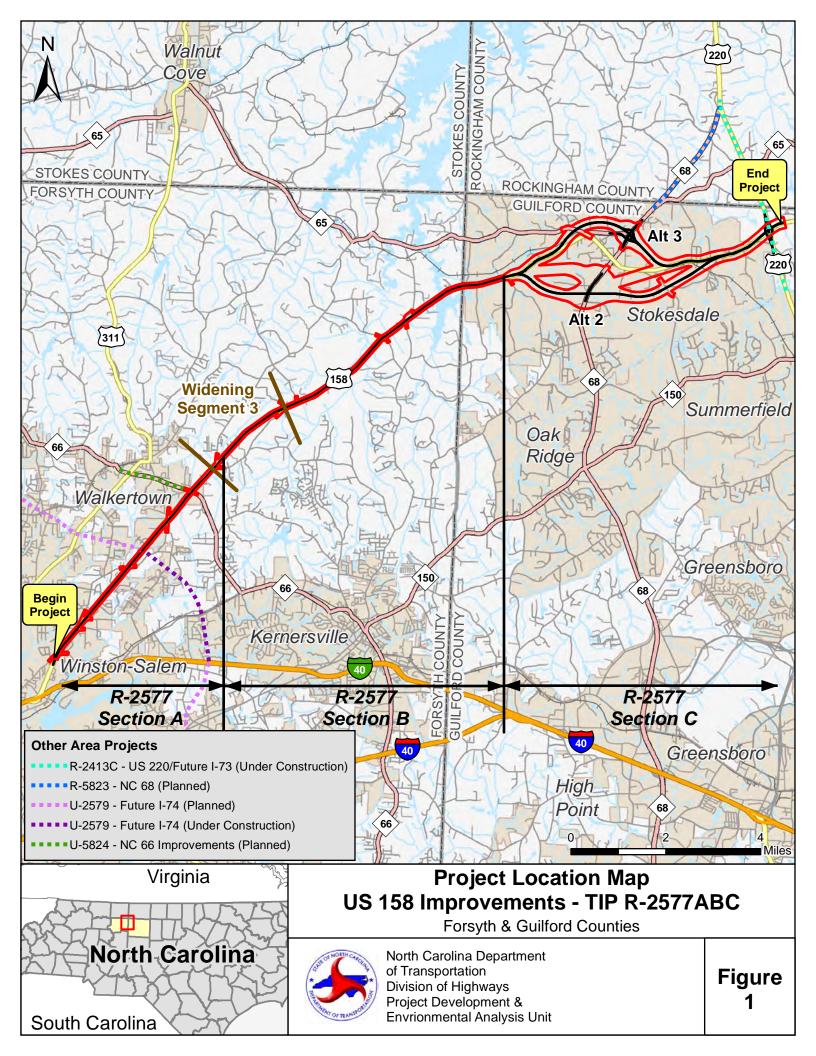
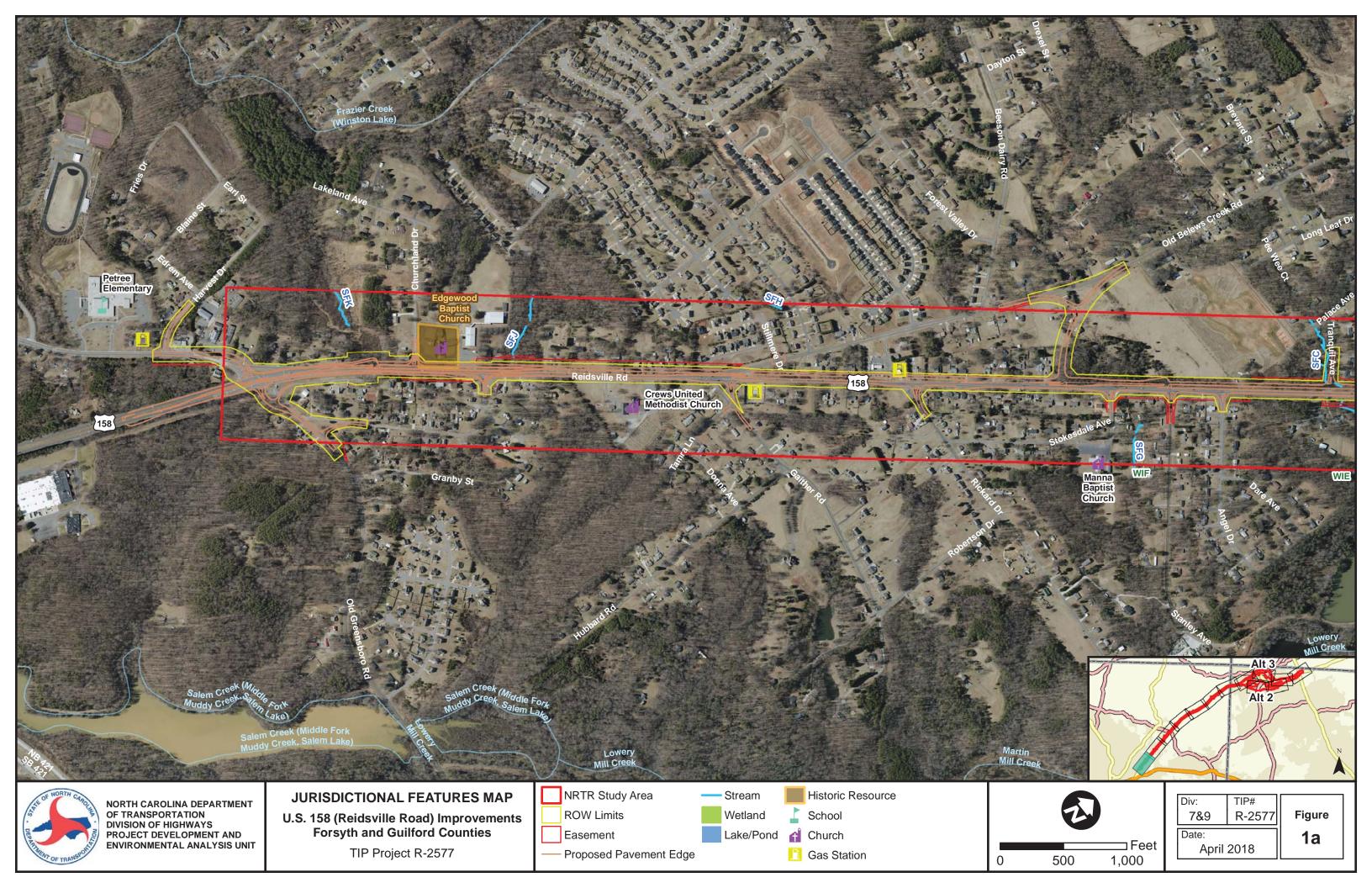
ATTACHMENT A

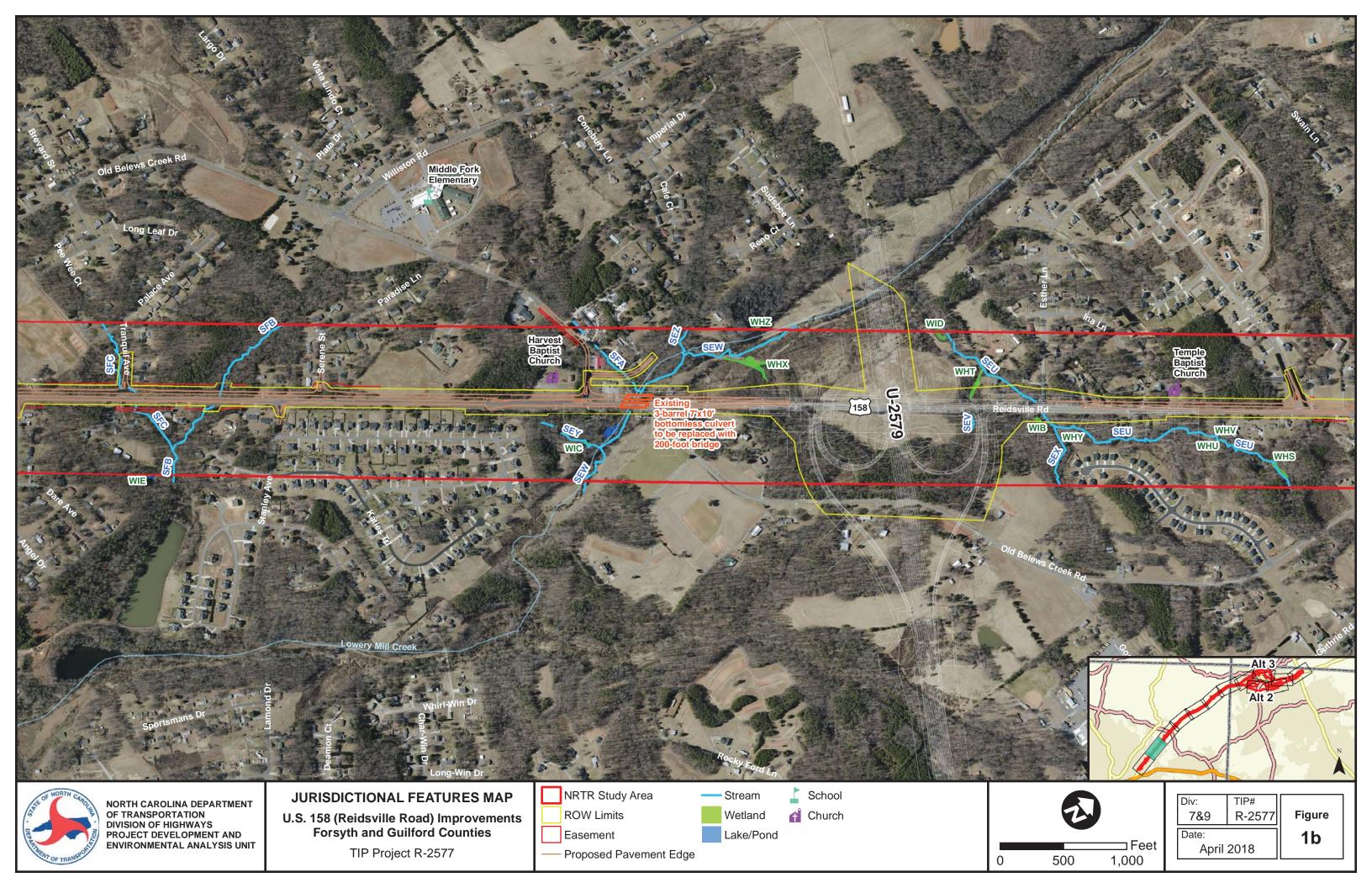
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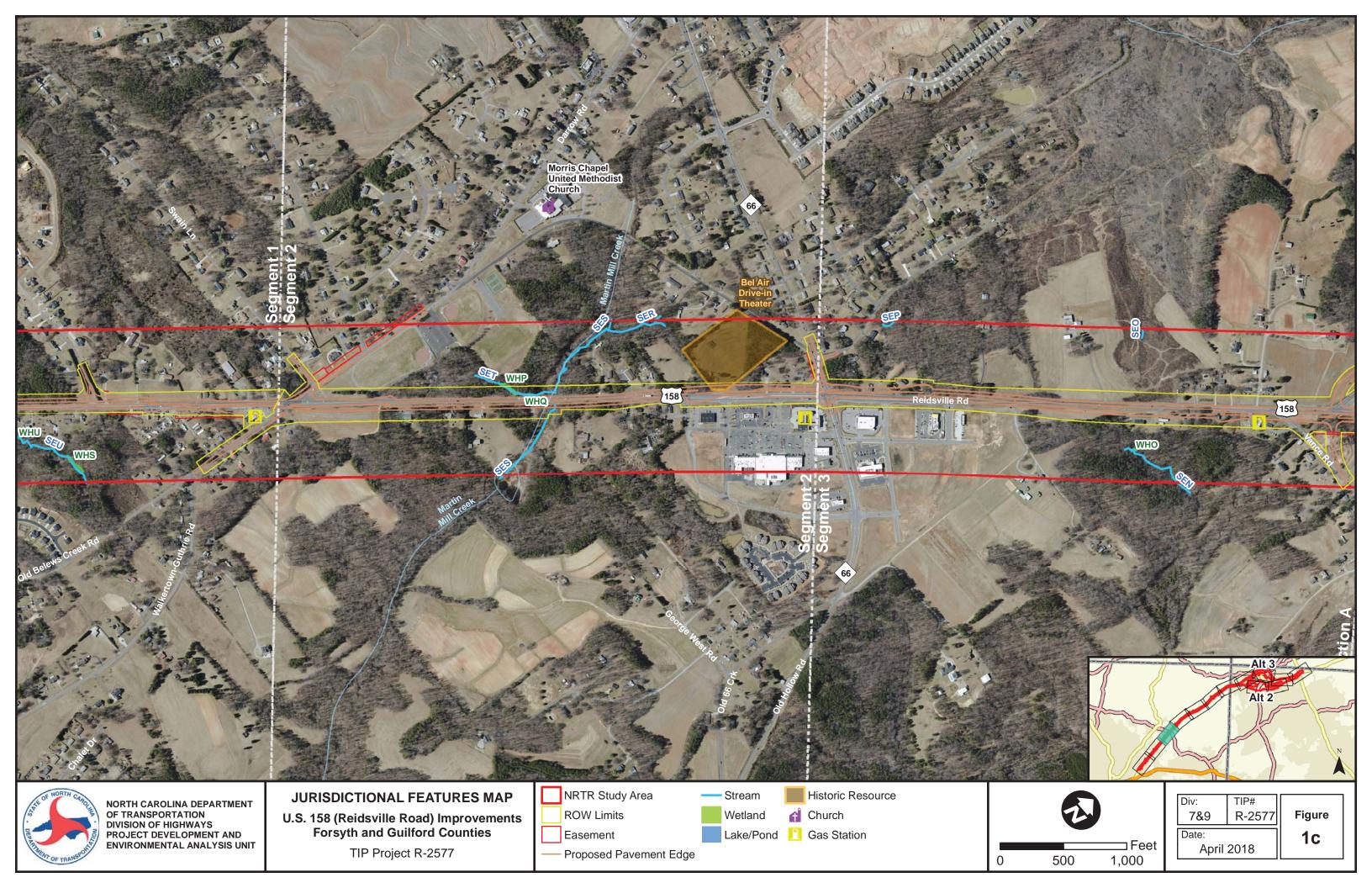
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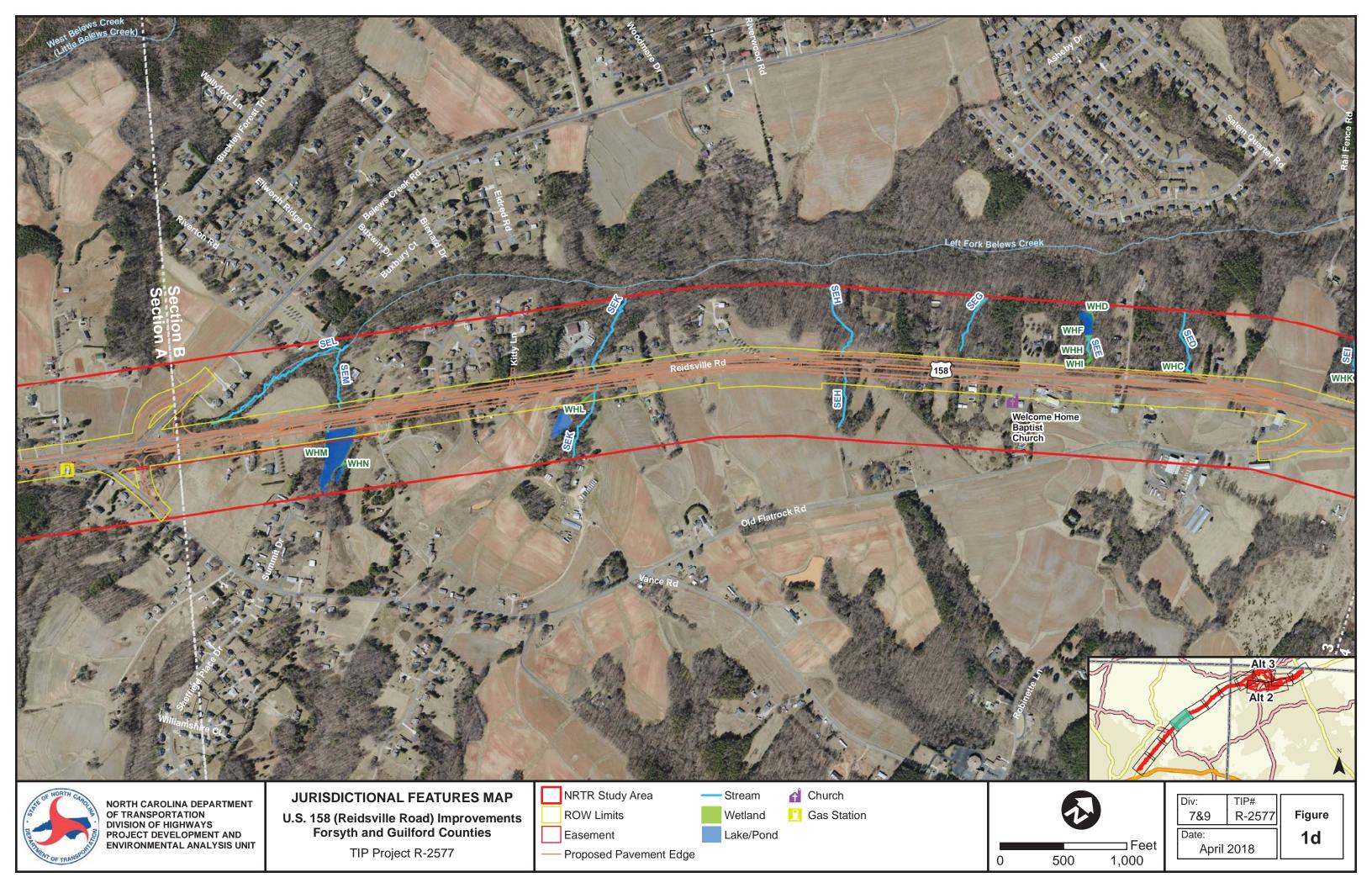
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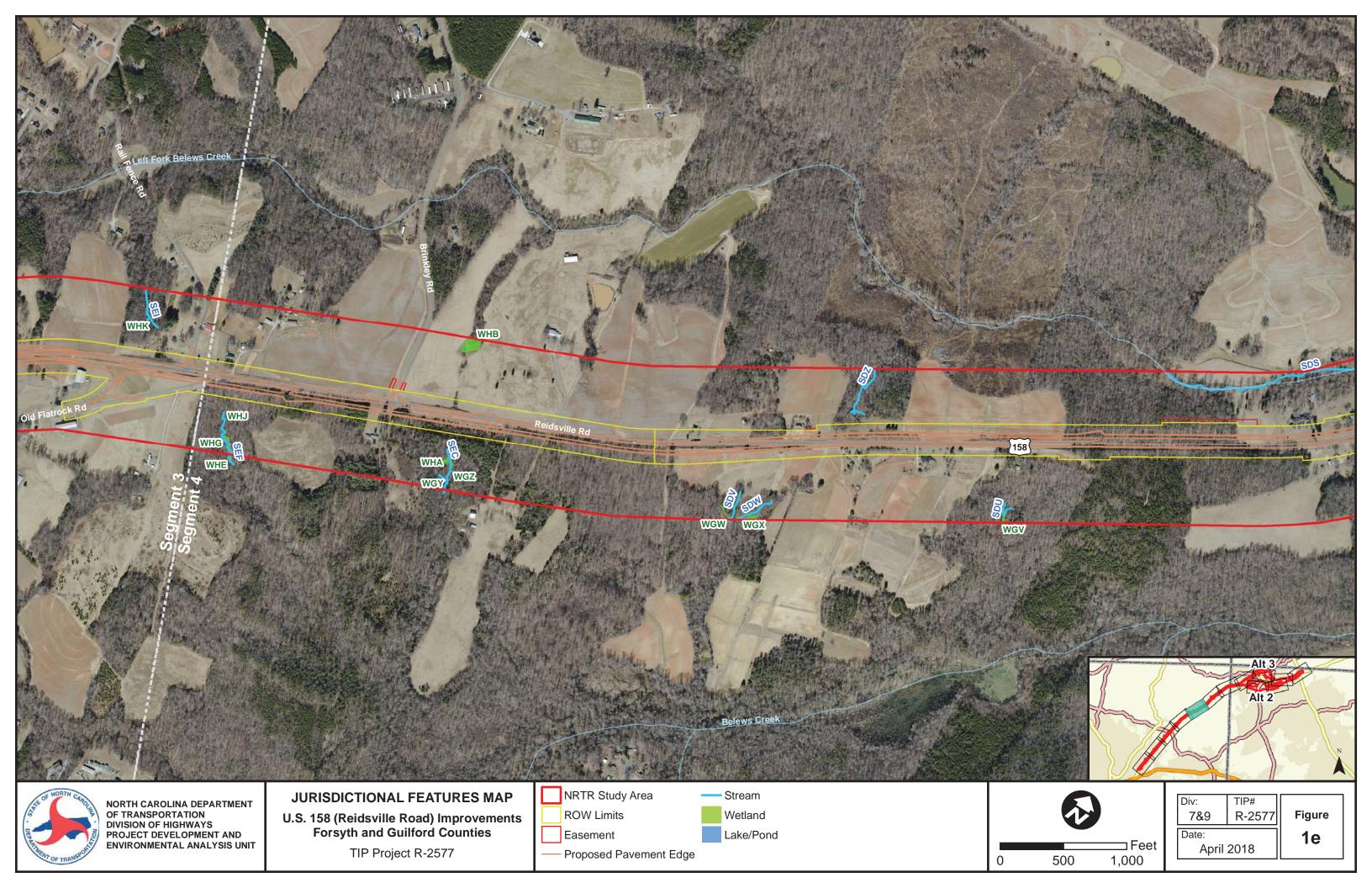


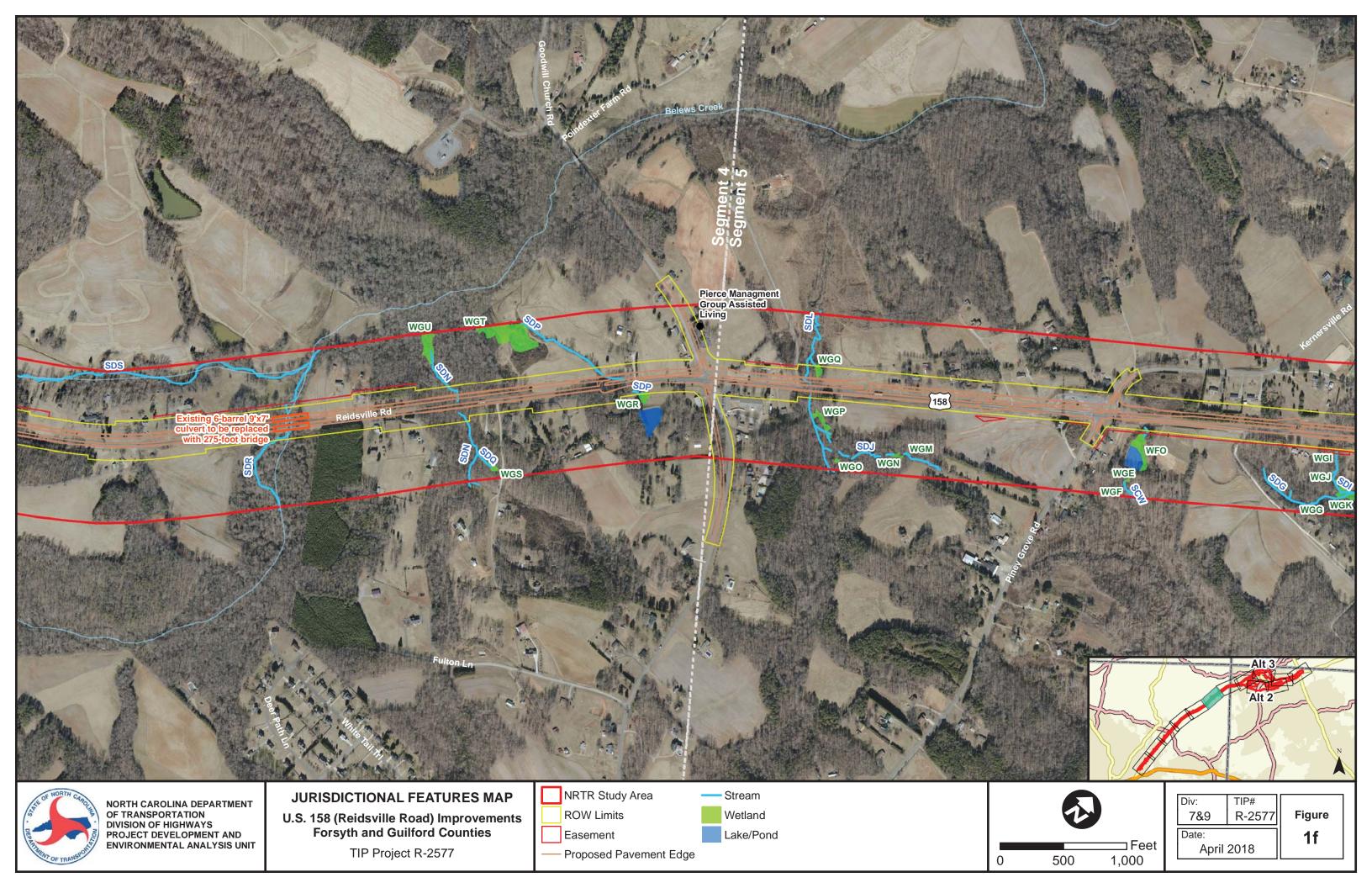


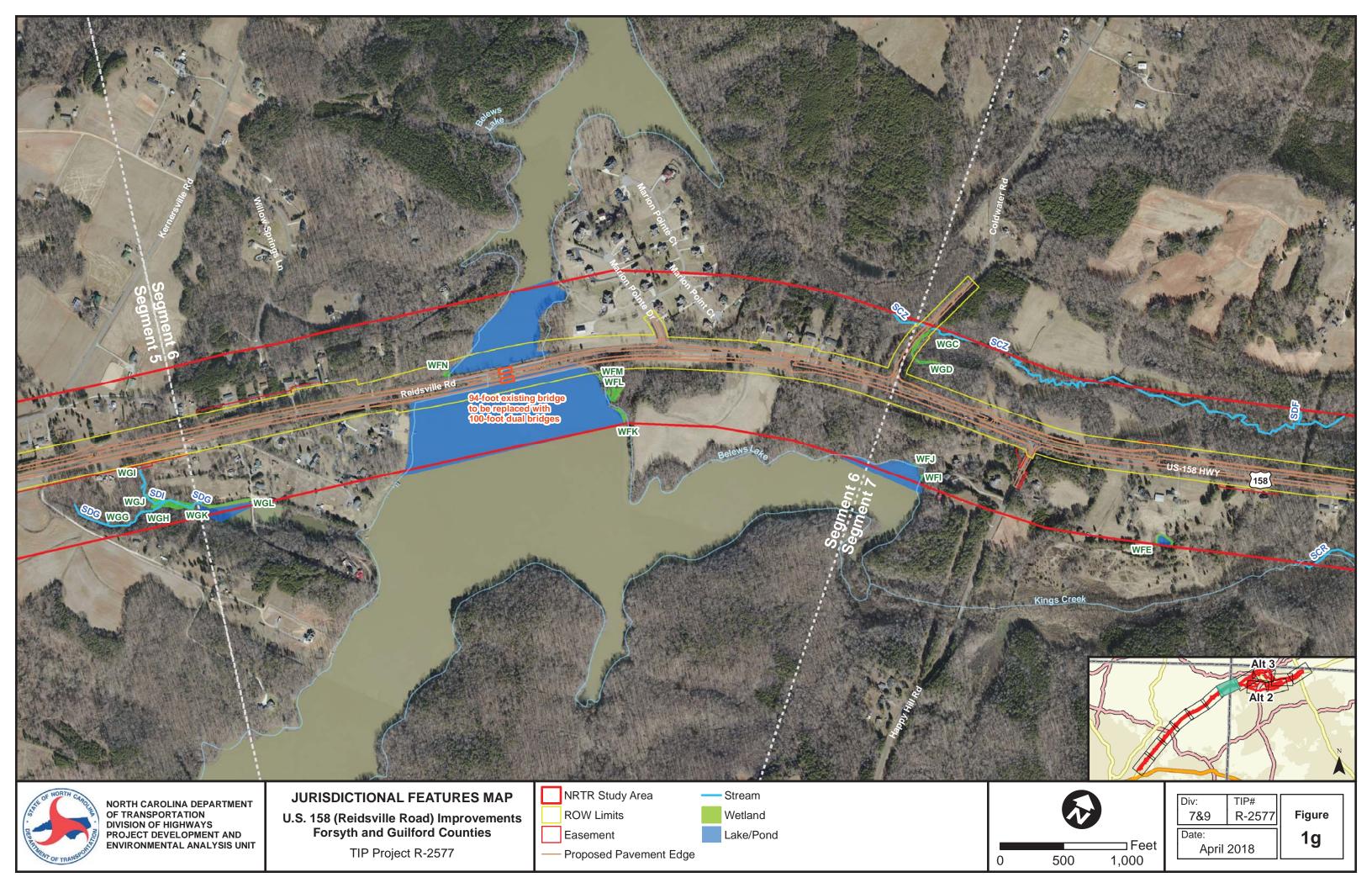


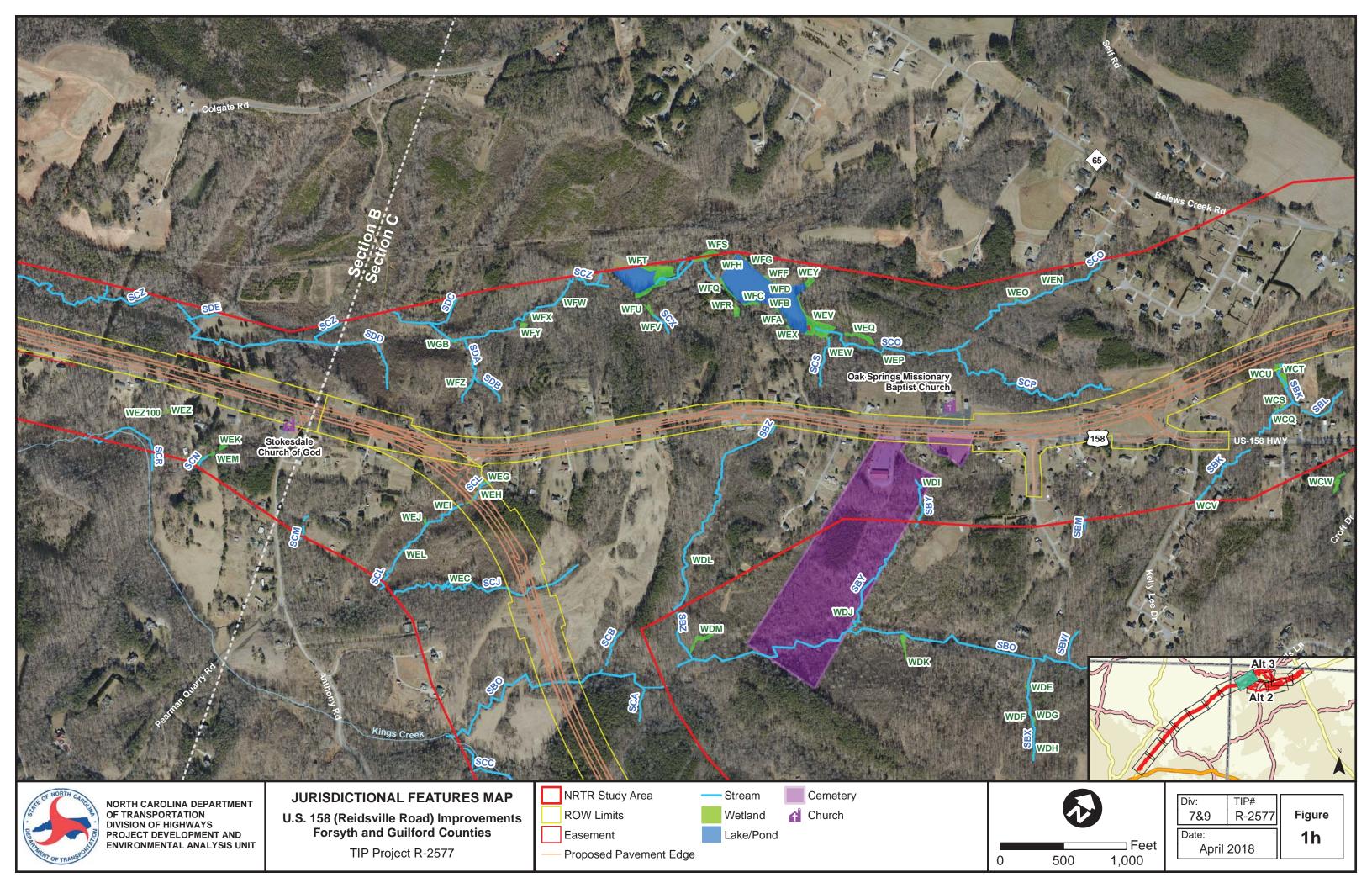


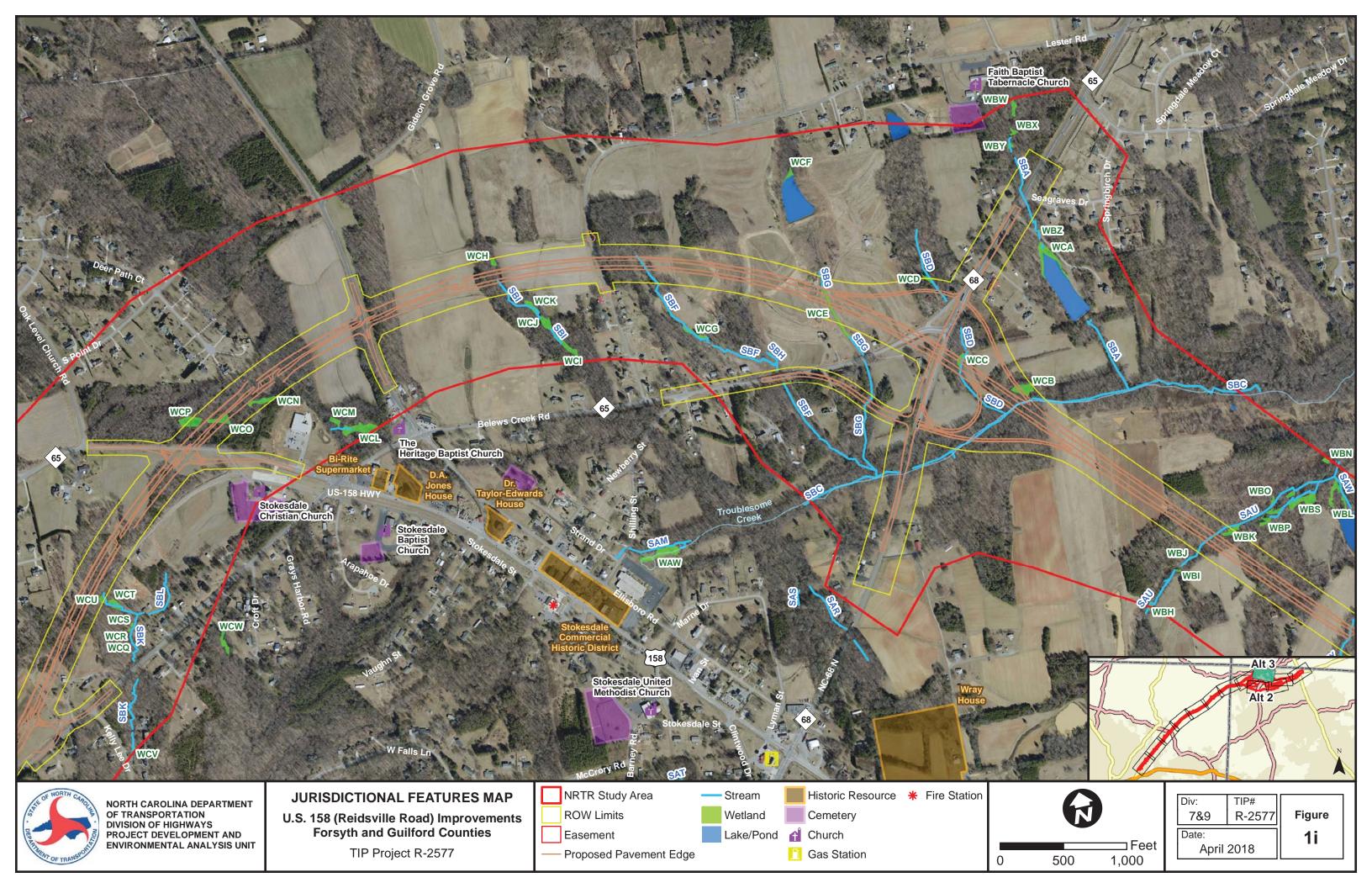


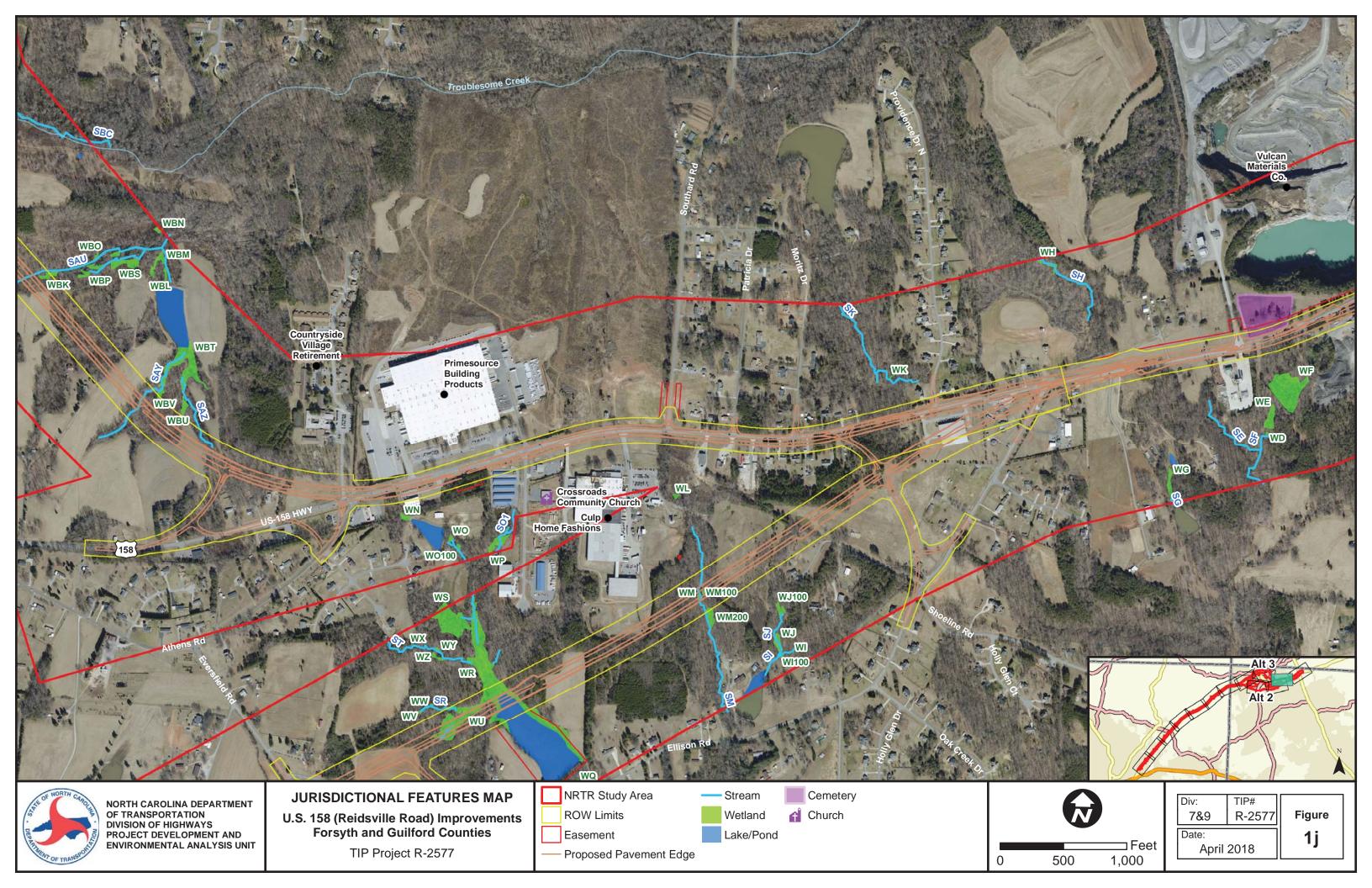


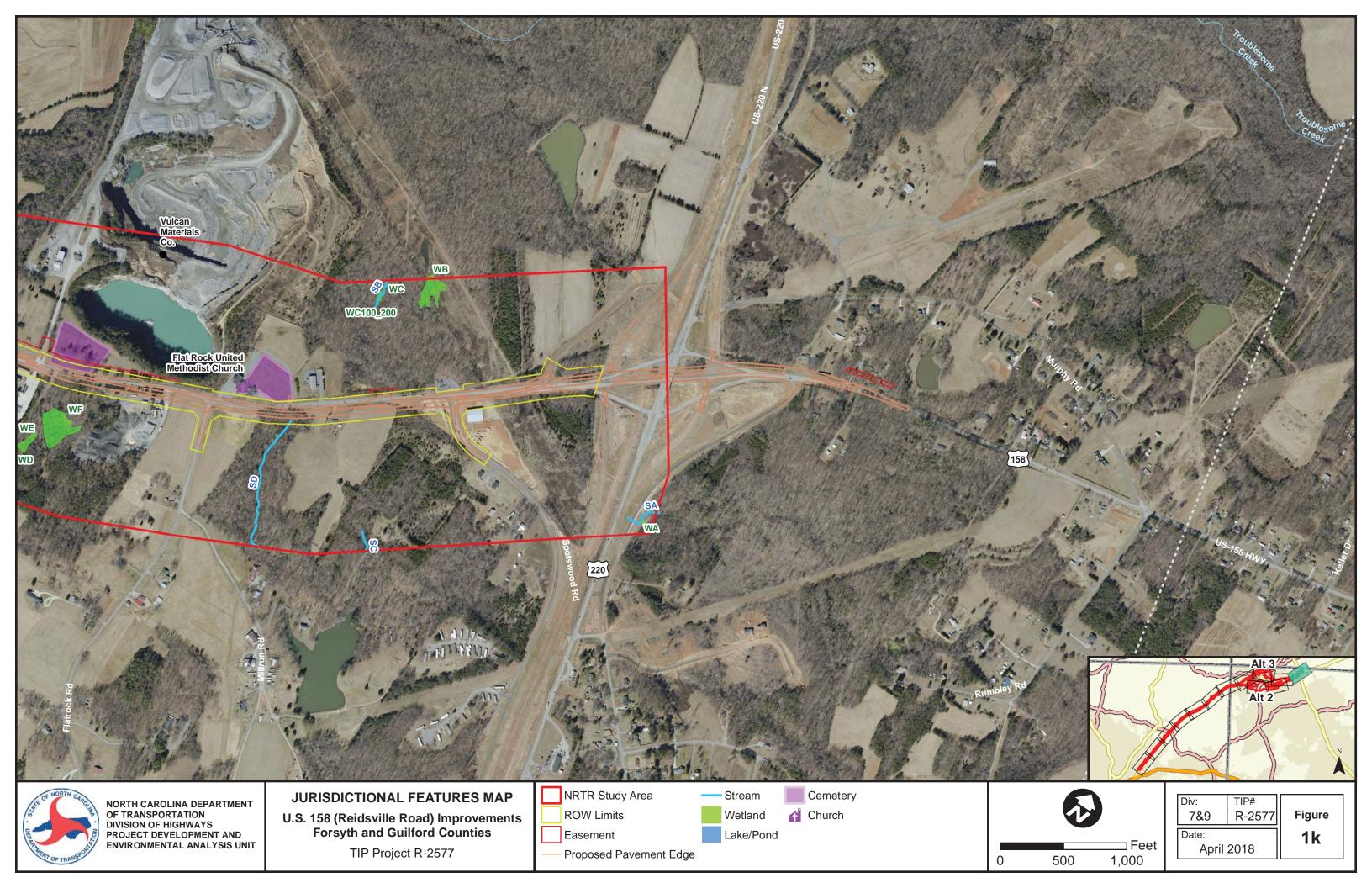


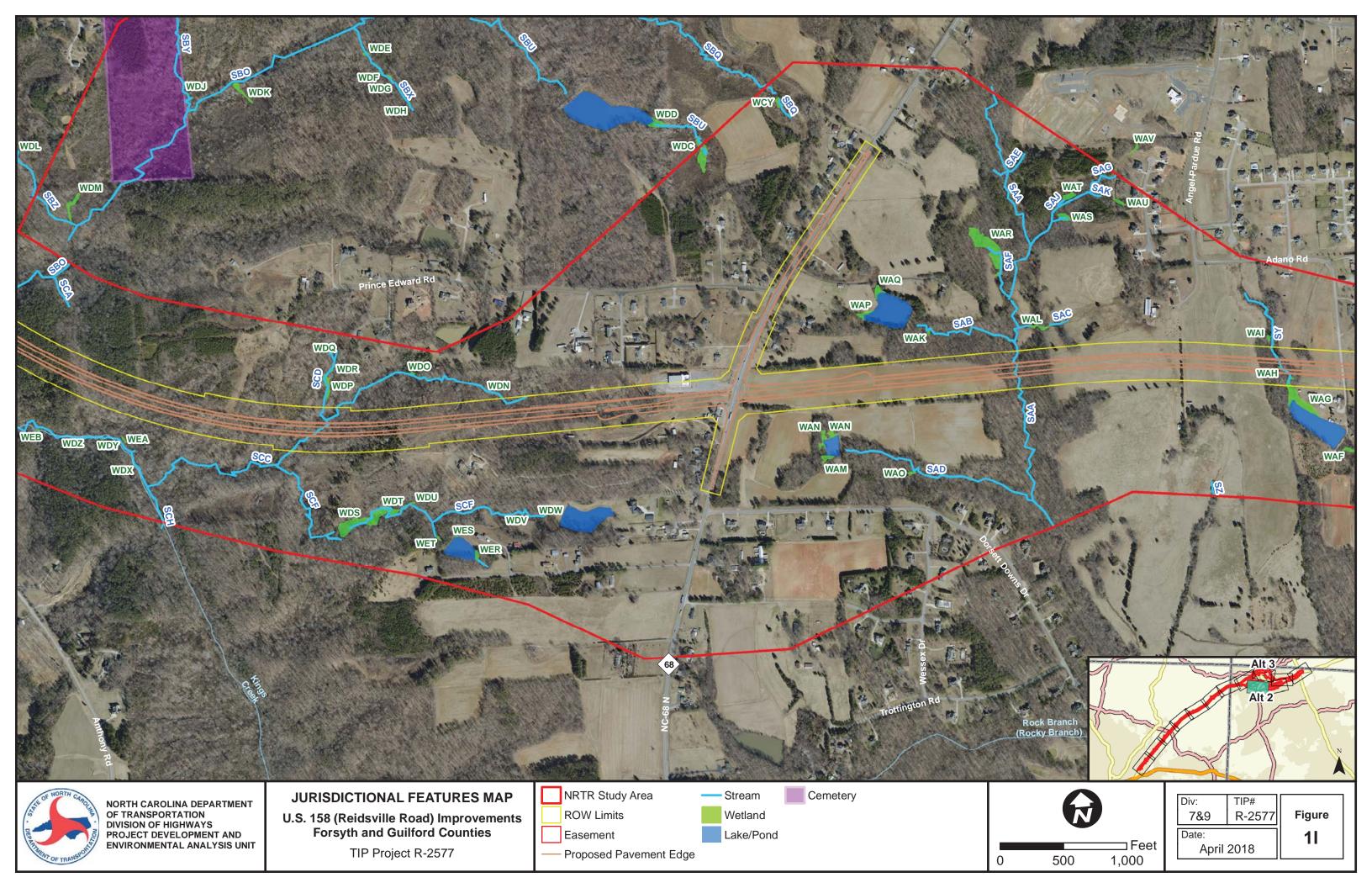


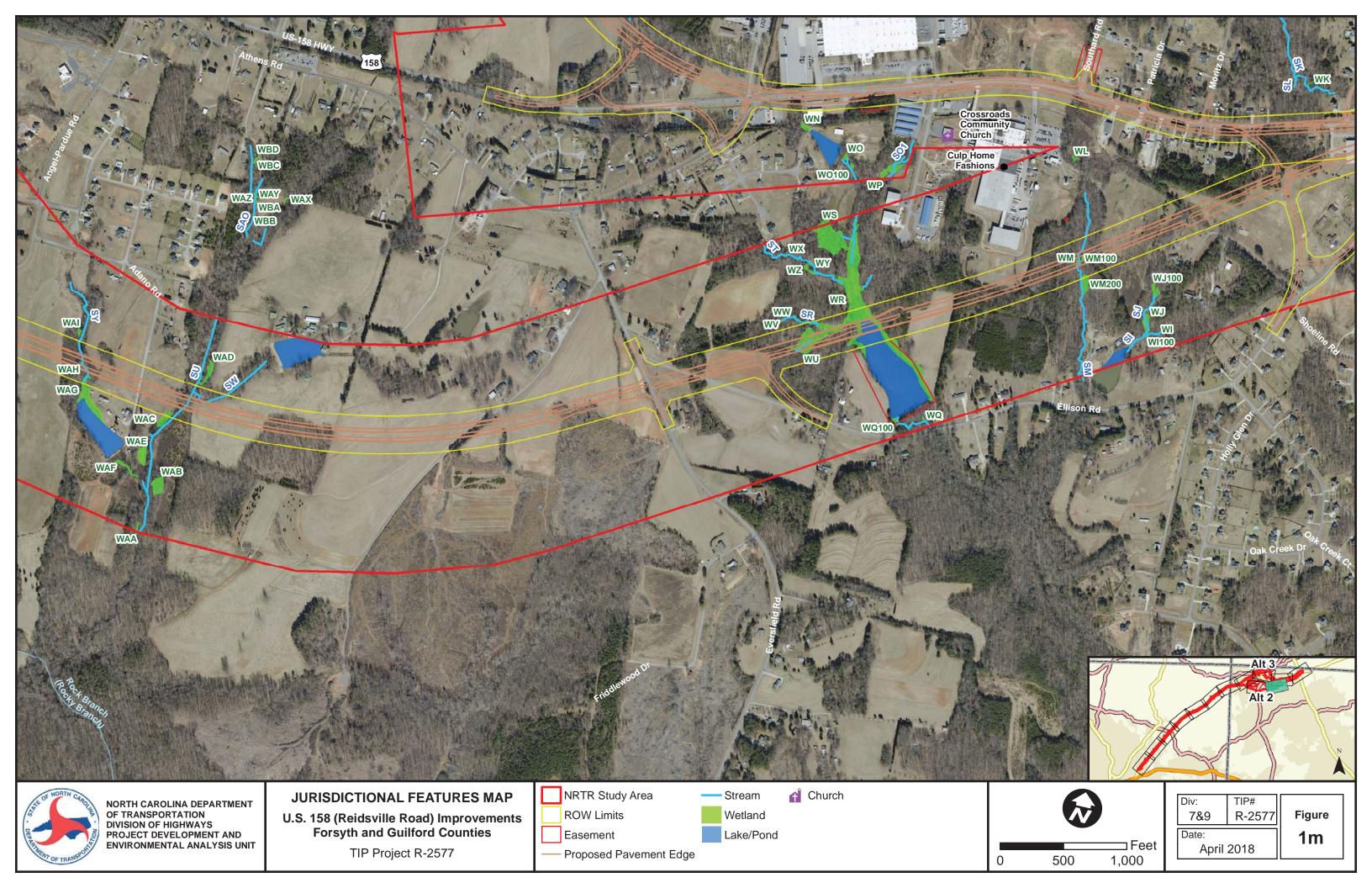


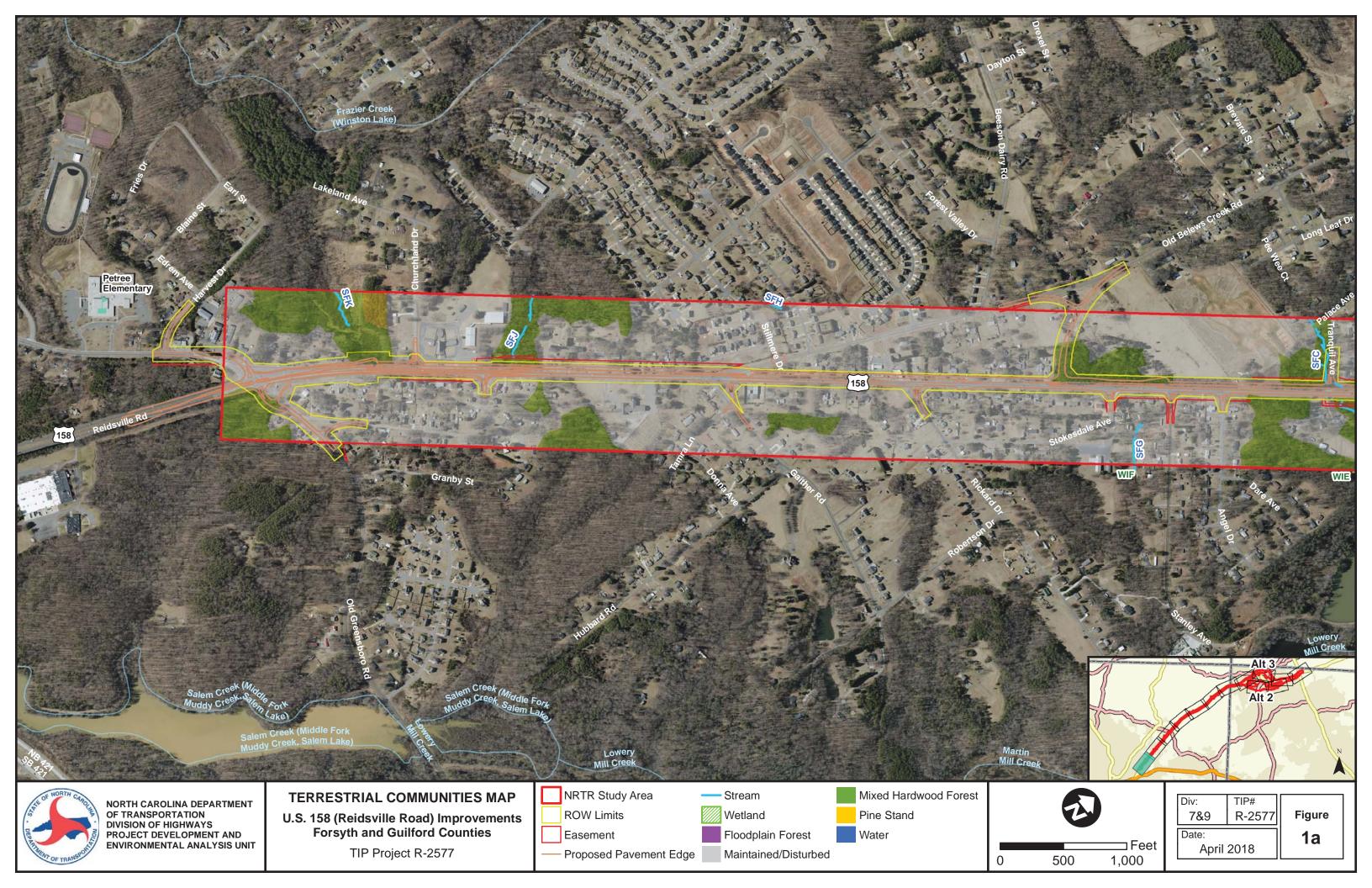


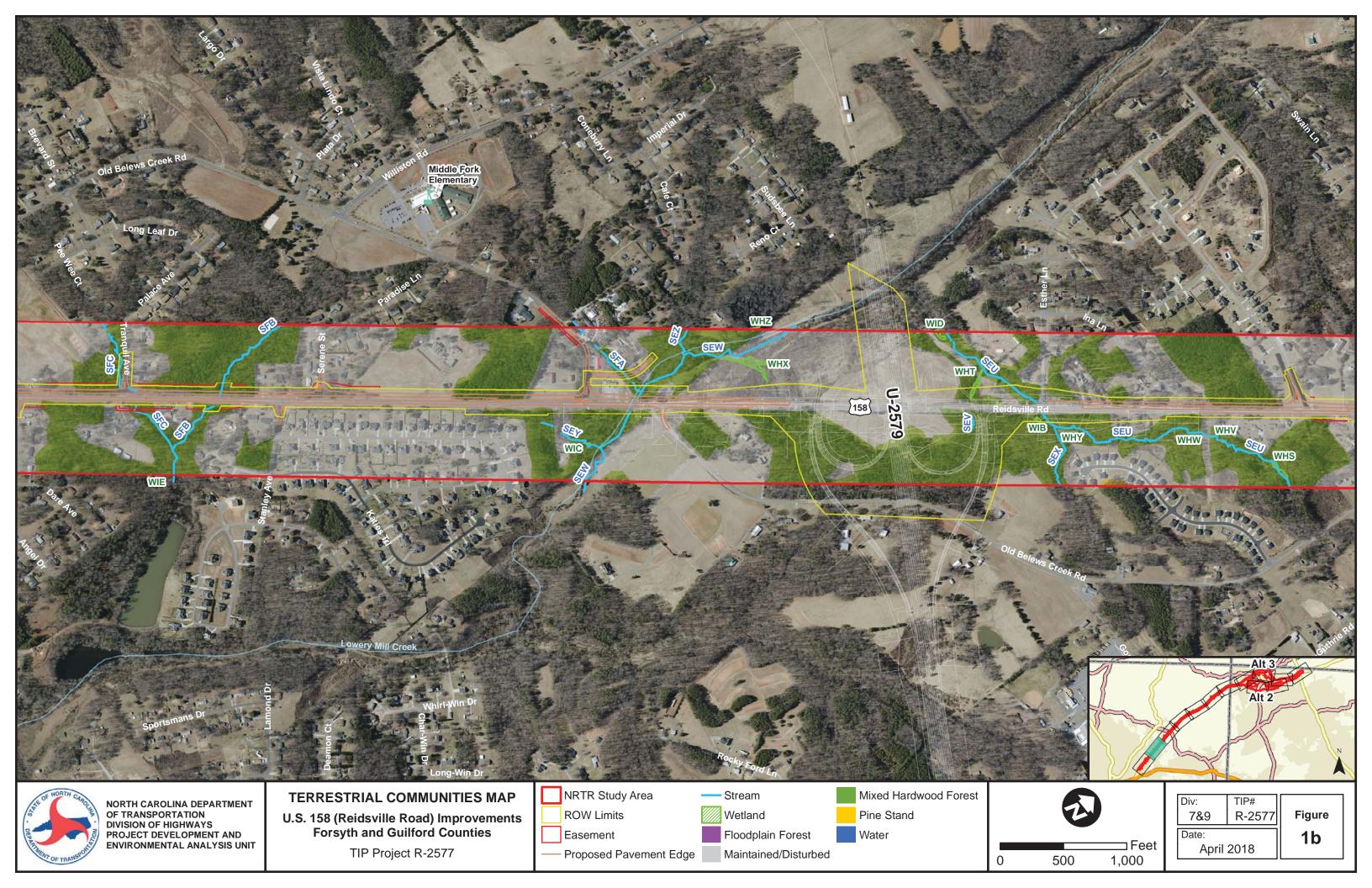


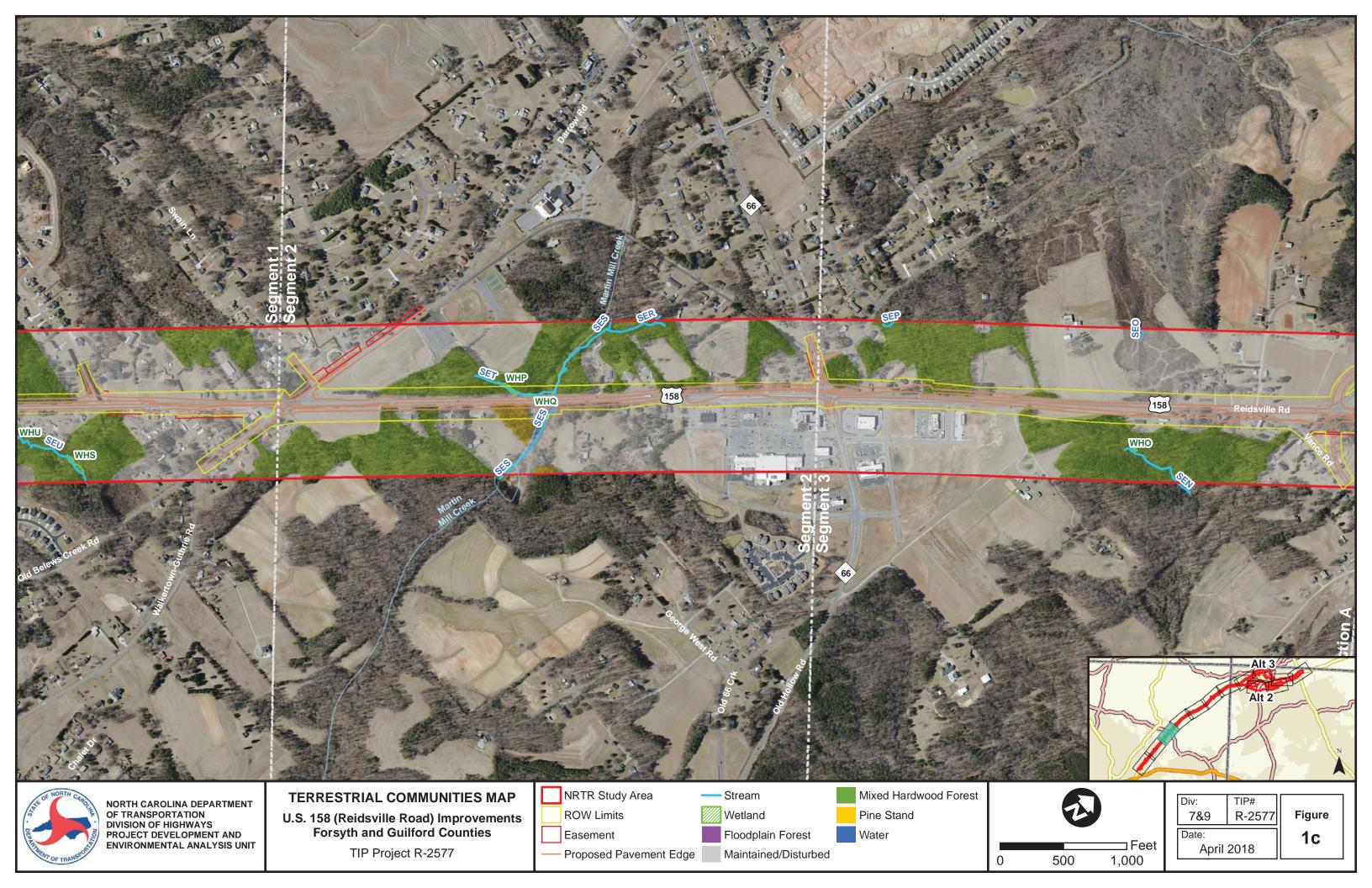


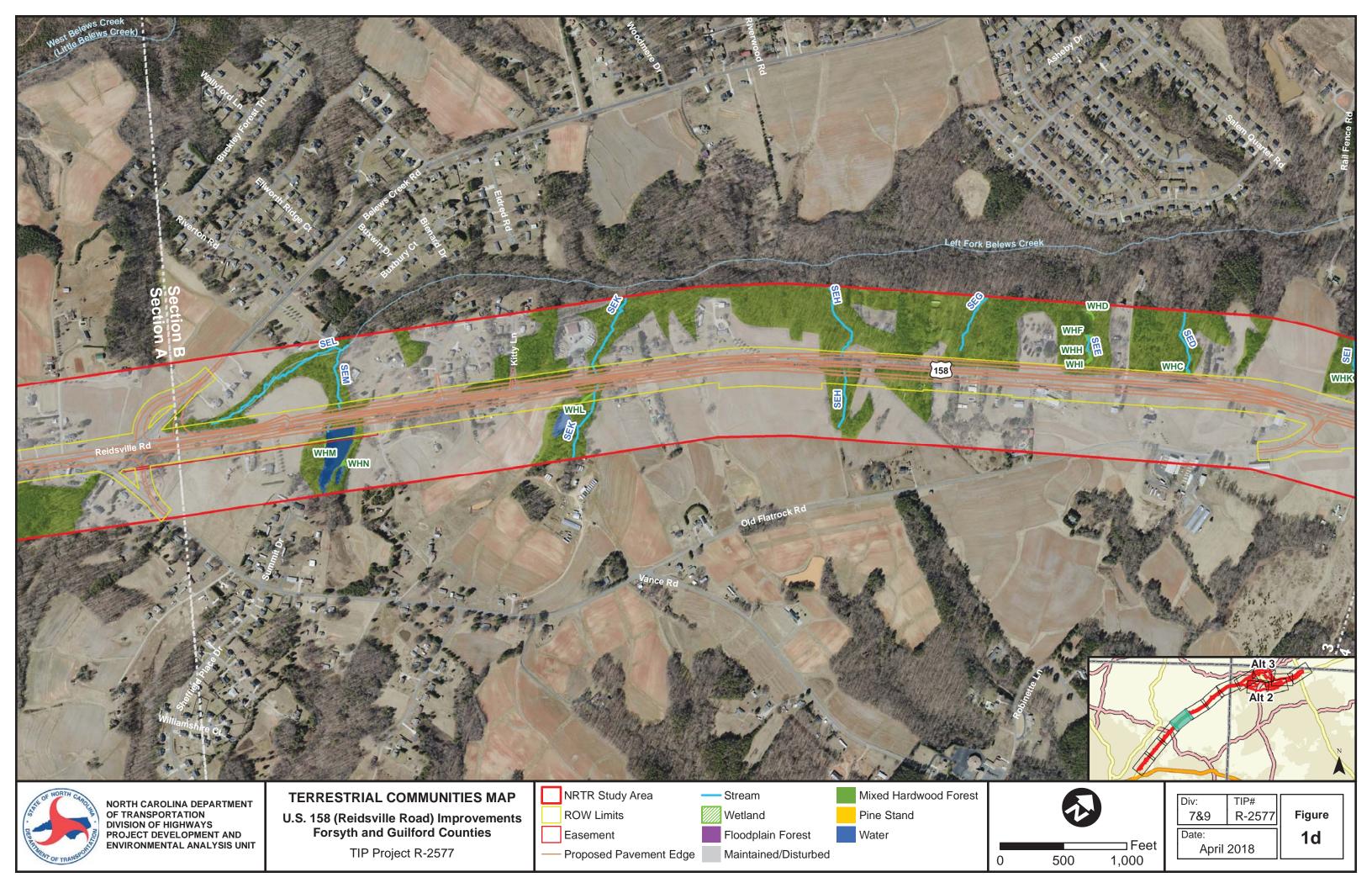


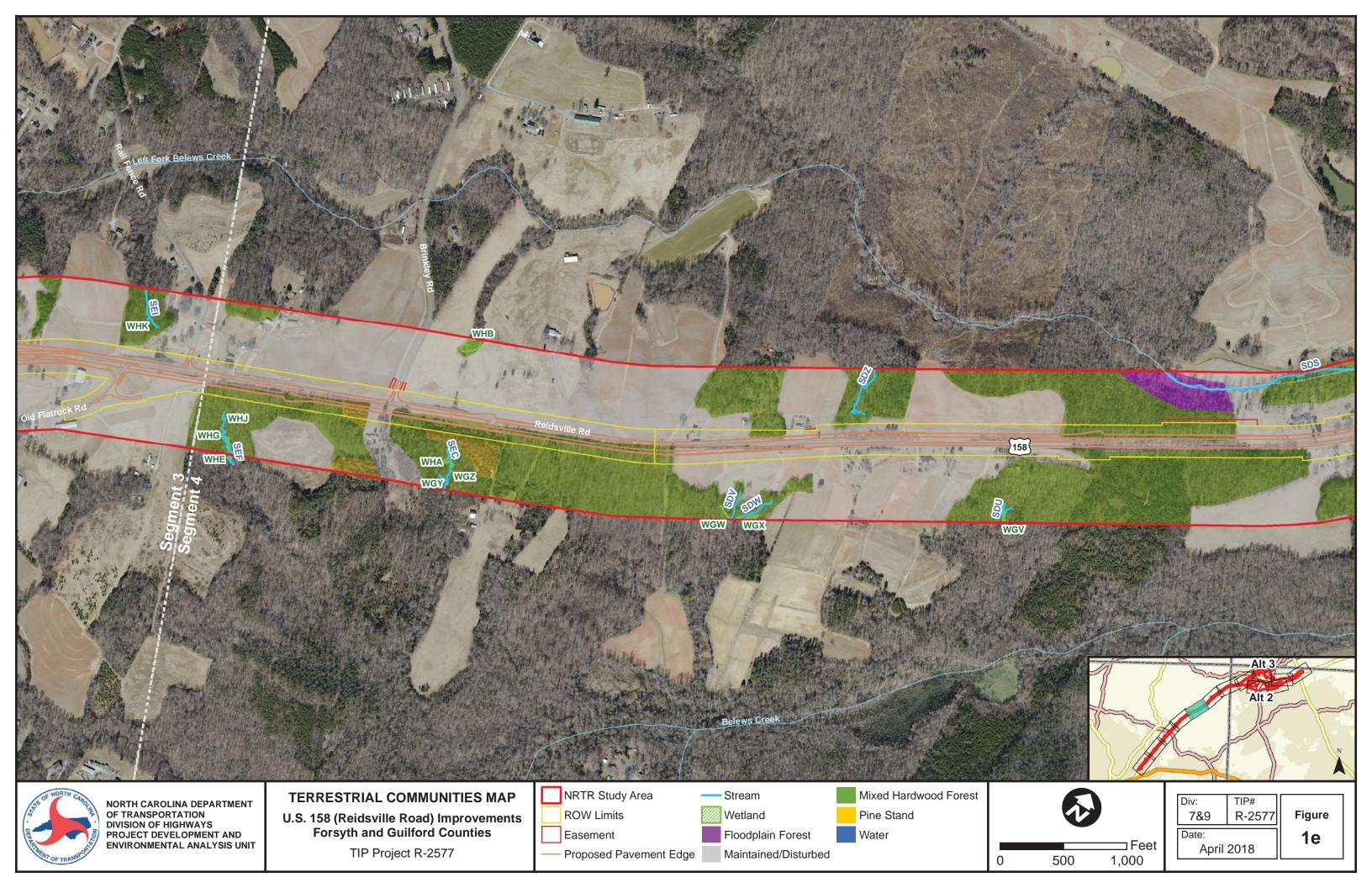


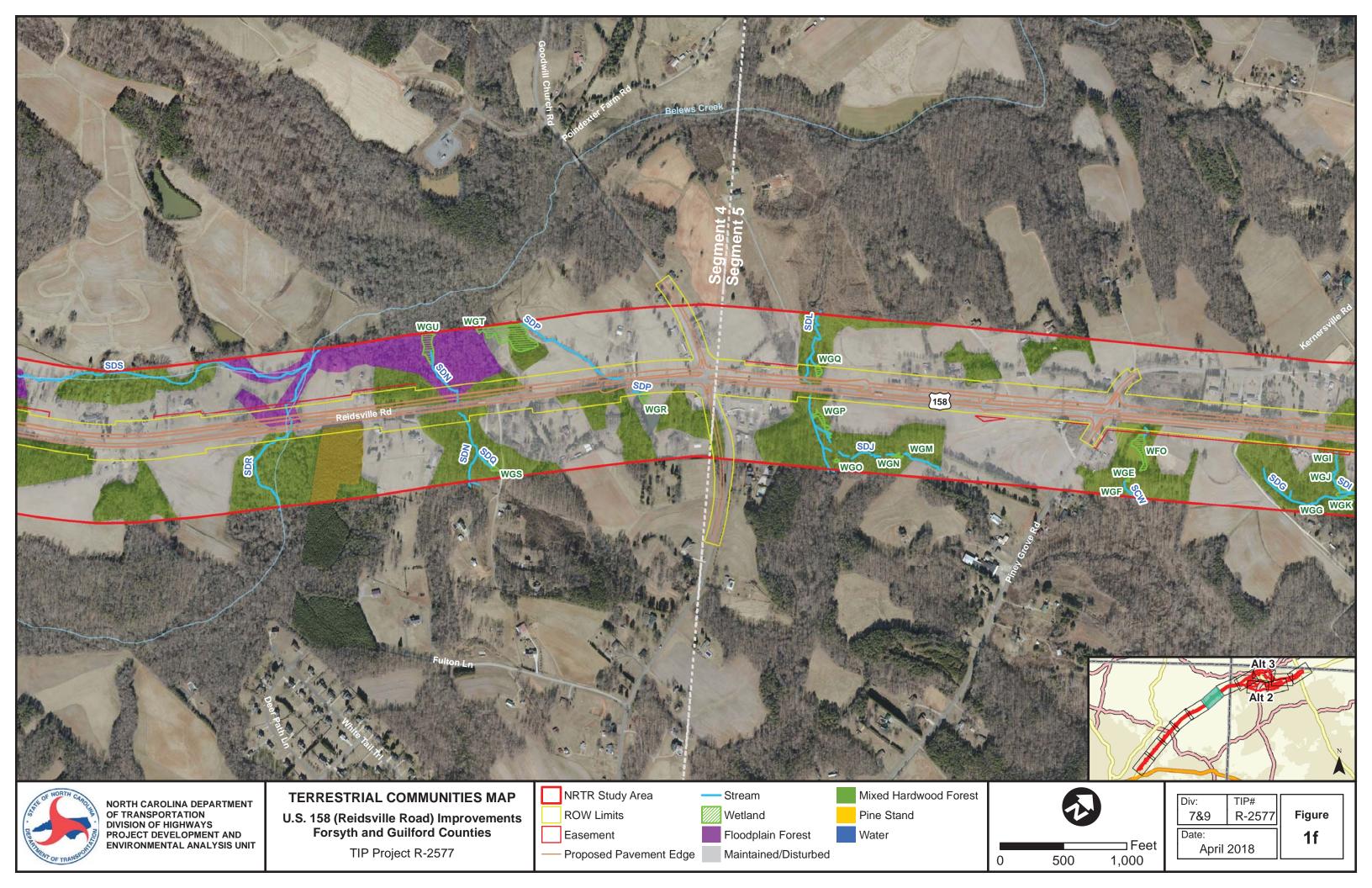


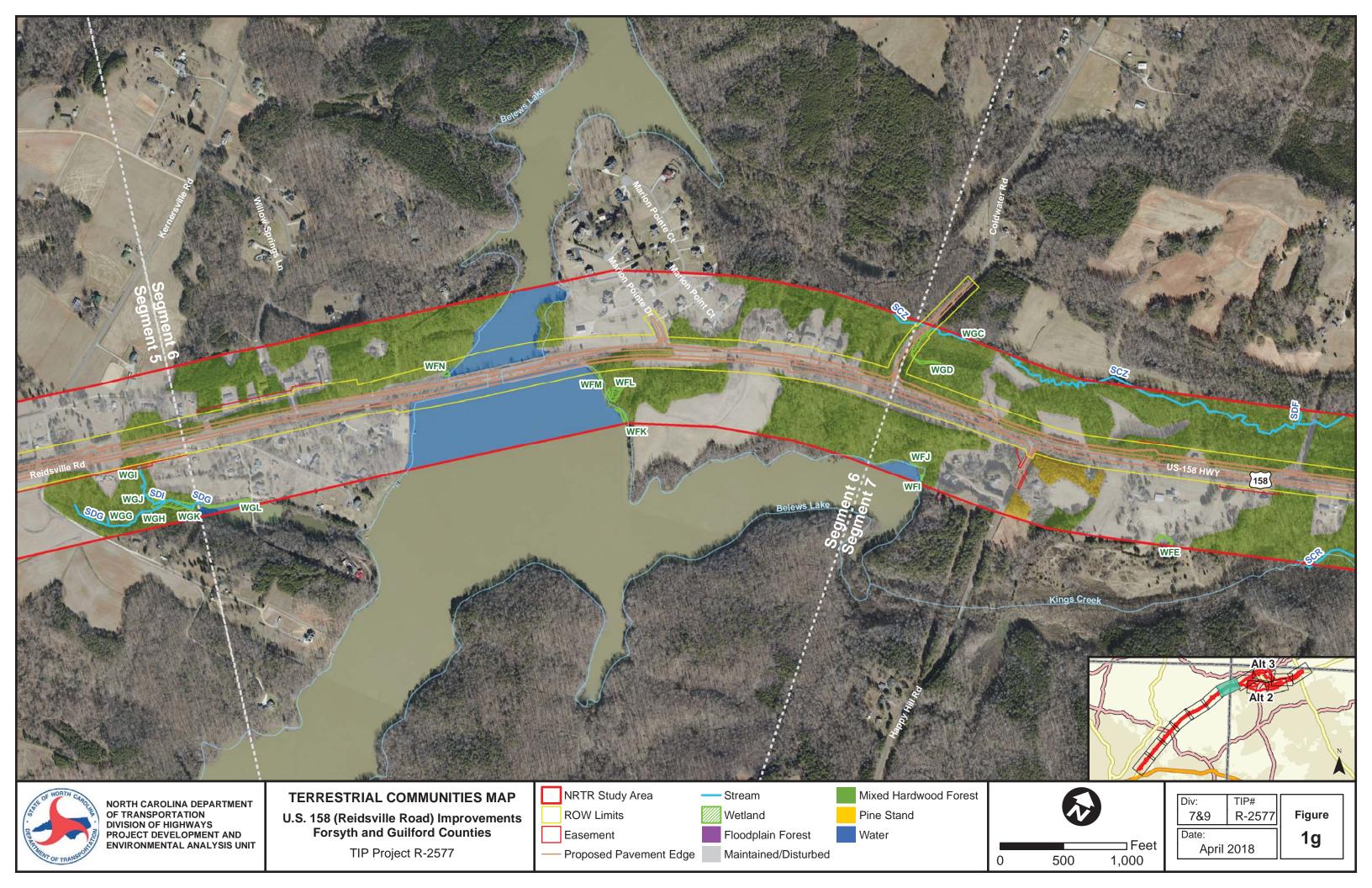


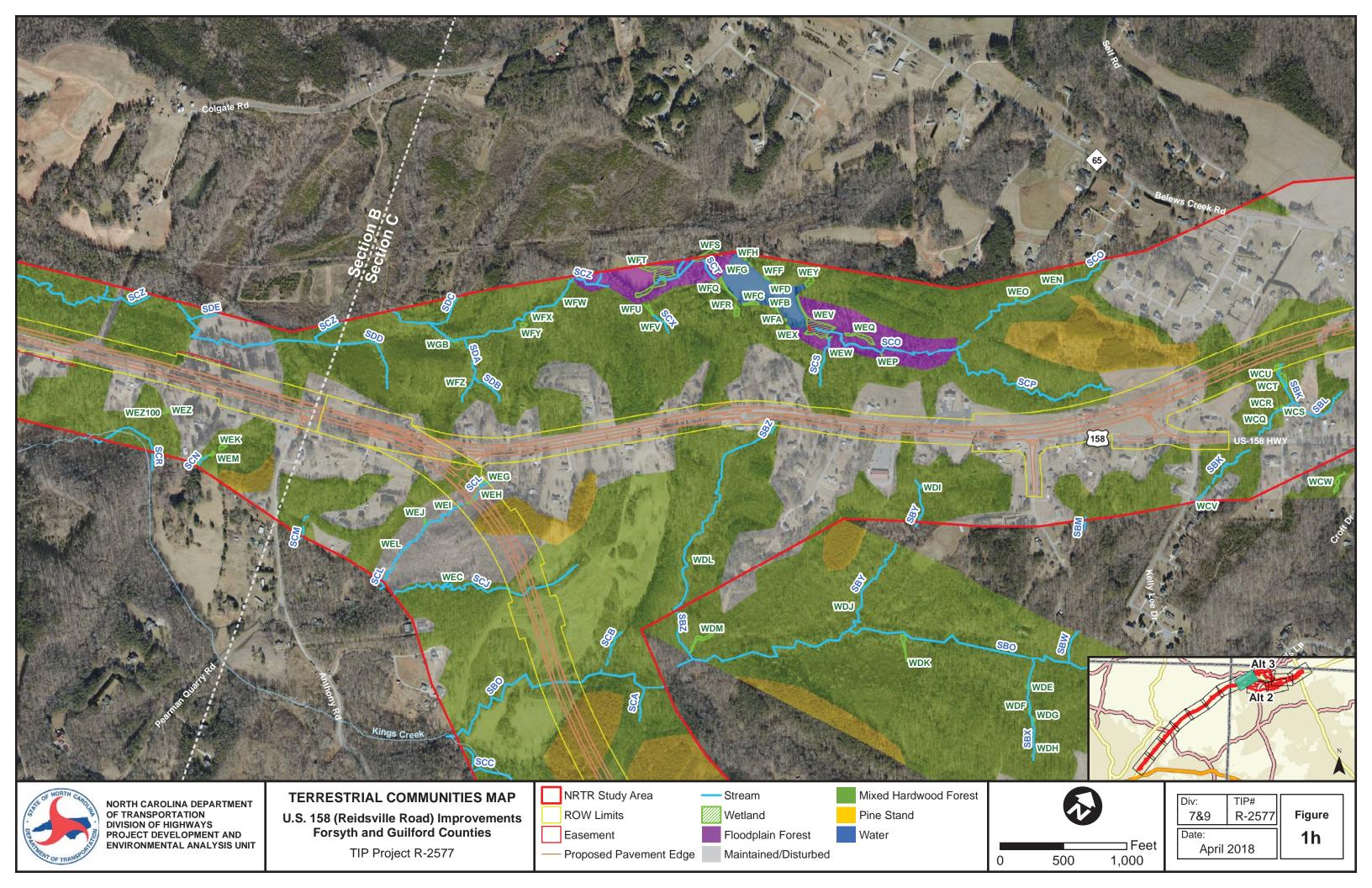


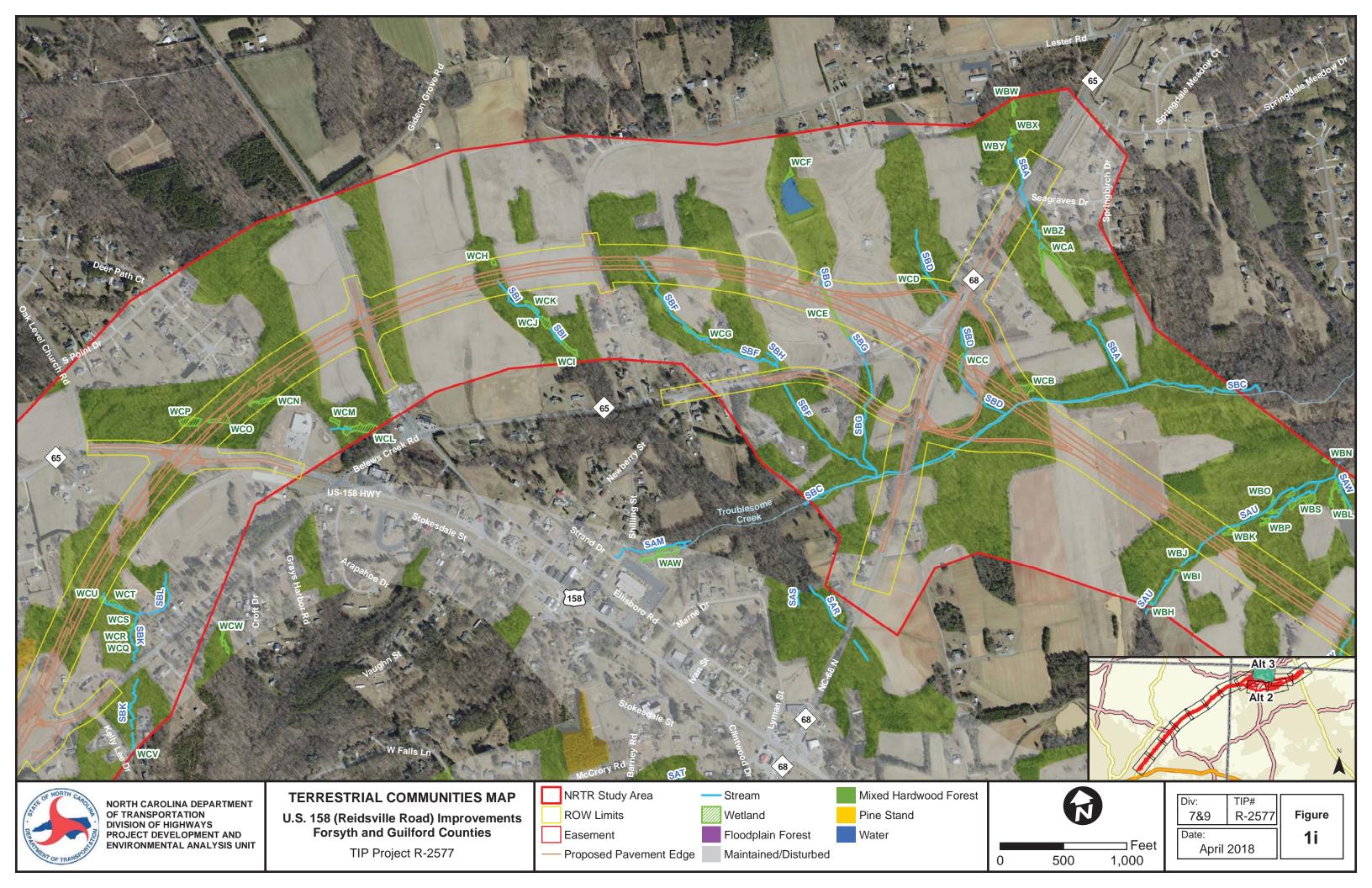


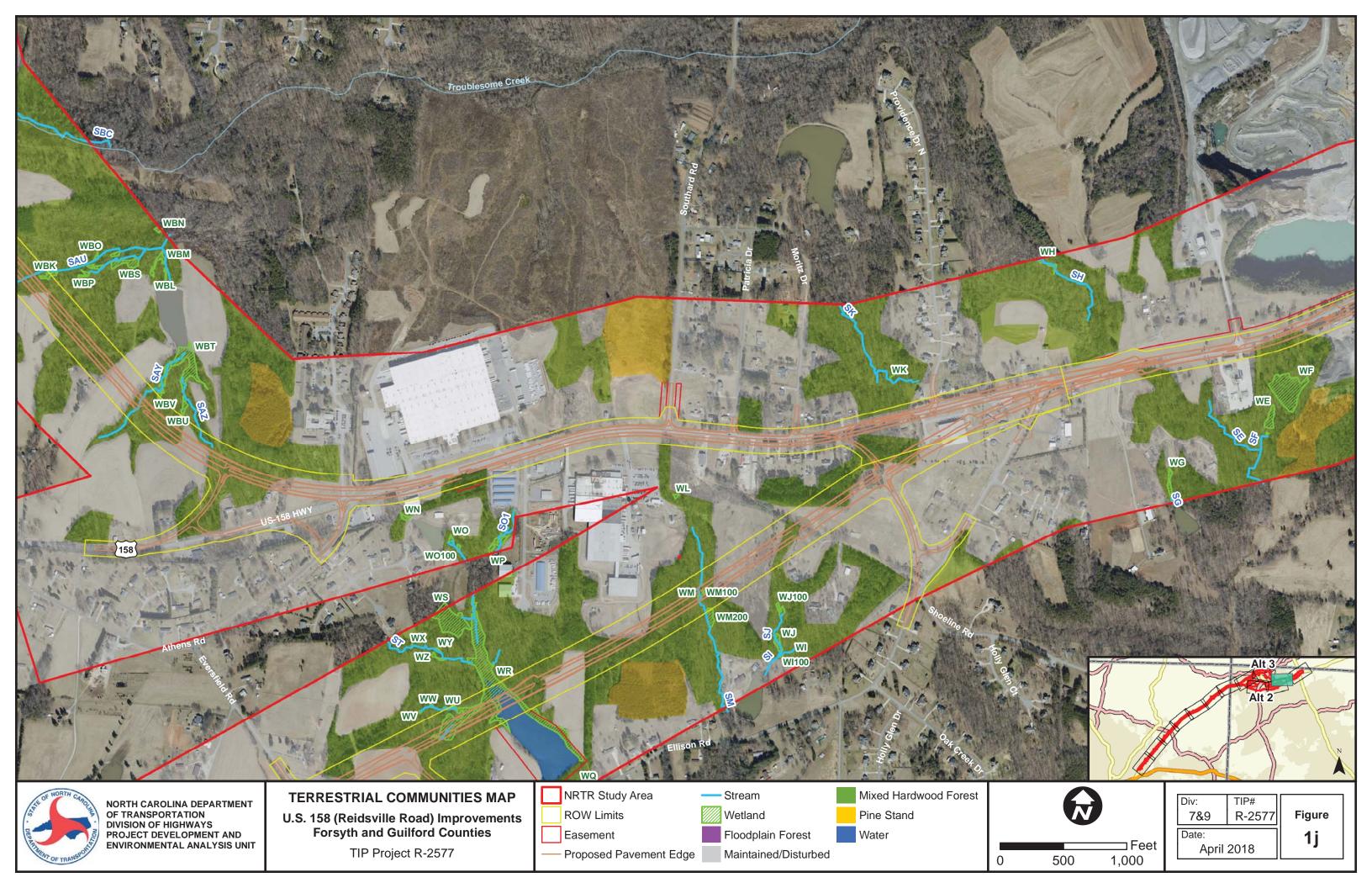


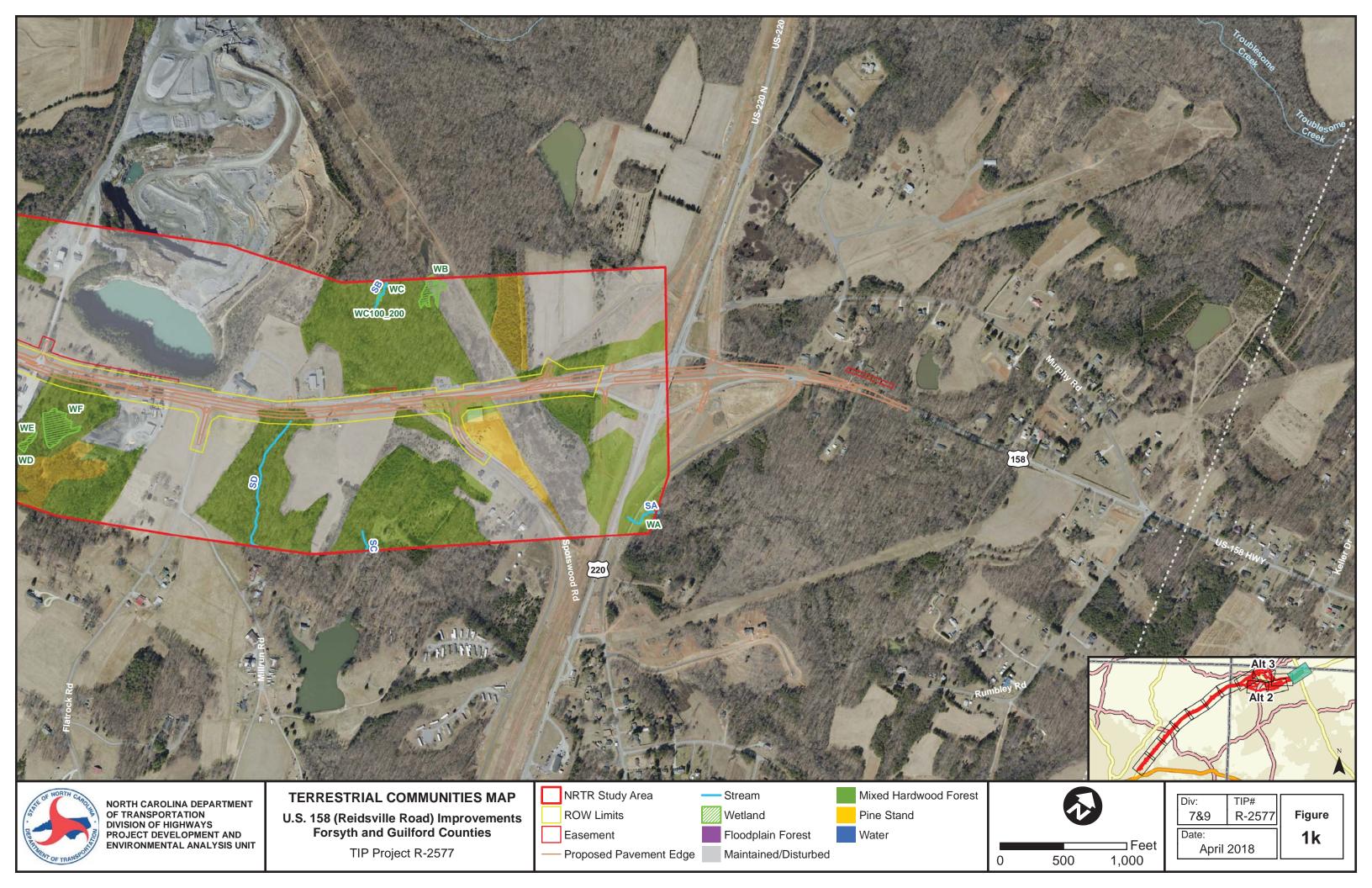


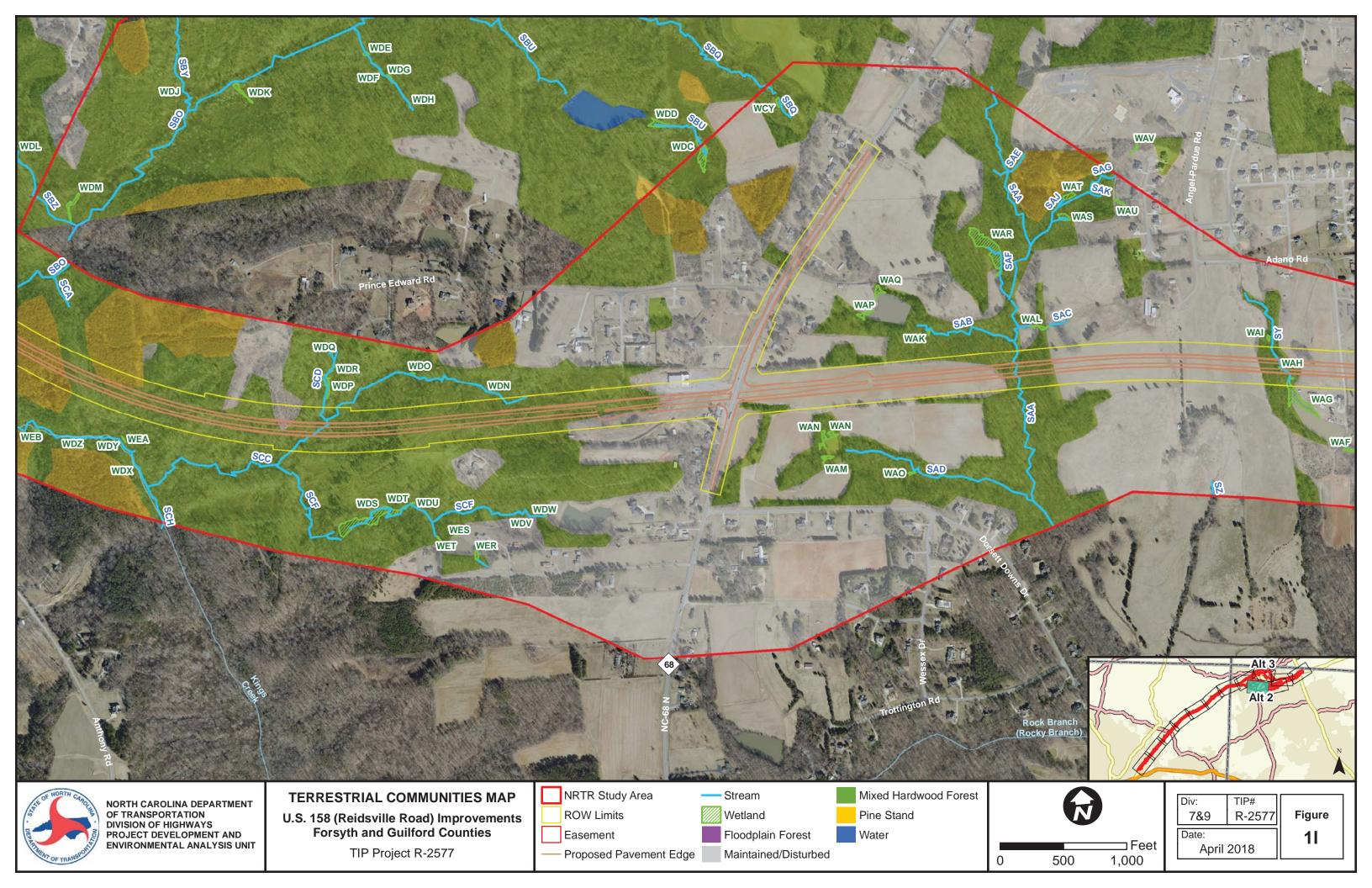


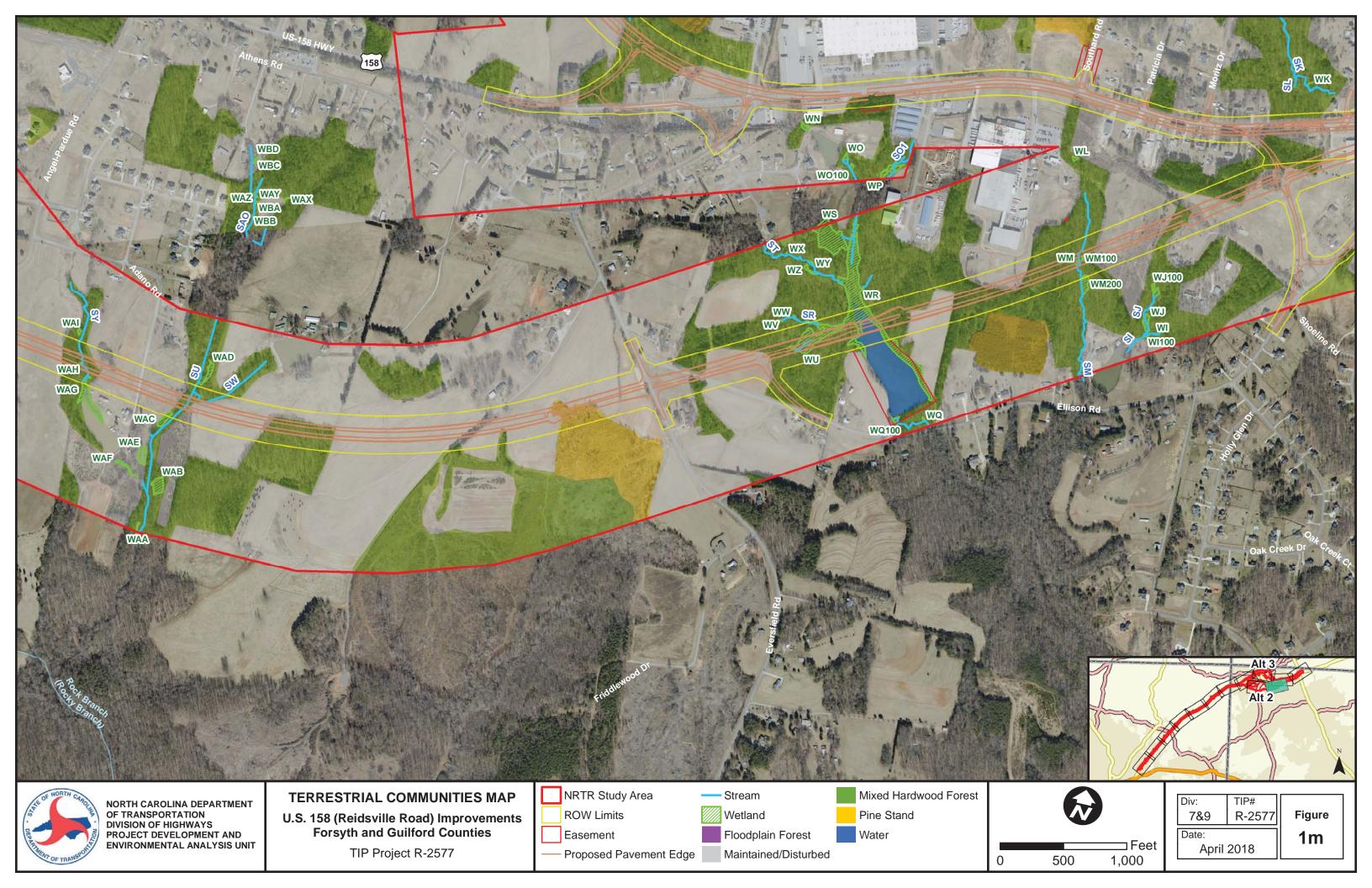












ATTACMENT B



STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

SECRETARY

MEMO TO: Post Hearing Meeting Attendees

FROM: Bryan Key, PE, Project Management Unit

Karen Reynolds, Project Management Unit

DATE: December 8, 2017

SUBJECT: Project: 37405.1.1, (R-2577ABC) Forsyth and Guilford Counties

US 158 Improvements from north of US 421/I-40 Business in

Forsyth County to US 220 (I-73) in Guilford County **Design Public Meetings (DPMs) Post-Meeting Minutes**

A post-meeting for the design public meetings (DPMs) was held in the NCDOT Hydraulics conference room in Raleigh at 10:00 am on Thursday, November 30, 2017. The purpose of the meeting was to discuss comments received at and after the DPMs that were held for the subject project. The first meeting was held on Tuesday, October 24, 2017, at the Gospel Light Baptist Church located at 890 Walkertown Guthrie Road in Walkertown. The second meeting was held on October 26, 2017, at the Stokesdale Town Hall at 8325 Angel-Pardue Road in Stokesdale. Both meetings were informal drop-in style meetings, held from 4:00 pm to 7:00 pm, with the same information and maps presented at both meetings.

Approximately 330 people attended the first meeting in Walkertown, and 357 people attended the second meeting in Stokesdale. A total of 166 comments were submitted. Comments were submitted at the meetings, mailed-in after the meetings, submitted via email, and submitted via the project website. Several people called in before and after the meetings to discuss the project with NCDOT staff and to voice their concerns.

AECOM has prepared a comment-response summary for all of the comments that were received during the comment period, which ended on November 10, 2017 (see Attachment A). A total of 167 comments were received. Eighty-five comment sheets were submitted at the design public meetings, 26 comment sheets were mailed in, 22 comments were submitted via e-mail, 21 comments were submitted via the project website, seven comments were submitted via telephone, and six letters were mailed in with concerns/comments regarding the proposed project.

The following is a summary of the issues and concerns that were raised regarding the project.

Telephone: (919) 707-6200

Superstreet/Median/Restricted Access

- Dangerous people feel that U-turn movements are unsafe especially for school and church buses, boat trailers, large trucks, and emergency vehicles/firetrucks.
- Inconvenient project will create longer travel distances and increased commute times
- Poor access will lower home values.
- Restricted access will cause decline in businesses.
- Restrictive access will cause more congestion at side streets and entrances to neighborhoods.
- Safety, inconvenience, poor access were concerns expressed by residents in the High Knoll Neighborhood, as well as the neighborhoods off of Stanley Ave and Stanley Park Ave, due to restricted access. Do not want right-in, right-out.

Response: NCDOT staff has been working with residents to explain how access to their properties will change as a result of the proposed project. Restricting crossing movements with the median and limiting crossover and U-turn locations reduces the number of conflict points and focuses them in the safest practical locations. Access to all side streets and neighborhoods will be maintained during construction. At least one access per property will be provided along US 158, with a few exceptions: 1) properties near the proposed interchanges (proposed Winston Salem Northern Beltway, and the proposed interchange for R-2577C Alternative 3 and NC 68), and 2) properties adjacent to the turn-around locations where access will be restricted. The turn-around bulbs for U-turns will be able to accommodate large tractor trailers and large farming equipment. Property owners will be notified by NCDOT if access to their property will change as a result of the project after right of way acquisition begins. Right of way acquisition is currently in 2020 for Section A of the project and 2024 for Section B. Section C is currently not funded for right of way acquisition. No control of access is proposed from the beginning of the project to the proposed Winston-Salem North *Beltway interchange (except at U-turn locations).*

Safety is greatly improved by constructing a median and limiting turn movements to right-in, right-out only with redirected left-turn movements at strategically placed U-turn locations. The median separates opposing traffic and reduces a wide range of common accidents including rear-end, right angle, head-on, and left-turn. The median also reduces property damage, injuries, and fatalities related to these accidents. Medians also improve traffic flow, which results in less congestion, less emissions, and less consumption of fuel.

Safety

- Concerned about current safety at the Vance Road/Belews Creek Road intersection and US 158 – want a stop light installed now and not wait for project.
- Visibility concerns near Stanley Ave, requesting a stop light at Stanley Ave.
- Request to realign Gaither Road and Old Belews Creek Road intersection with US
 158 and add a stop light instead of what is currently proposed.
- Requests that speed limit between Beltway and NC 66 be 45 mph.
- Request to reduce current speed limit on Ellison Road.
- U-turns will create safety hazards.

• Project will increase truck traffic at high rates of speed.

Response: The proposed project will address visibility concerns as the vertical curves will be flattened and the horizontal curves will be straightened as per current design standards. Locations for the proposed U-turn bulbs are strategically placed with adequate sight distance and designed with enough space so that large trucks, buses, boat trailers, emergency vehicles, and farming equipment can safely make a U-turn.

NCDOT Division 9 is aware of several existing intersections along US 158 in Section A of the project where traffic signals have been requested, including the Vance Road and Stanley Avenue intersections. The Division is evaluating options for improving the safety of these intersections prior to the constructions of the proposed project.

Speed limits are posted by NCDOT to increase safety within the context of retaining reasonable mobility of a transportation facility. The posted speed limit is determined by a number of factors including the design speed, traffic volume, visibility, surrounding land use, etc. The posted speed limit for the proposed project will be evaluated prior to completion of the project.

Emergency Response

- Concerned about emergency access at U-turns. We have larger vehicles with larger turning radius than most vehicles. Also concerned about water points where hydrants are on opposite sides of divided highway.
- Increased response time due to median and restricted access/superstreets.

Response: Emergency vehicles will be able to cross over the proposed depressed grass median at any location along the proposed project, if necessary. Mountable curbs will be constructed for curb and gutter sections at the beginning and end of the proposed project.

NCDOT will allow accommodations for installing additional hydrants if requested by the local utility provided.

U-Turn bulb locations

Several concerns were raised about the current locations shown for the proposed U-turn bulbs and requests were made to either move or consider adding U-turn bulbs:

- Near station 70+00 property owner of parcel # 268 wants NCDOT to buy entire property. Current design shown has full control of access stopping in front of the parcel, but not covering it completely.
- Station 125+00 to 127+00 investigate U-turn bulb for westbound US 158 traffic around west of Harvest Baptist Church and westbound US 158/Old Belews Creek Road U-turn bulb. There are a lot of homes located off Stanley Avenue, Angel Drive, and Stanley Park Road that would either have to make a U-turn at the Old Belews Creek Road leftover or go all the way through the interchange to the Darrow Road U-turn bulb. This is a long distance and could deter the performance of the Old Belews Creek Road leftover and/or the interchange.
- Request for an additional U-turn bulb between Darrow Road and NC 66 for traffic wanting to go west towards Winston-Salem.

- Request for additional U-turn bulb between Old Greensboro Road and Gaither Road to head eastbound.
- Requests to remove U-turn bulb at Old Belews Creek Road for westbound traffic due to safety concerns, high travel speeds, and poor sight distance.
- Request to move U-turn bulb at Piney Grove further east to just before lake to avoid extra travel distance (near station 575+00).
- Angel family farm at end of Angel-Purdue Road will be bisected by proposed R-2577C Alternative 2 (Southern Bypass). How will they get harvesting machinery from the north to the south side?

Response: The U-turn bulb turn-around locations will be further evaluated based on the comments received and will be finalized during final design once hydraulic designs and utility relocation plans have been finalized. Consideration will be given for adding additional U-turn bulbs at the following locations:

- Adding a U-turn bulb for traffic needing to go east near Station 42+00 (near Crews Church).
- Adding a U-turn bulb near station 127+00 for travelers needing to go west towards Winston-Salem (i.e. creating back-to-back U-turn bulbs, one for eastbound traffic and one for westbound traffic).
- Adding a U-turn bulb for traffic needing to go eastbound between Esther Lane and Knoll Ridge Drive.
- Adding another U-turn bulb just west of Belews Lake crossing for travelers wanted to head east.

Access concerns for getting harvesting equipment across the proposed highway for the Angel farm at the end of Angel-Purdue Road will be further investigated as the project further develops.

Noise

- Noise impacts will affect neighborhoods and wildlife.
- Noise walls are needed.

Response: NCDOT is currently conducting a Traffic Noise Analysis for the proposed project that will identify potential noise study areas along the project that meet preliminary feasible and reasonable criteria found in the 2016 NCDOT Traffic Noise Policy. A more detailed analysis will be completed during project final design, at which point the location of noise barriers will be decided. Certain property owners and tenants near the proposed barriers will be solicited to obtain their preferences for or against construction of the barriers. In accordance with NCDOT Traffic Noise Policy, the NCDOT is not responsible for evaluating or implementing any noise barriers to protect developed lands for which building permits were not issued before the Date of Public Knowledge. The Date of Public Knowledge of the proposed highway project will be the approval date of the State Environmental Assessment/Finding of No Significant Impact (State EA/FONSI). For development occurring after this date, local governing bodies are responsible to ensure that noise compatible designs are utilized along the proposed facility.

Property Values and Right of Way Acquisition

- Concerns that home values will decrease due to increased traffic, noise, restrictive access, lower quality of life.
- Concern about not being able to sell home until project is constructed.
- Requests for NCDOT to buy entire property:
 - o Parcel #s 102, 268
 - o 9157 US 158 (no parcel #)
- Requests to not impact properties that have been in family for generations (6900 US Hwy 158, 5924 Reidsville Road), as well as a family farm and roadside stand (5938 Reidsville Road) that will be impacted.
- Concerned about impacts to Providence North subdivision off of US-158 and have concerns for parcels 890 and 869 with respect to Alternative 3.

Response: Many factors contribute to the local real estate market and property values within the project study area. Traffic is expected to continue to increase on existing US 158 through the design year, and without the proposed improvements, will continue to deteriorate the safety and integrity of the existing facility. The proposed project will improve the traffic carrying capacity and safety of the US 158 corridor within the project study area, which will benefit both local residents and businesses, as well as through traffic, which would ultimately result in having an overall positive economic effect on the local area.

The roadway design plans for the proposed project are not final. Efforts will be made to reduce the impacts to properties along US 158, during the final design phase of R-2577. NCDOT Right-of-Way agents will work with the public during the right of way acquisition phase. Impacted citizens will be contacted starting in 2020 for Section A and 2024 for Section B of the project. Further assistance may be obtained by contacting the NCDOT Highway Division 7 Right-of-Way office in Greensboro at (336) 334-3515 for properties located in Guilford County, or contacting the NCDOT Division 9 Right-of-Way office in Winston-Salem at (336) 760-8737 for properties located in Forsyth County. Additional right-of-way acquisition assistance information is available on the "U.S. 158 (Reidsville Road) Improvements" webpage, on the NCDOT website at https://www.ncdot.gov/projects/US158ReidsvilleRoad/

Historic Properties

- Edgewood Baptist Church is listed as a historic property on NCDOT's maps, but the church does not have this designation. Please contact us to discuss this issue. We have never filed for such designation.
- Edgewood Baptist Church & Churchland Avenue project will totally destroy church with the way NCDOT has proposed.

Response: Historic properties shown on the design public meeting maps are either on the National Register for Historic Places (NR), or have been determined eligible for listing on the NR. NCDOT conducted a survey of potentially historic properties pursuant to 36 CFR Section 800.4(b) that might be affected by the proposed project. Edgewood Baptist Church was found eligible for listing on the NR under Criterion C for architecture because of its exceptional importance as a distinctive example of a

religious facility built in the modernist style in the Winston-Salem area. This determination is a result of a requirement of state and federal laws to evaluate potentially historic properties and affords those properties special consideration when federal funding or federal permits are required. Additional coordination with the North Carolina State Historic Preservation Office will be completed to minimize and/or mitigate impacts to the church prior to finalizing the design plans.

General design concerns, suggestions, and requests

- Construct a bridge over NC 66 on US 158 or construct a bridge over US 158 on NC 66
- Extend Beeson Dairy Road to Reidsville Road due to awkward turn movement. Reverse design and have Old Belews Creek Road T-into Beeson Dairy Road.
- Oppose superstreet design at NC 66.
- Concerned about intersections of US 158 and Darrow Road/Old Belews Creek Road because it is a busy intersection and Darrow Road needs to go straight across.
- Request to realign Flat Rock Road across from Rail Fence Road.

Response: Construction of a bridge on US 158 over NC 66 or on NC 66 over US 158 will not be feasible due to the severe impacts to adjacent properties and business at and near this intersection Extending Beeson Diary Road to Reidsville Road is outside the scope of the proposed project. The intersection of US 158 and Darrow Road/Old Belews Creek Road and the request to realign Flat Rock Road will be considered as the project is further developed.

Drainage

- Concerned about current drainage from US 158, and potential increased drainage resulting from expanded road (Eagles Nest Neighborhood).
- At the intersection of Happy Rd and US 158, there is a deep gully or ditch that is part of the ROW. I hope this gets changed.

Response: Drainage concerns will be taken into consideration as the project is further developed and hydraulic design plans are developed and refined for the project.

Bicycle/Pedestrian Accommodations

- The Winston-Salem MPO CTP pedestrian recommendations include building sidewalks between Darrow Rd and Old Hollow (NC 66). Is there any way to incorporate?
- I see no provisions for bike/walkways on any typical section.

Response: NCDOT works with local governments to add sidewalks and bicycle accommodations in coordination with highway improvement projects. State funds are available on a sliding scale to match funds provided by the local government for the inclusion of sidewalks. The local government is responsible for maintaining the sidewalk.

Accommodations for bicycles and/or pedestrians have not been included in this project as there have been no requests submitted to NCDOT for bicycle and/or pedestrian accommodations from either Walkertown or Stokesdale. US 158, between Darrow Road and Old Hollow Road (NC 66), falls within the city limits of Walkertown. The proposed design for this section of the project, a four-lane median divided facility with curb and gutter and a 10-foot berm, does not preclude the construction of sidewalks in the future, should the City of Walkertown decide to do so.

Public Involvement

- Recommend adding to website a one-page separate printable legend.
- Cannot read the legend or other writing on the online Highway 158 Improvements Project map. Zooming in is possible, but the writing cannot be read. Where can I go to see the map?

Response: Hard copies of the public meeting maps can be viewed at the NCDOT Division 9 office at 375 Silas Creek Parkway in Winston-Salem and at the NCDOT Division 7 office at 1584 Yanceyville Street in Greensboro. A printable legend can be added to the project website.

Project Schedule

- When will the project commence and be completed?
- This road is at very crowded today. This improvement should be started sooner than the 2026 time schedule. Frequent accidents are the norm for this road now. Please consider accelerating the construction schedule.

Response: Construction on Section A will begin in 2022 and in 2026 for Section B. Section C is not currently funded for construction. Construction will be completed approximately 2-3 years after the start of construction on each section of the project. Due to the remaining project planning requirements, it is not likely that the project schedule will be advanced.

Traffic

- How to get out. It's pretty bad now.
- I wanted to know the traffic counts for Stanley Park Road, Stanley Avenue and Angel Drive

Response: The proposed project will improve traffic flow and access to and from side streets. Providing right-in, right-out access at side streets, restricting left-turn movements and cross-over movements (i.e. eliminating many conflict points), and provided U-turn bulbs at strategic locations for redirected left-turns will improve traffic flow and provide a much safer facility for travelers accessing US 158.

Stanley Park Road, Stanley Avenue, and Angel Drive are not considered major intersections due to low volumes of daily traffic (less than 100 vehicles per day). The traffic forecast for this project does not include current or projected traffic volumes for minor intersections, i.e. intersections with side streets with less than 100 vehicles per day.

Neighborhood Impacts and Services

- Please protect the small town nature of the area do not create "islands" of residential communities that are cut off by highway.
- The road will affect the rural nature of the town.
- Will there be city/sewer available?

Response: Impacts to communities will be evaluated as the project further develops and will be addressed in the environmental document, the State Environmental Assessment/Finding of No Significant Impact (State EA/FONSI). NCDOT will attempt to minimize impacts to neighborhoods, communities, farms, businesses, churches, and individual property owners to the fullest extent practicable.

Water and sewer services are provided by local or county municipalities not by the NCDOT.

Preference for R-2577C Alternative 2 (Southern Alternative)

- Alternative 2 will encourage truckers to take US 220 to I-73 and stay away from downtown Stokesdale.
- Prefer Alternative 2 because Alternative 3 would impact their properties, neighborhoods (Boone Landing, Marshall Woods) and cause economic loss.
- Concerned about noise impacts to church near Alternative 3
- Fewer superstreets than Alternative 3
- Alternative 2 is the least disruptive to majority of Stokesdale residences will impact fewer people, homes, structures, and businesses.
- Most direct route and safer than Alternative 3.
- Alternative 2 is the best option to grow Stokesdale town area.
- Concerned about business and wetlands impacts associated with Alternative 3.
- Concerned that Alternative 3 would disrupt flow of traffic and impact access to Belews Lake.
- Alternative 3 would cause delays in fire department emergency response.
- Alternative 3 and proposed U-turns would cause hazardous conditions for visitors and residents of Countryside Retirement Village.
- Southern route has been on planning maps for years and been part of rezoning decisions made in the last few years.

Response: Comments regarding the preference for Alternative 2 and impacts to neighborhoods, residences, businesses, churches, schools, and farms along the proposed path for Alternative 3 the will be considered as the project is further developed and when a decision is made regarding the preferred alternative.

Preference for R-2577C Alternative 3 (Northern Alternative)

 Alternative 2 is detrimental to Stokesdale – it will result in further corruption of Stokesdale Land Use Plan and the vision of the town core, it will significantly increase the amount of high speed and cause environmental degradation, it will increase noise and air pollution, and will cause more impacts than what is shown due to recent development.

- Southern route affects high end homes and property values and also affects large businesses paying taxes while northern route will affect no businesses.
- Alternative 2 will take away our livelihood (farms impacts).
- Southern route will cut off access to Ellison Road from Shoreline Road.
- Alternative will have direct impacts to new development (The Landing at Angel Glen) and will have no access to the neighborhood.
- Will split farm in half Angel farm off of Angel-Purdue Road.
- Do not want increase traffic congestion and increase in crime potential. Northern option would best serve town.
- Prefers northern route because it affects fewer businesses and homes.
- Alternative 3 affects fewer businesses and families. Alternative 2 impacts a landmark restaurant and owner's home that opened in the 1950s.
- Prefers Alternative 3 due to noise impacts to Stokesdale Elementary.
- Will there be a new traffic study to determine how much traffic is now using I-73 instead of US 158? Some traffic may go I-40 to Hwy 68 and then new I-73 to go north.
- It is doubtful trucks would continue on 158 to 220 when they want to go the shortest route and can take NC 68 north to 220.
- Concerned about increase traffic congestion on NC 68 due to southern route and
 the synchronized street proposal for the southern option appears to be
 significantly inferior to the interchange of the northern option. NC 68 appears to
 have heavier traffic than US 158; therefore, an option that keeps both roads
 flowing with minimal disruption (i.e. the interchange of the northern route) seems
 preferable.
- Impacts to Culp Home Fashions and most recent \$10M distribution center expansion, as well as over the septic field servicing 450 employees
- Southern route would put a hardship on our family and community.
- Impact to Dorsett Downs neighborhood negative impact to property values, concern about superstreet design, noise levels, and impacts to wetlands.
- Northern route impacts primarily poor individuals who lives along existing roadway, and the southern would go through newly developed subdivisions with \$300K homes.

Response: Comments regarding the preference for Alternative 3 and impacts to neighborhoods, residences, businesses, churches, schools, and farms along the proposed path for Alternative 2 will be considered as the project is further developed and when a decision is made regarding the preferred alternative.

NCDOT recently updated the Traffic Forest (July 2017) for the proposed project and is currently in the process of completing a traffic capacity analysis based on an updated Traffic Forecast. The updated traffic analysis will be used as the project is further developed and design plans are finalized.

Other Alternative

• The most logical widening of HWY 158 through Stokesdale would be to go straight onto HWY 65 and then onto 220, since those highways are already in place and would just need widening.

Response: NCDOT has considered a full range of preliminary alternatives for improving US 158 through Stokesdale, which included upgrading existing facilities as well as new location alternatives. Several preliminary alternatives were eliminated from further study because they either did not meet the purpose and need for the project, or had substantially more impacts than those that were chosen for further study.

General Opposition to Project

- Do not wish to live 300 feet from a major highway
- No changes to US 158 needed
- Project is not needed because of minimal traffic on US 158
- Farm will be affected by project do not want a 4-lane obstruction at Flat Rock road because it will be noisy and disturbing
- Do not need big highways slowly destroying precious farmland used to make a living
- We would also like to advocate the state reevaluate the need for this project. The traffic does not demand a 4-lane divided highway.
- Don't think it will keep traffic flowing & will be flowing in wrong direction. 158 is a major road, look like NCDOT is trying to use as a county road, 45 to 50 mph.
- This project is much too costly and not required!
- Not happy about the project

Response: The purpose for and need of the project is to improve traffic carrying capacity along US 158 within the project limits and to improve the level of service for this roadway. Potential impacts to homes, businesses, churches, farms, and neighborhoods, as well as impacts to the natural environment as a result of the proposed project, will be assessed and evaluated. All efforts will be made to avoid, minimize, and/or mitigate potential impacts. Comments opposing the project will be noted and considered as the project is further developed.

General Support for the Project

- I wish other attendees and homeowners could consider how the new road is going to benefit the community. Thanks for the detailed maps.
- I support 158 being improved 100%. Good job!
- I have lived on Walkertown-Guthrie for 55 years and have seen the rapid growth in traffic during that time in our community. So I understand and welcome the widening of Hwy 158 in our area.
- First let me say I am very excited about the bypass being built near my home in High Knoll, Walkertown.

Response: Comments in support of the project are noted.

The following verbal comments related to specific properties were relayed to the project team at the design public meetings.

Roll 6 of 7 (R-2577C Alternative 3)

- Station 67+00 Mr. Gilliam lives next to Oak Springs Church (west) stated that the church has recently bought property somewhere else to build a new church. He would prefer not to move any graves in the cemetery across the street from the church were several of his relatives are buried.
- Station 23+00 along NC 65 property owner of parcel #737 requested NCDOT consider moving the proposed realignment of NC 65 near the proposed interchange with NC 68 further west to not impact his driveway access and septic field located in the front of his property. He would like to not be relocated if possible.

If there are any questions or comments regarding this information, please contact Karen Reynolds at 919-707-6038 or at kreynolds@ncdot.gov, or contact Bryan Key, PE, at 919-707-6263 or at bckey@ncdot.gov.

CC: Meeting Attendees

James Lastinger US Army Corps of Engineers

Pat Ivy, PE NCDOT Division 9 Engineer (by phone)

Wright Archer, III, PE NCDOT Division 9 Construction Engineer (by phone)

Al Blanton, PE, PLS NCDOT Division 9 Project Development Team Lead (by phone)

Diane Hampton, PE NCDOT Division 9 Planning Engineer (by phone)

Patty Eason, PE NCDOT Division 7 Division Construction Engineer (by phone)

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NCDOT Project Management Unit – Senior Project Manager
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Jamille Robbins NCDOT Public Involvement Group Leader

Herman Huang, PhD NCDOT Community Studies
Braden Walker NCDOT Congestion Management
Nick Lineberger NCDOT Congestion Management

Craig McKinney Greensboro MPO Byron Brown Winston-Salem MPO

Drew Joyner, PE AECOM Laura Fisher, PE AECOM Karen Taylor, PE AECOM

Attachment

ATTACHMENT C

Total Impacts Associated with Segments 1, 2, 4, 5, 6 & 7

Individual Stream Impacts

Individual Wetland Impacts

Total Impacts Associated with Segments 1, 2, 4, 5, 6 & 7

R-2577ABC Project Impacts	Segments 1, 2, 4, 5, 6 & 7 R-2577A&B
Rest (Retirement) Homes	1
Cemeteries	1
Utilities	
Historic Properties	2
Residential Relocations	
Business Relocations	
Church/Non-Profit Relocations	
100-year Floodplain & Floodway (Ac)*	11.2
Streams (No. of Crossings / LF)*	14 12 / 2566 2470
Wetlands (Ac)*	0.3
Ponds / Lake (Ac)*	4.2
Voluntary Ag. District (No. of Impacts/Ac)**	3 / 2.7
Farmland Preservation Program (No. of Impacts/Ac)**	1 / 1.0
UST Sites***	4
Forested Area (Ac)*	56.0
Right of Way & Utility Cost	
Construction Cost	
Total Cost	
Note: * Imports calculated using alamostaly as 1 2 feet	

Note: * Impacts calculated using slopestakes + 25 feet
** Impacts calculated using ROW+Easement width

^{***} Information from NCDWR website

Individual Stream Impacts

Map ID	Stream Name	Classification	River Basin Buffer	Length in Study Area (LF)	R-2577A&B with Segment 3 Southern Widening Option (LF)	R-2577A&B with Segment 3 Transitional Widening Option (LF)	R-2577C Alternative 2 Southern Bypass (LF)	R-2577C Alternative 3 Northern Bypass (LF)
SB	UT to Troublesome Creek	Intermittent / Perennial	Subject	270	-	-	-	322
SD	UT to East Belews Creek	Intermittent / Perennial	Not Subject	1,150	1	-	50 41	51 41
SM	UT to West Belews Creek	Perennial	Subject	1,661	1	1	310	-
SR	UT to West Belews Creek	Perennial	Not Subject	327	1	1	7	-
SS	UT to West Belews Creek	Perennial	Subject	148	-	1	148	-
ST	UT to West Belews Creek	Perennial	Subject	876	1	1	-	-
SU	UT to West Belews Creek	Perennial	Subject	1,889	-	-	259	-
SV	UT to West Belews Creek	Intermittent	Not Subject	23	1	-	-	-
SW	UT to West Belews Creek	Perennial	Subject	738	1	1	271	-
SY	UT to West Belews Creek	Perennial	Subject	921	1	1	336	-
SAA	UT to Haw River	Perennial	Subject	4,137	1	1	271	-
SAU	UT to Troublesome Creek	Perennial	Subject	2,037	1	1	-	262
SAY	UT to Troublesome Creek	Intermittent / Perennial	Subject	1,084	1	1	-	271
SAZ	UT to Troublesome Creek	Intermittent / Perennial	Subject	684	1	1	-	158
SBC	Troublesome Creek	Perennial	Subject	3,845	1	1	-	401
SBD	UT to Troublesome Creek	Intermittent / Perennial	Subject	1,494	1	1	-	829
SBF	UT to Troublesome Creek	Intermittent	Subject	272	-	1	-	48
SBG	UT to Troublesome Creek	Intermittent / Perennial	Subject	1,237	1	1	-	200
SBK	UT to Kings Creek	Perennial	Not Subject	1,478	1	1	-	45
SBO	UT to Kings Creek	Perennial	Not Subject	10,581	1	-	276	-
SBF	UT to Troublesome Creek	Intermittent / Perennial	Subject	2,719	1	1	-	225 214
SBZ	UT to Kings Creek	Intermittent / Perennial	Not Subject	2,400	-	-	-	30
SCC	UT to Kings Creek	Perennial	Not Subject	3,871	-	-	775	-
SCD	UT to Kings Creek	Perennial	Not Subject	621	-	-	146	-
SCK	UT to Kings Creek	Perennial	Not Subject	69	-	-	307	-
SCL	UT to Kings Creek	Intermittent	Not Subject	209	-	-	180	-
SCW	UT to East Belews Creek	Intermittent	Not Subject	251	56 0	56 0	-	-
SCZ	UT to East Belews Creek	Perennial	Not Subject	8,431	91	91	-	-

Map ID	Stream Name	Classification	River Basin Buffer	Length in Study Area (LF)	R-2577A&B with Segment 3 Southern Widening Option (LF)	R-2577A&B with Segment 3 Transitional Widening Option (LF)	R-2577C Alternative 2 Southern Bypass (LF)	R-2577C Alternative 3 Northern Bypass (LF)
SDI	UT to East Belews Creek	Intermittent	Not Subject	191	40 0	40 0	-	-
SDL	UT to Belews Creek	Perennial	Not Subject	1,375	199	199	-	-
SDN	UT to Belews Creek	Perennial	Not Subject	1,187	215	215	-	-
SDP	UT to Belews Creek	Perennial	Not Subject	1,052	335	335	-	-
SDR	Belews Creek	Perennial	Not Subject	1,633	26	26	-	-
SED	UT to Left Fork Belews Creek	Perennial	Not Subject	529	-	66	-	1
SEH	UT to Left Fork Belews Creek	Perennial	Not Subject	1,120	149	198	-	-
SEK	UT to Left Fork Belews Creek	Perennial	Not Subject	1,383	164	171 70	-	-
SEM	UT to Left Fork Belews Creek	Perennial	Not Subject	662	147	201	-	-
SES	UT to West Belews Creek	Perennial	Not Subject	1,574	174	174	-	1
SET	UT to West Belews Creek	Intermittent / Perennial	Not Subject	663	360	360	-	1
SFA	UT to West Belews Creek	Intermittent	Not Subject	592	415	415	-	1
SFB	UT to West Belews Creek	Perennial	Not Subject	1,619	197	197	-	-
SFC	UT to West Belews Creek	Intermittent / Perennial	Not Subject	1,123	402	402	-	-
SFD	UT to West Belews Creek	Intermittent	Not Subject	36	22	22	-	-
SFJ	UT to West Belews Creek	Intermittent / Perennial	Not Subject	300	34	34	-	-
				Total	3,026 2,930	3,202 3,005	3,335 3,326	2,842 2,821

Individual Wetland Impacts

Map ID	NCWAM Classification	Hydrologic Classification	Wetland Rating	Study Area (ac.)	R-2577A&B with Segment 3 Southern Widening Option (Ac.)	R-2577A&B with Segment 3 Transitional Widening Option (Ac.)	R-2577C Alternative 2 Southern Bypass (Ac.)	R-2577C Alternative 3 Northern Bypass (Ac.)
WM	Headwater Forest	Riparian	70	0.18	-	-	0.02	-
WM100	Headwater Forest	Riparian	70	<0.01	-	-	0.01	-
WR	Non-tidal Freshwater Marsh	Riparian	45	2.81	-	-	0.69	-
WU	Non-tidal Freshwater Marsh	Riparian	62	0.76	-	-	0.72	-
WAC	Headwater Forest	Riparian	39	0.12	-	-	0.01	-
WAG	Headwater Forest	Riparian	49	0.41	-	-	0.03	-
WBK	Headwater Forest	Riparian	34	0.07	-	-	-	0.03
WCB	Headwater Forest	Riparian	30	0.21	-	-	-	0.20
wcc	Headwater Forest	Riparian	30	0.08	-	-	-	0.07
WCD	Headwater Forest	Riparian	30	0.02	-	-	-	0.001
WCE	Headwater Forest	Riparian	8	0.1	-	-	-	0.06
WCH	Headwater Forest	Non-riparian	37	0.03	-	-	-	0.01 0.00
WCN	Headwater Forest	Non-riparian	28	0.09	-	-	-	0.03 0.02
wco	Headwater Forest	Non-riparian	28	0.18	-	-	-	0.15
WCP	Headwater Forest	Non-riparian	28	0.22	-	-	-	0.05 0.03
WCU	Headwater Forest	Riparian	33	0.02	-	-	-	0.02
WEH	Headwater Forest	Riparian	37	0.06	-	-	0.001	-
WFN	Bottomland Hardwood Forest	Riparian	49	0.03	0.03	-	-	-
WGD	Floodplain Pool	Riparian	33	0.17	0.11	0.11	-	-
WGI	Headwater Forest	Riparian	17	<0.01	0.001 0.000	0.001 0.000	-	-
WGQ	Non-tidal Freshwater Marsh	Riparian	41	0.07	0.05	0.05	-	-
WGR	Headwater Forest	Riparian	44	0.1	0.02	0.02	-	-
WHC	Headwater Forest	Riparian	28	<0.01	-	0.003	-	-
WHI	Headwater Forest	Riparian	37	0.03	-	0.01	-	-
WHL	Headwater Forest	Riparian	33	0.02	0.01	-	-	-
WHP	Headwater Forest	Riparian	42	0.09	0.04	0.04	-	-
WHQ	Headwater Forest	Riparian	42	0.02	0.02	0.02	-	-
				Total	0.3	0.3	1.5	0.6