



**STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION**

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INSTRUCTIONAL BULLETIN NO. 22-02

Regarding Chapter 2 - Traffic Warrant Signals

Effective with the May 13, 2022 letting, at the request of the Traffic Operations Division, Chapter 2 has been updated to remove future traffic warrant criteria and include references to the TDOT Traffic Design Manual. Section 2-500.03 has been updated to remove the table for Future Traffic Signal Warrants (Table 2-4). The tables and table callouts have been renumbered accordingly. The Future Traffic Signal Warrant criteria and additional information will be available in the TDOT Traffic Design Manual.

The revised section is shown below:

2-500.03 LEFT TURN LANES IN MEDIANS

As discussed in *A Policy of Geometric Design of Highways and Streets*, Chapter 9, it is desirable to align left-turn lanes in medians – see *Figure 2-16, Left-Turn Lane Alignment*. The advantages of this placement are:

- a) Better visibility of opposing through traffic as left turners look for gaps.
- b) Decreased conflict between opposing left-turn vehicle paths.
- c) Increased numbers of left-turn vehicles served in a given period of time. The farther left the turn lane, the shorter the crossing distance for left-turn vehicles, allowing drivers to choose shorter gaps in opposing traffic and clear the intersection. There is also an increase in capacity at signalized intersections, due to more flexibility in left-turn phasing and shorter clearance intervals.

The following guidelines apply to four-lane divided highways with a maximum median width of 48 feet. For medians greater than 48 feet, designers should offset left turn lanes to reduce the length required for the left turn onto an intersecting road.

The centerline of left-turn lanes shall be placed along the centerline of the median, so that opposing left-turn lanes are directly opposite each other. Excess pavement area between the turn lane and adjacent through lane shall be marked with channelization striping (see *Figure 2-16, Left-Turn Lane Alignment*).

For future traffic signal warrants, see Chapter 4 in the TDOT Traffic Design Manual and use the Hourly Percentages.

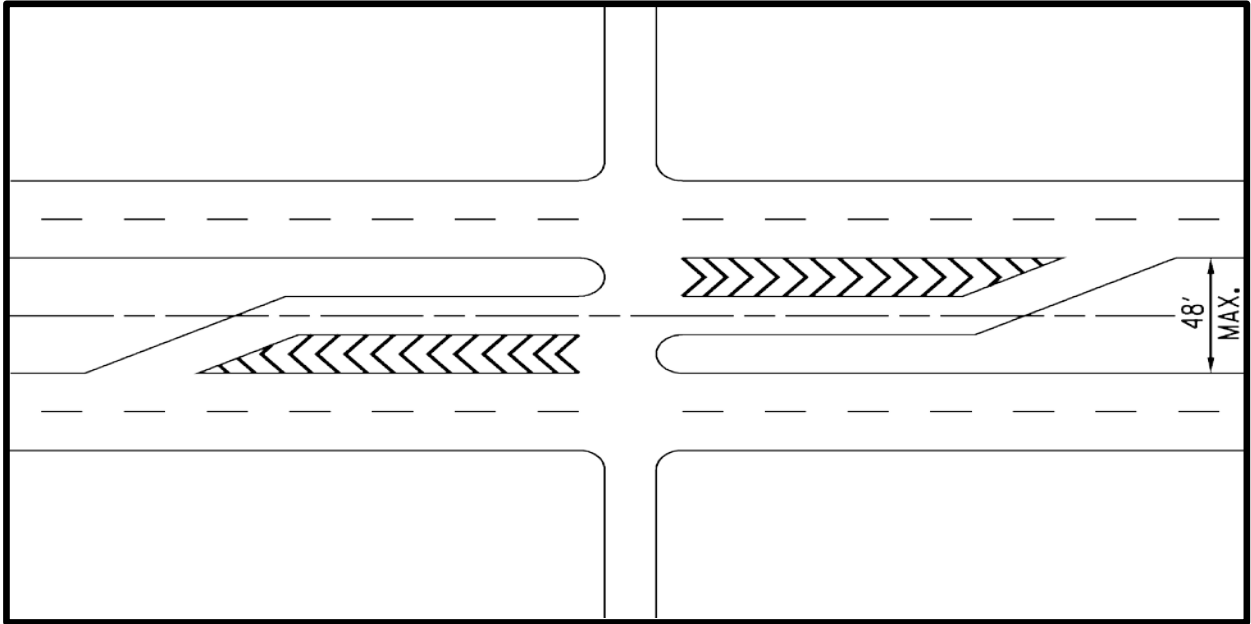
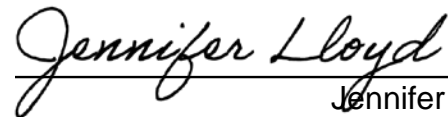


Figure 2-16
Left-Turn Lane Alignment

**VOLUME WARRANTS FOR LEFT - TURN STORAGE LANES
AT UNSIGNALIZED GRADE INTERSECTIONS**

CHART VALUE	% T _L = % TRUCKS IN V _L					
	0%	10%	20%	30%	40%	50%
75'	0	25'	25'	25'	50'	50'
100'	0	25'	25'	50'	50'	50'
125'	0	25'	25'	50'	50'	75'
150'	0	25'	50'	50'	75'	75'
175'	0	25'	50'	75'	75'	100'
200'	0	25'	50'	75'	100'	100'
250'	0	25'	50'	75'	100'	125'
300'	0	50'	75'	100'	125'	150'
350'	0	50'	75'	125'	150'	175'
400'	0	50'	100'	125'	175'	200'
450'	0	50'	100'	150'	200'	225'
500'	0	50'	100'	150'	200'	250'

**Table 2-4
Storage Length to be Added to Chart Values of Left-Turn Lane Storage Lengths**



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