

FHWA Report Summary

Railroad-Highway Grade Crossing Handbook

Background

A highway-rail grade crossing involves the intersection of two transportation modes, which differ both in physical characteristics and in their operational features. When such crossings are at-grade, there must be adequate protective devices for both highway and railroad users to avoid collisions, which, when they occur, are often serious. While there have been substantial reductions in crashes and fatalities involving collisions at highway-rail crossings in the past 30 years, in 2006 there were 2,505 crashes, 899 injuries, and 325 fatalities at the approximate 146,000 public crossings in the U.S.

Report Features

The primary focus of this 2007 publication, which is an update of a 1986 version, is to provide a single reference document on prevalent and best practices as well as adopted standards relative to highway-rail grade crossings. The handbook provides: general information on highway-rail crossings; characteristics of the crossing environment and users; and, physical and operational improvements that can be made to enhance the safety and operation of both highway and rail traffic over crossing intersections. The guidelines and alternative improvements presented in this handbook are primarily those that have proved effective and are accepted nationwide.

In addition, this handbook provides information on assessing the relative hazards of grade crossings, identifying alternative engineering, enforcement and educational solutions to safety problems, and funding highway-rail crossing improvements. Improvement solutions must consider the policies and standards that affect railroad(s) and involved jurisdictions, including state and local agencies, in applying the general principles and practices provided in this handbook.

Contacts

For more information on how to obtain a copy of this report, please see the FHWA website at <http://safety.fhwa.dot.gov>, or contact Guan Xu, Highway Engineer, at (202) 366-5892, guan.xu@dot.gov. The report number is FHWA-SA-07-010.



U.S. Department of Transportation
Federal Highway Administration



03/08