

Bridge Design Speed Investigation

Bridge #172 on SR 1713 (Depriest Road) over Hunting Creek
Rutherford County



Document Prepared By:

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Commission No: 3350

July 18, 2013



Investigating Engineer


James Voso, PE

Bridge and Approach Investigation Checklist

Project 17BP.13.PE.1
Description Replace Bridge Bridge #172 on SR 1713 (Depriest Road) over Hunting Creek
Route SR 1713 (Depriest Road)
Division 13
County Rutherford

Existing Speed Limit 55 mph ☐ Posted ☒ Statutory

Reasonable & Comfortable
Passenger Car Speed 40 mph

Speed Data N/A

Ball Bank Speed Study Curve east of Bridge #172 had a ball bank indication of 5 at 40 mph.

Warning Signs at Bridge 4 Bridge End Delineators, Weight Limit (14 tons - single vehicle,
21 tons - truck tractor semitrailer)

Roadside Development Residences west of bridge. Farm land in northeast quadrant of bridge.
Wooded in southeast quadrant of bridge.

ADT History 240 (2011), 330 (2009), 280 (2007), 290 (2005), 300 (2003), 290 (2001),
300 (1999)

Pedestrian/Bicycle Traffic Low

Bridge and Approach
Digital Photos (attached)

Approach Lane Width 9'

Approach Shoulder Width: 8'
Shoulder Type grass

Lane Width (existing bridge) 9'

Shoulder width (existing bridge) 4'

Strategic Corridor / Thoroughfare
Designation and Recommended
Cross Section Not a Strategic Corridor/Thoroughfare. Two lane cross section at 45
mph based on 3R guidelines.

Crash History and
Safety Considerations No crashes reported near bridge (5/1/2003 - 4/30/2013, 10 years).

Comments Curves in the vicinity of the bridge do not affect travel speed across the
bridge due to horizontal alignment of curves and distance from the bridge.
Bridge number posted on bridge. Driveways near west end of bridge.

Reasonable Bridge Speed 45 mph

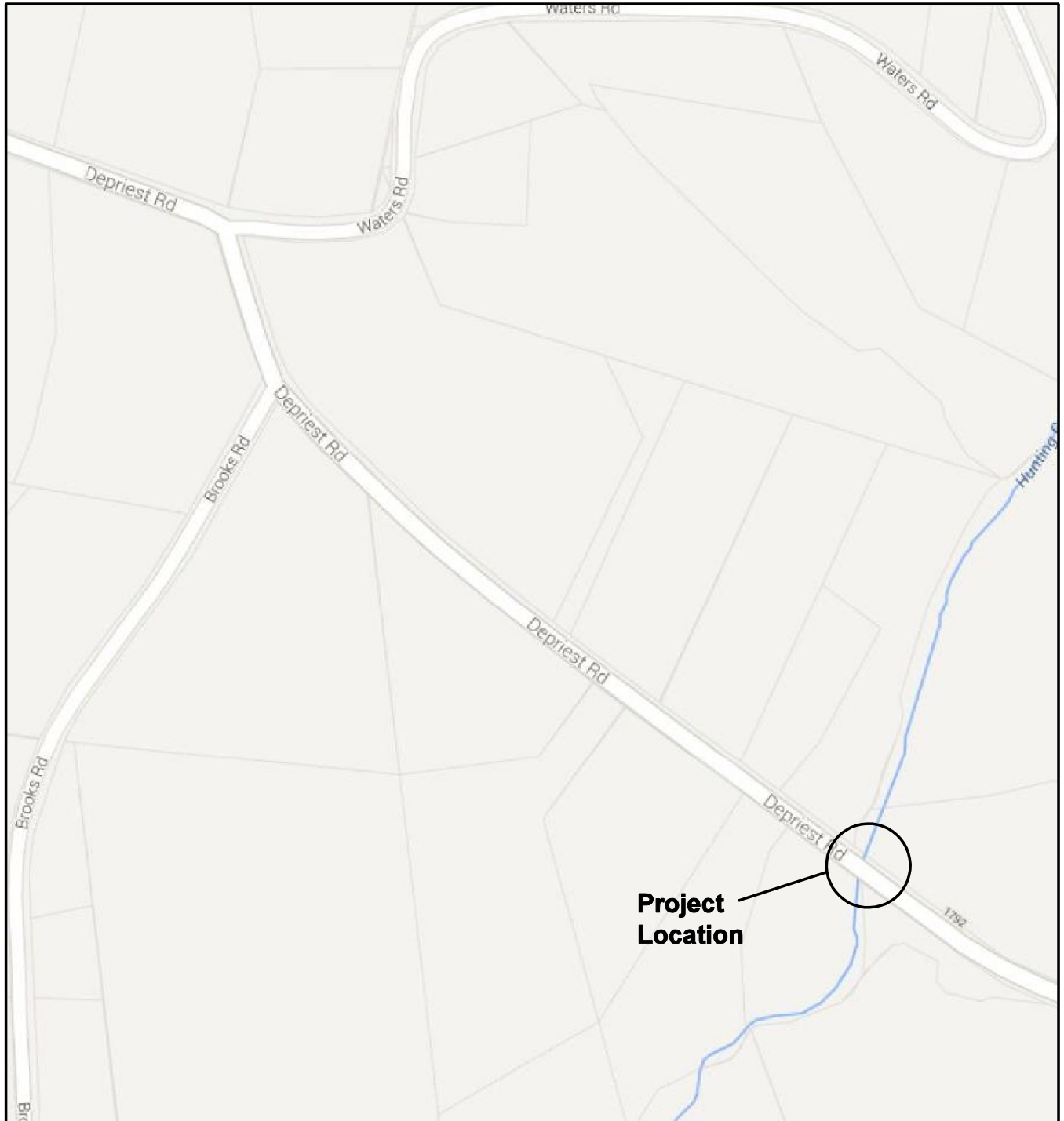
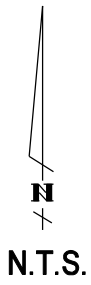
Investigated by: Mathew Bolden

Reviewed by: James Voso

Bridge #172

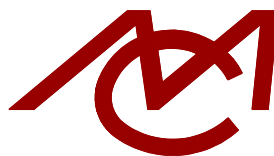
Rutherford County

Division 13



VICINITY MAP

Bridge #172 on SR 1713
(Depriest Road)
over Hunting Creek



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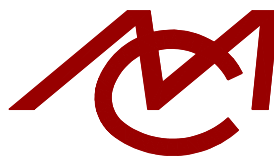


Eastbound Approach



Eastbound Approach at bridge

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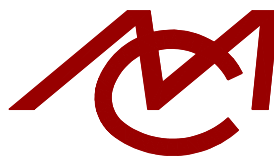


Westbound Approach



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: RUTHERFORD **City:** All and Rural
Date: 05/01/2003 **to** 04/30/2013 **Study:** RUTHERFORDBRIDGE172
Location: SR 1713 (Depriest Rd) from 500 feet east of Bridge 172 to 500 feet west of the bridge

Report Details

Study Criteria

Study Name	Log No.	PH No.	TIP No.	K/A Cf.	B/C Cf.	ADT	ADT Route
RUTHERFORDBRIDGE172				76.8	8.4	305	40001713

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
RUTHERFORD	80	13	All and Rural		0	05/01/2003	04/30/2013	10.00

Location Text	Requestor
SR 1713 (Depriest Rd) from 500 feet east of Bridge 172 to 500 feet west of the bridge	

Fiche Roads	
Name	Code
SR 1713	40001713
ED	50009311
MOUNTAIN	50020743
DEPRIEST	50008303

Strip Road					
Name	Code	Begin MP	End MP	Miles	Kilometers
SR 1713	40001713	5.482	5.682	0.200	0.322