

Clearance Calculations		
English Units		
Project Number	0309-83670	
Name	Coggeshall Street	
Date	October 13, 2011	
Intersection	Coggeshall Street and Riverside Drive/I-195 Ramps	
Approach/Phase	northbound left/phase 3	
Data		
Speed (s)	35 mph	(formula converts speed from mph to feet/sec)
Grade (g)	-1.37 %	roadway approach grade in percent
Width (w)	75 ft	distance from near side Stop Line to back of far side crosswalk (or edge of far side curb if no crosswalk present)
Vehicle (v)	20 ft	length of vehicle (assume 20 feet)
Minimum yellow	3.0 sec	may be established by local practice (ITE recommends 3.0 sec)
Maximum yellow	5.0 sec	may be established by local practice (5.0 sec)
Minimum red	1.0 sec	may be established by local practice (1.0 sec)
Clearance Calculation		
Yellow	3.7 sec	$*Y=1+s/2(10+32g)$
Red	1.8 sec	$*R=(w+v)/s$
Total	5.5 sec	
Clearance based on Max Yellow		
Yellow	3.7 sec	
Red	1.8 sec	
Total	5.5 sec	

Source: ITE Journal *Traffic Signal Clearance Intervals*, April 2004