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BEFORE THE WASHINGTON STATE UTILITIES
AND TRANSPORTATION COMMISSION

In Re the Petition of Whatcom County,)	Docket No: TR -180466
)	
Petitioner,)	
)	DIRECT TESTIMONY OF CODY SWAN,
vs.)	PROJECT ENGINEER
)	
BNSF,)	
)	
Respondent.)	

Q: Please state your full name and job title, and how long you have been in said position.

Cody Swan, Project Engineer, 2 years.

Q: Please describe your position with Whatcom County.

I manage and administer contracts for preliminary engineering, construction engineering, and contractor contracts associated with the Annual Construction Program. In addition, I design and draft projects, perform peer review, and generate technical reports.

1 **Q: Were you involved in Whatcom County's March 16, 2018 notification**
2 **of intent to establish a quiet zone at the Cliffside Drive railroad crossing,**
3 **identified as USDOT 084821L? If so, please explain your role in this process.**

4 Yes. My role as a project engineer for Whatcom County in the Notice of Intent
5 (Exhibit CS-2) portion of the quiet zone establishment process was to draft the
6 notice and to disseminate it to all agencies and companies affected by the
7 proposed improvement to the Cliffside Drive railroad crossing.

8
9 **Q: Please explain the reasons Whatcom County sought to establish a**
10 **quiet zone at the Cliffside Drive railroad crossing?**

11 Whatcom County community members brought this crossing to the attention of
12 the Whatcom County Council and asked that the crossing area be considered for
13 quiet zone designation. I was tasked with seeking the establishment of a quiet
14 zone in the area of Cliffside Drive by my project and engineering manager, Jim
15 Karcher, and by Whatcom County's Special Projects Manager, Roland Middleton.

16
17 **Q: Please describe the Cliffside Drive railroad crossing and the**
18 **surrounding area.**

19 The current configuration of the Cliffside Drive public highway-rail grade
20 crossing is two (2) entrance gates with eight (8) signal mast mounted warning
21 lights. Cliffside Drive is a 'no-outlet' local access road serving a small
22 community of approximately 44 residences located on the westerly side of the
23 crossing. The residents of this small community are the primary users of this

1 crossing. The current Average Daily Traffic (ADT) is 300 vehicles. There are no
2 school or city buses that use this crossing.

3
4 **Q: What actions did Whatcom County take to establish a quiet zone at
5 the Cliffside Drive railroad crossing?**

6 The first step detailed in the federal code required Whatcom County to develop at
7 diagnostics team to review the crossing for quiet zone consideration. Whatcom
8 County convened a diagnostics team which was comprised of staff from
9 Whatcom County, BNSF, the Federal Railroad Administration (FRA), and the
10 State of Washington Utilities and Transportation Commission (UTC). This team
11 met on site to discuss the potential improvements to establish a quiet zone at the
12 Cliffside Drive crossing. Following the diagnostics meeting, on March 16, 2018,
13 Whatcom County submitted its Notice of Intent to Establish a Quiet Zone to all
14 the agencies and companies present at the diagnostics meeting as well as to
15 AMTRAK. (Exhibit CS-2) Whatcom County also requested an unofficial
16 engineer's estimate for upgrading of the warning lights to LED from BNSF. This
17 estimate has yet to be received. Following the expiration of the 60-day comment
18 period related to Whatcom County's Notice of Intent, the County continued the
19 quiet zone establishment process by submitting its related petition to UTC.
20

21 **Q: What is the Quiet Zone Risk Index and what role does it play in the
22 establishment of quiet zone?**

23 The Quiet Zone Risk Index (QZRI) is a measure of the risk to the motoring public
24 in the absence of the regular sounding of the train horn. This number must be

1 below the Nationwide Significant Risk Threshold for a crossing to be eligible to
2 be established as a Quiet Zone.

3
4 **Q: Did you calculate the Quiet Zone Risk Index for the Cliffside Drive
5 railroad crossing? What was the result?**

6 I did, utilizing the FRA's Quiet Zone Calculator. The Nationwide Significant
7 Risk Threshold for the Cliffside Drive is 14,723. This number reflects the risk to
8 the motoring public at a crossing equipped with warning lights and gates. This is
9 the number threshold that the QZRI needs to be below in order to establish a
10 Quiet Zone. The existing QZRI at the Cliffside Drive crossing is 13,837.78. Both
11 of these numbers are based on the current conditions and are provide in the FRA
12 Quiet Zone Calculator and require no calculations. When calculating the QZRI
13 with consideration to the proposed SSM's the QZRI was reduced by 75% to
14 3,459.45. This measurement is significantly below the required level for purposes
15 of establishing a Quiet Zone.

16
17 **Q: Based upon the calculated Quiet Zone Risk Index for Cliffside Drive,
18 was Whatcom County required to install Supplemental Safety Measures in
19 order to establish a quiet zone under state or federal regulation or statute?**

20 No. Again, without further SSMs the QZRI for the Cliffside Drive railroad is less
21 than the required Nationwide Significant Risk Threshold necessary to establish a
22 quiet zone.

1 **Q: Did/does Whatcom County intend to install Supplemental Safety**
2 **Measures regardless of there being no requirement to do so? Why?**

3 Yes. Whatcom County would like to provide a degree of safety greater than that
4 currently provided by the regular sounding of the train horn. The current Risk
5 Index with train horns is 8,296.03 at Cliffside Drive. By utilizing the mountable
6 median within the proposed quiet zone Whatcom County reduces the risk
7 significantly below that current level by more than fifty-percent to 3459.45. In
8 essence, we are making this crossing safer than it was with train horns according
9 to the Risk Index.

10
11 **Q: What Supplemental Safety Measures does Whatcom County seek to**
12 **install at the Cliffside Drive railroad crossing? Please describe.**

13 Mountable medians with reflective traffic channelization devices. (Exhibit CS3)
14 The medians are made of a hard, durable rubber that is twelve (12) inches wide
15 and four (4) inches tall. Atop the medians stands retroreflective traffic
16 channelization paddle that is approximately 34 inches tall by 8 inches wide. These
17 paddles are spaced no more than 80 inches apart the length of the medians.

18
19 **Q: Why does Whatcom County seek to install mountable medians as a**
20 **Supplemental Safety Measure at the Cliffside Drive railroad crossing?**

21 The proposed mountable medians with reflective channelization devices
22 (mountable medians) are a supplemental safety measures approved by the Federal
23 Railroad Administration and recognized by UTC as reasonable mitigation for
24 absence of the train horn. This median also provides ease of maintenance by

1 allowing the County to stock parts and be proactive about replacing deficiencies
2 to the facility using County Forces. Whereas, deficiencies in concrete medians
3 would have to be contracted out extending the time it would take the County to
4 repair any deficiencies. It has also been brought to our attention, by the Whatcom
5 County Fire Marshal's Office that the non-mountable concrete medians restrict
6 the ingress/egress of their emergency vehicles and increase the risk of damaging
7 their vehicle while responding to emergencies. Mountable medians will reduce
8 this risk of damaging emergency vehicles responding to emergencies via the
9 proposed quiet zone crossing.

10
11 **Q: Has the Federal Railroad Administration (FRA) considered Whatcom**
12 **County's desire to establish a quiet zone at the Cliffside Drive railroad**
13 **crossing? What actions have they taken for purposes of reviewing Whatcom**
14 **County's request?**

15 The FRA is only involved in two (2) parts of the Quiet Zone process. The first is
16 for federal review of Alternative Safety Measures (ASM) and Quiet Zone
17 Establishment. The Cliffside Drive crossing does not propose to use any ASM's
18 and does not require federal review. The Quiet Zone Establishment step will
19 follow the installation of the proposed improvements. However, Jeff Stewart with
20 the FRA was part of the diagnostics team onsite meetings.

21
22 **Q: Has the Washington State Utilities and Transportation Commission**
23 **considered Whatcom County's desire to establish a quiet zone at the Cliffside**
24

1 **Drive railroad crossing? What actions have they taken for purposes of**
2 **reviewing Whatcom County's request?**

3 UTC was part of the diagnostics team meetings and commented to the Notice of
4 Intent in support of the proposed SSM's. It is my understanding UTC supports
5 Whatcom County's intent to install mountable medians as an SSM at the Cliffside
6 Drive railroad crossing. (Exhibit CS 4)

7
8 **Q: Has it been brought to your attention that BNSF Railway is not**
9 **supportive of Whatcom County's intention to install mountable medians?**

10 Yes. (Exhibit CS 5)

11
12 **Q: Are you familiar with the reasons for BNSF Railway's objection to**
13 **Whatcom County's proposed use of mountable medians as a Supplemental**
14 **Safety Device at the Cliffside Drive?**

15 Yes. It is my understanding BNSF would like to see Whatcom County install
16 concrete medians, at least 6 inches in height, instead of the proposed mountable
17 medians.

18
19 **Q: Do you agree or disagree with BNSF's assessment of Whatcom**
20 **County's proposed use of mountable medians? Why or why not?**

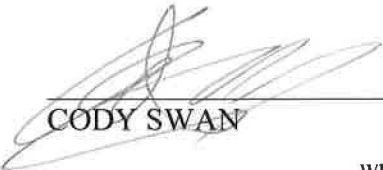
21 Assuming BNSF is concerned about the efficacy of the mountable medians
22 compared to concrete medians as an SSM, the difference in this regard is
23 minimal. While the mountable medians the County seeks to install reduces the
24 QZRI by 75%, well below the minimum acceptable level for quiet zone

1 establishment, the use of concrete medians would only reduce that figure by
2 another 5%.

3 BNSF's request for concrete median barriers appears to be a matter of their
4 company policy with no consideration of Whatcom County's interests in utilizing
5 the mountable median. However, that policy is not consistent with the vetted and
6 approved Supplemental Safety Measures (SSM) detailed in 49 CFR Appendix A
7 to Part 222. The Quiet Zone Risk Index at this crossing in the existing
8 configuration is already below the Nationwide Significant Risk Index making this
9 crossing eligible to be established as a quiet zone without installing any SSM's,
10 per 49 CFR Part 222.39. Whatcom County used the process outlined 49 CFR Part
11 222 and, although no SSM's are required to make this a quiet zone, determined it
12 would be best to install the SSM that we have proposed to further decrease the
13 Quiet Zone Risk Index. Both federal and state agencies having, jurisdiction over
14 railroad/highway improvements, support the County's proposed improvement.
15 Since the County is not required to install SSMs to establish a quiet zone at the
16 Cliffside Drive railroad crossing, but seeks to do so to increase safety as stewards
17 of the community, the County should not be forced to utilize non-required SSMs
18 that are inconsistent with the needs and interests of Whatcom County.

19
20 I, Cody Swan, am over the age of eighteen and competent to testify to the matters herein,
21 and hereby declare under penalty of perjury under the laws of the State of Washington that the
22 foregoing testimony is true and correct to the best of my knowledge and belief.

23 Signed this 9th day of November, 2018 at Bellingham, Washington.

24
25 
CODY SWAN

CERTIFICATE OF
SERVICE

Re: Petition of Whatcom
County, No. TR-180466

I am over the age of 18 and not a party to this action. I hereby certify that the prehearing testimony of Cody Swan (CS-1T) and its corresponding exhibits (CS-2 through CS-5) were served on the following parties via electronic mail:

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I declare under penalty under the laws of the State of Washington that the foregoing information is true and correct.

DATED this 9th day of November, 2018 at Bellingham, Washington.



TARA D. ADRIAN-STAVIK