Measure Name Warning signs

<u>Definition</u> Signage to inform the public that trespassing onto the railroad right-of-way is

dangerous and/or illegal.

Tags

Type of Incident Trespass only

Location Both station and right-of-way

Intervention Strategy Engineering: technological and physical deterrents

Measure Group Public communication

Description

This measure refers to installing signs to inform the public that trespassing onto the railroad right-of-way (ROW) is illegal and dangerous. Messages on signs can range from a simple "No Trespassing" to listing state penal code information and possible consequences (see image 3). This measure aims to increase public awareness that the railroad ROW is private property and to inform the public about the potential physical and legal consequences of trespassing onto rail property.

Research from outside the U.S. that examined the effectiveness of signage on railroad trespasser activity reported between a 30.7 and 39.8 percent reduction in the number of trespassers after signs were installed [1][2]. However, cultural differences give some uncertainty as to whether this measure would have a similar effect within the U.S.

Additional search terms: messages, posters

Advantages

- Warning signs are straightforward to design and easy to install.
- Warning signs are relatively low cost. The cost is primarily associated with construction materials, rather than installation.
- Research shows that signs can be somewhat effective in reducing trespassing onto the railroad ROW [1][2].
- Railroads usually have control over the location and design of signage, given that they tend to be installed on railroad property.

Drawbacks

- The signage may not be effective at night due to reduced visibility [1].
- Signage needs periodic maintenance and replacement, given that signs fade over time or may be stolen or removed by trespassers.

Notable Practices

- Signage is most effective at locations with frequent trespass activity. The signs should be placed where they are most visible and should be on both sides of the tracks [1].
- Signage can be placed on a freestanding post or existing infrastructure—such as a fence, bridge, or railroad bungalow—or stenciled on the rail.
- Warning signs work best when combined with other measures [1][2], such as restricting access
 to the ROW (e.g., ROW fencing, landscaping treatments to restrict access, anti-trespass guards)
 or implementing detection/enforcement activities (e.g., various detection systems, and
 safety/security patrols).
- Make sure that signage is printed in both English and any appropriate secondary languages, based on the needs of the target population [2].
- Signs need to be maintained and/or replaced over time. The messages displayed on signs should also be revised periodically to best suit the target population [2].
- To be enforceable, signs must be posted in adherence with state laws and local ordinances. For example, posting signage at specifically set intervals along the ROW.

References

[1] Silla, A. and Luoma, J. (2011). Effect of three countermeasure against the illegal crossing of railway tracks. *Accident Analysis & Prevention*, 43(3), 1089-1094.

Abstract: This study was designed to investigate the effects of three countermeasures – landscaping, building a fence and prohibitive signs – on the frequency of trespassing, which in this case means crossing the track at places where it is forbidden. At each location the official route was no more than 300 m away. The main results showed that the effect of each countermeasure on the frequency of trespassing was statistically significant. Specifically, the fencing reduced trespassing by 94.6%, followed by landscaping (91.3%) and prohibitive signs (30.7%). The majority of illegal crossings were committed alone and the persons trespassing were mostly adults and men. In addition, the results demonstrated some tendencies of how the effects of the selected countermeasures can vary with the characteristics of the trespassers. The main implication of this study is that the building of physical barriers such as landscaping or fencing is recommended for reducing trespassing. However, if the required resources are not available or the site is not suitable for such measures, the use of prohibitive signs is recommended. Further, there is a need to tailor the countermeasures to the characteristics of the trespassers in order to ensure that the most appropriate countermeasures are applied.

[2] RESTRAIL. (2014). Evaluation of measures, recommendations and guidelines for further implementation, Warning signs and posters – CIDAUT.

Description: This document describes various evaluations that have been conducted as a part of the RESTRAIL project including evaluation of warning signs and posters conducted in Spain.

Related Measures

- Identify funding opportunities
- Incident cost estimation
- Platform fencing
- Physical barriers at bridges
- Public messaging to prevent trespassing