US 17 Business/NC 37 (North Church Street)
From South of the Perquimans River Bridge to NC 37
Including the Replacement of Bridge No. 8
Perquimans County
State Project 35748.1.1
Federal-Aid Project BRNHS-0017(85)

TIP Project R-4467

ADMINISTRATIVE ACTION

ENVIRONMENTAL ASSESSMENT

U.S. Department of Transportation
Federal Highway Administration
and
N.C. Department of Transportation
Division of Highways

Submitted pursuant to 42 U.S.C. 4332(2)C

APPROVED:

2/25/13
Date

for John F. Sullivan, III, P.E.
Division Administrator, FHWA

2/18/13
Date

for Gregory J. Thorpe, Ph.D.
Manager,
Project Development and Environmental Analysis Unit, NCDOT

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Document Prepared in the Project Development and Environmental Analysis Branch and Kimley-Horn and Associates, Inc. by:

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2/20/13

PROJECT COMMITMENTS

US 17 Business/NC 37 (North Church Street)
From South of the Perquimans River Bridge to NC 37
Including the Replacement of Bridge No. 8
Perquimans County
State Project 35748.1.1
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TIP Project R-4467

NCDOT Human Environment Section

A memorandum of agreement between FHWA and the State Historic Preservation Office concerning the adverse effect of the project on Bridge Number 8 will be prepared following selection of the preferred alternative and prior to completion of a programmatic Section 4(f) evaluation and the final environmental document for the project.

NCDOT Project Development Section

Since this project necessitates the use of a historic bridge and meets the criteria set forth in the Federal Register (July 5, 1983), it is anticipated a programmatic Section 4(f) evaluation can be prepared to satisfy the requirements of Section 4(f). This programmatic Section 4(f) evaluation will be completed following the preparation of a memorandum of agreement between FHWA and the State Historic Preservation Office concerning the adverse effect of the project on Bridge Number 8. The programmatic Section 4(f) evaluation will be approved prior to the completion of the final environmental document for this project.

Depending on the alternative selected, commitments may be required related to project effects on the Hertford Historic District and the Hertford Water Works and Ice Plant. Any such commitments will be included in the final environmental document for the project.

It is anticipated the project may affect, but is not likely to adversely affect the Atlantic Sturgeon. NCDOT will request concurrence on a determination of May Affect, Not Likely to Adversely Affect for the Atlantic sturgeon from the National Marine Fisheries Service when an alternative has been selected. The results of this coordination will be included in the final environmental document for the project.

NCDOT Geotechnical Unit

NCDOT will consider vibration monitoring and a pre-construction survey of buildings near the proposed bridge. A determination will be made regarding the need for vibration monitoring prior to the final environmental document for the project.

NCDOT Division One Construction/Project Services Unit

An in-stream work moratorium of February 15 to June 30 is required in the Perquimans River for anadromous fish species.

NCDOT Roadway Design Unit/Structure Management Unit

A raised 5.5-foot sidewalk and a 3-foot paved shoulder will be provided on the west side of the proposed bridge over the Perquimans River.

For Alternatives B 15-Foot Swing Span and D-Mod 33-Foot Fixed, the existing sidewalk on the east side of Church Street will be terminated at Newby Street to encourage pedestrians to cross to the west side before the bridge.

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SUMMARY

A. Type of Action

This Environmental Assessment (EA) has been prepared for the Federal Highway Administration (FHWA) in accordance with the Code of Federal Regulations (CFR) 23, Part 771 for the purpose of evaluating the potential impacts of a proposed transportation improvement project.

B. Description of Action

The North Carolina Department of Transportation (NCDOT) proposes to replace Bridge Number 8 over the Perquimans River and the existing causeway between the bridge and NC 37. The bridge and causeway carry US 17 Business/NC 37 over the Perquimans River, connecting Hertford and Winfall in Perquimans County. The proposed project is included in the NCDOT *2012-2018 State Transportation Improvement Program* (STIP) as Project R-4467 and is programmed for right-of-way acquisition beginning in Fiscal Year (FY) 2016 and construction in FY 2018 in the draft 2013-2023 NCDOT Program and Resource Plan. **Figure 1** shows the project vicinity map.

The purpose of the proposed project is to provide a direct, reliable route between Hertford and Winfall. The causeway and bridge both show significant deterioration and present ongoing maintenance problems, jeopardizing the ability to provide reliable direct connectivity from downtown Hertford to Winfall. Replacing the bridge with a new structure will provide more reliable connectivity. This link provides a vital tie between the two communities and is important for sustaining the economic vitality of both towns, maintaining community cohesion, providing a school bus route within Perquimans County, and providing direct access for residents without a vehicle to travel between Hertford and Winfall.

Differential settling of the road subgrade due to poor soils under the road has caused substantial damage to US 17 Business/NC 37 between NC 37 and Bridge Number 8 (known locally as the S-bridge). Various repairs have been implemented on different sections, including cast-in-place concrete slabs on poured-in-place concrete piles, steel plates welded onto steel piles, and many asphalt leveling buildups. Traffic volumes are expected to continue to grow in the future, increasing the stress on this facility's pavement and subgrade.

Bridge Number 8 is an S-shaped swing-span bridge built in 1929 that is deteriorating due to the age of the superstructure and substructure components. The existing bridge has a sufficiency rating of 1 out of a possible 100 as of December 2011. In addition, mechanical parts required to keep the swing-span operational are difficult and expensive to obtain. Repairs often require custom-made parts.

C. Alternatives Considered

Six conceptual alignments (A, B, C, D, E, and F) and five bridge types (fixed span at three different heights, bascule, and swing-span) were initially considered for the project. The No Build alternative was also studied.

Nine options were presented to the public at a Citizens Informational Workshop in April 2010. In October 2010, five alternatives were selected for detailed study. These alternatives were presented to the public at an informational workshop in June 2011.

In October 2012, three of the detailed study alternatives were dropped from consideration and a new alternative was added. The three current detailed study alternatives are listed below.

- **Alternative B 15-Foot Swing Span** – Build a new swing-span bridge with 15 feet of clearance on new location, and build a new low structure on the causeway. Raising the bridge to 15 feet would allow approximately 75% of boats currently using the channel to cross without opening the bridge.
- **Alternative D-Mod 33-Foot Fixed** – Replace the bridge and causeway with a new fixed-span bridge with 33 feet of clearance. The new structure would be located east of the existing bridge and causeway.
- **Alterative E 33-Foot Fixed** – Replace the bridge and causeway with a new fixed span bridge with 33 feet of clearance. The new structure would be located west of the existing bridge and causeway.

The current detailed study alternatives are shown on **Figure 2**.

D. Summary of Environmental Effects

Table S1 below presents a summary of the environmental effects of the current detailed study alternatives.

Table S1 –Impacts of Current Study Alternatives

Topic		Alternative		
		B 15-Foot Swing Span	**D-Mod 33-Foot Fixed**	**E 33-Foot Fixed**
Relocations	Residential	1	1	0
	Business	0	0	1
	Total	1	1	1
Minority/Low-Income Populations – Disproportionate Impacts*		None	None	Yes
Historic Properties (Adverse Effect)		1 (S-bridge)	1 (S-bridge)	1 (S-bridge)
Community Facilities Impacted		0	0	0
Section 4(f) Impacts		S-bridge and Hertford Historic District	S-bridge and Hertford Historic District	S-bridge
Traffic Noise (# of receptors impacted)		24	24	16
Prime Farmland (Acres)		N/A**	N/A**	N/A**
Forested Acres		0.1 acre	< 0.1 acre	< 0.1 acre
Wetlands (Acres)		0.07 acre	0.07 acre	0.07 acre
Streams (Feet)		0	0	0
Floodplains (Acres)		0	0	0
Submerged Aquatic Veg. (SAV) habitat		0.12 acre	0.12 acre	Alt E 15' – 0.77 acre Alt E 33' – 0.58 acre
SAV (presence)		None	None	None
Federally-Protected Species		No Effect	No Effect	No Effect
Length (Miles)		0.82 miles	0.62 miles	1.01 miles
Cost Estimate (in millions)				
	Construction Cost	$31.0	$18.0	$26.1
	Right of Way Cost	$0.9	$0.9	$1.1
	Utility Relocation Cost	$0.0	$0.4	$0.0
	Total Cost	$31.9	$19.3	$27.2

* Impacts defined as disproportionate adverse impacts to minority or low-income populations. Alternative E has potential to adversely and disproportionately affect a minority and low-income community because of increased traffic past schools, between churches and parking areas, and between school and future athletic field.

** Study area is in urbanized area, so NRCS CPA-106 form is not required.

E. Permits Required

The proposed project will require a Section 9 permit from the US Coast Guard, Section 10 and Section 404 permits from the US Army Corps of Engineers, a Section 401 Water Quality Certification from the NC Division of Water Quality (NCDWQ), and a CAMA Major Development Permit from the NC Division of Coastal Management. Coordination with the Regional NCDWQ office will be conducted to determine whether a State Stormwater Permit may be required for this project.

F. Coordination

As part of the public involvement process, three Citizens Informational Workshops (CIWs), two small group meetings, and four local officials' meetings were held. Public meetings were announced via newsletter/postcard and press releases.

The following federal, state and local agencies were contacted regarding the proposed project:

- US Army Corps of Engineers
- US Environmental Protection Agency
- US Fish and Wildlife Service
- National Marine Fisheries Service
- NC Division of Emergency Management
- NC Division of Coastal Management
- NC Division of Marine Fisheries
- NC Division of Water Quality
- NC Wildlife Resources Commission
- State Historic Preservation Office
- Perquimans County
- Perquimans County Schools
- Town of Hertford
- Town of Winfall

This project followed the NEPA/404 Merger process.

G. Contact Information

Contacts for this project include:

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I. DESCRIPTION OF PROPOSED ACTION

A. General Description

The North Carolina Department of Transportation (NCDOT) proposes to replace Bridge Number 8 over the Perquimans River and the existing causeway between the bridge and NC 37. The bridge and causeway carry US 17 Business/NC 37 over the Perquimans River, connecting Hertford and Winfall in Perquimans County.

B. Historical Resume and Project Status

Originally, this project was listed in the NCDOT STIP as two separate projects. Project R-4467 was to repair the causeway, and Project B-4923 was to replace the bridge. Project R-4467 was first listed in the *2004-2010 NCDOT STIP* with funding through the Senate Bill 1005 grouping of projects. The projects were combined in the *2009-2015 NCDOT STIP*.

Project development studies for the repair of the causeway began in 2003. The scope of the study was expanded to include replacement of Bridge Number 8 in 2007.

The proposed project is included in the NCDOT *2012-2018 State Transportation Improvement Program* (STIP) as Project R-4467 and is programmed for right of way acquisition beginning in Fiscal Year (FY) 2016 and construction in FY 2018 in the draft 2013-2023 NCDOT Program and Resource Plan.

C. Cost Estimates

Table 1 summarizes the estimated costs for the Project R-4467 detailed study alternatives.

Table 1 – Cost Estimate

Item	Estimated Cost (in millions)		
	Alternative B 15-Foot Swing Span	**Alternative D-Mod 33-Foot Fixed**	**Alternative E 33-Foot Fixed**
Construction	$31.0	$18.0	$26.1
Right of Way	$0.9	$0.9	$1.1
Utilities	$0.0	$0.4	$0.0
Total	**$31.9**	**$19.3**	**$27.2**

The total cost for the project included in the draft 2013-2023 Program and Resource Plan is $29,700,000. This includes $1,500,000 for right of way acquisition and $28,200,000 for construction.

II. PURPOSE AND NEED FOR PROPOSED PROJECT

A. Purpose for Project

The purpose of the proposed project is to provide a direct, reliable route between the Towns of Hertford and Winfall. **Figure 1** shows the project vicinity map.

B. Need for Project

The current bridge and causeway is experiencing substantial deterioration and ongoing maintenance problems, jeopardizing its ability to provide reliable direct connectivity from downtown Hertford to Winfall. The need for the project is demonstrated by the following summary of existing and projected conditions:

Existing connection between Hertford and Winfall: The existing causeway and bridge provide a connection between Hertford and Winfall along NC 37, and between Hertford and US 17 Bypass to the north along US 17 Business. This link provides a vital tie between these two communities. This connection is important for sustaining the economic vitality of both towns, maintaining the community cohesion that exists between the towns, and providing direct access for residents without a vehicle to travel between Hertford and Winfall.

It is also important to the Perquimans County Schools to maintain this route for school buses. In a scoping letter response (September 2008), the Superintendent said that US 17 Business/NC 37 provides the "shortest and most viable route between the four schools in Perquimans County." When buses are rerouted to US 17 Bypass, it adds at least an additional two miles to the trip, resulting in longer rides for students and additional fuel costs for the school district.

Deficiencies in the causeway: Differential settling of the road subgrade on US 17 Business/NC 37 between NC 37 and the S-bridge due to poor soils under the road has badly damaged portions of the pavement. A geotechnical survey will assess the condition of the material underneath the roadway during final design. There are no effective shoulders on this roadway section, and the existing material along the roadway is mostly unstable. Swamp marshes border both sides of the roadway. Traffic volumes are expected to continue to grow in the future, thereby increasing the stress on this facility's pavement and subgrade.

The causeway has been closed four times in the past five years due to differential settlement under the roadway. In each case, the failure resulted in the roadway collapsing, requiring the causeway to be closed for several weeks each time for repair. Various repair methods have been used, including cast-in-place concrete slabs on poured-in-place concrete piles, steel plates welded onto steel piles, and many asphalt leveling buildups. Substantial voids have been discovered underneath portions of this section of US 17 Business/NC 37. In addition, the eroding shoreline and road shoulder present regular maintenance issues, with several areas requiring riprap for strengthening. Rising water level and wave action are prevalent in this area. NCDOT has spent approximately $1,000,000 in the past five years on repairs of the causeway. **Figure II-1** shows differential settling along the causeway.

Figure II-1 Differential settling has caused damage to the roadway in the past.

Age and condition of Bridge Number 8 over the Perquimans River: Bridge Number 8 is an S-shaped swing-span bridge built in 1929. The bridge is deteriorating due to the age of the superstructure and substructure components. In addition, mechanical parts required to keep the swing span operational are difficult and expensive to obtain, often requiring custom-made parts. The bridge costs approximately $60,000 per year to maintain. The bridge has been temporarily shored with steel crutch bents and concrete jackets (see **Figure II-2** below), and the tender house, substructure, superstructure, and joints have been repaired in the past three years. It was given a sufficiency rating of 1 out of a possible 100 in December 2011 based on the unshored condition.

Figure II-2 Steel crutch bents under existing bridge

1. Description of Existing Conditions

a) Functional Classification

US 17 Business/NC 37 in the project area is classified as a major collector. According to the Statewide Functional Classification System, US 17 Business/NC 37 is designated as an urban collector in Hertford, changing to a rural collector north of the bridge. It is designated as a State Scenic Byway by the NC Department of Transportation.

b) Physical Description of Existing Facility

1.0 Roadway Cross-Section

South of Bridge Number 8, within downtown Hertford, existing US 17 Business/NC 37 has two lanes with curb and gutter (see **Figure II-3**). The existing bridge has two 10-foot lanes with a total roadway curb-to-curb width of approximately 20 feet. The existing roadway on the causeway north of the bridge has two 11-foot lanes and two to five-foot grassed shoulders. North of the causeway, the existing roadway has two 11-foot lanes and nine-foot shoulders.

Figure II-3 Existing US 17 Business/NC 37 south of Bridge Number 8 in Hertford (looking north)

Figure II-4 Existing US 17 Business/NC 37 on Bridge Number 8 (looking north)

Figure II-5 Existing US 17 Business/NC 37 on the causeway north of Bridge Number 8 (looking south)

2.0 Right of Way and Access Control

Existing right of way along US 17 Business/NC 37 is approximately 50 feet wide in downtown Hertford. Existing right of way is 60 feet wide between Bridge Number 8 and the NC 37 intersection and is 100 feet wide north of the NC 37 intersection. There is no control of access along US 17 Business/NC 37 within the project limits.

3.0 Speed Limit

The posted speed limit on US 17 Business/NC 37 is 25 MPH in downtown Hertford and across the bridge, 35 mph on the southern portion of the causeway and 45 mph on the northern portion of the causeway.

4.0 Intersections

At the northern terminus, the intersection of US 17 Business/NC 37 and NC 37 (Winfall Boulevard) is stop-controlled with a stop sign on NC 37.

Other intersections that were studied include Edenton Road Street/Grubb Street and Church Street/Grubb Street, both of which are signalized.

5.0 Structures

Bridge Number 8 is a riveted, Warren thru truss, center-bearing swing-span bridge, built in 1929. Curved, reinforced concrete approach spans extend on either side of the swing-span. The existing bridge is 640 feet in length and consists of 19 spans. It is approximately 28 feet wide, with a 20-foot clear roadway width and carries two travel lanes. A pedestrian walkway is located on the east side, with timber decking 5.2 feet in width outside the truss along the swing-span section and concrete decking 6.6 feet in width along the fixed ends of the bridge.

Figure II-6 Existing Bridge Number 8 (looking east)

The first nine bridge spans have very little clearance (approximately 1.5 foot) between the maximum high water surface elevation and the low steel elevation. The remaining interior spans increase in elevation until they reach the steel truss swing spans, which have approximately 6.5 feet of clearance (unopened) from the maximum high water surface and the low steel elevation.

The bridge is deteriorating due to the age of the superstructure and substructure components. In addition, mechanical parts required to keep the swing span operational are difficult and expensive to obtain, often requiring custom-made parts. The bridge is classified as "structurally deficient" due to deterioration. The deck and channel/channel protection have been assessed an evaluation code of 5 ("fair"), and the superstructure and substructure are rated as 4 ("poor"). The bridge is currently posted at 19 tons for single vehicle and 24 tons for truck tractors with semi-trailers.

The bridge is considered a contributing resource in the Hertford Historic District, which is listed on the National Register of Historic Places and is individually eligible for listing on the National Register of Historic Places. The bridge is one of the oldest examples of a Warren thru truss in the state. Only seven swing spans (pre-1962) of any kind existed in the state as of 2007. The ca. 1965, frame, flat-roofed operator's house on the east side of the bridge replaced the original operator's house, which sat on top of the Warren truss.

6.0 Bicycle and Pedestrian Facilities

A sidewalk is on the east side of the S-bridge, but does not extend over the causeway. South of the bridge, sidewalks exist on both sides of Church Street (US 17 Business/NC 37), Grubb Street, and Dobbs Street and on the west side of Edenton Road Street.

No roadways in the study area have on-street bicycle facilities. Two state bicycle routes pass through northern Perquimans County, but none are located in the study area.

7.0 Water Transportation

The Perquimans River provides recreational activities for boaters in and through this area. The Town of Winfall has a public kayak ramp on the Perquimans River west of the S-bridge. The Town of Hertford has three public docks in Missing Mill Park and a public boat ramp at the Municipal Park. The Hertford boat ramp is only one of two ramps in the County large enough to handle boats larger than a canoe or kayak (the other is 18 miles away in New Hope). The boat ramp is heavily used by recreational and commercial fishermen. The only other public boat ramp in Perquimans County west of Winfall is in the town of Belvidere, which has a small ramp that can accommodate canoes and kayaks. Several private docks are on both sides of the river.

The swing-span bridge is opened for recreational and commercial boats, Coast Guard operations, and bridge inspections. Annual bridge data from 2006-2008 indicates the bridge was opened as few as four times in February 2006 and as many as 94 times in July 2007. During those three years, the majority of boats passing through the S-bridge were T-tops (approximately 55%), cruisers (20%), and sailboats (10%). The remaining 15% were a variety of pleasure and Coast Guard or inspection vessels. It is unknown how many boats using the S-bridge are docked locally and how many are visiting. The railroad bridge, located approximately 1.3 miles upstream of the S-bridge has a height of 6 feet, which limits continuing passage along the Perquimans River for some boats.

8.0 Utilities

Numerous natural gas lines serve the downtown area of the Town of Herford. These lines are located along Grubb Street and Church Street.

Telephone and fiber optic cables exist on the north side of Grubb Street near the railroad and Edenton Road Street. Telephone cable is also present along both sides of Winfall Boulevard.

Power lines owned by the Town of Hertford are located along the east and west sides of Church Street from the intersection with Grubb Street to the S-bridge. This area has above-ground wires carried on poles supplying power to the signalized intersections, streetlights, and nearby homes and businesses. The power lines run along the north and south sides of West Grubb Street to the Chesapeake & Albemarle railroad crossing. Electrical power is supplied to the decorative lights on Bridge Number 8 through the use of below deck cables. The decorative lights on Church Street are serviced underground, while the street lights on Church Street at Phelps Street are serviced above ground.

Several sanitary sewer lines and associated manholes owned by the Town of Hertford are located within the study area. Most sanitary sewer lines cross from east to west or north to south directly underneath the roadways.

c) School Bus Usage

The S-bridge and causeway provide the shortest and most viable route for school buses serving the four schools in Perquimans County. Since there is only one high school and one middle school in the county, buses cross the river several times a day.

d) Traffic Carrying Capacity

1.0 Existing Traffic Volumes

In the year 2008, approximately 7,200 vehicles per day traveled on US 17 Business/NC 37 from north of Grubb Street to NC 37. Existing traffic volumes in the project area are shown on **Figure 3A**.

2.0 Existing Levels of Service

Level of service (LOS), as defined in the *Highway Capacity Manual 2010* (HCM), ranges from A to F and indicates progressively worse delay conditions.

In the year 2008, the portion of existing US 17 Business/NC 37 from north of Grubb Street to NC 37 operated at level of service C.

Table 2 displays the LOS thresholds for signalized intersection delay values.

Table 2 – LOS Criteria for Signalized Intersections

Level of Service (LOS)	Control Delay per Vehicle (seconds per vehicle)
A	≤ 10
B	> 10-20
C	> 20-35
D	> 35-55
E	> 55-80
F	> 80

Source: Highway Capacity Manual, 2010

Intersection analyses were performed for the two signalized intersections in the project area to determine LOS and delay for each study intersection under existing conditions. **Table 3** details the results of the intersection analysis for signalized intersections. The LOS and delay analyses do not include delays associated with the opening of the drawbridge. The bridge opens upon requests from boaters Monday through Friday.

Table 3 – Existing (2008) Intersection Levels of Service and Delay (No Build)

Intersection	AM Peak Hour LOS (Delay in seconds)	PM Peak Hour LOS (Delay in seconds)
Church Street at Grubb Street	A (8.4)	A (9.0)
Edenton Road Street at Grubb Street	A (7.5)	A (7.2)

3.0 Future Traffic Volumes

In the year 2035, it is expected that 15,900 vehicles per day will travel US 17 Business/ NC 37 from north of Grubb Street to NC 37. **Figure 4A** presents projected future traffic volumes in the project area.

4.0 Future Levels of Service

In the year 2035, the portion of existing US 17 Business/NC 37 from north of Grubb Street to NC 37 is expected to operate at level of service E.

Table 4 summarizes the projected (2035) levels of service and intersection delays for the primary signalized intersections with the existing roadway network.

Table 4 – Year 2035 Projected Intersection Levels of Service and Delay (No Build)

Intersection	AM Peak Hour LOS (Delay in seconds)	PM Peak Hour LOS (Delay in seconds)
Church Street at Grubb Street	C (29.8)	D (45.8)
Edenton Road Street at Grubb Street	B (10.7)	B (10.5)

e) Accident Data

Crash data was reviewed for the five-year period ending October 31, 2012 for the following locations:

- US 17 Business/NC 37 from Newby Street to NC 37
- Grubb Street/Edenton Road Street intersection
- Grubb Street/Church Street intersection

There were no crashes reported at the two intersections. There were a total of seven crashes reported along US 17 Business/NC 37 from Newby Street to NC 37, producing a crash rate of 171.16 crashes per 100 million vehicle miles (MVM). This crash rate is lower than the North Carolina state average for similar roadways (Urban United States Route, two-lane Undivided) of 201.04 crashes per 100MVM (2008-2010 crash rates). All of the crashes occurred between the Phelps Street intersection and the south end of the bridge. None of the crashes involved pedestrians or cyclists.

f) Airports

There are no airports near the project.

g) Projects in the Area

No other projects are planned for the bridge and causeway, other than regular maintenance and repairs as needed

2. Transportation and Land Use Plans

a) Land Use Plans

Several land use and development plans have been approved in the area. These plans all assume Winfall and Hertford will continue to be directly connected via the bridge and causeway.

Perquimans County 2005-2006 CAMA Core Land Use Plan Update (DRAFT): For purposes of this analysis, the *DRAFT Perquimans County 2005-2006 CAMA Core Land Use Plan Update* will be referenced. The County's vision includes encouraging well-engineered and sustainable development, a minimization of strip development, improved infrastructure, and development of new open spaces while preserving the rural character and natural environment.

Hertford Waterfront Development and Access Plan (1989), Hertford Waterfront Concept Plan (2008), and Marina Development Presentation (2009): The citizens of Hertford have expressed a desire for better public access to the Town's waterfront area. These three plans have built on each other to clarify the Town's vision for its waterfront. The plans recommend amending the existing zoning ordinance to establish a new zoning classification called WC (Waterfront Commercial), which would encourage additional use of the waterfront area of Hertford while complementing the adjacent central business district. A specific goal is to develop a new marina between Municipal Park and Missing Mill Park. They also recommend a waterfront trail system to enable local residents and tourists to take better advantage of the land area along the waterfront.

Historic Hertford Development Strategic Plan: The primary goal of the *Historic Hertford Development Strategic Plan* (2001) is to give direction, detail, and visual form to the planning that has taken place for the Town. It includes a proposal for a Visitor's Center, trail, boat ramps, and overlooks to be built on the peninsula. The plan emphasizes the importance of a bike/walkway along the bridge to provide access to these proposed facilities. This plan was a 5-year vision (through 2006), but has not been updated since 2001.

Town of Hertford Comprehensive Pedestrian Plan: The *Hertford Comprehensive Pedestrian Plan* (2007) was developed to expand pedestrian access, improve the health of the community, increase connectivity, and enhance the sense of community. The plan recommends a connection between Hertford and Winfall along the bridge and causeway, listed as a long-term recommendation (more than 10 years in the future). Recommendations were made based on safety needs, demand, potential for connectivity, ease of construction, cost, and purpose. According to the plan, a greenway along the causeway would create a connection (walking and cycling) between Winfall and Hertford and would provide an additional attraction and connection for visitors.

b) Evacuation Route

The North Carolina Division of Emergency Management has identified both US 17 Bypass and US 17 Business/NC 37 as hurricane evacuation routes.

C. Traffic Operations with Project

1. Traffic Volumes with Project

Figure 3A shows the 2008 average daily traffic volumes estimated for Alternatives B 15-Foot Swing Span and D-Mod 33-Foot Fixed. **Figure 3B** shows the estimated 2008 traffic volumes for Alternative E 33-Foot Fixed.

Figure 4A shows the projected (2035) average daily traffic volumes for Alternatives B 15-Foot Swing Span and D-Mod 33-Foot Fixed. **Figure 4B** shows the projected 2035 traffic volumes for Alternative E 33-Foot Fixed.

2. Levels of Service with Project

With construction of the project, existing US 17 Business/NC 37 from north of Grubb Street to NC 37 will operate at level of service E in the year 2035.

Table 5 lists the projected 2035 level of service and delay for the primary signalized intersections with construction of the project. For all detailed study alternatives, the intersection of US 17 Business/NC 37 at NC 37 is proposed to be signalized. The analysis included improved laneage and signal timing.

Table 5 – Year 2035 Projected Intersection Levels of Service and Delay

Intersection	Alternatives B and D-Mod LOS (Delay in seconds)		Alternative E LOS (Delay in seconds)	
	AM Peak	PM Peak	AM Peak	PM Peak
Church Street/Creek Drive at NC 37	B (17.1)	C (22.4)	C (21.2)	C (22.4)
Church Street at Grubb Street	D (38.2)	D (37.5)	B (14.2)	C (25.3)
Edenton Road Street at Grubb Street	B (16.0)	B (12.3)	D (53.5)	D (42.4)

III. ALTERNATIVES

A. No Build Alternative

Typically, the No Build alternative implies no action will be taken. In this situation, since a no action alternative would create an unsafe situation on both the bridge and causeway, the No Build alternative would involve continuing to maintain and repair the bridge and causeway until NCDOT determined that it was no longer practical or safe to do so. At that time, the bridge and causeway would be closed permanently, and traffic would be shifted to US 17 Bypass. The No Build alternative would not meet the project purpose and need, but serves as a basis for comparing impacts and benefits of the build alternatives.

B. Preliminary Build Alternatives

Six conceptual alignments (A, B, C, D, E, and F) and five bridge types (fixed span at three different heights, bascule, and swing-span) were considered. The conceptual alignments are illustrated on **Figure 5**.

Following an evaluation of the potential combinations of alignments and bridge types, nine options (listed below) were selected for further study. Alignment B was dropped from consideration at this time because it was expected to have more direct impacts but not offer any additional benefits over Alignment A. These nine options were presented to the public at a Citizens Informational Workshop (CIW) in April 2010.

- Alignment A, bascule or swing-span bridge
- Alignment C, 15-Foot or 33-Foot fixed-span bridge
- Alignment D, 15-Foot or 33-Foot fixed-span bridge
- Alignment E, 15-Foot fixed-span bridge
- Alignment F, 15-Foot or 33-Foot fixed-span bridge

Following the workshop, more detailed designs were completed. Based on the new impacts and comments from the public, three additional options were added and several were eliminated. These changes were made for the following reasons.

- **Alignment A Bascule eliminated** – Installing, repairing, maintaining, and inspecting bascule equipment in the water and under the surface would be costly and difficult and offers no benefits over a swing span in the same location.
- **Alignment A Rehabilitate Swing Span added** – Following support by the Town of Hertford and citizens, an alternative was added to rehabilitate the existing swing span bridge rather than replace it with a new bridge.
- **Alignment C 15-Foot Fixed and Alignment C 33-Foot Fixed eliminated** – Because of the skew and the shorter distance between the bridge and the peninsula, Alignment C would not offer any additional benefits over Alignment D, but would be more difficult for boaters to navigate.
- **Alignment D 15-Foot Fixed eliminated** – Alignment D 15-Foot Fixed had the same impacts as Alignment D 33-Foot Fixed but limited boating traffic through the channel.
- **Alignment D 33-Foot Fixed modified** – Alignment D 33-Foot Fixed was modified to reduce impacts on the northern terminus ("D-Mod 33-Foot Fixed").
- **Alignment E 33-Foot Fixed added** – An alternative on Alignment E was added that would not restrict the height of boating traffic through the channel.
- **Alignment F 15-Foot Fixed and Alignment F 33-Foot Fixed eliminated** – Impacts on properties in the historic district were higher than with other alternatives.

In October 2010, the following five alternatives were selected to be carried forward for detailed study. These alternatives were presented to the public at an informational workshop in June 2011:

- Alternative A Build New Swing Span
- Alternative A Rehabilitate Swing Span
- Alternative D-Mod 33-Foot Fixed
- Alternative E 15-Foot Fixed
- Alternative E 33-Foot Fixed

In early 2012, two alternatives on Alignment B were added:

- **Alternative B Swing Span** – Following detailed design of the other alternatives, impacts on the historic district were higher than expected. Alternative B reduces impacts on the historic district while maintaining a bridge type similar to the existing bridge.
- **Alternative B 15-Foot Swing Span** – A bridge on Alignment B reduces impacts on the historic district. Raising the height of the swing span allows more boats to pass underneath, which reduces wear and tear on the bridge, but also retains the ability for all boats to pass through the channel.

A third citizens informational workshop was held in August 2012 and the following alternatives were presented to the public:

- Alternative A Build New Swing Span
- Alternative A Rehabilitate Swing Span
- Alternative B Swing Span
- Alternative B 15-Foot Swing Span
- Alternative D-Mod 33-Foot Fixed
- Alternative E 15-Foot Fixed
- Alternative E 33-Foot Fixed

Table 6 on the following page presents the impacts of the alternatives that were initially studied in detail.

Table 6 – Impacts of Initial Detailed Study Alternatives

Topic		Alternative			
		A*	B*	D-Mod	E*
Relocations	Residential	1 (Possible from access loss)	1	1	0
	Business	0	0	0	1
	Total	1	1	1	1
Minority/Low-Income Populations – Disproportionate Impacts**		None	None	None	Yes
Historic Properties (Adverse Effect)		2 (S-bridge and Hertford Historic District)	1 (S-bridge)	1 (S-bridge)	1 (S-bridge)
Community Facilities Impacted		0	0	0	0
Section 4(f) Impacts		S-bridge and Hertford Historic District	S-bridge and Hertford Historic District	S-bridge and Hertford Historic District	S-bridge
Traffic Noise (# of receptors impacted)		26	24	24	16
Prime Farmland (Acres)		N/A***	N/A***	N/A***	N/A***
Forested Acres		0.1 acre	0.1 acre	< 0.1 acre	< 0.1 acre
Wetlands (Acres)		0.1 acre	0.1 acre	0.1 acre	0.1 acre
Streams (Feet)		0	0	0	0
Floodplains (Acres)		0	0	0	0
Submerged Aquatic Veg. (SAV) habitat		0.5 acre	0.5 acre	0.3 acre	2.2 acre
SAV (presence)		None	None	None	None
Federally-Protected Species		No Effect	No Effect	No Effect	No Effect
Length (Miles)		Alt A Rehab – 0.69 miles Alt A New – 0.70 miles	0.82 miles	0.62 miles	1.01 miles
Construction Cost		A Rehab – $34,600,000 A New – $31,300,000	B – $31,300,000 B 15' – $31,000,000	$18,000,000	E 15' – $25,200,000 E 33' – $26,100,000

* Impacts are the same for alternatives on the same alignment unless otherwise noted.

** Impacts defined as disproportionate adverse impacts to minority or low-income populations. Alternative E has potential adverse and disproportionate effect to minority and low-income community because of increased traffic past schools, between churches and parking areas, and between school and future athletic field.

*** Study area is in urbanized area, so NRCS CPA-106 form is not required.

C. Current Study Alternatives

Following the August 2012 informational workshop, four of the alternatives shown at the workshop were dropped from consideration:

- **Alternative A Build New Swing Span** – A new swing span bridge on Alignment A would have an Adverse Effect on the Hertford Historic District, and therefore was eliminated.

- **Alternative A Rehabilitate Swing Span** – Rehabilitating the existing bridge is not recommended for several reasons.
    - The existing bridge cannot be brought up to current design standards and still maintain two-way traffic on the bridge.
    - Rehabilitation would be more expensive initially and the rehabilitated bridge would have a shorter life than a new swing-span. A rehabilitated bridge would also have higher recurring maintenance costs.
    - Rehabilitating the existing bridge would have an adverse effect on the historical integrity of the bridge.
    - Comments received indicate a new structure which resembles the existing bridge would be acceptable to most of the public and the Town of Hertford.
    - Rehabilitating the existing swing span bridge would have an Adverse Effect on the Hertford Historic District because the bridge would have to be raised to reduce flooding in the central machinery.
- **Alternative B Swing Span** – Alternative B Swing Span would have the same impacts as Alternative B 15-Foot Swing Span, but would be more expensive to maintain due to the higher frequency of opening the bridge.
- **Alternative E 15-Foot Fixed** – Alternative E 15-Foot Fixed would have the same impacts as Alternative E 33-Foot Fixed but would restrict more boats from passing through the channel compared with the 33-foot alternative.

The Merger Team met in October 2012 and agreed to revise the list of detailed study alternatives, carrying the following alternatives through this EA:

- **Alternative B 15-Foot Swing Span** – Build a new swing-span bridge with 15 feet of clearance on new location, and build a new low structure on the causeway. Raising the bridge to 15 feet would allow approximately 75% of boats currently using the channel to cross without opening the bridge.
- **Alternative D-Mod 33-Foot Fixed** – Replace the bridge and causeway with a new fixed span bridge with 33 feet of clearance. The new structure would be located east of the existing bridge and causeway.
- **Alterative E 33-Foot Fixed** – Replace the bridge and causeway with a new fixed span bridge with 33 feet of clearance. The new structure would be located west of the existing bridge and causeway.

Details of alternatives being carried forward are shown on **Figure 2**. More detail on the alternatives that were eliminated is documented in the *Alternatives Development Report* (January 2013). Impacts of the current alternatives are shown on **Table 7** below.

Table 7 – Impacts of Current Study Alternatives

Topic		Alternative		
		B*	**D-Mod**	**E***
Relocations	Residential	1	1	0
	Business	0	0	1
	Total	1	1	1
Minority/Low-Income Populations – Disproportionate Impacts**		None	None	Yes
Historic Properties (Adverse Effect)		1 (S-bridge)	1 (S-bridge)	1 (S-bridge)
Community Facilities Impacted		0	0	0
Section 4(f) Impacts		S-bridge and Hertford Historic District	S-bridge and Hertford Historic District	S-bridge
Traffic Noise (# of receptors impacted)		24	24	16
Prime Farmland (Acres)		N/A***	N/A***	N/A***
Forested Acres		0.1 acre	< 0.1 acre	< 0.1 acre
Wetlands (Acres)		0.07 acre	0.07 acre	0.07 acre
Streams (Feet)		0	0	0
Floodplains (Acres)		0	0	0
Submerged Aquatic Veg. (SAV) habitat		0.12 acre	0.12 acre	Alt E 15-Foot – 0.77 acre Alt E 33' – 0.58 acre
SAV (presence)		None	None	None
Federally-Protected Species		No Effect	No Effect	No Effect
Length (Miles)		0.82 miles	0.62 miles	1.01 miles
Construction Cost		B - $31,300,000 B 15' - $31,000,000	$18,000,000	E 15' - $25,200,000 E 33' - $26,100,000

* Impacts are the same for alternatives on the same alignment unless otherwise noted.

** Impacts defined as disproportionate adverse impacts to minority or low-income populations. Alternative E has potential adverse and disproportionate effect to minority and low-income community because of increased traffic past schools, between churches and parking areas, and between school and future athletic field.

*** Study area is in urbanized area, so NRCS CPA-106 form is not required.

IV. PROPOSED IMPROVEMENTS

The following improvements are part of the detailed study alternatives. The No Build alternative would not change or improve the existing infrastructure.

A. Roadway Cross-Section and Alignment

Proposed typical sections for the project are shown on **Figures 6A** and 6**B**.

For Alternatives B 15-Foot Swing Span and D-Mod 33-Foot Fixed, Church Street will be widened slightly between Newby Street and the bridge to two 13-foot travel lanes, curb and gutter, and a 6-foot sidewalk on the west side. Currently there are sidewalks on both sides of Church Street to the end of the bridge; the sidewalk on the east side will end at Newby Street with all three detailed study alternatives. This will encourage pedestrians to cross Church Street to the sidewalk on the west side, which will continue north across the bridge.

For Alternative E 33-Foot Fixed, the new road between Grubb Street and the bridge will be three 12-foot lanes with curb and gutter (two through lanes and a center turn lane) on the north side of the Edenton Road Street/Grubb Street intersection.

With either alternative, US 17 Business/NC 37 north of the new bridge will be a two-lane roadway with 12-foot lanes and 8-foot shoulders, 4-foot of which will be paved.

B. Right of Way and Access Control

The right of way on Church Street and the bridge is proposed to be 50 feet, increasing to 100 feet north of the bridge to the project terminus at NC 37. No access control is proposed.

C. Speed Limit

The new speed limits will be 45 mph on the causeway north of the proposed bridge and 35 mph on the new bridge. The speed limit on Church Street will remain posted at 25 mph.

D. Design Speed

The design speed for the new facility will be 50 mph north of the bridge, 40 mph on the bridge, and 30 mph on Church Street.

E. Anticipated Design Exceptions

No design exceptions are anticipated for the project.

F. Intersections

The intersection of US 17 Business with NC 37 on the north end of the project would be improved as part of all three detailed study alternatives. NC 37 (Winfall Boulevard) would be realigned to intersect with US 17 Business at a 90 degree angle, which would improve stopping sight distance for vehicles traveling southbound on NC 37 toward US 17 Business. It is expected the NC 37/US 17 Business intersection would remain stop sign-controlled following construction of this project.

As part of Alternative E, the existing intersection of Grubb Street and Edenton Road Street would be modified, including converting the existing northern leg from a business driveway to US 17 Business/NC 37. Also, the intersection of Church Street and Grubb Street would be restriped as part of Alternative E to accommodate an anticipated change in traffic patterns. The lanes will not be widened.

G. Service Roads

There are no service roads proposed as a part of this project.

H. Railroad Crossings

No railroads cross this project.

I. Structures

Bridge Number 8 would be replaced as part of all detailed study alternatives. The new structure would be 35.5 feet wide, including 24 feet for two 12-foot travel lanes, a 4-foot shoulder, a 2-foot curb, and a 5.5-foot raised pedestrian walkway. The typical sections are shown in **Figures 6A** and **6B**. Alternative B-15-Foot Swing Span would include a moveable bridge, and Alternatives D-Mod 33-Foot Fixed and E 33-Foot Fixed would include a fixed-span bridge.

The bridge lengths and alignments are listed in **Table 8**.

Table 8 – Bridge Lengths and Alignments

Alternative	Length	Alignment
Alternative B 15' Swing Span	2,690 ft	Parallel with existing bridge to the east and follows existing alignment of causeway
Alternative D-Mod 33' Fixed	2,368 ft	New location east of the existing bridge and causeway
Alternative E 33' Fixed	3,820 ft	New location west of the existing bridge and causeway

J. Bicycle and Pedestrian Facilities

Currently there are sidewalks on both sides of Church Street to the south end of the bridge. For Alternatives B and D, a sidewalk would remain on the west side of Church Street. The sidewalk on the east side of Church Street would end at Newby Street to encourage pedestrians to cross to the west side before the bridge. A 5.5-foot sidewalk would be provided on the west side of the new bridge, terminating at the north end of the bridge. Bicyclists could use either the raised 5.5-foot sidewalk on the west side of the bridge or the 4-foot paved shoulder on the east side of the bridge.

Alternative E will include a raised 5.5-foot sidewalk on the west side of the bridge and a 4-foot paved shoulder on the east side of the proposed bridge.

K. Utilities

Preliminary utility relocation information is based on the *Utilities Report* (June 2011). A utility survey and relocation design will be completed during final design.

For Alternatives B and D-Mod, the following utility relocations will likely be necessary:

- Natural gas lines will need temporary relocation on the east side of the Church Street/Grubb Street intersection.
- Fiber optic lines on the east side of Winfall Boulevard and the north side of Creek Drive will need temporary relocation.

- Telephone lines will need temporary relocation on the south side of the Church Street/Grubb Street intersection.
- The decorative lights on Bridge Number 8 will need relocation. Decorative and street lights along Church Street will need permanent relocation from Newby Street to Bridge Number 8.
- Sanitary sewer lines on the east side of Church Street will need permanent relocation.

For Alternative E, the following utility relocations will likely be necessary:

- The natural gas line on the north side of the Grubb Street and US 17 Business/NC 37 intersection will need permanent relocation.
- Fiber optic cables will require permanent relocation on the north side of Grubb Street near Edenton Road Street.
- Fiber optic cables on the east side of Winfall Boulevard and the north side of Creek Drive will need temporary relocation.
- Telephone lines on the north side of the Grubb Street and US 17 Business/NC 37 intersection will need permanent relocation. The south side of the Church Street/Grubb Street intersection contains telephone lines that will need to be temporarily relocated.
- Sanitary sewer lines on the north side of the Grubb Street and US 17 Business/NC 37 intersection will need permanent relocation.

L. Landscaping

No new landscaping is proposed as part of this project.

M. Noise Barriers

No noise barriers are recommended as part of the detailed study alternatives.

N. Work Zone, Traffic Control, and Construction Phasing

Traffic control and construction phasing plans will be developed during final design.

O. Waterway Traffic and Channel Design

The fender system will be replaced as part of this project. This is not anticipated to affect the channel design or boat usage. Fender designs and horizontal clearances for the proposed structure will meet all design requirements set forth by the US Coast Guard.

V. ENVIRONMENTAL EFFECTS OF PROPOSED ACTION

A. Natural Resources

Natural resources were catalogued in the *Natural Resources Technical Report* (May 2010).

1. Biotic Resources

a) Terrestrial Communities

The study area is composed of three terrestrial communities: maintained/disturbed, riverine swamp forest, and bottomland hardwood forest.

Maintained/Disturbed. Maintained/disturbed areas (60% of the study area) are impervious surfaces such as parking lots and roads and other areas regularly or periodically mowed, such as the grassy shoulders along roads, utility corridors, maintained fields, residential and commercial lawns and landscaping.

Riverine Swamp Forest. The riverine swamp forest community (20% of the study area) occurs along the margins of the Perquimans River and is subject to inundation resulting from daily tidal cycles as well as storm events.

Bottomland Hardwood Forest. The bottomland hardwood forest community (20% of the study area) occurs upslope of the riverine swamp forest. Within the project study area, the margin between upland and wetland often occurs within the bottomland hardwood forest.

The area adjacent to the causeway, at the northern end of the existing bridge, was used by the Town of Hertford for many years as a landfill. This area is no longer actively used for dumping, however, it is highly disturbed and contains several invasive species.

b) Aquatic Communities

Aquatic communities in the study area consist of one shallow, still water pond (0.25 acres), an unnamed tributary to the Perquimans River, and the Perquimans River itself. The Perquimans River has been identified by the North Carolina Division of Marine Fisheries (NCDMF) and the North Carolina Wildlife Resources Commission (NCWRC) as an anadromous fish spawning area. An in-stream work moratorium of February 15 to June 30 is required for the Perquimans River for anadromous fish species.

The NCDMF and NCWRC have not designated the Perquimans River or any waters within the study area as primary nursery areas. Turtles sunning on partially submerged logs and fish jumping in the river were observed during field investigations.

c) Summary of Anticipated Effects

Terrestrial communities in the study area may be impacted by project construction as a result of clearing, grading, and paving of portions of the study area. **Table 9** summarizes the anticipated impacts to each terrestrial community. No long-term impacts are anticipated to aquatic communities.

Table 9 – Impacts to Terrestrial Communities

Community	Impacted Area (acres)		
	Alternative B 15-Foot Swing Span	Alternative D-Mod 33-Foot Fixed	Alternative E 33-Foot Fixed
Maintained/Disturbed	3.5	3.5	4.8
Riverine Swamp Forest	0	0	< 0.1
Bottomland Hardwood Forest	0.1	0.1	0.1
Total	3.6	3.6	4.9

2. Waters of the United States

a) Streams, Rivers, Impoundments

Water resources in the study area (listed in **Table 10**) are part of the Pasquotank River Basin. The study area drains to the Perquimans River, which flows through the study area and into the Albemarle Sound which is approximately 11 miles downstream of the bridge (**Figure 7A-C)**). A jurisdictional channel (shown as SA on **Figure 7C**) is located parallel to the railroad tracks in the southwestern portion of the study area. The physical characteristics of these water resources are provided in **Table 11**.

Table 10 – Water Resources in the Study Area

Stream Name	Map ID	DWQ Index Number	Best Usage Classification
Perquimans River	Perquimans River	30-6-(3)	SC
UT to Perquimans River	SA	30-6-(3)	SC

Table 11– Physical Characteristics of Water Resources in the Study Area

Map ID	Bank Height (ft)	Bankfull Width (ft)	Water Depth (ft)	Channel Substrate	Velocity	Clarity
Perquimans River	0-2	700-2000	1-40	Sand	Moderate	Clear
SA	0.5	2-3	0.25-0.5	Sand	Slow	Clear

A small pond (shown as Pond A in **Figure 7b**), approximately 0.25 acres, is located north of the Perquimans River within the project study area. This feature is not connected to a jurisdictional stream feature and, therefore, is not included in the above tables; however, Wetland L serves as a hydrological connection between this pond and the Perquimans River.

In accordance with Section 303(d) of the Clean Water Act, states are required to develop a list of water bodies not meeting federal water quality standards or that have impaired uses.

The Perquimans River is not listed on the NCDWQ 2012 Final 303(d) list of impaired waters.

No High Quality Waters (HQW), Water Supply Watersheds (WS-I or WS-II), or Outstanding Resource Waters (ORW) occur within the project study area or within one-mile downstream of the study area.

The Perquimans River is currently under consideration for study as a National Wild and Scenic River.

b) Wetlands

Twelve jurisdictional wetlands were identified within the study area (**Figures 7(A-C)**). Wetland classification and quality rating data are presented in **Table 12**.

Table 12 – Jurisdictional Characteristics of Wetlands in the Study Area

Map ID	NCWAM Classification	Hydrologic Classification	NCDWQ Wetland Rating	Area (acres)
WA	Riverine Swamp Forest/ Bottomland Hardwood Forest	Riparian	68	4.2
WB	Riverine Swamp Forest	Riparian	50	0.2
WC	Riverine Swamp Forest	Riparian	50	0.8
WD	Riverine Swamp Forest/ Bottomland Hardwood Forest	Riparian	69	10.3
WE	Riverine Swamp Forest	Riparian	50	0.05
WF	Riverine Swamp Forest/ Bottomland Hardwood Forest	Riparian	69	17.3
WH*	Riverine Swamp Forest	Riparian	62	0.4
WI	N/A - Disturbed	Riparian	42	0.9
WJ	Riverine Swamp Forest	Riparian	42	0.03
WK	Riverine Swamp Forest	Riparian	42	0.03
WL	Riverine Swamp Forest/ Bottomland Hardwood Forest	Riparian	68	5.1
WM	Riverine Swamp Forest/ Bottomland Hardwood Forest	Riparian	68	2.5

**Wetland G was initially identified as a wetland, but was later determined not to be jurisdictional and so was removed.*

c) Riparian Buffers

This project is within the Pasquotank River Basin. No riparian buffer rules apply to this basin.

d) Summary of Anticipated Effects

Most of the proposed facility will be a bridge; the only wetland impact is on the northern end of the project near the intersection of US 17 Business and NC 37. All three detailed

study alternatives would impact approximately 0.07 acre of Wetland WF. Since all of the alternatives have the same design on the northern end, the wetland impact is the same for all alternatives. There are no anticipated impacts on the streams or pond.

e) Avoidance, Minimization, and Mitigation

The NCDOT will attempt to avoid and minimize impacts to wetlands and open waters to the greatest extent practicable in choosing a preferred alternative and during project design. At this time, no final decisions have been made with regard to the location or design of the preferred alternative.

The NCDOT will investigate potential on-site mitigation opportunities once a final decision has been rendered on the location of the preferred alternative. If on-site mitigation is not feasible, mitigation will be provided by the North Carolina Department of Environment and Natural Resources Ecosystem Enhancement Program (EEP), in accordance with the "Memorandum of Agreement among NCDOT and the USACE Wilmington District" (MOA, July 22, 2003).

3. Federally-Protected Species

As of September 22, 2012, Atlantic sturgeon is listed as endangered for Perquimans County by the U.S. Fish and Wildlife Service (USFWS). There are no other federally protected species listed for Perquimans County.

It is anticipated the project may affect, but is not likely to adversely affect the Atlantic Sturgeon. NCDOT will request concurrence on a determination of May Affect, Not Likely to Adversely Affect for the Atlantic sturgeon from the National Marine Fisheries Service when an alternative has been selected. The results of this coordination will be included in the final environmental document for the project.

North Carolina Natural Heritage Program (NCNHP) records, reviewed on November 29, 2011, do not identify the presence of threatened and endangered species, significant natural communities, and/or priority natural areas within the project vicinity. Records do not show any elements within a one-mile radius of the project site.

Habitat for the bald eagle primarily consists of mature forest in proximity to large bodies of open water for foraging. Large, dominant trees are utilized for nesting sites, typically within one mile of open water. Suitable habitat for bald eagle exists in the study area along the shoreline of the Perquimans River. No nest trees were observed during field investigations in February and December 2009.

4. Soils

Based on information contained in the 1986 United States Department of Agriculture Soil Survey data for Perquimans County, the soils within the project study area are composed of seven soil series. **Table 13** summarizes the characteristics of each soil series in the project study area.

Table 13 – Soils in the Study Area

Soil Series	Mapping Unit	Drainage Classification	Hydric Status
Altavista fine sandy loam, 0-2%	AaA	Moderately well drained	Hydric
Conetoe loamy sand, 0-5%	CtB	Well drained	Hydric
Dorovan muck	Do	Very poorly drained	Hydric
Dragston loamy fine sand	Ds	Somewhat poorly drained	Hydric
State loamy fine sand, 0-2%	StA	Well drained	Nonhydric
State-Urban land complex, 0-2%	SuA	Well drained	Nonhydric
Urban land	Ur	N/A	Nonhydric

B. Cultural Resources

This project is subject to compliance with Section 106 of the National Historic Preservation Act of 1966, as amended, and implemented by the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106, codified as 36 CFR Part 800. Section 106 requires Federal agencies to take into account the effect of their undertakings (federally-funded, licenses, or permitted) on properties included in or eligible for inclusion in the National Register of Historic Places and to afford the Advisory Council a reasonable opportunity to comment on such undertakings.

1. Historic Architectural Resources

NCDOT architectural historians surveyed the project area in 2010. There is one historic district (Hertford Historic District) and two historic resources (Bridge Number 8 and Hertford Water Works and Ice Plant) within the Area of Potential Effects (APE), shown on **Figure 8**. The Hertford Historic District is listed on the National Register of Historic Places. Bridge Number 8 and the Hertford Water Works and Ice Plant were determined to be eligible for the National Register. Effects on historic resources are summarized in **Table 14**.

Table 14 – Historic Effects

Property	Alternative	Effect Finding	Reasons
Bridge No. 8	Alt B 15' Swing Span	Adverse Effect	Requires demolition of the historic truss
	Alt D-Mod 33' Fixed	Adverse Effect	Requires demolition of the historic truss or could be left in place but would be locked in the open position and inaccessible
	Alt E 33' Fixed	Adverse Effect	Requires demolition of the historic truss
Hertford Historic District	Alt B 15' Swing Span	No Adverse Effect	Parallel to existing bridge; will require removal of one non-contributing structure in district, but provides access to all contributing historic houses; new ROW needed within district boundaries
	Alt D-Mod 33' Fixed	No Adverse Effect with commitments	Concerns about speed coming into district, but could be addressed with design commitments to decrease speed; no impacts and provides access to all contributing historic houses; bridge rails will be low parapet wall with metal rails; new ROW needed within district boundaries
	Alt E 33' Fixed	No Adverse Effect	Changing historic traffic patterns in Town, but no impacts to contributing historic houses; bridge rails will be low parapet wall with metal rails
Hertford Water Works and Ice Plant	Alt B 15' Swing Span or Alt D-Mod 33' Fixed	No Effect	No construction impacts near property boundary
	Alt E 33' Fixed	No Adverse Effect	Construction adjacent to plant, but does not impact the boundary or the structural properties for which the site is eligible

Rehabilitating the existing bridge (Alternative A Rehabilitate Swing Span) would also have an adverse effect on both the bridge and the Hertford Historic District. The State Historic Preservation Office concurred with these effect findings on August 7, 2012. Appendix A contains a copy of the concurrence form.

A memorandum of agreement between FHWA and the State Historic Preservation Office concerning the adverse effect of the project on Bridge Number 8 will be prepared following selection of the preferred alternative and prior to completion of a programmatic Section 4(f) evaluation and the final environmental document for the project.

2. Archaeological Resources

No known archaeological sites are within the study area. According to a letter from SHPO (January 12, 2007, included in **Appendix A**), no archaeological investigation was recommended as part of this project.

C. Section 4(f) Resources

Section 4(f) of the US Department of Transportation (USDOT) Act of 1966, as amended, specifies that publicly owned land from a public park, recreation area, wildlife and

waterfowl refuge, and all historic sites of national, state, and local significance may be used for federal projects only if there is no feasible and prudent alternative to the use of such land and the project includes all possible planning to minimize harm to 4(f) lands resulting from such use.

Section 6009(a) of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) amended existing Section 4(f) legislation to simplify the processing and approval of projects that have only *de minimis* impacts on lands protected by Section 4(f). This revision provides that if a transportation use of Section 4(f) property results in a *de minimis* impact on that property, an analysis of avoidance alternatives is not required and the Section 4(f) evaluation process is complete.

Three historic properties or districts within the study area are eligible for or listed on the National Register of Historic Places:

- Hertford Historic District, listed on the NRHP
- Bridge Number 8, eligible for the NRHP
- Hertford Water Works and Ice Plant, eligible for the NRHP

Alternatives B 15-Foot Swing Span and D-Mod 33-Foot Fixed would require the use of land from the National Register-listed Hertford Historic District and will require the removal of a house that is a noncontributing element of the Historic District.

The State Historic Preservation Office concurred Alternatives B 15-Foot Swing Span and D-Mod 33-Foot Fixed will have "no adverse effect" on the historic district (See concurrence form in Appendix A of this document). The use of land from the historic district is therefore considered to have a *de minimis* impact under Section 6009(a) of SAFTEA-LU, as a result of the "no adverse effect" determination. A Section 4(f) evaluation is not required for the use of land from the historic district. All of the current detailed study alternatives would involve the removal of existing Bridge Number 8, which has been determined to be eligible for the National Register of Historic Places. The State Historic Preservation Office has concurred that all of the current alternatives would have an "adverse effect" on Bridge Number 8. Because the project will have an adverse effect on the bridge, the removal of the bridge constitutes a Section 4(f) "use" of the historic resource.

As discussed in Section III.A, the "Do Nothing" or No Build alternative was evaluated. The No Build alternative would involve continuing to maintain and repair the bridge and causeway until NCDOT determined that it was no longer practical or safe to do so. At that time, the bridge and causeway would be closed permanently, and traffic would be shifted to US 17 Bypass. The No Build alternative would not meet the project purpose and need.

Leaving the bridge in place following construction of the new bridge was also considered. This alternative was not found to be feasible and prudent because of the long-term cost and potential safety concerns associated with retaining the existing bridge without rehabilitation. The bridge would have to be left in place in the open position to allow for navigation.

As discussed in Section III.C, rehabilitation of Bridge Number 8 was considered as an alternative for the project, but was not found to be feasible and prudent because:

- The existing bridge cannot be brought up to current design standards and still maintain two-way traffic on the bridge.
- Rehabilitation would be more expensive initially and the rehabilitated bridge would have a shorter life than a new swing-span. A rehabilitated bridge would also have higher recurring maintenance costs.
- Rehabilitating the existing bridge would have an adverse effect on the historical integrity of the bridge.
- Comments received indicate a new structure which resembles the existing bridge would be acceptable to most of the public and the Town of Hertford.
- Rehabilitating the existing swing span bridge would have an Adverse Effect on the Hertford Historic District because the bridge would have to be raised to reduce flooding in the central machinery.

Since this project necessitates the use of a historic bridge and meets the criteria set forth in the Federal Register (July 5, 1983), it is anticipated a programmatic Section 4(f) evaluation can be prepared to satisfy the requirements of Section 4(f). This programmatic Section 4(f) evaluation will be completed following the preparation of a memorandum of agreement between FHWA and the Advisory Council on Historic Preservation concerning the adverse effect of the project on Bridge Number 8. The programmatic Section 4(f) evaluation will be approved prior to the completion of the final environmental document for this project.

D. Section 6(f) Resources

Section 6(f) of the Land and Water Conservation Fund Act of 1965 stipulates that property acquired or developed with the assistance of the Fund may not be converted to a use other than public recreation unless suitable replacement property is provided. No properties acquired or developed with the assistance of the Land and Water Conservation Fund exist in the project area.

E. Farmland

The Farmland Protection Policy Act requires all federal agencies or their representatives to consider the impact of land acquisition and construction projects on prime and important farmland soils. North Carolina Executive Order Number 96 requires all state agencies to consider the impact of land acquisition and construction projects on prime farmland soils, as designated by the US Natural Resources Conservation Service (NRCS). Land planned or zoned for urban development is not afforded the same level of preservation as rural, agricultural areas.

Although prime and important farmland soils are located in the project area, and the project will slightly affect an actively farmed field, all of the land affected by the project is either currently developed or is zoned for residential or urban land use and not subject to the Act.

No Farmland Conversion Impact Rating Forms (USDA Form AD-1006) are required for the project.

F. Social Effects

1. Neighborhoods/Communities

Two neighborhoods are located adjacent to the detailed study alternatives, one on Front Street and one on Edenton Road Street.

There are potential impacts to the neighborhood along Front Street, visually and directly, with Alternatives B 15-Foot Swing Span or D-Mod 33-Foot Fixed. Both alternatives would require relocation of one house within the neighborhood. Alternative E 33-Foot Fixed may impact the neighborhood between Edenton Road Street and the waterfront by increasing traffic though the neighborhood.

Indirect impacts to the communities of Hertford and Winfall are likely if the No Build alternative is selected (removal of the bridge and causeway), since the existing bridge and causeway connect the two towns and contribute to their cohesion. These impacts are discussed further under *Indirect and Cumulative Effects*.

A short-term impact on boating traffic accessing the waterfront areas in Hertford and to the west may occur for all detailed study alternatives since the channel may have to be temporarily closed to boating traffic during construction.

2. Relocation of Residences and Businesses

Alternatives B 15-Foot Swing Span and D-Mod 33-Foot Fixed will require one residential relocation on Phelps Street. Alternative E 33-Foot Fixed will require the relocation of one business, the Hertford Bargain Center and Auction House.

3. Vibrations

At the August 2012 workshop, citizens expressed concern about damage that might result from vibrations of driving piles near the historic district with Alternatives A, B, and D-Mod.

NCDOT will consider vibration monitoring and a pre-construction survey of buildings near the proposed bridge. A determination will be made regarding the need for vibration monitoring prior to the final environmental document for the project.

4. Minority/Low-Income Populations

"Environmental justice" refers to issues related to the prevention of discrimination against minority and low-income communities. According to the FHWA, there are three fundamental environmental justice principles:

- To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations.
- To ensure the full and fair participation by all potentially affected communities in the

decision-making process.

- To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.

The U.S. Department of Transportation Order to Address Environmental Justice in Minority Populations and Low-Income Populations (DOT Order 5680.1 – April 15, 1997) defines minority groups as being African-American, Hispanic, Asian-American, American Indian, and Alaskan Native. The demographic study area has a higher percentage of minority residents than the County, primarily African-American (42.7% versus 29.2%). Within the demographic study area, the census blocks with the highest percentages of minority populations are located in west Winfall, central Hertford, and west Hertford.

This same Order defines low-income as being persons whose median household income is at or below the Department of Health and Human Services (DHHS) poverty guidelines. The demographic study area has a higher percent population below the poverty level than the County (approximately 24% versus 18%). Central Hertford has the highest percentage of population below the poverty level.

Although the percentages of minority and low-income populations are higher in the study area than in Perquimans County, the impacts are not anticipated to be disproportionate. The direct impact to these communities is expected to be minimal, and may include one business relocation adjacent to the minority/low-income neighborhood and changes in access through the neighborhood.

A small group meeting was held on September 28, 2010 to get feedback from citizens of Hertford that may be affected by Alternative E. Public involvement activities for this project will continue to provide special consideration for minority and low-income neighborhoods impacted by the proposed project.

5. Recreational Facilities

The only recreational facility potentially impacted by this project is the Hertford waterfront area, which may have temporary access restrictions for boaters during construction. All of the detailed study alternatives under consideration will provide at least the same amount of vertical clearance (33 feet) for boats as the nearby US 17 Bypass bridge.

6. Other Public Facilities and Services

The study area for the community impacts includes Hertford between the railroad tracks on the west, King Street on the south, and the Perquimans River on the north and east. It also includes Winfall from Smith Road on the west to Winfall Boulevard on the east.

Two schools are within the community impact area, Perquimans Central School and Perquimans County Middle School. Although the other two county schools, Hertford Grammar School and Perquimans County High School, are not in the community impact area, they serve local students and provide school bus service that crosses the bridge and causeway. Seven churches, one library, two post offices, one community center, four recreational facilities, and four parks are located within the study area.

Hertford and Winfall maintain separate fire departments, with the jurisdictions separated by the Perquimans River. The departments provide mutual aid backup to one another. The mutual aid backup agreement will help reduce impacts to fire responses when the bridge and causeway is closed during construction.

The Town of Hertford Police Department, the Town of Winfall Police Department, and the Perquimans County Sherriff's Department use the bridge and causeway as a primary patrol route and to respond to calls. The potential closure of the bridge will increase response times to areas north of the river.

These impacts also apply to Perquimans County Emergency Medical Services. When the EMS department has operated with the causeway closed, the resulting route along the Bypass increases response time, but may be manageable short-term. However, the South Church Street intersection with US 17 Bypass was identified as a choke point for EMS responders due to congestion, particularly when access to the causeway is prohibited. The Perquimans County EMS recently moved to Winfall, which requires the ambulances to cross the bridge and causeway more frequently than before since Hertford has a larger population than Winfall. However, the EMS Director noted that they are experimenting with alternate routes now in anticipation of the bridge and causeway being closed for construction, and do not anticipate notable delays.

G. Economic Effects

The bridge and causeway are part of US 17 Business, which connects Winfall and Hertford. If the No Build alternative is selected (i.e., the bridge and causeway are removed), there likely will be a long-term impact on businesses in Hertford. The primary business district in Hertford is on Church Street just south of the bridge. If the bridge and causeway are closed, a decrease in pass-by traffic to these businesses is likely. Additional signage on US 17 directing drivers into Hertford from Church Street or Edenton Road Street would help mitigate this impact. Although the detour is only five minutes long, local planners have said that many citizens, once on US 17 Bypass, are likely to continue further to Elizabeth City or Edenton rather than return to Winfall or Hertford. Many local business owners and local officials are concerned that permanent or lengthy construction closure of the bridge and causeway will have a negative effect on the Hertford downtown business district.

Alternatives B 15-Foot Swing Span and D-Mod 33-Foot Fixed are not expected to have a long-term impact on businesses, although there is a potential short-term impact during construction. Alternative B will close the existing route for a longer period than Alternative D-Mod because more of the new route is on the same footprint as the existing route.

Alternative E 33-Foot Fixed may have a minor long-term impact to businesses in Hertford since US 17 Business would be shifted approximately 0.5 mile to the west away from the Church Street business district. Additional signage along US 17 Business directing drivers to the business district would help mitigate this impact.

The effects of each alternative on businesses are discussed in more detail in the *Indirect and Cumulative Effects Report* (May 2010).

H. Land Use

1. Existing Land Use and Zoning

Zoning regulation for the study area falls under the jurisdiction of the Towns of Hertford and Winfall and is subject to the 1980 Perquimans County Zoning Ordinance. Land in and adjacent to the study area is primarily zoned residential, with areas north of the bridge restricted to low-density development on large lots. South of the bridge, the core of Hertford is zoned residential on smaller lots, with commercial areas along Church Street and adjacent to the railroad track. The neighborhood at the intersection of Dobbs Street and Edenton Road Street is zoned as transitional residential. Land uses match current zoning plans.

2. Future Land Use

According to the *DRAFT Perquimans County 2005-2006 CAMA Core Land Use Plan Update*, the majority of the study area is anticipated to remain residential with small areas of commercial and public/institutional uses. A thoroughfare plan was approved for the Towns of Hertford and Winfall in 1991.

3. Project Compatibility with Local Plans

Current land use and transportation plans assume US 17 Business/NC 37 is in its current location. Local plans that include US 17 Business/NC 37 in its current location and also propose bicycle and/or pedestrian accommodations across the causeway include the Historic *Hertford Development Strategic Plan* (2001) and the *Town of Hertford Comprehensive Pedestrian Plan* (2007). Alternatives B 15-Foot Swing Span and D-Mod 33-Foot Fixed are consistent with these plans. Alternative E 33-Foot Fixed is generally compatible with local plans, but is less consistent because it shifts US 17 Business/NC 37 to Edenton Road Street rather than Church Street.

I. Indirect and Cumulative Effects

Indirect and cumulative effects are described in more detail in the *Indirect and Cumulative Effects Report* (May 2010).

Minimal temporary indirect and cumulative effects are expected to occur as a result of the current study alternatives. No long-term indirect or cumulative effects are expected.

Indirect and cumulative effects were considered for a 10-year time period, until 2020. This time period corresponds with the draft *Perquimans County Coastal Area Management Act (CAMA) Core Land Use Plan Update 2005-2006,* which includes future land use recommendations for a horizon year of 2020. The following subsections summarize indirect and cumulative project effects.

1. Indirect Effects

Indirect community effects are characterized by those changes related to the proposed project but not directly caused by the project. No long-term indirect effects are anticipated

due to this project. The proposed improvements are not anticipated to induce growth. This project will replace the US 17 Business bridge on or near its existing location, and will not be adding traffic capacity. Existing development patterns are likely to continue regardless of the bridge replacement.

Alternatives B 15-Foot Swing Span and D-Mod 33-Foot Fixed would have a small or no change in traffic patterns, access, and exposure, and would not have a notable change in travel time. Alternative E 33-Foot Fixed would result in change of access that would reduce exposure to businesses in downtown Hertford and increase travel time by approximately one minute (25%).

This project would not create a new land use/transportation node. The No Build alternative, which would remove the bridge and causeway permanently, would have a negative impact on travel time, access and exposure because US 17 Business/NC 37 would no longer be carried through Hertford.

2. Cumulative Effects

Cumulative effects represent the total anticipated direct and indirect effects resulting from the project, in addition to those effects by other projects in the vicinity. No long-term cumulative effects are expected. Minor short-term cumulative effects are anticipated on travel time during construction, while traffic is detoured around Hertford on US 17 Bypass.

There are no major development projects that have recently been completed in the vicinity. Direct natural environmental impacts by NCDOT projects will be addressed by avoidance, minimization, or mitigation. All developments will be required to follow local, state, and federal guidelines and permitting regulations.

J. Flood Hazard Evaluation

The Perquimans River is a Federal Emergency Management Agency (FEMA) detailed study stream. However, in the area of the bridge, the Perquimans River is tidally influenced. Therefore, no FEMA flood profiles were generated through the bridge, because the flood levels are dominated by surge. The detailed FEMA study for the Perquimans River ends approximately 1.9 miles downstream of NC 37 in Belvidere at the confluence of Goodwin Creek. The US 17 Business/NC 37 S-bridge is approximately 6.5 miles downstream of the Goodwin Creek confluence. Therefore, the floodplains around the US 17 Business/NC 37 bridge are inundated with the coastal stillwater. This project will not require any revisions to FEMA floodplain mapping.

K. Traffic Noise Analysis

1. Introduction

In accordance with Title 23 Code of Federal Regulations Part 772, Procedures for Abatement of Highway Traffic Noise and Construction Noise (Title 23 CFR 772) and the North Carolina Department of Transportation Traffic Noise Abatement Policy, each Type I highway project must be analyzed for predicted traffic noise impacts. In general, Type I projects are proposed Federal or Federal-aid highway projects for construction of a highway

or interchange on new location, improvements of an existing highway that substantially changes the horizontal or vertical alignment or increases the vehicle capacity, or projects that involve new construction or substantial alteration of transportation facilities such as weigh stations, rest stops, ride-share lots or toll plazas.

Traffic noise impacts are determined through implementing the current Traffic Noise Model (TNM®) approved by the Federal Highway Administration and by following procedures detailed in Title 23 CFR 772 and the NCDOT Traffic Noise Analysis and Abatement Manual. When traffic noise impacts are predicted, examination and evaluation of alternative noise abatement measures must be considered for reducing or eliminating these impacts. Temporary and localized noise impacts will likely occur as a result of project construction activities. Construction noise control measures will be incorporated into the project plans and specifications.

A copy of the unabridged version of the full technical report entitled *Revised Traffic Noise Analysis, New Roadway on Pilings to Replace Bride #19 on US 17 Business/NC 37* can be viewed at the NCDOT Century Center, 1000 Birch Ridge Drive, Raleigh.

2. Traffic Noise Impacts and Noise Contours

The maximum number of receptors in each project alternative predicted to become impacted by future traffic noise is shown in the table below. The table includes those receptors expected to experience traffic noise impacts by either approaching or exceeding the FHWA Noise Abatement Criteria (NAC) or by a substantial increase in exterior noise levels as defined in the NCDOT Traffic Noise Abatement Policy.

The maximum extent of the 71- and 66- dB(A) noise level contours measured from the center of the proposed roadway is 18 feet and 51 feet, respectively.

The Traffic Noise Analysis also considered traffic noise impacts for the No-Build alternative. If the proposed project does not occur, 40 receptors are predicted to experience traffic noise impacts and the future traffic noise levels will increase by approximately 2 dBA. Based upon research, humans barely detect noise level changes of 2-3 dBA. A 5-dBA change is more readily noticeable. Therefore, most people working and living near the roadway will not notice this predicted increase.

Table 15 – Traffic Noise Impact Summary

Alternative	Traffic Noise Impacts			
	Residential (NAC B)	Churches/Schools, etc. (NAC C & D)	Businesses (NAC E)	Total
No-Build	40	0	0	40
A Rehab & New Swing Span	26	0	0	26
B 15' Swing Span	24	0	0	24
D-Mod 33' Fixed	24	0	0	24
E 15' & 33' Fixed	16	0	0	16

*Per TNM®2.5 and in accordance with 23 CFR Part 772

3. Traffic Noise Abatement Measures

Measures for reducing or eliminating the traffic noise impacts were considered for all impacted receptors in each alternative. The primary noise abatement measures evaluated for highway projects include highway alignment changes, traffic system management measures, establishment of buffer zones, noise barriers and noise insulation (NAC D only). For each of these measures, benefits versus allowable abatement measure quantity (reasonableness), engineering feasibility, effectiveness and practicability and other factors were included in the noise abatement considerations.

Substantially changing the highway alignment to minimize noise impacts is not considered to be a viable option for this project due to engineering and/or environmental factors. Traffic system management measures are not considered viable for noise abatement due to the negative impact they would have on the capacity and level of service of the proposed roadway. Costs to acquire buffer zones for impacted receptors will exceed the NCDOT base quantity value of $2,500 per benefited receptor, causing this abatement measure to be unreasonable.

a) Noise Barriers

Noise barriers include two basic types: earthen berms and noise walls. These structures act to diffract, absorb, and reflect highway traffic noise.

This project will maintain uncontrolled right of way access, meaning that most noise-sensitive land uses will have direct access connections to the proposed project, and most intersections will adjoin the project at grade. The Traffic Noise Analysis for this project confirmed that the physical breaks in potential noise barriers that would occur due to the uncontrolled right of way access would prohibit any noise barrier from providing the minimum required traffic noise level reductions at all predicted traffic noise impacts, as defined by the noise abatement measure feasibility criteria of the NCDOT Traffic Noise Abatement Policy.

4. Summary

Based on this preliminary study, traffic noise abatement is not recommended and no noise abatement measures are proposed. This evaluation completes the highway traffic noise requirements of Title 23 CFR Part 772. No additional noise analysis will be performed for this project unless warranted by a significant change in the project scope, vehicle capacity or alignment.

In accordance with NCDOT Traffic Noise Abatement Policy, the Federal/State governments are not responsible for providing noise abatement measures for new development for which building permits are issued after the Date of Public Knowledge. The Date of Public Knowledge of the proposed highway project will be the approval date of the final environmental document. For development occurring after this date, local governing bodies are responsible to insure that noise compatible designs are utilized along the proposed facility.

L. Air Quality Analysis

1. Project Air Quality Effects

Air pollution originates from various sources. Emissions from industry and internal combustion engines are the most prevalent sources. The impact resulting from highway construction ranges from intensifying existing air pollution problems to improving the ambient air quality. Changing traffic patterns are a primary concern when determining the impact of a new highway facility or improvement of an existing highway facility.

The Federal Clean Air Act of 1970 established the National Ambient Air Quality Standards (NAAQS). These standards were established to protect the public from known or anticipated effects of air pollutants. The most recent amendments to the NAAQS contain criteria for sulfur dioxide (SO2), particulate matter (PM), carbon monoxide (CO), nitrogen dioxide (NO2), ozone (O3), and lead (Pb).

The primary pollutants from motor vehicles are unburned hydrocarbons, nitrous oxides, carbon monoxide, and particulates. Hydrocarbons and nitrogen oxides can combine in a complex series of reactions catalyzed by sunlight to produce photochemical oxidants such as ozone and NO2. Because these reactions take place over a period of several hours, maximum concentrations of photochemical oxidants are often found far downwind of the precursor sources.

2. Attainment Status

Perquimans County has been determined to comply with the National Ambient Air Quality Standards. Because the proposed project is located in an attainment area, 40 CFR Parts 51 and 93 are not applicable. This project is not anticipated to create any adverse effects on the air quality of this attainment area.

3. Mobile Source Air Toxic (MSAT) Analysis

Mobile source air toxics (MSATs) are a subset of the 188 air toxics defined by the Clean Air Act. MSATs are compounds emitted by highway vehicles and non-road equipment.

Mobile Source Air Toxics (MSAT) analysis is a continuing area of research. While much work has been done to assess the overall health risk of air toxics, many questions remain unanswered. In particular, the tools and techniques for assessing project-specific health impacts from MSATs are limited. These limitations impede the Federal Highway Administration's ability to evaluate how mobile source health risks should factor into the project-level decision-making under the NEPA.

The FHWA, EPA, the Health Effects Institute, and others have funded and conducted research studies to try to more clearly define potential risks from MSAT emissions associated with highway projects. The FHWA will continue to monitor the developing research in this emerging field. While this research is ongoing, FHWA requires each NEPA document to qualitatively address MSATs and their relationship to the specific highway project through a tiered approach

A complete qualitative analysis of MSAT impacts is included in the Air Quality Analysis technical memorandum for this project (May 2011). This report may be viewed at the NCDOT Century Center, 1000 Birch Ridge Drive, Raleigh.

Incomplete or Unavailable Information for Project-Specific MSAT Health Impacts Analysis. In FHWA's view, information is incomplete or unavailable to credibly predict the project-specific health impacts due to changes in MSAT emissions associated with a proposed set of highway alternatives. The outcome of such an assessment, adverse or not, would be influenced more by the uncertainty introduced into the process through assumption and speculation rather than any genuine insight into the actual health impacts directly attributable to MSAT exposure associated with a proposed action.

The EPA is responsible for protecting the public health and welfare from any known or anticipated effect of an air pollutant. They are the lead authority for administering the Clean Air Act and its amendments and have specific statutory obligations with respect to hazardous air pollutants and MSAT. The EPA is in the continual process of assessing human health effects, exposures, and risks posed by air pollutants. They maintain the Integrated Risk Information System (IRIS), which is "a compilation of electronic reports on specific substances found in the environment and their potential to cause human health effects" (EPA, http:// www.epa.gov/ncea/iris/index.html). Each report contains assessments of non-cancerous and cancerous effects for individual compounds and quantitative estimates of risk levels from lifetime oral and inhalation exposures with uncertainty spanning perhaps an order of magnitude.

Other organizations are also active in the research and analyses of the human health effects of MSAT, including the Health Effects Institute (HEI). Among the adverse health effects linked to MSAT compounds at high exposures are cancer in humans in occupational settings; cancer in animals; and irritation to the respiratory tract, including the exacerbation of asthma. Less obvious is the adverse human health effects of MSAT compounds at current environmental concentrations (HEI, http:// pubs.healtheffects.org/view.php?id=282) or in the future as vehicle emissions substantially decrease (HEI, http://pubs.heatheffects.org/view.php?id=306).

The methodologies for forecasting health impacts include emissions modeling; dispersion modeling; exposure modeling; and then final determination of health impacts – each step in the process building on the model predictions obtained in the previous step. All are encumbered by technical shortcomings or uncertain science that prevents a more complete differentiation of the MSAT health impacts among a set of project alternatives. These difficulties are magnified for lifetime (i.e. 70 year) assessments, particularly because unsupportable assumptions would have to be made regarding changes in travel patterns and vehicle technology (which affects emissions rates) over that time frame, since such information is unavailable. The results produced by the EPA's MOBILE6.2 model, the California EPA's Emfac2007 model, and the EPA's DraftMOVES2009 model in forecasting MSAT emissions are highly inconsistent. Indications from the development of the MOVES model are that MOBILE6.2 significantly underestimates diesel particulate matter (PM) emissions and significantly overestimates benzene emissions.

Because of the limitations in the methodologies for forecasting health impacts described, any predicted difference in health impacts between alternatives is likely to be much smaller than the uncertainties associated with predicting the impacts. Consequently, the result of such assessments would not be useful to decision makers.

4. Construction Air Quality Effects

During construction of the proposed project, all materials resulting from clearing and grubbing, demolition or other operations will be removed from the project, burned or otherwise disposed of by the Contractor. Any burning will be performed in accordance with applicable local laws and ordinances and regulations of the North Carolina SIP for air quality in compliance with 15 NCAC 2D.0520. Care will be taken to insure burning will be done at the greatest distance practical from dwellings and not when atmospheric conditions are such as to create a hazard to the public. Burning will be performed under constant surveillance. Also during construction, measures will be taken to reduce the dust generated by construction when the control of dust is necessary for the protection and comfort of motorists or area residents.

M. Hazardous Materials

Ten sites potentially containing underground storage tanks and one auto repair facility are located in the study area. Five of the sites are near Alternative E along Edenton Road Street. The other six are located north of the Perquimans River, two on Winfall Boulevard (NC 37) near Creek Road (US 17 Business) and four on Creek Road. All sites are anticipated to present low geo-environmental impacts.

Alternative E would require the purchase of right of way from the Harris Shopping Center. This property is located north of the intersection of Edenton Road Street with Grubb Street in Hertford. A gas station was formerly located on a part of this property. Three underground storage tanks and contaminated soil were removed from the site in 1989. This site was assigned Groundwater Incident Number 7842. The site was closed by the Department of Environment and Natural Resources (DENR) in September 1989.

All three detailed study alternatives would require the purchase of a small amount of right of way in addition to temporary easements from Larry's Drive In, located on the southeast side of US 17 Business/NC 37 south of the NC 37 intersection. This restaurant is operating in a former gas station. Four tanks have been removed from the site, and the database indicates that contaminated soil was removed from the tank bed and the site was closed by DENR in October 2009. None of the other sites are anticipated to be impacted by the detailed study alternatives.

VI. COMMENTS AND COORDINATION

A thorough public involvement program is part of this project and has included the following efforts:

- Holding Citizens Informational Workshops, which were advertised through direct mail and local newspapers
- Mailing newsletters to property owners in the project vicinity, which provided information on the status and decisions made through the project process
- Attending meetings with local officials
- Creating and updating the mailing list of community contacts to include workshop attendees and concerned citizens
- Responding consistently to citizens' requests for information

A. Citizens Informational Workshops

First Citizens Informational Workshop

The first citizens informational workshop took place on April 6, 2010. It was held in the Perquimans County Recreation Department Meeting Room. Seven conceptual option maps for the nine alignments being studied were displayed. A narrated, 10-minute PowerPoint Presentation was shown on a continuous loop. There was no formal presentation. Sixty-five citizens signed in during the three-hour workshop, and 28 comment forms were returned.

Comments made by citizens during the first workshop or in comments submitted following the workshop varied. Some citizens were opposed to Alignment E because they believed taking US 17 Business away from Church Street would result in negative impacts for businesses, while others preferred Alignment E because they believed moving US 17 Business traffic west to Edenton Road Street would not impact businesses but would have a positive impact on the waterfront development plans. Many citizens were concerned about impacts to houses and property values of Alignments A, C, and D.

Second Citizens Informational Workshop

A second workshop was held June 21, 2011 at the Perquimans County Recreation Department. Preliminary designs and graphic renderings were displayed for the five alternatives being studied. There was no formal presentation. Citizens were encouraged to

view the maps, talk with the project team, and fill out a comment form. Sixty-four citizens signed in during the three-hour workshop, and 34 comment forms were returned.

Many of the same opinions were expressed in the second workshop that were given during the first workshop. Designs had been refined, and impacts had been reduced for Alternatives A and D, which resulted in several people changing their preference from Alternative E to Alternative A or D.

Third Citizens Informational Workshop

A third workshop was held August 13, 2012 at the Perquimans County Recreation Department. Preliminary designs and graphic renderings were displayed for the seven alternatives under consideration. Kimley-Horn staff made a formal presentation, including a question and answer period. Seventy-six citizens signed in during the two-hour workshop, and 21 comment forms were returned.

During the question and answer period following the third workshop's presentation, citizens expressed many concerns about this project. These included concerns about construction cost, traffic delays during construction, impacts to the historic district from retaining walls in Alternative A Rehabilitate or Build New Swing Span, concerns about converting the bridge and causeway to one-way traffic in Alternative A Rehabilitate, and concern that a 33-foot fixed span bridge would change the appearance of the Town. There was also discussion about adding a decorative truss if a new swing span bridge was built.

Summary of Comments

Comments were collected throughout the project planning phase. After the first public workshop, most public support was for Alternative E because of anticipated impacts for the other alternatives. Through the design process, impacts were reduced and at the second workshop, citizens more strongly supported an alternative that uses the existing route and keeps traffic on Church Street. At the third workshop, citizens fairly evenly supported Alternative A, B, and D-Mod (3 comments supporting each). Alternative E had higher support than the others (12 comments), although that was likely in part because of the strong attendance of residents in the Church Street neighborhood.

In addition to comment forms collected at the workshops, two petitions were also received. One petition had 70 signatures and supported Alternative E. The second petition had 3,988 signatures and supported an alternative on existing alignment (either to repair the existing bridge, replace the bridge with a replica, or rebuild the existing connection maintaining the flow of traffic through downtown Hertford).

B. Small Group Meetings

Meetings were held with two small groups through the course of the project. A small group meeting was held on September 28, 2010 in the Hertford Grammar School. The purpose of this meeting was to get feedback from citizens of Hertford that may be affected by Alternative E. Thirteen local officials, planners, businesses owners, and citizens attended this meeting. The discussion covered all five of the detailed study alternatives. However,

most of the questions came from the attendees who did not live in the target area and focused on Alternative A. There was no support expressed by any of the attendees for Alternative E. The concerns voiced by the meeting attendees included increased traffic on Edenton Road Street, buses traveling to and from school, and retaining walls in the historic district.

Another small group meeting was held on October 11, 2010 at the home of a local resident interested in preserving the bridge. Topics discussed included repairing and replacing parts of the bridge, the US 17 Business designation, and the various project alternatives.

C. Local Officials Meetings

The first local officials meeting was held September 10, 2007, at the Winfall Town Hall. The history and purpose and need of the project were presented. Topics discussed included potential environmental and design considerations, as well as potential design alternatives.

A second local officials meeting was held April 6, 2010, at the Perquimans County Recreation Department prior to the first citizens informational workshop. Topics discussed included alignment and bridge type alternatives.

A third local officials meeting was held June 21, 2011, at the Perquimans County Recreation Department prior to the second workshop. The purpose of this meeting was to present the five detailed study alternatives.

A fourth local officials meeting was held March 20, 2012, at the Winfall Town Hall. Several potentially new alternatives were presented to local officials, and two alternatives were recommended for elimination.

D. Public Hearing

A Public Hearing will be held following the distribution of this Environmental Assessment.

E. NEPA/404 Merger Process

In an effort to streamline the environmental planning and permitting process, NCDOT, FHWA, and USACE developed an interagency agreement integrating the environmental screening requirements of NEPA and the USACE Section 404 permitting process. This process is known as the NEPA/404 Merger Process.

The NEPA/404 Merger Process was designed to apply to new location projects and other projects that would likely require an individual permit under Section 404 of the Clean Water Act (CWA). At the beginning of each project, NCDOT initiates a screening process to determine the applicability of the NEPA/404 Merger Process for that project.

Given the amount of stream and wetland impacts, the potential impact to historic resources, and citizen interest in the project, it was determined by NCDOT, FHWA, USACE, and NCDWQ that this project would follow the NEPA/404 Merger Process.

Concurrence Points are defining points in the Section 404/NEPA Merger Process. Concurrence implies that project team members and the agencies they represent agree to decisions made at these defining points in the project development process and in doing so pledge to abide by the decision made unless there is a profound changed condition. Concurrence is sequential and must be achieved in the proper order. The seven concurrence points (CP) in the Merger Process are as follows:

- **Concurrence Point 1**: Purpose and Need and Study Area Defined, The foundation upon which justification of the project is established.
    - At the Merger meeting on August 4, 2009, the Merger Team agreed to the project purpose as stated in this document.
- **Concurrence Point 2**: Detailed Study Alternatives Carried Forward (DSA). Alternatives which satisfy the purpose and need for the project. These alternatives will be studied and evaluated in sufficient detail to ensure good transportation and permit decision-making.
    - At the Merger meeting on October 13, 2010, the Merger Team agreed to carry five alternatives forward for detailed study: Alternatives A New Swing Span, A Rehabilitate, D-Mod 33-Foot Fixed, E 15-Foot Fixed, and E 33-Foot Fixed.
    - At the Merger meeting on October 18, 2012, the Merger Team agreed to refine the list of detailed study alternatives, and to carry forward the following alternatives into the EA: Alternatives B 15-Foot Swing Span, D-Mod 33-Foot Fixed, and E 33-Foot Fixed.
- **Concurrence Point 2A**: Bridging Decisions and Alignment Review. Identification of bridge locations and approximate lengths and a review of the preliminary alignment for each alternative.
    - At the Merger meeting on October 18, 2012, the Merger Team agreed to the following minimum bridge lengths: Alternatives B 15-Foot Swing Span – 2,690 feet, D-Mod 33-Foot Fixed – 2,368 feet, and E 33-Foot Fixed – 3,820 feet.
- **Concurrence Point 3**: LEDPA/Preferred Alternative Selection. The alternative selected as the "least environmentally damaging practicable alternative" or LEDPA (NEPA preferred alternative), through the project development and permitting process. This meeting will be held after the Environmental Assessment has been signed and the public hearing has been held.
- **Concurrence Point 4A**: Avoidance and Minimization. A detailed, interdisciplinary and interagency review to optimize the design and benefits of the project while reducing environmental impacts to both the human and natural environment. This meeting will take place before the final environmental document has been approved for this project.
- **Concurrence Point 4B**: 30 Percent Hydraulic Review. A review of the development of the drainage design. This meeting will take place following approval of the final environmental document.

- **Concurrence Point 4C**: Permit Drawings Review. A review of the completed permit drawings after the hydraulic design is complete and prior to the permit application. This meeting will take place following approval of the final environmental document.

Copies of the NEPA/404 merger process concurrence forms approved so far for the project are included in Appendix C.

F. Agency Coordination

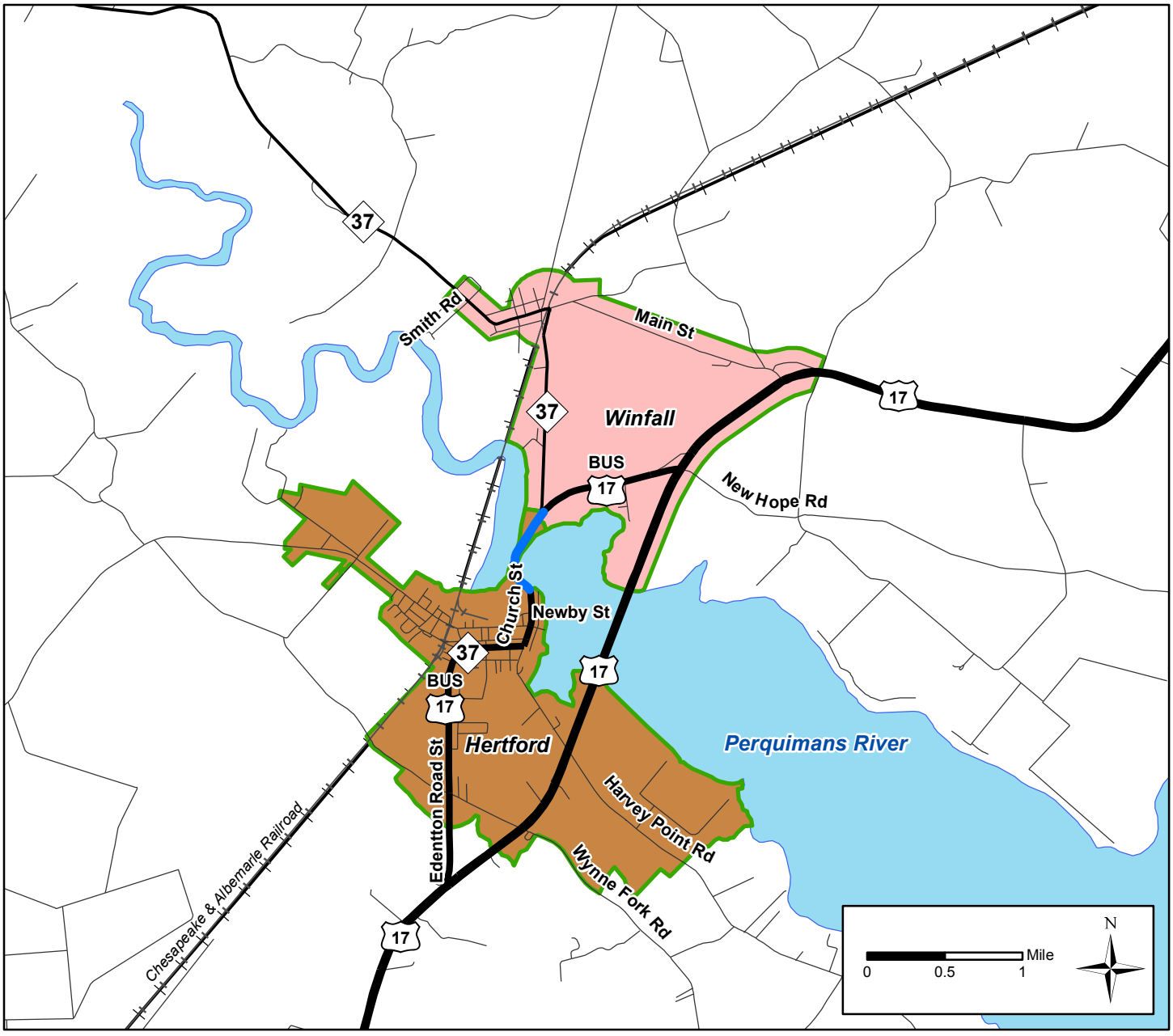
A start of study letter was mailed to agencies on February 16, 2005. This letter invited comments on Project R-4467 when the project consisted only of the reconstruction of the causeway. Comments were received from the following agencies:

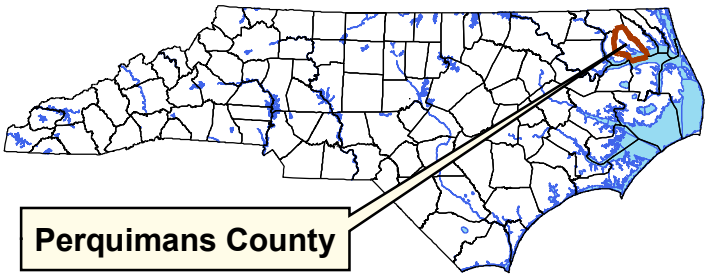
- U.S. Army Corps of Engineers
- National Marine Fisheries Service
- U.S. Fish and Wildlife Service
- North Carolina Department of Cultural Resources – State Historic Preservation Office
- Department of Environment and Natural Resources – Division of Water Quality
- Department of Environment and Natural Resources – Division of Environmental Health
- Department of Environment and Natural Resources – Division of Marine Fisheries
- North Carolina Wildlife Resources Commission

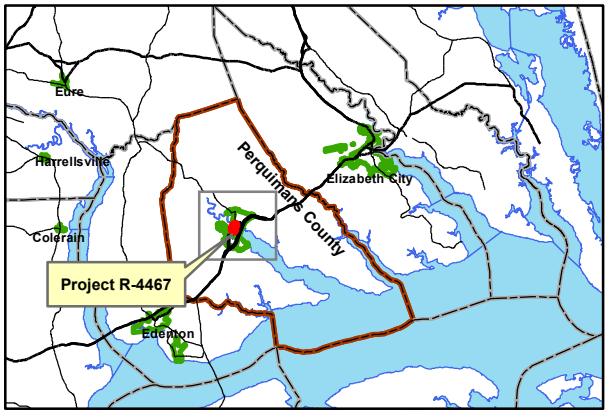
A new start of study letter was mailed August 21, 2008 regarding the combined project of the road and bridge. Comments were received from the following agencies:

- U.S. Army Corps of Engineers
- Department of Environment and Natural Resources – Division of Coastal Management
- Department of Environment and Natural Resources – Division of Marine Fisheries
- Department of Environment and Natural Resources – Division of Water Quality
- Department of Crime Control and Public Safety – Division of Emergency Management
- North Carolina Department of Cultural Resources – State Historic Preservation Office
- U.S. Fish and Wildlife Service
- Perquimans County Schools
- Hertford Town Council

FIGURES







NORTH CAROLINA
DEPARTMENT
OF
TRANSPORTATION

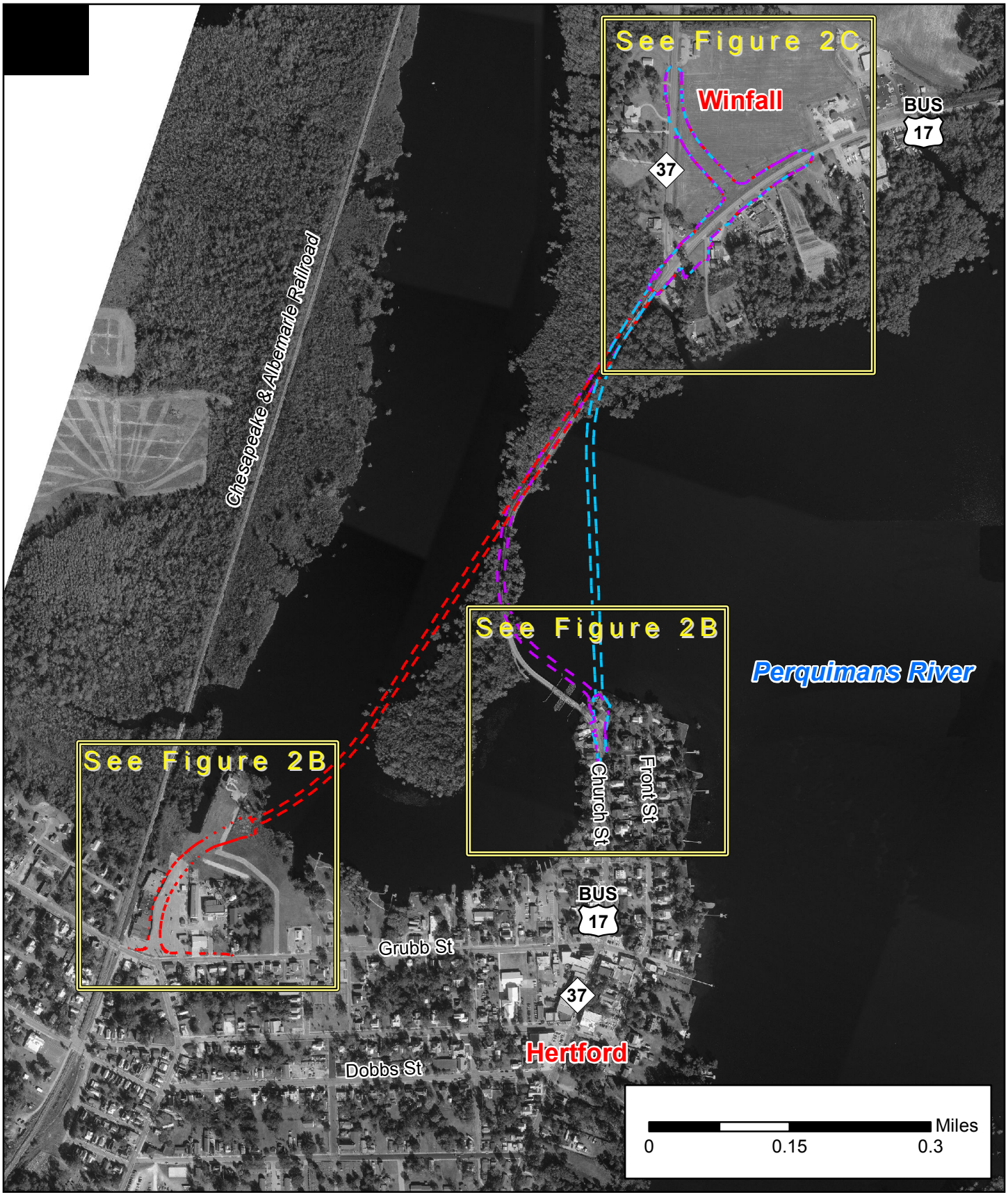
Legend

- Existing Bridge & Causeway
- Municipal Boundary
- US Highways
- NC Highways
- Roads
- Railroads

Figure 1

Vicinity Map

R-4467 - US 17 Business/NC 37
from Church Street to NC 37
Hertford and Winfall, Perquimans County



NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

N

Legend

- Alternative B
- Alternative D Mod
- Alternative E

Figure 2A

Detailed Study Alternative Designs

R-4467 - US 17 Business/NC 37
from Church Street to NC 37
Hertford and Winfall, Perquimans County

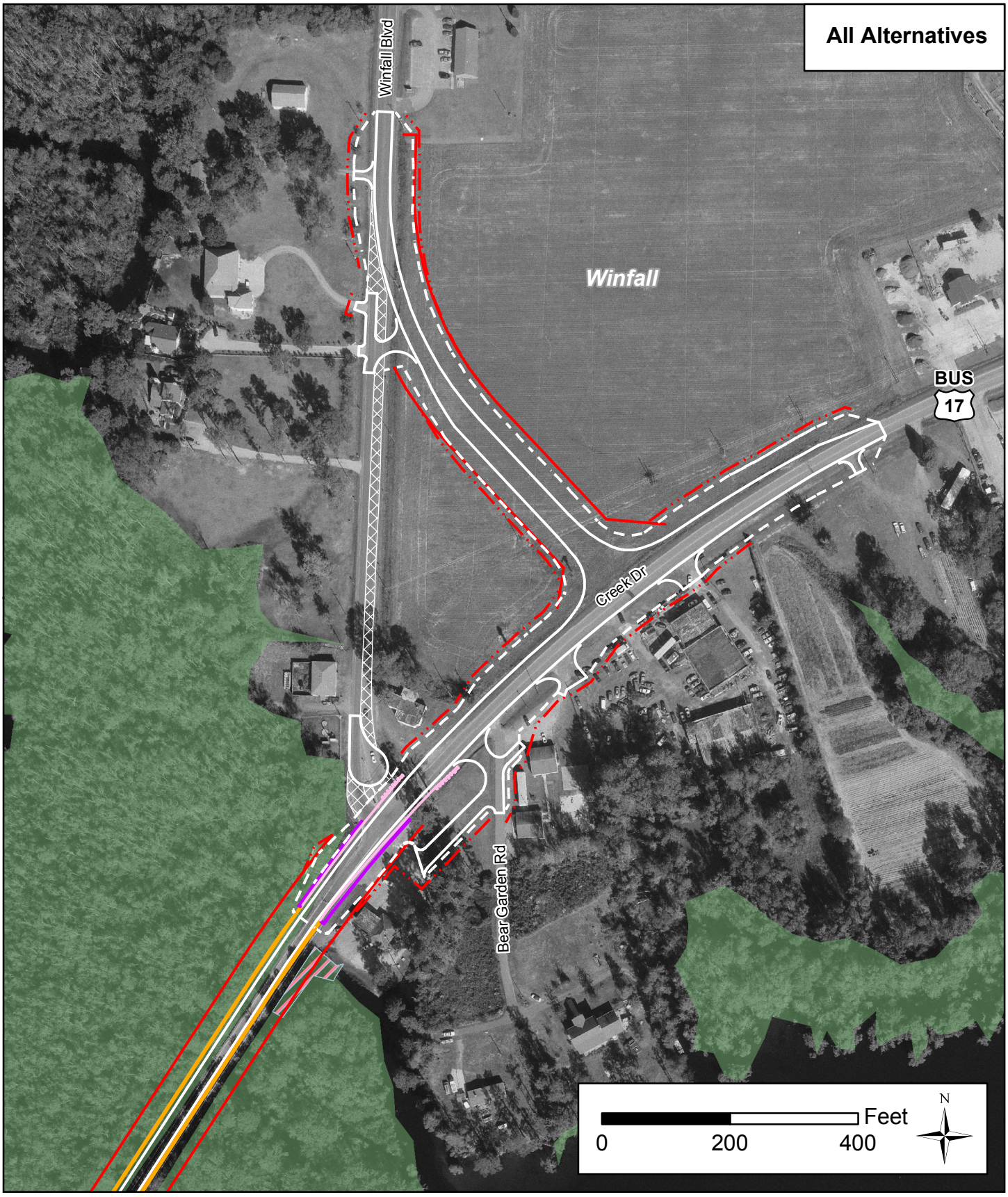
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

N

New Edge of Pavement
Construction Limits
Bridge
Guardrail
Retaining Wall
Sidewalk

Easement
ROW
Remove Pavement
Jurisdictional Wetlands

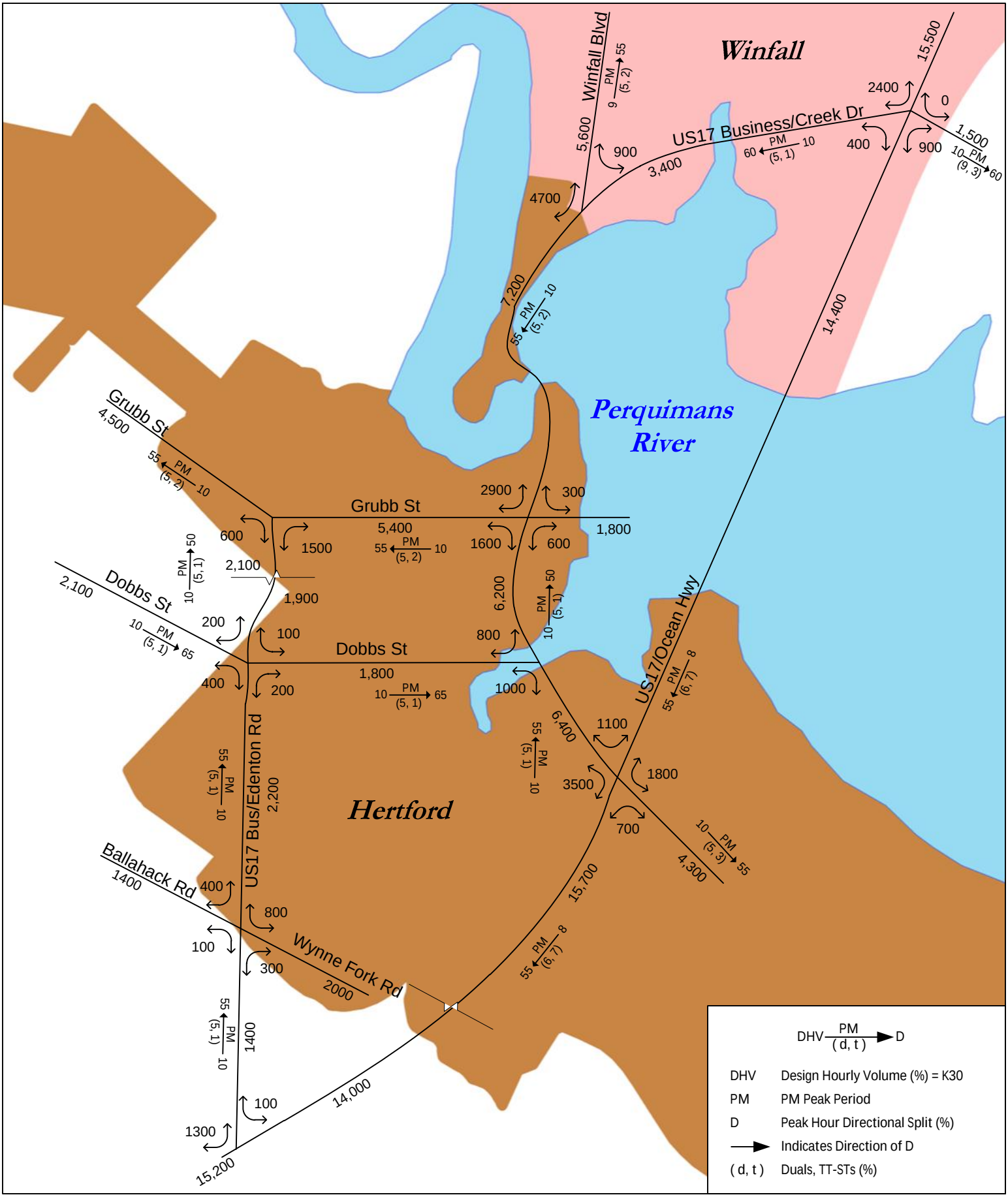
Figure 2B
Southern Terminus
Detailed Study Alternative Designs
R-4467 - US 17 Business/NC 37
from Church Street to NC 37
Hertford and Winfall, Perquimans County



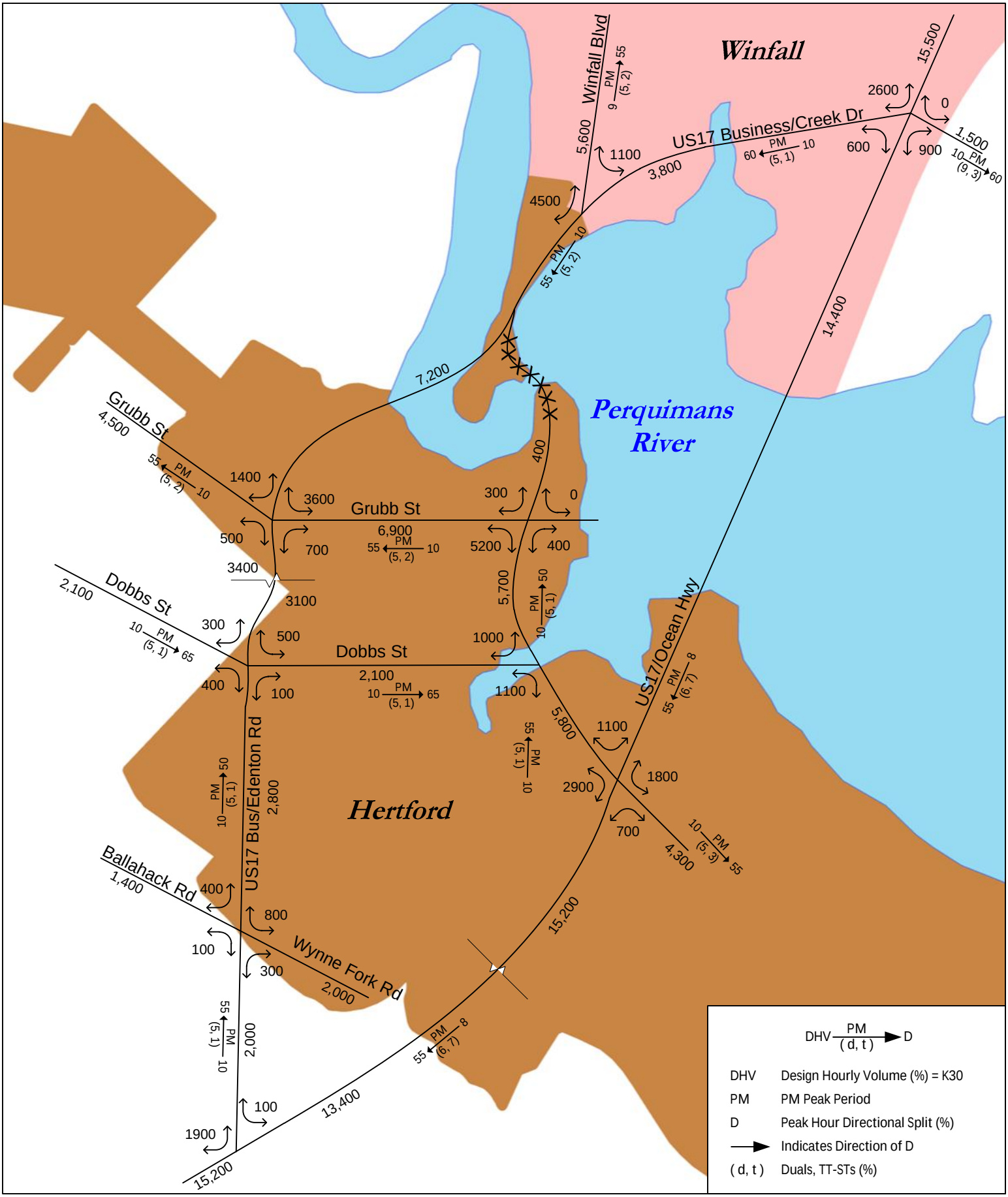
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

- Sidewalk
- Bridge
- Construction Limits
- New Edge of Pavement
- Guardrail
- Retaining Wall
- Easement
- Right-of-Way
- Remove Pavement
- Jurisdictional Coastal Wetlands
- Jurisdictional Wetlands

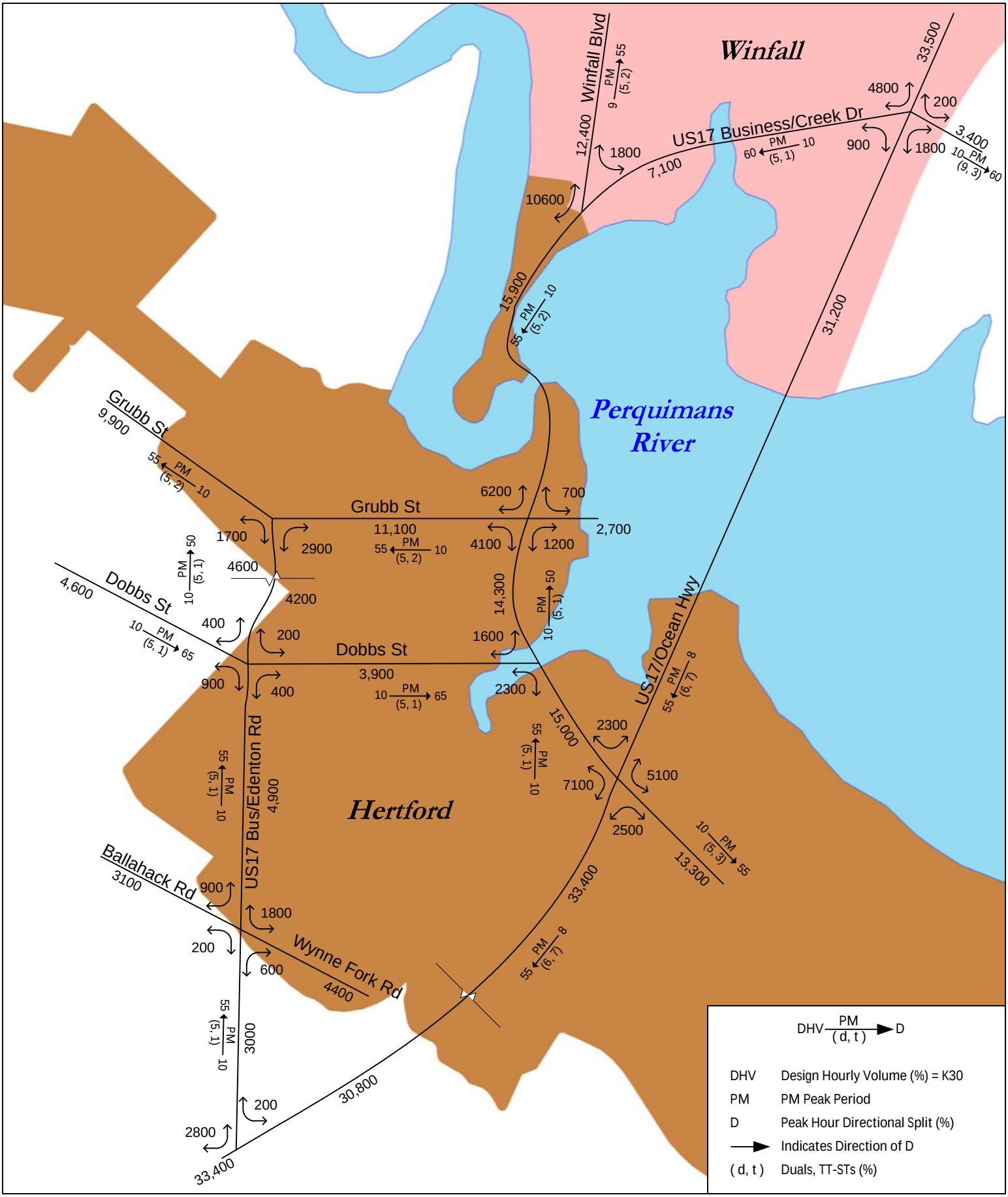
Figure 2C
Northern Terminus
Detailed Study Alternative Designs
R-4467 - US 17 Business/NC 37
from Church Street to NC 37
Hertford and Winfall, Perquimans County



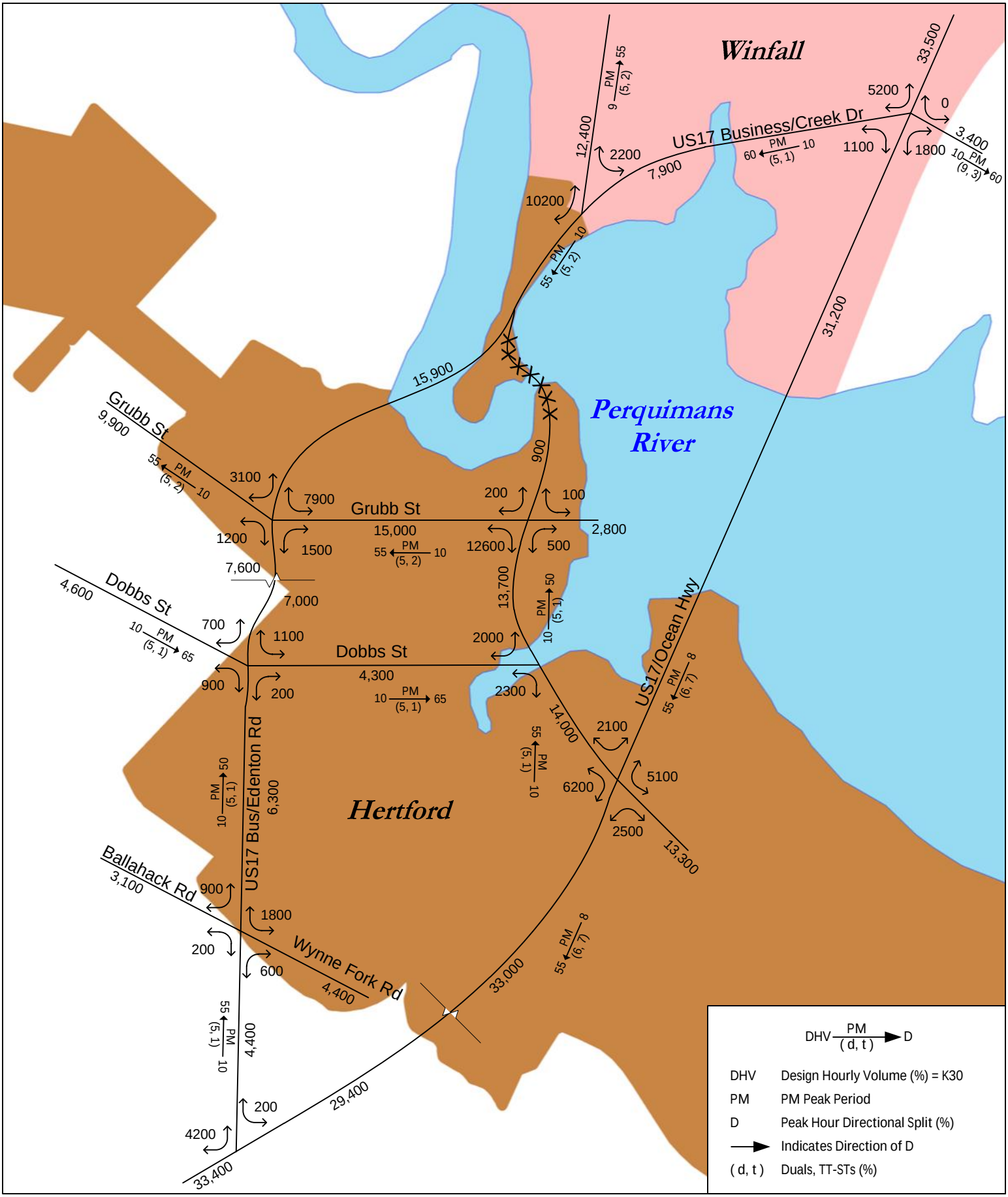
Kimley-Horn and Associates, Inc.	R-4467 US 17 BUSINESS/NC 37	EXISTING (2008) AVERAGE DAILY TRAFFIC VOLUMES EXISTING ROADWAY NETWORK AND ALTERNATIVES B 15' & D-MOD 33'	FIGURE 3A



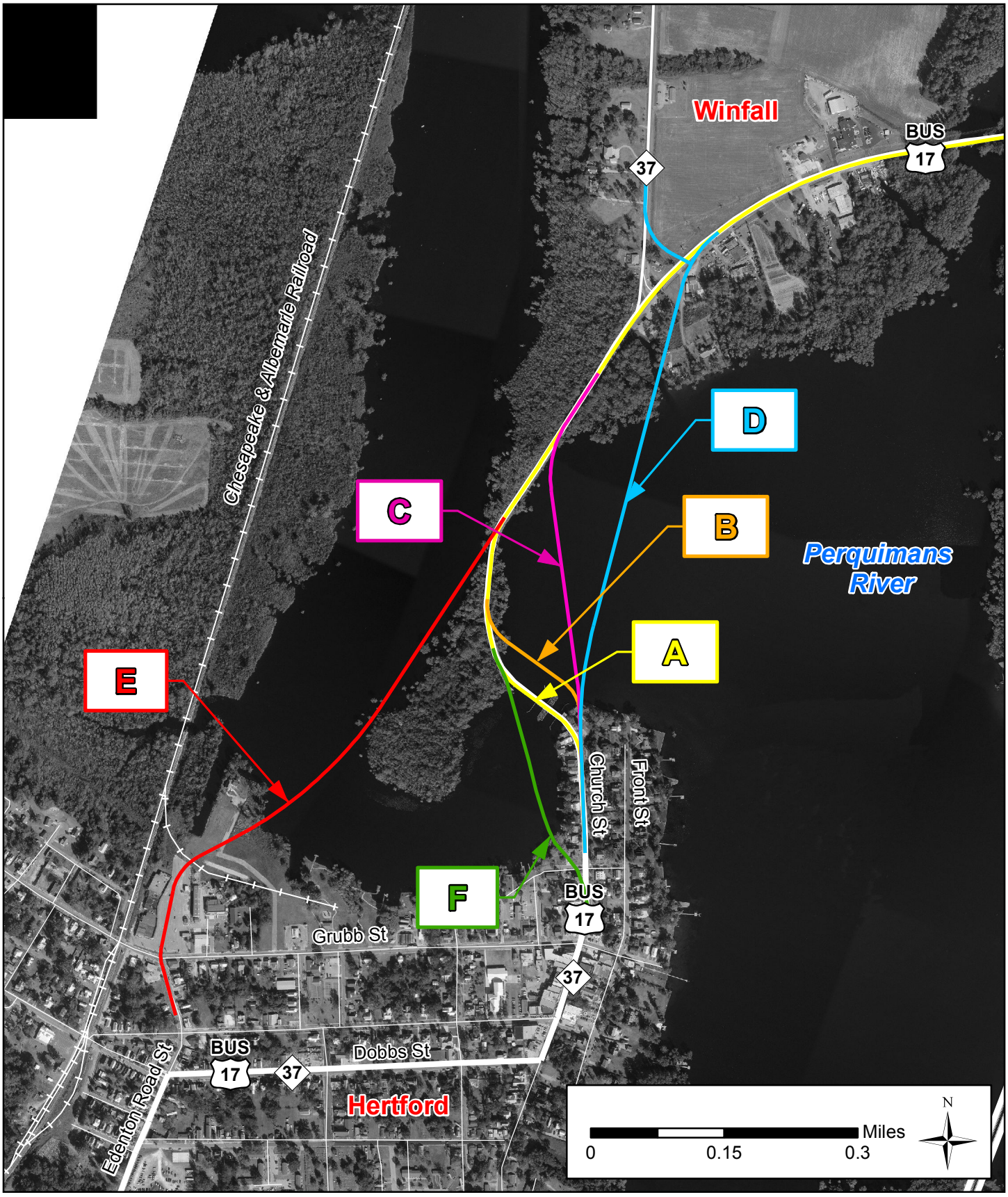
Kimley-Horn and Associates, Inc.	R-4467 US 17 BUSINESS/NC 37	EXISTING (2008) AVERAGE DAILY TRAFFIC VOLUMES ALTERNATIVE E 33'	FIGURE 3B



Kimley-Horn and Associates, Inc.	R-4467 US 17 BUSINESS/NC 37	PROJECTED (2035) AVERAGE DAILY TRAFFIC VOLUMES EXISTING ROADWAY NETWORK AND ALTERNATIVES B 15' & D-MOD 33'	FIGURE 4A



Kimley-Horn and Associates, Inc.	R-4467 US 17 BUSINESS/NC 37	PROJECTED (2035) AVERAGE DAILY TRAFFIC VOLUMES ALTERNATIVE E	FIGURE 4B

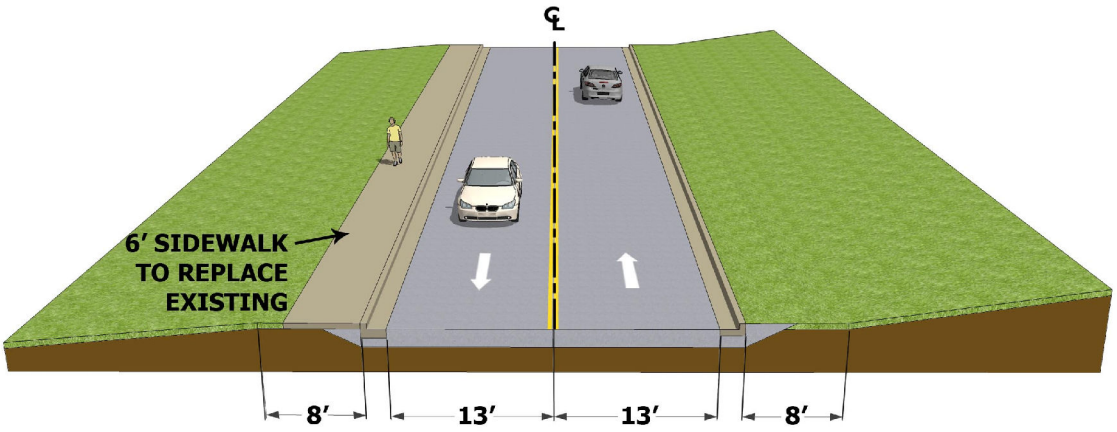


NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

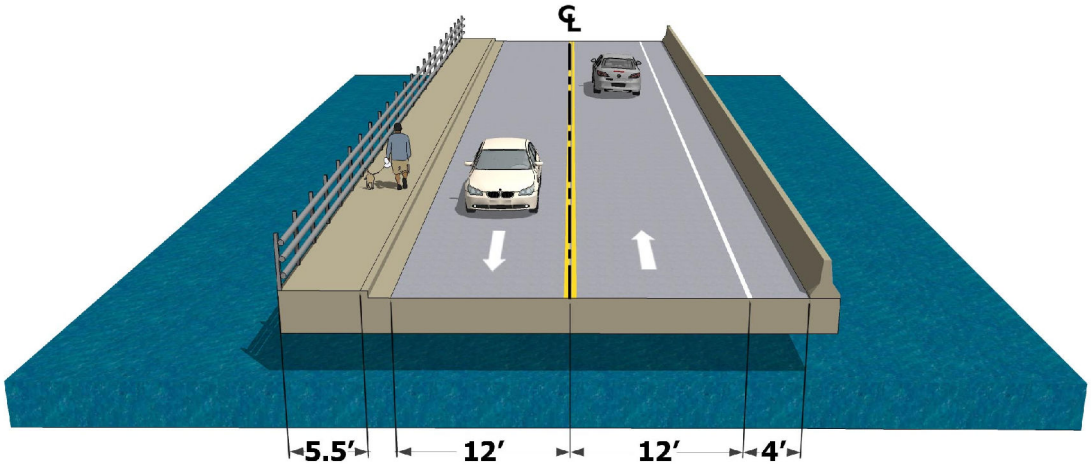
Figure 5

Conceptual Alignments

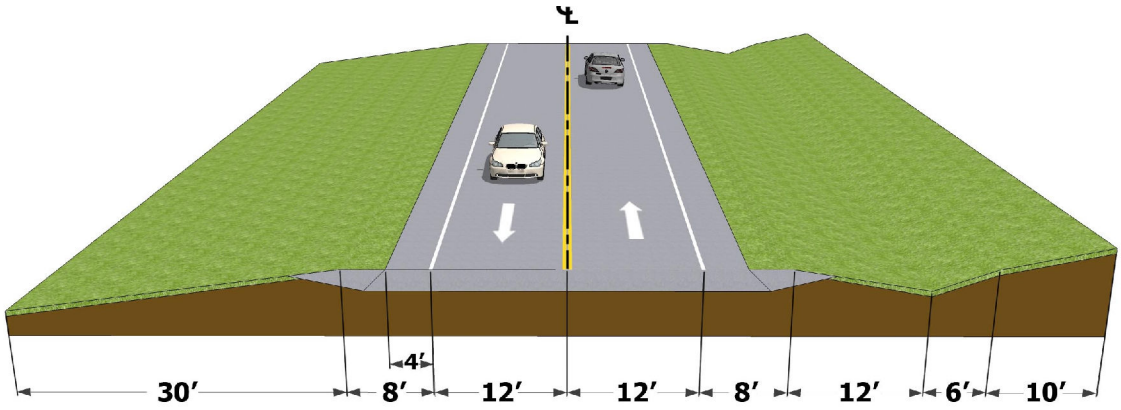
R-4467 - US 17 Business/NC 37
from Church Street to NC 37
Hertford and Winfall, Perquimans County



US 17 Business/NC 37 from Church Street to Bridge



US 17 Business/NC 37 Over Perquimans River



US 17 Business/NC 37 from Bridge to North End of Project

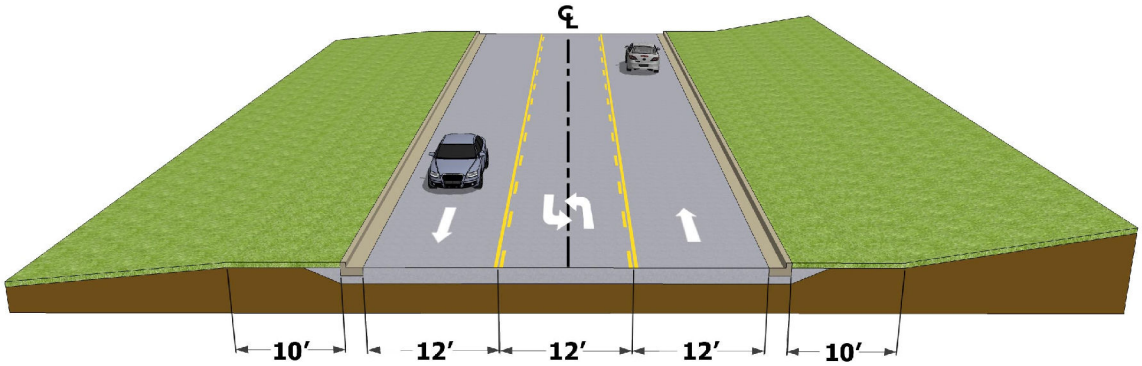
Not to Scale

NORTH CAROLINA
DEPARTMENT
OF
TRANSPORTATION

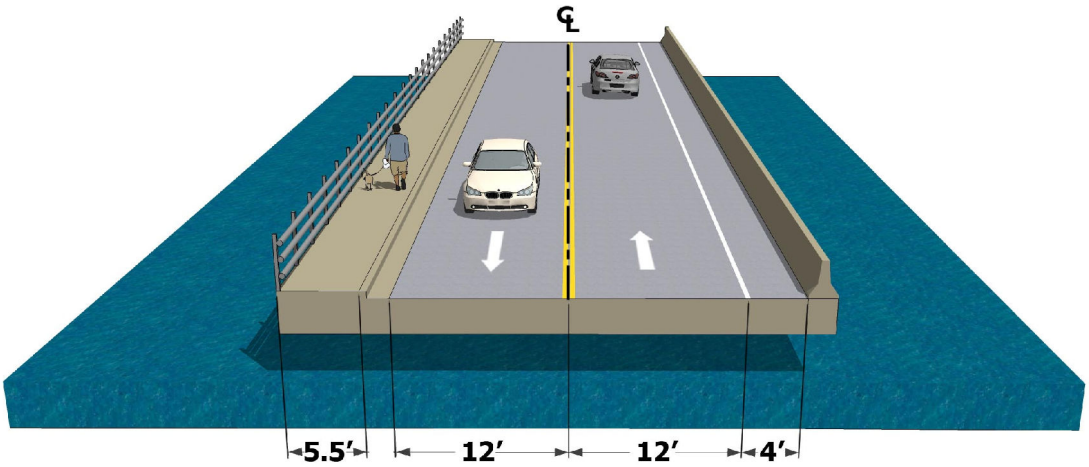
Figure 6A

Typical Section for Alternatives B 15' Swing Span and D-Mod 33' Fixed

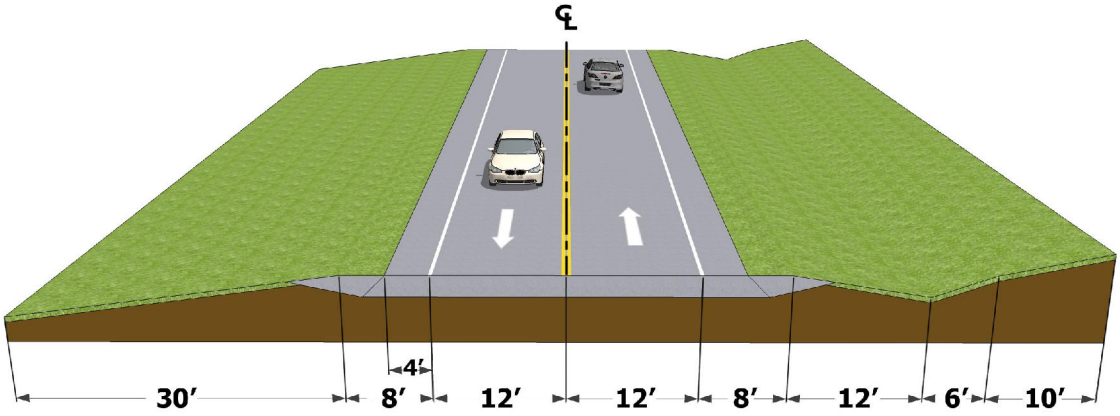
R-4467 - US 17 Business/NC 37
from Church Street to NC 37
Hertford and Winfall, Perquimans County



US 17 Business/NC 37 from Grubb Street to Bridge



US 17 Business/NC 37 Over Perquimans River



US 17 Business/NC 37 from Bridge to North End of Project

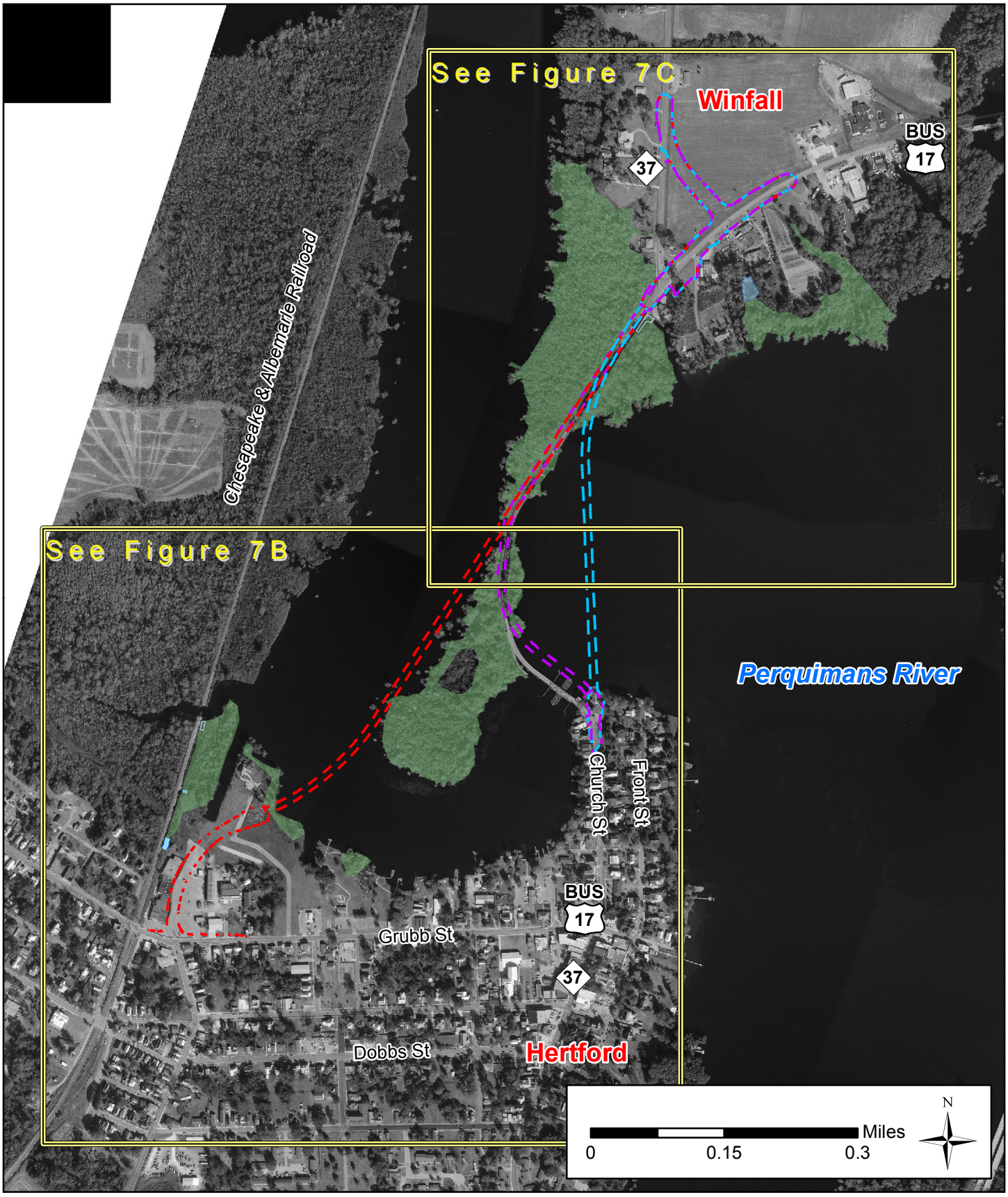
Not to Scale

NORTH CAROLINA
DEPARTMENT
OF
TRANSPORTATION

Figure 6B

Typical Section for Alternative E 33' Fixed

R-4467 - US 17 Business/NC 37
from Church Street to NC 37
Hertford and Winfall, Perquimans County



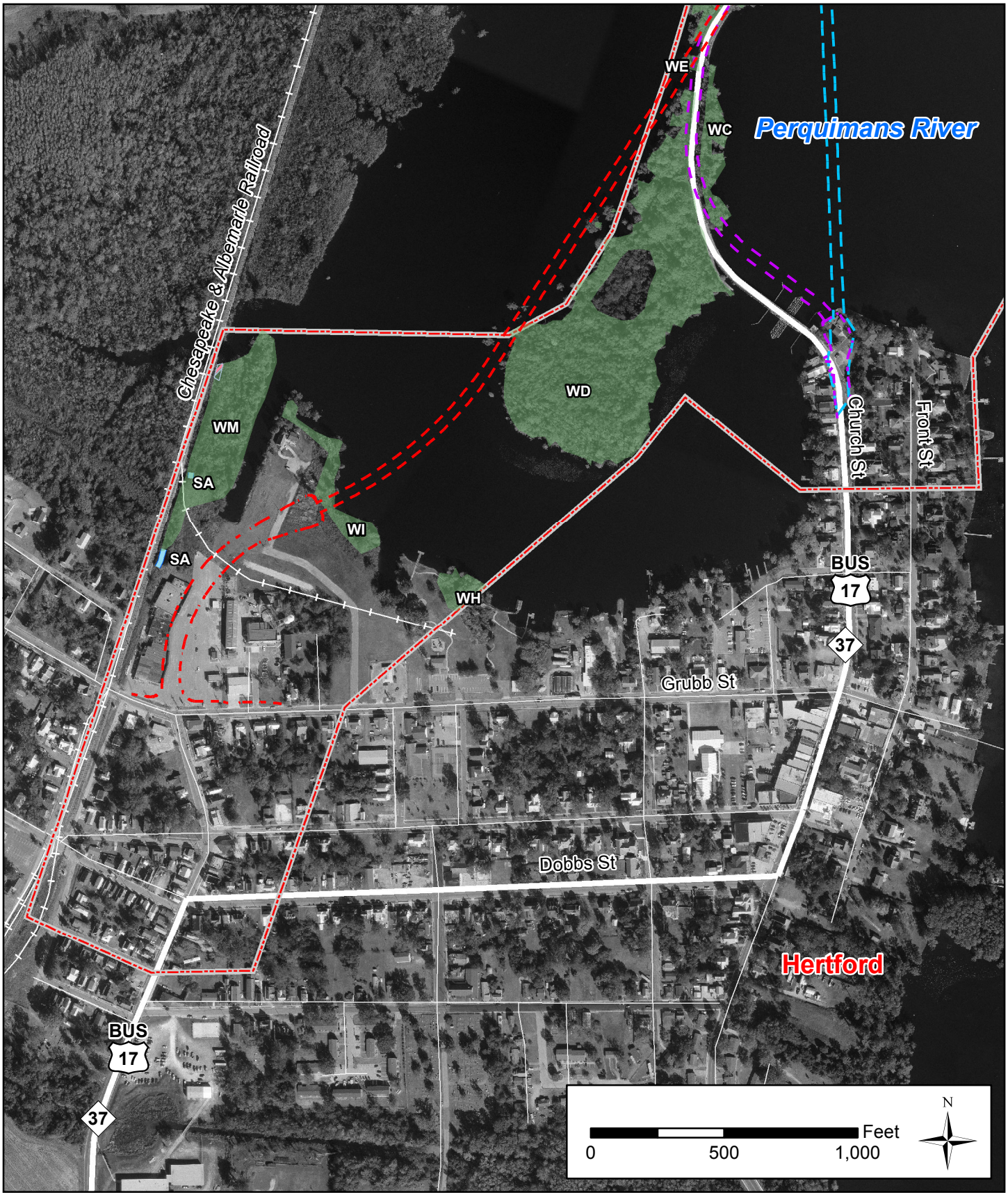
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

- Alternative B
- Alternative D-Mod
- Alternative E
- Jurisdictional Wetlands
- Jurisdictional Coastal Wetlands

Figure 7A

Environmental Features in Project Area

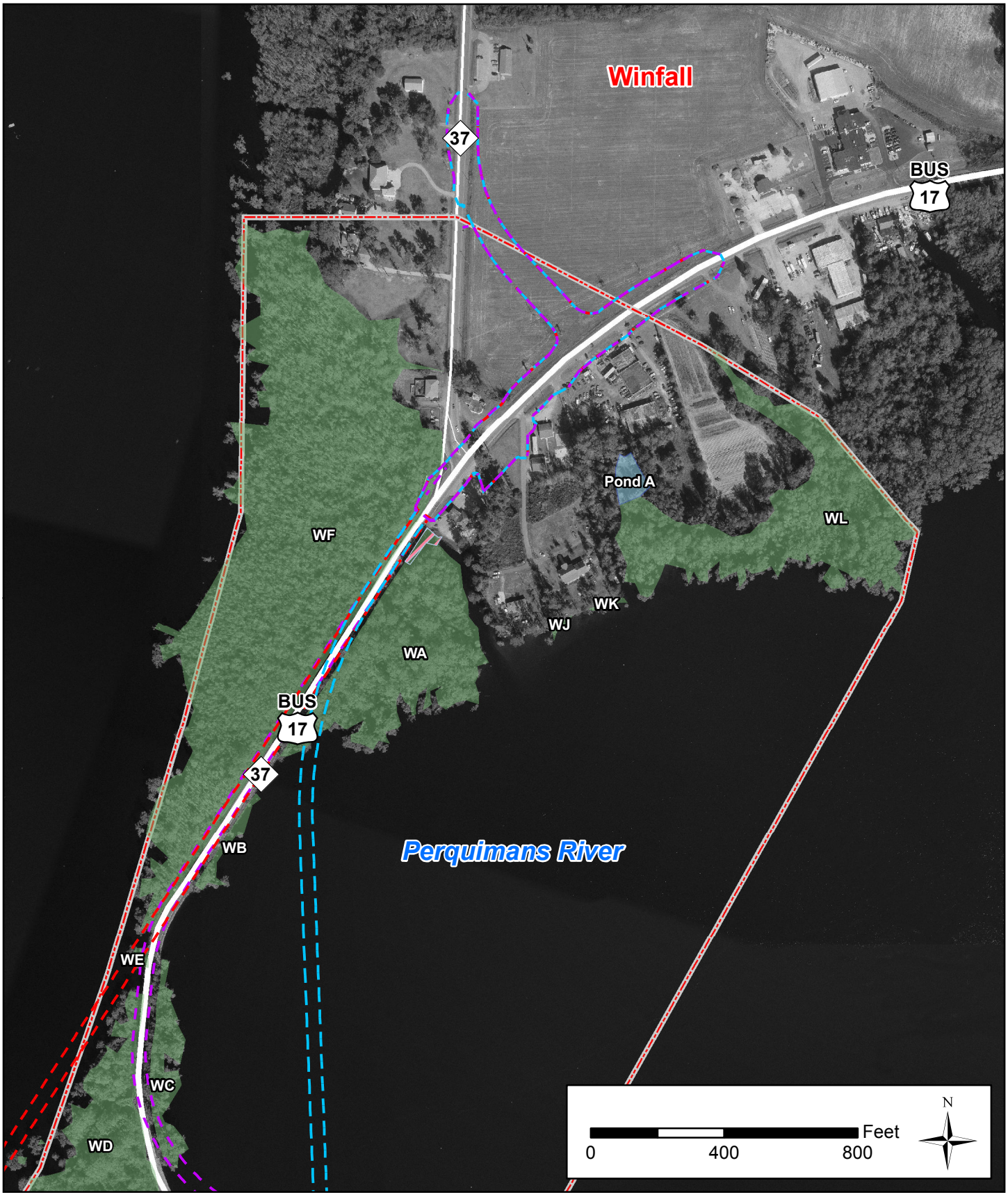
R-4467 - US 17 Business/NC 37
from Church Street to NC 37
Hertford and Winfall, Perquimans County



NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

Alternative B
Alternative D-Mod
Alternative E
Jurisdictional Wetlands
Jurisdictional Coastal Wetlands
Natural Resources Study Area

Figure 7B
Environmental Features in Project Area
R-4467 - US 17 Business/NC 37
from Church Street to NC 37
Hertford and Winfall, Perquimans County



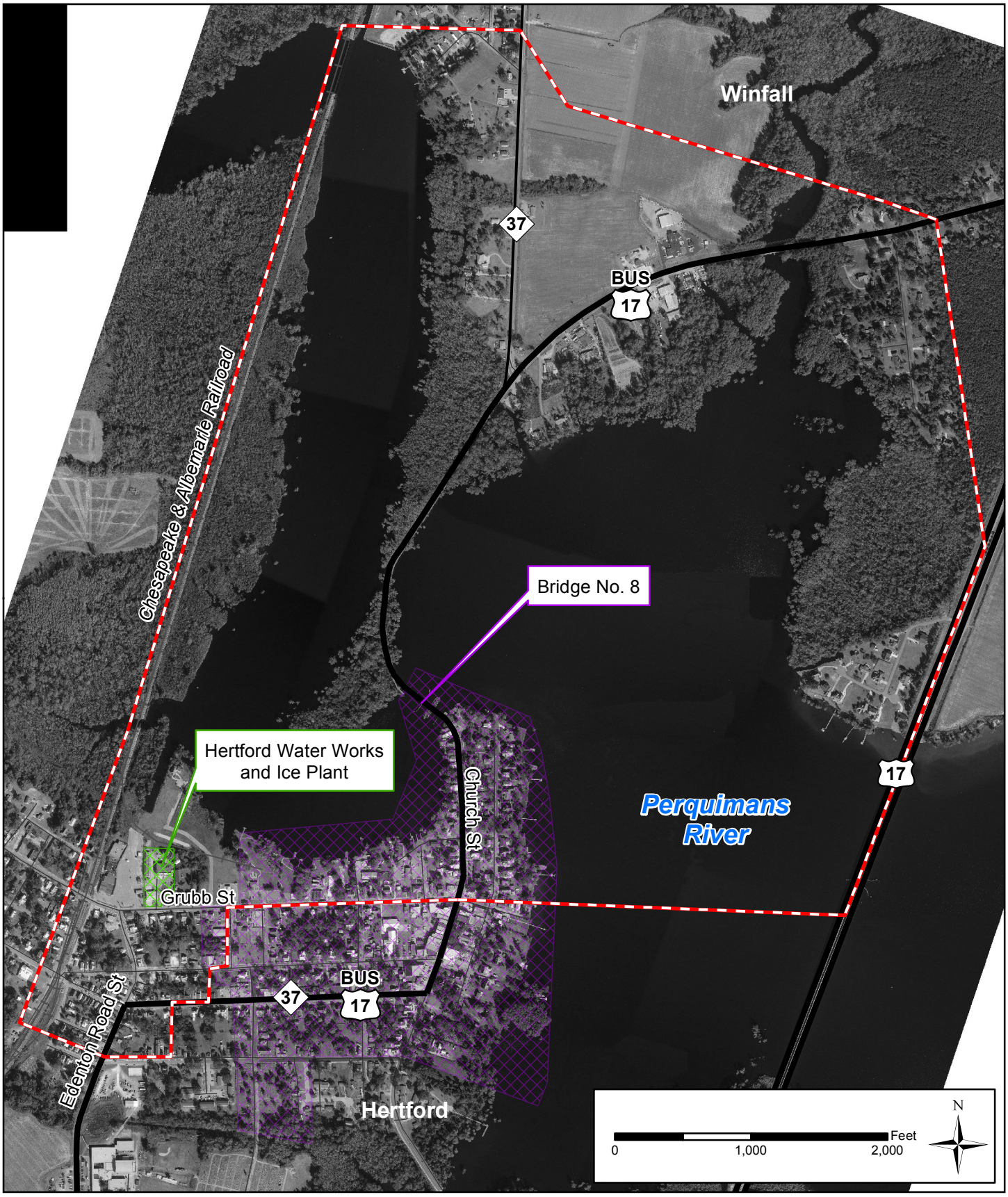
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

- Alternative B
- Alternative D-Mod
- Alternative E
- Jurisdictional Wetlands
- Jurisdictional Coastal Wetlands
- Natural Resources Study Area

Figure 7C

Environmental Features in Project Area

R-4467 - US 17 Business/NC 37
from Church Street to NC 37
Hertford and Winfall, Perquimans County



Legend

- Historic Area of Potential Effect (APE)
- Hertford Water Works and Ice Plant
- Hertford Historic District

Figure 8

Historic Resources

R-4467 - US 17 Business/NC 37
from Church Street to NC 37
Hertford and Winfall, Perquimans County

APPENDICES

Appendix A – Agency Comments

Appendix B – NCDOT Relocation Assistance Program/Relocation Reports

Appendix C – NEPA/404 Merger Team Concurrence Forms

APPENDIX A

AGENCY COMMENTS

North Carolina Department of Cultural Resources

State Historic Preservation Office

Peter B. Sandbeck, Administrator

Michael F. Easley, Governor
Lisbeth C. Evans, Secretary
Jeffrey J. Crow, Deputy Secretary

Office of Archives and History
Division of Historical Resources
David Brook, Director

April 12, 2005

MEMORANDUM

TO: Gregory Thorpe, Ph.D., Director
Project Development and Environmental Analysis Branch
NCDOT Division of Highways

FROM: Peter B. Sandbeck RBS for PBS

SUBJECT: US 17 Business—NC 37 Roadway improvements for the Perquimans River Bridge to NC 37, Town of Hertford, R-4467, Perquimans County, CH 05-0379

We have received notification from the State Clearinghouse and your letter of February 16, 2005, concerning the above project.

We have conducted a search of our maps and files and located the following structure of historical or architectural importance within the general area of this project:

- Hertford Historic District, listed in the National Register of Historic Places

We recommend that a Department of Transportation architectural historian identify and evaluate any structures over fifty years of age within the project area, and report the findings to us.

There are no known archaeological sites within the proposed project area. Based on our knowledge of the area, it is unlikely that any archaeological resources that may be eligible for inclusion in the National Register of Historic Places will be affected by the project. We, therefore, recommend that no archaeological investigation be conducted in connection with this project.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, contact Renee Gledhill-Earley, environmental review coordinator, at 919/733-4763. In all future communication concerning this project, please cite the above referenced tracking number.

cc: State Clearinghouse
Mary Pope Furr, NCDOT
Matt Wilkerson, NCDOT

	Location	Mailing Address	Telephone/Fax
ADMINISTRATION	507 N. Blount Street, Raleigh NC	4617 Mail Service Center, Raleigh NC 27699-4617	(919)733-4763/733-8653
RESTORATION	515 N. Blount Street, Raleigh NC	4617 Mail Service Center, Raleigh NC 27699-4617	(919)733-6547/715-4801
SURVEY & PLANNING	515 N. Blount Street, Raleigh, NC	4617 Mail Service Center, Raleigh NC 27699-4617	(919)733-6545/715-4801

WBS #: 35748 *TIP # :* **R-4467** *County*: **Perquimans**

CONCURRENCE FORM FOR PROPERTIES NOT ELIGIBLE FOR THE NATIONAL REGISTER OF HISTORIC PLACES

Project Description: Correction of differential settling along US 17 Buisness/NC 37 from the Perquimans River Bridge (Bridge No. 8) to the NC 37 split, Hertford vicinity

On May 17, 2005 representatives of the

X North Carolina Department of Transportation (NCDOT)
X Federal Highway Administration (FHWA)
X North Carolina State Historic Preservation Office (HPO)
☐ Other

Reviewed the subject project at

☐ Scoping meeting
X Historic architectural resources photograph review session/consultation
☐ Other

All parties present agreed

☐ There are no properties over fifty years old within the project's area of potential effects.

X There are no properties less than fifty years old which are considered to meet Criteria Consideration G within the project's area of potential effects.

☒ There are properties over fifty years old within the project's Area of Potential Effects (APE), but based on the historical information available and the photographs of each property, the property identified as **(List Attached)** is considered not eligible for the National Register and no further evaluation of it is necessary. #1—6

There are no National Register-listed or Study Listed properties within the project's area of potential effects.

☑ All properties greater than 50 years of age located in the APE have been considered at this consultation, and based upon the above concurrence, all compliance for historic architecture with Section 106 of the National Historic Preservation Act and GS 121-12(a) has been completed for this project.

☐ There are no historic properties affected by this project. (*Attach any notes or documents as needed*)

Signed:

Vanessa E. Patrick — 5-17-05
Representative, NCDOT — Date

FHWA, for the Division Administrator, or other Federal Agency — Date

Laura A. McGee (Sm for) — 5/17/05
Representative, HPO — Date

Peter B. Sandbeck — 5/17/05
State Historic Preservation Officer — Date

If a survey report is prepared, a final copy of this form and the attached list will be included.

Federal Aid # *TIP #* **R-4467** *County*: **Perquimans**

CONCURRENCE FORM FOR PROPERTIES NOT ELIGIBLE FOR THE NATIONAL REGISTER OF HISTORIC PLACES

Project Description: **Reconstruction of US 17 Business/NC 37 from the Perquimans River to NC 37 N, including replacement of Bridge No. 8 ("S-Shaped Bridge") over the Perquimans River (formerly B-4923)**

On **October 17, 2007** representatives of the

- X North Carolina Department of Transportation (NCDOT)
- ☐ Federal Highway Administration (FHWA)
- X North Carolina State Historic Preservation Office (HPO)
- ☐ Other

Reviewed the subject project at

- ☐ Scoping meeting
- X Historic architectural resources photograph review session/consultation
- ☐ Other

All parties present agreed

- ☐ There are no properties over fifty years old within the project's area of potential effects.
- X There are no properties less than fifty years old which are considered to meet Criteria Consideration G within the project's area of potential effects.
- ☒ There are properties over fifty years old within the project's Area of Potential Effects (APE), but based on the historical information available and the photographs of each property, the property identified as **(List Attached)** is considered not eligible for the National Register and no further evaluation of it is necessary. 2, 3, 5-18
- ☐ There are no National Register-listed or Study Listed properties within the project's area of potential effects. (1, 4, & 19 to be evaluated further)
- ☐ All properties greater than 50 years of age located in the APE have been considered at this consultation, and based upon the above concurrence, all compliance for historic architecture with Section 106 of the National Historic Preservation Act and GS 121-12(a) has been completed for this project.
- ☐ There are no historic properties affected by this project. (*Attach any notes or documents as needed*)

Signed:

Vanessa C. Patrick — 10-17-07

Representative, NCDOT — Date

FHWA, for the Division Administrator, or other Federal Agency — Date

Representative, HPO — Date

Renee Gledhill-Earley — 10-17-07

State Historic Preservation Officer — Date

If a survey report is prepared, a final copy of this form and the attached list will be included.

North Carolina Department of Cultural Resources

State Historic Preservation Office

Peter B. Sandbeck, Administrator

Michael F. Easley, Governor
Lisbeth C. Evans, Secretary
Jeffrey J. Crow, Deputy Secretary

Office of Archives and History
Division of Historical Resources
David Brook, Director

September 10, 2008

MEMORANDUM

TO: Gregory Thorpe, Ph.D., Director
Project Development and Environmental Analysis Branch
NCDOT Division of Highways

FROM: Peter Sandbeck RBE for Peter Sandbeck

RE: Re-initiation of study to construct new roadway on pilings and replace Bridge #8, US Business17/NC 37 east of Perquimans Rivers, R-4467, Perquimans County, CH05-0379

Thank you for your memorandum of August 21, 2008, concerning the above projects. Our comments remain the same as in 2005. The National Register-listed Hertford Historic District, which includes the subject individually eligible truss bridge is within the Area of Potential Effects. There are no archaeological resources that are likely to be eligible for listing in the National Register and we recommend no archaeological survey.

Based on the project description, we can offer an early finding of adverse effect for this project.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, contact Renee Gledhill-Earley, environmental review coordinator, at 919-807-6579. In all future communication concerning this project, please cite the above referenced tracking number.

cc: Mary Pope Furr, NCDOT

Location: 109 East Jones Street, Raleigh NC 27601 Mailing Address: 4617 Mail Service Center, Raleigh NC 27699-4617 Telephone/Fax: (919) 807-6570/807-6599

North Carolina Department of Cultural Resources

State Historic Preservation Office

Peter B. Sandbeck, Administrator

Beverly Eaves Perdue, Governor
Linda A. Carlisle, Secretary
Jeffrey J. Crow, Deputy Secretary

Office of Archives and History
Division of Historical Resources
David Brook, Director

December 28, 2010

MEMORANDUM

TO: Mary Pope Furr, Architectural Historian
NCDOT/PDEA/HEU

FROM: Peter Sandbeck PBS for Peter Sandbeck

SUBJECT: Historic Architectural Resources Survey Report, Improvements to US17 Business/NC 37 From Church Street to NC 37, including replacement of Bridge #8 over Perquimans River, R-4467, Perquimans County, CH05-0379

We are in receipt of the above referenced report, prepared by Courtney Foley and submitted to us on September 15, 2010. We apologize for the lateness of our response. However, staffing shortages and the need for the report to be reviewed in our Eastern Office created unforeseeable delays.

We have reviewed the report and concur with your finding that the **Hertford Historic District** and **Old Neck Historic District**, which are listed in the National Register of Historic Places, remain eligible for listing. We also concur that the **Railroad Avenue-King Street Area** is not eligible for listing in the National Register for the reasons outlined in the report.

Having carefully considered the information contained in the report and members of our Eastern Office having made an on-site tour of the building, we are unable to concur with your evaluation that the **Hertford Water Works and Ice Plant** is not eligible for listing in the National Register. Rather, we believe that it is eligible for listing under Criterion A as one of the few remaining examples of public works by and in the Town of Hertford. Even though it is a replacement of an earlier, similar building, it has served the community since 1923 and continues to serve as a public works/utility center for the town. Its utilitarian architecture has undergone some changes, most of which do not appear to have damaged or destroyed the simple industrial character of the building. We believe an appropriate boundary for the building would be a footprint that extends from the western edge of the building to the edge of Ice Plant Street, from the front of the building to the front sidewalk, and areas along the eastern and northern edges of the building that match the width of the western and southern boundaries as described.

With regard to the potential residential district in west Hertford, which was mentioned to you recently, we would note that it is on the other side of the railroad tracks and out of the Area of Potential Effects for this undertaking.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, contact Renee Gledhill-Earley, environmental review coordinator, at 919-807-6579. In all future communication concerning this project, please cite the above referenced tracking number.

cc: Ron Lucas, FHWA

Federal Aid #: **BRNHS-0017(85)** *TIP#:* **R-4467** *County*: **Perquimans**

CONCURRENCE FORM FOR ASSESSMENT OF EFFECTS

Project Description: Improvements to US 17 Business/NC 37 from Church Street to NC 37 including the replacement of Bridge No.8 over the Perquimans River in Hertford

On *August 7, 2012*, representatives of the

☒ North Carolina Department of Transportation (NCDOT)
☒ Federal Highway Administration (FHWA)
☒ North Carolina State Historic Preservation Office (HPO)
☐ Other

Reviewed the subject project and agreed on the effects findings listed within the table on the reverse of this signature page.

Signed:

Mary Pope Furr — 2-5-2013
Representative, NCDOT — Date

Todd L Bruce — 2-5-13
FHWA, for the Division Administrator, or other Federal Agency — Date

Renee Gledhill-Earley — 2-5-13
Representative, HPO — Date

Federal Aid #: **BRNHS-0017(85)** *TIP#:* **R-4467** *County*: **Perquimans**

Property and Status	Alternative	Effect Finding	Reasons
Old Neck Historic District (NR, Criteria A&C)	All alts	Outside the APE	Project limits have been modified from those surveyed in 2010 and the historic district no longer falls within the project APE
Perquimans County Bridge No. 8 (DE, Criterion C)	Alt A (existing) with rehabilitation of truss bridge	Adverse Effect	Requires the historic bridge to be raised and a large portion of the historic fabric may need to be replaced, rehab bridge only allow for one lane of traffic.
[bridge]	Alt A (existing) with new swing span bridge	Adverse Effect	Requires demolition of the historic truss.
[bridge]	Alt B (east) with new swing span at 5' or 15' clearance	Adverse Effect	Requires demolition of the historic truss.
[bridge]	Alt D-Mod (east) with fixed span at 33' clearance	Adverse Effect	Requires demolition of the historic truss or could be left in place but would be locked in the open position and inaccessible.
[bridge]	Alt E (west) with fixed span at 15' or 33' clearance	Adverse Effect	Requires demolition of the historic truss.
Hertford Historic District (NR, Criteria A&C)	Alt A (existing) with rehabilitation of truss bridge	Adverse Effect	Existing truss bridge would have to be raised and much historic fabric replaced, changes to Church Street with retaining walls and guardrails and possible acquisition of one contributing house because lack of access, rehab bridge only allow for one lane of traffic, utilities may need to be moved, new ROW needed within district boundaries

[district]	Alt A (existing) with new swing span bridge	Adverse Effect	New truss bridge would be elevated and require changes to Church Street with retaining walls and guardrails and possible acquisition of one contributing house because lack of access, rehab bridge only allow for one lane of traffic, utilities may need to be moved, new ROW needed within district boundaries
[district]	Alt B (east) with new swing span at 5' or 15' clearance	No Adverse Effect	Parallel to existing bridge, will require removal of one non-contributing structure in district but provides access to all contributing historic houses, new ROW needed within district boundaries
[district]	Alt D-Mod (east) with fixed span at 33' clearance	No Adverse Effect with commitments	Concerns about speed coming into district, but could be addressed with design commitments to decrease speed, no impacts and provides access to all contributing historic houses, bridge rails will be low parapet wall with metal rails, new ROW needed within district boundaries
[district]	Alt E (west) with fixed span at 15' or 33' clearance	No Adverse Effect	Changing historic traffic patterns in town but no impacts to contributing historic houses, bridge rails will be low parapet wall with metal rails
Hertford Water Works and Ice Plant (DE, Criterion A)	Alts A, B, & D-Mod	No Effect	No construction impacts near property boundary
[water works / ice plant]	Alt E (west) with fixed span at 15' or 33' clearance	No Adverse Effect	Construction adjacent to plant but does not impact the boundary or the characteristics for which the site is eligible

Initialed: NCDOT MPJ FHWA DB HPO RVE

FHWA Intends to use the SHPO's concurrence as a basis for a "de minimis" finding for the following properties, pursuant to Section 4(f):
Hertford Historic District -- Alt B (east) with new swing span at 5' or 15' clearance and Alt D-Mod (east) with fixed span at 33' clearance

DEPARTMENT OF THE ARMY
WILMINGTON DISTRICT, CORPS OF ENGINEERS
P.O. BOX 1890
WILMINGTON, NORTH CAROLINA 28402-1890

REPLY TO
ATTENTION OF:

June 15, 2005

Planning Services Section

Ms. Gail Grimes, P.E.
Consultant Management Group
Project Development and Environmental Analysis Branch
North Carolina Department of Transportation
1548 Mail Service Center
Raleigh, North Carolina 27699-1548

Dear Ms. Grimes:

This is in response to a letter from Dr. Gregory J. Thorpe requesting that we provide our comments to you on "US 17 Business-NC 37 Roadway Improvements from the Perquimans River Bridge to NC 37 in the Town of Hertford, State Project No. 6123003R, WBS No. 35748, TIP Project No. R-4467, Perquimans County" (Regulatory Division Action ID No. 200511122).

Our comments involve impacts to flood plains and jurisdictional resources, which include waters, wetlands, and U.S. Army Corps of Engineers projects. The proposed roadway improvements would not cross any Corps-constructed flood control or navigation project. Enclosed are our comments on the other issues.

We appreciate the opportunity to comment on this project. If we can be of further assistance, please contact us.

Sincerely,

W. Coleman Long
Chief, Planning and
Environmental Branch

Enclosure

June 15, 2005
Page 1 of 1

U.S. ARMY CORPS OF ENGINEERS, WILMINGTON DISTRICT, COMMENTS ON:

"US 17 Business-NC 37 Roadway Improvements from the Perquimans River Bridge to NC 37 in the Town of Hertford, State Project No. 6123003R, WBS No. 35748, TIP Project No. R-4467, Perquimans County" (Regulatory Division Action ID No. 200511122)

1. **FLOOD PLAINS: POC - Mr. Bobby L. Willis, Planning Services Section, at (910) 251-4729**

Based on the furnished map and a review of Panels 7849 and 7940 of the September 24, 2003, Perquimans County, North Carolina and Incorporated Areas Flood Insurance Rate Map, the portion of road proposed for improvement is located in a 100-year flood plain, where the 100-year flood elevation is shown as 6 feet NAVD (North American Vertical Datum, or mean sea level adjustment of 1988). The source of flooding appears to be coastal surge, whereby no floodway is delineated. Although the road would be subjected to flooding, it is not likely that the proposed road improvements would impact the 100-year flood plain. We recommend coordination with the pertinent jurisdiction, either the town of Hertford or Perquimans County, to ensure compliance with their flood plain and other pertinent ordinances.

2. **WATERS AND WETLANDS: POC – Mr. Bill Biddlecome, Washington Field Office, Regulatory Division, at (252) 975-1616, extension 31.**

Department of the Army (DA) permit authorization, pursuant to Section 404 of the Clean Water Act of 1977, as amended, will be required for the discharge of dredged or fill material in waters of the United States or any adjacent wetlands in conjunction with this project, including disposal of construction debris. Pursuant to our mitigation policy, impacts to wetlands should first be avoided or minimized. We will then consider compensatory mitigation for unavoidable impacts. When final plans are completed, including the extent and location of any work in wetlands, our Regulatory Division would appreciate the opportunity to review these plans for project-specific determinations of DA permit requirements.

Should you have any questions related to DA permits, please contact Mr. Biddlecome.

Gresham, Teresa

From: Pierce, Mark S [mspierce@ncdot.gov]
Sent: Monday, October 20, 2008 1:31 PM
To: Gresham, Teresa
Subject: FW: R-4467 Scoping Comments

Teresa,

This morning I mailed you paper copies of the scoping comments that I received from 9/23/08 through 10/17/08. As I was reading my e-mail just now, I found this 10/15/08 scoping comment from USACE that should have been included in my mailing to you. Please add this to your compilation summary.

Thanks,
Mark
733-7844 x214

From: Biddlecome, William J SAW [mailto:William.J.Biddlecome@usace.army.mil]
Sent: Wednesday, October 15, 2008 11:46 AM
To: Pierce, Mark S
Subject: R-4467 Scoping Comments

Mark,

Per your August 21, 2008, project re-initiation/scoping letter request for the above project, the Corps comments remain the same as our original June 15, 2005 correspondence to NCDOT. In addition, e-mail comments I sent to you on June 24, 2008 are applicable too. If you have any questions, please let me know. I'd like to attend the scoping meeting if my schedule allows, so please notify me as early as possible when and where the scoping meeting will take place. Thanks!

Bill Biddlecome
Regulatory Project Manager
Washington Regulatory Field Office
P.O. Box 1000
Washington, North Carolina 27889
(252) 975-1616 ext. 26
william.j.biddlecome@usace.army.mil

Subject: US 17 Business - NC 37 Roadway Improvements R-4467
Date: Wed, 27 Apr 2005 09:29:18 -0400
From: "Ron Sechler" <ron.sechler@noaa.gov>
To: Gail Grimes <ggrimes@dot.state.nc.us>

Gail,
Please reference the February 16, 2005, letter requesting the National Marine Fisheries Services (NMFS) input on the proposed improvements to the subject project located in Perquimans County. The existing roadway in this area is located near the Perquimans River which supports NMFS trust fishery resources. Anadromous fishes such as American shad, hickory shad, blueback herring, alewife, and striped bass use this portion of the Perquimans river as a developmental area. Most of these species also pass through this area during their annual upstream migration to their spawning areas.

Although there may be no direct impact to the river, we are concerned over the loss of wetlands as a result of the proposed improvement an associated indirect impacts. Wetlands located in this area slow the discharge of contaminated storm water runoff into the river and thereby help to maintain water quality.

Accordingly, we recommends that the National Environmental Policy Act document for this project address measures to avoid and minimize wetland losses and provide specific information regarding the storm water management plan and how it will prevent the direct discharge of storm water into the Perquimans River. Also, based on our review of the limited information provided in your letter, it appears that Essential Fish Habitat for federally managed species will not be directly impacted by this project. However, we will continue to monitor the develop of project plans through the NEPA/Section 404 merger team process and will provide additional comments if necessary to protect NMFS trust resources.

For detail information on the fishery resources in the project area, we recommend that you contact the North Carolina Division of Marine Fisheries Elizabeth City Field Office and the North Carolina Wildlife Resources Commission for a complete list of the anadromous and other fish species. .

The NMFS appreciates the opportunity to provide these comments early in the project planning process.

Sincerely,

Ron Sechler
Fishery Biologist
National Marine Fisheries Service
Habitat Conservation Division
101 Pivers Island Road
Beaufort, North Carolina 28516

Phone: 252-728-5090
Fax: 252-728-8728
Email: ron.sechler@noaa.gov

Pierce, Mark S

From: Cathy Brittingham [Cathy.Brittingham@ncmail.net]
Sent: Monday, October 06, 2008 12:56 PM
To: Pierce, Mark S
Cc: Jim Hoadley; Bill Biddlecome; David Wainwright; Sara Winslow
Subject: TIP No. R-4467, Perquimans County

Dear Mr. Pierce:

The N.C. Division of Coastal Management (DCM) received scoping information sheets from NCDOT for the above referenced project for review. The following are brief remarks:

- It appears as though this project will require a Coastal Area Management Act (CAMA) Major Permit due to impacts to CAMA Areas of Environmental Concern.

- If this project follows the NEPA/404 Merger Process, then DCM would like to be included on the NEPA/404 Project Team.
- DCM supports comments made by the N.C. Division of Marine Fisheries in 2005 recommending that NCDOT pursue removal of the existing causeway and replace it with an elevated causeway/bridge to enhance wetlands and water quality.

- DCM recommends that NCDOT include the study of a multi-use path in association with TIP No. R-4467. In 2001, DCM received an application from NCDOT Division One to construct a 2,110 foot long river walkway for both pedestrian and bicycle traffic along US 17 Business from Windfall School on NC 37 to Newbold-White House on SR 1336. This work was not authorized because DCM determined that impacts to wetlands and waters of the United States associated with the proposed multi-use path were not avoided and minimized to the maximum extent practicable. However, DCM did state at the time that the multi-use path may be constructed if additional means and measures to mitigate adverse impacts of the project are incorporated into the project design. Such means and measures may include constructing an elevated wooden multi-use boardwalk on pilings to eliminate fill in wetlands and waters of the United States. NCDOT was also encouraged at the time to construct a multi-use path that is sufficiently wide to accommodate bicyclists, pedestrians, joggers and anglers.

Please let me or Jim Hoadley know if you have any questions or would like additional information. I can be reached at 919-733-2293 x238 or via e-mail at Cathy.brittingham@ncmail.net. Jim can be reached at 252-264-3901 x237 or via e-mail at Jim.Hoadley@ncmail.net.

Sincerely,

Cathy Brittingham

--
Cathy Brittingham
Transportation Project Coordinator
N.C. Division of Coastal Management
1638 Mail Service Center
Raleigh, NC 27699-1638

North Carolina Wildlife Resources Commission

Richard B. Hamilton, Executive Director

MEMORANDUM

TO: Melba McGee
Office of Legislative and Intergovernmental Affairs, DENR

FROM: Travis Wilson, Highway Project Coordinator
Habitat Conservation Program

DATE: March 14, 2005

SUBJECT: Response to the start of study notification from the N. C. Department of Transportation (NCDOT) regarding fish and wildlife concerns for the proposed improvements to US 17 Business-NC 37 from the Perquimans River Bridge to NC 37, Perquimans County, North Carolina. TIP No. R-4467, SCH Project No. 05-0251.

This memorandum responds to a request from Gregory J. Thorpe of the NCDOT for our concerns regarding impacts on fish and wildlife resources resulting from the subject project. Biologists on the staff of the N. C. Wildlife Resources Commission (NCWRC) have reviewed the proposed improvements. Our comments are provided in accordance with certain provisions of the National Environmental Policy Act (42 U.S.C. 4332(2)(c)) and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661-667d).

Anadromous fish species utilize the Perquimans River as well as sunfish; therefore an in-water work moratorium of February 15 to June 30 will apply to this project. It is unclear if this project will include the replacement of Bridge No. 8 over the Perquimans River. If this bridge is slated to be replaced, WRC recommends including the replacement with this project in-order-to better assess total project impacts to the high quality Cypress/Gum wetland system within the study corridor. To help facilitate document preparation and the review process, our general informational needs are outlined below:

1. Description of fishery and wildlife resources within the project area, including a listing of federally or state designated threatened, endangered, or special concern species. Potential borrow areas to be used for project construction should be included in the inventories. A listing of designated plant species can be developed through consultation with:

The Natural Heritage Program

N. C. Division of Parks and Recreation
1615 Mail Service Center
Raleigh, N. C. 27699-1615
(919) 733-7795
WWW.ncsparks.net/nhp

and,

NCDA Plant Conservation Program
P. O. Box 27647
Raleigh, N. C. 27611
(919) 733-3610

2. Description of any streams or wetlands affected by the project. The need for channelizing or relocating portions of streams crossed and the extent of such activities.

3. Cover type maps showing wetland acreages impacted by the project. Wetland acreages should include all project-related areas that may undergo hydrologic change as a result of ditching, other drainage, or filling for project construction. Wetland identification may be accomplished through coordination with the U. S. Army Corps of Engineers (COE). If the COE is not consulted, the person delineating wetlands should be identified and criteria listed.

4. Cover type maps showing acreages of upland wildlife habitat impacted by the proposed project. Potential borrow sites should be included.

5. The extent to which the project will result in loss, degradation, or fragmentation of wildlife habitat (wetlands or uplands).

6. Mitigation for avoiding, minimizing or compensating for direct and indirect degradation in habitat quality as well as quantitative losses.

7. A cumulative impact assessment section which analyzes the environmental effects of highway construction and quantifies the contribution of this individual project to environmental degradation.

8. A discussion of the probable impacts on natural resources which will result from secondary development facilitated by the improved road access.

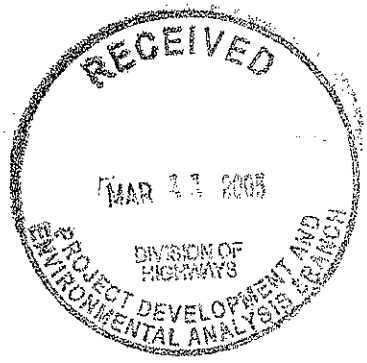
9. If construction of this facility is to be coordinated with other state, municipal, or private development projects, a description of these projects should be included in the environmental document, and all project sponsors should be identified.

Thank you for the opportunity to provide input in the early planning stages for this project. If we can further assist your office, please contact me at (919) 528-9886.

Gail Grimsley

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Raleigh Field Office
Post Office Box 33726
Raleigh, North Carolina 27636-3726



March 7, 2005

Gregory J. Thorpe, Ph.D.
North Carolina Department of Transportation
Project Development and Environmental Analysis
1548 Mail Service Center
Raleigh, North Carolina 27699-1548

Dear Dr. Thorpe:

This letter is in response to your request for comments from the U.S. Fish and Wildlife Service (Service) on the potential environmental effects of the proposed improvements to US 17 Business/NC 37 from the Perquimans River bridge to NC 37 in Perquimans County, North Carolina (TIP No. R-4467). These comments provide scoping information in accordance with provisions of the Fish and Wildlife Coordination Act (16 U.S.C. 661-667d) and section 7 of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531-1543).

As stated in the submitted information, cypress swamp exists along both sides of the existing road. This habitat type is very valuable wildlife habitat and difficult to replace. There are currently no federally protected species listed for Perquimans County.

For road improvement projects such as widening, realignment, bridge replacement and culvert replacement, the Service recommends the following general conservation measures to avoid or minimize environmental impacts to fish and wildlife resources:

1. Wetland and forest impacts should be avoided and minimized to the maximal extent practical. Areas exhibiting high biodiversity or ecological value important to the watershed or region should be avoided. Proposed highway projects should be aligned along or adjacent to existing roadways, utility corridors or other previously disturbed areas in order to minimize habitat loss and fragmentation. Highway shoulder and median widths should be reduced through wetland areas;

2. Crossings of streams and associated wetland systems should use existing crossings and/or occur on a bridge structure wherever feasible. Bridges should be long enough to allow for sufficient wildlife passage along stream corridors. Where bridging is not feasible, culvert structures that maintain natural water flow and hydraulic regimes without scouring or impeding fish and wildlife passage should be employed;

3. Bridges and approaches should be designed to avoid any fill that will result in damming or constriction of the channel or flood plain. To the extent possible, piers and bents should be placed outside the bank-full width of the stream. If spanning the flood plain is not feasible, culverts should be installed in the flood plain portion of the approach to restore some of the hydrological functions of the flood plain and reduce high velocities of flood waters within the affected area;

4. Bridge designs should include provisions for roadbed and deck drainage to flow through a vegetated buffer prior to reaching the affected stream. This buffer should be large enough to alleviate any potential effects from run-off of storm water and pollutants;

5. Off-site detours should be used rather than construction of temporary, on-site bridges. For projects requiring an on-site detour in wetlands or open water, such detours should be aligned along the side of the existing structure which has the least and/or least quality of fish and wildlife habitat. At the completion of construction, the detour area should be entirely removed and the impacted areas be planted with appropriate vegetation, including trees if necessary;

6. If unavoidable wetland or stream impacts are proposed, a plan for compensatory mitigation to offset unavoidable impacts should be provided early in the planning process. Opportunities to protect mitigation areas in perpetuity via conservation easements, land trusts or by other means should be explored at the outset;

7. Wherever appropriate, construction in sensitive areas should occur outside fish spawning and migratory bird nesting seasons. In waterways that may serve as travel corridors for fish, in-water work should be avoided during moratorium periods associated with migration, spawning and sensitive pre-adult life stages. The general moratorium period for anadromous fish is February 15 - June 30;

8. Best Management Practices (BMP) for Protection of Surface Waters should be implemented; and

We reserve the right to review any federal permits that may be required for this project, at the public notice stage. Therefore, it is important that resource agency coordination occur early in the planning process in order to resolve any conflicts that may arise and minimize delays in project implementation. In addition to the above guidance, we recommend that the environmental documentation for this project include the following in sufficient detail to facilitate a thorough review of the action:

1. A clearly defined and detailed purpose and need for the proposed project, supported by tabular data, if available, and including a discussion of the project's independent utility;

2. A description of the proposed action with an analysis of all alternatives being considered, including the upgrading of existing roads and a "no action" alternative;

3. A description of the fish and wildlife resources, and their habitats, within the project impact area that may be directly or indirectly affected;

4. The extent and acreage of waters of the U.S., including wetlands, that are to be impacted by filling, dredging, clearing, ditching, or draining. Acres of wetland impact should be differentiated by habitat type based on the wetland classification scheme of the National Wetlands Inventory (NWI). Wetland boundaries should be determined by using the 1987 Corps of Engineers Wetlands Delineation Manual and verified by the U.S. Army Corps of Engineers;

5. The anticipated environmental impacts, both temporary and permanent, that would be likely to occur as a direct result of the proposed project. The assessment should also include the extent to which the proposed project would result in secondary impacts to natural resources, and how this and similar projects contribute to cumulative adverse effects;

6. Design features and construction techniques which would be employed to avoid or minimize impacts to fish and wildlife resources, both direct and indirect, and including fragmentation and direct loss of habitat;

7. Design features, construction techniques, or any other mitigation measures which would be employed at wetland crossings and stream channel relocations to avoid or minimize impacts to waters of the US; and,

8. If unavoidable wetland or stream impacts are proposed, project planning should include a compensatory mitigation plan for offsetting the unavoidable impacts.

The Service appreciates the opportunity to comment on this project. Please continue to advise us during the progression of the planning process, including your official determination of the impacts of this project. If you have any questions regarding our response, please contact Mr. Gary Jordan at (919) 856-4520, ext. 32.

Sincerely,

Pete Benjamin
Ecological Services Supervisor

cc: Bill Biddlecome, USACE, Washington, NC
Nicole Thomson, NCDWQ, Raleigh, NC
Travis Wilson, NCWRC, Creedmoor, NC
Chris Militscher, USEPA, Raleigh, NC

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Raleigh Field Office
Post Office Box 33726
Raleigh, North Carolina 27636-3726

September 9, 2008

Gregory J. Thorpe, Ph.D.
North Carolina Department of Transportation
Project Development and Environmental Analysis
1548 Mail Service Center
Raleigh, North Carolina 27699-1548

Dear Dr. Thorpe:

This letter is in response to your request for comments from the U.S. Fish and Wildlife Service (Service) on the potential environmental effects of the proposed reconstruction of US 17 Business/NC 37 on pilings from Church Street in Hertford to NC 37, and the replacement of Bridge No. 8 over the Perquimans River in Perquimans County, North Carolina (TIP No. R-4467). These comments provide information in accordance with provisions of the National Environmental Policy Act (42 U.S.C. 4332(2)(c)) and section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531-1543).

The Service previously provided comments on this project with a letter dated March 7, 2005. Our previous comments are still applicable. Please continue to advise us during the progression of the planning process, including your official determination of the impacts of this project. If you have any questions regarding our response, please contact Mr. Gary Jordan at (919) 856-4520, ext. 32.

Sincerely,

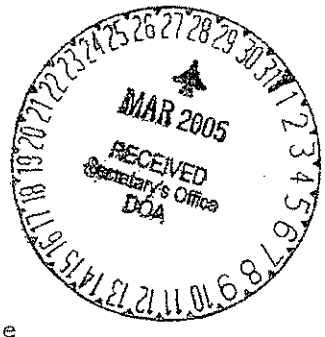
Gary Jordan

for Pete Benjamin
Field Supervisor

NCDENR
North Carolina Department of Environment and Natural Resources

Michael F. Easley, Governor

William G. Ross Jr., Secretary



MEMORANDUM

TO: Chrys Baggett
State Clearinghouse

FROM: Melba McGee
Environmental Review Coordinator

SUBJECT: 05-0251 Scoping, US 17 Business-NC 37 from the Perquimans River Bridge to NC 37 in Herford and Perquimans Counties

DATE: March 21, 2005

The Department of Environment and Natural Resources has reviewed the proposed information. The attached comments are for the applicant's information.

Thank you for the opportunity to review.

Attachments

1601 Mail Service Center, Raleigh, North Carolina 27699-1601
Phone: 919-733-4984 \ FAX: 919-715-3060 \ Internet: www.enr.state.nc.us/ENR

Michael F. Easley, Governor
William G. Ross Jr., Secretary
North Carolina Department of Environment and Natural Resources

Alan W. Klimek, P.E. Director
Division of Water Quality

March 4, 2005

MEMORANDUM

To: Melba McGee

Through: John Hennessy

From: Nicole Thomson

Subject: Comments on the Proposed improvements to US 17 Business-NC 37 from the Perquimans River Bridge to NC 37 in Hertford, Perquimans County, State Project No. 6123003R, WBS Element No. 35748, TIP R-4467, DENR Project Number 05-0251.

This office has reviewed the referenced document. The Division of Water Quality (DWQ) is responsible for the issuance of the Section 401 Water Quality Certification for activities that impact Waters of the U.S., including wetlands. It is our understanding that the project as presented will result in impacts to jurisdictional wetlands and streams. The DWQ offers the following comments based on review of the aforementioned document:

A) The document does not give any specified amount of anticipated impacts to wetlands and streams. Until the DWQ has a map that clearly displays all the wetlands, streams, and other surface waters located in the project, with the proposed project superimposed onto those resources, we cannot agree that appropriate avoidance and minimization has occurred for this project. As such, issuance of the 401 Water Quality Certification for this project could be delayed until the information is provided to the DWQ for review, and we are convinced that all appropriate avoidance and minimization has occurred for this project.

B) After the selection of the preferred alternative and prior to an issuance of the 401 Water Quality Certification, the NCDOT is respectfully reminded that they will need to demonstrate the avoidance and minimization of impacts to wetlands (and streams) to the maximum extent practical. Based on the impacts described in the document, wetland mitigation may be required for this project. Should the impacts to jurisdictional wetlands exceed 1.0 acres, mitigation may be required in accordance with NCDWQ Wetland Rules {15A NCAC 2H.0506(h)(2)}.

C) In accordance with the Environmental Management Commission's Rules {15A NCAC 2H.0506(b)(6)}, mitigation will be required for impacts of greater than 150 linear feet to any single perennial stream. In the event that mitigation is required, the mitigation plan should be designed to replace appropriate lost functions and values. In accordance with the Environmental Management Commission's Rules {15A NCAC 2H.0506 (h)(3)}, the NC Ecosystem Enhancement Program may be available for use as stream mitigation.

D) As part of the 401 Water Quality Certification Application process, NC DOT is respectfully reminded to include specifics for both onsite and offsite mitigation plans. If mitigation is required, it is preferable to present a conceptual (if not finalized) mitigation plan with the environmental documentation. While NCDWQ realizes that this may not always be practical, it should be noted that for projects requiring mitigation, appropriate mitigation plans will be required in conjunction with the issuance of a 401 Water Quality Certification. We understand that NC DOT will request compensatory mitigation through the NC Ecosystem Enhancement Program for offsite mitigation.

Transportation Permitting Unit
1650 Mail Service Center, Raleigh, North Carolina 27699-1650
2321 Crabtree Boulevard, Suite 250, Raleigh, North Carolina 27604
Phone: 919-733-1786 / FAX 919-733-6893 / Internet: http://h2o.enr.state.nc.us/ncwetlands

E) Future documentation, including the 401 Water Quality Certification Application, should include an itemized listing of the proposed wetland and stream impacts with corresponding mapping.

F) NC DOT is respectfully reminded that all impacts, including but not limited to, bridging, fill, excavation and clearing, to jurisdictional wetlands, streams, and riparian buffers need to be included in the final impact calculations. These impacts, in addition to any construction impacts, temporary or otherwise, also need to be included as part of the 401 Water Quality Certification Application.

G) Where streams must be crossed, the DWQ prefers bridges be used in lieu of culverts. However, we realize that economic considerations often require the use of culverts. Please be advised that culverts should be countersunk to allow unimpeded passage by fish and other aquatic organisms. Moreover, in areas where high quality wetlands or streams are impacted, a bridge may prove preferable. When applicable, DOT should not install the bridge bents in the creek, to the maximum extent practicable.

H) Sediment and erosion control measures should not be placed in wetlands.

I) Borrow/waste areas should avoid wetlands to the maximum extent practicable. Impacts to wetlands in borrow/waste areas could precipitate compensatory mitigation.

J) The 401 Water Quality Certification application will need to specifically address the proposed methods for stormwater management. More specifically, stormwater should not be permitted to discharge directly into streams or surface waters.

K) Based on the information presented in the document, the magnitude of impacts to wetlands and streams may require an Individual Permit application to the Corps of Engineers and corresponding 401 Water Quality Certification. Please be advised that a 401 Water Quality Certification requires satisfactory protection of water quality to ensure that water quality standards are met and no wetland or stream uses are lost. Final permit authorization will require the submittal of a formal application by the NCDOT and written concurrence from the NCDWQ. Please be aware that any approval will be contingent on appropriate avoidance and minimization of wetland and stream impacts to the maximum extent practical, the development of an acceptable stormwater management plan, and the inclusion of appropriate mitigation plans where appropriate.

The NCDWQ appreciates the opportunity to provide comments on your project. Should you have any questions or require any additional information, please contact Nicole Thomson at (919) 715-3415.

cc: Mr. Dave Timpy, US Army Corps of Engineers, Wilmington Field Office
Mr. Gary Jordan, USFWS
Mr. Travis Wilson, NCWRC
Mr. Ken Averitte, NCDWQ Wilmington Regional Office
Central Files
File Copy

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State of North Carolina
NCDENR Department of Environment and Natural Resources

Reviewing Office: LWRD

Project Number: 05-0251 Due Date: 2/15/05

INTERGOVERNMENTAL REVIEW - PROJECT COMMENTS

After review of this project it has been determined that the DENR permit(s) and/or approvals indicated may need to be obtained in order for this project to comply with North Carolina Law. Questions regarding these permits should be addressed to the Regional Office indicated on the reverse of this form. All applications, information and guidelines relative to these plans and permits are available from the same Regional Office.

	PERMITS	SPECIAL APPLICATION PROCEDURES or REQUIREMENTS	Normal Process Time (Statutory Time Limit)
☐	Permit to construct & operate wastewater treatment facilities, sewer system extensions & sewer systems not discharging into state surface waters.	Application 90 days before begin construction or award of construction contracts. On-site inspection. Post-application technical conference usual.	30 days (90 days)
☐	NPDES-permit to discharge into surface water and/or permit to operate and construct wastewater facilities discharging into state surface waters.	Application 180 days before begin activity. On-site inspection preapplication conference usual. Additionally, obtain permit to construct wastewater treatment facility-granted after NPDES. Reply time, 30 days after receipt of plans or issue of NPDES permit-whichever is later.	90 - 120 days (N/A)
☐	Water Use Permit	Preapplication technical conference usually necessary	30 days (N/A)
☐	Well Construction Permit	Complete application must be received and permit issued prior to the installation of a well.	7 days (15 days)
☐	Dredge and Fill Permit	Application copy must be served on each adjacent riparian property owner. On-site inspection. Preapplication conference usual. Filling may require Easement to Fill from N.C. Department of Administration and Federal Dredge and Fill Permit.	55 days (90 days)
☐	Permit to construct & operate Air Pollution Abatement facilities and/or Emission Sources as per 15 A NCAC (2Q.0100, 2Q.0300, 2H.0600)	N/A	60 days
☑	Any open burning associated with subject proposal must be in compliance with 15 A NCAC 2D.1900	N/A	60 days (90 days)
☑	Demolition or renovations of structures containing asbestos material must be in compliance with 15 A NCAC 2D.1110 (a) (1) which requires notification and removal prior to demolition. Contact Asbestos Control Group 919-733-0820.		
☐	Complex Source Permit required under 15 A NCAC 2D.0800		
☐	The Sedimentation Pollution Control Act of 1973 must be properly addressed for any land disturbing activity. An erosion & sedimentation control plan will be required if one or more acres to be disturbed. Plan filed with proper Regional Office (Land Quality Section) at least 30 days before beginning activity. A fee of $50 for the first acre or any part of an acre.		20 days (30 days)
☑	The Sedimentation Pollution Control Act of 1973 must be addressed with respect to the referenced Local Ordinance.		30 days
☐	Sedimentation and erosion control must be addressed in accordance with NCDOT's approved program. Particular attention should be given to design and installation of appropriate perimeter sediment trapping devices as well as stable stormwater conveyances and outlets.		
☐	Mining Permit	On-site inspection usual. Surety bond filed with DENR. Bond amount varies with type mine and number of acres of affected land. Any are mined greater than one acre must be permitted. The appropriate bond must be received before the permit can be issued.	30 days (60 days)
☐	North Carolina Burning permit	On-site inspection by N.C. Division of Forest Resources if permit exceeds 4 days	1 day (N/A)
☐	Special Ground Clearance Burning Permit-22 counties in coastal N.C. with organic soils.	On-site inspection by N.C. Division of Forest Resources required "If more than five acres of ground clearing activities are involved. Inspections should be requested at least ten days before actual burn is planned."	1 day (N/A)

	PERMITS	SPECIAL APPLICATION PROCEDURES or REQUIREMENTS	Normal Process Time (Statutory Time Limit)
☐	Dam Safety Permit	If permit required, application 60 days before begin construction. Applicant must hire N.C. qualified engineer to: prepare plans, inspect construction, certify construction is according to DENR approved plans. May also require permit under mosquito control program, and a 404 permit from Corps of Engineers. An inspection of site is necessary to verify Hazard Classification. A minimum fee of $200.00 must accompany the application. An additional processing fee based on a percentage or the total project cost will be required upon completion.	30 days (60 days)
☐	Permit to drill exploratory oil or gas well	File surety bond of $5,000 with DENR running to State of N.C. conditional that any well opened by drill operator shall, upon abandonment, be plugged according to DENR rules and regulations.	10 days (N/A)
☐	Geophysical Exploration Permit	Application filed with DENR at least 10 days prior to issue of permit. Application by letter. No standard application form.	10 days (N/A)
☐	State Lakes Construction Permit	Application fees based on structure size is charged. Must include descriptions & drawings of structure & proof of ownership of riparian property.	15 - 20 days (N/A)
☐	401 Water Quality Certification	N/A	55 days (130 days)
☐	CAMA Permit for MAJOR development	$250.00 fee must accompany application	60 days (130 days)
☐	CAMA Permit for MINOR development	$50.00 fee must accompany application	22 days (25 days)
☐	Several geodetic monuments are located in or near the project area. If any monument needs to be moved or destroyed, please notify: N.C. Geodetic Survey, Box 27687 Raleigh, N.C. 27611		
☐	Abandonment of any wells, if required must be in accordance with Title 15A. Subchapter 2C.0100.		
☐	Notification of the proper regional office is requested if "orphan" underground storage tanks (USTS) are discovered during any excavation operation.		
☐	Compliance with 15A NCAC 2H 1000 (Coastal Stormwater Rules) is required.		45 days (N/A)
*	Other comments (attach additional pages as necessary, being certain to cite comment authority)		

REGIONAL OFFICES

Questions regarding these permits should be addressed to the Regional Office marked below.

☐ **Asheville Regional Office**
59 Woodfin Place
Asheville, N.C. 28801
(828) 251-6208

☐ **Fayetteville Regional Office**
225 Green Street, Suite 714
Fayetteville, N.C. 28301
(910) 486-1541

☐ **Mooresville Regional Office**
919 North Main Street
Mooresville, N.C. 28115
(704) 663-1699

☐ **Raleigh Regional Office**
3800 Barrett Drive, P.O. Box 27687
Raleigh, N.C. 27611
(919) 571-4700

☐ **Washington Regional Office**
943 Washington Square Mall
Washington, N.C. 27889

☐ **Wilmington Regional Office**
127 Cardinal Drive Extension
Wilmington, N.C. 28405
(910) 395-3900

☐ **Winston-Salem Regional Office**
585 Waughtown Street
Winston-Salem, N.C. 27107
(336) 771-4600

Michael F. Easley, Governor
William G. Ross Jr., Secretary
North Carolina Department of Environment and Natural Resources

Coleen Sullins, Director
Division of Water Quality

September 11, 2008

MEMORANDUM

To: Melba McGee, Environmental Coordinator, DENR

From: David Wainwright, NC Division of Water Quality

Subject: Scoping comments on the proposed construction of a new roadway on pilings and the replacement of bridge #8 on US 17 Business/NC 37, east of the Perquimans River Bridge in Perquimans County, TIP R-4467.

Reference your correspondence dated August 21, 2008 in which you requested comments for the referenced project. Preliminary analysis of the project reveals the potential for multiple impacts to perennial streams and jurisdictional wetlands in the project area. More specifically, impacts to:

Stream Name	River Basin	Stream Classification(s)	Stream Index Number
Perquimans River	Pasquotank	SC	30-6-(3)

Further investigations at a higher resolution should be undertaken to verify the presence of other streams and/or jurisdictional wetlands in the area. In the event that any jurisdictional areas are identified, the Division of Water Quality requests that NCDOT consider the following environmental issues for the proposed project:

Project Specific Comments:

1. The Perquimans River is class SC; 303(d) waters of the State. The Perquimans River is on the Draft 2008 303(d) list for impaired use for aquatic life due to low dissolved oxygen and low pH. DWQ is very concerned with sediment and erosion impacts that could result from this project. DWQ recommends that the most protective sediment and erosion control BMPs be implemented to reduce the risk of nutrient runoff to the Perquimans River. DWQ requests that road design plans provide treatment of the storm water runoff through best management practices as detailed in the most recent version of NC DWQ *Stormwater Best Management Practices*.

General Project Comments:

2. Future environmental documents should provide a detailed and itemized presentation of the proposed impacts to wetlands and streams with corresponding mapping. If mitigation is necessary as required by 15A NCAC 2H.0506(h), it is preferable to present a conceptual (if not finalized) mitigation plan with the environmental documentation. Appropriate mitigation plans will be required prior to issuance of a 401 Water Quality Certification.

Transportation Permitting Unit
1650 Mail Service Center, Raleigh, North Carolina 27699-1650
2321 Crabtree Boulevard, Suite 250, Raleigh, North Carolina 27604
Phone: 919-733-1786 / FAX 919-733-6893 / Internet: http://h2o.enr.state.nc.us/ncwetlands

3. Environmental assessment alternatives should consider design criteria that reduce the impacts to streams and wetlands from storm water runoff. These alternatives should include road designs that allow for treatment of the storm water runoff through best management practices as detailed in the most recent version of NC DWQ *Stormwater Best Management Practices*, such as grassed swales, buffer areas, preformed scour holes, retention basins, etc.

4. After the selection of the preferred alternative and prior to an issuance of the 401 Water Quality Certification, the NCDOT is respectfully reminded that they will need to demonstrate the avoidance and minimization of impacts to wetlands (and streams) to the maximum extent practical. In accordance with the Environmental Management Commission's Rules {15A NCAC 2H.0506(h)}, mitigation will be required for impacts of greater than 1 acre to wetlands. In the event that mitigation is required, the mitigation plan should be designed to replace appropriate lost functions and values. The NC Ecosystem Enhancement Program may be available for use as wetland mitigation.

5. In accordance with the Environmental Management Commission's Rules (15A NCAC 2H.0506[(h]), mitigation will be required for impacts of greater than 150 linear feet to any single perennial stream. In the event that mitigation is required, the mitigation plan should be designed to replace appropriate lost functions and values. The NC Ecosystem Enhancement Program may be available for use as stream mitigation.

6. DWQ is very concerned with sediment and erosion impacts that could result from this project. NC DOT should address these concerns by describing the potential impacts that may occur to the aquatic environments and any mitigating factors that would reduce the impacts.

7. If the old bridge is removed, no discharge of bridge material into surface waters is allowed unless otherwise authorized by the US ACOE. Strict adherence to the Corps of Engineers guidelines for bridge demolition will be a condition of the 401 Water Quality Certification.

8. Bridge supports (bents) should not be placed in streams when possible.

9. Whenever possible, the DWQ prefers spanning structures. Spanning structures usually do not require work within the stream or grubbing of the streambanks and do not require stream channel realignment. The horizontal and vertical clearances provided by bridges allow for human and wildlife passage beneath the structure, do not block fish passage and do not block navigation by canoeists and boaters.

10. Bridge deck drains should not discharge directly into the stream or river. Stormwater should be directed across the bridge and pre-treated through site-appropriate means (grassed swales, pre-formed scour holes, vegetated buffers, etc.) before entering the stream. Please refer to the most current version of NC DWQ *Stormwater Best Management Practices.*

11. If concrete is used during construction, a dry work area should be maintained to prevent direct contact between curing concrete and stream water. Water that inadvertently contacts uncured concrete should not be discharged to surface waters due to the potential for elevated pH and possible aquatic life and fish kills.

12. If temporary access roads or detours are constructed, the site should be graded to its preconstruction contours and elevations. Disturbed areas should be seeded or mulched to stabilize the soil and appropriate native woody species should be planted. When using temporary structures the area should be cleared but not grubbed. Clearing the area with chain saws, mowers, bush-hogs, or other mechanized equipment and leaving the stumps and root mat intact allows the area to re-vegetate naturally and minimizes soil disturbance.

13. Placement of culverts and other structures in waters, streams, and wetlands should be below the elevation of the streambed by one foot for all culverts with a diameter greater than 48 inches, and 20 percent of the culvert diameter for culverts having a diameter less than 48 inches, to allow low flow passage of water and aquatic life. Design and placement of culverts and other structures including temporary erosion control measures should not be conducted in a manner that may result in dis-equilibrium of wetlands or streambeds or banks, adjacent to or upstream and down stream of the above structures. The applicant is required to provide evidence that the equilibrium is being maintained if requested in writing by DWQ. If this condition is unable to be met due to bedrock or other limiting features encountered during construction, please contact the NC DWQ for guidance on how to proceed and to determine whether or not a permit modification will be required.

14. If multiple pipes or barrels are required, they should be designed to mimic natural stream cross section as closely as possible including pipes or barrels at flood plain elevation and/or sills where appropriate. Widening the stream channel should be avoided. Stream channel widening at the inlet or outlet end of structures typically decreases water velocity causing sediment deposition that requires increased maintenance and disrupts aquatic life passage.

15. If foundation test borings are necessary; it should be noted in the document. Geotechnical work is approved under General 401 Certification Number 3494/Nationwide Permit No. 6 for Survey Activities.

16. Sediment and erosion control measures sufficient to protect water resources must be implemented and maintained in accordance with the most recent version of North Carolina Sediment and Erosion Control Planning and Design Manual and the most recent version of NCS000250.

17. All work in or adjacent to stream waters should be conducted in a dry work area unless otherwise approved by NC DWQ. Approved BMP measures from the most current version of NCDOT Construction and Maintenance Activities manual such as sandbags, rock berms, cofferdams and other diversion structures should be used to prevent excavation in flowing water.

18. Sediment and erosion control measures should not be placed in wetlands and streams.

19. Borrow/waste areas should avoid wetlands to the maximum extent practical. Impacts to wetlands in borrow/waste areas could precipitate compensatory mitigation.

20. While the use of National Wetland Inventory (NWI) maps, NC Coastal Region Evaluation of Wetland Significance (NC-CREWS) maps and soil survey maps are useful tools, their inherent inaccuracies require that qualified personnel perform onsite wetland delineations prior to permit approval.

21. Heavy equipment should be operated from the bank rather than in stream channels in order to minimize sedimentation and reduce the likelihood of introducing other pollutants into streams. This equipment should be inspected daily and maintained to prevent contamination of surface waters from leaking fuels, lubricants, hydraulic fluids, or other toxic materials.

22. In most cases, the DWQ prefers the replacement of the existing structure at the same location with road closure. If road closure is not feasible, a temporary detour should be designed and located to avoid wetland impacts, minimize the need for clearing and to avoid destabilizing stream banks. If the structure will be on a new alignment, the old structure should be removed and the approach fills removed from the 100-year floodplain. Approach fills should be removed and restored to the natural ground elevation. The area should be stabilized with grass and planted with native tree species. Tall fescue should not be used in riparian areas.

23. Riprap should not be placed in the active thalweg channel or placed in the streambed in a manner that precludes aquatic life passage. Bioengineering boulders or structures should be properly designed, sized and installed.

Thank you for requesting our input at this time. The DOT is reminded that issuance of a 401 Water Quality Certification requires that appropriate measures be instituted to ensure that water quality standards are met and designated uses are not degraded or lost. If you have any questions or require additional information, please contact David Wainwright at (919) 715-3415.

cc: Bill Biddlecome, US Army Corps of Engineers, Washington Field Office
Chris Militscher, Environmental Protection Agency (electronic)
Travis Wilson, NC Wildlife Resources Commission (electronic)
Gary Jordan, US Fish and Wildlife Service (electronic)
Cathy Brittingham, Division of Coastal Management
Garcy Ward, DWQ Washington Regional Office
File Copy

NCDENR
North Carolina Department of Environment and Natural Resources
Division of Marine Fisheries
Michael F. Easley, Governor
William G. Ross Jr., Secretary
Preston P. Pate Jr., Director

MEMORANDUM

TO: Gail Grimes, NCDOT P. E.
Consultant Management Group

FROM: Mike Street

DATE: March 9, 2005

SUBJECT: US 17 Business – NC 37 Roadway Improvements from Perquimans River Bridge to NC 27 – State Project No. 6123003R, TIP Project No. R-4467

Attached is the Divisions' reply for the above referenced project. If you have any questions, please do not hesitate to contact me.

MS/sw

3441 Arendell Street, P.O. Box 769, Morehead City, North Carolina 28557
Phone: 252 726-7021 \ FAX: 252 727-5127 \ Internet: www.ncdmf.net

North Carolina Department of Environment and Natural Resources
Division of Marine Fisheries

Michael F. Easley, Governor
William G. Ross Jr., Secretary

Preston P. Pate Jr., Director

MEMORANDUM:

TO: Gail Grimes, NCDOT P.E., Consultant Management Group

FROM: Sara E. Winslow, Northern District Manager

SUBJECT: US 17 Business – NC 37 Roadway Improvements from Perquimans River Bridge to NC 27 – State Project No. 6123003R, TIP Project No. R-4467

DATE: March 4, 2005

The North Carolina Division of Marine Fisheries has reviewed the information supplied by NCDOT.

Perquimans River, including the area adjacent to the causeway is a documented spawning and nursery area for blueback herring and alewife. White perch, yellow perch, catfishes, croakers, spot, blue crabs and other commercially and recreationally important species also utilize the area as a nursery.

This agency expresses concern with any impacts and/or loss of adjacent wetlands. Wetlands are of great importance to fisheries resources providing food directly and indirectly, serving as nursery areas for many important species. Finally, wetlands perform important roles in modifying acute impacts of hydrologic events, moderating stormwater flows, trapping sediments and providing nutrients for incorporation into resident plants.

This agency would recommend pursuing the removal of the existing causeway and replacing it with an elevated causeway/bridge. Removal of the causeway could enhance wetlands and water quality.

Depending on what alternative is selected in the future, the Division may request an in water moratorium from February 15 through September 30. This will ensure the environmental integrity of the area is protected during critical times of usage.

The Division appreciates the opportunity to provide comments.

1367 U.S. 17 South, Elizabeth City, North Carolina 27909
Phone: 252 264-3911 \ FAX: 252 264-3723 \ Internet: www.ncdmf.net

North Carolina Department of Environment and Natural Resources
Division of Marine Fisheries

Michael F. Easley, Governor
William G. Ross Jr., Secretary

Dr. Louis B. Daniel III, Director

MEMORANDUM:

TO: Melba McGee, Environmental Coordinator

THROUGH: Anne Deaton, Chief Habitat Section

FROM: Sara E. Winslow, Northern District Manager

SUBJECT: Project No. 09-0059 - Project Re-Initiation – Perquimans County – Construct a New Roadway on Pilings and Replace Bridge No. 8 – US 17 Business/NC37, TIP No. R-4467

DATE: September 17, 2008

The North Carolina Division of Marine Fisheries has reviewed the scoping information sheets and submits the following comments.

The importance of the Perquimans River and this area as an Anadromous Fish Spawning Area and nursery area for anadromous, estuarine and resident species was noted in the memo submitted to NCDOT dated March 4, 2005. This agency also indicated the importance of wetlands in the area that border the existing causeway and bridge.

The area adjacent to the causeway and the northern end of the existing bridge (west side) for many years was used by the Town of Hertford as a dump. Even though years ago much of this material was removed. Disturbance in this area could result in water quality and wetland impacts.

This agency appreciates the opportunity to provide comments and participate in the upcoming scoping meeting. If you have any questions please contact me (252-264-3911).

3441 Arendell Street, P.O. Box 769, Morehead City, North Carolina 28557
Phone: 252 726-7021 \ FAX: 252 727-5127 \ Internet: www.ncdmf.net

State of North Carolina
Department of Environment and Natural Resources

Reviewing Office: _____

INTERGOVERNMENTAL REVIEW - PROJECT COMMENTS

Project Number: 09-0059 Due Date: _____

After review of this project it has been determined that the ENR permit(s) and/or approvals indicated may need to be obtained in order for this project to comply with North Carolina Law. Questions regarding these permits should be addressed to the Regional Office indicated on the reverse of the form. All applications, information and guidelines relative to these plans and permits are available from the same Regional Office.

	PERMITS	SPECIAL APPLICATION PROCEDURES or REQUIREMENTS	Normal Process Time (statutory time limit)
☐	Permit to construct & operate wastewater treatment facilities, sewer system extensions & sewer systems not discharging into state surface waters.	Application 90 days before begin construction or award of construction contracts. On-site inspection. Post-application technical conference usual.	30 days (90 days)
☐	NPDES - permit to discharge into surface water and/or permit to operate and construct wastewater facilities discharging into state surface waters.	Application 180 days before begin activity. On-site inspection. Pre-application conference usual. Additionally, obtain permit to construct wastewater treatment facility-granted after NPDES. Reply time, 30 days after receipt of plans or issue of NPDES permit-whichever is later.	90-120 days (N/A)
☐	Water Use Permit	Pre-application technical conference usually necessary	30 days (N/A)
☐	Well Construction Permit	Complete application must be received and permit issued prior to the installation of a well.	7 days (15 days)
☐	Dredge and Fill Permit	Application copy must be served on each adjacent riparian property owner. On-site inspection. Pre-application conference usual. Filling may require Easement to Fill from N.C. Department of Administration and Federal Dredge and Fill Permit.	55 days (90 days)
☐	Permit to construct & operate Air Pollution Abatement facilities and/or Emission Sources as per 15 A NCAC (2Q.0100 thru 2Q.0300)	Application must be submitted and permit received prior to construction and operation of the source. If a permit is required in an area without local zoning, then there are additional requirements and timelines (2Q.0113).	90 days
☐	Permit to construct & operate Transportation Facility as per 15 A NCAC (2D.0800, 2Q.0601)	Application must be submitted at least 90 days prior to construction or modification of the source.	90 days
☑	Any open burning associated with subject proposal must be in compliance with 15 A NCAC 2D.1900	N/A	60 days (90 days)
☐	Demolition or renovations of structures containing asbestos material must be in compliance with 15 A NCAC 20.1110 (a) (1) which requires notification and removal prior to demolition. Contact Asbestos Control Group 919-707-5950.		
☐	Complex Source Permit required under 15 A NCAC 2D.0800		
☐	The Sedimentation Pollution Control Act of 1973 must be properly addressed for any land disturbing activity. An erosion & sedimentation control plan will be required if one or more acres to be disturbed. Plan filed with proper Regional Office (Land Quality Section) At least 30 days before beginning activity. A fee of $65 for the first acre or any part of an acre. An express review option is available with additional fees.		20 days (30 days)
☒	Sedimentation and erosion control must be addressed in accordance with NCDOT's approved program. Particular attention should be given to design and installation of appropriate perimeter sediment trapping devices as well as stable stormwater conveyances and outlets.		(30 days)
☐	Mining Permit	On-site inspection usual. Surety bond filed with ENR Bond amount varies with type mine and number of acres of affected land. Any are mined greater than one acre must be permitted. The appropriate bond must be received before the permit can be issued.	30 days (60 days)
☐	North Carolina Burning permit	On-site inspection by N.C. Division Forest Resources if permit exceeds 4 days	1 day (N/A)
☐	Special Ground Clearance Burning Permit - 22 counties in coastal N.C. with organic soils	On-site inspection by N.C. Division Forest Resources required "if more than five acres of ground clearing activities are involved. Inspections should be requested at least ten days before actual bum is planned."	1 day (N/A)
☐	Oil Refining Facilities	N/A	90-120 days (N/A)
☐	Dam Safety Permit	If permit required, application 60 days before begin construction. Applicant must hire N.C. qualified engineer to: prepare plans, inspect construction. certify construction is according to ENR approved plans. May also require permit under mosquito control program. And a 404 permit from Corps of Engineers. An inspection of site is necessary to verify Hazard Classification. A minimum fee of $200.00 must accompany the application. An additional processing fee based on a percentage or the total project cost will be required	30 days (60 days)

	PERMITS	SPECIAL APPLICATION PROCEDURES or REQUIREMENTS	Normal Process Time (statutory time limit)
☐	Permit to drill exploratory oil or gas well	File surety bond of $5,000 with ENR running to State of NC conditional that any well opened by drill operator shall, upon abandonment, be plugged according to ENR rules and regulations.	10 days N/A
☐	Geophysical Exploration Permit	Application filed with ENR at least 10 days prior to issue of permit. Application by letter. No standard application form.	10 days N/A
☐	State Lakes Construction Permit	Application fees based on structure size is charged. Must include descriptions & drawings of structure & proof of ownership of riparian property.	15-20 days N/A
☒	401 Water Quality Certification	N/A	60 days (130 days)
☐	CAMA Permit for MAJOR development	$250.00 fee must accompany application	55 days (150 days)
☐	CAMA Permit for MINOR development	$50.00 fee must accompany application	22 days (25 days)
☐	Several geodetic monuments are located in or near the project area. If any monument needs to be moved or destroyed, please notify: N.C. Geodetic Survey, Box 27687 Raleigh, NC 27611		
☐	Abandonment of any wells, if required must be in accordance with Title 15A. Subchapter 2C.0100.		
☐	Notification of the proper regional office is requested if "orphan" underground storage tanks (USTS) are discovered during any excavation operation.		
☐	Compliance with 15A NCAC 2H 1000 (Coastal Stormwater Rules) is required.		45 days (N/A)
☐	Tar Pamlico or Neuse Riparian Buffer Rules required.		

* Other comments (attach additional pages as necessary, being certain to cite comment authority)

REGIONAL OFFICES

Questions regarding these permits should be addressed to the Regional Office marked below.

☐ **Asheville Regional Office**
2090 US Highway 70
Swannanoa, NC 28778
(828) 296-4500

☐ **Fayetteville Regional Office**
225 North Green Street, Suite 714
Fayetteville, NC 28301-5043
(910) 433-3300

☐ **Mooresville Regional Office**
610 East Center Avenue, Suite 301
Mooresville, NC 28115
(704) 663-1699

☐ **Raleigh Regional Office**
3800 Barrett Drive, Suite 101
Raleigh, NC 27609
(919) 791-4200

☒ **Washington Regional Office**
943 Washington Square Mall
Washington, NC 27889
(252) 946-6481

☐ **Wilmington Regional Office**
127 Cardinal Drive Extension
Wilmington, NC 28405
(910) 796-7215

☐ **Winston-Salem Regional Office**
585 Waughtown Street
Winston-Salem, NC 27107
(336) 771-5000

North Carolina Department of Crime Control and Public Safety
Division of Emergency Management
Office of Geospatial and Technology Management
4719 Mail Service Center • Raleigh, NC 27699-4719

Michael F. Easley
Governor

Bryan E. Beatty
Secretary

September 23, 2008

Ms. Valerie McMillian
State Clearinghouse
N.C. Department of Administration
1301 Mail Service Center
Raleigh, North Carolina 27699-1301

Subject: Intergovernmental Review State Number: 09-E-4220-0059
Construction of a new roadway on pilings and replacement of bridge, US 17 Bus-NC 37, east of the Perquimans River Bridge to NC 37 in the Town of Hertford, Perquimans County

Dear Ms. Valerie McMillian:

As requested by the North Carolina State Clearinghouse, the North Carolina Department of Crime Control and Public Safety Division of Emergency Management Office of Geospatial and Technology Management (GTM) reviewed the proposed project listed above and has provided comments herein. It is our understanding that the North Carolina Department of Transportation is proposing to correct differential settlement along US 17 Bus/NC37, to upgrade the roadway to current standards, and to replace Bridge No. 8 over the Perquimans River.

The GTM has the following comments:

1) As shown on the Perquimans County DFIRM Panels 7849 and 7940, the proposed project includes areas within the special flood hazard area (SFHA) for the Town of Hertford and designated Zone AE (El 6). Any proposed construction within the SFHA will require, prior to construction, approval of either a no-rise study with a no-rise certification for projects that do not increase base flood elevation or for projects that result in an increase in base flood elevations the approval of a Conditional Letter of Map Revision.

2) The North Carolina Floodplain Mapping Program and North Carolina Department of Transportation (NCDOT) have entered into a Memorandum of Agreement that includes NCDOT no-rise studies and Letter of Map Revisions. Please contact Dr.

David Chang, NCDOT Assistant Hydraulics Engineer for further information and guidance.

3) Please consult the Town of Hertford's floodplain administrator for guidance on higher standards for floodplain development as defined in the City local ordinance.

Thank you for your cooperation and consideration. If you have any questions concerning the above comments, please contact me at (919) 715-5711, or by email at kashe@ncem.org or at the address shown on the footer of this document.

Sincerely,

Kenneth W. Ashe, P.E., CFM
Assistant Director

c: Randy Mundt, NC NFIP State Coordinator

DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH

Project Number
05-0251
County
Perquimans

Inter-Agency Project Review Response

Project Name NC DOT

Type of Project US 17 Bus.-NC 37 Roadway Improvements from the Perquimans River Bridge to NC 37 in the Town of Hertford.

☐ The applicant should be advised that plans and specifications for all water system improvements must be approved by the Division of Environmental Health prior to the award of a contract or the initiation of construction (as required by 15A NCAC 18C .0300et. seq.). For information, contact the Public Water Supply Section, (919) 733-2321.

☐ This project will be classified as a non-community public water supply and must comply with state and federal drinking water monitoring requirements. For more information the applicant should contact the Public Water Supply Section, (919) 733-2321.

☐ If this project is constructed as proposed, we will recommend closure of _____ feet of adjacent waters to the harvest of shellfish. For information regarding the shellfish sanitation program, the applicant should contact the Shellfish Sanitation Section at (252) 726-6827.

☐ The soil disposal area(s) proposed for this project may produce a mosquito breeding problem. For information concerning appropriate mosquito control measures, the applicant should contact the Public Health Pest Management Section at (919) 733-6407.

☐ The applicant should be advised that prior to the removal or demolition of dilapidated structures, a extensive rodent control program may be necessary in order to prevent the migration of the rodents to adjacent areas. For information concerning rodent control, contact the local health department or the Public Health Pest Management Section at (919) 733-6407.

☐ The applicant should be advised to contact the local health department regarding their requirements for septic tank installations (as required under 15A NCAC 18A. 1900 et. sep.). For information concerning septic tank and other on-site waste disposal methods, contact the On-Site Wastewater Section at (919) 733-2895.

☐ The applicant should be advised to contact the local health department regarding the sanitary facilities required for this project.

☐ If existing water lines will be relocated during the construction, plans for the water line relocation must be submitted to the Division of Environmental Health, Public Water Supply Section, Technical Services Branch, 1634 Mail Service Center, Raleigh, North Carolina 27699-1634, (919) 733-2321.

☒ For Regional and Central Office comments, see the reverse side of this form.

Jim McRight	PWS	03-01-05
Reviewer	Section/Branch	Date

DEPARTMENT OF ENVIRONMENT AND
NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH

Project # 05-0251
County Perquimans

Inter-Agency Project Review Response

Project Name: NC DOT Type of Project: US 17 Business – NC 37 Roadway Improvements from the Perquimans River Bridge to NC 37 in the Town of Hertford

Comments provided by:

- [ ] Regional Program Person
- [x] Regional Supervisor for Public Water Supply Section
- [ ] Central Office program person

Name: Fred Hill Telephone #: (252) 946-6481 Date: 3/7/05

Program within Division of Environmental Health:

- [x] Public Water Supply
- [ ] Other, Name of Program_____

Response (check all applicable):

- [x] No objection to project as proposed
- [ ] No comment
- [ ] Insufficient information to complete review
- [ ] Comments attached
- [x] See comments below

This project has the potential to impact the Town of Winfall's public water system distribution lines in the area of Larry's Drive Inn on the north end of the project area. Engineering plans and specifications must be submitted to the Public Water Supply Plan Review Section if any modifications occur to the distribution system.

Return to :
Public Water Supply Section
Environmental Review Coordinator for the Division of Environmental Health

North Carolina Department of Environment and Natural Resources

Michael F. Easley, Governor

William G. Ross Jr., Secretary

Post-it® Fax Note 7671	Date 10/20/08	# of pages ▶ 3
To SHEILA GREEN	From KAREN CANAVACIOL	
Co./Dept.	Co.	
Phone #	Phone #	
Fax #	Fax #	

MEMORANDUM

TO: Valerie McMillan
State Clearinghouse

FROM: Melba McGee
Environmental Projects Officer

SUBJECT: #09-0059 Construction of new roadway on pilings and replacement of Bridge No. 8, Perquimans County

DATE: October 20, 2008

The attached comments were received by this office after the response due date. These comments should be forwarded to the applicant and made a part of our previous comment package.

Thank you for the opportunity to respond.

Attachment

1601 Mail Service Center, Raleigh, North Carolina 27699-1601
Phone: 919-733-4984 \ FAX: 919-715-3060 \ Internet: www.enr.state.nc.us/ENR/

One North Carolina Naturally

DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH

Project Number
09-0059
County
Perquimans

Inter-Agency Project Review Response

Project Name **NC-DOT**

Type of Project **Construction of new roadway on pilings & replacement of Bridge No. 6, TIP #R-4467.**

☒ The applicant should be advised that plans and specifications for all water system improvements must be approved by the Division of Environmental Health prior to the award of a contract or the initiation of construction (as required by 15A NCAC 18C .0300et. seq.). For information, contact the Public Water Supply Section, (919) 733-2321.

☐ This project will be classified as a non-community public water supply and must comply with state and federal drinking water monitoring requirements. For more information the applicant should contact the Public Water Supply Section, (919) 733-2321.

☐ If this project is constructed as proposed, we will recommend closure of _____ feet of adjacent waters to the harvest of shellfish. For information regarding the shellfish sanitation program, the applicant should contact the Shellfish Sanitation Section at (252) 726-6827.

☐ The soil disposal area(s) proposed for this project may produce a mosquito breeding problem. For information concerning appropriate mosquito control measures, the applicant should contact the Public Health Pest Management Section at (919) 733-6407.

☐ The applicant should be advised that prior to the removal or demolition of dilapidated structures, a extensive rodent control program may be necessary in order to prevent the migration of the rodents to adjacent areas. For information concerning rodent control, contact the local health department or the Public Health Pest Management Section at (919) 733-6407.

☐ The applicant should be advised to contact the local health department regarding their requirements for septic tank installations (as required under 15A NCAC 18A. 1900 et. sep.). For information concerning septic tank and other on-site waste disposal methods, contact the On-Site Wastewater Section at (919) 733-2895.

☐ The applicant should be advised to contact the local health department regarding the sanitary facilities required for this project.

☒ If existing water lines will be relocated during the construction, plans for the water line relocation must be submitted to the Division of Environmental Health, Public Water Supply Section, Technical Services Branch, 1634 Mail Service Center, Raleigh, North Carolina 27699-1634, (919) 733-2321.

☒ For Regional and Central Office comments, see the reverse side of this form.

Jim McRight	PWSS	10/01/08
Reviewer	Section/Branch	Date

DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH

OCT 16 2008

Project # 09-0059

County: Perquimans

Inter-Agency Project Review Response

Project Name: NC-DOT Type of Project: Construction of new roadway On pilings & replacement of Bridge No. 6, TIP #R-4467

Comments provided by:

[X] Regional Program Person

[ ] Regional Supervisor for Public Water Supply Section

[ ] Central Office program person

Name: Jamie Midgette JM Telephone #: (252) 948-3974

Date Rec'd: 10/03/08
Date Rev'd: 10/15/08

Program within Division of Environmental Health:

[X] Public Water Supply

[ ] Other, Name of Program

Response (check all applicable):

[X] No objection to project as proposed

[ ] No comment

[ ] Insufficient information to complete review

[ ] Comments attached

[X] See comments below

-Public Water Supply approval is required for the relocation/modification of existing water mains prior to construction. If DOT specifications are to be used, only plan submittal is required.
-See this office's 2005 comments regarding the Town of Winfall's distribution lines located in the area.

Return to:
Public Water Supply Section
Environmental Review Coordinator
for the
Division of Environmental Health

September 29, 2008

Albemarle Regional Planning Commission
Clearinghouse Coordinator, Region R
P. O. Box 646
Hertford, NC 27944

RE: Construction of a new roadway on pilings and replacement of Bridge No. 8, US 17 Business-US 37, east of the Perquimans River Bridge to NC 37 in the Town of Hertford, Perquimans County, TIP #R-4467.
Cross Reference Number 05-E-4220-0251

This letter is in response to a request for comments on the above proposed project to construct a new roadway and replace Bridge No. 8 which spans the Perquimans River in the Town of Hertford.

The Hertford Town Council has been discussing this proposed project and has several comments.

1. The "S" Bridge as we call it is an important landmark for the Town of Hertford even to the extent that it is part of our logo. The residents of Hertford and its elected leaders would like the bridge to remain at its present location. The bridge should remain as a swing or draw bridge and its appearance should emulate its historical shape and design.
2. The bridge should be wider to accommodate traffic more safely as the existing bridge roadway is too narrow. The bridge should also provide for pedestrian traffic as it does now.
3. The causeway roadway should be designed in a manner that preserves the view that we how have.
4. The causeway roadway should also be constructed to include pedestrian access.

The Town of Hertford appreciated the opportunity to comment on this project. If we can assist you further please call me at 252-426-1969.

Sincerely,

John Christensen
Town Manager

Town of Hertford • P.O. Box 32 • 114 West Grubb Street • Hertford, North Carolina 27944
Phone (252) 426-5311 • Fax (252) 426-7060 • hertford@inteliport.com

PERQUIMANS
COUNTY SCHOOLS

P.O. Box 337
Hertford, NC 27944
Phone (252) 426-5741
Fax (252) 426-4913
Website
http://www.pcs.k12.nc.us/

Dwayne K. Stallings, Ed.D.
Superintendent

Board of Education
Wallace Nelson, Chair
Walter Leigh, Vice-Chair
Susan Cox
Gloria Mason
Amy Spaugh
Arlene Yates

September 5, ~~2009~~ 2008

Mr. Steve M. Taynton
Section Chief
School Planning
Public Schools of North Carolina
6319 Mail Service Center
Raleigh, North Carolina 27699-6319

Dear Mr. Taynton:

On at least three occasions during the past three years, Perquimans County Schools has prevented school buses from traveling the causeway which connects Winfall and Hertford due to the settlement of the roadbed and the resulting uneven nature of the asphalt surface. This settlement and subsequent uneven roadway promotes a hazard to the safe travel of school buses.

Safety is of utmost importance when transporting children and will always take precedence over other issues. However, the roadway in question provides the shortest and most viable route between the four schools in Perquimans County. When the decision is made to close this road to bus traffic, buses are rerouted using US 17 Bypass, adding at least an additional 2 miles to their travel. As a result, students have longer bus rides and the school district incurs additional fuel costs.

Enclosed in this mailing are copies of correspondence I have sent, as well as correspondence sent by my predecessor, Dr. Kenneth Wells, to local and state officials and agencies regarding the continued unsettled condition of this roadway and the negative impact it has on our school system. I hope that a plan is soon implemented that will properly repair this section of roadway for the safety of all who rely on it for their travels.

Thank you in advance for your assistance in this matter.

Sincerely,

Dwayne K. Stallings

Dwayne K. Stallings, Ed.D.
Superintendent

DKS/mkp

Enclosures

MEMORANDUM

TO: John Christensen, Manager, Town of Hertford
Bobby Darden, Manager, Perquimans County
Sid Eley, Mayor of Hertford
Fred Yates, Mayor of Winfall

FROM: Dr. Kenneth W. Wells, Superintendent

DATE: November 1, 2006

SUBJECT: Highway 17 Business

Beginning November 1, 2006, school buses in Perquimans County Schools will no longer use Highway 17 Business. I can no longer allow buses transporting students to traverse that route while we continue to express concern over the continuously deteriorating condition of the roadway.

I look forward to working with each of you to get the North Carolina Department of Transportation (NCDOT) to move this to a higher priority. Please keep me informed of any discussions you may have with NCDOT.

Thank you.

KWW/mkp

MEMORANDUM

TO: John Christensen, Manager, Town of Hertford
Bobby Darden, Manager, Perquimans County
Sid Eley, Mayor of Hertford
Fred Yates, Mayor of Winfall

FROM: Dwayne K. Stallings, Superintendent

DATE: August 17, 2007

SUBJECT: Highway 17 Business

The first day of school for students in Perquimans County is Monday, August 27th. Our concern is that the condition of Highway 17 Business (Hertford to Winfall causeway) is in such a deteriorated state that it has again become unsafe for school buses to traverse.

We have been notified by officials with the North Carolina Department of Transportation (NCDOT) that the causeway will be resurfaced before August 27th. We appreciate your support in encouraging the NCDOT to develop a plan of action to address the continuous deterioration that occurs on the causeway.

Our hope is that the causeway will be safe for travel by school buses by August 27th. If not, we will require our buses to take an alternate route between Hertford and Winfall.

Thank you.

DKS/mkp

MEMORANDUM

TO: John Christensen, Manager, Town of Hertford
Bobby Darden, Manager, Perquimans County
Sid Eley, Mayor of Hertford
Fred Yates, Mayor of Winfall

FROM: Dwayne K. Stallings, Superintendent

DATE: September 7, 2007

SUBJECT: Highway 17 Business

Beginning September 10, 2007, school buses in Perquimans County Schools will no longer use Highway 17 Business. I can no longer allow buses transporting students to traverse that route while we continue to express concern over the continuously deteriorating condition of the roadway.

With conditions of the surface continuing to deteriorate, even after the recent attention given to the causeway, I feel Perquimans County Schools buses need to traverse across the Perquimans River on Highway 17 By-Pass. If the condition of the roadway in the area of the causeway is improved, buses may be allowed to use Highway 17 Business in the future.

Our hope is that a permanent solution will soon be addressed concerning the safety and condition of the causeway.

Thank you.

DKS/mkp

August 8, 2008

Mr. Jerry Jennings
Division Engineer
NC Department of Transportation
113 Airport Drive
Edenton, NC 27932

Dear Mr. Jennings:

The condition of the road that crosses the Perquimans River in Hertford known as the causeway is a matter of great concern to the Perquimans County School System as preparations are made for the 2008 – 2009 school year. On August 25th, buses carrying children are scheduled to travel the causeway on both morning and afternoon routes.

I want to thank the Department of Transportation for repairing the northern portion of the causeway as it leaves Winfall as this repair was sorely needed. Our hope was that the repairs would include repairing the "dips" that continue to expand on the southern end of the causeway as it connects to the "S"-shaped bridge. Information that we have received indicate this will not be the case.

I realize that any repairs on the causeway are possibly temporary at best as a permanent solution is found to repair or replace the bridge and causeway. With the causeway being a very narrow roadway, my concern is that the "dips" that now exist may cause a school bus to shift, leave the road and enter the river or swerve and enter the opposite lane of traffic. Vehicles traveling in the opposite direction of the buses could also swerve into the buses when they encounter the "dips" in the road.

We will continue to monitor the causeway as August 25th draws near. Although the present condition of the roadway may not be as dangerous as in the past, history has shown that the "dips" that are now evident will only become worse. Our hope is that the causeway will be repaired once more before August 25th. If not, buses may be rerouted to cross the high rise bridge if the "dips" continue to expand.

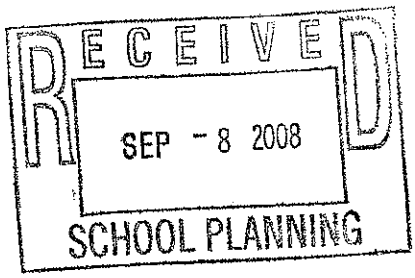
I would appreciate a response either in writing or by telephone regarding our concerns. I look forward to hearing from you.

Sincerely,

Dwayne K. Stallings, Ed.D.
Superintendent

c: Perquimans County Board of Education
Perquimans County Manager Bobby Darden
Winfall Mayor Fred Yates
Hertford Mayor Sid Eley

August 18, 2008



Mr. Bobby Darden, County Manager
Perquimans County
P. O. Box 45
Hertford, NC 27944

Dear Mr. Darden:

On August 5, 2008, I sent a letter to Mr. Jerry Jennings, Division Engineer for the North Carolina Department of Transportation, regarding the condition of the roadway on the causeway connecting Winfall and Hertford. A copy of this letter was forwarded to you for informational purposes. I discussed my concerns with Mr. Jennings on Monday, August 18th, during a telephone conference. I want to report to you the contents of this discussion and the actions Perquimans County Schools will take in this matter.

Mr. Jennings realizes that the causeway needs repairs and has set in motion a plan of action that will correct the "dips" on the south end by removing the existing road at that point and installing pilings. The job will include paving over these pilings upon completion of their installation. Mr. Jennings commented that the material for this job has been ordered, and that it will take from 1 to 2 months to receive. Upon receiving the materials, the causeway will be closed for approximately another month to repair the "dips". This entire process may take until November or December to complete.

After consultation with Donald Hurdle, Director of Transportation, I have decided to require all buses that need to cross the Perquimans River to use Highway 17 By-Pass as an alternate route until the causeway is once more repaired. Our hope is that the causeway will be quickly and adequately repaired to ensure the safety of our children as they travel on our school buses. Thank you for your support of our efforts. We would appreciate any influence you may have on ensuring this project moves quickly.

Sincerely,

Dwayne K. Stallings, Ed.D.
Superintendent

DKS/mkp

c: Perquimans County Board of Education
Winfall Mayor Fred Yates
Hertford Mayor Sid Eley

APPENDIX B

NCDOT RELOCATION ASSISTANCE PROGRAM / RELOCATION REPORTS

EIS RELOCATION REPORT

North Carolina Department of Transportation
RELOCATION ASSISTANCE PROGRAM

☒ E.I.S. ☐ CORRIDOR ☐ DESIGN

WBS:	35748.1.1	COUNTY	Perquimans	Alternate	B – 15' New Swing Span of 3 Alternate
I.D. NO.:	R-4467	F.A. PROJECT	BRNHS-0017 (85)		
DESCRIPTION OF PROJECT:	US 17 Business / NC 37 from Church Street to NC 37				

ESTIMATED DISPLACEES

Type of Displacees	Owners	Tenants	Total	Minorities
Residential	1	0	1	0
Businesses	0	0	0	0
Farms	0	0	0	0
Non-Profit	0	0	0	0

INCOME LEVEL

0-15M	15-25M	25-35M	35-50M	50 UP
0	0	0	1	0

VALUE OF DWELLING

Owners		Tenants	
0-20M	0	$ 0-150	0
20-40M	0	150-250	0
40-70M	0	250-400	0
70-100M	0	400-600	0
100 UP	1	600 UP	0
TOTAL	1		0

DSS DWELLING AVAILABLE

For Sale		For Rent	
0-20M	0	$ 0-150	0
20-40M	0	150-250	0
40-70M	1	250-400	0
70-100M	5	400-600	2
100 UP	14	600 UP	5
	20		7

ANSWER ALL QUESTIONS

Yes	No	*Explain all "YES" answers.*
	X	1. Will special relocation services be necessary?
	X	2. Will schools or churches be affected by displacement?
X		3. Will business services still be available after project?
	X	4. Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc.
	X	5. Will relocation cause a housing shortage?
		6. Source for available housing (list).
	X	7. Will additional housing programs be needed?
X		8. Should Last Resort Housing be considered?
	X	9. Are there large, disabled, elderly, etc. families?
	X	10. Will public housing be needed for project?
	X	11. Is public housing available?
X		12. Is it felt there will be adequate DSS housing housing available during relocation period?
	X	13. Will there be a problem of housing within financial means?
X		14. Are suitable business sites available (list source).
		15. Number months estimated to complete RELOCATION? **6-9 months**

REMARKS (Respond by Number)

3. No businesses will be affected
6, 12, 14 – Multiple Listing Services, Newspaper, Local Realtor

8 – As mandated by law.

Michelle A. Pittman	12-28-12		1/2/13
Nikki N. Woolard Right of Way Agent	Date	Relocation Coordinator	Date

FRM15-E Revised 09-02

Original & 1 Copy: Relocation Coordinator
2 Copy Division Relocation File

EIS RELOCATION REPORT

North Carolina Department of Transportation
RELOCATION ASSISTANCE PROGRAM

☒ E.I.S. ☐ CORRIDOR ☐ DESIGN

WBS:	35748.1.1	COUNTY	Perquimans	Alternate	D – 33' Fixed Span of 3 Alternate
I.D. NO.:	R-4467	F.A. PROJECT	BRNHS-0017 (85)		
DESCRIPTION OF PROJECT:	US 17 Business / NC 37 from Church Street to NC 37				

ESTIMATED DISPLACEES

Type of Displacees	Owners	Tenants	Total	Minorities
Residential	1	0	1	0
Businesses	0	0	0	0
Farms	0	0	0	0
Non-Profit	0	0	0	0

INCOME LEVEL

0-15M	15-25M	25-35M	35-50M	50 UP
0	0	0	1	0

VALUE OF DWELLING

Owners		Tenants	
0-20M	0	$ 0-150	0
20-40M	0	150-250	0
40-70M	0	250-400	0
70-100M	0	400-600	0
100 UP	1	600 UP	0
TOTAL	1		0

DSS DWELLING AVAILABLE

For Sale		For Rent	
0-20M	0	$ 0-150	0
20-40M	0	150-250	0
40-70M	1	250-400	0
70-100M	5	400-600	2
100 UP	14	600 UP	5
	20		7

ANSWER ALL QUESTIONS

Yes	No	*Explain all "YES" answers.*
	X	1. Will special relocation services be necessary?
	X	2. Will schools or churches be affected by displacement?
X		3. Will business services still be available after project?
	X	4. Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc.
	X	5. Will relocation cause a housing shortage?
		6. Source for available housing (list).
	X	7. Will additional housing programs be needed?
X		8. Should Last Resort Housing be considered?
	X	9. Are there large, disabled, elderly, etc. families?
	X	10. Will public housing be needed for project?
	X	11. Is public housing available?
X		12. Is it felt there will be adequate DSS housing housing available during relocation period?
	X	13. Will there be a problem of housing within financial means?
X		14. Are suitable business sites available (list source).
		15. Number months estimated to complete RELOCATION? **6-9 months**

REMARKS (respond by number)

3. No businesses will be affected.

6, 12, 14 – Multiple Listing Services, Newspaper, Local Realtor

8 – As mandated by law.

Michelle A. Pittman	12-28-12		1/2/13
Nikki N. Woolard Right of Way Agent	Date	Relocation Coordinator	Date

FRM15-E Revised 09-02

Original & 1 Copy: Relocation Coordinator
2 Copy Division Relocation File

EIS RELOCATION REPORT

North Carolina Department of Transportation
RELOCATION ASSISTANCE PROGRAM

☒ E.I.S. ☐ CORRIDOR ☐ DESIGN

WBS:	35748.1.1	COUNTY	Perquimans	Alternate	E – 33' Fixed Span of 3 Alternate
I.D. NO.:	R-4467	F.A. PROJECT	BRNHS-0017 (85)		
DESCRIPTION OF PROJECT:	US 17 Business / NC 37 from Church Street to NC 37				

ESTIMATED DISPLACEES

Type of Displacees	Owners	Tenants	Total	Minorities
Residential	0	0	0	0
Businesses	1	0	1	0
Farms	0	0	0	0
Non-Profit	0	0	0	0

INCOME LEVEL

0-15M	15-25M	25-35M	35-50M	50 UP
0	0	0	0	0

VALUE OF DWELLING				DSS DWELLING AVAILABLE			
Owners		Tenants		For Sale		For Rent	
0-20M	0	$ 0-150	0	0-20M	0	$ 0-150	0
20-40M	0	150-250	0	20-40M	0	150-250	0
40-70M	0	250-400	0	40-70M	1	250-400	0
70-100M	0	400-600	0	70-100M	5	400-600	2
100 UP	0	600 UP	0	100 UP	14	600 UP	5
TOTAL	0		0		20		7

ANSWER ALL QUESTIONS

Yes	No	*Explain all "YES" answers.*
	X	1. Will special relocation services be necessary?
	X	2. Will schools or churches be affected by displacement?
	X	3. Will business services still be available after project?
X		4. Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc.
	X	5. Will relocation cause a housing shortage?
		6. Source for available housing (list).
	X	7. Will additional housing programs be needed?
X		8. Should Last Resort Housing be considered?
	X	9. Are there large, disabled, elderly, etc. families?
	X	10. Will public housing be needed for project?
	X	11. Is public housing available?
X		12. Is it felt there will be adequate DSS housing housing available during relocation period?
	X	13. Will there be a problem of housing within financial means?
X		14. Are suitable business sites available (list source).
		15. Number months estimated to complete RELOCATION? **6-9 months**

REMARKS (respond by number)

4 – Flea Market type, <10 employees

6, 12, 14 – Multiple Listing Services, Newspaper, Local Realtor

8 – As mandated by law.

Nikki N. Woolard (signed)	12-28-12	(signed)	1/2/13
Nikki N. Woolard Right of Way Agent	Date	Relocation Coordinator	Date

FRM15-E Revised 09-02

Original & 1 Copy: Relocation Coordinator
2 Copy Division Relocation File

APPENDIX C

NEPA/404 MERGER TEAM CONCURRENCE FORMS

Merger Project Team Meeting Agreement

Concurrence Point No. 1: Project Purpose and Need

Project Name/Description: Improvements to US 17 Business/NC 37 from Church Street to NC 37, including the replacement of Bridge No. 8 over the Perquimans River

TIP Project No.: R-4467

WBS No.: 35748

The purpose of this project is to provide a direct, reliable route between Hertford and the town of Winfall.

The need to be addressed by this project is:

Deficient Connection Between Downtown Hertford and Winfall

- The existing causeway and bridge provide a connection between Hertford and Winfall along NC 37, and between Hertford and US 17 Bypass to the north along US 17 Business. Improving the infrastructure of these two elements will provide more reliable connectivity.

The Project Team has concurred on this date of July 16, 2009, on the above mentioned purpose and need and attached study corridor map for TIP Project R-4467.

USACE	Bill Biddlecome 7/16/09		FHWA	7-16-09	
	Bill Biddlecome	Date		Ron Lucas	Date
USFWS	Gary W. Jordan 7/16/2009		USEPA	7/16/09	
	Gary Jordan	Date		Christopher Militscher	Date
NCDWQ	7/16/09		NCDOT	7-16-09	
	David Wainwright	Date		Joseph Miller	Date
NCDCR	7.16.09		NCDCM		
	Renee Gledhill-Earley	Date		Cathy Brittingham	Date
NCWRC	7-16-09		USCG	7/17/09	
	Travis Wilson	Date		Gary Heyer	Date
NCDENR DMF			NOAA-Fisheries		
	Sara Winslow	Date		Ron Sechler	Date

Merger Project Team Meeting Agreement

Concurrence Point No. 1:	Project Purpose and Need
Project Name/Description:	Improvements to US 17 Business/NC 37 from Church Street to NC 37, including the replacement of Bridge No. 8 over the Perquimans River
TIP Project No.:	R-4467
WBS No.:	35748

The purpose of this project is to provide a direct, reliable route between Hertford and the town of Winfall.

The need to be addressed by this project is:

Deficient Connection Between Downtown Hertford and Winfall

- The existing causeway and bridge provide a connection between Hertford and Winfall along NC 37, and between Hertford and US 17 Bypass to the north along US 17 Business. Improving the infrastructure of these two elements will provide more reliable connectivity.

The Project Team has concurred on this date of July 16, 2009, on the above mentioned purpose and need and attached study corridor map for TIP Project R-4467.

USACE	Bill Biddlecome	7/16/09 Date	FHWA	Ron Lucas	7-16-09 Date
USFWS	Gary Jordan	7/16/2009 Date	USEPA	Christopher Militscher	7/16/09 Date
NCDWQ	David Wainwright	7/16/09 Date	NCDOT	Joseph Miller	7-16-09 Date
NCDCR	Renee Gledhill-Earley	7-16-09 Date	NCDCM	Cathy Brittingham	Date
NCWRC	Travis Wilson	7-16-09 Date	USCG	Gary Heyer	Date
NCDENR DMF	Sara Winslow	Date	NOAA-Fisheries	Ron Seebler	7/24/09 Date

Merger Project Team Meeting Agreement

Concurrence Point No. 1:	Project Purpose and Need
Project Name/Description:	Improvements to US 17 Business/NC 37 from Church Street to NC 37, including the replacement of Bridge No. 8 over the Perquimans River
TIP Project No.:	R-4467
WBS No.:	35748

The purpose of this project is to provide a direct, reliable route between Hertford and the town of Winfall.

The need to be addressed by this project is:

Deficient Connection Between Downtown Hertford and Winfall

- The existing causeway and bridge provide a connection between Hertford and Winfall along NC 37, and between Hertford and US 17 Bypass to the north along US 17 Business. Improving the infrastructure of these two elements will provide more reliable connectivity.

The Project Team has concurred on this date of July 16, 2009, on the above mentioned purpose and need and attached study corridor map for TIP Project R-4467.

USACE	Bill Biddlecome 7/16/09	Date	FHWA	Ron Lucas 7-16-09	Date
USFWS	Gary Jordan 7/16/2009	Date	USEPA	Christopher Militscher 7/16/09	Date
NCDWQ	David Wainwright 7/16/09	Date	NCDOT	Joseph Miller 7-16-09	Date
NCDCR	Renee Gledhill-Earley 7-16-09	Date	NCDCM	Cathy Brittingham	Date
NCWRC	Travis Wilson 7-16-09	Date	USCG	Gary Heyer	Date
NCDENR DMF	Sara Winslow 7-16-09	Date	NOAA-Fisheries	Ron Sechler	Date

Merger Project Team Meeting Agreement

Concurrence Point No. 2: Detailed Study Alternatives

Project Name/Description: Improvements to US 17 Business/NC 37 from Church Street to NC 37, including the replacement of Bridge No. 8 over the Perquimans River

TIP Project No.: R-4467
WBS No.: 35748

The North Carolina Department of Transportation (NCDOT) proposes to maintain a direct highway connection between Hertford and Winfall along or close to US 17 Business/NC 37 from the swing-span bridge over the Perquimans River to NC 37 (the causeway), a length of approximately 0.4 miles. The proposed action will correct or remove deteriorating pavement conditions along the causeway due to differential settlement beneath the roadway, and replace or rehabilitate Bridge No. 8 (the S-bridge), which carries US 17 Business over the Perquimans River and lies immediately south of the causeway.

The environmental document will evaluate the proposed alternatives as described in meeting information provided by NCDOT and agreed to by the project team at its meeting held on October 18, 2012. The alternatives marked "Add" or "Retain" in the table below will be carried forward, those marked "Eliminate" will not be carried forward in the environmental document.

Alternative	Action
Alternative A Build New Swing Span	Eliminate
Alternative A Rehabilitate Swing Span	Eliminate
Alternative B Swing Span	Eliminate
Alternative B 15' Swing Span	Add
Alternative D Modified 33' Fixed	Retain
Alternative E 15' Fixed	Eliminate
Alternative E 33' Fixed	Retain

The project team has unconditionally concurred on this date of October 18, 2012 with alternatives to be carried forward in the environmental document as shown on the attached figure and as described above. **This form supersedes the CP 2 form signed on October 13, 2010.** Concurrence Point 2 is being revisited in light of additional information obtained from detailed environmental surveys and additional public involvement conducted for the project.

USACE _____ FHWA _____

USFWS _____ USEPA _____

NCDWQ _____ NCDOT _____

NCDCR _____ NCDCM _____

NCWRC _____ USCG _____

NCDENR DMF _____ NOAA _____

Merger Project Team Meeting Agreement

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Alternative E 15' Fixed	Eliminate
Alternative E 33' Fixed	Retain

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USACE _____ FHWA _____

USFWS _____ USEPA _____

NCDWQ _____ 10/18/12 NCDOT _____

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NCWRC _____ USCG _____

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Merger Project Team Meeting Agreement

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USFWS _____ USEPA _____

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NCDCR _____ NCDCM _____

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NCDENR DMF _____ NOAA _____

Merger Project Team Meeting Agreement

Concurrence Point No. 2A: Bridging Decisions and Alignment Review

Project Name/Description: Improvements to US 17 Business/NC 37 from Church Street to NC 37, including the replacement of Bridge No. 8 over the Perquimans River

TIP Project No.: R-4467
WBS No.: 35748

The North Carolina Department of Transportation (NCDOT) proposes to maintain a direct highway connection between Hertford and Winfall along or close to US 17 Business/NC 37 from the swing-span bridge over the Perquimans River to NC 37 (the causeway), a length of approximately 0.4 miles. The proposed action will correct or remove deteriorating pavement conditions along the causeway due to differential settlement beneath the roadway, and replace or rehabilitate Bridge No. 8 (the S-bridge), which carries US 17 Business over the Perquimans River and lies immediately south of the causeway.

The Project Team has concurred on this date of October 18, 2012 to the bridge types and lengths for the detailed study alternatives listed below:

Alternative	Bridge Type	Minimum Bridge Length (ft)
Alternative B 15' Swing Span	Swing span	2,690
Alternative D-Modified 33' Fixed Span	Fixed span	2,368
Alternative E 33' Fixed Span	Fixed span	3,820

USACE William J. Biddlecome
FHWA
USFWS Gary Jordan
USEPA
NCDWQ 10/23/12
NCDOT
NCDCR Renee Gledhill-Earley
NCDCM Cathy Brittingham
NCWRC
USCG
NCDENR DMF
NOAA

Merger Project Team Meeting Agreement

Concurrence Point No. 2A:	Bridging Decisions and Alignment Review
Project Name/Description:	Improvements to US 17 Business/NC 37 from Church Street to NC 37, including the replacement of Bridge No. 8 over the Perquimans River
TIP Project No.:	R-4467
WBS No.:	35748

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USACE	William J. Biddlecome	FHWA	Ronald Boyles
USFWS	Gary Jordan	USEPA	
NCDWQ	10/18/12	NCDOT	
NCDCR	Renee Gledhill-Earley	NCDCM	Cathy Brittingham
NCWRC		USCG	
NCDENR DMF		NOAA	

Merger Project Team Meeting Agreement

Concurrence Point No. 2A: Bridging Decisions and Alignment Review

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USACE William J. Biddlecome — FHWA Randal Cole

USFWS Gary Jordan — USEPA _____

NCDWQ 10/23/12 — NCDOT

NCDCR Renee Gledhill-Earley — NCDCM Cathy Brittingham

NCWRC _____ — USCG _____

NCDENR DMF _____ — NOAA Fritz Rohde