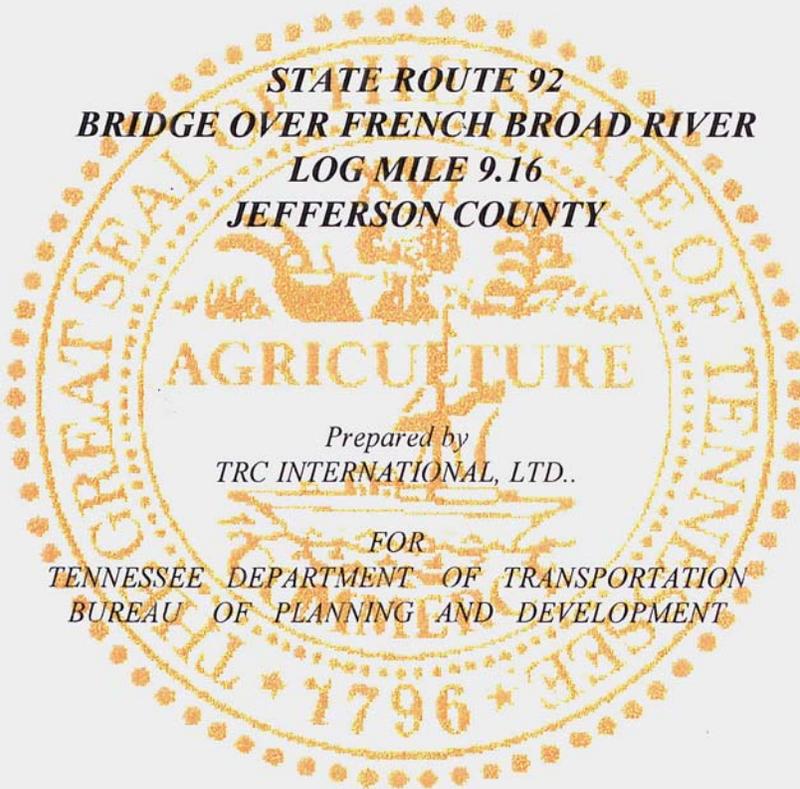


# ADVANCE PLANNING REPORT

## SPECIAL BRIDGE REPLACEMENT PROGRAM



STATE ROUTE 92  
BRIDGE OVER FRENCH BROAD RIVER  
LOG MILE 9.16  
JEFFERSON COUNTY

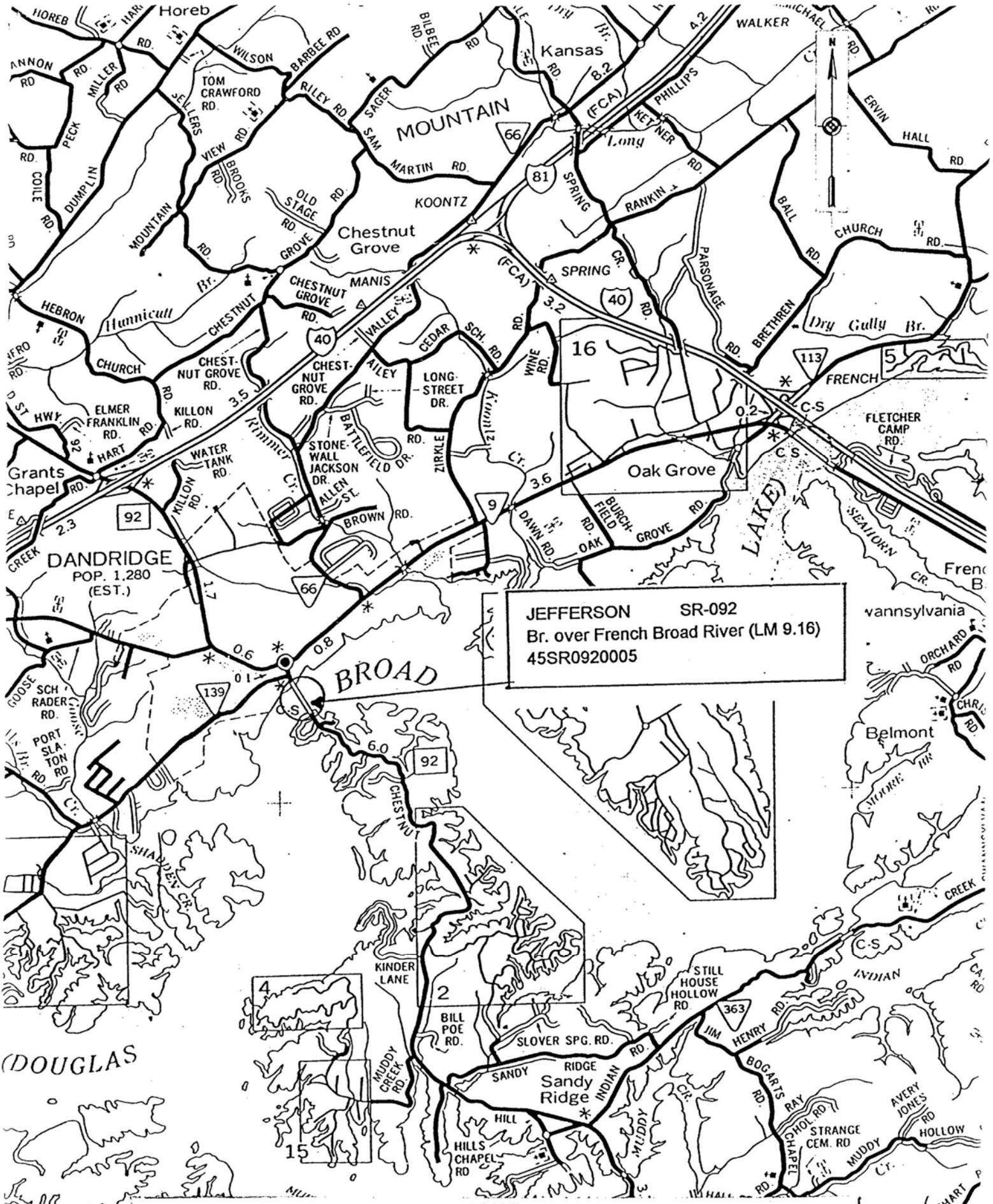
Prepared by  
TRC INTERNATIONAL, LTD..

FOR  
TENNESSEE DEPARTMENT OF TRANSPORTATION  
BUREAU OF PLANNING AND DEVELOPMENT

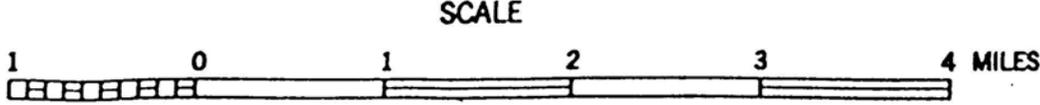
Approved by: William L. Moore, Jr. *[Signature]* 6/18/03 12/29/00  
Chief Engineer Date

REVISION

Recommended by:	INITIALS	DATE	Recommended by:	INITIALS	DATE
TRANS. DIRECTOR PLANNING DIVISION	R.E.C.	12/07/00	TRANS. DIRECTOR PLANNING DIVISION	R.E.C.	06/18/03
TRANS. DIRECTOR ENV. PLN. AND PERMITS	CEB	12/11/00	TRANS. DIRECTOR ENV. PLN. AND PERMITS	JAS	6/10/03
ENG. DIRECTOR DESIGN DIVISION	JD	12/12/00	ENG. DIRECTOR DESIGN DIVISION	JD	6/10/03
ENG. DIRECTOR STRUCTURES DIVISION	ER	12/18/00	ENG. DIRECTOR STRUCTURES DIVISION	ER	6/11/03
TRANS. DIRECTOR PROG. DEV. DIVISION	JRT	12/19/00	for ENG. DIRECTOR PROG. DEV. DIVISION	JRT	6/11/03
ASSISTANT CHIEF ENGINEER	HAZ	12/29/00	ASSISTANT CHIEF ENGINEER	HAZ	6/13/03
ASSISTANT CHIEF ENGINEER	ee	12/20/00	ASSISTANT CHIEF ENGINEER	ee	6/16/03



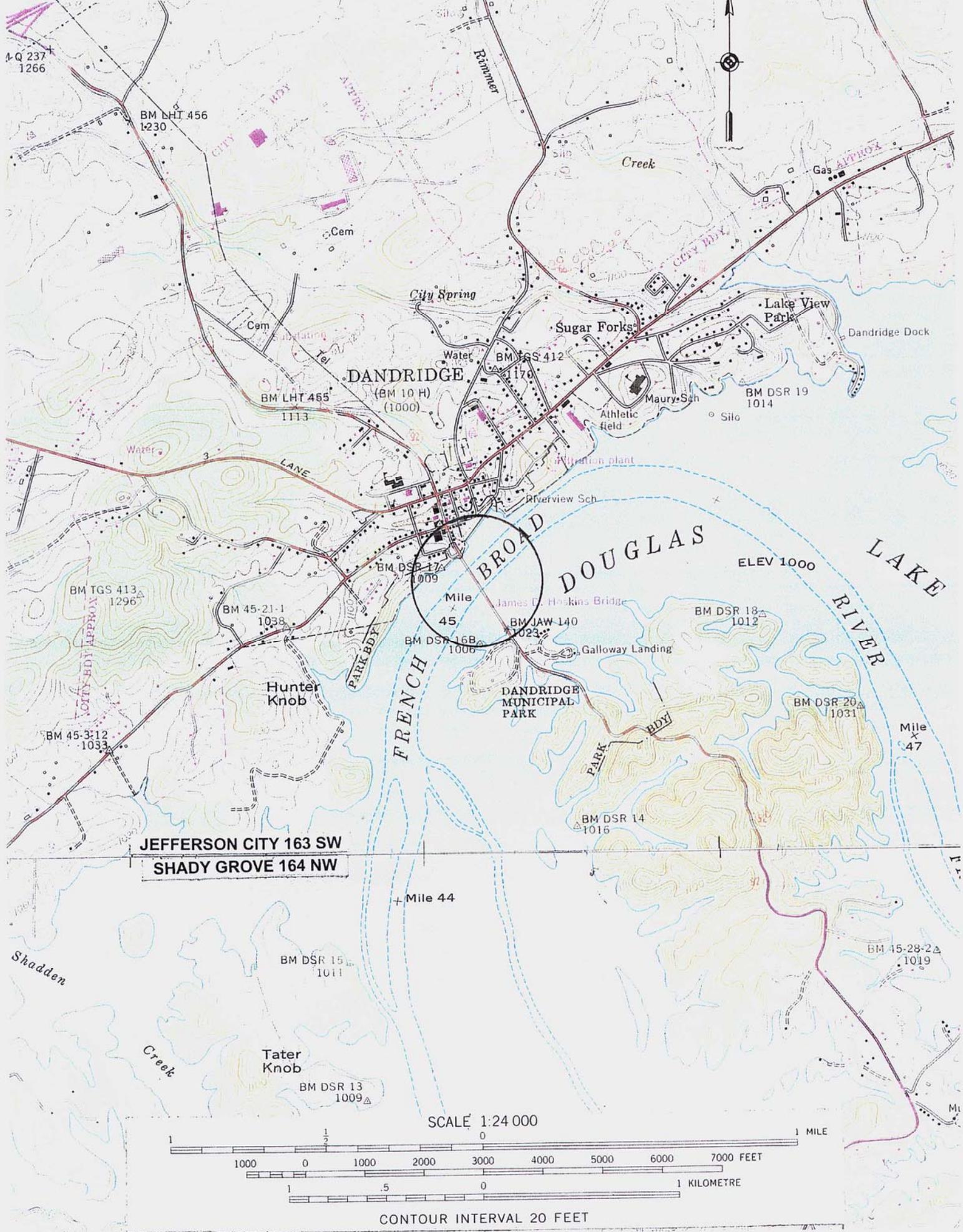
JEFFERSON SR-092  
 Br. over French Broad River (LM 9.16)  
 45SR0920005



(DOUGLAS

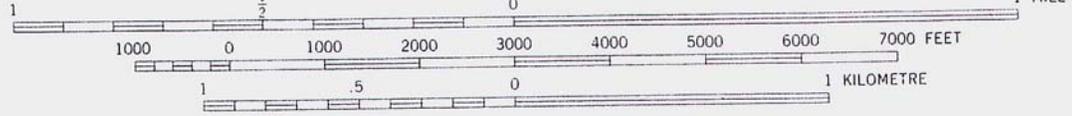
LEE FINE RD

A-Q 237  
1266



JEFFERSON CITY 163 SW  
SHADY GROVE 164 NW

SCALE 1:24 000



CONTOUR INTERVAL 20 FEET

**BRIDGE REPLACEMENT ANALYSIS, NEEDS, AND COSTS**

County: Jefferson Route: State Route 92 Log Mile: 9.16  
Feature Crossed: French Broad River System: STP  
Functional Class: Rural Minor Arterial Bridge I.D.: 45SR0920005

**EXISTING CONDITIONS**

2005: ADT 3000 App. Cross Section: 19'/23'/50' No. Lanes: 2  
Approach Alignment: Tangent, Curve Year Built: 1947 Load Limit: 5 tons  
Width (curb to curb): 18' Sidewalks: Right 0 Left 0 Length: 1467'  
No. Spans: Approach: 5C.S.G. 0 Main: 3 C.H.S.T.  
Substructure: Unknown Vertical Clearance: 16' Sufficiency Rating: 37.9

Other: Telephone under bridge on left side. Gas on left side of Bridge. Electric attached to right side of bridge. Water line under roadway on south end of bridge.

**PROPOSED IMPROVEMENTS** – STANDARDS FROM RD01-TS- 3 Type of Work: Replace

Design Year: 2025 ADT: 4,800 DHV: 528 ADL (F):      (R):       
Length of Project: 2500' Structure Length: 1467' Design Speed: 50, 35 MPH Posted Speed: 35 MPH  
Approach Width: South-24'/44'/Varies; North-24'/44'/60' Bridge Width: 44' c/c No. Lanes 2  
Right-of-Way Required: Yes. Temporary Detour: No Alternate Route: No

**Remarks:** New bridge will be stage constructed with centerline offset 28' downstream from the existing bridge centerline. There will be a 5' sidewalk on the east (upstream) side of the bridge

**ESTIMATED COST**

Right-of-Way: \$ 785,000 Approaches: \$ 2,750,000 Structure \$8,600,000  
Preliminary Engineering: 1,005,000 Utilities: \$ 495,000 Total: \$ 13,635,000

Remarks: Structure costs include \$500,000 for removal of existing structure

Field Investigation by: Charles Graves, Bill Hart

State Route 92

Bridges and Approaches over French Broad River

Dandridge, Jefferson County

April 30, 2003

Construction Cost	\$ 2,750,000
Bridge Cost*	\$ 8,600,000
Preliminary Eng. Cost	\$ 1,005,000
Right-Of-Way Cost	\$ 785,000
(Local) Utility Adjustment Cost	\$ 485,000
(State) Utility Adjustment Cost	\$ <u>10,000</u>
Total Cost	\$13,635,000

\* Includes \$500,000 removal of existing structure.

*Mark J. Simon*  
9-30-03

## CHECK LIST OF DETERMINANTS FOR LOCATION STUDY

If preliminary field reviews indicate the presence of any of the following facilities or ESE categories, place an "X" in the blank opposite the item. Where more than one alternate is to be considered, place it's letter designation in the blank.

- 1 Agricultural land usage. . . . . \_\_\_\_\_
- 2 Airport (existing or proposed) . . . . . \_\_\_\_\_
- 3 Commercial area, shopping center. . . . .   X
- 4 Floodplains. . . . .   X
- 5 Forested land. . . . .   X
- 6 Historical, archaeological , cultural, or natural landmark, or cemeteries . . . . .   X
- 7 Industrial park, factory. . . . . \_\_\_\_\_
- 8 Institutional usage . . . . . \_\_\_\_\_
  - a. School or other educational institution. . . . . \_\_\_\_\_
  - b. Church or other religious institution. . . . . \_\_\_\_\_
  - c. Hospital or other medical facility. . . . . \_\_\_\_\_
  - d. Public building, e.g., fire station. . . . .   X
  - e. Defense installation. . . . . \_\_\_\_\_
- 9 Recreational usage. . . . . \_\_\_\_\_
  - a. Park or recreational area, State Natural Area. . . . .   X
  - b. Wildlife refuge or wildlife management area. . . . . \_\_\_\_\_
- 10 Residential establishment. . . . .   X
- 11 Urban area, town, city or community (POP 1,280 Dandridge ) . . . . .   X
- 12 Waterway, lake, pond, river, stream, spring, wetland . . . . . \_\_\_\_\_
  - Permit required : Coast Guard   X   Section 404   X
  - Section 10   X   TVA Section 26a review   X   NPDES \_\_\_\_\_
  - Aquatic Resource Alteration Permit   X
  - Class V Injection Wells Permit \_\_\_\_\_
- 13 Location coordinated with local officials . . . . . \_\_\_\_\_
- 14 Railroad Crossings. (Separation) . . . . . \_\_\_\_\_
- 15 Hazardous Materials Site . . . . . \_\_\_\_\_
- 16 Other . . . . . \_\_\_\_\_

**STATE ROUTE 92 (L.M. 9.16)  
OVER FRENCH BROAD RIVER  
BRIDGE NO. 45 SR 0920005  
JEFFERSON COUNTY**



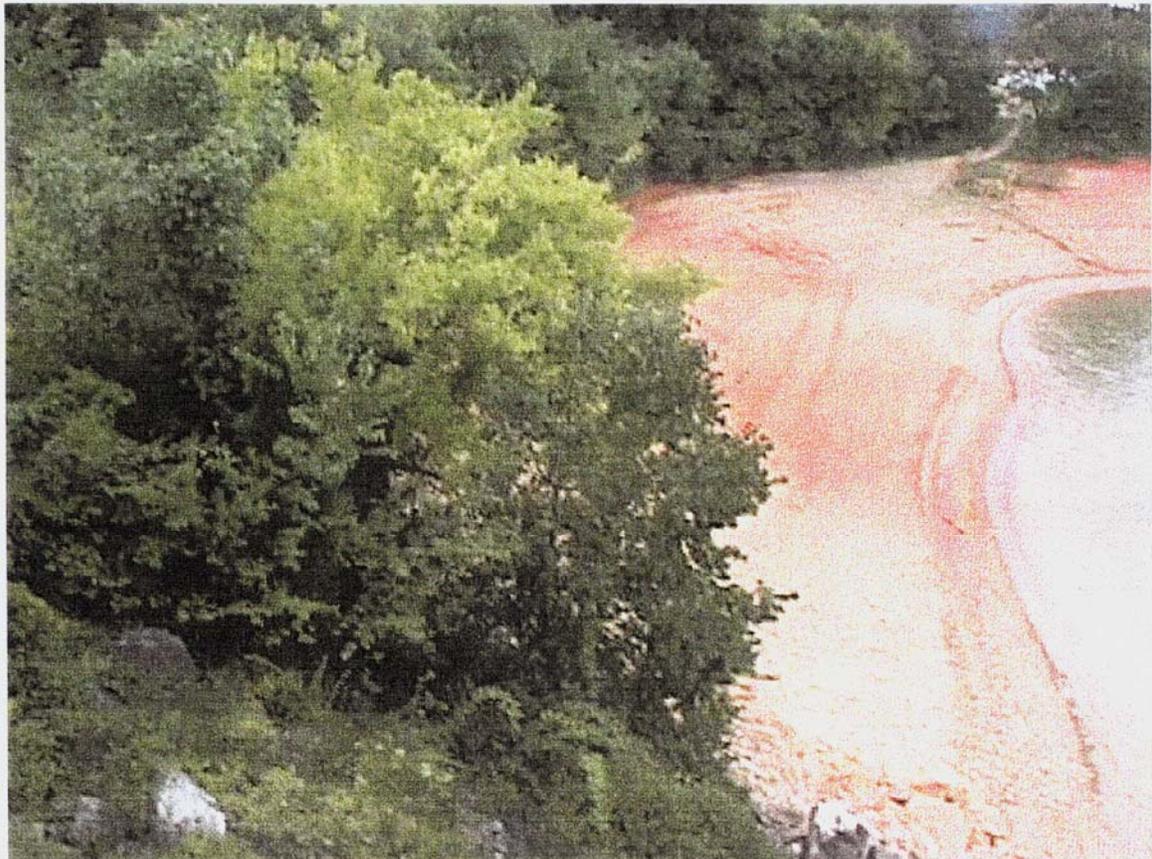
NORTHEAST CORNER FACING NORTHEAST



NORTH END FACING SOUTH



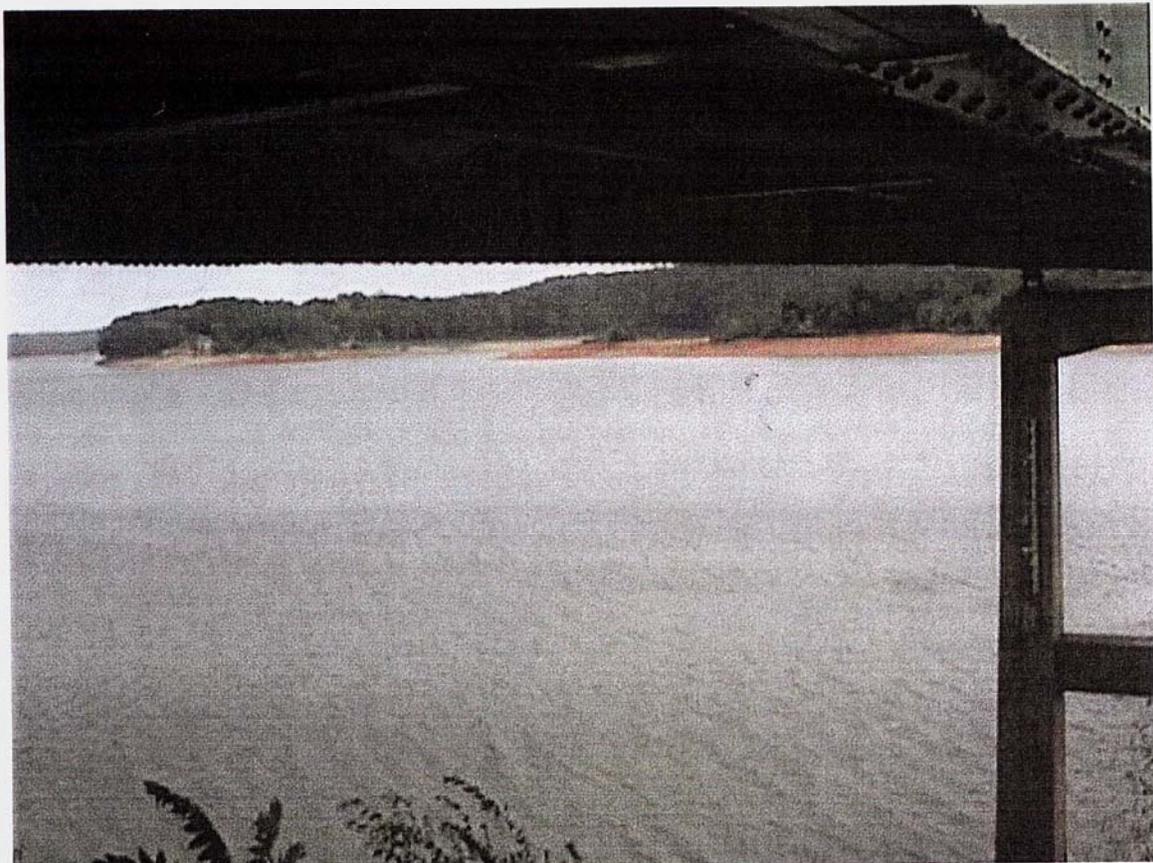
NORTHWEST CORNER FACING NORTHWEST



SOUTHWEST CORNER FACING SOUTHWEST



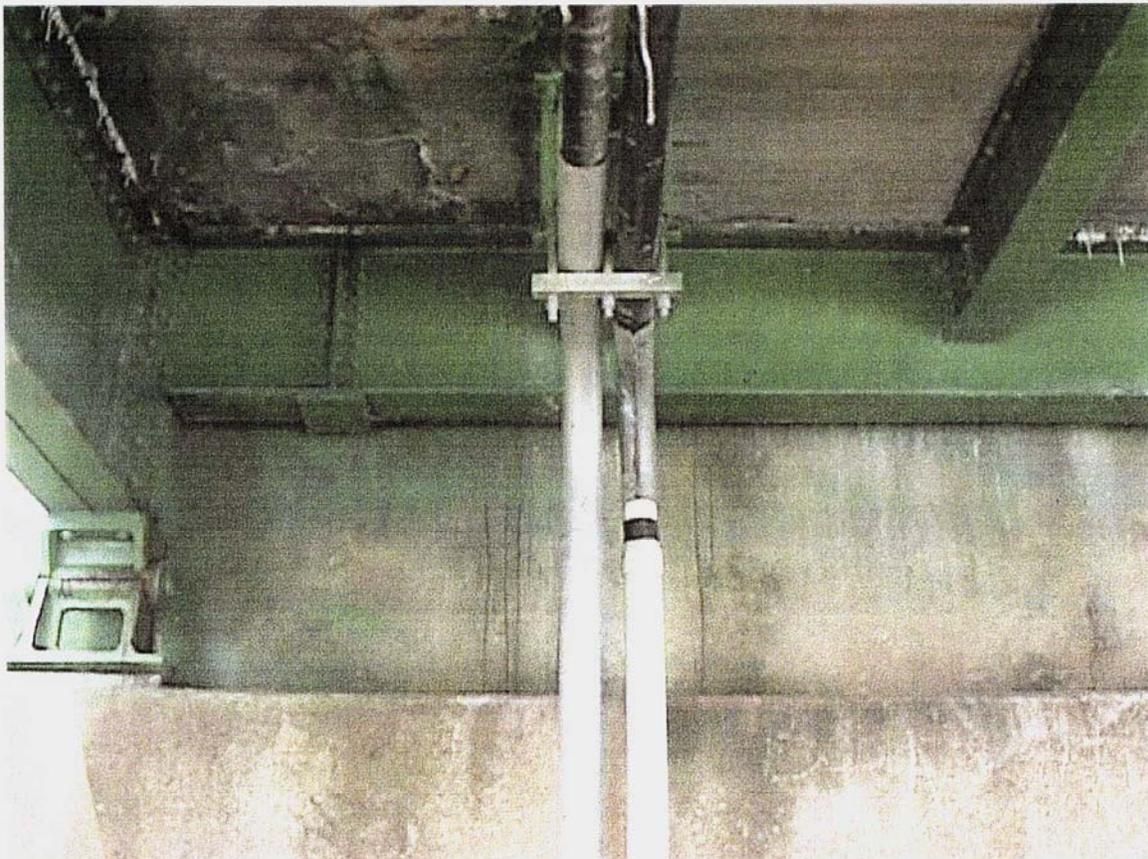
WEST SIDE FACING EAST



NORTHWEST CORNER FACING SOUTHEAST (FROM UNDERNEATH)



NORTHEAST CORNER FACING SOUTHWEST (FROM UNDERNEATH)



UNDER NORTH END



LIBRARY ON NORTHWEST CORNER



HOUSE ON NORTHWEST CORNER



SOUTH END FACING NORTH



SOUTHEAST CORNER FACING SOUTHEAST

Bill H.

Nathan - file



**STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF STRUCTURES  
SUITE 1100, JAMES K. POLK BUILDING  
NASHVILLE, TENNESSEE 37243-0339**

**GERALD F. NICELY**  
COMMISSIONER

**PHIL BREDESEN**  
GOVERNOR

March 20, 2003

The Honorable David D. Jones  
Mayor - City of Dandridge  
P.O. Box 249  
Dandridge, TN 37725

**SUBJECT: Project BR-STP-92 (11)  
Replacement of State Route 92  
over the French Broad River  
Jefferson County**

Dear Mayor Jones:

In response to your letter of December 18<sup>th</sup> to Mr. Bill Hart, the Department has again assessed the array of options investigated with regard to alignments and typical sections.

As the City declines to accept the responsibility and liabilities of ownership of the existing bridge, and the Department cannot accept the proposals for keeping the old bridge operating as half of a two lane divided highway, nor is willing to retain ownership of the old bridge as a bike/pedestrian structure, we will proceed with development of a new bridge off-set 28-ft. downstream from the existing bridge centerline. The cross-section will consist of two (2) 12-ft. lanes, two (2) 10-ft. shoulders and one (1) 5-ft. sidewalk on the east (upstream) side. This section will accommodate both pedestrian and bicycle traffic.

We regret that none of the several scenarios studied at the City's requests have led to a mutually acceptable alternative.

Yours very truly,

Edward P. Wasserman  
Civil Engineering Director - Structures

bc: Mr. Bill Moore  
Mr. Jim Zeigler  
Mr. Jerry Moorhead

### Index Of Sheets

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2-2A	TYPICAL SECTIONS
3-4	PROPOSED LAYOUTS

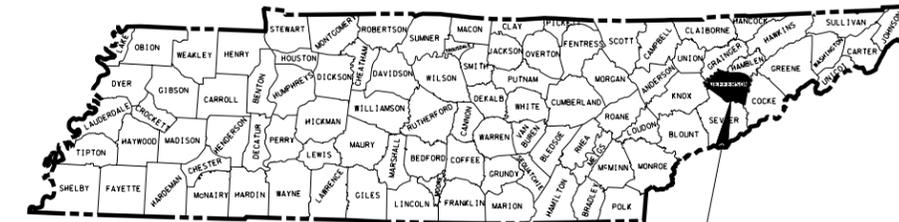
# STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION BUREAU OF ENGINEERING

## JEFFERSON COUNTY

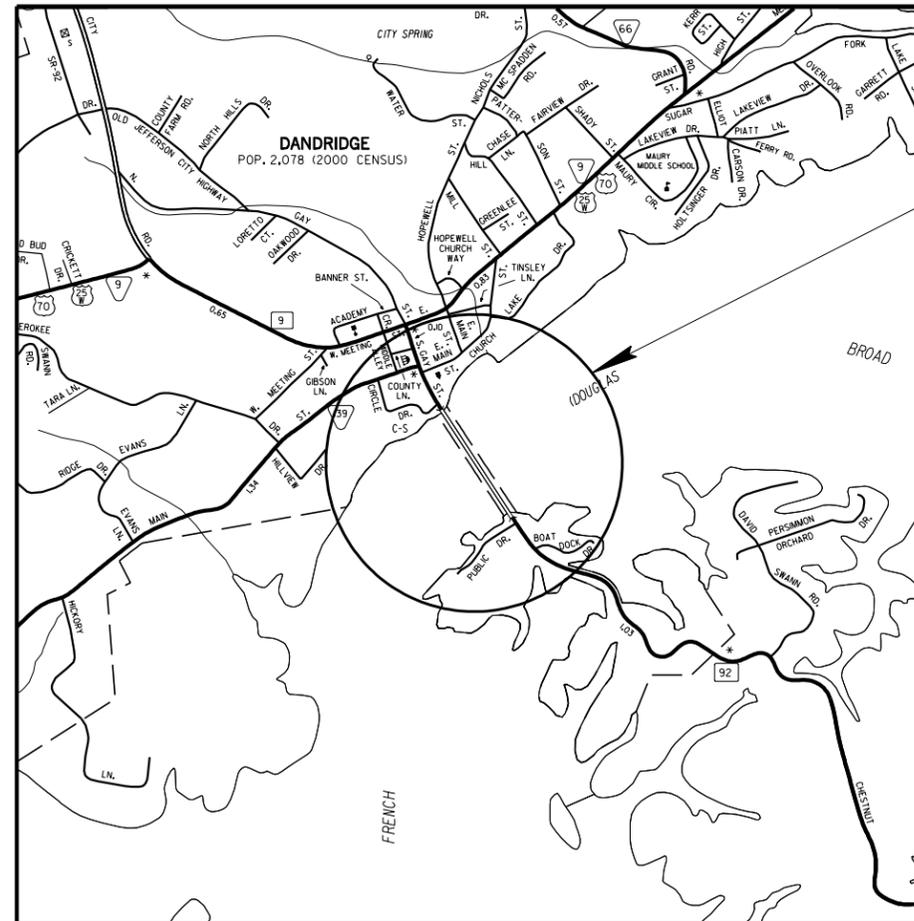
STATE ROUTE 92  
BRIDGE OVER FRENCH BROAD RIVER  
( DOUGLAS LAKE )

STATE HIGHWAY NO. 92 F.A.H.S. NO.

TENN.	YEAR	SHEET NO.
	2002	1
FED. AID PROJ. NO.		
STATE PROJ. NO.		



PROJECT LOCATION



PROJECT LOCATION



### SPECIAL NOTES

PROPOSALS MAY BE REJECTED BY THE COMMISSIONER IF ANY OF THE UNIT PRICES CONTAINED THEREIN ARE OBVIOUSLY UNBALANCED, EITHER EXCESSIVE OR BELOW THE REASONABLE COST ANALYSIS VALUE.

THIS PROJECT TO BE CONSTRUCTED UNDER THE STANDARD SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION DATED MARCH 1, 1995 AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS AND IN THE PROPOSAL CONTRACT

TDOT ROAD SP. SV. 2 DUDLEY DANIEL

DESIGNER STEVE HYLTON DRAFTER DAMON GORE

SCALE: 1" = 2.5 MILES

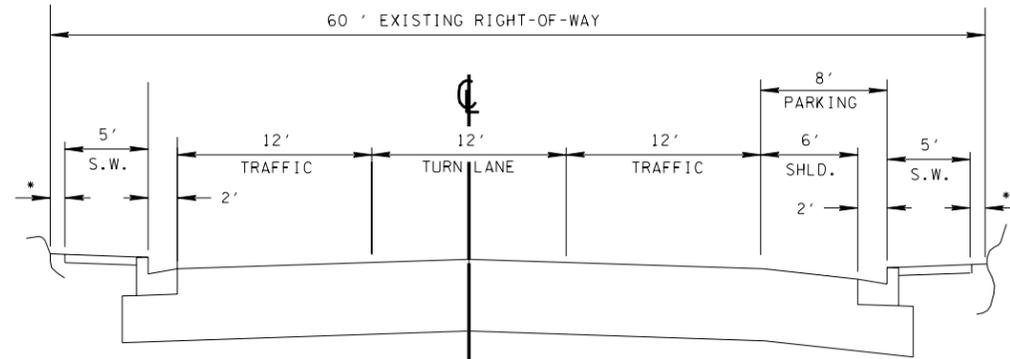
APPROVED: \_\_\_\_\_  
DIRECTOR, DESIGN DIVISION

DATE: \_\_\_\_\_

APPROVED: \_\_\_\_\_  
COMMISSIONER

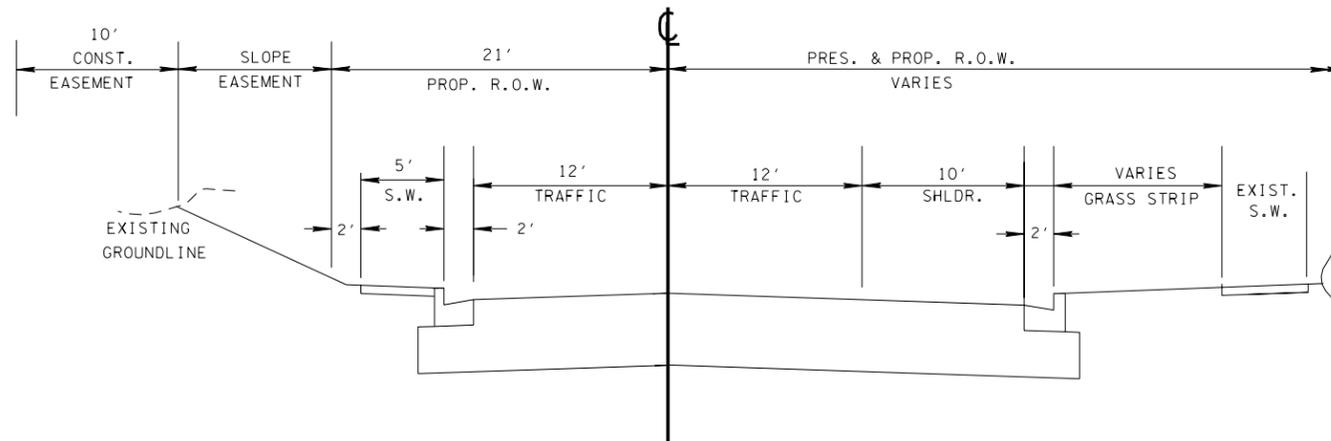
U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION

APPROVED: \_\_\_\_\_  
DIVISION ADMINISTRATOR DATE



TYPICAL SECTION  
 @ MAIN ST. (STATE ROUTE 139)

\* NOTE:  
 NO WORK TO BE DONE  
 OUTSIDE OF EXISTING  
 RIGHT OF WAY



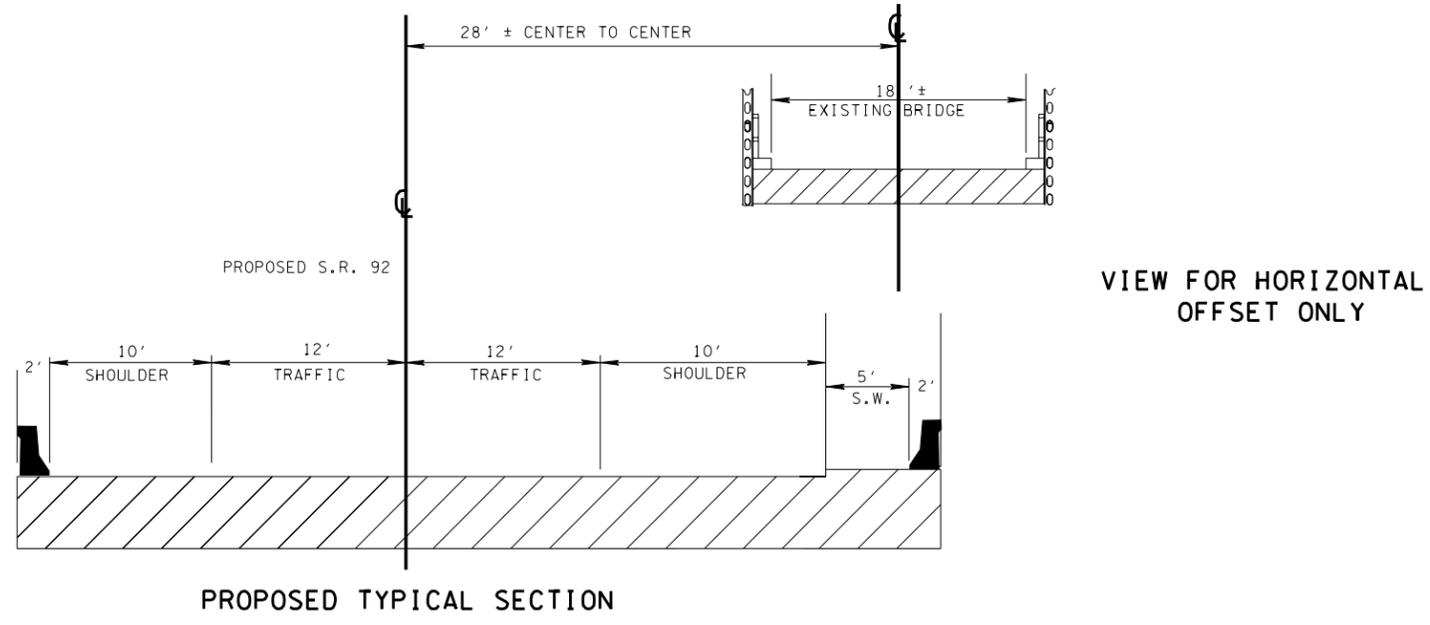
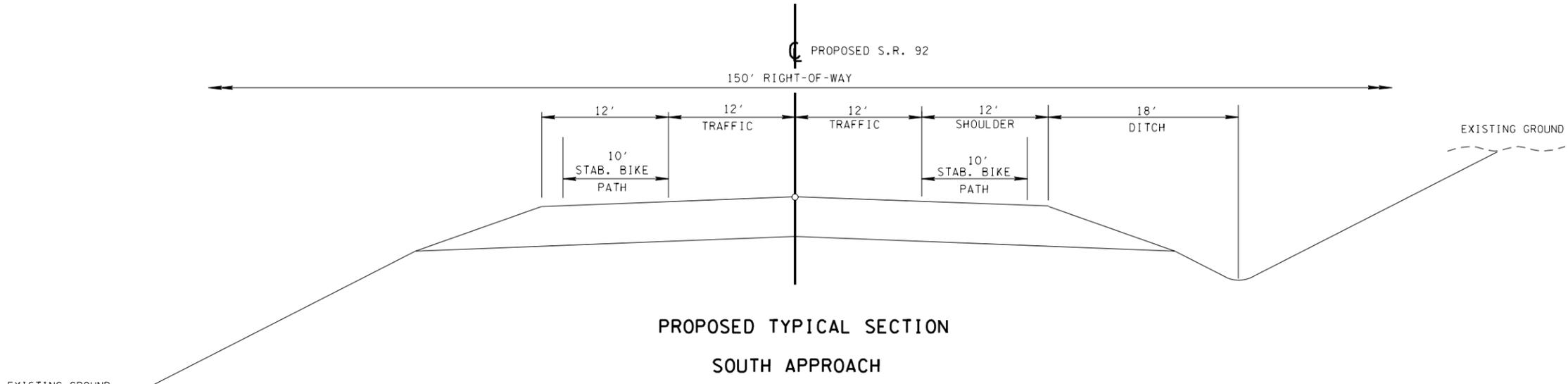
TYPICAL SECTION  
 NORTH APPROACH

NOT TO SCALE

STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION

TYPICAL  
 SECTIONS

TYPE	YEAR	PROJECT NO.	SHEET NO.
			2A



NOT TO SCALE

STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION

TYPICAL  
 SECTIONS

TYPE	YEAR	PROJECT NO.	SHEET NO.
			3



CURVE C011  
 PI 102+66.48  
 N 620,098.0410  
 E 2,734,227.0490  
 $\Delta$  25° 15' 27" (RT)  
 D 6° 30' 00"  
 R 881.47  
 L 388.57  
 T 197.50  
 SE 0.080 FT/FT  
 DESIGN SPEED 40 MPH  
 TRANS. LENGTH 125'



STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION  
 STATE ROUTE 92  
 DANDRIDGE  
 JEFFERSON CO.

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
			4

SEE SHEET NO. 5

MATCH LINE

115

120

125

French Broad River

Douglas Lake



24' PROP. R.O.W.

PROP. R.O.W.

PROP. R.O.W.

PROP. R.O.W.

PRES. & PROP. R.O.W.

PRES. & PROP. R.O.W.

PRES. & PROP. R.O.W.

AREA TO BE SCARIFIED

PC 123+23.46

CURVE C012  
 PI 125+05.57  
 N 621,963.7210  
 E 2,732,977.4410  
 Δ 15° 23' 08" (RT)  
 D 4° 15' 00"  
 R 1,348.14  
 L 362.01  
 T 182.10  
 SE 0.040 FT/FT  
 DESIGN SPEED 40 MPH  
 TRANS. LENGTH 125'

END PROJECT

PT 126+85.48



STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION

STATE ROUTE 92  
 DANDRIDGE  
 JEFFERSON CO.