ORIGINATOR Director, Bureau of Highway Operations		8-1-6
CHAPTER 8	Detector and Controller Logic	
SECTION 1	Vehicle Detection	
SUBJECT 6	Near Detection	

Unless physical or operational characteristics are atypical, near detection for through movements *should* be placed at the stop line. The detector amplifier mode *should* be set to presence detection. However, detectors in the right lane and detectors that *may* be driven over by left turning vehicles *should* be set to a delay mode to allow those movements to occur without registering false calls. Figure 1 below illustrates common near detection layouts.

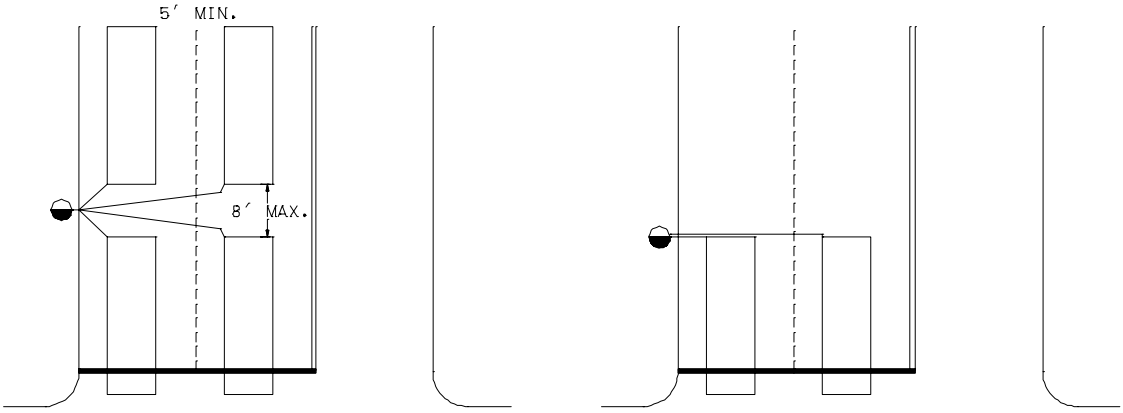

Figure 1
Near Detection

In many cases a set of loops is installed to provide a larger detection area and for redundancy in case of detector failure. This is especially important for detection on a single-lane approach where loop failure (if only one loop is installed and the phase is not set for recall) *may* cause failure of the corresponding phase.

Motorcycles, bicycles, and/or small vehicles with small signatures *may* not be detected by large (6' x 20') loops. There are several loop detector configurations, which can be used to increase the sensitivity of loop detectors. These include a power head, multiple

small loops, and a quadrupole. A complete discussion of these loop types can be found in the *Federal Highway Administration Traffic Detector Manual.* Careful consideration *should* be given to using quadrupoles due to their restricted ability to detect high bed trucks and high installation cost. WisDOT does not typically use power-head or quadrupole loops.