TENNESSEE DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

PROJECT NO.: 38002-1217-94 ROUTE: S.R. 1
COUNTY: HAYWOOD CITY:
PROJECT PIN NUMBER: 124503.00
PROJECT DESCRIPTION: HWY. 70 E. BRIDGE OVER BRANCH (L.M. 2.89)
BRIDGE ID: 38SR0010003

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
1,650	2022	1,980	218	11	2042	65-35	9	13	151	233

REQUESTED BY: NAME MICHAEL GILBERT 2/28/1 2/28/18
DIVISION S.T.I.D.
ADDRESS 1000 J.K. POLK BLDG.
NASHVILLE, TN. 37243

REVIEWED BY: TONY ARMSTRONG Tony Armstrong DATE 2.28.18
TRANSPORTATION MANAGER 1
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 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 18-kip Factor	Flexible ADL	Rigid 18-kip Factor	Rigid ADL
Pass. cars and motorcycles (1-2)		1,089	0.001	1	0.001	1
Pick-up, Panel, Van (3)		490	0.005	2	0.004	2
Sing. Unit	Buses (4)	0	0.300	0	0.300	0
	2-axle, 6-tire (5)	25	0.240	6	0.310	8
	3-axle or more (6-7)	47	1.700	80	2.300	108
Comb.	4-axle (8)	20	1.110	22	1.500	30
	5-axle or more (9-13)	144	1.320	190	2.200	317
Totals (2032 AADT)		1,815		302		466

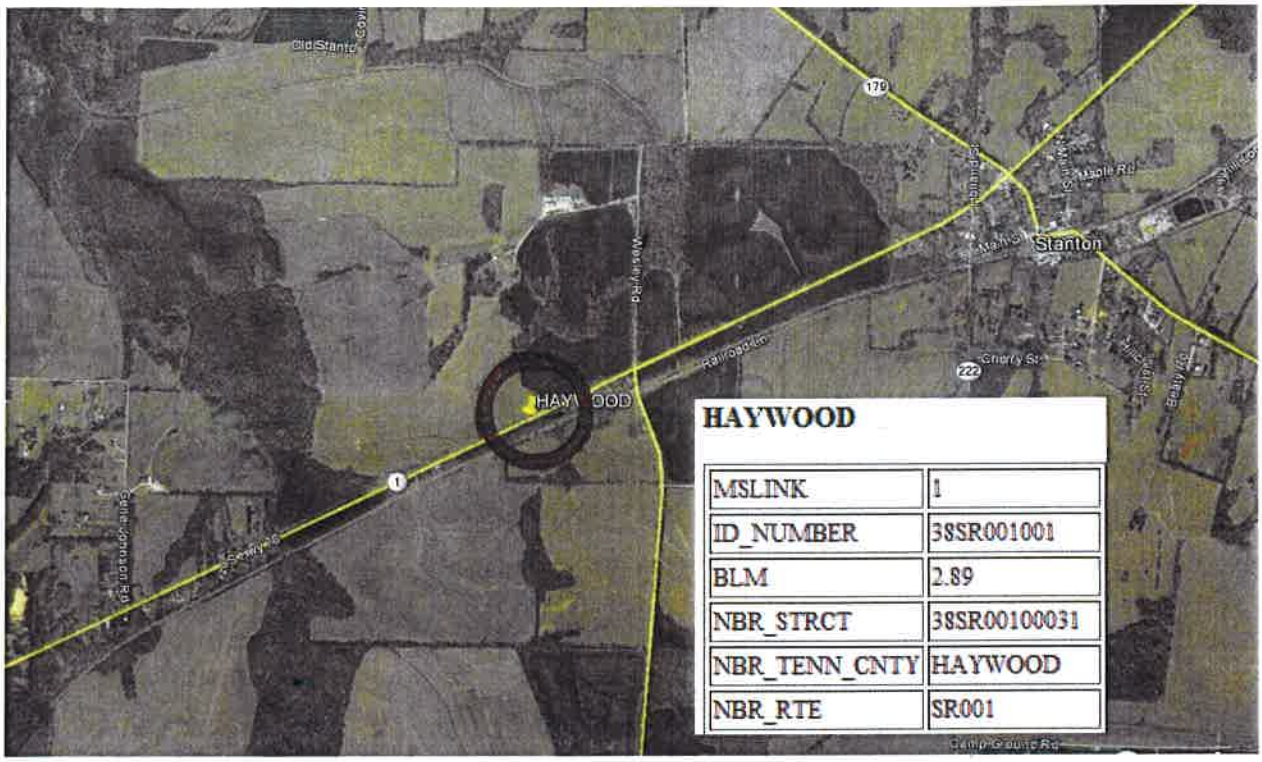
Suggested Percentages of Trucks in Design Lane

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	301.7	=	151
RIGID:	0.5	X	1.00	X	465.7	=	233

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



HAYWOOD COUNTY
S.R. 1 @ L.M. 2.89