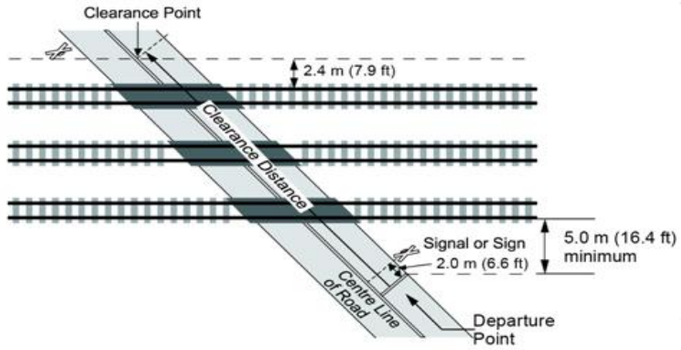
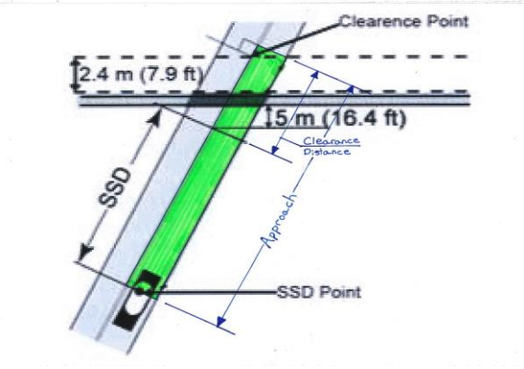
Field Measurements for Location: _____

Minimum Recommended Equipment:
Personal Protective Equipment including High Visibility Vest
100 ft. Measuring Tape
Line Level
Marking Paint
Stopwatch
Pencil/Pen
Calculator

Optional Recommended Equipment:
Measuring Tape Anchor such as 6" Spike
Hammer
Duct Tape





SSD = Stopping Sight Distance: the minimum distance required for a vehicle to come to a complete stop before the clearance distance based on the design vehicle, design speed, and average approach gradient.
Please use best judgement to estimate the SSD in the field.
A passenger vehicle travelling 80 km/hr on a 0% gradient requires a SSD of 140 m (460 ft.).
A truck travelling 80 km/hr on a 0% gradient requires a SSD of 210 m (689 ft.).

The Approach is defined as the combination of the SSD and the Clearance Distance.
Average Approach Gradient is to be measured to best represent the average gradient over the entire length of the Approach.

23. Existing Roadway Width _____ mm

Clearance Distance, cd _____ mm

	Orientation/Direction	27. Existing Shoulder Width	Rise - descend, + ascend	Run	26. Average Approach Gradient
Approach 1	_____	_____ mm	_____ mm	_____ mm	$\left(\frac{Rise}{Run}\right) \times 100 =$ _____ %
Approach 2	_____	_____ mm	_____ mm	_____ mm	$\left(\frac{Rise}{Run}\right) \times 100 =$ _____ %

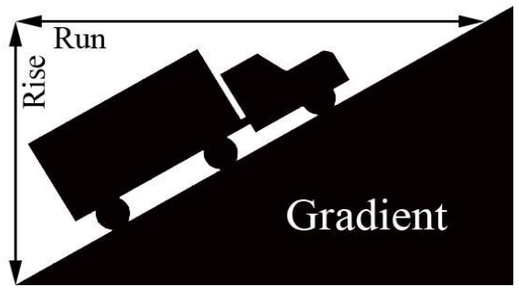
If your Average Approach Gradient is greater than 4% or less than -4%:

Departure Time will need to be determined by measuring the time it takes a design vehicle to enter and pass completely through the Clearance Distance. This is also known as the Vehicle Travel Distance.

1. Place the front of your longest design vehicle (Passenger Vehicle = 5.6 m, B-train Double Truck = 25.0 m) at the entry to the Clearance Distance and facing in the direction that has the greatest Average Approach Gradient.

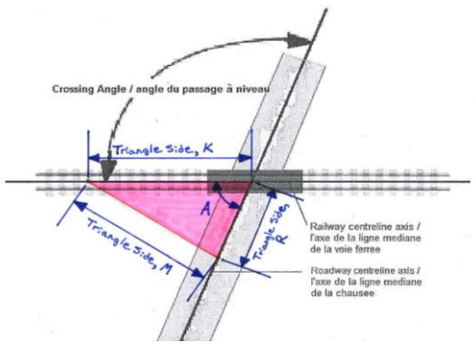
2. From a full stop, bring the design vehicle up to speed and record how long it takes for the design vehicle's back end to pass out of the Clearance Distance. Acceleration should be that of an average driver in an average situation to obtain the most realistic results.

3. Repeat this two more times and take an average of the results to determine the Design Vehicle Departure Time, T_D.



First Pass, T_{D1} = _____ seconds
Second Pass, T_{D2} = _____ seconds
Third Pass, T_{D3} = _____ seconds

Along Centreline of the Railway, K _____ mm
Along Centreline of the Roadway, R _____ mm
Connecting between Railway and Roadway Centrelines, M _____ mm



The size of the triangle and the length of its sides are irrelevant to the grade crossing angle calculation.