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ARIZONA CORPORATION COMMISSION

2009 SEP 22 P 1:54

DATE: SEPTEMBER 22, 2009

DOCKET NO.: RR-02635B-09-0075

AZ CORP COMMISSION  
DOCKET CONTROL

TO ALL PARTIES:

Enclosed please find the recommendation of Administrative Law Judge Sarah N. Harpring. The recommendation has been filed in the form of an Opinion and Order on:

CITY OF FLAGSTAFF/BNSF RAILWAY COMPANY  
(UPGRADE CROSSING)

Pursuant to A.A.C. R14-3-110(B), you may file exceptions to the recommendation of the Administrative Law Judge by filing an original and thirteen (13) copies of the exceptions with the Commission's Docket Control at the address listed below by **4:00** p.m. on or before:

OCTOBER 1, 2009

The enclosed is NOT an order of the Commission, but a recommendation of the Administrative Law Judge to the Commissioners. Consideration of this matter has tentatively been scheduled for the Commission's Open Meeting to be held on:

OCTOBER 8, 2009

For more information, you may contact Docket Control at (602) 542-3477 or the Hearing Division at (602)542-4250. For information about the Open Meeting, contact the Executive Director's Office at (602) 542-3931.

Arizona Corporation Commission  
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*[Signature]*

*[Signature]*  
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1 **BEFORE THE ARIZONA CORPORATION COMMISSION**

2 COMMISSIONERS

3 KRISTIN K. MAYES, Chairman  
4 GARY PIERCE  
5 PAUL NEWMAN  
6 SANDRA D. KENNEDY  
7 BOB STUMP

8 IN THE MATTER OF THE APPLICATION OF  
9 THE CITY OF FLAGSTAFF TO UPGRADE  
10 EXISTING RAILROAD CROSSINGS OF THE  
11 BNSF RAILWAY COMPANY AT STEVES  
12 BOULEVARD AND FANNING DRIVE IN THE  
13 CITY OF FLAGSTAFF, COCONINO COUNTY,  
14 ARIZONA, DOT CROSSING NOS. 025099J AND  
15 025129Y.

DOCKET NO. RR-02635B-09-0075

DECISION NO. \_\_\_\_\_

**OPINION AND ORDER**

12 DATES OF HEARING: May 6 and July 8, 2009  
13 PLACE OF HEARING: Phoenix, Arizona  
14 ADMINISTRATIVE LAW JUDGE: Sarah N. Harpring  
15 IN ATTENDANCE: Kristin K. Mayes, Chairman  
16 APPEARANCES: Mr. David A. Womochil, City Attorney, Flagstaff City  
17 Attorney's Office, on behalf of the City of Flagstaff;  
18 Mr. Patrick J. Black and Mr. Mark Bolton,  
19 FENNEMORE CRAIG, on behalf of the BNSF Railway  
20 Company;  
21 Mr. Walter F. Robertson, on his own behalf; and  
22 Mr. Charles H. Hains and Ms. Amanda Ho, Staff  
23 Attorneys, Legal Division, on behalf of the Safety  
24 Division of the Arizona Corporation Commission.

23 **BY THE COMMISSION:**

24 This case involves an application by the City of Flagstaff ("City") to modify two public at-  
25 grade railroad crossings of the BNSF Railway Company ("BNSF") in the City by installing wayside  
26 horns at the crossings. The two crossings are to be included in a New Quiet Zone ("Quiet Zone") that  
27 the City intends to establish under 49 C.F.R. § 222.39(a). The Quiet Zone is to encompass five  
28 public at-grade crossings in the City and, once established, will require trains to cease sounding their

1 horns as they approach the crossings, except under very limited circumstances. Although the City  
2 only requested approval to modify two of the crossings, the safety of the other three crossings was  
3 also examined in this matter, as was the issue of the Commission’s authority to regulate crossings to  
4 be included in a Quiet Zone.

5 \* \* \* \* \*

6 Having considered the entire record herein and being fully advised in the premises, the  
7 Commission finds, concludes, and orders that:

8 **FINDINGS OF FACT**

9 1. On February 19, 2009, the City filed with the Arizona Corporation Commission  
10 (“Commission”) an application for approval to upgrade two existing public at-grade railroad  
11 crossings of BNSF by installing additional warning devices in the form of wayside horns, as part of  
12 the City’s plan to create a Quiet Zone within the City’s limits. The two crossings are at Steves  
13 Boulevard (“Steves”), DOT Crossing No. 025099J, and Fanning Drive (“Fanning”), DOT Crossing  
14 No. 025129Y, and are both located within the City, in Coconino County, Arizona. In its application,  
15 the City stated that the Quiet Zone would also include three additional existing public at-grade  
16 railroad crossings of BNSF in the City—at Beaver Street (“Beaver”) (DOT Crossing No. 025133N),  
17 San Francisco Street (“San Francisco”) (DOT Crossing No. 025132G), and Enterprise Avenue  
18 (“Enterprise”) (DOT Crossing No. 025131A)—but that no changes will be made to the warning  
19 devices, roadway configuration, or pavement markings at the Beaver, San Francisco, and Enterprise  
20 crossings. The City did not request approval for the changes to be made at those three crossings.

21 2. On February 27, 2009, a Procedural Order was issued scheduling a hearing in this  
22 matter for May 6, 2009, and establishing other procedural requirements and deadlines.

23 3. On March 6 and 16, 2009, the City filed documents to supplement its application.

24 4. On March 27, 2009, the Railroad Safety Section of the Commission’s Safety Division  
25 (“Staff”) filed a Staff Report in this matter, recommending approval of the City’s application. The  
26 Staff Report did not address the Beaver, San Francisco, and Enterprise crossings.

27 5. On April 6, 2009, the City filed proof of having sent notice of the application and  
28 hearing in this matter by certified mail to BNSF, the Arizona Department of Transportation

1 (“ADOT”), and Coconino County in early March 2009 and of having had public notice of the  
2 application and hearing published in the *Arizona Daily Sun* on March 15, 2009.

3 6. On April 7, 2009, extensive comments expressing concerns regarding the Quiet Zone  
4 were filed by Walter Robertson, a resident of the City.

5 7. On May 1, 2009, Staff filed a Motion to Continue Administrative Hearing, stating that  
6 Staff had just become aware that the City might have already made alterations to the Steves and  
7 Fanning crossings. Staff stated that it needed additional time to evaluate the issues and submit  
8 recommendations and requested that the hearing be continued indefinitely.

9 8. On May 6, 2009, the scheduled hearing in this matter convened before a duly  
10 authorized Administrative Law Judge of the Commission at the Commission’s offices in Phoenix,  
11 Arizona. The City, BNSF, and Staff appeared through counsel. No members of the public attended  
12 to provide public comment. Staff’s Motion was discussed, and counsel for the City stated that some  
13 of the equipment for the wayside horns had been installed at the Steves and Fanning crossings,  
14 although the wayside horns themselves were not operational. It was determined that the hearing  
15 would be continued for approximately two months to allow Staff additional time to gather and  
16 analyze information, to engage in discussions with the City and BNSF, and to formulate  
17 recommendations for how to address the possibly premature installation of the wayside horns. The  
18 City was directed to provide notice of this matter to Amtrak, and the parties were directed to file  
19 briefs addressing several questions related to the Beaver, San Francisco, and Enterprise crossings.

20 9. On May 7, 2009, a Procedural Order was issued memorializing the outcome of the  
21 proceeding on May 6, 2009, and scheduling a hearing to be held on July 8, 2009.

22 10. On May 22, 2009, Staff filed a Memorandum to the Commissioners stating that the  
23 wayside horns appeared already to have been installed at the Steves and Fanning crossings as of May  
24 1, 2009, and including photographs showing those wayside horns. (*See Ex. S-4.*) In addition, Staff  
25 stated that it had learned that the City had since removed the wayside horns pending Commission  
26 approval of the application in this matter. (*Id.*)

27 11. On May 27, 2009, the City filed a copy of a letter sent to Amtrak along with a copy of  
28 the Procedural Order of February 27, 2009. The letter informed Amtrak that the May 2009 hearing

1 had been continued and that a hearing in this matter had been scheduled for July 8, 2009.

2 12. On May 28, 2009, Mr. Robertson again filed extensive comments expressing concerns  
3 related to the City's proposed Quiet Zone. (See Ex. I-1.)

4 13. On June 8, 2009, the City, BNSF, and Staff filed their pre-hearing briefs.

5 14. On June 8, 2009, a Procedural Order was issued establishing a new deadline for  
6 intervention in this matter as a result of the hearing continuance and clarifying the extent to which  
7 public comment may be considered by the Commission, the extent to which a public commenter may  
8 participate in a proceeding, and the process for obtaining intervenor status.

9 15. On June 22, 2009, Mr. Robertson filed a request to intervene in this matter. No party  
10 filed an objection to Mr. Robertson's request to intervene.

11 16. On July 8, 2009, a full evidentiary hearing was held at the Commission's offices in  
12 Phoenix, Arizona. The City, BNSF, and Staff appeared through counsel. Mr. Robertson was granted  
13 intervention, appeared on his own behalf, and presented testimony and documentary evidence. The  
14 City presented the testimony of Randy Whitaker, Senior Project Manager for the City, and Richard  
15 Allen Barrett, City Engineer. BNSF presented the testimony of Melvin Thomas, BNSF Manager of  
16 Public Projects. Staff presented the testimony of Chris Watson, Staff Grade Crossing Inspector and  
17 Assistant Supervisor of Rail Safety. No public comment was received. During the hearing, the City  
18 was requested to file, as late-filed exhibits ("LFEs"), diagrams used during Mr. Whitaker's testimony,  
19 a full copy of the Notice of Intent that was sent out for the Quiet Zone, and proof of service for the  
20 Notice of Intent. In addition, the City, Staff, and BNSF were required to file, as LFEs, an assessment  
21 of the accuracy of the U.S. Department of Transportation ("USDOT") Crossing Inventories on file  
22 with the Federal Railroad Administration ("FRA") for all five crossings to be included in the Quiet  
23 Zone and a printout of the FRA Quiet Zone Calculator result for a Quiet Zone including the Beaver,  
24 San Francisco, and Enterprise crossings, calculated using accurate information. The City, BNSF, and  
25 Staff were also directed to file post-hearing briefs regarding preemption and the City's compliance  
26 with the requirements for designation of a Quiet Zone. Mr. Robertson was instructed that he could  
27 file the LFEs and a brief if he so desired, but that he was not required to do so.

28 17. On July 9, 2009, a Procedural Order was issued memorializing the LFE and briefing

1 requirements.

2 18. On July 29 and 30, 2009, Staff, BNSF, and the City filed their LFEs.

3 19. On August 10 and 12, 2009, the City, BNSF, and Staff filed their post-hearing briefs.

4 20. On August 14, 2009, Mr. Robertson filed a letter expressing concern because he had  
5 not been provided copies of the City’s LFEs.

6 21. On August 18, 2009, a Procedural Order was issued instructing the City to provide  
7 Mr. Robertson complete copies of its LFEs and its post-hearing brief, instructing any other party who  
8 had failed to provide Mr. Robertson a complete copy of its LFEs or of its post-hearing brief to do so,  
9 and extending Mr. Robertson’s deadline to file a post-hearing brief to September 4, 2009.

10 22. Mr. Robertson filed his post-hearing submission on September 4, 2009.

11 23. Between June 9 and July 14, 2009, public comments in support of the City’s  
12 application, more specifically in support of the establishment of a Quiet Zone in the City, were filed  
13 on behalf of approximately 64 persons.<sup>1</sup>

14 24. The City is the road authority for the Steves, Fanning, Beaver, San Francisco, and  
15 Enterprise crossings.

16 **The Commission’s Authority**

17 25. A.R.S. § 40-336 authorizes the Commission to prescribe the installation, use,  
18 maintenance, and operation of appropriate safety or other devices at grade crossings. The Arizona  
19 Supreme Court has interpreted this statute to obligate the Commission to order the installation of a  
20 safety device when the Commission finds that a crossing creates a hazardous condition dangerous to  
21 the health and safety of the public. (*See Maricopa County v. Corporation Comm’n of Arizona*, 79  
22 Ariz. 307, 313 (1955).) A.R.S. § 40-337, inter alia, grants the Commission exclusive power to  
23 determine and prescribe the manner and the terms of installation, operation, maintenance, use, and  
24 protection of each crossing; to alter or abolish crossings; and to prescribe the character of public  
25 crossings to be constructed and maintained. A.R.S. § 40-337.01 further specifically authorizes the  
26 Commission to determine, after a hearing, whether a crossing is sufficiently hazardous as to require  
27

28 <sup>1</sup> In addition to a number of individually filed comments, two “petitions” with multiple signatures were filed.

1 the installation of automatic warning signals or devices and, if so, requires the Commission to order  
2 their installation.

3 **The City's Application—The Steves and Fanning Crossings**

4 26. The City's application requests approval to upgrade the crossings at Steves and  
5 Fanning by installing wayside horns, as part of the City's plan to create a Quiet Zone to include the  
6 Steves, Fanning, Beaver, San Francisco, and Enterprise public at-grade crossings. The City  
7 mentioned all five crossings in its application, but did not request approval to make any changes to  
8 the Beaver, San Francisco, and Enterprise crossings because the City believes that no Commission  
9 approval is needed as long as no changes will be made to the warning devices, roadway  
10 configuration, or pavement markings at those three crossings.

11 27. The City intends to install a single wayside horn on each side of the tracks at the  
12 Steves and Fanning crossings (four wayside horns total), with each horn to be mounted on a vertical  
13 pole approximately 25 feet from the center of the tracks and angled down toward the intersections  
14 approaching the crossings. (Tr. at 40, 53-54; City LFE Ex. 3 at C7.0, C8.0.) The wayside horns are  
15 to be set at 95 decibels and have a footprint of 400 to 500 feet right at the intersection, with their  
16 sound dissipating rapidly outside of that footprint. (Tr. at 54.) In comparison, train horns are set at  
17 100 to 105 decibels, (Tr. at 54), and generally must be sounded in an established pattern starting 15 to  
18 20 seconds before a train enters a crossing and until the train occupies the crossing, (49 C.F.R. §  
19 222.21). As a result, wayside horns significantly reduce noise impact on a surrounding community.  
20 (Tr. at 54.) Staff describes wayside horns as follows:

21 Wayside horns are an innovative railroad signaling device that significantly  
22 improves safety for motorists and pedestrians and dramatically reduces the  
23 amount of noise pollution created by train horns along rail corridors in populated  
24 areas. Wayside horns are a stationary horn system activated by the railroad-  
25 highway grade crossing warning system. Wayside horns are mounted at the  
26 crossing, rather than on the locomotive, to deliver a longer, louder, more  
27 consistent audible warning to motorists and pedestrians while eliminating noise  
28 pollution in neighborhoods for more than 1/2 mile along the rail corridor.

29 The wayside horn sounds like a train horn because the tone modules in the  
30 horns were digitally recorded from an actual locomotive horn. After receiving the  
31 signal from the railroad's track circuit warning system, the horn mimics the train  
32 horn warning by cycling through the standard railroad whistle pattern until the  
33 train reaches the crossing. Once the train has entered the crossing, the wayside  
34 horn is silenced. . . .

1 Wayside horns have been classified by the [Federal Highway  
Administration (“FHWA”)] as a traffic control device for inclusion in the Manual  
2 on Uniform Traffic Control Devices [(“MUTCD”)]. Under CFR Part  
222.59(a)(1), wayside horns may be used in lieu of a locomotive horn at any  
3 highway-rail grade crossing equipped with an active warning system consisting  
of, at a minimum, flashing lights and gates.

4 (Ex. S-1 at 3-4.)

5 28. Each wayside horn is coupled with an electronic display, located on the same pole,  
6 that lights with an “X” when the wayside horn is operational, indicating to train engineers that train  
7 horns are not to be sounded while approaching and passing through a crossing. (Tr. at 49, 55.)

8 29. Steves and Fanning are both two-lane north-to-south-running roadways with right and  
9 left turn lanes onto Route 66 to the north and Industrial Drive to the south. (Ex. S-1 at 2; Ex. S-1 app.  
10 A.) Route 66 and Industrial Drive are east-to-west-running roadways located approximately 300 feet  
11 apart and parallel to the railroad tracks, which are located in the middle between the two roadways.  
12 (Ex. S-1 at 2; Ex. S-1 app. A.) Steves and Fanning are approximately 0.65 miles apart, with Fanning  
13 being further to the east. (Ex. S-1 at 3.) Both Steves and Fanning are located on the east side of  
14 Flagstaff and are surrounded primarily by businesses, although there are residential units located  
15 behind the businesses that line Route 66. (Tr. at 53.)

16 30. The crossings at both Steves and Fanning are currently equipped with cantilevers,  
17 automatic gates, flashing lights, and bells. (Tr. at 157, City LFE Ex. 3 at C7.0, C8.0; City LFE Ex.  
18 1.) The City proposes to upgrade each crossing by installing wayside horns, new sidewalk  
19 construction conforming to Americans with Disabilities Act (“ADA”) requirements, and “No Train  
20 Horn” signs. (*Id.*) The “No Train Horn” signs are designed to inform the public that train horns will  
21 not be routinely sounded at the crossings. (Ex. S-1 at 2.) According to Staff, the proposed upgrades  
22 are consistent with the manner in which wayside horns are employed at similar at-grade crossings  
23 across the country. (*Id.*)

24 31. The estimated cost of the crossing improvements is \$115,000 for each of the two  
25 crossings. (Ex. S-1 at 2, 3.) The costs will be paid entirely by the City, and the City will be  
26 responsible for maintaining the signage and equipment installed, with the exception of the electronic  
27 signaling equipment for the wayside horns, which is to be installed in an interface box with contact  
28 terminals on the side of BNSF’s railroad instrument cabin and maintained by BNSF. (Application at

1 2, Wayside Horn Agreement<sup>2</sup> at 1-2.) The City and BNSF entered into a Wayside Horn Agreement  
2 in December 2008 specifying the responsibilities of each related to the installation, operation,  
3 maintenance, and ownership of the wayside horns. (*See* Wayside Horn Agreement.)

4 32. As of the hearing, the average daily traffic (“ADT”) for Steves was reported as 11,028  
5 vehicles per day (“VPD”). (Ex. S-1 at 2.) Subsequently, the City provided an ADT of 3,200 VPD,  
6 based on a 2008 traffic study. (City LFE Ex. 1; *see* Ex. I-1 at App. A.6c.) Staff and FRA records  
7 indicate that one accident, with no injuries or fatalities, occurred at the Steves crossing in November  
8 1985, as a result of an automobile running through a downed crossing gate arm. (Ex. S-1 at 2.)  
9 Records indicate that warning devices were reported to be working as intended during the accident.  
10 (*Id.*) The City estimates that the Steves crossing is used by approximately 30 pedestrians per day.  
11 (Tr. at 88.)

12 33. As of the hearing, the ADT for Fanning was reported as 8,101 VPD. (Ex. S-1 at 3.)  
13 Subsequently, the City provided an ADT of 3,300 VPD, based on a 2008 traffic study.<sup>3</sup> (City LFE  
14 Ex. 1.) Staff and FRA records indicate that four accidents, with one injury and no fatalities, have  
15 occurred at the Fanning crossing. (Ex. S-1 at 3.) The first accident, in August 1988, occurred as a  
16 result of an automobile running through a downed crossing gate. (*Id.*) The second and third  
17 accidents, in September 2001 and February 2003, both resulted from automobiles stopping on the  
18 tracks. (*Id.*) The fourth accident occurred in October 2006 when a tractor trailer failed to clear the  
19 crossing and was struck by a train, resulting in one injury. (*Id.*) Records indicate that warning  
20 devices were reported to be working as intended during all four accidents. (*Id.*) The City estimates  
21 that the Fanning crossing is used by approximately 7 pedestrians per day. (Tr. at 88.)

22 34. Approximately 93 trains (91 BNSF freight trains and 2 Amtrak passenger trains) travel  
23 through the Steves and Fanning crossings each day, at speeds up to 45 MPH. (Ex. S-1 at 3; City LFE  
24 Ex. 1.)

27 <sup>2</sup> The Wayside Horn Agreement was included as Exhibit C to the Application and in Exhibit S-3.

28 <sup>3</sup> In its post-hearing brief, the City provided an ADT of 4,500 VPD. It is unclear why there is a discrepancy in the figures provided by the City after the hearing.

1 **Premature Installation of the Wayside Horns**

2 35. The City submitted its application to the Commission after having been notified by  
3 Staff, during the week of February 9, 2009, that it needed to apply for approval of the wayside horn  
4 installation. (Ex. S-2 at 4.) This was approximately two weeks after the City had begun constructing  
5 the modifications for its Quiet Zone, (Tr. at 88-89, 159), but before the City began to install the  
6 wayside horn equipment, (Ex. S-2 at 3).

7 36. The City installed the wayside horns, including poles and cabinets, during the period  
8 from April 6 to April 18, 2009. (Ex. S-2 at 3.) The actual installation work was done by a contractor.  
9 (*Id.*)

10 37. Staff never told the City that it was permissible to install the wayside horns prior to  
11 having received Commission approval. (Tr. at 160.)

12 38. In approximately the last week of April 2009, Mr. Watson was in Flagstaff for a  
13 meeting unrelated to this matter and observed that the wayside horns were already in place at the  
14 Steves and Fanning crossings. (Tr. at 160, 179.) Mr. Watson took photographs of the wayside horns  
15 at both crossings on that date. (Tr. at 160; Ex. S-4.)

16 39. After returning to Phoenix, Mr. Watson e-mailed both the City and BNSF, notifying  
17 them that he had observed the wayside horns already in place and asking several questions. (Tr. at  
18 180.) BNSF replied quickly and stated that it had no knowledge of the installation of the wayside  
19 horns. (Tr. at 180.) The City replied some time later, but did not take any action related to the  
20 wayside horns until after the proceeding on May 6, 2009, when the parties discussed the issue. (Tr. at  
21 180-81.)

22 40. The City removed the wayside horns on May 15, 2009, pending Commission approval  
23 of its application. (Ex. S-3 at 1-2.)

24 41. Mr. Whitaker testified to his understanding that as long as the City did not change the  
25 roadway configuration, pavement markings, or existing signals, the City could proceed with its  
26 project. (Tr. at 19.) Mr. Whitaker believes that there was a miscommunication between himself and  
27 Staff regarding whether putting in the wayside horns, even though they were not yet energized or  
28 connected to the signals, was a change to the existing signals. (*Id.*) Mr. Whitaker understood that

1 modifying the existing signals without Commission approval would be a violation of Commission  
2 rules, but did not believe that installing the wayside horns without activating them was a modification  
3 to the existing signals. (Tr. at 43-44.) Mr. Whitaker estimated that the work done to install the  
4 wayside horns was only approximately 20 to 30 percent of the overall work needed to install them,  
5 measured in terms of time. (Tr. at 45.) Mr. Whitaker explained that the remaining work to install  
6 and activate the wayside horns included putting in a boring pit, boring under the tracks, boring across  
7 the road, making the connections, putting a control box on the side of the BNSF bungalow, having  
8 BNSF put their equipment in, and doing all of the interconnections. (Tr. at 46.) In addition, the City  
9 had not yet placed any of the signage indicating a change in the existing signal equipment. (Ex. S-3  
10 at 2.)

11 42. Mr. Whitaker testified that the City never intended to activate the wayside horns  
12 before getting Commission approval. (Tr. at 20.) Mr. Whitaker testified that BNSF would never do  
13 that and that it was understood between BNSF and the City that the wayside horns could not be  
14 activated without first obtaining Commission approval. (*Id.*) He further testified that BNSF did not  
15 provide any approval to the City to complete the installation of the wayside horns. (Tr. at 37.)

16 43. After the wayside horns were installed, BNSF informed the City that a BNSF engineer  
17 had inquired whether the wayside horns were operational. (Tr. at 38, 46-47.) In response to that, the  
18 City put burlap over the horns and their "X" displays. (Tr. at 38, 46-47.) The burlap was intended to  
19 make it clear to train engineers that the wayside horns were not operational. (Tr. at 47.)

20 44. Mr. Thomas testified that BNSF was not aware when the wayside horns were installed  
21 and had not represented to the City that it was permissible to install the wayside horns without first  
22 obtaining Commission approval. (Tr. at 133; *see* Ex. S-3 at 2.) The City has asserted both that the  
23 City and its contractor notified BNSF of the City's activity and that the City did not provide BNSF  
24 separate notification for each aspect of the project. (*Compare* Ex. S-2 at 3 *with* Ex. S-3 at 2.) No  
25 BNSF personnel participated in the installation of the wayside horns or in their removal. (Tr. at 31-  
26 32, 134; Ex. S-3 at 2.)

27 45. Mr. Thomas testified that the Wayside Horn Agreement requires whoever is to install  
28 the equipment to take an online safety training course, to obtain certain insurance, and to contact

1 BNSF for a flagman. (Tr. at 143.) The City asserted that no flagman was necessary to install the  
2 wayside horn poles because of the poles' distance from the tracks. (Ex. S-2 at 3.)

3 46. Mr. Thomas testified that the installation of the wayside horns that were not yet  
4 operational was not a safety hazard—that BNSF's engineers would have known not to cease blowing  
5 their horns at those crossings because that change had not been directed in BNSF's daily general  
6 orders. (Tr. at 123-24.) If the wayside horns had been operational, BNSF would have included  
7 information regarding the wayside horns and the Quiet Zone in its general orders and would have  
8 directed its engineers that they did not need to blow their horns at those crossings. (Tr. at 124.) Mr.  
9 Thomas testified that general orders are printed out by every single engineer every single day and can  
10 be different every day, but that once a general order comes out stating that a certain location is a  
11 Quiet Zone or that a wayside horn has been installed, that information is "set in stone." (Tr. at 135.)

12 47. Mr. Watson testified that he was a train engineer for 11 years before being employed  
13 by the Commission and that, as a former train engineer, he believes that it would be a safety hazard to  
14 have wayside horns installed before they were operational. (Tr. at 161.) Mr. Watson explained that  
15 observing a new apparatus at a crossing without having any reference to it in the day's general orders  
16 would cause confusion. (Tr. at 161, 182.) Mr. Watson stated that it would be a safety hazard, in his  
17 opinion, because the train engineer would not know what to do. (Tr. at 161-62; 181-82.)

18 48. Mr. Whitaker testified that he did not believe the wayside horns were a safety hazard  
19 because he did not believe that the public would recognize what they were—they would just be  
20 another piece of railroad equipment 20 feet away. (Tr. at 39.)

21 49. Mr. Watson does not believe that the City intended to violate any Commission  
22 requirements when it installed the wayside horns prior to having obtained approval of its application.  
23 (Tr. at 181.)

24 50. Mr. Whitaker testified that in the future he intends to get better clarification of what  
25 can and cannot be constructed without Commission approval and that the City will be more aware  
26 and more careful in the future. (Tr. at 42.)

27 51. As of the hearing, Staff was still evaluating whether penalties should be recommended  
28 as a result of the installation of the wayside horns. (Tr. at 162; 186-87.) Staff testified, however, that

1 the City's application should move forward at this time even though penalties may be recommended  
2 in the future.<sup>4</sup> (Tr. at 162.)

3 **The Beaver, San Francisco, and Enterprise Crossings**

4 52. Although the City has not requested Commission approval to make any changes at the  
5 Beaver, San Francisco, and Enterprise crossings, the parties were required in this matter to address  
6 the modifications being made to the crossings, the safety of the crossings, and the Commission's  
7 authority to regulate the safety of the crossings and how that authority is impacted by the City's  
8 proposed Quiet Zone.

9 53. Approximately 93 trains (91 BNSF freight trains and 2 Amtrak passenger trains) travel  
10 through the Beaver and San Francisco crossings each day, at speeds up to 55 MPH. (City LFE Ex.  
11 1.) Approximately 97 trains (94 BNSF freight trains and 2 Amtrak passenger trains) travel through  
12 the Enterprise crossing each day, at speeds up to 55 MPH. (*Id.*) The Crossing Inventory for the  
13 Enterprise crossing shows that there are 4 switching trains at this crossing. (*Id.*)

14 54. Beaver and San Francisco are a pair of one-way streets located approximately 0.13  
15 miles apart in the heart of downtown Flagstaff, with Beaver to the west of San Francisco. (City LFE  
16 Ex. 3 at C3.0; Staff LFE Att. A; 60% Design Narrative at 2.<sup>5</sup>) Beaver is a southbound roadway, and  
17 San Francisco is a northbound roadway. (City LFE Ex. 3 at C3.0; 60% Design Narrative at 2.)  
18 Because of their locations downtown, the Beaver and San Francisco crossings are used by "hordes"  
19 of pedestrians each day, many of them students from Northern Arizona University ("NAU"). (Tr. at  
20 173-74.) Mr. Whitaker estimates that hundreds of pedestrians per day cross at Beaver and San  
21 Francisco. (Tr. at 88.) Much of the pedestrian traffic is after daylight hours, many pedestrians walk  
22 in the streets rather than on the rather narrow sidewalks after dark, and "[a] great many of the  
23 pedestrians after dark are patrons of local dining (and drinking) establishments." (60% Design  
24 Narrative at 2-3.)

25 \_\_\_\_\_  
26 <sup>4</sup> Counsel for Staff proposed to provide a Staff Report, approximately three months after the July 2009 hearing, to  
27 provide an update regarding whether Staff intends simply to issue a warning or to pursue a complaint of some sort in a  
28 separate docket. (Tr. at 192.)

<sup>5</sup> The City filed the Plateau Engineering, Inc., Rail Crossing Modification Project "Flagstaff Quiet Zones" 60% Design  
Narrative (February 8, 2008) ("60% Design Narrative") on March 6, 2009. During the hearing, official notice was taken  
of all of the City's filings in the docket to date, as the City had not prepared exhibits for the hearing.

1           55. Both the Beaver and San Francisco crossings are equipped with cantilevers, flashing  
2 lights, bells, automatic gates, and constant warning time circuitry. (Staff LFE Att. A.) Each crossing  
3 has gates on one side of the railroad tracks to block automobile, bicycle, and pedestrian traffic  
4 traveling in the direction of the flow of traffic on the one-way street. (Tr. at 67.) Neither crossing  
5 has gates on the other side of the railroad tracks to block automobile, bicycle, and pedestrian traffic  
6 traveling against the flow of traffic on the one-way street. (*Id.*) Thus, a pedestrian, bicyclist, or  
7 automobile traveling in the “wrong” direction on either one-way street is able to access the tracks  
8 without encountering any physical barrier to such access, (*see id.*), and pedestrians and bicyclists  
9 appear to do so routinely, (*see Ex. I-1 at 4; Tr. at 71*).

10           56. As of February 8, 2008, the Beaver crossing had had three accidents within the past 10  
11 years, two involving motor vehicles and no injuries, and one a fatal pedestrian accident. (60%  
12 Design Narrative at 2.)

13           57. As of February 8, 2008, the San Francisco crossing had had five accidents in the past  
14 10 years, two involving motor vehicles and resulting in both injuries and fatalities; two involving  
15 pedestrians and resulting in injuries; and one involving a bicycle and resulting in a fatality. (60%  
16 Design Narrative at 2.) One of the motor vehicle accidents at the San Francisco crossing occurred in  
17 March 2001 when an automobile traveling the wrong way (southbound) on the one-way street was  
18 struck by a train, resulting in the death of the driver and injury to the passenger. (Ex. I-1 at 8.)  
19 Another accident occurred at the San Francisco crossing on March 18, 2009, when a pedestrian  
20 entered the crossing, apparently after warning equipment had engaged, and was struck by a train and  
21 killed. (Ex. I-1 at 7.)

22           58. As part of the Quiet Zone project, the Beaver and San Francisco crossings are both to  
23 receive new fencing, ADA-compliant sidewalk treatments, remedial concrete sidewalk repair and  
24 reconstruction, and “No Train Horn” signs. (60% Design Narrative at 2.) In addition, the City has  
25 already had a total of four pedestrian archways installed on sidewalks approaching the crossings to  
26 create “zones,” starting approximately 10 feet back from the existing flashing lights and bells, that  
27 pedestrians are not to enter when a train is approaching or passing through the crossings. (Tr. at 71,  
28

1 74.) A drawing of one such pedestrian archway configuration is attached hereto as Exhibit A.<sup>6</sup> These  
 2 “zones” are located south of the tracks at the Beaver crossing and north of the tracks at the San  
 3 Francisco crossing so that they will be encountered by pedestrians traveling opposite the direction of  
 4 traffic on the one-way streets. (City LFE Ex. 3 at C4.0, C5.0.) New fencing attached to each  
 5 archway<sup>7</sup> on the non-street side is intended to channel pedestrians to the archway and the “zone.”  
 6 (Tr. at 71, 74, 75; City LFE Ex. 3 at C4.0, C5.0.) Approaching each archway when walking toward  
 7 the tracks, just before the archway, large lettering reading “Stop Here When Flashing” will be  
 8 installed on the sidewalk. (Tr. at 71; City LFE Ex. 3 at C4.0, C5.0.) Several feet beyond each  
 9 archway, a “No Train Horn” sign will be located on the same post with a railroad crossing sign. (Tr.  
 10 at 72, 75; City LFE Ex. 3 at C4.0, C5.0.) Four or five feet beyond each archway, a large sign with an  
 11 arrow and lettering reading “Look Both Ways” will be installed on the sidewalk. (Tr. at 72; City LFE  
 12 Ex. 3 at C4.0, C5.0.) Beyond the arrow sign, a pedestrian will encounter an existing pole with  
 13 flashing lights and, several feet further, the tracks themselves. (City LFE Ex. 3 at C4.0, C5.0; Tr. at  
 14 74.) Because the fencing extends several hundred feet, a pedestrian desiring to bypass an archway  
 15 and “zone” would need to either go over the fence<sup>8</sup> or walk into the street, where there would be no  
 16 barrier to accessing the railroad tracks when traveling in the “wrong” direction on the one-way street.  
 17 (City LFE Ex. 3 at C4.0, C5.0; Tr. at 76.) The City has already had the fencing and archways  
 18 installed, but the signage has not yet been installed. (Tr. at 77-78.) The City intends to implement  
 19 some form of penalty system for traveling past the archways when crossing lights and bells have been  
 20 activated, although the details have not been finalized, and the City will first try to educate the public.  
 21 (Tr. at 76-77.)

22 59. Mr. Whitaker believes that the creation of the pedestrian “zones” at the Beaver and  
 23 San Francisco crossings will enhance the safety of those crossings for pedestrians. (Tr. at 85.)

24 60. Mr. Whitaker testified that a train engineer would still be able to blow the train horn if  
 25 the engineer sees that someone has gone beyond a pedestrian archway and is in the BNSF right of

26

27 <sup>6</sup> The drawing is from the City LFE Ex. 3 at C2.3.

28 <sup>7</sup> No new fencing was installed at the northeast corner of the San Francisco crossing because the pedestrian archway abuts an existing retaining wall. (City LFE Ex. 3 at C5.0.)

<sup>8</sup> The fencing is approximately 3 to 4 feet high. (Tr. at 78.)

1 way, regardless of the existence of a Quiet Zone. (Tr. at 82.) Mr. Whitaker also believes that both  
2 the Beaver and San Francisco crossings have sufficient lighting for a train engineer to see well  
3 enough at night to blow the horn in such a situation. (Tr. at 82.)

4 61. Mr. Robertson believes that the pedestrian archways installed at the Beaver and San  
5 Francisco crossings are inadequate because they are not actually physical barriers, but more like  
6 doorways. (Tr. at 152.) Mr. Robertson believes that the safety measures taken at the Beaver and San  
7 Francisco crossings do not adequately address public safety, are not safe, and were selected as a  
8 convenience rather than with safety as a primary goal. (Tr. at 147-48.) Mr. Robertson believes that  
9 pedestrians either will not notice or will ignore the pedestrian archways and that they will either go  
10 around them or pass through them without paying attention to them. (Tr. at 152.) Mr. Robertson's  
11 concerns extend to both pedestrians and bicyclists traveling the "wrong way" on the one-way streets  
12 because there is no gate or other physical barrier to stop them from going onto the tracks. (*See id.*)  
13 Mr. Robertson provided a photograph showing a bicyclist traveling the wrong way down San  
14 Francisco. (Ex. I-1 at 4.) In the photo, the bicyclist is riding in the street, on the opposite side of the  
15 street from the bike path, and has just passed an archway, a "Do Not Enter" sign, and a "Wrong  
16 Way" sign. (*Id.*) Mr. Robertson testified that "literally hundreds" of people go through the Beaver  
17 and San Francisco crossings daily. (Tr. at 153.)

18 62. Mr. Watson testified that an application needs to be filed anytime there is going to be a  
19 configuration change to the warning devices at a crossing and that he does not consider the changes  
20 to be made at the Beaver and San Francisco crossings to include changes in warning devices. (Tr. at  
21 169.) Mr. Watson further testified that Staff does consider in its analysis sidewalks that allow  
22 pedestrians to cross at a public at-grade crossing and that if Staff noticed a safety hazard with a  
23 crossing, Staff would bring it up, although not necessarily in this docket. (Tr. at 168-69.) Mr.  
24 Watson testified that there is a "pedestrian issue" at the Beaver and San Francisco crossings and that  
25 they are safe with their current configurations, but that Staff really did not analyze them because they  
26 were not included in the City's application. (Tr. at 170-71.)

27 63. Enterprise, located approximately 2 to 3 miles to the east of San Francisco, is a two-  
28 way street, with three northbound lanes and two southbound lanes separated by a wide median. (Tr.

1 at 85, 88; City LFE Ex. 3 at C6.0; 60% Design Narrative at 4.) The Enterprise crossing has gates for  
2 the lanes of the roadway on which traffic is intended to be approaching the tracks. (Tr. at 86.) The  
3 other lanes on each side of the tracks do not have gates impeding access to the tracks if a motor  
4 vehicle is traveling in the wrong direction. (*Id.*) The sidewalks approaching the Enterprise crossing  
5 do not have barriers of any kind, as the existing gates do not block the sidewalks. (City LFE Ex. 3 at  
6 C6.0.) The median is high enough to meet the FRA standard for an SSM, so the City believes it  
7 would be unlikely for a vehicle to traverse the median to travel in the wrong direction onto the tracks.  
8 (Tr. at 86.) The Enterprise crossing has very light pedestrian traffic (estimated at approximately 10  
9 persons per day) because there are no nearby businesses that persons are likely to access on foot. (Tr.  
10 at 86-88.) Thus, the City does not intend to create “zones” such as those to be created for the Beaver  
11 and San Francisco crossings. (Tr. at 87.) The City did, however, install “Stop Here When Flashing”  
12 signage on the sidewalks approaching the crossing. (*Id.*) Enterprise has an ADT of approximately  
13 21,000 VPD and has had 6 accidents within the past 10 years, all of which occurred before the  
14 crossing was upgraded in 2002-2003. (60% Design Narrative at 4.) The accidents all involved motor  
15 vehicles, with 5 of them involving trucks or truck-trailer combinations, and only one resulting in an  
16 injury. (*Id.*)

#### 17 **Federal Requirements Related to Quiet Zones**

18 64. In August 2006, FRA issued a Final Rule regarding Use of Locomotive Horns at  
19 Highway-Rail Grade Crossings (“2006 Final Rule”), codifying in 49 C.F.R. Parts 222 and 229  
20 (“Train Horn Rules”) requirements related to the use of train horns at railroad at-grade crossings.<sup>9</sup>  
21 The purpose of the Train Horn Rules is to “provide for safety at public highway-rail grade crossings  
22 by requiring locomotive horn use at public highway-rail grade crossings except in quiet zones  
23 established and maintained in accordance with this part.” (49 C.F.R. § 222.1.) The Train Horn Rules  
24 establish two processes through which a Quiet Zone can be established: (1) a public authority<sup>10</sup>  
25 formally applies to FRA for approval, or (2) a public authority designates a Quiet Zone after

26 <sup>9</sup> 71 Fed. Reg. 47614 (August 17, 2006). FRA had previously issued a Notice of Proposed Rulemaking, 65 Fed. Reg.  
27 2230 (January 13, 2000); an Interim Final Rule, 68 Fed. Reg. 70586 (December 18, 2003); and a Final Rule, 70 Fed. Reg.  
21844 (April 27, 2005) (“2005 Final Rule”). The 2006 Final Rule resulted from petitions for reconsideration.

28 <sup>10</sup> Public authority is defined as “the public entity responsible for traffic control or law enforcement at the public  
highway-rail grade or pedestrian crossing.” (49 C.F.R. § 222.9.)

1 following notice procedures and determining that a risk calculation for the Quiet Zone falls below a  
2 FRA-established threshold. (49 C.F.R. § 222.39.)

3 65. The Train Horn Rules allow a public authority to designate a Quiet Zone without FRA  
4 approval if the public authority complies with the information and notification provisions of 49  
5 C.F.R. § 222.43, and one of the following is satisfied: (1) at least one supplementary safety measure  
6 identified in 49 C.F.R. Part 222 Appendix A (“SSM”) is implemented at every public highway-rail  
7 grade crossing within the Quiet Zone, (2) the Quiet Zone Risk Index<sup>11</sup> is already at or below the  
8 Nationwide Significant Risk Threshold<sup>12</sup> or is brought to a level at or below the Nationwide  
9 Significant Risk Threshold through implementation of SSMs, or (3) SSMs are implemented that are  
10 sufficient to reduce the Quiet Zone Risk Index to a level at or below the Risk Index with Horns.<sup>13</sup> (49  
11 C.F.R. § 222.39(a).)

12 66. When establishing a Quiet Zone that includes only public crossings, a public authority  
13 is required to provide notice initially through a Notice of Intent, which must be provided to all  
14 railroads operating over the public highway-rail grade crossings within the Quiet Zone, the state  
15 agency responsible for highway and road safety, and the state agency responsible for grade crossing  
16 safety, (49 C.F.R. § 222.43(a)(1)); to allow at least 60 days for comment from those entities, (49  
17 C.F.R. § 222.43(b)(1)(i)); and then to issue a Notice of Quiet Zone Establishment to all of the same  
18 entities plus FRA and the traffic control or law enforcement authority with jurisdiction over vehicular  
19 traffic at the included at-grade crossings, (49 C.F.R. § 222.43(a)(3)).

20 \_\_\_\_\_  
21 <sup>11</sup> Quiet Zone Risk Index is defined, in pertinent part, as follows:

22 *Quiet Zone Risk Index* means a measure of risk to the motoring public which reflects the Crossing Corridor  
23 Risk Index for a quiet zone, after adjustment to account for increased risk due to lack of locomotive horn use at  
24 the crossings within the quiet zone (if horns are presently sounded at the crossings) and reduced risk due to  
25 implementation, if any, of SSMs and [alternative safety measures] with the quiet zone.

26 (49 C.F.R. § 222.9.)

27 <sup>12</sup> Nationwide Significant Risk Threshold is defined, in pertinent part, as follows:

28 *Nationwide Significant Risk Threshold* means a number reflecting a measure of risk, calculated on a  
nationwide basis, which reflects the average level of risk to the motoring public at public highway-rail grade  
crossings equipped with flashing lights and gates and at which locomotive horns are sounded. For purposes of  
this rule, a risk level above the Nationwide Significant Risk Threshold represents a significant risk with respect  
to loss of life or serious personal injury. . . . Unless otherwise indicated, references in this part to the  
Nationwide Significant Risk Threshold reflect its level as last published by FRA in the Federal Register.

(49 C.F.R. § 222.9.)

<sup>13</sup> Risk Index with Horns is defined, in pertinent part, as follows: “*Risk Index With Horns* means a measure of risk to  
the motoring public when locomotive horns are routinely sounded at every public highway-rail grade crossing within a  
quiet zone.” (49 C.F.R. § 222.9 (emphasis added).)

1           67.     The Train Horn Rules do not require a public authority to take any action in response  
2 to information or comments submitted in response to a Notice of Intent or to include in its Notice of  
3 Quiet Zone Establishment any recitation of the comments received in response to the Notice of  
4 Intent. (See 49 C.F.R. § 222.43(d)(2).) Among the items required to be included with the Notice of  
5 Quiet Zone Establishment are accurate and complete “before and after” Grade Crossing Inventory  
6 Forms for each crossing to be included in the Quiet Zone.<sup>14</sup> (49 C.F.R. § 222.43(d)(2)(v)-(vi).)  
7 Among other things, the Notice of Quiet Zone Establishment also must contain an affirmation that  
8 the Notice of Intent was provided in accordance with the Train Horn Rules and a certification of the  
9 accuracy and completeness of the information submitted by the public authority. (49 C.F.R. §  
10 222.43(d)(2)(vii), (d)(2)(xi).) The Notice of Quiet Zone Establishment provides the date upon which  
11 the Quiet Zone will be established, which must be at least 21 days after the date of mailing. (49  
12 C.F.R. § 222.43(d)(1).)

13           68.     The Train Horn Rules require a railroad to cease routine sounding of train horns at all  
14 at-grade crossings identified in a Notice of Quiet Zone Establishment on the date specified in the  
15 Notice of Quiet Zone Establishment. (49 C.F.R. § 222.45.)

16           69.     The Train Horn Rules do not require a Diagnostic Team review for a Quiet Zone that  
17 includes only public highway-rail grade crossings unless the public authority is following the FRA  
18 approval process rather than the designation process. (See 49 C.F.R. § 222.43(d)(2)(iii); 49 C.F.R. §  
19 222.25; 49 C.F.R. § 222.27; 49 C.F.R. § 222.39(b)(1)(iii).)

20           70.     Each public crossing in a New Quiet Zone must be equipped with flashing lights and  
21 gates, with advance warning signs advising motorists that train horns are not sounded at the crossing,  
22 and generally with constant warning time circuitry. (49 C.F.R. § 222.35(b)(1), (c)(1).) If a public  
23 crossing in a New Quiet Zone has pedestrian traffic and is already equipped with automatic bells, the  
24 bells must be retained in working condition. (49 C.F.R. § 222.35(d)(1).) In calculating the Quiet  
25 Zone Risk Index, a public authority receives risk reduction credit for an SSM that is already in place  
26

27 \_\_\_\_\_  
28 <sup>14</sup> One set is to show the conditions existing at each crossing before any new SSMs or alternative safety measures (“ASMs”) are implemented, and one set is to show the crossings with the SSMs and ASMs in place upon establishment of the Quiet Zone. (49 C.F.R. § 222.43(d)(2)(v)-(vi).)

1 at a crossing<sup>15</sup> ("Pre-Existing SSM"). (49 C.F.R. Part 222, App. C, § I(B)(3).) A wayside horn is  
 2 treated as a one-for-one substitute for a train horn, and crossings with wayside horns are not included  
 3 in the risk calculation. (*Id.*)

4 71. For a Quiet Zone that does not have an SSM at each public grade crossing and that  
 5 was established by public authority designation, the public authority must, every 2 ½ to 3 years after  
 6 establishment and thereafter, file with FRA a written affirmation that all SSMs and ASMs  
 7 implemented in the Quiet Zone continue to conform to the standards of the Train Horn Rules and an  
 8 accurate, complete, and up-to-date Grade Crossing Inventory Form for each grade crossing within the  
 9 Quiet Zone and must send a copy of the written affirmation to each entity who received the Notice of  
 10 Quiet Zone Establishment. (49 C.F.R. § 222.47(b).) FRA does not conduct annual risk reviews for  
 11 Quiet Zones established by having an SSM at every public crossing or by reducing the Quiet Zone  
 12 Risk Index to the Risk Index with Horns. (49 C.F.R. § 222.51(a).)

13 72. FRA may at any time review the status of any Quiet Zone and, after providing notice  
 14 and an opportunity for comment,<sup>16</sup> may require that additional safety measures be taken or that the  
 15 Quiet Zone be terminated. (49 C.F.R. § 222.51.) A Quiet Zone may also be terminated at any time  
 16 by the public authority that established it. (49 C.F.R. § 222.51(d)(1).)

### 17 **The City's Quiet Zone Establishment Process**

18 73. On May 2, 2006, a Diagnostic Team formed by the City to provide recommendations  
 19 related to the Quiet Zone met to review and develop recommendations. (Tr. at 34.) The Diagnostic  
 20 Team included representatives from the Commission; the City; BNSF; Gannett Fleming, which was  
 21 under contract with the City to design the Quiet Zone at that time; and the wayside horn vendor.  
 22 (Wayside Horn Update at 3.) FRA did not participate on the Diagnostic Team. (*Id.*) The Diagnostic  
 23 Team recommended at least two alternatives for each crossing. (Wayside Horn Update at 5-8.) For

24 <sup>15</sup> This is accomplished by inflating the Risk Index With Horns to show what the risk would have been at the crossing if  
 25 the Pre-Existing SSM had not been implemented. (49 C.F.R. Part 222, App. C, § I(B)(3).)

26 <sup>16</sup> If the FRA Associate Administrator preliminarily determines that safety systems and measures implemented within  
 27 the Quiet Zone do not fully compensate for the absence of train horns due to a substantial increase in risk, that  
 28 documentation relied upon to establish the Quiet Zone contains substantial errors that may have an adverse impact on  
 the Associate Administrator will provide written notice to the public authority and the entities who received the Notice of  
 Quiet Zone Establishment and will publish a notice of its preliminary determination in the *Federal Register*. (49 C.F.R. §  
 222.51(c)(2).)

1 the Steves and Fanning crossings, the Diagnostic Team recommended use of wayside horns or four-  
2 quadrant gates.<sup>17</sup> (Wayside Horn Update at 7-8.) For the Beaver and San Francisco crossings, the  
3 Diagnostic Team recommended use of wayside horns, pedestrian barriers, or four-quadrant gates.  
4 (Wayside Horn Update at 5-6.) For the Enterprise crossing, the Diagnostic Team recommended use  
5 of wayside horns or having the existing median approved by FRA as an ASM because it is not long  
6 enough to be an SSM. (Wayside Horn Update at 7.)

7 74. The City created five different Scenarios after the Diagnostic Team provided its  
8 recommendations. (Wayside Horn Update at 17.) Scenario A would have involved installing  
9 wayside horns at all five crossings. (Wayside Horn Update at 9.) Scenario B would have involved  
10 installing pedestrian barriers at the Beaver and San Francisco crossings, using the median as an ASM  
11 at the Enterprise crossing, and installing four-quadrant gates at the Steves and Fanning crossings.  
12 (*Id.*) Scenario C would have involved installing four-quadrant gates at the Beaver, San Francisco,  
13 Steves, and Fanning crossings and using the median as an ASM at the Enterprise crossing. (*Id.*)  
14 Scenario D would have involved installing pedestrian barriers at the Beaver and San Francisco  
15 crossings, using the median as an ASM at the Enterprise crossing, and installing wayside horns at the  
16 Steves and Fanning crossings. (*Id.*) Scenario E would have involved installing four-quadrant gates at  
17 the Beaver and San Francisco crossings, using the median as an ASM at the Enterprise crossing, and  
18 installing wayside horns at the Steves and Fanning crossings. (*Id.*) The estimated costs for the  
19 Scenarios ranged from \$885,500 for Scenario D to \$2,409,250 for Scenario B. (*Id.*) Scenarios A and  
20 B were based on Diagnostic Team recommendations. (*Id.*) Gannett Fleming recommended use of  
21 Scenario A. (Wayside Horn Update at 17.) The City Council voted to approve establishment of a  
22 Quiet Zone using Scenario D in May 2007. (Ex. I-1 App. A.6a.) The City terminated Gannett  
23 Fleming's contract on August 7, 2007.<sup>18</sup> (Ex. I-1, App. A.4.)

24 75. The pedestrian barriers referenced by the Diagnostic Team were mazes made of  
25 tubular metal fencing similar to the fencing used in amusement park queues, with a design inspired

26 \_\_\_\_\_  
27 <sup>17</sup> Four-quadrant gates consist of gates that span all highway approach and exit lanes on both sides of a crossing and  
fully block all traffic from entry when the gates are down. (49 C.F.R. Part 222, App. A.) They are an SSM. (*Id.*)

28 <sup>18</sup> Mr. Whitaker testified that the City had concerns about the expertise of the Gannett Fleming engineer assigned to the  
project after the original engineer left Gannett Fleming. (Tr. at 78-80.)

1 by pedestrian barriers included in the MUTCD for use with light rail transit crossings. (See Ex. I-1  
2 App. A.6d; Wayside Horn Update at 3, 5-6; Tr. at 81.) The pedestrian barriers were designed to force  
3 a pedestrian to look in both directions while traversing the maze before reaching a crossing. (Tr. at  
4 81.)

5 76. At some point before October 10, 2007, the City decided not to use the pedestrian  
6 maze design for pedestrian barriers and created a modified design. (Ex. I-1 at App. A.6b.) In  
7 February 2008, in its 60% Design Narrative, the City explained its decision not to use the pedestrian  
8 mazes, citing concerns about access to the area, a lack of room, inconsistency from one quadrant of a  
9 crossing to another, the mazes' posing an obstacle to pedestrian groups, and the mazes' even  
10 potentially presenting a safety problem if a pedestrian was in the street and needed to get out of the  
11 way of an oncoming vehicle. (60% Design Narrative at 3-4.) Mr. Whitaker testified that the  
12 pedestrian mazes would not work with the railroad tracks because the mazes would need to be placed  
13 too close to the tracks and well within the BNSF right of way. (Tr. at 81.) Mr. Whitaker also  
14 testified that the City did not even address the use of pedestrian mazes with BNSF because the City  
15 did not believe that BNSF would allow the City to "put a staging area for people that close to the  
16 track within their right-of-way." (Tr. at 81.) Mr. Whitaker testified that the Gannett Fleming  
17 engineer originally assigned to the project had also questioned the pedestrian maze design and  
18 whether it could work at the crossings. (*Id.*)

19 77. On March 14, 2008, a Notice of Intent was sent out on the City's behalf by Plateau  
20 Engineering, Inc., the design engineering firm that took over the Quiet Zone project after the City  
21 terminated its contract with Gannett Fleming. (City LFE Ex. 4.) The Notice of Intent was sent to Mr.  
22 Thomas at BNSF, an erroneously named individual for Staff, and the State Railroad Liaison at  
23 ADOT. (City LFE Ex. 4.) The Notice of Intent was never received by Mr. Watson, who does not  
24 know what happened to it.<sup>19</sup> (Tr. at 171-72.) As a result, Mr. Watson did not receive the Notice of  
25 Intent until it was e-mailed to him by ADOT in approximately December 2008 to January 2009. (Tr.

26

27

28 <sup>19</sup> After the hearing, the City provided a copy of a return receipt showing that the Notice of Intent was signed for by a Staff employee on March 14, 2008. (City LFE Ex. 4.)

1 at 171-73.) Staff did not provide the City any comments on the Notice of Intent after receiving it  
2 from ADOT, as the comment period had passed. (Tr. at 172.)

3 78. Although Amtrak operates across all five crossings that comprise the proposed Quiet  
4 Zone, Amtrak was not sent a copy of the Notice of Intent. (Tr. at 83; City LFE Ex. 4.) Nor did the  
5 City provide Amtrak with any information regarding this matter until directed to do so during the  
6 proceeding on May 6, 2009. (*Id.*) As of the date of hearing, the City still had not provided Amtrak a  
7 copy of the Notice of Intent. (Tr. at 83-84.) The City acknowledged that the Train Horn Rules  
8 required the City to provide the Notice of Intent to all railroads that operate over the tracks that are  
9 affected by a Quiet Zone, but testified that Amtrak was left out as a recipient of the Notice of Intent  
10 through an oversight. (Tr. at 84.)

11 79. BNSF sent comments to the City and to FRA in response to the Notice of Intent,  
12 within the 60-day comment period provided by the Train Horn Rules. (Tr. at 128.) In its comments,  
13 BNSF recommended that the City follow the Diagnostic Team's recommendation to install  
14 pedestrian mazes at the Beaver and San Francisco crossings. (Tr. at 137.) Mr. Thomas testified that  
15 BNSF did not receive a response from the City regarding BNSF's comments. (Tr. at 137.) Mr.  
16 Thomas acknowledged that the City was not required by the Train Horn Rules to make any of the  
17 changes recommended in written comments received. (Tr. at 129.) Mr. Thomas testified that the  
18 pedestrian archways and fences were included in the Notice of Intent<sup>20</sup> and that that is why BNSF  
19 responded that the pedestrian barriers should be used. (Tr. at 139.) Mr. Thomas did not express an  
20 opinion as to the safety of the Beaver and San Francisco crossings for pedestrians with the archways,  
21 other than to say that the City had determined with the FRA Quiet Zone Calculator that the safety and  
22 improvements were enough to establish a Quiet Zone under the Train Horn Rules. (Tr. at 137.) Mr.  
23 Thomas testified that FRA will review the Notice of Quiet Zone Establishment and will perform its

24 \_\_\_\_\_  
25 <sup>20</sup> It is unclear whether the drawing of the archway design was actually included in the Notice of Intent. The full copy of  
26 the Notice of Intent provided by the City as a LFE includes a space in which the "Entry Feature Detail" is intended to be  
27 shown, but the space is empty of any design drawing. (City LFE Ex. 4 at C2.0.) The aerial view drawings of the Beaver  
28 and San Francisco crossings themselves do show that something labeled as an Entry Feature Detail is to be constructed to  
span the sidewalk on the non-gated side of each crossing. (City LFE Ex. 4 at C4.0, C5.0.) It is apparent from the aerial  
view drawings that the Entry Feature Detail is not a pedestrian maze, which would take up more space. (*See id.*) Mr.  
Watson did not recall seeing the archway design and fencing in the Notice of Intent, but testified that that did not mean  
that the Notice of Intent did not include it. (Tr. at 172-73.)

1 own risk calculation, but stated that he did not know whether FRA would come to Flagstaff to review  
 2 the crossings. (Tr. at 138.) Mr. Thomas testified that the FRA Quiet Zone Calculator will tell the  
 3 City if the Quiet Zone can be established. (Tr. at 139.)

4 80. Mr. Whitaker testified that the City received comments from BNSF in response to the  
 5 Notice of Intent, but did not receive any comments from the Commission, FRA, or ADOT. (Tr. at  
 6 17.) The City appears to have interpreted the lack of comments from Staff as an indication of  
 7 Commission acquiescence. (See Tr. at 18.) The City has asserted that BNSF's concerns were  
 8 addressed in the final Quiet Zone designs. (Ex. S-2 at 4.)

9 81. The City is pursuing establishment of a Quiet Zone through the designation process by  
 10 using SSMS to bring its Quiet Zone Risk Index to a level below the Risk Index with Horns. (Tr. at  
 11 17.) The City chose not to use the median at Enterprise as an ASM because it was able to bring its  
 12 Quiet Zone Risk Index to a level below the Risk Index with Horns without doing anything at  
 13 Enterprise. (Tr. at 62-63.) The City is able to obtain risk reduction credit for the configurations of  
 14 Beaver and San Francisco (one-way streets with gates blocking right-way traffic), although their  
 15 configurations are not a change. (Tr. at 62.) Because wayside horns are to be installed at the Steves  
 16 and Fanning crossings, those two crossings are not included in the Quiet Zone Risk Index calculation.  
 17 (Tr. at 63.) The Quiet Zone Risk Index calculation provided with the 60% Design Narrative was  
 18 conducted by Plateau Engineering and shows that the Quiet Zone Risk Index for the Enterprise, San  
 19 Francisco, and Beaver crossings is lower than the Risk Index with Horns.<sup>21</sup> (60% Design Narrative at  
 20 7.) However, Plateau Engineering showed the one-way streets with gates for Beaver and San  
 21 Francisco as new SSMS rather than Pre-Existing SSMS. (See *id.*) After the hearing, the City  
 22 recalculated the Quiet Zone Risk Index showing these as Pre-Existing SSMS and obtained a result  
 23 showing that the Quiet Zone Risk Index for the Enterprise, San Francisco, and Beaver crossings is  
 24 still lower than the Risk Index with Horns.<sup>22</sup> (City LFE Ex. 2.) Both the Plateau Engineering

25  
 26  
 27 <sup>21</sup> The printout from the FRA Quiet Zone Calculator shows a Nationwide Significant Risk Threshold of 19,047; a Risk  
 Index with Horns of 114,085.49; and a Quiet Zone Risk Index of 85,146.78. (60% Design Narrative at 7.)

28 <sup>22</sup> The printout from the FRA Quiet Zone Calculator shows a Nationwide Significant Risk Threshold of 17,610; a Risk  
 Index with Horns of 415,079.24; and a Quiet Zone Risk Index of 147,027.62. (City LFE Ex. 2.)

1 calculation and the City's recalculation show "gates," rather than four-quadrant gates or full barriers,  
2 under warning device.<sup>23</sup> (60% Design Narrative at 7; City LFE Ex. 2.)

### 3 Safety at the Crossings

4 82. All of the parties believe that the use of wayside horns at the Steves and Fanning  
5 crossings will maintain the safety of those crossings. BNSF feels that wayside horns are a good  
6 recommendation for the Steves and Fanning crossings. (Tr. at 132-33.) Mr. Robertson agrees that  
7 wayside horns are a one-for-one substitute for the sounding of train horns and that the use of wayside  
8 horns at a crossing makes the crossing as safe as it is when train horns are sounded.<sup>24</sup> (See Ex. I-1 at  
9 13.) Staff believes that the wayside horns and "No Train Horn" signs at the Steves and Fanning  
10 crossings will provide adequate warning to the public that a train is approaching and will provide for  
11 the public's safety. (Ex. S-1 at 5.)

12 83. Mr. Robertson testified that he believes all five crossings are safe with their current  
13 equipment, for both motorists and pedestrians, and that they will not be safe anymore if the train  
14 horns are no longer sounded and are not replaced with something else like a physical barrier. (Tr. at  
15 149-50.) Mr. Robertson agrees with the Diagnostic Team's recommendation for a pedestrian barrier  
16 as a safe alternative to train horns at the Beaver and San Francisco crossings because pedestrian  
17 barriers would stop people who are not paying attention from walking onto the tracks. (Tr. at 150.)  
18 Mr. Robertson believes that the City should have selected one of the Scenarios recommended by the  
19 Diagnostic Team, Scenario A or B, although he prefers Scenario B because it would result in a true  
20 Quiet Zone. (Tr. at 153.)

21 84. Mr. Whitaker, Mr. Barrett, and Mr. Thomas all testified that the pedestrian archways  
22 are not physical barriers. (Tr. at 100, 121, 132.) Mr. Watson testified that the pedestrian archway  
23

24 <sup>23</sup> The Crossing Inventories for the Beaver and San Francisco crossings currently show that the crossings have four-  
25 quadrant gates or full barriers. (City LFE Ex. 1.) The City has provided correspondence showing that ADOT has sent  
26 correspondence to FRA updating the Beaver and San Francisco Crossing Inventories to show that they do not have four-  
quadrant gates or full barriers. (City Post-Hearing Brief Ex. 6.) BNSF asserts that it does not matter that the Crossing  
inventories show four-quadrant gates or full barriers because the risk calculations have been performed using "gates"  
instead. (BNSF LFE at 2.) It appears that BNSF is correct. (60% Design Narrative at 7; City LFE Ex. 2.)

27 <sup>24</sup> It would be inaccurate to characterize Mr. Robertson's position as supporting approval of the City's application,  
28 however, as Mr. Robertson has asserted that approval of the City's application would essentially be approval of the entire  
Quiet Zone and has also suggested that the Steves and Fanning crossings be closed and the wayside horns installed at the  
Beaver and San Francisco crossings instead. (See Ex. I-1 at 1, 13, 15.)

1 and fencing design drawings had been e-mailed to him a couple of days before the July 2009 hearing,  
2 that he had reviewed them, and that just putting up an archway does not make the crossings safe. (Tr.  
3 at 170-71.) Mr. Watson also testified that he believes the Beaver and San Francisco crossings are  
4 currently safe for both motorists and pedestrians. (Tr. at 170-71.)

5 85. Staff's position is that the Commission is only considering approval of the installation  
6 of wayside horns at the Steves and Fanning crossings, not the Quiet Zone itself. (Tr. at 163-65, 167-  
7 68.) Staff believes that the Commission has jurisdiction over the wayside horns and needs to approve  
8 their installation because they represent a change to the warning devices at the crossing, (Tr. at 179),  
9 but that FRA regulates the safety of public at-grade crossings to be included in Quiet Zones, (Tr. at  
10 163). Mr. Watson acknowledged that the Commission's disapproving the City's application to install  
11 the wayside horns at the Steves and Fanning crossings would "in a roundabout way" frustrate the  
12 Train Horn Rules, which establish wayside horns as a one-for-one substitute for train horns, (Tr. at  
13 185-86), but that the Train Horn Rules expressly state that they do not preempt existing State  
14 procedures for upgrading crossings. (Tr. at 186.)

15 86. Staff recommends approval of the City's application, (Ex. S-1 at 5), and testified that  
16 the application is reasonable and in the public interest, (Tr. at 159).

### 17 Preemption

18 87. Under 49 U.S.C. § 20106(a), laws related to railroad safety are required to be  
19 nationally uniform to the extent practicable, but a State may adopt or continue in force a law,  
20 regulation, or order related to railroad safety under either of two situations: (1) if the Secretary of  
21 Transportation has not yet prescribed a regulation or issued an order covering the same subject  
22 matter; or (2) if the State's law, regulation, or order related to railroad safety is in addition to or more  
23 stringent than the federal regulation or order; is necessary to eliminate or reduce an essentially local  
24 safety hazard; is not incompatible with a federal law, regulation, or order; and does not unreasonably  
25 burden interstate commerce. (49 U.S.C. § 20106(a).) For an additional or more stringent state  
26 requirement to prevail under the "essentially local safety hazard" standard, the hazard addressed by  
27 the state requirement must be one that cannot be adequately addressed by a national uniform  
28 standard. (*Union Pac. R.R. Co. v. California Pub. Utils. Comm'n*, 346 F.3d 851, 860-61, 862 (9<sup>th</sup> Cir.

1 2003).) If the hazard being addressed by the state requirement is a hazard that could be adequately  
 2 addressed by a national uniform standard, the state requirement is preempted. (*See id.*)

3 88. The Train Horn Rules, in pertinent part, provide the following regarding preemption  
 4 of state laws:

5 (a) [I]ssuance of this part **preempts** any State law, rule, regulation, or order  
 6 **governing the sounding of the locomotive horn** at public highway-rail grade crossings,  
 in accordance with 49 U.S.C. 20106.

7 . . . .  
 8 (d) Inclusion of SSMS and ASMS in this part or approved subsequent to issuance  
 9 of this part does **not** constitute federal **preemption** of State law regarding **whether those**  
 10 **measures may be used for traffic control**. Individual states may continue to determine  
 11 whether specific SSMS or ASMS are appropriate traffic control measures for that State,  
 consistent with Federal Highway Administration regulations and the MUTCD. However,  
 . . . inclusion of SSMS and ASMS in this part does constitute federal **preemption** of State  
 12 law **concerning the sounding of the locomotive horn in relation to the use of those**  
 13 **measures**.

(e) Issuance of this part does **not** constitute federal **preemption of**  
 14 **administrative procedures** required under State law **regarding the modification or**  
 15 **installation of engineering improvements** at highway-rail grade crossings.

(49 C.F.R. § 222.7 (emphasis added).)

16 89. The Train Horn Rules do not compromise a state's traditional control over engineering  
 17 standards or selection of traffic control devices at highway-rail grade crossings. (68 Fed. Reg. at  
 18 70633, 70634.) FRA has expressly stated that state governments retain the authority to determine  
 19 appropriate traffic control devices and roadway improvements at highway-rail grade crossings and  
 20 will be able to order installation of automated warning systems, (70 Fed. Reg. at 21847), and that the  
 21 Train Horn Rules are "not intended to preempt administrative procedures required under state law  
 22 regarding grade crossing warning system modifications and installations," (70 Fed. Reg. at 21889).  
 23 Subsection (e) to 49 C.F.R. § 222.7 was added by FRA specifically in response to requests for  
 24 clarification from state agencies concerning whether public authorities would be able to bypass the  
 25 approval processes of state agencies with exclusive authority over grade crossing design and  
 modification. (70 Fed. Reg. at 21854.)

26 90. The City is uncertain whether the Commission is preempted by federal law from  
 27 taking action on its application as to the installation of the wayside horns at the Steves and Fanning  
 28

1 crossings and noted that that public agencies in other states<sup>25</sup> have acted to approve the installation of  
2 wayside horns at railroad crossings. Regarding the Beaver, San Francisco, and Enterprise crossings,  
3 the City asserts that the Commission is preempted from approving the changes or imposing any  
4 additional safety requirements because the crossings are part of a Quiet Zone and no changes are  
5 being made to existing warning signals or devices, roadway configuration, or pavement markings.  
6 The City added that federal preemption applies equally to the sidewalks abutting the roadways at  
7 these three crossings.

8 91. BNSF asserts that the Commission is preempted by federal law from regulating both  
9 the installation and use of wayside horns at public highway-rail grade crossings and the safety  
10 measures to be used at public highway-rail grade crossings included within a Quiet Zone. BNSF  
11 further asserts that the Commission is preempted whether or not the City complied with federal  
12 requirements to establish a Quiet Zone, as FRA has not delegated to states any authority to approve  
13 Quiet Zones, to establish acceptable risk thresholds for public highway-rail grade crossings in Quiet  
14 Zones, or to determine under what conditions a wayside horn may be used in lieu of a train horn.  
15 BNSF argues that the Commission would be unable to show that any safety hazard being addressed is  
16 an essentially local safety hazard, that the exception of 49 C.F.R. § 222.7(e) cannot be used because  
17 installation of a wayside horn does not represent an engineering improvement, and that the  
18 Commission's hearing and decision processes are quasi-judicial rather than administrative in nature.  
19 BNSF asserts that the cases cited by the City are inapposite.<sup>26</sup> Mr. Thomas testified that BNSF did  
20 not request dismissal of the case because it desired to participate in order to provide the Commission  
21 information concerning this new subject area.<sup>27</sup> (Tr. at 140-41.)

22 \_\_\_\_\_  
23 <sup>25</sup> The City cited *Town of Steilacoom*, Docket TR-081743, Order 01 (Wash. Utils. & Transp. Comm'n Oct. 8,  
24 2008)(approving installation of wayside horns at pedestrian-only railroad grade crossing that is not included in a Quiet  
25 Zone) and *Washington State Dep't of Transp.*, Docket TR-081232, Order 01 (Wash. Utils. & Transp. Comm'n Sept. 24,  
26 2008)(approving "in concept" the installation of wayside horns at a railroad-highway grade crossing that is apparently not  
27 included in a Quiet Zone, but making placement of the wayside horns and indicator lights subject to the approval of a  
28 diagnostic team including Washington Utilities and Transportation Commission staff).

<sup>26</sup> BNSF points out that the September 2008 Order involved numerous additional modifications and upgrades to the  
public crossing aside from the installation of wayside horns and did not involve a Quiet Zone and that the October 2008  
Order involved a pedestrian-only railroad grade crossing that was not included in a Quiet Zone and thus to which 49  
C.F.R. Part 222 did not apply. (BNSF Post-Hearing Brief at 12.)

<sup>27</sup> Counsel for BNSF explained that BNSF decided to participate through the hearing so that the issues related to the  
Quiet Zone could be fleshed out through a transparent process, which would not necessarily have been possible with a  
motion to dismiss. (Tr. at 191.)

1           92.     Staff asserts that the Commission is not preempted by federal law from taking action  
 2 on the City's application to install wayside horns at the Steves and Fanning crossings, as 49 C.F.R. §  
 3 222.7(e) specifically exempts from preemption administrative procedures required under State law  
 4 regarding the modification or installation of engineering improvements at highway-rail grade  
 5 crossings. Staff states that A.R.S. § 40-337(B)(2) grants the Commission the power to regulate  
 6 alterations of highway-rail grade crossings and that installing wayside horns at the Steves and  
 7 Fanning crossings would be alterations of those highway-rail grade crossings. As to the  
 8 Commission's authority to order safety improvements at public at-grade crossings located within a  
 9 Quiet Zone, Staff asserts that the Commission has the authority, under A.R.S. §§ 40-336 and 40-337,  
 10 to order such safety improvements if the need for the improvements is supported by evidence  
 11 showing that existing safety devices at the crossings are inadequate, for a reason other than the  
 12 implementation of a Quiet Zone (i.e., other than the lack of sounding train horns), and that the  
 13 Commission's authority extends to the safety of the public at at-grade crossings and thus to sidewalks  
 14 at public at-grade crossings. Staff believes, however, that all five of the crossings are currently  
 15 configured to be safe for both motorists and pedestrians, although there is evidence suggesting that  
 16 there is cause for concern regarding the safety of pedestrians at the crossings in downtown Flagstaff.  
 17 Staff believes that it would be appropriate to require additional monitoring at the Beaver and San  
 18 Francisco crossings.<sup>28</sup>

19           93.     Mr. Robertson asserts that the Commission is legally responsible for crossing safety;  
 20 that the City, as a political subdivision of the State, is obligated to follow State safety requirements;  
 21 and that federal law does not specifically preempt State safety requirements because most of the  
 22 traffic control needed at the downtown crossings is for pedestrians, the safety features are not  
 23 designed to and do not adequately protect non-motorized traffic, and the City did not follow the  
 24 Diagnostic Team's recommendations for the downtown crossings. Mr. Robertson believes that FRA

25 \_\_\_\_\_  
 26 <sup>28</sup> We note that A.R.S. § 40-338(B) requires every public service corporation to file with the Commission a report of  
 27 each accident occurring upon the property of the public service corporation or arising from or connected with its  
 28 maintenance or operation and resulting in loss of life or injury to persons or property. The Commission is required to  
 investigate the cause of all such accidents under A.R.S. § 40-338(A). Further, Arizona Administrative Code ("A.A.C.")  
 R14-5-105(A) requires a railroad to give the Commission immediate telephone notification of certain classes of accidents,  
 including all public railroad-highway grade crossing accidents. (A.A.C. R14-5-105(A)(1)(e).)

1 will allow the Commission to become involved in requiring additional safety devices when FRA  
2 reviews the City's oversights and misleading data. Mr. Robertson asserts that the Commission  
3 should request that FRA allow the Commission to get involved in the process<sup>29</sup> or follow the  
4 recommendations of the Diagnostic Team.

5 **The City's Compliance with the Requirements to Establish a Quiet Zone**

6 94. The City asserts that it has complied with the requirements pertaining to the  
7 establishment of a Quiet Zone under 49 C.F.R. § 222.39(a). The City acknowledges that it did not  
8 initially meet the formal notification requirements of 49 C.F.R. § 222.43(a) because it failed to notify  
9 Amtrak and misidentified a Commission staff member to receive the Notice of Intent, but stated that  
10 the oversights were minor and were corrected as soon as the City became aware of them. The City  
11 also acknowledged that there may be questions concerning the accuracy of the information in the  
12 Crossing Inventories, which should be updated through ADOT's recent correspondence to FRA. The  
13 City points out that the Quiet Zone Risk Index for the Beaver, San Francisco, and Enterprise  
14 crossings is still lower than the Risk Index with Horns when accurate and updated data is used in the  
15 Quiet Zone Risk Calculator,<sup>30</sup> and asserts that the Commission is preempted from taking action  
16 regarding the Beaver, San Francisco, and Enterprise crossings even if the City has failed to meet the  
17 FRA Quiet Zone requirements.

18 95. BNSF asserts that the only deficiency regarding the City's Notice of Intent was the  
19 City's conceded failure to send the Notice of Intent to Amtrak. According to BNSF, the inaccuracies  
20 in the Crossing Inventories highlight the need for the Commission to obtain Recognized State  
21 Agency status from FRA so that the Commission can have a more active role in the establishment of  
22 Quiet Zones in Arizona. BNSF asserts that although the lack of a FRA approval requirement to  
23 establish a Quiet Zone in this case may cause the Commission some concern, the Train Horn Rules

24 <sup>29</sup> Mr. Robertson believes the Commission should become a Recognized State Agency under the Train Horn Rules. Mr.  
25 Watson testified that Recognized State Agency status does not result in any additional authority—that a Recognized State  
26 Agency still only gets to make comments on establishment of a Quiet Zone. (Tr. at 174-75.) Mr. Watson further testified  
27 that FRA thus far has denied all of the applications filed for Recognized State Agency status by other states of which he is  
28 aware. (Tr. at 164.)

<sup>30</sup> The Quiet Zone Risk Calculator printout shows updated traffic counts for Beaver, San Francisco, and Enterprise;  
shows that they all have gates; and shows the code for one-way street with gates as a Pre-Existing SSM for the Beaver  
and San Francisco crossings. (City's Post-Hearing Brief, Ex. 7.) The result is a Nationwide Significant Risk Threshold  
of 17,610; a Risk Index with Horns of 316,826.68; and a Quiet Zone Risk Index of 112,589.56. (*Id.*)

1 do not grant the Commission any authority to determine whether a public authority has met the  
2 requirements of 49 C.F.R. § 222.39(a). Rather, FRA expressly reserved to itself the authority to  
3 approve Quiet Zones.

4 96. Staff asserts that the City's failure to provide a copy of the Notice of Intent to Amtrak  
5 means that the City has not complied fully with the notice requirements of 49 C.F.R. § 222.43 and  
6 that the City needs to issue a Notice of Intent to Amtrak and provide for the comment period outlined  
7 in the Train Horn Rules before it can establish a Quiet Zone. If the City does this, Staff believes that  
8 the City can establish a Quiet Zone by meeting the requirements of 49 C.F.R. § 222.39(a)(3). Staff  
9 believes that the Commission has the authority to make a finding of fact regarding the City's  
10 compliance with the requirements of 49 C.F.R. § 222.39(a), pointing out that the Commission  
11 routinely notes compliance with regulatory requirements established and enforced by other agencies  
12 (e.g., those of the Arizona Department of Water Resources and the Arizona Department of  
13 Environmental Quality), but does not believe that the Commission may base approval or denial of the  
14 City's application on whether the City has met the requirements for establishment of a Quiet Zone.  
15 In addition, Staff believes that the preemption analysis is unchanged by the City's failure to comply  
16 fully with the requirements for establishment of a Quiet Zone.

#### 17 **Discussion and Resolution**

18 97. Based on the evidentiary record in this matter, we find that installation of the proposed  
19 wayside horns at the Steves and Fanning crossings is consistent with the public interest and should be  
20 approved. The testimony in this matter establishes that these crossings are currently safe for both  
21 motorists and others and that the use of wayside horns at these crossings is appropriate and will help  
22 to ensure the continued safety of the crossings, which is in the public interest. We find that the  
23 installation of the wayside horns is a modification to current warning systems and thus is a  
24 modification or installation of engineering improvements over which we retain authority under 49  
25 C.F.R. § 222.7(e).

26 98. Based on the evidentiary record in this matter, we find that there is a "pedestrian  
27 issue" at the Beaver and San Francisco crossings. We reach this conclusion based on the evidence  
28 that these crossings are used very heavily by pedestrians, both during daylight hours and after dark;

1 that many of the pedestrians in the nighttime hours have been customers of local dining and drinking  
2 establishments and may be impaired; and that many of the pedestrians opt to walk in the streets rather  
3 than on the sidewalks. We also find that the pedestrian archways are not physical barriers that would  
4 prevent pedestrians or bicyclists from entering onto the tracks and that there is currently no physical  
5 barrier to prevent a pedestrian or bicyclist from entering onto the tracks when walking or cycling the  
6 “wrong way” down either of these one-way streets, whether on the sidewalk or on the street itself.  
7 However, we also find, based on the testimony in this matter, that these crossings are safe with their  
8 current configurations.<sup>31</sup> We believe that this safety results, to some extent, from the sounding of  
9 train horns, which apparently is very difficult to ignore.<sup>32</sup>

10 99. Based on the evidentiary record in this matter, we find that the Enterprise crossing is  
11 currently safe for both motorists and pedestrians and that there is not a “pedestrian issue” at the  
12 Enterprise crossing, as it has only very light pedestrian traffic.

13 100. Based upon our review of 49 U.S.C. § 20106, the 2006 Final Rule, and FRA’s  
14 statements in the introductory material for the Interim Rule and the 2005 Final Rule, we find that the  
15 Train Horn Rules preempt the Commission’s authority to require that train horns be sounded at public  
16 highway-rail grade crossings and/or to impose requirements related to the use of safety measures  
17 specifically to accommodate for the silencing of train horns at such crossings. We further find that  
18 the Commission does not have the authority to approve or deny the establishment of a Quiet Zone.

19 101. We also find, however, that the Train Horn Rules do not preempt the Commission’s  
20 “administrative procedures”<sup>33</sup> regarding applications for the alteration of public at-grade crossings  
21 included or to be included in Quiet Zones, to the extent that the alterations contemplated involve  
22 modification or installation of “engineering improvements.” Thus, the Commission retains the  
23 authority to approve or deny applications for the alteration of such crossings to the extent that the

24 <sup>31</sup> Mr. Whitaker, Mr. Barrett, Mr. Robertson, and Mr. Watson all testified that these crossings are currently safe. (Tr. at  
25 84, 113, 116, 149-50, 170.) Mr. Thomas was somewhat evasive when asked about the current safety of these crossings  
and did not directly answer the question. (Tr. at 138.)

26 <sup>32</sup> Mr. Robertson testified: “If you ever stand in downtown Flagstaff and are standing at the crossing and a train is  
27 rolling by blaring out a train horn, that will wake you up and get your attention, definitely.” (Tr. at 150.) We also  
acknowledge that the public comments received primarily complained about the disturbances caused by the loudness and  
frequency of the train horns.

28 <sup>33</sup> In spite of BNSF’s assertion to the contrary, the proceedings that result from an applicant’s filing an application for  
alteration of an at-grade crossing are “administrative procedures.” (See FOF No. 95.)

1 alterations contemplated involve modification or installation of engineering improvements.<sup>34</sup>

2       102. While we are concerned about the safety of the Beaver and San Francisco crossings  
3 for pedestrians and bicyclists, and to a lesser degree for wrong-way motor vehicle traffic, we  
4 understand that our concern results primarily from our awareness that train horns will cease to sound  
5 at those two crossings when the City's Quiet Zone is established. The City's decision not to  
6 implement pedestrian barriers of any kind, in spite of the recommendations of the Diagnostic Team  
7 and in spite of the recommendations of BNSF, causes us some concern and is not a choice that we  
8 believe we would make under the same circumstances. However, due to FRA's preemption of our  
9 authority over the safety of public at-grade crossings as specifically related to the sounding of train  
10 horns, the only action we can take to address our concerns is to inform the City of our opinion. There  
11 is not evidence to establish that the Beaver and San Francisco crossings currently need to be modified  
12 to address a safety hazard that is unrelated to the sounding (or not) of train horns at the crossings, and  
13 by this Decision we make no finding regarding the safety of those crossings when train horns cease to  
14 be sounded.

15       103. We also find that the City has not followed the requirements for the establishment of a  
16 Quiet Zone under the Train Horn Rules because the City has failed to provide the Notice of Intent to  
17 Amtrak. Sending Amtrak notice of this matter, after being directed to do so by the Commission, does  
18 not fulfill the requirement to provide Amtrak with a copy of the Notice of Intent and to allow it a 60-  
19 day comment period. Although we do not have authority to enforce the Train Horn Rules, we hope  
20 that the City will provide Amtrak with a copy of the Notice of Intent and will allow it the 60-day  
21 comment period as required by the Train Horn Rules.<sup>35</sup>

22       104. We find that the City partially installed the wayside horns at the Steves and Fanning  
23 crossings without having received the Commission's authority to do so, that this premature  
24 installation of the wayside horns was a violation of A.R.S. § 40-337, that the premature installation of  
25

26 <sup>34</sup> We understand "modification or installation of engineering improvements," which was not defined by FRA, to  
27 encompass changes to roadway configuration, traffic control devices or measures, pavement markings, and warning  
28 systems or devices. We believe that, as a result of the Train Horn Rules, the Commission will need to divorce from its  
inquiry and analysis any consideration of the use (or not) of train horns when reviewing such applications.

<sup>35</sup> We question whether the City could currently affirm truthfully under 49 C.F.R. § 222.43(d)(2)(vii) that the Notice of  
Intent was provided in accordance with 49 C.F.R. § 222.43(a)(1).

1 the wayside horns caused confusion to at least one BNSF train engineer, and that the premature  
2 installation of the wayside horns could have posed a safety hazard as a result of the confusion.  
3 However, we also find that BNSF was not involved with this premature installation and that there is  
4 nothing to be gained from additional proceedings in this matter related to the issue of the City's  
5 premature installation of the wayside horns. The Commission expects, in the future, for the City to  
6 wait for Commission approval before it proceeds with any crossing alterations that require  
7 Commission approval.

### 8 CONCLUSIONS OF LAW

9 1. The Commission has jurisdiction over the parties and over the subject matter of the  
10 application pursuant to Article XV of the Arizona Constitution and A.R.S. §§ 40-336, 40-337, and  
11 40-337.01.

12 2. Notice of the application was provided in accordance with the law.

13 3. Upgrading of the Steves and Fanning crossings as proposed in the application is  
14 necessary and appropriate for the public's convenience and safety.

15 4. Installation of wayside horns is a modification to current warning systems and thus is  
16 a modification or installation of engineering improvements.

17 5. Pursuant to A.R.S. §§ 40-336 and 40-337, the application should be approved as  
18 recommended by Staff.

19 6. After the crossings are upgraded, the Railroad should maintain the crossings in  
20 accordance with A.A.C. R14-5-104.

21 7. The Commission's administrative procedures regarding applications for the alteration  
22 of public at-grade crossings included or to be included in Quiet Zones are not preempted under 49  
23 U.S.C. § 20106 and the Train Horn Rules to the extent that the alterations involve modification or  
24 installation of engineering improvements.

25 8. The Commission is preempted under 49 U.S.C. § 20106 and the Train Horn Rules  
26 from requiring that train horns be sounded at public highway-rail grade crossings and from imposing  
27 requirements related to the use of safety measures specifically to accommodate for the silencing of  
28 train horns at such crossings.



1 IT IS FURTHER ORDERED that through this Decision, the Commission makes no finding as  
2 to the safety of the crossings at Beaver Street and San Francisco Street once the Quiet Zone is  
3 established.

4 IT IS FURTHER ORDERED that this Decision shall become effective immediately.

5 BY ORDER OF THE ARIZONA CORPORATION COMMISSION.  
6  
7

8 CHAIRMAN \_\_\_\_\_ COMMISSIONER \_\_\_\_\_  
9

10 COMMISSIONER \_\_\_\_\_ COMMISSIONER \_\_\_\_\_ COMMISSIONER \_\_\_\_\_  
11

12 IN WITNESS WHEREOF, I, ERNEST G. JOHNSON,  
13 Executive Director of the Arizona Corporation Commission,  
14 have hereunto set my hand and caused the official seal of the  
15 Commission to be affixed at the Capitol, in the City of Phoenix,  
16 this \_\_\_\_ day of \_\_\_\_\_, 2009.

17 \_\_\_\_\_  
18 ERNEST G. JOHNSON  
19 EXECUTIVE DIRECTOR

20 DISSENT \_\_\_\_\_

21 DISSENT \_\_\_\_\_

22 MES:db  
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1 SERVICE LIST FOR: CITY OF FLAGSTAFF/BNSF RAILWAY COMPANY

2 DOCKET NO.: RR-02635B-09-0075

3

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