

TRANSPORTATION PLANNING REPORT

Special Bridge Replacement Program

LOCAL ROUTE 0A158 – SEQUATCHIE LANE
BRIDGE OVER SEQUATCHIE RIVER CROSSED AT L.M. 0.06
CUMBERLAND COUNTY
PIN: 103843.00



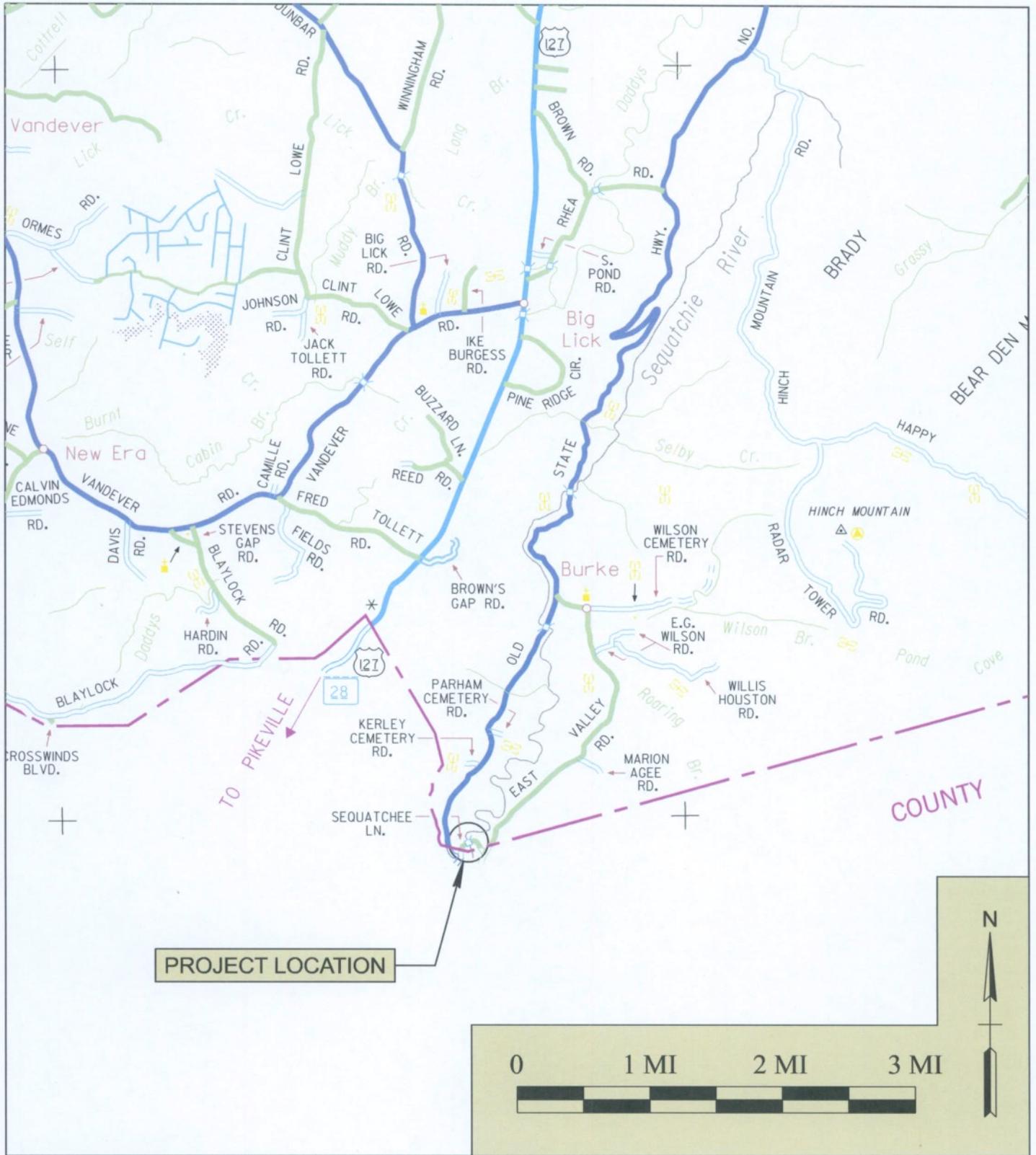
PREPARED BY
R.W. ARMSTRONG
FOR THE
TENNESSEE DEPARTMENT OF TRANSPORTATION

Approved by: [Signature] Date: _____
Chief of Environment and Planning

Approved by: [Signature] Date: 6/21/13
Deputy Commissioner and Chief Engineer

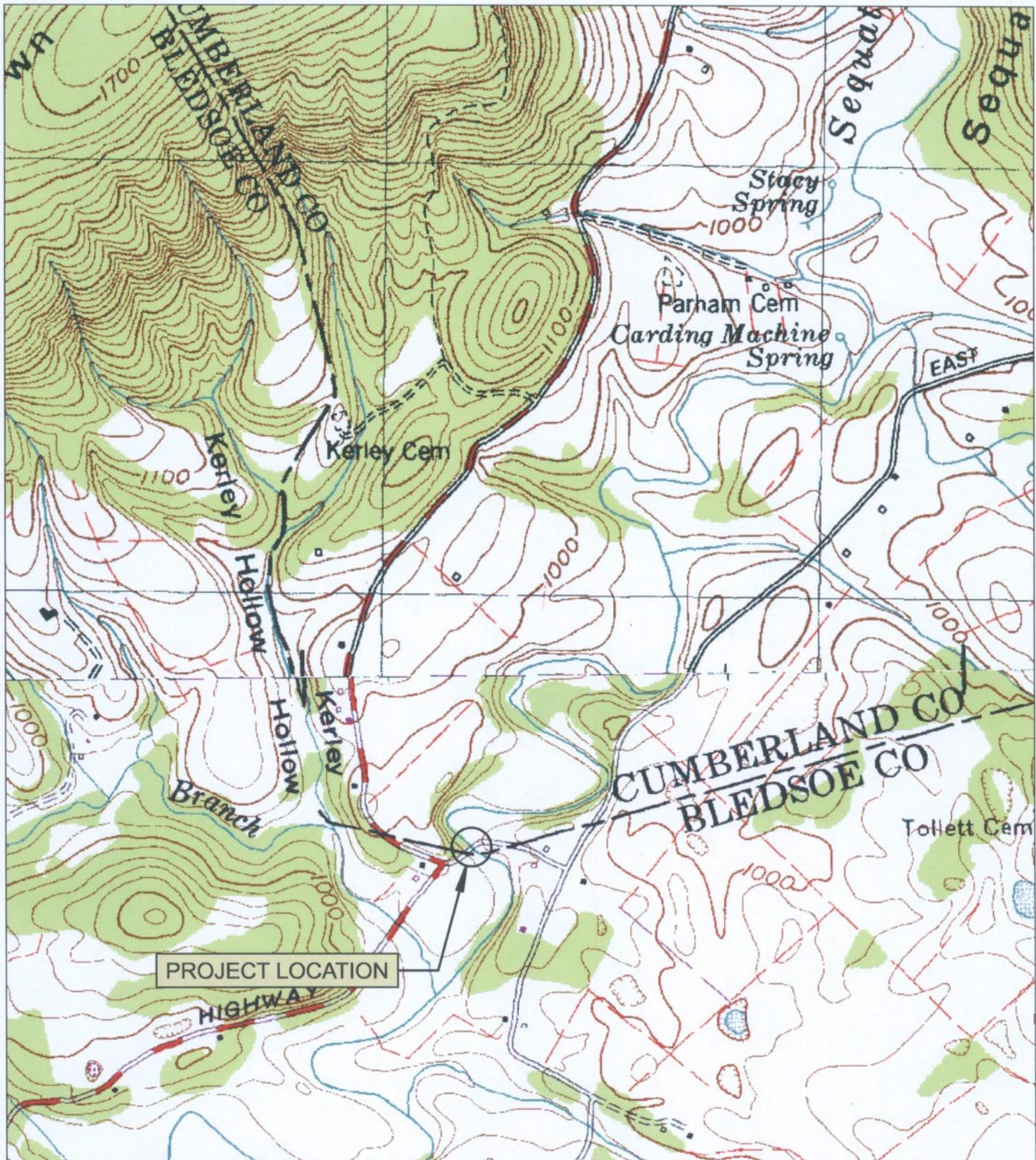
Approved by:	Signature:	Date:
Transportation Director Project Planning Division	<u>[Signature]</u>	5-30-13
Engineering Director Design Division	<u>[Signature]</u>	6-6-13
Engineering Director Structures Division	<u>[Signature]</u>	6-13-13

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

SEQUATCHIE LANE - LOCAL ROUTE 0A158
 BRIDGE ID 180A1580001 (L.M. 0.06)
 CUMBERLAND COUNTY



PROJECT LOCATION

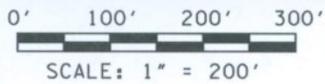
0 500' 1000' 1500'
SCALE: 1" = 1000'

PROJECT MAP

SEQUATCHIE LANE - LOCAL ROUTE 0A158
BRIDGE ID 180A1580001 (L.M. 0.06)
CUMBERLAND COUNTY



PROJECT LOCATION



AERIAL MAP

SEQUATCHIE LANE - LOCAL ROUTE 0A158
BRIDGE ID 180A1580001 (L.M. 0.06)
CUMBERLAND COUNTY

TRANSPORTATION PLANNING WORKSHEET
BRIDGE REPLACEMENT ANALYSIS, NEEDS, AND COSTS

County: Cumberland Route: Local Route 0A158 - Sequatchie Lane Log Mile: 0.06
 Feature Crossed: Sequatchie River System: Local Route
 Functional Class: Rural / Local Bridge ID: 180A1580001

EXISTING CONDITIONS

2016 AADT: 80 App. Cross Section: 12' /14' / 32' No. Lanes: 1
 Approach Alignment: Curved Approaches Year Built: 1970 Load Limit: 10 tons
 Width (out to out): 12.5' Sidewalks: Right -- Left -- Length: 35.1'
 No. Spans: Approach: -- Main: 11
 Substructure: Steel Vertical Clearance: 11.7' Sufficiency Rating: 44.3
 Other: _____

PROPOSED IMPROVEMENTS

STANDARDS FROM RD01-TS- 1A Type of Work: Replace
 Design Year: 2037 Design AADT: 90 Terrain Rolling ADL (F): -- (R): --
 Project Length: 244 ft Bridge Length: 51 ft Approach Length: 1 @ 101' & 1 @ 92'
 Design Speed (MPH): 30 Posted Speed (MPH): N/A
 Approach Width: 18' /18' / As Req'd Bridge Width (O to O): 27.5 ft No. Lanes: 2
 Right-of-Way Required: (0.22 acres) Tract(s) 3 Structure Type: Box Bridge

MAINTENANCE OF TRAFFIC

Temporary Detour: Temporary Runaround: Stage Construct:
 Alternate Route: Route will be detoured onto Old Tennessee 28 for 0.8 miles, take left onto Lowes Gap Road for 0.8 miles, take left onto Upper East Valley Road for 0.9 miles.
 Remarks: Proposed detour route consists of 2.5 miles of roadway comparable to closed roadway.

ESTIMATED COST

Right-of-Way: \$5,000 Approaches: \$55,300 Structure: \$161,700
 Preliminary Engineering: \$29,400 Utilities: N/A Misc./Cont.: \$59,200
 Mobilization: \$12,700 Total: \$323,300

Remarks: Roadway width will be increased from 12 feet to 18 feet. The grade will remain the same in order to minimize right-of-way.

Field Investigation by: Gary Chapman (Reg. 2 Survey), Alan Wolfe (Reg. 2 Traffic), Landon Castleberry (Reg. 2 Traffic), Mike Gilbert (Conceptual Planning), Glenda Tyus (Trans. Specialist I), Lisa Reaney (Planner), Adam Davidson (RW Armstrong), James Kelley (RW Armstrong), John Rehm (RW Armstrong)

Route:	Sequatchie Lane - Local Route 0A158
Description:	Bridge over Sequatchie River (180A1580001)
	L.M. 0.06
County:	Cumberland
Length:	0.04 Miles
Date:	May 23, 2013

<u>DESCRIPTION</u>	<u>LOCAL</u>	<u>STATE</u>	<u>FEDERAL</u>	<u>TOTAL</u>
Right-of-Way	\$ 1,000	\$ -	\$ 4,000	\$ 5,000
Clearing and Grubbing	\$ 2,000	\$ -	\$ 8,000	\$ 10,000
Earthwork	\$ 1,100	\$ -	\$ 4,600	\$ 5,700
Railroad Crossing or Separation	\$ -	\$ -	\$ -	\$ -
Drainage	\$ 300	\$ -	\$ 1,000	\$ 1,300
Utilities	\$ -	\$ -	\$ -	\$ -
Structures	\$ 32,300	\$ -	\$ 129,400	\$ 161,700
Pavement Removal	\$ 300	\$ -	\$ 1,200	\$ 1,500
Paving	\$ 2,900	\$ -	\$ 11,700	\$ 14,600
Roadway and Pavement Appurtenances	\$ -	\$ -	\$ -	\$ -
Retaining Walls	\$ -	\$ -	\$ -	\$ -
Topsoil	\$ 200	\$ -	\$ 700	\$ 900
Seeding	\$ 100	\$ -	\$ 200	\$ 300
Sodding	\$ -	\$ -	\$ -	\$ -
Rip-Rap or Slope Protection	\$ -	\$ -	\$ -	\$ -
Fencing	\$ -	\$ -	\$ -	\$ -
Signing	\$ -	\$ -	\$ -	\$ -
Pavement Markings	\$ 100	\$ -	\$ 200	\$ 300
Lighting	\$ -	\$ -	\$ -	\$ -
Signalization	\$ -	\$ -	\$ -	\$ -
Guardrail	\$ 3,100	\$ -	\$ 12,600	\$ 15,700
Pay Item Quantity Adjustment (15%)	\$ 6,500	\$ -	\$ 26,000	\$ 32,500
Maintenance of Traffic	\$ 1,000	\$ -	\$ 4,000	\$ 5,000
Mobilization (5%)	\$ 2,500	\$ -	\$ 10,200	\$ 12,700
CONSTRUCTION COST (rounded)	\$ 53,400	\$ -	\$ 213,800	\$ 267,200
Engineering and Contingency (10%)	\$ 5,300	\$ -	\$ 21,400	\$ 26,700
TOTAL CONSTRUCTION COST (rounded)	\$ 58,700	\$ -	\$ 235,200	\$ 293,900
Preliminary Engineering (10%)	\$ 5,900	\$ -	\$ 23,500	\$ 29,400
PROJECT COST ¹(rounded)	\$ 64,600	\$ -	\$ 258,700	\$ 323,300

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

Cumberland County

Sequatchie Lane - Local Route 0A158
L.M. 0.06 (Bridge Replacement)

Pay Item Summary

TDOT PAY ITEM	TDOT DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
-	Right-of-Way (0.22)	LS	1	\$5,000.00	\$5,000.00
RIGHT-OF-WAY TOTAL (ROUNDED)					\$ 5,000
201-01	Clearing And Grubbing	LS	1	\$10,000.00	\$10,000.00
CLEAR AND GRUBBING TOTAL (ROUNDED)					\$ 10,000
203-03	Borrow Excavation (Unclassified)	CY	380	\$15.00	\$5,700.00
EARTHWORK TOTAL (ROUNDED)					\$ 5,700
202-03.01	Removal of Asphalt Pavement	SY	290	\$5.00	\$1,450.00
PAVEMENT REMOVAL TOTAL (ROUNDED)					\$ 1,500
209-08.02	Temporary Silt Fence (w/backing)	LF	370	3.25	\$1,202.50
DRAINAGE TOTAL (ROUNDED)					\$ 1,300
UTILITIES TOTAL (ROUNDED)					\$ -
-	Removal of Existing Bridge	SF	438.75	\$15.00	\$6,581.25
-	3 @16'X12' Box Bridge	SF	1402.5	\$105.00	\$147,262.50
604-02.01	Class A Concrete (Box Bridges)	CY	16	\$370.00	\$5,920.00
604-02.02	Steel Bar Reinforcement (Box Bridges)	LB	2216	\$0.85	\$1,883.60
STRUCTURES TOTAL (ROUNDED)					\$ 161,700
RAILROAD CROSSING OR SEPARATION TOTAL (ROUNDED)					\$ -
303-01	Mineral Aggregate, Type A Base, Grading D	TON	173	\$18	\$3,114.00
307-01.01	Asphalt Concrete Mix (64-22) (BPMB-HM) Grading A	TON	66	\$79	\$5,181.00
307-01.08	Asphalt Concrete Mix (64-22) (BPMB-HM) Grading B-M2	TON	44	\$78	\$3,410.00
402-01	Bituminous Material For Prime Coat (PC)	TON	1	\$509	\$509.00
402-02	Aggregate For Cover Material (PC)	TON	2.5	\$23	\$58.18
403-01	Bituminous Material For Tack Coat (TC)	TON	0.1	\$571	\$57.12
411-01.10	ACS MIX (PG64-22) Grading D	TON	26.0	\$87	\$2,252.90
PAVING TOTAL (ROUNDED)					\$ 14,600
ROADWAY AND PAVEMENT APPURTENANCES TOTAL (ROUNDED)					\$ -
RETAINING WALLS TOTAL (ROUNDED)					\$ -
712-01	Traffic Control	LS	1	\$ 5,000.00	\$5,000.00
MAINTENANCE OF TRAFFIC TOTAL (ROUNDED)					\$ 5,000
203-07	Furnishing and Spreading Topsoil	CY	81	\$10.00	\$810.00
TOPSOIL TOTAL (ROUNDED)					\$ 900
801-01	Seeding (with Mulch)	UNIT	5.5	\$40	\$220.00
801-03	Water	MG	0.6	\$7	\$4.20

Cumberland County

Sequatchie Lane - Local Route 0A158
L.M. 0.06 (Bridge Replacement)

Pay Item Summary

TDOT PAY ITEM	TDOT DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
SEEDING TOTAL (ROUNDED)					\$ 300
SODDING TOTAL (ROUNDED)					\$ -
SIGNING TOTAL (ROUNDED)					\$ -
716-13.02	Spray Thermo Pvmt Mrkng (40 mil)(4" Line)	LM	0.2	\$1,250	\$250.00
PAVEMENT MARKINGS TOTAL (ROUNDED)					\$ 300
LIGHTING TOTAL (ROUNDED)					\$ -
SIGNALIZATION TOTAL (ROUNDED)					\$ -
FENCE TOTAL (ROUNDED)					\$ -
705-02.02	Single Guardrail (Type 2)	LF	88	\$15.66	\$1,378.08
705-04.04	Guardrail Terminal (Type 21)	EACH	4	\$1,823.00	\$7,292.00
705-01.04	Metal Beam Guard Fence	LF	122	\$57.00	\$6,954.00
GUARDRAIL TOTAL (ROUNDED)					\$ 15,700
709-05.06	Machined Rip-Rap (Class A-1)	TON	200	\$30	\$6,000.00
RIP-RAP OR SLOPE PROTECTION TOTAL (ROUNDED)					\$ 6,000



**STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION**

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

MEMORANDUM

TO: Project Planning Office

FROM: James Kelley, Project Manager
RW Armstrong

DATE: May 23, 2013

SUBJECT: TPR Field Review (Special Bridge Replacement Program)
Local Route 0A158 - Sequatchie Lane, Bridge over Sequatchie River
Log Mile 0.06
Bridge ID 180A1580001
PIN 103843.00

A field review was held for the above-mentioned project on January 8, 2013.

The existing bridge consists of a single span, timber structure with an asphalt surface. The bridge has an out-to-out width of 12.5 feet and a total length of 35.1 feet. The sufficiency rating for the existing bridge is 44.3. The 10-year and 100-year discharges and depths of flow for the drainage basin were determined using the appropriate regression equations. The 10-year flood level is 7.5 feet and the 100-year flood level is 9.8 feet.

The proposed alignment for this structure will remain on the existing centerline, at the existing roadway grade. The structure and approaches will be designed according to TDOT standard drawing RD01-TS-1A with a design speed of 30 mph. The proposed roadway will have an out-to-out width of eighteen (18) feet with nine (9) foot travel lanes in order to meet TDOT standards. The roadway widening and placement of guardrail will require three (3) tracts of right-of-way (ROW) totaling 0.22 acres.

The route has a base year (2017) AADT of 80 and a design year (2037) AADT of 90. The proposed bridge over the Sequatchie River will be designed to meet the Road Design Standard RD01-TS-1A. The structure will consist of a reinforced concrete box bridge with three (3) barrels at sixteen (16) feet with twelve (12) feet of clearance. The

total length of the box bridge will be fifty-one (51) feet with two twelve (12) feet debris deflection walls. The structure will contain two (2) nine (9) foot travel lanes with two (2) four foot, nine inch (4'-9") areas to accommodate the guardrail attachment to the structure.

It is recommended that the route be closed during construction. A viable detour route has been developed to maintain traffic on the route.

The required approach work, estimated replacement cost, right-of-way, and preliminary engineering costs for the bridge are approximately \$323,300. The total local match for this project is approximately \$64,600.

JK

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		X
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		
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	X
	NPDES	
	Aquatic Resource Alteration	X
13. Other		
14. Location coordinated with local officials		X
15. Railroad crossings		
16. Hazardous materials site		

**TENNESSEE DEPARTMENT OF TRANSPORTATION
PROJECT PLANNING DIVISION**

2012

PROJECT NO.: _____ ROUTE: Sequatchie Lane
 COUNTY: Cumberland CITY: _____
 PROJECT PIN NUMBER: 103843.00
 PROJECT DESCRIPTION: Special Bridge Replacement Program
Bridge over Sequatchie River (Bridge ID# 180A1580001)
L.M. 0.06

DIVISION REQUESTING:

MAINTENANCE	<input type="checkbox"/>	PAVEMENT DESIGN	<input type="checkbox"/>
PLANNING	<input checked="" type="checkbox"/>	STRUCTURES	<input type="checkbox"/>
PROG. DEVELOPMENT & ADM.	<input type="checkbox"/>	SURVEY & DESIGN	<input type="checkbox"/>
PUBLIC TRANS. & AERO.	<input type="checkbox"/>	TRAFFIC SIGNAL DESIGN	<input type="checkbox"/>
YEAR PROJECT PROGRAMMED FOR CONSTRUCTION:	_____	OTHER	<input type="checkbox"/>
PROJECTED LETTING DATE:	_____		

TRAFFIC ASSIGNMENT:

BASE YEAR		DESIGN YEAR					DESIGN ROADWAY % TRUCKS		DESIGN AVERAGE DAILY LOADS	
AADT	YEAR	AADT	DHV	%	YEAR	DIR.DIST.	DHV	AADT	FLEX	RIGID
80	2017	90	12	13	2037	65-35	1	1		

REQUESTED BY: NAME Mike Gilbert DATE 7/17/12
 DIVISION Planning
 ADDRESS 10th Floor, JK Polk Bldg.
Nashville, TN 37243

REVIEWED BY: TONY ARMSTRONG *Tony Armstrong* DATE 7-20-12
 TRANSPORTATION MANAGER 1
 SUITE 1000, JAMES K. POLK BUILDING

APPROVED BY: DUDLEY DANIEL *Dudley Daniel* DATE 7-20-12
 TRANSPORTATION MANAGER 2
 SUITE 1000, JAMES K. POLK BUILDING

COMMENTS:

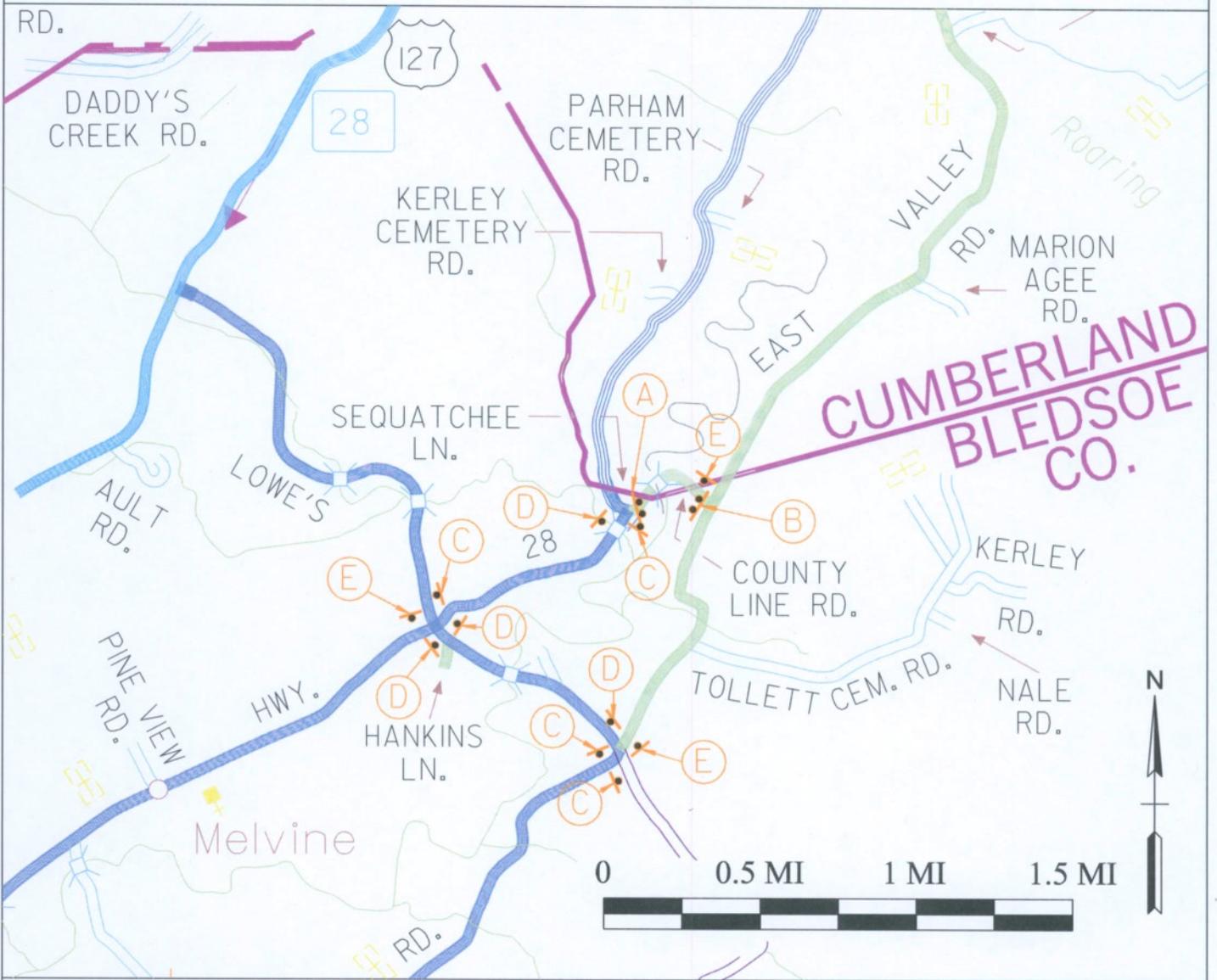
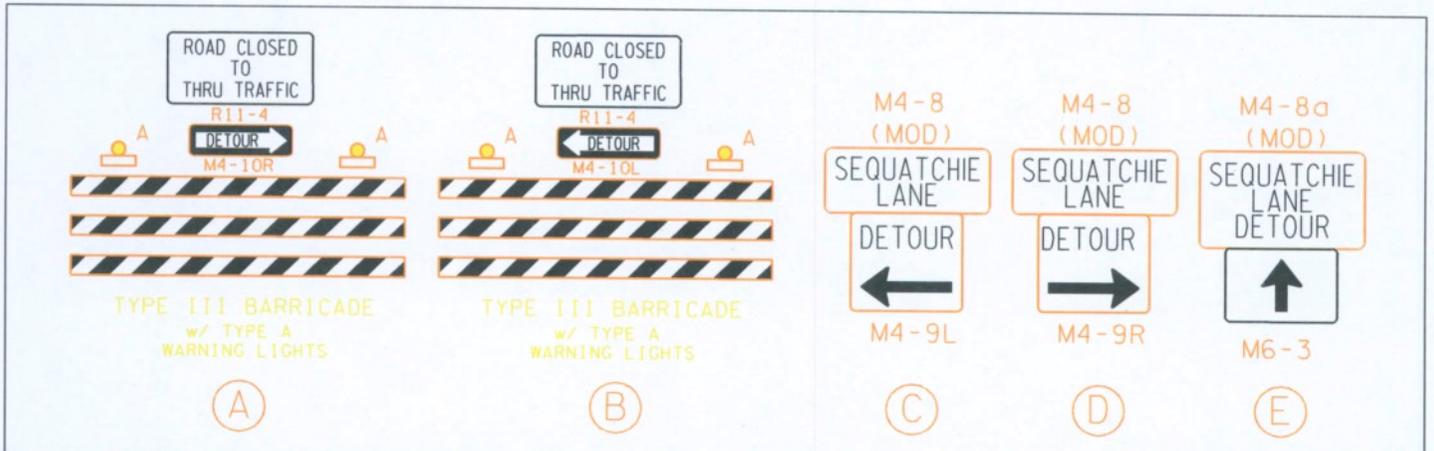
This Traffic is based on 2006 Structure Count from ADAM. The Future Traffic Count is based on the Growth Rate from the ADAM Computer Program.

DHV'S ARE NOT REQUIRED FOR SIDE ROADS LESS THAN 1000 AADT.

NOTE: FOR BRIDGE REPLACEMENT PROJECTS, ADLs ARE NOT REQUIRED FOR ADTs OF 1000 OR LESS AND PERCENTAGE OF TRUCKS OF 7% OR LESS.
 SEE ATTACHMENTS FOR TURNING MOVEMENTS AND/OR OTHER DETAILS.

Most Recent Year / AADT	Percentage Rise %	Beginning Year	2017	Horizon Year	2037	Directional Split %
2006	1	2017		2037		0
69	0.01	11	77	20	92	0
Directional Split NB or EB			0		0	
Directional Split SB or WB			77		92	

Cumberland County
 Project PIN Number: 103843.00
 Sequatchie Lane (0A158) in Cumberland Co., TN
 Bridge over Sequatchie River @ Log Mile 0.06
 Bridge ID# 180A1580001



DETOUR MAP

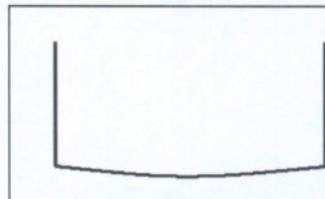
SEQUATCHIE LANE - LOCAL ROUTE 0A158
BRIDGE ID 180A1580001 (L.M. 0.06)
CUMBERLAND COUNTY

SITE INSPECTION

INSPECTION MADE BY: A. Davidson, J. Kelley, J. Rehm BRIDGE ID: 180A1580001 COUNTY: Cumberland
 Date: 1/8/13 Route Name: Local Route 0A158 - Sequatchie Lane Stream Name: Sequatchie River @ L.M. 0.06

CHANNEL

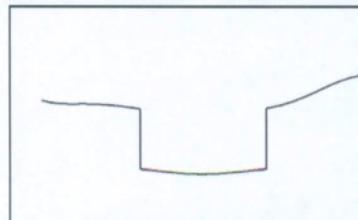
Approx depth and width of channel: Horizontal: 39' - 8" Vertical: 5' - 6"
 Depth of normal flow: 3' - 4" In Reservoir: Yes No
 Depth of Ordinary High Water: 5' - 5" from Low Chord
 Type of material in stream bed: Large Gravel and Rock
 Type of vegetation on banks: Trees and Heavy Brush
 "N" factor of the channel: 0.03
 Are channel banks stable: 0 Yes No
 If the streambed is gravel: $D_{30} =$ -- $D_{85} =$ --
 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.: Heavy Trees (0.15) Right U.S.: Grass - Brush, (0.050)
 Left D.S.: Heavy Trees (0.15) Right D.S.: Grass - Brush, (0.050)
 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: 35.1' No. of spans: 1 Structure type: Timber / Steel No. of lanes: 1 Skew: 90°
 Width (out to out): 12' - 6" Width (curb to curb): 12' - 6" Approach: paved graveled
 Sidewalks on Structure: Yes No Bridgerail type: None Bridgerail height = None
 Superstructure depth: 15' - 5" Finished Grade to low girder = 15' - 5" Girder depth = 12"
 Are any substructures in the channel? Yes No Vertical Clearance = 11.7 ft
 Indications of overtopping: None
 High water marks: 5' - 5" from Low Chord
 Local scour: Yes, No
 Any signs of stream aggradation or degradation? Some erosion of bank underbank at beginning of bridge
 Any drift or drift potential? Yes, Some drift lodged in stream banks before/after structure No
 Any obstructions (pipes, stock fences, etc.)? No

PROPOSED STRUCTURE

Replacement Rehabilitate Widening New Location
 Bridge length: 51 ft Bridge type: Box Bridge Span arrangement: 3 @ 16' x 12' Skew: 90°
 Bridge width: 27.5 ft Sidewalks: No Design Speed (MPH): 30 ADT (2037) = 90
 Proposed grade: Same Proposed alignment: Same
 Method of maintaining traffic: Stage construction On site detour Close road Shift Centerline
 Cost of proposed Structure: \$105 per ft² X 51 / 27.5 length (ft) / width (ft) Cost = \$147,300
 Cost of bridge removal: \$15 per ft² X 35.1 / 12.5 length (ft) / width (ft) Cost = \$6,600
 Detour structure: Type and size = N/A Cost = \$0
Total Structure Cost = \$161,700

Bridge TPR Flow Calculations

For Hydrologic Area 1

Area > 230 Acres

County: <u>Cumberland</u>	By: <u>JTL</u>
Bridge ID: <u>180A1580001</u>	Date: <u>2/25/13</u>
Route: <u>Local Route 0A158 - Sequatchie Lane</u>	PIN: <u>103843.00</u>
Feature Crossed: <u>Sequatchie River</u>	
Log Mile: <u>0.06</u>	

DRAINAGE BASIN

Measurement from quad =	17,171 acres
Contributing Drainage Area, CDA = acres/640 =	26.83 sq. mi.

USGS REGRESSION EQUATIONS FOR FLOW

$Q_2 = 119(CDA)^{0.756} =$	1,431 cfs
$Q_5 = 197(CDA)^{0.740} =$	2,247 cfs
$Q_{10} = 258(CDA)^{0.731} =$	2,857 cfs
$Q_{25} = 343(CDA)^{0.721} =$	3,676 cfs
$Q_{50} = 412(CDA)^{0.715} =$	4,329 cfs
$Q_{100} = 485(CDA)^{0.709} =$	4,996 cfs

DEPTH OF FLOW EQUATIONS

10-Year Flood Depth = $4.11(CDA)^{0.184} =$	7.5 ft
100-Year Flood Depth = $5.32(CDA)^{0.186} =$	9.8 ft

AREAS

Existing Area Below Low Chord =	294 ft ²
Proposed Area Below Low Chord =	576 ft ²
Proposed 10-Year Flood Area, $A_{10} =$	374 ft ²
Proposed 100-Year Flood Area, $A_{100} =$	484 ft ²

VELOCITIES

Proposed 10-Year Flood Velocity, $V_{10} = Q_{10}/A_{10} =$	7.6 fps
Proposed 100-Year Flood Velocity, $V_{100} = Q_{100}/A_{100} =$	10.3 fps



NFIP

NATIONAL FLOOD INSURANCE PROGRAM

MAP INDEX

FIRM
FLOOD INSURANCE RATE MAP
CUMBERLAND COUNTY,
TENNESSEE
AND INCORPORATED AREAS
(SEE LISTING OF COMMUNITIES TABLE)

MAP INDEX

PANELS PRINTED: 175, 190, 195, 190, 195,
205, 210, 212, 214, 220, 280, 285, 290, 295, 305, 306,
307, 308, 309, 315, 316, 317, 340, 345, 355, 365, 400,
500, 510

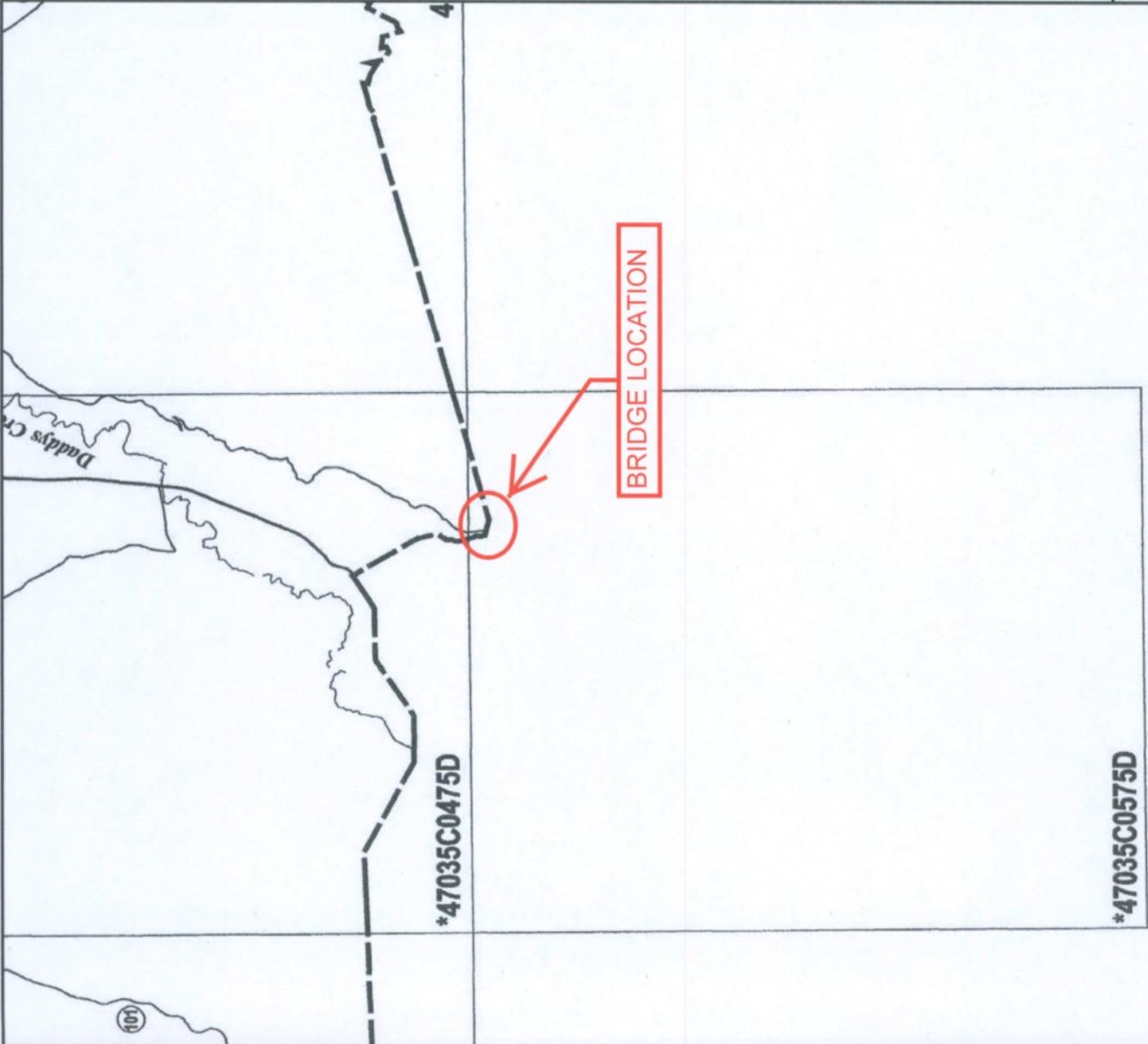
MAP NUMBER
47035CIND00A

EFFECTIVE DATE
NOVEMBER 16, 2007



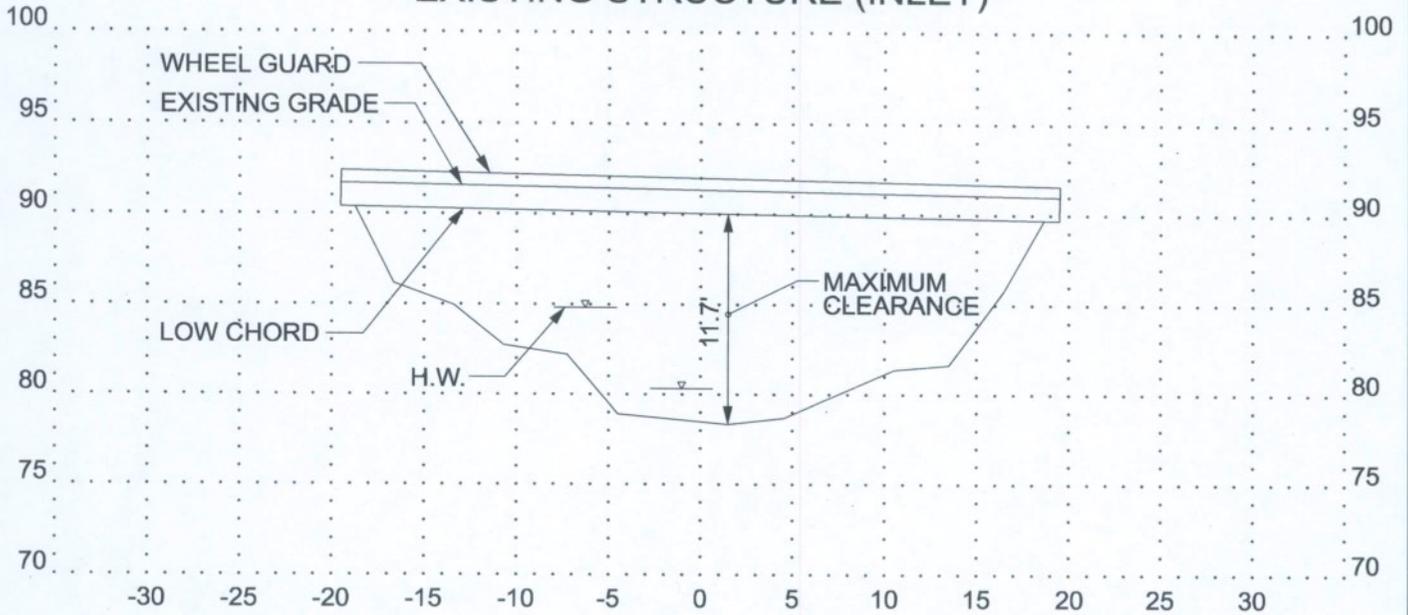
Federal Emergency Management Agency

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

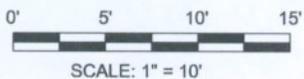
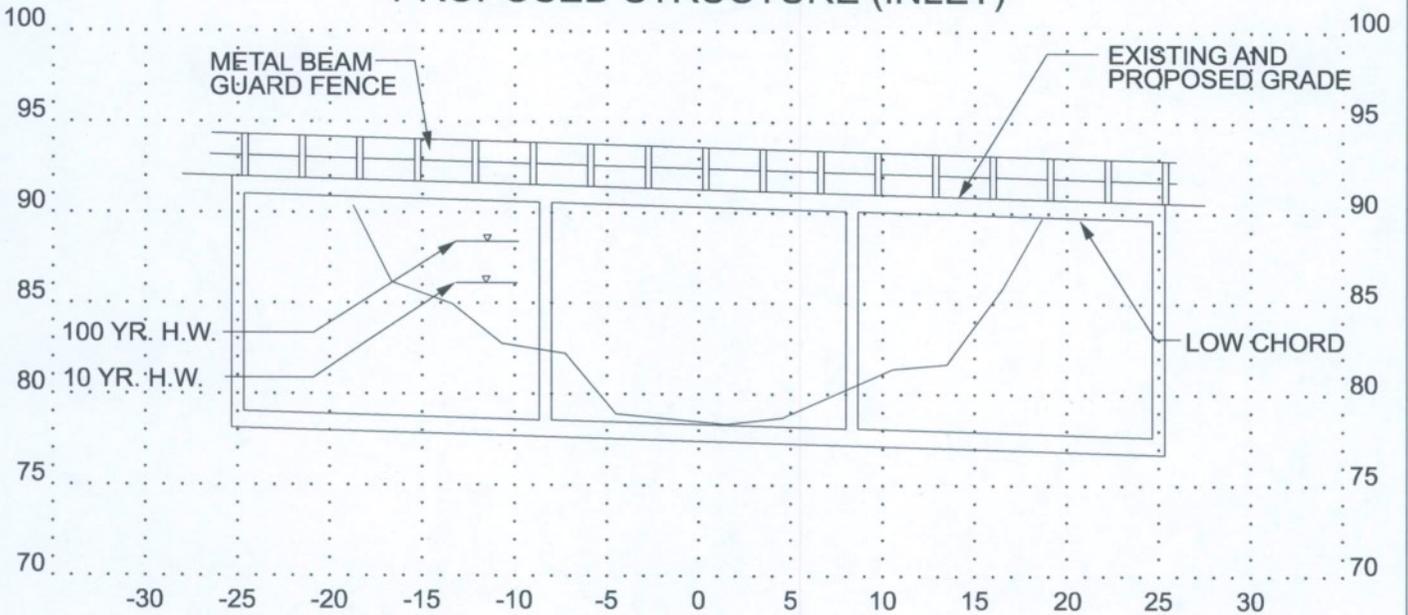


* PANEL NOT PRINTED - ALL ZONE X

EXISTING STRUCTURE (INLET)



PROPOSED STRUCTURE (INLET)



BRIDGE SECTIONS

SEQUATCHIE LANE - LOCAL ROUTE 0A158
 BRIDGE ID 180A1580001 (L.M. 0.06)
 CUMBERLAND COUNTY



View of Structure



Bridge Number



Westbound Approach



Eastbound Approach



Bridge Looking West on Sequatchie Lane



Bridge Looking East on Sequatchie Lane



Substructure Looking East



Substructure Looking West



Bridge Deck



Inlet



Outlet



Upstream View



Upstream (Right)



Upstream (Left)



Downstream View



Downstream (Right)



Downstream (Left)