

# Quiet Zone Designation in New Jersey

*An Informational Guide*



North Jersey  
Transportation  
Planning  
Authority



## About the NJTPA

The North Jersey Transportation Planning Authority (NJTPA) is the federally authorized Metropolitan Planning Organization for 6.5 million people in the 13-county northern New Jersey region. Each year, the NJTPA oversees the investment of more than \$2.5 billion in transportation improvement projects and provides a forum for interagency cooperation and public input into funding decisions. It also sponsors and conducts studies, assists county planning agencies and monitors compliance with national air quality goals.

The NJTPA Board of Trustees includes 15 local elected officials, including one representative from each of the 13 northern New Jersey counties—Bergen, Essex, Hudson, Hunterdon, Middlesex, Monmouth, Morris, Ocean, Passaic, Somerset, Sussex, Union and Warren—as well as from the cities of Newark and Jersey City.

The Board also includes the Commissioner of the New Jersey Department of Transportation (NJDOT), the Executive Directors of NJ Transit and the Port Authority of New York & New Jersey and a Citizens' Representative appointed by the Governor.

*This document was prepared by the North Jersey Transportation Planning Authority, Inc. with funding from the Federal Transit Administration and the Federal Highway Administration. The NJTPA is solely responsible for its contents. The document is meant for informational purposes only.*

*Note: Crossings shown in this brochure are not necessarily in quiet zones. Photos at top of page 3, middle of page 4, top of page 6 and bottom of page 7 courtesy of Mike Rosenthal, © NJ Transit, 2009. All other photos courtesy of Scott J. Parker, Jacobs Engineering Group Inc.*

## About this Brochure

The federal requirement that train horns be sounded at every grade crossing in or near communities nationwide has sparked a number of questions with regard to the establishment of quiet zones. The North Jersey Transportation Planning Authority (NJTPA), as northern and central New Jersey's Metropolitan Planning Organization (MPO), is pleased to provide this brochure as a guide to communities throughout the state.



## Definition of a Quiet Zone

A quiet zone, designated by the Federal Railroad Administration (FRA), is a section of a rail line where alternative safety measures have been put in place waiving the requirement that locomotives blow their horns when approaching grade crossings. This does not preclude the use of horns at times when safety dictates their use.





## A Brief History

Railroad locomotives have sounded their horns or whistles as they approach crossings as a safety measure for more than a century. In 1984, Florida imposed a horn ban on the Florida East Coast Railroad (FEC). The FRA noted a 60 percent increase in grade crossing accidents on the FEC. As a result, the FRA issued an emergency order overturning Florida's ban and requiring the railroad to sound the horn at all crossings. Subsequent to this action, grade crossing incidents fell to pre-ban levels.

In 1994, Congress directed the FRA to issue regulations requiring that locomotives sound their horn at all grade crossings nationwide, and specifying the volume, length and pattern of the sound. They further mandated that the FRA develop procedures whereby a community could implement a quiet zone without compromising safety. The final rule (Title 49 Code of Federal Regulations [CFR], Parts 222 and 229, effective June 2007) provides national standards and a uniform process for communities seeking quiet zone designations.





## Who Can Apply?

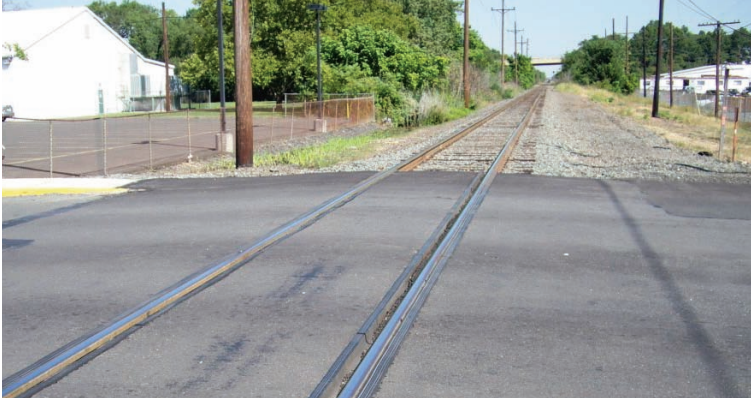
Under the rule, the entity with jurisdiction over the road that crosses the tracks can apply for the quiet zone. Under this definition, all communities, counties, and special districts with roadway authority can apply.

## Quiet Zone Considerations

To obtain a quiet zone designation, the applicant typically bears the cost of improvements to the crossing that, in the FRA's judgment, make the crossing at least as safe as it would be if locomotives continued to sound their horns (see discussion on FRA Quiet Zone Calculator, page 8). Such improvements vary by crossing. They can include physical barriers called supplementary safety measures (four quadrant gates, median barriers) and/or alternative safety measures (programmed enforcement, public education). Each roadway approach to the crossing must be equipped with an advance warning sign advising drivers that trains do not sound their horns at the crossing.

To be considered for a quiet zone designation, crossings must, at a minimum, be equipped with automatic gates and flashing lights that conform to the standards contained in the Federal Highway Administration's Manual on Uniform Traffic Control Devices. (FHWA-under Title 23 CFR, Part 655, Subpart F).





## Cost Considerations



There is currently no source of state or federal funding expressly designated to assist in establishing quiet zones. The applicant seeking to establish the zone is responsible for the cost of installation, maintenance and upkeep for the supplemental safety devices. The costs of these measures will vary. Costs can range from \$30,000 per crossing to over \$1 million depending on the number of crossings included in the zone and the types of safety improvements involved.

## Liability Considerations

Applicants nationally have had different experiences with increased insurance costs due to assumed liability as a result of taking an action to eliminate the sounding of locomotive horns.

Any community considering a quiet zone should seek legal counsel and discuss the issues involved with their insurance underwriters.

## Quiet Zones Are Not for Every Community. Why?

Aside from cost and legal considerations, based on the FRA rule, the crossing to be evaluated must adhere to the following:

- The crossing must be at least ½ mile from the nearest adjacent crossing not being considered for quiet zone designation.
- The crossing must be upgraded to include prescribed baseline criteria (flashing lights, gates, power out indicators, etc.).

## Obtaining a Quiet Zone Designation

In New Jersey, applicants interested in obtaining quiet zone designation should contact the NJDOT Railroad Engineering and Safety Unit in Trenton (see back page). The unit is the primary point of contact for all grade crossing related matters, and will assist communities in navigating the federal application process.





The process consists of the following major actions for which the applicant must provide documentation. Samples of these documents are available on the NJTPA website at [www.njtpa.org/quietzone](http://www.njtpa.org/quietzone).

**A. Notice of Intent to Create a Quiet Zone:** This document notifies the NJDOT, the FRA, the operating railroad(s) and any other impacted parties of the intent to establish a quiet zone. It describes the location of the crossing and the supplemental safety measures to be put in place.

**B. Initiation of Proceedings:** This document initiates the process and notifies all concerned parties that a Diagnostic Team will be convened to review all engineering-technical proposals relating to establishment of a quiet zone. The Diagnostic Team formulates recommendations which, after providing for team and public review and comment, are forwarded to the NJDOT Commissioner for use in rendering a decision. A Diagnostic Team meeting is only official if a representative of the operating railroad(s) and a NJDOT Railroad Engineering and Safety Unit representative are present.







**C. Memorandum of Record:** This is a document prepared by the applicant, constituting the minutes and recommendations of the Diagnostic Team meeting. This document is open to public comment.

**D. Public Notice:** A notice is published by the applicant announcing the recommendation of the Diagnostic Team meeting, the address and times where related documents can be viewed and inviting written comments.

**E. Final Submission:** A final document is compiled by the municipality containing Proof of Public Notice, the Quiet Zone Calculator results (see page 8), public comments and responses, the agreement with the railroad(s) involved and a final plan for the crossing design. The final submission is made to the NJDOT Railroad Engineering and Safety Unit and FRA.

**F. Commissioner's Order:** The NJDOT will issue the order to proceed once all required materials are received and reviewed, and all conditions met and satisfied. The FRA will receive a copy of the order at that time.



## The FRA Quiet Zone Calculator

The FRA has developed a tool to help applicants evaluate the feasibility of creating a quiet zone in their community. The online FRA Quiet Zone Calculator tool is directly connected to the FRA-maintained National Grade Crossing Inventory as well as FRA highway-rail grade crossing accident records. This direct connection allows the user to interactively select and analyze a single crossing or a series of crossings for quiet zone feasibility. The result of this analysis is a summary report that needs to be submitted to the NJDOT Railroad Engineering and Safety Unit and FRA. The FRA Quiet Zone Calculator is located at the following web address: <http://safetydata.fra.dot.gov/quiet/>.

Communities are encouraged to contact the NJDOT or a professional engineering firm for assistance in understanding and processing the required documentation.



## **Contacts:**

New Jersey Department of Transportation  
Railroad Engineering and Safety Unit  
(609) 530-4944  
[www.state.nj.us/transportation](http://www.state.nj.us/transportation)

North Jersey Transportation Planning Authority  
Division of Freight Planning  
(973) 639-8404  
[www.njtpa.org/quietzone](http://www.njtpa.org/quietzone)

Federal Railroad Administration  
Office of Railroad Safety  
(202) 493-6285  
[www.fra.dot.gov](http://www.fra.dot.gov)

FRA Quiet Zone Calculator:  
<http://safetydata.fra.dot.gov/quiet/>

NJ Transit  
Office of Government  
and Community Relations  
(973) 491-7195  
[www.njtransit.com](http://www.njtransit.com)



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