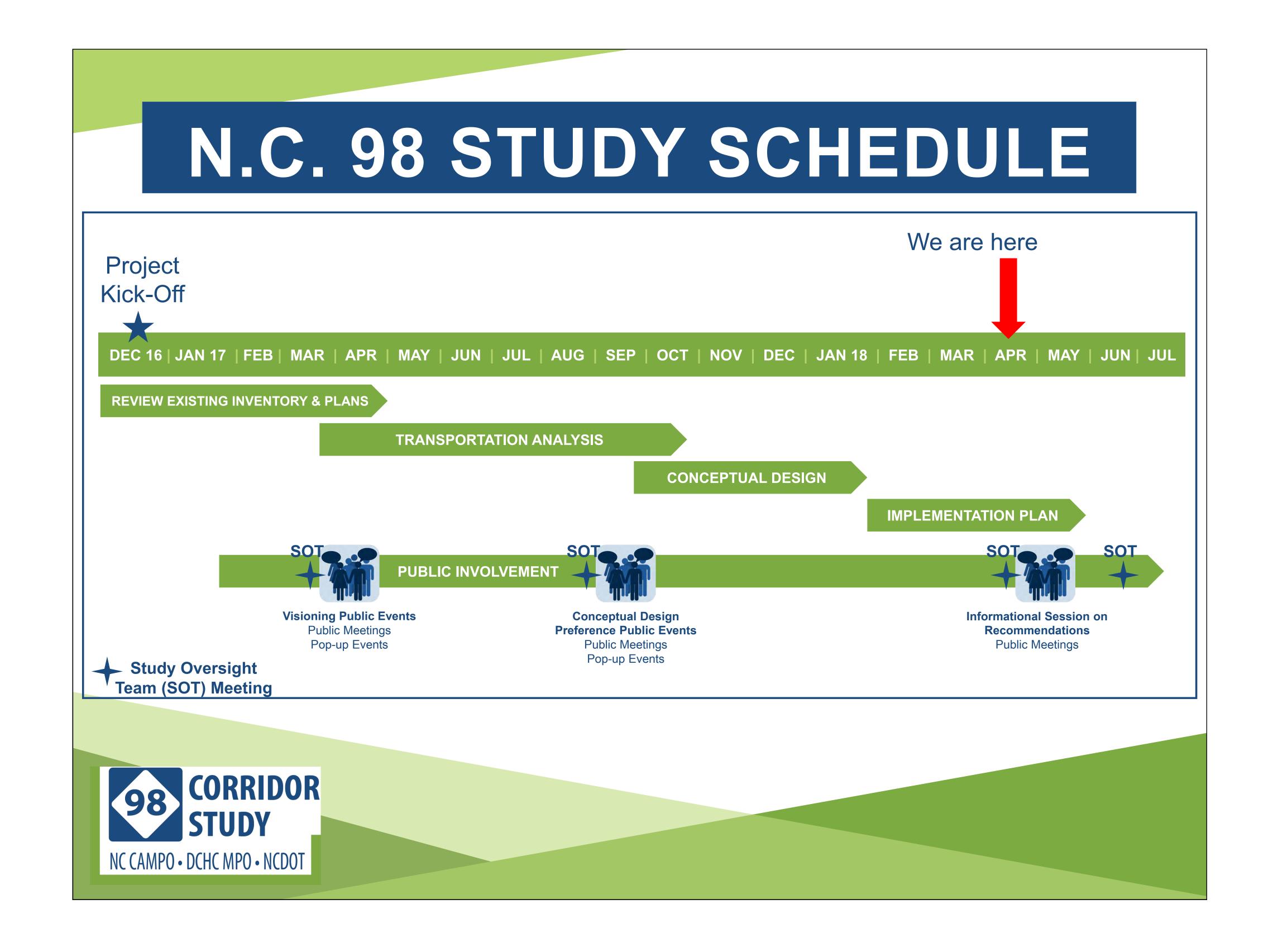
Please fill out the information below and submit to the project team. This information is for reporting purposes only.

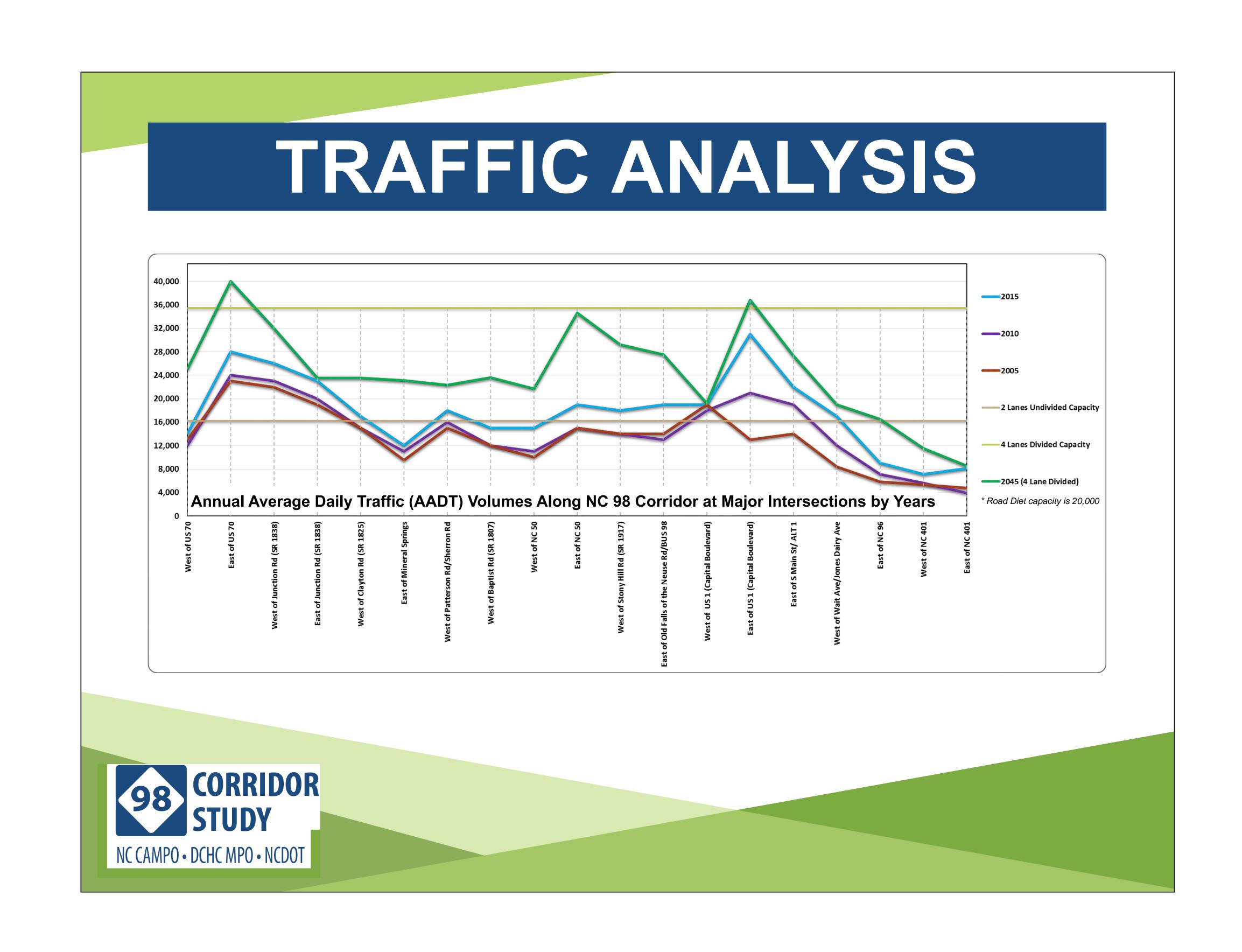
If you need to return this form later, please email or mail it **before April 30, 2018** to: Will Letchworth, PE, 434 Fayetteville Street, Suite 1500, Raleigh, NC 27601 or by email: will.letchworth@wsp.com.

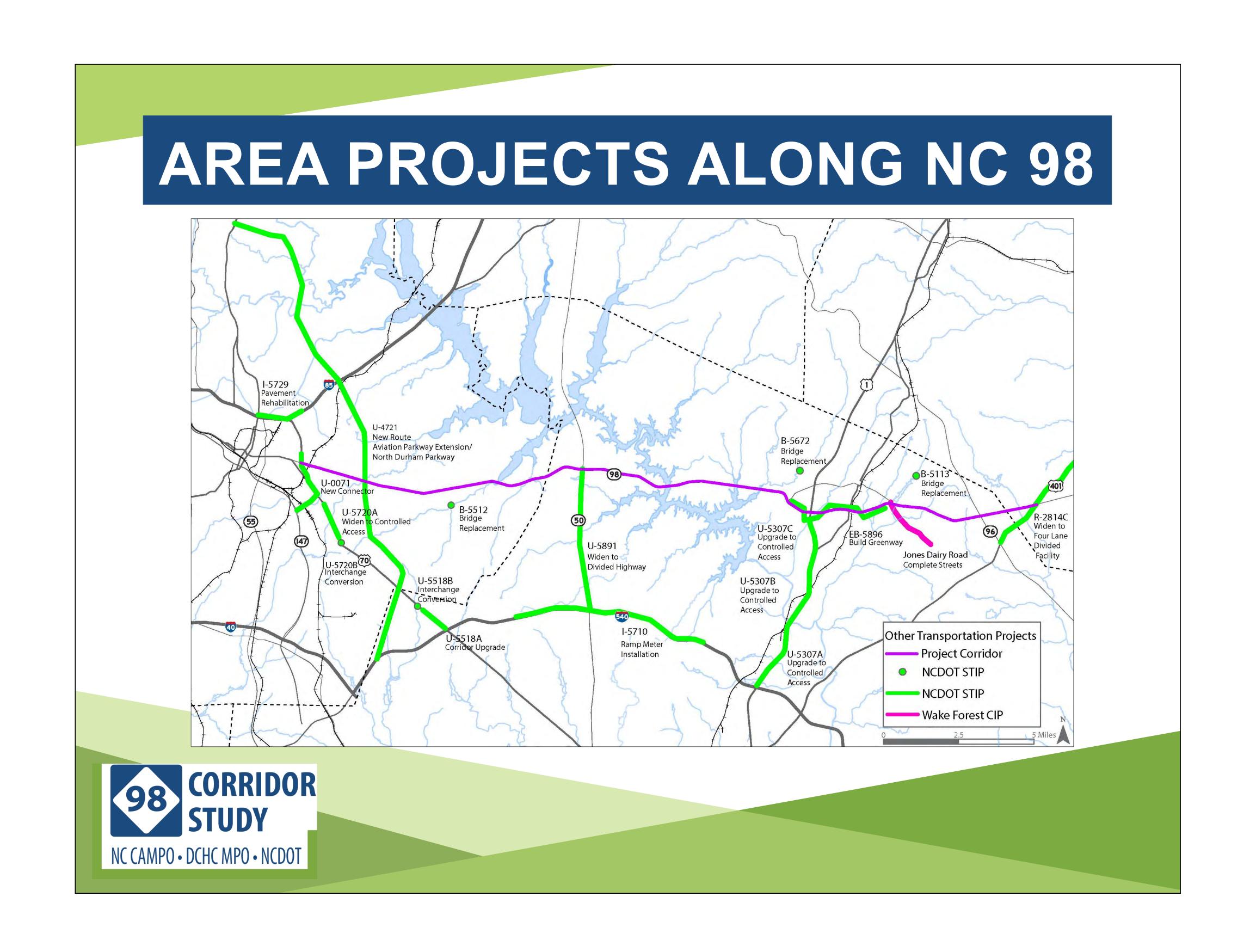
Name:	Home Zip Code:
Email:	Work Zip Code:
1. How did you hear about this workshop?	/TV Project Website
Social Media Nextdoor Website	_ <i>,</i>
2. How often do you travel on N.C. 98? Daily Five days a week	C Once a week
☐ A few times a month ☐ A few times a year	ar Prefer not to answer
3. Did you attend or participate during the S for this project? \[\sum \text{YES} \square \square \text{NO} \]	September 2017 public participation period
4. After reviewing the project material pleas questions, or concerns in the space below.	

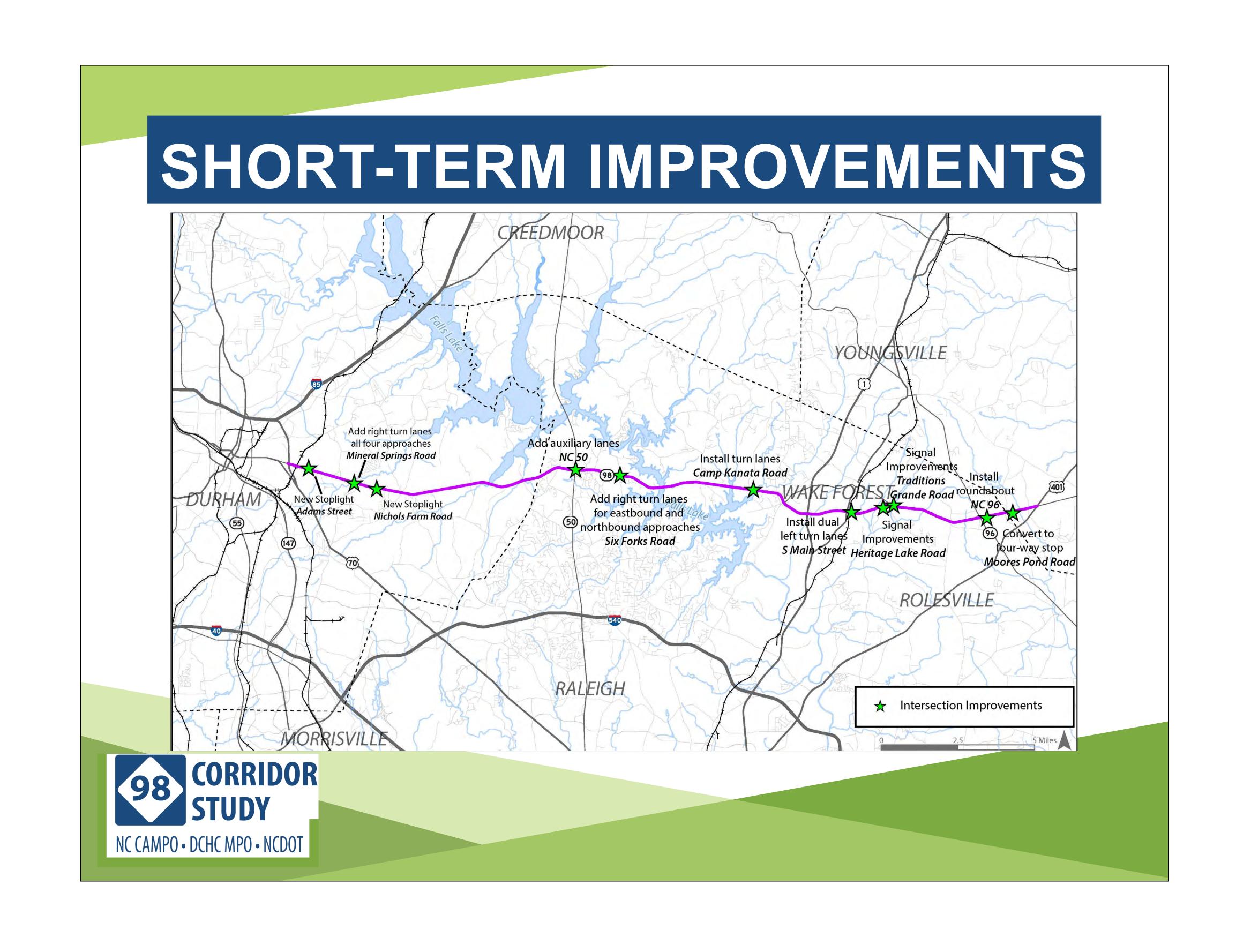
In accordance with person(s) shall be ediscrimination under (CAMPO) and/or Duactivities, based on	excluded from pa er any of the Cap rham—Chapel F	articipatio bital Area lill—Carr	on in, denie Metropolita boro (DCHC	d the bene an Plannin C) MPO's p	fits of, or sul g Organization rograms, po	bjected to on's licies, or
Completing this info	•			-		
Gender:			Have a l	Disability?		
Female	Male		Yes		☐ No	
National Origin: (if	born outside th	e U.S.)	Race/Ethn	icity:		
Mexican	Central Americ	can	White		Black/Africa	n American
South American	Puerto Rican		Asian		Hispanic/Lat	tino
Chinese	Vietnamese		Native F	Hawaiian/	American In Alaskan Nat	
Korean	Other:		Other:	Siariuei	Alaskali Nal	ive
Total Household In	come:					
Less than \$12,000	<u> </u>	2,000—\$1	9,999	\$2	0,000—\$30,99	9
\$31,000—\$46,999	\$4	7,000—\$6	9,999	\$7	0,000—\$93,99	9
\$94,000—\$117,999	\$1	18,000 or (greater			
Age: Less than 18	<u> </u>	30-4	4	45-64	<u> </u>	5 & older
		Strongly Agree	Somewhat Agree	t Neutral	Somewhat Disagree	Strongly Disagree
Informational boards appropriate project	•					
Do you feel public input into proposed imp	•					
I left the meeting informed 98 Corridor S						

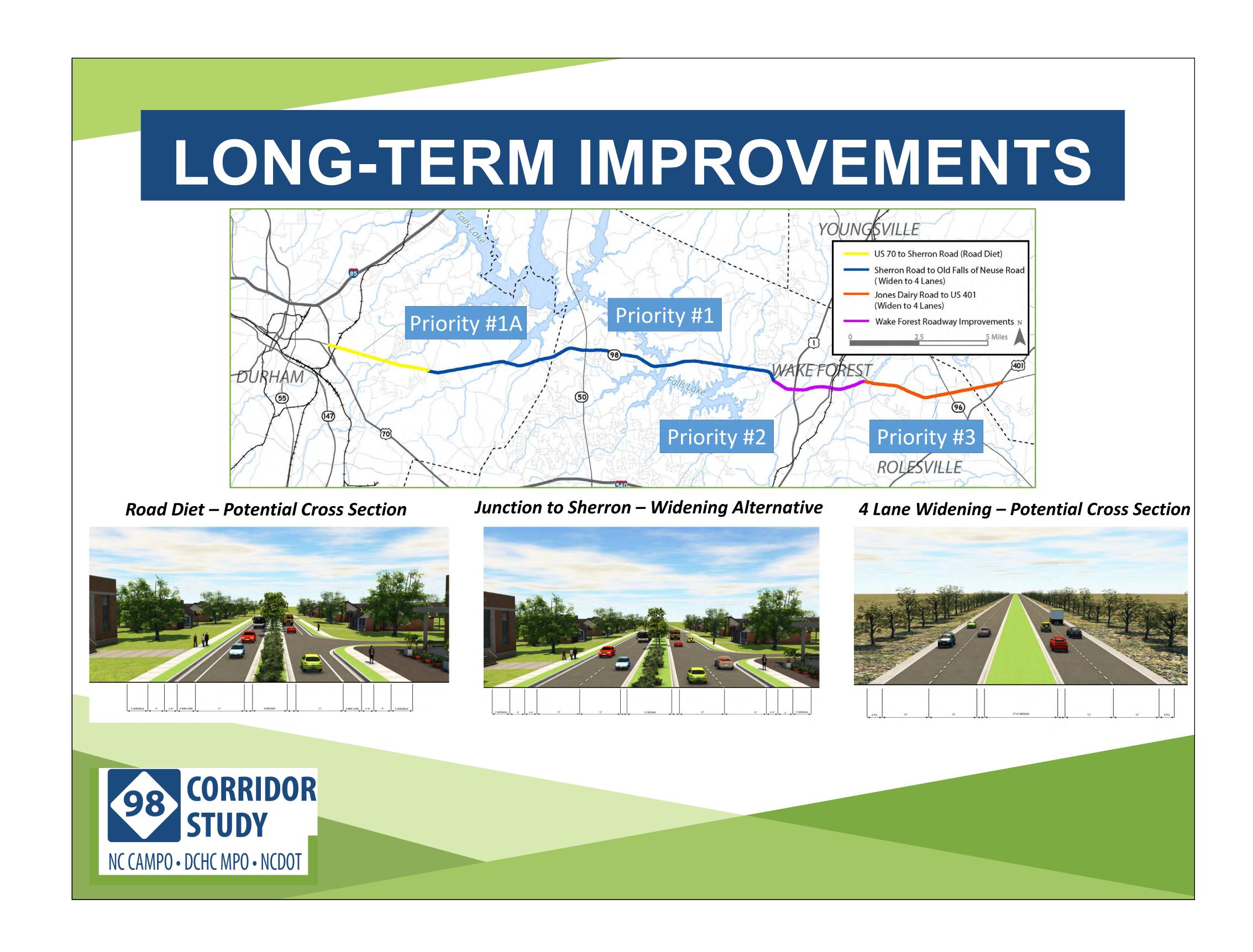
Thank you for your participation! Visit the website, www.NC98corridor.com for more information on this project.





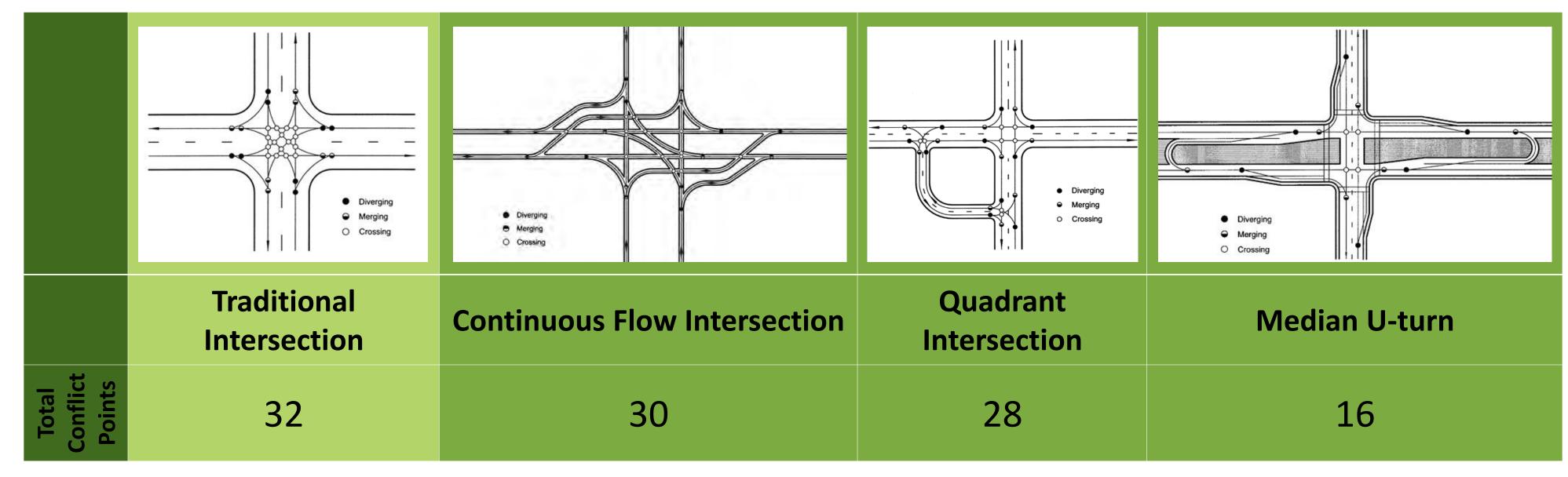






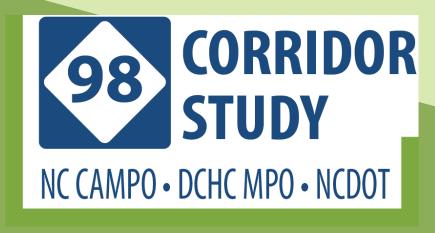
INTERSECTION TREATMENTS

INTERSECTION CONFLICT POINTS



Indirect Left-Turn Treatments:

- Remove the left-turning vehicles from the flow of traffic without causing them to stop in a through-traffic lane (as a traditional intersection may)
- Improve safety by reducing the number of conflict points as shown above
- Reduce the number of signal phases to provide more green time for traffic
- Increase capacity



POTENTIAL FUNDING SOURCES

NCDOT Transportation Improvement Program	Other NCDOT Funds	MPO Local Project Funds	Municipal Funds	Grants	Developer
 Sherron Road to Old Falls of Neuse Widening Old Falls of Neuse Road to Jones Dairy Road Intersection Upgrades Jones Dairy Road to US 401 Widening Sherron Road Widening NC 98 to US 70 (needed for road diet) Northern Durham Parkway NC 98 to US 70 (needed for road diet) 	 Forks Road Turn lanes at Mineral Springs Road Traffic signal at Adams Street Auxiliary Lanes on NC 98 at NC 50 	 Oak Grove Elementary School Sidewalk Gap Sherron Road to Neal Middle School Multi- use Path Intersection improvements at S. Main Street Intersection improvements at Jones Dairy Road and Traditions Grande Intersection improvements at Old falls of Neuse Road Turn lanes at Six Forks Road 	 US 70 to Sherron Road road diet Signal improvements at Heritage Lake Road and Traditions Grande Pedestrian bridge over NC 98 Sidewalk improvements from US 70 to Sherron Road Transit stop improvements 	Pedestrian bridge over NC 98 Sidewalk improvements from US 70 to Sherron Road Transit stop improvements	 Quadrant Roadway at Sherron Road Turn lanes at Camp Kanata Road Intersection improvements from Old Falls of Neuse Road to Jones Dairy Road Friendship Chapel Road extension

^{*} Projects may be funded via a variety of sources and/or led by varying agencies





UPCOMING PUBLIC MEETINGS:

Wake County Location: Thursday, April 12, 2018 5:00—7:00 p.m. Wake Forest College Birthplace 405 N Main St Wake Forest, NC 27587

Project Website: www.nc98corridor.com Follow CAMPO & DCHC on social media

#NC98study

Durham County Location: Monday, April 16, 2018 5:00—7:00 p.m. Durham County Library 211 Lick Creek Lane Durham, NC 27703

Project Manager: Will Letchworth, PE

WSP

Phone: 984-269-4652

Email: will.letchworth@wsp.com

PROJECT DESCRIPTION:

Together, the Capital Area Metropolitan Planning Agency (CAMPO), the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), and the North Carolina Department of Transportation (NCDOT) are studying the N.C. 98 corridor from U.S. 70 in Durham County through Wake County to U.S. 401 in Franklin County, North Carolina.

This study will evaluate the <u>safety and mobility</u>, <u>planned and existing roads</u>, <u>bicycle/pedestrian</u> <u>facilities</u> and <u>transit uses of N.C. 98</u>. The study limits will be approximately a quarter mile (1/4) on either side of the 27-mile section of N.C. 98.



A corridor study is the first step in planning for the future of a transportation facility. By defining the corridor's needs, the corridor plan will help focus planning efforts on the most significant problems and act as catalyst for discussion about how best to invest in the corridor.

PROJECT UPDATE:

The first and second phases of public engagement were conducted in spring 2017 and fall 2017. During those periods the Project Team solicited public input to develop the priorities and vision for the N.C. 98 corridor. After reviewing forecasted traffic for the corridor, the Project Team identified short-term and long-term improvements.

PROJECT UPDATE:

The map below represents long-term improvements. The long-term projects include widening NC 98 between Sherron Road and Old Falls Neuse Road, and Jones Diary Road to US 401. Widening the corridor more than four lanes is not warranted; however, the intersections will be redesigned to optimize the flow of traffic. Several intersection treatments are being evaluated that would improve traffic flow throughout the corridor.



Road Diet - Potential Cross Section



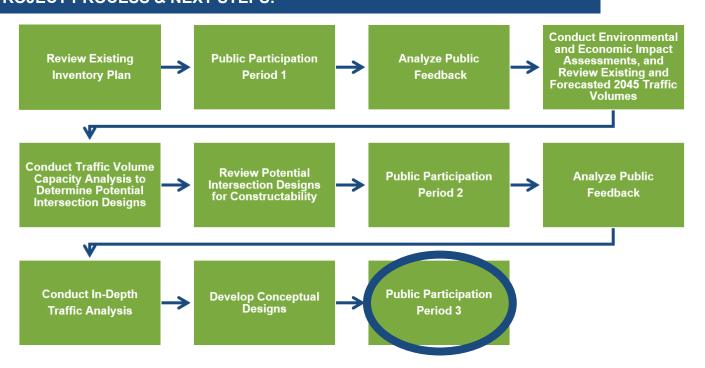
Junction to Sherron - Widening Alternative



4 Lane Widening - Potential Cross Section



PROJECT PROCESS & NEXT STEPS:





N.C. 98 Corridor Study April 2018

WF 4/12/18

Name	Organization	E-mail
Ton Shuson		TONSTING NC. RR.CON
Chris Stark		dopey @nc.rr.com
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Delbert + NAKK, Ruther Ford		delrutherrowl PG Mail, Coucc.
Paul May		Ptmay, no egmail.com
DC MATHENY		durunksmathem Dembargmail. "
MARK Nº 6/64		Manccolley @ yphoo, com
Javid Leane	The sate	DAVID (S) WAKE WEEKLY, COM
Max Fethers		mart patta embarg mailie m



CORRIDOR N.C. 98 Corridor Study NCAMPO DCHC MPO NCDOT

WF 4/12/18

Name	Organization	E-mail
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Jetske Insinger	S A B	Jetske a Swbell. net
Fred Seymony		Fred Symon Papuai
College: Thomas Staufe	residents	sharpeem (Deaithlinkinet
Un Bruce	Renderth	Cbruce @ icloud. com
61RARD + SANDRA HUNT	RESIDENT	Sandy F1960 @ MSN, COM
Ken Krase	Residant	KKrause 512@gmail.com
Blak #KIM HAMUIN	Resident	Spangler. Kin Ramail. con
Sue Anglo	Resident	Sas377@ gmanh.com
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STUDY N.C. 98 Corridor Study **April 2018**

WF 4/12/18

E-mail	XI Y2H3QARISARIAN OF						
Organization		salf/sound	50/4	resident			
Name	Stad S Aron	Forme McCay	LOWEll BONNETH	David Jewse			



CAMPO DCHC MPO - NCDOT | April 2018

WF 4/16/18

Name	Organization	E-mail
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Marthelastin		Paddyse NTME @CMbergemail. Low
John Hearn		inearn 1000@q mail.com
(Paul Ducham)		PADUCHAMP & GMA! I, com
Doug KApplen		doug \$227 @ g 184; 1. cocac
Blase Thomass		
DIVIA JONES	7 mr glar	mayor e watestore the 1961
Chip Russell	Town T	crussell@waternestro.gov
MUTH GALANTA		SKYNBACH 2228 @ MSN, COM



CORRIDOR N.C. 98 Corridor Study April 2018

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E-mail	Heredth T. Q danwhile 30 gmail.com	>				
Organization	Roperty					
Name	JAN HILL					



CORRIDOR N.C. 98 Corridor Study **April 2018**

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E-mail	GEGFFREY. PHILLIPPE C GMAIL.COM	mlong 321 Eydhoo.com	Zata zachastnshoom	
Organization	Homeowner	Homeonone	HP3(
Name	GEOFFEEN PHILLIPPE	Would Long	Lack HAMlins	



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CORRIDOR N.C. 98 Corridor Study NCAMPO DCHCMPO NCDOT

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Name	Organization	E-mail
Angela Everhart	Resident	geverhart Onc, rr. com
0	RESIDENT	tom. snyder 1 @ Bmail. com
Ken Ever hart	Resident	mkednc.rr.com
Visa Mayrum	Risident	1, Sadmasthers & yahas. com
Phylls Snows	7	Obulles swan 42 @ value, com
Dacids Soured	RESIDENT	DASOLOHON BHINDSPRING, COM
Dasren Fredlen	Jesident	darren Q dafa.com
Carl + Barbara Lowe	Resident	Blowe 33750 @ aol, com
Labore Brown	Leadint	browntrustme @ asl. com



CORRIDOR N.C. 98 Corridor Study April 2018

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Name	Organization	E-mail
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Phyllis Wiley		
Shery/Andrews Michaer		beachlover 08040 grain com
JOANNE ANDERSON		
April Gra	DCHC MPO	AARON. GAN & DURHAMLIC. GOV
Mille o Marilan	D m B C	
Madodans (Fryd		DAVIDS & DEITRIFADS, LOA
(LE Made)		
Jones. Horde	Grove Park Resident	greentean enc. m. com



CAMPO DCHC MPO - NCDOT | April 2018

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Name	Organization	E-mail
Rebecca Belcastro Phil Martin	Home Owner	h20f12@gmail.com
Welbert Snow	1/ "	
Hady Henry	10 CHE MOO	
Richard ODonnell	Homeowner	richodsplace gmail, com
Len Hubbans	Homeournox	lem. hubband @ 9 mall, com
DOXIND HOSELT	11 11	DONNISHOSCHOGNOIL, OF
Catherna Foss	" (compar	ctoss edusancir.com
Ros Fix	Meann	ROBERTR FISH @ Gmail
Amell Kery	Home owner	lady frella hotmail. com

Agency Public Information Officer List

AGENCY	CONTACT NAME	POSITION	EMAIL	PHONE
Durham County	Deborah Craig-Ray	Public Information Office	PublicInformationOffice@dconc.gov	919-560-0000
Durham County	Briana Khan	Public Information Specialist	blaneuville@dconc.gov	919-560-0003
City of Durham	Amy Blalock	Senior Public Affairs Specialist	amy.blalock@durhamnc.gov	
City of Durham	Lynwood Best	Community Engagement Manager	lynwood.best@durhamnc.gov	919-560-1647
Greater Durham Chamber of Commerce	Mrya Wooten	Director of Public Relations & Communications	mwooten@durhamchamber.org	919.328.8722
Go Durham				
Wake County	Dara Demi	Communications Director	Dara.Demi@wakegov.com	919-856-7547
City of Raleigh Chamber of Commerce	Vernessa Roberts	VP of Communications	vroberts@raleighchamber.org	919-664-7080
Go Raleigh			goraleigh@raleighnc.gov	
Go Triangle	Juan Carlos Erickson	Community Engagement Manager	jerickson@gotriangle.org	919-485-7569
Research Triangle Park	Michael Pittman	VP of Marketing & Communications	pittman@rtp.org	919-654-1708
Town of Wake Forest	Bill Crabtree	Communications & Public Affairs Director	bcrabtree@wakeforestnc.gov	919-435-9421
Wake Forest Area Chamber of Commerce	Neosha Smith	Communications Director		
Wake Forest Downtown Inc.			Communications@WakeForestDowntown.com	
Franklin County	Angela Harris	County Manager	alharris@franklincountync.us	

Franklin Chamber of Commerce	Cindy Cavender	Special Events/Marketing Director	Cindy@www.franklin-chamber.com
Triangle J COG	Alana Keegan	Engagement Specialist	akeegan@tjcog.org
Town of Rolesville	Bryan Hicks	Town Manager	bryan.hicks@rolesville.nc.gov
Hispanic Chamber of Commerce			info@nchispanicchamber.org
Research Triangle E- blast	Lisa Jemison	Director of Company & University Engagement	jemison@rtp.org

Media Contact List

ORGANIZATION	CONTACT NAME	EMAIL
ABC 11 Raleigh/Durham		news@abc11.com
CBS NC		newstips@wncn.com
WRAL		sent via website
Herald Sun		news@heraldsun.com
The News & Observer	Madison Iszler	miszler@newsobserver.com
The Wake Weekly	David Leone	david@wakeweekly.com
The Wake Weekly	Todd Allen	todd@wakeweekly.com
Que Pasa		kneyra@quepasamedia.com

#	Status	Sub- mission Date	First Name	Last Name	Agency/ Affiliation/ Business	Zip Code	Email Address	Submission Content/ Notes	Submission Method	Referral Source
1	No Action Required	2/24/17	Shelby	Powell	CAMPO	27601	shelby.powell@campo- nc.us		Website	Other
2	No Action Required	3/8/17		Rubrecht			rubrechtg@pbworld.com		Email	
3	Unread	3/9/17	Sarah	Woodring	Ms.	27705	sringwood@yahoo.com	There is a real need for sidewalks on the Western section of 98 within the Durham city limits there are lots of 'goat paths' where people are trying to navigate with no side walks in the more heavily populated areas. I would love be able to bike from Durham to Wake Forest, or places in between, but the road is not conducive for this right now.	Website	Email
4	Unread	3/10/17	Scott	Blum	none	27587	scott.c.blum@abc.com	Please, Please widen Route 98 between WF and Durham. I live in WF, work in Durham and travel 98 each day for twelve years. The route needs to be widened ASAP. I see more congestion and wrecks every month. it is quickly approaching unpassable many days due to over crowding of cars. if should have been done five years ago.	Website	Social Media
5	Unread	3/10/17	Branson	Speakman	Ethan's Glen	27614	Branson.speakman@ab bott.com	I do not want to see hwy98 widened. This is only going to add to more traffic, more congestion and more noise for the surrounding neighborhoods. Everyone moved up into this area to avoid this exact scenario. I understand with growth things change, but I would rather see us look at other means to improve the flow of traffic, more turning lanes, lights, etc., versus just widening the road. The only time it presents a problem is morning and afternoon rush hour.	Website	Social Media
6	Unread	3/10/17	Shana	Fore		27587	shfore@gmail.com		Website	Other
7	No Action Required	3/10/17	Brian	Dallas		27587	dogtrainer67@gmail.com		Website	Social Media
8	No Action Required	3/10/17	Dana	Peles		27587	dpeles11@gmail.com		Website	Social Media
9	No Action Required	3/10/17	Janice	Maddox		27587	jmaddox1@nc.rr.com	So much growth in the area it definitely needs 4 lanes, turnouts and turn arounds so flow of traffic is not compromised by folks pulling out of subdivisions and/ or traffic signals to get them out.	Website	Social Media
10	No Action Required	3/10/17	Linda	Woodall		27614	lwoodall321@gmail.com	Would like updates on 98	Website	Social Media

11	No Action Required	3/10/17	Rick	Carnagey		27587	carnagey@yahoo.com	Camp Kanata road is in dire need of a left turn lane from Hwy 98. It is the most dangerous part of 98. Lives will be lost there, it's just a matter of time. Something needs to be done ASAP there.	Website	Word of Mouth
12	No Action Required	3/10/17	Sheryl	Michael	Land Owner	27587	beachlover0804@gmail. com		Website	Other
13	No Action Required	3/10/17	Brad	Mastillone		27587	Bmastillone@nc.rr.com		Website	Social Media
14	No Action Required	3/10/17	Karen	Hyman		27587	karen_hyman@yahoo.co m		Website	Social Media
15	No Action Required	3/10/17	William	Davis		27587	Wdavis026@gmail.com		Website	Social Media
16	No Action Required	3/10/17	Debbie	Dunn		27587	debbiekdunn@gmail.co m		Website	Social Media
17	No Action Required	3/11/17		Rhodes		27614	br914914@gmail.com		Website	Social Media
18	No Action Required	3/11/17	Martin	playford		27614	martin_playford@hotmail .com	Thanks for keeping us informed with this project.	Website	Word of Mouth
19	No Action Required	3/11/17	Jason	Waterstradt		27703	Jasonwaterstradt@gmail .com		Website	Social Media
20	Unread	3/11/17	James	Simone		27587	windheavennights@aol.c om	The NC 98 RT really needs to be expanded from 2 lanes to 4 lanes (2 on each side). I have taken the route from WF to RTP in the morning and it is pretty much a dead stop in the morning. A drive which should take 25 minutes took me about an hour. Most of the time I was just idling in the road, waiting for traffic to slowly move. By expanding the road to 4 lanes, this would remedy the situation. ALSO! Wake Forest is expanding rapidly, they are building new apartment complex right on the corner of Old Falls of the Nuese/Durhman/NC 98 road and this will further congest the area. They also plan to build a new hotel in WF as well as a new food market right across from the mentioned apartments. This will further congest all the streets during rush hour. I fear for what the future holds because we'Il be stuck in traffic for even longer now!!! Please expand the route!!	Website	Word of Mouth

21	No Action Required	3/11/17	Kathryn	Gavaghan		27587	Katielougav@yahoo.com		Website	Word of Mouth
22	No Action Required	3/11/17	John	Oldenburg	N/A	27587	oldygolden@aol.com	Between 6:30 to 9:30 am, westbound traffic from Wake Forest towards Durham is unbearably heavy, choked is not overstating it, between Thompson Mill (where four-lane 98 collapses to two lanes) and Old Creedmore. Traffics backs up severely at the lights on Stony Hill and Six Forks, and it takes several rounds of light changes to make it through. Contrarywise, between 3:30 to 7:00 p.m., eastbound traffic repeats the same experience at the same lights in reverse. During both these times of day with heavy traffic, making a left turn onto 98 without the benefit of a stoplight is very difficult, slow, and dangerous. (I don't do it but rather always turn right onto 98 and then turn left at some point and turn around on the side street so I am now oriented for a much easier and safer right turn in the direction I really wanted to proceed.) At least a four-lane highway (and preferably a five-lane with a turning lane) is called for ASAP for this stretch of road.Also, when driving westbound on 98 during the late afternoon-early evening busy time and facing this heavy traffic, I cannot for the life of me figure out when a protected left turn onto southbound Six Forks will be afforded. My experience is that almost always it is not, but I was (very pleasantly) surprised the other day when I enjoyed the opportunity of a protected left turn in face of the non-stop opposing traffic coming from the direction of Durham.	Website	Social Media
23	No Action Required	3/11/17	Beth	Dennison		27614	dennison.beth@gmail.co m		Website	Social Media
24	No Action Required	3/11/17	Ketan	Patel		27613	Patelkd01@aol.com		Website	Social Media
25	No Action Required	3/11/17	Scott	Mills	None	27587	smills66@ctc.net	I appluad you for taking this first step which I hope concludes with expansion plans for two additional lanes (one in each direction) given the present congestion in both directions in the morning and early evenning hours. With additional home construction under development at this moment without a doubt this road will become impossible and more dangerous. I cycled on this road back in 2007 and almost got hit thus I never ever would consider this road for cycling (I rode across the USA on a bicycle- 26 days/ 2,600 miles) without a scratch)! Consider a bicycle trail as well given this is a great scenic ride ans is healthy too. Please make the changes now not in 10 yearsof course I will probably have moved out of this area in 2027.	Website	Social Media
26	No Action Required	3/11/17		Marsh		27596	Gmarsh89@gmail.com	Love the ruralness of my drive, but the slow congestion during commuter hours has to go.	Website	Social Media
27	No Action Required	3/12/17	Mark	McCulley		27587	mamcculley@yahoo.com	I'm glad to see attention towards Hwy 98!	Website	Social Media
28	No Action Required	3/13/17	Rich	Niemi		27596	rich.niemi@gmail.com	Interested in plans for NC 98 regarding the commute/traffic from Wake Forest to Durham and back.	Website	Word of Mouth

29	Unread	3/13/17	Thomas	Carver		27587	greatstartinc@nc.rr.com	98 needs to be at least 4 or 5 lanes wide from 70 to 401. I see dangerous drivers passing other vehicles unsafely on the 2 lane portions of the road on a regular basis.	Website	Email
30	No Action Required	3/14/17	Will	Letchworth			will.letchworth@wsp.com		Personal Contact	
31	No Action Required	3/14/17	Paul	Black	CAMPO		Paul.Black@campo- nc.us		Personal Contact	
32	No Action Required	3/14/17	Andy	Henry	DCHC MPO		andrew.henry@durhamn c.gov		Personal Contact	
33	No Action Required	3/14/17		Byfield			byfieldbb@pbworld.com		Personal Contact	
34	Unread	3/14/17	michael	halas		27614	mh12409@gmail.com		Website	Email
35	Unread	3/14/17	David	Levey		27587	dlevey1970@gmail.com		Website	Other Event
36	Unread	3/15/17	Ed	Laggenbauer		27587	elaggenb@yahoo.com		Website	Social Media
37	Unread	3/15/17	Denis	Kingberg		27587	dkingberg@gmail.com	North Raleigh News	Website	Other
38	No Action Required	3/15/17	David	Shouse	City of Raleigh Parks, Recreation and Cultural Resources Dept.		David.Shouse@raleighn c.gov		Email	
39	No Action Required	3/15/17	Joel	Bateman	City of Raleigh Parks, Recreation and Cultural		joel.bateman@raleighnc. gov		Email	

					Resources Dept.					
40	No Action Required	3/15/17	Seth	Yearhout	City of Raleigh Parks, Recreation and Cultural Resources Dept.		seth.yearout@raleighnc. gov		Email	
41	No Action Required	3/15/17	William	Payne	City of Raleigh Parks, Recreation and Cultural Resources Dept.		William.Payne@raleighn c.gov		Email	
42	No Action Required	3/15/17	Matthew	Scheffel	City of Raleigh Parks, Recreation and Cultural Resources Dept.		Matthew.Scheffel@raleig hnc.gov		Email	
43	Unread	3/15/17	Tim	Johnson		27587	timjohns1221@gmail.co m		Website	Social Media
44	Unread	3/15/17	Tam	Ray		27703- 9594	Traylamp@yahoo.com		Website	Word of Mouth
45	Unread	3/15/17	Tim	Burnett		27614	timburnett11@yahoo.co m		Website	Other
46	Unread	3/15/17	Mark	Hildebrandt		27614	mark@thegardenkt.com	We need a middle lane to make left from and to. Four lanes with an additional turn lane would be ideal and really help traffic flow. Adding a bike lane would help keep bikers out of traffic as well. Many ears ago 98 worked well, but all the new homes in North Raleigh and Wake Forest have made 98 a traffic nightmare and it's that it now backs up in both directions, morning and evening. Hope this help, sorry I can't attend the Wake Forest meeting. Mark	Website	Email
47	No Action Required	3/16/17	Emily	Lucas			dazdeadpetal@nc.rr.com		Personal Contact	
48	Unread	3/16/17	Ron	King		27587- 5344	ron_king33067@usa.co m		Website	Advertisemen t

49	No Action Required	3/17/17	Vivian	Jones		r	mayor@wakeforestnc.go v		Personal Contact	
50	No Action Required	3/17/17	William	Bell	Mayor of Durham		bill.bell@durhamnc.gov		Personal Contact	
51	No Action Required	3/17/17	Phil	Bagliani				Called and spoke to Will on 3/17/17. Curious how to receive project information.	Telephone	
52	No Action Required	3/17/17	Maurice	Pentico	27587	3	mauricepentico@yahoo. com	I have been driving Hwy 98 each day to and from my job in Durham for over 15 years. And hopefully have another 15 more years to go. I drive during a less congested time period, but overall traffic is getting worse. Work needs to be done soon.	Website	
53	No Action Required	3/17/17	James	Solomon	27587	j	jtsolomon08@gmail.com	Traffic between Wake Forest and Durham is becoming so bad, it makes it nearly prohibitive for commuters. Thank you for looking at options to improve this. Ideally, there needs to be an interstate without housing turnoffs, stop lights etc. basically a direct route available.	Website	Other
54	No Action Required	3/20/17	Barbara	Brown	27712	<u>!</u>	browntrustme@aol.com		Website	Project Event
55	No Action Required	3/20/17	Rachel	Gaylord- Miles		Ç	gaylordmilesr@pbworld.c om		Personal Contact	
56	No Action Required	3/20/17	Mark	Hughes	27596		mkhughes90@gmail.co m	I recently saw an article in the N&O regarding the study and am offering the following comments. In the 11 years we have lived here there has been an exponentially in the volume of traffic between Wake Forest and US 401. The major bottlenecks due to the 2 lane highway are the interchanges at NC 96/98 and NC 98/US 401. The 98/96 interchange would greatly benefit from a true signal light with left and right hand turning lanes. I heard a roundabout is proposed and I think that would create further problems with all of the truck traffic that intersection sees. The roundabouts are also an accident waiting to happen. People can't handle the flashing stop and go and certainly will not be able to navigate a roundabout. THe NC 98/ US 401 intersection would benefit from a set of left turn lanes and to improve the existing right turning lanes. Some of these turning lanes are also used as a left turn lane but you have to cross traffic to get to them i.e. Coming south on 401 and crossing traffic just before the light to use that turn lane (which should only be a right turn lane from NC 98). This current setup is outdated and extremely dangerous with the higher volume of traffic experienced these days. Overall a 4 lane highway would solve the problem but that is a long way off but intermediate improvements to these 2 intersections with multiple lanes leading to the intersection would go a long way.	Website	Other
57	No Action Required	3/21/17	Chris	Lukasina		(Chris.Lukasina@campo- nc.us		Personal Contact	

58	Unread	3/22/17	Andi	Curtis		27587	acurtis@wakemed.org		Website	Word of Mouth
59	Unread	3/23/17	Joseph	Paulonis	none	27587- 5466	joefxp@yahoo.com	I attended the event in the Wake Forest Town Hall and was very disappointed in the presentation. There was no description of the designor construction: Lane width- Number of lanes- Non Vehicle lane descriptions- Cross walk criteria- Pavement construction detail (depth, material, layer materials). It appeared tome to be a ill prepared event to appear that community involvement was performed.	Website	Project Event
60	No Action Required	3/24/17		browntrustme @aol.com			browntrustme@aol.com	Thank you again for coming last night! I have looked up your parcel on the Durham County GIS, a screenshot is below, the red lines are the parcel lines and show you roughly where the limits of the right-of-way are. It appears that the right of way is about 100 feet wide in this area, which would be sufficient for a 4-lane roadway in this area. However, as you mentioned, it does appear that the right of way does come very close to the front of the existing house. As I mentioned at the meeting, toward the end of the summer we will have a much better idea of how wide the future roadway would be at this location. I will make sure that you receive email notification of the Sign-in at public meeting so that you can attend and we can discuss your property in detail.Thank you againWill Will Letchworth, PEWSP Parsons Brinckerhoff434 Fayetteville Street Suite 1500Raleigh, NC 27601Direct: 984-269-4652Mobile: 919-805-4900letchworthw@pbworld.comFrom: browntrustme@aol.com [mailto:browntrustme@aol.com] Sent: Thursday, March 23, 17 8:33 PMTo: Letchworth, Will <letchworthw@pbworld.com>Subject: NC98Study-5322 Wake Forest Hwy Durham NC 27703I attended the meeting held tonight at Reaching All Minds Academy located at 2703 Holloway Street in Durham NC. I spoke to you specifically about the property across the street from Neal Junior High School located on Wake Forest Hwy. You stated that you would take a closer look at this property and send some additional information as how this project may impact this property. I gave you the address of 5320 Wake Forest Hwy. The correct address is 5322 Wake Forest Hwy. Thank you for speaking to me tonight. My family and I greatly appreciate any additional information that you can provide to us.</letchworthw@pbworld.com>	Email	Project Event
61	No Action Required	3/25/17	Julie	Yoo		27705	juliemyoo@gmail.com	I am looking at homes in Hasentree, but will not purchase a home due to the immense amount of traffic in the morning, specifically taking the left turn onto Six Forks. The roads must be addressed in order for development to occur. It seems like the government does not care for the needs of its citizens if improvements are not scheduled until 2040. The need is immediate! Not only are people infuriated with the traffic but it is not safe for commuters. Increased number of accidents will occur and people will get hurt. Do something now.	Website	Search Engine
62	No Action Required	3/27/17	Sandi	Baker			Sandi.Baker@sas.com	From: Sandi Baker [mailto:Sandi.Baker@sas.com] Sent: Monday, March 27, 17 9:40 AMTo: Letchworth, Will <letchworthw@pbworld.com>Cc: Ruth Payne <rootsgroupnc@gmail.com>; Sandi & Mike Baker <mbaker1762@nc.rr.com>; Rubrecht, Genevieve <rubrechtg@pbworld.com>Subject: RE: Regarding http://nc98corridor.com/l can't thank you enough for your prompt response. That is exactly the information that we need, and we will be keeping a close eye on any updates and future meetings!Best,Sandi.From: Letchworth, Will [mailto:letchworthw@pbworld.com] Sent: Monday, March 27, 17 9:25 AMTo: Sandi Baker <sandi.baker@sas.com>Cc: Ruth Payne <rootsgroupnc@gmail.com>; Sandi & Mike Baker <rubrechtg@pbworld.com>; Rubrecht, Genevieve <rubrechtg@pbworld.com>Subject: RE: Regarding http://nc98corridor.com/Mrs. Baker,Thank you for your email. You are correct in that this is just the start of a long-term study. While we are just beginning the process of projecting future year needs and potential solutions, the current plans are for NC 98 to be widened to a 4-lane roadway. However, realistically by the time this study ends, the roadway is programmed into NCDOT's prioritization process, environmental studies, design, and construction are complete, you are likely looking at a minimum of 10 years for any widening on the corridor, and this section may not be the highest priority for widening so that timeframe could be considerably longer. As far as your property is concerned, looking at the right-of-way that is currently available (200+</rubrechtg@pbworld.com></rubrechtg@pbworld.com></rootsgroupnc@gmail.com></sandi.baker@sas.com></rubrechtg@pbworld.com></mbaker1762@nc.rr.com></rootsgroupnc@gmail.com></letchworthw@pbworld.com>	Email	

7

								feet), it is very unlikely that additional property along NC 98 would be needed for any improvements in the foreseeable future. The only place that I see where some additional right of way might possibly be needed, would be along Coley Road on your western property line for any improvements to the NC 98 / Coley Road intersection. However, any additional ROW there would likely be very minimal. As far as our study is concerned, we will be going back out to the public at the end of the summer with some options for the corridor. I will enter your email into our database to make sure you are notified of the future meetings and are kept abreast of the study. If you have any questions or need any additional information, please do not hesitate to reach out to me at any time, I am more than happy to help you any way I can. Thank youWill Will Letchworth, PERaleigh Office LeadWSP Parsons Brinckerhoff434 Fayetteville Street Suite 1500Raleigh, NC 27601Direct: 984-269-4652Mobile: 919-805-4900letchworthw@pbworld.comln May 17, WSP Parsons Brinckerhoff will rebrand as WSPFrom: Sandi Baker [mailto:Sandi Baker@sas.com] Sent: Monday, March 27, 17 8:02 AMTo: Letchworth, Will <:letchworthw@pbworld.com>Cc: Ruth Payne <rootsgroupnc@gmail.com> Sandi & Mike Baker <mbaker1762@nc.rr.com>Subject: Regarding http://nc98corridor.com/Hello Mr. Letchworth, Can you tell me whether a recording or minutes from your March 24th meeting are available? My husband and I are in the process of preparing an offer to purchase for property at 7912 Wake Forest Hwy (http://maps2.roktech.net/DurhamNC_GoMaps/temp/GoMapsReport_674619.pdf) in Durham County, where we hope to build our home. We unfortunately found out about last week's meeting right after it had occurred. When we started looking at this property, I had exhaustively searched the NCDOT website and found nothing related to this Hwy 98 project, so I assume/hope that the timeframe for this is pretty far off. We have just two questions at this point: 1. I read your website and re</mbaker1762@nc.rr.com></rootsgroupnc@gmail.com>		
63	No Action Required	3/27/17	David	Batten		27587	dtbatten@gmail.com		Website	Word of Mouth
64	No Action Required	3/29/17	Paul	May			ptmay.nc@gmail.com		Sign-in at public meeting	
65	No Action Required	3/29/17	Brian	Pate			brian@patereality.com		Sign-in at public meeting	
66	No Action Required	3/29/17	Margaret	Stinnett	Wake Forest Commission er		mstinnett@wakeforestnc. gov		Sign-in at public meeting	

67	No Action Required	3/29/17	F	Bartholomew			got2beebalm@yahoo.co m	р	ign-in at public neeting	
68	No Action Required	3/29/17	Shannon	Burnett			shannonburnett1@yahoo .com	р	ign-in at public neeting	
69	No Action Required	3/29/17	Jason	Williams		27703	shonda8@msn.com	W	Vebsite	Other Event
70	No Action Required	3/29/17	Matt	Strawbridge	Wake Forest Fire Department		mstrawbridge@wakefore stfire.com	p	ign-in at public neeting	
71	No Action Required	3/29/17	Lisa	Jennings	Bedford HOA (50/98 Area)		lisaann721@gmail.com	р	ign-in at public neeting	
72	No Action Required	3/29/17	Kathy	Stanford	The, Inc		kstanford@theinc.net	p	ign-in at public neeting	
73	No Action Required	3/29/17	Danny	Johnson	Town of Rolesville		danny.johnson@rolesvill e.nc.gov		ersonal Contact	
74	No Action Required	3/29/17	Durward	Matheny			durwardmatheny@emba rqmail.com	р	ign-in at public neeting	
75	No Action Required	3/29/17	Louis	Guillama	Coastal Credit Union		lguillama@coastalfcu.org	р	ign-in at public neeting	
76	No Action Required	3/29/17	Eric	Keravuori	Town of Wake Forest		ekeravuori@wakeforestn c.gov	р	ign-in at public neeting	
77	No Action Required	3/29/17	Daniel and Pat	Carnie			sweerdeatpat@yahoo.co m	р	ign-in at public neeting	
78	No Action Required	3/29/17	Marcus	Bryant			marcusray67@gmail.co m	р	ign-in at public neeting	

79	No Action Required	3/29/17	Daryl	Vreeland	Town of Wake Forest		dvreeland@wakeforestn c.gov		Sign-in at public meeting	
80	No Action Required	3/29/17	Todd	Allen	Media - Wake Forest Weekly		todd@wakeweekly.com		Sign-in at public meeting	
81	No Action Required	3/29/17	Lisa	Hayes	Wake Forest Downtown Inc		lhayes@wakeforest.gov		Sign-in at public meeting	
82	No Action Required	3/29/17	Donald	Belk	Town of Youngsville		dbelk@townofyoungsvill e.org		Sign-in at public meeting	
83	No Action Required	3/29/17	Peggy and BH	Powell			cattail.branch@gmail.co m		Sign-in at public meeting	
84	No Action Required	3/29/17	Betty	Thomas			bbloomersfarm@gmail.c om		Sign-in at public meeting	
85	No Action Required	3/29/17	William	Bagliani			castlefrenchfarm@gmail. com		Sign-in at public meeting	
86	No Action Required	3/29/17	Leslie	Tracey	City of Durham		leslie.tracey@durham.go v		Sign-in at public meeting	
87	No Action Required	3/29/17	Ellen	Beckmann	City of Durham		ellen.beckmann@durha m.gov		Sign-in at public meeting	
88	No Action Required	3/29/17	David	Keilson	NCDOT		dpkeilson@ncdot.gov		Sign-in at public meeting	
89	Unread	3/31/17		Shaffer	Secretary for Homeowner s Association	27614	cshaffer@nc.rr.com	We drive to Durham to every day on #98 and it is extremely dangerous. People drive too fast and pass you. From many roads accessing #98 it is difficult to make a left turn, particularly Olive Branch Road. It should also be policed more often for speeders.	Website	Word of Mouth

٤	90	Unread	4/5/17	education school	educational websites	9	154243	klasoonmuhlhy@gmail.c om	I truly love your site Excellent colors & Did you make this amazing site yourself? Please reply back as I'm hoping to create my own blog and would love to learn where you got this from or what the theme is named. Thank you! http://learninghints.eu	Website	
Ş	91	Unread	4/6/17	Tim	Burnett		27614	timburnett11@yahoo.co m	In regard to the proposed highway 98 widening I wanted to submit the following comments: 1. The investment to widen the road is not needed as the road is actually under capacity during most of the day with the exception of a short time when people are going to / from work. The significant expense using tax dollars would not be worth the required investment.2. The environmental impacts along the Falls Lake watershed would be significant. This is critical given that Falls Lake supplies drinking water for the city of Raleigh. Additionally wildlife habitats would be in danger if the road is widened.3. Alternate, environmentally friendly alternatives should be deployed to solve for the short periods that the road is busy.4. Neighborhoods and houses along uthe road would be negatively impacted by the increased noise, air, and environmental pollution levels. As you look at the assessment, please keep the road as-is with the exception of adding lights at certain intersections where accidents tend to occur and potentially adding turn lanes at heavier intersections. Thank you for your consideration. Sincerely, Tim and Shannon Burnett	Website	
	92	Unread	4/11/17	Michael	Pollock		27713	michael_pollock@yahoo.	Hello, I sent this message to Will Letchworth, but maybe it was not received because of the email address I sent it from. I will also try using the map. I am trying to point out hazards and points of interest in the NC 98 corridor, and I think there is a roadkill problem, and the DOT could do something about it, but probably will refuse to even post a sign where large animals are known to cross roads, endangering both wildlife and drivers. In addition, while the DOT should not spread catastrophic forest pests, I think it does not care if its construction work does this, unless prohibited by law and someone could report a violation. Ideally, I would like some upgrades along 98 and 50, but there should also be more alternatives to driving. In other countries even rural areas have train and bus service. What I sent about a week ago: Hello, I have some comments about the NC 98 corridor. When I first visited thewebsite, the interactive map might not have been available. It lookslike I have to move the map to move the marker, so maybe I will addcomments later on. I&39;m not sure how much anonymity there is on such acrowdsourced map or how much I can enter on the map. I worked in that area for a few years and drove almost daily on 98, 50, and nearby roads. I saw the traffic problem on 98 at certain times. Traffic backs up going west in the morning around New Light Road (andthe sun makes it hard to see driving east) and maybe at Stony Hill Road, while there is non-stop traffic east bound in the evening. Trafficbacks up early one morning every fall or winter when there is areligious relay of some kind, and while there is a police escort for thevans dropping runners off, it would be nice if there were a warning thatcommutting would be interrupted. The 98 corridor also seems to have aproblem with roadkill. I am amazed at the hazardous design of 50. Highway 50 has a high speedlimit, and people drive even faster, including heavily loaded trucks anddump trucks, but there are many ridges, so there is limited visibility, and n	Website	Other

lanes on 50. 1'm also amazed by the roadkill issue in the 98 corridor, especiallywest of the more built up area in Durham, and I don't think it can be explained away by saying there is more wildlife and more high-speedtraffic along 98. The DOT should be able to determine where roadkill isfrequent and do something to reduce it everywhere, or at least warnpeople to watch out, but apparently won't. Entire lanes of 98 arepainted red after a deer is hit and vultures coming to large deadanimals are also sometimes hit, possibly purposefully, compounding theawful situation, and this is something I don':t often see where I live insouthern Durham. Black vultures, which are very common around 98, mightbe becoming rarer in NC, or were of concern. At night there is so muchtraffic that it would be hard to see an animal on the road because of the glare from continuous eastbound traffic and the darkness. Deeroften cross in certain areas, but this is not marked. I was alwayscareful passing a nursery on 98 and west of Laurel Creek and Boyce MillRoad, where it seemed like I frequently saw one or more deer cross in the morning or during the day. A gray fox crossed east of the there on weekend morning and lived. One afternoon it snowed and many cedar waxwings that must have beendrinking at a puddle in the ice on Old Creedmoor Road just north of 98were hit. I don't understand how traffic could have been going fastenough over solid ice to accidentally hit these birds. Two dead catslay close together on the center line of 98 further west for somethinglike 6 months or maybe even longer. I will sometimes remove deadanimals from the road, such as a barred owl lying in the gutter on thewest side of Miami Boulevard, but it isn't my job and there is a churchand houses there, yet they left these cats were left in the road infront. A dog was injured just west of Old Creedmoor, but may have gotten medical attention. The ponds bordering 98 east of Sherron Road result in a roadkillproblem, especially in early summer. In that area I moved a largeyellow-bellied slider across the road (the only time I saw someone elsestop for wildlife on 98), I took an injured painted turtle to arehabilitator (I think it lived despite being badly injured), and Ithink I moved a snapping turtle at least once, but then it probably cameback and was killed anyway. I was afraid that I would come across alarge snapping turtle and not be able to move it. In many cases thereis a brief summer downpour at 4 or 4:30pm followed by sun, bringing turtles on to the road there just as traffic increases around 5:30. Turtles are most abundant on 98 from around May, possibly as early asApril, to about July. A large snapping turtle was dead in the turn laneto a store on the north side of 98 east of Sherron. West of OldCreedmoor there was hardly any traffic, but I waited on the shoulder fora woman going west before getting a small box turtle out of road, butsomehow she came within 2 or 3" of hitting it. West of Lick Creek a boxturtle basically ran into the road from the north as I went by and wascrushed by following cars before I came back. A large rat snake crossedsouth in that area one summer morning and lived. Further east nearLaurel Creek a black snake was on the center line around 5:30pm on aweekday and I thought it might live if I left it alone, and might gointo traffic if I tried to move it, but when I came back the next day, it had been killed, I think intentionally. Two box turtles feet apartwere killed on the east side of Sherron Road a ways south of 98(probably south of Holder Road), though maybe I could have saved them if I had picked them up after they were first hit and bleeding profusely. Deeper ditches along the road might discourage reptiles from enteringthe road and fences would probably discourage larger animals. The first kingsnake I saw might have been one I found dead on the eastshoulder of Baptist Road north of Southview Road. I also had to movebox turtles on Baptist Road and there might be a lot of wildlifecrossing at the west end of Southview Road. There is not particularly heavy traffic on Baptist Road, but people speed a lot on this windingroad and kill turtles anyway and the shoulder is narrow. Cyclists oftenform groups on Baptist, blocking the road so that it is not possible topass legally, but I was working and couldn':t follow them until the endof the road. I bicycle and know that drivers often mistreat cyclists and pedestrians, but I think cyclists intentionally and unnecessarilyinterfere with drivers in that area and many cyclists enter Falls LakeState Park there. I' ve also seen this happen near Eno River State Park, west of Durham. Creedmoor has a lot of problems. I tried to go slowly in themorning, but I still probably killed two gray squirrels separately atthe wooded bend near 50. I thought I hit them, but they still

got offthe road, so I am not completely sure. Apparently unlike many people, if I hit a somewhat large animal, I usually try to find out if it can besaved and I move dead animals off the road. Another problem is that squirrels cross the road to pecan trees at a house near 98 in the fall. I found a mother possum dead at the bend. I moved a young rat snake offthe road near 98. It is hard to enter and leave the shopping centernortheast of 98 and Old Creedmoor using Old Creedmoor. There is a deephole on Old Creedmoor because people go around a barrier. Visibility islow because of ridges and there isn't much of a shoulder on 50 betweenOld Creedmoor and 98, and there is a lot of litter. I think somethingblew out of my work vehicle there, but I could not retrieve it. I also hit an animal, maybe a rabbit, as I went north at the bend on Sherron near Karen Drive and Pasture Lane when it was completely dark in the morning because DST had just begun or ended, and I consider that ahazardous area where I should always slow down, though other driversprefer to speed to 98. I think I hit a sparrow or finch on Sherron and I may have hit two birds, one a mockingbird, on 98 and I regret it, though I also couldn't react in time. I thought I saw a piece of woodhit my windshield east of Laurel Creek, but a flying animal might makemore sense. Unfortunately I had to drive a kind of tall, white vehicle for work, which seemed to attract butterflies and carpenter bees in the spring and summer and I generally couldn't avoid them, and I consider this aroadkill problem as well. Because of weather conditions or some otherreason, there were very few butterflies of any species around in 2014, and hitting them doesn't help their numbers and is not pleasant. It is hard to enter and leave the recycling center hidden on the southside of 98 east of Stony Hill Road, on a hillside. think I recall that 98 closer to Wake Forest or further on has manyridges that might dangerously reduce visibility, but I haven't driven inthat area very recently. moved a slider across 50 at the Falls Lake visitor center entranceafter a low red sports car wounded it slightly and I moved others offthe road north of the Lake. I saw a stray Rottweiler south of the Lakeor nearby and thought it would be fine, but later it lay crushed northof the Lake. There are often furry remains on the causeway over the Lake, and they lay there a long time. I was curious what they were, butcouldn't park nearby easily. People sometimes stop on the causewayanyway, but the shoulder is narrow and traffic moves at a high speed. Ioften saw people pass three or more cars or trucks at a time during theday near the Lake. I get the impression that 50 has more daytimetraffic than 98, and people probably drive faster and more recklessly on 50 and race down the steep hills to the Lake, but there is also moretraffic entering and leaving 50 there. Traffic backs up on 98, but 50is more hazardous than 98. There were two times that I can remember when head on collisions closed 98 where a straight section crosses LickCreek, and 50 slowed down or closed a few times, sometimes preventing mefrom leaving work. There is or was a very large blackjack oak (Quercus marilandica) near98, on the north side, a little east of the intersection with New LightRoad, but I'm not sure if it is there anymore. It might not be thelargest one in North Carolina, but it could be the largest in WakeCounty or around Wake Forest. There is a nice large ash tree on the north side by a golf course, a short distance east of Neal Middle Schoolin Durham. The non-native emerald ash borer is probably present in thearea. so the DOT should not transport ash or fringetree wood out of thearea and risk spreading the beetles with the wood, though it it isunfortunately legal to do so (see ncforestservice.gov/forest_health/fh_eabfaq.htm). Tickseed and partridge peas should have been allowed to finish bloomingalong Sherron south of 98, though I don't think that was the DOT':sfault. There are unusual wildflowers in the grass along 50 that shouldbe left alone. A gravel road near where I live was paved, andwildflower diversity seemed to decrease, and has only increased againover many years.
It is hard to turn around on 98 except at major intersections. If carsare following me at a high speed, it feels unsafe to go into a poorlymarked side road or short turn lane. There are some pedestrians alongthe more rural part of 98 during the day. I wonder how people get totheir mailboxes along 98 and it is probably unsafe for mail trucks. People drive slower west of Baptist Road, but I was tailgated when Islowed down as the signs say by Neal Middle School and west of Sherronwhere the speed limit decreases to 45. Is the speed limit enforced bythe School?

							Many people jump off the New Light Road bridge over Falls Lake in thesummer, and they could be hit by boats or drown for some other reason. I sometimes drive down 98 to downtown Durham, and the majorintersections might not be well-marked. The first time I drove that wayl wasn't sure where I was, except that I was on 98. I think NC 55 iscalled Alston there, so I was confused, or maybe 98 is called onlyHolloway Street on 55/Alston. The turn lane from 98 eastbound on toSherron is better than it used to be. To encourage public concern for water quality, there should be signswhere 98 crosses named waterways, such as Lick Creek and Little LickCreek. If the crossing over Lick Creek were longer, maybe some animalswould cross under 98 instead of going over it. It would be a problem ifanimals couldn't migrate across roads, but it is harmful and troublingthat many animals are killed on the roads. Is it a problem for aquatic wildlife when salt put on roads due to snowwashes into creeks? While I worked in this area, I got a lot of damage to my windshield fromflying gravel. It seemed to be mostly from the Miami Boulevardcorridor, but possibly 98 and 50 contributed. I regret how I sometimes drove in the morning to get to work, but goinghome in the afternoon I was often tailgated for miles while going aroundthe speed limit between Old Creedmoor and Sherron. It is often notpossible to legally pass a slow-moving truck for miles on 98. The waypeople drive and the risk of hitting an animal or seeing a life anddeath situation or the resulting carnage, make me avoid 98, though Istill basically have to use it monthly in Durham. Is there a way to get people to ride buses or take light rail betweenRaleigh or Wake Forest and Durham, instead of driving on 98? I've heardthat building more roads only increases traffic over time, so improving98 could reduce traffic in the short term, but only result in moretraffic long-term. 50 definitely needs improvement for safety. There are some highways and roads in Durham and Chapel Hill o		
93	Unread	4/14/17		brooks	27703	jclaybrook@aol.com		Website	Word of Mouth
94	Unread	4/14/17		Armour	27703	wsarmour4@gmail.com		Website	
95	Unread	4/15/17	Kristi	Robison	27707	kristis@bpstudios.com		Website	Email
96	No Action Required	4/30/17	Veronica	High	27587	ronnihigh@yahoo.com		Website	
97	No Action Required	5/9/17	Tim	Burnett	27614	timburnett11@yahoo.co m		Website	

98	No Action Required	6/16/17	Rebecca	Freeman	none	27703	bfreemansouthview@gm ail.com		Website	Word of Mouth
99	Unread	6/17/17	Katie	Kovach		27703	katie.kovach@gmail.com	I just moved to this area from downtown, and have seen a lot of westbound traffic in the mornings, and eastbound traffic in the evenings. I also see many bikers through the area, often in large groups.	Website	Social Media
100	No Action Required	6/21/17	Patrick	Carr		27587	carrpx@gmail.com		Website	Social Media
101	No Action Required	6/28/17	James	Gregg	TWC	27587	jrgregg10@yahoo.com		Website	Project Event
103	No Action Required	7/20/17		Diver		27614	tinudiver@gmail.com		Website	
104	No Action Required	7/21/17	Heather	Bracci		27707	bracciheather@yahoo.co m		Website	Search Engine
105	No Action Required	7/29/17	Jonathan	Williams		27587	Jonathan@focusdesignb uilders.com		Website	
106	No Action Required	7/29/17	Lisa	Krahulec		27587	lkrahulec830@gmail.com		Website	Social Media
107	No Action Required	7/29/17	James	Tynfall		27587	jmtynda2@ncsu.edu		Website	
108	No Action Required	7/29/17	Bill	Segreve		27587	bsegreve@outlook.com		Website	Social Media
109	No Action Required	7/29/17	Kate	Alexander		27587	kathalex@centurylink.net		Website	Social Media
110	No Action Required	7/29/17	Barry	Swindler	Chiropractic Nutrition Clinic	27587	Drbarryy_2000@yahoo.c om		Website	Other

111	No Action Required	7/29/17	Lori	Eitel	27587	mommytomy3@gmail.co m		Website	Social Media
112	No Action Required	7/29/17	Melanie	Mottershead	27587	Melinnamibia@yahoo.co m		Website	Social Media
113	No Action Required	7/29/17	Becky	Bradley	27587	becky@planetb.org		Website	Social Media
114	No Action Required	7/30/17	Shannon	Settles	27587	Slsettles@gmail.com		Website	Social Media
115	Unread	7/31/17	Thad	Juszczak	27587	thadjusz@hotmail.com	I would like to be on the mailing list.	Website	Other Event
116	No Action Required	7/31/17	Dave	Robbins	27587	dmrobbin@gmail.com		Website	
117	No Action Required	8/6/17	Joanna	Mills	27587	Johnjoannamills@nc.rr.c om	I live on 98. Our property backs up to the Seminary and we have been wanting a sidewalk ever since we moved here in 1979.	Website	Word of Mouth
118	No Action Required	8/9/17	Tam	Ray	27703	Traylamp@yahoo.com	Please notify of next meeting(s).	Website	Word of Mouth
119	No Action Required	8/16/17	Jannice	Papo	27587	jannicepapo@nc.rr.com		Website	Social Media
120	No Action Required	8/24/17	Barbara	Brown	27712	browntrustme@aol.com		Website	Other
121	No Action Required	8/25/17	Pamela	Andrews	27703	Pamelaandrews3@gmail .com		Website	Social Media
122	No Action Required	9/16/17	Don	Webber	27587	donwebber67@yahoo.co m		Website	Search Engine

123	No Action Required	9/17/17	Laura	Wood		27703	lwood29@gmail.com		Website	Other
124	No Action Required	9/19/17	Corey	Chenoweth		27587	coreycheno@gmail.com		Website	Word of Mouth
125	No Action Required	9/19/17	Timmy	Baynes		27587	tbaynes73@icloud.com		Website	Social Media
126	No Action Required	9/20/17	Lew	Ashmore		27587	lew.ashmore@gmail.com		Website	Social Media
127	No Action Required	9/21/17	Charles	Clifton		27703	cclifton919@gmail.com	I attended the Sign-in at public meeting on 9/21 and provided comments about re-routing Stallings Road when planning to widen Sherron Road.	Website	Social Media
128	Action Completed	10/4/17	Nicholas	Weeks		27614	chad.weeks@gmail.com	This is not as much of a suggestion as it is encouragement on this project. 540 is a major issue on Falls Of Neuse Road. There have been a lot of proposed solutions but the only real solution is creating another E/W route to RTP/Durham for Wakefield and Wake Forest traffic. I think this is a great plan and I hope to see it move forward quickly. The home values in our area are suffering due to traffic concerns.	Website	Project Event
129	No Action Required	10/4/17	Martha	Guthrie		27587	mguthrie10@nc.rr.com		Website	Social Media
130	No Action Required	2/26/18	Geneviev e	Test	Ms.	28202	g.rubrecht@wsp.com	Test comment	Website	
131	No Action Required	3/8/18	Bonnie	Parker		27601	bonnie.parker@campo- nc.us		Website	CAMPO/DCH C's Website
132	No Action Required	4/2/18	Cassandr a	Johnson		27703	crenaejohnson@hotmail. com		Website	Other
133	No Action Required	4/9/18		Spring		27517	juli.spring@gmail.com	As an outdoor enthusiast, I enjoy using the Mountains to Sea Trail that intersects with Hwy 98 and comes close in other areas, and as an avid cyclist that has attempted rides in that area, I would love to see more lanes and bicycle lanes along that section of the highway. Falls Lake area is such a beautiful place to explore and there are many opportunities to ride from my home to the lake for camping weekends or looks that incorporate sections of Hwy 98 that could be made much safer with dedicated bike lanes. So much traffic and large vehicles with trailers.	Website	Email

								Date: 4/13/18 Approved By: Genevieve Rubrecht Subject: Thank you for your comment! Message: Good morning Ms. Spring, Thank you for your comments. Our conceptual designs include multi-use paths in areas along the NC 98 corridor. These designs are available on our website in the Document Library, http://nc98corridor.com/library/. We have one more Sign-in at public meeting scheduled for Monday, April 16 at the Durham County East Regional Library at 211 Lick Creek Lane. There will not be a formal presentation but staff will be available between 5 - 7 pm. Thank you, The NC 98 Corridor Study Team		
134	Unread	4/11/18	Tavey	Capps		27587	tavey77@gmail.com	I commute between Durham and Wake Forest almost daily and would love to see expanded transit options on the 98 corridor. I truly hope this is included in the planning process.	Website	Email
135	No Action Required	4/11/18	Dianne	Sacchetti		27587	diannesacchetti@gmail.c om	Town of Wake Forest website	Website	Other
136	No Action Required	4/12/18	Keith	Dorsey		27587	krdorsey@yahoo.com		Website	Email
137	No Action Required	4/12/18	Tom	RASCON	resident	27614- 7323	Trasconada@gmail.com		Website	Project Event
138	Unread	4/12/18	S	McCoy	private citizen, Sound Rivers member	27587	spank@well.com	I sent an email to Will Letchworth and will also provide input at the April 12 Wake Forest roadshow.	Website	Other
139	No Action Required	4/12/18	Hannah	True	n/a	27587	hgf1760@gmail.com		Website	Social Media
140	Unread	4/12/18	Sandon	Jacobs		27614	sandon.jacobs@gmail.co m	I live in Remington Forest, my property borders 98 and I am just concerned with the extent to which my property will be impacted. Trying to stay in the loop.	Website	Word of Mouth
141	Action Completed	4/13/18	Parker	Lang	STANLEY MARTIN HOMES	27614	LangCP@stanleymartin. com	From: Letchworth, Will Sent: Tuesday, April 10, 18 4:06 PMTo: 'Parker Lang' &ItLangCP@stanleymartin.com>Subject: RE: NC 98Parker,I apologize for the slow reply. To answer your questions:I work for a consulting firm, WSP, that was hired by NCDOT and the two regional planning agencies that cover the area for this project, to develop a plan for NC 98 from Junction Road to US 401. This project has been ongoing since early last year and is now in the phase where we are taking the recommendations and designing them to	Email	Email

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							the point where we can illustrate the impacts and develop cost estimatesThere is not currently a project funded by NCDOT to widen NC 98. The regional planning agency for the Raleigh area (CAMPO) submitted a project to NCDOT for prioritization that included widening NC 98 to 4 lanes from the Durham County Line to Wake Forest. This process is still ongoing and we will not know for several more months if that project will be funded by NCDOT. Even if it is it will likely be beyond 2025 before construction will start. I have put two pdfs in a dropbox for you at https://www.dropbox.com/sh/joy8m24bvtzwysa/AABL9vR8_oXSAf6WPQyXI-v7a?dl=0 that I think covers the area you are looking at. If not, let me know and I can send you some more. If I am correct, the lots would be impacted by some fill slopes, but not the actual roadway. Keep in mind this is purely conceptual at this point, alignments and elevations could very well change when designs are done based on survey. If you are so inclined, feel free to come out to one of our upcoming Sign-in at public meetings and I can walk you through things in much more detail. Don't hesitate to reach out with any other questions you may have.Wake County Location:Thursday, April 12, 185:00—7:00 p.m.Wake Forest College Birthplace450 N Main StreetWake Forest, NC 27587Durham County Location:Monday, April 16, 185:00—7:00 p.m.Durham County Library211 Lick Creek LaneDurham, NC 27703Thanks!WLWill Letchworth, PEAssistant Vice PresidentRaleigh Office Lead Phone: +1 984 269 4652Mobile: +1 919 805 4900Email: will.letchworth@wsp.com WSP USA434 Fayetteville Street, Suite 1500Raleigh, NC 27601 wsp.comWSP Parsons Brinckerhoff is now WSP.From: Parker Lang [mailto:LangCP@stanleymartin.com] Sent: Monday, April 09, 18 5:41 PMTo: Letchworth, Will <will.letchworth@wsp.com>Subject: NC 98Hi Will- I have found your website useful. I work for a new neighborhood off of 98, and have lots available next to highway 98: I am trying to figure out your website- do you directly work for the NCDOT? I looked on</will.letchworth@wsp.com>		
142	No Action Required	4/13/18	Tom	Stinsone		TomStin@NC.RR.com		Sign-in at public meeting	
143	No Action Required	4/13/18	Chris	Stark		dopey@nc.rr.com		Sign-in at public meeting	
144	No Action Required	4/13/18	Delbert and Nakki	Rutherford		delrutherford@gmail.com		Sign-in at public meeting	
145	No Action Required	4/13/18	David	Leone	Wake Weekly Media	David@wakeweekly.com		Sign-in at public meeting	
146	No Action Required	4/13/18	Mart	Patt		martpatt@embarqmail.co m		Sign-in at public meeting	10

147	No Action Required	4/13/18	Rebecca	Holt	rholt38@gmail.com	Sign-in at public meeting	
148	No Action Required	4/13/18	Jetske	Insinger	Jetske@swbell.net	Sign-in at public meeting	
149	No Action Required	4/13/18	Fred	Seymour	FredLSeymour@gmail.c om	Sign-in at public meeting	
150	No Action Required	4/13/18	Colleen and Thomas	Sharpe	sharpecm@earthlink.net	Sign-in at public meeting	
151	No Action Required	4/13/18	Lynn	Bruce	lcbruce@icloud.com	Sign-in at public meeting	
152	No Action Required	4/13/18	Girard and Sandra	Hunt	sandyf1960@msn.com	Sign-in at public meeting	
153	No Action Required	4/13/18	Ken	Krause	kkrause512@gmail.com	Sign-in at public meeting	
154	No Action Required	4/13/18	Blake & Kim	Hamlin	spangler.kim@gmail.com	Sign-in at public meeting	
155	No Action Required	4/13/18	Sue	Angelo	sas377@gmail.com	Sign-in at public meeting	
156	No Action Required	4/13/18	Stuart	S	X1Y2Z3@EMBARQMAI L.COM	Sign-in at public meeting	
157	No Action Required	4/13/18	John	Wilson	dr.john.wilson@gmail.co m	Sign-in at public meeting	
158	No Action Required	4/13/18	Dean	Parsons	parsons0621@gmail.co m	Sign-in at public meeting	

159	No Action Required	4/13/18	Martha	Lostin		þ	paddysentme@embarqm ail.com		Sign-in at public meeting	
160	No Action Required	4/13/18	John	Hearn		j	jhearn1000@gmail.com		Sign-in at public meeting	
161	No Action Required	4/13/18	Paul	Duchamp		F	PADuchamp@gmail.com		Sign-in at public meeting	
162	No Action Required	4/13/18	Doug	Kapplen			doug0227@gmail.com		Sign-in at public meeting	
163	No Action Required	4/13/18	Anita	Galante		E	BKLYNBABE2228@msn .com		Sign-in at public meeting	
164	No Action Required	4/17/18	Kurt	Franke	27703		kkvf24@gmail.com	I have a question regarding the most recent maps presented. I was unable to attend the meeting yesterday in Durham so I could not ask. On Road Map 2 of 9 in documents, the new map of Sherron Rd., Patterson Rd., Hwy. 98 and Stallings Rd. instersection, shows a new "branch" of road going from Patterson road around the current intersection to HWY 98. How will this affect Stallings Rd.? Will traffic be turning off of the new road to continue down stallings? Will Stallings Rd. be rerouted? Is this the final plan for the intersection? What is the next step in development for the road? Date: 4/22/18 Approved By: Genevieve Rubrecht Subject: NC 98 Corridor Study Online Inquiry Message: Poaer Mr. Franke, Thank you for your interest in the NC 98 Corridor Study. The intersection of NC 98 and Sherron Road/Patterson Road is proposed to be converted to a quadrant intersection. This means that left turns onto NC 98 will be restricted from Sherron Road and Patterson Road. Additionally, left turns from NC 98 onto Patterson Road will also be eliminated at the intersection; however, motorists will still be able to make a left turn from NC 98 onto Sherron Road. To west (left) on NC 98 from Sherron Road motorists will travel straight through the intersection to Patterson Road, then turn left at the new road (at the proposed traffic signal) and make a right on NC 98. Motorists coming from Patterson Road who wish to head east (left) onto NC 98 will make a right on Patterson Road, at the proposed traffic signal onto the new road, then left onto NC 98 at the second new traffic signal. Please note that motorists will still be able to make right turns onto NC 98 from both Sherron Road and Patterson Road. To regards to your question, in this proposed concept, Stallings Road will be turned into a cul-de-sac where the green circular, edge of pavement line is shown on Stallings Road. To access Stallings Road north of that point, motorists have to use the new pav	Website	Project Event

								Thank you again for contacting the NC 98 Study Team. Please let us know if you have any further questions.		
165	No Action Required	4/17/18	Pamela	Jay	Concerned citizen	27587	pjay0826@gmail.com		Website	Project Event
166	No Action Required	4/19/18	Darlene	Nottingham		27587	dnottingham@ncdot.gov	I was unable to come to the Sign-in at public meetings, but feel the need to make comments about the proposed Super Street Design of Highway 98. Ghoston Rd. IntersectionThe intersection of Y-Line (Ghoston Rd.) connecting onto L-Line (US 98) should have 2 right turn lanes. The -Y- already has enough existing lane width in the south bound direction to put a double right turn onto 98. This is recommended because a vehicle turning right onto 98 then wanting to get into the left lane to get to the left turn bulb is going to have problems transitioning with the amount of directional traffic at morning peak hours on 98 from Wake Forest to Durham. Ghoston Road has extremely large amounts of traffic backups in the morning hours turning right onto 98. The large amount of directional ADT on Ghoston Road is because it is one of the very few connector roads from the northern portions of the county connecting to 98. Sometimes it even backs up past Four Wheel Drive in the morning. Yes, the traffic will be flowing better because of widening 98 with a Super Street Design, but it will still be tough making the weave turning right off from Ghoston Road and trying to transition to the bulb to take a left at the bulb and head back east on 98. Ramps at 50/98The Ramps at NC 50 and 98 will need to have transition lanes located on 98. This is especially needed at the ramp in set at an extreme angle. Drivers are looking over their left shoulder trying to judge traffic and yet not able to see the vehicle in front of them and then trying to accelerate at a fast pace trying to meet the speed of drivers on 98 heading east. Many rear-end accidents have happened there. Entrance into the Harris Teeter ShopsThere should be a right-in, right-out entrance into the Harris Teeter/shops at Bisque Court and Willeve Drive (at the Church). Move the bulb just east of Willeve Drive so people coming east bound on 98 can make the bulb turn heading west bound and then make a right turn into the Church or the shops. As currently represented on the map, the c	Website	Social Media

							Message: Good morning Ms. Nottingham,Thank you for your interest in the NC 98 Corridor Study. We appreciate your feedback. Our team will review your recommendations over the next week and will let you know if we have any questions. Thank you,The NC 98 Project Team		
167	No Action Required	5/8/18	Dan	Hill		danwhill3@gmail.com		Sign-in at public meeting	
168	No Action Required	5/8/18	Geoffrey	Phillippe		geoffrey.phillippe@gmail. com		Sign-in at public meeting	
169	No Action Required	5/8/18	Monica	Long		mlong321@yahoo.com		Sign-in at public meeting	
170	No Action Required	5/8/18	Zack	Hawkins		zack@zackhawkinsnc.co m		Sign-in at Sign-in at public meeting	
171	No Action Required	5/8/18	Sherry	Smith	Grove Park HOA	ncsassy50@yahoo.com		Sign-in at Sign-in at public meeting	
172	No Action Required	5/8/18	Derek	Bleyberg	Grove Park			Sign-in at Sign-in at public meeting	
173	No Action Required	5/8/18	Charles	Clifton		cclifton919@gmail.com		Sign-in at Sign-in at public meeting	
174	No Action Required	5/8/18	Mark	Moore				Sign-in at public meeting	
175	No Action Required	5/8/18	Jerry	Sneed		whitmore8@hotmail.com		Sign-in at public meeting	
176	No Action Required	5/8/18	Vickie	King				Sign-in at public meeting	

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177	No Action Required	5/8/18	Torian	Webson	twebson5@yahoo.com	Sign-in at public meeting	
178	No Action Required	5/8/18	Versal	Mason	Versallmason@aol.com	Sign-in at public meeting	
179	No Action Required	5/8/18	Russ	Florack	russ.florack@gmail.com	Sign-in at public meeting	
180	No Action Required	5/8/18	Marcus	Patterson	MarcusP413@gmail.com	Sign-in at public meeting	
181	No Action Required	5/8/18	Angela	Everhart	aeverhart@nc.rr.com	Sign-in at public meeting	
182	No Action Required	5/8/18	Thomas	Snyder	tom.snyder1@gmail.com	Sign-in at public meeting	
183	No Action Required	5/8/18	Ken	Everhart	mke@nc.rr.com	Sign-in at public meeting	
184	No Action Required	5/8/18	Lisa	Matthews	lisadmatthews@yahoo.c om	Sign-in at public meeting	
185	No Action Required	5/8/18	Phyllis	Snow	phyllissnow42@yahoo.c om	Sign-in at public meeting	
186	No Action Required	5/8/18	Douglas	Solomon	dasolomon@mindspring. com	Sign-in at public meeting	
187	No Action Required	5/8/18	Darren	Friedlein	darren@dgfa.com	Sign-in at public meeting	
188	No Action Required	5/8/18	Carl & Barbara	Lowe	blowe33750@aol.com	Sign-in at public meeting	

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189	No Action 1/8/ Required 2/9	Barbara	Brown	browntrustme@aol.com	Sign-in at public meeting	

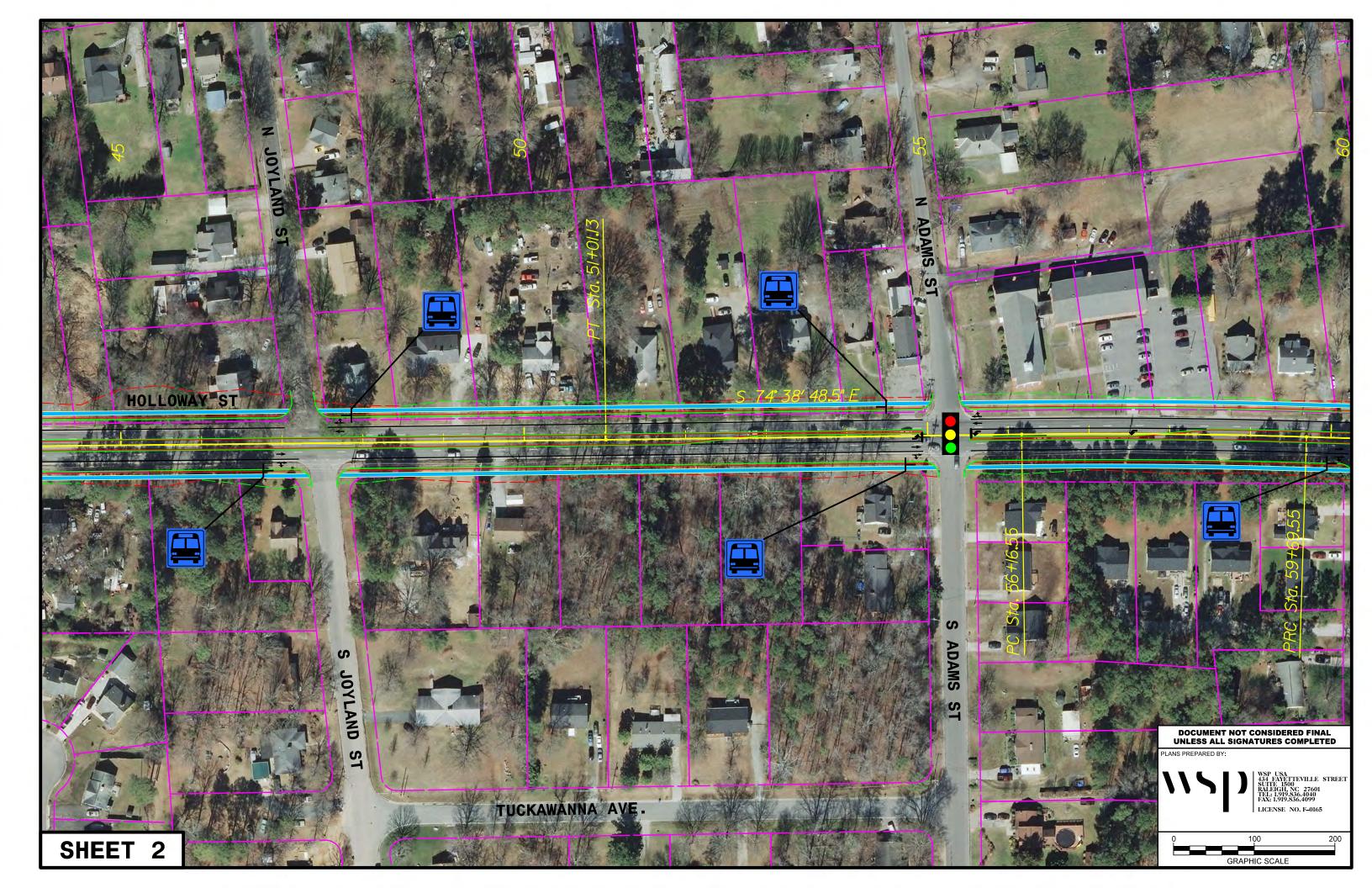


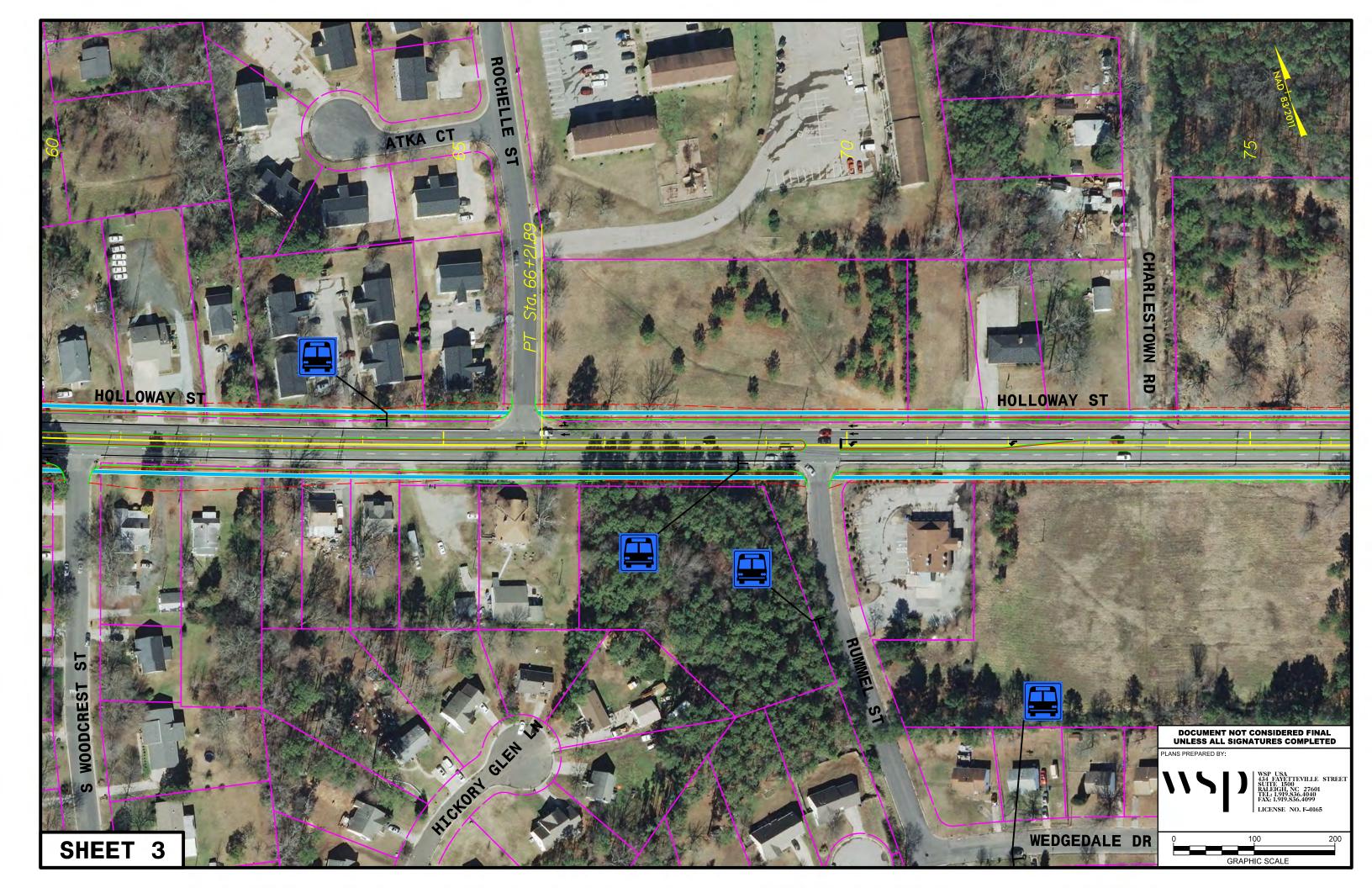
www.nc98corridor.com

DESIGN APPENDIX

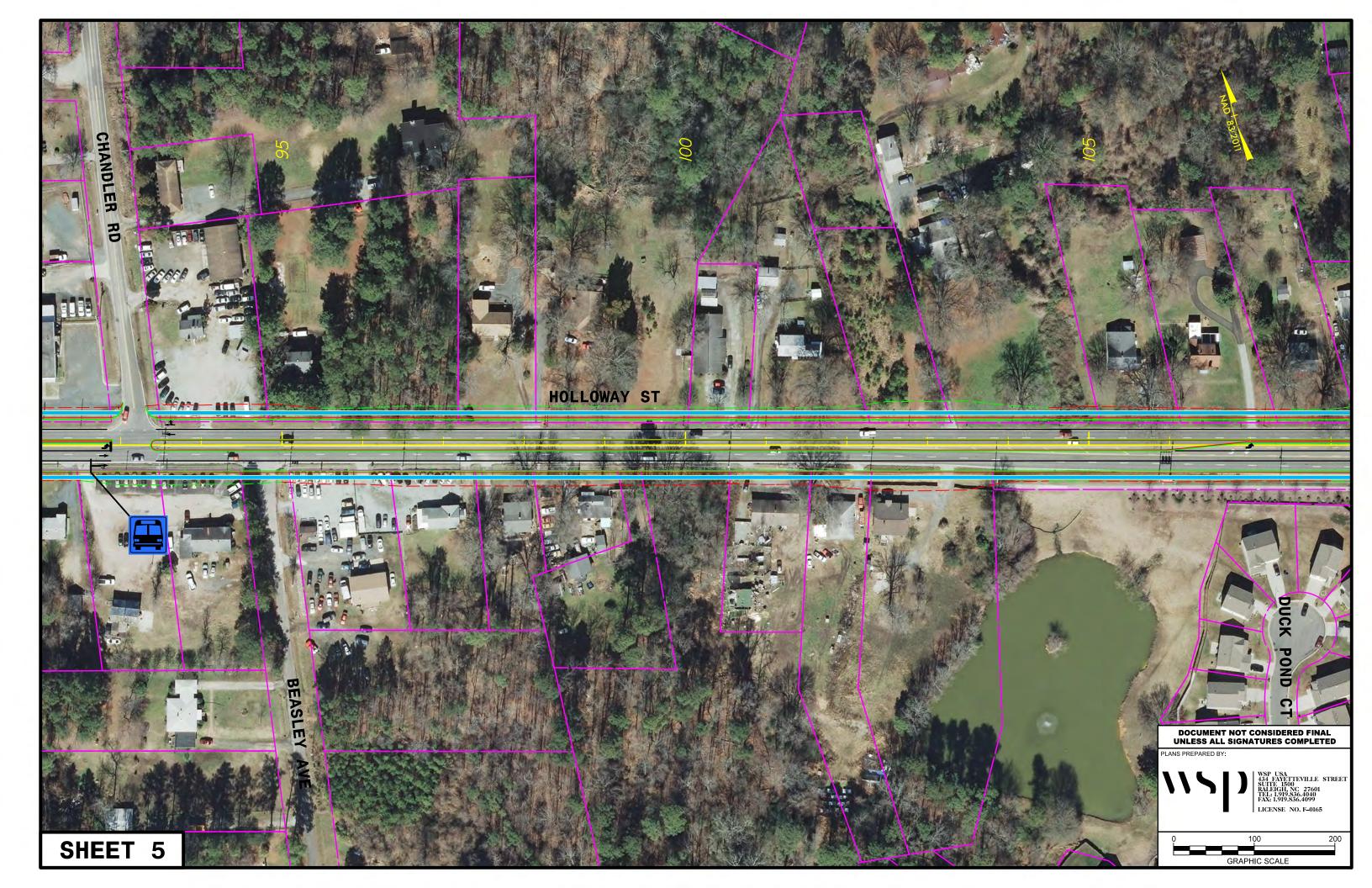


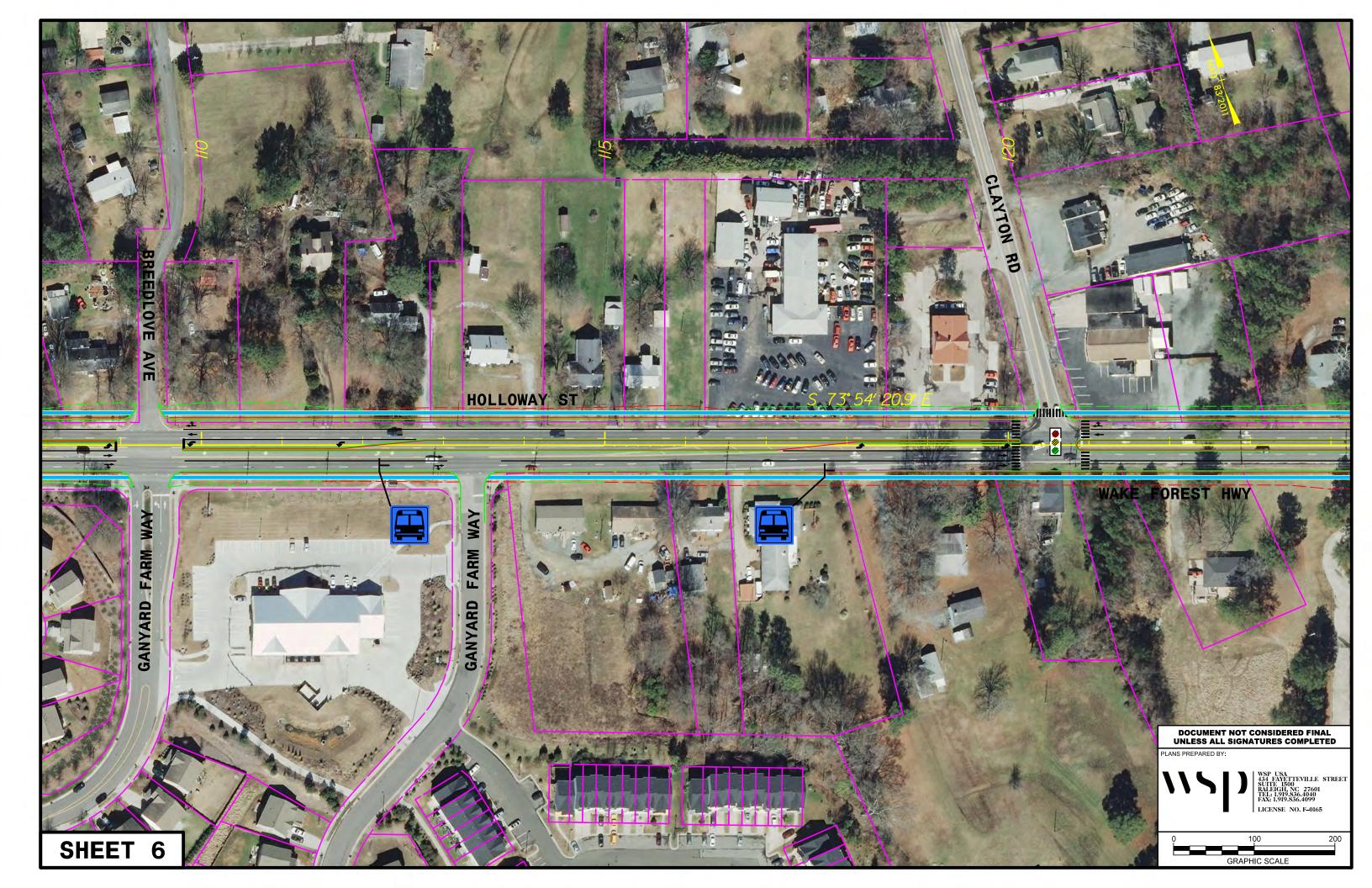


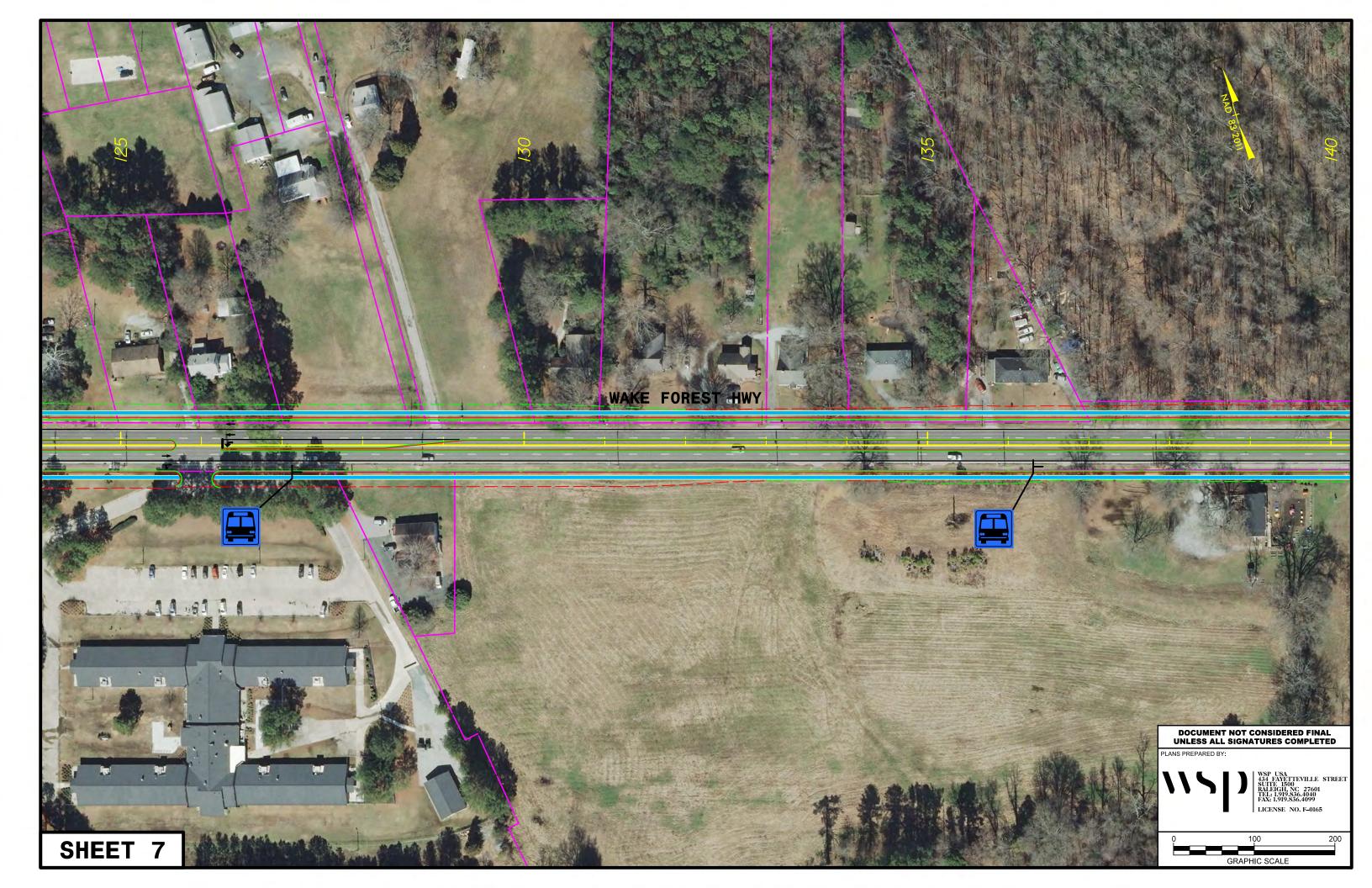


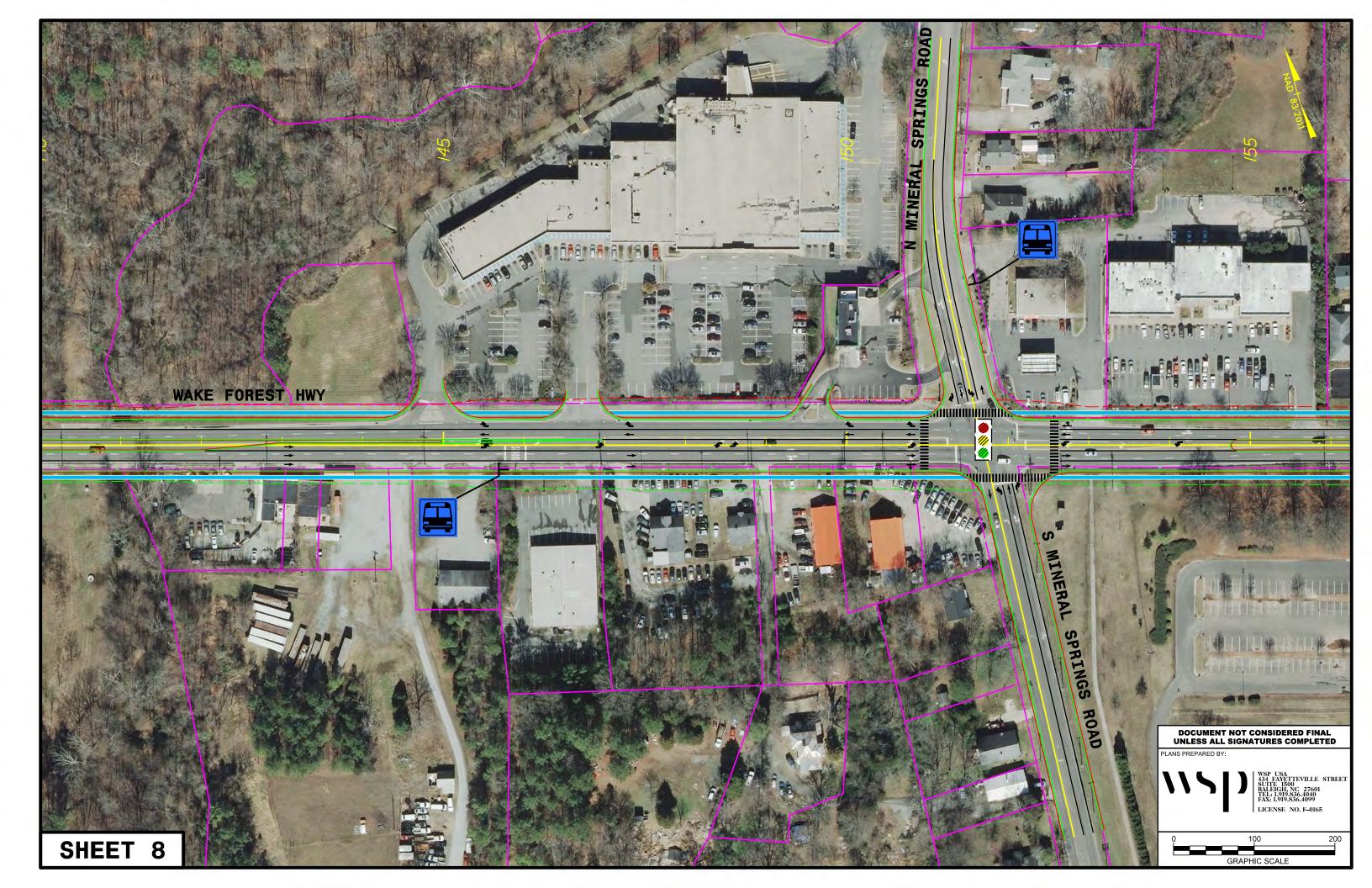


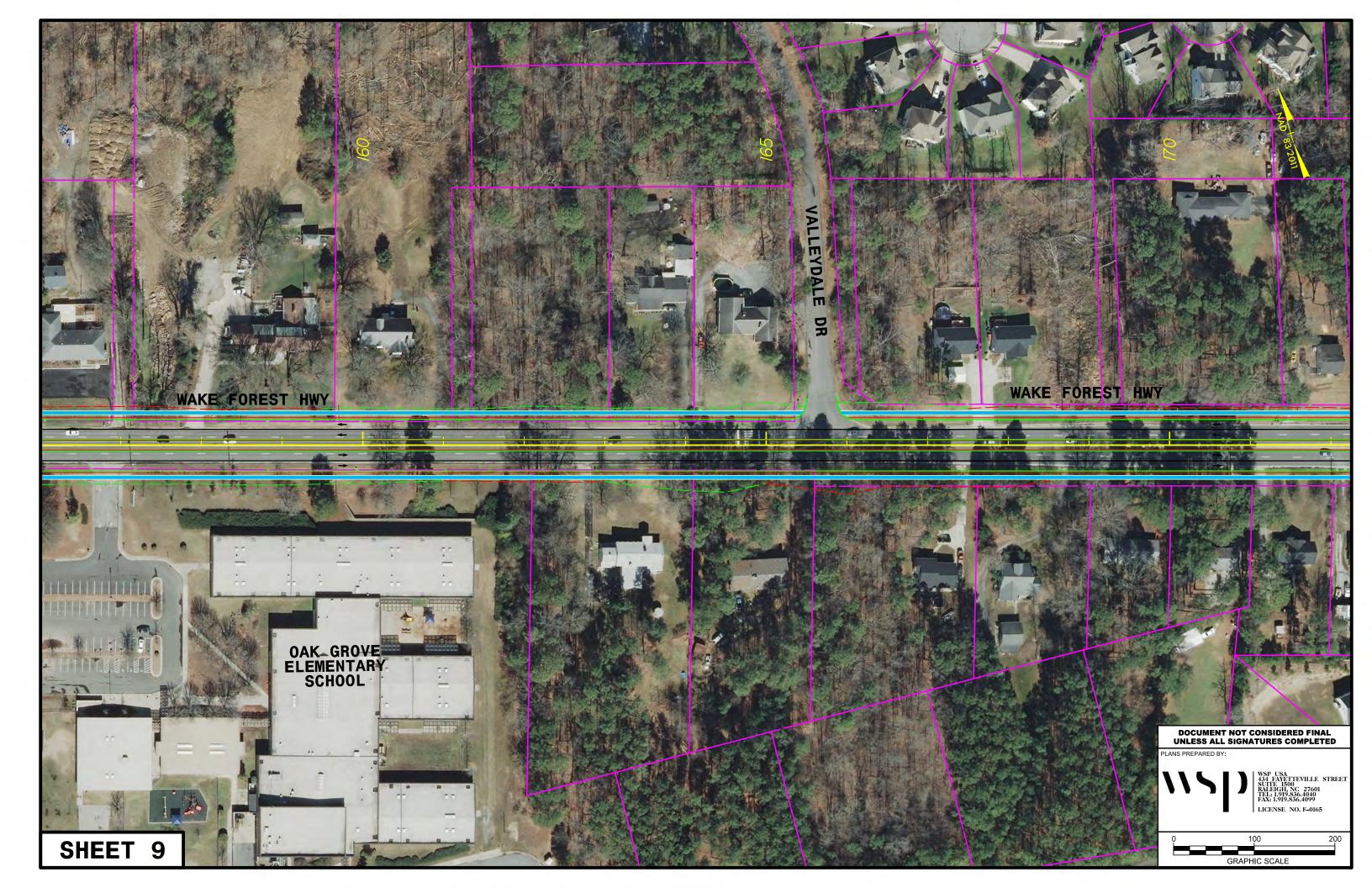




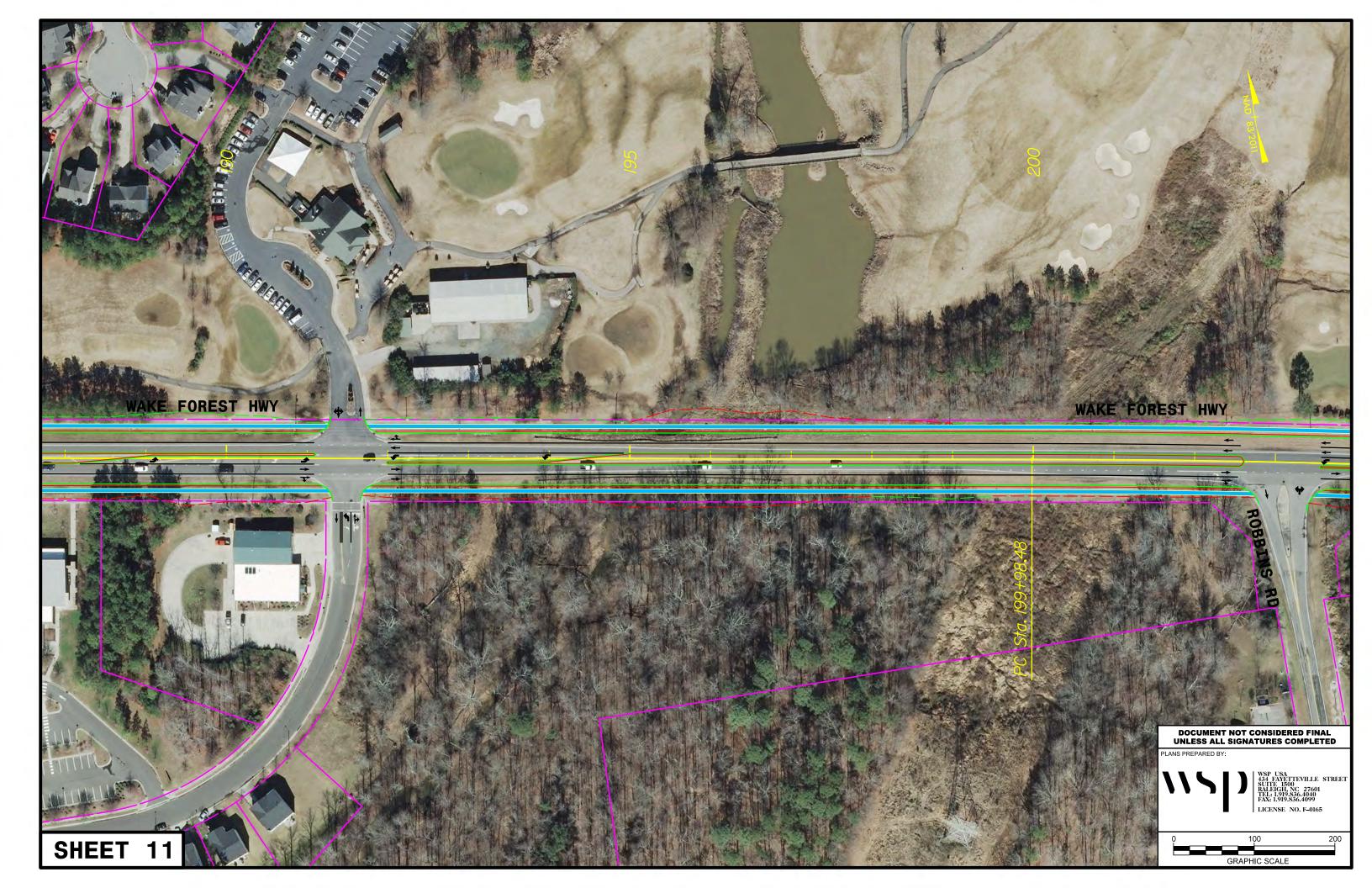




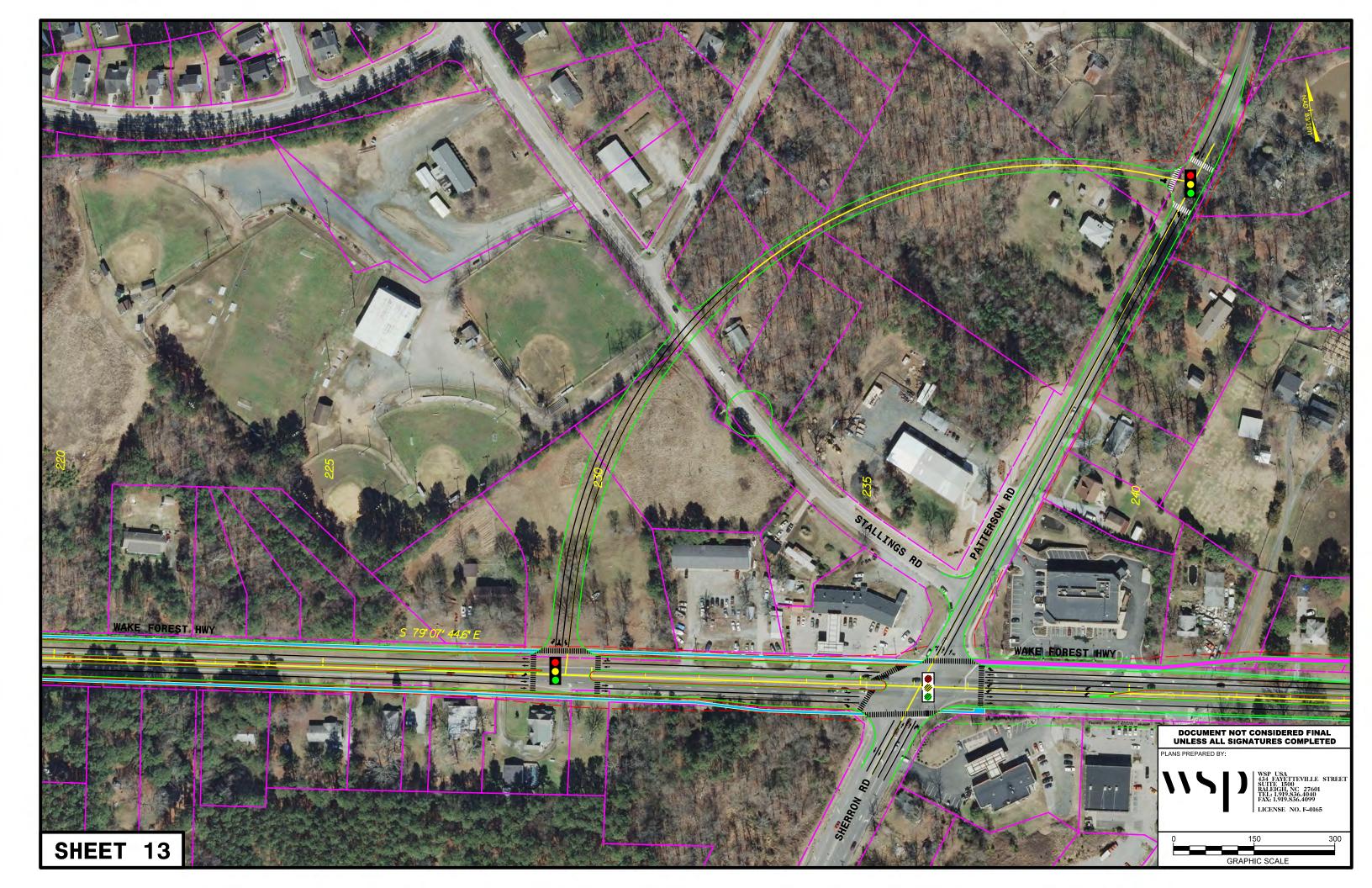


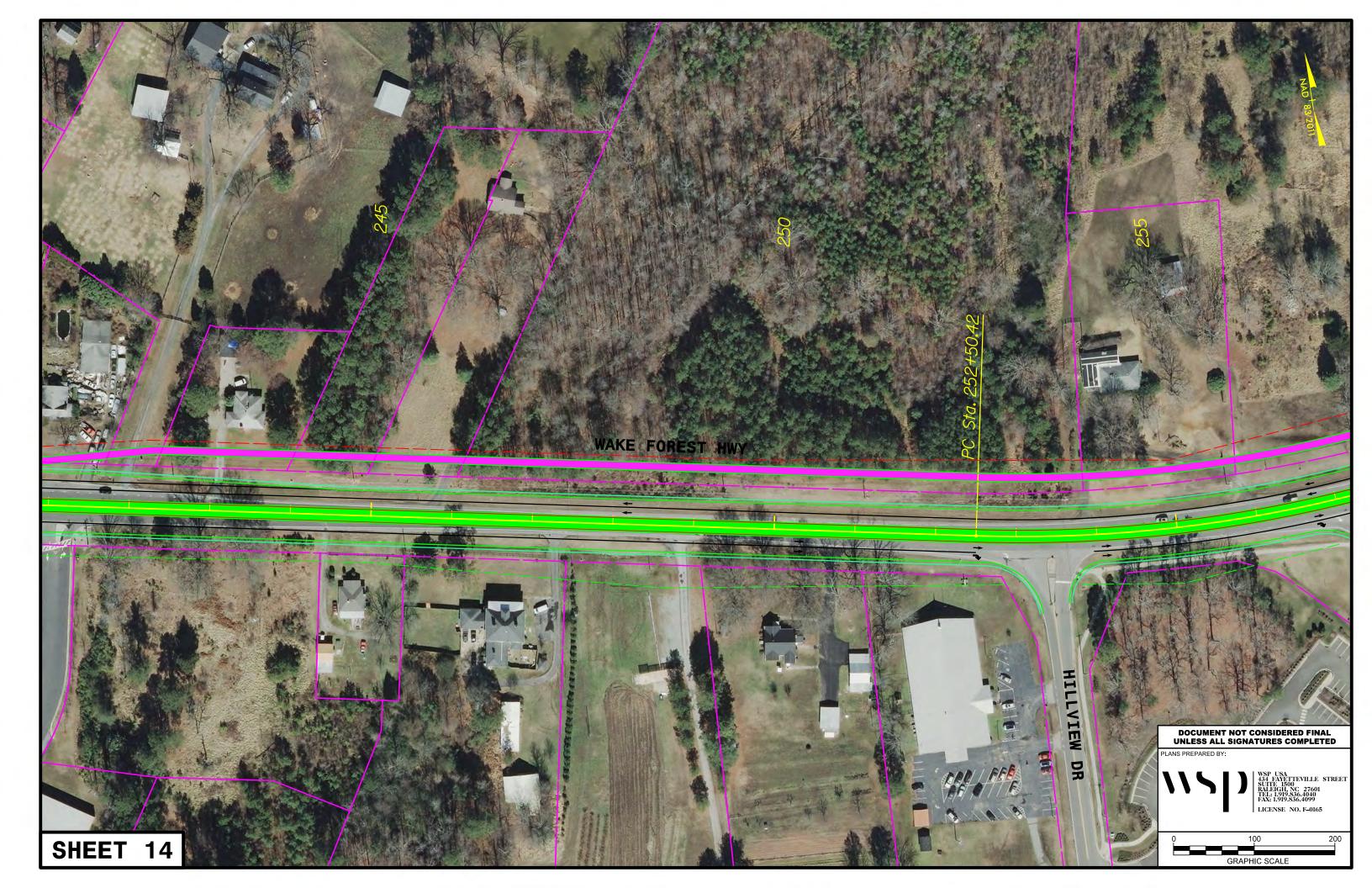


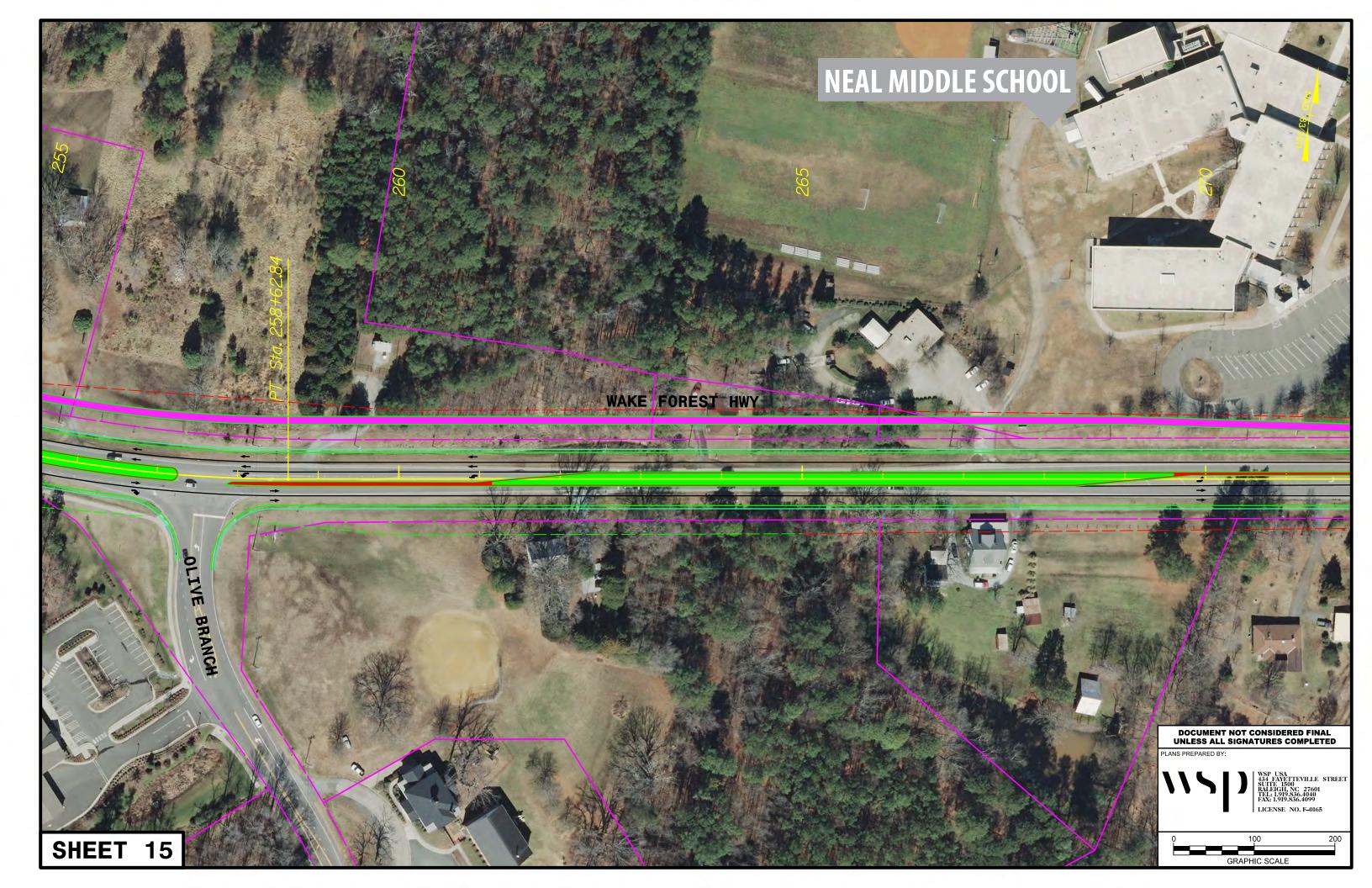


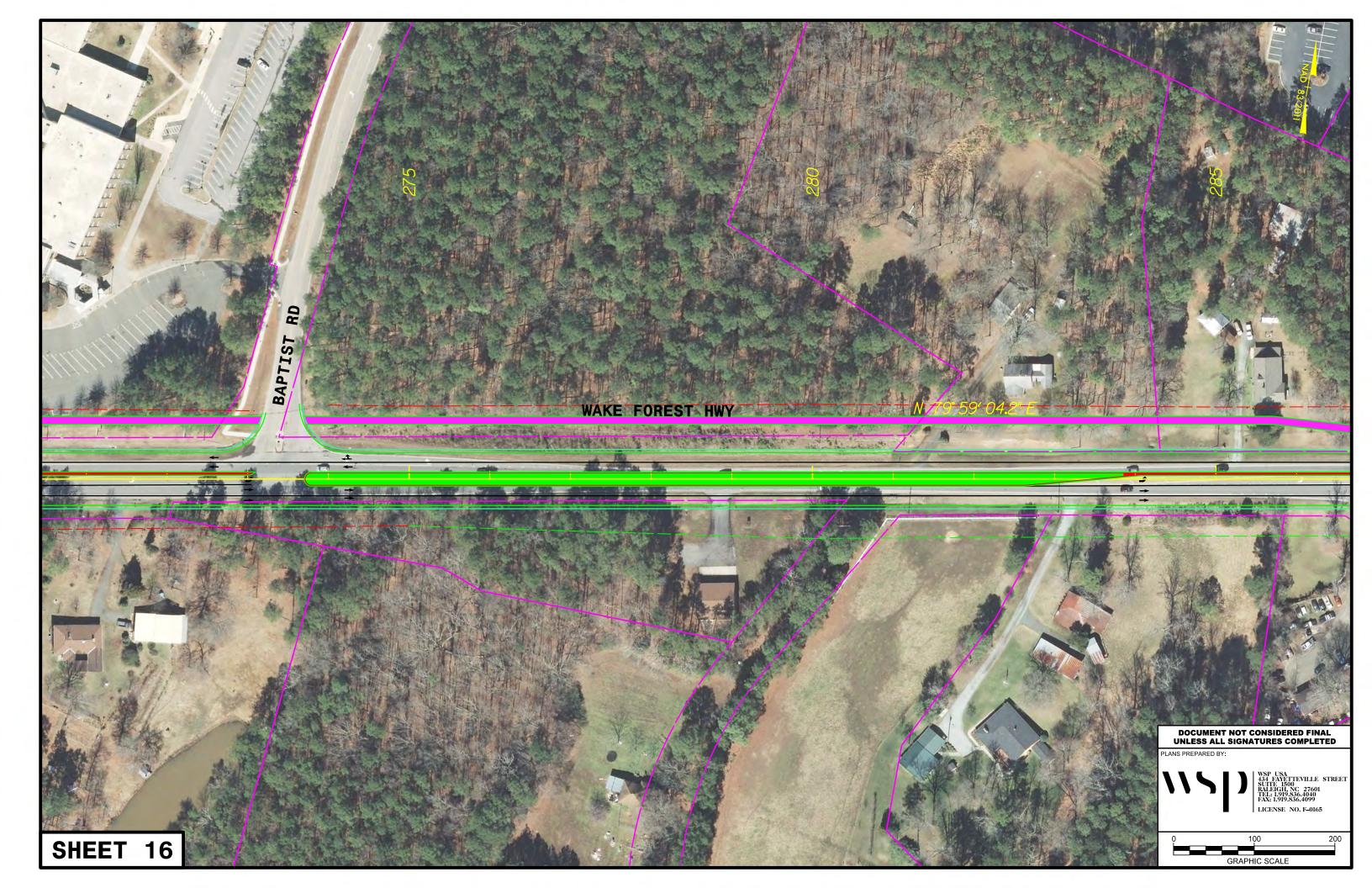










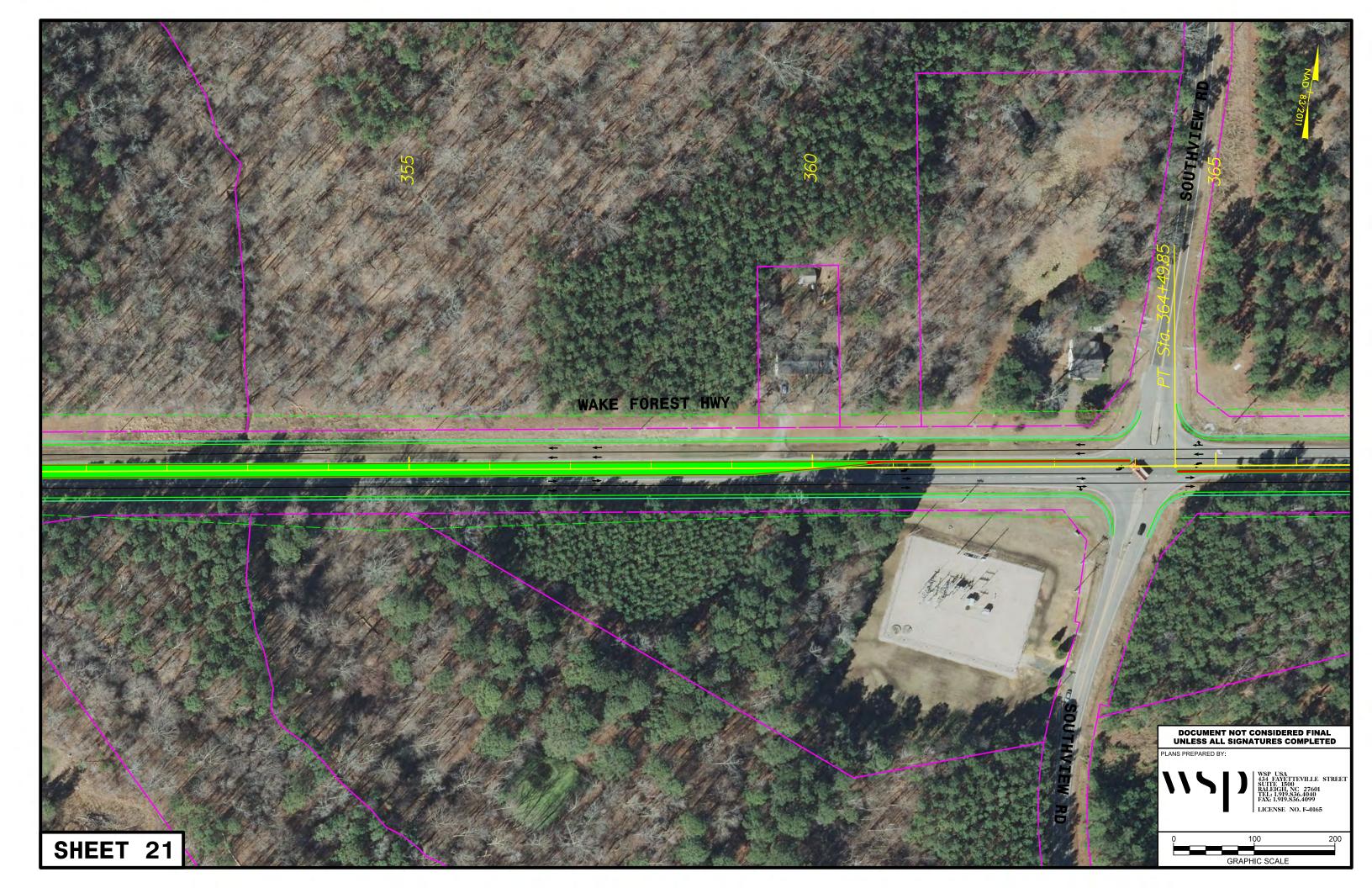




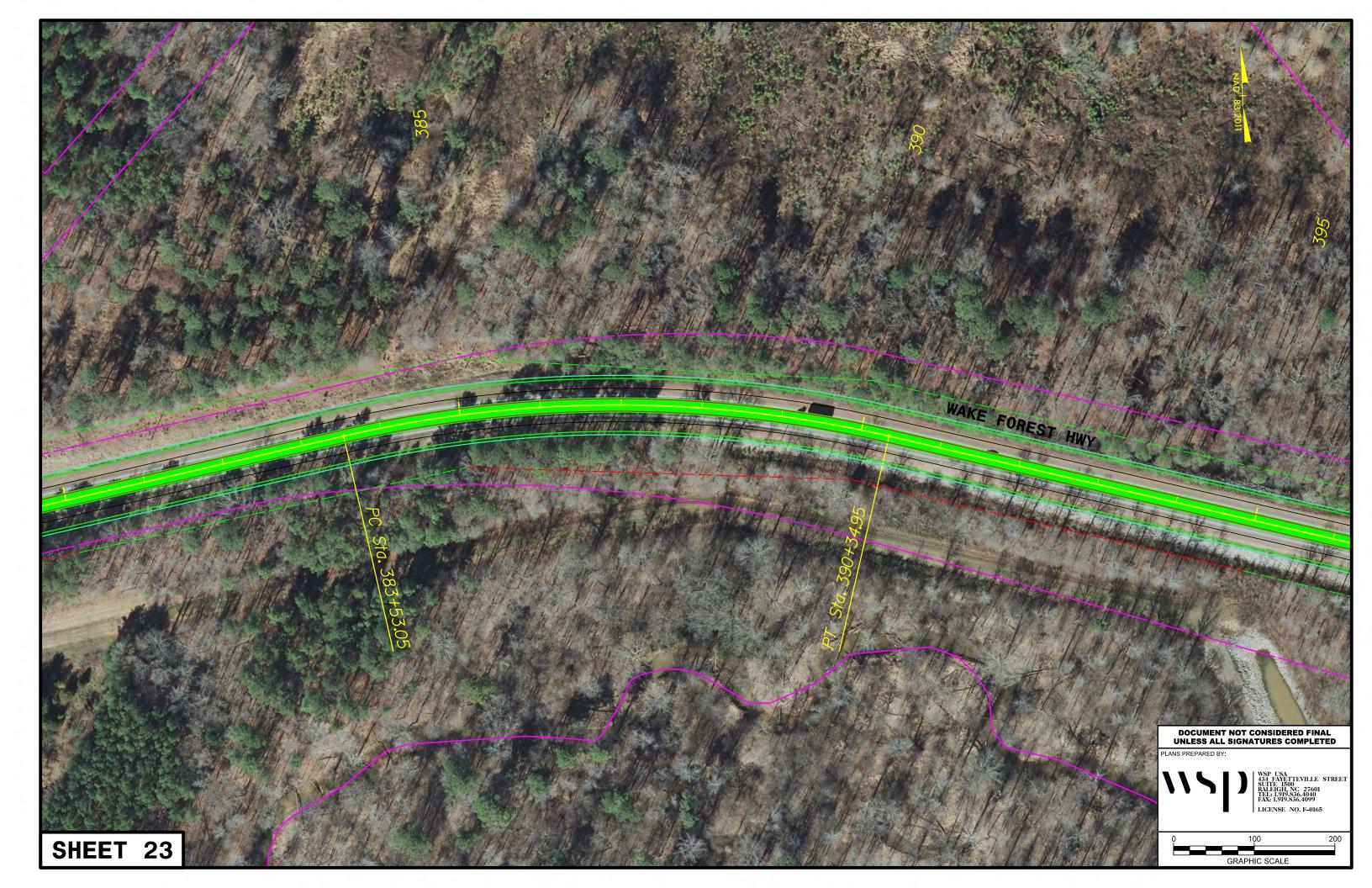






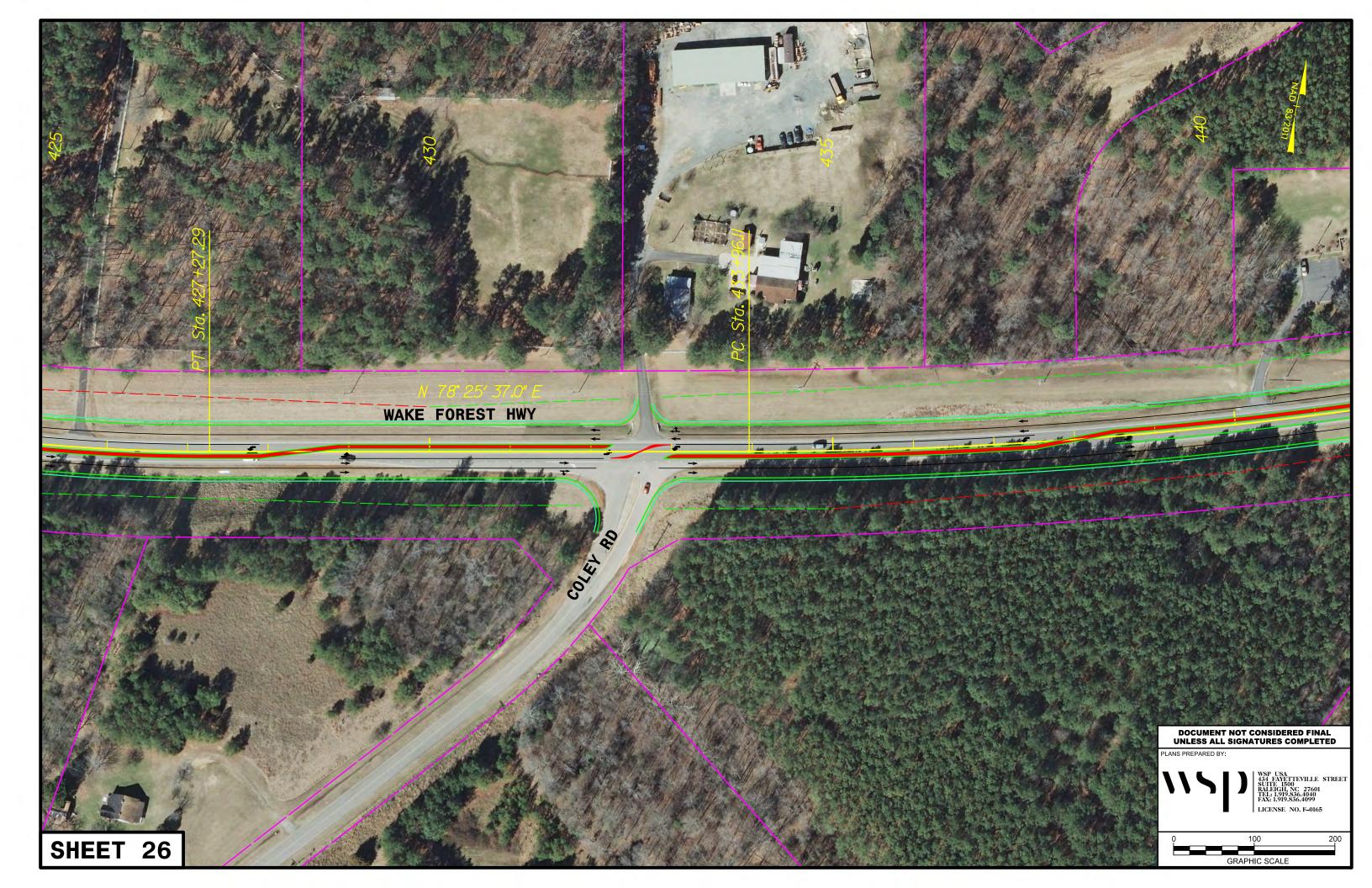








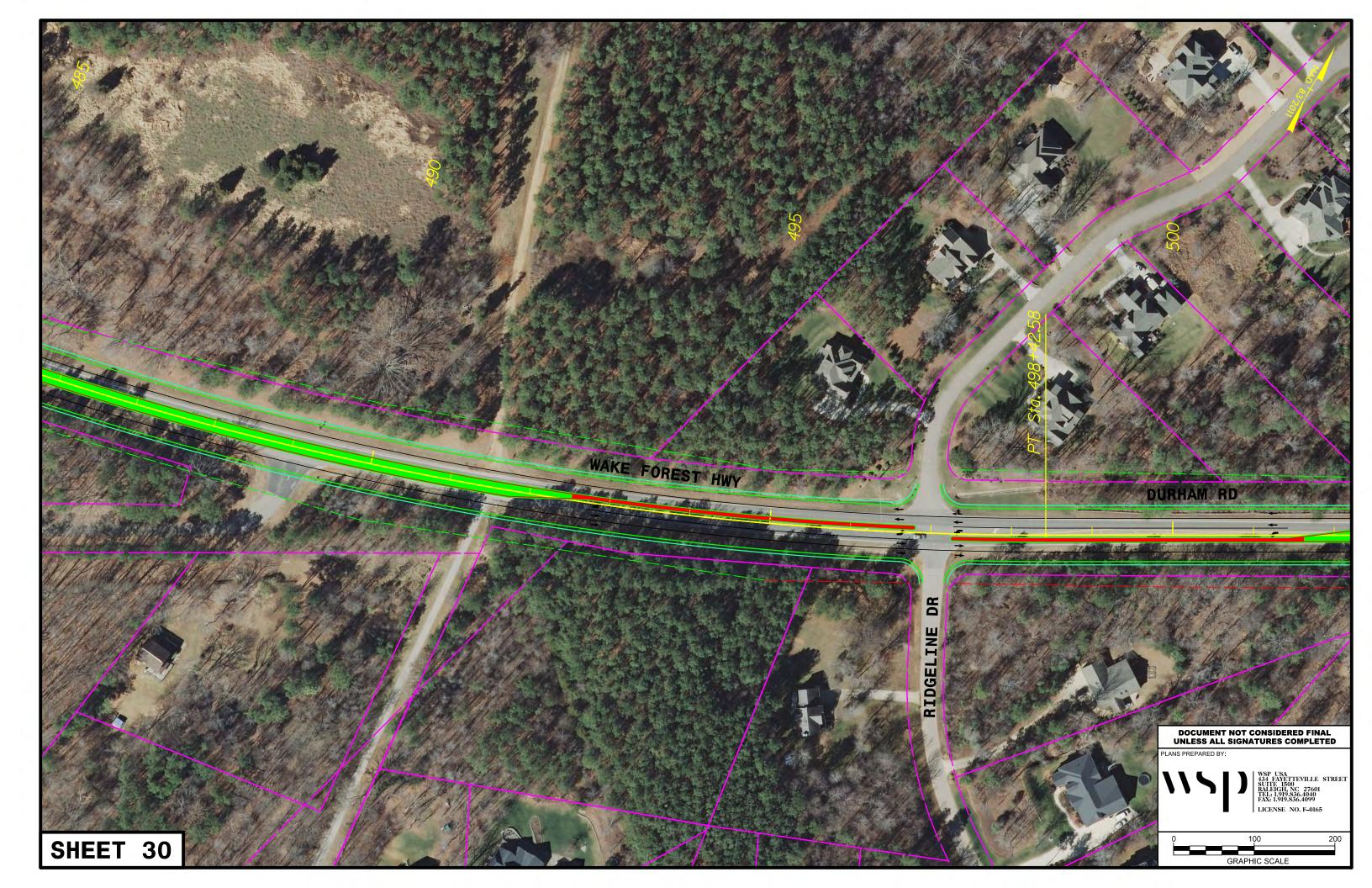


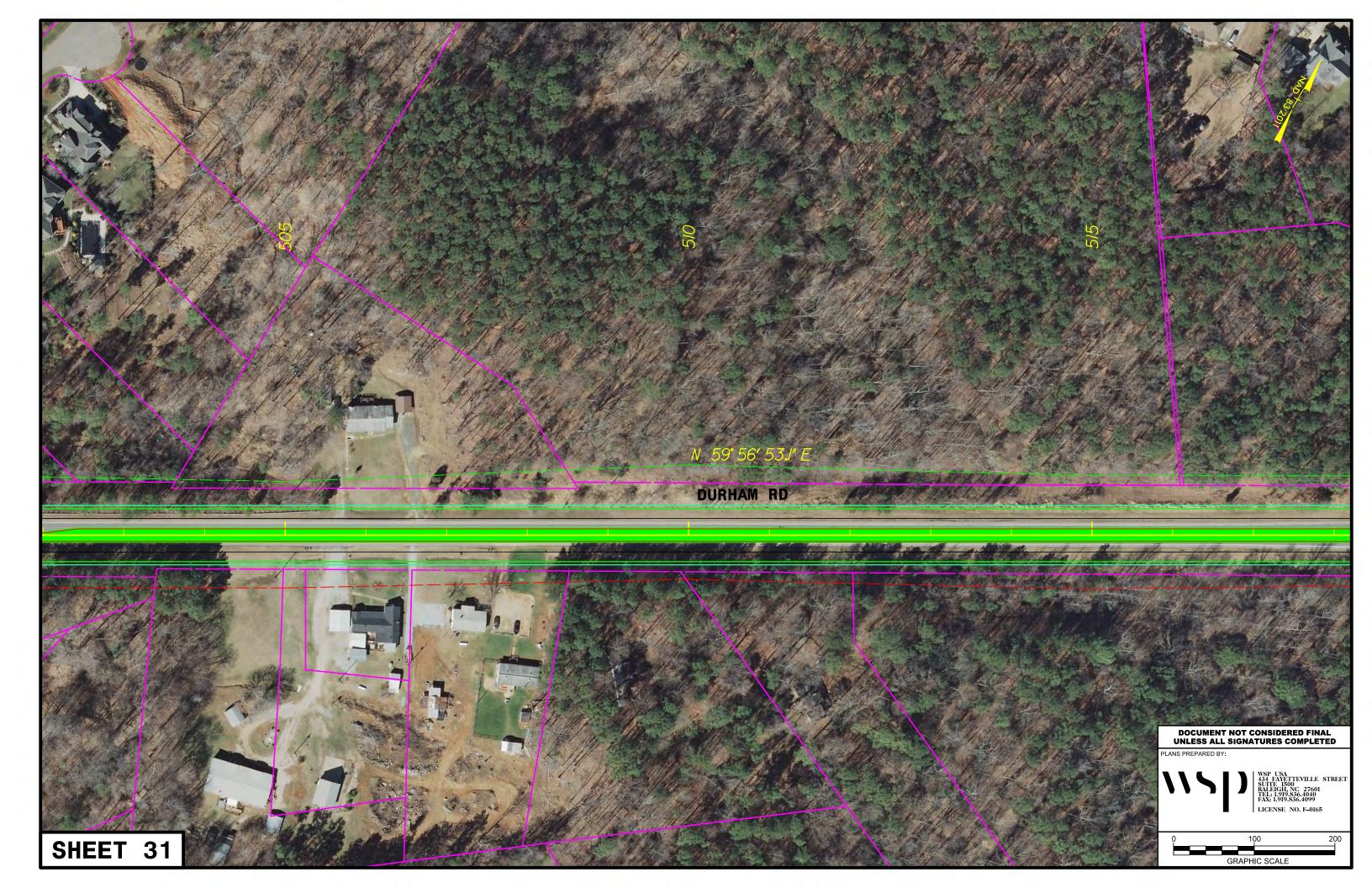


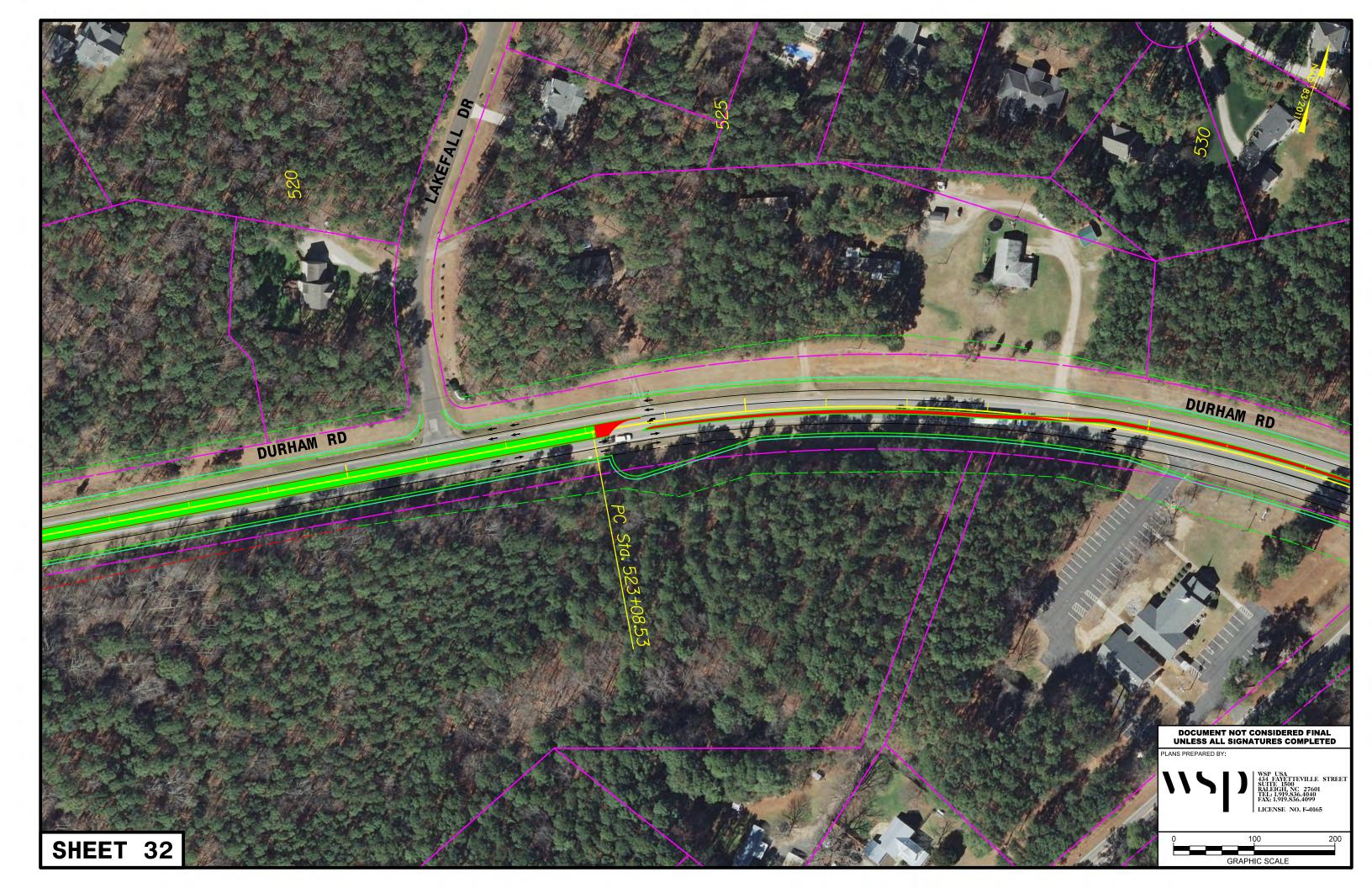


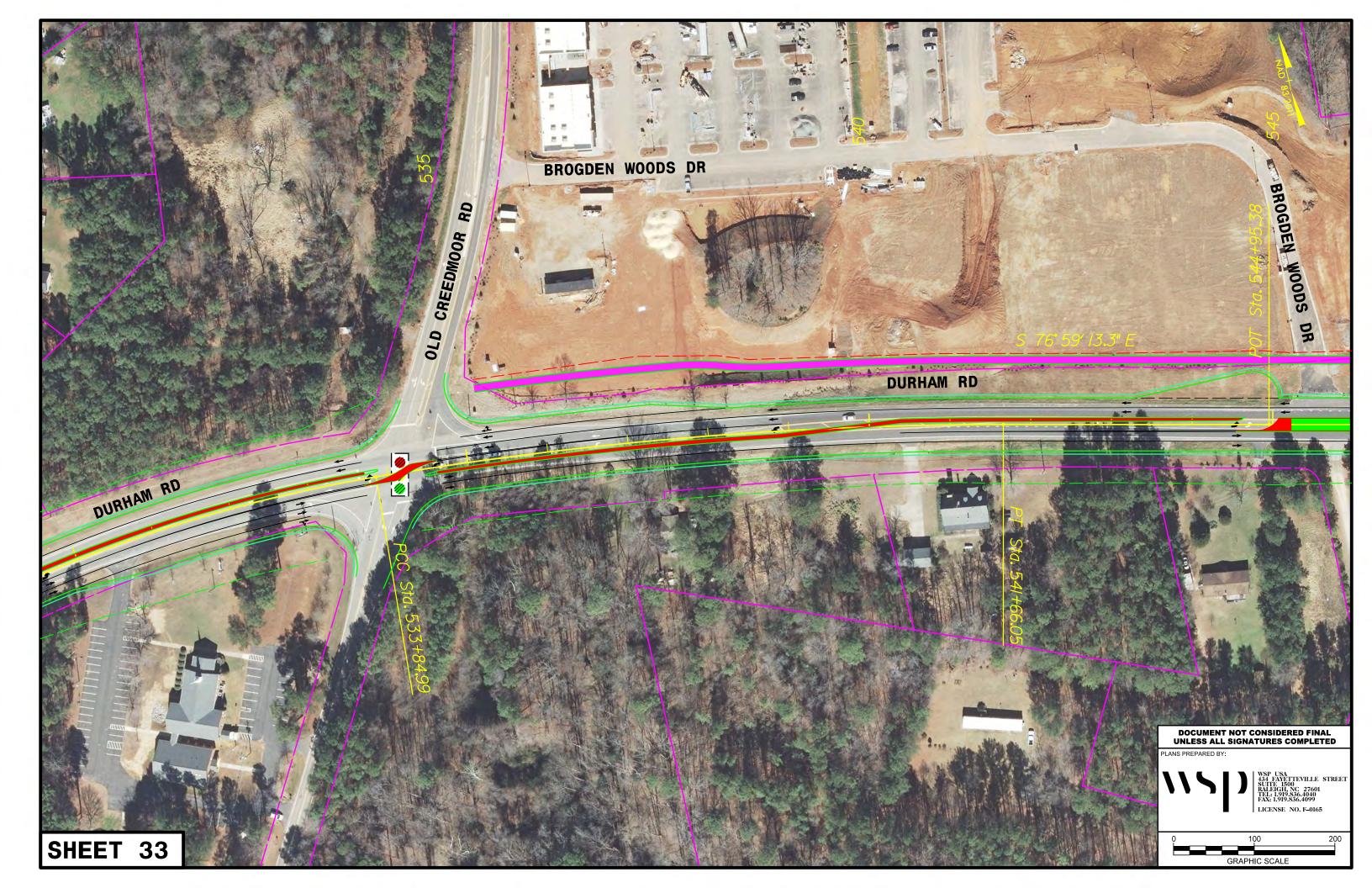


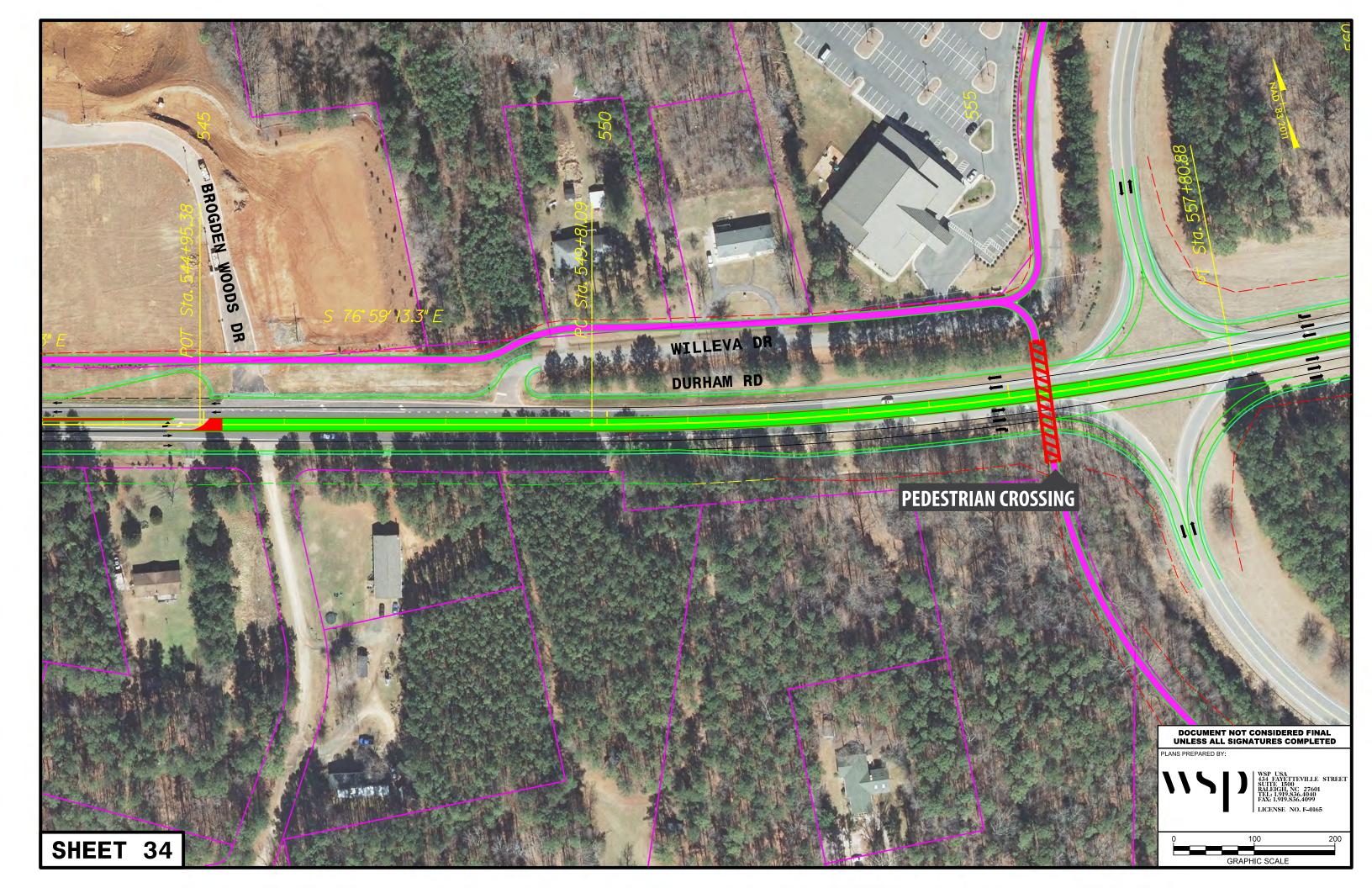


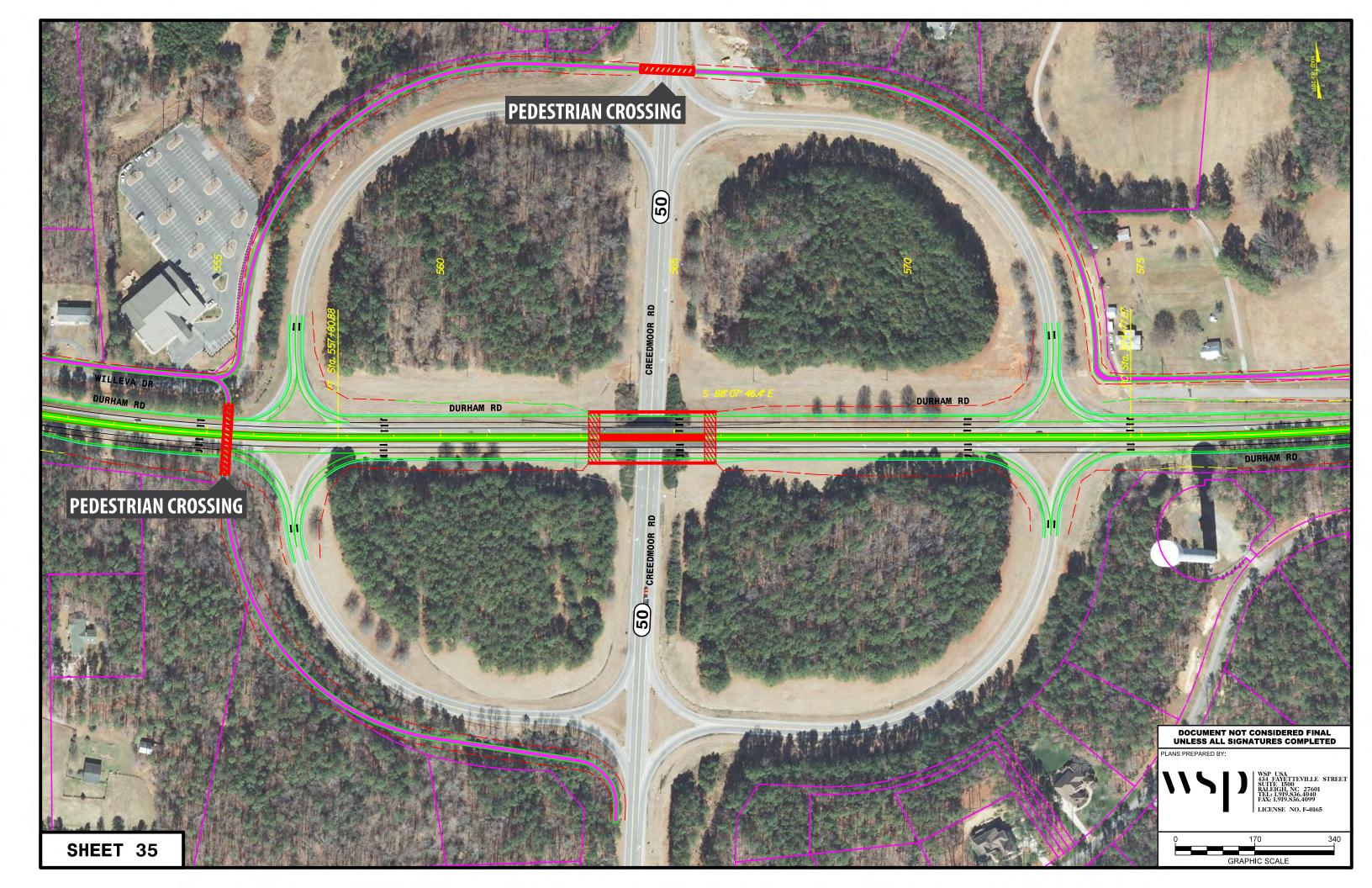


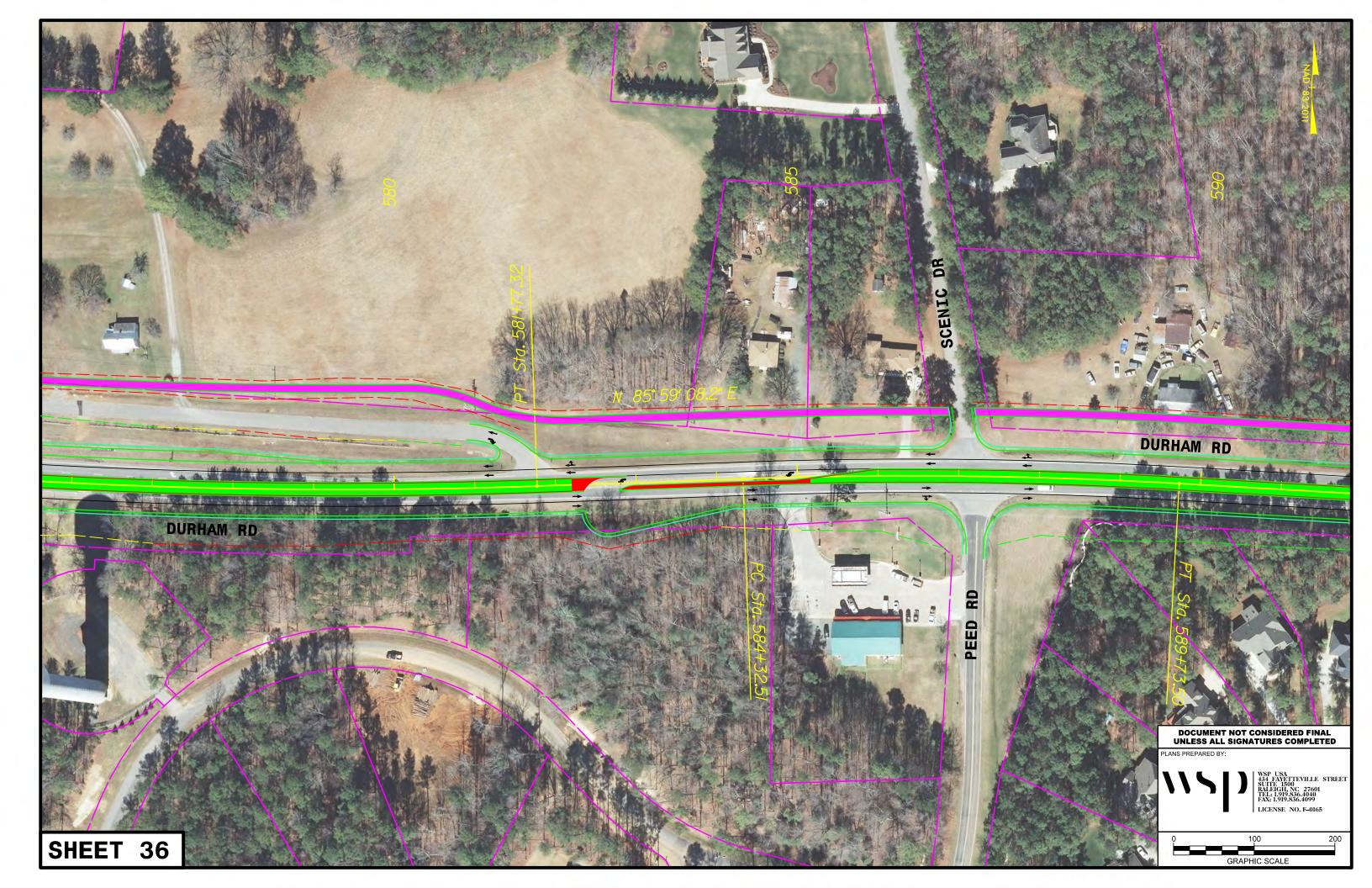


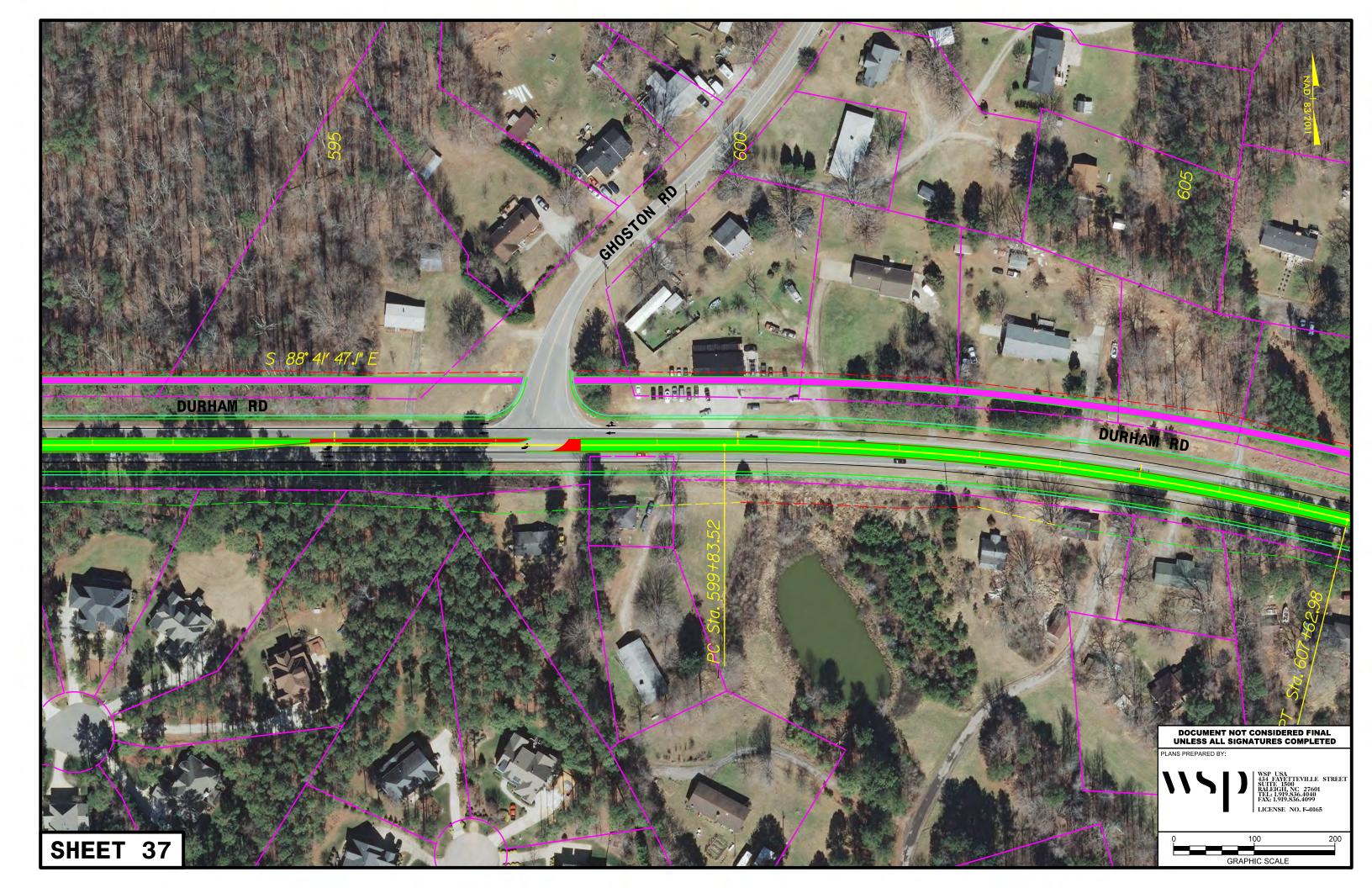


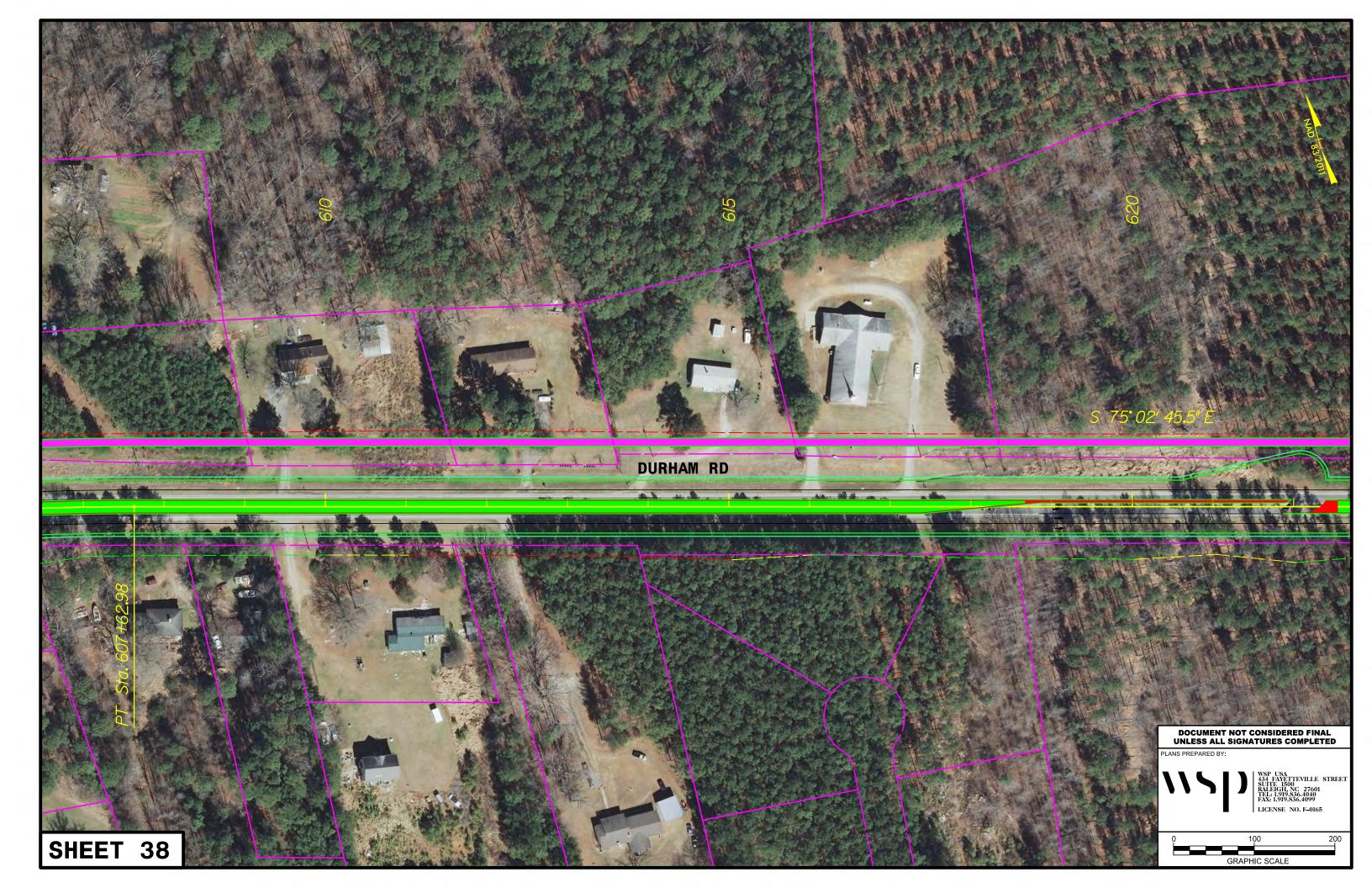


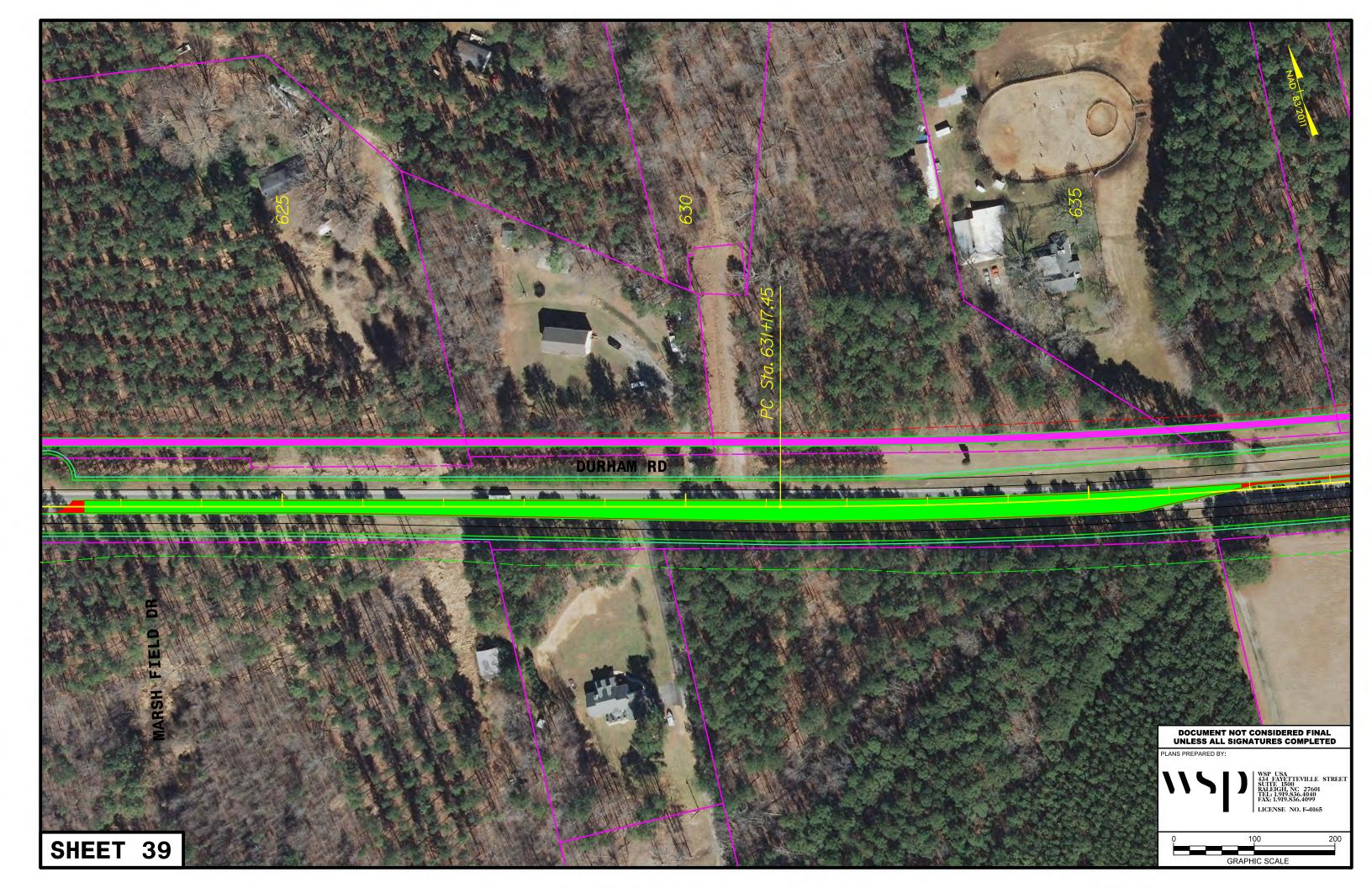


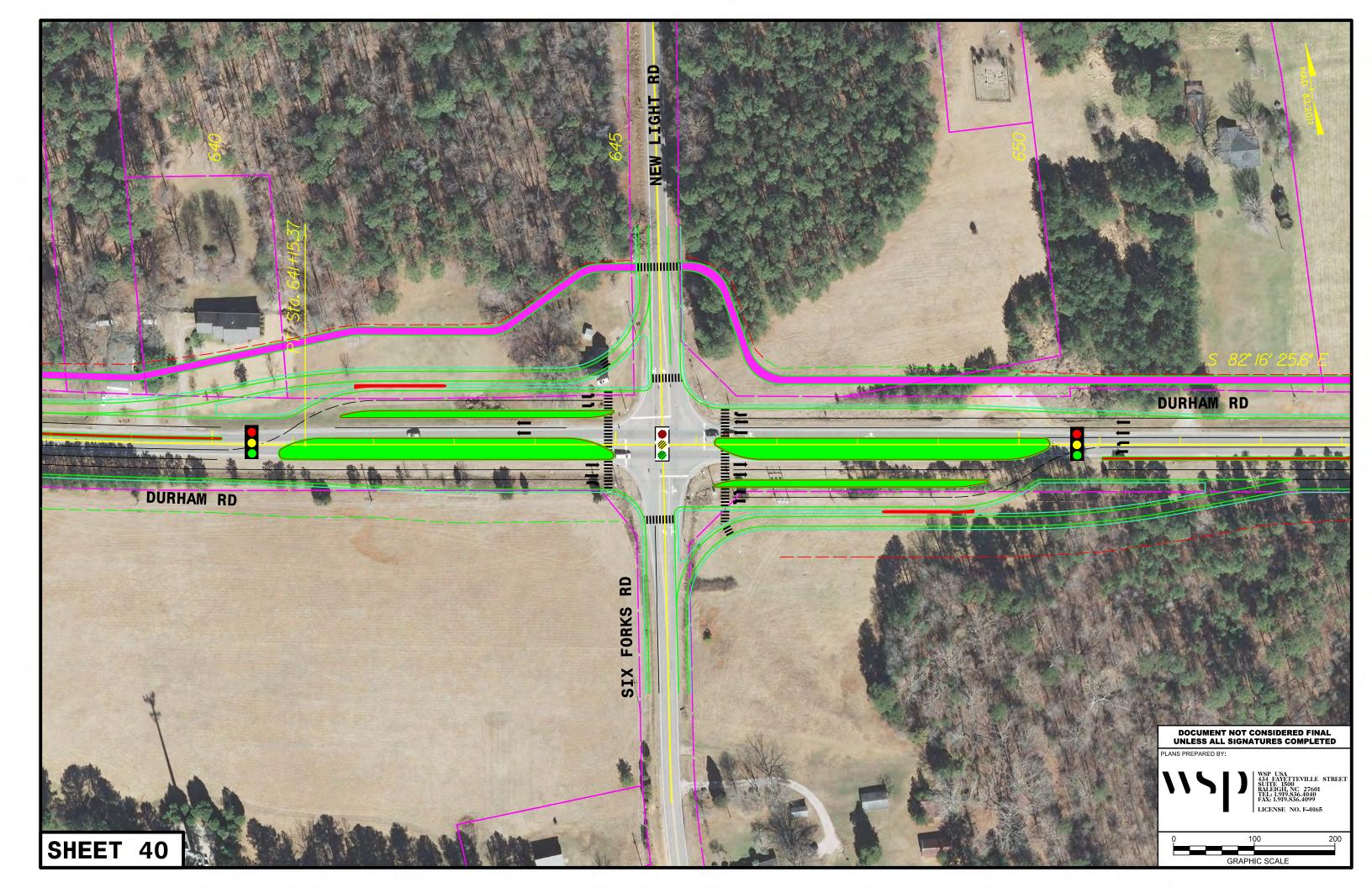


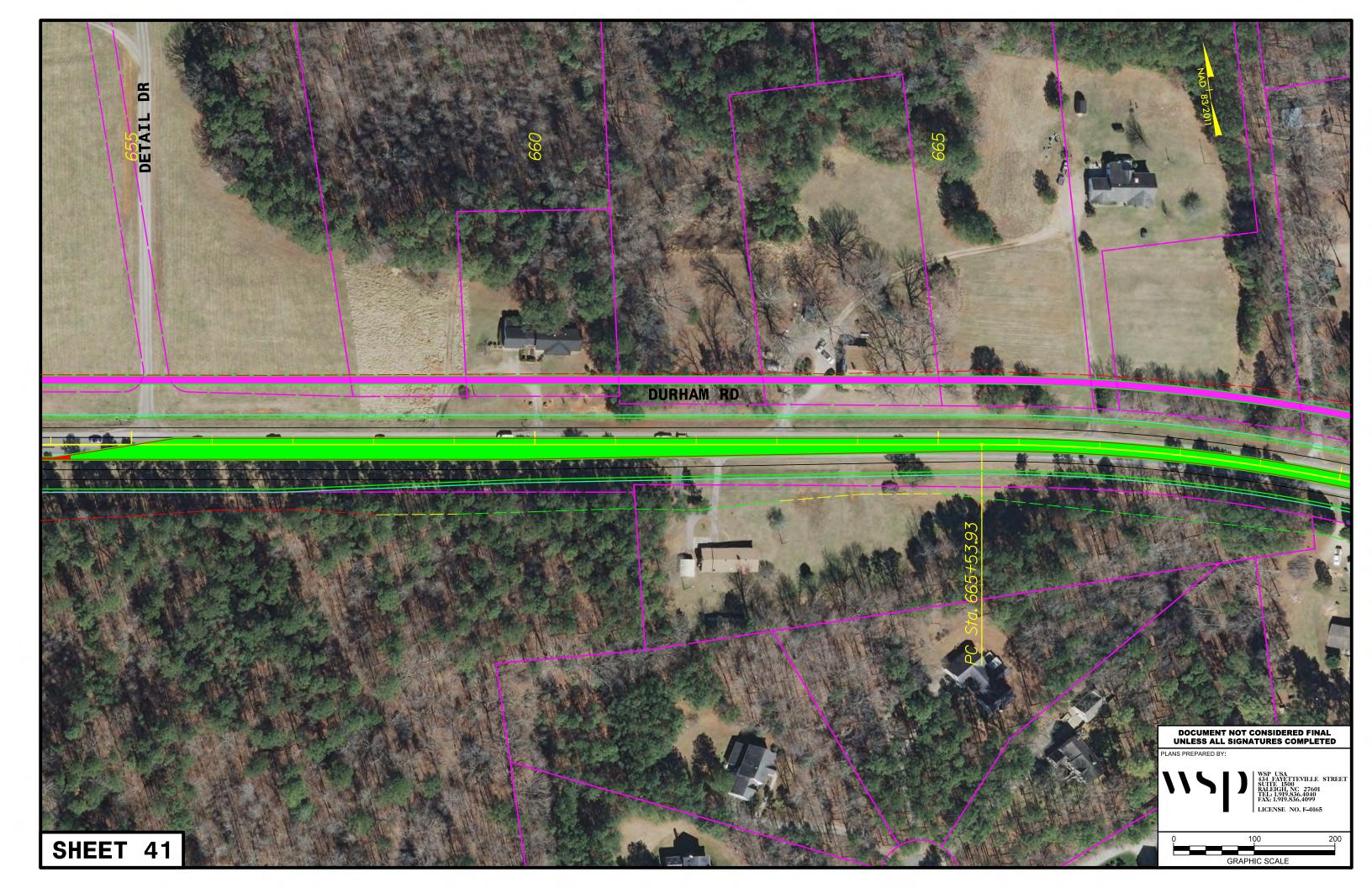


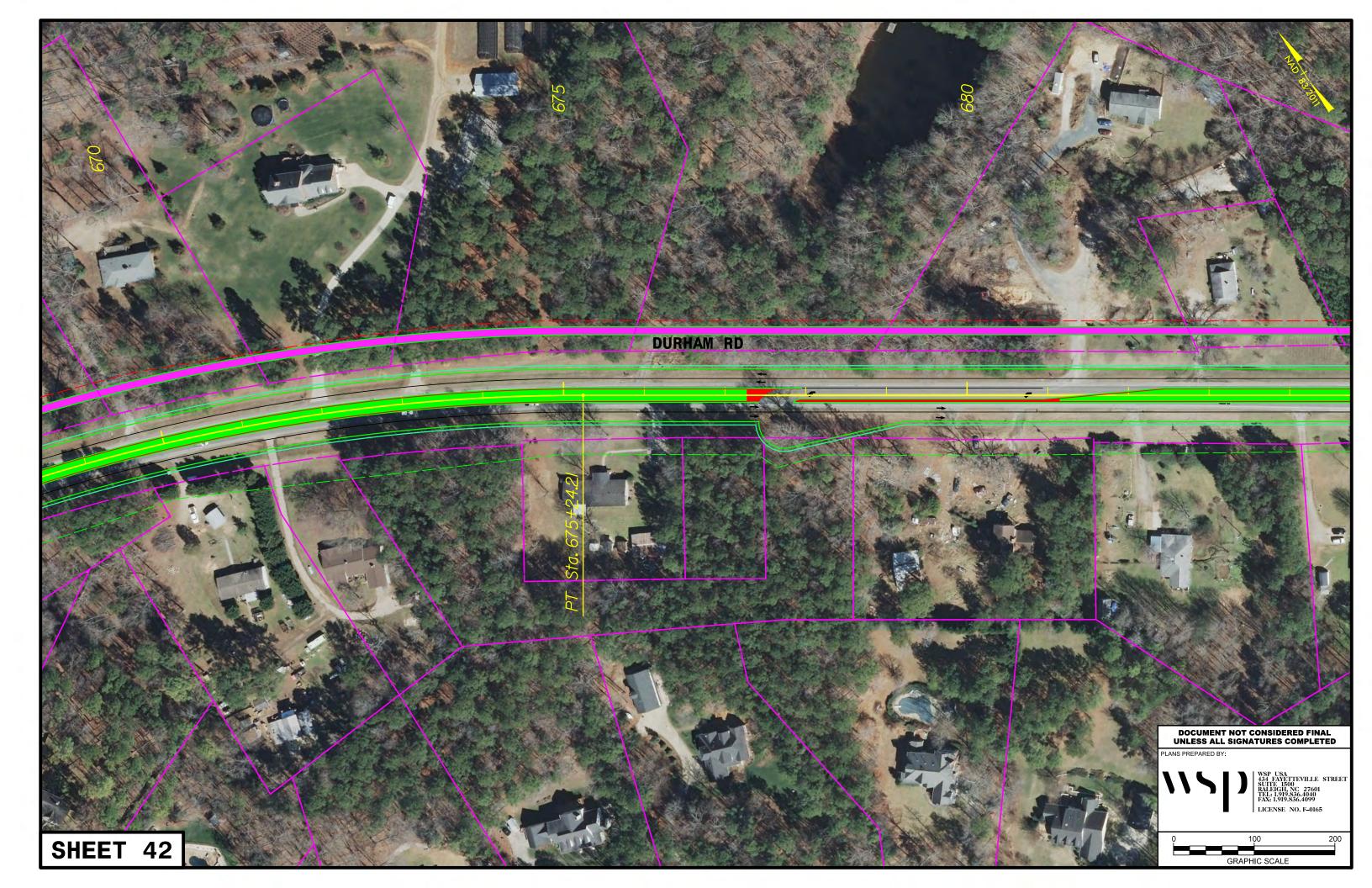


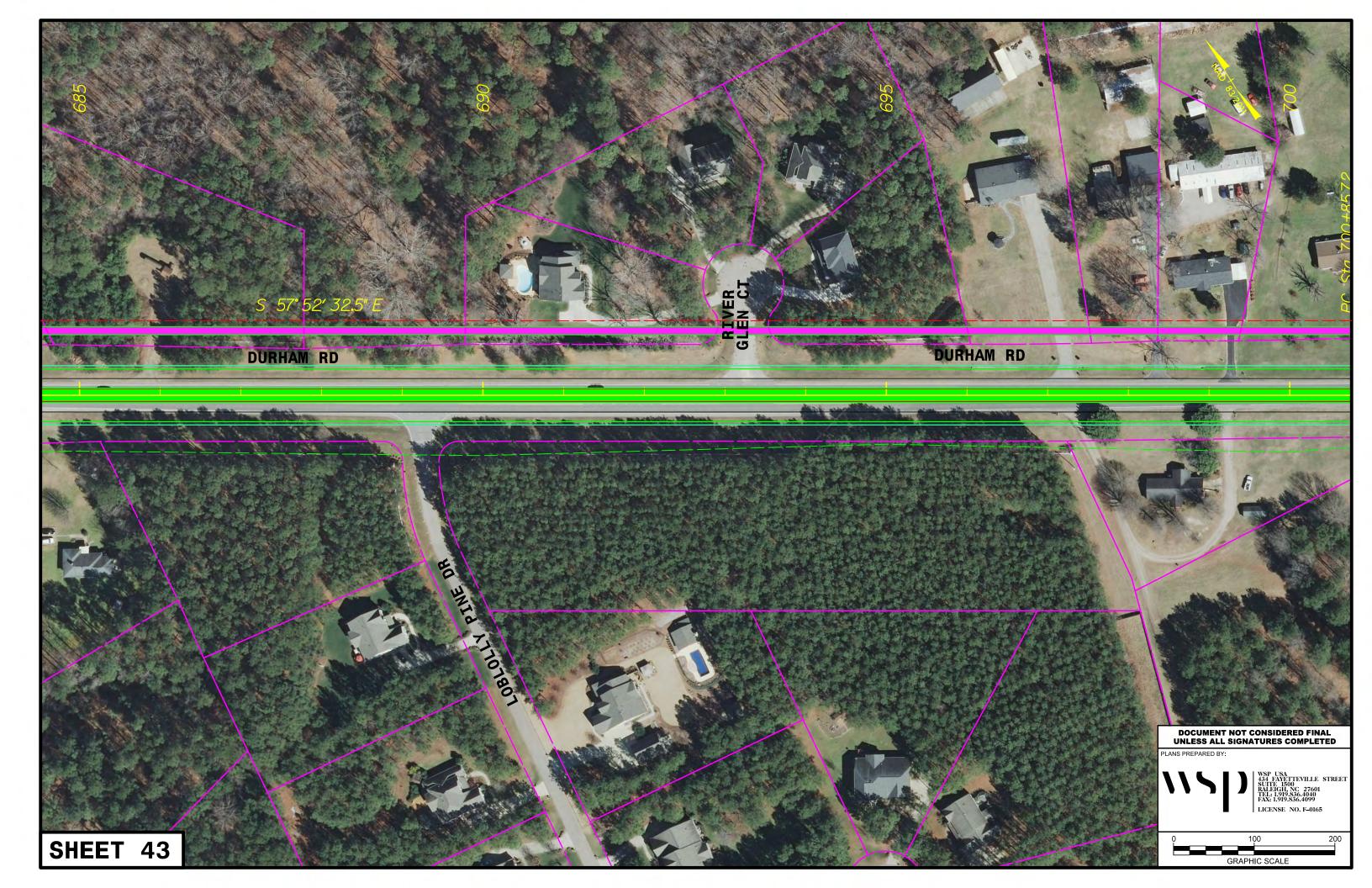


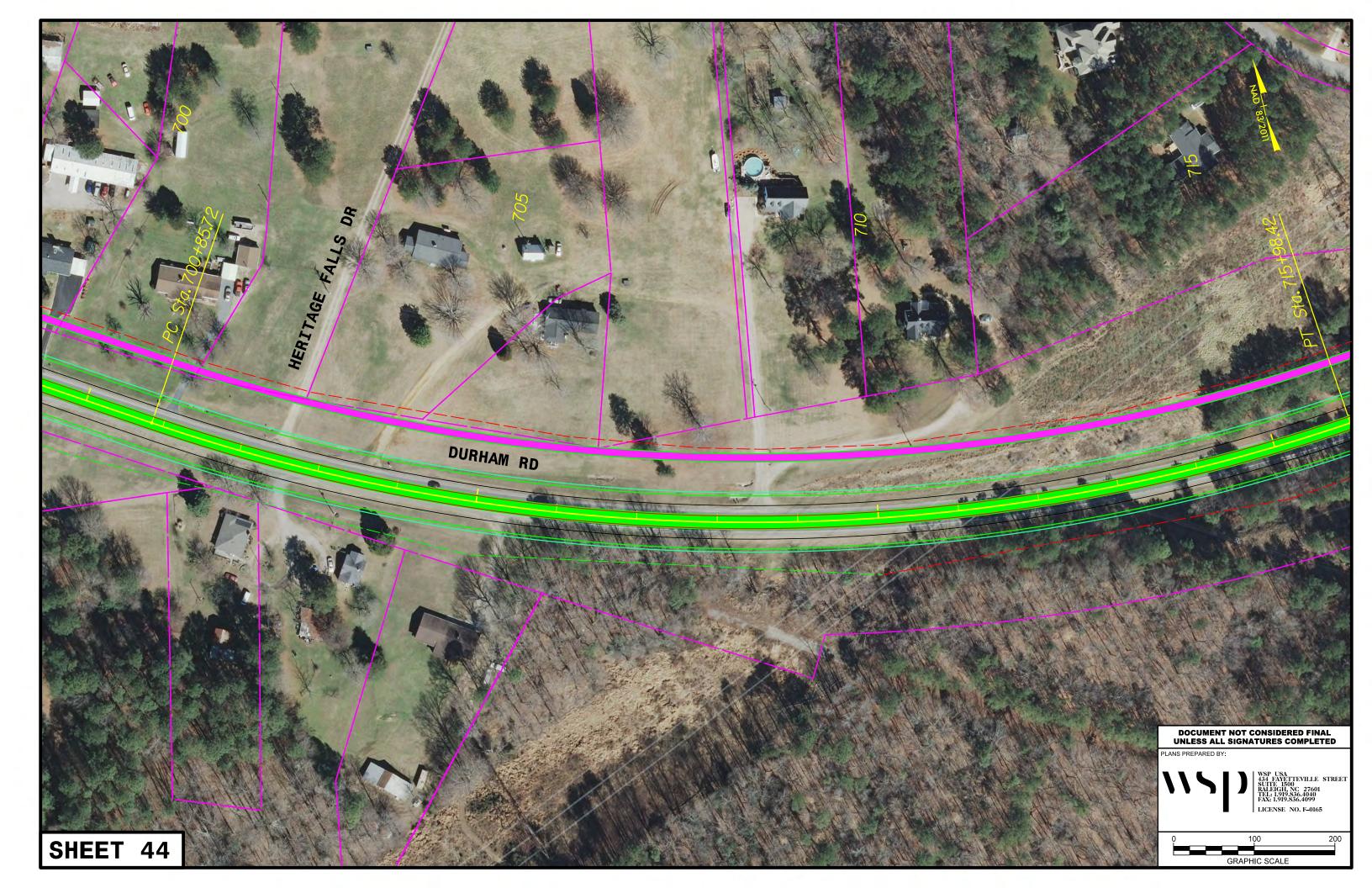


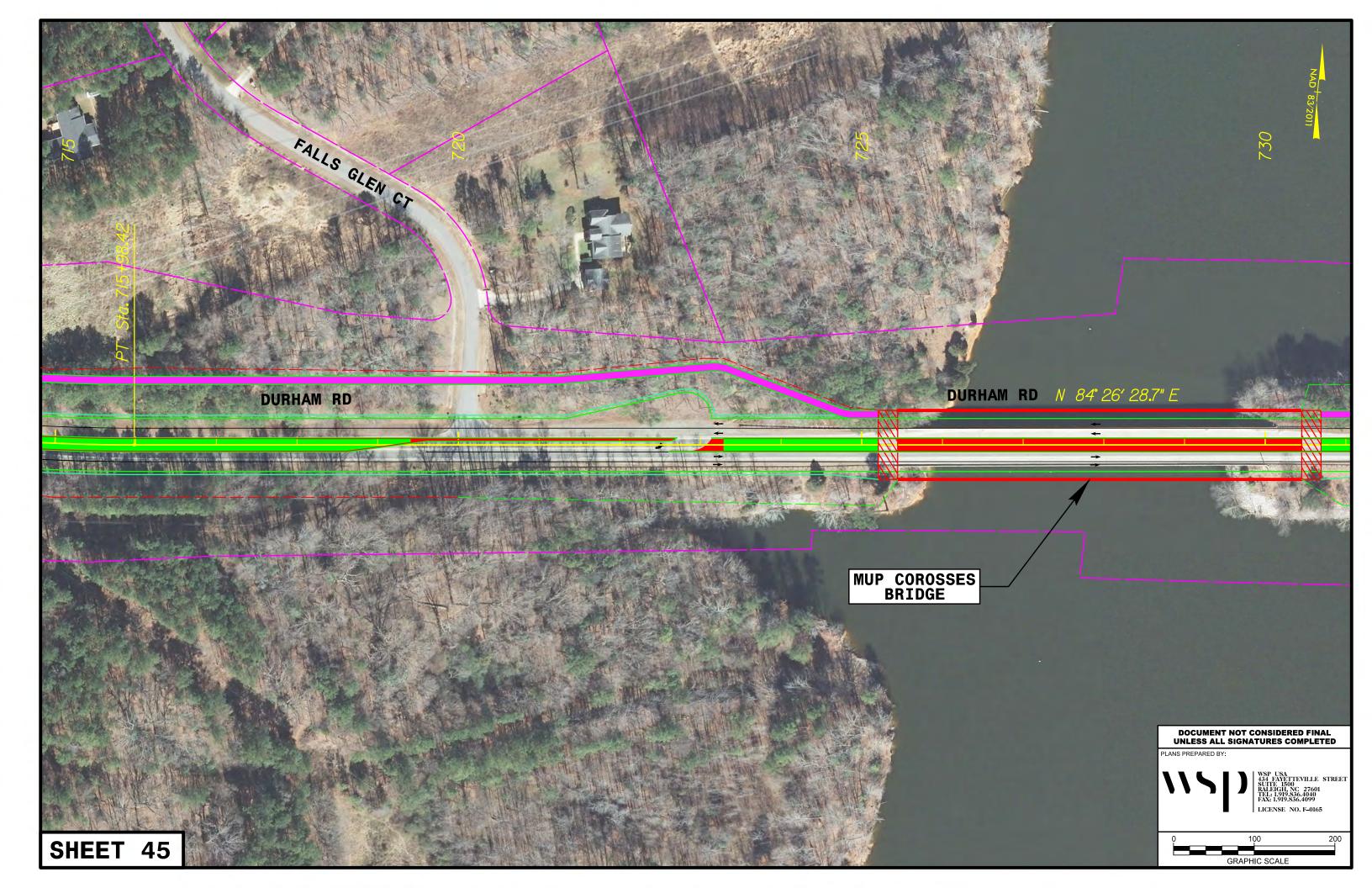


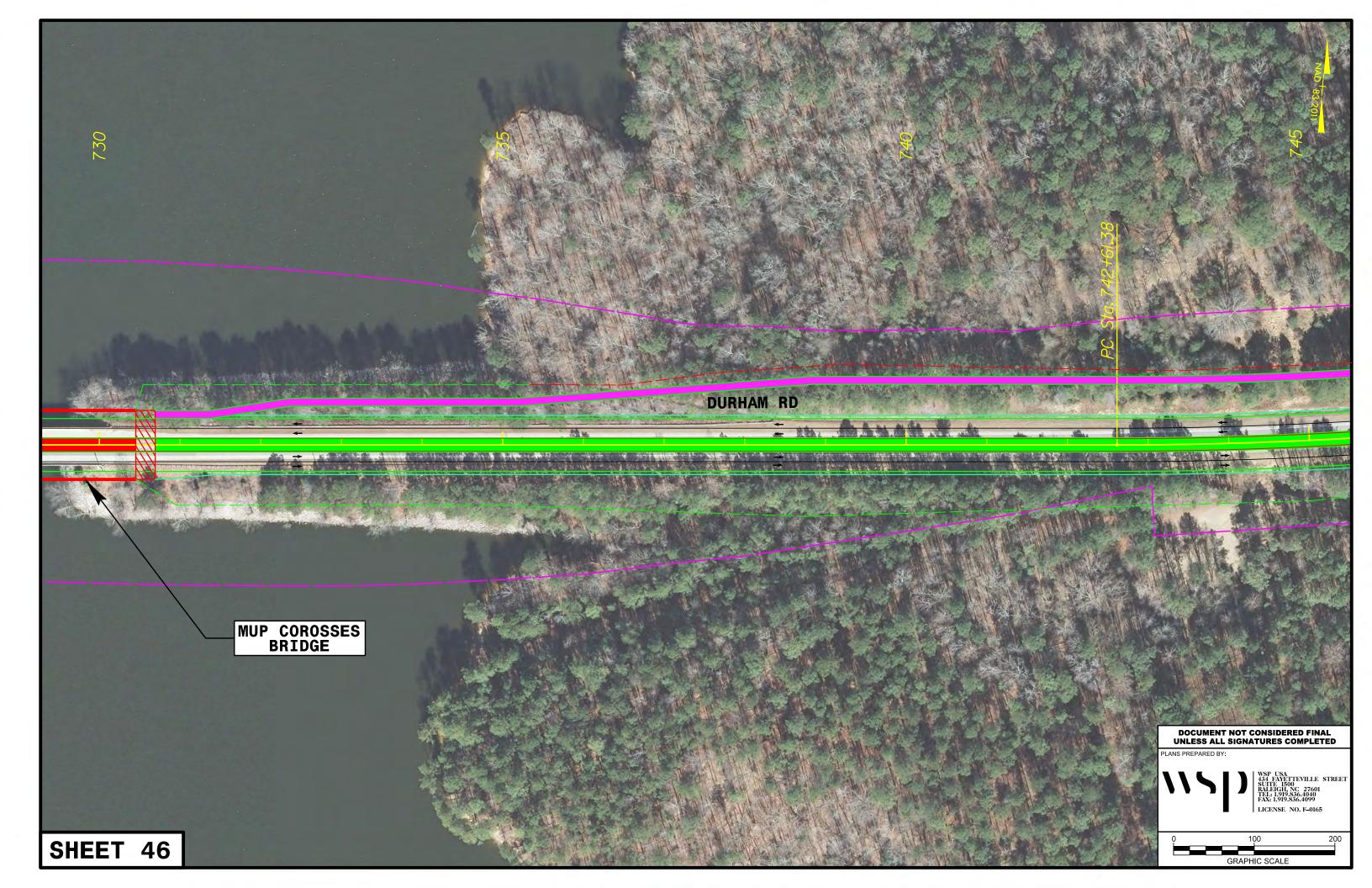


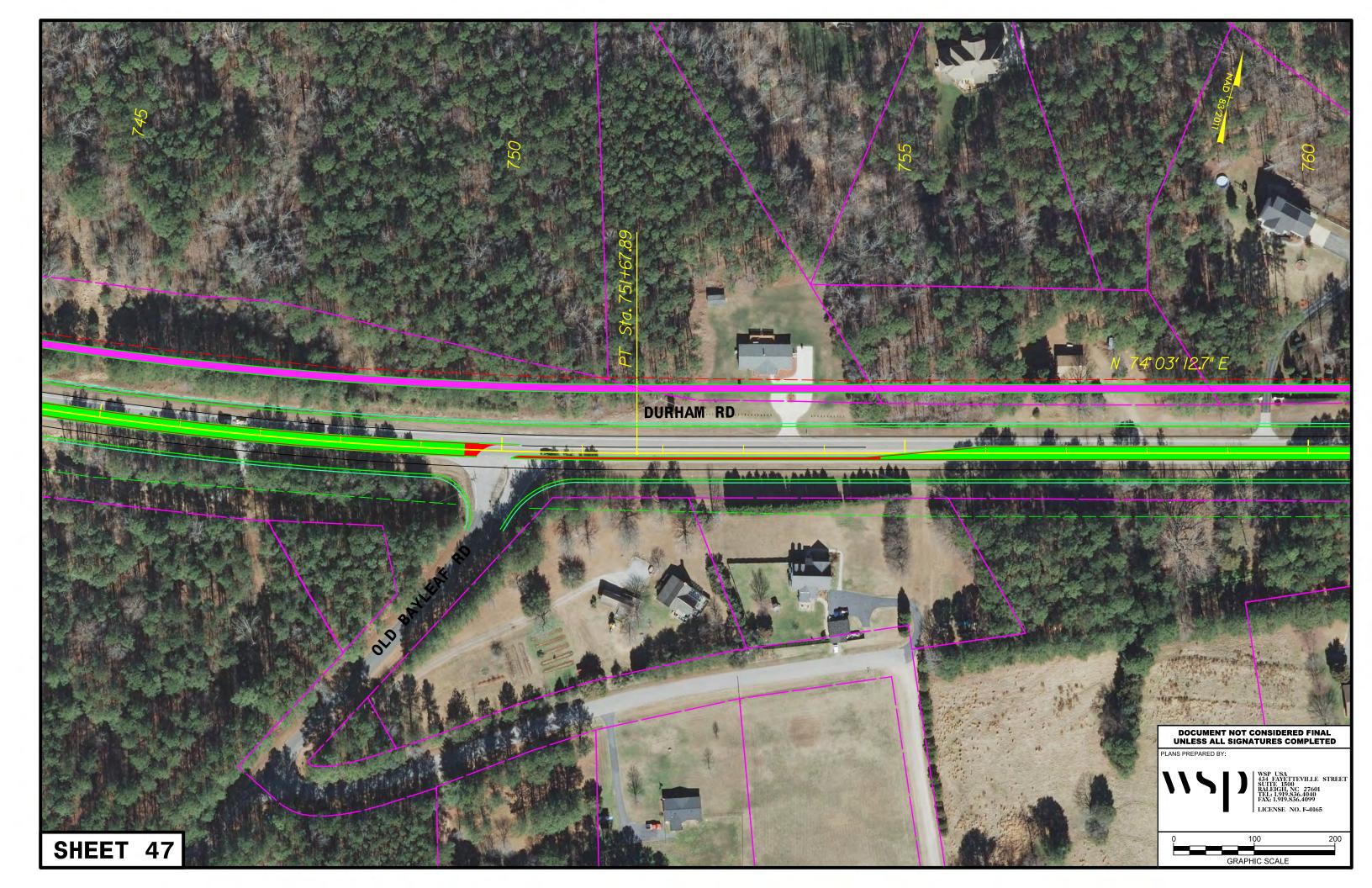


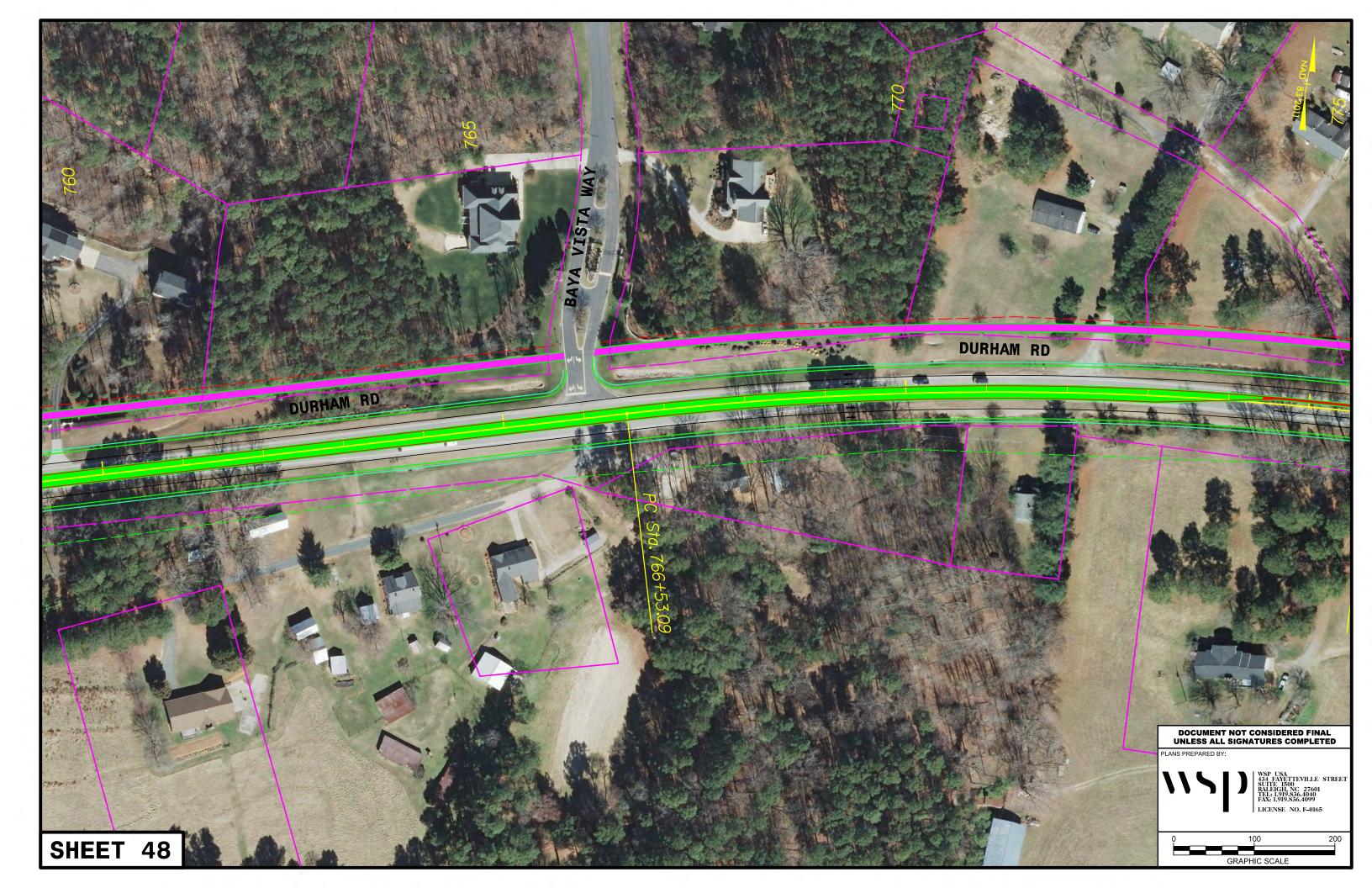


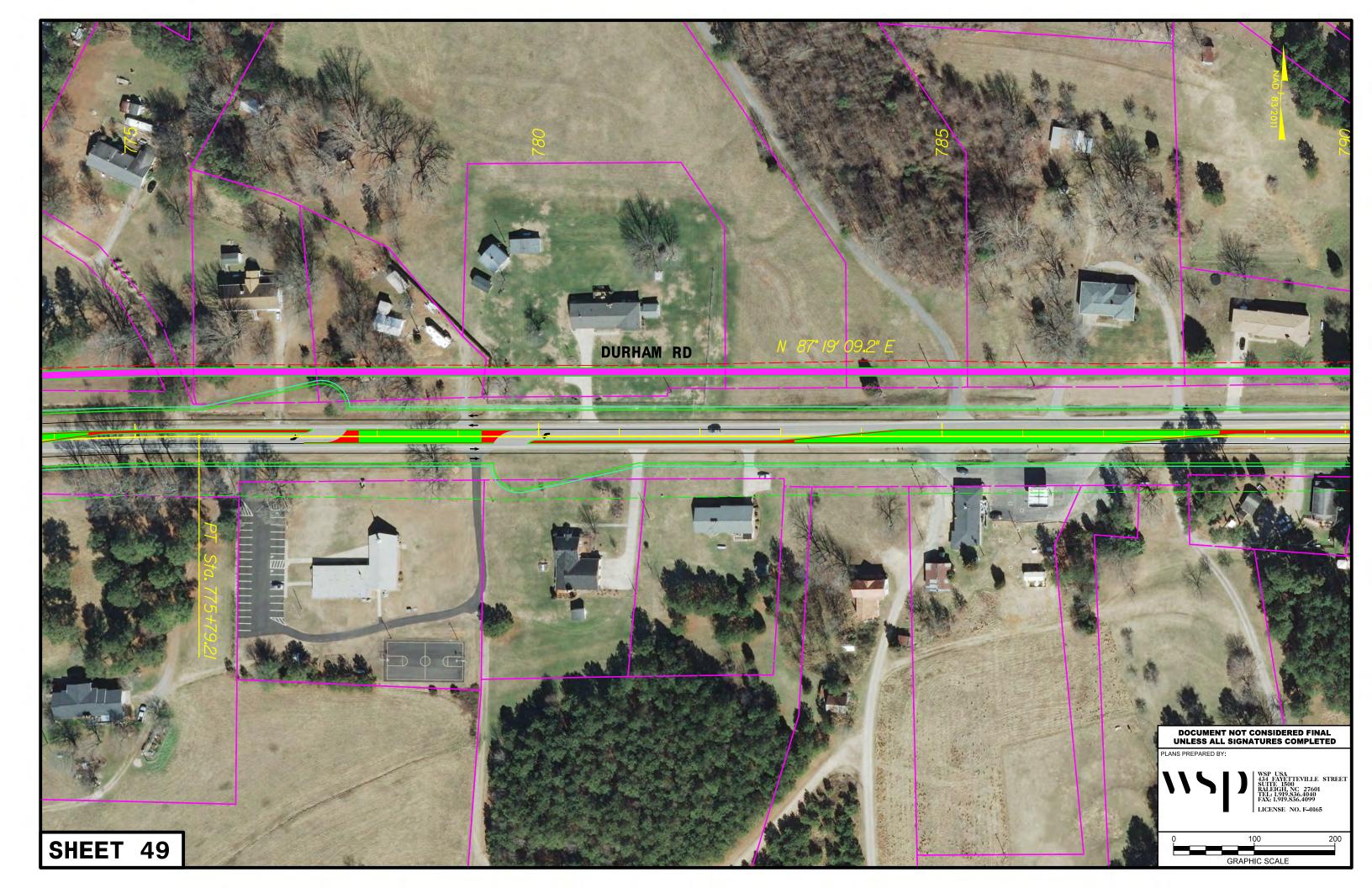


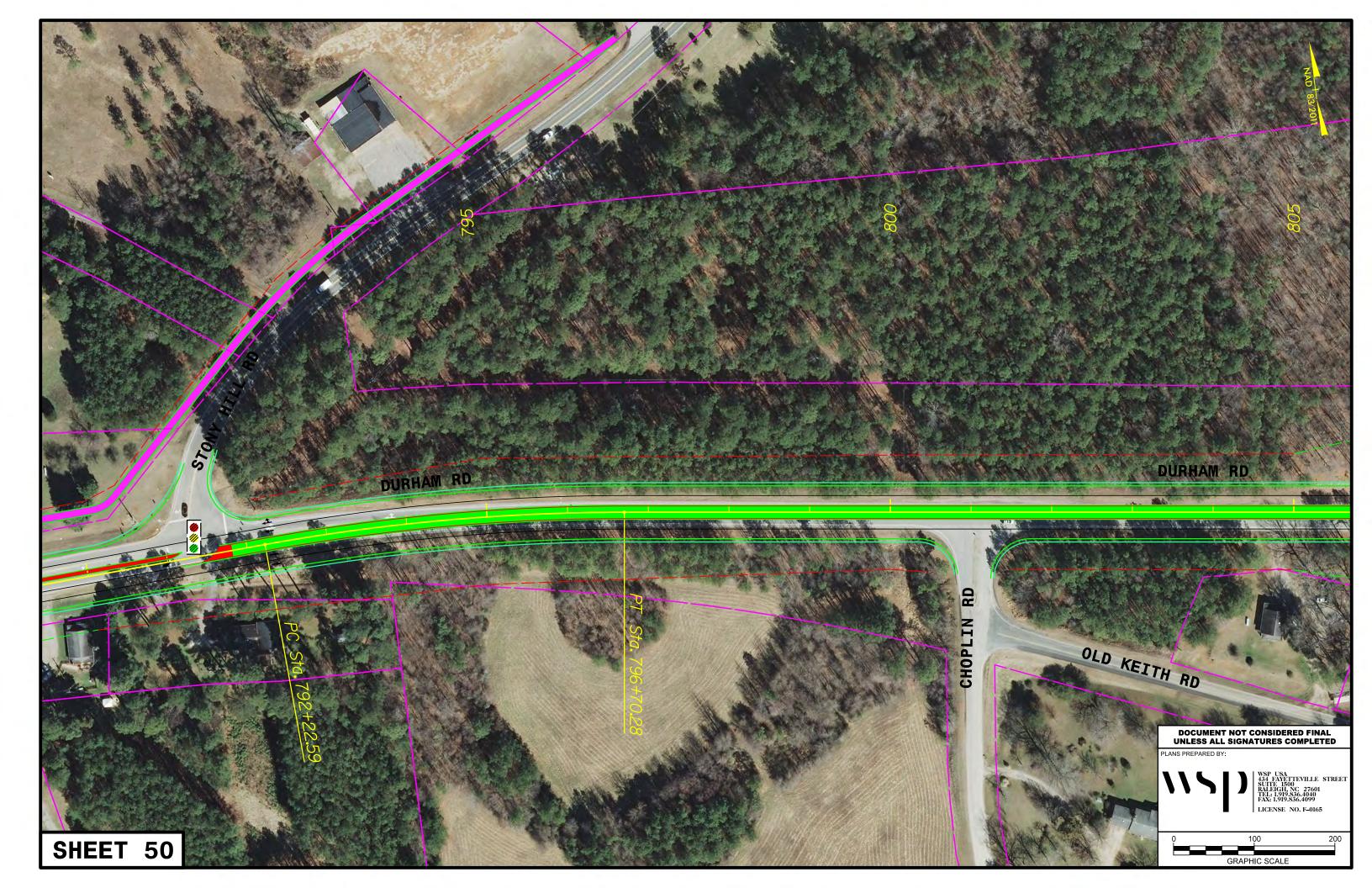




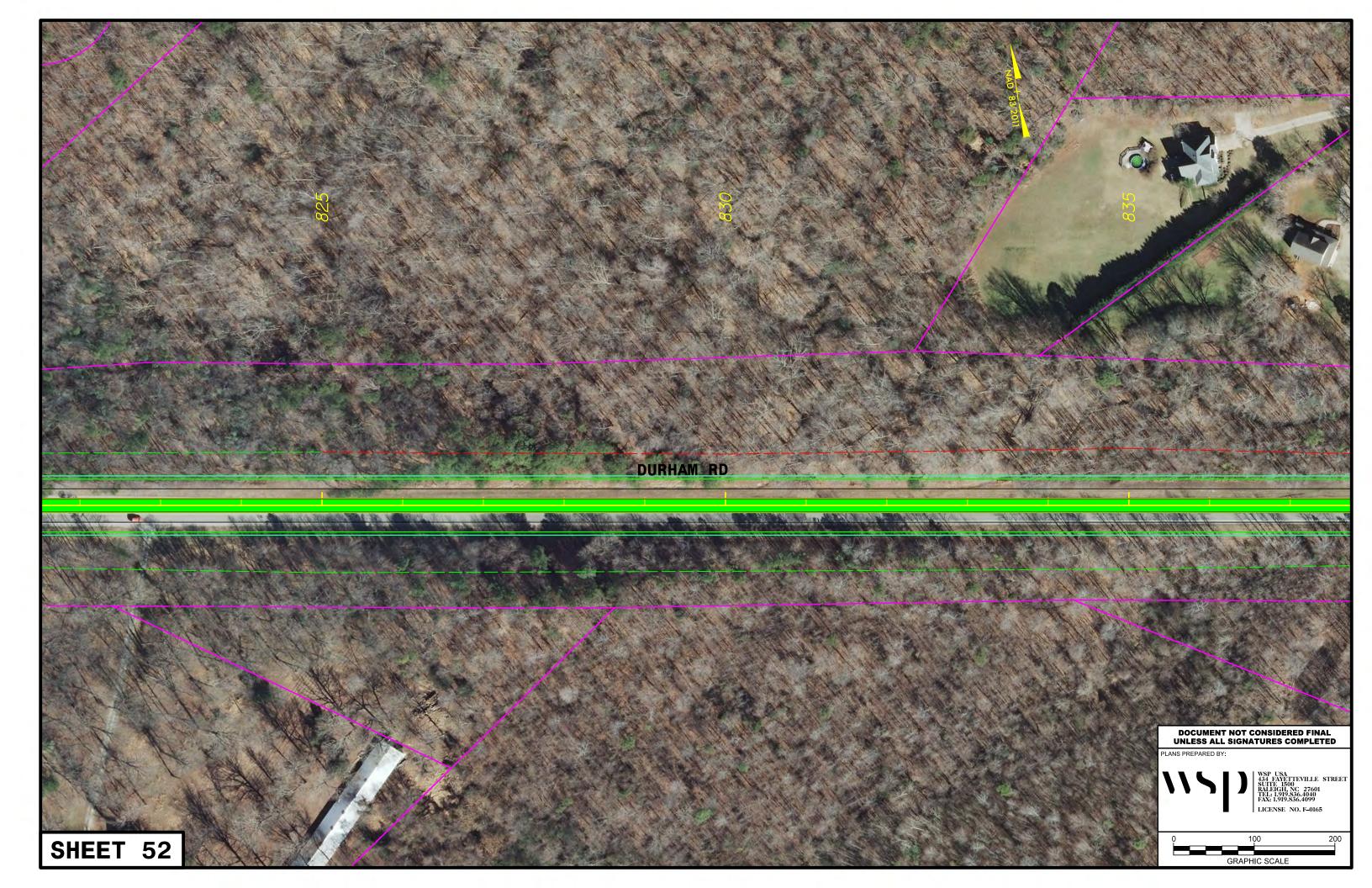


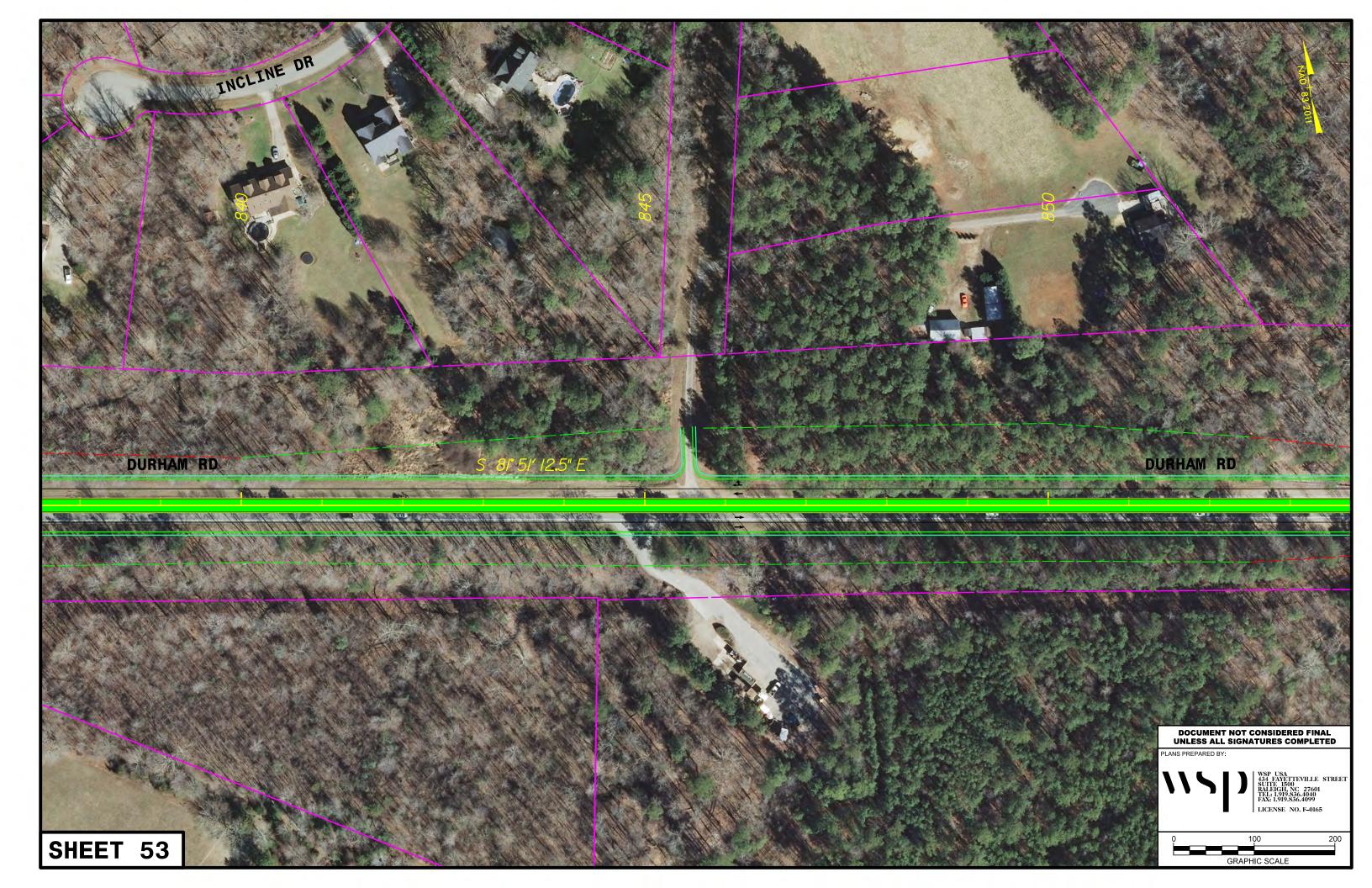


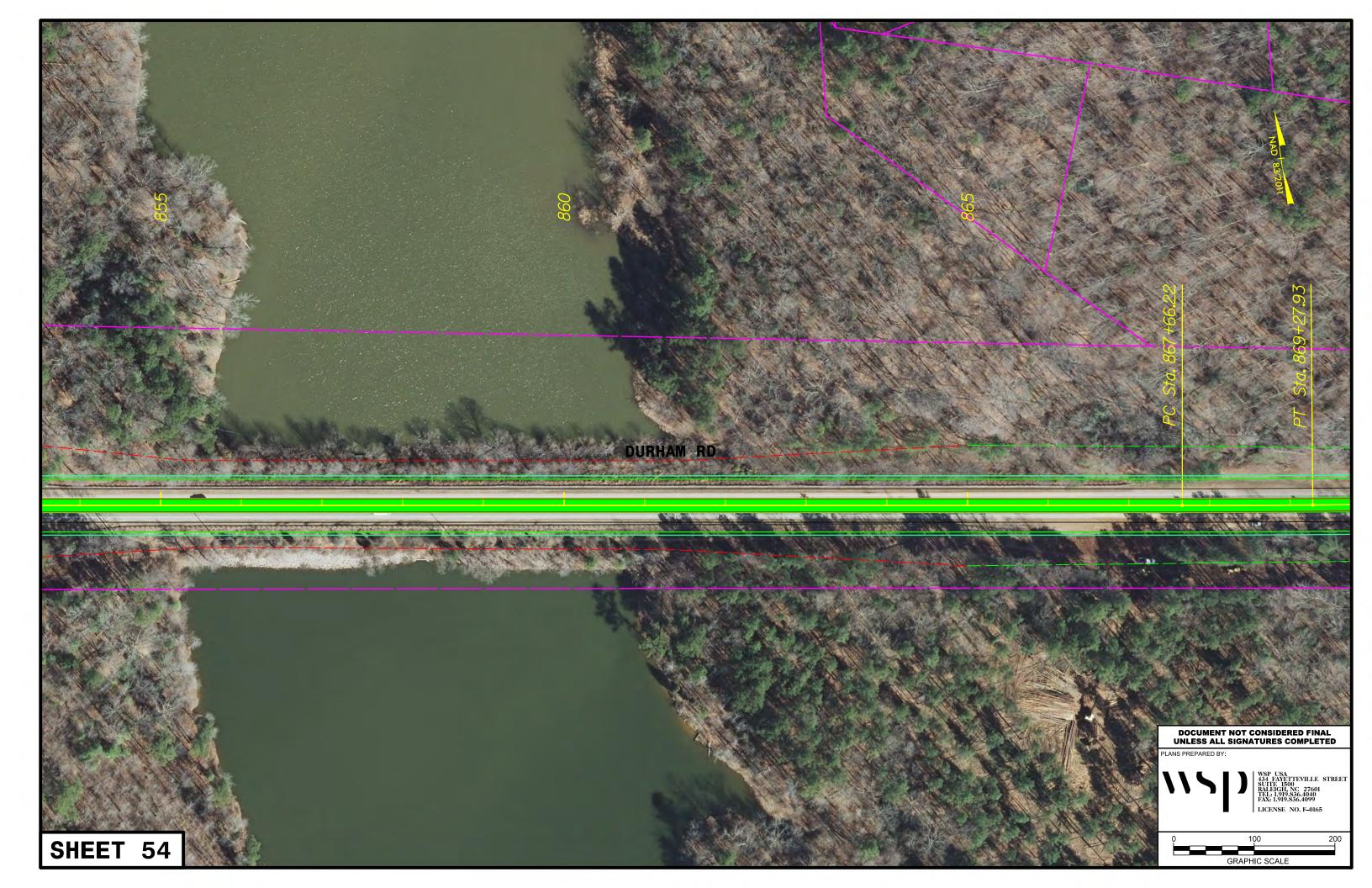


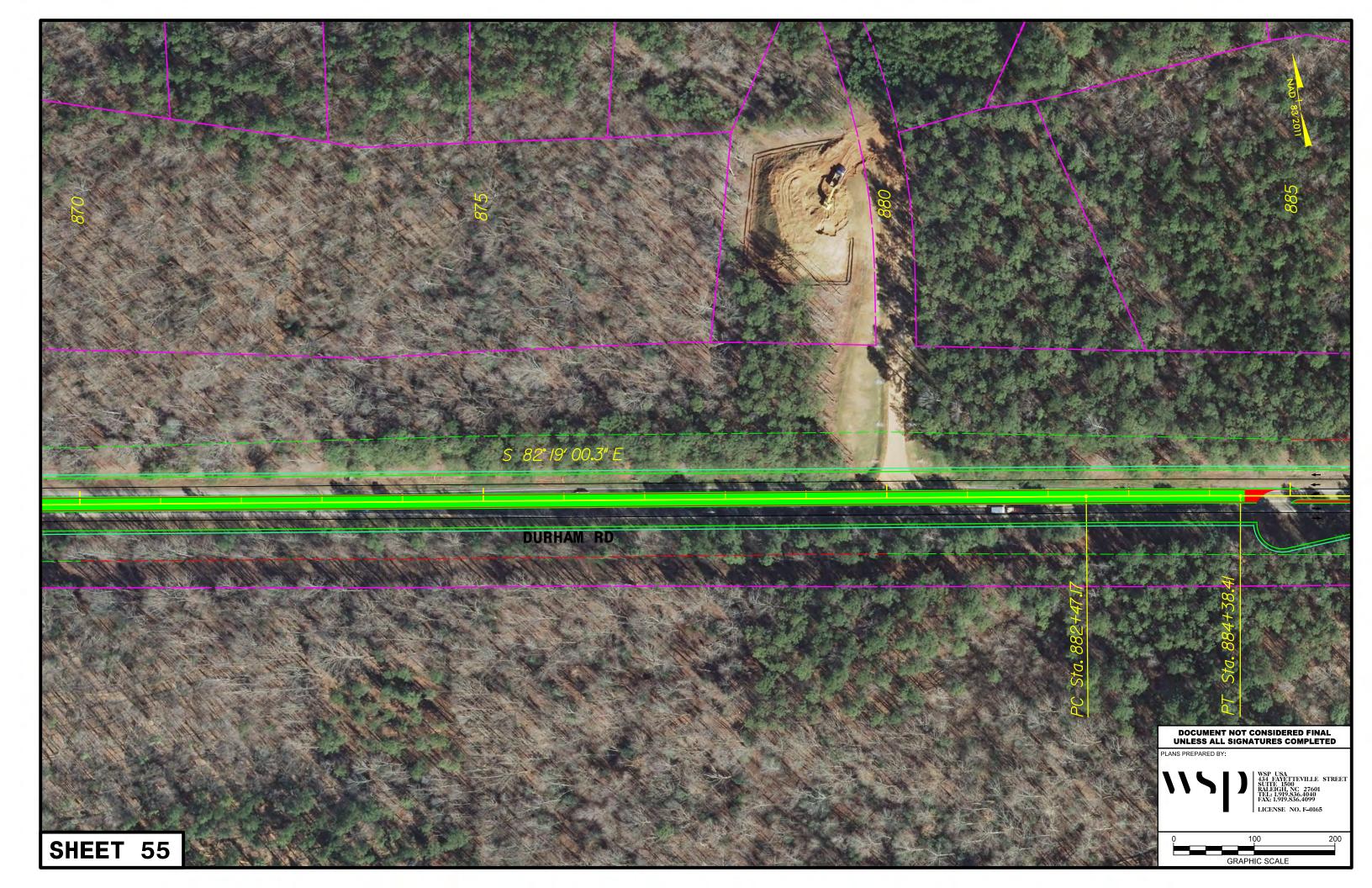




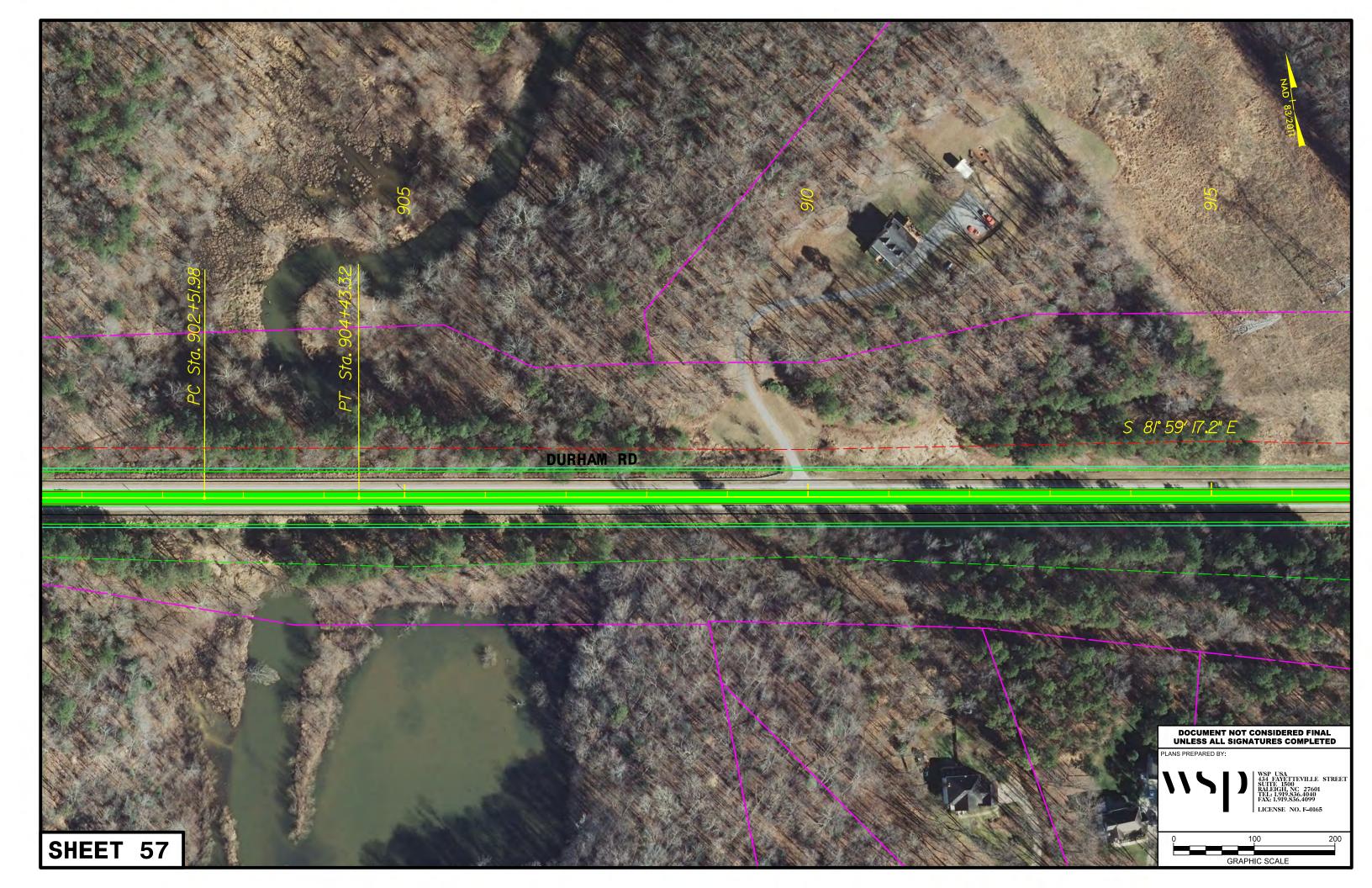




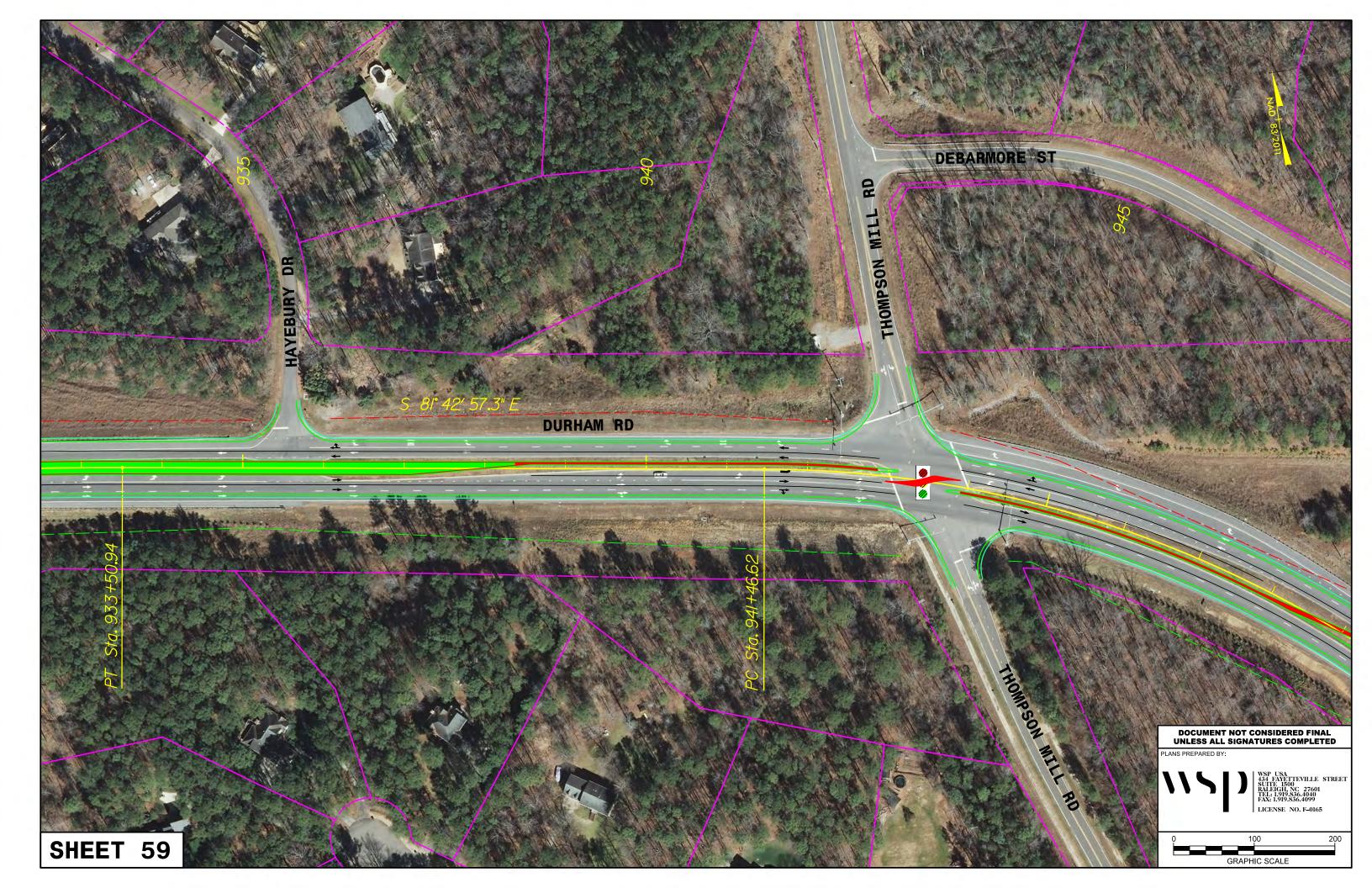


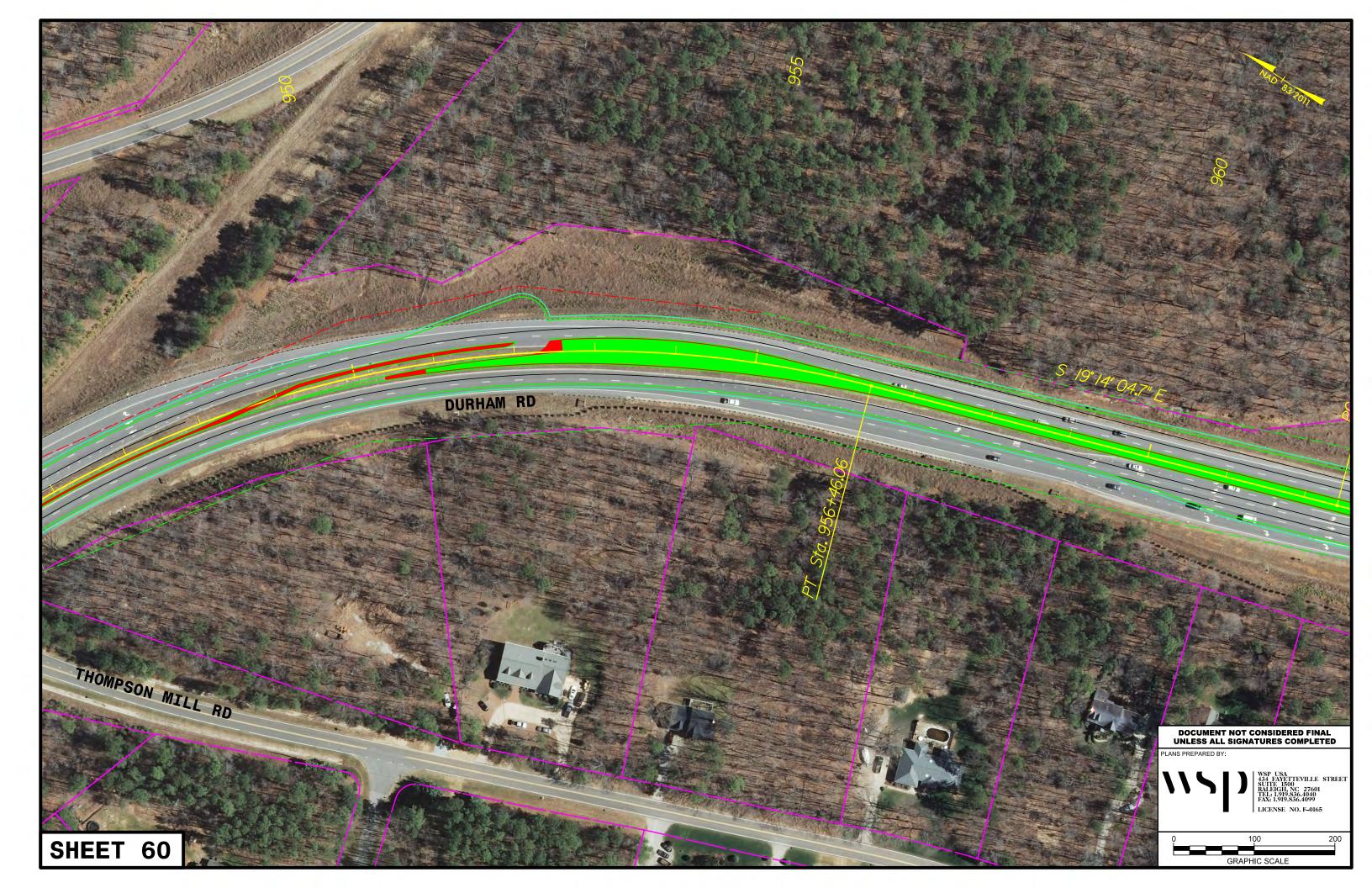






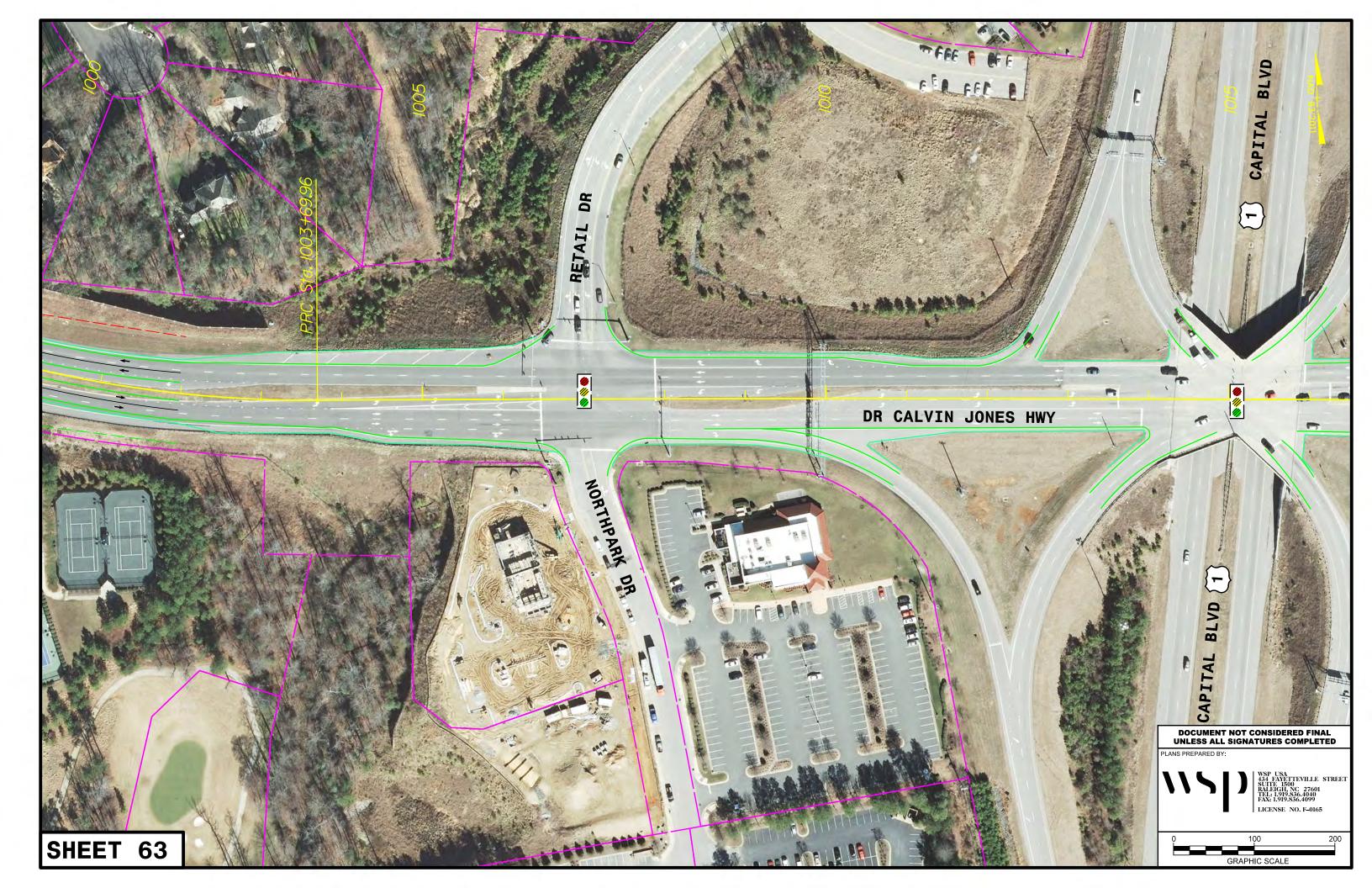


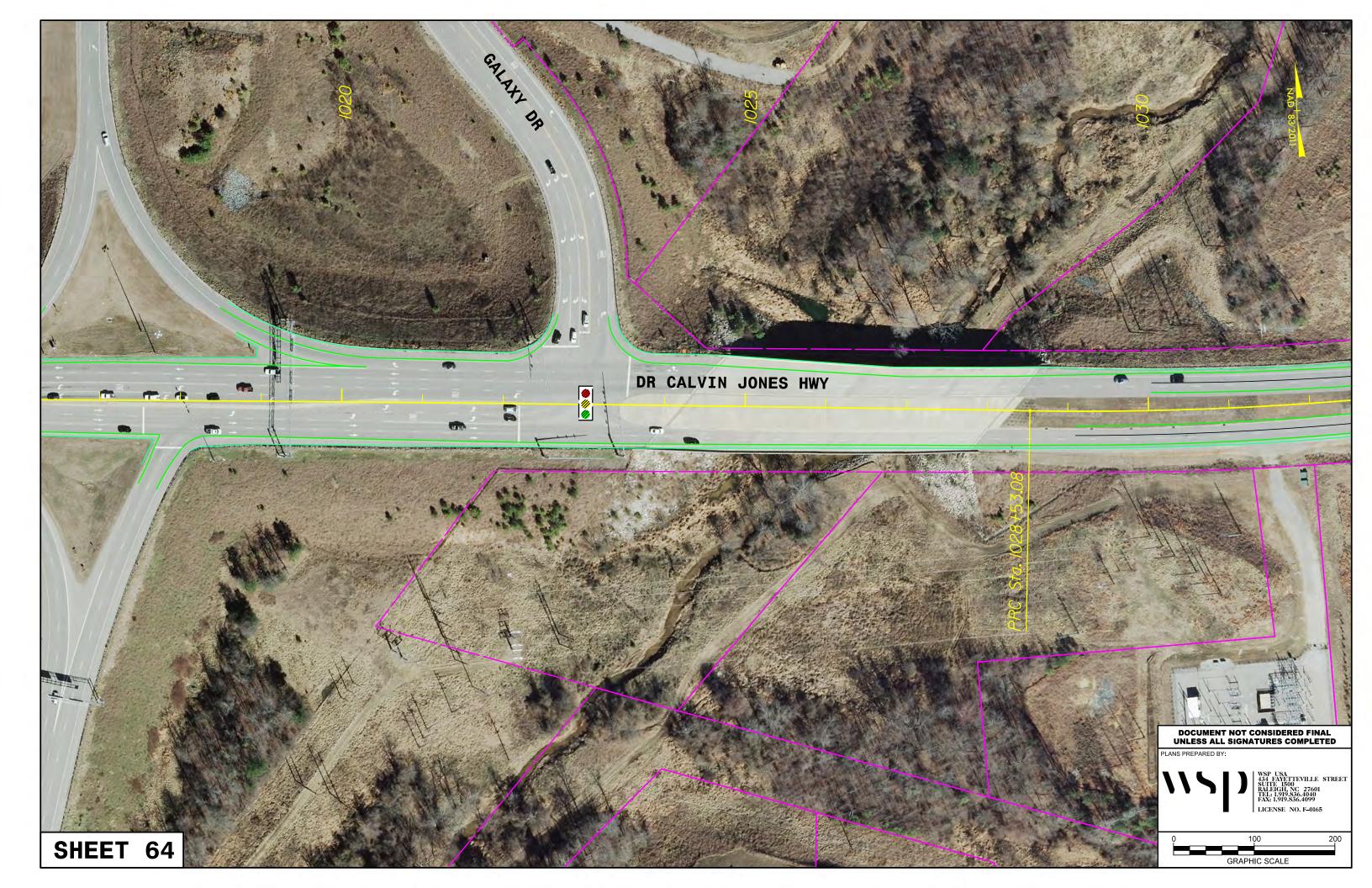




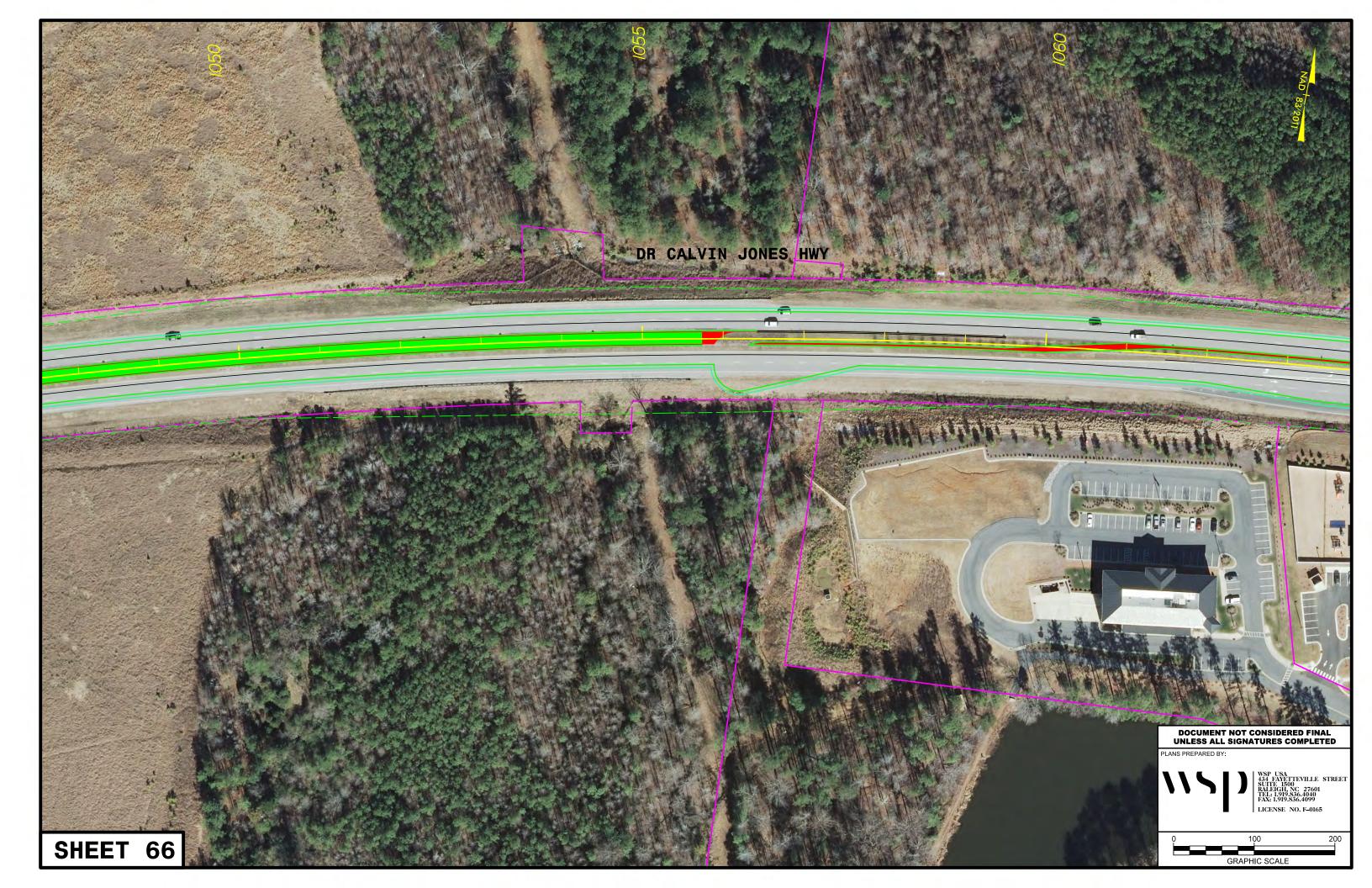




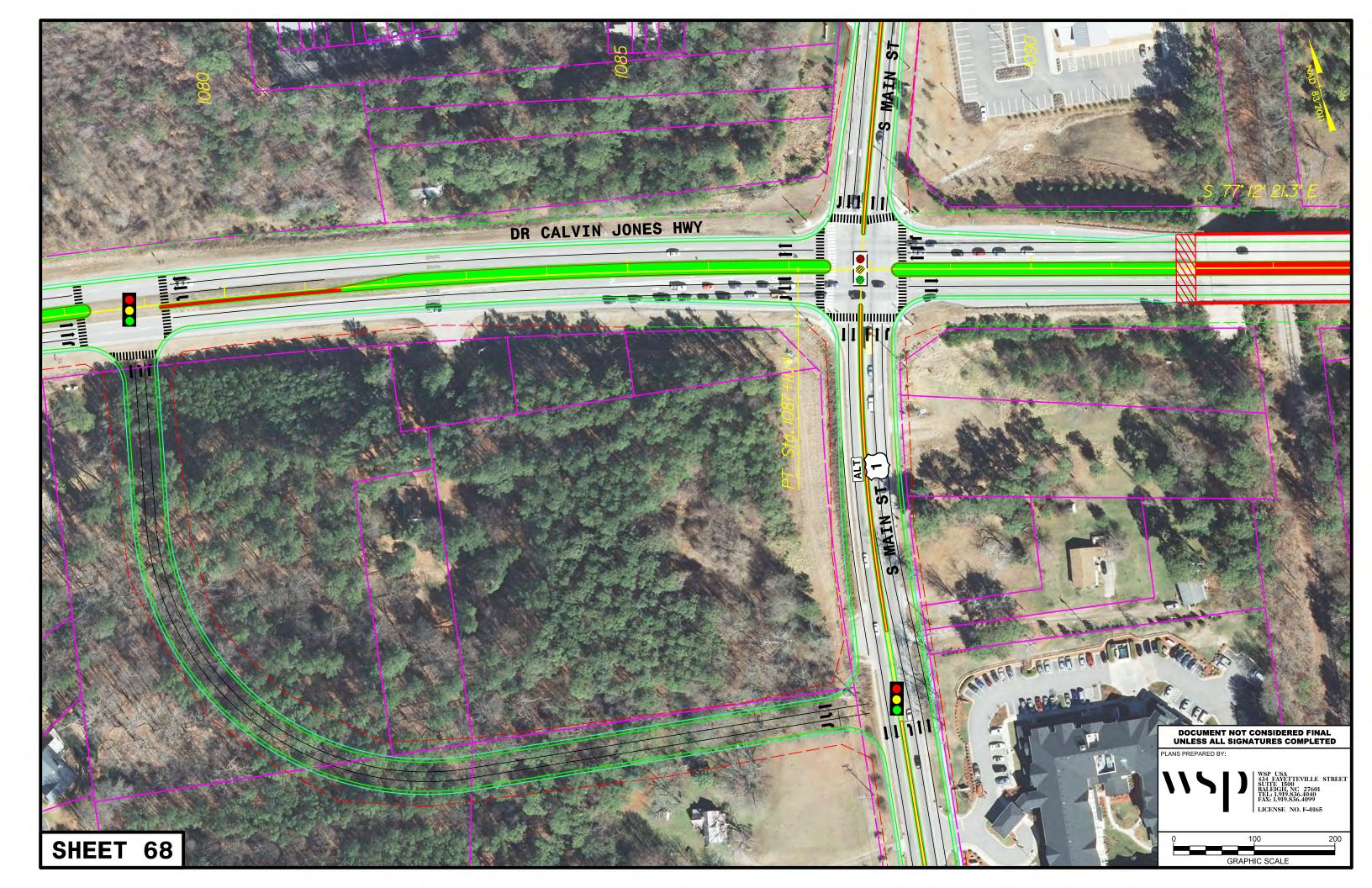










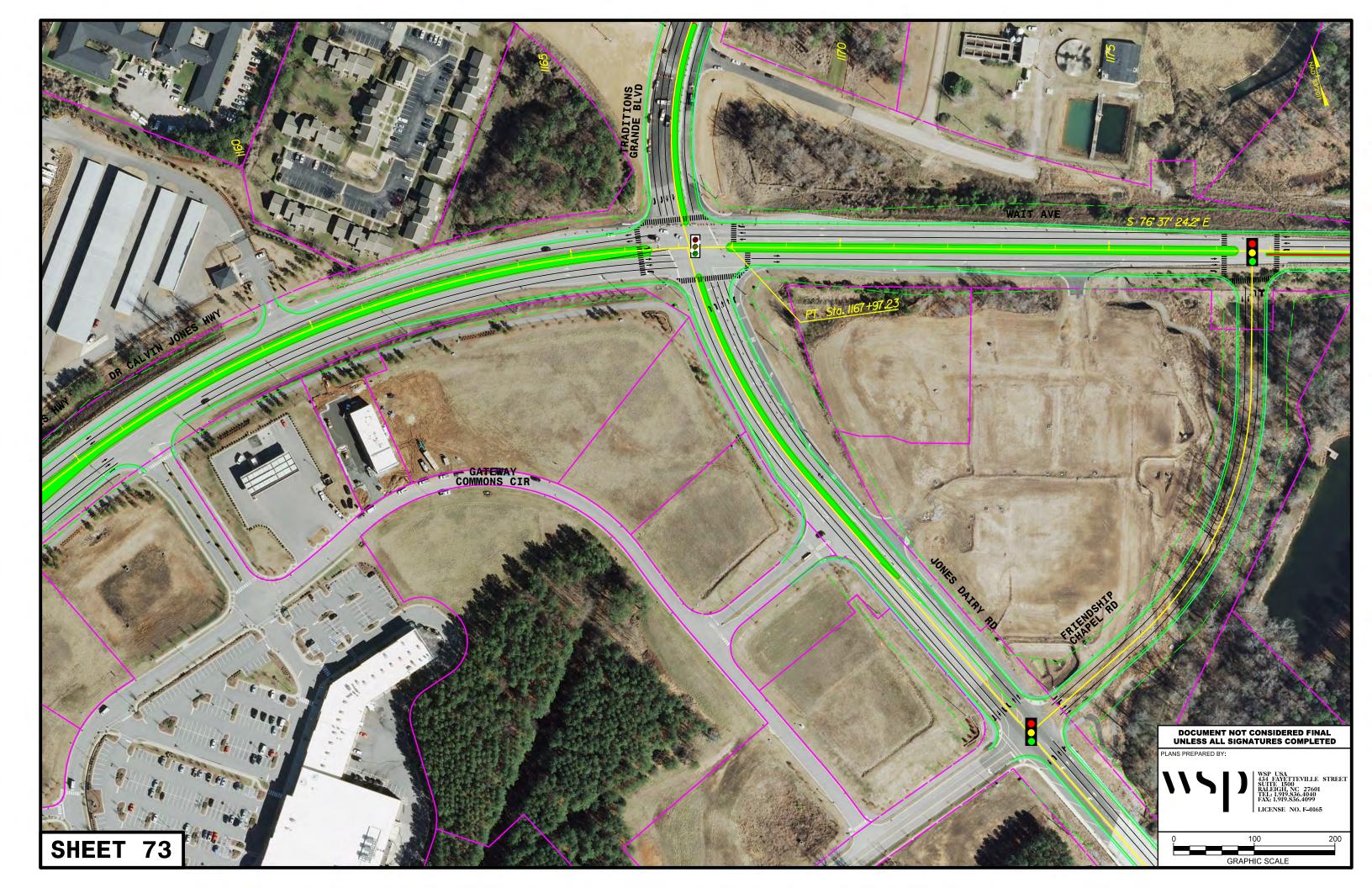


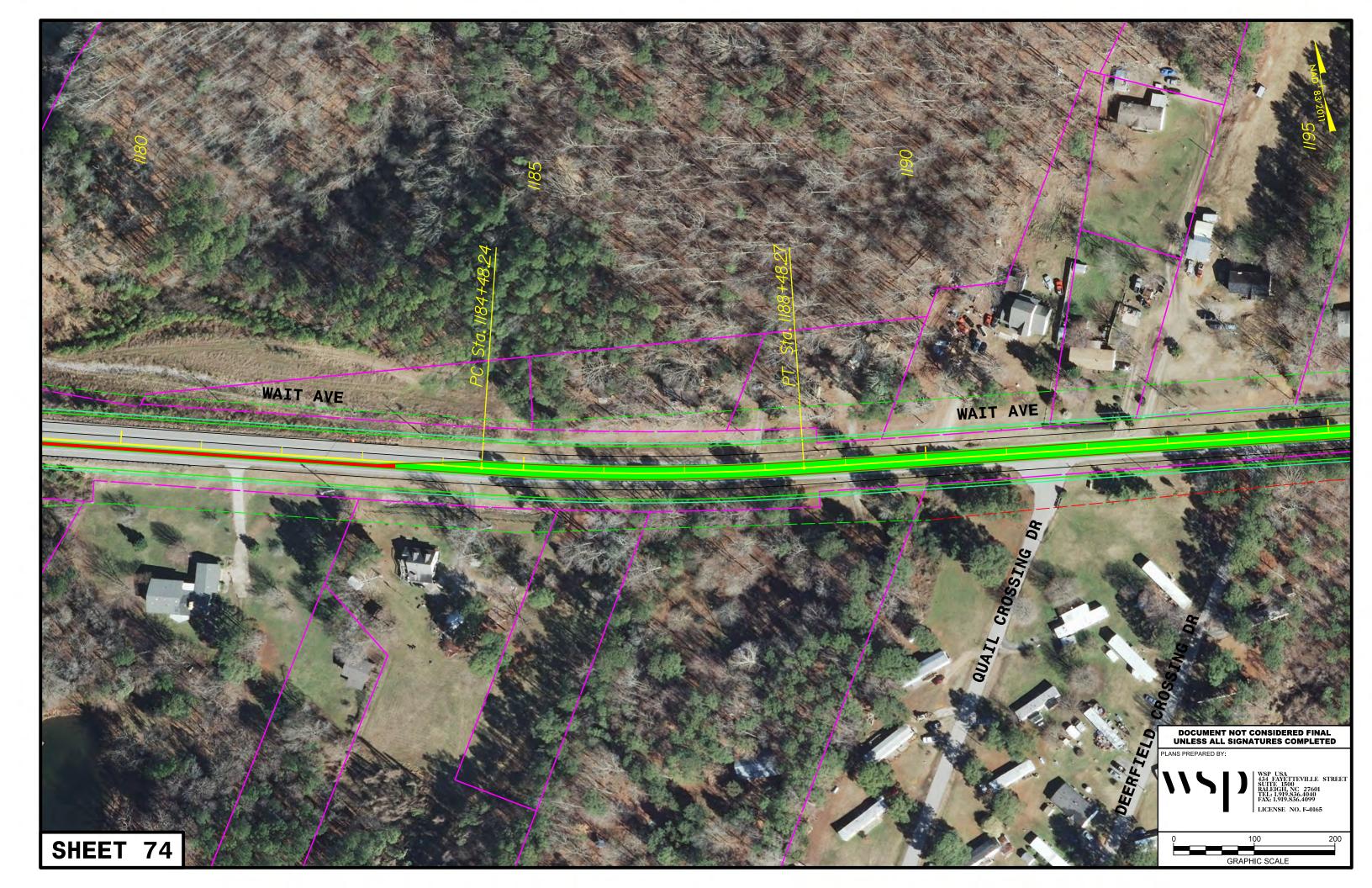




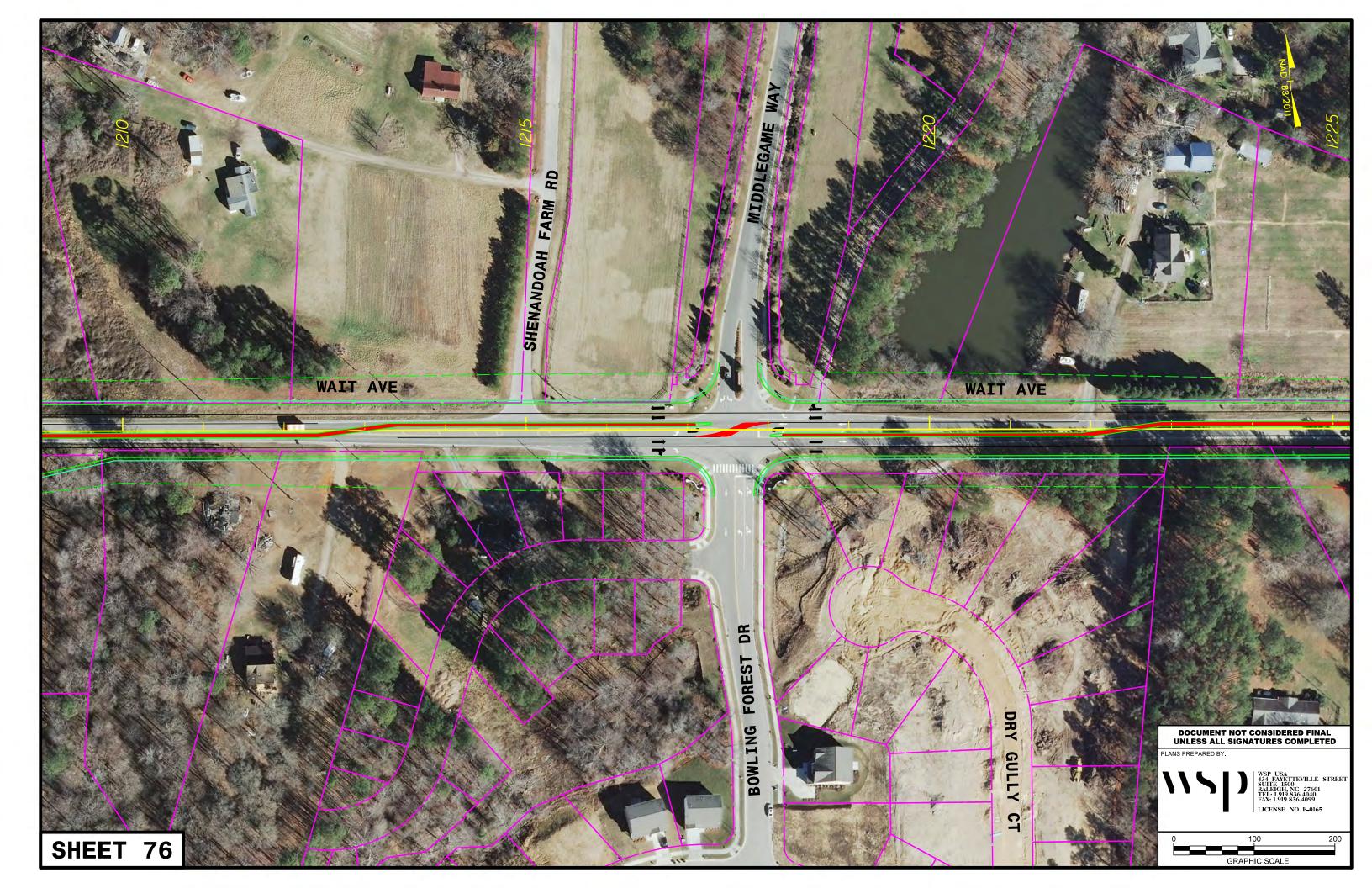


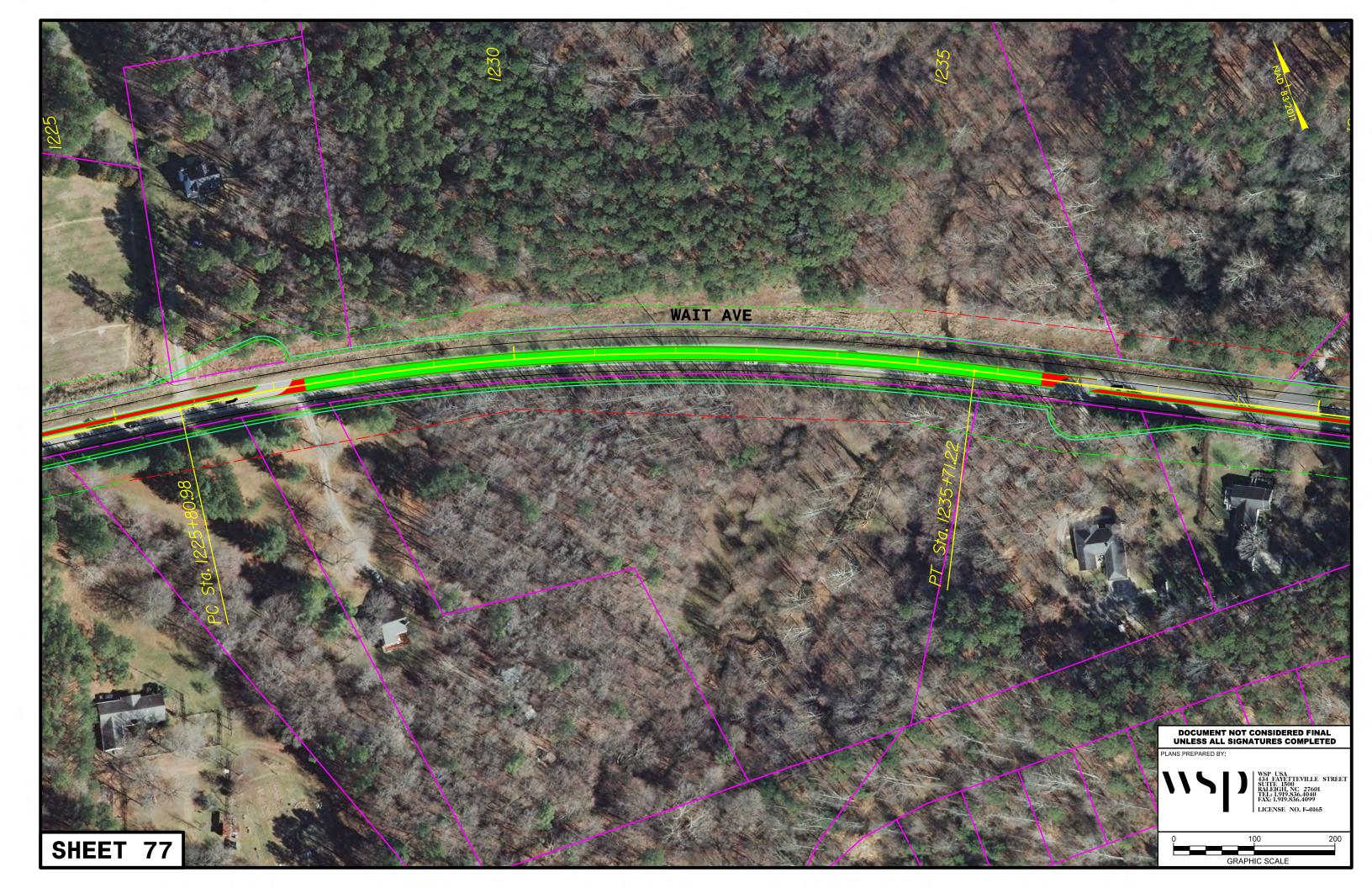














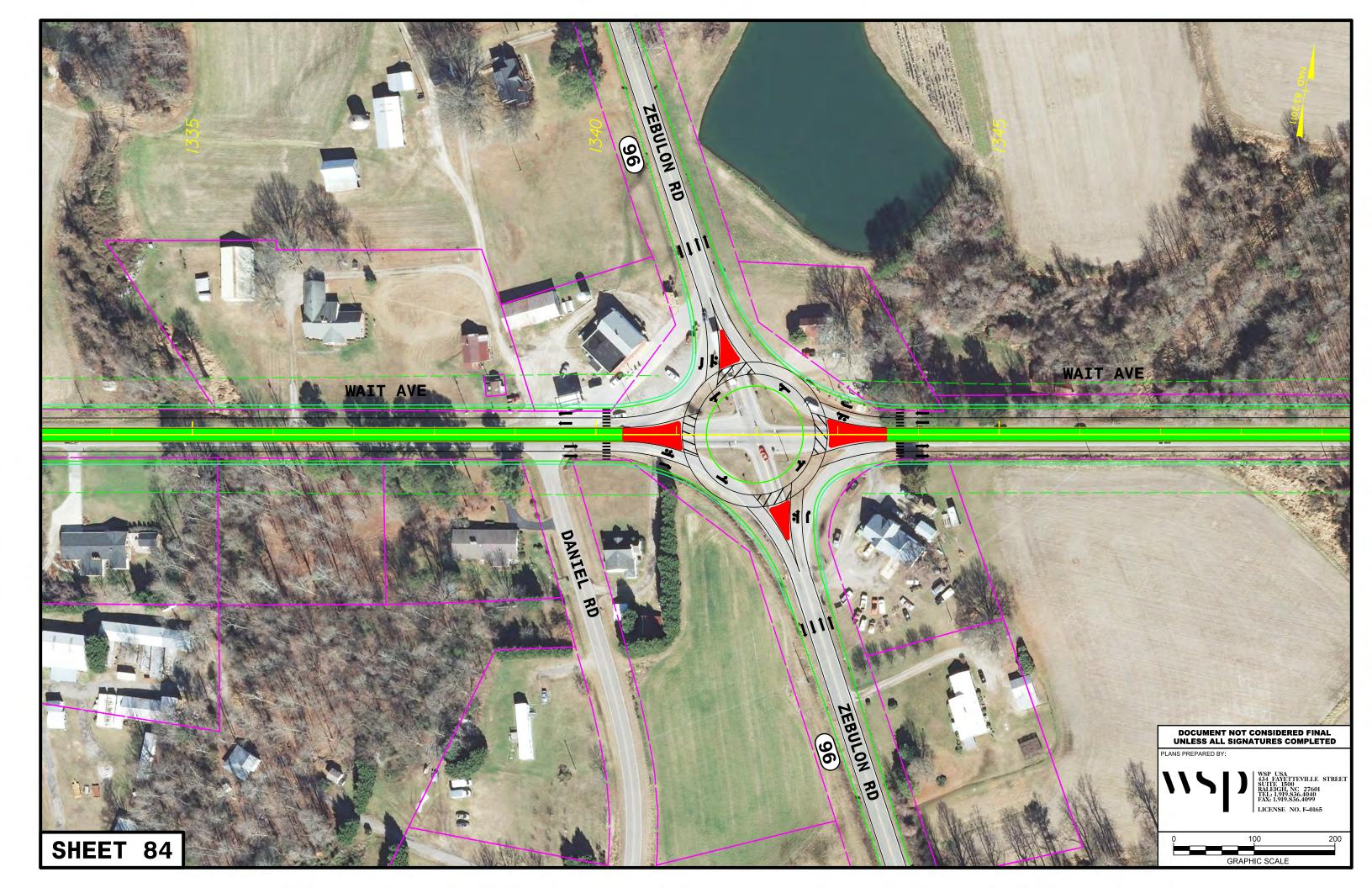






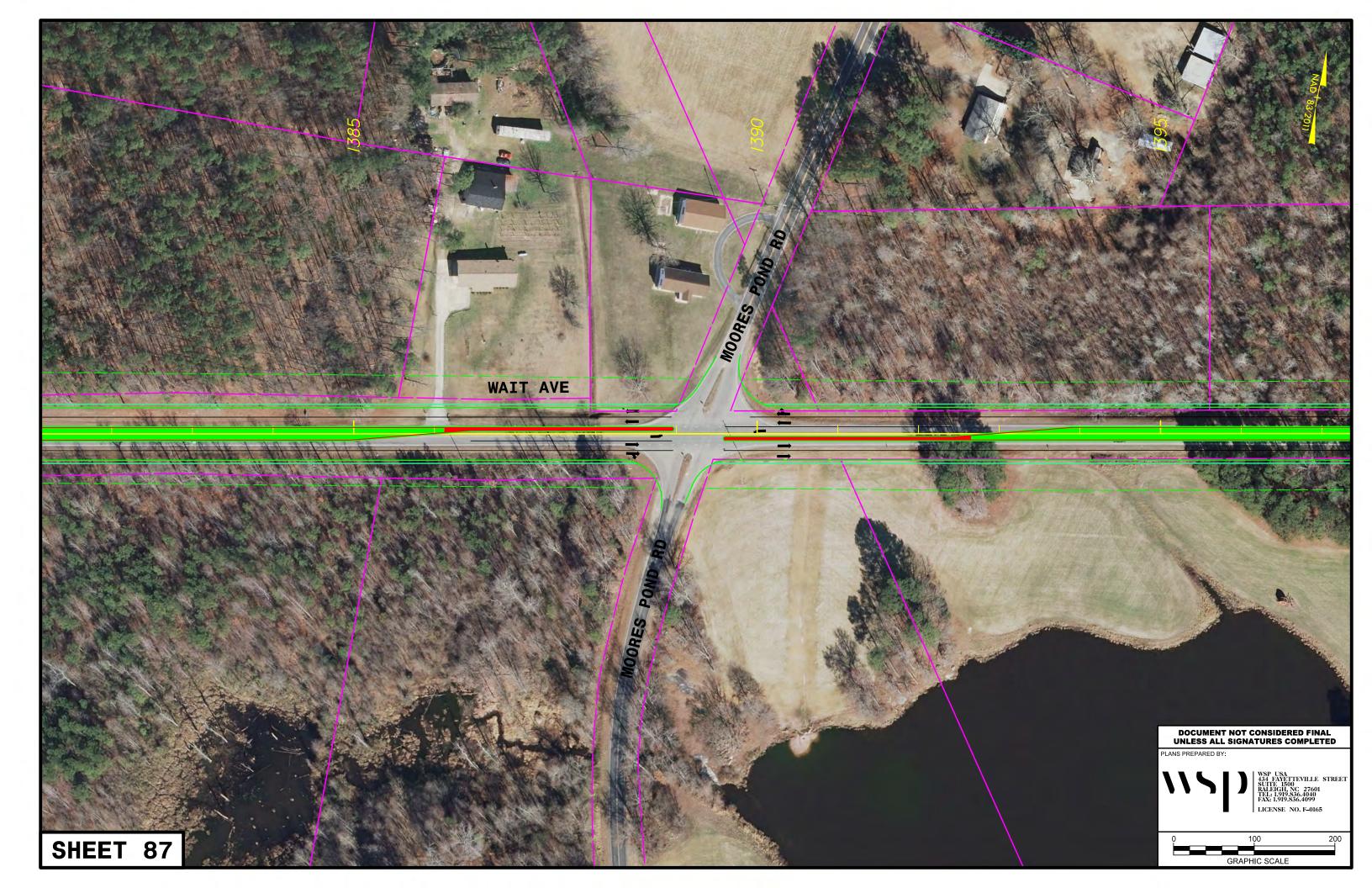
















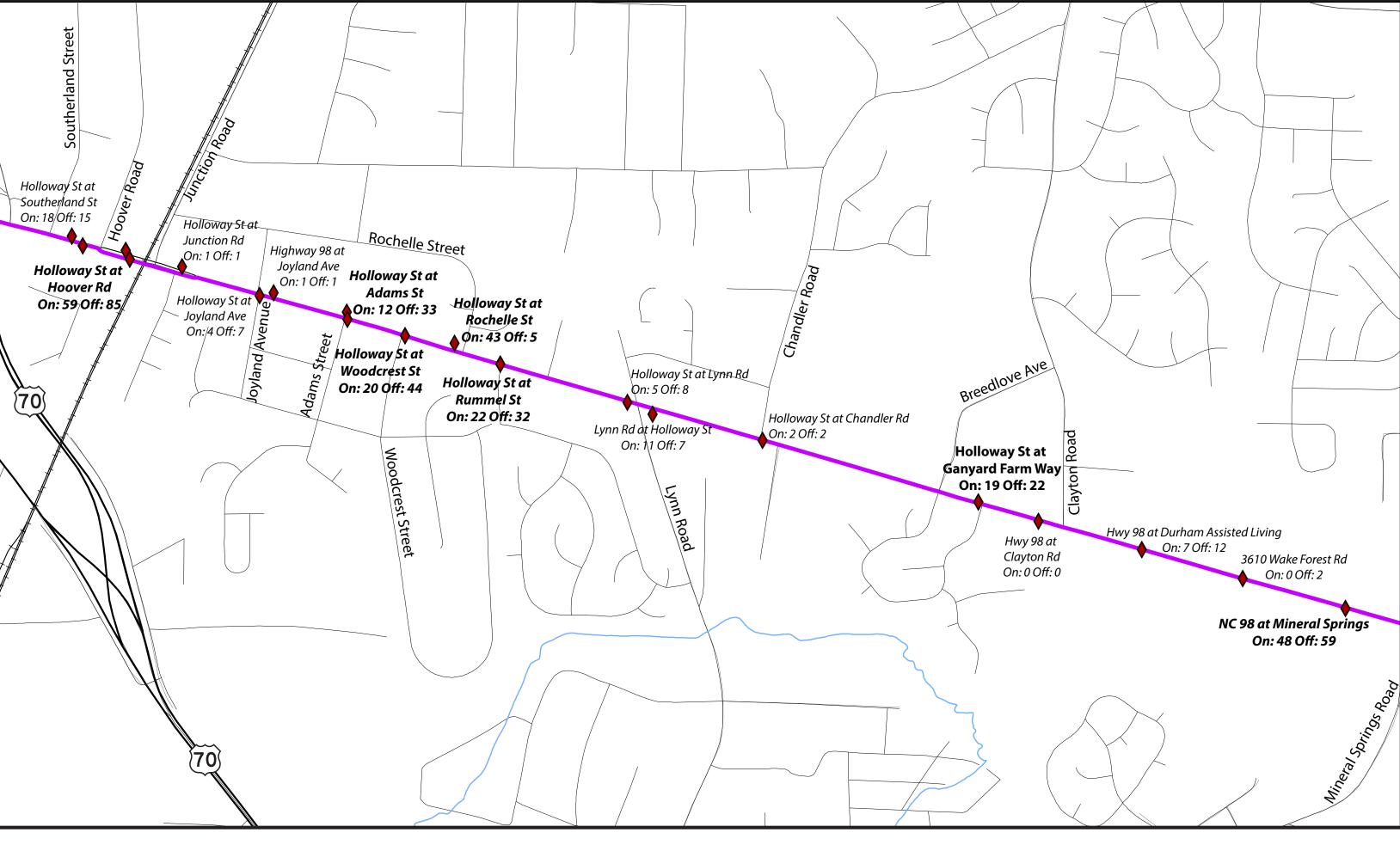




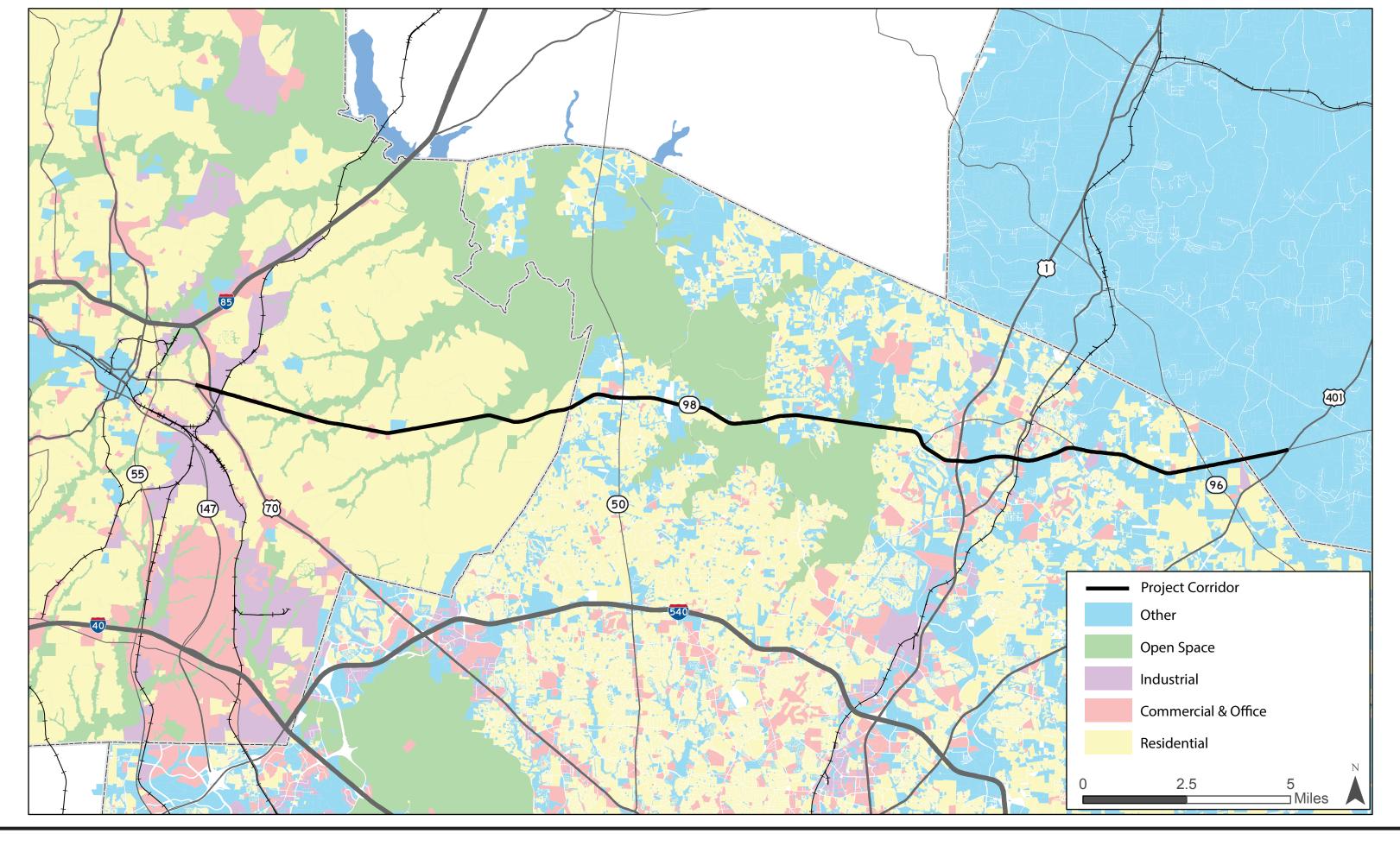
www.nc98corridor.com

OTHER MAPS

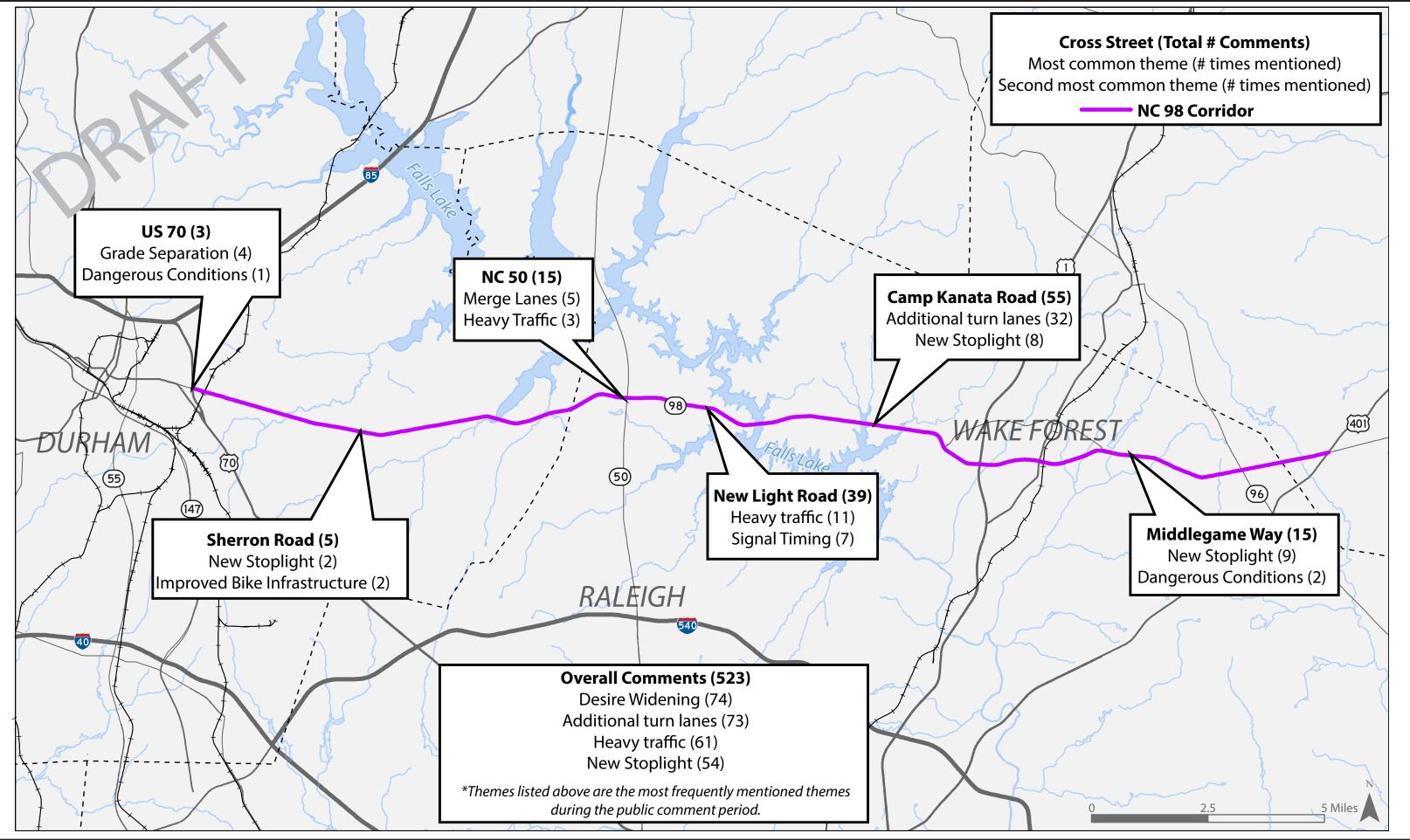




GoDurham Bus Stop Boardings and Alightings

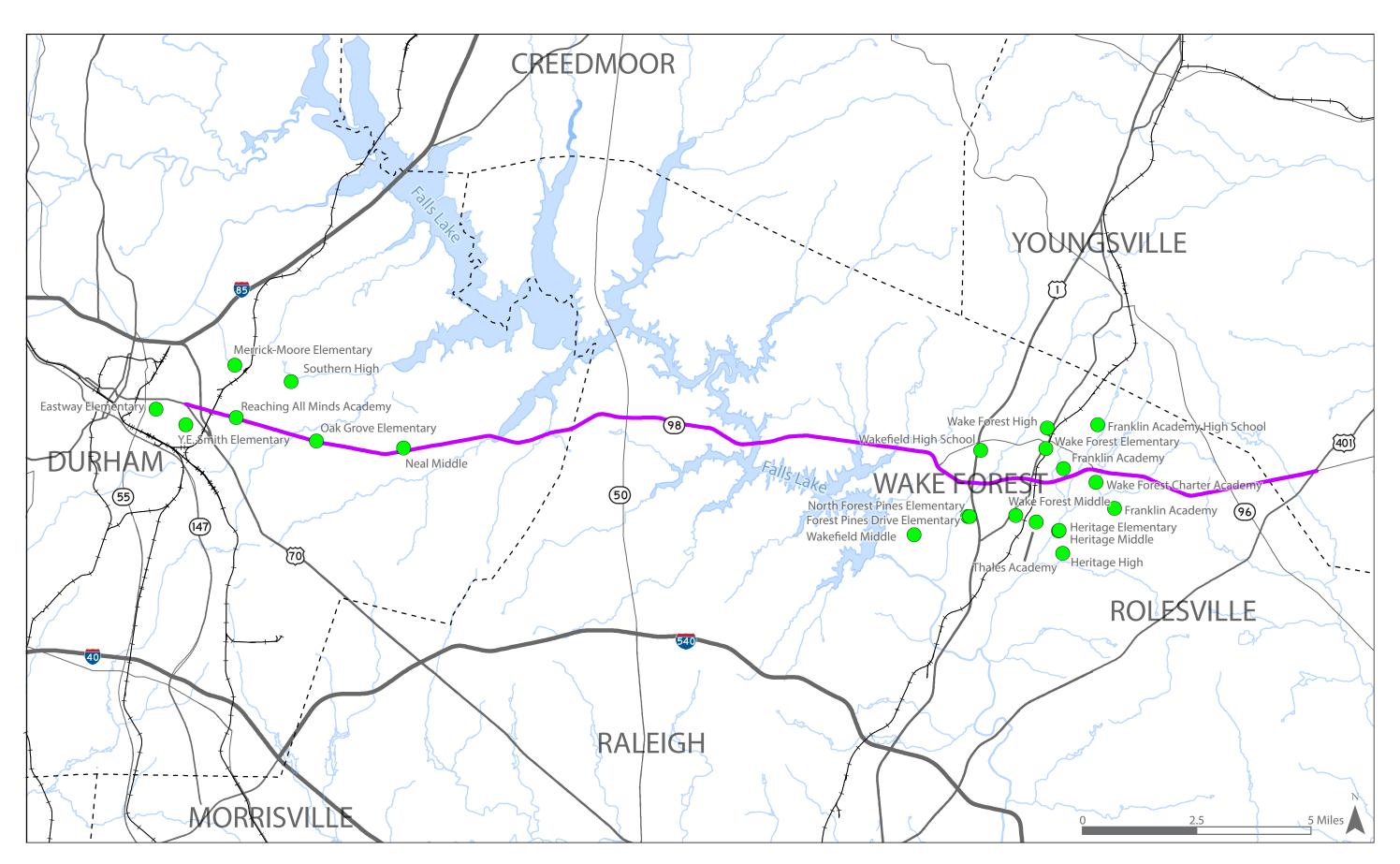


Land Use Along NC 98 Corridor

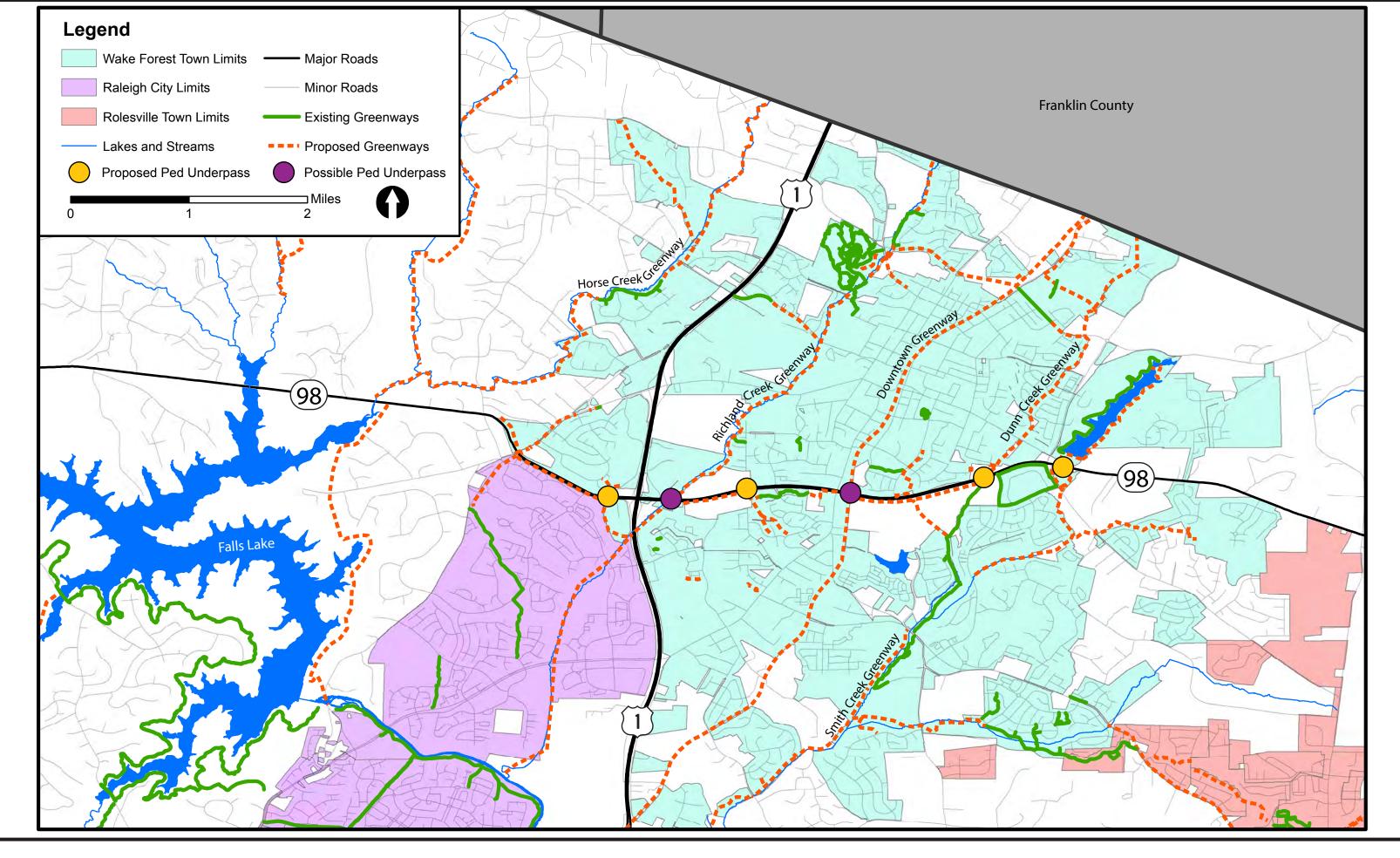








Schools Along NC 98



Greenways Along NC 98 in Wake Forest





