

TR-160319

**WHATCOM COUNTY  
PUBLIC WORKS DEPARTMENT**



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**RECEIVED**

JUN 06 2016

WASH. UT. & TP COMM

June 1, 2016

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

**Public Authority Application to Federal Railroad Administration  
Whatcom County, Washington-  
Yacht Club Rd., DOT #084796F M.P. 89.37 Proposed Quiet Zone**

**I. Current Safety Measures:**

The railway grade crossing at Yacht Club Road (#084796F) Bellingham, Washington is a public single track crossing serving 32 residents. This no outlet road serves Chuckanut Lane and Chuckanut Shore Road residents and has an average daily traffic (ADT) of 222 vehicles. This ADT value more precisely defined is 111 vehicles entering the community via Yacht Club Road and 111 vehicles exiting via Yacht Club Road. One percent of the ADT is truck traffic.

The intersection of Yacht Club Road and Chuckanut Lane (north of Yacht Club Road)/Chuckanut Shore Road (south of Yacht Club Road) is approximately 35-feet west 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 Yacht Club 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 Yacht Club Road, south down Chuckanut Shore Road, and north down Chuckanut Lane. The east mast has two pair of flashing lights that face east and west down Yacht Club 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 Yacht Club Road crossing thoroughly to identify and develop reasonable, safe improvement option that will allow the crossing to be converted to a Quiet Zone. The ultimate goal of 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 has 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 includes:

|                   |                          |
|-------------------|--------------------------|
| Jim Karcher:      | Engineering Manager      |
| Roland Middleton: | Special Programs Manager |
| Cody Swan:        | Project Engineer         |
| Dave Hower:       | Senior Traffic Engineer  |

Whatcom County's diagnostics team also includes personnel from BNSF and 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 has worked with on this project were:

|                 |   |
|-----------------|---|
| Bob Boston:     | UTC Operation Lifesaver Coordinator     |
| Richard Wagner: | BNSF Manager Public Project             |
| John Shurson:   | BNSF Assistant Director Public Projects |

The County has incorporated the needs of a very involved Chuckanut Bay Community affected by the train horns into the final improvement decision. This community has expressed their concerns at County Council meetings and the County Council has made great considerations to their concerns.

The 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;
- Pedestrian traffic;
- Steep grade (10-12%) of road approaches;
- Drainage;

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

1. Supplemental Safety Measures (SSM)-4-Quadrant Gate System;
2. Alternative Safety Measures (ASM)-Non- Mountable Median;
3. ASM-Combination of Exit Gate with Non-Mountable Median;
4. ASM-Mountable Medians with Reflective Traffic Channelization Devices;

Additional considerations made by the diagnostics team while evaluating options:

- Current (2013) ADT is 222 vehicles, of which 1% is trucks;
- Posted speed limit on east side of tracks is 35 mph and 25 mph on the west;
- Maximum allowable train speeds are; freight=59 mph and passenger=79 mph;
- There have been no accidents within the last 10 years at this crossing;
- School Buses and transit bus do not use this crossing;
- The crossing serves a “No Outlet” road;
- Residents using the crossing are educated and aware of safety concerns with discontinuing sounding of the train horn;
- Sanitary Services Company needs for access during their weekly trash pick-ups;

**III. Proposed Safety Improvements:**

Considering all options, holding safety paramount, and factoring cost, unique site conditions, and the knowledge base of the affected community on this issue, 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 it’s down position and will extend 100-foot east along the existing double yellow centerline of Yacht Club Road. There will be a 1-foot, or less, gap in the mountable median 20-feet from the starting point at the gate to allow for drainage of a small portion of the asphalt road. Reflective Traffic Channelization Devices with an 8-inch by 29-inch Type III Reflective Sheeting surface will be installed atop the 4-inch composite curb at 80-inch intervals. This safety improvement qualifies as SSM defined in 49 Code of Federal Regulations (FCR) 222, Appendix A, Section 3-Gates with Medians or Channelization Devices.

The closed 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 (FCR) 222, Appendix A, Section 3. The mountable median will be installed at 35 foot in length beginning at no more than 1-foot from the westerly gate in its down position. This modified SSM will qualify as an ASM under 49 Code of Federal Regulations (FCR) 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.

The County has also taken great consideration to the involvement of the community affected by the crossing and although the County is not implementing a Public Education and Awareness ASM, as covered under the 49 CFR 222 Appendix B, Section II(2), we do acknowledge the fact that the community has a comprehension of the laws governing this crossing when converted to a Quiet Zone. The community has been present at several council meetings, community meetings, and has been kept abreast on all topics concerning the process of converting the crossing to a Quiet Zone.

**IV. Quiet Zone Risk Index Calculation:**

The current Risk Indexes are:

|   |           |
|---|-----------|
| Nationwide Significant Risk Threshold - | 14,347.00 |
| Risk Index with Horns -                 | 11,804.82 |
| Quiet Zone Risk Index-                  | 19,690.44 |

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 install on the east 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 west and only 35 feet will be installed we have prorated the reduction in risk accordingly using the following method.

|                           |   |           |
|---------------------------|---|-----------|
| Required median length    | = | 160 ft.   |
| Installed median length   | = | 135 ft.   |
| Percentage installed      | = | 85%       |
| Quiet Zone Risk Reduction | = | 14,767.83 |
| Adjusted Risk Reduction   |   |           |
| 85% x 14,767.83           | = | 12,552.65 |

Quiet Zone Risk Index with Proposed Safety Improvements  
 $19,690.44 - 12,552.65 = 7,137.79$

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:**

**A. Whatcom County Response to BNSF Comments:**

The BNSF NOI comment letter had no direct comments to the County’s proposed safety improvements for the crossing. The comments below have been assumed from the statements within the letter.

**1. *BNSF Comment:***

*While no specifics are given on either the product or construction of the mountable medians, it is clear from watching the on-line “Product Videos” of the mountable median Tuff Curb at <http://www.impactrecovery.com/products/tuff-curb1/>, this product seems to be contradictory to the Quiet Zone treatment goal of deterring motorists from driving over the median and around the gates.*

**County Response:**

The note on the preliminary plan indicates that, *Median Notes: 1. Install, Qwick Kurb or approved equivalent, per the manufacturer’s recommendations. (See mountable raised curb detail this sheet).*

Installation of this product would be per manufacturer’s recommendations of the approved product that meets the specifications detailed in the plans. The “Product Video” referenced in the BNSF comment appears to be contradictory to the product specified in the preliminary plans and would not qualify as an approved equivalent.

Please reference the following webpage, <http://www.qwickkurb.com/>, to view a video (video on right) of the product that is specified to be the ASM installed at the crossing.

**2. BNSF Comment:**

*BNSF believes the County should install, at a minimum, concrete medians with 6-inch minimum height curbs for channelization, which provide a physical barrier to prevent drivers from attempting to drive around down gates.*

**County Response:**

The County determined there to be several issues with installing 6-inch concrete median while the safety benefit was insignificant compared to using mountable median.

The non-mountable median may potentially restrict ingress of emergency vehicles, such as fire trucks, when accessing this community. Unintentionally contact from emergency vehicles may cause damage to the vehicle and/or the non-mountable median. The mountable median will be able to be straddled by emergency vehicle in the event of an emergency without the possibility of damage to the vehicle.

The non-mountable median will impact future road improvement and maintenance such as paving, chip sealing, and snowplowing. Whereas, the mountable median can be removed for maintenance and reinstall and will endure low speed impact from snowplows with little to no damage to either the median or the snowplow.

The non-mountable concrete median is NOT the preference of Sanitary Services Company (garbage pick-up). The non-mountable concrete median has the potential to be damaged by unintentional contact by their garbage truck and could potentially damage their truck. The mountable median option detailed in the County plans will allow that garbage truck driver to unintentionally roll over the median without potential damage to the truck or median.

The proposed mountable median is made of a highly durable material that is anchored to the existing asphalt with 8-inch molly bolt anchors and requires little maintenance. The reflective channelization devices will be monitored frequently to ensure continued effectiveness and defective items will be replaced when the need exists.

**3. BNSF Comment:**

*The on-site meeting with you and Messrs. Swan, Hower, Donahue and Vandersypen in June 2015 left both John Shurson and me with the opinion that exit gates and/or non-traversable medians or a combination of the two treatments were the consensus for this crossing's treatment. Additionally, we discussed safety concerns not addressed by the Rule, such as:*

- *Grade to both approaches;*
- *Lane widths at the west bound approach;*
- *Site (sight) distances at both approaches due to geography and double-track rail traffic;*
- *Types of daily traffic use;*
- *Drainage;*

### **County Response:**

When referencing the BNSF and Whatcom County meeting notes, dated June 3, 2015 that were provided to BNSF it appears that during the meeting several options of potential improvements were discussed. BNSF made it abundantly clear that their preference was to install exist gates in both directions at the crossing and gave a verbal approximation of cost to be \$150k for each gate and \$10k annual maintenance costs. No official concurrence was made at this time and in conclusion to the meeting the required actions by both Whatcom County and BNSF are as follows per the meeting notes:

1. **Whatcom County** – will compile a couple of alternatives to present to County Council to determine which option is best for the Yacht Club crossing, Then Whatcom County will contact BNSF to arrange a meeting to meet on site with UTC.
2. **BNSF** - Whatcom County will need an unofficial engineers estimate from BNSF detailing the costs associated with SSMs discussed on site. This estimate will then be used to support the alternatives that will be presented to County Council.

On November 12, 2015 the County received BNSF's unofficial engineers estimate for the two additional exit gates and the estimated was \$644,126. This estimate was in excess of the verbal estimate by over twice as much.

The February 3, 2016 team meeting both BNSF and UTC expressed concern with the mountable median and they suggested that the County install a combination of a non-mountable median on the easterly road approach and an exit gate on the westerly road approach. The requirement action by the County following the meeting was to contact BNSF for a revised unofficial engineers estimate detailing a single exit gate cost or to proceed with the NOI proposing the mountable median with reflective traffic channelization devices.

The County chose to pursue the mountable median with reflective traffic channelization devices option. The County researched the efficacy of channelization devices used at highway-rail grade crossing and in the Federal Railroad Administration (2005), Use of Locomotive Horns at Highway-Rail Grade Crossings: Final Rule, 49 CFR Parts 222 and 229, Federal Register, Vol. 70, No. 80, gates with median or channelization devices have an effectiveness rating of 0.75. This effectiveness rating was slightly less than the non-mountable medians rating of 0.80.

The County determined that the 0.75 effectiveness rating which translates to a 75% reduction of the risk of a collision at the crossing, at a crossing that had no collision history in the last 10 years, would be a suitable safety improvement. That coupled with the facts that the ADT of this "No Outlet" road is 222, 111 entering and 111 exiting, and the community using this crossing has a superior knowledge base than that of the typical motorist on the implications of removing the train horn, the County concluded that the mountable median would provide a safer crossing for the community.

The safety concerns mentioned in BNSF's statement are addressed by the proposed ASM as follows:

- *Grade to both approaches;* The approach grades have not been an issue for the travelling public at this crossing at no point in the past. The grades will not be lessen as a result of any of the recommendations made by BNSF and will continue to be a safety concern inherent to living at the bottom of Yacht Club Road.

- *Lane widths at the west bound approach;* The proposed ASM will be installed within the existing limits of double yellow centerline. This road is both low traffic and low speed. The County will install advanced warning signs to inform drivers of the changed traffic configuration.
- *Site distances at both approaches due to geography and double-track rail traffic;* The single-track Yacht Club Road crossing site has steep geography on the easterly road approach that does impair the sight distance of the train engineer and the motorist. On higher volume roads with large vehicle queues and a history of gate violations and collisions this concern would have a large impact on the final design of this safety improvement. Since the vehicle queues at this crossing typically do not exceed 2 or 3 vehicles at which point the only sight distance obstruction is the railroad bungalow.

The westerly approach has some overgrowth that does restrict sight distance. This issue can be resolved to the during the other safety improvements with the cooperation of BNSF. The proposed safety improvement is intended to reduce collision in the absence of the train horn and deter motorists from attempting an unlawful gate crossing. Ultimately, the train engineer still reserves the right to sound the train horn if any safety risk is present.

- *Types of daily traffic use;* The largest vehicle using this crossing on a regular basis is the garbage truck that makes weekly pickups. Whatcom County has discussed the needs required by this service and the proposed design accommodates their requirements. The proposed mountable median was laid out in the field and the garbage truck driver drove his normal route as a trial and no conflicts were noted. The proposed mountable median will allow oversized vehicles the ability to drive over the median without damage to the vehicle or median. As infrequent as this route is used by large vehicles maintenance caused from vehicle damage is anticipated to be minimal.
- *Drainage;* In order to address drainage issues that may occur as result of installing the ASM, the mountable median will have a gap of less than 1 foot at the low point on the easterly road approach. The median will be routinely cleaned and free of any debris that may accumulate and impede flow of the storm water.

## **B. Whatcom County Response to UTC Comments:**

The UTC NOI comment letter stated some of the same concerns as the BNSF comment letter. The County responses to UTC comments call reference to the above responses to BNSF on related topics. The comments below have been assumed from statements within the letter.

### **1. UTC Comment:**

*The team at the February 3, crossing review agreed that the preferred treatment would be adding an exit gate for eastbound traffic and installing non-traversable medians on both approaches.*

### **County Response:**

The preferred treatment of BNSF and UTC upon the conclusion of the meeting on February 3 was adding an exit gate for westbound traffic and installing non-traversable medians on both approaches. This treatment however is not the treatment that the County found to be the most feasible option and decided to move forward with a reasonable alternative with proven effectiveness.

Reference above County Response to BNSF Comments 2 and 3.

**2. UTC Comment:**

*In addition, the short 35 foot median allows for easy drive around and the absence of an exit gate increases the chance of collision. Sight distance for motorists approaching the west side of the crossing is also limited due to steep grade and angle.*

**County Response:**

The existing two quadrant gate configuration allow for the same easy drive around as it would with the absence of a westbound exit gate. There have been no collisions or reported gate violations in the past 10 years at this crossing. The County does not believe that the added safety feature would increase the chance of collision or gate violations at this crossing in the absence of the train horn. The sight distance on the westerly approach can be improved with some trimming of vegetation within BNSF right of way. This improvement can be accomplished with the cooperation of BNSF during the construction of the safety improvements.

Reference above County Response to BNSF Comment 3.

**3. UTC Comment:**

*During the on-site meeting it was discussed that the crossing is equipped with constant warning train detection, but the current crossing inventory shows "DC" type train detection. The County should contact BNSF to verify the type of train detection and request that they update the FRA crossing inventory. If train detection is "DC" it will need to be upgraded prior to implementing a quiet zone at this crossing.*

**County Response:**

On the February 3, 2016 onsite diagnostics team meeting BNSF confirmed that the constant warning train detection system is the current detection system at this crossing. Although, the U.S. DOT Crossing Inventory does not reflect this the County has confirmed with the FRA inspector that the constant warning system is in place at the crossing.

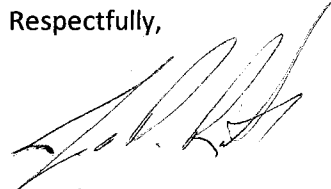
**VI. Commitment to Implement Proposed Safety Improvements:**

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 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](mailto: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) Whatcom County Notice of Intent (NOI)  
(3) BNSF Comment Letter to Whatcom County NOI  
(4) UTC Comment Letter to Whatcom County NOI  
(5) Preliminary Plan Sheet

Cc: Richard W. Wagner  
Manger Public Projects for WA, ID & BC  
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Federal Railroad Administration  
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Vancouver, WA 98660

Cc Via Email:

Roland Middleton, Whatcom County  
Kathy Bovenkamp, Chuckanut Bay Community

# 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.

|   |  |  |  |
|---|--|--|--|
| <b>A. Revision Date</b><br>(MM/DD/YYYY)<br>04 / 20 / 2016 | <b>B. Reporting Agency</b><br><input type="checkbox"/> Railroad <input type="checkbox"/> Transit<br><input checked="" type="checkbox"/> State <input type="checkbox"/> Other | <b>C. Reason for Update (Select only one)</b><br><input checked="" type="checkbox"/> Change in Data <input type="checkbox"/> Re-Open<br><input type="checkbox"/> New Crossing <input type="checkbox"/> Date Change Only<br><input type="checkbox"/> Closed <input type="checkbox"/> Change in Primary Operating RR<br><input type="checkbox"/> No Train Traffic <input type="checkbox"/> Quiet Zone Update<br><input type="checkbox"/> Admin. Correction | <b>D. DOT Crossing Inventory Number</b><br><br>084796F |
|---|--|--|--|

## Part I: Location and Classification Information

|  |  |  |  |   |  |
|--|--|--|--|---|--|
| <b>1. Primary Operating Railroad</b><br>BNSF Railway Company [BNSF]  |  | <b>2. State</b><br>WASHINGTON  |  | <b>3. County</b><br>WHATCOM   |  |
| <b>4. City / Municipality</b><br><input type="checkbox"/> In <input checked="" type="checkbox"/> Near BELLINGHAM   |  | <b>5. Street/Road Name &amp; Block Number</b><br>YACHT CLUB RD<br>(Street/Road Name)   * (Block Number)  |  | <b>6. Highway Type &amp; No.</b><br>CO40670   |  |
| <b>7. Do Other Railroads Operate a Separate Track at Crossing?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No<br>If Yes, Specify RR   |  |  | <b>8. Do Other Railroads Operate Over Your Track at Crossing?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No<br>If Yes, Specify RR<br>ATK                                       |   |  |
| <b>9. Railroad Division or Region</b><br><input type="checkbox"/> None NORTHWEST   |  | <b>10. Railroad Subdivision or District</b><br><input type="checkbox"/> None BELLINGHAM  |  | <b>11. Branch or Line Name</b><br><input type="checkbox"/> None PA J-US CAN BDR   |  |
| <b>12. RR Milepost</b><br>0089.389<br>(prefix)   (nnnn.nnn)   (suffix)   |  |  |  |   |  |
| <b>13. Line Segment</b><br>*<br>0050   |  | <b>14. Nearest RR Timetable Station</b><br>*<br>BELLINGHAM   |  | <b>15. Parent RR (if applicable)</b><br><input checked="" type="checkbox"/> N/A   |  |
| <b>16. Crossing Owner (if applicable)</b><br><input type="checkbox"/> N/A BNSF   |  |  |  |   |  |
| <b>17. Crossing Type</b><br><input checked="" type="checkbox"/> Public <input type="checkbox"/> Private  |  | <b>18. Crossing Purpose</b><br><input checked="" type="checkbox"/> Highway <input type="checkbox"/> Pathway, Ped. <input type="checkbox"/> Station, Ped. |  | <b>19. Crossing Position</b><br><input checked="" type="checkbox"/> At Grade <input type="checkbox"/> RR Under <input type="checkbox"/> RR Over       |  |
| <b>20. Public Access (if Private Crossing)</b><br><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  |  | <b>21. Type of Train</b><br><input type="checkbox"/> Freight <input checked="" type="checkbox"/> Intercity Passenger <input type="checkbox"/> Commuter   |  | <b>22. Average Passenger Train Count Per Day</b><br><input checked="" type="checkbox"/> Less Than One Per Day <input type="checkbox"/> Number Per Day |  |
| <b>23. Type of Land Use</b><br><input type="checkbox"/> Open Space <input type="checkbox"/> Farm <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Institutional <input type="checkbox"/> Recreational <input type="checkbox"/> RR Yard |  |  |  |   |  |
| <b>24. Is there an Adjacent Crossing with a Separate Number?</b><br><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Provide Crossing Number  |  |  | <b>25. Quiet Zone (FRA provided)</b><br><input checked="" type="checkbox"/> No <input type="checkbox"/> 24 Hr <input type="checkbox"/> Partial <input type="checkbox"/> Chicago Excused Date Established |   |  |
| <b>26. HSR Corridor ID</b><br><input checked="" type="checkbox"/> N/A  |  | <b>27. Latitude in decimal degrees</b><br>(WGS84 std: nn.nnnnnn) 48.6755733  |  | <b>28. Longitude in decimal degrees</b><br>(WGS84 std: -nnn.nnnnnn) -122.4892095  |  |
| <b>29. Lat/Long Source</b><br><input type="checkbox"/> Actual <input checked="" type="checkbox"/> Estimated  |  |  |  |   |  |
| <b>30.A. Railroad Use *</b>  |  |  | <b>31.A. State Use *</b>   |   |  |
| <b>30.B. Railroad Use *</b>  |  |  | <b>31.B. State Use *</b>   |   |  |
| <b>30.C. Railroad Use *</b>  |  |  | <b>31.C. State Use *</b>   |   |  |
| <b>30.D. Railroad Use *</b>  |  |  | <b>31.D. State Use *</b>   |   |  |
| <b>32.A. Narrative (Railroad Use) *</b>  |  |  | <b>32.B. Narrative (State Use) *</b>   |   |  |
| <b>33. Emergency Notification Telephone No. (posted)</b><br>800-832-5452   |  | <b>34. Railroad Contact (Telephone No.)</b><br>817-352-1549  |  | <b>35. State Contact (Telephone No.)</b><br>360-664-1262  |  |

## Part II: Railroad Information

|   |  |  |                                       |   |
|---|--|--|---------------------------------------|---|
| <b>1. Estimated Number of Daily Train Movements</b>   |  |  |                                       |   |
| <b>1.A. Total Day Thru Trains (6 AM to 6 PM)</b><br>10  | <b>1.B. Total Night Thru Trains (6 PM to 6 AM)</b><br>10 | <b>1.C. Total Switching Trains</b><br>0  | <b>1.D. Total Transit Trains</b><br>0 | <b>1.E. Check if Less Than One Movement Per Day</b> <input type="checkbox"/><br>How many trains per week? _____ |
| <b>2. Year of Train Count Data (YYYY)</b><br>2013   |  | <b>3. Speed of Train at Crossing</b><br>3.A. Maximum Timetable Speed (mph) 50<br>3.B. Typical Speed Range Over Crossing (mph) From 1 to 50 |                                       |   |
| <b>4. Type and Count of Tracks</b><br>Main 1 Siding 0 Yard 0 Transit 0 Industry 0   |  |  |                                       |   |
| <b>5. Train Detection (Main Track only)</b><br><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 |  |  |                                       |   |
| <b>6. Is Track Signaled?</b><br><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No   |  | <b>7.A. Event Recorder</b><br><input type="checkbox"/> Yes <input type="checkbox"/> No   |                                       | <b>7.B. Remote Health Monitoring</b><br><input type="checkbox"/> Yes <input type="checkbox"/> No                |

**WHATCOM COUNTY  
PUBLIC WORKS DEPARTMENT**

**Jon Hutchings**  
Director



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March 11, 2016

**Notice of Intent to Establish a Quiet Zone  
Whatcom County, Washington-  
Yacht Club Rd., DOT #084796F M.P. 89.37 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 Yacht Club Rd., DOT #084796F M.P. 89.37. This will be the only public highway-rail grade crossing included in this quiet zone.

Yacht Club Road serves as the only local access road accessing Chuckanut Shore Road and Chuckanut Lane (which are both dead end roads connecting to SR11). There are 32 residences on the westerly side of the Yacht Club Road crossing that predominantly use this crossing. The current Average Daily Traffic (ADT) is 222 vehicles.

The current configuration of the Yacht Club Road public highway-rail grade crossing prohibits the installation of Supplemental Safety Measures (SSM) on both sides of the crossing that are required by the FRA for the creation of a quiet zone. Whatcom County proposes to install mountable medians with reflective traffic channelization devices on the east side of the crossing in accordance to FRA's requirement for a SSM. On the west side of the crossing an intersection at Chuckanut Shore Road/ Chuckanut Lane restricts the county from installing the full 60 feet requirement by the FRA to be considered a SSM. The county proposes that the westerly mountable medians with reflective traffic channelization devices be installed 35 feet in length to be considered as an Alternative Safety Measure (ASM.)

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

Cody Swan, E.I.T., L.S.I.T.  
Engineering Technician III  
Design & Construction  
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 10, 2016, or when a written comment of a "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:

Richard W. Wagner  
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

Attached for your convenience is:

- Preliminary exhibit of the proposed improvements
- Existing Quiet Zone Risk Index Calculations
- Sample photographs of proposed SSM/ASM used in Vancouver, WA.

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

Respectfully,

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



Richard W Wagner  
Manager Public Projects  
NW Division – ID, WA & BC

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

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

May 10, 2016

Cody Swan  
Engineering Technician III  
Whatcom County Public Works  
322 N. Commercial St., Suite 301  
Bellingham, WA 98225-4042

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

**RE: Whatcom County WA – Yacht Club Rd (084796F) NOI Letter BNSF Response**

Mr. Rutan:

BNSF is in receipt of the Whatcom County's ("County") Notice of Intent ("Notice") dated March 11, 2016 for a proposed quiet zone ("Quiet Zone") at the following crossing: Yacht Club Rd (084796F). 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. The County's use of the Rule should be used 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 writes this comment letter based in part upon requirements set by FRA in the Train Horn Rule ("Rule") at 49 CFR 222.

BNSF understands that the County plans to use a mountable median for safety treatment in lieu of raised concrete non-traversable median channelization for this crossing. While no specifics are given on either the product or construction of the mountable medians, it is clear from watching the on-line "Product Videos" of the mountable median Tuff Curb at <http://www.impactrecovery.com/products/tuff-curb1/>, this product seems to be contradictory to the Quiet Zone treatment goal of deterring motorists from driving over the median and around the gates. BNSF believes the County should install, at a minimum, concrete medians with 6-inch minimum height curbs for channelization, which provide a physical barrier to prevent drivers from attempting to drive around down gates. Please understand that BNSF is NOT supportive of a mountable curb product absent a 6" concrete curb.

We were disappointed to see the County's treatment described within the Notice. The on-site meeting with you and Messrs. Swann, Hower, Donahue and Vandersypen in June 2015 left both John Shurson and me with the opinion that exit gates and/or non-traversable medians or a combination of the two treatments were the consensus for this crossing's treatment. Additionally, we discussed safety concerns not addressed by the Rule, such as:



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

May 17, 2016

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-160319 – Notice of Intent to Establish a Railroad Quiet Zone at Yacht Club Road, DOT #084796F**

Dear Mr. Rutan:

Thank you for the opportunity to comment on Whatcom County's proposed quiet zone, as described in Docket TR-160319.

On March 11, 2016, Whatcom County notified the Washington Utilities and Transportation Commission (commission) of its intent to establish a railroad quiet zone at Yacht Club Road.

On February 3, 2016, Bob Boston, commission railroad safety staff, participated in an on-site quiet zone review of the Yacht Club Road crossing along with representatives from Whatcom County Public Works and BNSF Railway Co. (BNSF). The city is proposing a 24-hour, seven day per week quiet zone.

This crossing has one main line track and is currently equipped with the minimum requirements per Code of Federal Regulations Part 222 of gates and flashing lights. In addition the Yacht Club Road crossing has a pedestrian bell and power out indicators. The County proposes to install mountable medians with three-foot high reflectorized channelization devices on both approaches to the crossing. The median on the east side of the crossing is proposed to be 60 feet in length and would qualify as a supplemental safety measure (SSM). The median on the west side of the crossing is proposed to be 35 feet in length and would qualify as an alternative safety measure (ASM). The medians at this crossing will therefore be considered ASM improvements and require an application to the Federal Railroad Administration (FRA). The ASM spreadsheet will also need to be applied to the FRA quiet zone calculator in order to determine the correct quiet zone risk index when submitting the application to the FRA.

