

**TENNESSEE DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION**

PROJECT NO.: 09035-0220-94 ROUTE: S.R. 436
 COUNTY: CARROLL CITY: _____
 PROJECT PIN NUMBER: 124139.00
 PROJECT DESCRIPTION: BRIDGE OVER REEDY CREEK (L.M. 0.68)

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: _____
 PROJECTED LETTING DATE: _____

TRAFFIC ASSIGNMENT:

BASE YEAR		DESIGN YEAR					DESIGN ROADWAY % TRUCKS		DESIGN AVERAGE DAILY LOADS	
AADT	YEAR	AADT	DHV	%	YEAR	DIR.DIST.	DHV	AADT	FLEX	RIGID
380	2022	450	68	15	2042	65-35	3	5	13	18

REQUESTED BY: NAME MICHAEL GILBERT DATE 2/28/18
 DIVISION S.T.I.D.
 ADDRESS 505 DEADERICK STREET
NASHVILLE, TN. 37243

REVIEWED BY: TONY ARMSTRONG  DATE 2.28.18
 TRANSPORTATION MANAGER I
 SUITE 1000, JAMES K. POLK BUILDING

APPROVED BY: JIM WATERS  DATE 3/1/18
 ASSISTANT DIRECTOR
 SUITE 1000, JAMES K. POLK BUILDING

COMMENTS:

THIS TRAFFIC IS BASED ON 2017 CYCLE COUNTS. THE DESIGN YEAR TRAFFIC IS BASED ON GROWTH RATE FROM THE ADAM COMPUTER PROGRAM.

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. 2/22/17)

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FAP Rural

Pavement Structural Design

Calculation of Equivalent Daily 18 Kip Single Axle Loads

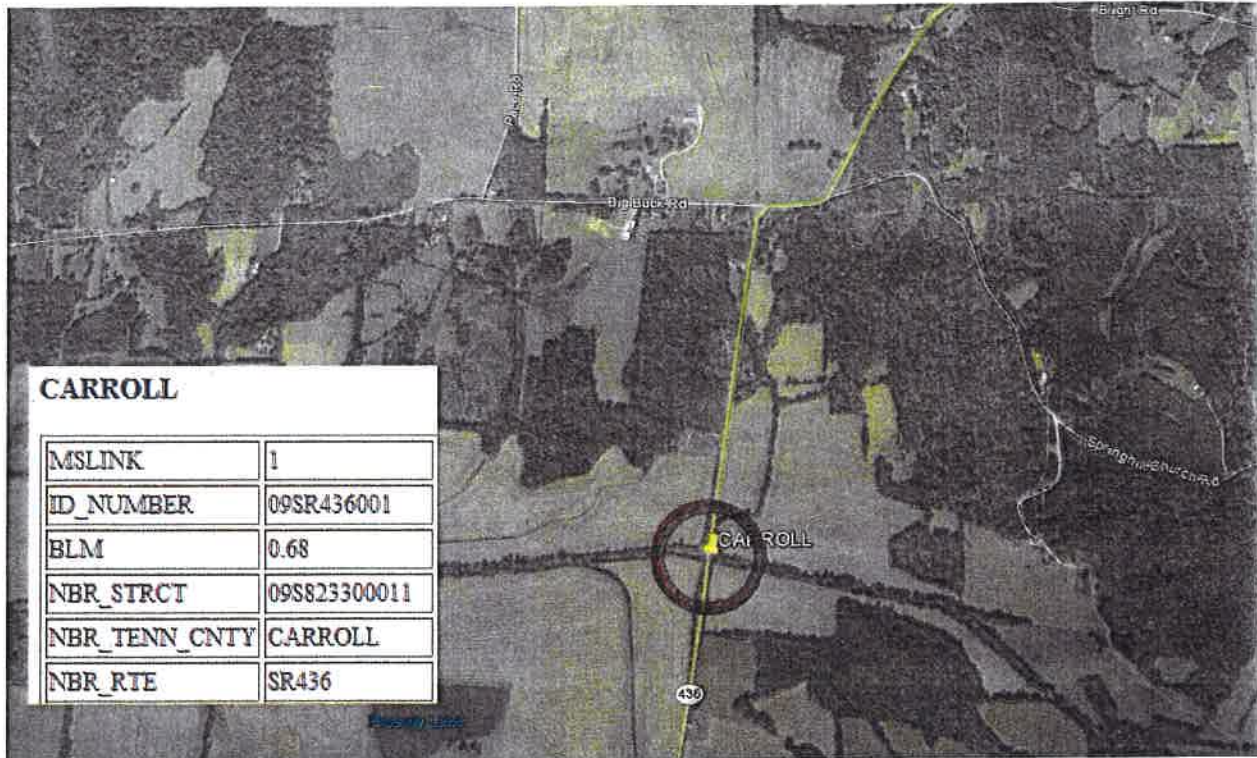
Type Vehicle	ADT (No. Counted)	Flexible		Rigid	
		18-kip Factor	ADL	18-kip Factor	ADL
Pass. cars and motorcycles (1-2)	277	0.001	0	0.001	0
Pick-up, Panel, Van (3)	117	0.005	1	0.004	0
Buses (4)	0	0.300	0	0.300	0
Sing. Unit	2-axle, 6-tire (5)	5	0.240	1	2
	3-axle or more (6-7)	8	1.700	14	18
Comb.	4-axle (8)	4	1.110	4	6
	5-axle or more (9-13)	4	1.320	5	9
Totals (2032 AADT)	415		25		35

Suggested Percentages of Trucks in Design Lane

5,000 or less ADT	95%
5,000 - 10,000 ADT	90%
10,000 - 15,000 ADT	85%
15,000 - 20,000 ADT	80%
20,000 - 30,000 ADT	75%
30,000 - 40,000 ADT	70%
40,000 Plus	60%

No. of Lanes: 2
 % Trucks in Design Lane: 100%
 ADL in Design Lane:
 FLEX: 0.5 X 1.00 X 25.4 = 13
 RIGID: 0.5 X 1.00 X 35.5 = 18

ADL Calculations By: RANDY BOGUSKIE Date: 2/28/2018
 Reviewed By: *Tony Armstrong* Date: 2.28.18
 [REV. 7/1/14]



CARROLL COUNTY
S.R. 436 @ L.M. 0.68