

## **Safety at Private Highway-Rail Crossings**

### **Alternative Approach Discussion Topics**

#### ***Findings:***

1. The use of public funds to make improvements has played an important role in improving safety at public crossings. Except in very rare circumstances, however, public funding has not been, and currently is not available for use at private crossings. As a result, the proportion of private crossings equipped with more effective warning devices, particularly active warning devices, is much lower than the proportion of public crossings so equipped. Improvements in safety (as reflected in the accident, fatality, and injury counts Nationwide) at private crossings, therefore, have lagged behind the improvements seen at public crossings.
2. The data currently stored in the National Highway-Railroad Crossing Inventory for private crossings are inadequate for most analyses, and insufficient to support effective resource allocation.
3. In particular, current data are not sufficient to allow analyses of trends in either highway or rail traffic at private crossings. Assuming, however, that exposure trends at private crossings are similar in direction to those at public crossings, even if they are not similar in scale, it seems reasonable to believe that exposure at private crossings has risen somewhat over the past decade. Based on this assumption, accident, incident, and casualty rates at private crossings have likely fallen somewhat over the same time period. National totals of accidents, incidents, fatalities, and injuries are stagnant, however.
4. Population increases, changes in land use, and both recent and projected growth in rail and highway traffic suggest that exposure to accident risk at private crossings is likely to continue increasing. Accordingly, the number of opportunities for accidents, and therefore for casualties, will also increase unless new initiatives for improving private crossing safety are identified and effectively implemented.
5. Absence of a cohesive policy or regulatory structure at any level has led to the existence of private crossings that are redundant, inadequately designed, and/or poorly maintained.
6. Motorists represent only a portion of the populations at risk due to accidents at private crossings. The risks of collision and of derailment mean that the train crews, train passengers, and others in the vicinity of the crossing may be exposed to derauling equipment or hazardous materials releases.
7. With few exceptions, no public bodies at the State or local level are vested with authority or responsibility for safety at private crossings.

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8. No process currently exists that predicates the creation of new private crossings or the continuation of existing crossings on considerations of public safety or necessity.
9. In most States, there are no publicly-sanctioned engineering criteria for private crossings. Accordingly, users of those crossings may encounter a variety of signage, road surface conditions, and other engineering attributes.
10. For most private crossings in the Nation, there is no agreement in place specifying the responsibilities of the railroad and the holder. Disputes must typically be resolved through direct interaction between the railroad and the crossing holder, or, failing that, through litigation.
11. The level and type of highway use, i.e. whether the public has an expectation of free access to a crossing, is a key factor affecting the safety at that crossing.
12. In general, local planning and zoning authorities do not regularly take into account the impacts on interstate rail transportation of the development decisions that they oversee.
13. Railroads' ability to control roadway design or traffic control device selection and placement is limited. They also often lack the authority to control the highway usage of a given crossing
14. At substantial cost, railroads make significant efforts to close or improve private crossings. However; they are hampered by common law, and in some cases statutory law, which do not recognize the degree to which private crossings threaten the safety of road users, railroad employees, and potentially other members of the public in the vicinity.
15. The contribution of education and awareness programs to safety at private crossings is not documented, but safety knowledge and awareness would appear relevant to private crossing safety, provided that engineering arrangements present suitable cues to facilitate safely traversing the intersection.
16. Since State laws applicable to public roadways do not apply at private crossings, and since most users of private crossings are likely authorized users, law enforcement does not appear to be a useful strategy for improving safety at private crossings.
17. Effective solutions to improving safety at the Nation's private highway-rail grade crossings will require active collaboration between the parties involved. These parties include, but may not be limited to:
  - the holders of the right to cross the railroad,
  - the railroads,
  - local public planning approval authorities,

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- state agencies that enforce crossing design standards,
  - professional and/or industry organizations responsible for developing standards,
  - the U.S. Department of Transportation (DOT).
18. Within the DOT, the Federal Railroad Administration (FRA) is the only agency with statutory authority directly relevant to the subject matter. However, in the interest of effectively serving the multimodal populations at risk, other DOT surface modes should participate in program development.

### ***Proposed Actions***

#### ***Option A***

The FRA proposes to publish new National Policy, to include the following:

- A clear declaration that new private crossings are disfavored, except where clearly necessary after evaluation of all reasonable alternatives.
- A declaration that every private crossing should have a recorded agreement addressing, at a minimum, safety-related factors.
- Establishment of an enhanced private crossing classification scheme for inclusion in the National Grade Crossing Inventory, and for use by diagnostic teams, that resembles the following:
  - Private crossings with private use (where there is not a perception that the general population is invited or allowed access)
    - Residential driveways (fewer than 4 units)
    - Farm field-to-field crossings
  - Private crossings with public use
    - Large residential driveways
    - Commercial crossings where the public access is expected (shopping centers, business parks, medical offices, parking lots, sports arenas, other recreational sites)
    - Industrial crossings (dependent on traffic count, design vehicle)
- Note: In determining public use, the type of train traffic should also be a factor taking into consideration the impact of a collision on passengers on the train or on near-by facilities.
- A declaration that States should establish programs for review of existing private crossings, and publication of exemplar State legislation for those States that do not currently have jurisdiction over safety at private crossings.

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- A declaration that States should establish or identify a process whereby they are notified of land use changes that might affect safety at a private grade crossing, and publication of exemplar State legislation for those States that do not currently have jurisdiction over safety at private crossings.
- A declaration that States should establish or identify a process for notifying affected railroads of any land use changes that might affect safety at a private grade crossing, and publication of exemplar State legislation for those States that do not currently have jurisdiction over safety at private crossings.
- Establishment of guidelines or thresholds of exposure or other factors affecting safety, to determine when those new private crossings, or those crossings at which land use changes affect safety, when they are deemed necessary, should be subject to a risk-based evaluation by a diagnostic team.
- Establishment of guidelines for diagnostic teams that promote a Nationally consistent approach to making improvements at private crossings, to include the following:
  - Risk levels should be calculated for each private crossing. Analysis should be performed to determine the appropriate risk remediation treatments. Risk above a certain threshold should trigger use of AASHTO roadway design standards.
  - Diagnostic teams should consider crossing closure before considering any other treatment option.
  - Where possible, diagnostic teams should consider consolidating crossings. This may be accomplished by providing access either to a nearby public crossing, or to a nearby private crossing that can be adequately upgraded to improve safety.
  - Where closure or consolidation proves infeasible, diagnostic teams should examine the possibility of implementing inexpensive grade separations.
  - Should the preceding options prove infeasible, determination of the appropriate treatment should be predicated in part on whether the private roadway is open to public travel, and on whether there are access restrictions.
  - Crossings at which there is an expectation of public use should be treated in a manner consistent with the guidelines in the MUTCD.

FRA will also pursue the following pilot project:

- A study of the feasibility of using diagnostic team approach on private crossings in a corridor.
- A study of the effectiveness or applicability of new low cost solutions.

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- Study methods of using best available technology for transmitting private crossing data to inventory.

#### ***Option B***

U.S. DOT will seek legislation providing explicit authority to be vested in the Secretary, supplementing the Railroad Safety Laws, for regulation of safety at private highway-rail grade crossings. The legislation should be sufficiently broad to enable the following:

- Adopt a clear declaration of National Policy that new private crossings are disfavored, except where clearly necessary after evaluation of all reasonable alternatives.
- Require that a Statement of Essential Need be provided to the railroad before any new private crossing is created (whether public use, agricultural, or other) or the use changes (e.g., light residential to commercial or industrial).
- Require that the Statement specify the intended use (volume, type of traffic, nature of permission to use), and why alternative access is not available or is not suitable.
- Provide a procedure for the railroad, State agency, or FRA to challenge the Statement or propose alternative access.
- Establish that no new private crossing may be opened for traffic, or subjected to a change in use, until equipped in accordance with the requirements above.
- Require that the railroad and holder enter into an agreement with specified elements where the crossing cannot be closed.
- Specify the responsibilities of the crossing holder and the railroad. Since use of the crossing is determined by the holder, place a clear responsibility on the holder to participate in making necessary improvements at the crossing.
- Provide a mechanism for the railroad(s) using the rail line to challenge the continued necessity for the crossing.
- Provide one or more mechanisms for alternative dispute resolution when a dispute arises regarding the opening, closing or improvement of a private crossing. (Shared cost, railroad and holder.)
- Provide a mechanism for dispute resolution, available only where alternative dispute resolution has failed. (Public cost.)
- Provide a means of certifying any State capable of handling these issues within the State.
  - Certification would be based on substantial conformity with the policies adopted at the National level, provision of legal opinion that the State agency is authorized to undertake the function, and periodic affirmation by

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the State agency that it is funded at a level permitting it to show progress in addressing the issue.

- Classify private crossings by use, providing suitable objective definitions.
- Require treatments based on private crossing classifications, as follows:
  - All private crossings:
    - Specify minimum signage to consist of a crossbuck, supplemented by a stop or yield sign, and, in the case of non-public use crossings, a standard plate stating, “Private Crossing - Authorized Users Only.” Require replacement of existing signage as needed, not to exceed 7 years from date of final rule.
  - Private crossings with Public Use:
    - Provide that public use crossings shall conform to the MUTCD.
    - Make public use crossings eligible for improvement under section 130; however, require a documented statement of public benefits before funds are expended.
    - Except where a quiet zone is in effect, require use of the train horn at public use crossings under the same rules as public crossings.
    - Provide risk-based regulatory requirements for improvements at public use crossings and other private crossings (except agricultural crossings; see below), including sight distance requirements as applicable. Consider factors such as road traffic, rail traffic, presence of rail passenger service, maximum train speeds, etc.
    - After period of progressive work to improve these crossings, require that they be closed if not equipped according to requirements.
  - Private Crossings with Seasonal or Agricultural Use:
    - Specify use of locked gates or minimum signage (above) for agricultural crossings on tracks where the maximum authorized train speed exceeds 25 mph.
    - Specify a requirement for railroad dispatcher approval to traverse the crossing where maximum authorized train speed exceeds 49 mph, except where some form of active warning is provided.
- Improve the National Highway-Rail Grade Crossing Inventory with respect to private crossings:
  - Require railroad to populate private crossing data fields in the inventory, providing updates not less frequently than once every 3 years.
  - Add data elements as needed for analysis.
  - Permit railroad to estimate information not directly available.