

North Carolina Department of Transportation  
**PROJECT ENVIRONMENTAL CONSULTATION FORM**  
T.I.P. Project No. I-2304A

I. GENERAL INFORMATION

- a. Consultation Phase: Right-of-Way and Construction
- b. Project Description: I-85, from north of SR 2120 (Exit 81) in Rowan County to US 29-52-70/I-85 Business (Exit 87) in Davidson County
- c. State Project: WBS No. 34156; (Formerly TPI No. 8.1631403)  
Federal Project: NHF-85-3(164)80
- d. Document Type: Finding of No Significant Impact - December 15, 2003

II. CONCLUSIONS

The above environmental document has been reevaluated as required by 23 CFR 771. It was determined that the current proposed action is essentially the same as the original proposed action. Proposed changes, if any, are noted below in Section III. It has been determined that anticipated social, economic, and environmental impacts were accurately described in the above referenced document(s) unless noted otherwise herein. Therefore, the original Administration Action remains valid.

III. CHANGES IN PROPOSED ACTION AND ENVIRONMENTAL CONSEQUENCES

The North Carolina Department of Transportation (NCDOT) proposes to improve I-85 from north of SR 2120 (Exit 81 - Long Ferry Road) in Rowan County to US 29-52-70/I-85 Business (Exit 87) in Davidson County. The project location is shown on the attached area and vicinity maps; Figures 1 and 2, respectively. This project is necessary to relieve congestion and to improve traffic flow along I-85, within the project limits. Adequate access and connectivity for area residents will also be enhanced by the project. Additionally, improvements to this section of I-85 are needed to effectively accommodate increased traffic demand on a regional level and to establish congruency within the regional system. The NCDOT proposes to widen the subject section of I-85 to an eight-lane facility with a 46-foot wide median. Interchanges and service roads inside the project limits will be revised to accommodate the proposed mainline improvements. Inadequate structures will also be replaced within the 6.8-mile long project limits. The project scope is shown on the attached public hearing map in Figures 3-1, 3-2 and 3-3. After the Finding of No Significant Impact (FONSI) was approved on December 15, 2003, the project lost funding in the Transportation Improvement Program. Previously, right-of-way acquisition was

scheduled to begin in 2003 and construction was scheduled to begin in 2006. The project is now progressing to right-of-way acquisition and construction in 2009.

### Project Design

The following minor design changes have occurred since the FONSI was signed:

A proposed service road (-SR2-) and the accompanying storm drainage system adjacent to the Yadkin River Crossings Historic District have been revised to avoid impacting the historic property containing the trading path road trace. The location of -SR2-, that will now terminate prior to intersecting SR 2124 (Hackett Road), is shown in Figure 4. The components of the Yadkin River Crossings Historic District are shown in the attached map; Figure 5. Due to the redesign of this service road, access to parcels 33 and 34 will no longer be possible. NCDOT plans to provide alternative access under the new structure or purchase the access to these parcels or may purchase parcels 33 and 34 shown in Figure 3-1, should the landowners not wish to retain their land without access to Hackett Road. (These parcels are also as parcels 3 and 4 in Figure 4.) This action will be resolved in the project contract.

The proposed dual structures for new I-85 bridge span both the Yadkin River, with its associated flood plain, and the existing railroad right-of-way of the North Carolina Railroad Company (NCRR), which is operated subject to a trackage rights agreement by Norfolk Southern Railroad. This railroad serves both freight and conventional intercity passenger trains, and is a component of the federally-designated Southeast High Speed Rail Corridor.

A portion of two rail tracks will be rebuilt on the NCRR right of way, under the proposed I-85 dual structures crossing the Yadkin River, adjacent wetlands and railroad right-of-way. NCDOT will rebuild these existing rail line segments, in addition to accommodating modern vertical and horizontal clearances for the designated high speed rail lines to be built under the proposed I-85 bridges. The high speed rail lines will be constructed in the future, along this section of the NCRR right-of-way.

As part of this overall project, NCDOT will also will realign a difficult to navigate curve in the railroad tracks at this location and will tie the realigned rail segments into the exiting rail lines, north and south of the proposed I-85 bridges that will span the railroad right-of-way. This realignment will allow a 44% increase in track speeds (from the current 45 mph to 65 mph). These multi-modal actions will improve energy efficiency and overall performance through this portion of the corridor. See Figures 6 and 6A for this location.

Bridge No. 46, the Wil-Cox Bridge, was constructed in 1922. Rehabilitation is not an option for this historic structure, due to its deteriorated condition. Bridge No. 46 and Bridge No. 392 are two-lane, one-way structures that will be replaced by a single bridge constructed at the current location of Bridge No. 392. Due to future traffic projections, the proposed replacement bridge will convey two-way traffic with a single

lane of US 29/US 70 in each direction. Ownership, liability and maintenance responsibilities for Bridge No. 46 have been declined by Rowan County Commissioners. Good-faith discussions continue with Davidson County Commissioners in regard to the county assuming ownership and subsequent preservation of this structure. The location of these bridges is shown on Figure 6 and in Figure 7.

#### Design Noise Report

One traffic noise barrier is proposed for construction in I-2304A and is located on the west side of I-85, immediately south of the I-85 Business/I-85 interchange. This area is shown in Figure 8. The project is to be let as a design/build project. To facilitate the design/build process, NCDOT will revise the existing Design Noise Reports by using the current TNM® version 2.5 software and incorporating the analytical results for both project sections into one report. The proposed noise barrier is anticipated to remain. Completion of the revised NCDOT Design Noise Report is expected prior to project letting and will be resolved in the project contract.

#### Air Quality Analysis

The revised Air Quality Analysis was prepared on March 3, 2009, to provide updated information meeting current FHWA reporting requirements, particularly regarding Particulate Matter (PM 2.5) and Mobile Source Air Toxics (MSATs). A qualitative PM 2.5 hot-spot analysis is not required for this project, since it is not an air quality concern. The Clean Air Act and 40 CFR 93.116 requirements were met without a hot-spot analysis, since this project has been found not to be of air quality concern under 40 CFR 93.123(b)(1). All inter-agency groups, as well as USEPA: Region 4, agreed that these requirements were met without performing a hot-spot analysis. This project meets the statutory transportation conformity requirements without a hotspot analysis. Notice of the revised Air Quality Analysis was posted on the Piedmont Triad Council of Governments website for 45 days, beginning on February 24, 2009, and ending on April 10, 2009. No comments were received.

With regard to attainment status, the current conformity determination is consistent with the final conformity rule found in 40 CFR Parts 51 and 93. There are no significant changes in the project design concept or scope, as used in the conformity analyses. The project is located in both Rowan and Davidson Counties, which comply with the National Ambient Air Quality Standards. This project will not add substantial new capacity or create a facility that is likely to meaningfully increase emissions. Therefore, it is not anticipated to create any adverse effects on the air quality of these attainment areas.

#### IV. LIST OF ENVIRONMENTAL COMMITMENTS

NCDOT will implement all practical measures and procedures to minimize and avoid environmental impacts.

See the attached list of project commitments.

#### V. COORDINATION

PDEA personnel have discussed current project proposals with others as follows:

Director of Preconstruction:	<u>Deborah Barbour, P.E.</u>	<u>December 2008 – January 2009</u>
State Highway Design Engineer:	<u>Art McMillian, P.E.</u>	<u>December 2008 – January 2009</u>
Project Engineer:	<u>Cathy Houser, P.E.</u>	<u>December 2008 – February 2009</u>
Project Engineer:	<u>Roger Thomas, P.E.</u>	<u>December 2008 – February 2009</u>
Project Engineer:	<u>Teresa Bruton, P.E.</u>	<u>December 2008 – February 2009</u>
Program Management Unit:	<u>Roger Rochelle, P.E.</u>	<u>December 2008 – April 2009</u>
Program Management Unit:	<u>Virginia Mabry</u>	<u>January 2009 – March 2009</u>
Program Management Unit:	<u>Nicole Hackler, P.E.</u>	<u>January 2009 – March 2009</u>
Program Management Unit:	<u>Keith Eason, P.E.</u>	<u>December 2008 – April 2009</u>
TIP – Central Region:	<u>Mike Stanley, P.E.</u>	<u>December 2008 – April 2009</u>
Division 9 Engineer:	<u>Pat Ivey, P.E.</u>	<u>December 2008 – April 2009</u>
Division 9 ROW Agent:	<u>Rodney Hatton</u>	<u>December 2008 – April 2009</u>
Area 3 Locating Engineer:	<u>Patrick Tuttle</u>	<u>December 2008 – April 2009</u>
Div. 9 Constn. Engineer:	<u>Keith Raulston, P.E.</u>	<u>December 2008 – April 2009</u>
State Bridge Mgmt. Engr.:	<u>Daniel D. Holderman, P.E.</u>	<u>February 2009 – March 2009</u>
SHPO-Historical Resources:	<u>Renee Gledhill-Earley</u>	<u>December 2008 – April 2009</u>
FHWA Div Admin.:	<u>John Sullivan, P.E.</u>	<u>December 2008 – April 2009</u>
FHWA Operations:	<u>Clarence Coleman, P.E.</u>	<u>December 2008 – April 2009</u>

FHWA Engineer:	<u>Felix Davila, P.E.</u>	<u>December 2008 – April 2009</u>
FHWA Engineer:	<u>Robert Ayres, P.E.</u>	<u>December 2008 – March 2009</u>
FHWA Engineer:	<u>Edward Dancausse, P.E.</u>	<u>December 2008 – April 2009</u>
Yadkin District Historian:	<u>Ann Brownlee</u>	<u>December 2008 – April 2009</u>
Yadkin District Historian:	<u>Nancy Simpson, PhD.</u>	<u>December 2008 – April 2009</u>
Structure Design Unit:	<u>Lonnie Brooks, P.E.</u>	<u>April 2009</u>
Rail Division Director:	<u>Pat Simmons</u>	<u>April 2009</u>
Yadkin, Inc. / Alcoa:	<u>Marshall Olson</u>	<u>March 2009</u>
Yadkin, Inc. / Alcoa:	<u>Jody Casson</u>	<u>March 2009 – April 2009</u>

In addition to the list above, the public and state and federal regulatory agencies have had the opportunity to review and comment on the proposed project, throughout the project development process, as described below:

Start of Study Letter	August 7, 1998
Project Scoping Meeting	January 28, 1998
Citizens' Informational Workshop	September 09, 1998
Concurrence Point 1 Meeting (Purpose and Need)	August 22, 2000
Concurrence Point 2 Meeting (Alternatives to be Studied)	August 22, 2000
Design Public Hearing	July 26, 2001
Concurrence Point 3 Meeting (LEDPA)	December 13, 2001

#### VI. NCDOT CONCURRENCE

Karen J. Reynolds  
Project Planning Engineer

5/1/2009  
Date

Em Midell  
Manager of Planning and Environmental Branch

5/1/09  
Date

#### VII. FHWA CONCURRENCE

For Filip D. ...  
Federal Highway Administration  
Division Administrator

5/15/09  
Date

## PROJECT COMMITMENTS

### **I-85**

**North of SR 2120 (Exit 81) in Rowan County to  
US 29-52-70/I-85 Business (Exit 87) in Davidson County  
Rowan-Davidson Counties  
Federal Aid Project No. NHF-85-3(164)80  
WBS No. 34156, State Project No. 8.1631403  
T.I.P. Project No. 1-2304A**

### Commitments Developed Through Project Development and Design

#### Project Development and Environmental Analysis Branch / Transportation Program Management Unit

Because the subject project lies within a Federal Energy Regulatory Commission (FERC) licensed hydro plant project boundary (the Yadkin Project), approval for land transfer must be obtained by NCDOT in the form of a FERC license revision. Coordination with the proper FERC officials shall take place and the process to obtain a FERC permit will be followed.

*A portion of the subject project lies within the Yadkin Hydroelectric Project boundary, (Project No. 2197), as licensed by the Federal Energy Regulatory Commission (FERC). For this reason, NCDOT must receive prior written permission from Alcoa Power Generating, Incorporated (APGI), before beginning construction. This permission would most likely be in the form of a Construction Permit and/or easement, in accordance with the Yadkin Project Shoreline Management Plan (SMP). More specifically, the Industrial Use Approval Procedures are outlined in Appendix F to the SMP. Because the project is considered a 'new bridge or road,' the SMP requires 1) agency consultation, 2) 45-day prior notice to FERC and 3) APGI written permission (SMP Appendix F, Table 2). The Transportation Program Management Unit will coordinate with the proper APGI officials to obtain a FERC permit revision for this project.*

#### Geotechnical Unit

It is anticipated that the proposed widening of I-85 and interchange reconstruction along I-85 will encroach on one property identified as an underground storage tank (UST) site. The project has been designed to minimize impacts to this UST site to prevent the possibility of long-term costly remediation. This impacted site will be further evaluated before the project's construction.

#### Project Development and Environmental Analysis Branch

Due to its historical significance, Bridge # 46, which carries US 29-70 over the Yadkin River in the southbound direction, will remain in place but will be closed to vehicular traffic. The bridge will remain in place to serve pedestrian and bicycle traffic. Ownership, liability, and maintenance responsibilities are currently being discussed by the Rowan and Davidson County Commissioners, the Transportation Museum, and the State Historic Preservation Office (SHPO). It is anticipated that these issues will be resolved before the project construction.

The issues related to ownership, liability and maintenance responsibilities have not been resolved by the above-mentioned parties. These issues continue to be discussed by the local officials.

*Rehabilitation of Bridge No. 46 (Wil-Cox Bridge) is not an option due to the present state of*

*deterioration. After submission of the Notice of Adverse Effect to the Council in February 2009, FHWA entered into negotiations with NCDOT, NC HPO and other consulting parties to develop a Memorandum of Agreement (MOA) to mitigate the effects of the project on the Yadkin River Crossings Historic District. Davidson and Rowan Counties attended the initial meeting and informed all parties that they may not be able to honor their original intention to take ownership of the historic Wil-Cox Bridge. Rowan County commissioners voted against participating in preservation of the bridge, while the Davidson County commissioners have decided to work in good faith with FHWA and NCDOT towards taking ownership of the Wil-Cox Bridge, once the entire I-85 Yadkin River Bridge Project is completed. The ultimate fate of the bridge is unknown at this time, but the attached MOA has been drafted to accommodate for the effects of either outcome.*

#### Right of Way Branch

It is anticipated that thirteen Geodetic Survey markers will be impacted by this project. The North Carolina Geodetic Survey will be contacted prior to construction regarding the relocation of survey markers along the project.

#### Project Development and Environmental Analysis Branch / Structure Design Unit

Removal of Bridge # 137, which spans the Yadkin River, potentially results in 1,254 cubic yards of temporary fill. NCDOT will implement Best Management Practices for Bridge Demolition and Removal.

*Upon further analysis of the amount of temporary fill resulting from bridge demolition, it was determined that only the amount of fill from the substructure would result in temporary fill. The likely potential amount of fill resulting from bridge demolition will be approximately 430 cubic yards. NCDOT will implement Best Management Practices for Bridge Demolition and Removal.*

#### Project Development and Environmental Analysis Branch

The project may have an impact on a low income community in the Williams Trailer Park area located along I-85, south of SR 2124 (Hackett Road). During the project development process, no concerns have been raised by the public or local government officials concerning environmental justice issues. NCDOT will aggressively seek participation of this low-income community in the public involvement process.

NCDOT held two meetings with the citizens of the Williams Trailer Park. The first meeting was held in the Spencer Town Hall on 6/19/2001, and the second meeting was held in the North Carolina Transportation Museum on 6/24/2002. During these meetings, the design was presented to the trailer park residents and their input and concerns, related to the project, were obtained. In addition to these meetings, a more detailed analysis was performed to determine the impacts to this area and the determination has been made that this project does not create impacts related to Environmental Justice for the Williams Trailer Park.

*An on-site community studies review and analysis was conducted by the NCDOT Community Studies staff on March 6, 2009. No major area development or land use changes were observed inside the project limits since the Design Public Hearing was held.*



#### Project Development and Environmental Analysis Branch / Design Services Unit

Based on preliminary studies, five areas were identified as possible noise barrier locations. These noise barriers were determined to be unreasonable, due to the cost of the noise reduction benefits versus the cost of the abatement measures. However, the project will be re-evaluated for noise abatement measures once more detailed designs are complete.

The project was re-evaluated for noise abatement measures. Noise mitigation in the form of a wall was analyzed for several areas along the project. For the I-2304AA section, one location, known as Barrier Location 2, it was determined that a barrier in this location is considered reasonable and feasible by NCDOT guidelines. Hence, a noise wall is recommended in this area. Further coordination with the affected residents and/or businesses will take place concerning this proposed noise wall.

*One traffic noise barrier is proposed for construction on I-2304AA and is located on the west side of I-85, immediately south of the I-85 Business/I-85 interchange. The projects are proposed to be concurrently let as Design/Build. To facilitate the Design/Build process, NCDOT will revise the existing Design Noise Reports by using the current TNM® version 2.5 software and incorporating the analytical results for both project sections into one report. The proposed noise barrier is anticipated to remain. Completion of the revised NCDOT Design Noise Report is expected in mid-May 2009.*

#### Project Development and Environmental Analysis Branch / Design Services Unit / Construction Unit

A roadside memorial exists within the project limits; however it is not anticipated to be impacted by this project. This memorial, dedicated in 1929 by the North Carolina Historic Commission which currently owns the property, was investigated for its historical significance. It was determined that the Trading Ford Monument is not eligible for the National Register of Historic Places. Based on this site visit and other information compiled by NCDOT, no additional archaeological work was deemed necessary for this site. The Historic Preservation Office has requested that the bronze plaque be returned to them if the monument has to be removed during construction. Additionally, NCDOT will coordinate with local officials and SHPO to determine if there is a more suitable location for the marker.

*According to the current plans, the roadside memorial (Trading Ford Monument) will not be affected by the construction of this project.*

#### Design Services Unit / Structure Design Unit

In accordance with the FERC requirements, a Construction Permit will be issued to NCDOT once all requested information is reviewed and approved by the FERC. The construction permit will contain a condition, among many others, with regard to existing bridges that NCDOT will be required to remove all concrete down to the existing muck line so that it will not be a hazard or act as a "catch" for floating debris.

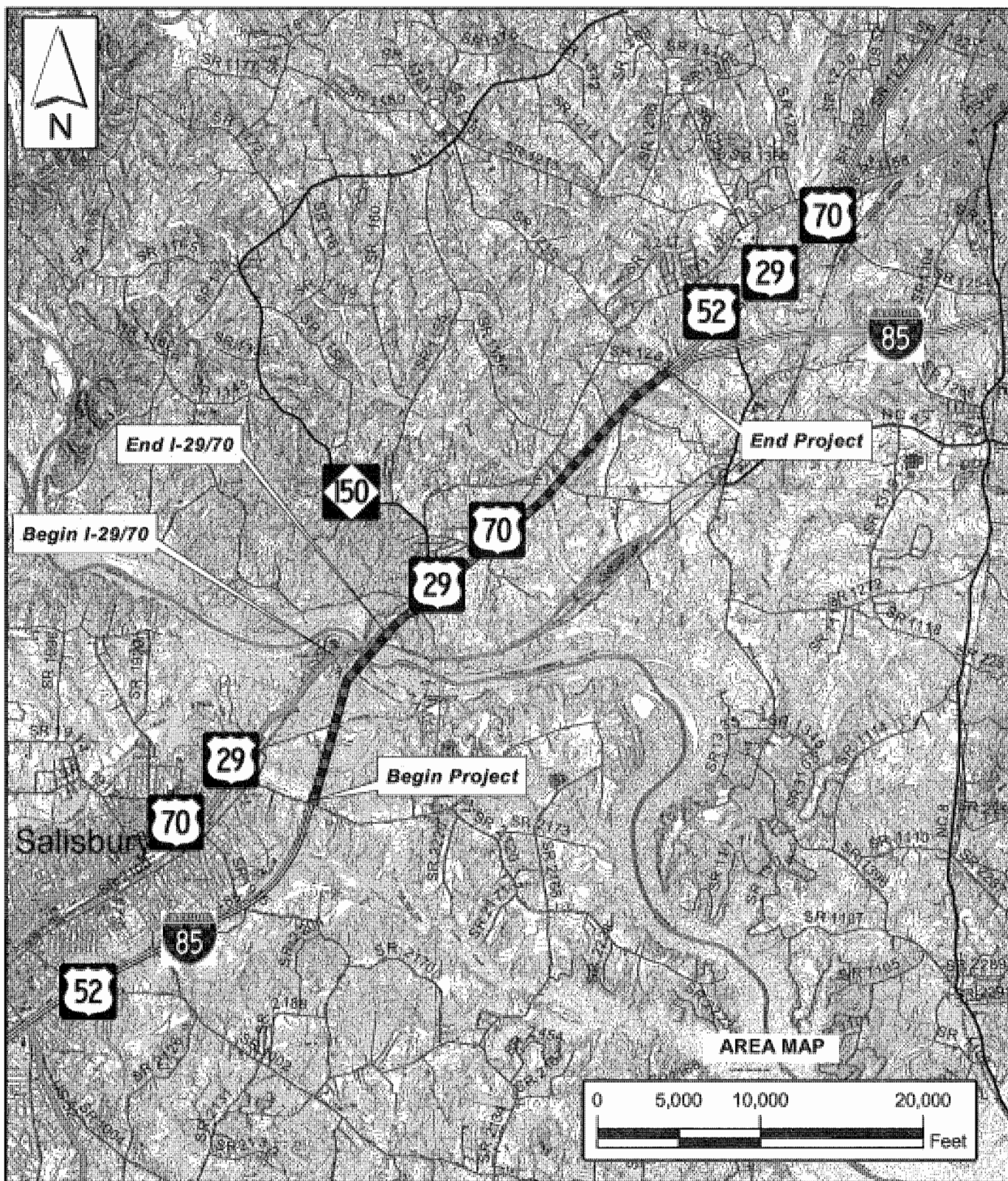
#### Project Development and Environmental Analysis Branch

The biological conclusion for the Bald Eagle was revised to "Not Likely to Adversely Affect".



This conclusion was approved by the USFWS. Because eagles may potentially nest in this area, NCDOT will survey for bald eagles prior to construction of the project.

*As of January 31, 2008, the United States Fish and Wildlife Service lists two federally protected species for Davidson County. Those species are the bog turtle and Schweinitz's sunflower. The USFWS lists one federally protected species for Rowan County, which is Schweinitz's sunflower. No new species have been added by the USFWS since the completion of the E.A. however, the bald eagle has been delisted since then. The bald eagle was officially delisted on August 8, 2007 (CFR 50 Part 17) and is still afforded protection under the Bald and Golden Eagle Protection Act. The biological conclusion of 'No Effect' remains valid for the above mentioned species. The NCDOT Natural Environment Unit will update the project Threatened or Endangered Species Report during the fall 2009 survey window.*

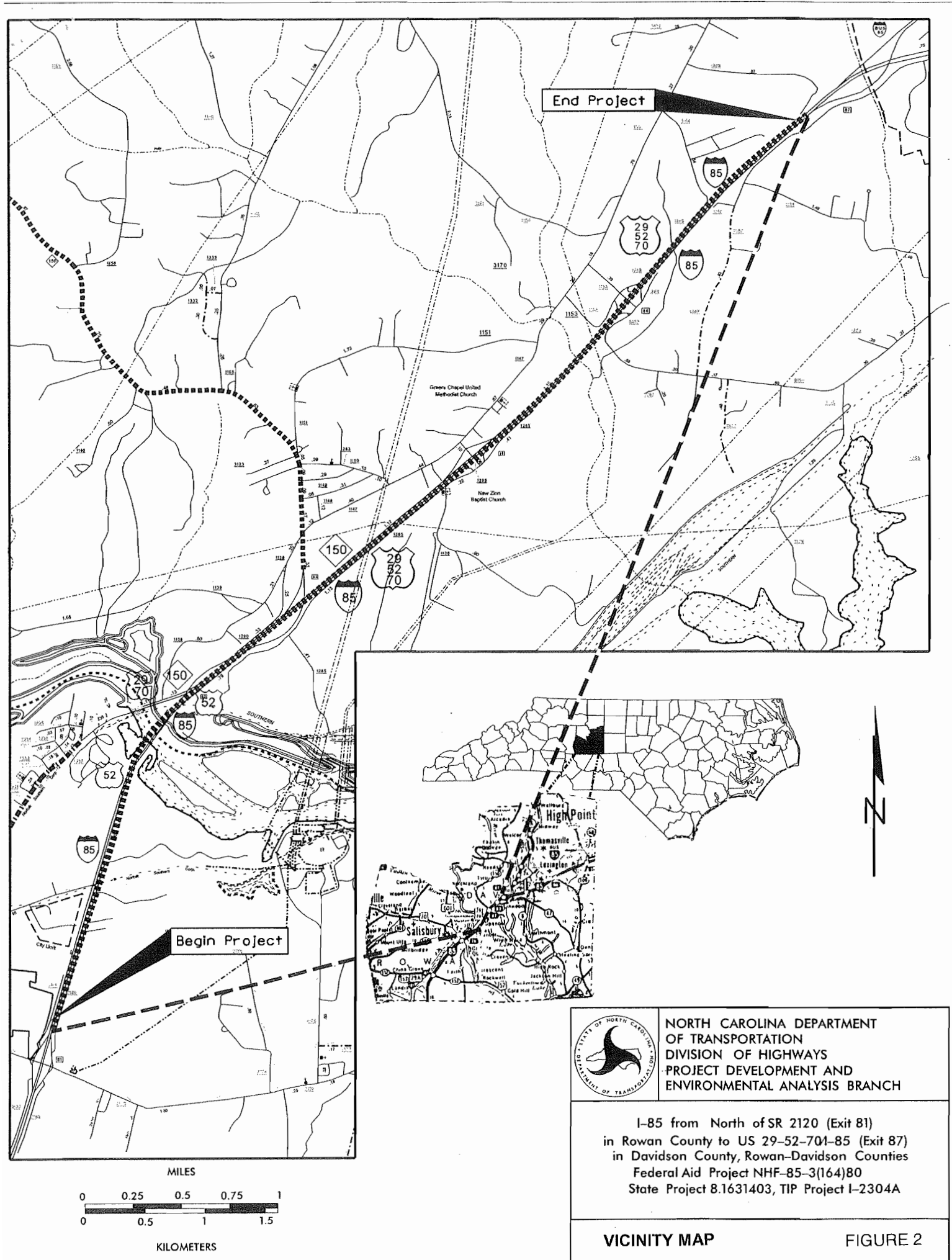


NORTH CAROLINA DEPARTMENT  
OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
PROJECT DEVELOPMENT AND  
ENVIRONMENTAL ANALYSIS BRANCH

**I-85 from North of SR 2120  
to US 29-52-70/I-85**  
DAVIDSON AND ROWAN COUNTIES  
TIP PROJECT I-2304A

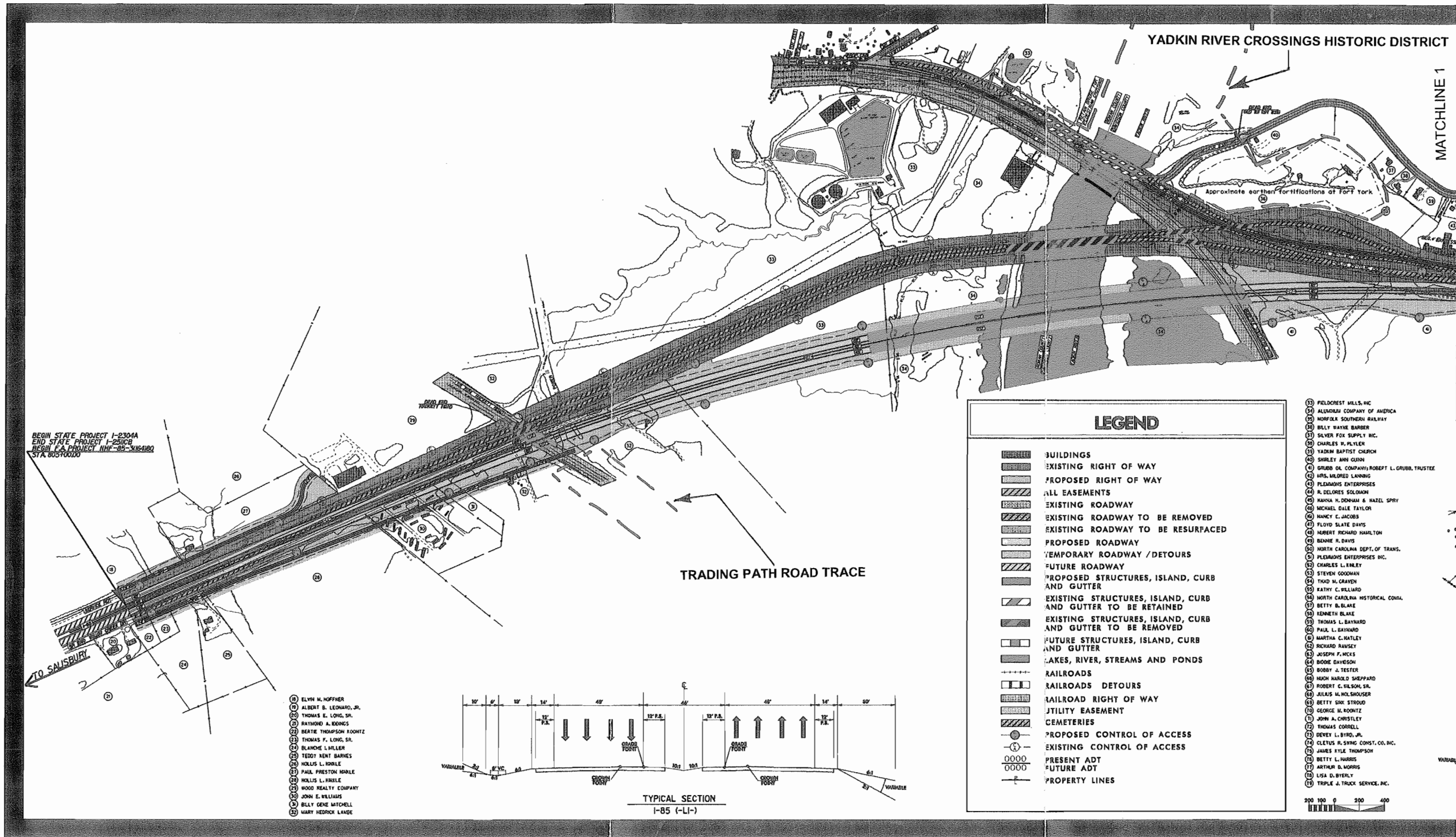
County: Davidson/Rowan	
Div: 9	TIP# I-2304A
WBS: 34156	
Date: 2/10/09	

**Figure  
1**





COMBINED PUBLIC HEARING MAP  
 PROJECT 81631403 (I-2304A)  
 F.A. PROJECT NMF-85-3(164)80  
 ROWAN COUNTY & DAVIDSON COUNTY  
 RECONSTRUCTION OF I-85 FROM NORTH OF SR 2120  
 IN ROWAN COUNTY TO US 29-52-70 / I-85 BUSINESS  
 IN DAVIDSON COUNTY



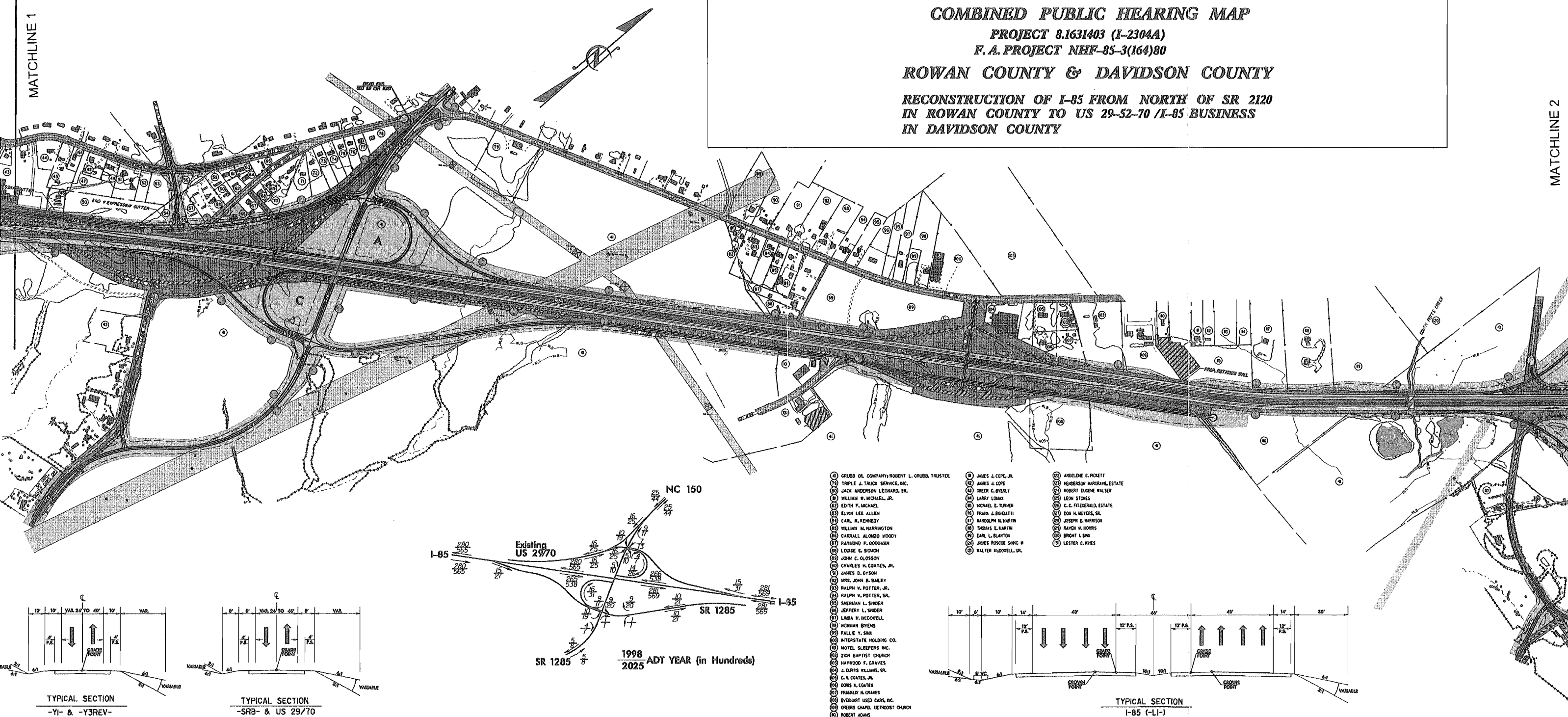
I-2304A COMBINED PUBLIC HEARING MAP  
 FIGURE 3-1

## MATCHLINE 2

(6) GRUBB CO. COMPANY ROBERT L. GRUBB, TRUSTEE  
 (7) TRIPLE J. TRUCK SERVICE, INC.  
 (8) JACK ANDERSON LEONARD, SR.  
 (9) WILLIAM W. MICHAEL, JR.  
 (10) EDITH F. MICHAEL  
 (11) ELYTH LEE ALLEN  
 (12) CARL R. KENNEDY  
 (13) WILLIAM M. HARRINGTON  
 (14) CARROLL ALONZO MOODY  
 (15) RAYMOND P. GOODMAN  
 (16) LOUISE C. SICHON  
 (17) JOHN C. OLSSON  
 (18) CHARLES H. COATES, JR.  
 (19) JAMES D. DYSON  
 (20) MRS. JOHN B. BAILEY  
 (21) RALPH W. POTTER, JR.  
 (22) RALPH W. POTTER, SR.  
 (23) SHERMAN L. SNIDER  
 (24) JEFFERY L. SNIDER  
 (25) LUBA H. MCDOWELL  
 (26) NORMAN BYRNS  
 (27) FALLIE Y. SNR  
 (28) INTERSTATE HOLDING CO.  
 (29) MOTEL SLEEPERS INC.  
 (30) ZION BAPTIST CHURCH  
 (31) HARTWOOD P. GRAVES  
 (32) J. CURTIS WILLIAMS, SR.  
 (33) C. H. COATES, JR.  
 (34) DORIS X. COATES  
 (35) EMERLE H. GRAVES  
 (36) EVERHART USED CARS, INC.  
 (37) GREYS CHAPEL METHODIST CHURCH  
 (38) ROBERT ADAMS

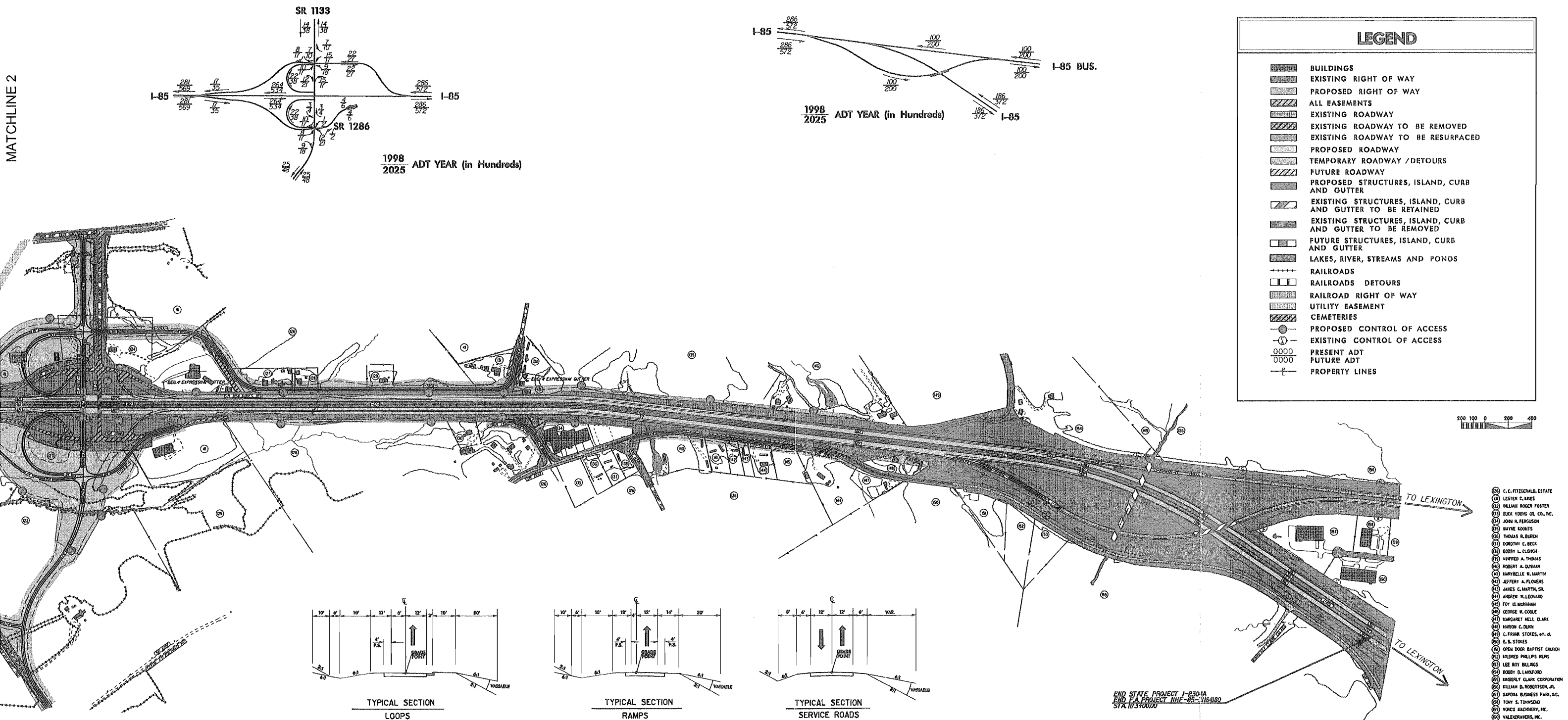
(B) JAMES J. COPE, JR.  
 (C) JAMES J. COPE  
 (D) GREER C. BRYER  
 (E) LARRY LOMAX  
 (F) MICHAEL E. TURNER  
 (G) FRANK J. BONDATTI  
 (H) THOMAS M. MARTIN  
 (I) RICHARD E. MARTIN  
 (J) EARL L. BLANTON  
 (K) JAMES RYNDKE SHING H  
 (L) WALTER MCDOWELL, SR.

(M) ANGELINE C. PICKETT  
 (N) HEIDENSON HARGRAVE, ESTATE  
 (O) ROBERT EUGENE WALSER  
 (P) JENK STOKES  
 (Q) C. C. RYDERKALD, ESTATE  
 (R) DON H. NEWKIRK, SR.  
 (S) JOSEPH E. HARRISON  
 (T) RAYMON W. JORDIS  
 (U) SPURAT J. SNR  
 (V) LESTER C. KRES



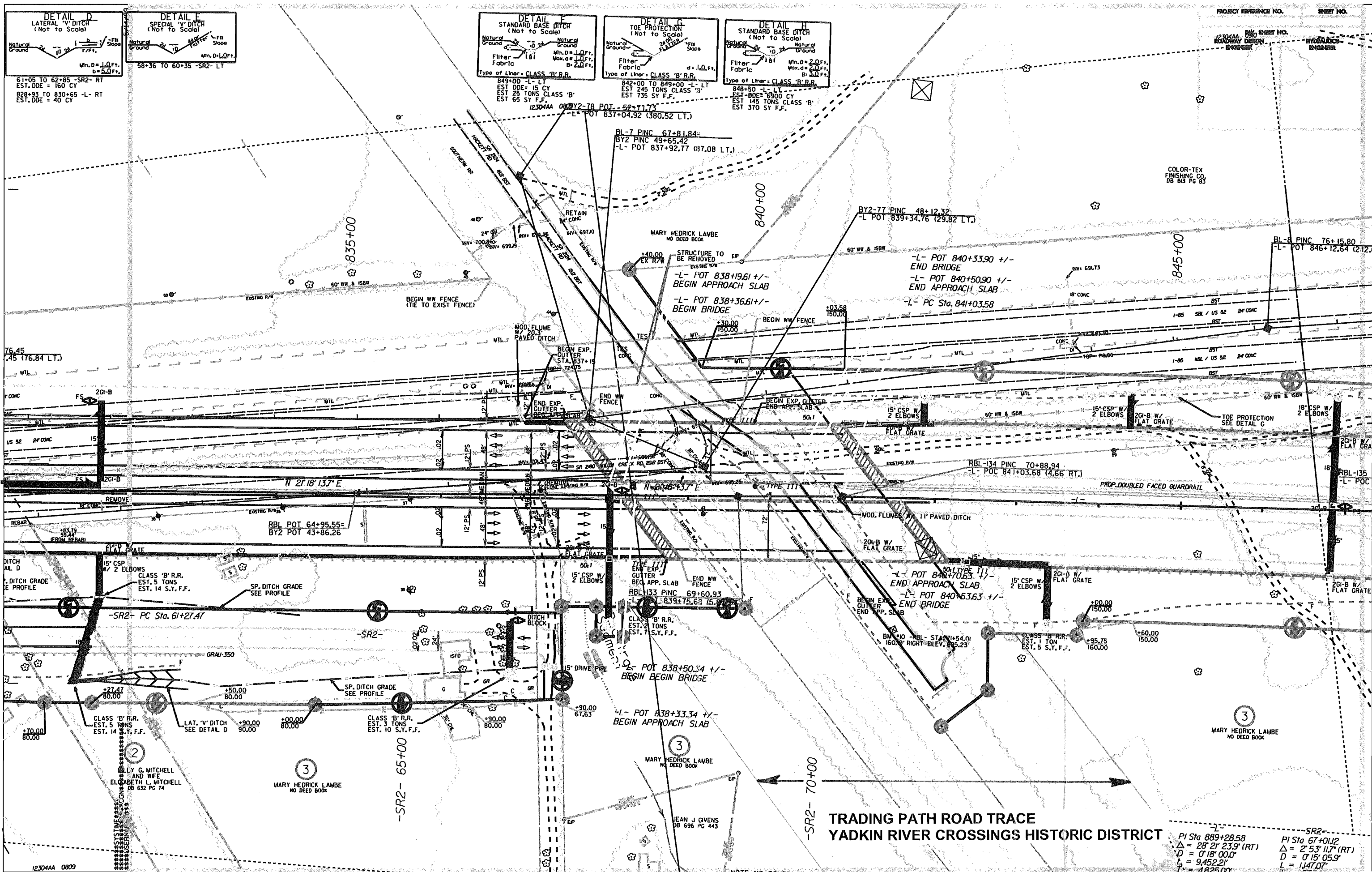
**I-2304A COMBINED PUBLIC HEARING MAP**  
**FIGURE 3-2**

MATCHLINE 2



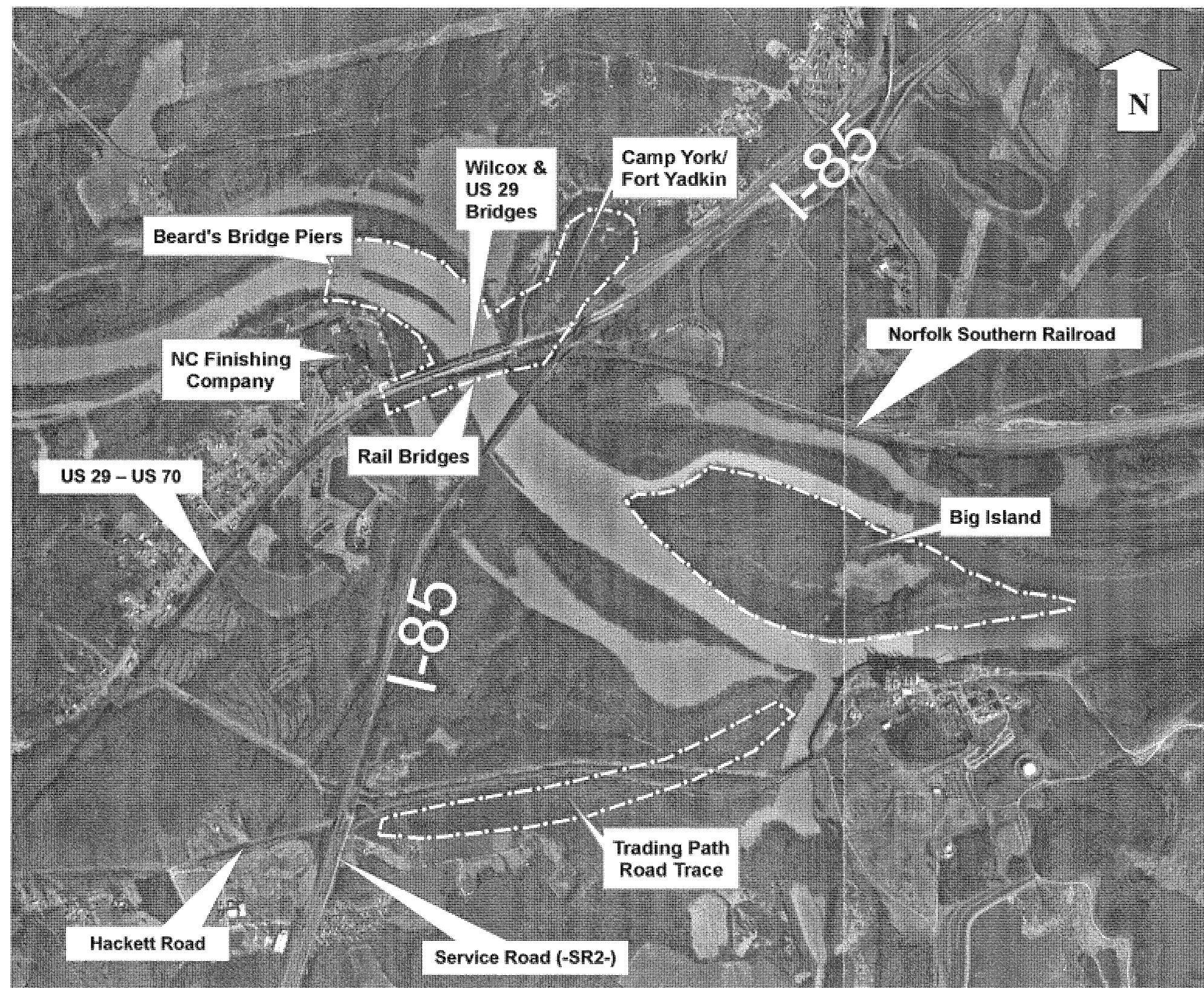
I-230A COMBINED PUBLIC HEARING MAP  
FIGURE 3-3





SERVICE ROAD NEAR SR 2124 (HACKETT ROAD)  
FIGURE 4

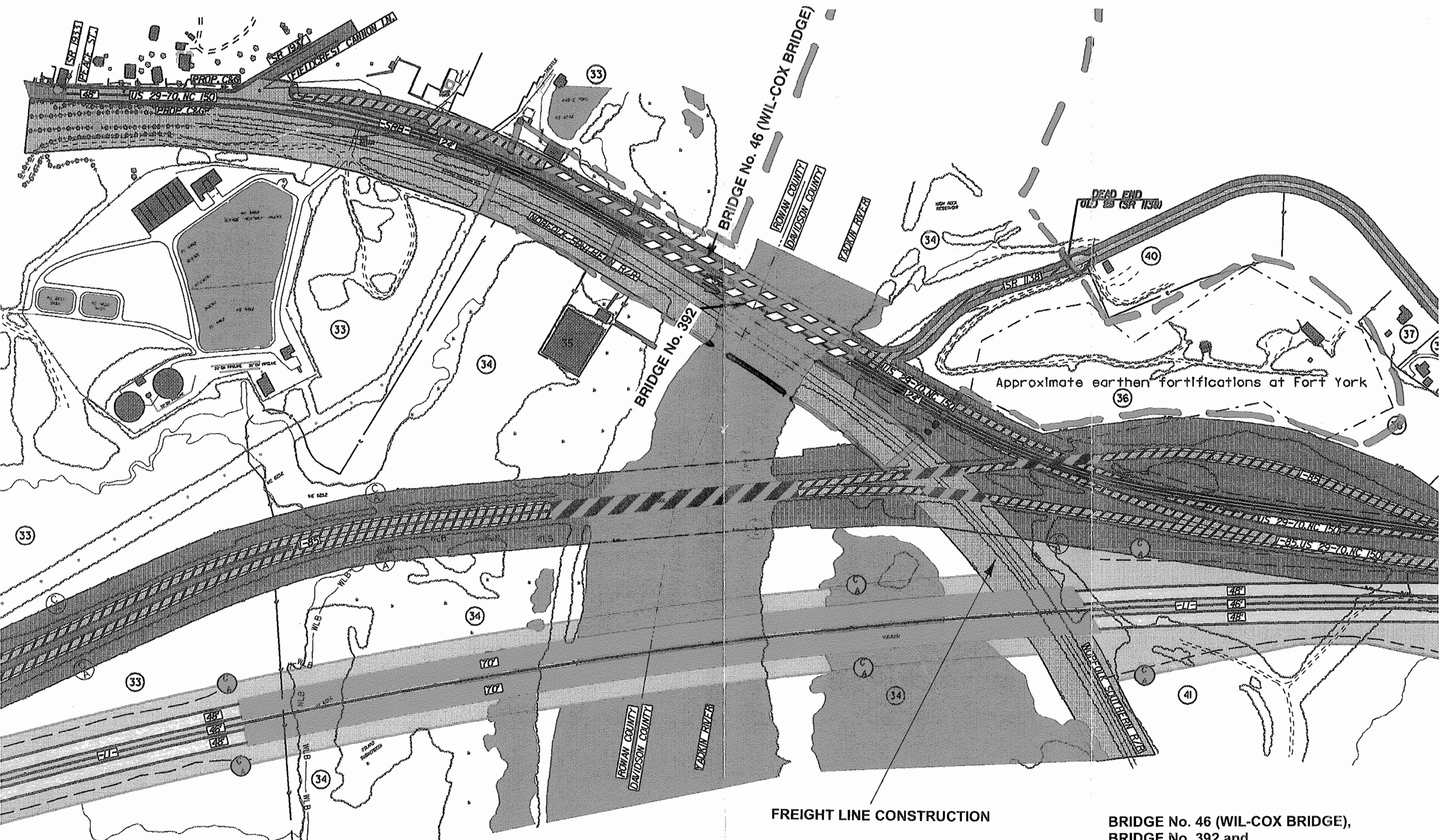




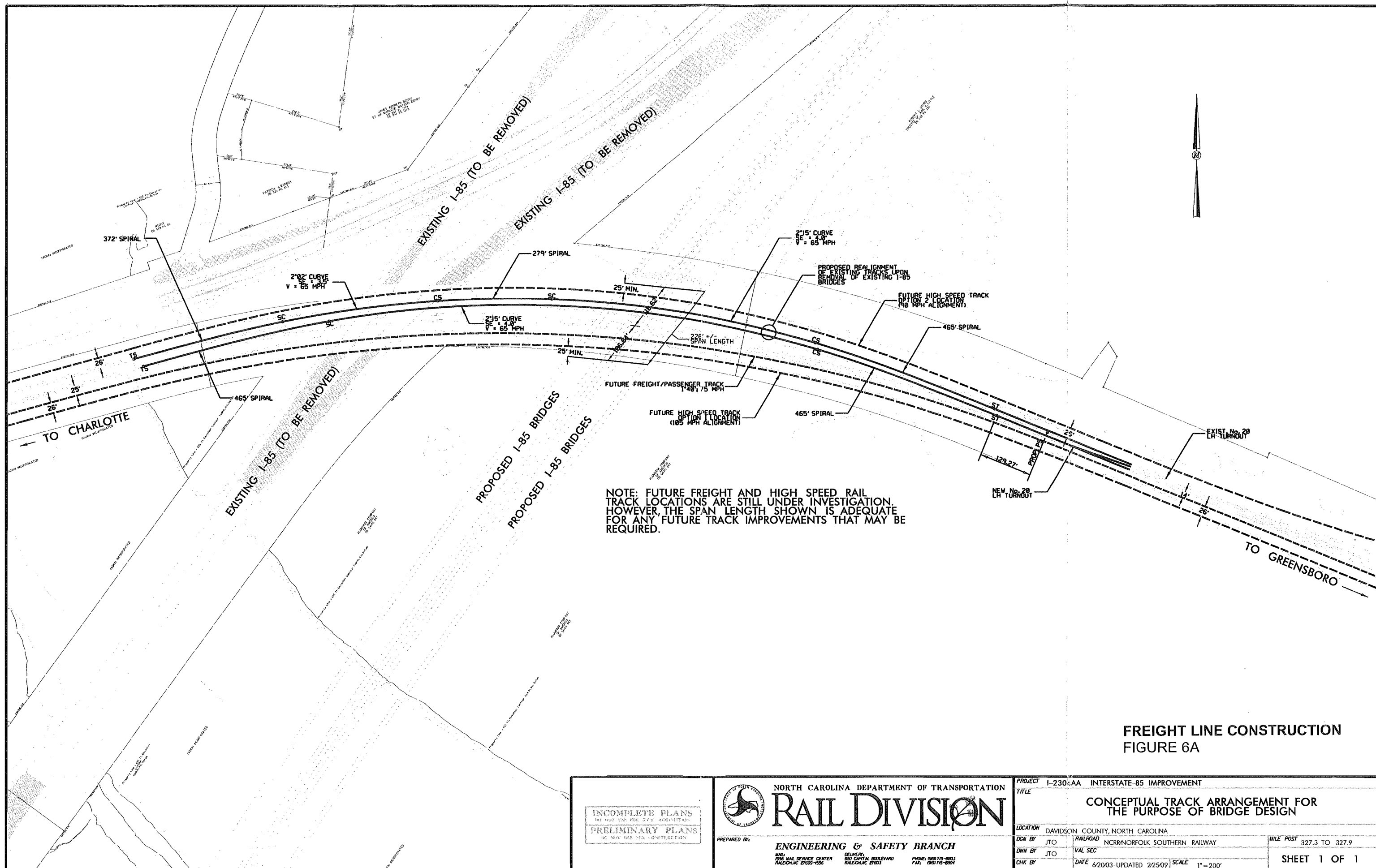
**I-2314A**  
Yadkin River Crossings  
Historic District  
 (National Register  
 Eligible District)

**YADKIN RIVER CROSSINGS HISTORIC DISTRICT**  
**FIGURE 5**

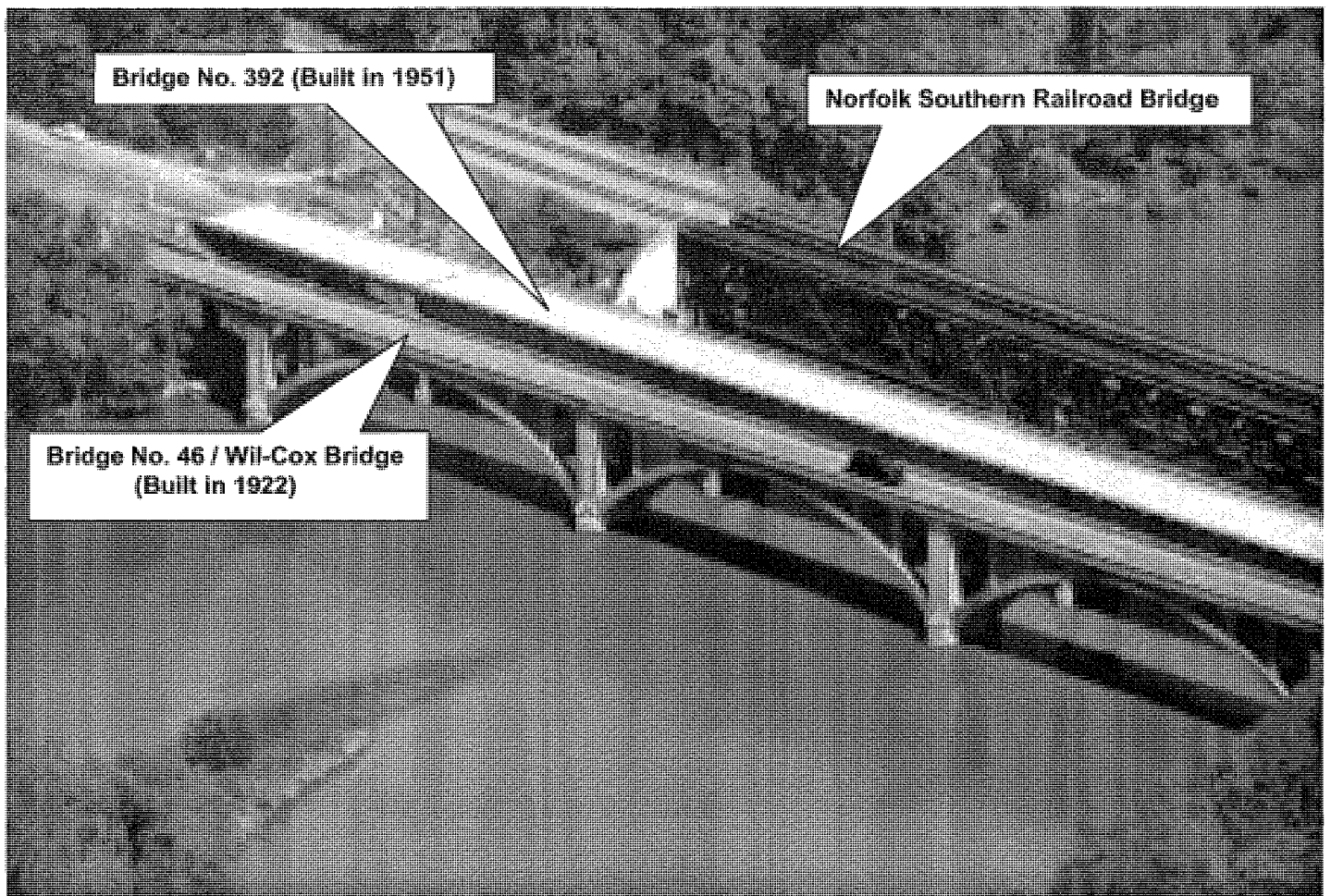




BRIDGE No. 46 (WIL-COX BRIDGE),  
BRIDGE No. 392 and  
YADKIN RIVER CROSSINGS HISTORIC DISTRICT  
FIGURE 6







Bridge No. 392 (Built in 1951)

Norfolk Southern Railroad Bridge

Bridge No. 46 / Wil-Cox Bridge  
(Built in 1922)

**BRIDGE No. 46 (WIL-COX BRIDGE)  
BRIDGE No. 392 and Railroad Bridge  
FIGURE 7**

