

Regional Transit Development Plan

BUILDING OUR FUTURE → THE TIME IS NOW
 ALAMANCE DAVIE DAVIDSON FORSYTH GUILFORD RANDOLPH ROCKINGHAM STOKES SURRY YADKIN

Financial Analysis for Forsyth and Guilford Counties

November 1, 2010

AFFORDABILITY TEST INCREMENTAL COSTS		
Annualized Costs		Net of fares, federal and state funding.
Operating	\$32,130,364	Assumes all services in place.
Capital	\$18,744,329	Assumes all capital improvements
	<u>\$50,874,693</u>	constructed within 13 years.

POTENTIAL REVENUES			
	1/2 cent sales tax	\$7 veh fee (1)	1/2 cent sales tax and \$7 veh fee
Greensboro	\$ 21,949,471	\$ 1,393,658	
Winston-Salem	\$ 16,087,893	\$ 1,187,529	
High Point	\$ 4,994,011	\$ 571,291	
Forsyth	\$ 4,932,137	\$ 810,327	
Guilford	\$ 3,008,826	\$ 699,776	
REGION	<u>\$ 50,972,338</u>	<u>\$ 4,662,581</u>	<u>\$ 55,634,919</u>
Difference	\$ 97,645	\$ 4,662,581	\$ 4,760,226

(1) From Piedmont Triad Seamless Mobility Study

	Guilford	Forsyth
	Annualized Costs	
	\$ 16,285,977	\$ 15,844,387
	<u>\$ 8,869,077</u>	<u>\$ 9,875,252</u>
Total annualized cost	\$ 25,155,054	\$ 25,719,638
	\$ 21,949,471	\$ 16,087,893
	\$ 4,994,011	\$ 4,932,137
	<u>\$ 3,008,826</u>	<u>\$ 3,008,826</u>
	\$ 29,952,308	\$ 21,020,030
Difference	\$ 4,797,254	\$ (4,699,608)
Vehicle tax total	<u>\$ 2,664,725</u>	<u>\$ 1,997,856</u>
Net	\$ 7,461,979	\$ (2,701,752)

BUSES									
Service Expansion	# NEEDED	20% Spares	TOTAL	COST/BUS	TOTAL	TOTAL	13 Years		
PART - OTR	6	1	7	\$ 564,000	\$ 3,948,000	\$ 303,692		\$ 202,462	\$ 101,231
GTA	1	0	1	\$414,000	\$ 414,000	\$ 31,846		\$ 31,846	
WSTA	16	3	19	\$414,000	\$ 7,866,000	\$ 605,077			\$ 605,077
Hi-Tran	0	0	0	\$414,000	\$ -	\$ -		\$ -	
					\$ 12,228,000	\$ 940,615		\$ 234,308	\$ 706,308

New Services	# NEEDED	20% Spares	TOTAL	COST/BUS	TOTAL	TOTAL	13 Years		
Over-the-road coaches	24	5	29	\$ 564,000	\$ 16,356,000	\$ 1,258,154		\$ 733,923	\$ 524,231
40-foot	53	11	64	\$414,000	\$ 26,496,000	\$ 2,038,154		\$ 1,056,821	\$ 981,333
Circulators	15	3	18	\$174,000	\$ 6,264,000	\$ 481,846		\$ 192,738	\$ 289,108
BRT	26	5	31	\$564,000	\$ 17,484,000	\$ 1,344,923		\$ 672,462	\$ 672,462
Demand Response	17	3	20	\$99,000	\$ 3,960,000	\$ 304,615		\$ 215,023	\$ 89,593
					\$ 70,560,000	\$ 5,427,692		\$ 2,870,966	\$ 2,556,726

Maintenance Facility							13 Years		
ITEM	Unit	Unit Cost	TOTAL						
Maintenance Facility Expansion	189	\$150,000	\$28,350,000				\$ 2,180,769	\$ 1,170,560	\$ 1,010,209

Streetside							13 Years		
ITEM	Unit	Unit Cost	TOTAL						
Sidewalks	260	\$ 170,000	\$ 44,200,000				\$ 3,400,000	\$ 1,700,000	\$ 1,700,000
Bus Stops - Sign only	5000	\$ 200	\$ 1,000,000				\$ 76,923	\$ 38,462	\$ 38,462
Bus Stops - Benches	1250	\$ 2,000	\$ 2,500,000				\$ 192,308	\$ 96,154	\$ 96,154
Bus Stops - Shelters	750	\$ 15,000	\$ 11,250,000				\$ 865,385	\$ 432,692	\$ 432,692
			\$ 58,950,000				\$ 4,534,615	\$ 2,267,308	\$ 2,267,308

Other							13 Years		
ITEM	Unit	Unit Cost	TOTAL						
Renovation of Winston-Salem Union Station	1	\$ 9,700,000	\$ 9,700,000				\$ 746,154	\$ 746,154	
Rail Corridor Preservation "L" Line	5.16	\$ 1,212,121	\$ 6,254,545	to Hanes Mall			\$ 481,119	\$ 481,119	
Misc Grade Separations	2	\$ 2,500,000	\$ 5,000,000				\$ 384,615	\$ 192,308	\$ 192,308
			\$ 20,954,545				\$ 1,611,888	\$ 192,308	\$ 1,419,580

Soft Costs							13 Years		
ITEM	Percent	Capital Cost	Soft Cost						
Transit Centers	30%	\$ 37,500,000	\$ 11,250,000				\$ 865,385	\$ 560,769	\$ 304,615
Park and Ride Lots	30%	\$ 3,775,000	\$ 1,132,500				\$ 87,115	\$ 43,269	\$ 43,846
Transit Emphasis Corridors	30%	\$ 81,267,341	\$ 24,380,202				\$ 1,875,400	\$ 1,294,744	\$ 580,657
Bus Rapid Transit	30%	\$ 13,475,000	\$ 4,042,500				\$ 310,962	\$ 155,481	\$ 155,481
Streetcar	30%	\$ 445,500,000	\$ 133,650,000				\$ 10,280,769	\$ 4,326,923	\$ 5,953,846
Maintenance Facility	30%	\$ 28,350,000	\$ 8,505,000				\$ 654,231	\$ 351,168	\$ 303,063
Streetside	30%	\$ 58,950,000	\$ 17,685,000				\$ 1,360,385	\$ 680,192	\$ 680,192
Other - grade separations	30%	\$ 5,000,000	\$ 1,500,000				\$ 115,385	\$ 57,692	\$ 57,692
			\$ 202,145,202				\$ 15,549,631	\$ 7,470,239	\$ 8,079,392

Soft costs include PE, FD, Proj Mgmt, Const Admin, Insurance		\$ 974,705,088		\$ 74,977,314	no replacements	\$ 35,476,308	\$ 39,501,007
		\$ 487,352,544		\$ 37,488,657	Federal @ 50%	\$ 17,738,154	\$ 19,750,503
		\$ 243,676,272		\$ 18,744,329	State @ 25%	\$ 8,869,077	\$ 9,875,252
		\$ 243,676,272		\$ 18,744,329	Local @ 25%	\$ 8,869,077	\$ 9,875,252

Jobs Impact		
Direct Jobs		615
Indirect Jobs		590
Induced Jobs		578
TOTAL		1,784

using APTA 2009 methodology

ANNUAL OPERATING COST DIFFERENTIAL

Existing Routes Enhancements	Weekday Saturday Sunday				Guilford Forsyth	
WSTA	\$2,913,885	(\$193,674)	\$339,300			\$ 3,059,511
GTA	(\$36,593)	(\$68,224)	\$285,360		\$ 180,544	
Hi-Tran	\$478,380	\$0	\$46,632		\$ 525,012	
PART	\$ 780,300	\$ 106,080			\$ 573,240	\$ 313,140
	\$4,135,973	(\$155,818)	\$671,292	\$4,651,447	\$ 1,278,796	\$ 3,372,651
New Routes						
Local Routes	\$6,387,750	\$855,036			\$ 2,867,376	\$ 4,375,410
Transit Emphasis Corridors	\$4,319,700	\$616,616	\$687,764		\$ 4,070,320	\$ 1,553,760
Circulator Routes	\$2,815,200	\$353,080			\$ 1,804,528	\$ 1,363,752
Express	\$3,164,550				\$ 2,048,288	\$ 1,116,263
Gold Line	\$6,386,900	\$536,293			\$ 3,461,597	\$ 3,461,597
Streetcar	\$4,577,760	\$933,504	\$911,064		\$ 2,919,240	\$ 3,503,088
County DR	\$1,631,571				\$ 1,230,796	\$ 400,775
	\$29,283,431	\$3,294,529	\$1,598,828	\$34,176,788	\$ 18,402,144	\$ 15,774,644
Average farebox recovery	17%			<u>\$6,697,870</u>	<u>\$ 3,394,962</u>	<u>\$ 3,302,908</u>
Net operating cost				\$32,130,364	\$ 16,285,977	\$ 15,844,387
				\$38,828,234		
Jobs Impact						
Direct Jobs				824		
Indirect Jobs				114		
Induced Jobs				659		
TOTAL				1,597		

using APTA 2009 methodology

PART - Current Monday-Friday

Route #	RT Cycle Time	PEAK Headway	# PEAK Buses	PEAK Span	Total PEAK Revenue Hours	BASE Headway # BASE Buses	BASE Span	Total BASE Revenue Hours	Total Daily Revenue Hours
1	60	30	2.0	6	12.00	60	1.0	7	19.00
2	60	30	2.0	6	12.00	60	1.0	7	19.00
3	60	30	2.0	6	12.00	60	1.0	7	19.00
			6.0						

PART - Current Saturday

Route #	RT Cycle Time	PEAK Headway	# PEAK Buses	PEAK Span	Total PEAK Revenue Hours	BASE Headway # BASE Buses	BASE Span	Total BASE Revenue Hours	Total Daily Revenue Hours
1	0				0	0.0	0	-	-
2	0				0	0.0	0	-	-
3	0				0	0.0	0	-	-

PART - Future Monday-Friday

Route #	RT Cycle Time	PEAK Headway	# PEAK Buses	PEAK Span	Total PEAK Revenue Hours	BASE Headway # BASE Buses	BASE Span	Total BASE Revenue Hours	Total Daily Revenue Hours
1	60	15	4.0	6	24.00	60	1.0	7	31.00
2	60	15	4.0	6	24.00	60	1.0	7	31.00
3	60	15	4.0	6	24.00	60	1.0	7	31.00

PART - Future Saturday

Route #	RT Cycle Time	PEAK Headway	# PEAK Buses	PEAK Span	Total PEAK Revenue Hours	BASE Headway # BASE Buses	BASE Span	Total BASE Revenue Hours	Total Daily Revenue Hours
1	60				60	1.0	12	12.00	12.00
2	60				60	1.0	12	12.00	12.00
3	0				0	0.0	0	-	-

PART- Current/Future Difference Monday-Friday, WITH COSTS

Route #	Additional PEAK Buses	Additional Daily Revenue Hours	Annualization Factor	Total Additional Annual Hours	Cost per Revenue Hour	Total Additional Operating Cost
1	2.0	12.00	255	3,060	\$ 85	\$ 260,100
2	2.0	12.00	255	3,060	\$ 85	\$ 260,100
3	2.0	12.00	255	3,060	\$ 85	\$ 260,100
	6.0			9,180.00		\$780,300

PART- Current/Future Difference Saturday, WITH COSTS

Route #	Additional PEAK Buses	Additional Daily Revenue Hours	Annualization Factor	Total Additional Annual Hours	Cost per Revenue Hour	Total Additional Operating Cost
1	-	12.00	52	624	\$ 85	\$ 53,040
2	-	12.00	52	624	\$ 85	\$ 53,040
3	-	-	52	-	\$ 85	\$ -
				1,248.00		\$106,080

GTA - Current Monday-Friday

Route #	RT Cycle Time	PEAK Headway	# PEAK Buses	PEAK Span	Total PEAK Revenue Hours	BASE Headway # BASE Buses	BASE Span	Total BASE Revenue Hours	Total Daily Revenue Hours	
1	60	30	2.0	6	12.00	30	2.0	12.25	24.50	36.50
2	60	30	2.0	6	12.00	30	2.0	12.25	24.50	36.50
3	60	30	2.0	6	12.00	30	2.0	12.25	24.50	36.50
4	60	30	2.0	6	12.00	30	2.0	12.25	24.50	36.50
5	60	30	2.0	6	12.00	30	2.0	12.25	24.50	36.50
6	60	30	2.0	6	12.00	30	2.0	12.25	24.50	36.50
7	60	30	2.0	6	12.00	30	2.0	12.25	24.50	36.50
8	60	30	2.0	6	12.00	30	2.0	12.25	24.50	36.50
9	60	30	2.0	6	12.00	30	2.0	12.25	24.50	36.50
10	60	30	2.0	6	12.00	30	2.0	12.25	24.50	36.50
11	60	30	2.0	6	12.00	30	2.0	12.25	24.50	36.50
12	60	30	2.0	6	12.00	30	2.0	12.25	24.50	36.50
13	60	30	2.0	6	12.00	30	2.0	12.25	24.50	36.50
14	60	30	2.0	6	12.00	30	2.0	12.25	24.50	36.50
15	60	60	1.0	6	6.00	60	1.0	12.25	12.25	18.25
1 A-WestWend	30	30	1.0	6	6.00	30	1.0	7.75	7.75	13.75
11 A-High Point	60	60	1.0	6	6.00	60	1.0	7	7.00	13.00
12 A-SouthTown	60	60	1.0	6	6.00	60	1.0	7	7.00	13.00
7 A-Irving/Star	60	60	1.0	3	3.00	0	0.0	0	-	3.00
8 A-Lawndale	60	60	1.0	4	4.00	0	0.0	0	-	4.00
71	60	60	1.0	6	6.00	60	1.0	9	9.00	15.00
73	30	10	3.0	2	6.00	30	1.0	10	10.00	16.00
74	60	60	1.0	4	4.00	0	0.0	0	-	4.00
75	30	10	3.0	1.5	4.50	30	1.0	10	10.00	14.50

42.0

GTA - Current Saturday

Route #	RT Cycle Time	PEAK Headway	# PEAK Buses	PEAK Span	Total PEAK Revenue Hours	BASE Headway # BASE Buses	BASE Span	Total BASE Revenue Hours	Total Daily Revenue Hours
1	60				60	1.0	16	16.00	16.00
2	60				60	1.0	16	16.00	16.00
3	60				60	1.0	16	16.00	16.00
4	60				60	1.0	16	16.00	16.00
5	60				60	1.0	16	16.00	16.00
6	60				60	1.0	16	16.00	16.00
7	60				60	1.0	16	16.00	16.00
8	60				60	1.0	16	16.00	16.00
9	60				60	1.0	16	16.00	16.00
10	60				60	1.0	16	16.00	16.00
11	60				60	1.0	16	16.00	16.00
12	60				60	1.0	16	16.00	16.00
13	60				60	1.0	16	16.00	16.00
14	60				60	1.0	16	16.00	16.00
15	60				60	1.0	16	16.00	16.00
1A-WestWend	25				60	0.4	12	5.00	5.00
12A-SouthTown	60				60	1.0	12	12.00	12.00
70/71	60				60	1.0	15.5	15.50	15.50
73	30				30	1.0	5.5	5.50	5.50
75	30				30	1.0	6	6.00	6.00

GTA - Current Sunday										
Route #	RT Cycle Time	PEAK Headway	# PEAK Buses	PEAK Span	Total PEAK Revenue Hours	BASE Headway # BASE Buses	BASE Span	Total BASE Revenue Hours	Total Daily Revenue Hours	
21	60				60	1.0	12	12.00	12.00	
22	60				60	1.0	12	12.00	12.00	
23	60				60	1.0	12	12.00	12.00	
24	60				60	1.0	12	12.00	12.00	
25	60				60	1.0	12	12.00	12.00	
26	60				60	1.0	12	12.00	12.00	
27	60				60	1.0	12	12.00	12.00	
70/71	60				60	1.0	7	7.00	7.00	
1										
2										
3										
4										
5										
6										
8										
10										
11										
12										
13										
14										

Saturday service based upon estimated productivity of 20 pax/hr
 Sunday service based upon estimated productivity of 15 pax/hr

GTA - Future Monday-Friday

Route #	RT Cycle Time	PEAK Headway	# PEAK Buses	PEAK Span	Total PEAK Revenue Hours	BASE Headway	# BASE Buses	BASE Span	Total BASE Revenue Hours	Total Daily Revenue Hours
1	60	30	2.0	6	12.00	30	2.0	12.25	24.50	36.50
2	60	30	2.0	6	12.00	30	2.0	12.25	24.50	36.50
3	60	30	2.0	6	12.00	30	2.0	12.25	24.50	36.50
4	60	30	2.0	6	12.00	30	2.0	12.25	24.50	36.50
5	60	30	2.0	6	12.00	30	2.0	12.25	24.50	36.50
6	60	30	2.0	6	12.00	30	2.0	12.25	24.50	36.50
7	60	30	2.0	6	12.00	30	2.0	12.25	24.50	36.50
8	60	30	2.0	6	12.00	30	2.0	12.25	24.50	36.50
9	60	30	2.0	6	12.00	30	2.0	12.25	24.50	36.50
10	60	30	2.0	6	12.00	30	2.0	12.25	24.50	36.50
11	60	30	2.0	6	12.00	30	2.0	12.25	24.50	36.50
12	60	30	2.0	6	12.00	30	2.0	12.25	24.50	36.50
13	60	30	2.0	6	12.00	30	2.0	12.25	24.50	36.50
14	60	30	2.0	6	12.00	30	2.0	12.25	24.50	36.50
15	60	30	2.0	6	12.00	60	1.0	12.25	12.25	24.25
1A-WestWend	30	30	1.0	6	6.00	30	1.0	8	8.00	14.00
11A-HighPoint	60	30	2.0	6	12.00	60	1.0	8	8.00	20.00
12A-SouthTown	60	60	0.0	0	-	60	0.0	0	-	-
7A-Irving/Star	60	30	2.0	6	12.00			0	-	12.00
8A-Lawndale	60	30	2.0	6	12.00			0	-	12.00
71	0	0	0.0	0	-	0	0.0	0	-	-
73	30	10	3.0	2	6.00	30	1.0	10	10.00	16.00
74	0	0	0.0	0	-	0	0.0	0	-	-
75	30	10	3.0	1.5	4.50	30	1.0	10	10.00	14.50

GTA - Future Saturday

Route #	RT Cycle Time	PEAK Headway	# PEAK Buses	PEAK Span	Total PEAK Revenue Hours	BASE Headway # BASE Buses	BASE Span	Total BASE Revenue Hours	Total Daily Revenue Hours
1	60				60	1.0	16	16.00	16.00
2	60				60	1.0	16	16.00	16.00
3	60				60	1.0	16	16.00	16.00
4	60				60	1.0	16	16.00	16.00
5	60				60	1.0	16	16.00	16.00
6	60				60	1.0	16	16.00	16.00
7	60				60	1.0	16	16.00	16.00
8	60				60	1.0	16	16.00	16.00
9	60				60	1.0	16	16.00	16.00
10	60				60	1.0	16	16.00	16.00
11	60				60	1.0	16	16.00	16.00
12	60				60	1.0	16	16.00	16.00
13	60				60	1.0	16	16.00	16.00
14	60				60	1.0	16	16.00	16.00
15	60				0	0.0	16	0.00	0.00
1A-WestWend	25				60	0.4	12	5.00	5.00
12A-SouthTown	60				60	1.0	12	12.00	12.00
70/71	60				60	1.0	15.5	15.50	15.50
73	30				30	1.0	5.5	5.50	5.50
75	30				30	1.0	6	6.00	6.00

GTA - Future Sunday

Route #	RT Cycle Time	PEAK Headway	# PEAK Buses	PEAK Span	Total PEAK Revenue Hours	BASE Headway # BASE Buses	BASE Span	Total BASE Revenue Hours	Total Daily Revenue Hours
21									
22									
23									
24									
25									
26									
27									
70/71	60				60	1.0	7	7.00	7.00
1	60				60	1.0	12	12.00	12.00
2	60				60	1.0	12	12.00	12.00
3	60				60	1.0	12	12.00	12.00
4	60				60	1.0	12	12.00	12.00
5	60				60	1.0	12	12.00	12.00
6	60				60	1.0	12	12.00	12.00
8	60				60	1.0	12	12.00	12.00
10	60				60	1.0	12	12.00	12.00
11	60				60	1.0	12	12.00	12.00
12	60				60	1.0	12	12.00	12.00
13	60				60	1.0	12	12.00	12.00
14	60				60	1.0	12	12.00	12.00

GTA- Current/Future Difference Monday-Friday WITH COSTS

Route #	Additional PEAK Buses	Additional Daily Revenue Hours	Annualization Factor	Total Additional Annual Hours	Cost per Revenue Hour	Total Additional Operating Cost
1	-	-	255	-	\$82	\$0
2	-	-	255	-	\$82	\$0
3	-	-	255	-	\$82	\$0
4	-	-	255	-	\$82	\$0
5	-	-	255	-	\$82	\$0
7	-	-	255	-	\$82	\$0
9	-	-	255	-	\$82	\$0
10	-	-	255	-	\$82	\$0
12	-	-	255	-	\$82	\$0
13	-	-	255	-	\$82	\$0
14	-	-	255	-	\$82	\$0
16	-	-	255	-	\$82	\$0
17	-	-	255	-	\$82	\$0
18	-	-	255	-	\$82	\$0
19	1.0	6.00	255	1,530	\$82	\$125,460
25	-	0.25	255	64	\$82	\$5,228 connector
23	1.0	7.00	255	1,785	\$82	\$146,370 connector
26	(1.0)	(13.00)	255	(3,315)	\$82	(\$271,830) connector
21	1.0	9.00	255	2,295	\$82	\$188,190 connector
20	1.0	8.00	255	2,040	\$82	\$167,280 connector
71	(1.0)	(15.00)	255	(3,825)	\$82	(\$313,650)
73	-	-	255	-	\$82	\$0
74	(1.0)	(4.00)	255	(1,020)	\$82	(\$83,640)
75	-	-	255	-	\$82	\$0
	1.0			(446.25)		(\$36,593)

GTA- Current/Future Difference Saturday, WITH COSTS

Route #	Additional PEAK Buses	Additional Daily Revenue Hours	Annualization Factor	Total Additional Annual Hours	Cost per Revenue Hour	Total Additional Operating Cost
1	-	-	52	-	\$82	\$0
2	-	-	52	-	\$82	\$0
3	-	-	52	-	\$82	\$0
4	-	-	52	-	\$82	\$0
5	-	-	52	-	\$82	\$0
7	-	-	52	-	\$82	\$0
9	-	-	52	-	\$82	\$0
10	-	-	52	-	\$82	\$0
12	-	-	52	-	\$82	\$0
13	-	-	52	-	\$82	\$0
14	-	-	52	-	\$82	\$0
16	-	-	52	-	\$82	\$0
17	-	-	52	-	\$82	\$0
18	-	-	52	-	\$82	\$0
19	-	(16.00)	52	(832)	\$82	(\$68,224)
25	-	-	52	-	\$82	\$0 connector
26	-	-	52	-	\$82	\$0 connector
70/71	-	-	52	-	\$82	\$0
73	-	-	52	-	\$82	\$0
75	-	-	52	-	\$82	\$0
				(832.00)		(\$68,224)

GTA- Current/Future Difference Sunday WITH COSTS

Route #	Additional PEAK Buses	Additional Daily Revenue Hours	Annualization Factor	Total Additional Annual Hours	Cost per Revenue Hour	Total Additional Operating Cost
21	-	(12.00)	58	(696)	\$82	(\$57,072)
22	-	(12.00)	58	(696)	\$82	(\$57,072)
23	-	(12.00)	58	(696)	\$82	(\$57,072)
24	-	(12.00)	58	(696)	\$82	(\$57,072)
25	-	(12.00)	58	(696)	\$82	(\$57,072)
26	-	(12.00)	58	(696)	\$82	(\$57,072)
27	-	(12.00)	58	(696)	\$82	(\$57,072)
70/71	-	-	58	-	\$82	\$0
1	-	12.00	58	696	\$82	\$57,072
2	-	12.00	58	696	\$82	\$57,072
3	-	12.00	58	696	\$82	\$57,072
4	-	12.00	58	696	\$82	\$57,072
5	-	12.00	58	696	\$82	\$57,072
6	-	12.00	58	696	\$82	\$57,072
8	-	12.00	58	696	\$82	\$57,072
10	-	12.00	58	696	\$82	\$57,072
11	-	12.00	58	696	\$82	\$57,072
12	-	12.00	58	696	\$82	\$57,072
13	-	12.00	58	696	\$82	\$57,072
14	-	12.00	58	696	\$82	\$57,072
				3,480.00		
						\$285,360

WSTA - Current Monday-Friday

Route #	RT Cycle Time	PEAK Headway	# PEAK Buses	PEAK Span	Total PEAK Revenue Hours	BASE Headway	# BASE Buses	BASE Span	Total BASE Revenue Hours	Total Daily Revenue Hours
1	60	30	2.0	6	12.00	30	2.0	5	10.00	22.00
2	60	60	1.0	6	6.00	60	1.0	6	6.00	12.00
3	45	45	1.0	6	6.00	45	1.0	7	7.00	13.00
4	60	30	2.0	6	12.00	30	2.0	6	12.00	24.00
5	60	60	1.0	6	6.00	60	1.0	6	6.00	12.00
7	60	30	2.0	7	14.00	60	1.0	5.5	5.50	19.50
9	60	60	1.0	6	6.00	60	1.0	6	6.00	12.00
10	75	37.5	2.0	6	12.00	37.5	2.0	5	10.00	22.00
12	60	60	1.0	6	6.00	60	1.0	6	6.00	12.00
13	60	60	1.0	6	6.00	60	1.0	6	6.00	12.00
14	60	60	1.0	6	6.00	60	1.0	6	6.00	12.00
16	60	60	1.0	6	6.00	60	1.0	6	6.00	12.00
17	45	22.5	2.0	6	12.00	22.5	2.0	7	14.00	26.00
18	75	37.5	2.0	6	12.00	37.5	2.0	5	10.00	22.00
19	60	60	1.0	5	5.00	0	-	0	-	5.00
20	75	37.5	2.0	6	12.00	37.5	2.0	5.5	11.00	23.00
21	60	60	1.0	2	2.00	0	-	0	-	2.00
23	75	37.5	2.0	7.5	15.00	75	1.0	4.5	4.50	19.50
25	60	60	1.0	6	6.00	60	1.0	6	6.00	12.00
26	75	37.5	2.0	5.5	11.00	75	1.0	6.5	6.50	17.50
29	75	37.5	2.0	5	10.00	75	1.0	6.5	6.50	16.50
30	60	60	1.0	6	6.00	60	1.0	6	6.00	12.00
43	60	60	1.0	6	6.00	60	1.0	6	6.00	12.00
44	60	60	1.0	6	6.00	60	1.0	6	6.00	12.00
111	75					75	1.0	5	5.00	5.00
444	75					75	1.0	5	5.00	5.00
11	75					75	1.0	5	5.00	5.00
1717	75					75	1.0	5	5.00	5.00
2020	75					75	1.0	5	5.00	5.00
2323	75					75	1.0	5	5.00	5.00
2929	75					75	1.0	5	5.00	5.00

34.0

WSTA - Current SATURDAY										
Route #	RT Cycle Time	PEAK Headway	# PEAK Buses	PEAK Span	Total PEAK Revenue Hours	BASE Headway	# BASE Buses	BASE Span	Total BASE Revenue Hours	Total Daily Revenue Hours
1	60					60	1.0	11	11.00	11.00
2	60					60	1.0	12	12.00	12.00
3	45					45	1.0	12	12.00	12.00
4	60					60	1.0	10	10.00	10.00
5	60					60	1.0	12	12.00	12.00
7	60					60	1.0	11	11.00	11.00
9	60					60	1.0	9	9.00	9.00
10	60					60	1.0	9	9.00	9.00
13	60					60	1.0	10	10.00	10.00
17	45					45	1.0	12	12.00	12.00
18	75					75	1.0	10	10.00	10.00
20	75					75	1.0	11	11.00	11.00
23	60					60	1.0	10	10.00	10.00
25	60					60	1.0	10	10.00	10.00
26	75					75	1.0	11	11.00	11.00
29	60					60	1.0	12	12.00	12.00
43	60					60	1.0	10	10.00	10.00
44	60					60	1.0	10	10.00	10.00

WSTA - Current Sunday										
Route #	RT Cycle Time	PEAK Headway	# PEAK Buses	PEAK Span	Total PEAK Revenue Hours	BASE Headway	# BASE Buses	BASE Span	Total BASE Revenue Hours	Total Daily Revenue Hours
1	0								-	-
4	0								-	-
10	0								-	-
17	0								-	-
18	0								-	-
20	0								-	-

*For odd headways (alternating headway times, for example) an average of the headways was used. Odd headway routes are: 10,

Saturday service based upon estimated productivity of 20 pax/hr; if existing had 15, left in service

Sunday service based upon estimated productivity of 15 pax/hr

WSTA - Future Monday-Friday

Route #	RT Cycle Time	PEAK Headway	# PEAK Buses	PEAK Span	Total PEAK Revenue Hours	BASE Headway	# BASE Buses	BASE Span	Total BASE Revenue Hours	Total Daily Revenue Hours
1	60	30	2.0	6	12.00	30	2.0	10	20.00	32.00
2	60	30	2.0	6	12.00	60	1.0	8	8.00	20.00
3	45	30	1.5	6	9.00	60	0.8	8	6.00	15.00
4	60	30	2.0	6	12.00	30	2.0	11	22.00	34.00
5	60	30	2.0	6	12.00	60	1.0	8	8.00	20.00
7	60	30	2.0	7	14.00	60	1.0	7	7.00	21.00
9	60	30	2.0	6	12.00	60	1.0	8	8.00	20.00
10	75	30	2.5	8	20.00	60	1.3	8	10.00	30.00
12	60	30	2.0	6	12.00	60	1.0	8	8.00	20.00
13	60	30	2.0	6	12.00	60	1.0	8	8.00	20.00
14	60	30	2.0	6	12.00	60	1.0	8	8.00	20.00
16	60	30	2.0	6	12.00	60	1.0	8	8.00	20.00
17	45	30	1.5	8	12.00	60	0.8	10	7.50	19.50
18	75	30	2.5	6	15.00	30	2.5	8	20.00	35.00
19	60	30	2.0	6	12.00	0	-	0	-	12.00
20	75	30	2.5	8	20.00	60	1.3	9	11.25	31.25
21	60	30	2.0	6	12.00	0	-	0	-	12.00
23	75	30	2.5	6	15.00	60	1.3	9.5	11.88	26.88
25	60	30	2.0	6	12.00	60	1.0	8	8.00	20.00
26	75	30	2.5	6	15.00	60	1.3	8	10.00	25.00
29	75	30	2.5	8	20.00	60	1.3	9.5	11.88	31.88
30	60	30	2.0	6	12.00	60	1.0	8	8.00	20.00
43	60	30	2.0	6	12.00	60	1.0	8	8.00	20.00
44	60	30	2.0	6	12.00	60	1.0	8	8.00	20.00
111	75					0	-	0	-	-
444	75					0	-	0	-	-
11	75					0	-	0	-	-
1717	75					0	-	0	-	-
2020	75					0	-	0	-	-
2323	75					0	-	0	-	-
2929	75					0	-	0	-	-

WSTA - Future SATURDAY

Route #	RT Cycle Time	PEAK Headway	# PEAK Buses	PEAK Span	Total PEAK Revenue Hours	BASE Headway	# BASE Buses	BASE Span	Total BASE Revenue Hours	Total Daily Revenue Hours
1	60					60	1.0	12	12.00	12.00
2	60					0	-	0	-	-
3	45					0	-	0	-	-
4	60					60	1.0	12	12.00	12.00
5	60					0	-	0	-	-
7	60					60	1.0	12	12.00	12.00
9	60					60	1.0	12	12.00	12.00
10	60					60	1.0	12	12.00	12.00
13	60					60	1.0	12	12.00	12.00
17	45					60	0.8	12	9.00	9.00
18	75					60	1.3	10	12.50	12.50
20	75					60	1.3	11	13.75	13.75
23	60					60	1.0	10	10.00	10.00
25	60					0	-	0	-	-
26	75					60	1.3	12	15.00	15.00
29	60					60	1.0	12	12.00	12.00
43	60					0	-	0	-	-
44	60					0	-	0	-	-

WSTA - Future Sunday

Route #	RT Cycle Time	PEAK Headway	# PEAK Buses	PEAK Span	Total PEAK Revenue Hours	BASE Headway	# BASE Buses	BASE Span	Total BASE Revenue Hours	Total Daily Revenue Hours
1	60					60	1.0	12	12.00	12.00
4	60					60	1.0	12	12.00	12.00
10	60					60	1.0	12	12.00	12.00
17	45					60	0.8	12	9.00	9.00
18	75					60	1.3	12	15.00	15.00
20	75					60	1.3	12	15.00	15.00

WSTA- Current/Future Difference Monday-Friday WITH COSTS

Route #	Additional PEAK Buses	Additional Daily Revenue Hours	Annualization Factor	Total Additional Annual Hours	Cost per Revenue Hour	Total Additional Operating Cost
1	-	10.00	255	2,550.00	\$78	\$198,900
2	1.0	8.00	255	2,040.00	\$78	\$159,120
3	0.5	2.00	255	510.00	\$78	\$39,780
4	-	10.00	255	2,550.00	\$78	\$198,900
5	1.0	8.00	255	2,040.00	\$78	\$159,120
7	-	1.50	255	382.50	\$78	\$29,835
9	1.0	8.00	255	2,040.00	\$78	\$159,120
10	0.5	8.00	255	2,040.00	\$78	\$159,120
12	1.0	8.00	255	2,040.00	\$78	\$159,120
13	1.0	8.00	255	2,040.00	\$78	\$159,120
14	1.0	8.00	255	2,040.00	\$78	\$159,120
16	1.0	8.00	255	2,040.00	\$78	\$159,120
17	(0.5)	(6.50)	255	(1,657.50)	\$78	(\$129,285)
18	0.5	13.00	255	3,315.00	\$78	\$258,570
19	1.0	7.00	255	1,785.00	\$78	\$139,230
20	0.5	8.25	255	2,103.75	\$78	\$164,093
21	1.0	10.00	255	2,550.00	\$78	\$198,900
23	0.5	7.38	255	1,880.63	\$78	\$146,689
25	1.0	8.00	255	2,040.00	\$78	\$159,120
26	0.5	7.50	255	1,912.50	\$78	\$149,175
29	0.5	15.38	255	3,920.63	\$78	\$305,809
30	1.0	8.00	255	2,040.00	\$78	\$159,120
43	1.0	8.00	255	2,040.00	\$78	\$159,120 connector
44	1.0	8.00	255	2,040.00	\$78	\$159,120 connector
111	-	(5.00)	255	(1,275.00)	\$78	(\$99,450)
444	-	(5.00)	255	(1,275.00)	\$78	(\$99,450)
11	-	(5.00)	255	(1,275.00)	\$78	(\$99,450)
1717	-	(5.00)	255	(1,275.00)	\$78	(\$99,450)
2020	-	(5.00)	255	(1,275.00)	\$78	(\$99,450)
2323	-	(5.00)	255	(1,275.00)	\$78	(\$99,450)
2929	-	(5.00)	255	(1,275.00)	\$78	(\$99,450)
	16.0			37,357.50		\$2,913,885

WSTA- Current/Future Difference Saturday WITH COSTS

Route #	Additional PEAK Buses	Additional Daily Revenue Hours	Annualization Factor	Total Additional Annual Hours	Cost per Revenue Hour	Total Additional Operating Cost
1	-	1.00	52	52.00	\$78	\$4,056
2	-	(12.00)	52	(624.00)	\$78	(\$48,672)
3	-	(12.00)	52	(624.00)	\$78	(\$48,672)
4	-	2.00	52	104.00	\$78	\$8,112
5	-	(12.00)	52	(624.00)	\$78	(\$48,672)
7	-	1.00	52	52.00	\$78	\$4,056
9	-	3.00	52	156.00	\$78	\$12,168
10	-	3.00	52	156.00	\$78	\$12,168
13	-	2.00	52	104.00	\$78	\$8,112
17	-	(3.00)	52	(156.00)	\$78	(\$12,168)
18	-	2.50	52	130.00	\$78	\$10,140
20	-	2.75	52	143.00	\$78	\$11,154
23	-	-	52	-	\$78	\$0
25	-	(10.00)	52	(520.00)	\$78	(\$40,560)
26	-	4.00	52	208.00	\$78	\$16,224
29	-	-	52	-	\$78	\$0
43	-	(10.00)	52	(520.00)	\$78	(\$40,560)
44	-	(10.00)	52	(520.00)	\$78	(\$40,560)
				(2,483.00)		(\$193,674)

WSTA- Current/Future Difference Sunday WITH COSTS

Route #	Additional PEAK Buses	Additional Daily Revenue Hours	Annualization Factor	Total Additional Annual Hours	Cost per Revenue Hour	Total Additional Operating Cost
1	-	12.00	58	696.00	\$78	\$54,288
4	-	12.00	58	696.00	\$78	\$54,288
10	-	12.00	58	696.00	\$78	\$54,288
17	-	9.00	58	522.00	\$78	\$40,716
18	-	15.00	58	870.00	\$78	\$67,860
20	-	15.00	58	870.00	\$78	\$67,860
				4,350.00		\$339,300

Hi-TRAN - Current Monday-Friday

Route #	RT Cycle Time	PEAK Headway	# PEAK Buses	PEAK Span	Total PEAK Revenue Hours	BASE Headway	# BASE Buses	BASE Span	Total BASE Revenue Hours	Total Daily Revenue Hours
10	45	30	1.5	6	9.00	30	1.5	5.5	8.25	17.25
11	45	30	1.5	6	9.00	30	1.5	5.5	8.25	17.25
12	30	30	1.0	5.5	5.50	60	0.5	6	3.00	8.50
13	30	30	1.0	4.5	4.50	60	0.5	7	3.50	8.00
14	30	30	1.0	4.5	4.50	60	0.5	7	3.50	8.00
16	30	30	1.0	8	8.00	60	0.5	4	2.00	10.00
17	30	30	1.0	5	5.00	60	0.5	7	3.50	8.50
18	30	30	1.0	6	6.00	60	0.5	6	3.00	9.00
20	30	30	1.0	5.5	5.50	60	0.5	6	3.00	8.50
21	30	0	1.0	1	1.00	0	0.0	0	-	1.00
25	60	60	1.0	2	2.00	120	0.5	7	3.50	5.50
			12.0							

Hi-Tran - Current SATURDAY

Route #	RT Cycle Time	PEAK Headway	# PEAK Buses	PEAK Span	Total PEAK Revenue Hours	BASE Headway	# BASE Buses	BASE Span	Total BASE Revenue Hours	Total Daily Revenue Hours
10	30					60	0.5	7	3.50	3.50
11	30					60	0.5	8	4.00	4.00
14	30					60	0.5	7	3.50	3.50
15	30					60	0.5	7	3.50	3.50
16	30					60	0.5	8	4.00	4.00
17	30					60	0.5	7	3.50	3.50
18	30					60	0.5	8	4.00	4.00
20	30					60	0.5	8	4.00	4.00

Hi-Tran - Current Sunday

Route #	RT Cycle Time	PEAK Headway	# PEAK Buses	PEAK Span	Total PEAK Revenue Hours	BASE Headway	# BASE Buses	BASE Span	Total BASE Revenue Hours	Total Daily Revenue Hours
10	30					60	0.5	0	0.00	0.00
11	30					60	0.5	0	0.00	0.00

Saturday service based upon estimated productivity of 20 pax/hr; if existing had 10, left in service
 Sunday service based upon estimated productivity of 15 pax/hr

Hi-TRAN - Future Monday-Friday											
Route #	RT Cycle Time	PEAK Headway	# PEAK Buses	PEAK Span	Total PEAK Revenue Hours	BASE Headway	# BASE Buses	BASE Span	Total BASE Revenue Hours	Total Daily Revenue Hours	
10	45	30	1.5	6	9.00	30	1.5	9	13.50	22.50	
11	45	30	1.5	6	9.00	30	1.5	9	13.50	22.50	
12	30	30	1.0	6	6.00	60	0.5	9	4.50	10.50	
13	30	30	1.0	6	6.00	60	0.5	9	4.50	10.50	
14	30	30	1.0	6	6.00	60	0.5	9	4.50	10.50	
16	30	30	1.0	8	8.00	60	0.5	7	3.50	11.50	
17	30	30	1.0	6	6.00	60	0.5	9	4.50	10.50	
18	30	30	1.0	6	6.00	60	0.5	9	4.50	10.50	
20	30	30	1.0	6	6.00	60	0.5	9	4.50	10.50	
21	30		1.0	1	1.00	0	0.0	9	-	1.00	
25	60	60	1.0	6	6.00	60	1.0	3	3.00	9.00	

Hi-Tran - Future SATURDAY											
Route #	RT Cycle Time	PEAK Headway	# PEAK Buses	PEAK Span	Total PEAK Revenue Hours	BASE Headway	# BASE Buses	BASE Span	Total BASE Revenue Hours	Total Daily Revenue Hours	
10	30					60	0.5	12	6.00	6.00	
11	30					60	0.5	12	6.00	6.00	
14	30					60	0.5	12	6.00	6.00	
15	30					60	0.5	0	-	-	
16	30					60	0.5	12	6.00	6.00	
17	30					60	0.5	0	-	-	
18	30					60	0.5	12	6.00	6.00	
20	30					60	0.5	0	-	-	

Hi-Tran - Future Sunday											
Route #	RT Cycle Time	PEAK Headway	# PEAK Buses	PEAK Span	Total PEAK Revenue Hours	BASE Headway	# BASE Buses	BASE Span	Total BASE Revenue Hours	Total Daily Revenue Hours	
10	30					60	0.5	12	6.00	6.00	
11	30					60	0.5	12	6.00	6.00	

Hi-Tran- Current/Future Difference Monday-Friday, WITH COSTS							
Route #	Additional PEAK Buses	Additional Daily Revenue Hours	Annualization Factor	Total Additional Annual Hours	Cost per Revenue Hour	Total Additional Operating Cost	
10	-	5.25	255	1,338.75	\$67	\$89,696	
11	-	5.25	255	1,338.75	\$67	\$89,696	
12	-	2.00	255	510.00	\$67	\$34,170	
13	-	2.50	255	637.50	\$67	\$42,713	
14	-	2.50	255	637.50	\$67	\$42,713	
16	-	1.50	255	382.50	\$67	\$25,628	
17	-	2.00	255	510.00	\$67	\$34,170	
18	-	1.50	255	382.50	\$67	\$25,628	
20	-	2.00	255	510.00	\$67	\$34,170	
21	-	-	255	-	\$67	\$0	
25	-	3.50	255	892.50	\$67	\$59,798	
	-			7,140.00		\$478,380	

Hi-Tran- Current/Future Difference Saturday, WITH COSTS							
Route #	Additional PEAK Buses	Additional Daily Revenue Hours	Annualization Factor	Total Additional Annual Hours	Cost per Revenue Hour	Total Additional Operating Cost	
10	-	2.50	52	130.00	\$67	\$8,710	
11	-	2.00	52	104.00	\$67	\$6,968	
14	-	2.50	52	130.00	\$67	\$8,710	
15	-	(3.50)	52	(182.00)	\$67	(\$12,194)	
16	-	2.00	52	104.00	\$67	\$6,968	
17	-	(3.50)	52	(182.00)	\$67	(\$12,194)	
18	-	2.00	52	104.00	\$67	\$6,968	
20	-	(4.00)	52	(208.00)	\$67	(\$13,936)	
				-		\$0	

Hi-Tran- Current/Future Difference Sunday WITH COSTS							
Route #	Additional PEAK Buses	Additional Daily Revenue Hours	Annualization Factor	Total Additional Annual Hours	Cost per Revenue Hour	Total Additional Operating Cost	
10	-	6.00	58	348.00	\$67	\$23,316	
11	-	6.00	58	348.00	\$67	\$23,316	
				696.00		\$46,632	

NEW ROUTES - Current SATURDAY

Route #	RT Length	Operating Speed	RT Cycle Time	PEAK Headway	# PEAK Buses	PEAK Span	Total PEAK Revenue Hours	BASE Headway	# BASE Buses	BASE Span	Total BASE Revenue Hours	Total Daily Revenue Hours
GTA – Holden Xtown	18.3	14.26	77	90	60	1.5	6 9.00	60	1.5	8	12.00	21.00
GTA – Cone Blvd Xtown	20.1	14.26	84	90	60	1.5	6 9.00	60	1.5	8	12.00	21.00
GTA – Florida Xtown	11.6	14.26	49	60	60	1.0	6 6.00	60	1.0	8	8.00	14.00
GTA – Guilford College/New Garden Xtown	13.9	14.26	58	60	60	1.0	6 6.00	60	1.0	8	8.00	14.00
GTA – Wendover Xtown	11.6	14.26	49	60	60	1.0	6 6.00	60	1.0	8	8.00	14.00
WSTA Route 29 extension	8.6	11.63	44	45	60	0.8	6 4.50	60	0.8	8	6.00	10.50
WSTA Sprague Xtown	28.5	11.63	147	150	60	2.5	6 15.00	60	2.5	8	20.00	35.00
WSTA Union Cross Kernersville Xtown	15.8	11.63	82	90	60	1.5	6 9.00	60	1.5	8	12.00	21.00
WSTA Union Cross Rd Xtown	11.7	11.63	60	60	60	1.0	6 6.00	60	1.0	8	8.00	14.00
WSTA Westside Xtown	35.6	11.63	184	180	60	3.0	6 18.00	60	3.0	8	24.00	42.00
GTA TEC Battleground	13.8	14.26	58	60.0	60	1.0	6 6.00	60	1.0	8	8.00	14.00
GTA TEC E. Market	10.1	14.26	42	45.0	60	0.8	6 4.50	60	0.8	8	6.00	10.50
GTA TEC High Point Rd	19.1	14.26	80	90.0	60	1.5	6 9.00	60	1.5	8	12.00	21.00
GTA TEC Randleman	10.4	14.26	44	45.0	30	1.5	6 9.00	30	1.5	8	12.00	21.00
GTA TEC Summit	7.1	14.26	30	30.0	60	0.5	6 3.00	60	0.5	8	4.00	7.00
GTA TEC Wendover	15.2	14.26	64	60.0	60	1.0	6 6.00	60	1.0	8	8.00	14.00
Hi-Tran TEC N. Main	8.9	14.26	38	45.0	60	0.8	6 4.50	60	0.8	8	6.00	10.50
Hi-Tran TEC S. Main	8.9	14.26	38	45.0	60	0.8	6 4.50	60	0.8	8	6.00	10.50
WSTA TEC Hanes Mall	9.3	14.26	39	45.0	60	0.8	6 4.50	60	0.8	8	6.00	10.50
WSTA TEC Liberty	6.8	14.26	28	30.0	60	0.5	6 3.00	60	0.5	8	4.00	7.00
WSTA TEC Peters Creek	10.8	14.26	45	45.0	60	0.8	6 4.50	60	0.8	8	6.00	10.50
WSTA TEC University	14.3	14.26	60	60.0	60	1.0	6 6.00	60	1.0	8	8.00	14.00
HT – NC 68 Flex Route	21.1	10.85	117	120	60	2.0	6 12.00	60	2.0	8	16.00	28.00
WSTA Kernersville Circulator	16.4	11.63	85	90	60	1.5	6 9.00	60	1.5	8	12.00	21.00
WSTA Kernersville-Greensboro Connector	36.3	11.63	187	180	60	3.0	6 18.00	60	3.0	8	24.00	42.00
Gold Line	107.8	25.00	259	260	30	8.7	6 52.00	30	8.7	8	69.33	121.33
Greensboro Streetcar	12.5	12.00	63	75	15	5.0	8 40.00	15	5.0	8	40.00	80.00
WS Streetcar	17.2	12.00	86	90	15	6.0	8 48.00	15	6.0	8	48.00	96.00

NEW ROUTES - Current Sunday

Route #	RT Length	Operating Speed	RT Cycle Time	PEAK Headway	# PEAK Buses	PEAK Span	Total PEAK Revenue Hours	BASE Headway	# BASE Buses	BASE Span	Total BASE Revenue Hours	Total Daily Revenue Hours
GTA TEC Battleground	13.8	14.26	58	60.0	60	1.0	6 6.00	60	1.0	8	8.00	14.00
GTA TEC E. Market	10.1	14.26	42	45.0	60	0.8	6 4.50	60	0.8	8	6.00	10.50
GTA TEC High Point Rd	19.1	14.26	80	90.0	60	1.5	6 9.00	60	1.5	8	12.00	21.00
GTA TEC Randleman	10.4	14.26	44	45.0	30	1.5	6 9.00	30	1.5	8	12.00	21.00
GTA TEC Summit	7.1	14.26	30	30.0	60	0.5	6 3.00	60	0.5	8	4.00	7.00
GTA TEC Wendover	15.2	14.26	64	60.0	60	1.0	6 6.00	60	1.0	8	8.00	14.00
Hi-Tran TEC N. Main	8.9	14.26	38	45.0	60	0.8	6 4.50	60	0.8	8	6.00	10.50
Hi-Tran TEC S. Main	8.9	14.26	38	45.0	60	0.8	6 4.50	60	0.8	8	6.00	10.50
WSTA TEC Hanes Mall	9.3	14.26	39	45.0	60	0.8	6 4.50	60	0.8	8	6.00	10.50
WSTA TEC Liberty	6.8	14.26	28	30.0	60	0.5	6 3.00	60	0.5	8	4.00	7.00
WSTA TEC Peters Creek	10.8	14.26	45	45.0	60	0.8	6 4.50	60	0.8	8	6.00	10.50
WSTA TEC University	14.3	14.26	60	60.0	60	1.0	6 6.00	60	1.0	8	8.00	14.00
Greensboro Streetcar	12.5	12.00	63	75	15	5.0	6 30.00	15	5.0	8	40.00	70.00
WS Streetcar	17.2	12.00	86	90	15	6.0	6 36.00	15	6.0	8	48.00	84.00

NEW ROUTES - Current/Future Difference Monday-Friday, WITH COSTS

Route #	Additional PEAK Buses	Additional Daily Revenue Hours	Annualization Factor	Total Additional Annual Hours	Operator	Cost per Revenue Hour	Total Additional Operating Cost		
3	30.00	255	7,650.00	GTA	\$82	\$627,300			
3	30.00	255	7,650.00	GTA	\$82	\$627,300			
2	20.00	255	5,100.00	GTA	\$82	\$418,200			
2	20.00	255	5,100.00	GTA	\$82	\$418,200			
2	20.00	255	5,100.00	GTA	\$82	\$418,200			
2	20.00	255	5,100.00	WSTA	\$78	\$397,800			
2	15.00	255	3,825.00	WSTA	\$78	\$298,350			
5	50.00	255	12,750.00	WSTA	\$78	\$994,500			
3	30.00	255	7,650.00	WSTA	\$78	\$596,700			
2	20.00	255	5,100.00	WSTA	\$78	\$397,800			
6	60.00	255	15,300.00	WSTA	\$78	\$1,193,400			
32			80,325.00			\$6,387,750			
2	20.00	255	5,100.00	GTA	\$82	\$418,200			
2	15.00	255	3,825.00	GTA	\$82	\$313,650			
3	30.00	255	7,650.00	GTA	\$82	\$627,300			
3	30.00	255	7,650.00	GTA	\$82	\$627,300			
1	10.00	255	2,550.00	GTA	\$82	\$209,100			
2	20.00	255	5,100.00	GTA	\$82	\$418,200			
2	15.00	255	3,825.00	HT	\$67	\$256,275			
2	15.00	255	3,825.00	HT	\$67	\$256,275			
2	15.00	255	3,825.00	WSTA	\$78	\$298,350			
1	10.00	255	2,550.00	WSTA	\$78	\$198,900			
2	15.00	255	3,825.00	WSTA	\$78	\$298,350			
2	20.00	255	5,100.00	WSTA	\$78	\$397,800			
22			54,825.00			\$4,319,700			
2	20.00	255	5,100.00	HT	\$67	\$341,700			
4	40.00	255	10,200.00	HT	\$67	\$683,400			
3	30.00	255	7,650.00	WSTA	\$78	\$596,700			
6	60.00	255	15,300.00	WSTA	\$78	\$1,193,400			
15			38,250.00			\$2,815,200			
2	7.50	255	1,912.50	PART	\$85	\$162,563	\$1,116,263	10	
5	30.00	255	7,650.00	PART	\$85	\$650,250	\$2,048,288	14	
5	30.00	255	7,650.00	PART	\$85	\$650,250			
2	3.00	255	765.00	PART	\$85	\$65,025			
2	15.00	255	3,825.00	PART	\$85	\$325,125			
3	22.50	255	5,737.50	PART	\$85	\$487,688			
1	2.00	255	510.00	PART	\$85	\$43,350			
2	15.00	255	3,825.00	PART	\$85	\$325,125			
2	12.00	255	3,060.00	PART	\$85	\$260,100			
1	9.00	255	2,295.00	PART	\$85	\$195,075			
24			37,230.00			\$3,164,550			
26	294.67	255	75,140.00	PART	\$85	\$6,386,900			
5	80.00	255	20,400.00	PART	\$102	\$2,080,800			
6	96.00	255	24,480.00	PART	\$102	\$2,496,960			
11.0			44,880.00			\$4,577,760			
12	-	255	33,264.75	Guilford	\$37	\$1,230,796			
5	-	255	10,831.75	WSTA	\$37	\$400,775			
16.5			44,096.50			\$1,631,571	\$29,283,431		

NEW ROUTES - Current/Future Difference Saturday, WITH COSTS

Additional PEAK Buses	Additional Daily Revenue Hours	Annualization Factor	Total Additional Annual Hours		Cost per Revenue Hour	Total Additional Operating Cost
2	21.00	52	1,092.00	GTA	\$ 82	\$89,544
2	21.00	52	1,092.00	GTA	\$ 82	\$89,544
1	14.00	52	728.00	GTA	\$ 82	\$59,696
1	14.00	52	728.00	GTA	\$ 82	\$59,696
1	14.00	52	728.00	GTA	\$ 82	\$59,696
1	10.50	52	546.00	WSTA	\$ 78	\$42,588
3	35.00	52	1,820.00	WSTA	\$ 78	\$141,960
2	21.00	52	1,092.00	WSTA	\$ 78	\$85,176
1	14.00	52	728.00	WSTA	\$ 78	\$56,784
3	42.00	52	2,184.00	WSTA	\$ 78	\$170,352
15.0			10,738.00			\$855,036
1	14.00	52	728.00	GTA	\$ 82	\$59,696
1	10.50	52	546.00	GTA	\$ 82	\$44,772
2	21.00	52	1,092.00	GTA	\$ 82	\$89,544
2	21.00	52	1,092.00	GTA	\$ 82	\$89,544
1	7.00	52	364.00	GTA	\$ 82	\$29,848
1	14.00	52	728.00	GTA	\$ 82	\$59,696
1	10.50	52	546.00	HT	\$ 67	\$36,582
1	10.50	52	546.00	HT	\$ 67	\$36,582
1	10.50	52	546.00	WSTA	\$ 78	\$42,588
1	7.00	52	364.00	WSTA	\$ 78	\$28,392
1	10.50	52	546.00	WSTA	\$ 78	\$42,588
1	14.00	52	728.00	WSTA	\$ 78	\$56,784
12.0			7,826.00			\$616,616
2	28.00	52	1,456.00	HT	\$ 67	\$97,552
2	21.00	52	1,092.00	WSTA	\$ 78	\$85,176
3	42.00	52	2,184.00	WSTA	\$ 78	\$170,352
6.5			4,732.00			\$353,080
9	121.33	52	6,309.33	PART	\$ 85	\$536,293
5	80.00	52	4,160.00	PART	\$ 102	\$424,320
6	96.00	52	4,992.00	PART	\$ 102	\$509,184
11.0			9,152.00			\$933,504

\$3,294,529

NEW ROUTES - Current/Future Difference Sunday WITH COSTS

Additional PEAK Buses	Additional Daily Revenue Hours	Annualization Factor	Total Additional Annual Hours		Cost per Revenue Hour	Total Additional Operating Cost
1	14.00	58	812.00	GTA	\$ 82	\$66,584
1	10.50	58	609.00	GTA	\$ 82	\$49,938
2	21.00	58	1,218.00	GTA	\$ 82	\$99,876
2	21.00	58	1,218.00	GTA	\$ 82	\$99,876
1	7.00	58	406.00	GTA	\$ 82	\$33,292
1	14.00	58	812.00	GTA	\$ 82	\$66,584
1	10.50	58	609.00	HT	\$ 67	\$40,803
1	10.50	58	609.00	HT	\$ 67	\$40,803
1	10.50	58	609.00	WSTA	\$ 78	\$47,502
1	7.00	58	406.00	WSTA	\$ 78	\$31,668
1	10.50	58	609.00	WSTA	\$ 78	\$47,502
1	14.00	58	812.00	WSTA	\$ 78	\$63,336
12.0			8,729.00			\$687,764
5	70.00	58	4,060.00	PART	\$ 102	\$414,120
6	84.00	58	4,872.00	PART	\$ 102	\$496,944
11.0			8,932.00			\$911,064

\$1,598,828

PART Regional Transit Development Plan
UNIT COSTS

28-May-10

COSTS PER REVENUE HOUR

OPERATOR	UNIT COST	ASSUMPTIONS
PART	\$85	
GTA	\$82	
WSTA	\$78	
HI TRAN	\$67	
GUILFORD COUNTY	\$37	
PART Streetcar	\$102	
PART speed		50.5
GTA speed		14.3
WSTA speed		11.6
HI TRAN speed		13.6
Annualization Factor, 5 day/week service	255 days/year	Monday-Friday
Annualization Factor, 6 day/week service	290 days/year	Monday-Saturday
Annualization Factor, 7 day/week service	325 days/year	
Annualization Factor, Saturday service	52 days/year	
Annualization Factor, Sunday service	58 days/year	

STREETSCAPE

ITEM	UNIT COST	ASSUMPTIONS
Sidewalks per mile	\$ 170,000	
Bus Stops - Sign only	\$ 200	
Bus Stops - Benches	\$ 2,000	Costs include design and installation. Bench quantity
Bus Stops - Shelters	\$ 15,000	Costs include design and installation. Shelter quantity

TRANSIT CENTERS

ITEM	UNIT COST	ASSUMPTIONS
Transit Centers	\$2.5 million	4-bay facility
Transit Center Expansion (new bays)	\$700,000/bay	
Refurbishment - 10-year cycle	10% of original dev	Rehabilitation for wear and tear

PARK AND RIDE DEVELOPMENT

ITEM	UNIT COST	ASSUMPTIONS
Land Acquisition	\$65-\$155/acre	Market-driven, parcels will vary
Engineering/Design Services	\$35,000	
Environmental CatX Review	\$9,000	
Construction at Sites <1 acre (40-50 spaces)	\$200,000	
Construction at Sites >1 acre (50-100 spaces)	\$300,000	
Construction at Sites >1 acre (100-150+ spaces)	\$375,000	
Cost per Parking Space	\$7,000	
Refurbishment - 10-year cycle	10% of original dev	Rehabilitation for wear and tear

CORRIDORS

ITEM	UNIT COST	ASSUMPTIONS
Transit-Emphasis Corridors per mile	\$1,200,000	Includes stop improvements and transit-signal priorit
New Connections (ex: Hanes Mall and Forsyth Memorial)	\$2,500,000	

VEHICLE COST

ITEM	UNIT COST	ASSUMPTIONS
Cut-Away Vehicle	\$99,000	Includes fareboxes (\$14,000 each)
Medium-Duty Vehicle (28-30')	\$174,000	Includes fareboxes (\$14,000 each)
Heavy-Duty Vehicle (40')	\$414,000	Includes fareboxes (\$14,000 each)
Over-the-Road Coach	\$564,000	Includes fareboxes (\$14,000 each)

MAINTENANCE FACILITY EXPANSIONS

ITEM	UNIT COST	ASSUMPTIONS
Maintenance Bay	\$1.7 million	Can accommodate 11 buses
Cost per Bus	\$150,000	

OTHER

ITEM	UNIT COST	ASSUMPTIONS
Renovation of Winston-Salem Union Station	\$9.7 million	
Rail Corridor Preservation	\$ 1,212,121.21	
Streetcar	\$30 million/track m	Includes design/build/equipment for double track sta
BRT	\$ 260,955	

SOURCE

Scott Rhine, PART

Reported GTA operating expenses divided by reported annual vehicle revenue hours. 2008 National Transit Database

Reported WSTA operating expenses divided by reported annual vehicle revenue hours. 2008 National Transit Database

Reported Hi Tran operating expenses divided by reported annual vehicle revenue hours. 2008 National Transit Database

Reported Guilford county operating expenses divided by reported annual vehicle revenue hours. 2008 National Transit Database

Estimated premium from previous studies

2008 NTD

2008 NTD

2008 NTD

2008 NTD

Robert Bush, HDR

SOURCE

Recent Winston-Salem cost

Robert Bush, HDR

Robert Bush, HDR

Robert Bush, HDR

SOURCE

Robert Bush, HDR

Robert Bush, HDR

Robert Bush, HDR

SOURCE

Robert Bush, HDR/CAMPO land cost estimates, bike/ped facility calculator

Scott Rhine, PART/Previous construction projects

Scott Rhine, PART/Previous construction projects

Scott Rhine, PART/Previous construction projects

Scott Rhine, PART/Previous construction projects

Scott Rhine, PART/Previous construction projects

Robert Bush, HDR

Robert Bush, HDR

SOURCE

Robert Bush, HDR

NCDOT grade separation cost

SOURCE

Scott Rhine, PART

Scott Rhine, PART

Scott Rhine, PART

Scott Rhine, PART

SOURCE

Robert Bush, HDR

Robert Bush, HDR

SOURCE

Winston-Salem Union Station Feasibility Study, 2002

Scott Rhine, PART

Brett Wallace, HDR