



Note for ALH

21st March 2025

Back Lane

MfS and DMRB uses the same formula to calculate stopping sight distances but the difference relates to braking speed, with MfS using different values for perception time and deceleration rate. So with a speed of 30mph, MfS and DMRB would produce different stopping sight distances, longer using DRMB.

DMRB does have table 2.10 which shows stopping sight distance

Table 2.10 Design speed related parameters

Design speed kph	120	100	85	70	60	50	V ² /R
Stopping sight distance (metres)							
Desirable minimum	295	215	160	120	90	70	-
One step below desirable minimum	215	160	120	90	70	50	-
Horizontal curvature (metres)							
Minimum R* with adverse camber and without transitions	2880	2040	1440	1020	720	520	5
Minimum R* with superelevation of 2.5%	2040	1440	1020	720	510	360	7.07
Minimum R* with superelevation of 3.5%	1440	1020	720	510	360	255	10
Desirable minimum R (superelevation 5%)	1020	720	510	360	255	180	14.14
One step below desirable Minimum R (superelevation 7%)	720	510	360	255	180	127	20
Two steps below desirable minimum radius (superelevation 7%)	510	360	255	180	127	90	28.28
Vertical curvature							
Desirable minimum* crest K value	182	100	55	30	17	10	-
One step below desirable min crest K value	100	55	30	17	10	6.5	-
Desirable minimum sag K value	37	26	20	20	13	9	-
Overtaking sight distances							
Full overtaking sight distance FOSD (metres)	-	580	490	410	345	290	-
FOSD overtaking crest K value	-	400	285	200	142	100	-
* Not recommended for use in the design of single carriageways (see Section 9)							
The V ² /R values shown above simply represent a convenient means of identifying the relative levels of design parameters, irrespective of design speed.							

Also DMRB does have relations and departures. A departure from a standard would require a fairly onerous process to consider whether that should be incorporated with a design or not. Whereas relaxations are permitted within DMRB and they can vary depending of the road type and geometric property.

Table 3.5 Number of steps permitted below desirable minimum - stopping sight distance

Road type	Design speed band	Permitted relaxation
Motorways	Band A	1 step
Motorways	Band B	2 steps
All-purpose	Band A	2 steps
All-purpose	Band B	3 steps

For a single carriageway road, there should be at least steps of relaxation permitted. This would require SSD of 70 metres, although this is based on a design speed of 43.5m.

Intensification in Use of An Access



In our experience LCC Highways have raised a concern on an existing access if there would be the potential for intensification in use of that access. In the case of this application, there is not expected to be an increase in traffic that would be noticeable on the highway network so we are unsure why LCC Highway raise the concern about the visibility of the existing, established access.