



**Appendix G:  
Ridership, Capital and O&M Cost back-up**

- 1. Ridership**
- 2. Route Performance Statistics (Year 2025 estimates)**
- 3. Cost-Effectiveness Data**

**NeoRail II**  
**Estimated Average Daily Ridership-- Year 2025**  
**Capital Costs and Performance Measures**

**Route 1 -- Lorain**

	Route 1 Lake West-Lorain Only		
	Lorain LOS 1	Lorain LOS 2	Lorain LOS 3
Cap Cost	\$ 107	\$ 174	\$ 258
Ann Cap Cost	\$8.06	\$12.30	\$18.35
<u>Ridership</u>			
Peak %	80%	92%	100%
Rev-Peak %	0%	50%	100%
Off-Peak %	0%	33%	100%
Daily Ridership	1,634	2,436	3,618
% of LOS 3	45.2%	67.3%	
Peak Period, Peak Direction	1,634	1,879	2,042
Peak Period, Reverse-Peak	-	109	218
<u>Off-Peak</u>	-	<u>448</u>	<u>1,358</u>
Total	1,634	2,436	3,618
HBW			1,789
HBO			1,132
<u>Special Trip Generators</u>			<u>697</u>
Total			3,618
Annualization factor	250	285	300
Annual Ridership (000s)	408.5	694.2	1,085.3

**NeoRail II**  
**Estimated Average Daily Ridership-- Year 2025**  
**Capital Costs and Performance Measures**

**Route 2 -- Amherst**

	Route 2 West- Elyria-Amherst Only				
	Elyria LOS 1	Elyria LOS 2	Elyria LOS 3	Amhst LOS 2	Amhst LOS 3
Cap Cost	\$ 203	\$ 376	\$ 376	\$ 410	\$ 557
Ann Cap Cost	\$15.08	\$27.10	\$27.10	\$29.73	\$35.15
<u>Ridership</u>					
Peak %	80%	92%	100%	90%	100%
Rev-Peak %	0%	50%	100%	50%	100%
Off-Peak %	0%	33%	100%	33%	100%
Pvl-Conn Peak %					
Daily Ridership	863	1,651	2,901	1,712	3,075
% of LOS 3	28.1%	53.7%	94.4%	55.7%	
Peak Period, Peak Direction				1,004	1,115
Peak Period, Reverse-Peak				180	360
<u>Off-Peak</u>				<u>528</u>	<u>1,599</u>
Total				1,712	3,075
HBW					1,127
HBO					670
<u>Special Trip Generators</u>					<u>1,277</u>
Total					3,075
Annualization factor	250	285	300	285	300
Annual Ridership (000s)	215.8	470.5	870.3	487.8	922.4

**NeoRail II**  
**Estimated Average Daily Ridership-- Year 2025**  
**Capital Costs and Performance Measures**

**Route 3 -- Medina**

	Route 3 SW-Medina Only via Rockport		
	Medina LOS 1	Medina LOS 2	Medina LOS 3
Cap Cost	\$ 231	\$ 381	\$ 394
Ann Cap Cost	\$13.74	\$23.93	\$25.10
<u>Ridership</u>			
Peak %	80%	92%	100%
Rev-Peak %	0%	50%	100%
Off-Peak %	0%	33%	100%
Daily Ridership	632	1,359	2,540
% of LOS 3	24.9%	53.5%	
Peak Period, Peak Direction	632	727	791
Peak Period, Reverse-Peak	-	159	317
<u>Off-Peak</u>	-	<u>473</u>	<u>1,432</u>
Total	632	1,359	2,540
HBW			1,188
HBO			579
<u>Special Trip Generators</u>			<u>774</u>
Total			2,541
Annualization factor	250	285	300
Annual Ridership (000s)	158.1	387.2	762.1

**NeoRail II**  
**Estimated Average Daily Ridership-- Year 2025**  
**Capital Costs and Performance Measures**

**Route 4D -- Canton-Akron-Cleveland via Hudson**

	Route 4D South -- Canton-Akron-Cleveland Only via Hudson					
	Cuy.Fls. LOS 1	Cuy.Fls. LOS 2	Akron LOS 2	Akr-L2 Can-L1	Canton LOS 2	Canton LOS 3
Cap Cost	\$ 188	\$ 288	\$ 364	\$ 392	\$ 430	\$ 453
Ann Cap Cost	\$13.95	\$20.53	\$26.42	\$28.78	\$31.91	\$33.63
<u>Ridership</u>						
Peak %	80%	92%	92%	92%	92%	100%
Rev-Peak %	0%	50%	50%	50%	50%	100%
Off-Peak %	0%	33%	33%	33%	33%	100%
Can Pk %				80%		
Daily Ridership	1,039	1,654	2,108	2,842	3,371	5,598
% of LOS 3	18.6%	29.5%	37.7%	50.8%	60.2%	
Peak Period, Peak Direction					2,091	2,273
Peak Period, Reverse-Peak					536	1,072
<u>Off-Peak</u>					<u>744</u>	<u>2,253</u>
Total					3,371	5,598
HBW						2,762
HBO						1,474
<u>Special Trip Generators</u>						<u>1,362</u>
Total						5,598
Annualization factor	250	285	285	285	285	300
Annual Ridership (000s)	259.7	471.4	600.9	810.1	960.7	1,679.4

**NeoRail II**  
**Estimated Average Daily Ridership-- Year 2025**  
**Capital Costs and Performance Measures**

**Route 4E -- Canton-Akron-Cleveland via Kent**

	Route 4E South -- Canton-Akron-Cleveland Only via Kent					
	Kent LOS 1	Kent LOS 2	Akron LOS 2	Akr-L2 Can-L1	Canton LOS 2	Canton LOS 3
Cap Cost	\$ 171	\$ 246	\$ 350	\$ 378	\$ 417	\$ 439
Ann Cap Cost	\$ 12.66	\$ 17.51	\$ 25.95	\$ 28.31	\$ 31.44	\$ 33.16
<u>Ridership</u>						
Peak %	80%	92%	92%	92%	92%	100%
Rev-Peak %	0%	50%	50%	50%	50%	100%
Off-Peak %	0%	33%	33%	33%	33%	100%
Can Pk %				80%		
Daily Ridership	645	1,153	1,661	2,538	3,079	5,117
% of LOS 3	12.6%	22.5%	32.5%	49.6%	60.2%	
Peak Period, Peak Direction					1,932	2,100
Peak Period, Reverse-Peak					447	895
<u>Off-Peak</u>					<u>700</u>	<u>2,122</u>
Total					3,079	5,117
HBW						2,482
HBO						1,291
<u>Special Trip Generators</u>						<u>1,344</u>
Total						5,117
Annualization factor	250	285	285	285	285	300
Annual Ridership (000s)	161.3	328.5	473.3	723.3	877.6	1,535.0

**NeoRail II**  
**Estimated Average Daily Ridership-- Year 2025**  
**Capital Costs and Performance Measures**

**Route 6 -- Aurora**

	Route 6 East -- Solon-Aurora Only				
	Aurora LOS 1	Aurora LOS 2	Aurora LOS 3	Mantua LOS 2	Mantua LOS 3
Cap Cost	\$ 128	\$ 166	\$ 166	\$ 190	\$ 190
Ann Cap Cost	\$9.49	\$11.44	\$11.44	\$13.45	\$13.45
<u>Ridership</u>					
Peak %	80%	92%	100%	92%	100%
Rev-Peak %	0%	50%	100%	50%	100%
Off-Peak %	0%	33%	100%	33%	100%
Pvl-Conn Peak %					
Daily Ridership	1,411	2,411	3,943	2,458	4,017
% of LOS 3	35.1%	60.0%	98.2%	61.2%	
Peak Period, Peak Direction				1,657	1,802
Peak Period, Reverse-Peak				205	411
<u>Off-Peak</u>				596	1,805
Total				2,458	4,017
HBW					1,531
HBO					844
<u>Special Trip Generators</u>					1,642
Total					4,017
Annualization factor	250	285	300	285	300
Annual Ridership (000s)	352.7	687.1	1,182.9	700.6	1,205.1

**NeoRail II**  
**Estimated Average Daily Ridership-- Year 2025**  
**Capital Costs and Performance Measures**

**Route 7 -- Lake/Ashtabula**

Route 7  
 Lake East -- Lake-Ashtabula Only

	Mentor LOS 1	Mentor LOS 2	P'ville LOS 2	Pvl/Cn LOS 2	Mad/Cn LOS 2	Mad/Cn LOS 3	Mentor LOS 3	P'ville LOS 3	P'ville LOS 1
Cap Cost	\$ 140	\$ 173	\$ 188	\$ 193	\$ 238	\$ 246			
Ann Cap Cost	\$10.43	\$11.96	\$13.21	\$13.62	\$17.29	\$17.92			
<b>Ridership</b>									
Peak %	80%	92%	92%	92%	92%	100%	100%	100%	80%
Rev-Peak %	0%	50%	50%	50%	50%	100%	100%	100%	0%
Off-Peak %	0%	33%	33%	33%	33%	100%	100%	100%	0%
Pvl-Conn Peak %				80%					
Daily Ridership	931	1,568	1,727	1,858	1,960	3,259	2,549	2,846	1,007
% of LOS 3	28.6%	48.1%	53.0%	57.0%	60.1%		78.2%	87.3%	30.9%
Peak Period, Peak Direction					1,308	1,421			
Peak Period, Reverse-Peak					134	269			
<u>Off-Peak</u>					<u>518</u>	<u>1,569</u>			
Total					1,960	3,259			
HBW						1,644			
HBO						665			
<u>Special Trip Generators</u>						<u>950</u>			
Total						3,259			
Annualization factor	250	285	285	285	285	300	300	300	250
Annual Ridership (000s)	232.7	447.0	492.2	529.4	558.6	977.8	764.8	853.9	251.6



Master Project List

Costs in millions of 2000 dollars

Territory / Projects	Route Terminus →	Level of Service →	GRAND TOTAL COST →	TOTAL ANNUALIZED CAPITAL COST →	Total Project Cost \$m	Cost per Mile Rt.Mi. \$m/mi	Annualiz. Project Cost \$k	Total of all projects	Route 1 Lake West-Lorain Only			Route 2 West- Elyria-Amherst Only				Route 3 SW-Medina Only via Rockport			Route 4D South -- Canton-Akron-Cleveland Only via Hudson						Route 4E South -- Canton-Akron-Cleveland Only via Kent						Route 6 East -- Aurora			
									Lorain	Lorain	Lorain	Elyria	Elyria	Amhst	Amhst	Medina	Medina	Medina	Cuy.Fls.	Cuy.Fls.	Akron	Akr-L2	Canton	Canton	Kent	Kent	Akron	Akr-L2	Canton	Canton	irc	Mad/Cn		
									LOS 1	LOS 2	LOS 3	LOS 1	LOS 2	LOS 2	LOS 3	LOS 1	LOS 2	LOS 3	LOS 1	LOS 2	LOS 2	Can-L1	LOS 2	LOS 3	LOS 1	LOS 2	LOS 2	Can-L1	LOS 2	LOS 3	DS	LOS 3		
					\$1,761			\$1761	\$107	\$174	\$258	\$203	\$376	\$410	\$557	\$231	\$381	\$394	\$185	\$285	\$361	\$386	\$424	\$446	\$166	\$242	\$345	\$370	\$409	\$431	#	\$246		
					\$118.4			\$118.4	\$8.1	\$12.3	\$18.3	\$15.1	\$27.1	\$29.7	\$35.2	\$13.7	\$23.9	\$25.1	\$13.7	\$20.3	\$26.2	\$28.3	\$31.4	\$33.1	\$12.3	\$17.2	\$25.6	\$27.7	\$30.8	\$32.5	#	\$17.9		
<b>CL. Downtown Cleveland</b>					<b>Total</b>			<b>Total</b>	\$167.5	\$18.2	\$77.4	\$77.4	\$18.2	\$77.4	\$77.4	\$77.4	\$18.2	\$77.4	\$77.4	\$18.2	\$43.9	\$43.9	\$43.9	\$43.9	\$46.3	\$18.2	\$43.9	\$43.9	\$43.9	\$43.9	\$46.3	#	\$43.9	
					<b>Annualized</b>			<b>Annualized</b>	\$7.6	\$0.7	\$4.3	\$4.3	\$0.7	\$4.3	\$4.3	\$4.3	\$0.7	\$4.3	\$4.3	\$0.7	\$1.7	\$1.7	\$1.7	\$1.7	\$1.7	\$0.7	\$1.7	\$1.7	\$1.7	\$1.7	\$1.7	#	\$1.7	
CL.1 Temporary Station, existing Amtrak site (initial service only)					\$7.4			\$90																										
CL.2 NCTC Phase 1, 1-2 services, 1 island platform					\$33.1			\$1,088																										
CL.2a NCTC Phase 1, 3 services, 2 island platforms					\$56.4			\$1,886																										
CL.3 NCTC Phase 3, full development					\$13.1			\$659																										
CL.4 26th St. Yard/Shop Phase 1, initial service					\$10.8			\$613																										
CL.5 26th St. Yard/Shop Phase 2, two services					\$13.2			\$613																										
CL.6 26th St. Yard/Shop Phase 3, full development					\$0.0			\$0																										
CL.7 Erie-Nickel Plate Connection					\$33.5			\$2,606																										
<b>EX. NCTC - Erie Xing</b>					<b>Total</b>			<b>Total</b>	\$64.9	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	#	\$0.0	
					<b>Annualized</b>			<b>Annualized</b>	\$4.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	#	\$0.0	
EX.1 3rd track, NCTC-Kinsman					\$15.1	3.5	\$4.29	\$1,167																										
EX.2 4th track, NCTC-Kinsman					\$18.9	3.5	\$5.38	\$922																										
EX.3 3rd & 4th tracks, Kinsman-Erie Xing					\$15.2	2.6	\$5.85	\$1,182																										
EX.4 Kinsman-Union Phase 2, Aurora+Akron					\$7.1			\$576																										
EX.5 E.55th/Euclid Station					\$4.9			\$181																										
EX.6 E.91st/Union Station					\$3.7			\$272																										
<b>CY. Cuyahoga River Bridge, incl. Cleveland &amp; Alcott approaches</b>					<b>Total</b>			<b>Total</b>	\$89.8	\$9.2	\$9.2	\$80.6	\$9.2	\$89.8	\$89.8	\$80.6	\$9.2	\$89.8	\$80.6	\$9.2	\$89.8	\$80.6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	#	\$0.0
					<b>Annualized</b>			<b>Annualized</b>	\$6.5	\$0.7	\$0.7	\$5.8	\$0.7	\$6.5	\$6.5	\$5.8	\$0.7	\$6.5	\$5.8	\$0.7	\$6.5	\$5.8	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	#	\$0.0
CY.1 3rd track, bridge-to-Alcott					\$9.2	2.3	\$4.11	\$714																										
CY.2 New 2-track lift bridge & approaches -- 10 ft. rise					\$80.6	n.a.		\$5,779																										
CY.3 New 2-track lift bridge & approaches -- 20 ft. rise					\$0.0	n.a.		\$0																										
<b>HA. Alcott Jct. - Hopkins Airport</b>					<b>Total</b>			<b>Total</b>	\$265.6	\$0.0	\$0.0	\$0.0	\$56.7	\$56.7	\$56.7	\$202.3	\$14.3	\$14.3	\$27.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	#	\$0.0	
					<b>Annualized</b>			<b>Annualized</b>	\$13.2	\$0.0	\$0.0	\$0.0	\$3.9	\$3.9	\$3.9	\$9.0	\$1.1	\$1.1	\$2.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	#	\$0.0	
HA.1 Additional single track, Alcott-to-Puritas					\$14.3	3.2	\$4.47	\$1,096																										
HA.2 4-track mainline, Alcott-to-Puritas					\$27.3	3.2	\$8.52	\$2,115																										
HA.3 New single-track alignment past airport to Berea					\$34.7	5.5	\$6.31	\$2,517																										
HA.4 New double-track alignment through airport					\$118.4	2.9	\$40.82	\$3,465																										
HA.5 Grade-separated track connection, Airport-Berea					\$36.0	2.5	\$14.39	\$2,611																										
HA.6 West Park Station					\$6.7	n.a.		\$256																										
HA.7 Hopkins Airport--Mainline side platform station					\$7.6	n.a.		\$241																										
HA.8 Hopkins Airport--Terminal Area Station					\$20.7	n.a.		\$852																										
<b>1. Alcott Jct. - Lorain</b>					<b>Total</b>			<b>Total</b>	\$59.6	\$39.6	\$47.5	\$59.6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	#	\$0.0	
					<b>Annualized</b>			<b>Annualized</b>	\$4.8	\$3.2	\$3.8	\$4.8	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	#	\$0.0	
1.1 Alcott connection					\$7.8	n.a.		\$599																										
1.2 Track upgrade, NKP					\$1.3	32.0	\$0.04	\$109																										
1.3 Grade crossing mitigation -- Lakewood					\$9.7	n.a.		\$788																										
1.4 Grade crossing upgrades -- Rocky River-Lorain					\$4.2	n.a.		\$339																										
1.5 Passing siding extension: Rocky River-Elmwood Rd.					\$5.0	1.2	\$4.14	\$407																										
1.6 Passing siding extension: Avon					\$2.9	0.5	\$5.88	\$238																										
1.7 Passing siding extension LOS 3: Lakewood-Rocky River					\$1.7	0.6	\$2.85	\$137																										
1.8 Double-tracking, for LOS 3: Westlake-Avon					\$10.4	4.7	\$2.21	\$841																										
1.9 Lorain Grove site connection					\$2.8	n.a.		\$231																										
1.10 Lorain Grove site terminal facilities					\$2.8	n.a.		\$230																										
Stations																																		
1.11 Lakewood Station					\$1.0	n.a.		\$79																										
1.12 Rocky River Station					\$1.1	n.a.		\$94																										
1.13 Westlake/Bay Village					\$0.7	n.a.		\$55																										
1.14 Avon					\$2.6	n.a.		\$215																										
1.15 Sheffield					\$2.6	n.a.		\$215																										
1.16 Lorain-Grove Site					\$3.0	n.a.		\$246																										





Master Project List

Costs in millions of 2000 dollars

Territory / Projects	Route Terminus → Level of Service → GRAND TOTAL COST → TOTAL ANNUALIZED CAPITAL COST →	Total Project Cost \$m	Cost per Mile Rt.Mi. \$m/mi	Annualiz. Project Cost \$k	Total of all projects	Route 1 Lake West-Lorain Only			Route 2 West- Elyria-Amherst Only				Route 3 SW-Medina Only via Rockport			Route 4D South -- Canton-Akron-Cleveland Only via Hudson						Route 4E South -- Canton-Akron-Cleveland Only via Kent						Route 6 East -- Auro	
						Lorain	Lorain	Lorain	Elyria	Elyria	Amhst	Amhst	Medina	Medina	Medina	Cuy.Fls.	Cuy.Fls.	Akron	Akr-L2	Canton	Canton	Kent	Kent	Akron	Akr-L2	Canton	Canton	rc	Mad/Cn
						LOS 1	LOS 2	LOS 3	LOS 1	LOS 2	LOS 2	LOS 3	LOS 1	LOS 2	LOS 3	LOS 1	LOS 2	LOS 2	Can-L1	LOS 2	LOS 3	LOS 1	LOS 2	LOS 2	Can-L1	LOS 2	LOS 3	DS	LOS 3
					\$1,761	\$107	\$174	\$258	\$203	\$376	\$410	\$557	\$231	\$381	\$394	\$185	\$285	\$361	\$386	\$424	\$446	\$166	\$242	\$345	\$370	\$409	\$431	#	\$246
					\$118.4	\$8.1	\$12.3	\$18.3	\$15.1	\$27.1	\$29.7	\$35.2	\$13.7	\$23.9	\$25.1	\$13.7	\$20.3	\$26.2	\$28.3	\$31.4	\$33.1	\$12.3	\$17.2	\$25.6	\$27.7	\$30.8	\$32.5	#	\$17.9

7. NCTC - Painesville - Conneaut

	Total	Total Annualized	\$151.7	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	#	\$151.7
			\$11.9	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	#	\$11.9
7.1 Track upgrade, NCTC-Collinwood	\$0.5	6.0	\$0.08	\$41																								1
7.2 Track upgrade, Collinwood-Painesville	\$2.2	26.2	\$0.08	\$178																								1
7.3 Track upgrade, Painesville-Madison	\$0.5	6.2	\$0.08	\$42																								1
7.4 Track upgrade, Madison-Conneaut	\$2.4	28.3	\$0.08	\$192																								1
7.4a CSX Replacement Storage Tracks, w. of Collinwood	\$5.1	2.8	\$1.81	\$416																								1
7.5 Collinwood Yard --3rd main track & interlocking reconfig.	\$33.7	4.2	\$8.03	\$2,371																								1
7.6 New track -- Collinwood-Mentor	\$26.4	11.8	\$2.24	\$2,117																								1
7.6a New track -- Mentor-Painesville	\$10.1	5.9	\$1.73	\$817																								1
7.7 New track -- Painesville-Madison	\$26.3	11.0	\$2.39	\$2,126																								1
7.8 Passing siding -- West End	\$4.4	1.0	\$4.42	\$349																								1
7.9 Passing siding -- Willoughby-Mentor	\$6.6	3.0	\$2.19	\$537																								1
10 Passing siding -- Painesville	\$3.6	1.0	\$3.57	\$283																								1
11 Grade crossing upgrade--Collinwood-Mentor	\$1.0	n.a.		\$77																								1
11a Grade crossing upgrade--Mentor-Painesville	\$1.9	n.a.		\$154																								1
11b Grade crossing upgrade--Painesville-Madison	\$3.5	n.a.		\$283																								1
12 Overnight storage facility -- Madison	\$2.5	n.a.		\$206																								1
13 Overnight storage facility -- Conneaut	\$2.6	n.a.		\$212																								1
Stations	\$0.0	n.a.		\$0																								
14 E.Cleveland/Bratenahl	\$1.4	n.a.		\$118																								1
15 Euclid	\$1.9	n.a.		\$158																								1
16 West End	\$2.4	n.a.		\$199																								1
17 Willoughby	\$2.4	n.a.		\$199																								1
18 Mentor	\$2.4	n.a.		\$199																								1
19 West Painesville	\$1.9	n.a.		\$158																								1
20 Painesville	\$1.4	n.a.		\$118																								1
21 Madison	\$0.9	n.a.		\$77																								1
22 Geneva	\$0.9	n.a.		\$77																								1
23 West Ashtabula	\$0.9	n.a.		\$77																								1
24 Ashtabula	\$0.7	n.a.		\$55																								1
25 Conneaut	\$0.9	n.a.		\$77																								1

RS. Rolling Stock

	Total	Total Annualized	\$90.0	\$40.0	\$40.0	\$40.0	\$40.0	\$40.0	\$40.0	\$50.0	\$40.0	\$40.0	\$50.0	\$40.0	\$40.0	\$50.0	\$60.0	\$70.0	\$90.0	\$40.0	\$40.0	\$60.0	\$70.0	\$80.0	\$100.0	#	\$50.0			
			\$7.7	\$3.4	\$3.4	\$3.4	\$3.4	\$3.4	\$3.4	\$4.3	\$3.4	\$3.4	\$3.4	\$3.4	\$3.4	\$4.3	\$3.4	\$3.4	\$4.3	\$5.2	\$6.0	\$7.7	\$3.4	\$3.4	\$5.2	\$6.0	\$6.9	\$8.6	#	\$4.3
RS1 Revenue Trainsets -- Lake West	\$10.0	\$860		3	3	3																								
RS2 Revenue Trainsets -- West	\$10.0	\$860					3	3	3	4																				
RS3 Revenue Trainsets -- Southwest	\$10.0	\$860									3	3	4																	
RS4D Revenue Trainsets -- South-Hudson	\$10.0	\$860												3	3	4	4	4	5											
RS4E Revenue Trainsets -- South-Kent	\$10.0	\$860																		3	3	5	5	5	6					
RSAC Revenue Trainsets -- Akron-Canton	\$10.0	\$860															1	2	2				1	2	2					
RS6 Revenue Trainsets -- East	\$10.0	\$860																									3			
RS7 Revenue Trainsets -- Lake East	\$10.0	\$860																									4			
Spare Trainsets	\$10.0	\$860		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	2	1	1		

*Northeast Ohio Commuter Rail  
Feasibility Study Phase II*

**NEORAIL II  
ROUTE PERFORMANCE STATISTICS**  
Year 2025 Estimates

	Daily Trips	Daily Passenger Miles	Daily Fare Revenue	Annual Fare Revenue 255 Days/Year	Annual Operating Cost 255 Days/Year	Annual Subsidy	Farebox Recovery Ratio
<b>INDIVIDUAL ROUTES at LEVEL OF SERVICE 3</b>							
1 Lorain	3,618	44,169	\$ 7,235	\$ 1,845,000	\$ 8,541,000	\$ 6,696,000	22%
2 Amherst	3,075	46,230	\$ 6,148	\$ 1,568,000	\$ 7,949,000	\$ 6,381,000	20%
3 Medina	2,541	41,869	\$ 5,229	\$ 1,333,000	\$ 10,046,000	\$ 8,713,000	13%
4 Canton (Hudson)	5,598	120,696	\$ 14,792	\$ 3,772,000	\$ 15,637,000	\$ 11,865,000	24%
5 Canton (Kent)	5,117	134,269	\$ 13,738	\$ 3,503,000	\$ 17,930,000	\$ 14,427,000	20%
6 Aurora-Mantua	4,017	66,337	\$ 8,034	\$ 2,049,000	\$ 6,384,000	\$ 4,335,000	32%
7 Conneaut	3,259	54,867	\$ 6,730	\$ 1,716,000	\$ 10,348,000	\$ 8,632,000	17%
<b>TIER 1</b>							
1 Lorain	2,557	46,560	\$ 5,114	\$ 1,304,000	\$ 3,572,000	\$ 2,268,000	37%
6 Aurora-Mantua	4,128	68,170	\$ 8,256	\$ 2,105,000	\$ 3,551,000	\$ 1,446,000	59%
General costs					\$ 3,368,000		
<b>TOTAL TIER 1</b>	<b>6,685</b>	<b>114,730</b>	<b>\$ 13,370</b>	<b>\$ 3,409,000</b>	<b>\$ 10,491,000</b>	<b>\$ 7,082,000</b>	<b>32%</b>
<b>TIER 2</b>							
1 Lorain	2,758	49,063	\$ 5,516	\$ 1,407,000	\$ 3,572,000	\$ 2,165,000	39%
4 Canton (Hudson)	5,107	110,110	\$ 13,494	\$ 3,441,000	\$ 11,481,000	\$ 8,040,000	30%
6 Aurora-Mantua	3,218	53,143	\$ 6,436	\$ 1,641,000	\$ 3,435,000	\$ 1,794,000	48%
7 Conneaut	2,964	49,901	\$ 6,121	\$ 1,561,000	\$ 6,999,000	\$ 5,438,000	22%
General costs					\$ 6,123,000		
<b>TOTAL TIER 2</b>	<b>14,047</b>	<b>262,216</b>	<b>\$ 31,567</b>	<b>\$ 8,050,000</b>	<b>\$ 31,610,000</b>	<b>\$ 23,560,000</b>	<b>25%</b>
<b>TIER 3</b>							
1 Lorain	3,631	45,215	\$ 7,261	\$ 1,852,000	\$ 5,427,000	\$ 3,575,000	34%
2 Amherst	2,620	39,388	\$ 5,238	\$ 1,336,000	\$ 4,912,000	\$ 3,576,000	27%
3 Medina	2,441	40,222	\$ 5,023	\$ 1,281,000	\$ 6,736,000	\$ 5,455,000	19%
4 Canton (Hudson)	4,341	93,593	\$ 11,470	\$ 2,925,000	\$ 11,415,000	\$ 8,490,000	26%
5 Canton (Kent)	976	31,785	\$ 2,676	\$ 682,000	\$ 2,945,000	\$ 2,263,000	23%
6 Aurora-Mantua	2,601	42,954	\$ 5,202	\$ 1,327,000	\$ 3,435,000	\$ 2,108,000	39%
7 Conneaut	3,302	55,590	\$ 6,819	\$ 1,739,000	\$ 6,999,000	\$ 5,260,000	25%
General costs					\$ 8,580,000		
<b>TOTAL TIER 3</b>	<b>19,912</b>	<b>348,747</b>	<b>\$ 43,690</b>	<b>\$ 11,142,000</b>	<b>\$ 50,449,000</b>	<b>\$ 39,307,000</b>	<b>22%</b>

NEORail II - NORTHEAST OHIO COMMUTER RAIL FEASIBILITY STUDY

Cost Effectiveness Data

	Route 1 Lake West-Lorain Only			Route 2 West- Elyria-Amherst Only				Route 3 SW-Medina Only via Rockport			Route 4D South -- Canton-Akron-Cleveland Only via Hudson					
Route Terminus → Level of Service →	Lorain LOS 1	Lorain LOS 2	Lorain LOS 3	Elyria LOS 1	Elyria LOS 2	Amhst LOS 2	Amhst LOS 3	Medina LOS 1	Medina LOS 2	Medina LOS 3	Cuy.Fls. LOS 1	Cuy.Fls. LOS 2	Akron LOS 2	Akr-L2 Can-L1	Canton LOS 2	Canton LOS 3
<b>Effectiveness (Ridership)</b>																
Daily Trips	1,634	2,436	3,618	863	1,651	1,712	3,075	632	1,359	2,540	1,039	1,654	2,108	2,842	3,371	5,598
Annualized Trips (000)	408	694	1,085	216	470	488	922	158	387	762	260	471	601	810	961	1,679
<b>Costs (Millions of Year 2000 Dollars)</b>																
Total Capital Cost	\$107	\$174	\$258	\$203	\$376	\$410	\$557	\$231	\$381	\$394	\$188	\$288	\$364	\$392	\$430	\$453
Total Annualized Capital Cost	\$8.1	\$12.3	\$18.3	\$15.1	\$27.1	\$29.7	\$35.2	\$13.7	\$23.9	\$25.1	\$13.9	\$20.5	\$26.4	\$28.8	\$31.9	\$33.6
Total O&M Costs (Annual)	\$5.8	\$7.0	\$8.9	\$5.6	\$6.4	\$7.5	\$9.5	\$6.5	\$7.8	\$10.3	\$6.3	\$7.4	\$8.3	\$10.4	\$11.8	\$14.8
Total Annual Cost (Capital and O&M)	\$13.9	\$19.3	\$27.2	\$20.7	\$33.5	\$37.2	\$44.6	\$20.3	\$31.7	\$35.4	\$20.2	\$27.9	\$34.7	\$39.2	\$43.7	\$48.5
<b>Cost-Effectiveness</b>																
Total Cost per Trip	\$34.06	\$27.84	\$25.08	\$95.87	\$71.35	\$76.24	\$48.43	\$128.17	\$81.92	\$46.40	\$77.77	\$59.20	\$57.81	\$48.41	\$45.43	\$28.87
Route Mileage	25 miles	25 miles	25 miles	26 miles	26 miles	32 miles	32 miles	35 miles	35 miles	35 miles	33 miles	33 miles	38 miles	38 miles	62 miles	62 miles
Total Capital Cost per Mile (millions)*	\$4.3	\$7.0	\$10.3	\$7.8	\$14.5	\$12.8	\$17.4	\$6.6	\$10.9	\$11.3	\$5.7	\$8.7	\$9.6	\$10.3	\$6.9	\$7.3
Capital Cost per Daily Trip (000)	\$65.5	\$71.5	\$71.2	\$234.7	\$227.8	\$239.3	\$181.2	\$365.3	\$280.2	\$155.3	\$180.7	\$174.3	\$172.4	\$137.9	\$127.6	\$80.8
O&M Cost per Route Mile (millions)	\$0.23	\$0.28	\$0.35	\$0.22	\$0.25	\$0.23	\$0.30	\$0.19	\$0.22	\$0.29	\$0.19	\$0.22	\$0.22	\$0.27	\$0.19	\$0.24

	Route 4E South -- Canton-Akron-Cleveland Only via Kent						Route 6 East -- Aurora Only					Route 7 Lake East -- Lake-Ashtabula Only					
Route Terminus → Level of Service →	Kent LOS 1	Kent LOS 2	Akron LOS 2	Akr-L2 Can-L1	Canton LOS 2	Canton LOS 3	Aurora LOS 1	Aurora LOS 2	Mantua LOS 2	Aurora LOS 3	Mantua LOS 3	Mentor LOS 1	Mentor LOS 2	P'ville LOS 2	Pvl/Cn LOS 2	Mad/Cn LOS 2	Mad/Cn LOS 3
<b>Effectiveness (Ridership)</b>																	
Daily Trips	645	1,153	1,661	2,538	3,079	5,117	1,411	2,411	2,458	3,943	4,017	931	1,568	1,727	1,858	1,960	3,259
Annualized Trips (000)	161	328	473	723	878	1,535	353	687	701	1,183	1,205	233	447	492	529	559	978
<b>Costs (Millions of Year 2000 Dollars)</b>																	
Total Capital Cost	\$171	\$246	\$350	\$378	\$417	\$439	\$128	\$166	\$190	\$166	\$190	\$140	\$173	\$188	\$193	\$238	\$246
Total Annualized Capital Cost	\$12.7	\$17.5	\$26.0	\$28.3	\$31.4	\$33.2	\$9.5	\$11.4	\$13.4	\$11.4	\$13.4	\$10.4	\$12.0	\$13.2	\$13.6	\$17.3	\$17.9
Total O&M Costs (Annual)	\$7.0	\$7.5	\$9.4	\$11.4	\$12.8	\$16.7	\$6.1	\$7.1	\$10.2	\$7.1	\$10.2	\$5.6	\$6.4	\$7.1	\$9.4	\$10.1	\$12.6
Total Annual Cost (Capital and O&M)	19.7	25.1	35.3	39.7	44.2	49.8	15.6	18.5	23.6	18.5	23.6	16.0	18.4	20.3	23.0	27.4	30.5
<b>Cost-Effectiveness</b>																	
Total Cost per Trip	\$122.27	\$76.37	\$74.73	\$54.97	\$50.34	\$32.47	\$44.27	\$26.96	\$33.68	\$15.66	\$19.59	\$68.76	\$41.10	\$41.28	\$43.43	\$49.07	\$31.20
Route Mileage	36 miles	36 miles	45 miles	45 miles	70 miles	70 miles	25 miles	25 miles	30 miles	25 miles	30 miles	22 miles	22 miles	28 miles	28 miles	67 miles	67 miles
Total Capital Cost per Mile (millions)*	\$4.7	\$6.8	\$7.8	\$8.4	\$6.0	\$6.3	\$5.1	\$6.6	\$6.3	\$6.6	\$6.3	\$6.4	\$7.8	\$6.7	\$6.9	\$3.5	\$3.7
Capital Cost per Daily Trip (000)	\$264.4	\$213.3	\$210.7	\$149.1	\$135.3	\$85.8	\$90.6	\$68.6	\$77.2	\$42.0	\$47.2	\$150.8	\$110.1	\$108.9	\$103.8	\$121.2	\$75.3
O&M Cost per Route Mile (millions)	\$0.20	\$0.21	\$0.21	\$0.25	\$0.18	\$0.24	\$0.25	\$0.28	\$0.34	\$0.28	\$0.34	\$0.25	\$0.29	\$0.25	\$0.33	\$0.15	\$0.19

\*Total Capital Cost divided by Total Route Miles