

Bridge Design Speed Investigation

Bridge #305 on SR 1503 (Liner Creek Road) over Liner Creek
Haywood County



Document Prepared By:

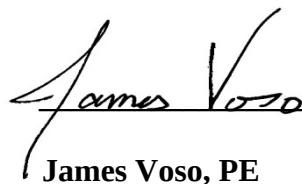
Mattern & Craig, Inc.
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Commission No: 3356

June 26, 2013



Investigating Engineer


James Voso, PE

Bridge and Approach Investigation Checklist

Project 17BP.14.PE.1
Description Replace Bridge #305 on SR 1503 (Liner Creek Road) over Liner Creek
Route SR 1503 (Liner Creek Road)
Division 14
County Haywood

Existing Speed Limit 40 mph ☐ Posted ☐ Statutory

Reasonable & Comfortable
Passenger Car Speed 30 mph

Speed Data N/A

Ball Bank Speed Study Curve north of Bridge #305 had a ball bank indication of 4 at 25 mph.

Warning Signs at Bridge 4 Bridge End Delineators, Weight Limit not posted

Roadside Development Residence in southwest quadrant of bridge. Farm land in northwest quadrant of bridge. Wooded east of bridge.

ADT History 540 (2010), 500 (2008), 580 (2006), 520 (2004), 580 (2002), 520 (2001), 450 (1999)

Pedestrian/Bicycle Traffic Low

Bridge and Approach
Digital Photos (attached)

Approach Lane Width 8'

Approach Shoulder Width: 8.5'
Shoulder Type grass

Lane Width (existing bridge) 9'

Shoulder width (existing bridge) 2'

Strategic Corridor / Thoroughfare
Designation and Recommended
Cross Section Not a Strategic Corridor/Thoroughfare. Two lane cross section at 25 mph based on 3R guidelines.

Crash History and
Safety Considerations No crashes reported near bridge (4/1/2003 - 3/31/2013, 10 years).

Comments Driveway at southern terminus of bridge. Bridge number posted on bridge.
Bridge located in a slight horizontal curve that does not affect travel speed.
However, nearby curves affect travel speed across bridge.

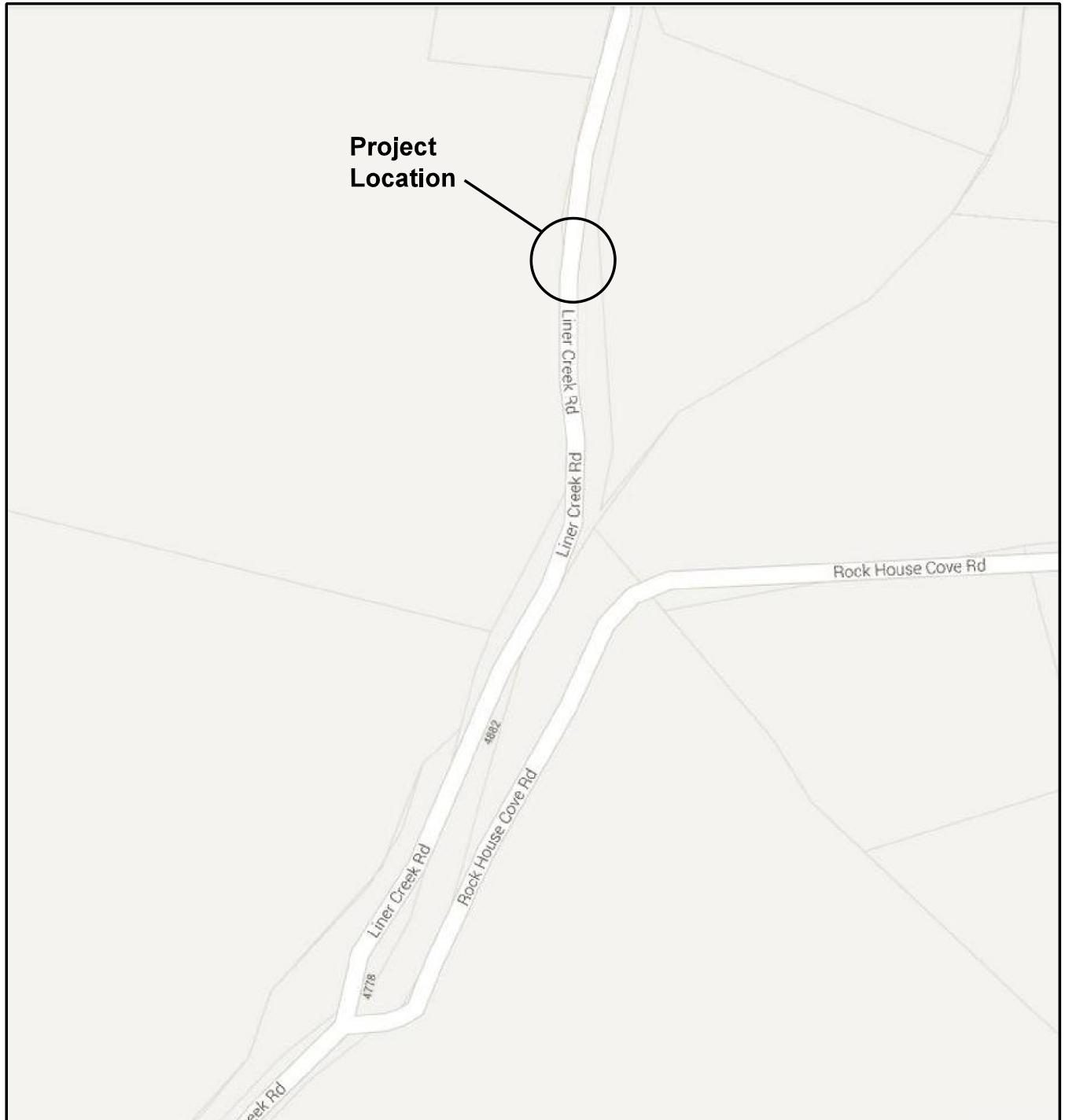
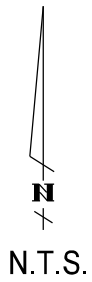
Reasonable Bridge Speed 30 mph

Investigated by: Mathew Bolden Reviewed by: James Voso

Bridge #305

Haywood County

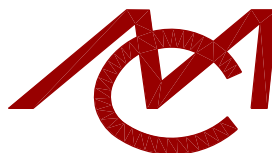
Division 14



Project
Location

VICINITY MAP

Bridge #305 on SR 1503
(Liner Creek Road)
over Liner Creek



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Bridge #305
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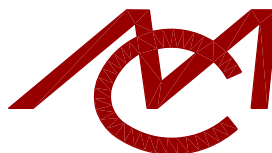


Northbound Approach



Northbound Approach at bridge

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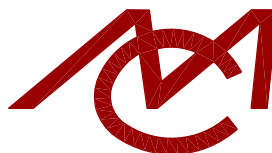


Southbound Approach



Southbound Approach at bridge

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**North Carolina Department of Transportation
Traffic Engineering Accident Analysis System
Strip Analysis Report**

Study Criteria Summary

County: HAYWOOD **City:** All and Rural
Date: 4/1/2003 **to** 3/31/2013 **Study:** HAYWOODBRIDGE305
Location: SR 1503 (Upper Crabtree Rd) from 500 feet west of Bridge 305 to 500 feet east of the bridge

Report Details

Study Criteria

Study Name	Log No.	PH No.	TIP No.	K/A Cf.	B/C Cf.	ADT	ADT Route
HAYWOODBRIDGE305				76.8	8.4	500	40001503

Request Date	Courier Service	Phone No.	Ext.	Fax No.
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County			Municipality					
Name	Code	Div.	Name	Code	Y-Line Ft.	Begin Date	End Date	Years
HAYWOOD	43	14	All and Rural		0	4/1/2003	3/31/2013	10.00

Location Text	Requestor
SR 1503 (Upper Crabtree Rd) from 500 feet west of Bridge 305 to 500 feet east of the bridge	

Fiche Roads	
Name	Code
SR 1503	40001503
UPPER CRABTREE	50031364
LINER	50017737

Strip Road					
Name	Code	Begin MP	End MP	Miles	Kilometers
SR 1503	40001503	5.092	5.284	0.192	0.309