20 year summary

Year			2012	2013	1 2014	2 2015	3 2016	4 2017	5 2018	6 2019	7 2020	8 2021	9 2022	10 2023	11 2024	12 2025	13 2026	14 2027	15 2028	16 2029	17 2030	18 2031	19 2032	20 2033	21 2034	22 2035	
containers					12,480	24,960	24,960	24,960	24,960	24,960	49,920	49,920	49,920	49,920	49,920	74,880	74,880	74,880	74,880	74,880	99,840	99,840	99,840	99,840	99,840	124,800	
tons @ 20 Tons / 40 foot container					249,600	499,200	499,200	499,200	499,200	499,200	998,400	998,400	998,400	998,400	998,400	1,497,600	1,497,600	1,497,600	1,497,600	1,497,600	1,996,800	1,996,800	1,996,800	1,996,800	1,996,800	2,496,000	
Construction costs				-8672684	-8672684																					$(17,345,368.00)
Land cost				-250000																						$ (250,000.00)
Maintenance costs(% year)						-26458	-26458	-26458	-26458	-26458	-26458	-26458	-26458	-26458	-26458	-26458	-26458	-26458	-26458	-26458	-26458	-26458	-26458	-26458			$ (502,702.00)
Reduced operating costs to cargo owner to use Rail vs. Truck																										
Rail vs truck transportation rate per ton mile ($0.071* ton miles)	$	0.071	per ton mile	$	653,927	$1,307,854	$ 1,307,854	$1,307,854	$1,307,854	$ 1,307,854	$ 2,615,708	$ 2,615,708	$ 2,615,708	$ 2,615,708	$ 2,615,708	$ 3,923,562	$ 3,923,562	$ 3,923,562	$ 3,923,562	$3,923,562	$ 5,231,416	$ 5,231,416	$ 5,231,416	$ 5,231,416	$ 60,815,215		$ 121,630,429
Calculation - Truck Rate ($0.10) - Rail Rate ($0.029) x Average Tons per Truck (20) x Distance x (The estimated annual number of truck trips shifting to rail as a result of the project).																										
Reference: WSDOT Cost Benefit Study																										
Gallons of fuel saved																										
Metric Tons of CO2 Saved (trucks)																										
annual truck miles saved (average of 738 mile to PNW ports)					9,210,240	18,420,480	18,420,480	18,420,480	18,420,480	18,420,480	36,840,960	36,840,960	36,840,960	36,840,960	36,840,960	55,261,440	55,261,440	55,261,440	55,261,440	55,261,440	73,681,920	73,681,920	73,681,920	73,681,920	856,552,320		
Annual Metric tons off trucks					249,600	499,200	499,200	499,200	499,200	499,200	998,400	998,400	998,400	998,400	998,400	1,497,600	1,497,600	1,497,600	1,497,600	1,497,600	1,996,800	1,996,800	1,996,800	1,996,800			
Truck miles / 100 million					0.092	0.184	0.184	0.184	0.184	0.184	0.368	0.368	0.368	0.368	0.368	0.553	0.553	0.553	0.553	0.553	0.737	0.737	0.737	0.737			
Safety factors																										
FataitiesMT 2.01/ 100 million MilesTraveled		**2.1**	**Fatalities / 100 million miles traveled**		0.0458	0.0916	0.0916	0.0916	0.0916	0.0916	0.1833	0.1833	0.1833	0.1833	0.1833	0.2749	0.2749	0.2749	0.2749	0.2749	0.3666	0.3666	0.3666	0.3666	4.3		
fatalities saved $6,200,000		**$6,200,000**	**per fatality**	$	284,097	$ 568,194	$ 568,194	$ 568,194	$ 568,194	$ 568,194	$ 1,136,388	$ 1,136,388	$ 1,136,388	$1,136,388	$ 1,136,388	$ 1,704,582	$ 1,704,582	$ 1,704,582	$ 1,704,582	$1,704,582	$ 2,272,776	$ 2,272,776	$ 2,272,776	$ 2,272,776	26,421,016.8		$ 26,421,017
Reference: City of Shelby																										
Road Maintenance Costs Saved by using Rail																										
Avoided Maintenance Costs - By diverting trucks off the roadways and onto the railroads, the public can benefit form reductions in highway maintenance costs. The value of every truck mile diverted (rail volumes diverted to truck if project does not happen) is $0.12.		$0.12	cost/ per mile diverted off roads	$	1,105,229	$2,210,458	$ 2,210,458	$2,210,458	$2,210,458	$ 2,210,458	$ 4,420,915	$ 4,420,915	$ 4,420,915	$4,420,915	$ 4,420,915	$ 6,631,373	$ 6,631,373	$ 6,631,373	$ 6,631,373	$6,631,373	$ 8,841,830	$ 8,841,830	$ 8,841,830	$ 8,841,830			$ 102,786,278
Calculation - Total length of truck mileage averted per one way trip x Number of trucks *(1 truck = 20 tons of freight)* per year x $0.12																										
Refereene: WSDOT Cost Benefit																										
Environmental Costs Saved by using Rail																										
Metric Tons of CO2 Saved (trucks vs rail)																										
Avoided C02 by diverting trucks off the raodways onto rail, the public can benefit from reductions in CO2 production from reduction in fuel usage																										
fuel saved rail vs truck																										
gal used if trucked at 6.5 mpg (truck miles/ 6.5 miles per gal BNSF Carbon Calculator		6.5		0	1416960	2833920	2833920	2833920	2833920	2833920	5667840	5667840	5667840	5667840	5667840	8501760	8501760	8501760	8501760	8501760	11335680	11335680	11335680	11335680			
gal used if railed at 26 mpg		26			354240	708480	708480	708480	708480	708480	1416960	1416960	1416960	1416960	1416960	2125440	2125440	2125440	2125440	2125440	2833920	2833920	2833920	2833920			
savings in gallons of fuel saved by using rail					1,062,720	2,125,440	2,125,440	2,125,440	2,125,440	2,125,440	4,250,880	4,250,880	4,250,880	4,250,880	4,250,880	6,376,320	6,376,320	6,376,320	6,376,320	6,376,320	8,501,760	8,501,760	8,501,760	8,501,760	98,832,960		GAL of fuel saved
Metric tons of CO_2 saved -using rail vs. trucks ((fuel saved x 23.4 lbs per gal)/2205 lbs per ton). Pounds of CO_2 per gallon of fuel as determined by EPA.					11278	22556	22556	22556	22556	22556	45111	45111	45111	45111	45111	67667	67667	67667	67667	67667	90223	90223	90223	90223			$ 1,048,840
Co2 revised in final Summary due to new guidance from USDOT see CBA summary for revised cost rate/ year		$14		$	157,890	$ 315,780	$ 315,780	$ 315,780	$ 315,780	$ 315,780	$ 631,559	$ 631,559	$ 631,559	$ 631,559	$ 631,559	$ 947,339	$ 947,339	$ 947,339	$ 947,339	$ 947,339	$ 1,263,119	$1,263,119	$ 1,263,119	$ 1,263,119			$ 14,683,754