Concept Report Form

The Concept Report Form develops an initial project vision, basis of design and report (e.g., the Concept Report) to transition into the subsequent design stages (Stages 1 through 4 in the Project Delivery Network [PDN]). This form summarizes all project components using information to complete the Concept Report.

General Project Information

Project Name	SR 353 (Bailey Bridge Road) – Bridge over Nolichucky River								
PIN	132623.00								
Route Information	**Route**	**NHS (Y/N)**	**Functional Class**		**City**		**County**		
	SR353	No	Rural Major Collector		N/A		Washington		
Project Information	**Begin Log Mile**	**End Log Mile**	**AADT[1]**	**Design Hour Vol. (DHV)[1]**	**Truck %[1]**	**Design Speed (MPH)**	**Posted Speed (MPH)**	**Base Year**	**Design Year**
	0.36	0.71	1,880	207	3.00	50	45	2028	2048
Project Description & Standard Drawings Used	A field review was held April 19, 2023. The proposed bridge is to be a 4 span concrete box beam bridge 380' in length. The typical section for the approach and bridge will be 2-11' foot travel lanes with 6' shoulders. The out-to-out width based on the above recommendations will be 35'3". The proposed bridge will raise the grade 3' and will be constructed in phases. A single lane will remain open during construction and be controlled by a temporary signal. Superstructure depth is 47"= 33" (beam)+10" (deck)+ 4" (width (in inches) x0.02/2). RD11-TS-2								Project Details
Important Project History or Related Projects	The existing structure, built in 1958 is a 9 span concrete tee beam bridge, 354' long with an out-to-out width of 28'6". The existing structure has 2-11' travel lanes with 1' shoulders. The listed weight limit on the inspection report is 12 tons for 2 axle vehicles and 21 tons for vehicles with 3 or more axles. There is bridge maintenance scheduled under TDOT PIN 132623.01. The discharges for the drainage basin (StreamStats Version 4.10.1) for drainage area of 884.31 square miles: Q10 is 34,300 cfs, Q50 is 49,400 cfs, and Q100 is 56,500 cfs. This project is expected to utilize federal funding.								
Project Purpose/Need	The need to replace this bridge is due to the present condition of the existing bridge: -Bridge built in 1958 -Sufficiency rating is 37.0 - October 25, 2021 -Typical section does not meet current TDOT Standards								
Major Environmental Considerations	A noise study is not required. There is a perennial stream within the project limits. There are cliff swallows present and potential for bats. There are 10 endangered/threatened species within 4 miles of the project. There are no known hazardous materials sites near the project. The bridge has asbestos in 116 deck drains. There is a possible canoe launch near the bridge as the Nolichucky River is used frequently for rafting, coordination will be required. Washington County is in attainment for all regulated criteria pollutants. This project does not require an evaluation of MSATs under 23 CFR 771.117.								

<table>
<tr><td>Multi-Modal Considerations</td><td colspan="3">Sidewalks were considered but cannot be provided at a reasonable cost due to the required increase in bridge width over 20% which will result in an increase in project cost over 20%. TDOT Multimodal Project Scoping Manual section 1.2 states that accommodations that are excessively disproportionate (exceeding 20%) to the need and probable use of the project are inappropriate locations to provide multimodal facilities.</td><td rowspan="2"></td></tr>
<tr><td>Major Project Risks</td><td colspan="3">Approximately 3.6 acres of right of way are expected to be acquired. Overhead electric/communication and possibly underground water are present. NEPA mitigation may be required if ROW is acquired. There are no section 4(f) resources adjacent to the project site. No minority environmental justice (EJ) populations were identified. A Low-Income EJ population was identified.
This document is covered by 23 USC § 407 and its production pursuant to fulfilling public planning requirements does not waive the provisions of § 407.</td></tr>
<tr><td rowspan="4">Concept Estimate and Timeline</td><td>Total Current Project Cost</td><td></td><td>Construction Year Estimate</td><td rowspan="4">Preliminary Estimates</td></tr>
<tr><td>$ 16,100,000</td><td></td><td>$ 22,700,000</td></tr>
<tr><td>Proposed Construction Year</td><td></td><td>Estimated Construction Duration</td></tr>
<tr><td>2028</td><td></td><td>TBD</td></tr>
</table>

[1] Traffic numbers reflect identified design year

Approvals

Executed for approval of this Concept Report

Steve Allen (Jan 24, 2024 11:25 CST) — Jan 24, 2024

STID Director — Date

The following individuals to execute if a bridge concept report:

Jan 24, 2024

Structures Director — Date

Jan 26, 2024

Regional Project Development Director — Date

Jan 30, 2024

Bureau Chief of Engineering — Date

Jan 29, 2024

Bureau Chief of Planning — Date

Ty Tucker

From: Dexter Justis
Sent: Tuesday, January 23, 2024 8:12 AM
To: Ty Tucker
Cc: James D. Kelley; Steve Allen; Jim Waters; Michael Gilbert; Emily Burgess
Subject: RE: Washington County Bridge over Nolichucky River SR 353 PIN 132623.00

No additional comments, looks good.

Dexter Justis, P.E. | Director
TDOT - Region One Project Management
7345 Region Lane, Knoxville, TN 37914
865-594-2400
Dexter.Justis@tn.gov
tn.gov/tdot

From: Ty Tucker <Ty.Tucker@tn.gov>
Sent: Wednesday, January 17, 2024 8:51 AM
To: Dexter Justis <Dexter.Justis@tn.gov>
Cc: James D. Kelley <James.D.Kelley@tn.gov>; Steve Allen <Steve.Allen@tn.gov>; Jim Waters <Jim.Waters@tn.gov>; Michael Gilbert <Michael.Gilbert@tn.gov>; Emily Burgess <Emily.Burgess@tn.gov>
Subject: Washington County Bridge over Nolichucky River SR 353 PIN 132623.00

Dexter,

As a part of the Project Delivery Network (PDN) Stage 0SD3 Request Concept Report Signatures, please see attached pdf to access the draft report for your final review. We request that you provide your concurrence or any comments by COB January 31st. Below is the project information as well as a Google Maps link to the project location:

- PIN 132623.00
- Washington County
- SR 353 Bridge over Nolichucky River
- Project Location: https://www.google.com/maps/place/36%C2%B009'21.9%22N+82%C2%B035'25.8%22W/@36.1560782,-82.592429,17z/data=!3m1!4b1!4m4!3m3!8m2!3d36.156075!4d-82.5905?entry=ttu
- Draft Report: Attached

Please feel free to reach out if you have any questions or issues accessing this report.
Thank you,

Ty Tucker, P.E. | TRANSPORTATION ENGINEERING S3
Strategic Transportation Investments Division
James K. Polk Building, 10th Floor

505 Deaderick Street
Nashville, TN 37243
p. 615-532-7459
ty.tucker@tn.gov
tn.gov/tdot
https://www.tn.gov/tdot/strategic-transportation-investments.html

Action Checklist			
0SD1 Initiate Concept Report and Request Funding			
Complete	**NA**		**Date Completed**
✓		Request and Finalize Safety Data	10/14/2022
✓		Request Project Number, PIN, and Task Profile Numbers	03/29/2022
	✓	Coordinate with Long Range Planning	
✓		Request and Finalize Traffic Data	07/08/2022
	✓	Request Preliminary Survey Data	
✓		Initiate Division Reviews	03/22/2023
✓		Schedule Site Review (with appropriate Divisions)	03/22/2023
0EN1 Conduct Environmental Desktop Review			
Complete	**NA**		**Date Completed**
✓		Confirm Environmental Desktop Review is Complete	04/20/2023
0MM1 Conduct Multimodal Review			
Complete	**NA**		**Date Completed**
✓		Confirm Multimodal Review is Complete	04/04/2023
✓		Review Multimodal Considerations & Recommendations	04/27/2023
0TO1 Conduct Initial Traffic Ops/TSMO Review *(include HQ Traffic Ops and Regional Traffic Office)*			
Complete	**NA**		**Date Completed**
✓		Confirm Transportation Systems Management & Operations (TSMO) Alignment & Operations Review is Complete	04/04/2023
✓		Request Concept Report Review	03/22/2023
0ST1 Develop Structures Recommendations			
Complete	**NA**		**Date Completed**
✓		Confirm Recommended Structure Type for Concept Report is Complete	08/12/2022
✓		Confirm Hydraulic Recommendations for Concept Report is Complete	08/12/2022
0SY1 Provide Preliminary Survey Data			
Complete	**NA**		**Date Completed**
	✓	Confirm Control Ground Survey Set	
	✓	Review Preliminary Survey Data	
	✓	Determine Time to Complete the Aerial Survey	
0GT1 Conduct Preliminary Geotechnical Assessment			
Complete	**NA**		**Date Completed**
	✓	Confirm Geotechnical Division Review is Complete	
0RD1 Provide Roadway Desktop Review			
Complete	**NA**		**Date Completed**
✓		Confirm Roadway Division Review is Complete	04/19/2023

Action Checklist			
0SD2 Develop Draft Concept Report			
Complete	**NA**		**Date Completed**
	✓	Conduct Intersection and Interchange Evaluation (IIE)	
	✓	Complete Conceptual Signal Warrants	
✓		Develop Draft Conceptual Layouts/Crash Figures for Site Visit	12/07/2022
✓		Compile Initial Divisional Reviews for Site Visit	04/13/2023
✓		Prepare & Send Site Visit Packet	03/22/2023
✓		Lead Site Visit	04/19/2023
	✓	Initiate Interstate Access Requests (IAR) Concept Coordination with FHWA (if applicable)	
✓		Develop, Compile, and Distribute the Draft Concept Report	05/01/2023
0TO2 Develop TSMO Scope Items *(include HQ Traffic Ops and Regional Traffic Office)*			
Complete	**NA**		**Date Completed**
	✓	Confirm Signal Warrants Analysis is Complete	
	✓	Confirm Lighting Warrants Analysis is Complete	
	✓	Review and Confirm TSMO & ITS Scope and Budget	
0RW1 Complete Preliminary Right-of-Way Estimates			
Complete	**NA**		**Date Completed**
	✓	Review and Confirm Preliminary Right-of-Way Cost Estimates	
0UT1 Complete Utility Preliminary Estimates			
Complete	**NA**		**Date Completed**
	✓	Review and Confirm Preliminary Utility Estimate	
	✓	Review and Confirm Preliminary Railroad Cost Estimate	
0SD3 Finalize Concept Report			
Complete	**NA**		**Date Completed**
	✓	Compile and Review Initial Risk Assessment	
✓		Finalize Conceptual Layouts	12/08/2023
✓		Develop Environmental Technical Study Area (ETSA)	04/28/2023
✓		Address Comments and Finalize Concept Report	12/08/2023
	✓	Address Comments and Finalize Interstate Access Requests (IAR) Document and Memo (if applicable)	
	✓	Develop Roadway Safety Audit (RSA) No Plans Document	
✓		Submit the final Concept Report for Review and Signatures (as needed; see 0SD3 for additional information)	12/27/2023
✓		Finalize Document and Upload All Needed Electronic Files	01/19/2024
✓		Notify the Project Management Director or Assigned Project Manager to Set Up Project (1PM1)	01/19/2024

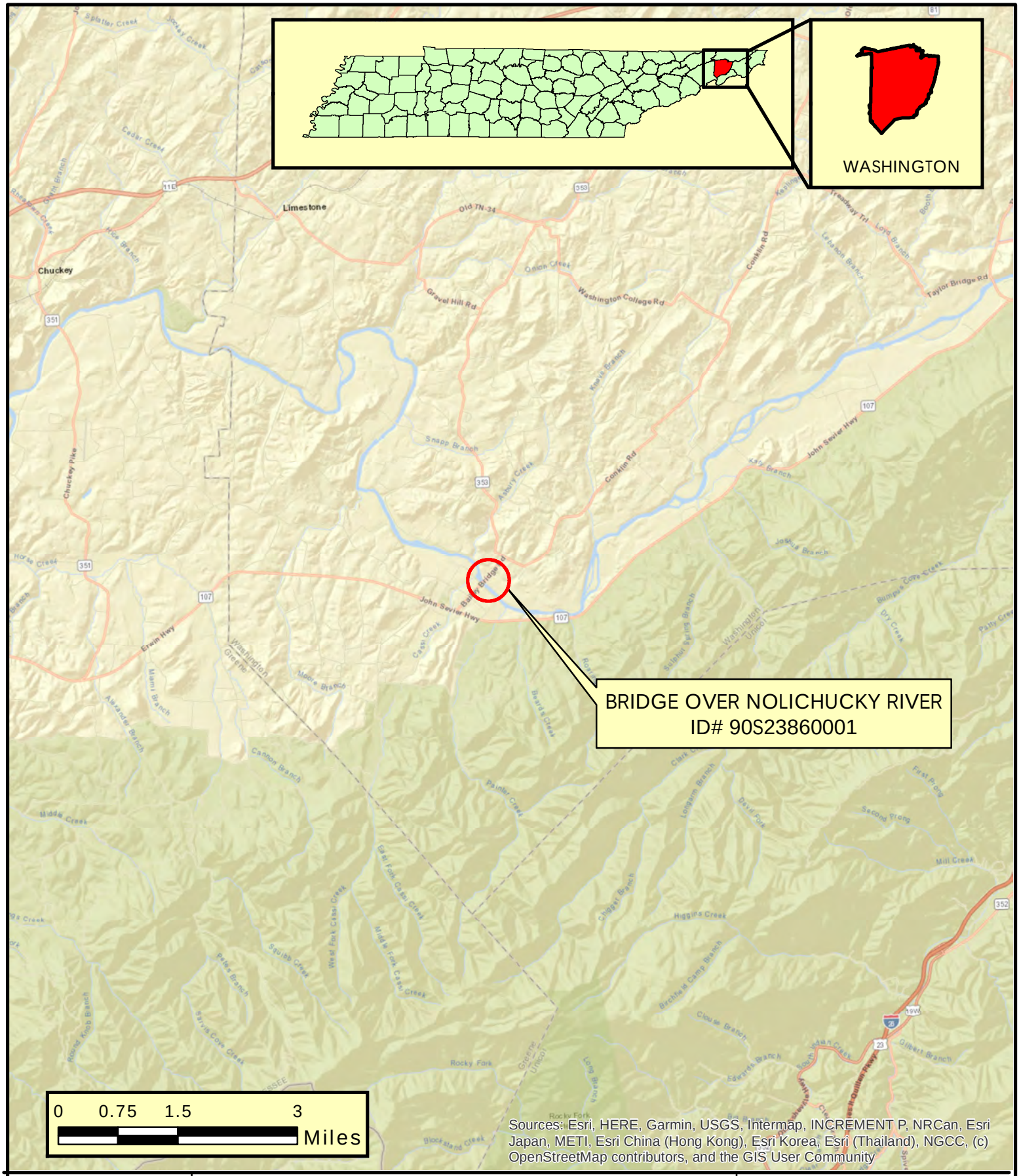
NA Justification
Coordinate with Long Range Planning-Long Range Planning coordination not needed for STID BCR document Request Preliminary Survey Data- survey data not needed for STID BCR document 0TO1 Conduct Initial Traffic Ops/TSMO Review-Traffic Ops had no comments 0SY1 Provide Preliminary Survey Data- survey data not needed for STID BCR document 0GT1 Conduct Preliminary Geotechnical Assessment- geotechnical data not received for STID BCR document Conduct Intersection and Interchange Evaluation (IIE)-no interchange within project limits Complete Conceptual Signal Warrants-signal not warranted due to low AADT Initiate Interstate Access Requests (IAR) Concept Coordination with FHWA (if applicable)-no interstate within project limits 0TO2 Develop TSMO Scope Items-no signals or lighting needed within project limits 0RW1 Complete Preliminary Right-of-Way Estimates-ROW estimate calculated in cost estimate 0UT1 Complete Utility Preliminary Estimates-utility cost calculated in cost estimate Compile and Review Initial Risk Assessment-Risk Assessment not needed for STID BCR document Address Comments and Finalize Interstate Access Requests (IAR) Document and Memo (if applicable)-no interstate within project limits Develop Roadway Safety Audit (RSA) No Plans Document- no plans document not needed for STID BCR document

Concept Report Table of Contents/Attachments		
	Included	**NA**
One-Page Summary (with project location map)	✓	
Conceptual Layout(s) and Cross Section	✓	
Environmental Technical Study Area (ETSA) Layout	✓	
Concept Cost Estimate (Construction Year Estimate)	✓	
TSMO & ITS Scope and Budget[1]		✓
ROW Form 44-A[1]		✓
Crash Packet[1]	✓	
Crash Prediction Analysis[1]		✓
Site Visit Attendee List	✓	
Environmental Desktop Review Form[1]	✓	
Multimodal Considerations & Recommendations[1]	✓	
Existing Structure Summary[1]	✓	
Email or memo containing Structure Type Recommendations[1]		✓
Email or memo containing Hydraulic Recommendations[1]	✓	
Hydraulic Data	✓	
Intersection and Interchange Evaluation (IIE) Analysis and Summary Form		✓
Traffic Analysis Summary/Tables	✓	
Forecasted Traffic Sheets[1]	✓	
Traffic Modeling (e.g., Synchro, VISSIM, Highway Capacity Software (HCS) Output)[1]		✓
Signal Warrant[1]		✓
Lighting Warrant[1]		✓
Initial Risk Assessment using the Risk Assessment Form		✓
Final Interstate Access Request (IAR) Document and Memo with Letter from STID Director		✓
Road Safety Audit (RSA) No Plans[1]		✓

NA Justification

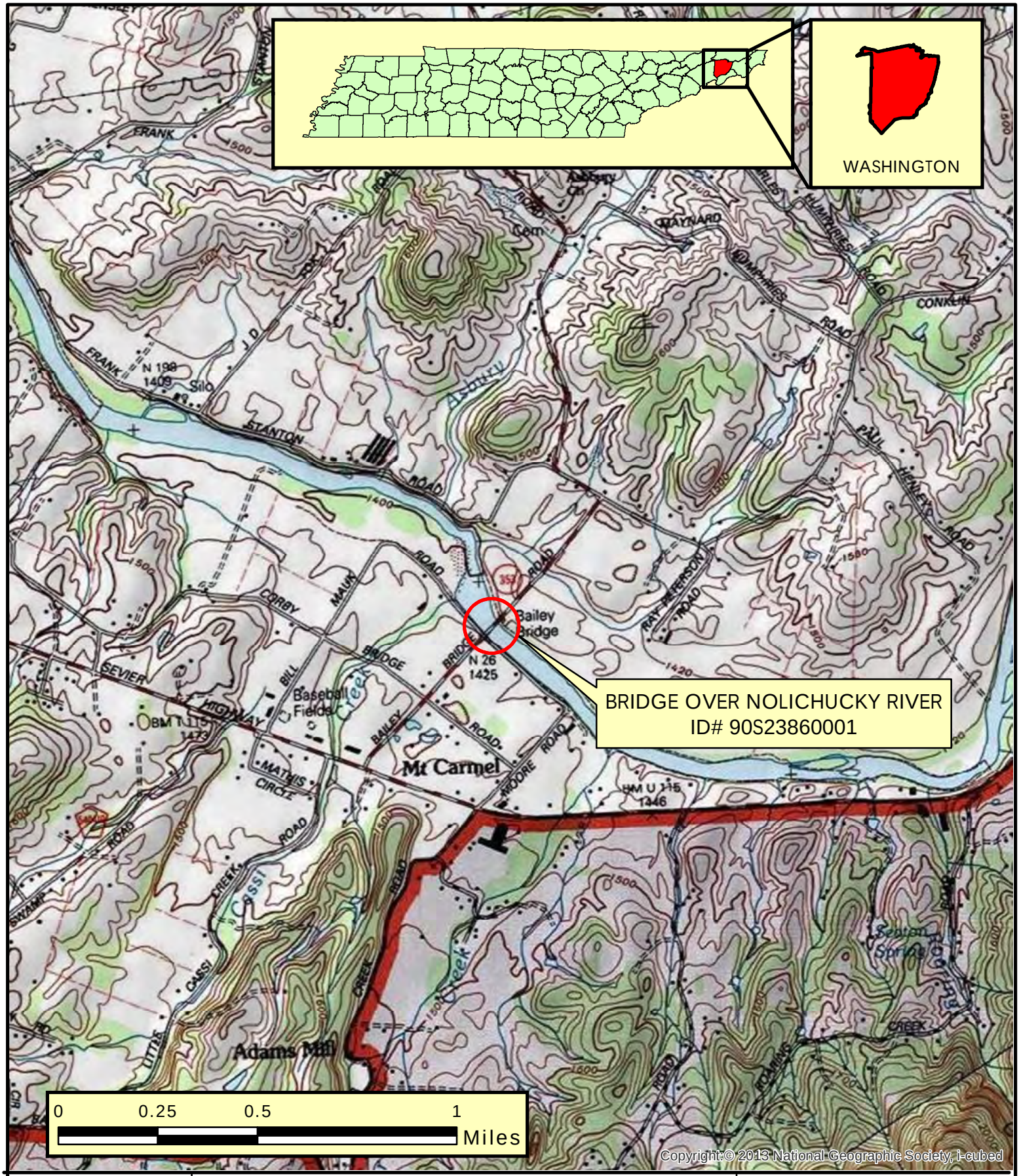
TSMO & ITS Scope and Budget-no ITS within project limits; ROW Form 44-A-form not needed for STID BCR document
Crash Prediction Analysis- only 3 crashes occurred within the project limits, crash prediction analysis not needed
Email or memo containing Structure Type Recommend-structures recommendations came from Hydraulics
Intersection and Interchange Evaluation (IIE) Analysis and Summary Form- AADT is too low for IIE Analysis
Traffic Modeling (e.g., Synchro, VISSIM, Highway Capacity Software (HCS) Output)- AADT too low to model
Signal Warrant-no signals warranted within project limits; Lighting Warrant-no lighting warranted within project limits
Initial Risk Assessment using the Risk Assessment Form-Risk Assessment not needed for STID BCR document
Final IAR Document and Memo with Letter from STID Director-no interstate access within project limits
Road Safety Audit (RSA) No Plans-RSA no plans document not needed for STID BTIR document

[1] External document to STID



AREA MAP
STATE ROUTE 353 (BAILEY BRIDGE RD.)
BRIDGE OVER NOLICHUCKY RIVER
L.M. 0.45
WASHINGTON COUNTY
PIN 132623.00

TN TDOT Department of Transportation



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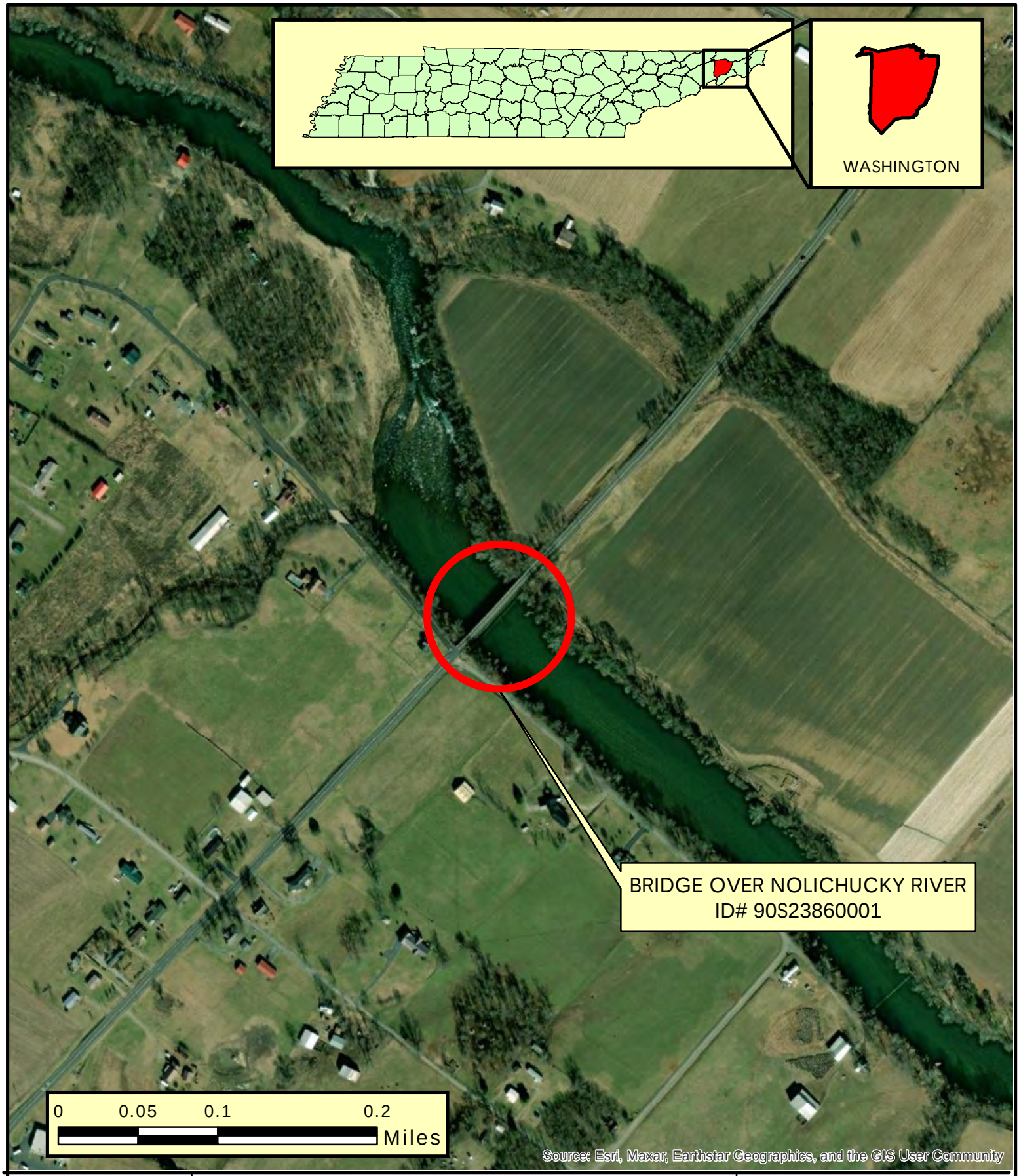
TOPOGRAPHIC MAP
STATE ROUTE 353 (BAILEY BRIDGE RD.)
BRIDGE OVER NOLICHUCKY RIVER
L.M. 0.45
WASHINGTON COUNTY
PIN 132623.00

TN TDOT Department of Transportation



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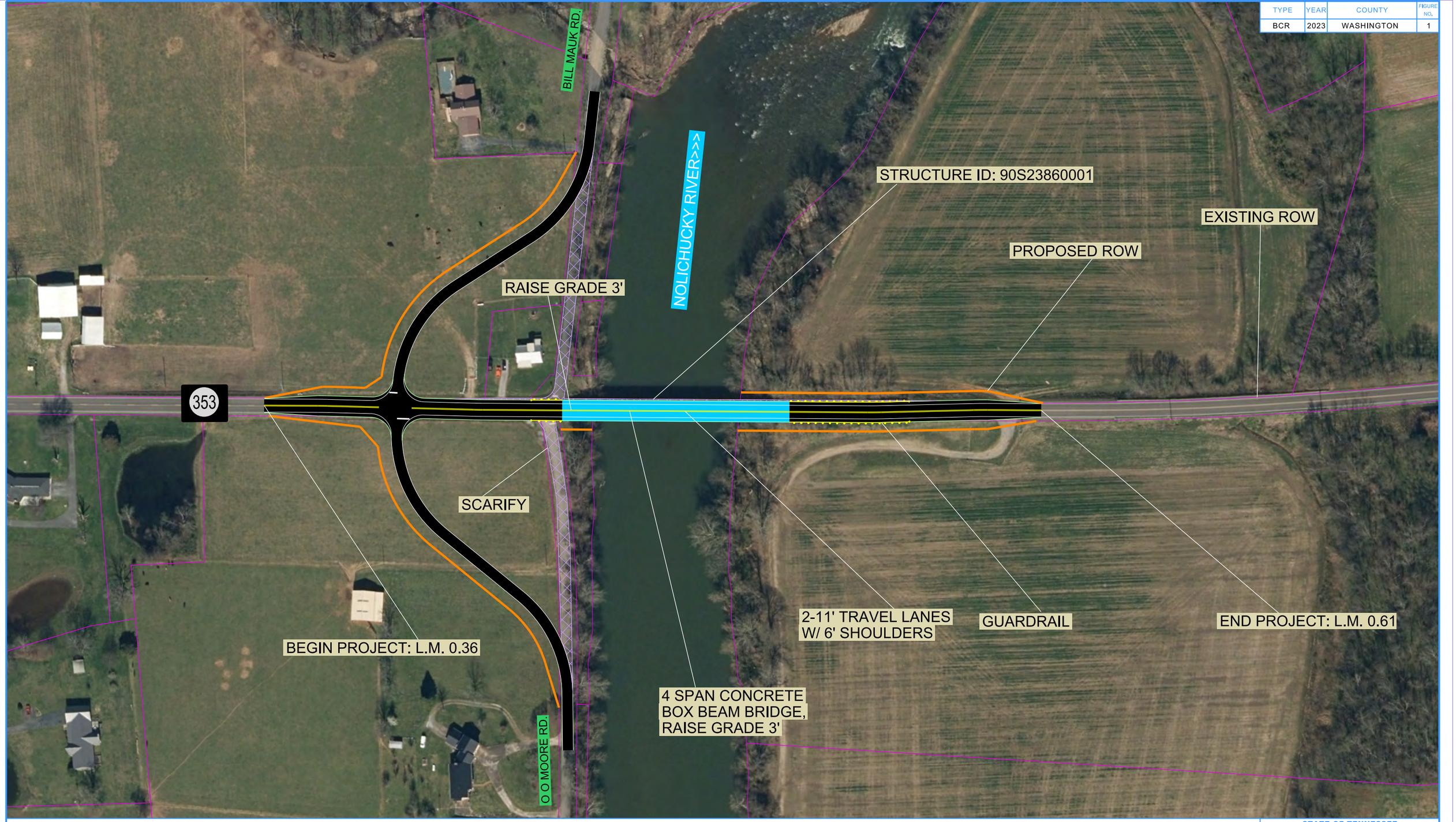
LOCATION MAP
STATE ROUTE 353 (BAILEY BRIDGE RD.)
BRIDGE OVER NOLICHUCKY RIVER
L.M. 0.45
WASHINGTON COUNTY
PIN 132623.00

TN TDOT Department of Transportation

TYPE	YEAR	COUNTY	FIGURE NO.
BCR	2023	WASHINGTON	1



0 150' 300' 450'

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BRIDGE CONCEPT REPORT

STATE ROUTE 353 (BAILEY BRIDGE RD.)
LOG MILE 0.45
WASHINGTON COUNTY

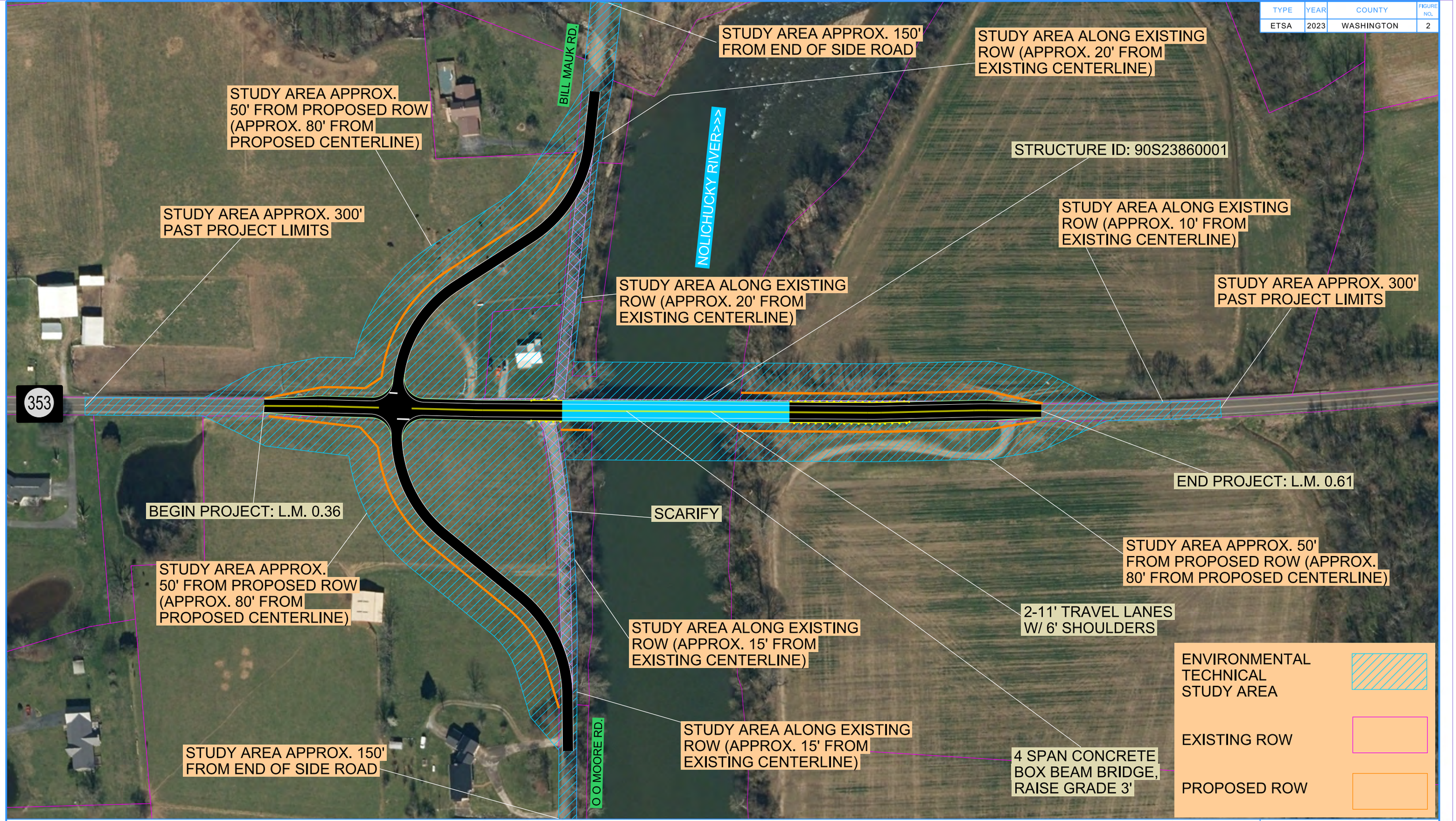
CAUTION ! PRELIMINARY PLANS SUBJECT TO CHANGE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
S.T.I.D.

FIGURE 1
STATE ROUTE 353
(BAILEY BRIDGE RD.)
LOG MILE 0.45

11/20/2023 9:30:06 AM
X:\Projects\Washington\SR 353\Bridge over Nolichucky River, LM 0.45\Project Files\Microstation\DGN Files\Existing Alignment Sheets\SHT_01.dgn

TYPE	YEAR	COUNTY	FIGURE NO.
ETSA	2023	WASHINGTON	2



0 150' 300' 450'

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ENVIRONMENTAL TECHNICAL STUDY AREA

STATE ROUTE 353 (BAILEY BRIDGE RD.)
LOG MILE 0.45
WASHINGTON COUNTY

CAUTION ! PRELIMINARY PLANS SUBJECT TO CHANGE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
S.T.I.D.

FIGURE 2
STATE ROUTE 353
(BAILEY BRIDGE RD.)
LOG MILE 0.45

11/27/2023 2:54:22 PM
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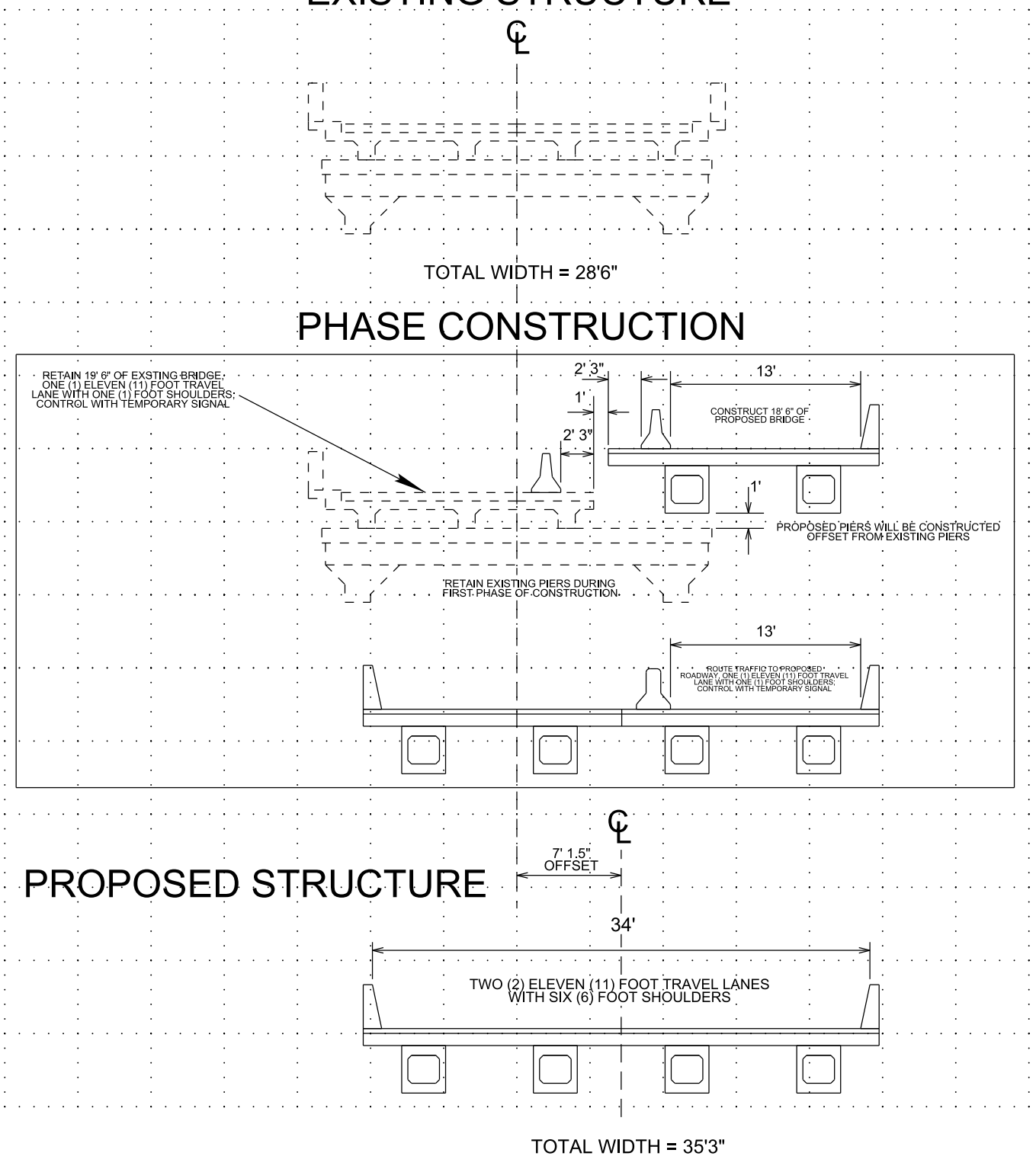
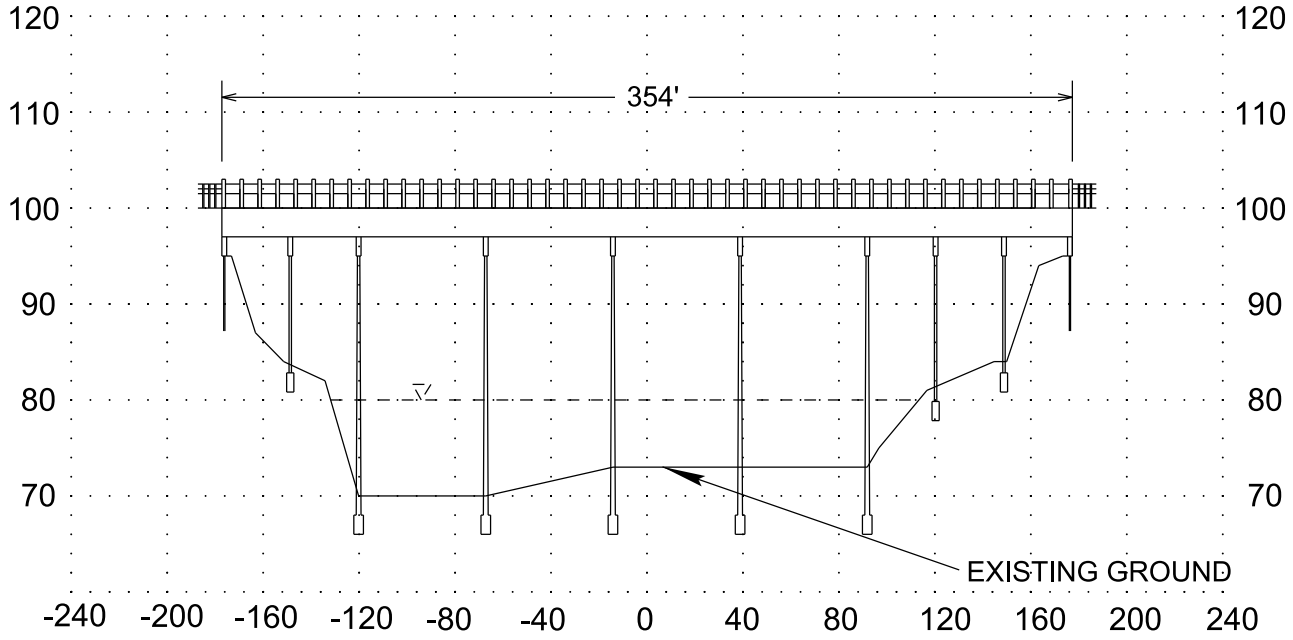
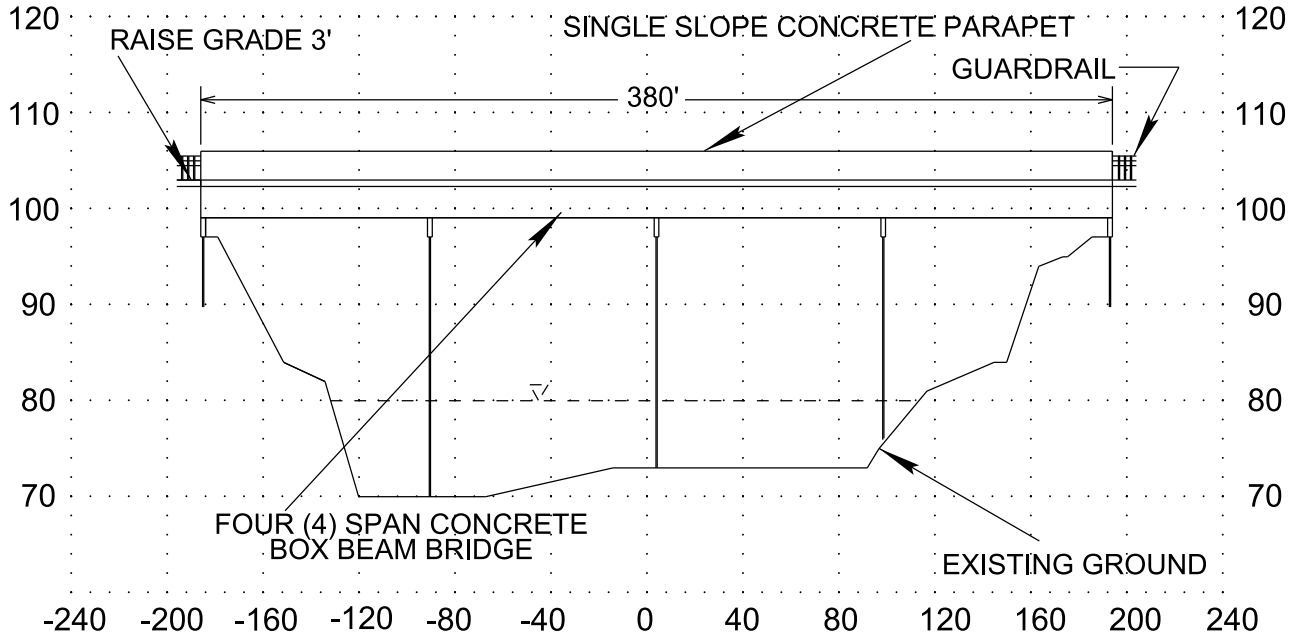


CROSS SECTION DETAIL AND CONSTRUCTION
SE 353 (BAILEY BRIDGE RD.) WASHINGTON COUNTY
BRIDGE OVER NOLICHUCKY RIVER L.M. 0.45
BRIDGE ID 90S23860001

EXISTING PROFILE



PROPOSED PROFILE



BRIDGE PROFILES
SR 353 (BAILEY BRIDGE RD.) WASHINGTON COUNTY
BRIDGE OVER NOLICHUCKY RIVER L.M. 0.45
BRIDGE ID 90S23860001

COST ESTIMATE SUMMARY

COST ESTIMATE SUMMARY

Route:	SR 353
Termini:	From L.M. 0.36 to L.M. 0.71
Scope of Work:	Replace bridge
Project Type of Work:	Bridge Replacement
County:	Washington
Length:	0.50 Miles
Date:	December 13, 2023
Estimate Type:	Design-Bid-Build
Years Inflated:	0

Estimate Developed By
Initial/Organization
TT/TDOT

DESCRIPTION		LOCAL	STATE	FEDERAL	TOTAL
		0%	0%	0%	
Construction Items					
Removal Items		$0	$0	$0	$81,500
Asphalt Paving		$0	$0	$0	$668,000
Concrete Pavement		$0	$0	$0	$0
Drainage		$0	$0	$0	$154,000
Appurtenances		$0	$0	$0	$0
Structures & Contingency		$0	$0	$0	$5,330,000
Fencing		$0	$0	$0	$0
Signalization & Lighting		$0	$0	$0	$0
Railroad Crossing		$0	$0	$0	$0
Earthwork		$0	$0	$0	$724,000
Clearing and Grubbing		$0	$0	$0	$8,900
Seeding & Sodding		$0	$0	$0	$26,000
Rip-Rap or Slope Protection		$0	$0	$0	$0
Guardrail		$0	$0	$0	$73,800
Signing		$0	$0	$0	$7,100
Pavement Markings		$0	$0	$0	$22,200
Maintenance of Traffic		$0	$0	$0	$121,000
Construction Lines and Stakes		$0	$0	$0	$131,000
DESIGN-BID-BUILD & DESIGN-BUILD PERCENTAGES					
Mobilization	10%	$0	$0	$0	$722,000
Additional Items	20%	$0	$0	$0	$1,440,000
Const. Contingency (Structures Not Included)	50%	$0	$0	$0	$2,020,000
Const. Eng. & Inspec.	15%	$0	$0	$0	$1,710,000
Construction Estimate - DBB & DB		$0	$0	$0	$13,200,000
Right-of-Way & Utilties		LOCAL	STATE	FEDERAL	TOTAL
		0%	0%	0%	
Right-of-Way		$0	$0	$0	$472,000
Utilities		$0	$0	$0	$1,120,000
Preliminary Engineering		LOCAL	STATE	FEDERAL	TOTAL
		0%	0%	0%	
Prelim. Eng. (Design-Bid-Build)	10.0%	$0	$0	$0	$1,320,000
Design-Bid-Build Project Cost		$0	$0	$0	$ 16,100,000

ESTIMATE REVIEW TEAM

Review Process Applies to Bridge, Legislative, and Economic Development Projects

ROLE	NAME/ORGANIZATION	DATE COMPLETED
Primary Cost Estimate (Before Draft Report):	Ty Tucker/TDOT	11/20/2023
Independent Cost Estimate:	Emily Burgess/TDOT	11/21/2023
Manager Review:	Caleb Smith/TDOT	12/11/2023
QA/QC peformed by:	John Davey/TDOT	12/13/2023

PAY ITEM SUMMARY

TDOT PAY ITEM	TDOT DESCRIPTION	UNIT	TOOL QUANTITIES	ADDITIONAL QUANTITIES	TOOL QUANTITIES + ADDITIONAL	Unit Price	TOTAL COST
Pavment Removal							
202-03.01	REMOVAL OF ASPHALT PAVEMENT	SY	4974		4974	$ 16.37	$ 81,422.56
						PAVEMENT REMOVAL TOTAL (ROUNDED)	$ 81,500
Asphalt Roads							
303-01	MINERAL AGGREGATE, TYPE A BASE, GRADING D	TON	8527		8527	$ 37.18	$ 317,049.93
307-(01, 02, 03).01	ASPHALT CONCRETE MIX (All Grades) (BPMB-HM) GRADING A	TON	1008		1008	$ 112.37	$ 113,311.64
307-01.(20 & 21 & 22)	AGGREGATE (BPMB-HM) GRADING A-S MIX	TON	436		436	$ 122.73	$ 53,460.38
307-(01 & 02 & 03).08	ASPHALT CONCRETE MIX (ALL GRADES) (BPMB-HM) GRADING B-M2	TON	859		859	$ 105.33	$ 90,525.11
402-01	BITUMINOUS MATERIAL FOR PRIME COAT (PC)	TON	11		11	$ 1,064.94	$ 11,220.04
402-02	AGGREGATE FOR COVER MATERIAL (PC)	TON	38		38	$ 89.00	$ 3,384.47
403-01	BITUMINOUS MATERIAL FOR TACK COAT (TC)	TON	6		6	$ 924.09	$ 5,403.59
411-01.07	ACS MIX (PG64-22) GRADING E SHOULDER	TON	142		142	$ 124.81	$ 17,710.54
411-(01 & 02 & 03).10	ACS MIX(ALL GRADES) GRADING D	TON	420		420	$ 133.70	$ 56,173.79
						PAVING TOTAL (ROUNDED)	$ 668,300
Concrete Roads							
						CONCRETE RAMPS AND ROADWAYS TOTAL (ROUNDED)	$ -
Drainage							
607-05.02	24" CONCRETE PIPE CULVERT (CLASS III)	LF	274		274	$ 172.02	$ 47,123.16
611-07.01	CLASS A CONCRETE (PIPE ENDWALLS)	CY	16		16	$ 1,888.61	$ 30,285.03
611-07.02	STEEL BAR REINFORCEMENT (PIPE ENDWALLS)	LB	1524		1524	$ 3.96	$ 6,034.56
710-02	Aggregate Underdrains (with pipe)	LF	5259		5259	$ 13.48	$ 70,889.70
						DRAINAGE TOTAL (ROUNDED)	$ 154,400
Appurtenances							
						ROADWAY AND PAVEMENT APPURTENANCES TOTAL (ROUNDED)	$ -
Earthwork & Mineral							
203-01	ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED)	CY	17610		17610	$ 14.81	$ 260,798.97
203-02.01	BORROW EXCAVATION (GRADED SOLID ROCK)	TON	9705		9705	$ 32.33	$ 313,766.54
203-03	BORROW EXCAVATION (UNCLASSIFIED)	CY	5503		5503	$ 13.27	$ 73,049.62
203-50	CONSTRUCTION OF HAUL ROAD	LS		1	1	$ 75,814.63	$ 75,814.63
						EARTHWORK & MINERAL TOTAL (ROUNDED)	$ 723,500
Construction Lines and Stakes							
105-01	Construction Lines and Stakes	LS	1		1		$ 131,000.00
							$ 131,000
Structures							
N/A	Removal of Bridge	SF	10089		10089	$ 30.00	$ 302,670.00
N/A	New Bridge (Concrete Box Beam):	SF	13395		13395	$ 250.00	$ 3,348,750.00
N/A	Contingency - New Bridge (Concrete Box Beam):	%	50.0%		50.0%	50.0%	$ 1,674,375.00
						STRUCTURES TOTAL (ROUNDED)	$ 5,325,800
Interchanges and Unique Intersections							
						INTERCHANGES AND UNIQUE INTERSECTIONS TOTAL (ROUNDED)	$ -
Lighting & Signalization							
						LIGHTING & SIGNALIZATION TOTAL (ROUNDED)	$ -
Guardrail							
705-01.01	GUARDRAIL AT BRIDGE ENDS	LF	100	500	600	$ 99.88	$ 59,928.69
705-06.20	Tangent Energy Absorbing Term Mash TL-3	EA	8	-4	4	$ 3,457.56	$ 13,830.24
						GUARDRAIL TOTAL (ROUNDED)	$ 73,800
Seeding and Sodding							
801-01	SEEDING (WITH MULCH)	UNIT	230		230	$ 54.58	$ 12,557.55
801-01.07	TEMPORARY SEEDING (WITH MULCH)	UNIT	173		173	$ 35.33	$ 6,096.44
801-02	SEEDING (WITHOUT MULCH)	UNIT	173		173	$ 42.37	$ 7,311.24
						SODDING TOTAL (ROUNDED)	$ 26,000
Maintenace of Traffic							
N/A	Traffic Control	LS	1		1		$ 115,344.90
712-02.02	INTERCONNECTED PORTABLE BARRIER RAIL	LF	131		131	$ 46.05	$ 6,054.29
						MAINTENANCE OF TRAFFIC TOTAL (ROUNDED)	$ 121,400
Signs							
Not Listed	Signs (Construction)	LS	1		1	$ -	$ 7,100
						SIGNING TOTAL (ROUNDED)	$ 7,100
Pavement Markings							
716-12.02	ENHANCED FLAT THERMO P.M. (6IN)	LM	2.9888		2.9888	$ 7,419.17	$ 22,174.42
						PAVEMENT MARKINGS TOTAL (ROUNDED)	$ 22,200
Fencing							
						FENCE TOTAL (ROUNDED)	$ -
Rip-Rap							
						RIP-RAP & SLOPE PROTECTION TOTAL (ROUNDED)	$ -
Clearing and Grubing							
201-01	Clearing and Grubbing	LS			1	$ 8,900.00	$ 8,900.00
						CLEAR AND GRUBBING TOTAL (ROUNDED)	$ 8,900.00
Railroad At-Grade Crossing							
						RAILROAD CROSSING OR SEPARATION TOTAL (ROUNDED)	$ -
Utilties							
N/A	Overhead Distribution	LM	0.35		0.35	$ 900,000	$ 315,000
N/A	Underground Gas	LM	0.35		0.35	$ 1,452,000	$ 508,200
N/A	Underground Water	LM	0.35		0.35	$ 840,000	$ 294,000
						UTILITIES TOTAL (ROUNDED)	$ 1,117,200.00
Right-of-Way							
N/A	Right-of-Way	LS	1		1	$472,000	$ 472,000.00
						RIGHT-OF-WAY TOTAL (ROUNDED)	$ 472,000.00

COST ESTIMATE SUMMARY (2023) - DESIGN-BID-BUILD						
PIN	Project Type of Work	Preliminary Engineering:	Right-of-Way:	Utilities:	Construction:	Total Project Cost (2023):
132623.00	Replace bridge	$ 1,320,000	$ 472,000	$ 1,120,000	$ 13,200,000	$ 16,200,000
COST ESTIMATE SUMMARY (2023) - DESIGN-BUILD						
PIN	Project Type of Work	Preliminary Engineering:	Right-of-Way:	Utilities:	Construction:	Total Project Cost (2023):
132623.00	Replace bridge	$ 2,650,000	$ 472,000	$ 1,120,000	$ 13,200,000	$ 17,400,000
COST ESTIMATE SUMMARY (2023) - CMGC & HIGH RISK SCENARIOS						
PIN	Project Type of Work	Preliminary Engineering:	Right-of-Way:	Utilities:	Construction:	Total Project Cost (2023):
132623.00	Replace bridge	$ 4,100,000	$ 472,000	$ 1,120,000	$ 16,400,000	$ 22,100,000

DESIGN-BID-BUILD - INFLATED COST						
No. of Years	Year	Preliminary Engineering:	Right-of-Way:	Utilities:	Construction:	Total Inflated Project Cost
0	2023	$ 1,320,000	$ 472,000	$ 1,120,000	$ 13,200,000	$ 16,200,000
1	2024	$ 1,410,000	$ 505,000	$ 1,200,000	$ 14,100,000	$ 17,300,000
2	2025	$ 1,510,000	$ 540,000	$ 1,280,000	$ 15,100,000	$ 18,500,000
3	2026	$ 1,620,000	$ 578,000	$ 1,370,000	$ 16,200,000	$ 19,800,000
4	2027	$ 1,730,000	$ 619,000	$ 1,470,000	$ 17,300,000	$ 21,200,000
5	2028	$ 1,850,000	$ 662,000	$ 1,570,000	$ 18,500,000	$ 22,700,000
6	2029	$ 1,980,000	$ 708,000	$ 1,680,000	$ 19,800,000	$ 24,300,000
7	2030	$ 2,120,000	$ 758,000	$ 1,800,000	$ 21,200,000	$ 26,000,000
8	2031	$ 2,270,000	$ 811,000	$ 1,920,000	$ 22,700,000	$ 27,800,000
9	2032	$ 2,430,000	$ 868,000	$ 2,060,000	$ 24,300,000	$ 29,800,000
10	2033	$ 2,600,000	$ 928,000	$ 2,200,000	$ 26,000,000	$ 31,900,000
DESIGN-BUILD - INFLATED COST						
No. of Years	Year	Preliminary Engineering:	Right-of-Way:	Utilities:	Construction:	Total Inflated Project Cost
5	2028	$ 3,720,000	$ 662,000	$ 1,570,000	$ 18,500,000	$ 24,400,000
10	2033	$ 5,210,000	$ 928,000	$ 2,200,000	$ 26,000,000	$ 34,200,000
CMGC (HIGH RISK) - INFLATED COST						
No. of Years	Year	Preliminary Engineering:	Right-of-Way:	Utilities:	Construction:	Total Inflated Project Cost
5	2028	$ 5,750,000	$ 662,000	$ 1,570,000	$ 23,000,000	$ 31,000,000
10	2033	$ 8,070,000	$ 928,000	$ 2,200,000	$ 32,300,000	$ 43,500,000

INFLATION INPUTS	
Inflation Rate:	7.00%

TENNESSEE D.O.T.
S.T.I.D.
FILE NO.

TYPE	YEAR	COUNTY	FIGURE NO.
BTIR	2022	WASHINGTON	1

CORBY BRIDGE RD.
BILL MAUK RD.
NOLICHUCKY RIVER >>>
BRIDGE [90S23860001]
: NOLICHUCKY RIVER
BAILYEY BRIDGE RD.
353
TERESA MOORE RD.
O O MOORE RD.
<<< NOLICHUCKY RIVER

CONDITION CODES LEGEND

X - X - X - # ← NUMBER OF VEHICLES

WEATHER	ROAD SURFACE	LIGHTING
C=Clear	D=Dry	D=Daylight
R=Rain	W=Wet	DKN=Dark Not Lighted
CLD=Cloudy	I=Icy	DKL=Dark Lighted
F=Fog	O=Other	DN=Dawn
S=Snow	U=Unknown	DS=Dusk
U=Unknown		U=Unknown

TYPE OF CRASH

NUMBER OF FATALITIES OR INJURIES
- # FATAL CRASH
- # INCAPACITATING/SUSPECT SERIOUS INJURY CRASH
- # NON-INCAPACITATING/SUSPECTED MINOR INJURY CRASH
- PROPERTY DAMAGE CRASH

Time: A=AM P=PM
☒ Parked Vehicle
☐ Object (Specify)

0' 200' 400' 600'

N

CRASH DIAGRAM

BRIDGE OVER NOLICHUCKY RIVER
STATE ROUTE 353 (BAILEY BRIDGE RD.) LOG MILE 0.45
WASHINGTON COUNTY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
S.T.I.D.

FIGURE 1
BRIDGE OVER
NOLICHUCKY RIVER
LOG MILE 8.23

12/1/2022 1:42:44 AM
X:\Projects\Washington\SR 353\Bridge over Nolichucky River, LM 0.45\Project Files\Microstation\DGN Files\Bridge over Nolichucky River SHT_01.dgn

APPENDIX

1.0 Site Visit Attendee List

SITE VISIT ATTENDEES		DATE: 4/19/2023
Name	Organization	Email
Ty Tucker	TDOT - STID	ty.tucker@tn.gov
Konner Spradlin	TDOT - STID	konner.spradlin@tn.gov
Amy Rauch	TDOT - STID	amy.rauch@tn.gov
Stephanie Wallis	TDOT - Design	stephanie.wallis@tn.gov
Keven Brown	TDOT - Environmental	keven.brown@tn.gov
Matt Beeler	TDOT - Environmental	matthew.beeler@tn.gov
Brittney Hensley	TDOT - Environmental	brittney.hensley@tn.gov
Nicholas Barnard	TDOT - Traffic	nicholas.barnard@tn.gov
Emily Burgess	TDOT - STID	emily.burgess@tn.gov
John Davey	TDOT- STID	john.davey@tn.gov

2.0 Environmental Desktop Review

TDOT Department of Transportation

Environmental Division

0EN1 Environmental Desktop Review Form

Part 1 – Project Information

PIN	132623.00
Project Number (if available)	
County	Washington
Route	SR-353
Termini	Bridge over Nolichucky River, LM 0.45
Type of Document	
Date ENV DIV Comments are Due	April 7, 2023 @ noon

Part 2: Provide information identifying known Environmental Resources within the proposed project area using the attached information. If no known resources are identified, each study area should note that none were identified.

Air & Noise

AIR QUALITY

Transportation Conformity

This project is in Washington County which is in attainment for all regulated criteria pollutants. Therefore, conformity does not apply to this project.

Mobile Source Air Toxics (MSATs)

This project qualifies as a categorical exclusion under 23 CFR 771.117 and, therefore, does not require an evaluation of MSATs per FHWA's *"Interim Guidance Update on Air Toxic Analysis in NEPA Documents"* dated January 2023.

NOISE

The new bridge will be located southeast of the existing structure. However, the relocation will not halve the distance between the center of the near travel lane and an adjacent noise-sensitive land use. Therefore, the project is Type III in accordance with the FHWA noise regulation in 23 CFR 772 and TDOT's noise policy and a noise study is not needed.

Cultural Resources

[Add comments Here]

Ecology

- There is one perennial stream within project limits.

- There are several cliff swallow nests on existing bridge

- There are 10 endangered/threatened species with 4 miles of project

HazMat

No known hazardous materials sites impact this bridge replacement as shown in the TIR. An Asbestos Containing Material (ACM) survey was completed on Bridge No. 90S23860001 SR-353 over Nolichucky River LM 0.45 (90-SR353-00.45). The bridge has asbestos in 116 deck drains at 6% chrysotile and 4% crocidolite, and 2000 square feet of bearing pads at 20% chrysotile. Please see the report for further details and photographs. The State of Tennessee asbestos accreditation requirements (TDEC Rules Chapter 1200-01-20) mandates that ACM abatement work be performed by an accredited firm (contractor) using accredited abatement workers and supervisors. Abatement of this material shall be accomplished per SP202ACM Special Provision Regarding Removal of Asbestos-Containing Materials. ACM abatement should be completed prior to any demolition activities if possible. Prior to the demolition or rehabilitation of any structure (bridge or building), the contractor is required to submit the National Emission Standards for Hazardous Air Pollutants standard 10-day notice of demolition to the TDEC Division of Air Pollution Control (per TDOT Standard Specifications for Road and Bridge Construction (January 1, 2021) Sections 107.08.D and 202.03).

NEPA

[Add comments Here]

Ty Tucker

From: TDOT.Env HazmatOffice
Sent: Monday, April 10, 2023 11:44 AM
To: TDOT.ENV SpecialProjects; Amy Rauch; K.Brandon Chance
Subject: HazMat Review 0SD1 Cocke and Washington County Bridges 124254.00, 124272.00, 124279.00, and 132623.00

The following comments have been submitted:

For 124254.00. No known hazardous materials sites impact this bridge replacement as shown in the TIR. An asbestos bridge survey is required.

For 124272.00. No known hazardous materials sites impact this bridge replacement as shown in the TIR. An asbestos bridge survey is required.

For 124279.00. No known hazardous materials sites impact this bridge replacement as shown in the TIR. An Asbestos Containing Material (ACM) survey was completed on Bridge No. 150A4470001 Ball Park Rd over Cosby Creek LM 0.28 (15-0A447-00.28). No asbestos was detected. Please see the report for further details and photographs. No special accommodations for demolition and waste disposal are anticipated for these structures and the material can be deposited in a C&D landfill. Prior to the demolition or rehabilitation of any structure (bridge or building), the contractor is required to submit the National Emission Standards for Hazardous Air Pollutants standard 10-day notice of demolition to the TDEC Division of Air Pollution Control (per TDOT Standard Specifications for Road and Bridge Construction (January 1, 2021) Sections 107.08.D and 202.03).

For 132623.00. No known hazardous materials sites impact this bridge replacement as shown in the TIR. An Asbestos Containing Material (ACM) survey was completed on Bridge No. 90S23860001 SR-353 over Nolichucky River LM 0.45 (90-SR353-00.45). The bridge has asbestos in 116 deck drains at 6% chrysotile and 4% crocidolite, and 2000 square feet of bearing pads at 20% chrysotile. Please see the report for further details and photographs. The State of Tennessee asbestos accreditation requirements (TDEC Rules Chapter 1200-01-20) mandates that ACM abatement work be performed by an accredited firm (contractor) using accredited abatement workers and supervisors. Abatement of this material shall be accomplished per SP202ACM Special Provision Regarding Removal of Asbestos-Containing Materials. ACM abatement should be completed prior to any demolition activities if possible. Prior to the demolition or rehabilitation of any structure (bridge or building), the contractor is required to submit the National Emission Standards for Hazardous Air Pollutants standard 10-day notice of demolition to the TDEC Division of Air Pollution Control (per TDOT Standard Specifications for Road and Bridge Construction (January 1, 2021) Sections 107.08.D and 202.03).

TN TDOT Department of Transportation

Kyle Kirschenmann, P.G. | Environmental Manager
Environmental Division | Hazardous Materials / Air and Noise Section
James K. Polk Building, Suite 900
505 Deaderick Street, Nashville, TN 37243
(615) 598-1522
kyle.kirschenmann@tn.gov

Ty Tucker

From: Troy J. Ebbert
Sent: Friday, March 24, 2023 2:32 PM
To: Amy Rauch
Subject: Re: Call for Comments (0SD1) - Cocke and Washington County Bridges (PINs 124254.00, 124272.00, 124279.00, and 132623.00)
Attachments: PIN 124254, Cocke County, Bridge over Sinking Creek Field Review.pdf; Cocke 0A407 (Caney Creek Rd.) Field Review Packet.pdf; Cocke (Ball Park Rd.) Field Review Packet.pdf; Washington SR 353 Field Review Packet.pdf; Site Visit -Cocke and Washington Counties Bridges (PINs 124254.00, 124272.00, 124279.00, and 132623.00).eml

Follow Up Flag: Follow up
Flag Status: Flagged

Amy,

The Washington county project at Baileys Bridge has a TWRA canoe launch near the bridge. I believe it is on the south west quadrant

Troy J. Ebbert, Region 1 Planning Supervisor
Long Range Planning Division
Office of Community Transportation
7345 Region Lane
Knoxville, TN 37914
O: (865) 594-2662 C: (865) 253-1436
Troy.J.Ebbert@TN.Gov
TN.Gov/tdot

> On Mar 22, 2023, at 11:13 AM, Amy Rauch <Amy.Rauch@tn.gov> wrote:
>
> All,
>
> As a part of the Project Delivery Network (PDN) Stage 0SD1 Early Coordination process, please see the attached PDFs to access the site visit packet for early comments. The purpose of receiving comments is to have initial input compiled from the different functional areas prior to the site visit to identify areas of interests. The proposed improvements are subject to change based on feedback we receive. We will compile all the comments we receive and discuss at the site visit. Below is the project information as well as a Google Maps link to the project location:
>
> 124254.00
> Cocke
> Chemwood Dr (0A055)
> Bridge over Sinking Creek
> https://www.google.com/maps/dir//35.988267,-83.2063959/@35.9883247,-83.2070674,322m/data=!3m1!1e3!4m2!4m1!3e0?hl=en<https://urldefense.com/v3/__https:/www.goo

Ty Tucker

From: Rachel Head
Sent: Tuesday, April 11, 2023 12:26 PM
To: Amy Rauch
Cc: Sharon Sanders
Subject: RE: Call for Comments (0SD1) - Cocke and Washington County Bridges (PINs 124254.00, 124272.00, 124279.00, and 132623.00)
Attachments: FM47029C0155E_124254.00.pdf; FM47029C0265E_124272.00.pdf; FM47029C0255E_124279.00.pdf; FM47179C0240D_132623.00.pdf

Good morning Amy,

I was unable to access the linked comment sheets on Sharepoint.

Please see NEPA's initial comments for the 4 bridge projects:

1. Cocke, PIN 124254.00: It is not indicated whether ROW acquisition or permanent easements will be required on this project. The addition of ROW and/or permanent acquisitions could alter NEPA's concerns. Based on a visual inspection of the project location through Google Earth and Google Maps, it does not appear that any know Section 4(f)resources are adjacent to the project site. A desktop search of LWCF-funded projects in Cocke County shows no projects close to the project location. A desktop search of FEMA floodplains in the area confirmed that the bridge project spans a 100-year floodplain (Zone AE). Please see the attached National Flood Hazard Layer FIRM map for confirmation.
2. Cocke, 124272.00: It is not indicated whether ROW acquisition or permanent easements will be required on this project. It is assumed that Option 2 would result in more acquisition. The addition of ROW and/or permanent acquisitions could alter NEPA's concerns. Based on a visual inspection of the project location through Google Earth and Google Maps, it does not appear that any know Section 4(f)resources are adjacent to the project site. A desktop search of LWCF-funded projects in Cocke County shows no projects close to the project location. A desktop search of FEMA floodplains in the area confirmed that the bridge project spans a 100-year floodplain (Zone AE). Please see the attached National Flood Hazard Layer FIRM map for confirmation.
3. Cocke, 124279.00: It is not indicated whether ROW acquisition or permanent easements will be required on this project. The addition of ROW and/or permanent acquisitions could alter NEPA's concerns. Based on a visual inspection of the project location through Google Earth and Google Maps, it does not appear that any know Section 4(f)resources are adjacent to the project site. A desktop search of LWCF-funded projects in Cocke County shows no projects close to the project location. A desktop search of FEMA floodplains in the area confirmed that the bridge project spans a 100-year floodplain (Zone AE). Please see the attached National Flood Hazard Layer FIRM map for confirmation.
4. Washington, 132623.00: It is not indicated whether ROW acquisition or permanent easements will be required on this project. The addition of ROW and/or permanent acquisitions could alter NEPA's concerns. Currently, this project is showing state-only funding in PPRM. Therefore, Section 4(f) is not applicable. Based on a visual inspection of the project location through Google Earth and Google Maps, it does not appear that any know Section 4(f)resources are adjacent to the project site. A desktop search of LWCF-funded projects in Washington County shows no projects close to the project location. . A desktop search of FEMA floodplains in the area confirmed that the bridge project spans a 100-year floodplain (Zone A). Please see the attached National Flood Hazard Layer FIRM map for confirmation.

Thank you,
Rachel

Environmental Justice Analysis Tables				
Minority Populations				
Census Tract (CT)/ Block Group (BG)	CT 619.04 BG 1			Washington Co.
% Minority/Non-White	0.0%			12.3%
Exceeds County Average by 10% or More	No			
Is BG Population Avg. >50%	No			
Meet EJ Criteria?	No			
Low-Income Populations				
Census Tract (CT)/ Block Group (BG)	CT 619.04 BG 1			Washington Co.
% Low-Income/Below Poverty Line	31.5%			15.3%
Exceeds County Average by 10% or More	Yes			
Is BG Population Avg. >50%	No			
Meet EJ Criteria?	Yes			

Source: U.S. Census Bureau, 2017-2021 American Community Survey (ACS) 5-Year Estimates. ACS data was accessed and reviewed on 04/12/2023 via the U.S. Census Bureau website.

3.0 Multimodal Considerations and Recommendations

0MM1 MM Review

Introduction

No purpose and need was given for any bridge. It is assumed the low bridge structural ratings and typical sections not following TDOT standards initiated the bridge replacements.

Planning literature review used for this 0MM1 review:

No local plans were found.

Summary of Recommendations

132623.00

At this 35 mph speed on the bridge, 6’ shoulders as written will accommodate cyclists. It will not accommodate pedestrians. This is not a state bike route, but cyclist volume is high along this bridge. On both sides, 5’ sidewalks with curb and gutter are requested.

4.0 Existing Structure Summary

BRIDGE MAINTENANCE RECOMMENDATIONS

COUNTY: WASHINGTON
LOCATION: 90-SR353-00.45-
CO. SEQ.: 1 SPEC. CASE: 0

Tennessee Department of Transportation

CROSSING: NOLICHUCKY RIVER
FED. BRIDGE NO.: 90S23860001
MAINT. DIST.: 90

REPAIR LIST NO.: 1
DATE ADDED: 11/18/2019
REVISED: 10/25/2021

FACILITY CARRIED:	FAS 353	NUMBER OF MAIN SPANS:	9
HIGHWAY SYSTEM:	05-STP RURAL, STATE	NUMBER OF APPROACH SPANS:	0
BRIDGE WIDTH (CURB TO CURB):	23 FT 11 IN	BRIDGE LENGTH (FT):	354
BRIDGE WIDTH (OUT TO OUT):	28 FT 6 IN	MAXIMUM SPAN LENGTH (FT):	53
APPROACH ROADWAY (W/SHOULDERS):	25 FT 11 IN	SKEW ANGLE (DEGREES):	90

MAINTAINED BY:	STATE HIGHWAY AGENCY
MAIN SPAN MATERIAL:	CONCRETE
MAIN SPAN DESIGN TYPE:	TEE BEAM
APPROACH SPAN MATERIAL:	OTHER OR NOT APPLICABLE
APPROACH SPAN DESIGN TYPE:	OTHER OR NOT APPLICABLE

INSPECTION DATE:	10/25/2021	GENERAL CONDITION:	POOR
EVALUATION DATE:	11/18/2019	STRUCTURALLY DEFICIENT:	YES
PPRM PIN NUMBER:			
H TRUCK RATING @ INV.:	12 TONS	SUFFICIENCY RATING:	37.0

No.	RECOMMENDATIONS	REPAIR DATE	REPAIRED BY
1.	PATCH CONCRETE SPALLS, CRACKS & DELAMINATIONS THROUGHOUT STRUCTURE		
2.	REPAIR BEAM "D" SPAN NO. 3 AND NO. 6		
3.	REMOVE ASPHALT FROM BRIDGE		

SUGGESTED ROUTINE MAINTENANCE AND COMMENTS

CLEAN & PAINT BEARING - ALL
DECK DRAINS NEED DRAIN EXTENSIONS INSTALLED
FILL VOIDS BETWEEN FOOTING AND BEDROCK AT ABUTMENT NO. 1 AND 2
REPAIR RIP RAP AT ABUTMENT NO. 1
PATCH CRACKS IN WEARING SURFACE AT ALL JOINTS
REMOVE DRIFT
BRIDGERAILS ARE SUBSTANDARD

GENERAL COMMENTS:

BRIDGE APPEARS TO BE OVERLOADED WITH ASPHALT. THERE IS CURRENTLY 5" OF ASPHALT MEASURED ON THE STRUCTURE. IN SPAN NO. 6 THERE IS A 1 7/16 DEAD LOAD SAG IN THE SUPERSTRUCTURE. WHEN THE BRIDGE WAS LOADED WITH 20 TONS, THIS DEFLECTION WAS MEASURED AT 1 3/4". ALL BEAMS NOW EXHIBIT TRANSVERSE AND LONGITUDINAL CRACKING THROUGHOUT. BEAM "D" IN SPAN NO. 3 AND NO. LARGE RUPTURE DUE TO EXCESSIVE FLEXURE.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

Bridge Condition Coding Form

Revised 10/25/2021

Bridge Number: (Includes Item 5A)	90S238600011
Feature Intersected:	NOLICHUCKY RIVER
Evaluation Status:	CONDITION ITEM CHANGE
County:	90
Route:	SR353
Special Case:	0
County Sequence:	1
Log Mile:	0.45

CODE ONLY THOSE VALUES WHICH HAVE CHANGED

ITEM #	DESCRIPTION	VALUE
90	LAST INSPECTION DATE	10/25/2021
	EARLIEST DATE OF NEXT REGULAR INSPECTION	08/26/2023
10	MINIMUM V.C. OVER DECK (ROADWAY + SHOULDERS)	99 FT. 99 IN.
		FT. IN.
520	MINIMUM V.C. OVER DECK (EXCLUDES SHOULDERS)	99 FT. 99 IN.
		FT. IN.
36	TRAFFIC SAFETY FEATURES	
	Br. Rail / Trans. / Appr. Rail / Terminal / SPEED LIMIT	0 / 0 / 1 / 1 / 45
41	STRC OPEN/CLOSED/POSTED (A K P)	P
58	DECK	5
59	SUPERSTRUCTURE	3
60	SUBSTRUCTURE	5
61	CHANL/CHANL PROTECTION	7
62	CULVERT AND RETAIN WALL	N
71	WATERWAY ADEQUACY	7
72	APPROACH RDWY ALIGNMENT	8
521	OVERALL CONDITION	POOR

16 LATITUDE N 36° 9.3400′

17 LONGITUDE W 82° 35.4330′

Adam Wallen Digitally signed by Adam Wallen Date: 2021.10.26 06:07:38 -04'00'

TEAM LEADER SIGNATURE

REVIEW DATE

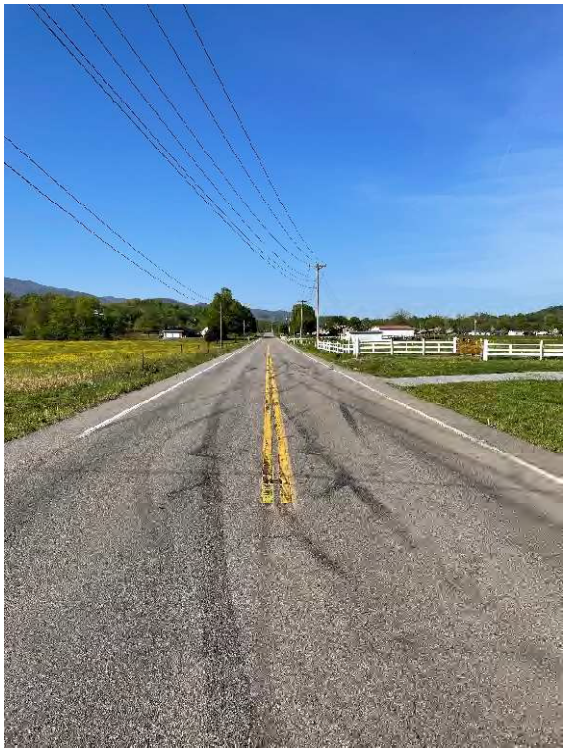
CONDITION CODING GUIDELINES
(Values for Coding Items 58, 59, 60 and 62)

- N NOT APPLICABLE
- 9 EXCELLENT CONDITION
- 8 VERY GOOD CONDITION - NO PROBLEMS NOTED.
- 7 GOOD CONDITION - SOME MINOR PROBLEMS.
- 6 SATISFACTORY CONDITION - MINOR DETERIORATION OF STRUCTURAL ELEMENTS.
- 5 FAIR CONDITION - ALL PRIMARY STRUCTURAL ELEMENTS ARE SOUND BUT MAY HAVE MINOR SECTION LOSS, CRACKING, SPALLING OR SCOUR.
- 4 POOR CONDITION - ADVANCED SECTION LOSS, DETERIORATION, SPALLING OR SCOUR.
- 3 SERIOUS CONDITION - LOSS OF SECTION, DETERIORATION, SPALLING OR SCOUR HAVE SERIOUSLY AFFECTED PRIMARY STRUCTURAL COMPONENTS. LOCAL FAILURES ARE POSSIBLE. FATIGUE CRACKS IN STEEL OR SHEAR CRACKS IN CONCRETE MAY BE PRESENT.
- 2 CRITICAL CONDITION - ADVANCED DETERIORATION OF PRIMARY STRUCTURAL ELEMENTS. FATIGUE CRACKS IN STEEL OR SHEAR CRACKS IN CONCRETE MAY BE PRESENT OR SCOUR MAY HAVE REMOVED SUBSTRUCTURE SUPPORT. UNLESS CLOSELY MONITORED IT MAY BE NECESSARY TO CLOSE THE BRIDGE UNTIL CORRECTIVE ACTION IS TAKEN.
- 1 "IMMINENT" FAILURE CONDITION - MAJOR DETERIORATION OR SECTION LOSS PRESENT IN CRITICAL STRUCTURAL COMPONENTS OR OBVIOUS VERTICAL OR HORIZONTAL MOVEMENT AFFECTING STRUCTURAL STABILITY. BRIDGE IS CLOSED TO TRAFFIC BUT CORRECTIVE ACTION MAY PUT IT BACK IN LIGHT SERVICE.
- 0 FAILED CONDITION BEYOND CORRECTION

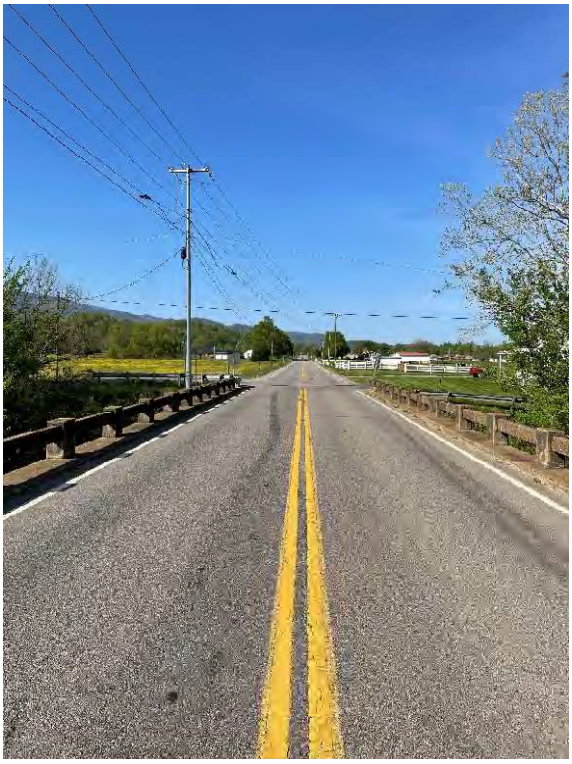
Upstream

Downstream

Looking east along SR 353 at intersection



Looking west along SR 353 at intersection



Looking west from structure

Looking east from structure

Looking west along edge of structure

Looking east along edge of roadway

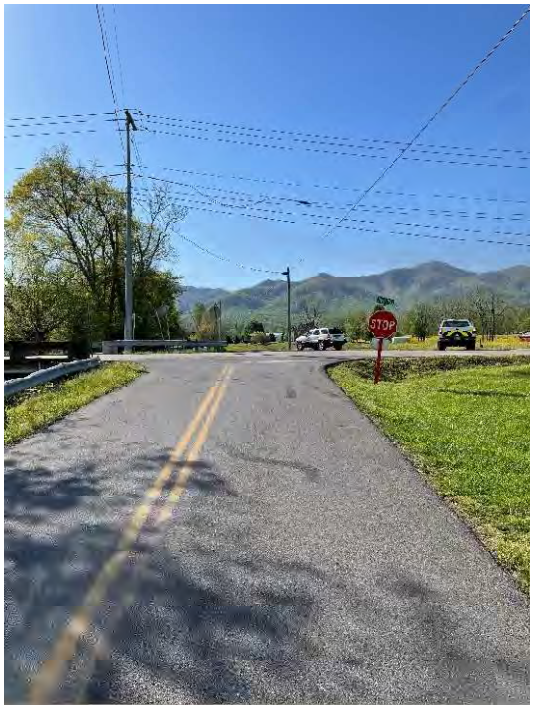
Looking underneath structure

Potential water pipe underneath structure

Looking north along O O Moore Rd.

Looking south along O O Moore Rd.

Looking north along Bill Mauk Rd.



Looking south along Bill Mauk Rd.

Drainage along Bill Mauk Rd. near intersection

Existing property near intersection

5.0 Hydraulic Recommendations and Data

- 380 ft, 4 span, box beam. Raise grade 3 ft.

National Flood Hazard Layer FIRMette

FEMA

82°35'46"W 36°9'35"N

82°35'8"W 36°9'6"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

44

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

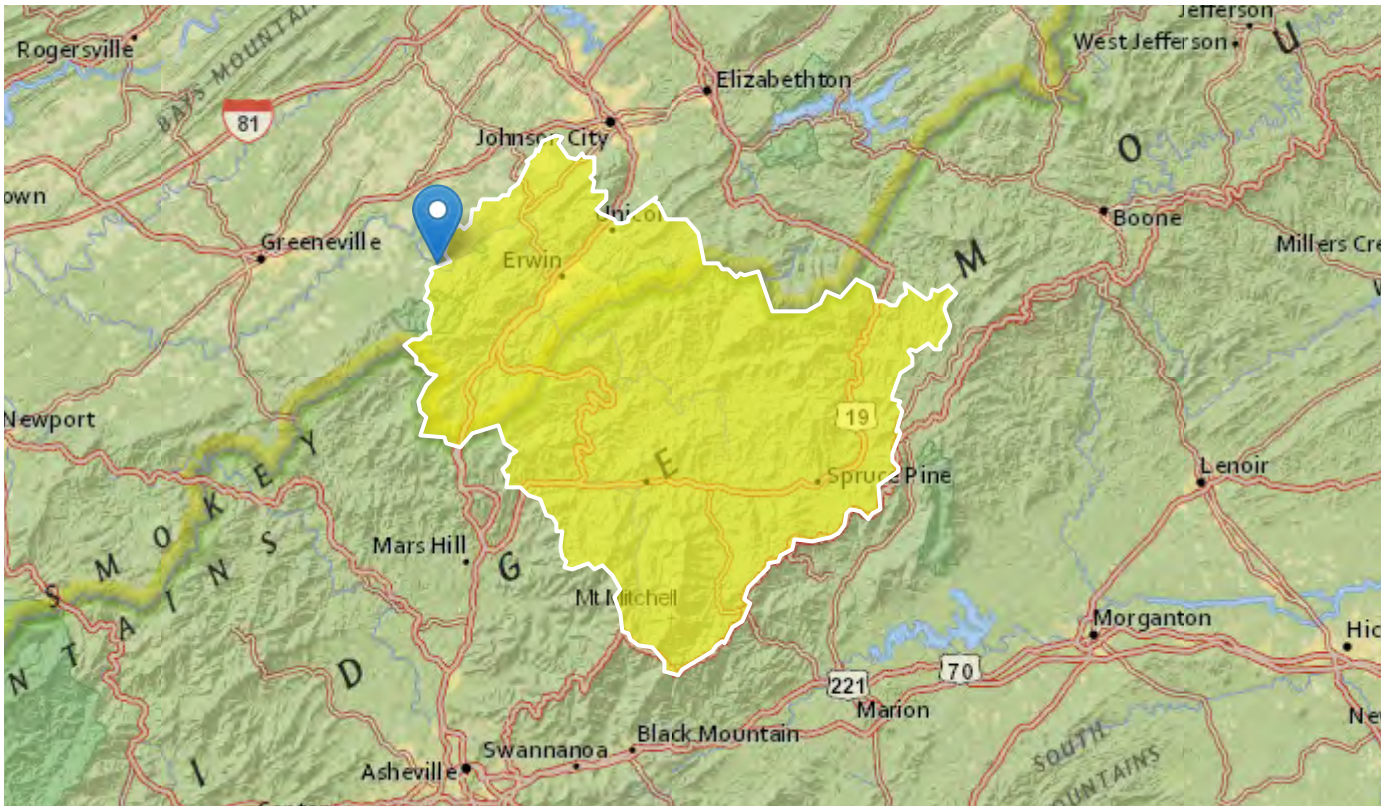
This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 8/12/2022 at 9:14 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

StreamStats Report

Region ID: TN
Workspace ID: TN20220812125528613000
Clicked Point (Latitude, Longitude): 36.15610, -82.59052
Time: 2022-08-12 07:55:49 -0500



Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
CLIMFAC2YR	Two-year climate factor from Lichy and Karlinger (1990)	2.178	dimensionless
CONTDA	Area that contributes flow to a point on a stream	884.31	square miles
CSL10_85	Change in elevation divided by length between points 10 and 85 percent of distance along main channel to basin divide - main channel method not known	16.86	feet per mi

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	884.31	square miles
PERMGTE2IN	Percent of area underlain by soils with permeability greater than or equal to 2 inches per hour	67.712	percent
RECESS	Number of days required for streamflow to recede one order of magnitude when hydrograph is plotted on logarithmic scale	140	days per log cycle
SOILPERM	Average Soil Permeability	3.099	inches per hour

Peak-Flow Statistics

Peak-Flow Statistics Parameters [100.0 Percent (884 square miles) MultiVariable Area 1]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
CONTDA	Contributing Drainage Area	884.31	square miles	0.2	9000
CSL10_85	Stream Slope 10 and 85 Method	16.86	feet per mi	3.29	950
CLIMFAC2YR	Tennessee Climate Factor 2 Year	2.178	dimensionless	2.06	2.32

Peak-Flow Statistics Flow Report [100.0 Percent (884 square miles) MultiVariable Area 1]

PII: Prediction Interval-Lower, PIu: Prediction Interval-Upper, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	PII	PIu	ASEp	Equiv. Yrs.
50-percent AEP flood	18700	ft^3/s	10100	34800	39.2	1.7
20-percent AEP flood	27800	ft^3/s	15000	51500	38.2	2.6
10-percent AEP flood	34300	ft^3/s	18200	64600	40.1	3.4
4-percent AEP flood	42900	ft^3/s	21900	83900	42.7	4.3
2-percent AEP flood	49400	ft^3/s	24400	100000	45.2	4.9

Statistic	Value	Unit	PIl	Plu	ASEp	Equiv. Yrs.
1-percent AEP flood	56500	ft^3/s	26800	119000	47.9	5.3
0.2-percent AEP flood	73400	ft^3/s	31500	171000	55.2	5.8

Peak-Flow Statistics Citations

Law, G.S., and Tasker G.D.,2003, Flood-Frequency Prediction Methods for Unregulated Streams of Tennessee, 2000: U.S. Geological Survey Water-Resources Investigations Report 03-4176, 79p. (http://pubs.usgs.gov/wri/wri034176/)

Low-Flow Statistics

Low-Flow Statistics Parameters [100.0 Percent (884 square miles) Low Flow Central and East Regions 2009 5159]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	884.31	square miles	1.3	14441
RECESS	Recession Index	140	days per log cycle	32	175
CLIMFAC2YR	Tennessee Climate Factor 2 Year	2.178	dimensionless	2.056	2.46
SOILPERM	Average Soil Permeability	3.099	inches per hour	0.45	9.72
PERMGTE2IN	Percent permeability gte 2 in per hr	67.712	percent	2	100

Low-Flow Statistics Flow Report [100.0 Percent (884 square miles) Low Flow Central and East Regions 2009 5159]

PIl: Prediction Interval-Lower, Plu: Prediction Interval-Upper, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	ASEp
7 Day 10 Year Low Flow	291	ft^3/s	89
30 Day 5 Year Low Flow	361	ft^3/s	70.2

Low-Flow Statistics Citations

Law, G.S., Tasker, G.D., and Ladd, D.E.,2009, Streamflow-characteristic estimation methods for unregulated streams of Tennessee: U.S. Geological Survey Scientific Investigations Report 2009–5159, 212 p., 1 pl. (http://pubs.usgs.gov/sir/2009/5159/)

Flow-Duration Statistics

Flow-Duration Statistics Parameters [100.0 Percent (884 square miles) Low Flow Central and East Regions 2009 5159]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	884.31	square miles	1.3	14441
RECESS	Recession Index	140	days per log cycle	32	175
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SOILPERM	Average Soil Permeability	3.099	inches per hour	0.45	9.72
PERMGTE2IN	Percent permeability gte 2 in per hr	67.712	percent	2	100

Flow-Duration Statistics Flow Report [100.0 Percent (884 square miles) Low Flow Central and East Regions 2009 5159]

PIl: Prediction Interval-Lower, PIu: Prediction Interval-Upper, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	ASEp
99.5 Percent Duration	271	ft^3/s	86.4
99 Percent Duration	290	ft^3/s	78
98 Percent Duration	322	ft^3/s	72.2
95 Percent Duration	385	ft^3/s	66.3
90 Percent Duration	464	ft^3/s	60.2
80 Percent Duration	585	ft^3/s	54
70 Percent Duration	721	ft^3/s	50.7
60 Percent Duration	872	ft^3/s	48.7
50 Percent Duration	1070	ft^3/s	42.9

Statistic	Value	Unit	ASEp
40 Percent Duration	1300	ft^3/s	36.1
30 Percent Duration	1580	ft^3/s	28.3
20 Percent Duration	1990	ft^3/s	23.3
10 Percent Duration	2940	ft^3/s	20.8

Flow-Duration Statistics Citations

Law, G.S., Tasker, G.D., and Ladd, D.E.,2009, Streamflow-characteristic estimation methods for unregulated streams of Tennessee: U.S. Geological Survey Scientific Investigations Report 2009–5159, 212 p., 1 pl. (http://pubs.usgs.gov/sir/2009/5159/)

Annual Flow Statistics

Annual Flow Statistics Parameters [100.0 Percent (884 square miles) Low Flow Central and East Regions 2009 5159]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	884.31	square miles	1.3	14441
CLIMFAC2YR	Tennessee Climate Factor 2 Year	2.178	dimensionless	2.056	2.46
SOILPERM	Average Soil Permeability	3.099	inches per hour	0.45	9.72

Annual Flow Statistics Flow Report [100.0 Percent (884 square miles) Low Flow Central and East Regions 2009 5159]

PIl: Prediction Interval-Lower, PIu: Prediction Interval-Upper, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	ASEp
Mean Annual Flow	1430	ft^3/s	25.6

Annual Flow Statistics Citations

Law, G.S., Tasker, G.D., and Ladd, D.E.,2009, Streamflow-characteristic estimation methods for unregulated streams of Tennessee: U.S. Geological Survey Scientific Investigations Report 2009–5159, 212 p., 1 pl. (http://pubs.usgs.gov/sir/2009/5159/)

Seasonal Flow Statistics

Seasonal Flow Statistics Parameters [100.0 Percent (884 square miles) Low Flow Central and East Regions 2009 5159]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	884.31	square miles	1.3	14441
RECESS	Recession Index	140	days per log cycle	32	175
CLIMFAC2YR	Tennessee Climate Factor 2 Year	2.178	dimensionless	2.056	2.46
SOILPERM	Average Soil Permeability	3.099	inches per hour	0.45	9.72

Seasonal Flow Statistics Flow Report [100.0 Percent (884 square miles) Low Flow Central and East Regions 2009 5159]

PIl: Prediction Interval-Lower, PIu: Prediction Interval-Upper, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	ASEp
Summer Mean Flow	1110	ft^3/s	43.1

Seasonal Flow Statistics Citations

Law, G.S., Tasker, G.D., and Ladd, D.E.,2009, Streamflow-characteristic estimation methods for unregulated streams of Tennessee: U.S. Geological Survey Scientific Investigations Report 2009–5159, 212 p., 1 pl. (http://pubs.usgs.gov/sir/2009/5159/)

functionality of the software and related material nor shall the fact of release constitute any such warranty. Furthermore, the software is released on condition that neither the USGS nor the U.S. Government shall be held liable for any damages resulting from its authorized or unauthorized use.

USGS Product Names Disclaimer: Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

Application Version: 4.10.1
StreamStats Services Version: 1.2.22
NSS Services Version: 2.2.1

Ty Tucker

From: Ty Tucker
Sent: Monday, November 20, 2023 11:42 AM
To: Ty Tucker
Subject: RE: Draft Report Review (0SD2) - PIN 132623.00 Washington County SR-353

From: Ted Kniazewycz <Ted.Kniazewycz@tn.gov>
Sent: Wednesday, November 8, 2023 9:36 AM
To: Emily Burgess <Emily.Burgess@tn.gov>
Cc: Ty Tucker <Ty.Tucker@tn.gov>
Subject: RE: Draft Report Review (0SD2) - PIN 132623.00 Washington County SR-353

If you are raising the grade three feet, will these be below the new bridge such that they could be demolished in the second phase?

TN TDOT Department of Transportation

Ted A. Kniazewycz, P.E.,F.ASCE | Director
Structures Division
p. 615-741-3351
c. 615-574-1220
ted.kniazewycz@tn.gov

From: Emily Burgess <Emily.Burgess@tn.gov>
Sent: Wednesday, November 8, 2023 9:34 AM
To: Ted Kniazewycz <Ted.Kniazewycz@tn.gov>
Cc: Ty Tucker <Ty.Tucker@tn.gov>
Subject: RE: Draft Report Review (0SD2) - PIN 132623.00 Washington County SR-353

Ted,

It looks like there are a few piers that can't be phase constructed (see below). What are your thoughts on these?

ID#: 90S23860001
on #: 90-SR353-00.45

Thanks,

Emily Burgess, P.E. | Transportation Project Specialist, Senior
Strategic Transportation Investments Division
James. K. Polk Building, 10th Floor
505 Deaderick Street, Nashville, TN 37243
p. 615-253-4490
emily.burgess@tn.gov
tn.gov/tdot
https://www.tn.gov/tdot/strategic-transportation-investments.html

---

From: Ted Kniazewycz <Ted.Kniazewycz@tn.gov>
Sent: Wednesday, November 8, 2023 9:14 AM
To: Emily Burgess <Emily.Burgess@tn.gov>
Subject: RE: Draft Report Review (0SD2) - PIN 132623.00 Washington County SR-353

Emily –

Is the ADT too high to keep the alignment and do a single lane with a signal? There seems to be a lot of roadway work plus the bridge ends up skewed across the river.

Thanks,

Ted A. Kniazewycz, P.E.,F.ASCE | Director
Structures Division
p. 615-741-3351
c. 615-574-1220
ted.kniazewycz@tn.gov

From: Emily Burgess <Emily.Burgess@tn.gov>
Sent: Tuesday, November 7, 2023 1:55 PM
To: K.Brandon Chance <K.Brandon.Chance@tn.gov>; Lisa Dunn <Lisa.Dunn@tn.gov>; TDOT MultimodalPlanning <TDOT.MultimodalPlanning@tn.gov>; Daniel Pallme <Daniel.Pallme@tn.gov>; Stacy Morrison <Stacy.Morrison@tn.gov>; Brian Hurst <Brian.Hurst@tn.gov>; Jay Lanius <Jay.Lanius@tn.gov>; Wesley Peck <Wesley.Peck@tn.gov>; TDOT.TrafficOps TSMO-Reviews <TDOT.TrafficOps.TSMO-Reviews@tn.gov>; TDOT ADA <TDOT.ADA@tn.gov>; Lori Fiorentino <Lori.Fiorentino@tn.gov>; Troy J. Ebbert <Troy.J.Ebbert@tn.gov>; Christie Brown <Christie.Brown@tn.gov>; Andrew Padgett <Andrew.Padgett@tn.gov>; TDOT R1.Traffic <TDOT.R1.Traffic@tn.gov>; Andrew Barlow <Andrew.Barlow@tn.gov>; Adam Price <Adam.Price@tn.gov>; Kathleen McLaughlin <Kathleen.McLaughlin@tn.gov>
Cc: Brian Egan <Brian.Egan@tn.gov>; Jamie Fitzpatrick <Jamie.Fitzpatrick@tn.gov>; Susannah Kniazewycz <Susannah.Kniazewycz@tn.gov>; Tammy Sellers <Tammy.Sellers@tn.gov>; Matt Meservy <Matt.Meservy@tn.gov>; James D. Kelley <James.D.Kelley@tn.gov>; Sharon Schutz <Sharon.Schutz@tn.gov>; Jeff Hoge <Jeff.Hoge@tn.gov>; Amy Rauch <Amy.Rauch@tn.gov>; Antonia Hayes <Antonia.Hayes@tn.gov>; Jim Waters <Jim.Waters@tn.gov>; Loren McWright <Loren.McWright@tn.gov>; Michael Gilbert <Michael.Gilbert@tn.gov>; Steve Allen <Steve.Allen@tn.gov>; Terry Gladden <Terry.Gladden@tn.gov>; Ted Kniazewycz <Ted.Kniazewycz@tn.gov>; Lee J. Smith <Lee.J.Smith@tn.gov>; Mickey Hamilton <Mickey.Hamilton@tn.gov>; Steve Borden <Steve.Borden@tn.gov>; Amanda Snowden <Amanda.Snowden@tn.gov>; Dexter Justis <Dexter.Justis@tn.gov>; Sheena A. Foster <Sheena.A.Foster@tn.gov>; Ty Tucker <Ty.Tucker@tn.gov>
Subject: Draft Report Review (0SD2) - PIN 132623.00 Washington County SR-353

All,

As a part of the Project Delivery Network (PDN) Stage 0SD2 Draft Concept Report Review, please see attached pdf to access the draft report for your review. We would like all stage zero information provided back in addition to any comments on the report. Below is the project information as well as a Google Maps link to the project location:

- PIN 132623.00
- Washington County
- SR 353 Bridge over Nolichucky River
- Project Location: https://maps.app.goo.gl/4AoW2xDo83T3xQhBA
- Draft Report: Attached

We request that each division identified within the PDN process provide their comments or confirmation of no comments by COB November 21st.
Please feel free to reach out if you have any questions or issues accessing this report.

Thanks,

Emily Burgess, P.E. | Transportation Project Specialist, Senior
Strategic Transportation Investments Division
James. K. Polk Building, 10th Floor
505 Deaderick Street, Nashville, TN 37243
p. 615-253-4490
emily.burgess@tn.gov
tn.gov/tdot
https://www.tn.gov/tdot/strategic-transportation-investments.html

Emily Burgess, P.E. | Transportation Project Specialist, Senior
Strategic Transportation Investments Division
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p. 615-253-4490
emily.burgess@tn.gov
tn.gov/tdot
https://www.tn.gov/tdot/strategic-transportation-investments.html

Ty Tucker

From: Emily Burgess
Sent: Wednesday, November 22, 2023 6:26 AM
To: Ty Tucker
Subject: FW: Draft Report Review (0SD2) - PIN 132623.00 Washington County SR-353

File please.

Emily Burgess, P.E. | Transportation Project Specialist, Senior
Strategic Transportation Investments Division
James. K. Polk Building, 10th Floor
505 Deaderick Street, Nashville, TN 37243
p. 615-253-4490
emily.burgess@tn.gov
tn.gov/tdot
https://www.tn.gov/tdot/strategic-transportation-investments.html

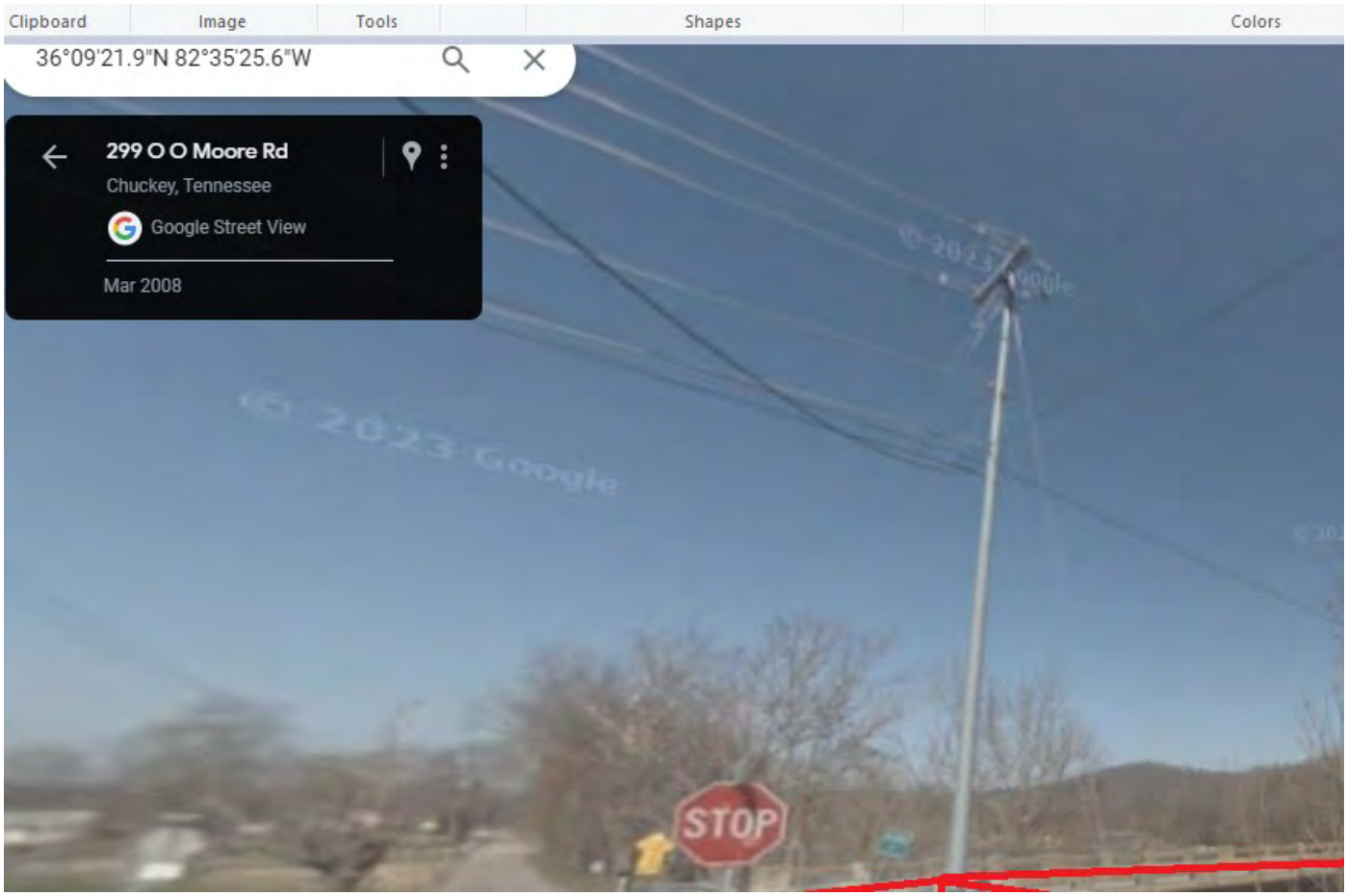
---

From: C.David Lewis <C.David.Lewis@tn.gov>
Sent: Wednesday, November 22, 2023 5:28 AM
To: Emily Burgess <Emily.Burgess@tn.gov>
Cc: Adam Price <Adam.Price@tn.gov>; Ali Omar <Ali.Omar@tn.gov>
Subject: RE: Draft Report Review (0SD2) - PIN 132623.00 Washington County SR-353

Emily,

Structures' comments are listed below:

1. Proposed travel lanes are planned to be 11ft. Typical lane widths for new generation bridges are 12ft. Please verify if proposed lanes should be kept 11ft.
2. Planned or assumed superstructure beam type is 33" (height) prestressed concrete box beams for 4 span bridge. Planned span lengths are about 95ft long with possibly 75 degree pier skew. This beam size (height) is structurally not feasible for 95-100 ft long spans. Minimum of 39" may handle such long spans. Or 5 span bridge may be structurally fine with 33" box beams.
3. Utility conflict at proposed beginning bridge location. See picture below:



4. Existing begin of bridge – Abutment footings are on very steep slope. Looking at plans, it looks like planned proposed abutment shall be parallel to existing abutment. I would suggest to bring proposed abutment (beginning of bridge) further back and have at least 4ft to 6 ft berm and have 2:1 slope rip-rap. This may increase the planned bridge length by at least 10ft to 15 ft. See picture below:

C. DAVID LEWIS, P.E. | Civil Engineering Manager 1
Structures Division
James K. Polk Building, Suite 1100
505 Deaderick Street, Nashville, TN 37243
p. 615-532-3815
c.david.lewis@tn.gov
tn.gov/tdot

From: Adam Price <Adam.Price@tn.gov>
Sent: Tuesday, November 7, 2023 3:56 PM
To: C.David Lewis <C.David.Lewis@tn.gov>
Subject: FW: Draft Report Review (0SD2) - PIN 132623.00 Washington County SR-353

Adam Price, P.E. | Manager
Engineering Division – Structural Design Section
James K. Polk Building, Suite 1100
505 Deaderick Street, Nashville, TN 37243
p. 615-741-5390
adam.price@tn.gov
tn.gov/tdot

From: Emily Burgess <Emily.Burgess@tn.gov>
Sent: Tuesday, November 7, 2023 1:55 PM
To: K.Brandon Chance <K.Brandon.Chance@tn.gov>; Lisa Dunn <Lisa.Dunn@tn.gov>; TDOT MultimodalPlanning <TDOT.MultimodalPlanning@tn.gov>; Daniel Pallme <Daniel.Pallme@tn.gov>; Stacy Morrison <Stacy.Morrison@tn.gov>; Brian Hurst <Brian.Hurst@tn.gov>; Jay Lanius <Jay.Lanius@tn.gov>; Wesley Peck <Wesley.Peck@tn.gov>; TDOT.TrafficOps TSMO-Reviews <TDOT.TrafficOps.TSMO-Reviews@tn.gov>; TDOT ADA <TDOT.ADA@tn.gov>; Lori Fiorentino <Lori.Fiorentino@tn.gov>; Troy J. Ebbert <Troy.J.Ebbert@tn.gov>; Christie Brown <Christie.Brown@tn.gov>; Andrew Padgett <Andrew.Padgett@tn.gov>; TDOT R1.Traffic <TDOT.R1.Traffic@tn.gov>; Andrew Barlow <Andrew.Barlow@tn.gov>; Adam Price <Adam.Price@tn.gov>; Kathleen McLaughlin <Kathleen.McLaughlin@tn.gov>
Cc: Brian Egan <Brian.Egan@tn.gov>; Jamie Fitzpatrick <Jamie.Fitzpatrick@tn.gov>; Susannah Kniazewycz <Susannah.Kniazewycz@tn.gov>; Tammy Sellers <Tammy.Sellers@tn.gov>; Matt Meservy <Matt.Meservy@tn.gov>; James D. Kelley <James.D.Kelley@tn.gov>; Sharon Schutz <Sharon.Schutz@tn.gov>; Jeff Hoge <Jeff.Hoge@tn.gov>; Amy Rauch <Amy.Rauch@tn.gov>; Antonia Hayes <Antonia.Hayes@tn.gov>; Jim Waters <Jim.Waters@tn.gov>; Loren McWright <Loren.McWright@tn.gov>; Michael Gilbert <Michael.Gilbert@tn.gov>; Steve Allen <Steve.Allen@tn.gov>;

Terry Gladden <Terry.Gladden@tn.gov>; Ted Kniazewycz <Ted.Kniazewycz@tn.gov>; Lee J. Smith <Lee.J.Smith@tn.gov>; Mickey Hamilton <Mickey.Hamilton@tn.gov>; Steve Borden <Steve.Borden@tn.gov>; Amanda Snowden <Amanda.Snowden@tn.gov>; Dexter Justis <Dexter.Justis@tn.gov>; Sheena A. Foster <Sheena.A.Foster@tn.gov>; Ty Tucker <Ty.Tucker@tn.gov>
Subject: Draft Report Review (0SD2) - PIN 132623.00 Washington County SR-353

All,

As a part of the Project Delivery Network (PDN) Stage 0SD2 Draft Concept Report Review, please see attached pdf to access the draft report for your review. We would like all stage zero information provided back in addition to any comments on the report. Below is the project information as well as a Google Maps link to the project location:

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- Washington County
- SR 353 Bridge over Nolichucky River
- Project Location: https://maps.app.goo.gl/4AoW2xDo83T3xQhBA
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We request that each division identified within the PDN process provide their comments or confirmation of no comments by COB November 21st.
Please feel free to reach out if you have any questions or issues accessing this report.

Thanks,

Emily Burgess, P.E. | Transportation Project Specialist, Senior
Strategic Transportation Investments Division
James. K. Polk Building, 10th Floor
505 Deaderick Street, Nashville, TN 37243
p. 615-253-4490
emily.burgess@tn.gov
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Emily Burgess, P.E. | Transportation Project Specialist, Senior
Strategic Transportation Investments Division
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https://www.tn.gov/tdot/strategic-transportation-investments.html

6.0 Traffic Analysis

TENNESSEE DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

PROJECT NO.: 90S353-S0-002 ROUTE: S.R. 353
COUNTY: WASHINGTON CITY:
PROJECT PIN NUMBER: 132623.00
PROJECT DESCRIPTION: BRIDGE AND APPROACHES OVER THE NOLICHUCKY RIVER @ L.M. 0.45.

DIVISION REQUESTING:

		PAVEMENT DESIGN	☐
MAINTENANCE	☐	STRUCTURES	☐
S.T.I.D.	☒	SURVEY & ROADWAY DESIGN	☐
PROG. DEVELOPMENT & ADM.	☐	TRAFFIC SIGNAL DESIGN	☐
PUBLIC TRANS. & AERO.	☐	OTHER	☐

YEAR PROJECT PROGRAMMED FOR CONSTRUCTION:
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
1,470	2028	1,880	207	11	2048	65-35	3	5		

REQUESTED BY: NAME KONNER SPRADLIN DATE 7/28/22
DIVISION S.T.I.D.
ADDRESS 1000 J. K. POLK BUILDING
NASHVILLE TN 37243

REVIEWED BY: RANDY BOGUSKIE Randy Boguskie DATE 7/29/2022
TRANSPORTATION MANAGER 1
SUITE 1000, JAMES K. POLK BUILDING

APPROVED BY: TONY ARMSTRONG Tony Armstrong DATE 7/29/2022
TRANSPORTATION MANAGER 2
SUITE 1000, JAMES K. POLK BUILDING

COMMENTS:

THIS TRAFFIC IS BASED ON 2021 CYCLE COUNTS. THE DESIGN YEAR TRAFFIC IS BASED ON GROWTH RATE FROM THE JOHNSON CITY MPO COMPUTER ASSIGNMENT MODEL. AADT's ARE INCLUDED.

Cc: MIKE GILBERT, S.T.I.D.

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. (REV. 6/9/21)

Ty Tucker

From: TDOT.TrafficOps TSMO-Reviews
Sent: Monday, March 27, 2023 8:58 AM
To: Amy Rauch
Subject: RE: Call for Comments (0SD1) - Cocke and Washington County Bridges (PINs 124254.00, 124272.00, 124279.00, and 132623.00)

Follow Up Flag: Follow up
Flag Status: Flagged

No comments from TOD.

From: Amy Rauch <Amy.Rauch@tn.gov>
Sent: Wednesday, March 22, 2023 10:13 AM
To: K.Brandon Chance <K.Brandon.Chance@tn.gov>; TDOT.ENV SpecialProjects <TDOT.ENV.SpecialProjects@tn.gov>; Lisa Dunn <Lisa.Dunn@tn.gov>; TDOT MultimodalPlanning <TDOT.MultimodalPlanning@tn.gov>; Daniel Pallme <Daniel.Pallme@tn.gov>; Stacy Morrison <Stacy.Morrison@tn.gov>; Brian Hurst <Brian.Hurst@tn.gov>; Jay Lanius <Jay.Lanius@tn.gov>; Gregory Dyer <Greg.Dyer@tn.gov>; TDOT.TrafficOps TSMO-Reviews <TDOT.TrafficOps.TSMO-Reviews@tn.gov>; TDOT ADA <TDOT.ADA@tn.gov>; Lori Fiorentino <Lori.Fiorentino@tn.gov>; Troy J. Ebbert <Troy.J.Ebbert@tn.gov>; Christie Brown <Christie.Brown@tn.gov>; John Barrett <John.Barrett@tn.gov>; Michael W. Palmer <Michael.W.Palmer@tn.gov>; Andrew Padgett <Andrew.Padgett@tn.gov>; TDOT R1.Traffic <TDOT.R1.Traffic@tn.gov>
Cc: Brian Egan <Brian.Egan@tn.gov>; Susannah Kniazewycz <Susannah.Kniazewycz@tn.gov>; Tammy Sellers <Tammy.Sellers@tn.gov>; Matt Meservy <Matt.Meservy@tn.gov>; James D. Kelley <James.D.Kelley@tn.gov>; Sharon Schutz <Sharon.Schutz@tn.gov>; Jeff Hoge <Jeff.Hoge@tn.gov>; Amy Rauch <Amy.Rauch@tn.gov>; Antonia Hayes <Antonia.Hayes@tn.gov>; Jim Waters <Jim.Waters@tn.gov>; Loren McWright <Loren.McWright@tn.gov>; Michael Gilbert <Michael.Gilbert@tn.gov>; Steve Allen <Steve.Allen@tn.gov>; Terry Gladden <Terry.Gladden@tn.gov>; Ted Kniazewycz <Ted.Kniazewycz@tn.gov>; Wesley Peck <Wesley.Peck@tn.gov>; Lee J. Smith <Lee.J.Smith@tn.gov>; Steve Borden <Steve.Borden@tn.gov>; Amanda Snowden <Amanda.Snowden@tn.gov>; Dexter Justis <Dexter.Justis@tn.gov>; Sheena A. Foster <Sheena.A.Foster@tn.gov>; Jay Norris <Jay.Norris@tn.gov>; Jamie Fitzpatrick <Jamie.Fitzpatrick@tn.gov>
Subject: Call for Comments (0SD1) - Cocke and Washington County Bridges (PINs 124254.00, 124272.00, 124279.00, and 132623.00)

All,

As a part of the Project Delivery Network (PDN) Stage 0SD1 Early Coordination process, please see the attached PDFs to access the site visit packet for early comments. The purpose of receiving comments is to have initial input compiled from the different functional areas prior to the site visit to identify areas of interests. The proposed improvements are subject to change based on feedback we receive. We will compile all the comments we receive and discuss at the site visit. Below is the project information as well as a Google Maps link to the project location:

124254.00	Cocke	Chemwood Dr (0A055)	Bridge over Sinking Creek	https://www.google.com/m 83.2070674,322m/data=!3m
124272.00	Cocke	Caney Creek Rd (0A407)	Bridge over Cosby Creek	https://www.google.com/m 83.2398405,342m/data=!3m
124279.00	Cocke	Ball Park Rd	Bridge over Cosby Creek	https://www.google.com/m 83.2462273,450m/data=!3m

132623.00	Washington	SR-353	(Bailey Bridge Road), Bridge over Nolichucky River, LM 0.45	https://www.google.com/m 82.5905506,399m/data=!3m

We request that each division identified within the PDN process provide their comments or confirmation of no comments by COB Friday, April 7. The site visit will be held on Wednesday, April 19, 2023 beginning at 9AM Eastern Time at the Washington County Project. Attached is a calendar invite for the site visit as well if you choose to attend this site visit. Please feel free to reach out if you have any questions.

Amy Rauch, PE | C.E. Manager 1
Strategic Transportation Investments Division
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505 Deaderick St., Nashville, TN 37243
p. 615-741-0969 c. 615-733-9008
Amy.Rauch@tn.gov
tn.gov/tdot
tn.gov/tdot/strategic-transportation-investments

Ty Tucker

From: Emily Burgess
Sent: Monday, November 13, 2023 9:04 AM
To: Ty Tucker
Subject: FW: Draft Report Review (0SD2) - PIN 132623.00 Washington County SR-353

Please file.

Emily Burgess, P.E. | Transportation Project Specialist, Senior
Strategic Transportation Investments Division
James. K. Polk Building, 10th Floor
505 Deaderick Street, Nashville, TN 37243
p. 615-253-4490
emily.burgess@tn.gov
tn.gov/tdot
https://www.tn.gov/tdot/strategic-transportation-investments.html

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From: TDOT.TrafficOps TSMO-Reviews <TDOT.TrafficOps.TSMO-Reviews@tn.gov>
Sent: Thursday, November 9, 2023 9:26 AM
To: Emily Burgess <Emily.Burgess@tn.gov>
Subject: RE: Draft Report Review (0SD2) - PIN 132623.00 Washington County SR-353

No comments.

Michelle Nickerson, P.E., PTOE | Civil Engineering Manager 1
Traffic Operations Division/ Traffic Engineering Office
James K. Polk Bldg. 18th Floor
505 Deaderick St. Nashville, TN 37243
p. 615-741-0894
michelle.nickerson@tn.gov
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From: Emily Burgess <Emily.Burgess@tn.gov>
Sent: Tuesday, November 7, 2023 1:55 PM
To: K.Brandon Chance <K.Brandon.Chance@tn.gov>; Lisa Dunn <Lisa.Dunn@tn.gov>; TDOT MultimodalPlanning <TDOT.MultimodalPlanning@tn.gov>; Daniel Pallme <Daniel.Pallme@tn.gov>; Stacy Morrison <Stacy.Morrison@tn.gov>; Brian Hurst <Brian.Hurst@tn.gov>; Jay Lanius <Jay.Lanius@tn.gov>; Wesley Peck <Wesley.Peck@tn.gov>; TDOT.TrafficOps TSMO-Reviews <TDOT.TrafficOps.TSMO-Reviews@tn.gov>; TDOT ADA <TDOT.ADA@tn.gov>; Lori Fiorentino <Lori.Fiorentino@tn.gov>; Troy J. Ebbert <Troy.J.Ebbert@tn.gov>; Christie Brown <Christie.Brown@tn.gov>; Andrew Padgett <Andrew.Padgett@tn.gov>; TDOT R1.Traffic <TDOT.R1.Traffic@tn.gov>; Andrew Barlow <Andrew.Barlow@tn.gov>; Adam Price <Adam.Price@tn.gov>; Kathleen McLaughlin <Kathleen.McLaughlin@tn.gov>
Cc: Brian Egan <Brian.Egan@tn.gov>; Jamie Fitzpatrick <Jamie.Fitzpatrick@tn.gov>; Susannah Kniazewycz <Susannah.Kniazewycz@tn.gov>; Tammy Sellers <Tammy.Sellers@tn.gov>; Matt Meservy <Matt.Meservy@tn.gov>; James D. Kelley <James.D.Kelley@tn.gov>; Sharon Schutz <Sharon.Schutz@tn.gov>; Jeff Hoge <Jeff.Hoge@tn.gov>; Amy

Rauch <Amy.Rauch@tn.gov>; Antonia Hayes <Antonia.Hayes@tn.gov>; Jim Waters <Jim.Waters@tn.gov>; Loren McWright <Loren.McWright@tn.gov>; Michael Gilbert <Michael.Gilbert@tn.gov>; Steve Allen <Steve.Allen@tn.gov>; Terry Gladden <Terry.Gladden@tn.gov>; Ted Kniazewycz <Ted.Kniazewycz@tn.gov>; Lee J. Smith <Lee.J.Smith@tn.gov>; Mickey Hamilton <Mickey.Hamilton@tn.gov>; Steve Borden <Steve.Borden@tn.gov>; Amanda Snowden <Amanda.Snowden@tn.gov>; Dexter Justis <Dexter.Justis@tn.gov>; Sheena A. Foster <Sheena.A.Foster@tn.gov>; Ty Tucker <Ty.Tucker@tn.gov>
Subject: Draft Report Review (0SD2) - PIN 132623.00 Washington County SR-353

All,

As a part of the Project Delivery Network (PDN) Stage 0SD2 Draft Concept Report Review, please see attached pdf to access the draft report for your review. We would like all stage zero information provided back in addition to any comments on the report. Below is the project information as well as a Google Maps link to the project location:

- PIN 132623.00
- Washington County
- SR 353 Bridge over Nolichucky River
- Project Location: https://maps.app.goo.gl/4AoW2xDo83T3xQhBA
- Draft Report: Attached

We request that each division identified within the PDN process provide their comments or confirmation of no comments by COB November 21st.
Please feel free to reach out if you have any questions or issues accessing this report.

Thanks,

TN TDOT Department of Transportation

Emily Burgess, P.E. | Transportation Project Specialist, Senior
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7.0 Additional Comments

Project: New Bridge over Nolichucky River
Comment Resolution Form
County: Washington
PIN 132623.00

Comment Stage	Division	Commenter	Date Received	Comment	Comment Addressed?	Additional Notes
Early Coordination (0SD1)	Project Development	Jay Morgan	4/6/2023	According to ETRIMS and ETRIMS image viewer, the existing speed limit is 45 mph.	✓	Updated report to reflect, 35 mph speed came from 2013 Google Earth imagery
Early Coordination Comments (0SD1)	Project Development	Jay Morgan	4/6/2023	It looks like this sign fell down. I did find it on the 2021 image viewer in ETRIMS. There was both a 12T and 21T weight limit	✓	Updated report to reflect
Early Coordination Comments (0SD1)	Project Development	Jay Morgan	4/6/2023	This is correct according to RD11-TS-2, but shouldn't we at least design it to the posted speed? However, if we go above 40 mph, then we no longer can use the curved parapet on S-CPW-1 making it harder to tie in the side roads.	✓	Updated report to reflect, 50 mph design speed with posted 45 mph. To use 50 mph design speed.
Early Coordination Comments (0SD1)	Environmental	Mike Cook	4/10/2023	This project is in Washington County which is in attainment for all regulated criteria pollutants. Therefore, conformity does not apply to this project.	✓	Noted in report
Early Coordination Comments (0SD1)	Environmental	Mike Cook	4/10/2023	This project qualifies as a categorical exclusion under 23 CFR 771.1	✓	Noted in report
Early Coordination Comments (0SD1)	Environmental	Mike Cook	4/10/2023	The new bridge will be located southeast of the existing structure. However, the relocation will not halve the distance between the center of the near travel lane and an adjacent noise-sensitive land use. Therefore, the project is Type III in accordance with the FHWA noise regulation in 23 CFR 772 and TDOT's noise policy and a noise study is not needed.	✓	Noted in report
Early Coordination Comments (0SD1)	Environmental	Mike Cook	4/10/2023	There is one perennial stream within project limits. There are several cliff swallow nests on existing bridge. There are 10 endangered/threatened species within 4 miles of project.	✓	Noted in report

Comment Stage	Division	Commenter	Date Received	Comment	Comment Addressed?	Additional Notes
Early Coordination Comments (0SD1)	Environmental	Kyle Kirschenmann	4/10/2023	No known hazardous materials sites impact this bridge replacement as shown in the TIR. An Asbestos Containing Material (ACM) survey was completed on Bridge No. 90S23860001 SR-353 over Nolichucky River LM 0.45 (90-SR353-00.45). The bridge has asbestos in 116 deck drains at 6% chrysotile and 4% crocidolite, and 2000 square feet of bearing pads at 20% chrysotile. Please see the report for further details and photographs. The State of Tennessee asbestos accreditation requirements (TDEC Rules Chapter 1200-01-20) mandates that ACM abatement work be performed by an accredited firm (contractor) using accredited abatement workers and supervisors. Abatement of this material shall be accomplished per SP202ACM Special Provision Regarding Removal of Asbestos-Containing Materials. ACM abatement should be completed prior to any demolition activities if possible. Prior to the demolition or rehabilitation of any structure (bridge or building), the contractor is required to submit the National Emission Standards for Hazardous Air Pollutants standard 10-day notice of demolition to the TDEC Division of Air Pollution Control (per TDOT Standard Specifications for Road and Bridge Construction (January 1, 2021) Sections 107.08.D and 202.03).	✓	Noted in report
Early Coordination Comments (0SD1)	Multimodal	Will Rogers III	3/30/2023	At this 35 mph speed on the bridge, 6' shoulders as written will accommodate cyclists. It will not accommodate pedestrians. This is not a state bike route, but cyclist volume is high along this bridge. On both sides, 5' sidewalks with curb and gutter are requested.	✓	Sidewalks add 28% to cost estimate so will not be provided.
Early Coordination Comments (0SD1)	Environmental	Rachel Head	4/11/2023	It is not indicated whether ROW acquisition or permanent easements will be required on this project. The addition of ROW and/or permanent acquisitions could alter NEPA's concerns. Currently, this project is showing state-only funding in PPRM. Therefore, Section 4(f) is not applicable. Based on a visual inspection of the project location through Google Earth and Google Maps, it does not appear that any know Section 4(f)resources are adjacent to the project site. A desktop search of LWCF-funded projects in Washington County shows no projects close to the project location. . A desktop search of FEMA floodplains in the area confirmed that the bridge project spans a 100-year floodplain (Zone A). Please see the attached National Flood Hazard Layer FIRM map for confirmation.	✓	Noted in report

Comment Stage	Division	Commenter	Date Received	Comment	Comment Addressed?	Additional Notes
Early Coordination Comments (0SD1)	Long Range Planning	Troy Ebbert	3/24/2023	The Washington county project at Baileys Bridge has a TWRA canoe launch near the bridge. I believe it is on the south west quadrant	✓	Noted in report
Site Visit Coordination (0SD2)	Environmental	Brittney Hensley	4/19/2023	Nolichucky is used for rafting, find out who to contact for water recreation	✓	Noted rafting in report, coordination will be required
Draft Report Review (0SD2)	Construction	Jamie Fitzpatrick	11/17/2023	HQ Construction has no comments at this time	✓	Nothing to note
Draft Report Review (0SD2)	Materials & Tests Division/Geotechnical Division	Ann Walters	11/13/2023	There is no risk for Acid Producing Material in the area. My biggest comment would be regarding the new foundations adjacent to old ones. If the new piers can be spaced so they do not impact old foundations it will make construction much easier.	✓	New piers are not in the location of existing
Draft Report Review (0SD2)	Environment & Planning Bureau	Lisa Dunn	11/7/2023	I have no comments	✓	Nothing to note
Draft Report Review (0SD2)	Structures	Ted Kniazewycz	11/8/2023	Is the ADT too high to keep the alignment and do a single lane with a signal? There seems to be a lot of roadway work plus the bridge ends up skewed across the river.	✓	Put bridge back on existing alignment to reduce scope and existing bridge will no longer be able to remain
Draft Report Review (0SD2)	Traffic Ops	Michelle Nickerson	11/9/2023	No comments	✓	Nothing to note
Draft Report Review (0SD2)	Long Range Planning	Troy Ebbert	11/9/2023	Long-range Planning cannot locate any plans for this area that will affect the project. I am familiar with the area and have shared a few details(not the entire project) with TWRA and the State Park in the area referring them to you for comments. The old roadbed we would normally remove could be utilized as a road to a new river access potentially if TWRA is interested.	✓	Put bridge back on existing alignment to reduce scope and existing bridge will no longer be able to remain
Draft Report Review (0SD2)	David Crockett Birthplace State Park, TWRA	Joe Nowotarski, Tommy Woods	11/10/2023	Tennessee State Parks and David Crockett Birtplace State Park is definitely interested in this opportunity. It is in our management plan to increase public access to the Nolichucky River and an access point at Bailey Bridge would be crucially important. Bailey Bridge is ~10 miles upriver from the park.	✓	Put bridge back on existing alignment to reduce scope and existing bridge will no longer be able to remain
Draft Report Review (0SD2)	TWRA	Jam Habera	11/9/2023	TWRA is very much interested in a new access point on the Nolichucky River through TDOT's Bailey Bridge replacement. It would provide an excellent starting point for a float trip to the Davy Crockett Birthplace State Park access about 8.7 miles downstream.	✓	Put bridge back on existing alignment to reduce scope and existing bridge will no longer be able to remain

Comment Stage	Division	Commenter	Date Received	Comment	Comment Addressed?	Additional Notes
Draft Report Review (0SD2)	Structures	C. David Lewis	11/22/2023	Proposed travel lanes are planned to be 11ft. Typical lane widths for new generation bridges are 12ft. Please verify if proposed lanes should be kept 11ft.	✓	Based on Table II on RD11-TS-2, 11 ft lanes are proposed for ADT from 1500-2000. The table for minimum clear width roadway widhts and design loadings for new and reconstructed bridges states the minimum clear roadway width of bridges is traveled way + 8 ft. Will retain 11 ft lanes.
Draft Report Review (0SD2)	Structures	C. David Lewis	11/22/2023	Planned or assumed superstructure beam type is 33” (height) prestressed concrete box beams for 4 span bridge. Planned span lengths are about 95ft long with possibly 75 degree pier skew. This beam size (height) is structurally not feasible for 95-100 ft long spans. Minimum of 39” may handle such long spans. Or 5 span bridge may be structurally fine with 33” box beams.	✓	Made box beams 39", did not affect the amount of grade to be raised
Draft Report Review (0SD2)	Structures	C. David Lewis	11/22/2023	Utility conflict at proposed beginning bridge location. See picture below:	✓	Accounted for this in the cost estimate
Draft Report Review (0SD2)	Structures	C. David Lewis	11/22/2023	Existing begin of bridge – Abutment footings are on very steep slope. Looking at plans, it looks like planned proposed abutment shall be parallel to existing abutment. I would suggest to bring proposed abutment (beginning of bridge) further back and have at least 4ft to 6 ft berm and have 2:1 slope rip-rap. This may increase the planned bridge length by at least 10ft to 15 ft. See picture below:	✓	Moved beginnnig of bridge to where it is offset from existing and was able to make slope 2:1. Did not have to increase bridge length.
Draft Report Review (0SD2)	Washington County	Richard Thompson	11/20/2023	No comments	✓	Nothing to note
Draft Report Review (0SD2)	Environment & Planning Bureau	Lisa Dunn	11/29/2023	I have no comments	✓	Nothing to note
Draft Report Review (0SD2)	Structures	Ted Kniazewycz	11/29/2023	No comments	✓	Nothing to note
Draft Report Review (0SD2)	Traffic Ops	Bryan Bartnik	12/7/2023	No comments	✓	Nothing to note
Draft Report Review (0SD2)	Traffic Ops	Michelle Nickerson	12/8/2023	No comments	✓	Nothing to note
Draft Report Review (0SD2)	Multimodal	Masonya Osei	12/12/2023	No comments	✓	Nothing to note