Passing Sight Distance Report

Passing sight distance on two-lane highways for the design speed (AASHTO Green Book).



Sample Project

Client: Urban City

PREPARED & SUBMITTED BY

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ISSUE

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Passing Sight Distance Calculator

Design report · Reference: AASHTO Green Book, 7th Ed. (2018) §3.2.4 Eye height 1.08 m · Object (oncoming vehicle) 1.08 m · Generated 11/5/2026 3:16:47 PM

1. Project

Project / road	Sample Project
Prepared by	SP Consultant
Date	11/5/2026

2. Design Passing Sight Distance — AASHTO

DESIGN SPEED

Design Speed V (kph)	100
Passed vehicle speed (kph)	81
Passing vehicle speed (kph)	100

SECTION CHECK

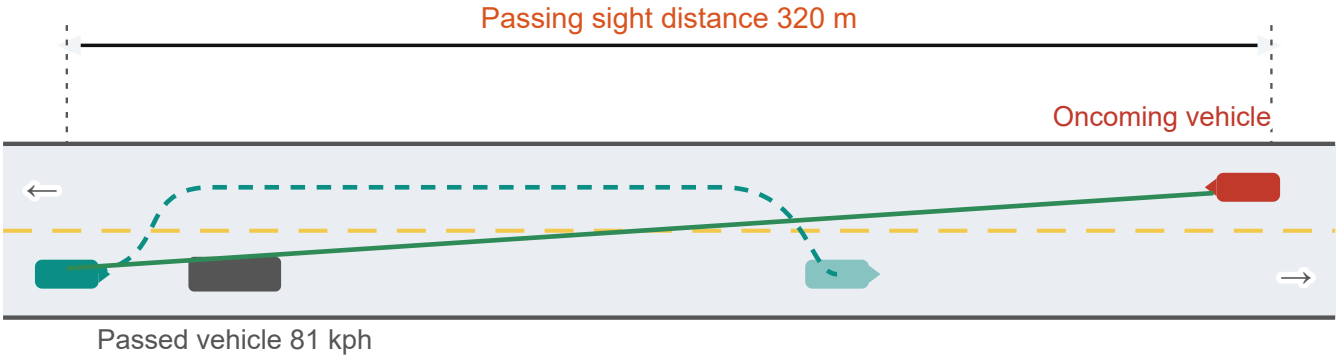
Sight distance available (m)	280

RESULTS

Passing Sight Distance (m)	**320 m**
Section check at 100 kph (available 280 m)	**Design reference not met**
Highest design speed this sight distance supports for passing	**90 kph**

SKETCH — PASSING MANOEUVRE ON A TWO-LANE ROAD (PLAN, NOT TO SCALE)

PSD = 320 m at 100 kph — design reference not met



Sight line: eye 1.08 m → oncoming vehicle 1.08 m

COMPUTED VALUES

Design Speed	100 kph
Passed Vehicle	81 kph

Sample report: illustrative data, not for design use

PSD Required	320 m
Sight Available	280 m
Margin	−40 m

The current Green Book passing sight distances are consistent with the MUTCD no-passing zone warrants and field observations of passing on two-lane highways. Where the sight distance available is less than the value required, a **no-passing zone** should be marked. These are the values to use for design and for marking passing and no-passing zones.

PASSING SIGHT DISTANCE FOR DESIGN OF TWO-LANE HIGHWAYS

`highlighted` = current selection.

Design Speed (kph)	Passed Vehicle (kph)	Passing Vehicle (kph)	Passing Sight Distance (m)
30	11	30	**120**
40	21	40	**140**
50	31	50	**160**
60	41	60	**180**
70	51	70	**210**
80	61	80	**245**
90	71	90	**280**
100	**81**	**100**	**320**
110	91	110	**355**
120	101	120	**395**
130	111	130	**440**

Generated with the Passing Sight Distance Calculator — https://shahidpervaiz.net/EngineeringDesignTools/passing_sight_distance_calculator. Results should be checked by a qualified engineer before use.