



Safety at Private Highway-Railroad Grade Crossings

Federal Railroad Administration
Safety Inquiry

Background

1993—FRA initiated discussion

1994—USDOT Action Plan

1997—NTSB Passive Crossing Study

1999—NTSB Accident Report

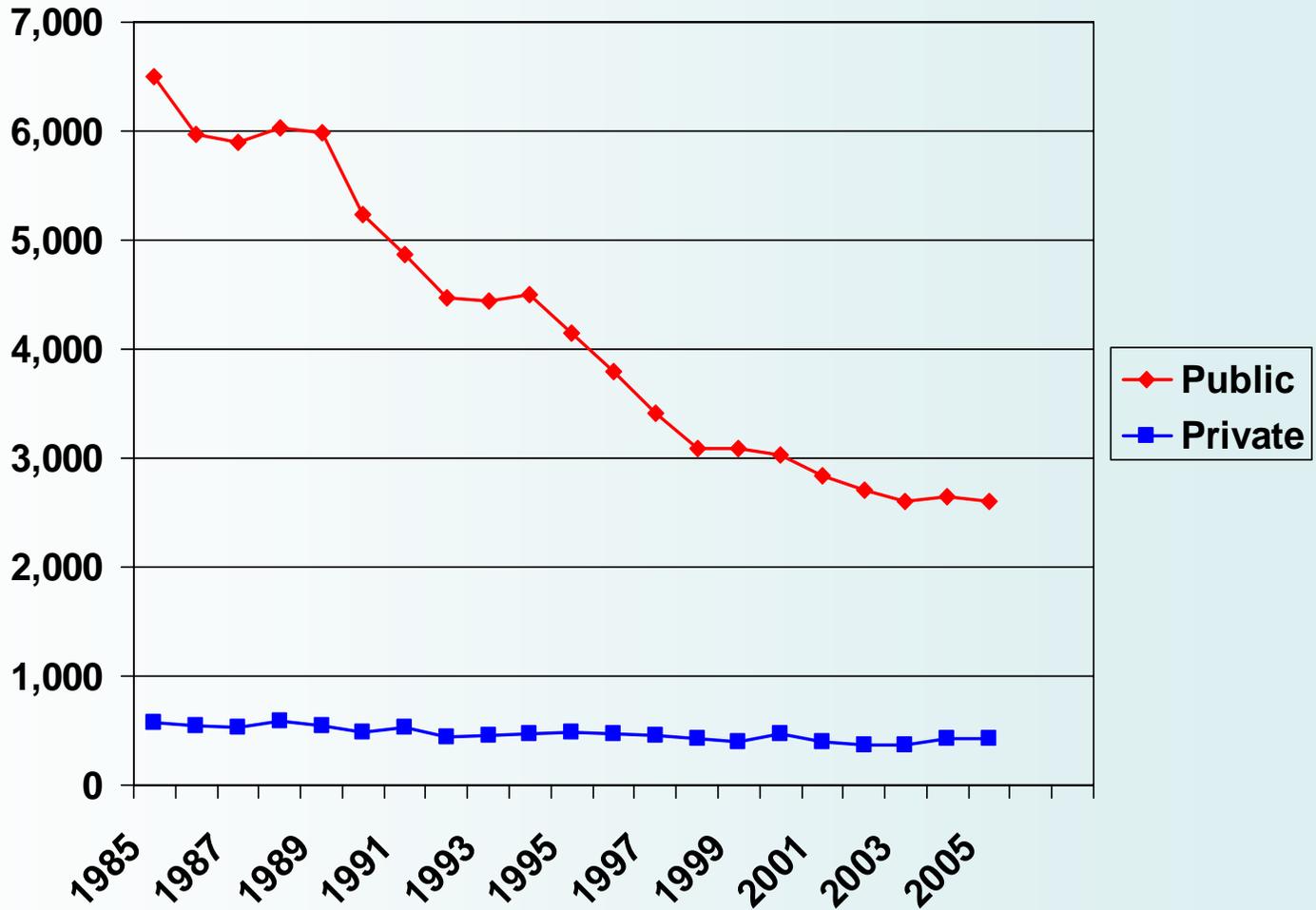
2004—USDOT Updated Action Plan





FRA Region	All Crossings	Private Crossing Percentage
Region 1	13,573	44%
Region 2	27,945	43%
Region 3	44,075	36%
Region 4	43,295	33%
Region 5	34,478	36%
Region 6	34,920	40%
Region 7	16,115	38%
Region 8	27,207	46%
Total	241,608	39%

Accidents at public and private grade crossings 1985-2005



Jackson, MI





Castle Rock, Washington

Lemont, Illinois





National Inventory

- 32 % of the private crossing records have been updated since 2001
- 21 % of the private crossing records have *never* been updated

U.S. DOT CROSSING INVENTORY FORM

**DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION (FRA)**

**OMB Control No. 2130-0017
Expires: 7/31/2006**

A. Initiating Agency <input type="checkbox"/> Railroad <input type="checkbox"/> State		B. Crossing Number (max. 7 char.)		C. Reason for Update <input type="checkbox"/> Changes in Existing Data <input type="checkbox"/> New Crossing <input type="checkbox"/> Closed Crossing or Abandoned		D. Effective Date (MM/DD/YYYY)	
Part I: Location and Classification Information							
1. Railroad Oper. Co. (code (max. 4 char.) or name)		2. State (2 char.)		3. County (max. 20 char.)			
4. Railroad Division or Region (max. 14 char.)		5. Railroad Subdivision or District (max. 14 char.)		6. Branch or Line Name (max. 15 char.)		7. RR Milepost (max. 7 char.) (mmmm.m)	
8. RR ID No. (max. 10 char.)		9. Nearest RR Timetable Station (max. 15 char.) (optional)		10. Parent RR (max. 4 char.) (if applicable)		11. Crossing Owner (RR or Company name) (if applicable)	
12. City (max. 16 char.) (check one) <input type="checkbox"/> In <input type="checkbox"/> Near		13. Street or Road Name (max. 17 char.)		STATE SUPPLIED INFORMATION			
14. Highway Type & No. (max. 7 char.)		15. ENS Sign Installed (1-800) <input type="checkbox"/> Yes <input type="checkbox"/> No		16. Quiet Zone <input type="checkbox"/> No <input type="checkbox"/> 24 hr <input type="checkbox"/> Partial Unknown		21. HSR Corridor ID (2 char.)	
17. Crossing Type (choose one only) <input type="checkbox"/> Public <input type="checkbox"/> Private <input type="checkbox"/> Pedestrian		18. Crossing Position <input type="checkbox"/> At Grade <input type="checkbox"/> RR Under <input type="checkbox"/> RR Over		19. Type of Passenger Service <input type="checkbox"/> AMTRAK <input type="checkbox"/> AMTRAK & Other <input type="checkbox"/> Other <input type="checkbox"/> None		22. County Map Ref. No. (max. 10 char.)	
26. Is There an Adjacent Crossing With a Separate Number? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, Provide Number _____ (7 characters)		23. Latitude (max. 10 char., mm.mmmmm)		24. Longitude (max. 11 char., mm.mmmmm)		25. Lat/Long Source <input type="checkbox"/> Actual <input type="checkbox"/> Estimated	
27. PRIVATE CROSSING INFORMATION							
27.A. Category (check one) <input type="checkbox"/> Farm <input type="checkbox"/> Residential		27.B. Public Access <input type="checkbox"/> Recreational <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial		27.C. Signs/Signals <input type="checkbox"/> None <input type="checkbox"/> Signs <input type="checkbox"/> Signals		Specify (max. 15 char.) _____ Specify (max. 15 char.) _____	
28.A. Railroad Use (max. 20 char.)		28.B. Railroad Use (max. 20 char.)		28.C. Railroad Use (max. 20 char.)		28.D. Railroad Use (max. 20 char.)	
29.A. State Use (max. 20 char.)		29.B. State Use (max. 20 char.)		29.C. State Use (max. 20 char.)		29.D. State Use (max. 20 char.)	
30. Narrative (max. 100 char.)							
31. Emergency Contact (Telephone No.)		32. Railroad Contact (Telephone No.)		33. State Contact (Telephone No.)			

MUST COMPLETE REMAINDER OF FORM FOR PUBLIC VEHICLE CROSSINGS AT GRADE

Part II: Railroad Information			
1. Number of Daily Train Movements			
1.A. Total Trains	1.B. Total Switching Trains	1.C. Total Daylight Thrn Trains (6 AM to 6 PM)	1.D. Check if Less Than One Movement Per Day <input type="checkbox"/>
2. Speed of Train at Crossing			
2.A. Maximum Time Table Speed (mph) _____		2.B. Typical Speed Range Over Crossing (mph) from _____ to _____	
3. Type and Number of Tracks Main _____ Other _____ If Other, Specify (max. 10 char.) _____			
4. Does Another RR Operate a Separate Track at Crossing? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, Specify RR (max. 16 char.) _____		5. Does Another RR Operate Over Your Track at Crossing? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, Specify RR (max. 16 char.) _____	

U.S. DOT CROSSING INVENTORY FORM

B. Crossing Number (max. 7 char.)		D. Effective Date (MM/DD/YYYY)	
Part III: Traffic Control Device Information			
1. No Signs or Signals <input type="checkbox"/> Check if Correct		2. Type of Warning Device at Crossing - Signs (specify number of each)	
2.A. Crossbucks: _____	2.B. Highway Stop Signs (R1-1) _____	2.C. RR Advance Warning Signs (W10-1) <input type="checkbox"/> Yes <input type="checkbox"/> No	2.D. Hump Crossing Signs (W10-5) <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
2.E. Pavement Markings <input type="checkbox"/> Steplines <input type="checkbox"/> RR Xing Symbols <input type="checkbox"/> None		2.F. Other Signs (specify MUTCD type) Number _____ Specify Type (max. 10 char.) _____ Number _____ Specify Type (max. 10 char.) _____	
3. Type of Warning Device at Crossing - Train Activated Devices (specify number of each)			
3.A. Gates	3.B. Four-quadrant (or full barrier) Gates <input type="checkbox"/> Yes <input type="checkbox"/> No	3.C. Cantilevered (or Bridged) Flashing Lights: Over Traffic Lane (number) _____ Not Over Traffic Lane (number) _____	3.D. Mast Mounted Flashing Lights (number) _____
3.F. Other Flashing Lights: Number _____ Specify Type (max. 9 char.) _____		3.G. Highway Traffic Signals (number) _____	3.H. Wigwags (number) _____
3.E. Number of Flashing Light Pairs _____		3.J. Balls (number) _____	
3.K. Other Train Activated Warning Devices (specify) (max. 9 char.) _____			
4. Specify Special Warning Device NOT Train Activated (max. 20 char.) _____		5. Channelization Devices With Gates <input type="checkbox"/> All Approaches <input type="checkbox"/> One Approach <input type="checkbox"/> None	
6. Train Detection <input type="checkbox"/> Constant Warning Time <input type="checkbox"/> DC/AFO <input type="checkbox"/> Motion Detectors <input type="checkbox"/> Other <input type="checkbox"/> None		7. Signalling for Train Operation: Is Track Equipped with Train Signals? <input type="checkbox"/> Yes <input type="checkbox"/> No	8. Traffic Light Interconnection/Presumption <input type="checkbox"/> Not Interconnected <input type="checkbox"/> Simultaneous Presumption <input type="checkbox"/> Advance Presumption
9. Reserved For Future Use	10. Reserved For Future Use	11. Reserved For Future Use	12. Reserved For Future Use
Part IV: Physical Characteristics			
1. Type of Development <input type="checkbox"/> Open Space <input type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Institutional		2. Smallest Crossing Angle <input type="checkbox"/> 0° - 29° <input type="checkbox"/> 30° - 59° <input type="checkbox"/> 60° - 90°	
3. Number of Traffic Lanes Crossing Railroad _____		4. Are Truck Pullout Lanes Present? <input type="checkbox"/> Yes <input type="checkbox"/> No	5. Is Highway Paved? <input type="checkbox"/> Yes <input type="checkbox"/> No
6. Crossing Surface (on main line) <input type="checkbox"/> 1. Timber <input type="checkbox"/> 2. Asphalt <input type="checkbox"/> 3. Asphalt and Flange <input type="checkbox"/> 4. Concrete <input type="checkbox"/> 5. Concrete and Rubber		6. Rubber <input type="checkbox"/> 7. Metal <input type="checkbox"/> 8. Unconsolidated <input type="checkbox"/> 9. Other (Specify) _____	
7. Does Track Run Down a Street? <input type="checkbox"/> Yes <input type="checkbox"/> No	8. Nearby Intersecting Highway? <input type="checkbox"/> Less than 75 feet <input type="checkbox"/> 75 to 200 feet <input type="checkbox"/> 200 to 500 feet <input type="checkbox"/> N/A	Is it Signalized? <input type="checkbox"/> Yes <input type="checkbox"/> No	
9. Is Crossing Illuminated? (street lights within approx. 50 feet from nearest rail) <input type="checkbox"/> Yes <input type="checkbox"/> No		10. Is Commercial Power Available? <input type="checkbox"/> Yes <input type="checkbox"/> No	11. Space Reserved For Future Use
Part V: Highway Information			
1. Highway System <input type="checkbox"/> Interstate <input type="checkbox"/> Federal Aid, Not NHS <input type="checkbox"/> Nat. Hwy System (NHS) <input type="checkbox"/> Non Federal Aid	2. Is Crossing on State Highway System? <input type="checkbox"/> Yes <input type="checkbox"/> No	3. Functional Classification of Road at Crossing _____	4. Posted Highway Speed _____
5. Annual Average Daily Traffic (AADT) Year _____ AADT _____		6. Estimate Percent Trucks _____	7. Average Number of School Buses Over Crossing per School Day _____

Paperwork Reduction Act: Public reporting for this information collection is estimated to average 15 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a currently valid OMB Control Number. The valid OMB Control Number for this collection is 2130-0017.

Data Collection Comparison

Data Item	Public Crossing	Private Crossing
Train counts	✓	X
Active Warning Devices	✓	✓ <i>(partial)</i>
Number of highway lanes	✓	X
AADT	✓	X





State responsibilities

- VA: State forbids creating new private at-grade crossings
- NJ, OK: railroad must provide and maintain private crossings, when required
- RI: State may close private crossings



State Responsibilities

- FL: crossbucks required at all crossings, signs must comply with MUTCD
- SC: private crossings to be equipped in same way as public crossings

State Responsibilities

- 28 States have no private crossing statutes



State Responsibilities

- American Association of State Highway and Transportation Officials (AASHTO)
 - Standing Committee on Rail Transportation



Federal Responsibilities

- 49 C.F.R. §234 –signal system inspection, testing, and maintenance
 - About 1% of all private crossings
- 49 C.F.R. §224 – freight car reflectorization
 - Under 25% of all crossing accidents
- Manual on Uniform Traffic Control Devices
 - Applies to public crossings



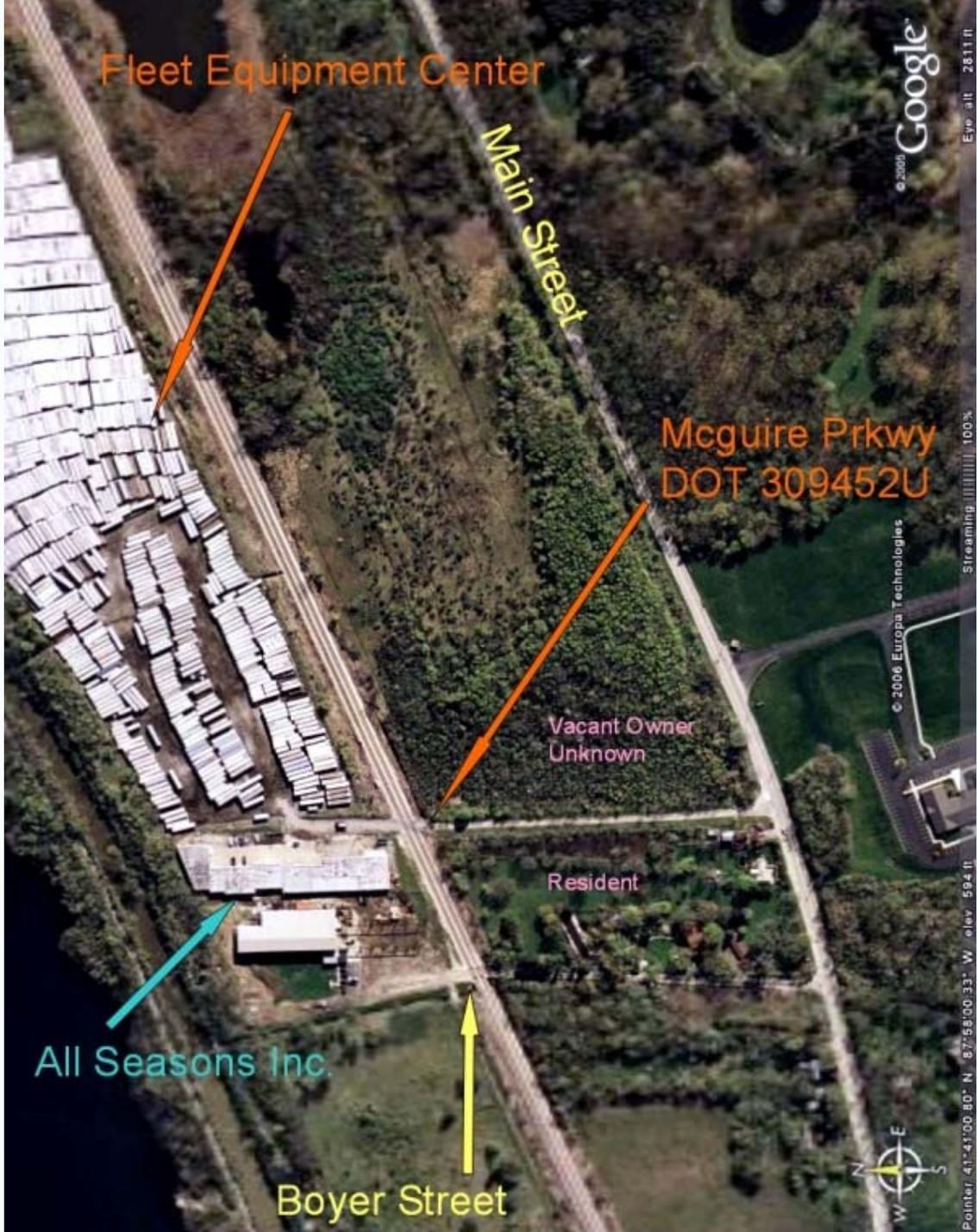
Federal Responsibilities

- No Federal regulation addresses private crossings' special issues



Private Crossing Uses





Fleet Equipment Center

Main Street

Mcguire Prkwy
DOT 309452U

Vacant Owner
Unknown

Resident

All Seasons Inc.

Boyer Street

© 2005 Google

Eye alt: 2611 ft

© 2006 Europa Technologies

Streaming 100%

Pointer: 41°41'00.80" N, 87°58'00.33" W, elev: 594 ft





Legal Status

- Ownership of fee simple
- Documented easements
- Prescriptive easements
- Documented licenses
- Verbal licenses

Legal Status

- Insurance policies
- Contracts



Warning Devices at *Public Crossings*

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

HIGHWAY/RAIL GRADE CROSSING TECHNICAL WORKING GROUP (TWG)

NOVEMBER 2002

GUIDANCE ON TRAFFIC CONTROL DEVICES AT HIGHWAY-RAIL GRADE CROSSINGS

EXECUTIVE SUMMARY

The Technical Working Group (TWG) established by the U.S. Department of Transportation, is led by representatives from the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), Federal Transit Administration (FTA), and the National Highway Traffic Safety Administration (NHTSA). The cooperation among the various representatives of the TWG represents a landmark effort to enhance communication between highway agencies, railroad companies and authorities, and governmental agencies involved with developing and implementing policies, rules and regulations.



TRACKS
OUT OF
SERVICE

Manual on Uniform Traffic Control Devices for Streets and Highways

2003 EDITION

NO
RIGHT
TURN
ACROSS
TRACKS

150 FEET
BETWEEN
HIGHWAY &
TRACKS
BEHIND YOU

Warning Devices at Private Crossings







STOP

TTX

STOP
DO NOT CROSS
UNLESS YOU
SEE A GREEN LIGHT





Public Meetings

- August 30, Fort Snelling, MN
- September 27, Raleigh, NC
- October 26, San Francisco, CA
- December 6, New Orleans, LA



Discussion Update: Fort Snelling, MN

- AAR
- BRS
- Citizens for Rail Safety
- State of Minnesota
- State of Wisconsin
- State of Iowa

Discussion Update: Fort Snelling, MN

- No Private Crossing Processes
 - Creating
 - Evaluating
 - Upgrading
 - Closing
- No clear private crossing definition
- Many types/uses of private crossings



Electronic Docket Submissions

- U.S. DOT Docket Management System
 - <http://dms.dot.gov/>
 - Docket number FRA-2005-23281



Request for Comments

- Creation or continuation criteria
- Public use definition
- Allocation of responsibilities
- Alternative dispute resolution
- Commercial crossings



Request for Comments

- Nationwide standards
- Innovative warning devices
- Safety responsibility assignment
- Increased State and Federal involvement
- Legislation

