



June 16, 2014

Associate Administrator for Safety  
Federal Railroad Administration  
Office of Safety, RRS-23  
1200 New Jersey Ave, MS 25  
Washington, DC 20590

2014 JUN 19 PM 2:08

Subject: **Proposed Quiet Zone: SE Chelsea Dr. (Crossing ID 090074M)  
Public Authority Application to the FRA Under 49 CFR 222.39(b)**

The City of Vancouver, Washington requests the Associate Administrator of the FRA to approve this quiet zone with the use of an Alternative Safety Measure as required under 49 CFR 222.39(b)1. The following information is provided to you and other parties.

- (i) **Accurate, complete, and current Grade Crossing Inventory Form.** See Attachment 1. This form reflects the crossing as of May 15, 2014.
- (ii) **The present safety measures at the Chelsea grade crossing are:** Automatic gates, flashing lights, bells, and constant warning time circuitry.
- (iii) **Diagnostic Team Review:** Upon consultation with the FRA, we find that a diagnostic team review is not required in this case. However, the City held an onsite review with BNSF Railway Company on May 30th.
- (iv) **Comments received:** During the NOI period, two comments were received: from the Washington Utilities and Transportation Commission (WUTC) and from BNSF Railway Company (BNSF). The letters received are included in Attachment 2. The responses to those comments are offered below.

**WUTC:**

- ***Installation of pedestrian bells.***  
Bells were reinstalled at the crossing by BNSF on June 2, 2014.
- ***Sidewalk on the west side of the crossing.***  
We take exception to the characterization that the crossing has high use by pedestrians and bicyclists. The crossing receives limited use by pedestrians and even less use by bicyclists. Just to the south of the crossing is the entrance to a gated and secured community of 10 homes which does not allow for non-resident vehicle, bicycle, or pedestrian access. There is an unmapped and unimproved pedestrian-

only access to the remote northeast corner of Wintler Park from the crossing area that is now used almost exclusively by the immediate local residents. A few years ago, the City undertook several measures to discourage use by non-residents by eliminating on-street public parking in the surrounding neighborhood to the north. There are no public sidewalks in the general vicinity of the crossing or the area leading to the unimproved park access and the City has no plans to install sidewalks or improve this access point. Accordingly the suggestion to install a sidewalk on the west side of the crossing would be a sidewalk to “nowhere” and as such we feel would be of limited value. There are also no bike lanes or designated bike paths that lead to this location nor are there any plans by the City to do so.

- ***Extend the fence on the south west corner – pedestrian trespass concerns.***  
As described above, there is an unmapped and unimproved pedestrian-only access to the remote northeast corner of Wintler Park from the crossing area that is used almost exclusively by the immediate local residents. It is not promoted to the general public but it does provide pedestrian access for the immediate local residents who may want to walk to the park as they are aware of its existence and use it. It is an area approximately 4 feet in width, unimproved and provides no ADA or bicycle access. In January of this year, unrelated to the quiet zone proposal, the City installed approximately 100 feet of fence in this location running parallel to the BNSF right-of-way on the north and a block wall on the south. This served to channelize any pedestrians that might use this access point away from the railroad tracks and severely restricted pedestrians from crossing BNSF right-of-way to the access point. As an outcome of further recent discussions with BNSF, the City will add an additional approximate 10-foot section of fence to take it east past the bungalow, will install some directional and no trespassing signage, and will trim some of the vegetation to clearly delineate the route to be used by pedestrians. We believe the totality of these measures along with the section of fencing already installed adequately addresses and eliminates the prior concerns with unsafe pedestrian behavior at the crossing. In addition, the City will continue to work with BNSF to address any further issues should those be identified.
- ***Stop lines on roadway need to be refreshed.***  
This is part of normal maintenance of the roadway markings. We appreciate this comment, and we will make sure the markings are regularly refreshed.
- ***Vegetation growing on two quadrant corners.***  
Upon clarification with WUTC staff, we find that their comments refer to the Northeast and Northwest corners. The vegetation on both of these corners lies in BNSF right-of-way. The City has asked that BNSF address this issue as this area is not under City control.

**BNSF:**

- ***Regulatory section under which the Quiet Zone would Qualify***  
CFR 49 222.39(b) “Public Authority Application”
- ***Will the City be applying for Alternative Safety Measure or Supplemental Safety Measure?***  
Alternative Safety Measure

- ***Has proper notice been given?***  
Proper notice according to the regulations has been given.
- ***Has Pedestrian Access been addressed?***  
See response to the WUTC comment above on pedestrian trespass concerns.

- (v) **Proposed Safety Improvements:** The City will install mountable traffic median with channelization devices on both sides of the crossing. There will be 25-feet installed north of the crossing, and 29-feet installed south of the crossing. The 29-feet south of the crossing will be tied into an existing 23-feet of non-traversable median for a total of 52-feet of median south of the crossing. See Attachment 3.
- (vi) **Commitment to Implement:** If the quiet zone is approved, the proposed ASMs will be installed by, and funded by, agents of the City of Vancouver.
- (vii) **Demonstration of calculated risk reduction:** Please see QZRI calculations included as Attachment 4.

Point of contact during the quiet zone application process:

**City of Vancouver, WA - Point of Contact:**

Brian K. Carlson, P.E.  
Director of Public Works  
PO Box 1995  
Vancouver WA 98668-1995  
360-487-7131  
brian.carlson@cityofvancouver.us

Please see Attachment 5 for the list of each party receiving this notification.

**ACTION REQUIRED**

Please consider this application for the establishment of a Quiet Zone. Also, please consider this as notice of the beginning date of the required 60-day comment period allowed under the Public Authority Application process for the establishment of a Quiet Zone.

Respectfully submitted,



Brian K. Carlson, P.E.  
Director of Public Works  
City of Vancouver, WA

**U.S. DOT - CROSSING INVENTORY INFORMATION  
AS OF 5/15/2014**

Crossing No.: **090074M**      Update Reason: **Changed Crossing**      Effective Begin-Date of Record: **03/03/14**  
 Railroad: **BNSF BNSF Rwy Co. [BNSF]**      End-Date of Record:  
 Initiating Agency State      Type and Position: **Public At Grade**

**Part I Location and Classification of Crossing**

Division:	<b>NORTHWEST</b>	State:	<b>WA</b>
Subdivision:	<b>FALLBRIDGE</b>	County:	<b>CLARK</b>
Branch or Line Name:	<b>PORTLND-WISHRAM</b>	City:	<b>In VANCOUVER</b>
Railroad Milepost:	<b>0014.41</b>	Street or Road Name:	<b>SE CHELSEA ROAD</b>
RailRoad I.D. No.:	<b>0047</b>	Highway Type & No.:	
Nearest RR Timetable Str:	<b>FISHER</b>	HSR Corridor ID:	
Parent Railroad:		County Map Ref. No.:	<b>6-1B</b>
Crossing Owner:	<b>BNSF Rwy Co. [BNSF]</b>	Latitude:	<b>45.6108088</b>
ENS Sign Installed:		Longitude:	<b>-122.6014238</b>
Passenger Service:	<b>AMTRAK</b>	Lat/Long Source:	<b>Actual</b>
Avg Passenger Train Count:	<b>2</b>	Quiet Zone:	<b>No</b>
Adjacent Crossing with Separate Number:			

**Private Crossing Information:**

Category:	Public Access:	<b>Unknown</b>
Specify Signs:	Specify Signals:	

ST/RR A	ST/RR B	ST/RR C	ST/RR D
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Railroad Use:

State Use:

Narrative:

Emergency Contact:	<b>(800)832-5452</b>	Railroad Contact:	<b>(817)352-1549</b>	State Contact:	<b>(380)864-1262</b>
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**Part II Railroad Information**

Number of Daily Train Movements:	Less Than One Movement Per Day:	<b>No</b>
Total Trains: <b>41</b>	Total Switching: <b>0</b>	Day Thru: <b>21</b>
Typical Speed Range Over Crossing: From <b>0</b> to <b>70</b> mph	Maximum Time Table Speed:	<b>70</b>
Type and Number of Tracks: Main: <b>2</b> Other <b>0</b>	Specify:	
Does Another RR Operate a Separate Track at Crossing?	<b>No</b>	
Does Another RR Operate Over Your Track at Crossing?	<b>Yes: ATK</b>	

# U.S. DOT - CROSSING INVENTORY INFORMATION

Crossing **090074M**

Continued

Effective Begin-Date of Record: **03/03/14**

End-Date of Record:

## Part III: Traffic Control Device Information

**Signs:**

Crossbucks:	2	Highway Stop Signs:	0
Advanced Warning:	Yes	Hump Crossing Sign:	
Pavement Markings:	<i>RR Xing Symbols</i>	Other Signs:	2      Specify: <i>R15-2</i>
			0

**Train Activated Devices:**

Gates:	2	4 Quad or Full Barrier:	No
Mast Mounted FL:	2	Total Number FL Pairs:	4
Cantilevered FL (Over):	0	Cantilevered FL (Not over):	0
Other Flashing Lights:	0	Specify Other Flashing Lights:	
Highway Traffic Signals:	0	Wigwags:	0      Bells:      0
Other Train Activated Warning Devices:		Special Warning Devices Not Train Activated:	
Channelization:	<i>None</i>	Type of Train Detection:	<i>Other</i>
Track Equipped with Train Signals?	No	Traffic Light	<i>N/A</i>
		Interconnection/Premotion:	

## Part IV: Physical Characteristics

Type of Development:	<i>Residential</i>	Smallest Crossing Angle:	<i>60 to 90 Degrees</i>
Number of Traffic Lanes Crossing Railroad:	2	Are Truck Pullout Lanes Present?	No
Is Highway Paved?	Yes	If Other:	
Crossing Surface:	<i>Rubber</i>	Is it Signalized?	
Nearby Intersecting Highway?	<i>N/A</i>	Is Crossing Illuminated?	No
Does Track Run Down a Street?	No		
Is Commercial Power Available?	Yes		

## Part V: Highway Information

Highway System:	<i>Non-Federal-aid</i>	Functional Classification of Road at Crossing:	<i>Urban Local</i>
Is Crossing on State Highway System:	No	AADT Year:	<i>2014</i>
Annual Average Daily Traffic (AADT):	<i>000100</i>	Avg. No of School Buses per Day:	0
Estimated Percent Trucks:	5		
Posted Highway Speed:	25		



STATE OF WASHINGTON  
**WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**  
1300 S. Evergreen Park Dr. S.W., P.O. Box 47250 • Olympia, Washington 98504-7250  
(360) 664-1160 • TTY (360) 586-8203

May 16, 2014

Brian Carlson, PE, Director of Public Works  
City of Vancouver  
P.O. Box 1995  
Vancouver, Washington 98668-1995

**Re: TR-140455 – Southeast Chelsea Drive  
Notice of Intent to Establish a Railroad Quiet Zone**

Dear Mr. Carlson:

Thank you for the opportunity to comment on the Southeast Chelsea Drive proposed quiet zone, as described in Docket TR-140455.

The Washington Utilities and Transportation Commission (commission) received notice on March 19, 2014, from the City of Vancouver (City) of its intent to establish a railroad quiet zone at the Southeast Chelsea Drive crossing, USDOT #090074M. The City is proposing a quiet zone at this crossing which will be in effect 24 hours, seven day per week. The notice provided to the commission does not specify the length of the proposed quiet zone, so commission staff assumes that the City is proposing a quiet zone extending one-quarter mile on each side of the crossing, which is the minimum length required per Code of Federal Regulations (CFR) Title 49, §2.36(a)(1)22.

Commission staff entered data about the Southeast Chelsea Drive crossing into the Federal Railroad Administration (FRA) Quiet Zone Calculator and was unable to obtain a Quiet Zone Risk Index (QZRI) because of a technical glitch. The recent change in status from private to public designation has impacted the characteristics of the crossing and ability of the calculator to compute the risk. Because of the inability to obtain the QZRI, commission staff contacted the FRA for guidance. FRA staff recently provided informal guidance to the City which includes

ASM ATTACHMENT 2

Brian Carlson  
May 16, 2014  
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acceptance of the proposed alternative safety measures (ASM) as described in the notice. Based on this information, the Southeast Chelsea Drive crossing qualifies as a quiet zone because of installation of the ASMs, which reduces the risk factor by 40 percent. The acceptance of the reduced risk is subject to the City filing an application and obtaining approval from the FRA on use of the ASM.

Commission staff accepts the informal guidance provided by the FRA on the risk reduction and offers the following comments.

Commission staff recommends that the City review FRA's publication, "Guidance on the Use of Traffic Channelization Devices at Highway-Rail Grade Crossings," prior to installing the median barriers. The median barriers selected should meet all FRA requirements.

In addition, commission staff recommends that the City consider adding pedestrian upgrades to the crossing due to the high use by pedestrians and bicyclists. Enhancements to consider include installing pedestrian bells, a sidewalk on the west side of the crossing and extending the fence that is currently located south of the bungalow. Currently, there are no pedestrian bells on either signal mast at the crossing. If the quiet zone is approved, there will be no audible warning of an approaching train at the crossing. Pedestrian bells are standard on signal masts. By extending the length of the fence to the proposed sidewalk/roadway, reduces the occurrences of pedestrians accessing the trailhead by walking toward BNSF's bungalow located on the railroad's right-of-way.

The stop lines on the roadway on both approaches to the crossing are faded and worn; staff recommends that they be reapplied so motorists know precisely where to stop when the gates are activated.

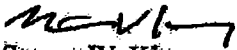
Finally, there is a significant amount of vegetation growing on the southwest and southeast quadrants of the crossing which is obstructing the sight distance and should be removed. The sight distance of these quadrants is limited to approximately 100 feet. A vegetation management plan should be prepared to ensure that the vegetation is removed and trimmed on a regular basis.

In conclusion, commission staff acknowledges that the Southeast Chelsea Drive crossing very likely qualifies for designation as a quiet zone based on the informal guidance provided by FRA staff; however staff recommends that the city consider these recommendations prior to implementing a quiet zone at this location.

Brian Carlson  
May 16, 2014  
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Thank you for the opportunity to provide comments. Please feel free to contact Kathy Hunter at [khunter@utc.wa.gov](mailto:khunter@utc.wa.gov) or Bob Boston at [bboston@utc.wa.gov](mailto:bboston@utc.wa.gov) if you have any questions or would like additional information.

Sincerely,



Steven W. King  
Executive Director and Secretary

cc: John Shurson and Richard Wagner, BNSF Railway  
FRA Associate Administrator for Safety  
Kurt Laird, AMTRAK  
Ahmer Nizam, WSDOT  
Associate Administrator for Safety and Christine Adams, FRA





Richard W Wagner  
Manager Public Projects

BNSF Railway Company  
2454 Occidental Ave S Suite 2D  
Seattle, WA 98134

206-625-6152  
206-625-6115 (fax)  
Richard.Wagner@bnsf.com

May X, 2014

Mr Brian Carlson PE  
Director of Public Works  
City of Vancouver, WA  
P.O. Box 1995  
Vancouver, WA 98668-1995

**Re: Proposed Quiet Zone at SE Chelsea Drive, USDOT #090074M  
Notice of Intent Create a Quiet Zone**

Dear Mr. Carlson:

BNSF Railway is in receipt of the City of Vancouver's ("City") Notice of Intent ("Notice") dated March 17, 2014 to create a New Quiet Zone ("Quiet Zone") for the above-referenced crossing. At the outset of this letter, BNSF would like to be clear that we believe that if not properly accounted for with appropriate safety enhancements, the elimination of the train horn can be detrimental to safety. The train horn is intended to alert the motoring and pedestrian public of train movement. BNSF writes this comment letter based in part upon requirements set by FRA in the Train Horn Rule ("Rule") at 49 CFR 222.

BNSF receives several quiet zones notices every month, and this office is quite familiar with the requirements for a quiet zone to be approved. It is unclear from the City's Notice exactly how the Quiet Zone and stated safety measures qualify for establishment under the Rule. Clarification is needed to determine, at a minimum:

- 1) The regulatory section under which the Quiet Zone would qualify;
- 2) Whether the City is seeking risk reduction credit and which specific type of safety measure is being used (Alternative or Supplemental). The aerial included in the Notice references a 23' existing non-traversable median with a proposed additional 29' of non-traversable median on the south side of the tracks, as well as a 25' proposed non-traversable median on the north side of the tracks;
- 3) That the correct notices have been issued. If the City means to claim credit for a Supplemental Safety Measure, BNSF is concerned that the enhancements may not meet minimum requirements. If the City means to claim credit for an Alternative Safety Measure, further action is required to meet notice and installation requirements under the Rule. Clarification is needed to allow BNSF the opportunity to effectively comment on this proposed Quiet Zone;
- 4) If the pedestrian traffic for this location has been adequately addressed as discussed in prior meetings with the City and the regulatory agencies.

BNSF requests a new Notice or, at the very least, an amended Notice that adequately follows the prescription of the rule. Further, a current field diagnostic of the crossing and surrounding location should be conducted as soon as possible.

Once all requirements are met, the City is required to issue a Notice of Establishment for the Quiet Zone implementation. In the Notice of Establishment, the City should certify that the safety measures have been installed and comply with Appendix A or B of the Rule. The City, by signature of the agency's CEO, is certifying in the Notice of Establishment that the Quiet Zone is legally compliant under the requirements of the Rule. BNSF reserves the right to further comment on this proposed Quiet Zone.

We look forward to working with you on this effort. If BNSF can be of further assistance, please feel free to contact me or Lyn Hartley, Director Public Projects, 2500 Lou Menk Drive, Fort Worth, TX 76131 (817-352-1549).

Regards,



Richard W Wagner  
Manager Public Projects

cc

Kurt Laird  
Amtrak Senior Safety Coordinator  
1875 South Holgate St  
Seattle, WA 98134

Ahmer Nizam  
Railroad Specialist  
Washington DOT  
PO Box 47329  
Olympia, WA 98504-7329

Associate Administrator  
FRA  
Office of Safety, RRS-23  
1200 New Jersey Ave., MS 25  
Washington, D.C. 20590

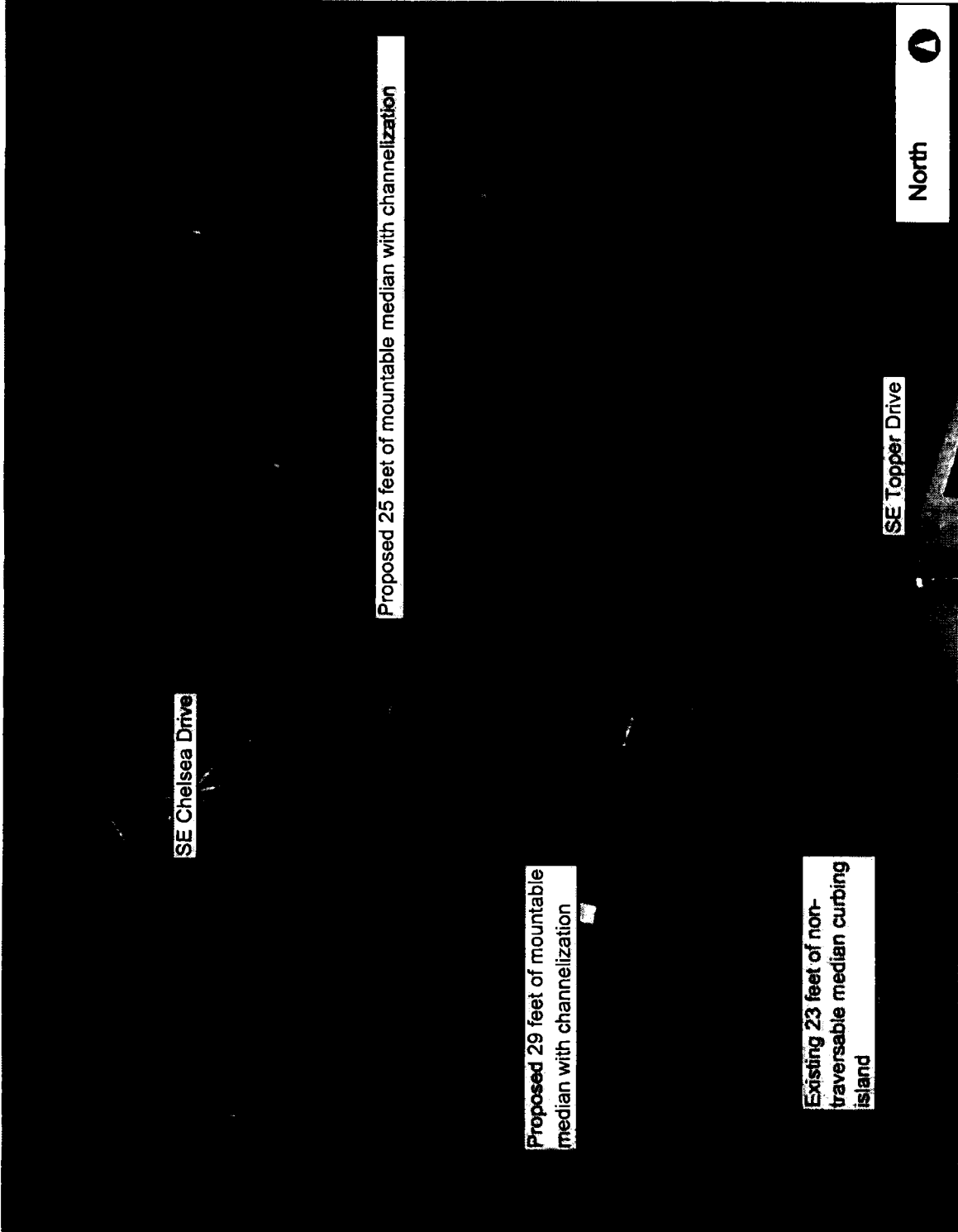
Chris Adams  
FRA  
500 E. Broadway, STE 240  
Vancouver, WA 98660

electronic copy:

[Ryan.ringelman@bnsf.com](mailto:Ryan.ringelman@bnsf.com)  
[Nicole.hightower@bnsf.com](mailto:Nicole.hightower@bnsf.com)  
[John.shurson@bnsf.com](mailto:John.shurson@bnsf.com)  
[Lyn.hartley@bnsf.com](mailto:Lyn.hartley@bnsf.com)



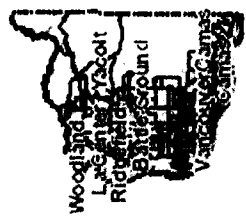
# Chelsea crossing



## Legend

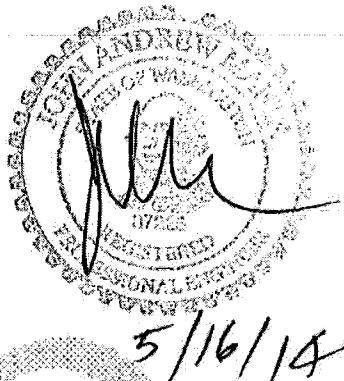
**Chelsea Dr. Quiet Zone**

**ASM Application**



This map was generated by Clark County's "MapOnline" website. Clark County does not warrant the accuracy, reliability, or timeliness of any information on this map, and shall not be held liable for losses caused by using this information.

**Proposed Improvements to Implement Railroad Quiet Zone**  
**SE Chelsea Drive, Vancouver, WA.**  
 WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere  
 Clark County, WA GIS - <http://gis.clark.wa.gov>



**Date:** May 16, 2014  
**To:** Dan Swenson  
**From:** John Manix PE, PTOE  
**Re:** Chelsea Drive Quiet Zone – Quiet Zone Calculations

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Attached is the output from FRA's Quiet Zone Calculator. The crossing will qualify as a quiet zone without any improvements because the Risk Index without Horns is lower than the National Significant Risk Threshold (NSRT). It is still well above the Risk Index with Horns (RIWH). If the NSRT changed, potentially the crossing could lose the quiet zone status.

The two additional tables are the Quiet Zone Risk Index (QZRI) for two Alternative Safety Measures (ASM) per the attached sketch you supplied. ~~The first ASM is with mountable medians with retro-reflective delineation devices.~~ The second ASM is for non-traversable median.

Both alternatives have an effectiveness rating that brings the QZRI below both the RIWH and the NSRT.

**Recommendation:**

Use an ASM with mountable medians and traffic channelization devices.

Note: If zone is a partial new quiet zone, gates are not required if the crossing is to be closed during partial quiet zone period, permanently closed, or grade separated.

Zone ID : 33090		Scenario ID : 42214		
Date : 5/16/2014 4:49:02 PM				
Railroad BNSF	Pre Rule? NO	Partial? NO	Time of Partial Quiet Zone	Total Traffic 106
Estimated Total Cost \$0.00	Nationwide Significant Risk Threshold 14347		Risk Index with Horns 8,252.84	Quiet Zone Risk Index 13,765.74

### Basis for Establishment or Continuation of Quiet Zone

This quiet zone is being established in compliance with the following (check one)

- § 222.39(a)(1), Implementation of SSMs at every public crossing in the New Quiet Zone or New Partial Quiet Zone;
- § 222.39(a)(2)(I), the QZRI is at or below the NSRT without installation of any SSMs at the New Quiet Zone or New Partial Quiet Zone;
- § 222.39(a)(2)(II), SSMs were implemented at some crossings in the New Quiet Zone or New Partial Quiet Zone to bring the QZRI to a level at or below the NSRT;
- § 222.39(a)(3), SSMs were implemented at some crossings in the New Quiet Zone or New Partial Quiet Zone to bring the QZRI to a level at or below the RIWH; or
- § 222.39(b), public authority application to the FRA for a New Quiet Zone or New Partial Quiet Zone.
- § 222.41(a)(1)(I) Pre-Rule Quiet Zones that qualify for automatic approval because every crossing is equipped with an SSM,
- § 222.41(a)(1)(II) Pre-Rule Quiet Zones that qualify for automatic approval because QZRI ≤ NSRT,
- § 222.41(a)(1)(III) Pre-Rule Quiet Zones that qualify for automatic approval because NSRT < QZRI < 2\* NSRT, and there have been no relevant collisions within the 5 years preceding April 27, 2005
- § 222.41(a)(1)(iv) Pre-Rule Quiet Zones that qualify for automatic approval because NSRT < RIWH.
- § 222.41(b)(1)(I) Pre-Rule Partial Quiet Zones that qualify for automatic approval because every crossing is equipped with an SSM,
- § 222.41(b)(1)(II) Pre-Rule Partial Quiet Zones that qualify for automatic approval because QZRI ≤ NSRT,
- § 222.41(b)(1)(III) Pre-Rule Partial Quiet Zones that qualify for automatic approval because NSRT < QZRI < 2\* NSRT, and there have been no relevant collisions within the 5 years preceding April 27, 2005.
- § 222.41(b)(1)(iv) Pre-Rule Partial Quiet Zones that qualify for automatic approval because NSRT < RIWH.
- § 222.41(c) Pre-Rule Quiet Zones and Pre-Rule Partial Quiet Zones that do not qualify for automatic approval

§ 222.41(d) Pre-Rule Partial Quiet Zones that will be converted to 24-hour New Quiet Zones

§ 222.42(a) Intermediate Quiet Zones or Intermediate Partial Quiet Zones

§ 222.42(b) Intermediate Partial Quiet Zones that will be converted to 24-hour New Quiet Zones.

Applicant Signature \_\_\_\_\_

Date \_\_\_\_\_

**Chief Executive Officer Statement.**

I hereby certify that the information submitted in this notification is accurate and complete to the best of my knowledge and belief.

Signature \_\_\_\_\_

Date \_\_\_\_\_

Note: A copy of this report along with other required contents (see § 222.43(e)(2)) must be sent to all of the parties required in § 222.43(a)(4). FRA's notification should be mailed to:

Associate Administrator for Safety  
Federal Railroad Administration  
1200 New Jersey Avenue, SE, MS-25  
Washington, DC 20590



Federal Railroad Administration

### Quiet Zone Designation Information

Name <b>John Manix PE</b>	Job Title <b>Senior Traffic Engineer</b>	Organization <b>for City of Vancouver</b>	
Address <b>PO Box 1995</b>	City <b>Vancouver</b>	State <b>WA</b>	Zip Code <b>98668</b>
Phone <b>360-607-1854</b>	Fax	Email <b>manixj@HDJDG.com</b>	

<b>090074M</b> <b>SE CHELSEA ROAD</b>	Proposed Warning Device <b>Gates</b>	Estimated Cost <b>0.00</b>	Wayside Horn <b>No</b>	Risk Index <b>13,765.74</b>
Crossing Type <b>Public</b>	SSM <b>None</b>		Pre-Existing SSM <b>None</b>	



Federal Railroad Administration

## Quiet Zone Designation Information

### Public At-grade Open Crossing Information

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Crossing:	090074M	Urban(U)/Rural(R):	U.Local
Warning Device:	Gates	Highway Paved:	yes
aadt:	106	Maximum Timetable Speed :	70
Total Trains:	41	Highway Lanes:	2
Day Through Trains:	21	No. of Accident Data Years:	5
Main Tracks:	2	No. of Accidents:	0
Other Tracks:	0	Total Switching Trains:	

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**FRA Quiet Zone Risk Indices**

ZoneID	SenarioID	Crossing	Street	WarningDevice	SSM	PreSSM	RiskIndex	ASM Effectiveness Rate	QZRI	Notes
33000	42212	090074M	SE CHELSEA ROAD	Gates	0	0	13,765.74	0.48		1
ASM Quiet Zone Risk Index for the Chelsea crossing										
Risk Index with Horns										
National Significant Risk Threshold										
									7,158.18	2
									8,252.84	3
									14,347.00	4
										5

Notes

- 1 - Risk Index is quiet zone calculator output for crossing without horns
- 2 - ASM Effectiveness Rating =  $0.75(77/120) = 0.48$   
 0.75 = Effectiveness for an mountable median with channelization devices SSM of full length  
 77 = proposed total median on north (25 feet) and south (52 feet) side of tracks  
 120 = full length median for SSM on south (60.0 feet) and north (60.0 feet) side.
- 3 - QZRI = (1-ASM Effectiveness Rating) X Risk Index
- 4 - Risk Index with Horns calculated by the QZ calculator
- 5 - Risk Index with Horns calculated by the QZ calculator
- 6 - National Significant Risk Threshold calculated by QZ calculator.

**FRA Quiet Zone Risk Indices**

ZoneID	ScenarioID	Crossing	Street	WarningDevice	SSM	PreSSM	RiskIndex	ASM Effectiveness Rate	QZRI	Notes
33000	42212	090074M	SE CHELSEA ROAD	Gates	0	0	13,765.74			1
								0.51		2
ASM Quiet Zone Risk Index for the Chelsea crossing										
Risk Index with Horns										
National Significant Risk Threshold										
									6,745.21	3
									8,252.84	4
									14,347.00	5

Notes

- 1 - Risk Index is quiet zone calculator output for crossing without horns
- 2 - ASM Effectiveness Rating =  $0.80(77/120) = 0.51$   
 0.80 = Effectiveness for non-traversable median SSM of full length  
 77 = proposed total median on north (25 feet) and south (52 feet) side of tracks  
 120 = full length median for SSM on south (60 feet) and north (60 feet) side.
- 3 - QZRI = (1-ASM Effectiveness Rating) X Risk Index
- 5 - Risk Index with Horns calculated by the QZ calculator
- 5 - Risk Index with Horns calculated by the QZ calculator
- 6 - National Significant Risk Threshold calculated by QZ calculator.

## **Attachment 5**

### **Public Authority Application for Railroad Quiet Zone; Written Notice Recipients**

#### **1. Railroads operating over the grade crossings:**

John Shurson  
Assistant Director of Public Projects  
BNSF Railway  
740 E. Carnegie Dr  
San Bernardino, CA 92408

Richard Wagner  
Manager of Public Projects  
BNSF Railway  
2454 Occidental Ave South, Suite 1A  
Seattle, WA 98134-1451

Kurt Laird  
Amtrak Senior Safety Coordinator  
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#### **2. State agency responsible for highway and road safety, and State agency responsible for grade crossing safety:**

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#### **3. Federal Railroad Administration**

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Federal Railroad Administration  
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