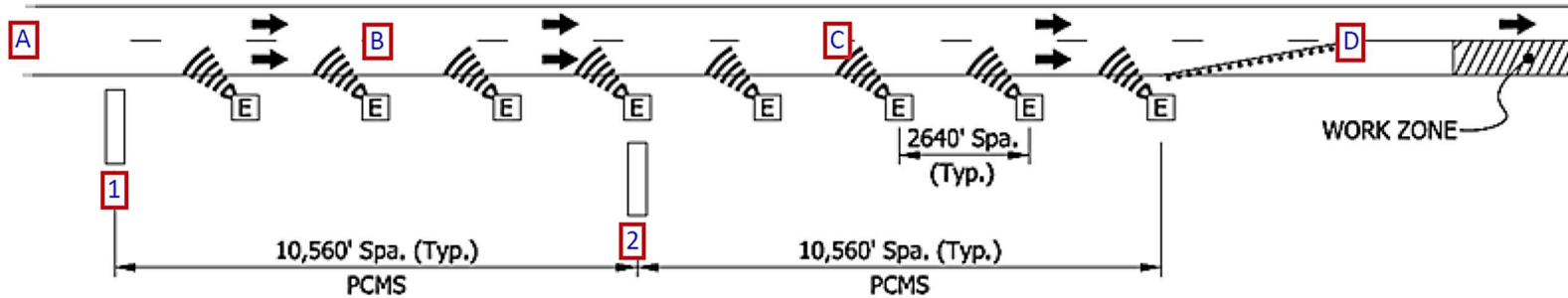


WORK ZONE SAFETY SECTION GUIDANCE | QUEUE DETECTION AND WARNING SYSTEM (QDWS) MESSAGING RECOMMENDATIONS



Consider providing message boards on both sides of the Interstate for a total of 4 PCMS's for each system.

TYPICAL QUEUE DETECTION AND WARNING SYSTEM
(Not to scale)

POSITION OF BACK OF QUEUE	PCMS 1 MESSAGE	PCMS 2 MESSAGE	ADDITIONAL GUIDANCE
NO QUEUE (TRAFFIC MOVING AT 45 MPH OR GREATER) - OR - [D]	NO MESSAGE - OR - PHASE 1 ROAD WORK AHEAD	NO MESSAGE - OR - PHASE 1 ROAD WORK AHEAD	When no queueing is detected, the default message should be either no message or ROAD/WORK/AHEAD. For the AWIS, queueing is defined as travel speeds of less than 45 MPH.
[C]	PHASE 1 SLOW TRAFFIC # MILES	PHASE 1 SLOW TRAFFIC AHEAD PHASE 2 BE PREPARED TO STOP	SLOW/TRAFFIC/# MILES should be used when queuing is detected a distance of 2 miles or greater from the PCMS. Let # = $(X - SPC)$, where X is the distance in miles, rounded down to the whole mile, to the first sensor downstream indicating the presence of queue and SPC is the spacing between sensors in miles. This is to account for the possible presence of queue between sensors, for example, if queue has backed up to near the 5 th sensor but the first sensor indicating queue is the 6 th sensor.
[B]	PHASE 1 SLOW TRAFFIC AHEAD PHASE 2 BE PREPARED TO STOP	PHASE 1 SLOW TRAFFIC AHEAD PHASE 2 BE PREPARED TO STOP	SLOW/TRAFFIC/AHEAD BE/PREPARED/TO STOP should be used when queueing is predicted to exist at the location of the PCMS or at the sensor just 1 mile down the road.
[A]	PHASE 1 SLOW TRAFFIC AHEAD PHASE 2 BE PREPARED TO STOP	PHASE 1 SLOW TRAFFIC AHEAD PHASE 2 BE PREPARED TO STOP	PCMS placement should be considered carefully to avoid having queues extend in advance of the system. This messaging should be displayed until the system can be relocated to a more appropriate location that will provide the required advance warning.