CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS & ENGINEERING

Quiet Zone Program Requests

Effective March 2008

Call for projects ended May 16, 2008
Please use for informational purposes only
Introduction

The City of Houston has developed a Quiet Zone Program to address train horn noise near neighborhoods. Quiet Zones are segments of railroad lines where train crews are exempt from sounding the horn at grade crossings. However, the train engineer may use the train horn if there is any activity on or near the track that he or she deems to be unsafe. The program will enhance at-grade crossing safety while improving the quality of life for those neighborhoods adjacent to the railroad corridor being considered.

The City was granted the authority to create Quiet Zones at grade crossings by the Federal Railroad Administration’s (FRA) Train Horn Rule design and certification requirements, which became effective June 24, 2005. The City may implement a Quiet Zone project if the rail segment and the crossings are suitable for adding Quiet Zone devices and if project funding has been secured.

Unless a grade crossing is designated as a Quiet Zone, federal law requires that trains must sound the horn 15-20 seconds prior to arrival at a grade crossing. Basically, the train horn must be sounded continuously from about a ¼ mile in advance of a grade crossing until the train reaches the crossing.

The FRA Train Horn Rule provides procedures that the City can follow to develop Quiet Zones and identifies specific methods to be used to implement a Quiet Zone.

Please feel free to contact our Project Manager, at 713-837-7280 if you have additional questions. Application deadline ended May 16, 2008.

The following is a summary of the process for applying for a Quiet Zone.
A request can be made by a resident, business, school or other entity whose property is within the affected area. However, we encourage applicants to work with your Super Neighborhood Councils and Council Member offices to apply. The affected area is within a ½ mile of the requested grade crossing. Written requests should be submitted to Public Works and Engineering (Department) at the above address. An application form can be obtained from the Department.

The request must be for specific grade crossings and should include at least the following information:
- The railroad line and cross streets to be included in the proposed quiet zone (such as “Richmond Ave. at the Union Pacific Railroad”)
- Name, address, phone number and email address of contact person.

The list of submitted grade crossings may be revised at the sole determination of the Department.

In order for a request to qualify for consideration, the proposed Quiet Zone must meet criteria set by the Department. It is the responsibility of the Department to investigate the locations to determine if the grade crossings meet the following criteria:

- Grade crossings must have gates and constant warning time as determined by the corresponding railroad company.
- The affected area must be primarily residential, transient lodging, recuperative medical facilities, cultural, spiritual or performing arts centers, schools, nature preserves, parks and playgrounds.
- In order to assist in making properties more attractive for redevelopment, a proposal for a quiet zone project in a redevelopment area will be considered if the developer pays all costs of planning and implementation.

A Quiet Zone is typically installed to reduce train noise around a neighborhood, school, hospital or other sound sensitive area. If a grade crossing is within a ½ mile of another grade crossing, the next grade crossing should be included with the Quiet Zone boundary. It is necessary to evaluate each individual crossing to determine if the site is suitable for Quiet Zone measures. Only those requests meeting all the eligibility requirements will proceed. If a request is denied, applicants will not be able to reapply to the Quiet Zone program unless there is considerable change in conditions.

All traffic engineering studies will be scheduled during school traffic hours when the related pedestrian and vehicular traffic are at their peak times. Investigations may often include a survey to determine the number of grade crossings in a particular area and existing equipment at the individual grade crossings.

Other factors such as terrain, roadway geometry, rail geometry and pedestrian traffic will also be considered in the investigation.
Quiet Zone Measures

The Federal Railroad Administration (FRA) specifies several methods to implement a Quiet Zone. Every grade crossing has unique characteristics, which may dictate using one particular method over another. In some locations upgrades to existing railroad signals may be required at an additional cost. In some cases a Quiet Zone may be impractical. The City will be required to complete the comprehensive documentation to establish the grade crossings as a designated Quiet Zone. Lastly, the FRA must ultimately approve the designation of the Quiet Zone.

The following techniques describe basic methods or devices used to deploy a Quiet Zone: For additional information on these methods, refer to the Federal Railroad Administration publication, 49 CFR Parts 222 and 229, Use of Locomotive Horns at Highway Grade Crossings; Final Rule. The Final Rule specifies two types of safety improvements for quiet zone establishment, supplementary Safety Measures (SSMs) or Alternative Safety Measures (ASMs).

**Supplementary Safety Measures** include the following:

_Gates with medians or channelization devices_: To prevent drivers from deliberately driving around lowered railroad gates. A median barrier may be installed along the centerline of the street. FRA requires concrete barrier or channelization devices to be 100 feet in length (60 feet if a driveway or cross street is present) from the nose of the median to the tip of the grade crossing gate.

_Four Quadrant Gate Systems_: The use of four sets of gates to block vehicles from passing on the entire street and prohibiting motorists from driving around the gate arms. In addition to the installation cost, the railroad companies typically require an annual fee (over $5,000) to maintain the additional railroad signal equipment.

_Street Closure_: Street closures effectively eliminate the grade crossing removing the need to sound the train horn.

_One Way Street with Crossing Signal_: One way street operation with gates covering the entire stretch of street.

**Alternative Safety Measures** include the following:

_Modified Supplementary Safety Measures_: An SSM that has been adjusted to accommodate unique circumstances.

_Engineering Alternative Safety Measures_: An ASM that addresses underlying geometric conditions including sight distance, that are a source of increased risk at a crossing.

_Non-engineered Alternative Safety Measures_: Photo enforcement, or a consistent and systematic program of traffic law enforcement, public education programs and the like that produces a measurable reduction of risk at the crossings.

**Additional option:**

_Wayside Horn System_: Horns mounted along roadway used in lieu of the train horn. In addition to the installation cost, an annual expense to the railroad company is required to maintain the special hardware.
The Quiet Zones Program is currently funded in the FY 2008 – FY 2013 Capital Improvements Plan. Capital funds have been allocated as follows:

- FY 2008 - $1.1 M-Committed to approved projects
- FY 2009 - $1.0 M-Call for projects
- FY 2010 - $2.0 M-Call for projects

An evaluation of the crossings will be conducted. The projects will be rated with other crossing projects and as funds are available higher rated projects will be recommended. Texas Department of Transportation may fund gate crossing improvements under their Federal Railroad Safety Program. Railroad companies also may contribute to the City for closure of gate crossings. A developer, neighborhood or other group also may contribute to the funding of a new Quiet Zone. Any grant opportunities will be considered as well.
Request for Quiet Zone Study

Each request must provide the name of the railroad and the cross streets on which a study is requested, and the boundaries of the street segment. Engineering studies will be conducted only within the boundaries indicated. Please use streets for boundary limits, not block ranges.

Example

Requested Street: Union Pacific.
From: 1st Ave.
To: 5th Ave.

Railroad Line: ________________________ From: ___________ To: ___________
Railroad Line: ________________________ From: ___________ To: ___________

Contact Information

Each request must be completed and signed by the requester who lives within the affected area. Only one request per affected area is needed.

Name ________________________________ Address __________________________________

Zip Code _____________________ Contact Phone # _______________

Fax # ________________________ Email Address _________________________

I agree to be the primary contact for the above request. I agree to participate in the notification and the compilation of evidence of support process should it be determined eligible.

Signature of requester __________________________________________   Date __________________