

NCDOT SENC PASSENGER STUDY

<b>ALT 1 - NORTHBOUND</b>	Cumulative	Time		Incr. MRT	6%	Cumulative	Additional Time
Stations	Miles	Hrs	Min	(min)	Train Handling/TSOs	Minutes	(min)
Wilmington	0.00						3.0
New Jct. At Wilmington Sub.	1.25		0.0	0.0	0.00	<b>3.0</b>	4.0
Burgaw	22.72		33.7	33.7	2.02	<b>42.7</b>	1.0
Wallace	35.82		48.1	14.4	0.86	<b>59.0</b>	1.0
Warsaw	54.92	1	8.5	20.4	1.22	<b>81.6</b>	1.0
Mount Olive	70.32	1	25.2	16.7	1.00	<b>100.3</b>	1.0
Goldsboro	83.92	1	42.6	17.4	1.04	<b>119.8</b>	1.0
Turnout at MP 160.0 on CSX W&W Sub	84.12	1	43.4	0.8	0.05	<b>121.6</b>	1.0
MP 0.22 on new connecting track to realign turnout north of station	84.18	1	43.9	0.5	0.03	<b>123.1</b>	1.0
Turnout at MP 128.5 on NS H Line	84.40	1	45.4	1.5	0.09	<b>125.7</b>	1.0
MP 127.9 on NS H Line to realign turnout	84.46	1	45.9	0.5	0.03	<b>127.3</b>	1.0
Selma	103.50	2	13.8	27.9	1.67	<b>157.8</b>	1.0
Raleigh	131.80	2	45.3	31.5	1.89	<b>192.2</b>	
<b>ALT 2 - NORTHBOUND</b>	Cumulative	Time		Incr. MRT	6%	Cumulative	Additional Time
Stations	Miles	Hrs	Min	(min)	Train Handling/TSOs	Minutes	(min)
Wilmington	0.00						6.5
US 117	1.48		0.0	0.0	0.00	<b>6.5</b>	
Navassa	4.88	0	8.4	8.4	0.50	<b>15.4</b>	1.0
Riegelwood/Acme	18.98	0	29.6	21.2	1.27	<b>38.9</b>	1.0
Bladenboro	54.18	1	6.4	36.8	2.21	<b>78.9</b>	1.0
Lumberton	67.78	1	21.9	15.5	0.93	<b>96.3</b>	1.0
Pembroke	79.36	1	37.0	15.1	0.91	<b>113.3</b>	1.0
Fayetteville (then back into Selma)	110.16	2	4.7	27.7	1.66	<b>143.7</b>	3.0
Selma	159.30	2	51.5	46.8	2.81	<b>196.3</b>	2.0
Raleigh	187.25	3	22.5	31.0	1.86	<b>231.2</b>	
<b>ALT 3 - NORTHBOUND</b>	Cumulative	Time		Incr. MRT	6%	Cumulative	Additional Time
Stations	Miles	Hrs	Min	(min)	Train Handling/TSOs	Minutes	(min)
Wilmington	0.00						3.0
New Jct. At Wilmington Sub.	1.25		0.0	0.0	0.00	<b>3.0</b>	4.0
Burgaw	22.72		33.7	33.7	2.02	<b>42.7</b>	1.0
Wallace	35.82		48.1	14.4	0.86	<b>59.0</b>	1.0
Warsaw	54.92	1	8.5	20.4	1.22	<b>81.6</b>	1.0
Mount Olive	70.32	1	25.2	16.7	1.00	<b>100.3</b>	1.0
Goldsboro	83.92	1	42.6	17.4	1.04	<b>119.8</b>	1.0
NS Diamond at MP 159.8 on the CSX W&W Sub	84.32	1	43.9	1.3	0.08	<b>122.1</b>	
Contentnea	105.12	2	7.0	23.1	1.39	<b>146.6</b>	
Wilson	108.22	2	10.6	3.6	0.22	<b>150.4</b>	1.0
Rocky Mount	124.32	2	25.6	15.0	0.90	<b>167.3</b>	

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<b>ALT 1 - SOUTHBOUND</b>	Cumulative	Time		Incr. MRT	6%	Cumulative	Additional Time
Stations	Miles	Hrs	Min	(min)	Train Handling/TSOs	Minutes	(min)
Raleigh	0.00						
Selma	28.30		31.5	31.5	1.89	<b>33.4</b>	1.0
Turnout at MP 128.5 on NS H Line	47.40		59.5	28.0	1.68	<b>64.1</b>	1.0
MP 0.06 on new connecting track to realign turnout	47.46	1	0.0	0.5	0.03	<b>65.6</b>	1.0
Turnout at MP 0.27 on new connecting track	47.67	1	1.4	1.4	0.08	<b>68.1</b>	1.0
MP 160.06 on CSX W&W Sub to realign turnout north of station	47.74	1	1.9	0.5	0.03	<b>69.6</b>	1.0
Goldsboro	47.88	1	2.6	0.7	0.04	<b>71.4</b>	1.0
Mount Olive	61.48	1	20.2	17.6	1.06	<b>91.0</b>	1.0
Warsaw	76.88	1	36.9	16.7	1.00	<b>109.7</b>	1.0
Wallace	95.98	1	57.3	20.4	1.22	<b>132.3</b>	1.0
Burgaw	109.08	2	11.6	14.3	0.86	<b>148.5</b>	1.0
New Jct. At Wilmington Sub.	130.55	2	45.1	33.5	2.01	<b>185.0</b>	7.0
Wilmington	131.80					<b>192.0</b>	
<b>ALT 2 - SOUTHBOUND</b>	Cumulative	Time		Incr. MRT	6%	Cumulative	Additional Time
Stations	Miles	Hrs	Min	(min)	Train Handling/TSOs	Minutes	(min)
Raleigh	0.00						
Selma (then back out to MP 109.5 on NS H Line)	28.44		33.9	33.9	2.03	<b>35.9</b>	4.0
Fayetteville	77.09	1	17.8	43.9	2.63	<b>86.5</b>	1.0
Pembroke	108.17	1	46.9	29.1	1.75	<b>118.3</b>	1.0
Lumberton	119.47	2	0.6	13.7	0.82	<b>133.8</b>	1.0
Bladenboro	133.07	2	16.2	15.6	0.94	<b>151.4</b>	1.0
Riegelwood/Acme	168.27	2	53.0	36.8	2.21	<b>191.4</b>	1.0
Navassa	182.37	3	14.0	21.0	1.26	<b>214.6</b>	1.0
US 117	185.77	3	22.3	8.3	0.50	<b>224.4</b>	6.5
Wilmington	187.25					<b>230.9</b>	
<b>ALT 3 - SOUTHBOUND</b>	Cumulative	Time		Incr. MRT	6%	Cumulative	Additional Time
Stations	Miles	Hrs	Min	(min)	Train Handling/TSOs	Minutes	(min)
Rocky Mount	0.00						
Wilson	16.10		15.0	15.0	0.90	<b>15.9</b>	1.0
Contentnea	19.20		18.4	3.4	0.20	<b>20.5</b>	
NS Diamond at MP 159.8 on the CSX W&W Sub	40.00		41.8	23.4	1.40	<b>45.3</b>	
Goldsboro	40.40		43.1	1.3	0.08	<b>46.7</b>	1.0
Mount Olive	54.00	1	0.6	17.5	1.05	<b>66.2</b>	1.0
Warsaw	69.40	1	17.3	16.7	1.00	<b>84.9</b>	1.0
Wallace	88.50	1	37.8	20.5	1.23	<b>107.7</b>	1.0
Burgaw	101.60	1	52.1	14.3	0.86	<b>123.8</b>	1.0
New Jct. At Wilmington Sub.	123.07	2	25.5	33.4	2.00	<b>160.2</b>	7.0
Wilmington	124.32					<b>167.2</b>	

**NS H Line: Speed Increase Scenario 1**

From	To	mph
80.9	81.3	20
81.3	83.4	59
83.4	84.2	50
84.2	84.9	45
84.9	85.4	40
85.4	88.1	59
88.1	88.7	55
88.7	89	50
89	90	59
90	90.4	55
90.4	95.2	59
95.2	95.2	49
95.2	96.5	59
96.5	96.8	49
96.8	108.3	59
108.3	109.2	49
109.2	109.2	25
109.2	109.3	49

**No speed changes Raleigh to Selma  
for Alternatives 1 and 2**

**Speed Changes for Alternative 1  
Selma to Goldsboro**

109.3	109.4	20	Over CSXT Diamonds
109.4	109.6	40	
109.6	110	25	
110	110.3	50	Curves
110.3	117.4	59	
117.4	117.7	40	Crossing
117.7	119.7	59	
119.7	120	40	Raised speed for "Crossings"
120	126	59	
126	126.8	40	Raised speed for "Crossings"
126.8	127.5	25	
127.5	128.5	10	New connection at Mulberry St. Alternative 1A
127.5	130	10	Old NS ML to Ex.CSXT connection at MP AC-161 for Alternative 1

**CSXT South End Sub.: Speed Increase Scenario 1**

From	To	mph	
119.7	119.9	Use 40	<b>No speed changes on South End Sub.</b>
			Station at MP 119.8
119.9	120.1	40	
120.1	121.7	79	
121.7	125.4	70	
125.4	129.9	79	
129.9	135.1	70	
135.1	136.9	50	
136.9	138.9	79	
138.9	139.3	60	Contentnea MP 138.9
139.3	146.8	79	
146.8	151	70	
151	152.6	79	
152.6	153	70	
153	157.9	79	
157.9	161	70	
161	161	50	
161	164.5	70	New Selma connection MP 161.1
164.5	165.1	60	
165.1	169.4	70	
169.4	172	79	
172	176.3	70	
176.3	179.4	79	
179.4	180.3	55	
180.3	185.2	79	
185.2	187.3	45	
187.3	190.4	70	
190.4	207.4	79	
207.4	207.6	60	
207.6	209	45	
209	209.7	35	
209.7	209.7	25	
209.7	210.1	35	
210.1	210.8	40	
210.8	216.1	70	
216.1	218.4	60	
218.4	218.6	45	
218.6	219.1	60	
219.1	227.7	79	
227.7	233.8	70	
233.8	240.7	79	
240.7	241.4	50	New Pembroke connection at 241.2
241.4	243.3	79	

**CSXT Wilmington Sub.: Speed Increase Scenario 1**

From	To	mph	
285.7	295	59	New Pembroke connection MP 285.7
295	297	40	
297	297.2	40	
297.2	298.8	40	Raised speed in town
298.8	354	59	
354	356.8	40	
356.8	364.1	25	Davis Yard to Castle Hayne Jct. switch at MP 364.1
361.4	371.8	25	Castle Hayne Jct switch at MP 364.1 to connection to restored W&W Sub.

**CSXT W&W Sub.: Speed Increase Scenario 1**

From	To	mph	
139	156.5	59	
156.5	159.8	40	Raised speed in town
159.8	159.8 STOP	DIAMOND	
159.8	160.9	25	Old Station is at 160.2
160.9	160.9	15 DIAMOND	
160.9	164.6	40	Raised speed in town
164.6	186.5	59	
186.5	208.1	59	
208.1	234.8	59	Restored segment
234.8	234.8	25 BRIDGE	Swing bridge
234.8	235.17	59	Restored segment

**NCDOT SENC Passenger Rail Feasibility Study**

**Scenario 1 Alternative 1**

**Order-of-Magnitude Capital Cost Summary**

	<b>Track Section</b>				
<b>Item</b>	<b>CSXT Wilmington-Castle Hayne</b>	<b>Restore Castle Hayne-Wallace</b>	<b>CSXT Wallace-Goldsboro</b>	<b>NS Goldsboro-Raleigh</b>	<b>Totals</b>
<b>Track</b>	\$6,519,500	\$25,373,800	\$17,971,500	\$5,040,000	\$54,904,800
<b>Grade Crossings</b>	\$1,484,500	\$4,926,650	\$7,666,000	\$3,070,500	\$17,147,650
<b>Train Control Systems</b>	\$0	\$0	\$0	\$0	\$0
<b>Structures</b>	\$2,600,000	\$2,765,000	\$450,000	\$0	\$5,815,000
<b>Drainage</b>	\$0	\$75,000	\$0	\$0	\$75,000
<b>Utility Allowance</b>	\$0	\$100,000	\$0	\$0	\$100,000
<b>Allowance for Right-of-Way</b>	\$0	\$0	\$0	\$0	\$0
<b>Contractor Mobilization</b>	\$530,200	\$1,662,023	\$1,304,375	\$405,525	\$3,902,123
<b>Design and Permitting</b>	\$530,200	\$3,324,045	\$1,304,375	\$405,525	\$5,564,145
<b>Environmental Documentation</b>	\$0	\$500,000	\$0	\$0	\$500,000
<b>Construction Management</b>	\$848,320	\$2,659,236	\$2,087,000	\$648,840	\$6,243,396
<b>Contingencies</b>	\$2,120,800	\$6,648,090	\$5,217,500	\$1,622,100	\$15,608,490
<b>Inflation Factor</b>	\$591,194	\$1,940,567	\$1,454,430	\$452,177	\$4,438,368
<b>Total</b>	\$15,224,714	\$49,974,411	\$37,455,180	\$11,644,667	\$114,298,972

**NCDOT SENC Passenger Rail Feasibility Study**

**Scenario 1 Alternative 2**

**Order-of-Magnitude Capital Cost Summary**

	<b>Track Section</b>			
<b>Item</b>	<b>CSXT Wilmington- Pembroke</b>	<b>CSXT Pembroke- Selma</b>	<b>NS Selma- Raleigh</b>	<b>Totals</b>
<b>Track</b>	\$22,596,000	\$3,535,000	\$1,950,000	\$28,081,000
<b>Grade Crossings</b>	\$5,922,500	\$6,975,500	\$2,010,500	\$14,908,500
<b>Train Control Systems</b>	\$627,000	\$1,764,000	\$0	\$2,391,000
<b>Structures</b>	\$0	\$0	\$0	\$0
<b>Drainage</b>	\$0	\$0	\$0	\$0
<b>Utility Allowance</b>	\$0	\$0	\$0	\$0
<b>Allowance for Right-of-Way</b>	\$0	\$0	\$0	\$0
<b>Contractor Mobilization</b>	\$1,457,275	\$613,725	\$198,025	\$2,269,025
<b>Design and Permitting</b>	\$1,457,275	\$613,725	\$198,025	\$2,269,025
<b>Environmental Documentation</b>	\$0	\$0	\$0	\$0
<b>Construction Management</b>	\$2,331,640	\$981,960	\$316,840	\$3,630,440
<b>Contingencies</b>	\$5,829,100	\$2,454,900	\$792,100	\$9,076,100
<b>Inflation Factor</b>	\$1,624,920	\$684,328	\$220,806	\$2,530,054
<b>Total</b>	\$41,845,710	\$17,623,138	\$5,686,296	\$65,155,144

**NCDOT SENC Passenger Rail Feasibility Study**

**Scenario 1 Alternative 3**

**Order-of-Magnitude Capital Cost Summary**

**Track Section**

<b>Item</b>	<b>CSXT Wilmington-Castle Hayne</b>	<b>Restore Castle Hayne-Wallace</b>	<b>CSXT Wallace-Goldsboro</b>	<b>CSXT Goldsboro-Contentnea</b>	<b>CSXT Contentnea-Rocky Mount</b>	<b>Totals</b>
<b>Track</b>	\$6,519,500	\$25,373,800	\$17,971,500	\$5,406,000	\$180,000	\$55,450,800
<b>Grade Crossings</b>	\$1,484,500	\$4,926,650	\$7,666,000	\$3,172,500	\$781,000	\$18,030,650
<b>Train Control Systems</b>	\$0	\$0	\$0	\$0	\$342,000	\$342,000
<b>Structures</b>	\$2,600,000	\$2,765,000	\$450,000	\$0	\$0	\$5,815,000
<b>Drainage</b>	\$0	\$75,000	\$0	\$0	\$0	\$75,000
<b>Utility Allowance</b>	\$0	\$100,000	\$0	\$0	\$0	\$100,000
<b>Allowance for Right-of-Way</b>	\$0	\$0	\$0	\$0	\$0	\$0
<b>Contractor Mobilization</b>	\$530,200	\$1,662,023	\$1,304,375	\$428,925	\$65,150	\$3,990,673
<b>Design and Permitting</b>	\$530,200	\$3,324,045	\$1,304,375	\$428,925	\$65,150	\$5,652,695
<b>Environmental Documentation</b>	\$0	\$500,000	\$0	\$0	\$0	\$500,000
<b>Construction Management</b>	\$848,320	\$2,659,236	\$2,087,000	\$686,280	\$104,240	\$6,385,076
<b>Contingencies</b>	\$2,120,800	\$6,648,090	\$5,217,500	\$1,715,700	\$260,600	\$15,962,690
<b>Inflation Factor</b>	\$591,194	\$1,940,567	\$1,454,430	\$478,269	\$72,645	\$4,537,105
<b>Total</b>	\$15,224,714	\$49,974,411	\$37,455,180	\$12,316,599	\$1,870,785	\$116,841,689