



MEMORANDUM

TO: Transportation Services Committee

FROM: Kathleen Llewellyn-Thomas, Commissioner of Transportation and Community Planning

DATE: October 31, 2012

RE: York Region Transit Daily Boardings and Vehicle Use Statistics

This memorandum provides an overview of the average daily YRT/Viva daily boardings and fleet usage in April 2012.

Regular reviews of transit service and fleet allocation by route and time of day are performed to ensure the number of vehicles assigned to individual routes meets customer demand. This analysis is completed by reviewing maximum passenger boardings per bus every hour. The analysis ensures that acceptable boarding standards and passenger safety are achieved. Passenger loading standards are shown in Table 1 below.

Table 1
Vehicle Capacity Guidelines

Route Type	Seating Capacity	Maximum Vehicle Capacity**
Base, Local and Express Routes		
60-foot Bus (Viva)	52 – 54*	72 passengers per vehicle
40-foot Bus	39 – 43*	55 passengers per vehicle
40-foot Bus (Viva)	36	48 passengers per vehicle
30-foot Bus	26	40 passengers per vehicle
Express Route (High-speed or Highway)	43	100 per cent of seating capacity
Shuttle	26, 39, 43*	100 per cent of seating capacity
Community Bus	26	100 per cent of seating capacity

* Seating capacities depend on vehicle year and/or model.

** Includes both seated and standing passengers. The Public Vehicles Act restricts public transit vehicles to a maximum standing capacity of one-third the seated load.

Note: Base, Local and most Express capacities are based on average maximum passengers per vehicle at the peak point of the route, measured over the peak 60-minute period.

An analysis of passenger boardings by hour, by route was completed on a typical day in April and compared to fleet usage. Attachment 1 outlines ridership and fleet required for the Viva bus rapid transit services and Attachments 2 and 3 outline ridership and fleet (respectively) requirements for all routes within the YRT/Viva system.

Using Business Intelligence technology and data compilation capabilities, which include automatic fare collection, automatic tracking of buses and real-time passenger information, staff have a better understanding of passenger travel patterns and fleet requirements. As a result, schedule modifications are made to ensure the number of buses matches passenger demand. The attached data shows the number of buses on the road for each route rises and falls daily when ridership rises and falls throughout the day.

While the 2013 Service Plans alters routes for optimum efficiency, we will continue to analyze the delivery of transit service through ridership and fleet analysis, ensuring YRT/Viva continues to provide a high quality, reliable service that meets the needs of customers.

Kathleen Llewellyn-Thomas, P.Eng.
Commissioner of Transportation and Community Planning

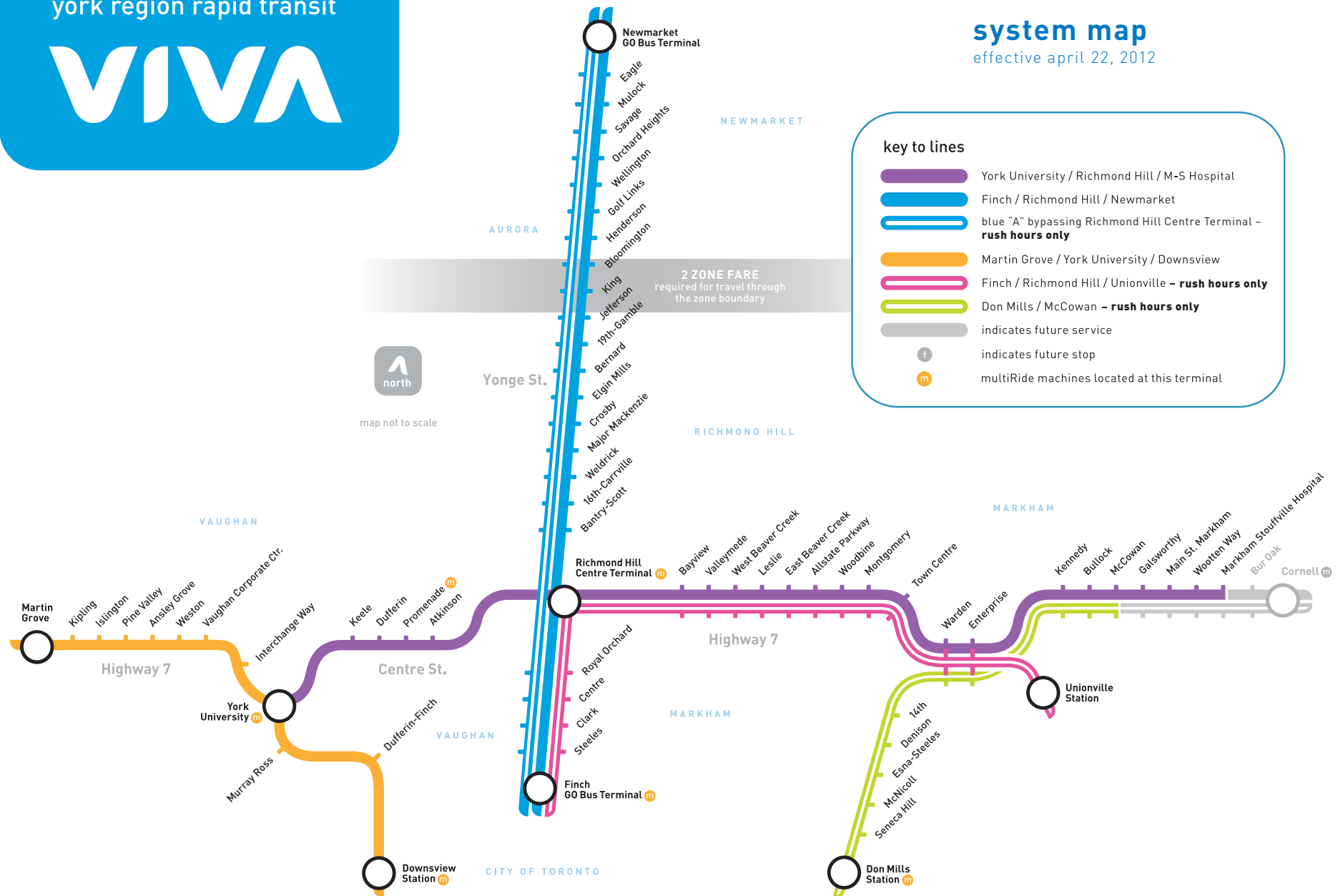
Attachment 1 – Viva route map
Attachment 2 – Viva bus rapid transit daily ridership and fleet use
Attachment 3 – YRT/Viva system-wide daily ridership
Attachment 4 – YRT/Viva system-wide daily fleet use

york region rapid transit

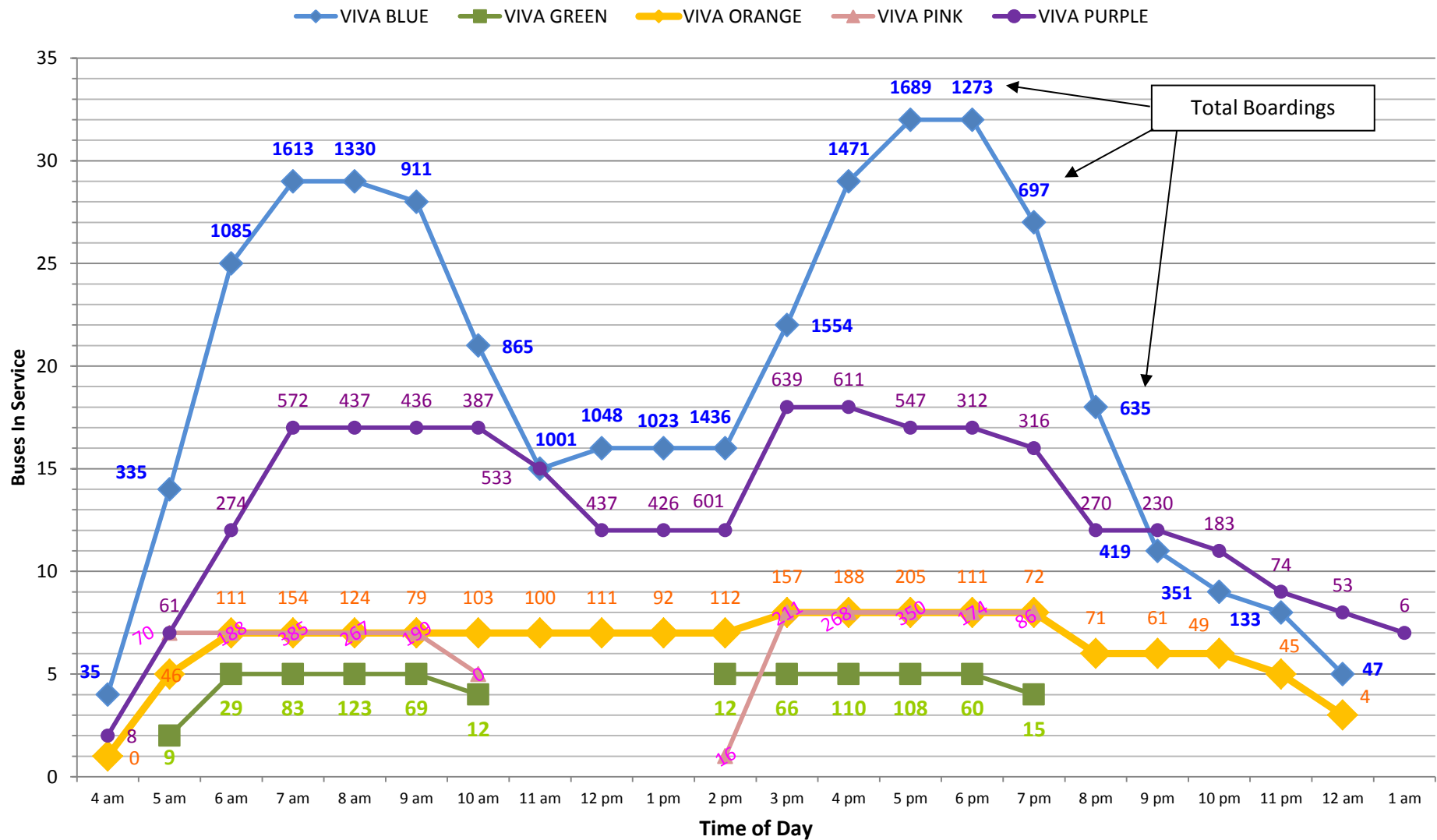
VIVA

system map

effective april 22, 2012



Viva Weekday Service Buses and Ridership, April 2012



Note: Values on chart indicate ridership by hour for each route

YRT / Viva Total Boardings - April 2012

COUNCIL ATTACHMENT 3

Route Number	Route Name	Ridershp Per Hour for April 2012 (All Transit Routes)																								Total Boardings
		Hour of day																								
		4 am	5 am	6 am	7 am	8 am	9 am	10 am	11 am	12 am	1 pm	2 pm	3 pm	4 pm	5 pm	6 pm	7 pm	8 pm	9 pm	10 pm	11 pm	12 pm	1 am	2 am	3 am	
1, 409	HIGHWAY 7	8	21	70	194	125	136	61	96	123	82	134	237	220	183	91	65	10	46	13	20	9	0			1,944
2, 2A	MILLIKEN		16	117	227	194	94	71	104	103	115	258	135	238	195	62	80	37	16	22	8					2,092
3	THORNHILL - YORK UNIVERSITY	0	2	43	79	122	33	67	67	29	100	212	125	174	95	91	37	69	27	14	3	1				1,390
4, 4A	MAJOR MACKENZIE	9	109	295	512	255	219	246	205	339	270	706	538	500	422	261	227	134	70	76	45	6				5,444
5	CLARK		36	76	163	166	52	59	53	46	46	189	139	183	128	86	61	27	22	13						1,545
7	MARTIN GROVE		5	39	35	30	6	22	36	25	40	56	62	31	65	19	17	9	10	0						507
8	KENNEDY		15	42	106	103	82	45	87	79	46	120	170	104	106	84	49	30	10	3						1,281
9, 15, 414,415	9TH LINE			4	9	35	20	10	10	4	7	24	45	35	26	17	5	3								254
10	YORK UNIVERSITY-WOODBRIDGE		7	19	44	22	9	25	33	31	30	16	20	31	22	4	17	9	11	20						370
11	WOODBRIDGE		7	11	11	22	0	0	0	0	0	0	27	9	7	11	0									105
12	PINE VALLEY		0	14	34	42	22	12	22	28	23	27	53	53	46	19	28	10	14	3						450
13	ISLINGTON			42	50	37	27	19	11	30	13	67	47	42	44	31	13	16	10	4						503
18	BUR OAK		16	37	212	44	41	32	36	33	34	73	190	63	113	59	27	6	2							1,018
20	JANE-CONCORD		52	145	207	185	95	90	148	117	151	206	281	284	239	165	99	76	107	77	27	0				2,751
22	KING CITY		6	41	52	32	20	20	6	10	3	84	18	36	25	23	8									384
22A	KING CITY				22	21	28		25	35	23	18		38	15	19	21		21	9						295
23	THORNHILL WOODS		1	46	95	43	31	14	36	29	39	56	82	85	88	65	21	15	10	13						769
28	ZENWAY-HIGHWAY 7			22	20	7	0	0	0	0	0	7	14	9	9	2										90
31	AURORA NORTH		2	18	44	2	4					40	16	4	18	8	0									156
32	AURORA SOUTH		13	26	107	33	4	10	60	13	10	120	34	30	32	11	6									509
33, 33A	WELLINGTON		14	23	132	25	21	13	25	14	24	45	144	51	26	24	15	17	0							613
34	INDUSTRIAL PARKWAY			3	1	2	0	0	0	0	0	0	3	4	4	4	1									22
40	UNIONVILLE LOCAL			0	49	47	25	10	16	11	12	58	106	80	22	18	8	3								465
42	BERCZY SOUTH UNIONVILLE			4	46	0	0	0	0	0	0	0	55	5	26	22										158
44	BRISTOL-LONDON		5	24	65	43	14	13	24	34	33	71	39	35	47	20	0									467
45	MINGAY			5	13	5	0	0	0	0	0	0	25	23	16	3										90
51, 424	KESWICK LOCAL		2	7	8	60	11	0	0	0	0	0	21	23	30	17	15	24	9							227
52	HOLLAND LANDING		4	4	6	0	0	0	0	0	0	0					9	12	1							36
53	WOODSPRING - CLEARMEADOW		2	80	42	19	13	11	14	35	11	36	36	19	35	22	21	9	2							407
54, 428	BAYVIEW		7	28	33	26	26	17	14	20	28	47	64	41	22	22	13	13	14	0						435

Route Number	Route Name	Ridershp Per Hour for April 2012 (All Transit Routes)																									Total Boardings
		Hour of day																									
		4 am	5 am	6 am	7 am	8 am	9 am	10 am	11 am	12 am	1 pm	2 pm	3 pm	4 pm	5 pm	6 pm	7 pm	8 pm	9 pm	10 pm	11 pm	12 pm	1 am	2 am	3 am		
55,422	DAVIS DRIVE		9	48	50	64	35	43	55	34	44	34	53	22	23	23	24	7	13	2	4	0				587	
55B	DAVIS DRIVE		23	29	45	45	36	33	48	56	44	38	77	51	51	43	23		7							649	
56,421	GORHAM - EAGLE			33	65	38	18	20	26	20	14	50	18	46	35	33	7	8	2							433	
57, 57A,420,425	MULOCK DRIVE			20	103	63	37	35	19	43	51	104	84	67	36	29	17	16	5	9	3					741	
58,58A	LESLIE		0	8	0	8	5	8	7	15	9	5	6	5	4	11	9			5						105	
77	HIGHWAY 7-CENTRE	13	89	216	213	172	120	72	69	95	83	87	143	267	150	107	75	109	83	71	63	22	0			2,319	
81	INSPIRATION		4	9	21	57	0	0	0	0	0	0	48	16	19	11	12									197	
82	VALLEYMEDE-SPADINA		1	16	68	14	11	11	22	8	3	5	32	20	8	13	10									242	
83,83A	TRENCH		0	16	257	60	42	48	66	45	36	299	112	29	40	16	8	10	8							1,092	
84A	OAK RIDGES		0	0	0	0	0	0	0	0	0	23	10	5	3											41	
84C	OAK RIDGES		2	10	12	4	0	0	0	0	0	21	11	10	6											76	
85, 411,446,450	RUTHERFORD-16TH AVENUE		63	67	337	148	122	114	72	102	93	233	324	331	126	118	112	52	52	10	0					2,476	
85A	RUTHERFORD-16TH AVENUE		29	56	73	66	53	59	57	63	72	96	77	111	80	78	29	54	39	23	7	0				1,122	
85B	RUTHERFORD-16TH AVENUE		19	86	128	54	2	0	0	0	0	0	129	151	111	72	9	0								761	
86, 418	WELDRICK - NEWKIRK		10	43	151	62	33	8	15	41	12	94	145	62	100	22	34	14	0							846	
87	LANGSTAFF - MAPLE		17	57	122	63	31	15	25	24	42	94	90	82	49	31	20									762	
88, 88A, 88E	BATHURST		30	314	403	259	166	221	217	165	205	215	492	331	364	244	165	111	67	65	19					4,053	
90, 90B	LESLIE	0	47	202	445	414	222	104	136	113	107	255	352	375	319	177	76	66	69	30	16	0				3,525	
91, 91A, 91B,91E	BAYVIEW		8	103	178	175	94	138	133	149	79	340	421	237	285	195	97	89	81	51	27	0				2,880	
98, 98E	YONGE	3	16	31	63	78	57	23	75	50	48	86	103	131	92	52	28	18	23	18	9					1,004	
99, 98/99	YONGE	14	92	115	168	192	100	170	135	180	103	317	227	200	265	124	183	92	119	106	52	37	37	22	0	3,050	
220	KESWICK GO SHUTTLE		3	4											6		1									14	
222	NEWMARKET-AURORA GO SHUTTLE		0	5	0										21	4	5									35	
223	NEWMARKET GO SHUTTLE		0	4	3										6	1	1									15	
240, 241, 242, 243, 448, 452	BEVERLY ACRES / MILL POND / N-RICHVALE / REDSTONE GO SHUTTLE		32	192	88	33							69		292	202	72	40								1,020	
17A	TTC BRICHMOUNT	0	10	15	36	19	17	15	12	12	12	17	40	19	19	17	17	0	0	0	0	0	0	0	0	277	
24D	TTC VICTORIA PARK	0	0	0	0	11	10	9	6	6	6	8	17	11	10	10	10	8	7	7	7	0	0	0	0	143	
35D	TTC JANE	0	0	100	100	100	35	35	35	35	35	35	122	122	122	122	19	19	19	5	0	0	0	0	0	1,059	
37D	TTC ISLINGTON	0	4	6	16	8	7	6	5	5	5	7	18	8	7	7	7	5	0	0	0	0	0	0	0	121	
68B	TTC WARDEN	0	33	52	138	71	61	52	42	42	42	61	157	72	71	71	71	42	33	33	33	0	0	0	0	1,177	
102D	TTC MARKHAM ROAD	0	39	53	139	72	63	53	43	43	43	63	159	73	63	63	63	43	34	34	0	0	0	0	0	1,143	
105	TTC DUFFERIN NORTH	0	0	89	225	234	105	89	73	73	72	100	166	121	105	105	105	73	57	57	57	0	0	0	0	1,906	

Route Number	Route Name	Ridershp Per Hour for April 2012 (All Transit Routes)																									Total Boardings
		Hour of day																									
		4 am	5 am	6 am	7 am	8 am	9 am	10 am	11 am	12 am	1 pm	2 pm	3 pm	4 pm	5 pm	6 pm	7 pm	8 pm	9 pm	10 pm	11 pm	12 pm	1 am	2 am	3 am		
107	TTC KEELE NORTH	0	141	141	141	141	122	122	122	122	122	122	223	223	223	223	26	26	26	26	28	28	0	0		2,348	
129A	TTC McCOWAN	0	71	112	300	154	133	112	92	92	92	126	342	154	133	133	133	94	71	71	71	0	0	0	0	2,486	
160	TTC BATHURST NORTH	0	33	50	127	67	58	50	41	41	41	58	144	67	58	58	52	40	33	0	0	0	0	0	0	1,018	
165	TTC WESTON RD NORTH	0	0	0	224	119	103	88	73	73	73	73	254	119	137	103	103	73	58	58	58	0	0	0	0	1,789	
224	TTC VICTORIA PARK NORTH	0	0	48	117	64	56	48	41	41	41	56	133	64	56	51	56	41	0	0	0	0	0	0	0	913	
300, 301 ,302, 303 ,400, 401, 404, 410, 413, 441, 445, 449, 451	BUSINESS EXPRESS			94	195	102	28					113	71	119	250	37										1,009	
	MAPLE EXPRESS			48	50	9	0						41	27	57	6	32									270	
	NEWMARKET HIGH SCHOOL SPECIAL				17							20														37	
	SACRED HEART SCHOOL SPECIAL				13							37														50	
	CARDINAL CARTER HIGH SCHOOL SPECIAL				19							4														23	
	EMILY CARR SCHOOL SPECIAL				3							1														4	
	MAPLE HIGH SCHOOL SPECIAL												51													51	
	VELLORE SCHOOL SPECIAL				70							63														133	
	ST. JOAN OF ARC SCHOOL SPECIAL				0							50														50	
	465	ST. JOAN OF ARC SCHOOL SPECIAL				21						58														79	
VIVA blue , blue A	VIVA BLUE	35	335	1,085	1,613	1,330	911	865	1,001	1,048	1,023	1,436	1,554	1,471	1,689	1,273	697	635	419	351	133	47				18,951	
VIVA green	VIVA GREEN		9	29	83	123	69	12	0	0	0	12	66	110	108	60	15									696	
VIVA orange	VIVA ORANGE	0	46	111	154	124	79	103	100	111	92	112	157	188	205	111	72	71	61	49	45	4				1,995	
VIVA pink	VIVA PINK		70	188	385	267	199	0	0	0	0	16	211	268	350	174	86									2,214	
VIVA purple	VIVA PURPLE	8	61	274	572	437	436	387	533	437	426	601	639	611	547	312	316	270	230	183	74	53	6			7,413	
	Ridership by Hour	90	1,688	5,464	10,369	7,268	4,709	4,035	4,524	4,572	4,310	8,315	10,314	8,845	8,806	5,821	3,751	2,652	2,029	1,532	809	207	43	22	0		
Note: Route ridership includes interlined routes																					Total boardings all day			100,177			

YRT / Viva Bus Use - April 2012

COUNCIL ATTACHMENT 4

Route Numer	Route Name	Buses Per Hour fro April 2012 (All Transit Routes)																									Maximum Number
		Hour of day																									
		4 am	5 am	6 am	7 am	8 am	9 am	10 am	11 am	12 am	1 pm	2 pm	3 pm	4 pm	5 pm	6 pm	7 pm	8 pm	9 pm	10 pm	11 pm	12 pm	1 am	2 am	3 am		
1, 409	HIGHWAY 7	2	3	5	14	7	6	5	4	4	4	6	16	7	6	6	6	4	3	3	3	3	2		16		
2, 2A	MILLIKEN		7	11	16	14	9	6	5	6	10	13	13	11	10	10	9	6	5	2	2			16			
3	THORNHILL - YORK UNIVERSITY	1	4	6	6	6	6	5	4	4	5	6	6	6	6	6	5	5	4	4	2			6			
4, 4A	MAJOR MACKENZIE	1	8	9	9	9	9	7	6	5	7	10	11	10	10	10	9	6	3	3	3	3		11			
5	CLARK		3	4	4	4	4	2	2	2	3	4	4	4	4	4	4	2	2	2			4				
7	MARTIN GROVE		2	2	3	3	3	2	2	2	2	2	3	3	3	3	2	2	2				3				
8	KENNEDY		5	8	9	5	5	5	2	2	3	5	5	5	5	5	5	5	2	2			9				
9, 15, 414,415	9TH LINE			3	4	4	2	1	1	1	1	1	3	3	2	2	2	1					4				
10	YORK UNIVERSITY-WOODBRIDGE		1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2			2				
11	WOODBRIDGE		1	1	1	1	1	0	0	0	0	1	1	1	1	1	1						1				
12	PINE VALLEY		1	2	2	2	2	1	1	1	1	2	2	2	2	2	2	1	1	1			2				
13	ISLINGTON			3	3	3	3	1	1	1	1	3	3	3	3	3	3	1	1	1			3				
18	BUR OAK		2	3	4	3	2	1	1	1	1	1	3	3	2	2	2	1	1				4				
20	JANE-CONCORD		3	6	6	6	6	5	3	3	3	6	6	6	6	6	6	6	3	3	3	1		6			
22	KING CITY		1	4	4	4	4	3	2	1	1	3	3	3	4	4	5						5				
22A	KING CITY				2	2	2		2	1	1	2		2	2	2	2		2	2			2				
23	THORNHILL WOODS		2	4	4	4	4	2	1	1	1	3	3	4	4	4	4	2	1	1			4				
28	ZENWAY-HIGHWAY 7			1	1	1	1	0	0	0	0	1	1	1	1	1							1				
31	AURORA NORTH		2	2	2	2	2					2	2	2	2	2	2						2				
32	AURORA SOUTH		2	2	4	4	2	2	1	1	1	4	4	3	3	3	2						4				
33, 33A	WELLINGTON		2	2	3	3	1	1	1	1	1	1	3	3	3	3	3	1	1				3				
34	INDUSTRIAL PARKWAY			1	1	1	0	0	0	0	0	0	1	1	1	1	1						1				
40	UNIONVILLE LOCAL			5	5	4	4	3	2	2	2	4	4	4	4	4	4	2					5				
42	BERCZY SOUTH UNIONVILLE			1	1	1	0	0	0	0	0	0	1	1	2	2							2				
44	BRISTOL-LONDON		2	2	4	4	2	2	2	2	2	2	2	2	4	2	2						4				
45	MINGAY			1	1	1	1	0	0	0	0	0	1	1	1	1							1				
51, 424	KESWICK LOCAL		2	2	2	2	2	1	1	1	1	2	3	2	2	2	2	2	2				3				
52	HOLLAND LANDING		2	2	2	1	1	1	1	1	1	1	1				2	1	1				2				
53	WOODSPRING - CLEARMEADOW		1	3	3	3	2	1	1	1	1	2	3	3	3	3	3	2	1				3				
54, 428	BAYVIEW		1	2	3	3	2	2	1	1	1	2	3	2	2	2	2	2	1	1			3				
55,422	DAVIS DRIVE		1	2	3	4	2	2	1	1	1	2	2	3	2	2	2	1	1	1	1	1	4				
55B	DAVIS DRIVE		2	2	2	2	2	2	1	1	1	2	2	1	2	2	2		0				2				
56,421	GORHAM - EAGLE			2	4	2	2	1	1	1	1	6	3	2	2	2	1	1	1				6				
57, 57A,420,425	MULOCK DRIVE			3	4	3	3	2	2	2	2	3	4	4	3	3	3	3	1	1	1		4				
58,58A	LESLIE		1	2	2	1	1	1	1	1	1	1	1	1	3	3	2			0			3				
77	HIGHWAY 7-CENTRE	8	9	9	9	9	9	9	8	6	7	9	9	9	9	9	9	6	4	4	4	4	2	9			

Route Numer	Route Name	Buses Per Hour fro April 2012 (All Transit Routes)																									Maximum Number
		Hour of day																									
		4 am	5 am	6 am	7 am	8 am	9 am	10 am	11 am	12 am	1 pm	2 pm	3 pm	4 pm	5 pm	6 pm	7 pm	8 pm	9 pm	10 pm	11 pm	12 pm	1 am	2 am	3 am		
461	EMILY CARR SCHOOL SPECIAL				1							0														*	
462	MAPLE HIGH SCHOOL SPECIAL												1													*	
463	VELLORE SCHOOL SPECIAL				2							0														*	
464	ST. JOAN OF ARC SCHOOL SPECIAL				1							0														*	
465	ST. JOAN OF ARC SCHOOL SPECIAL				1							0														*	
VIVA blue , blue A	VIVA BLUE	4	14	25	29	29	28	21	15	16	16	16	22	29	32	32	27	18	11	9	8	5				32	
VIVA green	VIVA GREEN		2	5	5	5	5	4	0	0	0	5	5	5	5	5	4									5	
VIVA orange	VIVA ORANGE	1	5	7	7	7	7	7	7	7	7	7	8	8	8	8	8	6	6	6	5	3				8	
VIVA pink	VIVA PINK		7	7	7	7	7	5	0	0	0	1	8	8	8	8	8									8	
VIVA purple	VIVA PURPLE	2	7	12	17	17	17	17	15	12	12	12	18	18	17	17	16	12	12	11	9	8	7			18	
Total buses by hour		24	155	264	339	296	262	199	155	146	160	233	301	285	288	282	254	162	121	98	74	44	17	5	2		
	Max number of buses per hour	339																									

Notes: Buses per hour includes interlined routes
* Routes interlined with existing routes