

1 extended period of time. We also agree that keeping the Hickox crossing open would increase the
2 risk of a crossing collision where motorists may ignore crossing warning devices by trying to
3 “beat” an oncoming train or falsely presuming activated signals are for a stopped train a second
4 train is approaching but their view of the second train is blocked by the stopped train.
5

6 **3. Do you disagree with any of Mr. Zeinz’s conclusions?**

7 I disagree with Mr. Zeinz’s recommendation to improve both Stackpole and Blackburn
8 crossings if the Hickox Road crossing is closed.
9

10 **4. Why do you disagree that both Stackpole and Blackburn need to be improved if**
11 **Hickox is closed?**

12 I believe it is sufficient to close Hickox without upgrading either Stackpole or Blackburn,
13 for the reasons described below. I also believe that it is sufficient to close Hickox and upgrade
14 Stackpole to have active warning protection, without changing the Blackburn crossing. I do note,
15 however, that Mr. Zeinz was not apparently asked to consider the option of closing the Hickox
16 crossing, leaving the Blackburn crossing as-is, and improving the Stackpole crossing to have
17 active warning devices (when asked to compare alternatives on Page 13 of his prefiled testimony).
18

19 **5. Why do you disagree with Mr. Zeinz’s recommendation to improve the Blackburn**
20 **crossing?**

21 I visited each crossing involved in this matter (Blackburn, Hickox and Stackpole) on
22 November 6, 2007. First and foremost, the Blackburn crossing meets all required safety standards
23 for grade crossings. This was also acknowledged in Mr. Johnston’s prefiled testimony.

24 ///

25 ///

26 ///

1 **6. Is there another reason you disagree with Mr. Zeinz’s recommendation to improve**
2 **the Blackburn crossing?**

3 Yes. I disagree with Mr. Zeinz’s claim that the Blackburn crossing’s traffic signal
4 placement and coordination increases the likelihood of motorist confusion. The Blackburn
5 crossing not only has active crossing protection, but has the additional component of normal
6 traffic signals. Although this is generally unusual at grade crossings, it actually makes the crossing
7 safer than a crossing with only flashing lights and gates (notably, Mr. Johnston also testified that
8 on “the positive side, the Blackburn . . . railroad signals are connected with traffic signals”).
9

10 **7. Why do traffic signals make the grade crossing safer?**

11 Driver behavior at crossings equipped with traffic signals is modified because drivers stop
12 at or before the railroad stop line even when a train is not approaching. The consistent stopping
13 location, with or without the presence of a train, means drivers will not become confused about
14 a safe location to stop when a train is approaching the crossing. Lights and gates really become
15 icing on the cake when traffic signals are installed. It is very difficult to imagine a driver claiming
16 “I didn’t know what that meant” - because traffic signals are such a basic part of operating a motor
17 vehicle. Drivers are less likely to ignore active crossing protection when they are also facing a red
18 traffic light. Blackburn involves four streets intersecting, and drivers would stop at the same traffic
19 lights even if the tracks did not exist.

20 Also, I am unaware of any information that the Blackburn crossing has had problems with
21 drivers facing conflicting warning devices - such as facing lowering warning gates but green
22 traffic lights. That would be the only scenario of conflicting warning devices I believe could be
23 considered confusing - but I am not aware of a situation in which that has happened.
24

25 **8. How are the warning devices linked to traffic signals at Blackburn?**

26 When a train is coming to a crossing at or near a street intersection, such as the Blackburn
27 crossing, the oncoming train trips a sensor that “preempts” the traffic signals. This means that the

1 traffic signals change to clear any traffic that may be on the crossing the train is approaching. At
2 Blackburn, the signals are wired so that the traffic signal lights will turn red before a train nears,
3 preventing motorists from entering the crossing. Preemption means the lights will not be green
4 when the gates lower.

5
6 **9. Do you believe the north siding switch should be relocated?**

7 No. Blackburn is located at the north end of the siding. Mr. Zeinz did not address the fact
8 or did not have information that the siding track has been designed so a train in the siding will not
9 block Blackburn. There will not be the same visibility or safety concerns that drivers may ignore
10 warning devices when they cannot see an oncoming train. Further, a train pulling into the siding
11 will travel through the Blackburn crossing whether the siding switch is located north or south of
12 the crossing. Trains may not travel faster than 20 m.p.h. when pulling into the Mt. Vernon siding,
13 so the speed of a train will be relatively slow. See Exhibit 1, attached hereto (BNSF Timetable for
14 Bellingham Subdivision) whether it has just pulled into the siding or is about to pull into the
15 siding. In my opinion, the cost of such construction outweighs the benefit, if any.

16
17 **10. Are there any other factors that explain why you recommend closing Hickox but**
18 **leaving the Blackburn crossing as-is, even though both would cross siding and mainline**
19 **tracks?**

20 Yes. Another factor that I have considered is where the speed limit changes near the
21 crossings. The speed limit between mileposts 51.0 and 67.9 (Stackpole, Hickox and Blackburn
22 are located between these mileposts) is 79 m.p.h. for passenger trains and 60 m.p.h. for freight
23 trains. See Exhibit 1. More than two miles north of Hickox and less than one mile north of
24 Blackburn, at MP 67.9, the speed limit is slower: it is 50 m.p.h. for passenger trains and 45 m.p.h.
25 for freight trains. A northbound passenger train must be traveling at or slower than 50 m.p.h. when
26 its lead locomotive reaches MP 67.9, so it is likely that trains will be slowing when they cross
27 Blackburn in anticipation of the reduced speed limit ahead. It follows that since Hickox is more

1 than two miles from the speed zone change, northbound trains will likely be traveling across
2 Hickox at a faster speed than at Blackburn - potentially up to 29 m.p.h. faster for passenger trains.
3 Southbound trains cannot speed up until the entire train has passed MP 67.9, so it correspondingly
4 follows that a southbound passenger train could well be traveling at or slightly faster than 50
5 m.p.h. at Blackburn (depending on its length), but may potentially reach 79 m.p.h. by the time it
6 crosses Hickox. Keeping the Blackburn crossing as-is is less dangerous than keeping the Hickox
7 crossing open, for the reasons described in my earlier answers but also because trains potentially
8 cross Hickox at a greater rate of speed.

9
10 **11. Do four-quadrant gates solve the safety concerns at Hickox?**

11 Not necessarily. The FRA has recognized that vehicle presence detection systems that keep
12 exit gates up longer may encourage drivers to follow violators through crossings using the
13 oncoming traffic exit gate opening in a steady stream, defeating the intended warning. Further,
14 drivers who know the exit gates will not close when a vehicle is on the crossing may be more
15 likely to try to beat the “entrance” gate, knowing the exit gate will not lower on top of their
16 vehicle. Here, Hickox is unique in that motorists (especially drivers familiar with the crossing)
17 who know the crossing may be blocked might be tempted to go around the gates to avoid having
18 to retrace their route and use an alternative crossing. It is not safe to have an open crossing in the
19 middle of siding track. Neither Blackburn nor Stackpole are in the middle of a siding track.

20
21 **12. Do you have any exhibits to illustrate the scenario of motorists ignoring or trying to**
22 **beat gates at a crossing?**

23 It is my understanding that BNSF will provide two or three demonstrative videos showing
24 drivers ignoring warning devices, a scenario I discussed in my earlier testimony. This will
25 illustrate the concern of keeping the Hickox crossing open, creating potential temptation for
26 motorists to try to beat safety gates to cross the tracks.

1 13. **What is your professional conclusion about whether to install four-quadrant gates**
2 **at Hickox?**

3 Four-quadrant gates do not eliminate the safety hazards posed at the Hickox crossing. It
4 is my opinion that the proper mitigation in this case is to close the Hickox crossing, the only way
5 to eliminate its safety hazards. The other two crossings, Blackburn and Stackpole, have adequate,
6 safer crossing protection. The WUTC admits that Blackburn and Stackpole meet all required
7 safety standards.

8
9 14. **In your opinion, as between the following alternatives, which would you deem safer:**
10 **(a) leaving the Hickox Road crossing open, but with four-quadrant gates, or (b) closing the**
11 **Hickox Road crossing and diverting the traffic to the Blackburn and Stackpole crossings**
12 **with no improvement to either of these alternative crossings?**

13 Under the circumstances described, (b) closing the Hickox Road crossing and diverting
14 the traffic to the Blackburn and Stackpole crossings with no improvement to either of these
15 alternative crossings would be safer. Whether or not Hickox has two-quadrant or four-quadrant
16 gates, the crossing is going to be blocked significantly, so it is safer to avoid any potential conflict
17 with motor vehicles. Stackpole has excellent visibility, and Blackburn has adequate safety devices,
18 including normal traffic signals. It is unsafe to create incentives for drivers to “beat” lowering
19 gates (to avoid having to take a detour when a train is parked in the siding) and risk feeling
20 trapped between the gates if the driver does not make it across in time.

21
22 15. **In your opinion, as between the following alternatives, which would you recommend:**
23 **(a) leaving the Hickox Road crossing open, but with four-quadrant gates, (b) closing the**
24 **Hickox Road crossing and installing active warning devices at Stackpole crossing, or (c)**
25 **closing the Hickox Road crossing with improvements being made to both Stackpole and**
26 **Hickox crossings?**

1 I would recommend (b). Closing the Hickox crossing is the best, safest way to mitigate the
2 hazards presented by extending the siding track across the road. I do not believe that Blackburn
3 needs to be upgraded, and I believe Mr. Zeinz's analysis is based on incorrect information (trains
4 parked across Blackburn, confusion because of stop lights, etc.).
5


6 16. Did any part of Mr. Zeinz's testimony change your conclusion that the Hickox
7 crossing should be closed?

8 No. If this stretch of track has three crossings now and goes to two, it will concentrate
9 where vehicles and pedestrians have contact with railroad tracks. Removing one whole crossing
10 from mix means that crossing cannot have any accidents, and drivers will not risk wasting travel
11 time by driving to the crossing, seeing it blocked, retracing their journey, and taking an alternative
12 route. The bottom line is that Hickox will be blocked by trains with regularity. Closing the Hickox
13 crossing is the best solution.
14
15
16

17 DECLARATION

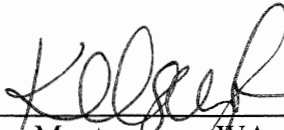
18 I, Foster Peterson, declare under penalty of perjury under the laws of the State of
19 Washington that the foregoing PREFILED REBUTTAL TESTIMONY OF FOSTER
20 PETERSON is true and correct to the best of my knowledge and belief.

21 DATED this 29th day of November, 2007.

22
23 
24 _____
FOSTER PETERSON
25
26
27

1 DATED this 30th day of November, 2007.

2
3 Montgomery Scarp MacDougall, PLLC

4
5 

6 Tom Montgomery, WA. Bar No. 19998
7 Bradley P. Scarp, WA. Bar No. 21453
8 Kelsey Endres, WA. Bar. No. 39409
9 Of Attorneys for BNSF Railway Company
10 1218 Third Ave., Ste. 2700
11 Seattle, WA 08101
12 Tel. (206) 625-1801
13 Fax (206) 625-1807
14 tom@montgomeryscarp.com
15 brad@montgomeryscarp.com
16 kelsey@montgomeryscarp.com

17
18 CERTIFICATE OF SERVICE

19 I am over the age of 18; and not a party to this action. I am the assistant to an attorney with Montgomery Scarp
20 MacDougall, PLLC, whose address is 1218 Third Avenue, Suite 2700, Seattle, Washington, 98101.

21 I hereby certify that the original and 12 copies of PREFILED REBUTTAL TESTIMONY OF FOSTER PETERSON
22 has been sent by FedEx to Carole J. Washburn at WUTC and a PDF and word perfect version sent by electronic mail. I also
23 certify that true and complete copies have been sent via electronic mail and U.S. Mail to the following interested parties:

24
25 Stephen Fallquist
26 Deputy Prosecuting Attorney
27 Skagit County
605 S. 3rd Street
Mount Vernon, WA 98273

L.Scott Lockwood
Assistant Attorney General
1400 S. Evergreen Park Dr. S.W.
P.O. Box 40128
Olympia, WA 98504

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Des Moines, WA 98198

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City Attorney
P.O Box 809
Mount Vernon, WA 98273

1 Adam E. Torem
2 1300 S. Evergreen Park Dr. SW
3 P.O. Box 47250
4 Olympia, WA 98504-7250

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

5 DATED this 30th day of November, 2007 at Seattle, Washington.

6 
7 _____
8 Lisa Miller, Paralegal

DOCKET TR-070696
PREFILED REBUTTAL TESTIMONY OF FOSTER PETERSON

“EXHIBIT 1”

BNSF TIMETABLE FOR BELLINGHAM SUBDIVISION

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BNSF Safety Vision

We believe every accident or injury is preventable. Our vision is that BNSF Railway will operate free of accidents and injuries. BNSF Railway will achieve this vision through:

A culture that makes safety our highest priority and provides continuous self-examination as to the effectiveness of our safety process and performance ...

A work environment, including the resources and tools, that is safe and accident-free where all known hazards will be eliminated or safe-guarded ...

Work practices and training for all employees that make safety essential to the tasks we perform ...

An empowered work force, including all employees, that takes responsibility for personal safety, the safety of fellow employees, and the communities in which we serve.



Northwest Division

Timetable No. 3

IN EFFECT AT 0700
Pacific Continental Time
Wednesday April 26, 2006

Division General Manager
Douglas B. Jones
Seattle, WA
(206) 625-6333

General Director Transportation
R.T. Bartoskewitz
Seattle, WA
(206) 625-6266

SOUTHWARD ↓	Length of Siding (Feet)	Station Nos.	Mile Post	Bellingham Subdivision MAIN LINE STATIONS		Rule 4.3	Type of Oper.	Line Segment	Miles to Next Stn.	NORTHWARD ↑
			119.6	USA CANADA BORDER		Y			0.3	
	6,060	15088	119.3	BLAINE		BY	ABS OCS		2.4	
	8,588		116.4	SWIFT					4.3	
		15081	112.1	INTALCO		JT	CTC		5.9	
	8,478	15075	106.3	FERNDALE					9.0	
		15067	97.0	BELLINGHAM		BY	ABS OCS		3.2	
	6,347	15062	92.9	SOUTH BELLINGHAM		Y		50	13.4	
	8,884	15049	79.7	BOW					7.4	
	4,635	15042	71.9	BURLINGTON to Fidalgo 12.4		J			3.9	
	6,075	15038	66.6	MT. VERNON		B			12.4	
	6,381	15025	55.5	STANWOOD			CTC		9.7	
	10,680	15016	45.5	ENGLISH					3.6	
		15012	42.2	KRUSE JCT. to Arlington 6.8					3.4	
	2,557	15009	38.8	MARYSVILLE					2.7	
			37.0 to 10.9	DELTA JCT.		BMTY			1.8	
		15005	9.1	DELTA		Y	ABS	406	1.9	
		02165	0.0	PA JCT		JY		407	97.4	

Radio Channel No. 76 in service.

Bayside Yard at Everett is assigned Channel 14. All Bayside switch jobs and yardmasters will operate on this channel. Yardmaster will monitor Channel 66 and Seattle North Branch Channel 76. Delta Yard will operate on Channel 60.

Radio Call-In		
Everett - 37(X)	Burlington - 38(X)	Bellingham - 39(X)
Blaine - 41(X)	Seattle North Branch Disp. - Stanwood - 65(X)	
Emergency - Call 911		
Dispr X=0, Mechanical X=2, Field Support X=3, Warm Bearing X=5		

Train Dispatcher Telephone Number—8-234-1607

1. Speed Regulations

1(A). Speed—Maximum

	Passenger	Freight
MP 119.6 to MP 37.0	79 MPH.	60 MPH.
MP 10.9 to MP 0.0	35 MPH.	15 MPH.
Amtrak Talgo Trains	50 MPH.	
MP 8.10 to MP 8.20	35 MPH.	25 MPH.
Loaded Coal Trains		40 MPH.
Delta Jct. to Everett Jct. via Bayside	15 MPH.	15 MPH.
Lowell to Sea Line Jct.		10 MPH.

1(B). Speed—Permanent Restrictions

MP 119.6 to MP 118.2	50 MPH.	30 MPH.
MP 118.2 to MP 108.7	79 MPH.	60 MPH.
MP 108.7 to MP 108.3	70 MPH.	50 MPH.
MP 108.3 to MP 106.2	79 MPH.	60 MPH.
MP 106.2 to MP 105.8	45 MPH.	40 MPH.
MP 105.8 to MP 103.4	70 MPH.	50 MPH.
MP 103.4 to MP 101.1	55 MPH.	50 MPH.
MP 101.1 to MP 100.2	40 MPH.	35 MPH.
MP 100.2 to MP 97.1	45 MPH.	35 MPH.
MP 97.1 to MP 96.7	20 MPH.	20 MPH.
MP 96.7 to MP 93.6	35 MPH.	30 MPH.
MP 93.6 to MP 90.45	40 MPH.	35 MPH.
MP 90.45 to MP 88.3	45 MPH.	35 MPH.
MP 88.3 to MP 87.2	40 MPH.	35 MPH.
MP 87.2 to MP 85.1	45 MPH.	35 MPH.
MP 85.1 to MP 82.5	40 MPH.	35 MPH.

	Passenger	Freight
MP 82.5 to MP 76.7	79 MPH.	60 MPH.
MP 76.7 to MP 76.5	60 MPH.	55 MPH.
MP 76.5 to MP 74.8	79 MPH.	55 MPH.
MP 74.8 to MP 74.5	45 MPH.	40 MPH.
MP 74.5 to MP 70.4	79 MPH.	60 MPH.
MP 70.4 to MP 67.9	50 MPH.	45 MPH.
MP 67.9 to MP 51.0	79 MPH.	60 MPH.
MP 51.0 to MP 49.5	65 MPH.	55 MPH.
MP 49.5 to MP 48.9	60 MPH.	50 MPH.
MP 48.9 to MP 47.9	70 MPH.	60 MPH.
MP 47.9 to MP 41.0	79 MPH.	60 MPH.
MP 41.0 to MP 38.7	50 MPH.	50 MPH.
MP 38.7 to MP 37.7	20 MPH.	20 MPH.
MP 37.7 to MP 37.2	35 MPH.	20 MPH.
MP 37.2 to MP 37.0	10 MPH.	10 MPH.
MP 10.9 to MP 10.7	10 MPH.	10 MPH.
MP 10.7 to MP 8.2	35 MPH.	15 MPH.
MP 8.2 to MP 8.1	25 MPH.	15 MPH.
MP 8.1 to MP 7.9	35 MPH.	15 MPH.
MP 0.8 to MP 0.0	30 MPH.	15 MPH.
Bellingham—over street crossings (HER)		
MP 96.2—Pine Street crossing	20 MPH.	20 MPH.
Burlington to Fidalgo		10 MPH.
Kruse Jct. to Arlington		10 MPH.
Delta Roundhouse/Rip Tracks		5 MPH.

Amtrak Talgo Train Maximum Speeds

	Passenger
MP 119.6 to MP 118.2	50 MPH.
MP 118.2 to MP 106.2	79 MPH.
MP 106.2 to MP 105.8	45 MPH.
MP 105.8 to MP 103.4	79 MPH.
MP 103.4 to MP 101.1	60 MPH.
MP 101.1 to MP 100.2	45 MPH.
MP 100.2 to MP 97.1	50 MPH.
MP 97.1 to MP 96.7	20 MPH.
MP 96.7 to MP 93.6	40 MPH.
MP 93.6 to MP 90.5	40 MPH.
MP 90.5 to MP 88.3	45 MPH.
MP 88.3 to MP 87.2	40 MPH.
MP 87.2 to MP 85.1	45 MPH.
MP 85.1 to MP 82.5	40 MPH.
MP 82.5 to MP 76.7	79 MPH.
MP 76.7 to MP 76.5	67 MPH.
MP 76.5 to MP 74.8	79 MPH.
MP 74.8 to MP 74.5	50 MPH.
MP 74.5 to MP 70.4	79 MPH.
MP 70.4 to MP 67.9	50 MPH.
MP 67.9 to MP 51.0	79 MPH.
MP 51.0 to MP 49.5	70 MPH.
MP 49.5 to MP 48.9	67 MPH.
MP 48.9 to MP 41.0	79 MPH.
MP 41.0 to MP 38.7	50 MPH.
MP 38.7 to MP 37.7	30 MPH.
MP 37.7 to MP 37.2	40 MPH.
MP 37.2 to MP 37.0	10 MPH.
MP 10.9 to MP 10.7	10 MPH.
MP 10.7 to MP 8.2	42 MPH.
MP 8.2 to MP 8.1	25 MPH.
MP 8.1 to MP 7.9	35 MPH.
MP 0.8 to MP 0.0	30 MPH.

1(C). Speed—Switches and Turnouts

Through dual control turnouts at the following locations:
 Swift, Ferndale, Bow, and English 30 MPH. 30 MPH.
 Mt. Vernon 20 MPH. 20 MPH.
 Trains over 100 TOB must not exceed 25 MPH through turnouts shown to exceed that speed.

1(D). Speed—Other

Sidings: Swift, Ferndale, Bow, and English 30 MPH. 30 MPH.
 Siding: Mt. Vernon 20 MPH. 20 MPH.
 All other sidings 10 MPH. 10 MPH.
 Through turnout on G.P. Pulp Switch Track # 3302 5 MPH.
 Bridges 105.8, 99.1, cars heavier than 138 tons. 25 MPH. 25 MPH.