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 180 – Bridge over Overflow and Bridge over Otter Creek								
PIN	134876.00 and 134877.00								
Route Information	**Route**	**NHS (Y/N)**	**Functional Class**		**City**			**County**	
	SR180	No	Rural Major Collector		N/A			Haywood	
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**
	2.52	2.81	630	82	5.00	50	45	2029	2049
Project Description & Standard Drawings Used	The proposed Otter Creek bridge (#38S8051003) will be a 75' single span using 36" box beams, and the Overflow bridge (#38S8051005) will be an 80' I-beam bridge, either single or two spans. Both bridges will have 2-11' travel lanes and a 4' shoulder , with a total width of 31.2'. The Otter Creek bridge grade will be raised by 1.5', and the Overflow by 1' for two spans or 1.5' for a single span. A detour is recommended over realignment. Otter Creek superstructure depth is 49.8"= 36" (beam)+10" (deck)+ 3.8" (width (in inches) x0.02/2). Overflow superstructure depth is 58.8"= 45" (beam)+10" (deck)+ 3.8" (width (in inches) x0.02/2). RD11-TS-2 (Design exception required for proposed cross section)								Project Details
Important Project History or Related Projects	Overflow existing structure, built in 1960, 3 span timber bridge, 76' long, out-to-out 24'11". Weight limit: 40 tons (google). Otter Creek existing structure, built in 1960, 3 span timber bridge, 57' long, out-to-out 24'11". Weight limit 34 tons (google). Existing structures have 2-9' travel lanes with 3' shoulders. Drainage characteristics (StreamStats Version 4.19.4): Overflow no drainage characteristics available; Middle Fork Creek drainage area of 21.17 square miles: Q10 is 3990 cfs, Q50 is 5590 cfs, and Q100 is 6250 cfs. This project is NOT expected to utilize federal funding.								
Project Purpose/Need	The need to replace these bridges is due to the present condition of the existing bridges: -Timber bridges are being phased out and are reaching the end of their service life -Bridge over Otter Creek is in FAIR condition -Bridge over Overflow is in POOR condition								
Major Environmental Considerations	Archaeology: A survey will be required. Historic Preservation: A survey will be required. Ecology: Water resources likely within project area. NEPA: If the project remains state-funded, a TEER will be produced unless there is a federal nexus.								

Multi-Modal Considerations	This project is in a rural area with a proposed 2-lane bridge width of less than 44 ft where the cost of dedicated multimodal accommodations is excessively disproportionate to the need and probable use. Excessively disproportionate is defined as exceeding 20 percent of the cost of the project.	
Major Project Risks	Approximately 1.51 acres of ROW to be acquired under the detour option and 2.34 acres for the realignment option. Utilities Division's preliminary review identified the presence of gas, telecom, and water services. Shallower beam options should be considered (e.g. Valmont U-beam). Agricultural fields border the site and farm equipment use of the bridge must be considered in design and construction. This document is covered by 23 USC § 407 and its production pursuant to fulfilling public planning requirements does not waive the provisions of § 407.	

[1] Traffic numbers reflect identified design year

Approvals

Executed for approval of this Concept Report

David Duncan

David Duncan (Nov 25, 2024 14:12 CST)

Engineering Concepts and Statewide Programs Director — Date: 11/25/2024

The following individuals to execute if a bridge concept report:

Jed A Kmiagowyz

Structures Director — Date: 11/25/2024

Regional Project Management Director — Date: 11/26/2024

Action Checklist			
0SD1 Initiate Concept Report and Request Funding			
Complete	**NA**		**Date Completed**
✓		Request and Finalize Safety Data	04/04/2024
✓		Request Project Number, PIN, and Task Profile Numbers	01/19/2024
	✓	Coordinate with Long Range Planning	
✓		Request and Finalize Traffic Data	02/21/2024
	✓	Request Preliminary Survey Data	
✓		Initiate Division Reviews	04/15/2024
	✓	Schedule Site Review (with appropriate Divisions)	
0EN1 Conduct Environmental Desktop Review			
Complete	**NA**		**Date Completed**
✓		Confirm Environmental Desktop Review is Complete	10/17/2024
0MM1 Conduct Multimodal Review			
Complete	**NA**		**Date Completed**
	✓	Confirm Multimodal Review is Complete	
	✓	Review Multimodal Considerations & Recommendations	
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	
	✓	Request Concept Report Review	
0ST1 Develop Structures Recommendations			
Complete	**NA**		**Date Completed**
✓		Confirm Recommended Structure Type for Concept Report is Complete	08/12/2024
✓		Confirm Hydraulic Recommendations for Concept Report is Complete	08/12/2024
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	

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	
	✓	Compile Initial Divisional Reviews for Site Visit	
	✓	Prepare & Send Site Visit Packet	
	✓	Lead Site Visit	
	✓	Initiate Interstate Access Requests (IAR) Concept Coordination with FHWA (if applicable)	
✓		Develop, Compile, and Distribute the Draft Concept Report	04/15/2024
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	10/17/2024
	✓	Review and Confirm Preliminary Railroad Cost Estimate	
0SD3 Finalize Concept Report			
Complete	**NA**		**Date Completed**
	✓	Compile and Review Initial Risk Assessment	
✓		Finalize Conceptual Layouts	11/21/2024
✓		Develop Environmental Technical Study Area (ETSA)	10/02/2024
✓		Address Comments and Finalize Concept Report	11/21/2024
	✓	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)	11/21/2024
✓		Finalize Document and Upload All Needed Electronic Files	12/2/2024
✓		Notify the Project Management Director or Assigned Project Manager to Set Up Project (1PM1)	12/2/2024

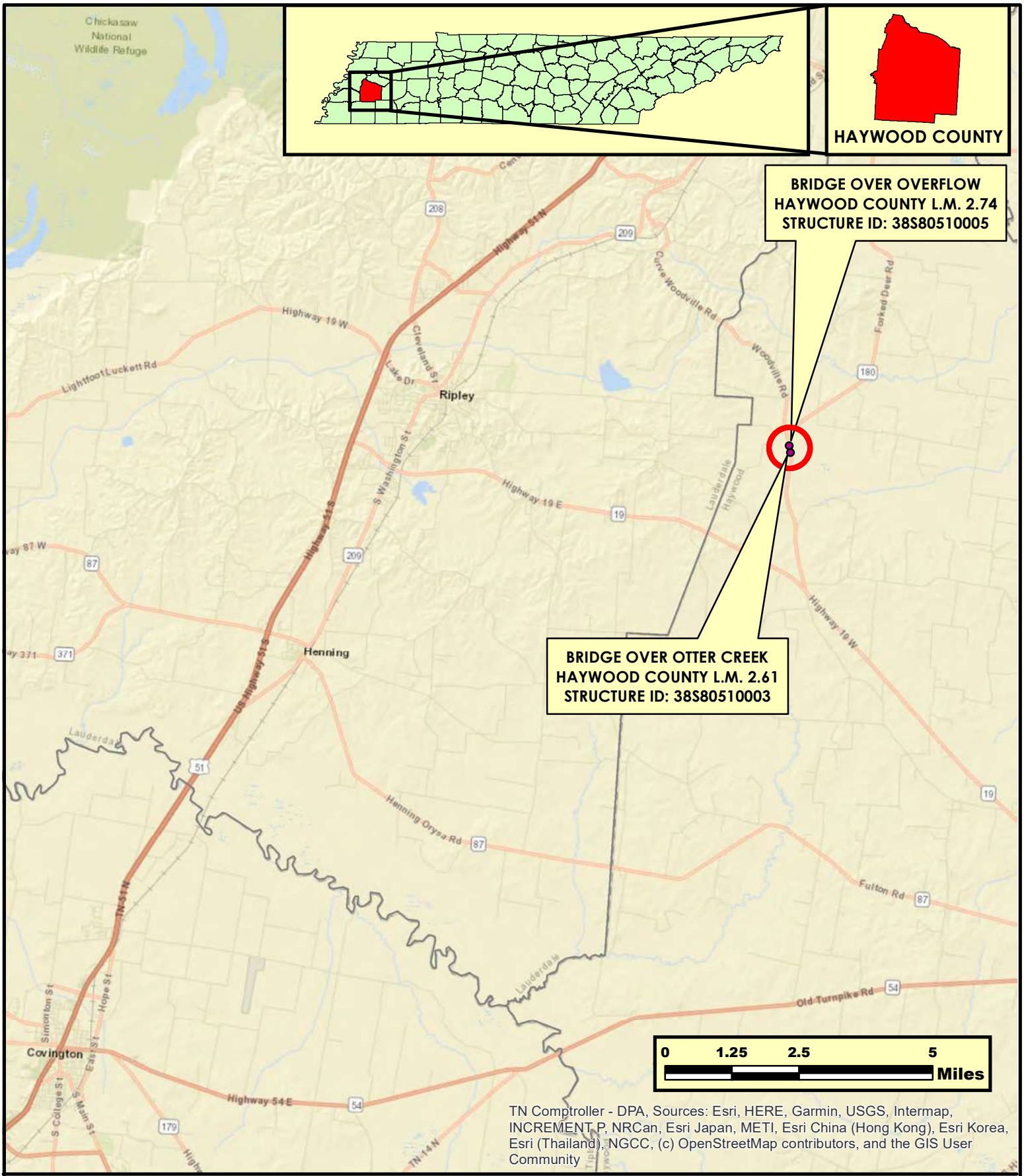
NA Justification
Coordinate with Long Range Planning-Long Range Planning coordination not needed for STID BCR document Request Preliminary Survey Data- survey data not needed for STID BCR document Schedule a site visit-site visit not required 0MM1 Conduct Multimodal Review- multimodal coordination not required 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 0SD2 Develop Draft Concept Report-no site visit was held for this bridge and no interchange or signal warrants were required 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- 2 crashes occurred within the project limits, crash prediction analysis not needed; Site Visit Attendee List-no site visit was held; Multimodal Considerations & Recommendation-no multimodal coordination;
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



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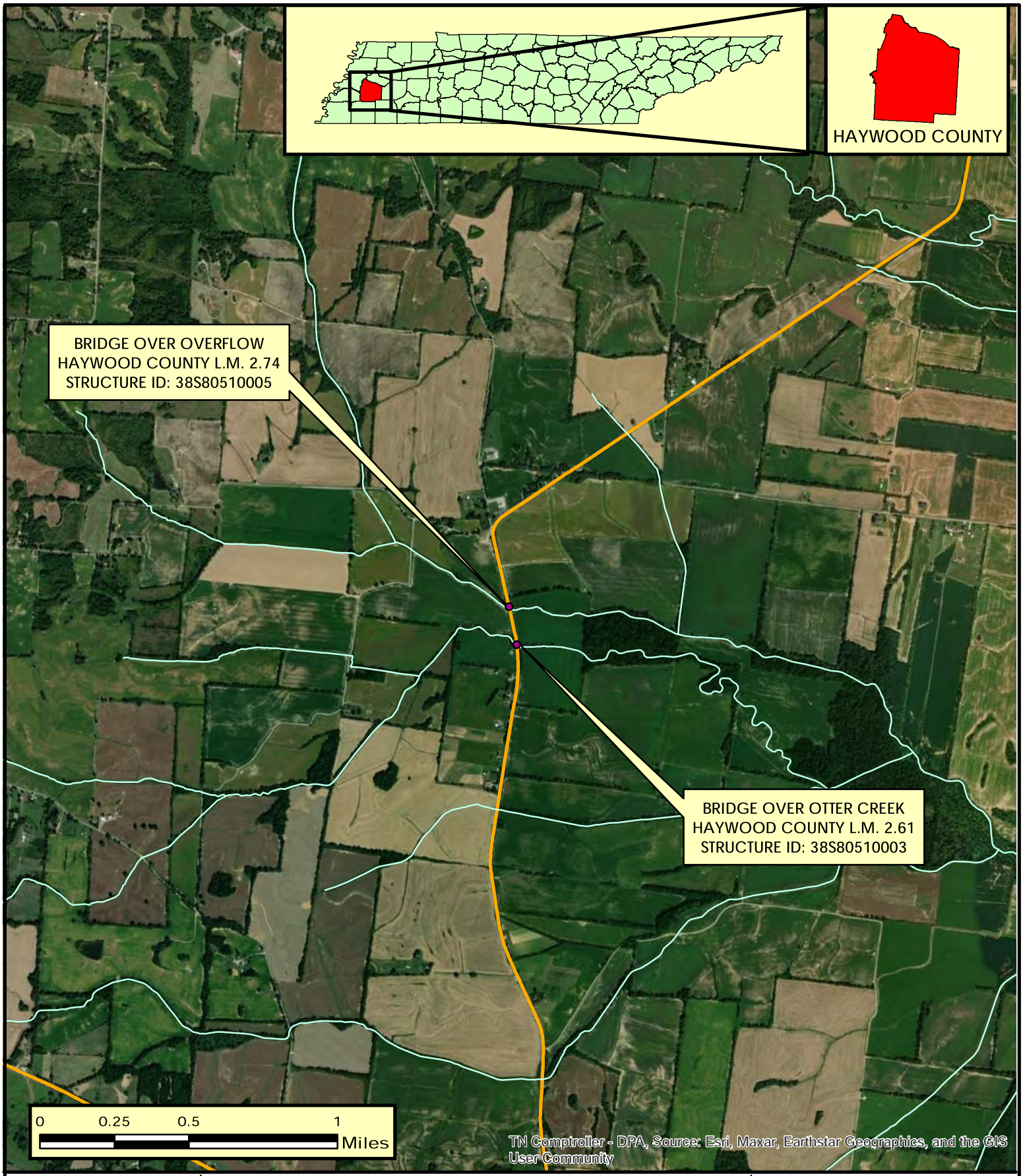
AREA MAP

BRIDGE OVER OTTER CREEK AND OVERFLOW
SR 180 (FORKED DEER RD)
L.M. 2.61 TO 2.74
PIN: 132421.00
HAYWOOD COUNTY

TN TDOT Department of Transportation



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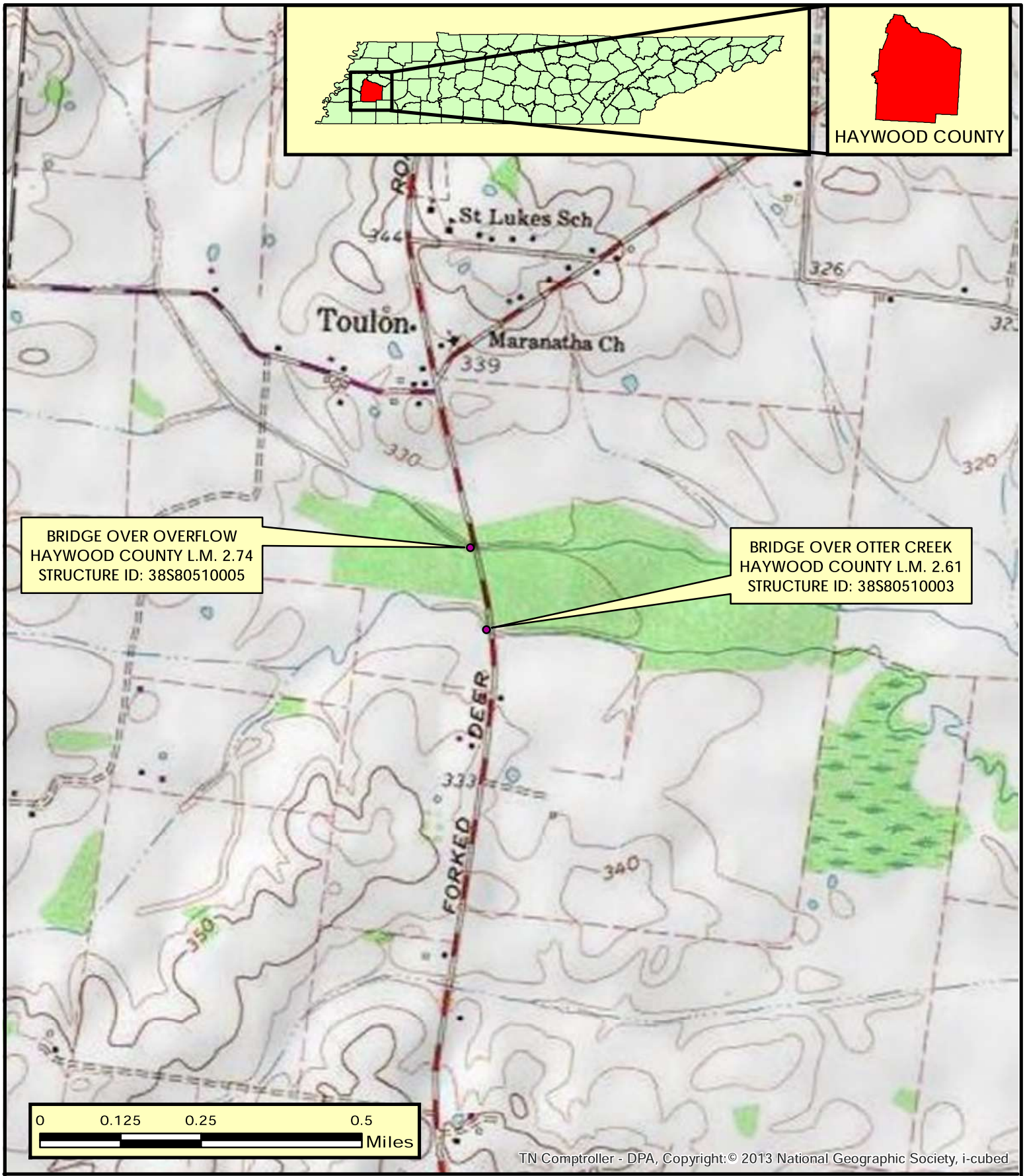
LOCATION MAP

BRIDGE OVER OTTER CREEK AND OVERFLOW
SR 180 (FORKED DEER RD)
L.M. 2.61 TO 2.74
PIN: 132421.00
HAYWOOD COUNTY

TN TDOT Department of Transportation



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TOPOGRAPHIC MAP
BRIDGE OVER OTTER CREEK AND OVERFLOW
SR 180 (FORKED DEER RD)
L.M. 2.61 TO 2.74
PIN: 132421.00
HAYWOOD COUNTY

TN TDOT Department of Transportation

TENNESSEE D.O.T.

S.T.I.D.

FILE NO

TYPE	YEAR	COUNTY	FIGURE NO.
BCR	2024	HAYWOOD	1

PIN 134876.00
BRIDGE# 38S8051003
75' BRIDGE LENGTH
SINGLE SPAN USING 36" BOX BEAM
2-11' LANES W/ 4' SHOULDERS
RAISE GRADE 1.5 FT

PIN 134877.00
BRIDGE # 38S8051005
80' BRIDGE LENGTH
CONCRETE I BEAMS
2- 11' LANES W/ 4' SHOULDERS
FOR TWO SPAN RAISE GRADE 1'
FOR SINGLE SPAN RAISE GRADE 1.5'

REPLACE FIELD ENTRANCE AS NECESSARY FOR CONSTRUCTION

OTTER CREEK >>>

PROPOSED ROW

EXISTING ROW

OVERFLOW >>>

REPLACE FIELD ENTRANCE AS NECESSARY FOR CONSTRUCTION

0' 100' 200' 300'

N

R4 TIMBER BRIDGE PROGRAM

HAYWOOD COUNTY
BRIDGE OVER OTTER CREEK AND OVERFLOW
SR-180 L.M. 2.60 TO 2.75

CAUTION ! PRELIMINARY PLANS SUBJECT TO CHANGE

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

SHEET 1
S.R. 180
L.M. 2.60 to
L.M. 2.75

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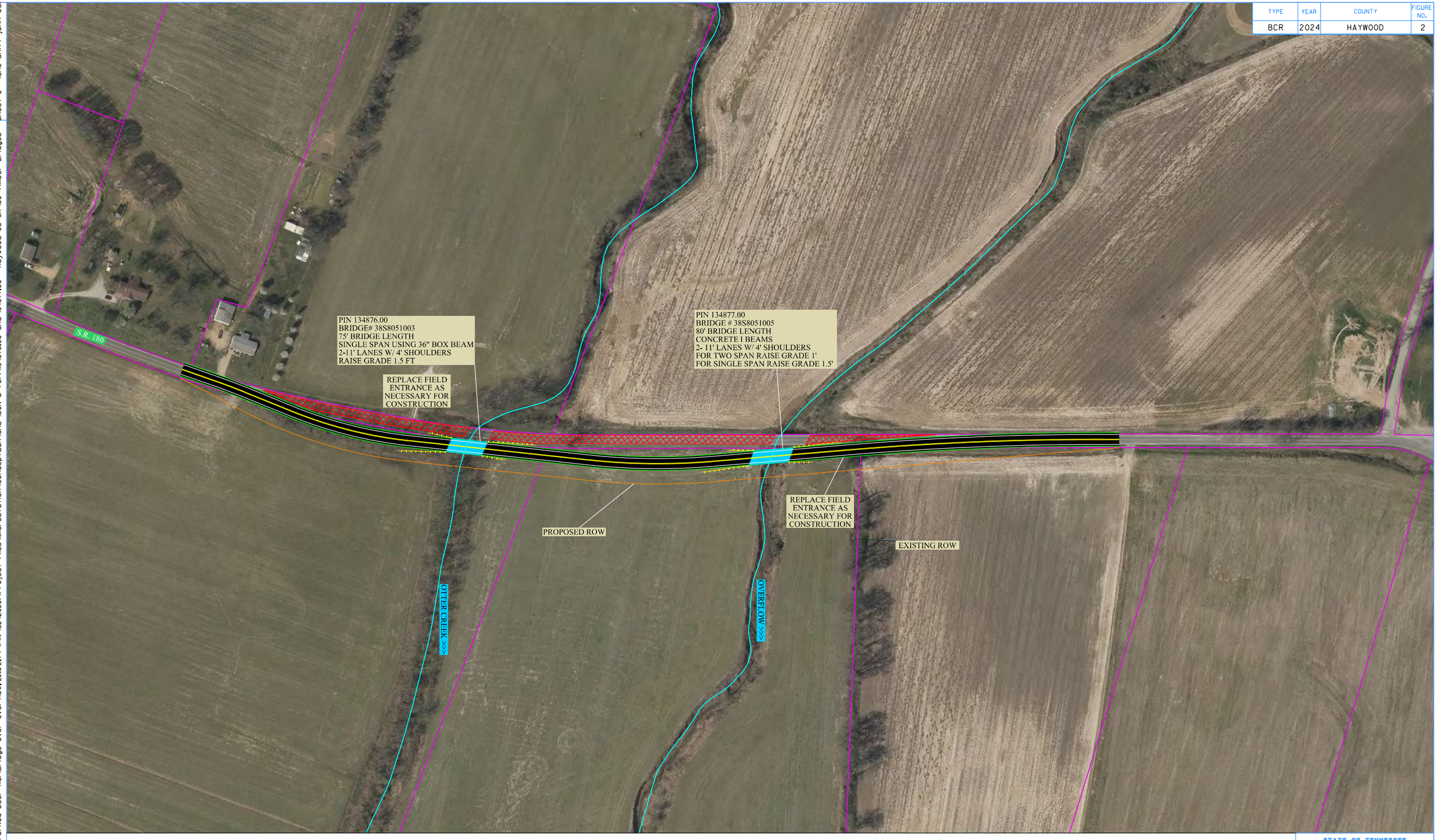
TENNESSEE D.O.T.

S.T.I.D.

File No.

TYPE	YEAR	COUNTY	FIGURE NO.
BCR	2024	HAYWOOD	2



0′ 200′ 400′ 600′

N

R4 TIMBER BRIDGE PROGRAM

HAYWOOD COUNTY
BRIDGE OVER OTTER CREEK AND OVERFLOW
SR-180 L.M. 2.52 TO 2.81

CAUTION ! PRELIMINARY PLANS SUBJECT TO CHANGE

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

SHEET 2
S.R. 180
L.M. 2.52 to
L.M. 2.81

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TYPE	YEAR	COUNTY	FIGURE NO.
ETSA	2024	HAYWOOD	1.2a

*Note: ETSA boundary combines Figure 1 & 2.

STUDY AREA 300 FEET PAST PROJECT LIMITS

STUDY AREA WITHIN EXISTING ROW

EXISTING ROW

PIN 134876.00
BRIDGE# 38S8051003
75' BRIDGE LENGTH
SINGLE SPAN USING 36" BOX BEAM
2-11' LANES W/ 4' SHOULDERS
RAISE GRADE 1.5 FT

STUDY AREA APPROX. 80 FEET FROM EXISTING AND PROPOSED (ROW)

SCARIFY

PIN 134877.00
BRIDGE # 38S8051005
80' BRIDGE LENGTH
CONCRETE I BEAMS
2- 11' LANES W/ 4' SHOULDERS
FOR TWO SPAN RAISE GRADE 1'
FOR SINGLE SPAN RAISE GRADE 1.5'

STUDY AREA APPROX. 50 FEET FROM EXISTING (ROW)

STUDY AREA WITHIN EXISTING ROW

STUDY AREA 300 FEET PAST PROJECT LIMITS

EXISTING ROW

STUDY AREA APPROX. 50 FEET FROM PROPOSED (ROW)

PROPOSED ROW

OTTER CREEK

OVERFLOW

STUDY AREA APPROX. 50 FEET FROM PROPOSED (ROW)

EXISTING R.O.W.

PROPOSED R.O.W.

ENVIRONMENTAL TECHNICAL STUDY AREA

0' 200' 400' 600'

N

ENVIRONMENTAL TECHNICAL STUDY AREA

HAYWOOD COUNTY
BRIDGE OVER OTTER CREEK AND OVERFLOW
SR-180 L.M. 2.52 TO 2.81

CAUTION ! PRELIMINARY PLANS SUBJECT TO CHANGE

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

SHEET 1a-2a
S.R. 180
L.M. 2.52 to
L.M. 2.81

TENNESSEE D.O.T.
S.T.I.D.

File No.

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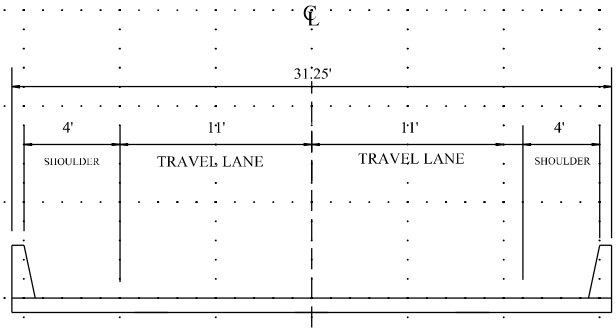
PROPOSED COMPLETED



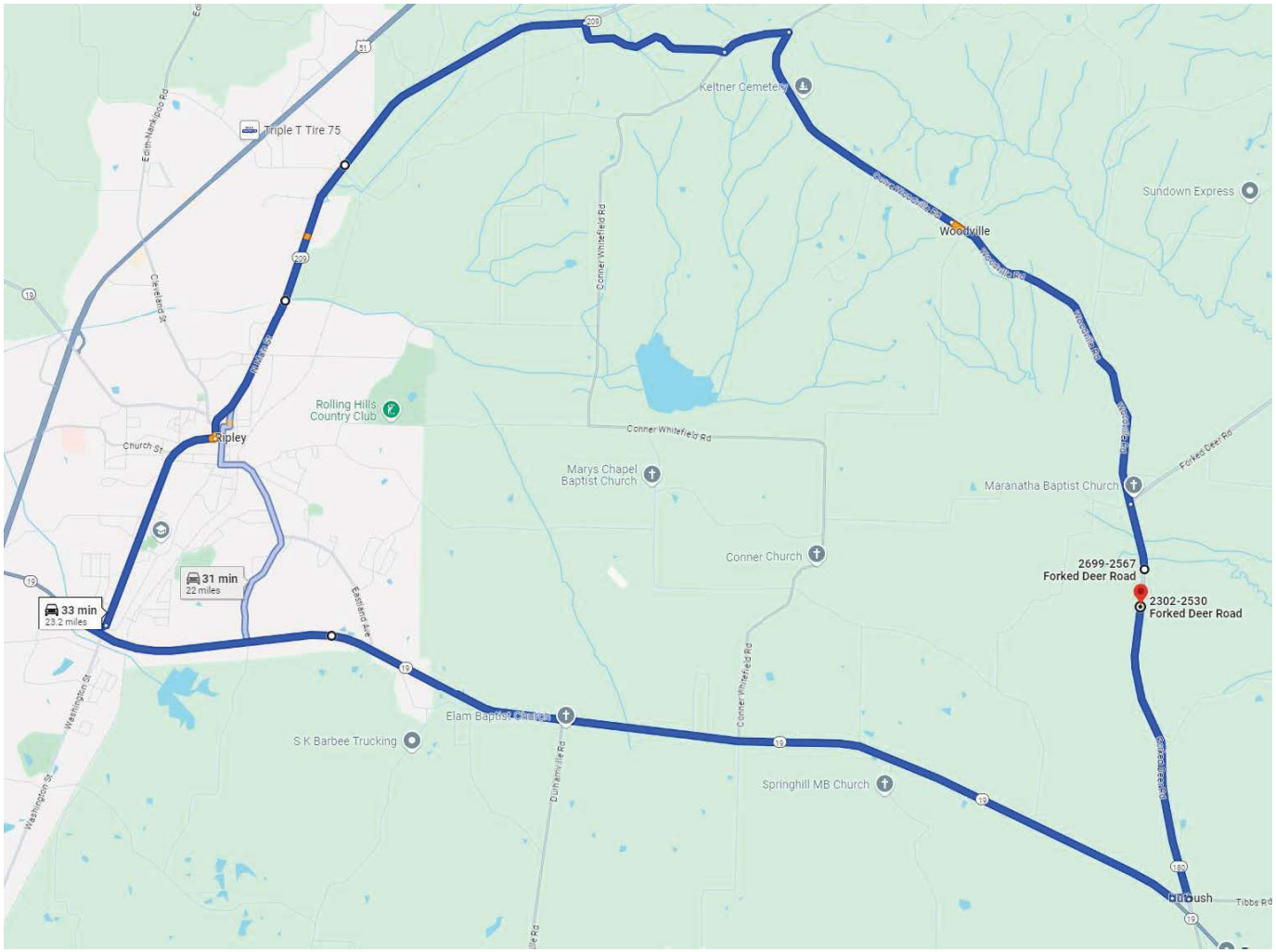
0' 5' 10' 15'

CROSS-SECTION DETAIL

REGION 4 TIMBER BRIDGE PROGRAM
TRANSPORTATION MODERNIZATION ACT (TMA)

CAUTION !
PRELIMINARY
PLANS
SUBJECT TO
CHANGE

DETOUR MAP - STATE ROUTE



DETOUR MAP - LOCAL ROUTE

CRASH SUMMARY REPORT

134876.00 Bridge over Otter Creek

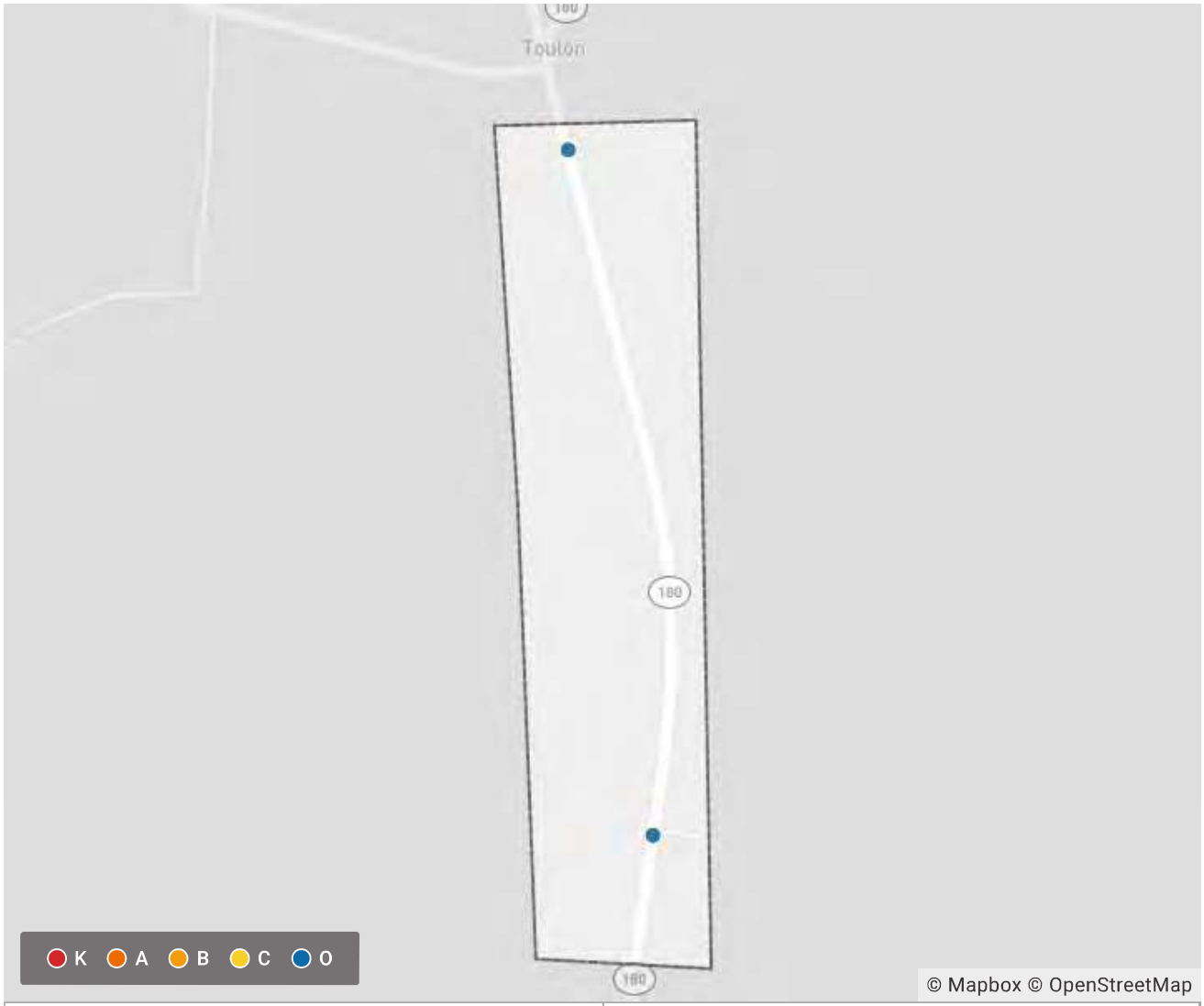
Created on October 4, 2024

Created by John Davey

~~Data extents: September 26, 2021 to September 26, 2024~~

Applied Filters

Shape: Polygon



Total Crashes	2	Fatal Crashes	0

Summary		Crash
Total Crashes	2	100.00%
Truck/Bus Involved	1	50.00%
+ 4 more	0	0%

Type of Crash	Crash	
(O) Property-Damage Only	2	100.00%
+ 4 more	0	0%

Date of Crash (Year)	Crash	
2022	2	100.00%
+ 10 more	0	0%

Manner of First Collision	Crash	
Angle	1	50.00%
No Collision W/ Vehicle	1	50.00%
+ 8 more	0	0%

First Harmful Event	Crash	
Other Non-Collision	1	50.00%
Vehicle in Transport	1	50.00%
+ 63 more	0	0%

Crash Location	Crash	
Along Roadway	2	100.00%
+ 6 more	0	0%

Light Conditions	Crash	
Dark-Not Lighted	1	50.00%
Daylight	1	50.00%
+ 6 more	0	0%

Weather Conditions	Crash	
Clear	2	100.00%
+ 11 more	0	0%

TN TDOT Department of Transportation

Asset **#38S80510003**(Routine)

Region: 04, **County:** 38 - Haywood

Team Lead: Jason Ellison, **Inspection Date:** 08/21/2023

Latitude:35.73350, Longitude:-89.41408

Region 04, 38 - Haywood County

Team Leader: Jason Ellison

Inspectors: Tonjuanita James, Stuart Wood, Nathan Bedford, Shayne Hayes, Ty Patrick

Span 3

Span 3 Pre Cast Concrete Slab C spalled to steel on Right leg

Span 3 Pre Cast Concrete Slabs A & B impending Spall

Right elevation

Bottom deck span #2

Span #2 PCCS “D” spall to steel

Span #1 PCCS “A” spall to steel

Span #1 PCCS “B” spall to steel

Approach 2 weight limit sign

Opposite direction of route

Span 3 curb spall to steel

Approach 2 asphalt

Span 3 cracks

Right side downstream

View across top deck

Span 2 spall

Span 2 post spall

Left side upstream

Span 2 cracks

Span 1 post spall

Span 1 rail damage

Span 1 crack

Bridge #

Approach 1 asphalt

Approach 1 weight limit sign

Direction of route

Abutment # 1

Bent # 1 Pile E, shakes

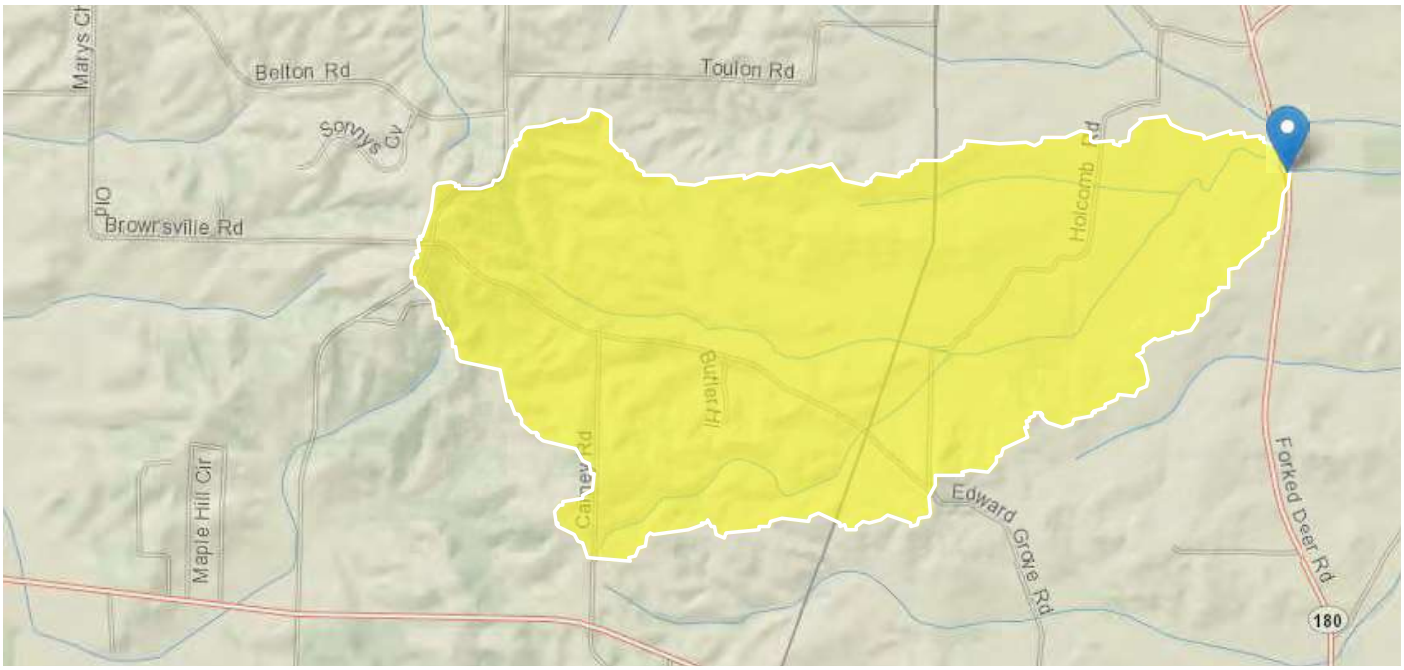
Bent # 1

Bent 2

Abutment 2

Haywood Co SR180 - Bridge over Otter Creek (LM 2.61)

Region ID: TN
Workspace ID: TN20240409150414149000
Clicked Point (Latitude, Longitude): 35.73284, -89.41391
Time: 2024-04-09 10:05:35 -0500



adjacent to Bridge over Overflow (LM 2.74)

Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
CONTDA	Area that contributes flow to a point on a stream	2.13	square miles
DRNAREA	Area that drains to a point on a stream	2.13	square miles

Peak-Flow Statistics

Peak-Flow Statistics Parameters [DAOnly Area 4]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
CONTDA	Contributing Drainage Area	2.13	square miles	0.76	2308

Peak-Flow Statistics Flow Report [DAOnly Area 4]

PIL: Lower 90% Prediction Interval, PIU: Upper 90% Prediction Interval, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	PIL	PIU	SE	ASEp	Equiv. Yrs.
50-percent AEP flood	649	ft^3/s	343	1230	38.7	38.7	1.8
20-percent AEP flood	933	ft^3/s	504	1730	37.2	37.2	2.4
10-percent AEP flood	1120	ft^3/s	599	2100	38	38	3.1
4-percent AEP flood	1340	ft^3/s	693	2590	40.1	40.1	3.8
2-percent AEP flood	1510	ft^3/s	755	3020	42.2	42.2	4.2
1-percent AEP flood	1670	ft^3/s	805	3460	44.7	44.7	4.4
0.2-percent AEP flood	2040	ft^3/s	895	4650	51.1	51.1	4.7

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/)

Maximum Probable Flood Statistics

Maximum Probable Flood Statistics Parameters [Crippen Bue Region 3]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	2.13	square miles	0.1	10000

Maximum Probable Flood Statistics Flow Report [Crippen Bue Region 3]

Statistic	Value	Unit
Maximum Flood Crippen Bue Regional	8450	ft^3/s

Maximum Probable Flood Statistics Citations

Crippen, J.R. and Bue, Conrad D.1977, Maximum Floodflows in the Conterminous United States, Geological Survey Water-Supply Paper 1887, 52p. (https://pubs.usgs.gov/wsp/1887/report.pdf)

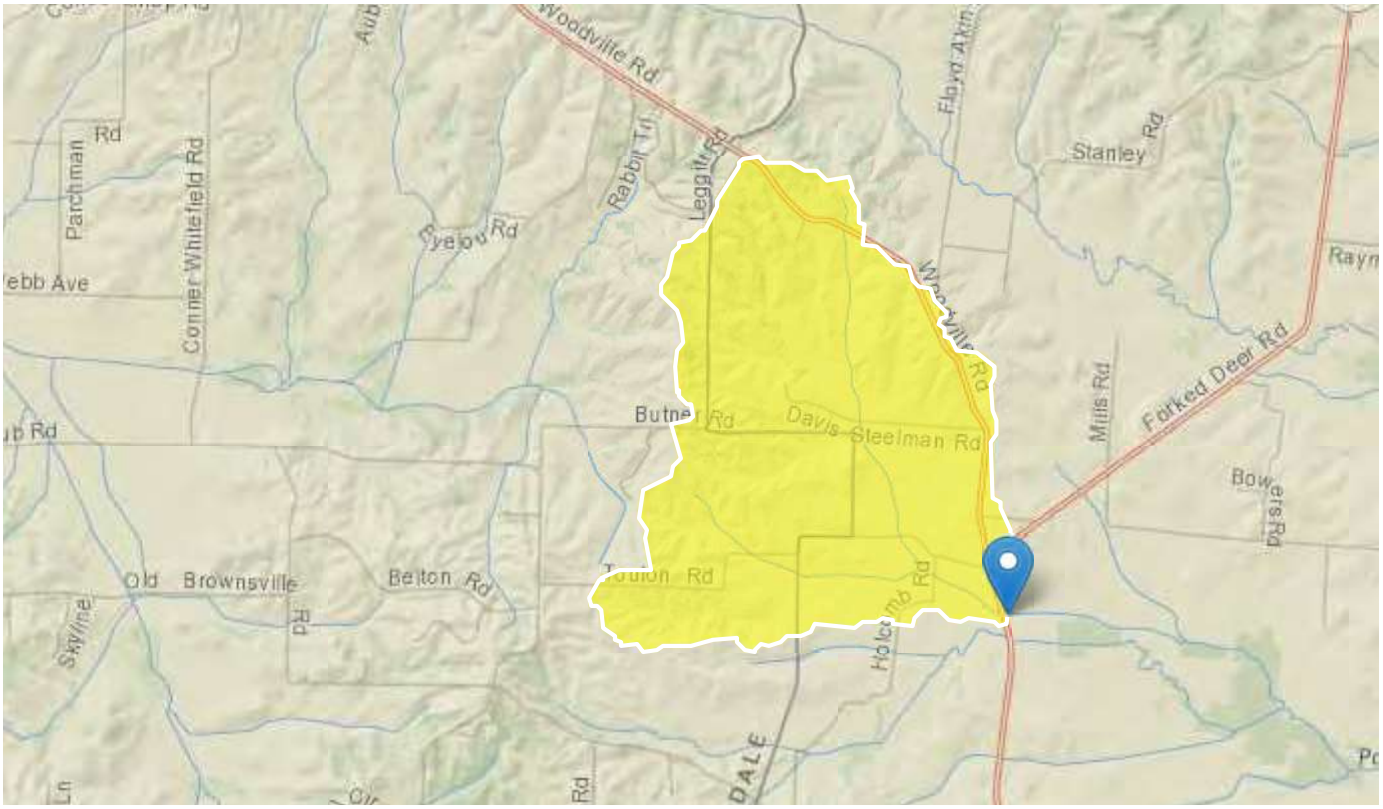
Application Version: 4.19.4

StreamStats Services Version: 1.2.22

NSS Services Version: 2.2.1

Haywood Co - Bridge over Overflow

Region ID: TN
Workspace ID: TN20230605185626067000
Clicked Point (Latitude, Longitude): 35.73472, -89.41425
Time: 2023-06-05 13:56:47 -0500



Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
CONTDA	Area that contributes flow to a point on a stream	3.15	square miles
DRNAREA	Area that drains to a point on a stream	3.15	square miles

Peak-Flow Statistics

Peak-Flow Statistics Parameters [DAOnly Area 4]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
CONTDA	Contributing Drainage Area	3.15	square miles	0.76	2308

Peak-Flow Statistics Flow Report [DAOnly Area 4]

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	SE	ASEp	Equiv. Yrs.
50-percent AEP flood	798	ft^3/s	423	1500	38.7	38.7	1.8
20-percent AEP flood	1150	ft^3/s	624	2120	37.2	37.2	2.4
10-percent AEP flood	1390	ft^3/s	746	2590	38	38	3.1
4-percent AEP flood	1680	ft^3/s	872	3240	40.1	40.1	3.8
2-percent AEP flood	1890	ft^3/s	950	3760	42.2	42.2	4.2
1-percent AEP flood	2090	ft^3/s	1010	4310	44.7	44.7	4.4
0.2-percent AEP flood	2570	ft^3/s	1130	5830	51.1	51.1	4.7

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/)

Maximum Probable Flood Statistics

Maximum Probable Flood Statistics Parameters [Crippen Bue Region 3]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	3.15	square miles	0.1	10000

Maximum Probable Flood Statistics Flow Report [Crippen Bue Region 3]

Statistic	Value	Unit
Maximum Flood Crippen Bue Regional	11400	ft^3/s

Maximum Probable Flood Statistics Citations

Crippen, J.R. and Bue, Conrad D.1977, Maximum Floodflows in the Conterminous United States, Geological Survey Water-Supply Paper 1887, 52p. (https://pubs.usgs.gov/wsp/1887/report.pdf)

Application Version: 4.15.0
StreamStats Services Version: 1.2.22
NSS Services Version: 2.2.1

TENNESSEE DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

PROJECT NO.: 38S180-S0-002 ROUTE: S.R. 180
COUNTY: HAYWOOD CITY:
PROJECT PIN NUMBER: 132421.00
PROJECT DESCRIPTION: BRIDGE AND APPROACHES OVER OTTER CREEK @ L.M. 2,74.

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
620	2028	680	88	13	2048	65-35	3	5		

REQUESTED BY: NAME MICHAEL CLOUD DATE 5/4/22
DIVISION S.T.I.D.
ADDRESS 1000 J. K. POLK BUILDING
NASHVILLE TN 37343

REVIEWED BY: RANDY BOGUSKIE Randy Boguskie DATE 5/4/2022
TRANSPORTATION MANAGER 1
SUITE 1000, JAMES K. POLK BUILDING

APPROVED BY: TONY ARMSTRONG Tony Armstrong DATE 5/4/2022
TRANSPORTATION MANAGER 2
SUITE 1000, JAMES K. POLK BUILDING

COMMENTS:

FURNISH THE 2028-2048 TRAFFIC DATA.

THIS TRAFFIC IS BASED ON A 2021 CYCLE COUNT. THE DESIGN YEAR TRAFFIC IS BASED ON 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. (REV. 6/9/21)

TN TDOT Department of Transportation

Environmental Division

0SD2 Environmental Desktop Review Form

Part 1 – Project Information

PIN	134876.00/134877.00
Project Number (if available)	
County	Haywood
Route	SR180
Termini	Bridge over Offer Creek (TMA) and Bridge over Overflow (TMA)
Type of Document	
Date ENV DIV Comments are Due	10/17/24 by 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 Haywood 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

This project is Type III in accordance with the FHWA noise regulation in 23 CFR 772 and TDOT's noise policy; therefore, a noise study is not needed.

Cultural Resources

Archaeology: No resources are within a 1 mile radius. A survey will be required.

Historic Preservation – There are previously surveyed historic/architectural resources within 0.25 miles of the proposed project. Additionally, the bridges themselves are over 50 years old. A survey will be required.

Ecology

Water resources likely within the project areas.

HazMat

No known hazardous materials sites affect the area around these bridge replacements. No additional hazardous material studies are recommended at this time. The asbestos bridge surveys have been completed and the following project commitments have been submitted in PPRM. In the event hazardous materials or wastes are encountered within the right-of-way, notification shall be made per TDOT Standard Specifications for Road and Bridge Construction (January 1, 2021) Section 107.08.C. Disposition of hazardous materials or wastes shall be subject to all applicable Federal, State, and local regulations, including the applicable sections of the Federal Resource Conservation and Recovery Act, as amended; the Comprehensive Environmental Response, Compensation, and Liability Act, as amended; and the Tennessee Hazardous Waste Management Act of 1983, as amended. Databases reviewed include Google Earth imagery, EPA National Priorities List, EPA EnviroMapper (Envirofacts), TDEC Registered Underground Storage Tanks Public Data Viewer and Data and Reports, TDEC Division of Water Resources Public Data Viewer and Oil and Gas Wells database, TDEC Division of Remediation Sites Public Data Viewer, TDOT Integrated Bridge Information System, and others, as necessary.

For PIN 134876.00

EDHZ001. An Asbestos Containing Material (ACM) survey was completed on Bridge No. 38S80510003 SR-180 over Branch LM 2.61 (38-SR180-02.61). The bridge has asbestos in the pad material between the curb and guard rail supports; approximately 25 square feet at 80% chrysotile. Please see the report for further details and photographs.

EDHZ002. 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).

For PIN 134877.00

EDHZ001. An Asbestos Containing Material (ACM) survey was completed on Bridge No. 38S80510005 SR-180 over Overflow LM 2.74 (38-SR180-02.74). The bridge has asbestos in the pad material between the curb and guard rail supports; approximately 40 square feet at 80% chrysotile. Please see the report for further details and photographs.

EDHZ002. 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

If the project remains state-funded, a TEER will be produced unless there is a federal nexus.

Based on the 2018-2022 ACS data, there are no EJ Populations.

Based on a preliminary review, there are No Section 6(f) properties within the project area.

Consider combining the ETSA boundaries from Figure 1a and Figure 2a. A single ETSA should be reasonably conservative to minimize the risk of a Reevaluation.