

Bridge Design Speed Investigation

Bridge #94 on SR 1755 (John Stroud Road) over Hinton Creek
Rutherford County



Document Prepared By:

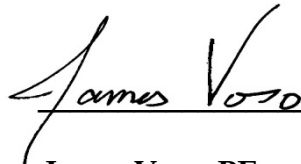
Mattern & Craig, Inc.
Consulting Engineers - Surveyors
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Commission No: 3350

July 22, 2013



Investigating Engineer


James Voso, PE

Bridge and Approach Investigation Checklist

Project 17BP.13.PE.1
Description Replace Bridge #94 on SR 1755 (John Stroud Road) over Hinton Creek
Route SR 1755 (John Stroud Road)
Division 13
County Rutherford

Existing Speed Limit 55 mph ☐ Posted ☒ Statutory

Reasonable & Comfortable
Passenger Car Speed 10 mph

Speed Data N/A

Ball Bank Speed Study Curve west of Bridge #94 had a ball bank indication of 7 at 10 mph.

Warning Signs at Bridge 4 Bridge End Delineators, Weight Limit (17 tons - single vehicle,
21 tons - truck tractor semitrailer), One Lane Bridge warning sign

Roadside Development Wooded in all quadrants of the bridge.

ADT History Not available

Pedestrian/Bicycle Traffic None

Bridge and Approach
Digital Photos (attached)

Approach Lane Width 8.5'

Approach Shoulder Width: 6'
Shoulder Type grass

Lane Width (existing bridge) 9' one lane

Shoulder width (existing bridge) 2'

Strategic Corridor / Thoroughfare
Designation and Recommended
Cross Section Not a Strategic Corridor/Thoroughfare. Two lane cross section at 15
mph based on 3R guidelines.

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

Comments Access road located at the west end of the bridge. Bridge number
posted on bridge. Bridge located along a gravel road.

Reasonable Bridge Speed 15 mph

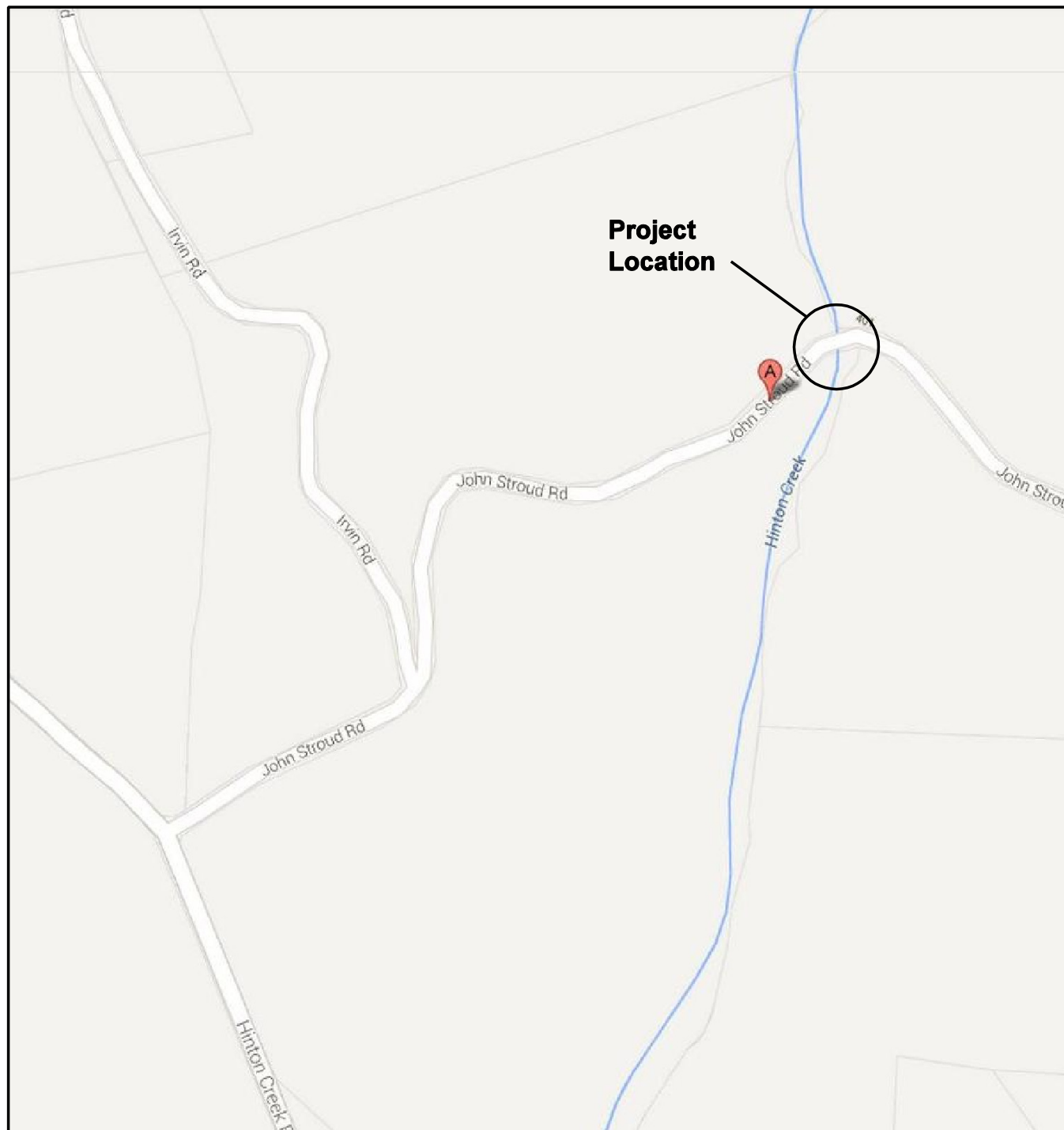
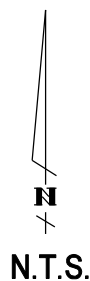
Investigated by: Mathew Bolden

Reviewed by: James Voso

Bridge #94

Rutherford County

Division 13



VICINITY MAP

Bridge #94 on SR 1755
(John Stroud Road)
over Hinton Creek



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Bridge #94
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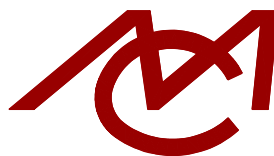


Eastbound Approach



Eastbound Approach at bridge

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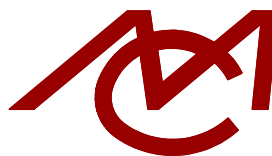


Westbound Approach



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: 5/1/2003 **to** 4/30/2013 **Study:** RUTHERFORDBRIDGE94
Location: SR 1755 (John Stroud Rd) from 500 feet west of Bridge 94 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
RUTHERFORDBRIDGE94				76.8	8.4	10	40001755

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	5/1/2003	4/30/2013	10.00

Location Text	Requestor
SR 1755 (John Stroud Rd) from 500 feet west of Bridge 94 to 500 feet east of the bridge	

Fiche Roads	
Name	Code
SR 1755	40001755
JOHN	50015564
STROUD	50029451

Strip Road					
Name	Code	Begin MP	End MP	Miles	Kilometers
SR 1755	40001755	0.264	0.462	0.198	0.319