

Bridge Design Speed Investigation

Bridge #273 on SR 1346 (White Oak Road) over Messer Branch
Haywood County



Document Prepared By:

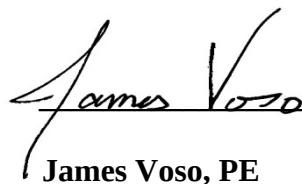
Mattern & Craig, Inc.
Consulting Engineers - Surveyors
12 Broad Street
Asheville, NC 28801
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Commission No: 3356

June 28, 2013



Investigating Engineer


James Voso, PE

Bridge and Approach Investigation Checklist

Project 17BP.14.PE.1
Description Replace Bridge #273 on SR 1346 (White Oak Road) over Messer Branch
Route SR 1346 (White Oak Road)
Division 14
County Haywood

Existing Speed Limit 25 mph ☒ Posted ☐ Statutory

Reasonable & Comfortable
Passenger Car Speed 20 mph

Speed Data N/A

Ball Bank Speed Study Curve west of Bridge #273 had a ball bank indication of 15 at 20 mph.

Warning Signs at Bridge 4 Bridge End Delineators, Weight Limit (26 tons - single vehicle,
Legal Gross Weight - truck tractor semitrailer)

Roadside Development Farm land in northeast quadrant of bridge. Wooded in all other
quadrants of bridge.

ADT History 220 (2000)

Pedestrian/Bicycle Traffic Low

Bridge and Approach
Digital Photos (attached)

Approach Lane Width 10'

Approach Shoulder Width: 6'
Shoulder Type grass

Lane Width (existing bridge) 9'

Shoulder width (existing bridge) 4.5'

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 Farm access located near east end of bridge. Bridge number posted on
bridge.

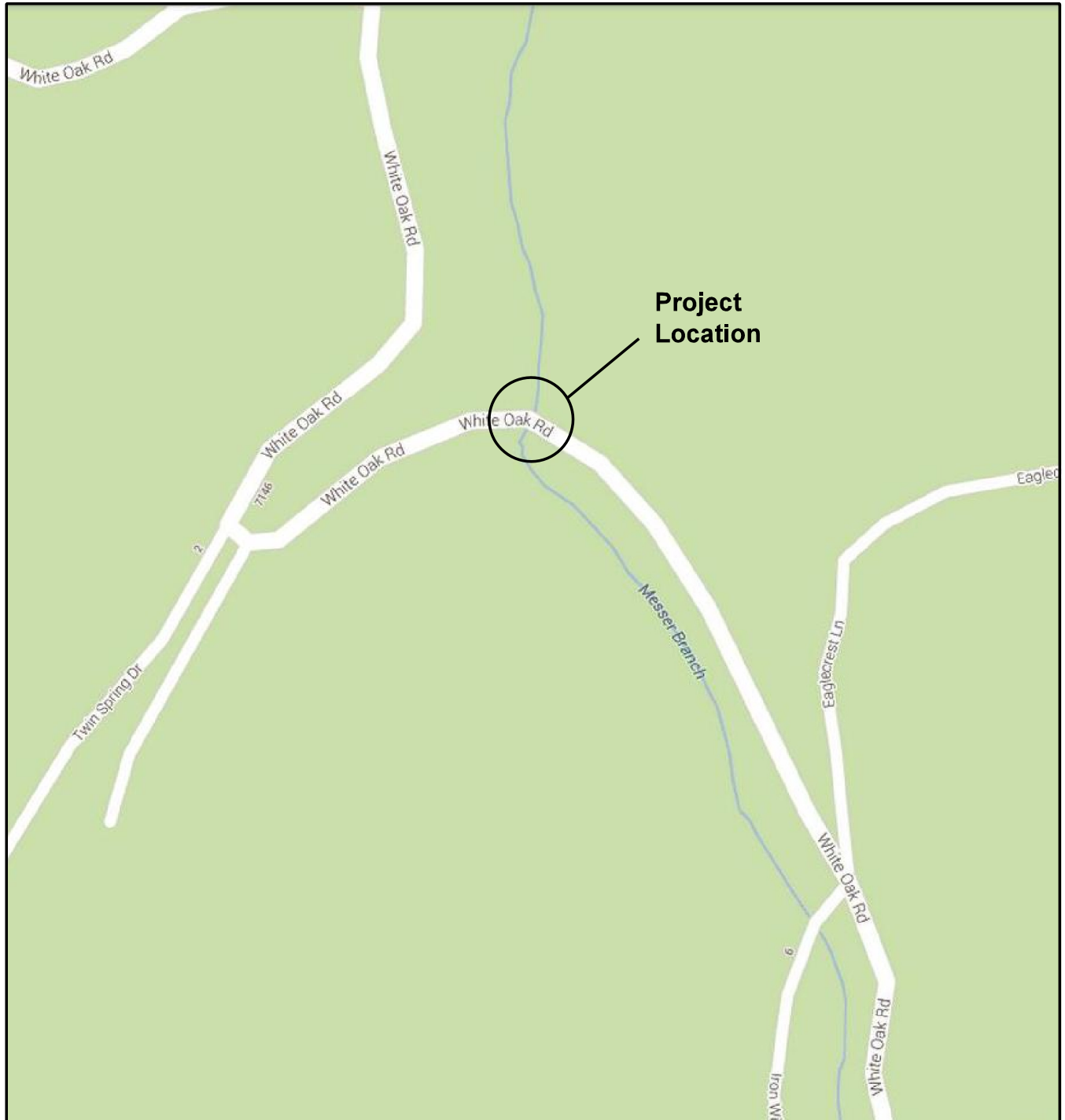
Reasonable Bridge Speed 25 mph

Investigated by: Mathew Bolden Reviewed by: James Voso

Bridge #273

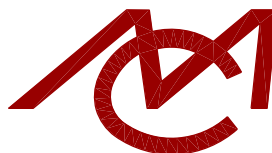
Haywood County

Division 14



VICINITY MAP

Bridge #273 on SR 1346
(White Oak Road)
over Messer Branch



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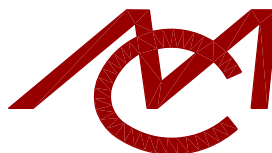


Eastbound Approach



Eastbound Approach at bridge

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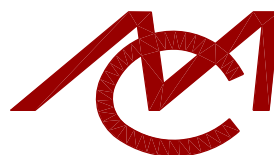


Westbound Approach



Westbound 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:** HAYWOODBRIDGE273
Location: SR 1346 (Stevens Creek Rd) from 500 feet west of Bridge 273 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
HAYWOODBRIDGE273				76.8	8.4	220	40001346

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 1346 (Stevens Creek Rd) from 500 feet west of Bridge 273 to 500 feet east of the bridge	

Fiche Roads	
Name	Code
SR 1346	40001346
WHITE OAK	50032752
STEVEN	50029160

Strip Road					
Name	Code	Begin MP	End MP	Miles	Kilometers
SR 1346	40001346	1.146	1.338	0.192	0.309