



COLORADO
Department of Transportation

COLORADO DEPARTMENT OF TRANSPORTATION



Hidden Driveway and Intersection Sign Guide

2022 Edition

Acknowledgements

San Lee, Traffic & Safety Engineering
Esayas Butta, Traffic & Safety Engineering
Yesenya Saucedo Paez, Traffic & Safety Engineering
Nathan Rivera, Traffic & Safety Engineering
Melissa Gende, Traffic & Safety Engineering
Benjamin Kiene, Region 1 Traffic
Pepper Whittlef, Region 2 Traffic
Andi Staley, Region 3 Traffic
Jonathan Woodworth, Region 4 Traffic
Katelyn Triggs, Region 4 Traffic
David Peyton, Region 5 Traffic
ITE Trip Generation Manual 10th Edition
Wisconsin DOT 2-3-14 Hill Blocks View Guidelines



Published on October 06, 2022
by HQ Traffic Safety and Engineering
2829 West Howard Place, 4th Floor
Denver, CO 80204
Telephone: (303) 512-5102
Fax: (303) 757-9219

Table of Contents

Introduction 4

Hidden Driveway Sign Guidance for Private Driveways 5

Intersection Sign Guidance for Private Driveways..... 6

Appendix A: ITE Trips Per Day Calculation..... 7

Introduction

Private driveways may be considered for “Hidden Driveway” or “Intersection Warning” signage as discussed in the following guidance. For both sign types, it is imperative that every attempt is made to mitigate sight distance issues at the driveway before warning signage is considered. Strategies include, but are not limited to:

- Clearing obstructions to improve sight distance (landscaping, trees, etc.)
- Installing lighting to illuminate the driveway
- Installing delineators to mark the driveway entrance and improve visibility of driveway edge lines
- Reducing driveway density with proper spacing or relocating driveway access

Note: Homeowners are encouraged to find potential solutions within their private property. Potential solutions include installing reflective devices, landscaping, fencing, address signage, and decorative features to improve visibility of private property entrances.

Any work on CDOT right of way requires a permit.

Hidden Driveway Sign Guidance for Private Driveways



Optional: Advisory Speed Plaque

“Hidden Driveway” ([W2-50 CO](#)) signage may be considered for locations where sight distance and crash history or traffic volumes indicate a sign may improve safety. A “Hidden Driveway” sign may be used in advance of a driveway if the stopping sight distance, based on the posted speed limit, exceeds the available sight distance (refer to the AASHTO Greenbook, 7th edition, Chapter 3 for sight distance calculations) AND at least one of the following criteria is met:

- The driveway generates an average of at least 30 trips per day (15 entering, 15 leaving)
- OR-
- Two or more crashes have occurred within the most recent five years and are a crash type that would be mitigated by a warning sign (i.e. angle or rear end crashes).

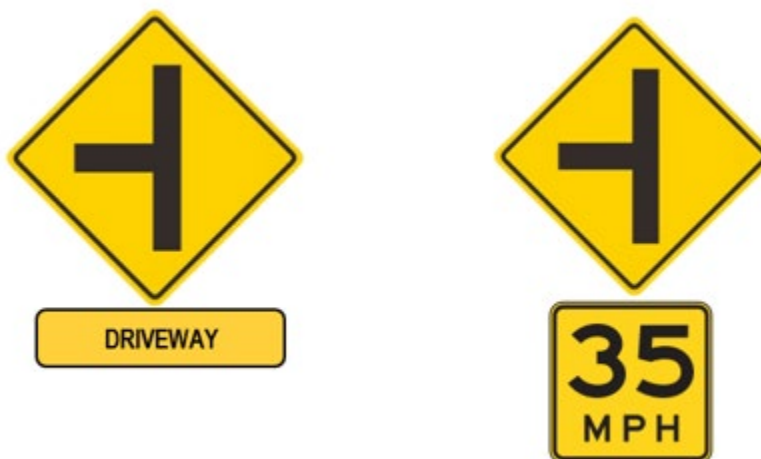
Refer to Appendix A: ITE Trips Per Day Calculation is the suggested method for determining traffic volumes. Final method of calculating average trips per day is determined by the region traffic engineer.

When a “Hidden Driveway” sign is used, it may be supplemented with an advisory speed plaque indicating the recommended speed based on available stopping sight distance. Recommended speeds less than 10 miles per hour below the posted speed limit should not be used to supplement “Hidden Driveway” signs.

The final determination of whether or not to install hidden driveway warning signage lies with the CDOT regional traffic engineer.

Intersection Sign Guidance for Private Driveways

For driveways that have higher traffic volumes than a typical driveway, and perform more like a public street, intersection warning signage may be considered. These driveways provide access to two or more separate properties, separate housing units, and multiple uses (commercial and residential) but are not public rights of way.



Optional: Advisory Speed Plaque

An “Intersection Warning” sign + “Driveway” OR “Advisory Speed” plaque sign assembly may be used in advance of a driveway provided two of the following three criteria have been met:

- The stopping sight distance, based on the posted speed limit, exceeds the available stopping sight distance. Refer to the AASHTO Greenbook, 7th edition, Chapter 3 for stopping sight distance calculations.
- The driveway generates an average of at least 50 trips per day (25 entering, 25 leaving)
- Three or more crashes have occurred within the most recent five years and are a crash type that would be mitigated by a warning sign (i.e. angle or rear end crashes).

Refer to Appendix A: ITE Trips Per Day Calculation is the suggested method for determining traffic volumes. Final method of calculating average trips per day is determined by the region traffic engineer.

Advisory speed plaques (W13-1P) may not be added to an “Intersection Warning” sign + “Driveway” plaque sign assembly. If an advisory speed plaque is used, the driveway plaque shall not be used.

The final determination of whether or not to install intersection warning signs lies with the CDOT regional traffic engineer.

Appendix A: ITE Trips Per Day Calculation

Type of Land Use	Average Rate (trips per weekday)	Multiplied by amount of:
(210) Single Family Detached Housing	9.44	Dwelling Units
(210) Single Family Detached Housing	2.65	Residents
(240) Mobile Home Park	5.00	Dwelling Units
(712) Small Office Building	16.19	Per 1000 Square Feet
(715) Single-Tenant Office Building	11.25	Per 1000 Square Feet
(814) Variety Store	63.47	Per 1000 Square Feet

Suggested trips per day calculation from 10th Edition Trip Generation Manual. For more updated or specific information refer to the latest edition of Trip Generation Manual.

The region traffic engineer has final determination in the method used to calculate trips per day at a driveway or intersection.

This page was left blank intentionally.