

**WHATCOM COUNTY
PUBLIC WORKS DEPARTMENT**



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August 28, 2018

FRA Associate Administrator
1200 New Jersey Avenue, SE
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STATE OF WASHINGTON
UTL AND TRAFFIC
COMMISSION

**Public Authority Application to Federal Railroad Administration
Whatcom County, Washington-
Cove Rd., DOT #084795Y M.P. 87.655 Proposed Quiet Zone**

I. Current Safety Measures:

The railway grade crossing at Cove Road (#084795Y) Bellingham, Washington is a public single track crossing serving 20 residents. This no outlet road serves Pleasant Bay Road and Cove Road residents and has an average daily traffic (ADT) of 199 vehicles. This ADT value more precisely defined is approximately 100 vehicles entering the community via Cove Road and approximately 100 vehicles exiting via Cove Road per day. Less than one percent of this ADT is truck traffic.

The intersection of Cove Road and Pleasant Bay Road is approximately 45-feet south of the crossing. Both of these roads have an existing Parallel Railroad Crossing sign (Manual of Uniform Traffic Control Devices (MUTCD) W10-3) displayed approximately 150-feet from the intersection. The crossing is currently identified on the easterly Cove Road approach using Highway-rail Grade Crossing pavement markings (MUTCD 10-15) and Railroad Crossing Advanced Warning sign (MUTCD W10-1).

The crossing implements a Two Quadrant Gate Configuration and flashing lights to indicated oncoming train traffic. The westerly gate mast has four pair of flashing lights that face east and west down Pleasant Bay Road, and north and south down Cove Road. The east mast has two pair of flashing lights that face north and south down Cove Road.

The Constant Warning Time detection system is currently in place at the crossing. The oncoming train sounds its horn as it approaches the crossing and the pedestrian bell sounds.

The current U.S. DOT Crossing Inventory does not identify all of the existing safety measures detailed above.

II. Diagnostics Team Review:

Whatcom County (County) has examined the Cove Road crossing thoroughly to identify and develop a reasonable, safe improvement option that will allow the crossing to be converted to a Quiet Zone. The

ultimate goal of the County is to increase the safety facilities at the crossing in the most effective and feasible manner to mitigate the absence of the train horn.

The County formed a diagnostics team of County staff to examine the site conditions and make engineering recommendations that satisfy Federal Railway Administration (FRA) requirements for converting this crossing to a Quiet Zone. The Whatcom County diagnostics team included:

Jim Karcher:	Engineering Manager
Roland Middleton:	Special Programs Manager
Cody Swan:	Project Engineer

Whatcom County's diagnostics team also included personnel from Burlington Northern Santa Fe Railway (BNSF), Federal Railroad Administration (FRA), Washington Utilities and Transportation Commission (UTC) that discussed safety concerns and potential safety improvement options for crossings Quiet Zone conversion. The representatives that Whatcom County worked with on this project were:

Betty White:	UTC Operation Lifesaver Coordinator
Bob Boston:	UTC
Stephen Semenick:	BNSF Manager Public Project
Paul Robinson:	BNSF
Jim Moore:	BNSF
Jeffrey Stewart:	FRA Railroad Safety Inspector

The combined diagnostics team has made multiple site visits to examine the potential safety concerns involved with discontinuing the sounding of the train horn. The safety concerns that were recognized are as follows:

- Proximity of intersection;
- Sight distance of approaching and queued vehicles on road approaches;
- Sight distance of train engineer;
- Lane widths restraint on larger vehicle or trailered vehicles, boat launch access;
- Pedestrian traffic, nearby trail;
- Drainage;

The recommendations made by the diagnostics team resulting from examination of the site and the safety concerns unique to this crossing were as follows:

1. Alternative Safety Measures (ASM)-Non- Mountable Median;
2. ASM-Mountable Medians with Reflective Traffic Channelization Devices;

Additional considerations made by the diagnostics team while evaluating options:

- Current (2013) ADT is 199 vehicles, of which < 1% are trucks;
- Posted speed limit is 25 mph at the crossing;
- Speed of train at crossing per U.S. DOT Crossing Inventory; freight and passenger=45 mph;
- There have been no accidents within the last 10 years at this crossing;
- School Buses and transit bus do not regularly use this crossing;
- The crossing serves a "No Outlet" road;

- Emergency response apparatus and other weekly services using large vehicle require access;

III. Proposed Safety Improvements:

Considering all options, holding safety paramount, and factoring cost, unique site conditions, and access, we have identified the most feasible option to be the ASM - Mountable Median with Reflective Traffic Channelization Devices (mountable median).

The easterly road approach will be equipped with a durable plastic 4-inch tall mountable median. That will be installed 1-foot or less from the existing entrance gate in the down position and will extend 100-feet east along the existing double yellow centerline of Cove Road. Reflective Traffic Channelization Devices with an 8-inch wide by 29-inch high Type III Reflective Sheeting surface will be installed atop the 3-1/2-inch composite curb at 80-inch intervals. This safety improvement qualifies as SSM defined in 49 Code of Federal Regulations (CFR) 222, Appendix A, Section 3-Gates with Medians or Channelization Devices.

The close proximity of the intersection on the westerly road approach of the crossing will not allow for installation the full 60-foot mountable median per requirement of 49 Code of Federal Regulations (CFR) 222, Appendix A, Section 3. The mountable median will be installed at 25 foot lengths beginning at no more than 1-foot from the westerly gate in the down position. Reflective Traffic Channelization Devices with an 8-inch wide by 29-inch high Type III Reflective Sheeting surface will be installed atop the 3-1/2-inch composite curb at 40-inch intervals. This modified SSM will qualify as an ASM under 49 Code of Federal Regulations (CFR) 222, Appendix B Section I and is subject to Federal Railroad Administration (FRA) review.

In addition to the mountable median the County will install No Train Horns signs (MUTCD W10-9) at all road approaches.

Per BNSF regulations the County will also be installing 18 feet long and 6 inch tall precast curb to provide protection for the overhanging warning lights. The face of the precast curb barriers will be installed 5 foot 3 inches from the crossing arm post and will be installed parallel with edge striping to provide the necessary protection to the warning light system from approaching large vehicles. Also, at the request of BNSF the County will initiate the upgrade, to LED, of all of the warning lights presently mounted on the cross arms.

IV. Quiet Zone Risk Index Calculation:

The current Risk Indexes are:

Nationwide Significant Risk Threshold -	14,723.00
Risk Index with Horns -	9,165.88
Quiet Zone Risk Index-	15,288.69

When using the Quiet Zone Calculator to calculate the potential risk reduction when using the SSM, (12) Mountable Median with Reflective Traffic Channelization Devices, the Quiet Zone Risk Index is reduced by 14,767.83 to 4,922.61. It is assumed that this calculator factors the requirement in 49 CFR 222, Appendix A, Section 3(b) defining required length and adjustments for effectiveness rating. This CFR would require 100 feet of the SSM mentioned above to be installed on the north side of the crossing and 60 feet to be installed where the intersection is located within 100 feet. Since the proximity of the

intersection prohibits the installation of the full 60 feet on the south, only 25 feet will be installed. We have prorated the reduction in risk accordingly using the following method.

Required median length	=	160 ft.
Installed median length	=	125 ft.
Effectiveness Rating	=	41.67%

Quiet Zone Risk Index with Proposed Alternative Safety Measures
 $(100\% - 41.67\%) \times 15,288.69 = 8,918$

The proposed safety improvements reduce the Quiet Zone Risk Index below the existing Risk Index with Horns and below the Nationwide Significant Risk Threshold.

V. County Response to Notice of Intent (NOI) Comments:

The County issued a NOI to all railroads operating over the public highway-rail grade crossings within the quiet zone, BNSF and AMTRAK and the State agency responsible for grade crossing safety, UTC. The FRA was also included as a courtesy. UTC commented in support of the proposed alternative safety measures "as they will reduce the possibility of motorists driving around downed crossing gates when a train is approaching." AMTRAK had no comment. The BNSF comments and County responses are as follows:

BNSF Comments:

1. **Comment:** *Please note that we do not support the use of traversable medians and strongly encourage the County to use non-mountable concrete center medians with a minimum height of 7" instead.*

County Response:

The County recognizes that BNSF policy is to encourage the use of non-mountable concrete center medians. However, the proposed ASM's have been approved by the FRA to be used to mitigate for the absence of the train horn when creating a quiet zone. The calculations above summarize the effective risk reduction and identify this crossing as ultimately being safer than the current configuration upon the completion of installation of these ASM's. Also, having the ability to keep an inventory of mountable barrier parts on hand will allow the County to have a proactive maintenance program for these facilities. The non-mountable concrete center medians will require the County to contract out this work and will stall any maintenance efforts that may be required to preserve the effectiveness of these safety measures.

2. **Comment:** *Posts or delineators used on the channelization devices can bend or break; please note that the County is responsible for the cost and maintenance of these devices.*

County Response:

Maintenance of these devices was a deciding factor on the decision to use this type of durable rubber composite material. These prefabricated components can easily be installed and

replaced by County Forces where concrete work will need to be contracted out and is not done in house. The County will be able to keep replacement components on hand for responsive, efficient repairs and will conduct annual inspection, at a minimum, of these facilities.

3. **Comment:** *Further, additional signage and enhancements were discussed at the diagnostic meeting, including those regarding the hiking trailhead adjacent to the southeast quadrant. Please ensure these are implemented in accordance with the diagnostic notes.*

County Response:

The County will install an appropriate sized version of a pedestrian trail sign using the Manual on Uniform Traffic Control Devices sign W10-9. This sign will also be installed along all road approaches.

4. **Comment:** *Additionally, BNSF understood from the County that the County was going to build up the northwest quadrant of the crossing with gravel, as BNSF parks vehicles in that vicinity. Due to the median installation, BNSF will no longer be able to use a three-point turn to maneuver around the crossing and the gravel build up is necessary.*

County Response:

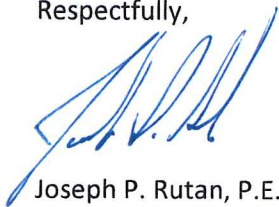
The County does recognize that the proposed mountable median with channelization devices will restrict BNSF vehicles and others from traversing them and will build up the northwest to accommodate BNSF's expectations.

VI. Commitment to Implement Proposed Safety Improvements:

The County intends to mitigate the potential safety hazards that may arise in the absence of the train horn by installing a mountable median with reflective traffic channelization devices as visual indication to motorists to proceed with caution through the crossing. This ASM will be present at all times as a reminder to motorists of the crossing when trains are not present and as an added layer of safety when trains are present. The County commits to installing and maintaining the safety improvements that are described in this document and detailed on the preliminary plan sheet. The County's goal is to increase the safety of all motorists travelling on Whatcom County roads and this improvement satisfies that goal.

Please feel free to contact Cody Swan at 360-778-6265 or by e-mail cswan@co.whatcom.wa.us, for additional information.

Respectfully,



Joseph P. Rutan, P.E.
County Engineer/Assistant Director

Encl: (1) U.S. DOT Crossing Inventory Form (current)

- (2) FRA Pre-Improved Risk Calculation
- (3) Whatcom County Notice of Intent (NOI)
- (4) BNSF Comment Letter to Whatcom County NOI
- (5) UTC Comment Letter to Whatcom County NOI
- (6) Preliminary Plan Sheet

Cc: Stephen Semenick
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Cc Via Email:

Roland Middleton, Whatcom County

U. S. DOT CROSSING INVENTORY FORM

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

Instructions for the initial reporting of the following types of new or previously unreported crossings: For public highway-rail grade crossings, complete the entire inventory Form. For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including pedestrian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For Private pathway grade crossings, complete the Header, Parts I and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part I, and the Submission Information section. For changes to existing data, complete the Header, Part I Items 1-3, and the Submission Information section, in addition to the updated data fields. Note: For private crossings only, Part I Item 20 and Part III Item 2.K. are required unless otherwise noted. An asterisk * denotes an optional field.

A. Revision Date (MM/DD/YYYY) 03 / 04 / 2016	B. Reporting Agency <input checked="" type="checkbox"/> Railroad <input type="checkbox"/> Transit <input type="checkbox"/> State <input type="checkbox"/> Other	C. Reason for Update (Select only one) <input checked="" type="checkbox"/> Change in Data <input type="checkbox"/> Re-Open <input type="checkbox"/> New Crossing <input type="checkbox"/> Date Change Only <input type="checkbox"/> Closed <input type="checkbox"/> Change in Primary Operating RR <input type="checkbox"/> No Train Traffic <input type="checkbox"/> Quiet Zone Update <input type="checkbox"/> Admin. Correction	D. DOT Crossing Inventory Number 084795Y
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Part I: Location and Classification Information

1. Primary Operating Railroad BNSF Railway Company [BNSF]		2. State WASHINGTON		3. County WHATCOM	
4. City / Municipality <input type="checkbox"/> In <input checked="" type="checkbox"/> Near BELLINGHAM		5. Street/Road Name & Block Number COVE RD (Street/Road Name) *(Block Number)		6. Highway Type & No. CO40250	
7. Do Other Railroads Operate a Separate Track at Crossing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Specify RR			8. Do Other Railroads Operate Over Your Track at Crossing? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes, Specify RR ATK		
9. Railroad Division or Region <input type="checkbox"/> None NORTHWEST		10. Railroad Subdivision or District <input type="checkbox"/> None BELLINGHAM		11. Branch or Line Name <input type="checkbox"/> None PA J-US CAN BDR	
12. RR Milepost 0087.655 (prefix) (nnnn.nnn) (suffix)		13. Line Segment * 0050			
14. Nearest RR Timetable Station * SAMISH		15. Parent RR (if applicable) <input checked="" type="checkbox"/> N/A		16. Crossing Owner (if applicable) <input type="checkbox"/> N/A BNSF	
17. Crossing Type <input checked="" type="checkbox"/> Public <input type="checkbox"/> Private		18. Crossing Purpose <input checked="" type="checkbox"/> Highway <input type="checkbox"/> Pathway, Ped. <input type="checkbox"/> Station, Ped.		19. Crossing Position <input checked="" type="checkbox"/> At Grade <input type="checkbox"/> RR Under <input type="checkbox"/> RR Over	
20. Public Access (if Private Crossing) <input type="checkbox"/> Yes <input type="checkbox"/> No		21. Type of Train <input type="checkbox"/> Freight <input checked="" type="checkbox"/> Intercity Passenger <input type="checkbox"/> Commuter		22. Average Passenger Train Count Per Day <input type="checkbox"/> Transit <input type="checkbox"/> Shared Use Transit <input type="checkbox"/> Tourist/Other <input checked="" type="checkbox"/> Less Than One Per Day <input type="checkbox"/> Number Per Day	
23. Type of Land Use <input checked="" type="checkbox"/> Open Space <input type="checkbox"/> Farm <input type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Institutional <input type="checkbox"/> Recreational <input type="checkbox"/> RR Yard					
24. Is there an Adjacent Crossing with a Separate Number? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Provide Crossing Number			25. Quiet Zone (FRA provided) <input checked="" type="checkbox"/> No <input type="checkbox"/> 24 Hr <input type="checkbox"/> Partial <input type="checkbox"/> Chicago Excused Date Established		
26. HSR Corridor ID <input checked="" type="checkbox"/> N/A		27. Latitude in decimal degrees (WGS84 std: nn.nnnnnnn) 48.6556313		28. Longitude in decimal degrees (WGS84 std: -nnn.nnnnnnn) -122.4956996	
29. Lat/Long Source <input type="checkbox"/> Actual <input checked="" type="checkbox"/> Estimated		10.A. Railroad Use *			
10.B. Railroad Use *		31.A. State Use *			
10.C. Railroad Use *		31.B. State Use *			
10.D. Railroad Use *		31.C. State Use *			
2.A. Narrative (Railroad Use) *		31.D. State Use *			
32.B. Narrative (State Use) *		3. Emergency Notification Telephone No. (posted) 300-832-5452			
34. Railroad Contact (Telephone No.) 817-352-1549		35. State Contact (Telephone No.) 360-664-1262			

Part II: Railroad Information

Estimated Number of Daily Train Movements				
A. Total Day Thru Trains (AM to 6 PM)	1.B. Total Night Thru Trains (6 PM to 6 AM)	1.C. Total Switching Trains	1.D. Total Transit Trains	1.E. Check if Less Than One Movement Per Day <input type="checkbox"/>
	7	0	0	How many trains per week? _____
Year of Train Count Data (YYYY) 013		3. Speed of Train at Crossing 3.A. Maximum Timetable Speed (mph) 45 3.B. Typical Speed Range Over Crossing (mph) From 1 to 45		
Type and Count of Tracks Main 1 Siding 0 Yard 0 Transit 0 Industry 0				
Train Detection (Main Track only) <input type="checkbox"/> Constant Warning Time <input type="checkbox"/> Motion Detection <input type="checkbox"/> AFO <input type="checkbox"/> PTC <input checked="" type="checkbox"/> DC <input type="checkbox"/> Other <input type="checkbox"/> None				
Is Track Signaled? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		7.A. Event Recorder <input type="checkbox"/> Yes <input type="checkbox"/> No		7.B. Remote Health Monitoring <input type="checkbox"/> Yes <input type="checkbox"/> No

U. S. DOT CROSSING INVENTORY FORM

A. Revision Date (MM/DD/YYYY) 03/04/2016 PAGE 2 D. Crossing Inventory Number (7 char.) 084795Y

Part III: Highway or Pathway Traffic Control Device Information

1. Are there Signs or Signals? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		2. Types of Passive Traffic Control Devices associated with the Crossing					
2.A. Crossbuck Assemblies (count) <u>2</u>		2.B. STOP Signs (R1-1) (count) <u>2</u>	2.C. YIELD Signs (R1-2) (count)	2.D. Advance Warning Signs (Check all that apply; include count) <input type="checkbox"/> None			
				<input checked="" type="checkbox"/> W10-1	<input type="checkbox"/> W10-3	<input type="checkbox"/> W10-11	
				<input type="checkbox"/> W10-2	<input type="checkbox"/> W10-4	<input type="checkbox"/> W10-12	
2.E. Low Ground Clearance Sign (W10-5) <input type="checkbox"/> Yes (count) <input type="checkbox"/> No		2.F. Pavement Markings <input type="checkbox"/> Stop Lines <input type="checkbox"/> Dynamic Envelope <input type="checkbox"/> RR Xing Symbols <input checked="" type="checkbox"/> None		2.G. Channelization Devices/Medians <input type="checkbox"/> All Approaches <input type="checkbox"/> Median <input type="checkbox"/> One Approach <input type="checkbox"/> None		2.H. EXEMPT Sign (R15-3) <input type="checkbox"/> Yes <input type="checkbox"/> No	
						2.I. ENS Sign (I-13) Displayed <input type="checkbox"/> Yes <input type="checkbox"/> No	
2.J. Other MUTCD Signs <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			2.K. Private Crossing Signs (if private) <input type="checkbox"/> Yes <input type="checkbox"/> No		2.L. LED Enhanced Signs (List types)		
Specify Type _____ Count _____ Specify Type _____ Count _____ Specify Type _____ Count _____							
3. Types of Train Activated Warning Devices at the Grade Crossing (specify count of each device for all that apply)							
3.A. Gate Arms (count) Roadway <u>2</u> Pedestrian _____	3.B. Gate Configuration <input type="checkbox"/> 2 Quad <input type="checkbox"/> Full (Barrier) Resistance <input type="checkbox"/> 3 Quad <input type="checkbox"/> Median Gates <input type="checkbox"/> 4 Quad		3.C. Cantilevered (or Bridged) Flashing Light Structures (count) Over Traffic Lane <u>0</u> <input type="checkbox"/> Incandescent Not Over Traffic Lane <u>0</u> <input type="checkbox"/> LED		3.D. Mast Mounted Flashing Lights (count of masts) <u>2</u> <input type="checkbox"/> Incandescent <input type="checkbox"/> LED <input type="checkbox"/> Back Lights Included <input type="checkbox"/> Side Lights Included	3.E. Total Count of Flashing Light Pairs <u>0</u>	
3.F. Installation Date of Current Active Warning Devices: (MM/YYYY) ____/____/____ <input type="checkbox"/> Not Required		3.G. Wayside Horn <input type="checkbox"/> Yes <input type="checkbox"/> No Installed on (MM/YYYY) ____/____/____		3.H. Highway Traffic Signals Controlling Crossing <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	3.I. Bells (count) <u>1</u>		
3.J. Non-Train Active Warning <input type="checkbox"/> Flagger/Flagman <input type="checkbox"/> Manually Operated Signals <input type="checkbox"/> Watchman <input type="checkbox"/> Floodlighting <input type="checkbox"/> None				3.K. Other Flashing Lights or Warning Devices Count <u>0</u> Specify type _____			
4.A. Does nearby Hwy Intersection have Traffic Signals? <input type="checkbox"/> Yes <input type="checkbox"/> No	4.B. Hwy Traffic Signal Interconnection <input type="checkbox"/> Not Interconnected <input type="checkbox"/> For Traffic Signals <input type="checkbox"/> For Warning Signs	4.C. Hwy Traffic Signal Preemption <input type="checkbox"/> Simultaneous <input type="checkbox"/> Advance	5. Highway Traffic Pre-Signals <input type="checkbox"/> Yes <input type="checkbox"/> No Storage Distance * _____ Stop Line Distance * _____		6. Highway Monitoring Devices (Check all that apply) <input type="checkbox"/> Yes - Photo/Video Recording <input type="checkbox"/> Yes - Vehicle Presence Detection <input type="checkbox"/> None		

Part IV: Physical Characteristics

1. Traffic Lanes Crossing Railroad Number of Lanes <u>2</u>	<input type="checkbox"/> One-way Traffic <input type="checkbox"/> Two-way Traffic <input type="checkbox"/> Divided Traffic	2. Is Roadway/Pathway Paved? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3. Does Track Run Down a Street? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	4. Is Crossing Illuminated? (Street lights within approx. 50 feet from nearest rail) <input type="checkbox"/> Yes <input type="checkbox"/> No		
5. Crossing Surface (on Main Track, multiple types allowed) Installation Date * (MM/YYYY) ____/____/____ Width * _____ Length * _____						
<input type="checkbox"/> 1 Timber <input type="checkbox"/> 2 Asphalt <input type="checkbox"/> 3 Asphalt and Timber <input checked="" type="checkbox"/> 4 Concrete <input type="checkbox"/> 5 Concrete and Rubber <input type="checkbox"/> 6 Rubber <input type="checkbox"/> 7 Metal <input type="checkbox"/> 8 Unconsolidated <input type="checkbox"/> 9 Composite <input type="checkbox"/> 10 Other (specify) _____						
6. Intersecting Roadway within 500 feet? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes, Approximate Distance (feet) <u>75</u>		7. Smallest Crossing Angle <input type="checkbox"/> 0° - 29° <input type="checkbox"/> 30° - 59° <input checked="" type="checkbox"/> 60° - 90°		8. Is Commercial Power Available? * <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

Part V: Public Highway Information

1. Highway System <input type="checkbox"/> (01) Interstate Highway System <input type="checkbox"/> (02) Other Nat Hwy System (NHS) <input type="checkbox"/> (03) Federal AID, Not NHS <input checked="" type="checkbox"/> (08) Non-Federal Aid	2. Functional Classification of Road at Crossing <input checked="" type="checkbox"/> (0) Rural <input type="checkbox"/> (1) Urban <input type="checkbox"/> (1) Interstate <input type="checkbox"/> (5) Major Collector <input type="checkbox"/> (2) Other Freeways and Expressways <input type="checkbox"/> (3) Other Principal Arterial <input type="checkbox"/> (6) Minor Collector <input type="checkbox"/> (4) Minor Arterial <input checked="" type="checkbox"/> (7) Local		3. Is Crossing on State Highway System? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	4. Highway Speed Limit _____ MPH <input type="checkbox"/> Posted <input type="checkbox"/> Statutory
7. Annual Average Daily Traffic (AADT) Year <u>1994</u> AADT <u>000140</u>	8. Estimated Percent Trucks <u>06</u> %	9. Regularly Used by School Buses? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Average Number per Day <u>0</u>		10. Emergency Services Route <input type="checkbox"/> Yes <input type="checkbox"/> No
5. Linear Referencing System (LRS Route ID) *				
6. LRS Milepost *				

Submission Information - This information is used for administrative purposes and is not available on the public website.

Submitted by _____ Organization _____ Phone _____ Date _____

Public reporting burden for this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed and completing and reviewing the collection of information. According to the Paperwork Reduction Act of 1995, a federal agency may not conduct or sponsor, and a person is not required to, nor shall a person be subject to a penalty for failure to comply with, a collection of information unless it displays a currently valid OMB control number. The valid OMB control number for information collection is 2130-0017. Send comments regarding this burden estimate or any other aspect of this collection, including for reducing this burden to: Information Collection Officer, Federal Railroad Administration, 1200 New Jersey Ave. SE, MS-25 Washington, DC 20590.

[Cancel](#)

Change Scenario: COVE 2_52075

[Continue](#)

Crossing	Street	Traffic	Warning Device	Pre-SSM	SSM	Risk	
084795Y	COVE RD	199	Gates	0	0	15,288.69	MODIFY

Create New Zone

Manage Existing Zones

Log Off

* Only Public At Grade Crossings are listed.

[Click](#) for [Supplementary Safety Measures \[SSM\]](#)

[Click](#) for ASM spreadsheet: [ASM](#) * Note: The use of ASMs requires an application to and approval from the FRA.

Step by Step Instructions:

Step 1: To specify New Warning Device (For Pre-Rule Quiet Zone Only) and/or SSM, click the [MODIFY](#) Button

Step 2: Select proposed warning device or SSM. Then click the [UPDATE](#) button. To generate a spreadsheet of the values on this page, click on [ASM](#) button—This spreadsheet can then be used for ASM calculations.

Step 3: Repeat Step (2) until the [SELECT](#) button is shown at the bottom right side of this page. Note that the [SELECT](#) button is shown ONLY when the Quiet Zone Risk Index falls below the NSRT or the Risk Index with Horn.

Step 4: To save the scenario and continue, click the [SELECT](#) button

Summary	
Proposed Quiet Zone:	COVE 2
Type:	New 24-hour QZ
Scenario:	COVE 2_52075
Estimated Total Cost:	\$0.00
Nationwide Significant Risk Threshold:	14723 .00
Risk Index with Horns:	9165.88
Quiet Zone Risk Index:	15288.69

**WHATCOM COUNTY
PUBLIC WORKS DEPARTMENT**

Jon Hutchings
Director



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March 16, 2018

Subject: Notice of Intent to Establish a Quiet Zone
**Location: Whatcom County, Washington- Cove Rd.,
DOT #084795Y M.P. 87.655 Proposed Quiet Zone**

This letter is a Notice of Intent for the establishment of a quiet zone at the aforementioned location in accordance with the regulations set forth by the Federal Railroad Administration's (FRA) Train Horn Rule (49 CFR Part 222).

The railway is currently active 24 hours a day and Whatcom County, at the request of the residents, would like to eliminate the routine sounding of the locomotive horn at Cove Road, DOT #084795Y M.P. 87.655. This will be the only public highway-rail grade crossing included in this quiet zone.

Cove Road is a no outlet road, local access road to Pleasant Bay Road (no outlet road) and serves approximately 20 residences on the westerly side of the crossing. The current Average Daily Traffic (ADT) is 199 vehicles.

The current configuration of the Cove Road public highway-rail grade is two (2) entrance gates and 12 each signal mast mounted warning lights with an intersecting road parallel to the tracks on the west side of the crossing. This crossing configuration prohibits the installation of Supplemental Safety Measures (SSM) to be installed on the west side of the crossing because of the close proximity to the intersection with Pleasant Bay Road. Whatcom County proposes to install 100 feet of mountable medians with reflective traffic channelization devices on the east side of the crossing in accordance with 49 CFR Part 222, Appendix A. On the west side of the crossing, intersecting Pleasant Bay Road restricts the county from installing the full 60 feet requirement in 49 CFR Part 222 for it to be considered a SSM. The County proposes to install 25 feet of mountable medians with reflective traffic channelization devices on the westerly side of the crossing to be considered as an Alternative Safety Measure (ASM). Please see the preliminary exhibit of the proposed improvements and ASM calculations.

The name and title of the point of contact for Whatcom County during the quiet zone development process is as follows:

Cody Swan
Project Engineer
Design & Construction Section
Whatcom County Public Works

322 N. Commercial St. Suite 301
Bellingham, WA 98225-4042
(360) 778-6265
Email: cswan@co.whatcom.wa.us

Action Required:

Please consider this notice as the beginning date of the required 60-day comment period in the Quiet Zone process. The 60-day comment period for this Quiet Zone will end on May 15, 2018, or when a written comment or "no comment" statement is received from each recipient of this notice.

The following is a list of names and addresses of each party that will receive this notification:

1. Railroads operating over grade crossing:

Stephen Semenick
Manger Public Projects for WA, ID & BC
BNSF Railway
2454 Occidental Avenue So Suite 2D
Seattle, WA 98134

Elizabeth F Klute (LIS), CEM
Northwest Regional Emergency Manager (OR/WA/ID/MT/ND)
Emergency Management & Corporate Security Department
National Railroad Passenger Corporation - Amtrak
187 S Holgate St, Seattle, WA 98134

2. State agency responsible for highway and road safety, and State agency responsibility for grade crossing safety:

Kathy Hunter
Deputy Assistant Director, Transportation Safety
Washington Utilities and Transportation Commission
1300 S. Evergreen Park Dr. SW
PO Box 47250
Olympia, WA 98504-7250

Please feel free to contact Cody Swan with any questions regarding this topic.

Respectfully,

Joseph P. Rutan, P.E.
County Engineer/Assistant Director

Attachments:

- Preliminary Cove Road Railroad Grade Crossing Improvements exhibit
- Quiet Zone Calculator
 - Crossing Information- Updated vehicles per day and total trains
 - Pre-Improved risk calculations
 - Post-Improved risk calculations
 - ASM Calculations
- Sample photographs of proposed SSM used in Vancouver, WA

Cc via email: Jeffrey Stewart
Grade Crossing Inspector
Region 8 Grade Crossing Manager
U.S. Department of Transportation
Federal Railroad Administration, Region 8
500 Broadway, Suite 240
Vancouver, WA 98660



Stephen Semenick
Manager Public Projects
WA & B.C.

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

206.625.6152
Stephen.Semenick@bnsf.com

May 16, 2018

Joseph P Rutan, PE
County Engineer/Assistant Director
322 N. Commercial St, Suite 301
Bellingham, WA 98225

Cody Swan
Project Engineer, Design and Construction Section
Whatcom County Public Works
322 N. Commercial St, Suite 301
Bellingham, WA 98225

RE: Whatcom County NOI Cove Rd Letter BNSF Response

Messrs. Rutan and Swan:

BNSF is in receipt of the Whatcom County ("County") Notice of Intent ("Notice") dated March 16, 2018 for a proposed quiet zone ("Quiet Zone") at the crossing listed below. 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. BNSF writes this comment letter based in part upon requirements set by FRA in the Train Horn Rule ("Rule") at 49 CFR 222.

DOT#	Crossing Name	RR Milepost	Safety Measure /ASM
084795Y	Cove Road	87.65	100' traversable median east side of crossing/ traversable median 25' on west side of crossing

The train horn is intended to alert the motoring and pedestrian public of train movement. The County should use the Rule as a minimum guideline in its approach to creating a situation where the train horn is eliminated as a safety measure. For any quiet zone implemented on BNSF-owned track, we strongly recommend each crossing receive appropriate enhanced safety devices to accommodate for removal of the horn prior to the establishment of the quiet zone.

BNSF acknowledges and appreciates the County's efforts to install Alternative Safety Measures ("ASM") at this single-crossing Quiet Zone. BNSF understands the County plans to use traversable medians with traffic channel devices on the east and west sides of the crossing with lengths of 100' and 25', respectively. Please note that we do not support the use of traversable medians and strongly encourage the County to use non-mountable concrete center medians with a minimum height of 7" instead. Posts or delineators used on the channelization devices can bend or break; please note that the County is responsible for the cost and maintenance of these devices. Further, additional signage and enhancements were discussed at the diagnostic meeting, including those regarding the hiking trailhead adjacent to the southeast quadrant. Please ensure these are implemented in accordance with the diagnostic notes. Additionally, BNSF understood from the County that the County was going to build up the northwest quadrant of the crossing with gravel, as BNSF parks vehicles in that vicinity.

Due to the median installation, BNSF will no longer be able to use a three-point turn to maneuver around the crossing and the gravel build up is necessary.

BNSF asks that FRA, in reviewing this proposed Quiet Zone, please note that there is a public-use boat-ramp accessed directly from Cove Road.

Please review the requirements, specifically with regard to median length and height requirements as well as allowance of driveways, and confirm if the safety measures will qualify as an ASM under Appendix B. Due to the use of ASMs, the County is required to submit an application to FRA for the approval of the ASM and this Quiet Zone.

The County is required to issue a Notice of Establishment for the Quiet Zone implementation. In the Notice of Establishment ("NOE"), the City should certify that the ASMs have been constructed and comply with the requirements set forth in Appendix B of the Rule. Please ensure all proper advanced warning signage ("NO TRAIN HORN", etc.) will be installed. Whatcom County, by issuing the NOE, certifies that it has proper jurisdiction to establish the Quiet Zone, and that the Quiet Zone meets or exceeds federal requirements. If BNSF can be of further assistance, please feel free to contact me or French Thompson, Public Projects Director for BNSF, 2600 Lou Menk Drive, OOB3, Fort Worth, TX 76131 (Office phone 817-352-1549).

Regards,



Stephen Semenick
Manager Public Projects, BNSF Railway

cc: Union Pacific Railroad
Engineering Department
Re: Quiet Zone Establishment
1400 Douglas St, STOP 0910
Omaha, NE 68179

Jeffrey Stewart
Regional Manager, Region 8
Federal Railroad Administration
500 Broadway, Suite 240
Vancouver, WA 98660

FRA Associate Administrator
1200 New Jersey Ave, SE
Washington, D.C. 20590

Kathy Hunter
Deputy Assistant Director, Transportation Safety
Washington Utilities and Transportation Commission
1300 S Evergreen Park Dr SW
PO Box 47250
Olympia, WA 98504

cc via electronic mail:

Megan McIntyre, BNSF Railway; French Thompson, BNSF Railway; Nicole Hightower, BNSF Railway; Jennifer Willingham, BNSF Railway



STATE OF 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

Mar. 28, 2018

Joseph P. Rutan, P.E.
County Engineer/Assistant Director
Whatcom County Public Works Dept.
322 N. Commercial Street, Suite 301
Bellingham, WA 98225-4042

**Re: TR-180234 – Notice of Intent to Establish a Railroad Quiet Zone at Cove Road
(USDOT #084795Y)**

Dear Mr. Rutan:

On Mar. 20, 2018, the Whatcom County Public Works Department (County) notified the Washington Utilities and Transportation Commission (UTC) of its intent to establish a railroad quiet zone at the Cove Road railroad crossing, identified as USDOT 084795Y.

The proposed quiet zone will be in effect 24 hours per day, seven days per week. While the notice provided did not specify length, UTC Staff (Staff) assumes that the proposed quiet zone will extend one-quarter mile on each side of the crossing, which is the minimum length required by Title 49, Code of Federal Regulations, Part 222.

The County utilized information in the Federal Railroad Administration (FRA) grade crossing inventory to calculate the Quiet Zone Risk Index (QZRI). As the Cove Road crossing now stands, the QZRI for the quiet zone without train horns is 15,288.69, which exceeds the Nationwide Significant Risk Threshold of 14,723.

The County proposes to install a Supplemental Safety Measure (SSM) upgrade of 100 feet of mountable median with reflectorized channelization devices on the east approach to the crossing. On the west approach to the crossing, a nearby intersecting roadway prevents the County from installing more than 25 feet of mountable median with reflective traffic channelization. This upgrade qualifies as an Alternative Safety Measure (ASM) and will require approval from the FRA. Implementation of these safety measures lowers the overall QZRI below the risk threshold to 8,918.40.

Joseph P. Rutan, P.E.
Mar. 28, 2018
Page 2

On Jan. 30, 2018, Staff participated in an onsite quiet zone review of the Cove Road crossing along with representatives from the County, the FRA, and BNSF Railway Company (BNSF). Staff supports the proposed SSM and ASM upgrades as they will reduce the possibility of motorists driving around downed crossing gates when a train is approaching.

Under current federal rules, the UTC may comment on quiet zones but it does not have the authority to approve or deny them. Staff acknowledges that this crossing will qualify for designation as a quiet zone with the SSM/ASM upgrades proposed by the County.

Prior to installing the median barriers, the County must submit a petition to the UTC to obtain approval for the crossing modifications. Staff also recommends that the County review the enclosed FRA publication, "*Guidance on the Use of Traffic Channelization Devices at Highway-Rail Grade Crossings*." The devices selected should meet all FRA requirements. When the quiet zone is implemented, "NO TRAIN HORN" signs must be added to the advance warning signs on each approach to the crossing.

Thank you for the opportunity to provide comments. Please contact Betty Young, Transportation Planning Specialist, at (360) 664-1202 or by email at betty.young@utc.wa.gov, if you would like additional information.

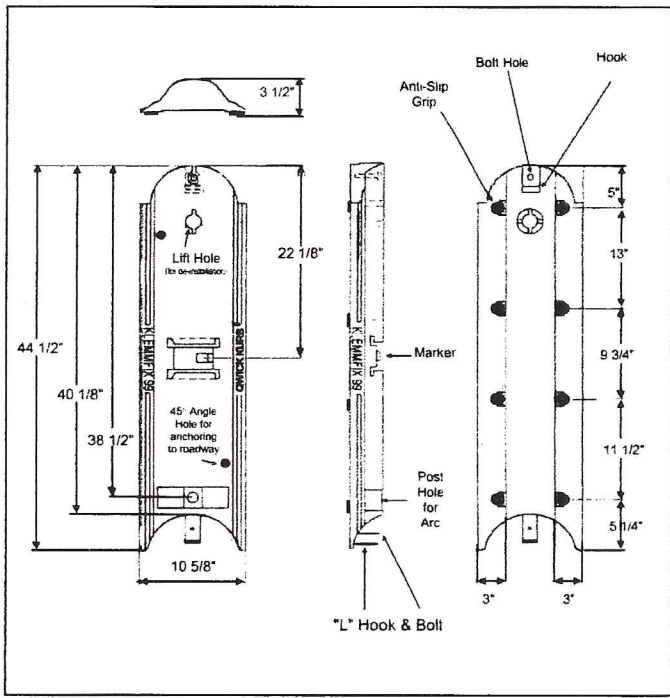
Sincerely,



Steven V. King
Executive Director and Secretary

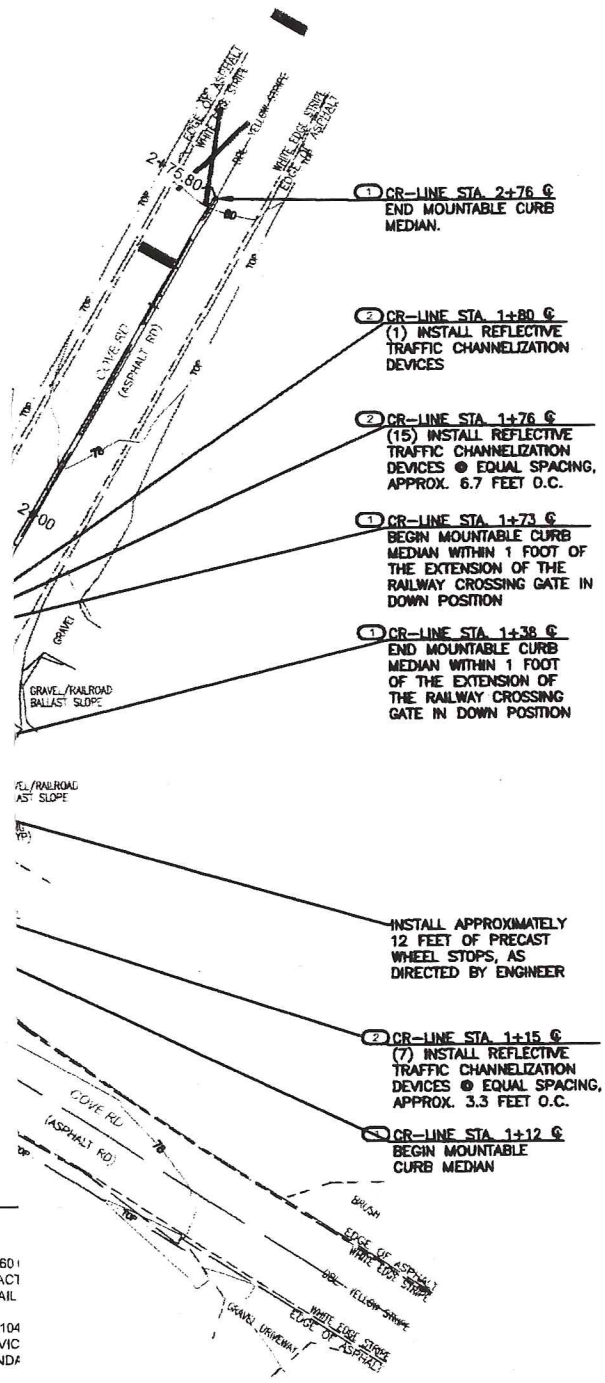
Enclosure

cc: Jeffrey Stewart, Federal Railroad Administration
Federal Railroad Administration, Office of Safety, Washington DC
Megan McIntyre, BNSF
Stephen Semenick, BNSF
Kurt Laird, AMTRAK



1 MOUNTABLE CURB MEDIAN
NOT TO SCALE

- # MEDIAN NOTES
1. INSTALL QWIK KURB MODEL L-601 EQUIVALENT PER THE MANUFACTURER'S RECOMMENDATION. (SEE DETAIL)
 2. INSTALL QWIK KURB MODEL L-104 TRAFFIC CHANNELIZATION DEVICE MANUFACTURER'S RECOMMENDATION THIS SHEET



JOSEPH P. RUTAN, P.E.
COUNTY ENGINEER

MININARY (100% REVIEW SET)

ROAD RAILROAD GRADE CROSSING IMPROVEMENTS
MOUNTABLE CURB MEDIAN WITH REFLECTIVE
CHANNELIZATION DEVICES PLAN



No.	SHIFT REVISION	DATE	BY	PLAN SHEET ISSUE	DATE

SHEET:	01
OF:	01

