

# TRANSPORTATION INVESTMENT REPORT

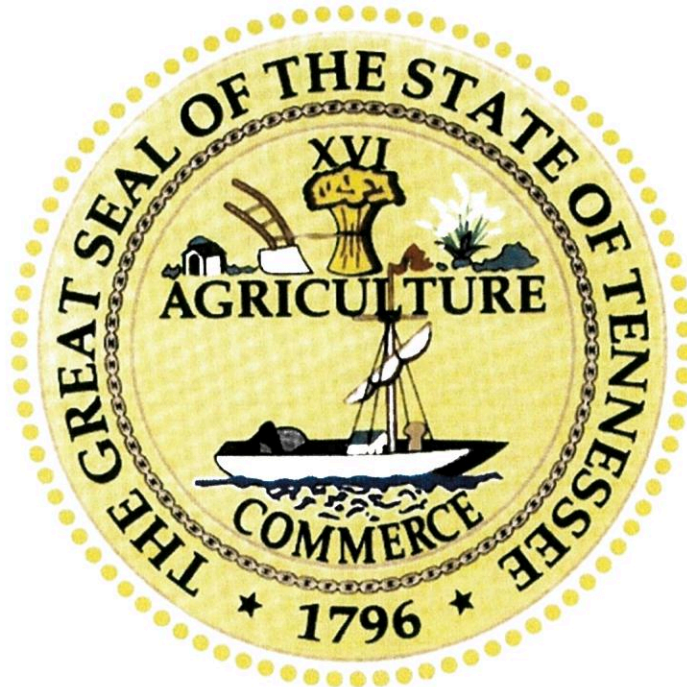
## Special Bridge Replacement Program

Local Route 0A302 – Vines Ridge Road

Bridge over Big Laurel Creek



Log Mile 1.06 Fentress County

PIN 113057.00

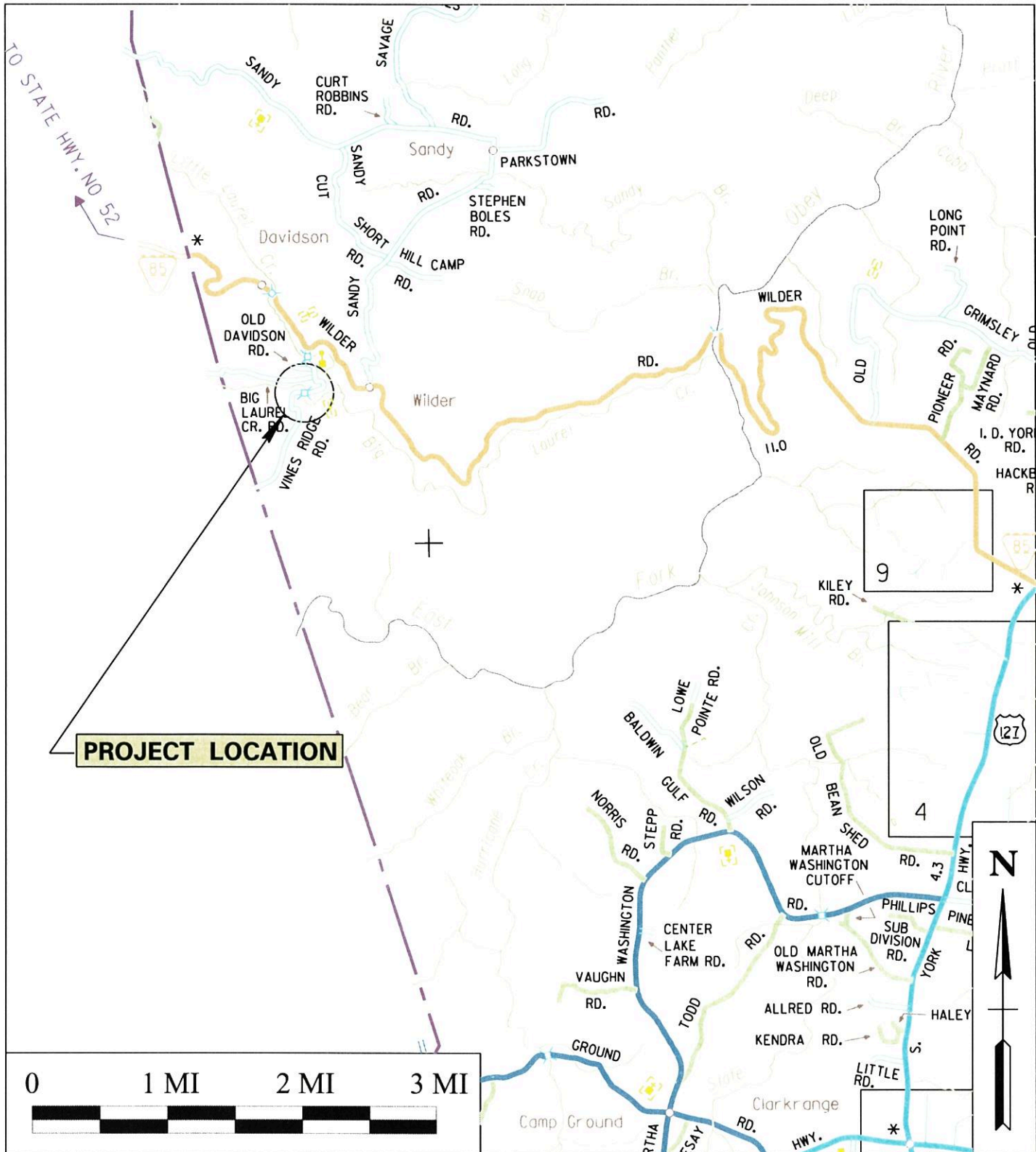


PREPARED BY  
TENNESSEE DEPARTMENT OF TRANSPORTATION  
Strategic Transportation Investments Division

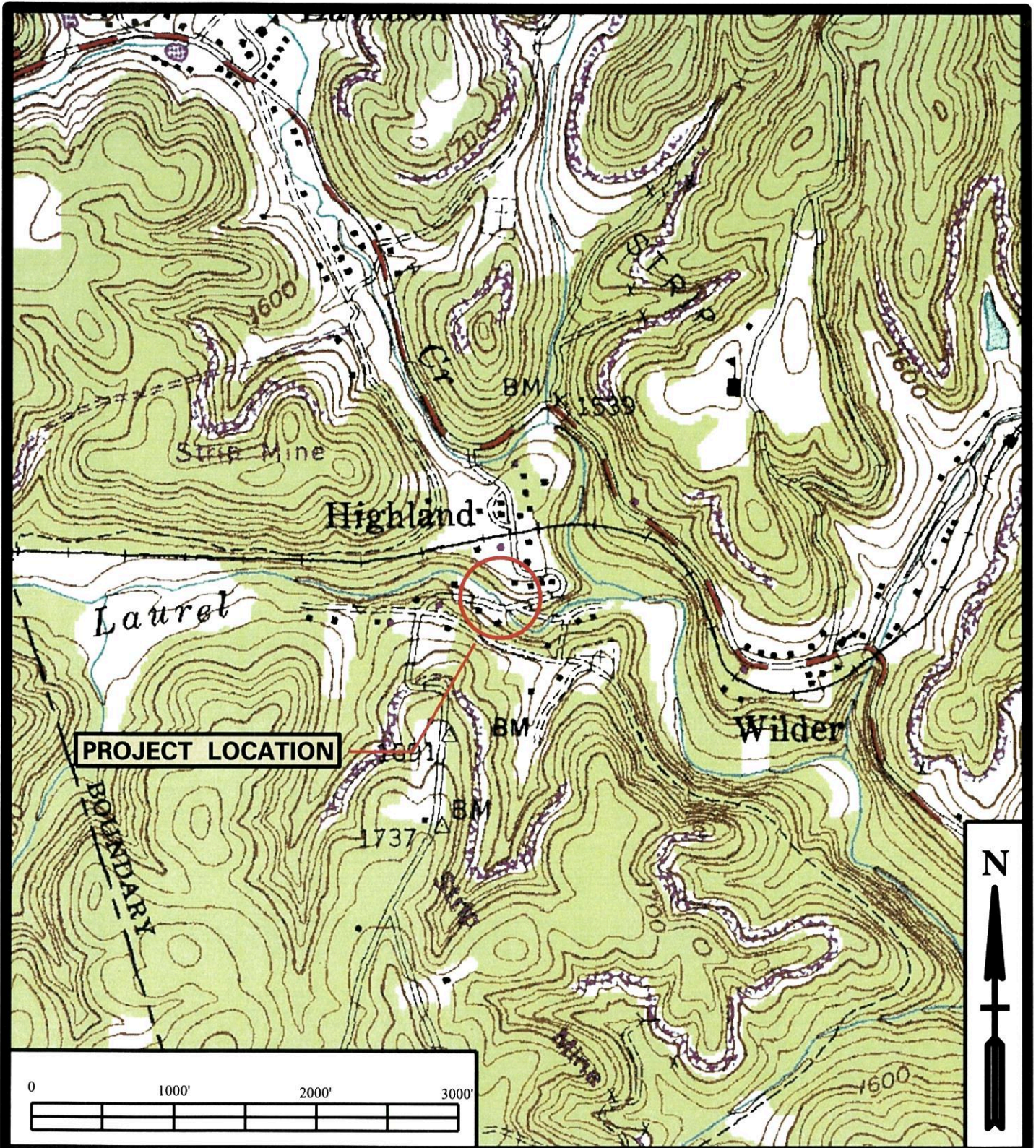
Approved by  Date 3/6/14 Approved by  Date 3-31-14  
Chief of Environment and Planning Deputy Commissioner and Chief Engineer

Approved by:	Signature:	Date:
Transportation Director Strategic Trans. Inv. Division		3-4-14
Engineering Director Design Division		2/25/14
Engineering Director Structures Division		2/20/14

This document is covered by 23 USC § 409 and its production pursuant to fulfilling public planning requirements does not waive the provisions of § 409.



**AREA MAP**  
**ROUTE A302 FENTRESS COUNTY**  
**BRIDGE OVER BIG LAUREL CREEK @ L.M. 1.06**  
**BRIDGE ID 250A3020001**



**PROJECT MAP**  
**ROUTE A302 FENTRESS COUNTY**  
**BRIDGE OVER BIG LAUREL CREEK @ L.M. 1.06**  
**BRIDGE ID 250A3020001**



0' 100' 200' 300'  
SCALE: 1" = 200'

AERIAL MAP  
ROUTE A302 FENTRESS COUNTY  
BRIDGE OVER BIG LAUREL CREEK @ L.M. 1.06  
BRIDGE ID 250A3020001

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

County: Fentress Route: 0A302 Log Mile: 1.06  
 Feature Crossed: Big Laurel Creek System: Local  
 Functional Class: Local Road Bridge ID: 250A3020001

**EXISTING CONDITIONS**

2016 AADT: 170 App. Cross Section: 16'/20'/44' No. Lanes: 2  
 Approach Alignment: Horizontal Curve Year Built: 1940 Load Limit: H14  
 Width (out to out): 16' Sidewalks: Right -- Left -- Length: 45  
 No. Spans: Approach: -- Main: 2  
 Substructure: Steel Columns w/ Concrete Footer Vertical Clearance: 9.9' Sufficiency Rating: 51.1  
 Other: None

**PROPOSED IMPROVEMENTS**

STANDARDS FROM RD01-TS- 1A Type of Work: Replace  
 Design Year: 2036 Design AADT: 190 Terrain Rolling ADL (F): -- (R): --  
 Project Length: 680' Bridge Length: 45 ft Approach Length: 260' EB /315' WB  
 Design Speed (MPH): 35 Posted Speed (MPH): 35  
 Approach Width: 18' / 20' As Req'd Bridge Width (O to O): 21 ft No. Lanes: 2  
 Right-of-Way Required: 0.3 acres Tract(s) 4 Structure Type: Box Bridge (3 @ 14' x 12')

**MAINTENANCE OF TRAFFIC**

Temporary Detour:  Temporary Runaround:  Stage Construct:  New Alignment   
 Alternate Route: The centerline of the existing bridge alignment will be shifted approximately 32' upstream-north for the new alignment. The existing bridge and approaches will remain open during construction.  
 Remarks: \_\_\_\_\_

**ESTIMATED COST**

Right-of-Way: \$10,000 Approaches: \$182,900 Structure: \$110,100  
 Preliminary Engineering: \$41,800 Utilities: \$14,000 Misc./Cont.: \$82,600  
 Mobilization: \$18,100 Total: \$459,500

Remarks: Shift the existing alignment 32' north for the proposed bridge with a vertical clearance of 9.9 ft. The roadway width will consist of two (2) 9' travel lanes (18' total) in order to meet the design standards according to RD01-TS-1A.

A moderate amount of right-of-way will be required to shift the horizontal alignment.

Field Investigation by: Alan Wolfe and Landon Castleberry (Reg. 2 Traffic), Gary Chapman (Reg. 2 Survey and Design) Fred Blevins (Fentress Co. Rdwy Superintendent), David Duncan and Mike Gilbert (TDOT - STI)

Route:	Vines Ridge Road (0A302)
Description:	Bridge Replacement over Big Laurel Creek @ L.M. 1.06
County:	Fentress
Length:	680 Feet
Date:	February 18, 2014

<u>DESCRIPTION</u>	<u>LOCAL</u>	<u>STATE</u>	<u>FEDERAL</u>	<u>TOTAL</u>
Right-of-Way	\$ 2,000		\$ 8,000	\$ 10,000
Clearing and Grubbing	\$ 3,400		\$ 13,500	\$ 16,900
Earthwork	\$ 2,400		\$ 9,700	\$ 12,100
Railroad Crossing or Separation	\$ -		\$ -	\$ -
Drainage	\$ 320		\$ 1,280	\$ 1,600
Utilities	\$ 2,800		\$ 11,200	\$ 14,000
Structures	\$ 22,000		\$ 88,100	\$ 110,100
Pavement Removal	\$ 1,400		\$ 5,700	\$ 7,100
Paving	\$ 17,700		\$ 70,800	\$ 88,500
Roadway and Pavement Appurtenances	\$ -		\$ -	\$ -
Retaining Walls	\$ -		\$ -	\$ -
Topsoil	\$ -		\$ -	\$ -
Seeding	\$ -		\$ -	\$ -
Sodding	\$ 2,500		\$ 9,800	\$ 12,300
Rip-Rap or Slope Protection	\$ 1,800		\$ 7,200	\$ 9,000
Fencing	\$ -		\$ -	\$ -
Signing	\$ -		\$ -	\$ -
Pavement Markings	\$ 100		\$ 400	\$ 500
Lighting	\$ -		\$ -	\$ -
Signalization	\$ -		\$ -	\$ -
Guardrail	\$ 3,000		\$ 11,900	\$ 14,900
Other Construction Items (15%)	\$ 8,900		\$ 35,700	\$ 44,600
Maintenance of Traffic	\$ 4,000		\$ 16,000	\$ 20,000
Mobilization (5%)	\$ 3,600		\$ 14,400	\$ 18,100
CONSTRUCTION COST (rounded)	\$ 76,000		\$ 303,700	\$ 379,700
Engineering and Contingency (10%)	\$ 7,600		\$ 30,400	\$ 38,000
TOTAL CONSTRUCTION COST (rounded)	\$ 83,600		\$ 334,100	\$ 417,700
Preliminary Engineering (10%)	\$ 8,400		\$ 33,400	\$ 41,800
<b>PROJECT COST<sup>1</sup> (rounded)</b>	<b>\$ 92,000</b>		<b>\$ 367,500</b>	<b>\$ 459,500</b>

<sup>1</sup> For estimating future project costs, a compounded inflation rate of 10 % should be applied from the date of this estimate.

TDOT PAY ITEM	TDOT DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
-	Right-of-Way	LS	LS	\$ 10,000.00	\$ 10,000
<b>RIGHT-OF-WAY TOTAL (ROUNDED)</b>					<b>\$ 10,000</b>
201-01	Vegetation Removal	Ac	0.88	\$ 19,200.00	\$ 16,896
<b>CLEAR AND GRUBBING TOTAL (ROUNDED)</b>					<b>\$ 16,900</b>
203-03	Borrow Excavation (Unclassified)	LS	LS	\$ 12,100.00	\$ 12,100
<b>EARTHWORK TOTAL (ROUNDED)</b>					<b>\$ 12,100</b>
202-03.01	Removal of Asphalt Pavement	SY	1,292	\$ 5.20	\$ 6,718
415-01.02	Cold Planing Bituminous Pavement	SY	200	\$ 1.84	\$ 368
<b>PAVEMENT REMOVAL TOTAL (ROUNDED)</b>					<b>\$ 7,100</b>
209-08.02	Temporary Silt Fence (w/ backing)	LF	400	\$ 4.00	\$ 1,600
<b>DRAINAGE TOTAL (ROUNDED)</b>					<b>\$ 1,600</b>
	Underground Utilites	LF	350	\$ 40.00	\$ 14,000
<b>UTILITIES TOTAL (ROUNDED)</b>					<b>\$ 14,000</b>
	Removal of Existing Bridge	SF	720	\$ 15.00	\$ 10,800
	Prestress Concrete Bridge	SF	945	\$ 105.00	\$ 99,225
<b>STRUCTURES TOTAL (ROUNDED)</b>					<b>\$ 110,100</b>
<b>Asphalt</b>					
--	Full Depth Paving	SY	1150	\$ 32.00	\$ 36,800
411-03.10	ACS Mix (PG76-22) Grading D	TON	103.0	\$ 89.00	\$ 9,167
403-01	Bituminous Material for Tack Coat (TC)	TON	1.0	\$ 535.08	\$ 535
411-01.07	ACS Mix (PG64-22) Grading E Shoulder	TON		\$ 82.94	\$ -
402-01	Bituminous Material for Prime Coat (PC)	TON	1.8	\$ 365.52	\$ 658
402-02	Aggregate for Cover Material	TON	6.6	\$ 24.91	\$ 164
307-02.08	Asphalt Conc. Mix (PG70-22) Grading B-M2	TON	148	\$ 63.81	\$ 9,469
307-02.01	Asphalt Conc. Mix (PG70-22) Grading A	TON	227.0	\$ 60.63	\$ 13,763
307-02.02	Asphalt Conc. Mix (PG70-22) Grading A-S	TON		\$ 888.11	\$ -
303-01	Mineral Aggregate, TY A Base, Grading D	TON	1132.4	\$ 15.82	\$ 17,915
<b>PAVING TOTAL (ROUNDED)</b>					<b>\$ 88,500</b>
604-07.01	Retaining Wall	SF		\$ 120.00	\$ -
<b>RETAINING WALLS TOTAL (ROUNDED)</b>					<b>\$ -</b>
712-01	Traffic Control	LS	\$ 20,000	\$ 20,000.00	\$ 20,000
<b>MAINTENANCE OF TRAFFIC TOTAL (ROUNDED)</b>					<b>\$ 20,000</b>
803-01	Sodding (New Sod)	SY	3,070	\$ 4.00	\$ 12,280
<b>SODDING TOTAL (ROUNDED)</b>					<b>\$ 12,300</b>
716-11.01	Spray Thermo Pvmt Mrkg (4" Line)	LM	0.25	\$ 1,834.00	\$ 459
<b>PAVEMENT MARKINGS TOTAL (ROUNDED)</b>					<b>\$ 500</b>
705-02.02	Single Guardrail (Type 2)	LF	50	\$ 15.55	\$ 778
705-04.05	Guardrail Terminal (Type-In-Line)	EACH		\$ 535.00	\$ -
705-04.04	Type 21 End Terminal	EACH	4	\$ 2,100.00	\$ 8,400
705-01.01	Guardrail at Bridge Ends	LF	92	\$ 62.00	\$ 5,704
<b>GUARDRAIL TOTAL (ROUNDED)</b>					<b>\$ 14,900</b>
709-05.06	Machined Rip-Rap (Class A-1)	TON	300	\$ 30.00	\$ 9,000
<b>RIP-RAP OR SLOPE PROTECTION TOTAL (ROUNDED)</b>					<b>\$ 9,000</b>



**STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION**

**PROJECT PLANNING DIVISION**  
SUITE 1000, JAMES K. POLK BUILDING  
505 DEADERICK STREET  
NASHVILLE, TENNESSEE 37243-1402  
(615) 741-2208

**JOHN C. SCHROER**  
COMMISSIONER

**BILL HASLAM**  
GOVERNOR

**MEMORANDUM**

**TO:** Strategic Transportation Investments Division

**FROM:** David Duncan, Transportation Project Specialist  
Project Investigation and Coordination Office

*DD 3/5/2014*

**DATE:** February 18, 2014

**SUBJECT:** TPR Field Review (Special Bridge Replacement Program)  
Local Route 0A302 (Vines Ridge Road)  
Bridge over Big Laurel Creek Log Mile 1.06  
Fentress County

A field review was held for the above-mentioned project on June 6, 2012.

The existing structure is a two (2) span bridge with five (5) steel I-beams. The overall bridge length is forty-five (45) feet with approximately 9.9 feet for the vertical clearance. The bridge has an out-to-out width of 16 feet and curb-to-curb width of 15.42 feet. The existing structure has a sufficiency rating of 41.7 and is considered structurally deficient. The 10-year and 100-year discharges and depths of flow for the drainage basin were determined using the appropriate regression equations. It was determined that the 100-year flow depth is 9.9 feet and the 10-year flow depth is 7.3 feet.

The route has a base year (2016) AADT of 170 and a design year (2036) AADT of 190. It is recommended that the proposed bridge over Big Laurel Creek be constructed on new alignment with the centerline shifted approximately 32 feet upstream of the old structure; this will expedite the construction process, reduce travel delays for residents by eliminating the need to close the road or stage construct, and increase safety by correcting the roadway geometry. The proposed bridge will consist of an out-to-out width of twenty-one (21) feet with two (2), nine (9) feet travel lanes in order to meet design standard RD01-TS-1A (AADT < 400, Rolling). The length of the entire project will be approximately 680 feet. It is recommended that the structure be replaced by a box bridge (3 @ 14' x 12') with a total length of 45 feet.



In order to realign the approaches for the proposed structure a small amount of ROW will be required, which will affect four (4) adjacent tracts. There are overhead utilities adjacent to approaches, but they will not be impacted by the replacement. There were no underground utility markers detectable; however, a small amount was estimated since the surrounding vegetation was obstructing a large amount of visibility

The required approach work, utility relocations, estimated replacement, and preliminary engineering costs for this bridge are approximately \$459,500.

DD

cc: file

## CHECK LIST OF DETERMINANTS FOR LOCATION STUDY

If any of the following facilities or ESE categories are located within the project area or corridor, place an "x" in the blank opposite the item. Where more than one alternate is to be considered, place its letter designation in the blank.

1. Agricultural land usage	
2. Airport (existing or proposed)	
3. Commercial area, shopping center	
4. Floodplains	X
5. Forested land	
6. Historical, cultural, or natural landmark	
7. Industrial park, factory	
8. Institutional usages	
a. School or other educational institution	
b. Church or other religious institution (Cemetery)	
c. Hospital or other medical facility	
d. Public building, e.g., fire station	
e. Defense installation	
9. Recreation usages	
a. Park or recreational area	
b. Game preserve or wildlife area	
10. Residential establishment	X
11. Urban area, town, city, or community	
12. Waterway, lake, pond, river, stream, spring	X
Permit required: Coast Guard	
Section 404	X
TVA Section 26a review	
NPDES	X
Aquatic Resource Alteration	X
13. Other	
14. Location coordinated with local officials	
15. Railroad crossings	
16. Hazardous materials site	

**TENNESSEE DEPARTMENT OF TRANSPORTATION  
PROJECT PLANNING DIVISION**

PROJECT NO: 99109-1453-04 ROUTE: 0A302 Vines Ridge Road  
 COUNTY: Fentress CITY: Wilder  
 PROJECT PIN NUMBER: 113057.00  
 PROJECT DESCRIPTION: Bridge Replacement Project Bridge over Big Laurel Creek  
 L.M. 1.06

**DIVISION REQUESTING:**

MAINTENANCE  PAVEMENT DESIGN   
 PLANNING  STRUCTURES   
 PROG. DEVELOPMENT & ADM.  SURVEY & DESIGN   
 PUBLIC TRANS. & AERO.  TRAFFIC SIGNAL DESIGN   
 OTHER   
 YEAR PROJECT PROGRAMMED FOR CONSTRUCTION: \_\_\_\_\_  
 PROJECTED LETTING DATE: \_\_\_\_\_

**TRAFFIC ASSIGNMENT:**

BASE YEAR		DESIGN YEAR					DESIGN ROADWAY % TRUCKS		DESIGN AVERAGE DAILY LOADS	
AADI	YEAR	AADI	DHV	%	YEAR	DIR DISL.	DHV	AADI	FLEX	RIGID
170	2016	190	25	13	2036	65-35	1	1		

REQUESTED BY: NAME: Gena Gilliam DATE: 5-11-12  
 DIVISION: Project Planning  
 ADDRESS: 10th Floor, JKP Bldg  
 Nashville, TN 37243

REVIEWED BY: TONY ARMSTRONG *Tony Armstrong* DATE: 5-21-12  
 TRANSPORTATION MANAGER 1  
 SUITE 1000, JAMES K. POLK BUILDING

APPROVED BY: DUDLEY DANIEL *Dudley Daniel* DATE: 21 May 12  
 TRANSPORTATION MANAGER 2  
 SUITE 1000, JAMES K. POLK BUILDING

**COMMENTS:**

This Traffic is based on 2006 Structure Count from ADAM. The Future Traffic Count is based on the Growth Rate from the ADAM Computer Program

**DHVS ARE NOT REQUIRED FOR SIDE ROADS LESS THAN 1000 AADI.**  
 NOTE: FOR BRIDGE REPLACEMENT PROJECTS, ADI'S ARE NOT REQUIRED FOR ADI'S OF 1000 OR LESS AND PERCENTAGE OF TRUCKS OF 7% OR LESS.  
 SEE ATTACHMENTS FOR TURNING MOVEMENTS AND/OR OTHER DETAILS. (REV. 3/30/12)



STATE OF TENNESSEE  
 DEPARTMENT OF TRANSPORTATION  
 PROJECT PLANNING DIVISION

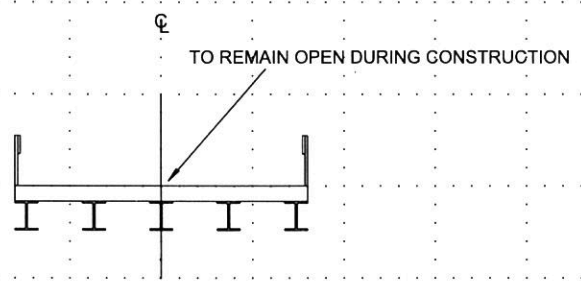
PROJECT NO. A302  
 DATE 12/15/10

BRIDGE REPLACEMENT

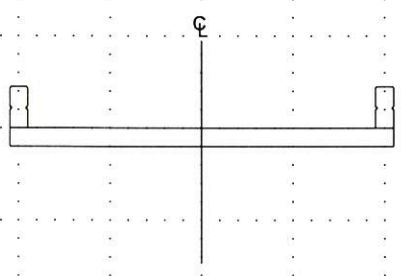
1775 VINES RIDGE ROAD  
 1/2 MILE BRIDGE OVER BIG LAUREL CREEK  
 FENTRESS COUNTY, TENNESSEE



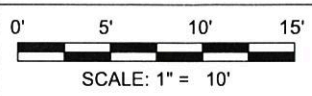
EXISTING STRUCTURE



COMPLETED PROPOSED STRUCTURE



TOTAL WIDTH = 21.0'



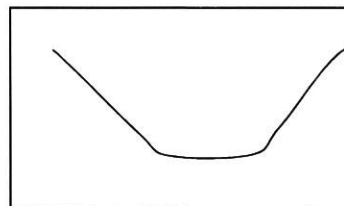
**STAGE CONSTRUCTION DETAIL**  
**LOCAL ROUTE 0A302 FENTRESS COUNTY**  
**BRIDGE OVER BIG LAUREL CREEK @ L.M. 1.06**  
**BRIDGE ID: 250A3020001**

## SITE INSPECTION

INSPECTION MADE BY: David Duncan BRIDGE ID: 250A3020001 COUNTY: Fentress  
 Date: 2/18/14 Route Name: 0A302 Stream Name: Big Laurel Creek @ L.M. 1.06

### CHANNEL

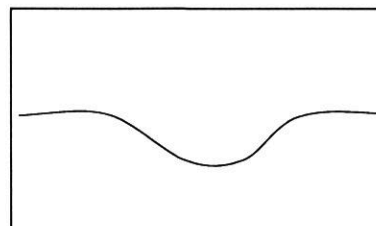
Approx depth and width of channel: Horizontal: 45' Vertical: 1'  
 Depth of normal flow: 1' In Reservoir:  Yes  No  
 Depth of Ordinary High Water: --  
 Type of material in stream bed: Gravel and Stone  
 Type of vegetation on banks: Heavy Brush  
 "N" factor of the channel: 0.03  
 Are channel banks stable:  0 Yes  No  
 If the streambed is gravel: D<sub>30</sub> = -- D<sub>85</sub> = --  
 Skew of the channel with the roadway: 90°



Channel Shape Sketch

### FLOODPLAIN

Is the skew same as the channel?  Yes  No  
 Is it symmetrical about the channel?  Yes  No  
 Type of vegetation in the floodplain and "N" factors  
 Left U.S.: Grass (0.035) Right U.S.: Trees (0.15)  
 Left D.S.: Trees (0.15) Right D.S.: Trees (0.15)  
 Are roadway approaches lower than the structure?  Yes  No  
 Are there any buildings in the floodplain?  Yes  No  
 Approx. floor elevations: --  
 Flood information from local residents:  
 (elevations & dates) --



Floodplain Sketch

### EXISTING STRUCTURE

Length: 45 No. of spans: 2 Structure type: Steel Beams No. of lanes: 2 Skew: 55°  
 Width (out to out): 16' Width (curb to curb): 15' 5" Approach:  paved  graveled  
 Sidewalks on Structure:  Yes  No Bridgerail type: Guardrail Bridgerail height = 2.66'  
 Superstructure depth: 5' 1" Finished Grade to low girder = 2' 5" Girder depth = 1' 7"  
 Are any substructures in the channel?  Yes  No Vertical Clearance = 9.9' ft  
 Indications of overtopping: None  
 High water marks: Low Chord  
 Local scour:  Yes, aggradation or degradation?  No  
 Any signs of stream  aggradation or  degradation? Stone and sediment build up under Span 2  
 Any drift or drift potential?  Yes, fallen trees and debris are built up around the pier. (See Images)  No  
 Any obstructions (pipes, stock fences, etc.)? fallen trees and debris are built up around the pier. (See Images)

### PROPOSED STRUCTURE

Replacement  Rehabilitate  Widening  New Location  
 Bridge length: 45 ft Bridge type: Box Bridge Span arrangement: 3 @ 14' x 12' Skew: 120°  
 Bridge width: 21.0 ft Sidewalks: None Design Speed (MPH): 35 ADT ( 2036 ) = 190  
 Proposed grade: 9.9 ft Proposed alignment: Shift 32' North  
 Method of maintaining traffic:  Stage construction  On site detour  Close road  Shift Centerline Upstream  
 Cost of proposed Structure: \$105 per ft<sup>2</sup> X 45 / 21.0 length (ft) / width (ft) Cost = \$99,200  
 Cost of bridge removal: \$15 per ft<sup>2</sup> X 16 / 45.0 length (ft) / width (ft) Cost = \$10,800  
 Detour structure: Type and size = To be determined Cost = \$0  
**Total Structure Cost = \$110,100**

**Bridge TPR Flow Calculations  
For Hydrologic Area 2  
Area > 300 Acres**

County: <u>Fentress</u>	By: <u>DD</u>
Bridge ID: <u>250A3020001</u>	Date: <u>3/11/13</u>
Route: <u>0A302</u>	PIN: <u>117018</u>
Feature Crossed: <u>Big Laurel Creek</u>	
Log Mile: <u>1.06</u>	

**DRAINAGE BASIN**

Measurement from quad =	3,053 acres
Contributing Drainage Area, CDA = acres/640 =	4.77 sq. mi.

**USGS REGRESSION EQUATIONS FOR FLOW**

$Q_2 = 207(CDA)^{0.725} =$	643 cfs
$Q_5 = 344(CDA)^{0.715} =$	1,051 cfs
$Q_{10} = 444(CDA)^{0.711} =$	1,348 cfs
$Q_{25} = 578(CDA)^{0.708} =$	1,747 cfs
$Q_{50} = 682(CDA)^{0.706} =$	2,055 cfs
$Q_{100} = 788(CDA)^{0.705} =$	2,371 cfs

**DEPTH OF FLOW EQUATIONS**

10-Year Flood Depth = $5.33(CDA)^{0.197} =$	7.3 ft
100-Year Flood Depth = $7.43(CDA)^{0.181} =$	9.9 ft

**AREAS**

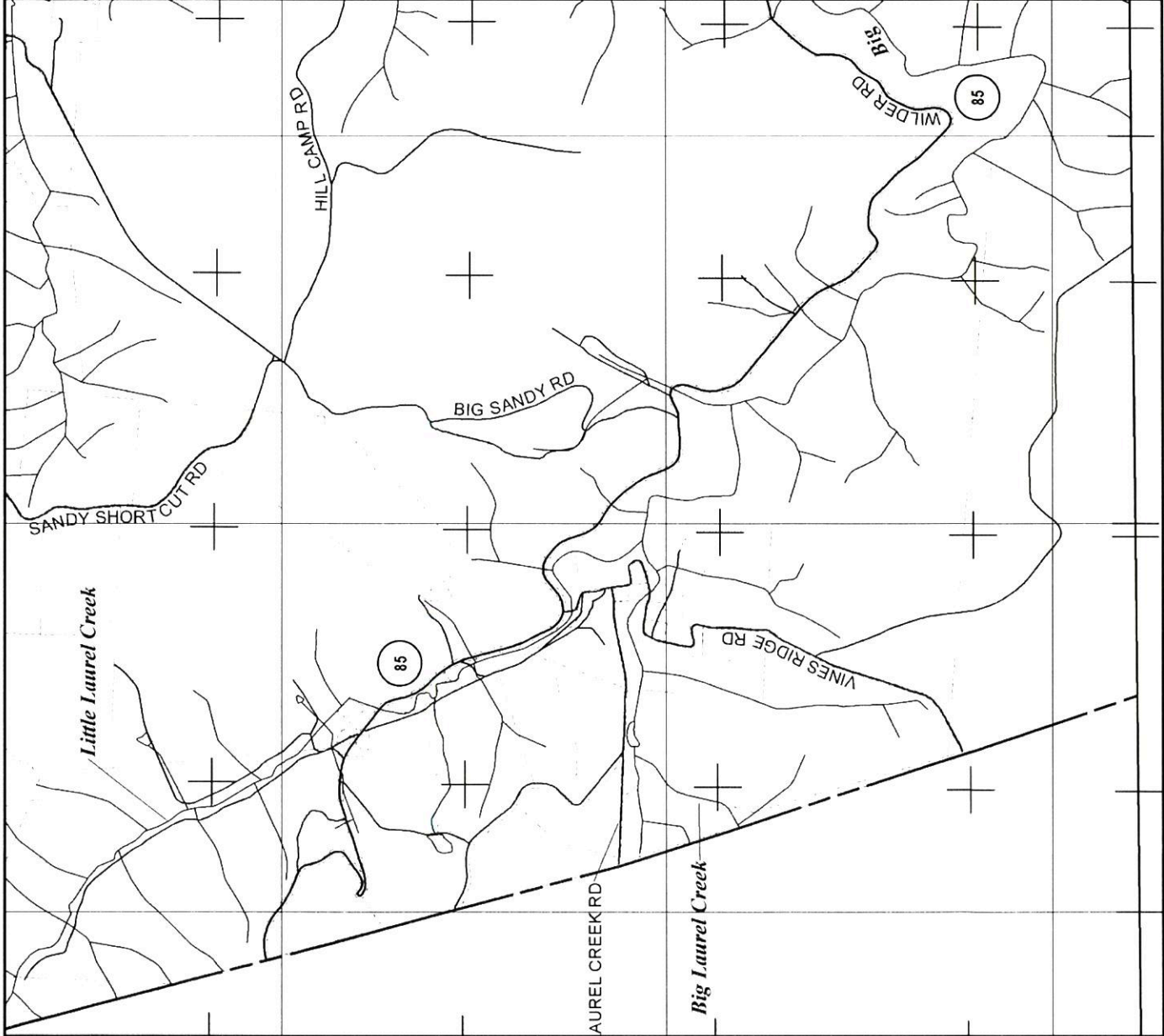
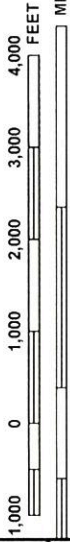
Existing Area Below Low Chord =	566 ft <sup>2</sup>
Proposed Area Below Low Chord =	570 ft <sup>2</sup>
Proposed 10-Year Flood Area, $A_{10} =$	183 ft <sup>2</sup>
Proposed 100-Year Flood Area, $A_{100} =$	303 ft <sup>2</sup>

**VELOCITIES**

Proposed 10-Year Flood Velocity, $V_{10} = Q_{10}/A_{10} =$	7.4 fps
Proposed 100-Year Flood Velocity, $V_{100} = Q_{100}/A_{100} =$	7.8 fps



MAP SCALE 1" = 2000'



NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0225C

# FIRM

FLOOD INSURANCE RATE MAP  
FENTRESS COUNTY,  
TENNESSEE  
AND INCORPORATED AREAS

PANEL 225 OF 350

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY  
FENTRESS COUNTY

NUMBER PANEL SUFFIX  
470243 0225 C

Notes to Users: The Map Number shown below should be used when placing map orders. The Community Number shown above should be used on insurance applications for the subject community.



MAP NUMBER  
47049C0225C

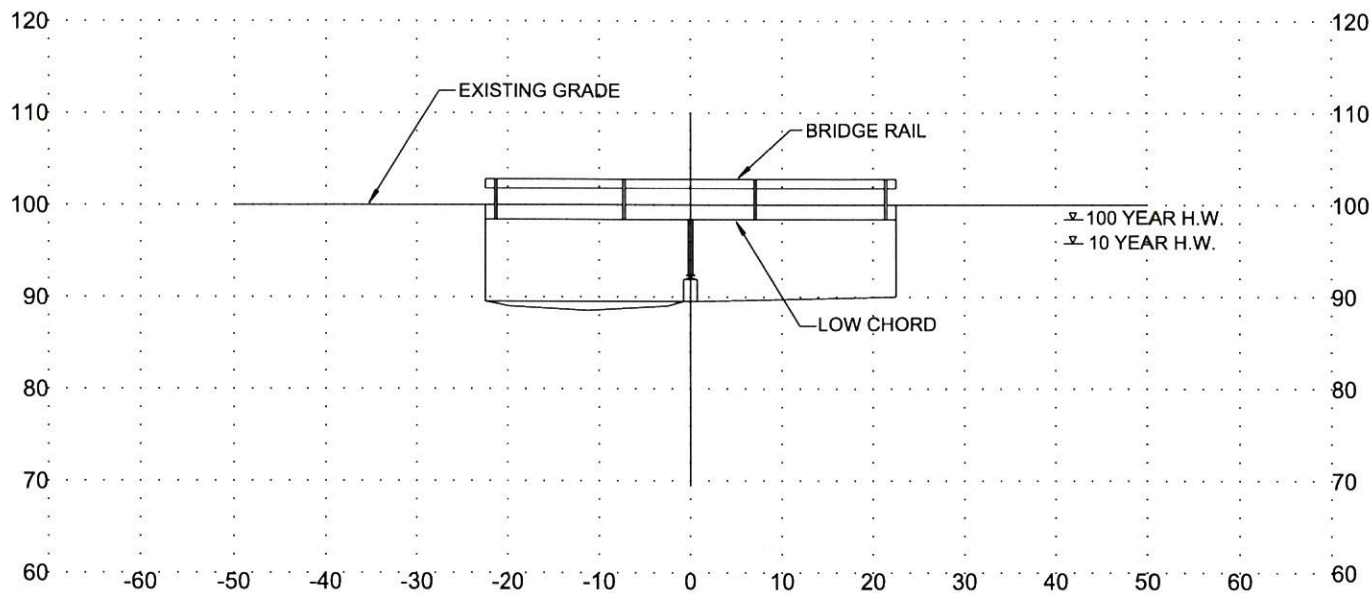
EFFECTIVE DATE  
MARCH 2, 2010

Federal Emergency Management Agency

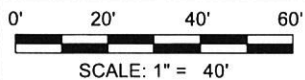
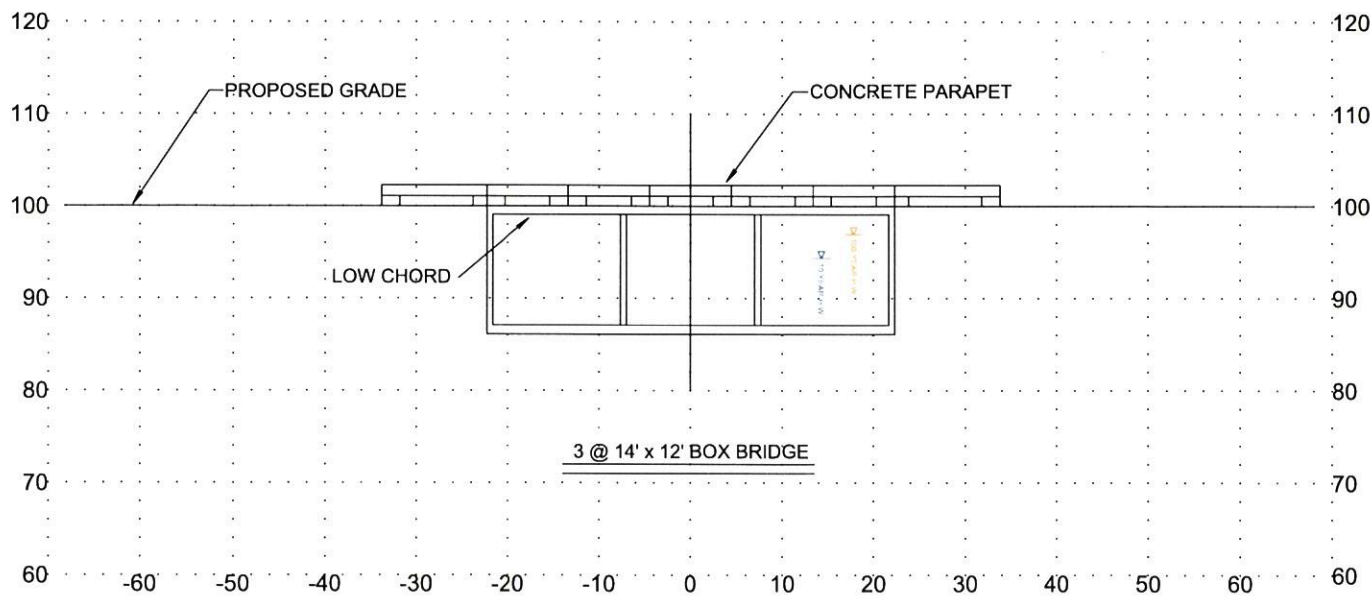
This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov).



### EXISTING STRUCTURE (OUTLET)



### PROPOSED STRUCTURE ON NEW ALIGNMENT (OUTLET)



**BRIDGE SECTIONS**  
 ROUTE A302 FENTRESS COUNTY  
 BRIDGE OVER BIG LAUREL CREEK @ L.M. 1.06  
 BRIDGE ID 250A30200001

Fentress County – Local Route 0A302  
Bridge ID: 250A3020001



Eastbound Approach (Looking East)



Eastbound Approach (Looking West)

Fentress County – Local Route 0A302  
Bridge ID: 250A3020001



Westbound Approach (Looking East)



Westbound Approach (Looking West)

Fentress County – Local Route 0A302

Bridge ID: 250A3020001

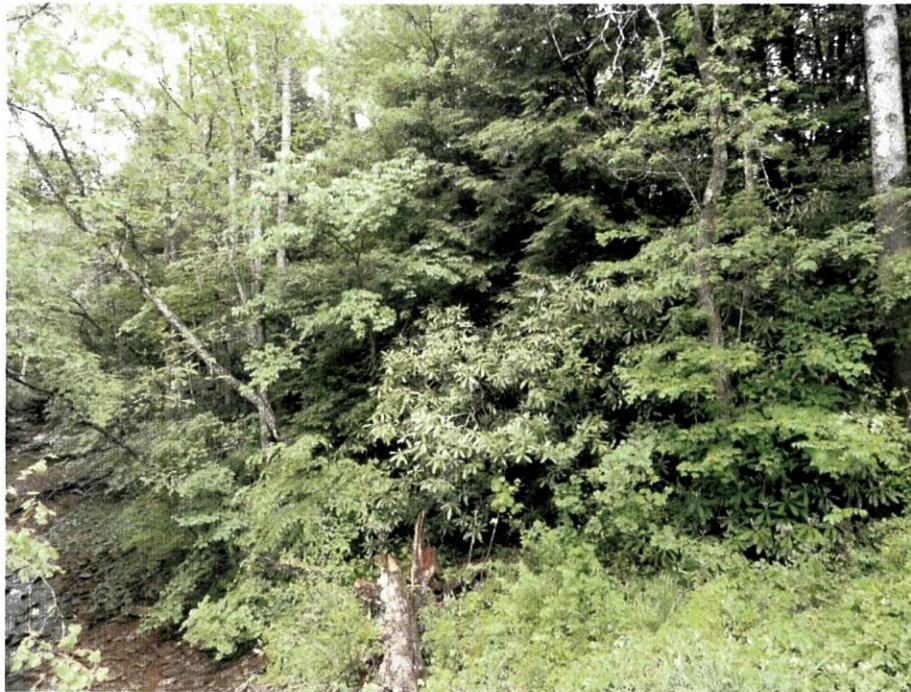


Upstream

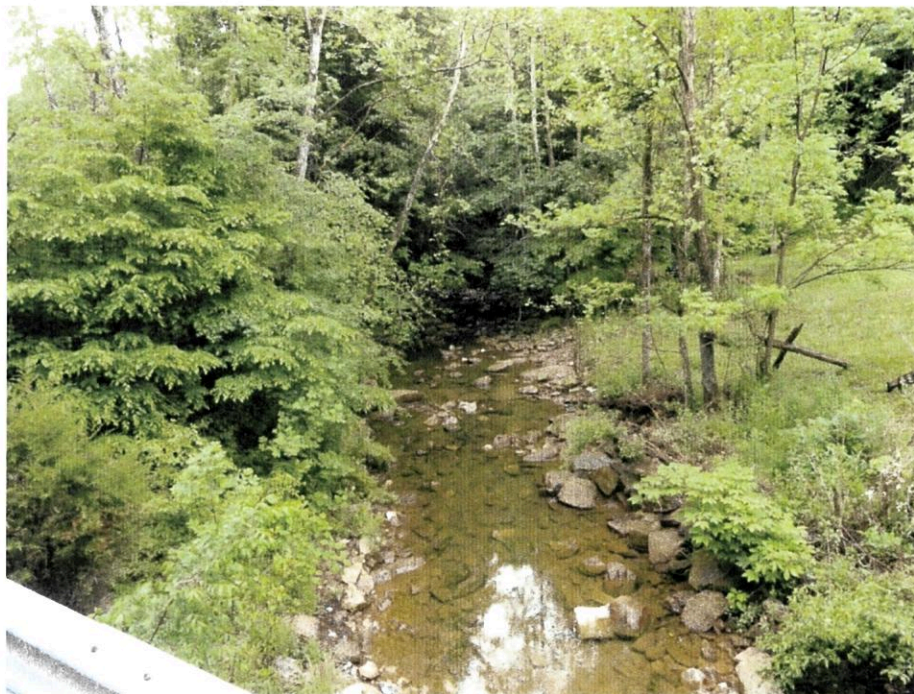


Upstream Left

Fentress County – Local Route 0A302  
Bridge ID: 250A3020001

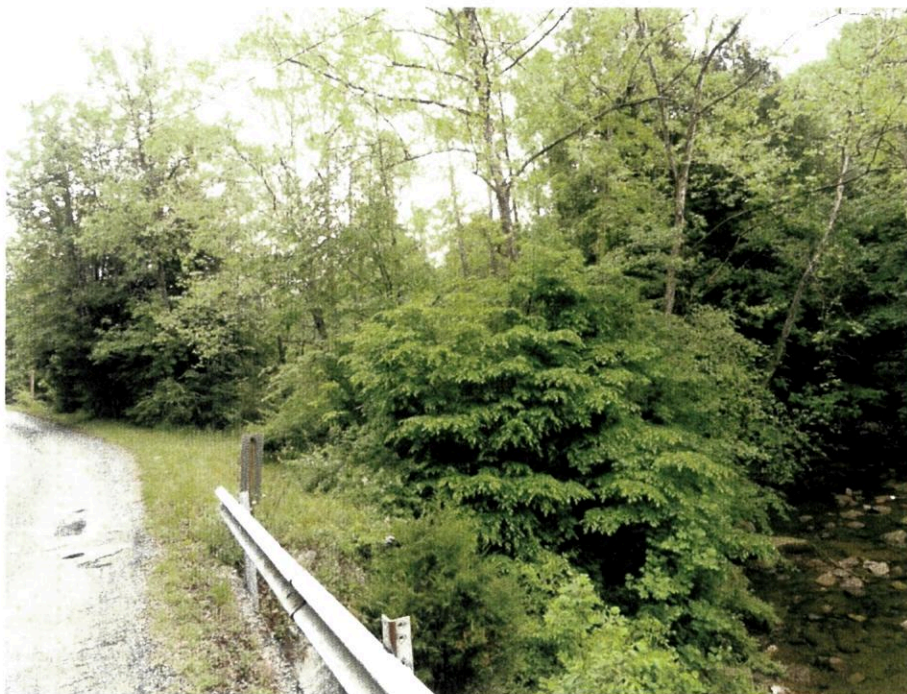


Upstream Right



Downstream

Fentress County – Local Route 0A302  
Bridge ID: 250A3020001



Downstream Left



Downstream Right

Fentress County – Local Route 0A302  
Bridge ID: 250A3020001



County # / Route # / Log Mile



Bridge Guardrail w/ No End Terminal

Fentress County – Local Route 0A302  
Bridge ID: 250A3020001



Inlet



Outlet



Fentress County – Local Route 0A302  
Bridge ID: 250A3020001



Isometric View



Bridge Substructure

Fentress County – Local Route 0A302  
Bridge ID: 250A3020001



Steel Beams



Bridge Abutment