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	Bridge over Branch								
PIN	134883.00								
Route Information	**Route**	**NHS (Y/N)**	**Functional Class**		**City**		**County**		
	S.R. 54	No	Urban Major Collector		Brownsville		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**
	13.92		2,800	280	6.00	50	45	2029	2049
Project Description & Standard Drawings Used	The proposed bridge is to be a 56' single span bridge using 27" box beams. The typical section for the approach and bridge will be 2-11' foot travel lanes with 4' shoulders (Design Exception Required). The out-to-out width based on the above recommendations will be 31'3". The proposed grade and vertical clearance will be raised 1'. A detour is recommended. The state route detour is 52 minutes (44.8 miles) the local route detour is 9 minutes (5.7 miles). Superstructure depth is 40.75" = 27" (beam) + 10" (deck) + 3.75" (width (in inches) x0.02/2). RD11-TS-2								Project Details
Important Project History or Related Projects	The existing structure is a 3 span timber bridge, 51' long with an out-to-out width of 29'. The existing structure has 2-11' travel lanes with 2' shoulders. The listed weight limit on the inspection report is 40 tons (08/15/2023). The discharges for the drainage basin (StreamStats Version 4.19.4) for drainage area of 1.58 square miles: Q10 is 947 cfs, Q50 is 1270 cfs, and Q100 is 1400 cfs. This project is not expected to utilize federal funding.								
Project Purpose/Need	The need to replace this bridge is due to the present condition of the existing bridge: -Built in 1989 -Timber bridges are being phased out and is near the end of it's service life -Current typical section does not meet TDOT standards -Bridge is in FAIR condition								
Major Environmental Considerations	Archaeology: A survey will be required. Historic Preservation: A survey will be required. Ecology: Water resources likely within project area. Species records in vicinity of project will likely require surveys and/or time of year restrictions. NEPA: If the project remains state-funded, a TEER will be produced unless there is a federal nexus. Coordination with TDOT Civil Rights Division will be required.								

Multi-Modal Considerations	This project is in an urban 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	Approx. 0.19 acres of ROW to be acquired under the detour option. Power, Water, Sewer, and Telecom Utilities may be present. This bridge replacement should be coordinated with the replacements at L.M. 16.73 and L.M. 17.63 along SR -54. 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 14:11 CST)

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

The following individuals to execute if a bridge concept report:

Ted A Kmiazwyz

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	04/05/2024
✓		Request Project Number, PIN, and Task Profile Numbers	01/22/2024
	✓	Coordinate with Long Range Planning	
✓		Request and Finalize Traffic Data	02/21/2024
	✓	Request Preliminary Survey Data	
	✓	Initiate Division Reviews	
	✓	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	10/02/2024
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

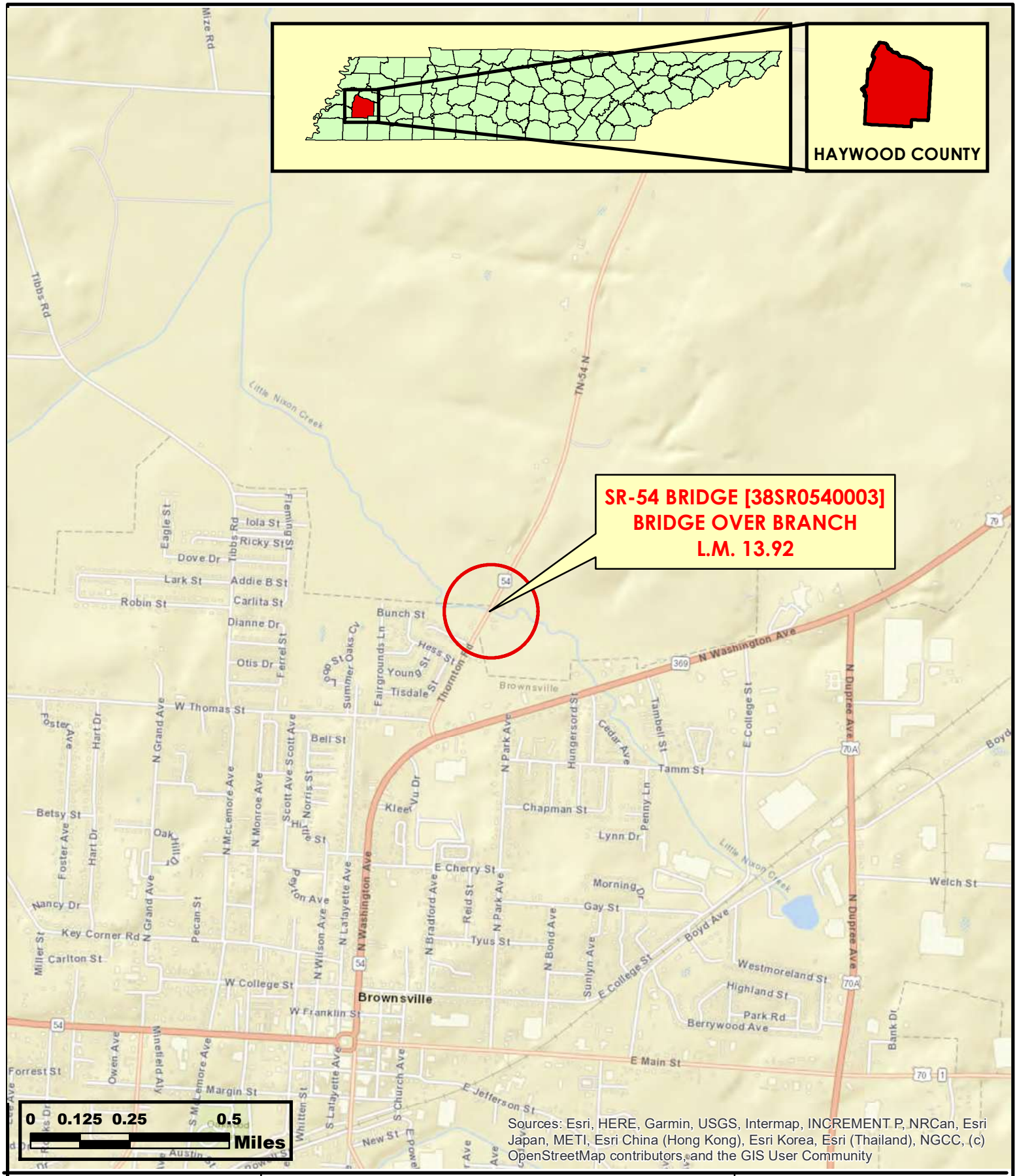
Coordinate with Long Range Planning-Long Range Planning coordination not needed for STID BCR document
Request Preliminary Survey Data- survey data not needed for STID BCR document
Schedule a site visit-site visit not required
0MM1 Conduct Multimodal Review- multimodal coordination not required
0SY1 Provide 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- 0 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



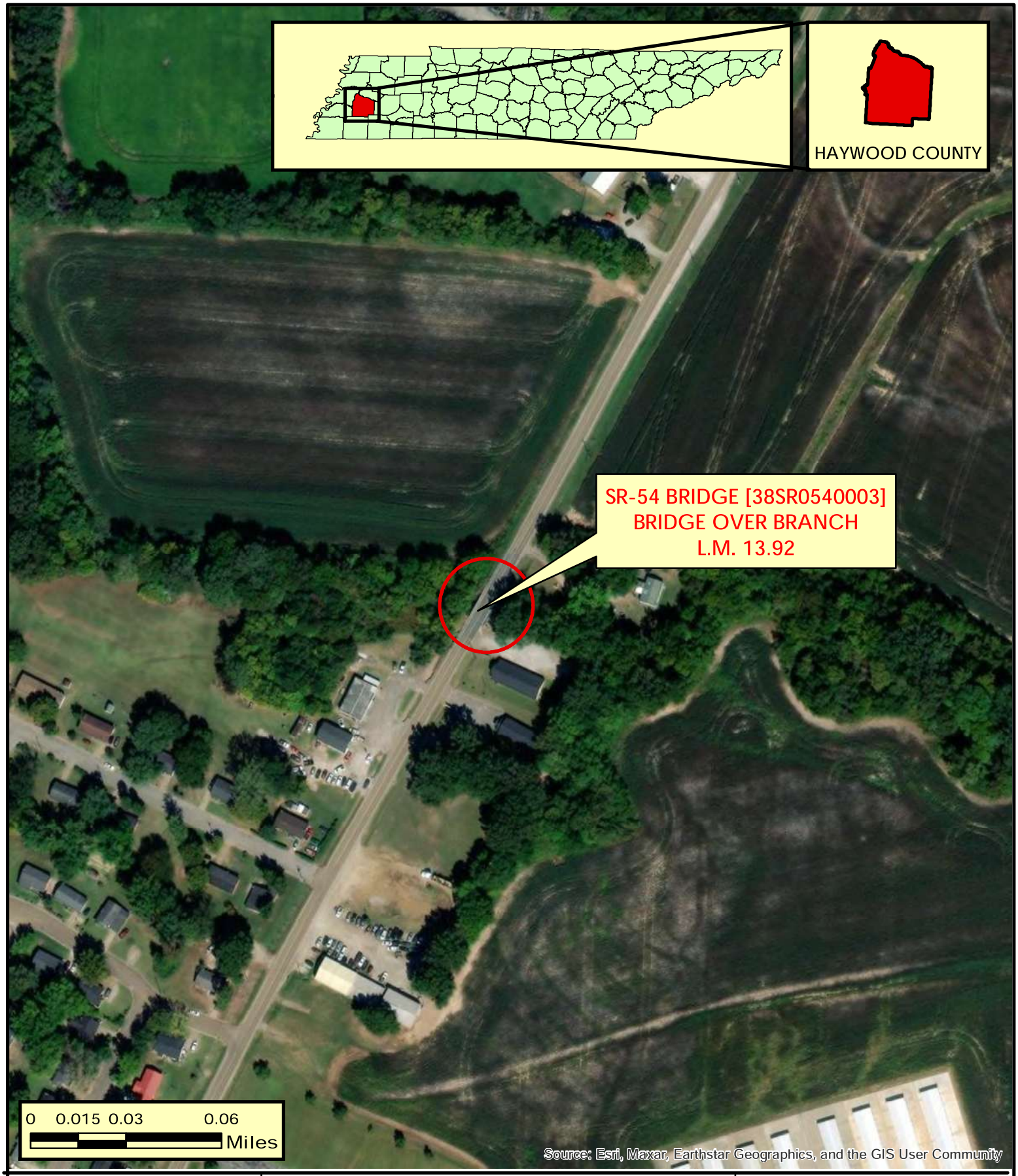
N

AREA MAP

SR-54 BRIDGE [38SR0540003]
BRIDGE OVER BRANCH
L.M. 13.92
HAYWOOD COUNTY

TN TDOT Department of Transportation

PIN 134883.00

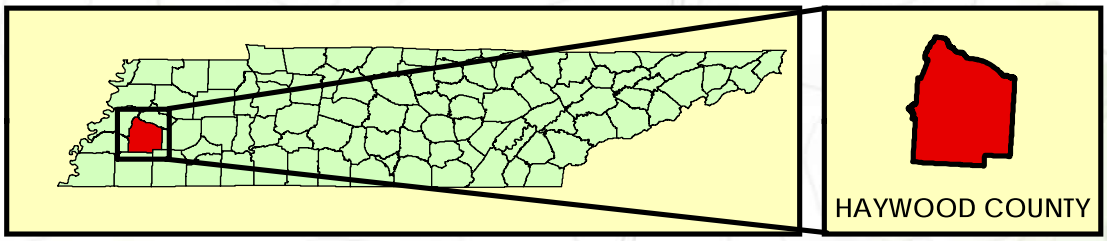


N

LOCATION MAP
SR-54 BRIDGE [38SR0540003]
BRIDGE OVER BRANCH
L.M. 13.92
HAYWOOD COUNTY

TN TDOT Department of Transportation

PIN 134883.00



SR-54 BRIDGE [38SR0540003]
BRIDGE OVER BRANCH
L.M. 13.92

Little Nixon Creek
Bunch St
Forrest Mann Cir
Hess St
Jelk St
Young St
Tisdale St
Fairgrounds Ln
Thornton Rd
Loop St
Summer Oaks Cv
Miller Rd
Fleming St
Ferrel St
Brownsville
N Washington Ave
W Thomas St
Bell St
Scott Ave
Norris St
N Lafayette Ave
N Park Ave
Tamm St
Hungerford St
Poplar Ave
Cedar Ave
Tarbell St
Bain Ave
Central Ave
Eastend Dr
Chapman St
Kleer Vu Dr
Cobb Cir
Jenny Ln
54
369
381 ft
350 ft

0 0.05 0.1 0.2 Miles

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

N

TOPOGRAPHIC MAP
SR-54 BRIDGE [38SR0540003]
BRIDGE OVER BRANCH
L.M. 13.92
HAYWOOD COUNTY

TN TDOT Department of Transportation

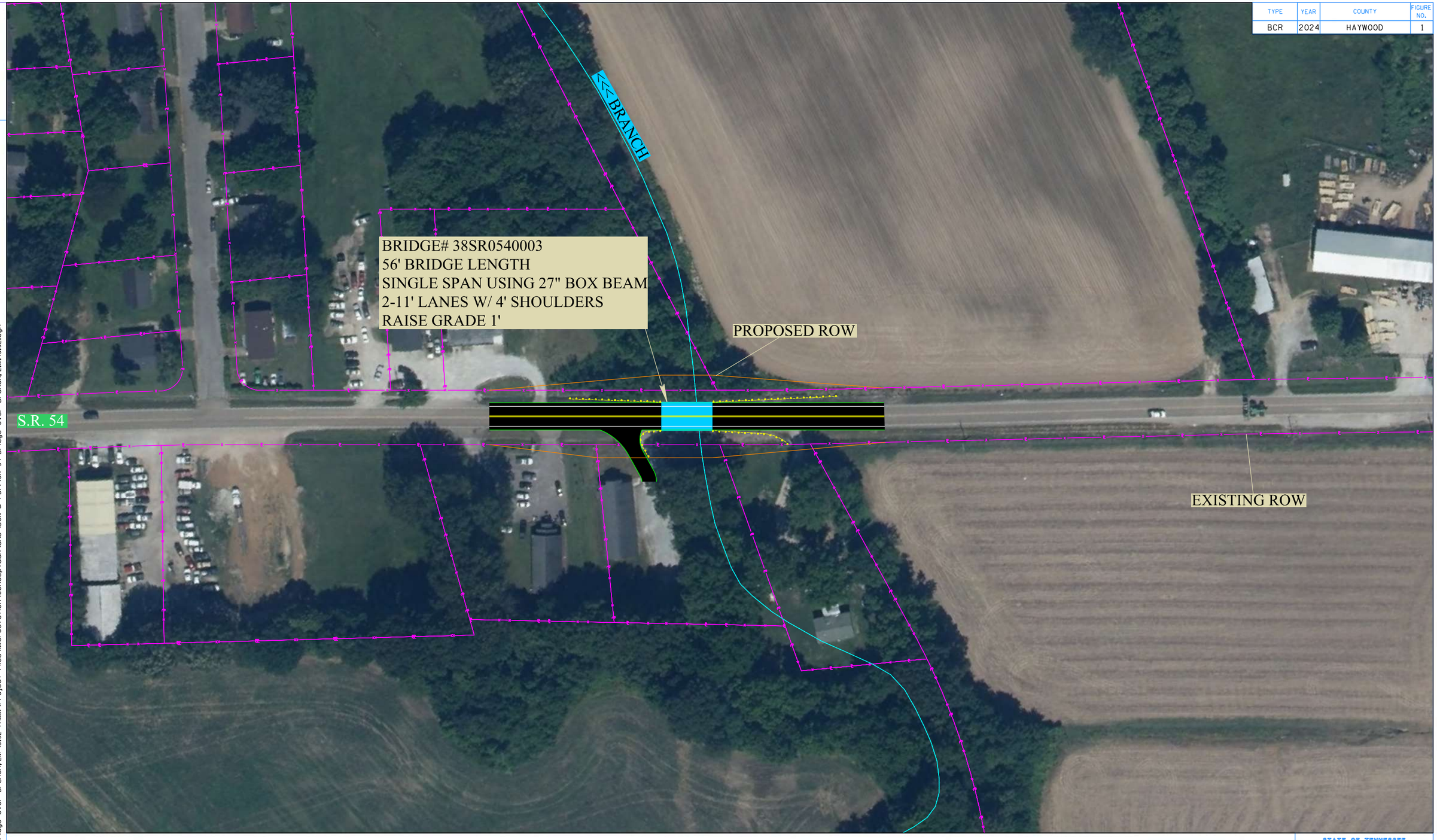
PIN 134883.00

TENNESSEE D.O.T.

S.T.I.D.

FILE NO. ——

TYPE	YEAR	COUNTY	FIGURE NO.
BCR	2024	HAYWOOD	1



0′ 100′ 200′ 300′

R4 TIMBER BRIDGE PROGRAM

STATE ROUTE 54
BRIDGE OVER BRANCH, L.M. 13.92
HAYWOOD COUNTY

CAUTION ! PRELIMINARY PLANS SUBJECT TO CHANGE

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

FIGURE 1
S.R. 54
L.M. 13.92

11/13/2024 1:50:12 PM
X:\Projects\Haywood\SR-54\Bridge over Branch, LM 13.92 (TMA)\Project Files\Microstation\Conceptual Plans (DGN & PDF)\SR 54 Bridge over Branch, L.M.13.92.dgn

TENNESSEE D.O.T.

S.T.I.D.

FILE NO. ——

TYPE	YEAR	COUNTY	FIGURE NO.
ETSA	2024	HAYWOOD	1a

0′ 100′ 200′ 300′

ENVIRONMENTAL TECHNICAL STUDY AREA

STATE ROUTE 54
BRIDGE OVER BRANCH, L.M. 13.92
HAYWOOD COUNTY

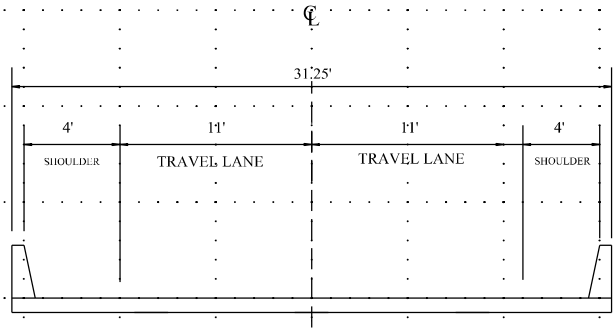
CAUTION ! PRELIMINARY PLANS SUBJECT TO CHANGE

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

FIGURE 1a
S.R. 54
L.M. 13.92

11/14/2024 2:31:55 PM
X:\Projects\Haywood\SR-54\Bridge over Branch,LM 13.92 (TMA)\Project Files\Microstation\Conceptual Plans (DGN & PDF)\ETSA_SR 54 Bridge over Branch, L.M. 13.92.dgn

PROPOSED COMPLETED



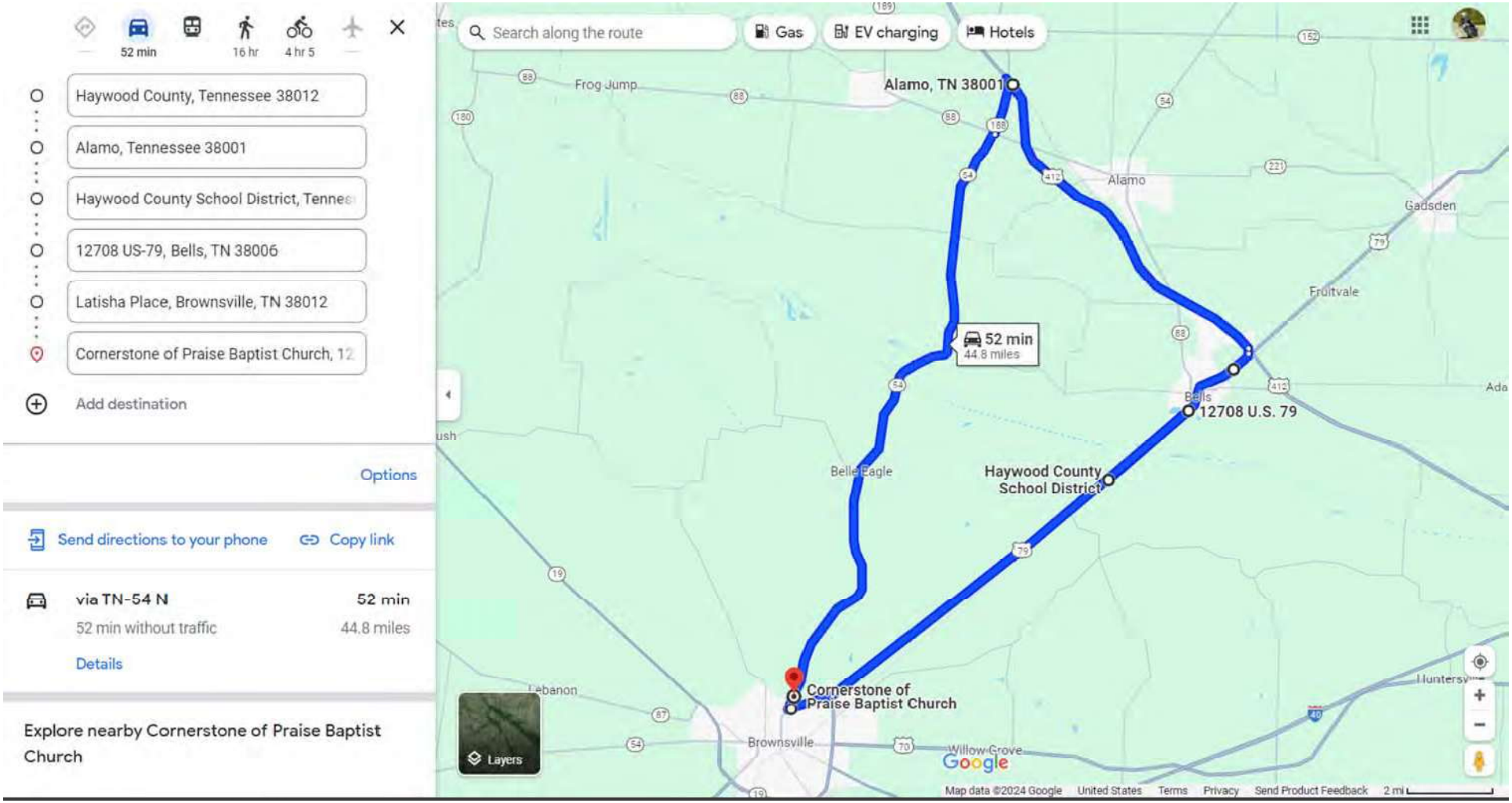
0' 5' 10' 15'

CROSS-SECTION DETAIL

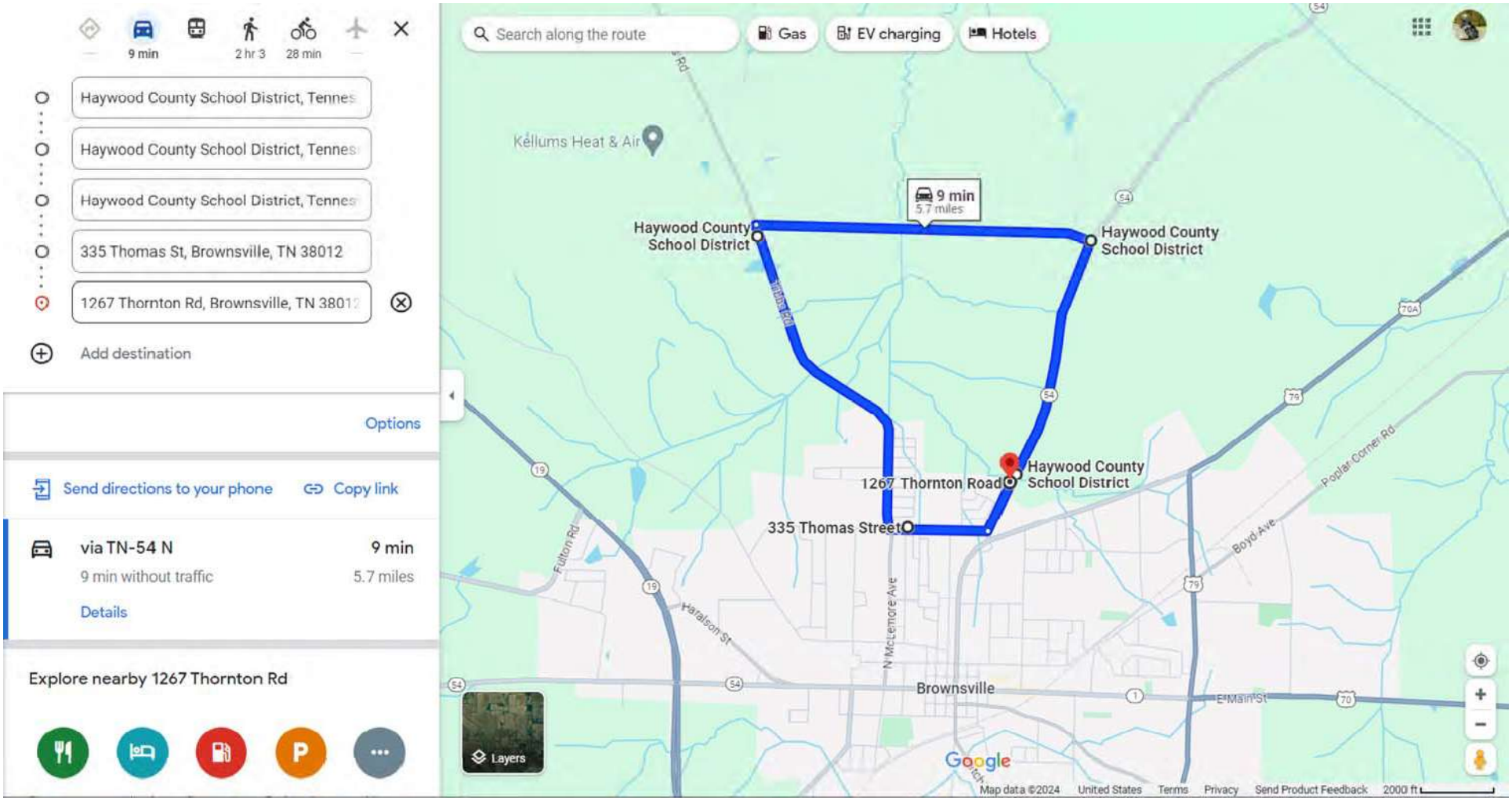
REGION 4 TIMBER BRIDGE PROGRAM
TRANSPORTATION MODERNIZATION ACT (TMA)

CAUTION !
PRELIMINARY
PLANS
SUBJECT TO
CHANGE

DETOUR MAP - STATE ROUTE



DETOUR MAP - LOCAL ROUTE



CRASH SUMMARY REPORT

Haywood SR054 - Bridge over Branch (LM 13.92)

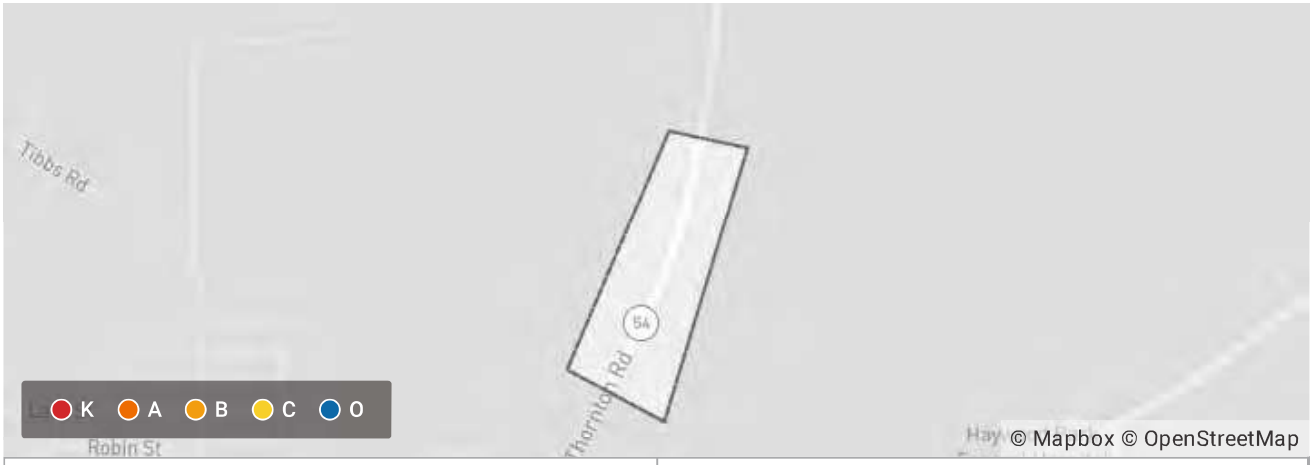
Created on April 4, 2024

Created by JOSHUA CLOUD

Data extents: March 28, 2021 to March 28, 2024

Applied Filters

County = Haywood | Shape: Polygon



Total Crashes	0	Fatal Crashes	0

Summary	Crash
+ 6 more	0

Type of Crash	Crash
+ 5 more	0

Date of Crash (Year)	Crash
+ 11 more	0

Manner of First Collision	Crash
+ 10 more	0

First Harmful Event	Crash
+ 65 more	0

Crash Location	Crash

+ 7 more	0

Light Conditions	Crash
+ 8 more	0

Weather Conditions	Crash
+ 12 more	0

TN TDOT Department of Transportation

Asset **#38SR0540003**(Routine)

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

Team Lead: Jacob Kee, **Inspection Date:** 08/15/2023

Latitude:35.60989, Longitude:-89.25681

Region 04, 38 - Haywood County

Team Leader: Jacob Kee

Inspectors: Jacob Seager, Mandy McNeal, Tyler Prince, Jacob Castellaw

Left elevation

Bent 2 front side

Bent 2 grader blade rusted in half

Abutment 2

Right elevation

Spall to steel slab C span 2

Spall to steel slab E span 2

Span 2 bottom deck

Span 1 bottom deck

Abutment 1 left end decay area

Bent 1 rear side

Abutment 1 pile D decay area. Cap above pile D decay area

Abutment 1 pile G

Abutment 1 looking back

Approach 2 pavement

Approach 2 weight limit sign

TN TDOT Department of Transportation

Asset **#38SR0540003**(Routine)
Region: 04, **County:** 38 - Haywood
Team Lead: Jacob Kee, **Inspection Date:** 08/15/2023

Opposite Direction of Route

View downstream

View upstream

View across top deck

Approach 1 pavement

Approach 1 weight limit sign

Direction of Route

Bridge number

Haywood Co SR054 - Bridge over Branch (LM 13.92)

Region ID: TN
Workspace ID: TN20240409150053638000
Clicked Point (Latitude, Longitude): 35.60979, -89.25692
Time: 2024-04-09 10:01:21 -0500

near Brownsville, TN

Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
CONTDA	Area that contributes flow to a point on a stream	1.58	square miles
DRNAREA	Area that drains to a point on a stream	1.58	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	1.58	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	555	ft^3/s	293	1050	38.7	38.7	1.8

Statistic	Value	Unit	PIL	PIU	SE	ASEp	Equiv. Yrs.
20-percent AEP flood	793	ft^3/s	427	1470	37.2	37.2	2.4
10-percent AEP flood	947	ft^3/s	505	1780	38	38	3.1
4-percent AEP flood	1140	ft^3/s	588	2210	40.1	40.1	3.8
2-percent AEP flood	1270	ft^3/s	633	2550	42.2	42.2	4.2
1-percent AEP flood	1400	ft^3/s	672	2920	44.7	44.7	4.4
0.2-percent AEP flood	1710	ft^3/s	747	3920	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	1.58	square miles	0.1	10000

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

Statistic	Value	Unit
Maximum Flood Crippen Bue Regional	6690	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

TENNESSEE DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

PROJECT NO.: 38S054-S1-002 ROUTE: S.R. 54
COUNTY: HAYWOOD CITY: BROWNSVILLE
PROJECT PIN NUMBER: 134883.00
PROJECT DESCRIPTION: BRIDGE OVER BRANCH @ L.M. 13.915

DIVISION REQUESTING:

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

YEAR PROJECT PROGRAMMED FOR CONSTRUCTION: 2029
PROJECTED LETTING DATE: 2029

TRAFFIC ASSIGNMENT:

BASE YEAR		DESIGN YEAR					DESIGN ROADWAY % TRUCKS		DESIGN AVERAGE DAILY LOADS	
AADT	YEAR	AADT	DHV	%	YEAR	DIR.DIST.	DHV	AADT	FLEX	RIGID
1,750	2029	2,800	280	10	2049	65-35	6	9		

REQUESTED BY: NAME CALEB SMITH DATE 2/15/24
DIVISION S.T.I.D.
ADDRESS 1000 J. K. POLK BUILDING
NASHVILLE TN 37243

REVIEWED BY: RANDY BOGUSKIE DATE
TRANSPORTATION MANAGER 1
SUITE 1000, JAMES K. POLK BUILDING

APPROVED BY: TONY ARMSTRONG DATE
TRANSPORTATION MANAGER 2
SUITE 1000, JAMES K. POLK BUILDING

COMMENTS:

FURNISH THE 2029-2049 TRAFFIC DATA.

THIS TRAFFIC IS BASED ON A 2023 CYCLE COUNT. THE DESIGN YEAR TRAFFIC IS BASED ON GROWTH RATE FROM THE TN-TIMES LINEAR REGRESSION TOOL.

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)

From: Wesley Peck
To: David A. Duncan
Subject: RE: Timber Bridge List - 7-29-2024.xlsx
Date: Friday, August 23, 2024 3:46:06 PM
Attachments: image001.png

Dave,

This should be the last of the timber hydraulic recommendations. If I have missed any, please let me know.

- PIN 134884.00: 50 ft single span using 24" box beam. Raise grade 1.5 ft. Appears to be acting as overflow to Nixon Creek. Survey should include both floodplains and structures. Proposed ROW and ETSA to include limits of riprap in channel and on banks.
- PIN 134885.00: 45 ft single span using 24" box beam. Raise grade 2.0 ft. Proposed ETSA and ROW to include channel 20 ft downstream of confluence of ditches on west side, as well as US limits of any riprap in channel.
- PIN 134883.00: 56 ft single span using 27" box beam. Raise grade 1.0 ft. FEMA Zone AE without floodway but potential structures in floodplain upstream so no-rise certification will be required. Survey should include floor elevations for buildings in immediate vicinity of structure. Inspection report photos show exposed utility in upstream channel and another under bridge running between piles. Utility under structure should be relocated.
- PIN 134876.00: 75 ft single span using 36" box beam. Raise grade 1.5 ft. Prop ETSA and ROW should include channel 10 ft up and downstream of existing riprap limits.
- PIN 134878.00: 70' single span using 36" deep box beam. Raise grade 1.5 ft. Include limtis of riprap in channel in proposed ROW and ETSA.
- PIN 134879.00: 100 ft single span using type IV eye beam or BT-54. Raise grade 1 ft. Include channel and banks in proposed ROW and ETSA boundary to limits of existing riprap.
- PIN 134882.00: 60 ft single span using 30" Box beam. Maintain existing grade. If grade increase is feasible with RR crossing adjacent, could use type II or III eye beam instead. Prop additional length should be as symetrical around channel as feasible with adjacent RR crossing. **This channel appears to be actively lowering over time.**

Thanks.

Wesley Peck, PE, MS | Manager
Hydraulic Design Section | Structures Division
James K Polk Building, 11th Floor
505 Deaderick St, Nashville, TN 37243-0338
p. 615-532-5660
Wesley.Peck@tn.gov
tn.gov/tdot
Follow TDOT: Facebook | X | Instagram | LinkedIn

TN TDOT Department of Transportation

Environmental Division

0SD2 Environmental Desktop Review Form

Part 1 – Project Information

PIN	134883.00
Project Number (if available)	
County	Haywood
Route	SR54
Termini	Bridge over Branch (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 previously recorded sites and one previously surveyed area. A survey will be required.

Historic Preservation: There are no previously surveyed resources within a .25-mi. radius of the bridge to be replaced. Surveys will be required.

Ecology

Water resources likely within project area. Species records in vicinity of project will likely require surveys and/or time of year restrictions.

HazMat

No known hazardous materials sites affect the area around this bridge replacement. No additional hazardous material studies are recommended at this time. The asbestos bridge survey has been completed and the following project commitment has 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.

EDHZ001. An Asbestos Containing Material (ACM) survey was completed on Bridge No. 38SR0540003 SR-54 over Branch LM 13.92 (38-SR054-13.92). 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).

NEPA

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

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

Based on 2022 ACS data, CT 9303.01, BG 1 is a low-income EJ population. CT 9303.01, BG 1 and CT 9303.02, BG 2 are minority EJ populations. Coordination with TDOT Civil Rights Division will be required. No delay to schedule is expected.

Comment Resolution: 134883.00, Haywood, SR 54, Bridge over Branch (TMA)						
Comment Stage	**Division**	**Commenter**	**Date**	**Comment**	**Comment Addressed?**	**Additional Notes**
Draft Report Review (0SD2)	Alternative Delivery	Derek Link	10/8/2024	Is there supposed to be a full 4' shoulder crossing the bridge? If so measure the 4' from toe of parapet wall instead of top.	Yes	This report was initiated prior to the revision of the applicable standards. The budget for the timber bridge program was developed based on the previous standards. There is an increase in shoulder width from existing, and no crash issues exist at this location. However, further refinement of the cross-section design will be addressed in Phase 1 of the project.
Draft Report Review (0SD2)	Alternative Delivery	Derek Link	10/8/2024	Guardrail depicted in the SE corner is extending past the proposed ROW limits. If proposing to extend to this point will easement be required?	Yes	The guardrail will stay within TDOT's ROW.
Draft Report Review (0SD2)	Alternative Delivery	Derek Link	10/8/2024	I looks like sewer is also present. There is a sewer manhole sign in the front yard that is in the NE corner by the bridge.	Yes	Utilities divison has completed a preliminary cost estimate. Further investigation into affected utilities will be conducted during Stage 1.
Draft Report Review (0SD2)	Alternative Delivery	Derek Link	10/8/2024	Just North of the bridge there is a reduce speed warning sign to 45 mph (W3-5). Concept report lists a design speed of 35 with posted at 30mph. Should design speed be increased?	Yes	Concept and report have been updated.
Draft Report Review (0SD2)	Alternative Delivery	Derek Link	10/8/2024	If parapet walls are used will there be enough length needed to place the bridge end guardrail and type in-line terminal before wrapping the rail down the church drive? Standards S-PL-3 and S-GRA-4	Yes	Guardrail has been adjusted to standards S-PL-3 and S-GRA-4
Draft Report Review (0SD2)	Alternative Delivery	Derek Link	10/8/2024	Page 1 - change Route to SR-54	Yes	Changed in the report.
Draft Report Review (0SD2)	Environmental	Michael Jeu	10/11/2024	Cultural Resources (Archaeology): No previously recorded sites and one previously surveyed area. A survey will be required.	Yes	Noted in the report.
Draft Report Review (0SD2)	Project Development	Larry Brasher	10/15/2024	Why not increase the traveled way width to 24' and have 2' shoulders?	Yes	There is an increase in shoulder width from existing, and no crash issues exist at this location. However, further refinement of the cross-section design will be addressed in Phase 1 of the project.

Comment Stage	Division	Commenter	Date	Comment	Comment Addressed?	Additional Notes
Draft Report Review (0SD2)	Environmental	Kate Landers	10/16/2024	NEPA: If the project remains state-funded, a TEER will be developed unless there is a federal nexus. Based on a preliminary review, there are no Section 6(f) properties within the project area. Based on 2022 ACS data, CT 9303.01, BG 1 is a low-income EJ population. CT 9303.01, BG 1 and CT 9303.02, BG 2 are minority EJ populations. Coordination with TDOT Civil Rights Division will be required.	Yes	Noted in the report.
Draft Report Review (0SD2)						
Draft Report Review (0SD2)						
Draft Report Review (0SD2)						
Draft Report Review (0SD2)						
Draft Report Review (0SD2)						
Draft Report Review (0SD2)						
Draft Report Review (0SD2)						
Draft Report Review (0SD2)						
Draft Report Review (0SD2)						
Draft Report Review (0SD2)						
Draft Report Review (0SD2)						
Draft Report Review (0SD2)						
Draft Report Review (0SD2)						
Draft Report Review (0SD2)						
Draft Report Review (0SD2)						
Draft Report Review (0SD2)						
Draft Report Review (0SD2)						
Draft Report Review (0SD2)						
Draft Report Review (0SD2)						