COMMISSION STAFF CROSS-EXAMINATION EXHIBITS

Norris

- 1. City of Mount Vernon Response to Staff Data Request No. 2 (also listed above for McIntyre and Peterson)
- 2. City of Mount Vernon Response to Staff Data Request No. 3 (also listed above for Peterson)
- 3. Miscellaneous GradeDec.Net work papers
- 4. U.S. DOT Crossing Inventory Information as of 12/18/2007 for "BLACKBURN & PAC."
- 5. U.S. DOT Crossing Inventory Information as of 12/18/2007 for "STACK POLE RD"
- 6. U.S. DOT Crossing Inventory Information as of 12/18/2007 for "HICKOK RD"

Thompson, Jonathan (ATG)

From: nt:

Schultz, Jeff [SchultJ@wsdot.wa.gov] Monday, December 17, 2007 2:02 PM

. O:

Lockwood, Scott (ATG)

Subject:

FW: New Federal Requirements on Grade Crossing Accident Risk Assessment

Jeffrey T. Schultz Rail Operations and Rolling Stock Manager WSDOT Freight Systems Division 360-705-7981 Ride the Amtrak Cascades!

From: karen.mcclure@dot.gov [mailto:karen.mcclure@dot.gov]

Sent: Tuesday, November 27, 2007 12:00 PM

To: Schultz, Jeff

Subject: RE: New Federal Requirements on Grade Crossing Accident Risk Assessment

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fetv Benefit, thous \$ PV, BNSF - STACK POLE RD, MP 64.58

SafetyBen(1)

328

Safety Benefit, thous \$ PV, BNSF - HICKOK RD, MP 65.6

SafetyBen(2)

Safety Benefit, thous \$ PV, BNSF - BLACKBURN & PAC., MP 67.12

255

SafetyBen(3)

-3.39

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I have meetings this afternoon, so let me know when I can call tomorrow.

Karen

to lights and gates

From: Schultz, Jeff [mailto:Schult]@wsdot.wa.gov]

Sent: Tuesday, November 27, 2007 1:51 PM

To: McClure, Karen <FRA>

Subject: RE: New Federal Requirements on Grade Crossing Accident Risk Assessment

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WSDOT Freight Systems Division 360-705-7981 Ride the Amtrak *Cascades*!

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Varen McClure

From: Schultz, Jeff [mailto:SchultJ@wsdot.wa.gov] **Sent:** Tuesday, November 27, 2007 11:22 AM

To: McClure, Karen <FRA>

Subject: RE: New Federal Requirements on Grade Crossing Accident Risk Assessment

OK. So:

- 1. Stackpole road 084736w
- 2. Hickox Road 084737D
- 3. Blackburn Road 084739s

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Tail Operations and Rolling Stock Manager

JSDOT Freight Systems Division

360-705-7981

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WSDOT Freight Systems Division
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Ride the Amtrak Cascades!

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Look forward to hearing from you soon,

Karen McClure

From: Schultz, Jeff [mailto:SchultJ@wsdot.wa.gov]

Sent: Friday, November 16, 2007 4:39 PM

To: McClure, Karen <FRA>

Subject: RE: New Federal Requirements on Grade Crossing Accident Risk Assessment

Hi Karen,

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High T. Schultz
Rail Operations and Rolling Stock Manager
WSDOT Freight Systems Division
360-705-7981
Ride the Amtrak Cascades!

From: Schultz, Jeff

Sent: Thursday, July 27, 2006 9:26 AM

To: 'karen.mcclure@dot.gov' **Cc:** Simmonds, Carolyn

Subject: RE: New Federal Requirements on Grade Crossing Accident Risk Assessment

Hi Karen.

I hope all is well with you. What is your availability to talk on Wednesday the 2nd or Friday the 4th? I have a crossing closure that I want to put through GradeDec, and would like to discuss it with you.

Jeffrey T. Schultz
Rail Operations and Technical Expert
WSDOT Rail Office
de the Amtrak Cascades!

Docket No.	TR-070696
Exhibit No.	
Page 5	

From: karen.mcclure@dot.gov [mailto:karen.mcclure@dot.gov]

Sent: Wednesday, July 05, 2006 8:48 AM

To: Schultz, Jeff

Ibject: New Federal Requirements on Grade Crossing Accident Risk Assessment

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rom:

Schultz, Jeff [SchultJ@wsdot.wa.gov] Monday, December 17, 2007 2:02 PM

∍nt: +o:

Lockwood, Scott (ATG)

Subject:

FW: New Federal Requirements on Grade Crossing Accident Risk Assessment

Attachments:

predicted accidents.doc; social costs.doc; analysis period.doc

Jeffrey T. Schultz
Rail Operations and Rolling Stock Manager
WSDOT Freight Systems Division
360-705-7981
Ride the Amtrak Cascades!

From: karen.mcclure@dot.gov [mailto:karen.mcclure@dot.gov]

Sent: Tuesday, November 27, 2007 12:31 PM

To: Schultz, Jeff

Subject: RE: New Federal Requirements on Grade Crossing Accident Risk Assessment

The safety benefits are calculated for the entire analysis period. I used a 20 year analysis period, but you can set any value you like, (see analysis period.doc). The costs are calculated by combining the predicted accident rates and the ocial costs of the accident type (fatal, injury, property damage only). (see predicted accidents.doc and social costs.doc)

Costs are calculated for each of the twenty years, then discounted to the present value and summed. I used a discount rate of 5 percent, which is pretty high.

The annual predicted accident rates are calculated using the DOT Accident Prediction and Severity model.

I could send you the dataset from my analysis and you could upload it to www.gradedec.fra.dot.gov and change the values and run the simulation if you like.

From: Schultz, Jeff [mailto:SchultJ@wsdot.wa.gov] **Sent:** Tuesday, November 27, 2007 3:08 PM

To: McClure, Karen <FRA>

Subject: RE: New Federal Requirements on Grade Crossing Accident Risk Assessment

OK.

The net safety benefits look pretty big.

Jeffrey T. Schultz
Rail Operations and Rolling Stock Manager
WSDOT Freight Systems Division
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Ride the Amtrak Cascades!

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To: McClure, Karen <FRA>

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Docket No. TR-070696 Exhibit No. _____ Page 10

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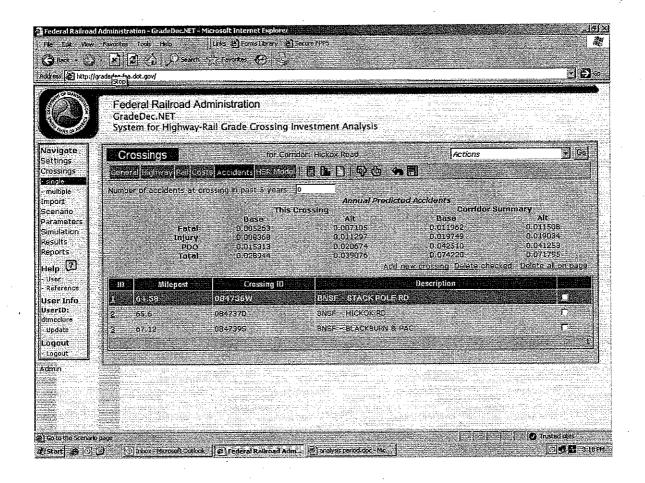
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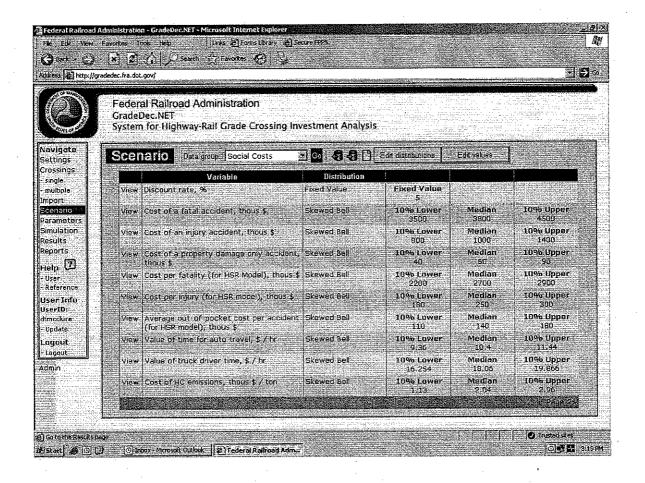
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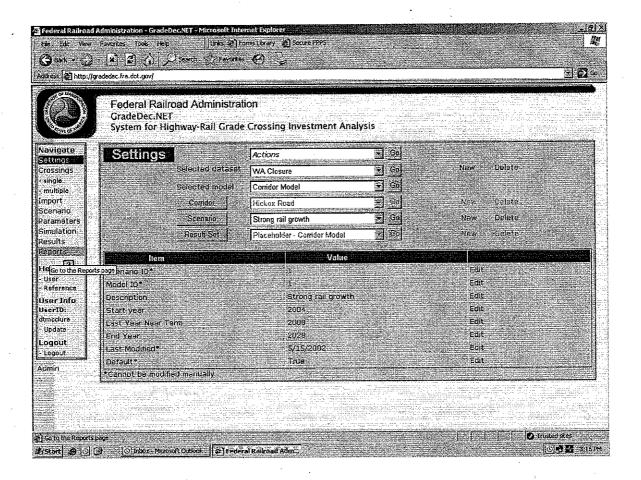
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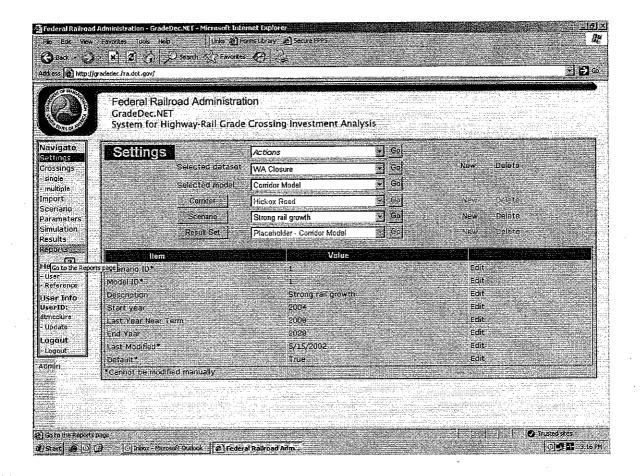
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⊏rom:

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∍nt: 10:

Lockwood, Scott (ATG)

Subject:

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Attachments:

No Change Annual Accidents.doc; 3 crossings.xls; Hickok closure.xls;

HickokandBlackburn.xls

Hi,

these are the files from FRA. We had them run the model.

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Docket No.	TR-070696
Exhibit No.	
Page 18	

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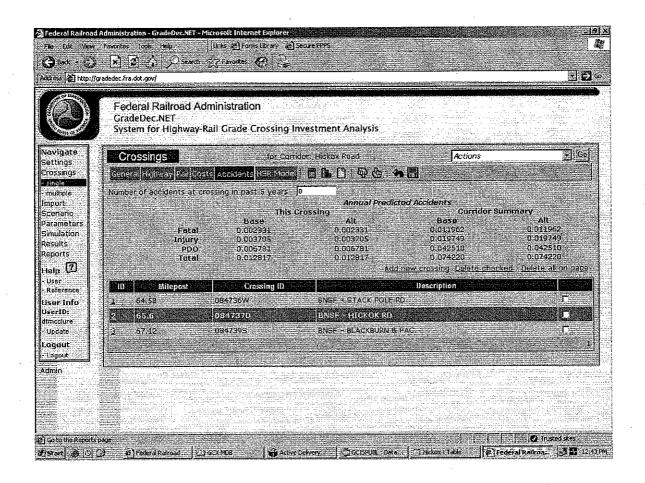
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084737D BNSF	BNSF	CO70000	CO70000 HICKOK R P.	PA J-US C 006560	006560	3		7	0	ဌ	0 0	000391
084736W BNSF		CO89000	CO89000 STACK POP	JPA J-US C 006458	006458	3	1	7	0	2	0 0	0 000120

Description
Safety benefits, thous \$ PV
Travel time savings, thous \$ PV
Environmental benefits, thous \$ PV
Veh operating cost benefit, thous \$ PV
Network benefits, thous \$ PV
Total benefits, thous \$ PV
of this, benefits from induced trips, thous \$ PV
of this, disbenefits from induced trips, thous \$ PV
of this, investment salvage value, thous \$ PV
Total costs, thous \$ PV
Net benefits, thous \$ PV

Benefit-cost ratio, Rate of return (constant dollars), %

Local benefits (not included in summary), thous \$ PV

Safety Benefit, thous \$ PV, BNSF - STACK POLE RD, MP 64.58

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Decrease in pred. fatal acc., first year,

Decrease in pred. fatal acc., last year near term,

Decrease in pred. fatal acc., last year,

Decrease in pred. injury acc., first year,

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Decrease in pred. PDO acc., last year,

Decrease in pred. fatalities highway, first year,

Decrease in pred. fatalities highway, last year near term,

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Decrease in pred. fatalities train, first year,

Decrease in pred. fatalities train, last year near term,

Decrease in pred. fatalities train, last year,

Decrease in pred. injuries highway, first year,

Decrease in pred. injuries highway, last year near term,

Decrease in pred. injuries highway, last year,

Decrease in pred. injuries train, first year,

Decrease in pred. injuries train, last year near term,

Decrease in pred. injuries train, last year,

Decrease in pred. accidents, first year,

Decrease in pred. accidents, last year near term,

Decrease in pred. accidents, last year,

Decrease in delay auto, first year, veh-hours

Decrease in delay auto, last year near term, veh-hours

Decrease in delay auto, last year, veh-hours

Decrease in delay trucks, first year, veh-hours

Decrease in delay trucks, last year near term, veh-hours

Decrease in delay trucks, last year, veh-hours

Decrease in delay buses, first year, veh-hours

Decrease in delay buses, last year near term, veh-hours

Decrease in delay buses, last year, veh-hours

Decrease in gas consumption, first year, gal

Decrease in gas consumption, last year near term, gal

Decrease in gas consumption, last year, gal

Decrease in diesel consumption, first year, gal

Decrease in diesel consumption, last year near term, gal

Decrease in diesel consumption, last year, gal

Decrease in oil consumption, first year, gal

Decrease in oil consumption, last year near term, gal

Decrease in oil consumption, last year, gal

Decrease in CO emissions, first year, kg

Decrease in CO emissions, last year near term, kg

Decrease in CO emissions, last year, kg

Decrease in HC emissions, first year, kg

Decrease in HC emissions, last year near term, kg

Decrease in HC emissions, last year, kg

Decrease in NOx emissions, first year, kg

Decrease in NOx emissions, last year near term, kg

Decrease in NOx emissions, last year, kg

Salvage value, thous \$ PV, BNSF - STACK POLE RD, MP 64.58

Salvage value, thous \$ PV, BNSF - HICKOK RD, MP 65.6

Salvage value, thous \$ PV, BNSF - BLACKBURN & PAC., MP 67.12

Max queue length first year, PCE, BNSF - STACK POLE RD, MP 64.58

Max queue length first year, PCE, BNSF - HICKOK RD, MP 65.6

Max queue length first year, PCE, BNSF - BLACKBURN & PAC., MP 67.12

Max queue length, I.y.n.t, PCE, BNSF - STACK POLE RD, MP 64.58

Max queue length, I.y.n.t, PCE, BNSF - HICKOK RD, MP 65.6

Max queue length, I.y.n.t, PCE, BNSF - BLACKBURN & PAC., MP 67.12

Max queue length, last year, PCE, BNSF - STACK POLE RD, MP 64.58

Max queue length, last year, PCE, BNSF - HICKOK RD, MP 65.6

Max queue length, last year, PCE, BNSF - BLACKBURN & PAC., MP 67.12

Var. Name	Mean	Std.	Minimum
corsaf	76.43274	18.32532	46.91064
cortts	-1.349602	0.632936	-3.15305
corenv	-0.006593162	0.004645	-0.02392
corvoc	-0.08228678	0.025663	-0.13084
cornwk	0	0	0
cortot	84.12461	17.7224	55.96862
BenInduced	0.005345396	0.001512	0.002776
DisBenefit	-0.000609211	0.00057	-0.00319
Salvage	9.125617	0.0000	9.125617
corcst	106.1	Ő	106.1
cornet	-21.97538	17.7224	-50.1314
corber	0.7928805	0.167035	0.527508
corror	3.238187	1.348766	0.602992
LocBen	4.453783	2.408447	0.725407
SafetyBen(1)	-175.5369	31.62484	-308.28
SafetyBen(2)	255.3651	50.45189	185.5257
	-3.395444	0.633847	-6.06777
SafetyBen(3)	-0.3946429	0.033647	-0.77568
BenTTS(1)		0.130272	0.209276
BenTTS(2)	0.6594674		-3.67357
BenTTS(3)	-1.614427	0.715774	
BenEnv(1)	-0.002037609	0.0012	-0.00638
BenEnv(2)	0.003404944	0.002005	0.000433
BenEnv(3)	-0.007960496	0.005435	-0.0282
BenVOC(1)	-0.02736826	0.004358	-0.03879
BenVOC(2)	0.04573369	0.007283	
BenVOC(3)	-0.1006522	0.027915	-0.15687
BenNetwork(1)	0	0	0
BenNetwork(2)	0	0 0	0
BenNetwork(3)		31.74834	200.002
BenTotal(1)	-175.9609 -256.0737		
BenTotal(2)	256.0737 5.448483	50.66209 1.35292	185.7559 -9.89842
BenTotal(3)	-5.118483		
CostTotal(1)	0 106.1	0	0 106.1
CostTotal(2)	00.1	0	0
CostTotal(3)	0.000474619	1.63E-06	•*
FATaccFY FATaccLYNT	0.000474619		0.000409
	0.000370422		
FATaccLY	0.00216432	2.40E-06	
INJaccFY	0.000746369	1.40E-05	
INJaccLYNT INJaccLY	0.003025972	0.000387	
PDOaccFY	0.000581222	2.29E-06	
PDOaccLYNT PDOaccLY	0.000715518 0.002821383	1.34E-05 0.000385	
FAThFY			_
	0	0	0
FAThLYNT FAThLY	0	0	0 0 .
FATIFY		0	0
FATILYNT	0	0	0
FATILINI	1 0	. 0	0
INJhFY	0	0	0
(1401), I		U	5

		_	_
INJhLYNT	0	0	0 :
INJhLY	0	0	0
INJtFY	0	0	0
INJtLYNT	0	0	0
INJtLY	0	0	0
accFY	0	. 0	0
accLYNT	0	0	0
accLY	0	0	0
VHDautoFY	-0.004627101	0.000177	-0.00497
	-0.006433851	0.000319	-0.00727
VHDautoLYNT			
VHDautoLY	-20.96937	5.890167	-41.6333
VHDtruckFY	0.004626612	0.000178	0.003997
VHDtruckLYNT	0.006430412	0.000322	0.005075
VHDtruckLY	-0.5509003	0.15603	-1.11523
VHDbusFY	0	0	0
VHDbusLYNT	0	0	0
VHDbusLY	0	0	0
GASsavedFY	-0.002959148	0.000113	-0.00318
GASsavedLYNT	-0.004114794	0.000204	-0.00465
GASsavedLY	-12.2967	3.525032	-24.8804
	0.006311718	0.000242	0.005453
DSLsavedFY			
DSLsavedLYNT	0.008772499	0.000439	0.006923
DSLsavedLY	-0.6780516	0.197185	-1.40624
OILsavedFY	0.000216584	8.34E-06	0.000187
•			
OILsavedLYNT	0.000300899	1.53E-05	0.000237
OILsavedLY	-0.8382035	0.240414	-1.69819
COFY	-0.000523888	2.00E-05	-0.00056
COLYNT	-0.000729143	3.64E-05	-0.00082
COLY	-6.27036	1.797796	-12.6923
HCFY	-1.44E-05	5.51E-07	-1.54E - 05
HCLYNT	-2.01E-05	1.11E-06	-2.37E-05
HCLY	-0.3928851	0.112651	-0.79536
NOXFY	5.61E-05	2.16E-06	4.85E-05
NOXLYNT	7.80E-05	3.94E-06	6.15E-05
NOXLY	-0.1252182	0.035923	-0.25382
SalvageGCX(1)		0	0
SalvageGCX(2)	9.125617	0	9.125617
SalvageGCX(3)	. 0	0	0
NKfyr(1)	0.001	0	0.001
	0.001	0	0.001
NKfyr(2)			
NKfyr(3)	0.001	0	0.001
NKlyrnt(1)	0.001	0	0.001
NKlyrnt(2)	0.001	0	0.001
•	0.001		0.001
NKlyrnt(3)		0	
NKlyr(1)	0.001	0	0.001
NKlyr(2)	0.001	0	0.001
NKlyr(3)	1.88163	0.412878	1.158162
14. Gy1(O)	1.00100	5 20, 0	

Mavimum	Skewness	Kurtoeie	Perc. 1	Perc. 5	Perc. 10	Perc. 20	Perc. 30	Perc. 40
151.7965	1.873847	5.186584	50.41655	57.94087	59.10685	63.86556	67.9727	70.61198
-0.0648	-0.54128	0.772713	-3.00177	-2.46701	-2.11065	-1.79554		-1.39975
-0.00011	-1.47589	3.142766	-0.02096	-0.01478	-0.01208	-0.00931	-0.00719	-0.00681
-0.00547	0.966226	1.539432	-0.12905	-0.11383	-0.10829	-0.10132	-0.09738	-0.09165
	NaN	NaN	0.12000	0.11000	0.10020	- 0	0.007.00	0.00100
157.6446	1.922452	5.398604	59.45893	66.29779	67.53954	72.11548	75.89095	78.28529
0.011556	1.89255	5.305961	0.003242	0.003772	0.003973	0.004265	0.004524	0.004801
-2.44E-05	-2.49132	8.238353	-0.00266	-0.00164	-0.00113	-0.00087	-0.00061	-0.00055
9.125617		NaN	9.125617	9.125617	9.125617	9.125617	9.125617	9.125617
106.1		NaN	106.1	106.1	106.1	106.1	106.1	106.1
51.54462	1.922452	5.398604	-46.6411	-39.8022	-38.5605	-33.9845		-27.8147
1.485812	1.922452	5.398605	0.560405	0.624862	0.636565	0.679694		0.737844
8.215569	1.349216	3.090793	1.020413	1.719557	1.865711	2.293544		2.844388
13.85315	1.598863	3.947585	0.882538	1.776578	2.050549	2.707968		3.542269
-133.492	-1.99696	5.633808	-281.556	-232.885	-211.528	-191.886		-172.636
466.1441	1.96414	5.510064	187.7507	205.3826	208.3588	220.255		235.8861
-2.56126	-2.04344	5.808239	-5.53924	-4.54668	-4.11585	-3.7123		-3.33139
-0.12524	-0.87278	1.48355	-0.7745	-0.62071	-0.54094	-0.47558		-0.4091
1.296198	0.872782	1.483551	0.2721	0.386942	0.416412	0.487495		0.610382
-0.14884	-0.57712	0.862956	-3.5215	-2.83445	-2.47131	-2.11468		-1.67428
-0.00026	-1.44801	3.078405	-0.00587	-0.00424	-0.00314	-0.00291		-0.00203
0.010669	1.448007	3.078404	0.000449	0.001066	0.001325	0.001804		0.002767
-0.00029	-1.47208	3.15575	-0.0249	-0.01743	-0.01446	-0.01112		-0.00818
-0.01231	0.508087	1.934764	-0.03635	-0.03319	-0.03153	-0.03082		-0.02937
0.064816	-0.50809	1.934764	0.027655	0.037056	0.037396	0.039604		0.044508
	0.971746	1.607642	-0.15188	-0.13401	-0.12619	-0.12257		-0.11295
	NaN	NaN	0	0	0	0		0
	NaN	NaN	0	0	0	0	. 0	0
	NaN	NaN	0	0	0	0	0	0
-133.716	-1.99174	5.607416	-282.278	-233.633	-212.029	-192.463	-181.25	-173.083
467.5006	1.958557	5.482386	188.0526	205.8067	208.8152	220.7662	231.7462	236.5967
-2.79227	-1.18597	2.425428	-9.0661	-7.59452	-6.73215	-5.9489	-5.33409	-5.21174
0	NaN	NaN	0	0	0	0	0	0
106.1	NaN	NaN	106.1	106.1	106.1	106.1	106.1	106.1
0	NaN	NaN	0	0	0	- 0	0	0
0.000478	-0.74439	2.417806	0.00047	0.000472	0.000473	0.000473	0.000474	0.000474
0.000592	-0.68188	2.201544	0.000545	0.000558	0.000561	0.000563		0.000567
0.002942	0.017398	1.415358	0.001504	0.001795	0.001851	0.001906		0.002114
0.000752	-0.77545	2.44038	0.00074	0.000743	0.000744	0.000745		0.000746
0.000918	-0.71961	2.228132	0.00085	0.000869	0.000873	0.000876		0.000883
0.004034	0.073195	1.457115	0.002165	0.002553	0.002607	0.002677		0.002971
0.000586	-0.77533	2.442442	0.000575	0.000578	0.000579	0.000579		0.000581
0.000745			0.00068	0.000699	0.000703	0.000705		0.000712
0.003826		1.447156	0.001967	0.00235	0.002404	0.002474		0.002766
	NaN	NaN	0	0	0	0		0
	NaN	NaN	0	0	0	0		0
	NaN	NaN	0	0	0	0		0
	NaN	NaN	0	0	0	0		0
	NaN	NaN	0	0	0	0		0
	NaN	NaN	0	0	0	0		0
0	NaN	NaN	. 0	. 0	0	0	0	0

0	NaN	NaN	0	. 0	0	0	0	0
	NaN	NaN	0	0	0	0	0	0
	NaN	NaN	.0	0	0	0	0	Ŏ
	NaN	NaN	0	.0	0	0	0	0
	NaN	NaN	0	. 0	0	0	0	0
	NaN	NaN	0	0	0	0	0	0
	NaN	NaN	.0	0	0	0	0	0
	NaN	NaN	.0	0	0	0	. 0	0
-0.004	0.607051	2.022915	-0.00496	-0.00493	-0.00482	-0.00476	-0.00472	-0.00468
-0.00509	1.16477	5.675225	-0.00707	-0.00685	-0.00675	-0.00667	-0.00657	-0.00651
-7.83698	-1.10314	2.806739	-39.2412	-30.6088	-27.6005	-24.5675	-22.8133	-21.1224
0.004975	-0.60901	2.024635	0.004163	0.004365	0.004466	0.004504	0.00454	0.004572
0.007269	-1.1601	5.64099	0.005503	0.00604	0.006165	0.006199	0.006277	0.006359
-0.21603	-1.17067	2.993859	-1.03	-0.81028	-0.73418	-0.64849	-0.58286	-0.55467
	NaN	NaN	0	. 0	0	0	0	0
	NaN	NaN	0	. 0	. 0	0	0	0
	NaN	NaN	0	0	0	0	0	0
-0.00256	0.612524	2.039721	-0.00317	-0.00315	-0.00308	-0.00305	-0.00302	-0.003
-0.00326	1.166162	5.679176	-0.00452	-0.00438	-0.00432	-0.00426	-0.0042	-0.00416
-4.58637	-1.16672	2.995497	-23.3201	-18.094	-16.2211	-14.4221	-13.3379	-12.3101
0.006787	-0.60897	2.024534	0.005679	0.005955	0.006092	0.006145	0.006193	0.006238
0.009916	-1.16003	5.640697	0.007507	0.008239	0.00841	0.008457	0.008563	0.008675
-0.26662	-1.25122	3.250844	-1.28796	-1.01043	-0.90721	-0.79959	-0.71254	-0.67846
0.000233	-0.60807	2.002955	0.000195	0.000204	0.000209	0.000211	0.000213	0.000214
0.00034	-1.16763	5.415889	0.000257	0.000279	0.000289	0.000291	0.000293	0.000298
-0.31352	-1.1713	3.009266	-1.58974	-1.23367	-1.10654	-0.98336	-0.9077	-0.8381
-0.00045	0.622441	2.033578	-0.00056	-0.00056	-0.00055	-0.00054	-0.00053	-0.00053
-0.00058	1.078577	4.887502	-0.0008	-0.00078	-0.00076	-0.00076	-0.00075	-0.00074
-2.34078	-1.16816	2.999829	-11.8918	-9.22723	-8.27346	-7.35482	-6.7978	-6.2748
-1.25E-05	0.630802	1.883391	-1.54E-05	-1.53E-05	-1.50E-05	-1.48E-05	-1.47E-05	-1.46E-05
-1.61E-05	0.073039	4.050216	-2.31E-05	-2.13E-05	-2.10E-05	-2.08E-05	-2.04E-05	-2.02E-05
-0.14671	-1.16859	3.001114	-0.74511	-0.57817	-0.51843	-0.46085	-0.42587	-0.39312
6.04E-05	-0.60819	2.015333	5.05E-05	5.30E-05	5.42E-05	5.47E-05	5.51E-05	5.55E-05
8.82E-05	-1.15968	5.519877	6.67E-05	7.28E-05	7.48E-05	7.54E-05	7.61E-05	7.72E-05
-0.04689	-1.17305	3.014519	-0.2375	-0.18431	-0.16535	-0.14692	-0.13552	-0.12514
	NaN	NaN	0 405047	0 405047	0 405047	0 405047	0 405047	0 405047
9.125617		NaN	9.125617	9.125617	9.125617	9.125617	9.125617	9.125617
	NaN	NaN	0 004	0 004	0 004	0	0.001	0 001
0.001		NaN	0.001	0.001	0.001	0.001	0.001	0.001 0.001
0.001		NaN	0.001	0.001	0.001 0.001	0.001 0.001	0.001 0.001	0.001
0.001		NaN	0.001 0.001	0.001 0.001	0.001	0.001	0.001	0.001
0.001 0.001		NaN NaN	0.001	0.001	0.001	0.001	0.001	0.001
0.001		NaN	0.001	0.001	0.001	0.001	0.001	0.001
0.001		NaN	0.001	0.001	0.001	0.001	0.001	0.001
0.001		NaN	0.001	0.001	0.001	0.001	0.001	0.001
3.46262	1.393386		1.175009	1,37479	1.475875	1.580622	1.666419	1.767907
0.70202	1.000000	0.004001	1.170000	1.01713	1.710010	1.000022	1.000413	1.101001

Perc. 50	Perc. 60	Perc: 70	Perc. 80	Perc. 90	Perc. 95	Perc. 99
72.55644		79.46735	86.80926	92.36959	112.7955	135.7692
-1.3457	-1.22888	-1.01162	-0.82782	-0.64141	-0.46855	-0.07935
-0.0059	-0.00485	-0.004	-0.00287	-0.00172	-0.00124	-0.00012
-0.08763	-0.08062	-0.0757	-0.0645	-0.05371	-0.03844	-0.00699
0	0	0	0	0	0	0
80.50287	82.50667	86.93752	93.68224	99.52513	119.4826	141.7599
0.005077	0.005315	0.005524	0.005989	0.006588	0.008274	0.010379
-0.00046	-0.00036	-0.00032	-0.00019	-0.00013		-2.46E-05
9.125617	9.125617	9.125617	9.125617	9.125617	9.125617	9.125617
106.1	106.1	106.1	106.1	106.1	106.1	106.1
-25.5971	-23.5933	-19.1625	-12.4178	-6.57486	13.3826	35.65995
0.758745	0.777631	0.819392	0.882962	0.938032	1.126132	1.336098
3.048068	3.201713	3.549146	4.084733	4.523434	5.914563	7.260253
4.002381	4.395935	5.047229	5.959373	6.841839	9.033031	11.97678
-168.731	-162.493	-158.987	-153.409	-147.333	-144.254	-134.739.
244.5623	250.7469	264.2689	284.5611	308.0132	351.6994	421.3917
-3.25384	-3.1373	-3.06729	-2.95423	-2.83999	-2.77568	-2.59533
-0.38811	-0.36527	-0.32043	-0.29173	-0.24919	-0.23156	-0.16283
0.648551	0.683625	0.718246	0.794717	0.903943	1.037244	1.294232
-1.61567	-1.48456	-1.23652	-1.01331	-0.80863	-0.63112	-0.18862
-0.00181	-0.00166	-0.00144	-0.00108	-0.00079	-0.00064	-0.00027
0.003022	0.003396	0.003776	0.004856	0.005254	0.007078	0.009801
-0.00704	-0.00586	-0.00507	-0.00351	-0.0022	-0.00168	-0.0003
-0.02786	-0.02663	-0.02502	-0.0237	-0.02238	-0.02218	-0.01655
0.04656	0.049075	0.050003	0.051508	0.052695	0.055462	0.06074
-0.10583	-0.1013	-0.09306	-0.08137	-0.06929	-0.05344	-0.01878
0	0	0	0	0	0	0
0	. 0	0	. 0	0	0	0
0	0	, 0	0	0	0	.0
-169.113	-162.834	-159.311	-153.715	-147.606	-144.52	-134.92
245.3108	251.5223	265.1219	285.5262	308.85	352.9496	422.5991
-4.91763	-4.62338	-4.4888	-4.01967	-3.67125	-3.48692	-2.80302
0	0	0		0	0	0
106.1	106.1	106.1	106.1	106.1	106.1	106.1
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0.00219	0.002253	0.002299	0.002362	0.002454	0.002642	0.002893
0.000746	0.000747	0.000748	0.000749	0.000749	0.000749	0.000751
0.000887	0.00089	0.000895	0.0009	0.000904	0.000905	0.000911
0.003059	0.003137	0.003181	0.003262	0.003462	0.003654	0.004005
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-2.01E-05 -1.98E-05 -1.96E-05 -1.93E-05 -1.91E-05 -1.86E-05 -1.73E-05 -0.38545 -0.36726 -0.3346 -0.3025 -0.27604 -0.25523 -0.1913 5.60E-05 5.69E-05 5.74E-05 5.78E-05 5.84E-05 5.98E-05 6.02E-05 7.83E-05 7.89E-05 7.97E-05 8.09E-05 8.18E-05 8.30E-05 8.58E-05 -0.12292 -0.11731 -0.10674 -0.09656 -0.08794 -0.08135 -0.0609 0 0 0 0 0 0 0 0 9.125617 9.125617 9.125617 9.125617 9.125617 9.125617 9.125617 9.125617 0 0 0 0 0 0 0 0 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001	-1.43E-05	-1.43E-05	-1.41E-05	-1.40E-05	-1.38E-05	-1.36E-05	-1.29E-05
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Description	Var. Name
Safety benefits, thous \$ PV	corsaf
Travel time savings, thous \$ PV	cortts
Environmental benefits, thous \$ PV	corenv
Veh operating cost benefit, thous \$ PV	corvoc
Network benefits, thous \$ PV	cornwk
Total benefits, thous \$ PV	cortot
of this, benefits from induced trips, thous \$ PV	Beninduced
of this, disbenefits from induced trips, thous \$ PV	DisBenefit
of this, investment salvage value, thous \$ PV	Salvage
Total costs, thous \$ PV	corcst
Net benefits, thous \$ PV	cornet
Benefit-cost ratio,	corbor
Rate of return (constant dollars), %	corror
Local benefits (not included in summary), thous \$ PV	LocBen
Safety Benefit, thous \$ PV, BNSF - STACK POLE RD, MP 64.58	SafetyBen(1)
Safety Benefit, thous \$ PV, BNSF - HICKOK RD, MP 65.6	SafetyBen(2)
Safety Benefit, thous \$ PV, BNSF - BLACKBURN & PAC., MP 67.12	
Travel Time Savings, thous \$ PV, BNSF - STACK POLE RD, MP 64.5	
Travel Time Savings, thous \$ PV, BNSF - HICKOK RD, MP 65.6	BenTTS(2)
Travel Time Savings, thous \$ PV, BNSF - BLACKBURN & PAC., MP	
Environmental Benefit, thous \$ PV, BNSF - STACK POLE RD, MP 64	
Environmental Benefit, thous \$ PV, BNSF - HICKOK RD, MP 65.6	BenEnv(2)
Environmental Benefit, thous \$ PV, BNSF - BLACKBURN & PAC., MF	• •
Benefit Veh Op Cost, thous \$ PV, BNSF - STACK POLE RD, MP 64.5 Benefit Veh Op Cost, thous \$ PV, BNSF - HICKOK RD, MP 65.6	BenVOC(1)
Benefit Veh Op Cost, thous \$ PV, BNSF - BLACKBURN & PAC., MP	` '
Network Benefits, thous \$ PV, BNSF - STACK POLE RD, MP 64.58	BenNetwork(1)
Network Benefits, thous \$ PV, BNSF - HICKOK RD, MP 65.6	BenNetwork(2)
Network Benefits, thous \$ PV, BNSF - BLACKBURN & PAC., MP 67.	
Total Benefits, thous \$ PV, BNSF - STACK POLE RD, MP 64.58	BenTotal(1)
Total Benefits, thous \$ PV, BNSF - HICKOK RD, MP 65.6	BenTotal(2)
Total Benefits, thous \$ PV, BNSF - BLACKBURN & PAC., MP 67.12	BenTotal(3)
Total Costs, thous \$ PV, BNSF - STACK POLE RD, MP 64.58	CostTotal(1)
Total Costs, thous \$ PV, BNSF - HICKOK RD, MP 65.6	CostTotal(2)
Total Costs, thous \$ PV, BNSF - BLACKBURN & PAC., MP 67.12	CostTotal(3)
Decrease in pred. fatal acc., first year,	FATaccFY
Decrease in pred. fatal acc., last year near term,	FATaccLYNT
Decrease in pred. fatal acc., last year,	FATaccLY
Decrease in pred. injury acc., first year,	INJaccFY
Decrease in pred. injury acc., last year near term,	INJaccLYNT
Decrease in pred. injury acc., last year,	INJaccLY
Decrease in pred. PDO acc., first year,	PDOaccFY
Decrease in pred. PDO acc., last year near term,	PDOaccLYNT
Decrease in pred. PDO acc., last year,	PDOaccLY FAThFY
Decrease in pred fatalities highway, first year, Decrease in pred. fatalities highway, last year near term,	FATHLYNT
Decrease in pred. latailles righway, last year hear term, Decrease in pred. fatalities highway, last year,	FATHLY
Decrease in pred. latailles righway, last year, Decrease in pred. fatalities train, first year,	FATIFY
Decrease in pred. fatalities train, last year, Decrease in pred. fatalities train, last year near term,	FATILYNT
Decrease in pred. fatalities train, last year,	FATILY
Decrease in pred. injuries highway, first year,	INJhFY

INJhLYNT

Decrease in pred. injuries highway, last year near term, **INJhLY** Decrease in pred. injuries highway, last year, **INJtFY** Decrease in pred. injuries train, first year, **INJtLYNT** Decrease in pred. injuries train, last year near term, Decrease in pred, injuries train, last year, **INJtLY** accFY Decrease in pred. accidents, first year, Decrease in pred. accidents, last year near term, accLYNT Decrease in pred. accidents, last year, accLY Decrease in delay auto, first year, veh-hours VHDautoFY Decrease in delay auto, last year near term, veh-hours VHDautoLYNT Decrease in delay auto, last year, veh-hours VHDautoLY Decrease in delay trucks, first year, veh-hours VHDtruckFY Decrease in delay trucks, last year near term, veh-hours VHDtruckLYNT Decrease in delay trucks, last year, veh-hours VHDtruckLY Decrease in delay buses, first year, veh-hours VHDbusFY Decrease in delay buses, last year near term, veh-hours VHDbusLYNT Decrease in delay buses, last year, veh-hours VHDbusLY Decrease in gas consumption, first year, gal GASsavedFY GASsavedLYNT Decrease in gas consumption, last year near term, gal Decrease in gas consumption, last year, gal **GASsavedLY** Decrease in diesel consumption, first year, gal-DSLsavedFY Decrease in diesel consumption, last year near term, gal DSLsavedLYNT Decrease in diesel consumption, last year, gal **DSLsavedLY** Decrease in oil consumption, first year, gal OlLsavedFY Decrease in oil consumption, last year near term, gal OlLsavedLYNT Decrease in oil consumption, last year, gal OlLsavedLY Decrease in CO emissions, first year, kg COFY Decrease in CO emissions, last year near term, kg COLYNT Decrease in CO emissions, last year, kg COLY Decrease in HC emissions, first year, kg **HCFY** Decrease in HC emissions, last year near term, kg **HCLYNT** Decrease in HC emissions, last year, kg **HCLY** Decrease in NOx emissions, first year, kg NOXFY Decrease in NOx emissions, last year near term, kg NOXLYNT Decrease in NOx emissions, last year, kg **NOXLY** Salvage value, thous \$ PV, BNSF - STACK POLE RD, MP 64.58 SalvageGCX(1) Salvage value, thous \$ PV, BNSF - HICKOK RD, MP 65.6 SalvageGCX(2) Salvage value, thous \$ PV, BNSF - BLACKBURN & PAC., MP 67.12 SalvageGCX(3) Max queue length first year, PCE, BNSF - STACK POLE RD, MP 64.5 NKfyr(1) Max queue length first year, PCE, BNSF - HICKOK RD, MP 65.6 NKfyr(2) Max queue length first year, PCE, BNSF - BLACKBURN & PAC., MP NKfyr(3) Max queue length, I.y.n.t, PCE, BNSF - STACK POLE RD, MP 64.58 NKlyrnt(1) Max queue length, l.y.n.t, PCE, BNSF - HICKOK RD, MP 65.6 NKlyrnt(2) Max queue length, l.y.n.t, PCE, BNSF - BLACKBURN & PAC., MP 67 NKlyrnt(3) Max queue length, last year, PCE, BNSF - STACK POLE RD, MP 64. NKlyr(1) Max queue length, last year, PCE, BNSF - HICKOK RD, MP 65.6 NKlyr(2) Max queue length, last year, PCE, BNSF - BLACKBURN & PAC., MP NKlyr(3)

Mean		Std.	Minimum	Maximum	Skewness	Kurtosis	Perc. 1	Perc. 5
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	580.2565	114.3483	422.7974	1058.135	1.964033	5.515604	426.9708	466.949
	-1.349602	0.632936	-3.15305	-0.0648	-0.54128	0.772713	-3.00177	-2.46701
	-0.006593162	0.004645	-0.02392	-0.00011	-1.47589		-0.02096	-0.01478
	-0.08228678	0.025663	-0.13084	-0.00547	0.966226	1.539432	-0.12905	-0.11383
	0	0	0		NaN	NaN	0	0
	588.3779	113.7945	432.2108	1064.636	1.972432		436.3709	475.9217
	0.3003171	0.057279	0.220799	0.5407	1.976612	5.603893	0.223493	0.243928
-	-0.00367532	0.003139	-0.01738	-0.00018	-2.23159	6.838675	-0.01442	-0.00943
	9.263233	. 0	9.263233		NaN	NaN	9.263233	9.263233
	107.7	0	107.7	107.7	NaN	NaN	107.7	107.7
	480.6779	113.7945	324.5109	956.9359	1.972432	5.553864	328.6709	368.2217
	5.463119	1.056588	4.0131	9.8852	1.972432	5.553863	4.051726	4.418958
	42.12761	11.24347	29.5877	96.65994	2.807216	10.76363	30.15024	32.5323
	31.0316	16.26091	5.07654	93.55577	1.521661	3.653383	6.55263	12.57597
	328.2869	64.53106	239.9011	598.0589	1.964723	5.522644	241.8154	264.3492
	255.3651	50.45189	185.5257	466.1441	1.96414	5.510064	187.7507	205.3826
	-3.395444	0.633847	-6.06777	-2.56126	-2.04344	5.808239	-5.53924	-4.54668
	-0.3946429	0.130272	-0.77568			1.48355	-0.7745	-0.62071
	0.6594674	0.21769	0.209276	1.296198	0.872782	1.483551	0.2721	0.386942
	-1.614427	0.715774	-3.67357	-0.14884	-0.57712	0.862956	-3.5215	-2.83445
	-0.002037609	0.0012	-0.00638	-0.00026	-1.44801	3.078405	-0.00587	-0.00424
	0.003404944	0.002005	0.000433	0.010669	1.448007	3.078404	0.000449	0.001066
	-0.007960496	0.005435	-0.0282	-0.00029	-1.47208	3.15575	-0.0249	-0.01743
	-0.02736826	0.004358	-0.03879	-0.01231	0.508087	1.934764	-0.03635	-0.03319
	0.04573369	0.007283	0.020567	0.064816	-0.50809	1.934764	0.027655	0.037056
	-0.1006522	0.027915	-0.15687	-0.01373	0.971746	1.607642	-0.15188	-0.13401
-	0	0	0	0	NaN	NaN	0	- 0
	0	0	0	0	NaN	NaN	0	0
	0	0	0	0	NaN	NaN	0	0
	327.8628	64.40572	239.7633					264.0954
	256.0737	50.66209	185.7559					205.8067
	-5.118483	1.35292	-9.89842			2.425428		-7.59452
	1.6	Ó	1.6		NaN	NaN	1.6	1.6
	106.1	0		106.1		NaN	106.1	106.1
	0	0			NaN	NaN	0	0
	0.005402072	8.53E-06	0.00537		-0.77943			0.005391
	0.005877433	4.54E-05		0.005978				0.005819
	0.01079794	0.000688				1.97261		0.009924
	0.008556361	1.16E-05	0.008513					0.008541
	0.009193169	6.10E-05	0.008968					0.009114
	0.01513423	0.000828	0.012428					0.014048
	0.008391215	1.15E-05						0.008376
	0.009021958	6.04E-05						0.008943
	0.01492964	0.000826	0.012234					0.013846
	0	0	0		NaN	NaN	0	0
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-0.004627101	0.000177	-0.00497	-0.004	0.607051	2.022915	-0.00496	-0.00493
-0.006433851	0.000319	-0.00727	-0.00509	1.16477	5.675225	-0.00430	-0.00435
-20.96937	5.890167	-41.6333	-7.83698	-1.10314	2.806739	-39.2412	-30.6088
0.004626612	0.000178	0.003997	0.004975	-0.60901	2.024635	0.004163	0.004365
0.006430412	0.000322	0.005075	0.007269	-1.1601	5.64099	0.005503	0.00604
-0.5509003	0.15603	-1.11523	-0.21603	-1.17067	2.993859	-1.03	-0.81028
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-0.002959148	0.000113	-0.00318	-0.00256	0.612524		-0.00317	-0.00315
-0.004114794	0.000204	-0.00465	-0.00326	1.166162	5.679176	-0.00452	-0.00438
-12.2967	3.525032	-24.8804	-4.58637	-1.16672	2.995497	-23.3201	-18.094
0.006311718	0.000242	0.005453	0.006787	-0.60897	2.024534	0.005679	0.005955
0.008772499	0.000439	0.006923	0.009916	-1.16003	5.640697	0.007507	0.008239
-0.6780516	0.197185	-1.40624	-0.26662	-1.25122	3.250844	-1.28796	-1.01043
0.000216584	8.34E-06	0.000187	0.000233	-0.60807	2.002955	0.000195	0.000204
0.000300899	1.53E-05	0.000237	0.00034	-1.16763	5.415889	0.000257	0.000279
-0.8382035	0.240414	-1.69819	-0.31352	-1.1713	3.009266	-1.58974	-1.23367
-0.000523888	2.00E-05	-0.00056	-0.00045	0.622441	2.033578	-0.00056	-0.00056
-0.000729143	3.64E-05	-0.00082	-0.00058	1.078577	4.887502	-0.0008	-0.00078
-6.27036	1.797796	-12.6923	-2.34078	-1.16816	2.999829	-11.8918	-9.22723
-1.44E-05	5.51E-07	-1.54E-05	-1.25E-05	0.630802	1.883391	-1.54E-05	-1.53E-05
-2.01E-05	1.11E-06	-2.37E-05	-1.61E-05	0.073039	4.050216	-2.31E-05	-2.13E-05
-0.3928851	0.112651	-0.79536	-0.14671	-1.16859	3.001114	-0.74511	-0.57817
5.61E-05	2.16E-06	4.85E-05	6.04E-05	-0.60819	2.015333	5.05E-05	5.30E-05
7.80E-05	3.94E-06	6.15E-05	8.82E-05	-1.15968	5.519877	6.67E-05	7.28E-05
-0.1252182	0.035923	-0.25382	-0.04689	-1.17305	3.014519	-0.2375	-0.18431
0.1376154	0	0.137615	0.137615		NaN	0.137615	0.137615
9.125617	0	9.125617	9.125617		NaN	9.125617	9.125617
0	0	0		NaN	NaN	0	0
0.001	0	0.001	0.001		NaN	0.001	0.001
0.001	. 0	0.001	0.001		NaN	0.001	0.001
0.001	0	0.001	0.001		NaN	0.001	0.001
0.001	0	0.001	0.001		NaN	0.001	0.001
0.001	0	0.001	0.001		NaN	0.001	0.001
0.001	0	0.001	0.001		NaN	0.001	0.001
0.001	0	0.001	0.001		NaN	0.001	0.001
0.001	0	0.001	0.001		NaN	0.001	0.001
1.88163	0.412878	1.158162	3.46262	1.393386	3.664381	1.175009	1.37479

Perc. 10	Perc. 20	Perc. 30	Perc. 40	Perc. 50	Perc. 60	Perc. 70	Perc. 80	Perc. 90
474.0798	500.7003	524.6033	536.0836	555.2797	570.7614	599.9594	645.6636	700.7251
-2.11065	-1.79554	-1.51356	-1.39975	-1.3457	-1.22888	-1.01162	-0.82782	-0.64141
-0.01208	-0.00931	-0.00719	-0.00681	-0.0059	-0.00485	-0.004	-0.00287	-0.00172
-0.10829	-0.10132	-0.09738	-0.09165	-0.08763	-0.08062	-0.0757		-0.05371
0	0	0	0	0	0	0	0	0
482.7163	509.4465	532.9664	544.1251	563.3303	578.5508	608.097	653.33	708.1111
0.246471	0.260688	0.272161	0.27793	0.288016	0.294692	0.311032	0.332462	0.360341
-0.00685	-0.0052	-0.00382	-0.00356	-0.00293	-0.00236	-0.00197	-0.00127	-0.0009
9.263233	9.263233	9.263233	9.263233	9.263233	9.263233	9.263233	9.263233	9.263233
107.7	107.7	107.7	107.7	107.7	107.7	107.7	107.7	107.7
375.0164	401.7465	425,2664	436.4251	455.6303	470.8508	500.3971	545.63	600.4111
4.482046	4.730237	4.94862	5.052229	5.230551	5.371874	5.646213	6.066203	6.574849
33.42466	35.10751	36.68013	37.63179	39.24641	40.78094	43.08336	46.35648	53.36081
14.66171	19.09567	22.86766	24.95471	28.31515	30.91755	35.10655	41.00587	48.80449
268.561	283.3995	296.435	303.1806	313.9457	322.9843	339.4329	364.8148	396.8278
208.3588	220.255	231.1391	235.8861	244.5623	250.7469	264.2689	284.5611	308.0132
-4.11585	-3.7123	-3.49346	-3.33139	-3.25384	-3.1373	-3.06729	-2.95423	-2.83999
-0.54094	-0.47558	-0.42982	-0.4091	-0.38811	-0.36527	-0.32043		-0.24919
0.416412	0.487495	0.535455	0.610382	0.648551	0.683625	0.718246	0.794717	0.903943
-2.47131	-2.11468	-1.80299	-1.67428	-1.61567	-1.48456	-1.23652	-1.01331	-0.80863
-0.00314	-0.00291	-0.00226	-0.00203	-0.00181	-0.00166	-0.00144	-0.00108	-0.00079
0.001325	0.001804	0.002408	0.002767	0.003022	0.003396	0.003776	0.004856	0.005254
-0.01446	-0.01112	-0.00858	-0.00818	-0.00704	-0.00586	-0.00507	-0.00351	-0.0022
-0.03153	-0.03082	-0.02992	-0.02937	-0.02786	-0.02663	-0.02502	-0.0237	-0.02238
0.037396	0.039604	0.041804	0.044508	0.04656	0.049075	0.050003	0.051508	0.052695
-0.12619	-0.12257	-0.11485	-0.11295	-0.10583	-0.1013	-0.09306	-0.08137	-0.06929
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268.2878	283.0936	296.0223	302.7594	313.4978	322.5369	338,9821	364.2373	396.3271
208.8152	220.7662	231.7462	236.5967	245.3108	251.5223	265.1219	285.5262	308.85
-6.73215	-5.9489	-5.33409	-5.21174	-4.91763	-4.62338	-4.4888	-4.01967	-3.67125
1.6	1.6	1.6	1:6	1.6	1.6	1.6	1.6	1.6
106.1	106.1	106.1	106.1	106.1	106.1	106.1	106.1	106.1
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0.005394	0.005396	0.005398	0.0054	0.005402	0.005404	0.005407	0.00541	0.005413
0.005835	0.005843	0.005855	0.005864	0.005878	0.005888	0.005903	0.005919	0.005933
0.010066	0.010208	0.010374	0.010704	0.010885	0.011028	0.011133	0.011276	0.011451
0.008544	0.008548	0.008551	0.008553	0.008557	0.00856	0.008564	0.008568	0.00857
0.009128	0.009149	0.009163	0.009176	0.009196	0.009211	0.009236	0.009254	0.009264
0.014229	0.014421	0.01467	0.015071	0.015225	0.015405	0.015469	0.015597	0.01603
0.008379	0.008383	0.008386	0.008388	0.008392	0.008395	0.008399	0.008403	0.008405
0.008958	0.008978	0.008992	0.009005	0.009025	0.00904	0.009064	0.009083	0.009092
0.014026	0.014218	0.014466	0.014867	0.01502	0.015199	0.015263	0.015391	0.015824
. 0	0	0	0	0	0	. 0	0	0
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-0.00482	-0.00476	-0.00472	-0.00468	-0.00462	-0.00457	-0.00454	-0.0045	-0.00446
-0.00675	-0.00667	-0.00657	-0.00651	-0.00646	-0.00639	-0.00629	-0.00621	-0.00616
-27.6005	-24.5675	-22.8133	-21.1224	-20.5692	-19.5673	-17.94	-16.1827	-14.8407
0.004466	0.004504	0.00454	0.004572	0.004616	0.004686	0.004726	0.004766	0.004817
0.006165	0.006199	0.006277	0.006359	0.006457	0.006506	0.006572	0.006667	0.006746
-0.73418	-0.64849	-0.58286	-0.55467	-0.5379	-0.51779	-0.47707	-0.43176	-0.39109
0	0	. 0	0	0	0	0	0	0
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-0.00308	-0.00305	-0.00302	-0.003	-0.00295	-0.00292	-0.0029	-0.00288	-0.00285
-0.00432	-0.00426	-0.0042	-0.00416	-0.00413	-0.00409	-0.00403	-0.00397	-0.00394
-16.2211	-14.4221	-13.3379	-12.3101	-12.0609	-11.4837	-10.4685	-9.46162	-8.64115
0.006092	0.006145	0.006193	0.006238	0.006297	0.006393	0.006447	0.006502	0.006571
0.00841	0.008457	0.008563	0.008675	0.008809	0.008875	0.008966	0.009096	0.009203
-0.90721	-0.79959	-0.71254	-0.67846	-0.66294	-0.63863	-0.58771	-0.52583	-0.47903
0.000209	0.000211	0.000213	0.000214	0.000216	0.000219	0.000221	0.000223	0.000225
0.000289	0.000291	0.000293	0.000211	0.000302	0.000305	0.000308	0.000312	0.000316
-1.10654	-0.98336	-0.9077	-0.8381	-0.82264	-0.78461	-0.71426	-0.64597	-0.58876
-0.00055	-0.00054	-0.00053	-0.00053	-0.00052	-0.00052	-0.00051	-0.00051	-0.0005
-0.00076	-0.00034	-0.00075	-0.00033	-0.00073	-0.00072	-0.00071	-0.0007	-0.00069
-8.27346	-7.35482	-6.7978	-6.2748	-6.15132	-5.86009	-5.33973	-4.82709	-4.4057
-1.50E-05	-1.48E-05	-0.7976 -1.47E-05	-0.2740 -1.46E-05	-0.13132 -1.43E-05	-1.43E-05	-1.41E-05	-1.40E-05	-1.38E-05
-1.50E-05	-1.46E-05	-1.47E-05	-1.40E-05	-1.43E-05	-1.43E-05	-1.41E-05	-1.40E-05	-1.91E-05
								-0.27604
-0.51843	-0.46085	-0.42587	-0.39312	-0.38545	-0.36726	-0.3346	-0.3025	
5.42E-05	5.47E-05	5.51E-05	5.55E-05	5.60E-05	5.69E-05	5.74E-05	5.78E-05	5.84E-05
7.48E-05	7.54E-05	7.61E-05	7.72E-05	7.83E-05	7.89E-05	7.97E-05	8.09E-05	8.18E-05
-0.16535	-0.14692	-0.13552	-0.12514	-0.12292	-0.11731	-0.10674	-0.09656	-0.08794
0.137615	0.137615	0.137615	0.137615	0.137615	0.137615	0.137615	0.137615	0.137615
9.125617	9.125617	9.125617	9.125617	9.125617	9.125617		9.125617	9.125617
0	0	0	0	. 0	0	0	0	0
0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
1.475875	1.580622	1.666419	1.767907	1.83041	1.910061	1.96421	2.10066	2.319434

Perc. 95	Perc. 99
797.1124	957.2986
-0.46855	-0.07935
-0.00124	-0.00012
-0.03844	-0.00699
0.00011	0
804.1782	964.0459
0.408949	0.489238
-0.00063	-0.00019
9.263233	9.263233
107.7	107.7
696.4781	856.3458
7.466836	8.951216
60.5933	83.4937
60.11478	82.16304
449.9598	541.4461
351.6994	421.3917
-2.77568	-2.59533
-0.23156	-0.16283
1.037244	1.294232
-0.63112	-0.18862
-0.00064	-0.00027
0.007078	0.009801
-0.00168	-0.0003
-0.02218	-0.01655
0.055462 -0.05344	0.06074 -0.01878
-0.05344	-0.01076
0	0
0	. 0
449.2116	540.7236
352.9496	422.5991
-3.48692	-2.80302
1.6	, 1.6
106.1	106.1
0	0
0.005413	0.005417
0.005936	0.005958
0.011863	0.012362
0.008571	0.008576
0.009269	0.009297
0.016431	0.017138
0.008405 0.009097	0.008411 0.009125
0.009097	0.009125
0.010224	0.01093
0	0
0	0
Ö	0
0	0
0	0
0	0

0 0 0 0 0 0 0 -0.00436 -0.00604 -13.7065 0.004927 0.006845 -0.36085 0 0	0 0 0 0 0 0 0 0 -0.00416 -0.00551 -10.3002 0.004963 0.007074 -0.27054
-0.00279 -0.00386 -7.98822 0.006722 0.009338 -0.44098 0.000231 0.00032 -0.54455 -0.00049 -0.00068 -4.07345 -1.36E-05 -1.86E-05 -0.25523 5.98E-05 8.30E-05 -0.08135 0.137615 9.125617	-0.00266 -0.00353 -5.98861 0.006771 0.009651 -0.32958 0.000232 0.000331 -0.40817 -0.00063 -3.05363 -1.29E-05 -1.73E-05 -0.19133 6.02E-05 8.58E-05 -0.06097 0.137615 9.125617
0 0.001 0.001 0.001 0.001 0.001 0.001 0.001 2.569789	0 0.001 0.001 0.001 0.001 0.001 0.001 0.001 3.168481

U.S. DOT - CROSSING INVENTORY INFORMATION AS OF 12/18/2007

Crossing No.:

084739S

Update Reason:

Changed Crossing

Effective Begin-Date of Record: 10/19/05

Railroad:

BNSFBNSF Rwy Co. [BNSF]

Current Record

Initiating Agency Railroad

Type and Positiion: Public At Grade

Part I Location and Classification of Crossing

Division:

NORTHWEST

State:

WA

In

Subdivision:

BELLINGHAM

County:

SKAGIT

Branch or Line Name:

PA J-US CAN BDR

City:

MOUNT VERNON

Railroad Milepost:

0067.12

Street or Road Name:

BLACKBURN & PAC.

RailRoad I.D. No.:

Highway Type & No.:

FAM 740

Nearest RR Timetable Stn:

0050

HSR Corridor ID:

Parent Railroad:

STANWOOD

County Map Ref. No.:

29-3B

Crossing Owner:

Latitude:

48.4066334

ENS Sign Installed:

Longitude:

-122.3360075

Passenger Service:

AMTRAK

1

Lat/Long Source:

Actual

Avg Passenger Train Count:

Adjacent Crossing with Separate Number:

Quiet Zone:

No

Private Crossing Information:

Category:

Public Access:

Specify Signs:

Specify Signals:

ST/RR A

ST/RR B

ST/RR C

ST/RR D

Railroad Use:

State Use:

Narrative:

Emergency Contact:

(800)832-5452

Railroad Contact:

(913)551-4540

State Contact:

Part II Railroad Information

Number of Daily Train Movements:

Less Than One Movement Per Day:

Total Trains:

13

Total Switching:

Day Thru:

79

Typical Speed Range Over Crossing:

to 79 mph

Maximum Time Table Speed:

Type and Number of Tracks:

Main:

Other

Specify:

SIDING

Doe's Another RR Operate a Separate Track at Crossing? No Does Another RR Operate Over Your Track at Crossing?

U.S. DOT - CROSSING INVENTORY INFORMATION

Crossing 0847395 Continued

Effective Begin-Date of Record: 10/19/05

Current Record

Part III: Traffic Control Device Information

Signs:		•	•
Crossbucks:	2	Highway Stop Signs:	2
Advanced Warning:	Yes	Hump Crossing Sign:	
Pavement Markings:	No Markings	Other Signs: 0	Specify:
		. 0	
Train Activated Devices:		· -	
Gates:	4	4 Quad or Full Barrier:	
Mast Mounted FL:	4	Total Number FL Pairs:	0
Cantilevered FL (Over):	4	Cantilevered FL (Not over)	: 0
Other Flashing Lights:	o	Specify Other Flashing Lig	hts:
Highway Traffic Signals:	0	Wigwags:	Bells: 1
Other Train Activated Warning Devices:		Special Warning Devices I Train Activated:	Not
Channelization:		Type of Train Detection:	DC/AFO
Track Equipped with Train Signals?	Yes	Traffic Light Interconnection/Preemptio	n:

Part IV: Physical Characteristics

Type of Development:

Residential

Smallest Crossing Angle:

30 to 59 Degrees

Number of Traffic Lanes Crossing Railroad:

Are Truck Pullout Lanes Present?

No

Is Highway Paved?

Crossing Surface:

Yes Rubber

If Other:

Nearby Intersecting Highway?

Less than 75 feet

Is it Signalized?

Does Track Run Down a Street?

No

Is Crossing Illuminated?

Is Commercial Power Available? Yes

Part V: Highway Information

Highway System:	Other FA Highway - Not NHS	Functional Classification of Road at Crossing:	Urban Minor Arterial
Is Crossing on State Highway System:	No .	Road at Grossing.	
Annual Average Daily Traffic (AADT):	004148	AADT Year:	1994
Estimated Percent Trucks:	03	Avg. No of School Buses per Day:	0
Posted Highway Speed:	0		

U.S. DOT - CROSSING INVENTORY INFORMATION AS OF 12/18/2007

Crossing No.:

084736W

Update Reason:

Changed Crossing

Effective Begin-Date of Record: 08/17/06

Railroad:

BNSFBNSF Rwy Co. [BNSF]

Current Record

Initiating Agency Railroad

Type and Positiion: Public At Grade

Part I Location and Classification of Crossing

Division:

NORTHWEST

State:

WA

Subdivision:

BELLINGHAM

County:

SKAGIT

Branch or Line Name:

PA J-US CAN BDR

City:

MOUNT VERNON Near

Railroad Milepost:

0064.58

Street or Road Name:

STACK POLE RD

RailRoad I.D. No.:

0050

Highway Type & No.:

CO89000

Nearest RR Timetable Stn:

STANWOOD

HSR Corridor ID:

Parent Railroad:

County Map Ref. No.:

29-3B

Crossing Owner:

Latitude:

48.3703285

ENS Sign Installed:

Longitude:

-122,3395642

Passenger Service:

AMTRAK

Lat/Long Source:

Quiet Zone:

Actual No

Avg Passenger Train Count: Adjacent Crossing with

Separate Number:

Private Crossing Information:

Category:

Public Access:

Specify Signs:

Specify Signals:

ST/RR A

ST/RR B

ST/RR C

ST/RR D

Railroad Use:

State Use:

Narrative:

Emergency Contact: (800)832-5452

Railroad Contact:

(913)551-4540

State Contact:

Part II Railroad Information

Number of Daily Train Movements:

Less Than One Movement Per Day:

No

Total Trains:

13

Total Switching:

Day Thru:

Typical Speed Range Over Crossing:

to 79 mph

Maximum Time Table Speed:

79

Type and Number of Tracks:

Main:

Other

Specify:

Does Another RR Operate a Separate Track at Crossing? No Does Another RR Operate Over Your Track at Crossing?

U.S. DOT - CROSSING INVENTORY INFORMATION

084736W

Continued

Effective Begin-Date of Record: 08/17/06

Current Record

Part III: Traffic Control Device Information

Signs:			
Crossbucks:	2	Highway Stop Signs:	2
Advanced Warning:	Yes	Hump Crossing Sign:	
Pavement Markings:	Stop Lines and RR Xing	Other Signs: 0 Sp	ecify:
	Symbols	0	
Train Activated Devices:			
Gates:	0	4 Quad or Full Barrier:	
Mast Mounted FL:	0	Total Number FL Pairs:	0
Cantilevered FL (Over):	0 .	Cantilevered FL (Not over):	0
Other Flashing Lights:	0	Specify Other Flashing Lights:	•
Highway Traffic Signals:	. 0 ·	Wigwags: 0	Bells: 0
Other Train Activated Warning Devices:		Special Warning Devices Not Train Activated:	
Channelization:		Type of Train Detection:	None
Track Equipped with Train Signals?	Yes	Traffic Light Interconnection/Preemption:	

Part IV: Physical Characteristics

Type of Development:

Open Space

Smallest Crossing Angle:

60 to 90 Degrees

Number of Traffic Lanes Crossing Railroad:

2

Are Truck Pullout Lanes Present?

No

Is Highway Paved?

Yes

Crossing Surface:

Concrete

If Other:

Nearby Intersecting Highway?

N/A

Is it Signalized?

Does Track Run Down a Street?

No

Is Crossing Illuminated?

Is Commercial Power Available? Yes

Part V: Highway Information

Highway System:	Non-rederal-ald	Road at Crossing:	Rural Local
Is Crossing on State Highway System:	No	road at 5, 555ing.	
Annual Average Daily Traffic (AADT):	000120	AADT Year:	1994
Estimated Percent Trucks:	05	Avg. No of School Buses per Day:	0
Posted Highway Speed:	a		

U.S. DOT - CROSSING INVENTORY INFORMATION AS OF 12/18/2007

Crossing No.:

084737D

Update Reason:

Changed Crossing

Effective Begin-Date of Record: 08/17/06

Railroad:

BNSFBNSF Rwy Co. [BNSF]

Current Record

Initiating Agency Railroad

Type and Positiion: Public At Grade

Part I Location and Classification of Crossing

Division:

NORTHWEST

State:

WA

Subdivision:

BELLINGHAM

County:

SKAGIT

Branch or Line Name:

PA J-US CAN BDR

City:

MOUNT VERNON

Railroad Milepost:

0065.60

Street or Road Name:

HICKOK RD

RailRoad I.D. No.:

0050

AMTRAK

Highway Type & No.:

Nearest RR Timetable Stn:

STANWOOD

HSR Corridor ID:

CO70000

Parent Railroad:

County Map Ref. No.:

29-3B

Crossing Owner:

Latitude:

48.3848243 -122.3381392

ENS Sign Installed:

Longitude:

Passenger Service:

Lat/Long Source:

Actual

Avg Passenger Train Count:

1

Quiet Zone:

No

Adjacent Crossing with Separate Number:

Private Crossing Information:

Category:

Public Access:

Specify Signs:

Specify Signals:

ST/RR A

ST/RR B

ST/RR C

ST/RR D

Railroad Use:

State Use:

Narrative:

Emergency Contact: (800)832-5452

Railroad Contact:

(913)551-4540

State Contact:

Part II Railroad Information

Number of Daily Train Movements:

Less Than One Movement Per Day:

No

Total Trains:

13

Total Switching:

to 79 mph

7 . Day Thru: Maximum Time Table Speed:

79

Type and Number of Tracks:

Typical Speed Range Over Crossing: From Main:

Other

Does Another RR Operate a Separate Track at Crossing? No Does Another RR Operate Over Your Track at Crossing?

Specify:

U.S. DOT - CROSSING INVENTORY INFORMATION

Crossing 084737D

Continued

Effective Begin-Date of Record: 08/17/06

Current Record

Part III: Traffic Control Device Information

Signs:	•		
Crossbucks:	2	Highway Stop Signs:	0
Advanced Warning:	Yes	Hump Crossing Sign:	•
Pavement Markings:	Stop Lines and RR Xing	Other Signs: 0 S	Specify:
	Symbols	0	
Train Activated Devices:			
Gates:	2	4 Quad or Full Barrier:	
Mast Mounted FL:	2	Total Number FL Pairs:	o .
Cantilevered FL (Over):	0	Cantilevered FL (Not over):	0
Other Flashing Lights:	0	Specify Other Flashing Lights	;
Highway Traffic Signals:	0	Wigwags: 0	Bells: 1
Other Train Activated Warning Devices:		Special Warning Devices Not Train Activated:	
Channelization:		Type of Train Detection:	DC/AFO
Track Equipped with Train Signals?	Yes	Traffic Light Interconnection/Preemption:	

Part IV: Physical Characteristics

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Type of Development:	Open Space	Smallest Crossing Angle:	60 to 90 Degrees
Number of Traffic Lanes Crossing Railroad:	2	Are Truck Pullout Lanes Present?	No
Is Highway Paved?	Yes		
Crossing Surface:	Concrete	If Other:	•
Nearby Intersecting Highway?	N/A	Is it Signalized?	
Does Track Run Down a Street?	No	Is Crossing Illuminated?	
Is Commercial Power Available?	Yes		

Part V: Highway Information

Highway System:	Non-Federal-aid	Functional Classification of	Rural Minor Collector	
Is Crossing on State Highway System:	No	Road at Crossing:		
Annual Average Daily Traffic (AADT):	000391	AADT Year:	1994	
Estimated Percent Trucks:	05	Avg. No of School Buses per Day:	0	
Posted Highway Speed:	0		* #	