



**MUNICIPAL
GUIDE
FOR CREATING
NEW QUIET
ZONES**

**DuPage Mayors and Managers Conference
July, 2005**

Overview

The six-county Chicago region is host to the largest rail system in the Nation. The metropolitan area has benefited greatly from an extensive commuter rail system. Chicago's Union Station is also a major hub for Amtrak intercity service.

It should not be surprising, then, that there are over 1,625 highway-rail crossings in the Chicago region. Chicago communities and Chicago industries have grown up with and around the extensive rail complex. As a result, the train horn issue has a unique history in the region.

Historically, local ordinances were adopted banning whistles, and it appears railroads had observed them to a substantial extent. However, in 1988, the State adopted legislation requiring that the train horn be sounded at all public highway-rail crossings. Railroads complied, resulting in a substantial public outcry and court action.

The Illinois Commerce Commission (ICC) responded by developing criteria for allowing train horns to remain silent. Currently, the ICC has excused over 4,000 crossings throughout Illinois that have automatic warning devices and fewer than three collisions in previous five-year period; railroads only honor these excusals at a relative handful (389) of crossings exclusively in northeastern Illinois.

Background of the Rule

1994 Congressional Action

In 1994, Congress passed a law requiring the use of locomotive horns at public grade crossings. Congress concluded that it would be safer to have trains sound their horns at grade crossings than it would be if they didn't sound their horns. At the same time, they realized there might be some circumstances where this would not work, and they left some room for "reasonable exceptions" to the horn blowing, as determined by the Federal Railroad Administration (FRA).

2000 Rulemaking

In January, 2000, the FRA published a Notice of Proposed Rulemaking in the *Federal Register* addressing the use of locomotive horns at public highway-rail grade crossings. The FRA held twelve public hearings and solicited public comments. By the end of the public comment period, almost 3,000 comments had been received, and more than 350 people testified at the public hearings. For the next three and one-half years, the FRA reviewed the comments and testimony; conducted independent studies of the impact of train horns on safety; and made significant revisions to the proposed rule.

Interim Final Rule

On December 18, 2003, the Interim Final Rule was printed in the *Federal Register*. Another period for public comments was provided, and ultimately extended by 60 days. The DuPage Mayors and Managers Conference, DuPage County, and several DuPage

municipalities submitted comments to clarify and improve the provisions of the Interim Final Rule. In total, the FRA received 1,400 comments on the Interim Final Rule.

Final Rule

On April 27, 2005, the FRA issued the Final Rule for the use of locomotive horns at highway-rail crossings. The Final Rule contains a number of changes from the Interim Final Rule, and became effective on June 24, 2005. These changes are generally beneficial and responsive to the concerns and comments of municipalities. The Rule, along with background information, is available on the FRA website at www.fra.dot.gov.

New Quiet Zones

The Final Rule, as was required by Congress, provides for the ability of local governments to choose to prohibit the sounding of locomotive horns at grade crossings within the boundaries of the local government. This is accomplished by creating a New Quiet Zone. (A separate procedure is contained in the Rule for those crossings that are *already* quiet, which the Rule calls a Pre-Rule Quiet Zone. This document only addresses New Quiet Zones.)

In simple terms, a Quiet Zone is created by substituting a safety improvement that gives the same level of risk reduction that is provided by the train horn. A Quiet Zone can be one crossing in a community, or several consecutive crossings in several communities.

The Rule provides a step-by-step process for determining what can be done to offset the lack of a train horn and how to formalize the silencing of the horns.

Measure the Risk

For every rail crossing in the country, the FRA has assigned a Risk Index – a numerical measure of the risk of accidents at that particular crossing. The Risk Index is based on a number of factors, including daily vehicle traffic, number of trains per day, number of highway lanes, number of train tracks, and train speed.

The Risk Index is used and manipulated to determine when a crossing or group of crossings meets the safety level to permit the train horns to be silenced. (If the train horns are silenced, the Risk Index increases. Installing safety improvements will bring the Risk Index back down to a level that will permit the creation of a quiet crossing.)

Determine the Risk Reduction Goal

The Rule provides four different goals or measures that would permit the creation of a Quiet Zone.

1. SSM at Every Crossing

Installation of a Supplemental Safety Measure (SSM) at every grade crossing in the Quiet Zone will offset the increased risk of silencing the train horns. An SSM includes one-way streets, four-quadrant gates, closing a street, and channelization.

Note, however, the safety benefit given by installing one of these improvements at

every crossing more than offsets the increased risk of no train horns, and would probably require a greater expense than other options.

2. QZRI ≤ NSRT

The Quiet Zone Risk Index (QZRI) is the Risk Index of the grade crossing where it is intended that the train horns be silenced; or if there are two or more grade crossings in the Quiet Zone, it is the sum of the Risk Indices for all of the crossings divided by the number of crossings in the Quiet Zone. The QZRI is compared to the Nationwide Significant Risk Threshold (NSRT), which is the average risk at grade crossings across the country where train horns are sounded. If the QZRI is less than or equal to the NSRT, then no safety improvements are required to create a Quiet Zone and silence the train horns. Note, however, the NSRT is computed annually by the FRA, and if the NSRT falls below the QZRI in a future year, safety improvements will be necessary to keep the train horns quiet.

3. Add Safety Measures to Attain QZRI ≤ NSRT

If the QZRI is greater than the NSRT, safety improvements can be added to one or more grade crossings that can reduce the QZRI to, or below, the NSRT. As mentioned above, the Rule identifies Supplemental Safety Measures (SSMs) such as four-quad gates, one-way streets and channelization; and assigns an Effectiveness Rate to each improvement, which indicates the amount of reduction in risk provided by the improvement. Again, note that the NSRT is computed annually, and additional safety improvements may be required in future years if the NSRT drops below the QZRI.

4. Add Safety Measures to Attain QZRI ≤ RIWH

In order to assure that the safety improvements that are made to the grade crossings will *permanently* silence the train horns, the Risk Index With Horns (RIWH) could be used as the target for risk reduction. The RIWH measures the increased risk at a grade crossing due to the removal of the train horn, and identifies the specific amount of risk reduction necessary to exactly offset the loss of the train horn. Once that reduction is accomplished, the train horn ban will be permanent, regardless of any fluctuations in the NSRT or any changes to the Risk Index. Generally, this will be the most appropriate option for most cases.

Identify Safety Improvements

The Rule identifies two categories of safety improvements for grade crossings that can reduce the Risk Index.

Supplemental Safety Measures (SSMs) are specifically identified in the Rule and have a pre-determined Effectiveness Rate. The Rule also specifies the general design and requirements for the SSM. It is not necessary to obtain FRA approval for an SSM to be installed at a grade crossing; and the Risk Index is automatically reduced by the Effectiveness Rate.

Alternative Safety Measures (ASMs) include modified SSMs (an SSM that does not meet all of the design requirements); non-engineering ASMs (education programs, programmed enforcement, and photo enforcement); and engineering ASMs

(improvements that address underlying geometric conditions, including sight distance, that are the source of increased risk at the crossing). The Effectiveness Rate for an ASM is not specified in the Rule. The municipality must make application to the FRA for a determination of the Effectiveness Rate for the proposed ASM.

There are several things to consider when choosing the safety improvement to qualify the Quiet Zone:

- **COST:** Installation of four-quad gates is the most expensive improvement, while improvements like channelization, road closings and one-way streets are significantly less expensive to install. At the same time, these less expensive improvements may offer safety effectiveness rates equal to or greater than four-quad gates.
- **TIME:** As explained above, any improvement that is not an SSM must first be evaluated and approved by the FRA – a process that may take months (especially during the first year of working with the Final Rule). The use of SSMs, with their established effectiveness rates, will save time and effort for the municipality.
- **AESTHETICS:** In order to keep the Quiet Zone, the safety improvements must remain in place. It is important, therefore, to be sure the improvement is consistent with the character of the area. For example, orange-and-black delineators on quick-curb medians may not be well-received in an historic downtown area.
- **COMMUNITY ACCEPTANCE:** Improvements must also be acceptable to the community. Creating a one-way street may be an inexpensive way to reduce the risk index at a crossing, but if the community opposes one-way streets, it won't be an effective improvement. Fortunately, the Rule has provided a variety of options for improvements.
- **EFFECTIVENESS:** Ultimately, the improvements must provide enough risk reduction to qualify the crossing for a quiet zone, so the higher the effectiveness rate, the greater the risk reduction that is achieved.

The Rule suggests, and in some cases requires, the use of a Diagnostic Team to review each grade crossing in the quiet zone and make recommendations for appropriate safety improvements. While the Rule does not specify who should be on the team, it does identify the Team as “a group of knowledgeable representatives of parties of interest in a highway-rail grade crossing.” While this certainly includes representatives of the FRA, ICC, railroads, traffic agencies, municipal engineers and law enforcement, it is strongly encouraged that the Team also include policy staff (such as the city manager) who can balance the review and recommendations with factors other than simply engineering criteria.

Only in the cases of private crossings and pedestrian crossings is it mandatory that the recommendations be implemented. Otherwise, the Rule provides that the Team “make recommendations [*plural*] as to what safety measures authorized by this part *might* be utilized to compensate for the silencing of the train horns [*emphasis added*].”

It is important, again, to stress the role of the railroads in this process – specifically with respect to recommended safety improvements. Ultimately, the railroad that owns the right-of-way will have a veto over any proposed improvements on that right-of-way. It is best to understand the railroad’s position early in the process to avoid developing and planning an improvement that the railroad ultimately rejects.

Design and Construction

The municipality (or municipalities in multi-jurisdiction quiet zones) will determine the specific improvements to be installed at grade crossings. Again, however, it is important to assure the railroads are supportive of the decision, and that the highway agency (if it is not the municipality) agrees with the decision. It may be appropriate to bring the parties together to collaboratively decide the appropriate type and location of safety improvements.

Once agreement is reached, design, engineering and construction can take place. Again, the affected parties should be involved in review of each of these steps. Only after the completion of construction can a quiet zone be established.

Funding

In addition to local funds, municipalities may have other sources to pay some of the costs of the improvements:

- **OTHER MUNICIPALITIES:** The advantage of a multi-municipal quiet zone is the ability to share costs. Almost always, it is less expensive for municipalities to join together to create one quiet zone than it is to create a series of individual municipal quiet zones.
- **RAILROADS:** While railroads are unlikely to participate in funding for improvements off of their right-of-way, they have, in the past, participated in sharing the cost of improvements on railroad property.
- **ICC:** While the agency programs its grade-crossing improvement funds for several years in the future, municipalities that are not in a hurry to create a quiet zone may try to be included in a future funding year.
- **STP:** The DuPage Council (DMMC) has set aside federal STP funds for improvements at grade crossings in order to support the creation of quiet zones.

Notification

Once the improvements are constructed or installed, the municipality or municipalities can notify the FRA and the railroads (and several other parties) that a Quiet Zone has been created and the train horns must not be sounded. Note that this process is not an application that requires approval of the FRA. If the Quiet Zone meets the requirements, the notification (which specifies the effective date) is all that is necessary.

Details, Details, Details

The remainder of this document will provide the specific steps, including sample forms and documents, to create a New Quiet Zone.

CHECKLIST

- STEP 1** – Identify the highway-rail grade crossings to be included in the New Quiet Zone.
- STEP 2** – Provide written Notice of Intent to create a New Quiet Zone.
- STEP 3** – Create a Diagnostic Team to review each grade crossing to make determinations or recommendations for safety improvements.
- STEP 4** – Identify and design the safety improvements that are necessary to qualify the crossings as a New Quiet Zone; and construct the improvements.
- STEP 5** – Provide notification of the creation of a New Quiet Zone.

STEP 1

Identify the highway-rail grade crossings to be included in the New Quiet Zone.

1. Identify the staff person who will oversee the Quiet Zone process and who will be the primary contact for all Quiet Zone issues.
2. List the crossings within the community where the train horns are to be silenced. This list must include all Public, Private and Pedestrian crossings.
3. Contact neighboring communities to see if it is more efficient to join several consecutive crossings together to make a single Quiet Zone that covers multiple municipalities. [*DMMC will assist with this review.*] If appropriate, obtain Delegation of Authority from municipalities in order to provide notifications for the entire Quiet Zone. [*A sample Delegation of Authority is attached.*]
4. Make sure the total length of the proposed Quiet Zone is at least one-half mile.
5. Go to the FRA web site and print out a Grade Crossing Inventory Form for each crossing (<http://safetydata.fra.dot.gov/officeofsafety>).
6. Confirm that every public grade crossing within the Quiet Zone *already has* the following minimum required improvements:
 - a. Active Warning Devices
 - i. Flashing Lights
 - ii. Two-quad Gates
 - b. Power Out Indicators
 - c. Constant Warning Time Circuitry
 - d. At least one bell is *recommended* by the FRA to provide an audible warning to pedestrians.
 - e. [*If any of these improvements are not present, they must be installed in order to create the Quiet Zone, regardless of whether other safety improvements are necessary.*]

PUBLIC AUTHORITY DELEGATION

Quiet Zone Name: _____

The [City/Village/County/Township] of _____ hereby delegates to the [City/Village] of _____ the authority to take such actions as are required by 49 CFR Part 222 for the purpose of creating the New Quiet Zone identified above.

Name

Title

Signature

Date

STEP 2

Provide written Notice of Intent to create a New Quiet Zone.

1. Written notification of the intent to create a Quiet Zone must be sent to:
 - a. All railroads operating over the public highway-rail grade crossings within the quiet zone. [*Contact information for railroads that own the right-of-way is attached. However, municipalities are encouraged to check with these railroads to confirm the names of all railroads using the rail line.*]
 - b. The State agency responsible for highway and road safety.
Dick Smith, Director of Planning
Illinois Department of Transportation
2300 S. Dirksen Parkway
Springfield, Illinois 62764
217-782-6289
smithd@dot.il.gov
 - c. The State agency responsible for grade crossing safety.
Steve Laffey, Railroad Safety Specialist
Illinois Commerce Commission
527 East Capitol Avenue
Springfield, Illinois 62701
217-785-9026
slaffey@icc.state.il.us
2. Include in the notice the following information:
 - a. A list of each public highway-rail grade crossing, private highway-rail grade crossing, and pedestrian crossing included in the Quiet Zone. Identify each crossing by U. S. DOT National Highway-Rail Grade Crossing Inventory Number (from Inventory Form) and street or highway name.
 - b. A statement of the time period for the train horns to be quiet (either “24 hours a day”, or “from 10 p.m. to 7 a.m.”).
 - c. A brief explanation of the municipality’s tentative plans for implementing improvements within the proposed Quiet Zone.
 - d. The name, title and contact information for the person who will act as the point of contact during the quiet zone development process.
 - e. A list of names and address of each party they will receive the notification.
 - f. [*A sample letter Notice of Intent is attached.*]
3. The notification must be sent by certified mail, return receipt requested.
4. A party that receives a copy of the Notice of Intent may submit information or comments about the proposed Quiet Zone to the municipality during the 60-day period after the date on which the notice of Intent was mailed.
5. Comments received by the municipality should become part of the file for the Quiet Zone. While it is not necessary to respond to the requirements, it is recommended that municipalities discuss the comments with the agency which submitted them.

RAILROAD CONTACT INFORMATION

ATSF/BNSF

Patricia Casler
Director of Suburban Operations
547 W. Jackson Blvd., Suite 1509
Chicago, IL 60661
312-850-5680
312-850-5690 (fax)
patricia.casler@bnsf.com

Canadian Pacific

Jim Krieger, Engineer
501 Marquette Avenue South
Minneapolis, MN 55402
612-904-5994
jim_krieger@cpr.ca

Milwaukee West / Metra

Rick Tidwell, Dir. of Engineering
547 W. Jackson St.
Chicago, IL 60661
312-332-6777
rtidwell@metrarr.com

E J & E

Ken L. Hay
Safety Manager
1141 Maple Road
Joliet, IL 60432-1981
815-740-6727
815-740-6729 (fax)
klhay@uss.com

Chicago Central Pacific

Michael Barron
17641 South Ashland
Homewood, IL 60430
708-332-3954
Michael.barron@cn.ca

SAMPLE NOTICE OF INTENT

date

name

address

city, state, zip

Dear _____:

The City/Village of _____ is providing this Notice of Intent to inform you that a New Quiet Zone is being proposed on the _____ rail road in DuPage County. The purpose of this Notice is to provide an opportunity for railroads and State agencies to provide comments and recommendations to the public authority as it is planning the Quiet Zone. You will have sixty (60) days from the date of this Notice to provide these comments.

Following is a list of the public and private highway-rail grade crossings and pedestrian crossings within the proposed Quiet Zone.

INVENTORY NUMBER	STREET or HIGHWAY	MUNICIPALITY	PUBLIC PRIVATE PEDESTRIAN

The proposed time period for the New Quiet Zone is 24 hours.

If we determine that safety improvements are necessary in order to meet the requirements of a New Quiet Zone, we intend to use Supplemental Safety Measures identified in Appendix A of the Final Rule (Appendix A to Part 222). We do not anticipate using Alternative Safety Measurer, nor do we anticipate having to construct or install any improvements on railroad property. As we proceed with the process of creating the New Quiet Zone, we will invite you to participate in the Diagnostic Team to assure your continued involvement in identifying appropriate safety measures.

The contact person for the New Quiet Zone development process will be:

name

title

address

phone

e-mail

A list of the names and addresses of each party that has received a copy of this Notice of Intent is attached.

Sincerely,

name
Mayor/Manager

STEP 3

Create a Diagnostic Team to review each grade crossing to make determinations or recommendations for safety improvements.

1. As part of the process of identifying what potential safety improvements are realistic and cost-effective, and where these improvements should be made, the Diagnostic Team can be very helpful.
2. The Rule suggests that public crossings proposed for inclusion in a New Quiet Zone should be reviewed in the field by the Diagnostic Team. The Rule requires that this review be done for pedestrian crossings and for private highway-rail grade crossings located in New Quiet Zones which allow access to the public, or which provide access to active industrial or commercial sites.
3. The Diagnostic Team is organized by the municipality. It should be a group of knowledgeable representatives of parties of interest in a highway-rail grade crossing. The Team should include representatives from:
 - a. Municipality (law enforcement, engineering, administration, policy)
 - b. Public agency responsible for the road, if not the municipality
 - c. Railroad which owns the right-of-way [*Contact information is included in Step 2*]
 - d. Federal Railroad Administration – Chicago Office
Tammy Wagner
Region 4 Crossing Safety Manager
Federal Railroad Administration
200 West Adams Street, Suite 310
Chicago, Illinois 60606
312-353-6203 , x49
tammy.wagner@fra.dot.gov
 - e. State Agencies – IDOT and ICC
Dick Smith, Director of Planning
Illinois Department of Transportation
2300 S. Dirksen Parkway
Springfield, Illinois 62764
217-782-6289
smithd@dot.il.gov
Steve Laffey, Railroad Safety Specialist
Illinois Commerce Commission
527 East Capitol Avenue
Springfield, Illinois 62701
217-785-9026
slaffey@icc.state.il.us

f. DuPage County

John Loper, Principal Transportation Planner
Department of Economic Development and Planning
DuPage County
421 County Farm Road
Wheaton, Illinois 60187
630-407-6882
john.loper@dupageco.org

4. A copy of Appendix F from the Final Rule is attached. It identifies the type of information the Diagnostic Team should examine, and the physical characteristics of each crossing that should be noted for the review.
5. The Report from the Diagnostic Team should identify feasible and appropriate safety measures that might improve safety at each grade crossing, including private and pedestrian crossings.
6. Recommendations from the Diagnostic Team for private crossings and pedestrian crossings must be addressed. Recommendations for public crossings are advisory.
7. While not identified in the Rule as a responsibility of the Diagnostic Team, it would be both effective and efficient to have the Team review the Grade Crossing Inventory Form for each crossing at the same time the safety review is conducted. Both the railroads and the State are responsible for updating Inventory Forms. Since both are involved in this safety review, it is an opportune time to identify updates that are necessary and determine which agency will be responsible for updating the Inventory.

Appendix F to Part 222--Diagnostic Team Considerations

For purposes of this part, a diagnostic team is a group of knowledgeable representatives of parties of interest in a highway-rail grade crossing, organized by the public authority responsible for that crossing who, using crossing safety management principles, evaluate conditions at a grade crossing to make determinations or recommendations for the public authority concerning the safety needs at that crossing. Crossings proposed for inclusion in a quiet zone should be reviewed in the field by a diagnostic team composed of railroad personnel, public safety or law enforcement, engineering personnel from the State agency responsible for grade crossing safety, and other concerned parties.

This diagnostic team, using crossing safety management principles, should evaluate conditions at a grade crossing to make determinations and recommendations concerning safety needs at that crossing. The diagnostic team can evaluate a crossing from many perspectives and can make recommendations as to what safety measures authorized by this part might be utilized to compensate for the silencing of the train horns within the proposed quiet zone.

All Crossings Within a Proposed Quiet Zone

The diagnostic team should obtain and review the following information about each crossing within the proposed quiet zone:

1. Current highway traffic volumes and percent of trucks;
2. Posted speed limits on all highway approaches;
3. Maximum allowable train speeds, both passenger and freight;
4. Accident history for each crossing under consideration;
5. School bus or transit bus use at the crossing; and
6. Presence of U.S. DOT grade crossing inventory numbers clearly posted at each of the crossings in question.

The diagnostic team should obtain all inventory information for each crossing and should check, while in the field, to see that inventory information is up-to-date and accurate. Outdated inventory information should be updated as part of the quiet zone development process.

When in the field, the diagnostic team should take note of the physical characteristics of each crossing, including the following items:

1. Can any of the crossings within the proposed quiet zone be closed or consolidated with another adjacent crossing? Crossing elimination should always be the preferred alternative and it should be explored for crossings within the proposed quiet zone.
2. What is the number of lanes on each highway approach? Note the pavement condition on each approach, as well as the condition of the crossing itself.
3. Is the grade crossing surface smooth, well graded and free draining?
4. Does the alignment of the railroad tracks at the crossing create any problems for road users on the crossing? Are the tracks in superelevation (are they banked on a

- curve?) and does this create a conflict with the vertical alignment of the crossing roadway?
5. Note the distance to the nearest intersection or traffic signal on each approach (if within 500 feet or so of the crossing or if the signal or intersection is determined to have a potential impact on highway traffic at the crossing because of queuing or other special problems).
 6. If a roadway that runs parallel to the railroad tracks is within 100 feet of the railroad tracks when it crosses an intersecting road that also crosses the tracks, the appropriate advance warning signs should be posted as shown in the MUTCD.
 7. Is the posted highway speed (on each approach to the crossing) appropriate for the alignment of the roadway and the configuration of the crossing?
 8. Does the vertical alignment of the crossing create the potential for a "hump crossing" where long, low-clearance vehicles might get stuck on the crossing?
 9. What are the grade crossing warning devices in place at each crossing? Flashing lights and gates are required for each public crossing in a New Quiet Zone. Are all required warning devices, signals, pavement markings and advance signing in place, visible and in good condition for both day and night time visibility?
 10. What kind of train detection is in place at each crossing? Are these systems old or outmoded; are they in need of replacement, upgrading, or refurbishment?
 11. Are there sidings or other tracks adjacent to the crossing that are often used to store railroad cars, locomotives, or other equipment that could obscure the vision of road users as they approach the crossings in the quiet zone? Clear visibility may help to reduce automatic warning device violations.
 12. Are motorists currently violating the warning devices at any of the crossings at an excessive rate?
 13. Do accident statistics for the corridor indicate any potential problems at any of the crossings?
 14. If school buses or transit buses use crossings within the proposed quiet zone corridor, can they be rerouted to use a single crossing within or outside of the quiet zone?

Private Crossings Within a Proposed Quiet Zone

In addition to the items discussed above, a diagnostic team should note the following issues when examining any private crossings within a proposed quiet zone:

1. How often is the private crossing used?
2. What kind of signing or pavement markings are in place at the private crossing?
3. What types of vehicles use the private crossing?
 - a. School buses
 - b. Large trucks
 - c. Hazmat carriers
 - d. Farm equipment
4. What is the volume, speed and type of train traffic over the crossing?
5. Do passenger trains use the crossing?
6. Do approaching trains sound the horn at the private crossing?
 - a. State or local law requires it?

- b. Railroad safety rule requires it?
7. Are there any nearby crossings where train horns sound that might also provide some warning if train horns were not sounded at the private crossing?
8. What are the approach (corner) sight distances?
9. What is the clearing sight distance for all approaches?
10. What are the private roadway approach grades?
11. What are the private roadway pavement surfaces?

Pedestrian Crossings Within a Proposed Quiet Zone

In addition to the items discussed in the section titled, "All crossings within a proposed quiet zone", a diagnostic team should note the following issues when examining any pedestrian crossings within a proposed quiet zone:

1. How often is the pedestrian crossing used?
2. What kind of signing or pavement markings are in place at the pedestrian crossing?
3. What is the volume, speed, and type of train traffic over the crossing?
4. Do approaching trains sound the horn at the pedestrian crossing?
 - a. State or local law requires it?
 - b. Railroad safety rule requires it?
5. Are there any crossings where train horns sound that might also provide some warning if train horns were not sounded at the pedestrian crossing?
6. What are the approach sight distances?
7. What is the clearing sight distance for all approaches?

STEP 4

Identify and design the safety improvements that are necessary to qualify the crossings as a New Quiet Zone; and construct the improvements.

1. Using the information and recommendations from the Diagnostic Team, along with the FRA Quiet Zone Calculator (www.fra.dot.gov/us/content/1318), the municipality or municipalities can consider alternative scenarios for improvements that would qualify the crossings for a New Quiet Zone. [*DMMC will assist in the development and evaluation of the scenarios.*]
2. Upon selection of a scenario for safety improvements, the proposed work should be reviewed with the railroad which owns the right-of-way; with the agency with jurisdiction over the road/highway (if not the municipality); and with the ICC.
3. *If the proposed improvements are not SSMs*, the municipality must submit a request to the FRA to establish the effectiveness rate for the proposed improvement(s). No further work should be done until the FRA responds to the request. [*DMMC will work with municipalities on preparing the request.*]
4. Identify and secure funding for the project.
5. If the New Quiet Zone includes more than one municipality or agency, it is recommended that intergovernmental agreements or stipulated agreements (used by the ICC) be developed and executed. These agreements will identify responsibilities for design, construction, funding and maintenance; and should include all parties participating in the New Quiet Zone.
6. Upon agreement of all parties, engineering design work can begin. Preliminary and final design documents should also be shared with all affected agencies.
7. Construct or install the improvements.
8. Install the required signage on *each approach* for every grade crossing.
 - a. Private Crossings
 - i. Crossbuck
 - ii. Stop Sign
 - iii. Advance Warning Sign (Train Horns Not Sounded)
 - b. Pedestrian Crossings
 - i. Advance Warning Sign (Train Horns Not Sounded)
 - c. Public Crossings
 - i. Advance Warning Sign (Train Horns Not Sounded)
 - ii. The FRA recommends that public crossings which include a pedestrian crossing should be equipped with at least one bell to provide an audible warning to pedestrians. If the crossing already has a bell, it may not be removed or deactivated.

STEP 5

Provide notification of the creation of a New Quiet Zone.

1. A Notice of Quiet Zone Establishment must be sent to:
 - a. All railroads operating over the public highway-rail grade crossings within the quiet zone.
 - b. The highway or traffic control or law enforcement authority having jurisdiction over vehicular traffic at grade crossings within the quiet zone.
 - c. The landowner having control over any private crossings within the quiet zone.
 - d. The State agency responsible for highway and road safety (*refer to Step 2*).
 - e. The State agency responsible for grade crossing safety (*refer to Step 2*).
 - f. The Associate Administrator of the FRA
2. The Notification must include the following items:
 - a. A list of each public highway-rail grade crossing, private highway-rail grade crossing, and pedestrian crossing included in the Quiet Zone. Identify each crossing by U. S. DOT National Highway-Rail Grade Crossing Inventory Number (from Inventory Form) and street or highway name.
 - b. A specific reference to the regulatory provision that provides the basis for establishment of the quiet zone, and in most cases, including a copy of the FRA web page that contains the quiet zone data upon which the municipality is relying.
 - c. A copy of the FRA approval, if the improvements are not SSMs.
 - d. If a diagnostic team review was required, include a statement affirming that the State agency responsible for grade crossing safety and all affected railroads were provided an opportunity to participate in the diagnostic team review, and include a copy of the recommendations made by the diagnostic team.
 - e. A statement of the time period within which restrictions on the routine sounding of the locomotive horn will be imposed, and the effective date of the restriction (no earlier than 21 days after the Notice is mailed).
 - f. An accurate and complete Grade Crossing Inventory Form for each public, private and pedestrian grade crossing that reflects the conditions existing at the crossing *before* any new SSMs or ASMs were implemented.
 - g. An accurate, complete and current Grade Crossing Inventory Form for each public, private and pedestrian grade crossing within the quiet zone that reflects SSMs and ASMs in place upon establishment of the quiet zone.
 - h. A statement affirming that the Notice of Intent was provided in accordance with the rule, including the date on which the Notice of Intent was mailed.
 - i. The name, title and contact information of the person responsible for monitoring compliance with the requirements of the Rule.
 - j. A list of names and addresses of each party that is receiving a copy of the Notice of Quiet Zone Establishment.

- k. A statement signed by the chief executive officer of each public authority participating in the establishment of the quiet zone, in which the chief executive officer shall certify that the information submitted by the public authority is accurate and complete to the best of his/her knowledge and belief (*sample statement attached*).
3. A sample Notice is attached. The Notice must be sent by certified mail, return receipt requested.
4. On the effective date specified in the Notice, the railroads are required to no longer sound the train horns at the locations identified in the Notice.

SAMPLE NOTIFICATION LETTER - FRA
New Quiet Zone

Date

Associate Administrator for Safety
Federal Railroad Administration
1120 Vermont Avenue, NW
Washington, D.C. 20590

Dear Associate Administrator:

This letter represents Notice of Quiet Zone Establishment which encompasses the following highway-rail grade crossings:

USDOT Crossing ID Number	Street or Highway Name

For reference purposes, this New Quiet Zone will be referenced as (name) Quiet Zone.

The (name) Quiet Zone shall be effective on (date) [*no earlier than 21 days after the date the Notice is mailed*]. The time period for the restrictions shall be twenty-four (24) hours-a-day [*the option is to make the restrictions effective from 10 p.m. to 7 a.m.*]

A Notice of Intent was provided in accordance with Section 222.43(a)(1) of the Rule. The Notice of Intent was mailed on (date) .

This quiet zone is being created in compliance with (select one):

Section 222.39(a)(1) – Quiet Zone established by implementing an SSM at every public highway-rail grade crossing within the Quiet Zone.

Section 222.39(a)(2)(i) – Quiet Zone established with Risk Index below NSRT without implementation of SSMs.

Section 222.39(a)(2)(ii) – Quiet Zone established with Risk Index below NSRT with implementation of SSMs.

Section 222.39(a)(3) – Quiet Zone established with use of SSMs to reduce Risk Index to the risk level which would exist if locomotive horns sounded at all public crossings in the Quiet Zone.

Section 222.39(b) – Quiet Zone established by public authority application to FRA.

In addition, the following is included with this notification:

- A copy of the FRA web page containing the quiet zone data upon which the municipality relies to qualify for Quiet Zone status.
- A copy of the FRA notification of approval for any improvements within the Quiet Zone that were not SSMs.
- An accurate and complete Grade Crossing Inventory Form for each public, private and pedestrian highway-rail grade crossing within the quiet zone that reflects the conditions existing at the crossing before any new SSMs or ASMs were implemented.
- An accurate, complete and current Grade Crossing Inventory Form reflecting SSMs and ASMs in place upon establishment of the quiet zone.
- The name, title and contact information for the person responsible for monitoring compliance with the requirements of the Final Rule.
- A list of the names and addresses of each party that is receiving a copy of the Notice.
- A statement signed by the chief executive officer of each public authority included in the New Quiet Zone.

A Diagnostic Team was used to review all of the crossings within the New Quiet Zone. A copy of the recommendations from the Diagnostic Team is attached. The State agency responsible for grade crossing safety and all affected railroads were provided an opportunity to participate in the Diagnostic Team review.

If you have any questions on this notification or need additional information, contact [name/address/phone].

Sincerely,

[name]
[title]

CHIEF EXECUTIVE OFFICER STATEMENT

Quiet Zone Name: _____

Public Authority Name: _____

I hereby certify that the information submitted by the public authority of which I am the Chief Executive Officer is accurate and complete to the best of my knowledge and belief.

Name

Title

Signature

Date