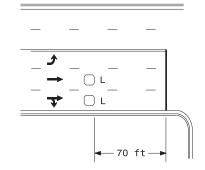
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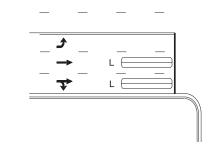
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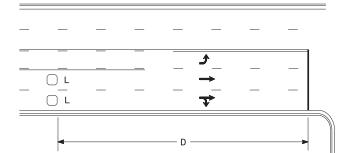
 $L = 6ft \times 6ft$ Wired in series

 $L = 6ft \times 40ft$ Quadrupole loop, wired separately

Right Turn Lane Detection

L1 = 6ft X 40ft Quadrupole loopL2 = 6ft X 6ft [Minimum] Presence loop

Wired separately



L = 6ft X 6ft Speed Limit mph ft 250 40 45 300 50 355

420

55

Volume Density Operation

Wired separately

mph ft 40 250 80 45 300 90 50 355 100 420 110

D1

□L1

□L1

Speed Limit

"Stretch" Operation

D2

→ □L2

→ □ L2

- D2

 $L1 = 6ft \times 6ft$

 $L2 = 6ft \times 6ft$

Wired in series

Wired in series

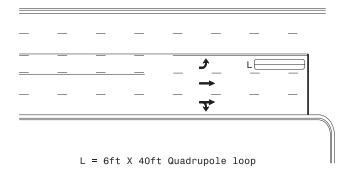
Left Turn Lane Detection

OR

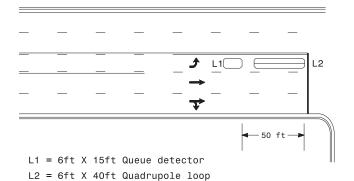
High Speed Detection

(≥40 mph)

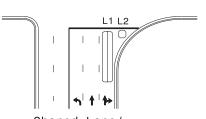
OR



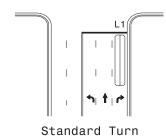
Presence Loop Detection

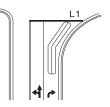


Queue Loop Detection



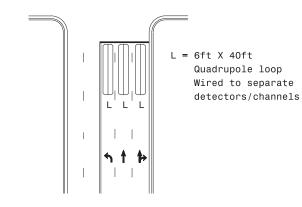
Shared Lane/ Wide Radius Turn



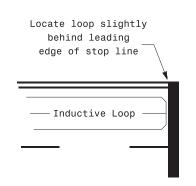


Wide Radius Turn Channelized Turn

Side Street Detection



Presence Loop Placement at Stop Lines



Loop may be located in advance of stop line under any of the following conditions:

- 1) stop line is greater than 15' from edge of intersecting roadway
- 2) loop detects a permissive or protected/permissive left turn
- 3) for an exclusive right turn lane

Recommended Number of Turns

Single 6' X 6' loop (when wired separately):

Length of Lead-in ft	Number of Turns
< 250	3
250-375	4
375-525	5
> 525	6

Quadrupole loops: Use 2-4-2 turns

6' X 15' Loops: Lead-in < 150', use 2 turns Lead-in > 150', use 3 turns



N/A

Typical Signal Loop Locations

ector	PLAN DATE:	September	2020	REVIEWED	BY:	JPG		
rner.NC 27529	PREPARED BY:	PLA		REVIEWED	BY:			
	REVISIONS				INIT.	DATE		
								١.