

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

PROJECT NO.: 57039-0230-04 ROUTE: S.R. 223
 COUNTY: MADISON CITY: _____
 PROJECT PIN NUMBER: 124712.00
 PROJECT DESCRIPTION: BRIDGE OVER BRANCH @ L.M. 2.28

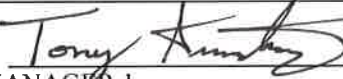
DIVISION REQUESTING:

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
610	2022	1,120	146	13	2042	65-35	10	15	46	69

REQUESTED BY: NAME MICHAEL GILBERT DATE 2/28/18
 DIVISION S.T.I.D.
 ADDRESS 1000 J.K. POLK BLDG.
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 BASED ON 2017 CYCLE COUNTS. THE DESIGN YEAR TRAFFIC IS BASED ON GROWTH RATE FROM THE JACKSON MPO COMPUTER ASSIGNMENT MODEL.

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)	480	0.001	0	0.001	0
Pick-up, Panel, Van (3)	255	0.005	1	0.004	1
Sing. Unit Buses (4)	0	0.300	0	0.300	0
2-axle, 6-tire (5)	75	0.240	18	0.310	23
3-axle or more (6-7)	5	1.700	9	2.300	12
Comb. 4-axle (8)	12	1.110	13	1.500	18
5-axle or more (9-13)	38	1.320	50	2.200	84
Totals (2032 AADT)	865		92		138

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%

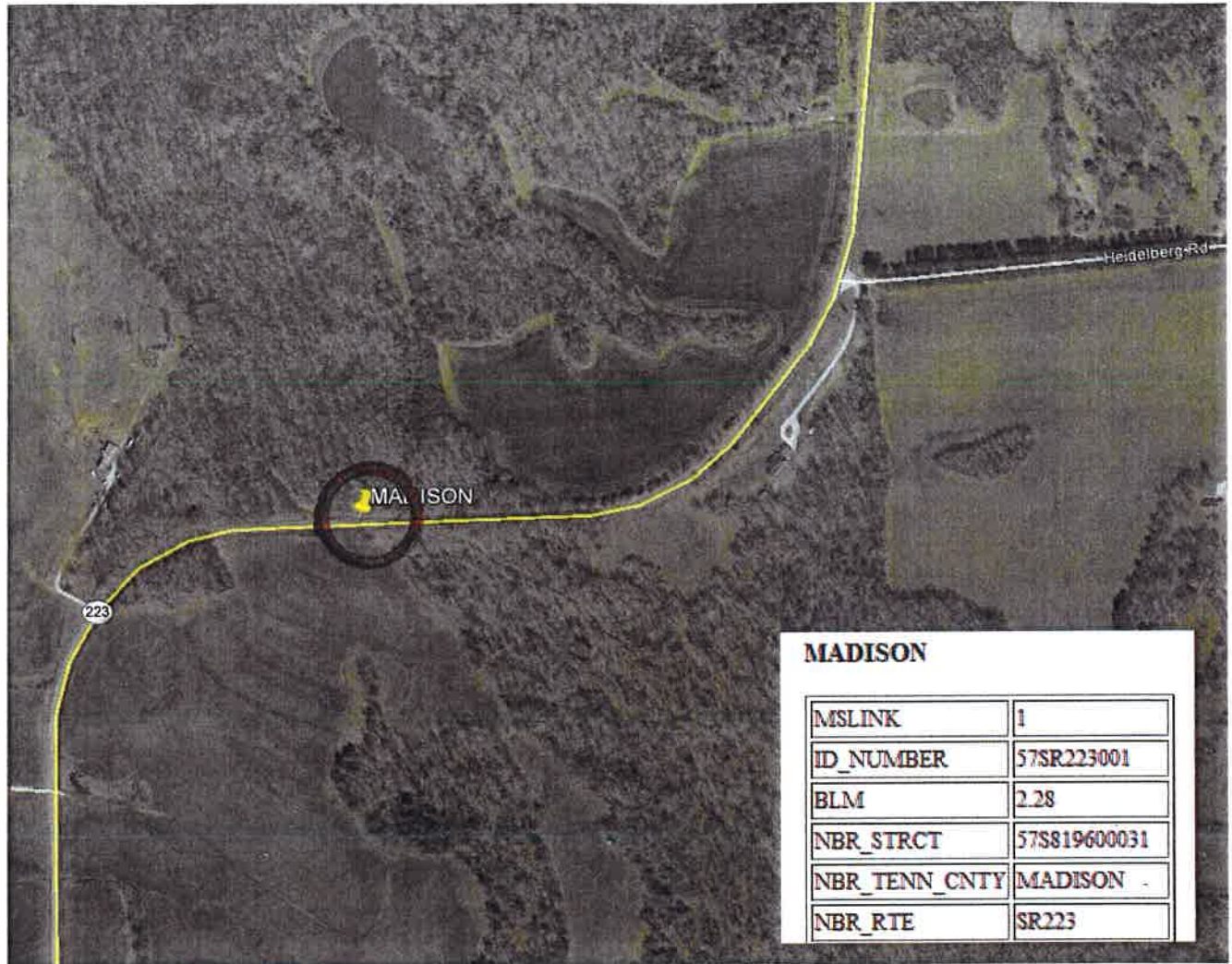
No. of Lanes: 2

% Trucks in Design Lane: 100%

ADL in Design Lane:

FLEX:	0.5	X	1.00	X	91.7	=	46
RIGID:	0.5	X	1.00	X	137.9	=	69

ADL Calculations By: RANDY BOGUSKIE Date: 2/28/2018
 Reviewed By: *Tony Amundson* Date: 2-28-18
 [REV. 7/1/14]



MADISON	
MSLINK	1
ID_NUMBER	57SR223001
BLM	2.28
NBR_STRCT	57S819600031
NBR_TENN_CNTY	MADISON -
NBR_RTE	SR223

MADISON COUNTY
S.R. 223 @ L.M. 2.28