

**TENNESSEE DEPARTMENT OF TRANSPORTATION
PLANNING DIVISION**

PROJECT NO.: 90S353-M1-005 ROUTE: S.R. 353
COUNTY: WASHINGTON CITY: _____
PROJECT PIN NUMBER: 135688.08
PROJECT DESCRIPTION: BRIDGE AND APPROACHES OVER THE NOLICHUCKY RIVER
@ L.M. 0.44.

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: 2025
PROJECTED LETTING DATE: NOVEMBER, 2024

TRAFFIC ASSIGNMENT:

BASE YEAR		DESIGN YEAR					DESIGN ROADWAY % TRUCKS		DESIGN AVERAGE DAILY LOADS	
AADT	YEAR	AADT	DHV	%	YEAR	DIR.DIST.	DHV	AADT	FLEX	RIGID
1,420	2025	1,820	218	12	2045	65-35	3	5	37	50

REQUESTED BY: NAME AMBER WARREN DATE 10/16/24
DIVISION REGION I PROJECT DEVELOPMENT
ADDRESS 7345 REGION LANE
KNOXVILLE TN 37914

REVIEWED BY: RANDY BOGUSKIE Randy Boguskie DATE 10/17/2024
TRANSPORTATION MANAGER 1
SUITE 1000, JAMES K. POLK BUILDING

APPROVED BY: TONY ARMSTRONG Tony Armstrong DATE 10/17/2024
TRANSPORTATION MANAGER 2
SUITE 1000, JAMES K. POLK BUILDING

COMMENTS:

FURNISH THE 2025-2045 TRAFFIC DATA AND ADL's FOR A TWO LANE ROADWAY.

THIS TRAFFIC IS BASED ON A 2024 CYCLE COUNT. THE DESIGN YEAR TRAFFIC IS BASED ON GROWTH RATE FROM THE JOHNSON CITY MPO COMPUTER ASSIGNMENT MODEL. AADT's AND ADL's ARE INCLUDED.

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. 6/12/24)

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

PROJECT NO.: 90S353-M1-005 ROUTE NO.: S.R. 353
 COUNTY: WASHINGTON CITY:
 PROJECT DESCRIPTION: BRIDGE AND APPROACHES OVER NOLICHUCKY RIVER @ L.M. 0.44

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)		1,069	0.001	1	0.001	1
Pick-up, Panel, Van (3)		470	0.005	2	0.004	2
Sing. Unit	Buses (4)	2	0.300	1	0.300	1
	2-axle, 6-tire (5)	37	0.240	9	0.310	11
	3-axle or more (6-7)	22	1.700	37	2.300	51
	4-axle (8)	14	1.110	16	1.500	21
Comb.	5-axle or more (9-13)	6	1.320	8	2.200	13
	Totals (2035 AADT)	1,620		74		100

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%

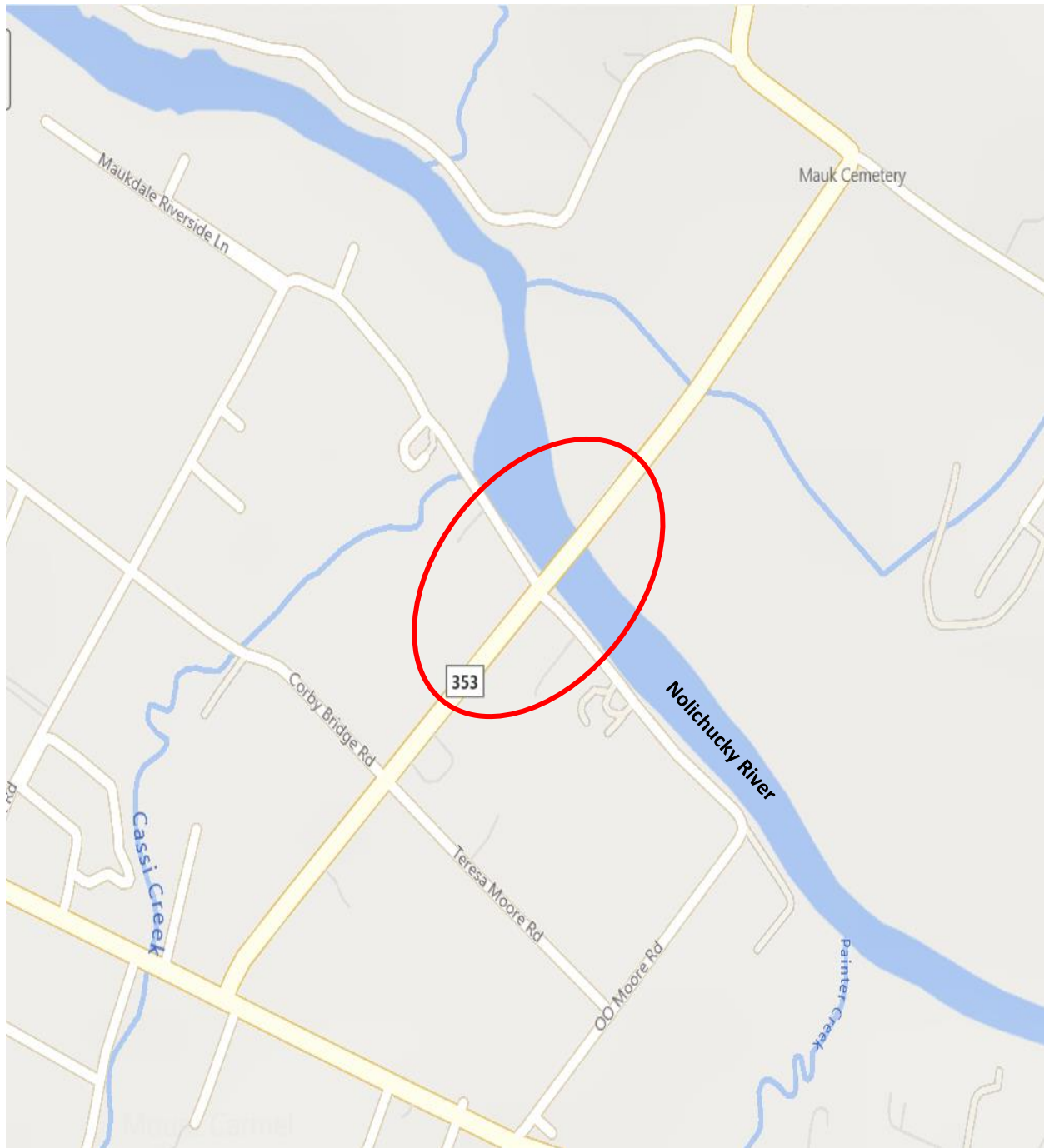
No. of Lanes: 2

% Trucks in Design Lane: 100%

ADL in Design Lane:

FLEX:	0.5	X	1.00	X	73.8	=	37
RIGID:	0.5	X	1.00	X	99.8	=	50

ADL Calculations By: Ashlie Bevan Date: 10/17/2024
 Reviewed By: Randy Boguskie Date: 10/17/2024
 [REV. 7/1/14]

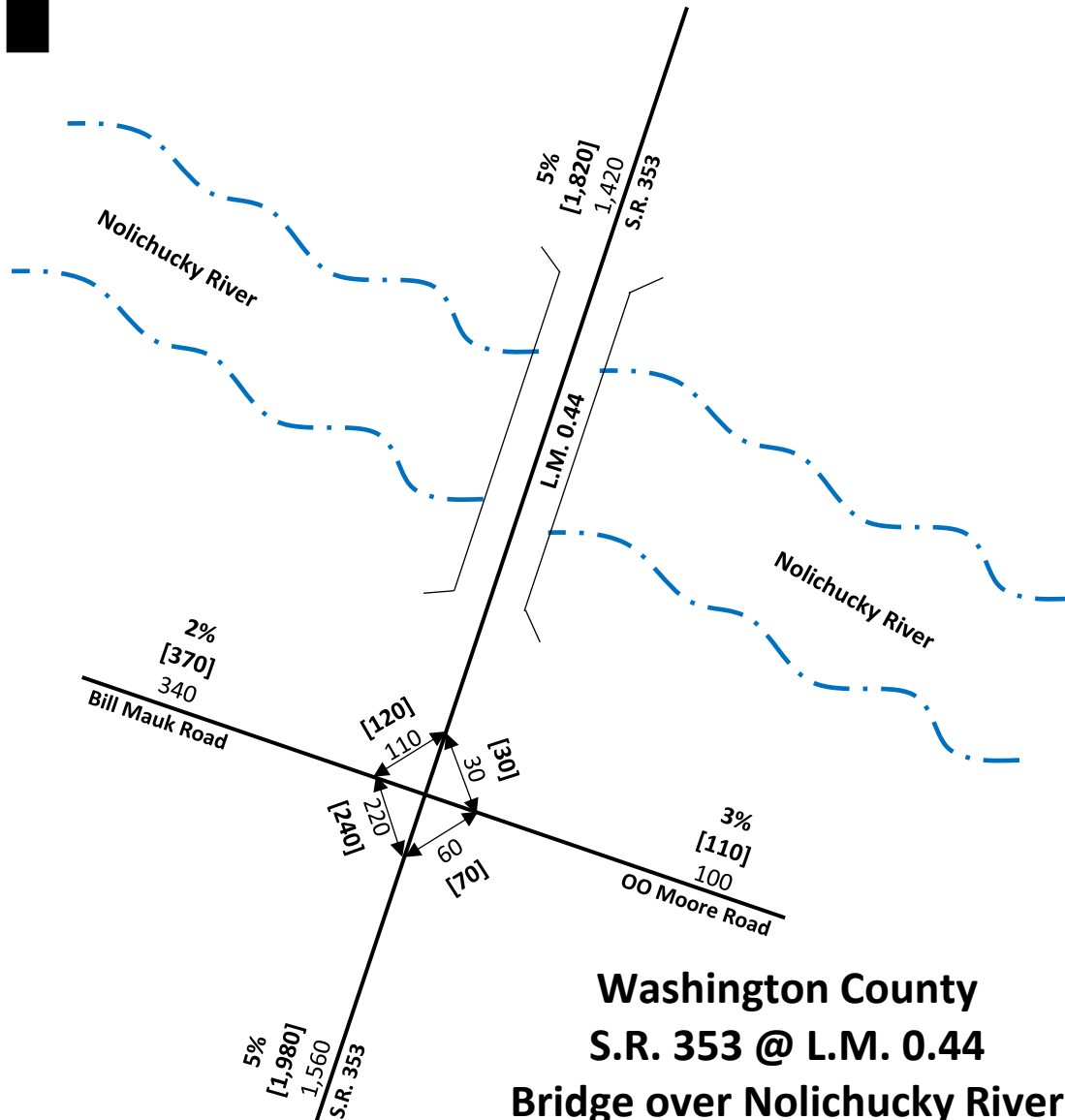


Washington County

S.R. 353 @ L.M. 0.44

Bridge over Nolichucky River

AADT



**Washington County
S.R. 353 @ L.M. 0.44
Bridge over Nolichucky River**

Legend:

2025 AADT - 000

2045 AADT - [000]

AADT Truck % - **0%**

Date: October 17, 2024

TA