Study Purpose and Scope

Purpose

The purpose of this study is to improve Stratford Transit service by making it more useful and attractive to residents and visitors. Doing so has involved an extensive review of existing operations and consideration of how Stratford will change in the future.

What We Did

- Reviewed current ridership and operating costs
- Critically analyzed existing route network
- Developed alternative route network options
- Developed concepts, cost estimates for Sunday service
- Reviewed previous terminal locations, prepared concept designs for new locations
- Conducted a Peer Review
- Assessed benefit of bike racks on buses
- Assessed effect of terminal departure time changes

Peer Review

Methodology

- The review compared Stratford Transit to 8 peer systems across a number of key metrics.
- Peer systems were selected on the basis of population, ridership, routes, buses, revenue hours, expenses, revenue, and net cost.
- Since every city and system are unique, no peer comparison is perfect. Results should be read with caution.

Findings

Criteria	Performance
Ridership	Higher ↑
Amount of Service	Higher ↑
Cost Recovery	Higher ↑
Cost per Rider	Lower ↓
Net Cost	Same –
Average Fare	Lower ↓
Amount of Service	Higher ↑

- Stratford Transit service performs well against its comparators
- Future Challenge: growth, expansion of service area

Peer Review

	Stratford	Belleville	Brantford	Brockville	Orangeville	Orillia	Owen Sound	St. Thomas	Woodstock	Average (w/o Stratford)	Average (w/ Stratford)
Service Characteristics											
Municipal Population	32,000	49,454	94,586	21,870	28,300	31,564	22,000	36,000	38,000	40,222	39,308
Service Area Population	32,000	37,000	94,586	21,870	28,300	31,564	22,000	36,000	38,000	38,665	37,924
Service Area Size (Sq.Km.)	27.0	247.2	75.1	20.3	14.0	28.8	23.7	35.7	39.0	60	56.8
Number of Fixed Routes	6	9	15	3	3	5	4	5	6	6	6
Routes per 1,000 capita	0.19	0.24	0.16	0.14	0.11	0.16	0.18	0.14	0.16	0.16	0.16
Routes per Active Veh.	0.40	0.60	0.48	0.75	0.75	0.63	0.80	0.45	0.67	0.64	0.62
Vehicles											
Active Vehicles: Light Rail Vehicles	-	-	-	-	-	-	-	-	-	-	-
Standard Buses	15	15	31	4	1	8	5	11	9	11	11
Articulated/Double Decker Buses	-	-	-	-	-	-	-	-	-	-	-
Small Community Buses	-	-	-	-	3	-	-	-	-	0	0
Total Active Vehicles	15	15	31	4	4	8	5	11	9	11	11
Percentage of Accessible Transit Fleet	100%	100%	100%	100%	100%	100%	100%	100%	78%	97%	98%
Ridership											
Ridership (Revenue Passengers)	615,745	917,459	1,571,812	102,764	112,100	750,000	266,640	213,300	306,297	530,047	539,569
Revenue Vehicle Kilometres	621,554	808,134	1,731,532	199,140	236,220	518,550	317,675	385,000	467,376	582,953	587,242
Revenue Vehicle Hours	29,836	40,536	76,149	10,496	9,999	25,379	13,926	17,017	18,430	26,492	26,863
Operating Revenue											
Regular Service Passenger Revenue	$ 872,591	$ 1,691,800	$ 2,916,822	$ 186,024	$ 142,641	$ 891,251	$ 328,010	$ 333,408	$ 424,970	$ 864,366	$ 865,280
Total Operating Revenue	$ 894,380	$ 1,766,469	$ 3,080,067	$ 197,206	$ 160,590	$ 911,408	$ 368,184	$ 338,924	$ 487,825	$ 913,834	$ 911,673
Total Revenue	$ 894,380	$ 1,766,469	$ 3,177,650	$ 197,206	$ 160,590	$ 911,408	$ 368,184	$ 351,105	$ 487,825	$ 927,555	$ 923,869
Operating Expenses											
Transportation Operations	$ 1,511,254	$ 2,101,083	$ 4,681,957	$ 372,247	$ 459,528	$ 1,646,975	$ 895,642	$ 869,850	$ 1,116,529	$ 1,517,976	$ 1,517,229
Fuel/Energy Exp. For Vehicles	$ 391,000	$ 581,674	$ 1,129,447	$ 84,636	$ -	$ -	$ 170,217	$ -	$ 340,766	$ 288,343	$ 299,749
Vehicle Maintenance	$ 420,062	$ 569,810	$ 1,479,220	$ 60,745	$ 127,250	$ 1,140	$ -	$ 187,175	$ 189,306	$ 326,831	$ 337,190
Plant Maintenance	$ 24,424	$ 128,096	$ 1,446,917	$ 65,373	$ -	$ 30,456	$ 120,008	$ 2,082	$ 112,948	$ 238,235	$ 214,478
Genera/Administration	$ 65,106	$ 345,699	$ 94,560	$ 32,258	$ 47,098	$ 81,452	$ 17,434	$ 6,298	$ 20,882	$ 80,710	$ 78,976
Total Direct Operating Expenses	$ 2,411,846	$ 3,726,362	$ 8,832,101	$ 615,259	$ 633,876	$ 1,760,023	$ 1,203,301	$ 1,065,405	$ 1,780,431	$ 2,452,095	$ 2,447,623
Net Cost/Capita	$ 47.42	$ 52.97	$ 59.78	$ 19.12	$ 16.72	$ 26.89	$ 37.96	$ 19.84	$ 34.02	$ 33.41	$ 34.97
Performance Indicators											
Financial											
Total Oper. Rev. / Total Dir. Oper. Exp (R/C Ratio)	37%	47%	35%	32%	25%	52%	31%	32%	27%	35%	35%
Municipal Operating Contribution / Capita	$ 47.42	$ 57.24	$ 48.63	$ 10.92	$ 9.66	$ 14.05	$ 25.62	$ 15.43	$ 23.39	$ 25.62	$ 28.04
Net Dir. Oper. Cost / Reg. Serv. Pass.	$ 2.46	$ 2.14	$ 3.60	$ 4.07	$ 4.22	$ 1.13	$ 3.13	$ 3.35	$ 4.22	$ 3.23	$ 3.15
Average Fare											
Reg. Serv. Pass. Rev. / Reg. Serv. Pass.	$ 1.42	$ 1.84	$ 1.86	$ 1.81	$ 1.27	$ 1.19	$ 1.23	$ 1.56	$ 1.39	$ 1.52	$ 1.51
Cost Effectiveness											
Tot. Dir. Oper. Exp. / Reg. Serv. Pass.	$ 3.92	$ 4.06	$ 5.62	$ 5.99	$ 5.65	$ 2.35	$ 4.51	$ 4.99	$ 5.81	$ 4.87	$ 4.77
Service Utilization											
Reg. Serv. Pass. / Capita	19.24	24.80	16.62	4.70	3.96	23.76	12.12	5.93	8.06	12.49	13.24
Reg. Serv. Pass. / Rev. Veh. Hr.	20.64	22.63	20.64	9.79	11.21	29.55	19.15	12.53	16.62	17.77	18.09
Amount of Service											
Rev. Veh. Hrs. / Capita	0.93	1.10	0.81	0.48	0.35	0.80	0.63	0.47	0.49	0.64	0.67
Average Speed											
Rev. Veh. Kms. / Rev. Veh. Hr.	20.83	19.94	22.74	18.97	23.62	20.43	22.81	22.62	25.36	22.06	21.93
Labour Productivity											
Rev. & Aux. Rev. Veh. Hrs. / Oper. Paid Hr.		0.69	0.70	0.63					0.98	0.75	0.75
Top Wage Rates											
Operators	$ 26.94	$ 23.92	$ 24.47	$ 25.95			$ 16.50		$ 28.54	$ 23.88	$ 24.39
Cost per Rev. Vehicle Hour											
Tot. Dir. Oper. Exp. / Rev. Hrs.	$ 80.84	$ 91.93	$ 115.98	$ 58.62	$ 63.39	$ 69.35	$ 86.41	$ 62.61	$ 96.61	$ 80.61	$ 80.64

Route Network

Key Findings

- Many routes – especially routes 2, 4, and 6 – are indirect
- Travel times are too long
- Primary travel destinations (malls, hospital, new shopping areas, etc.) are not well served
- Route network needs re-structuring
- Need to improve access to key destinations

Network Alternatives

- Alternative #1
  - Service extended to O'Loane and McCarthy
  - Direct two-way service from commercial district to other key locations
- Alternative #2
  - Introduces two-way loops in northeast and south area of city
  - Direct two-way service from commercial district to other key locations
- Alternative #3
  - Blends features of Alternatives #1 and #2

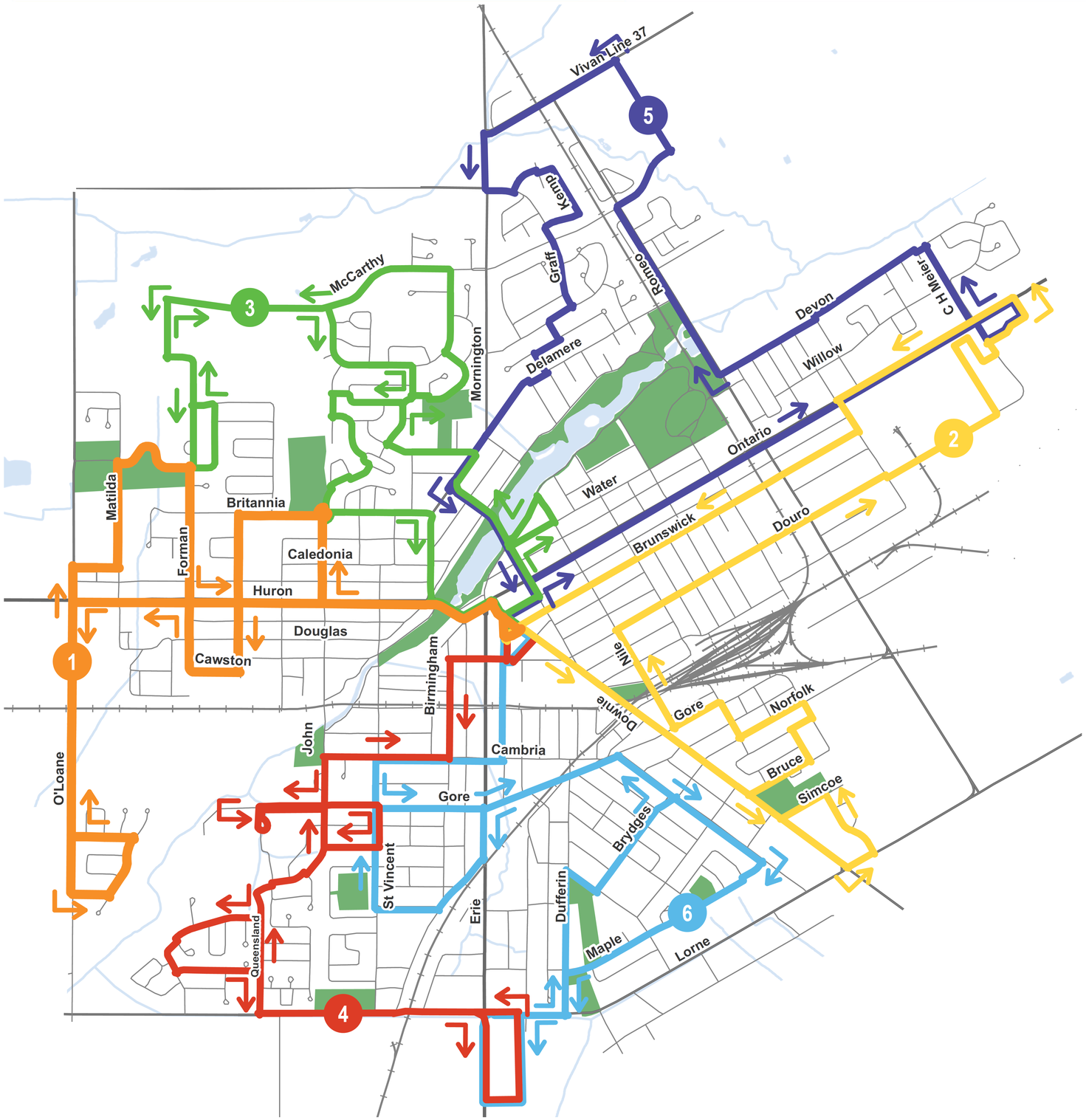
Current Route Network

Stratford
ONTARIO CANADA
Dramatically Different!

Stratford Transit Service Review

IBI

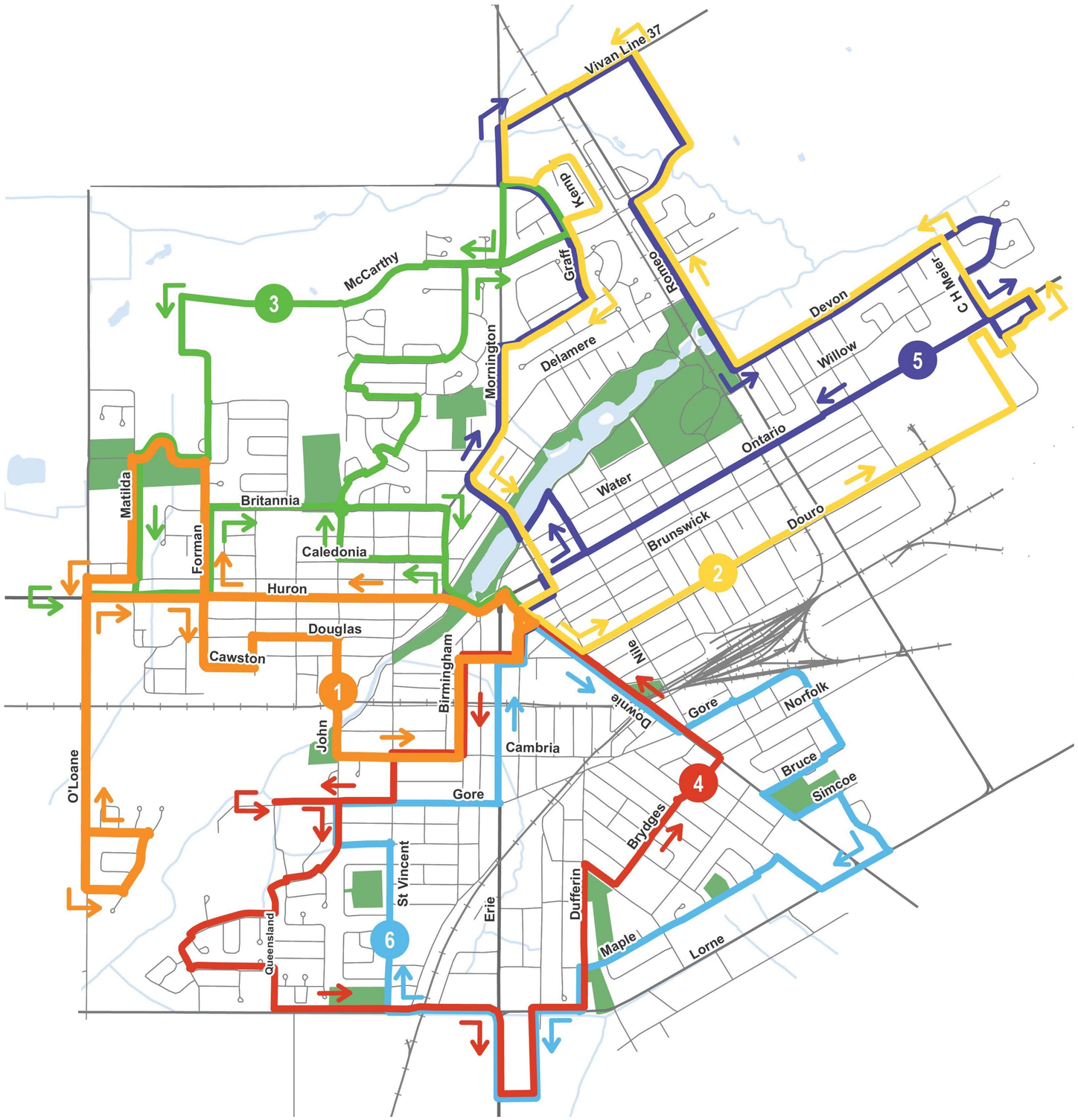
Route Network Alternative #1



Key Features

- Based on current network
- Adds service to new developments along O'Loane and McCarthy
- Direct two-way service from commercial district to Festival Mall, the hospital and high schools
- Moderately increased route lengths where feasible
- Increased vehicle utilization and on-time performance

Route Network Alternative #2



Key Features

- Simplification of routes – more direct and reliable service
- Adds service to new developments along O'Loane and McCarthy
- Two-way loops in northeast and south areas of city
- Moderately increased route lengths – increased vehicle utilization and on-time performance

Route Network Alternative #3

Key Features

- Blends features of Alternatives 1 and 2
- Adds service to new developments along O'Loane and McCarthy
- Two-way loops in northeast and south areas of city
- Direct two-way service from commercial district to Festival Mall, the hospital and high schools

Sunday Service

Service Options

Option A: Every 30 minutes; 6 routes, 6 buses

Option B: Every 30/60 minutes; 6 routes, 4 buses

Option C: Every 60 minutes; 6 routes, 3 buses

Under all options, service would run from 10 a.m. to 6:30 p.m.

Funding Options

- Use Gas Tax – redirect capital revenues
- Reduce Saturday Service
  - Eliminate early morning service
  - Reduce frequency on some routes
- Reduce weekday daytime or evening service
- Reduce frequencies during evenings

Estimated Ridership and Costs

Service Option	Buses Reqd.	Headway (mins)	Annual Operating Costs	Annual Ridership	Net Cost
Option A	6	30	$214,711	31,200	**$170,407**
Option B	4	30/60	$142,925	15,600	**$120,773**
Option C	3	60	$107,194	10,400	**$92,426**

Downtown Terminals

Sites Considered

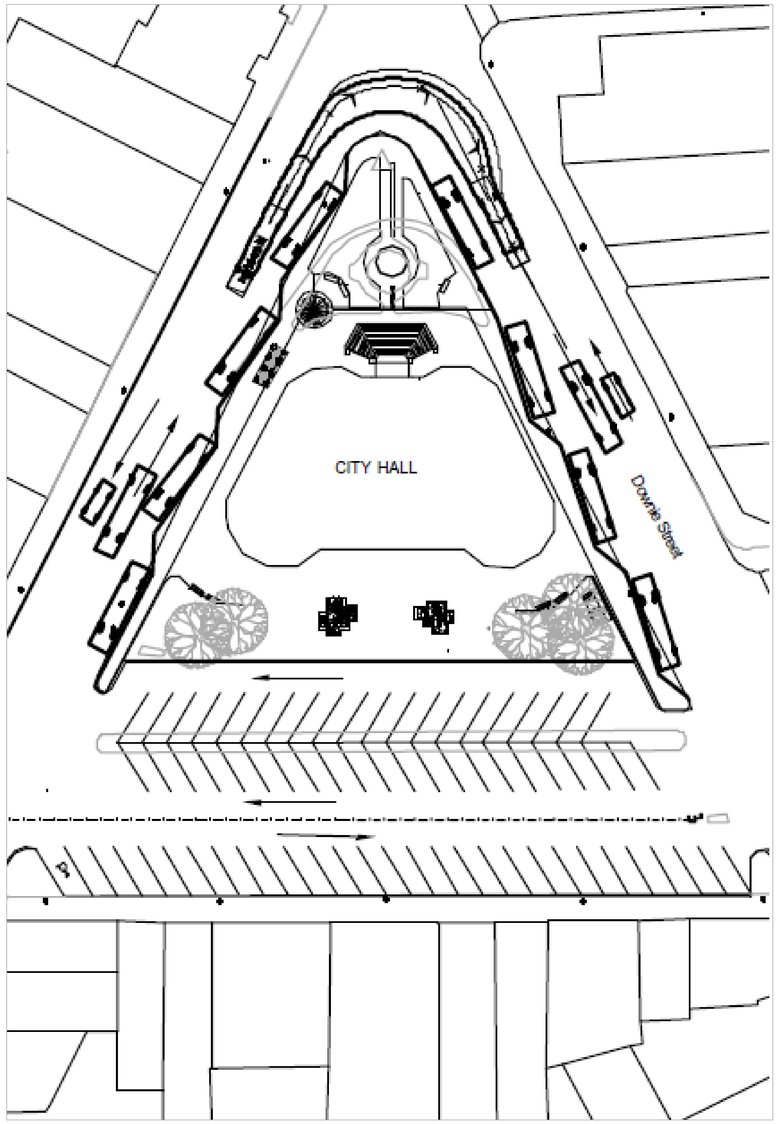
1. City Hall
2. Market Square
3. Erie Street
4. Cooper Street Site (no longer suitable)
5. George Street
6. St. Patrick Street

Key Features

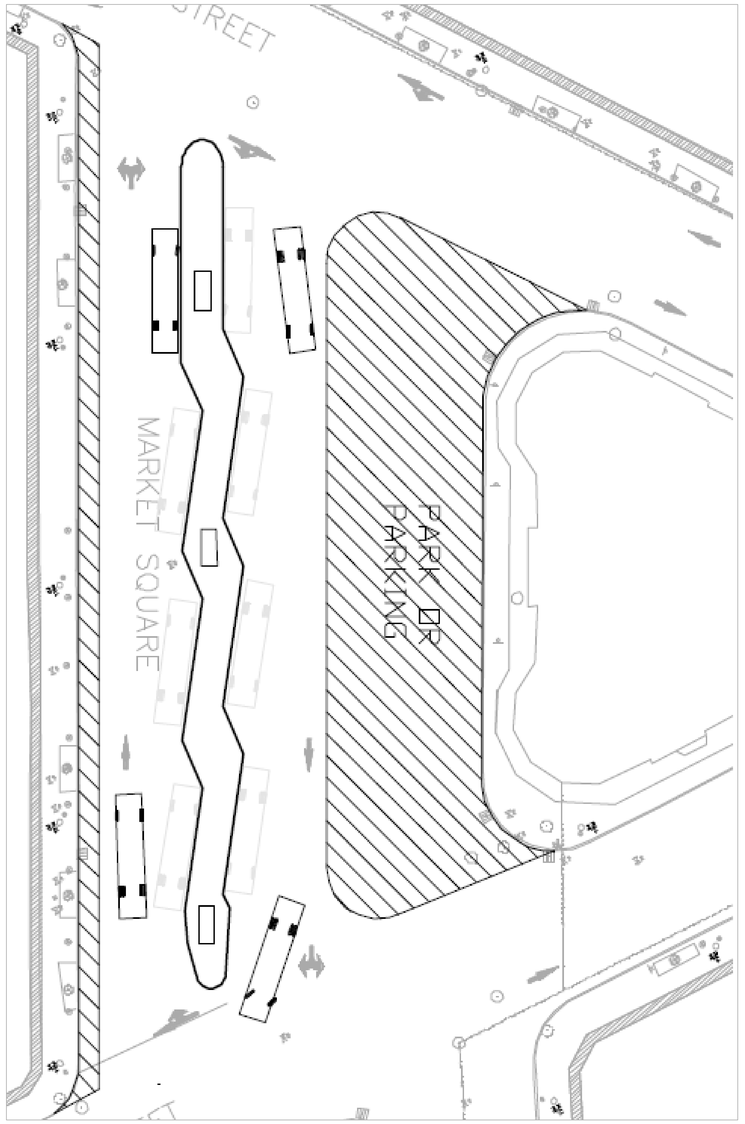
- Accommodates 6 buses/routes
- Amenities for transit users – seats, shelters, information
- Accessibility for people with disabilities
- Facilities for bus operators
- Close to downtown, high visibility
- Good access to buses from all directions

Downtown Terminals

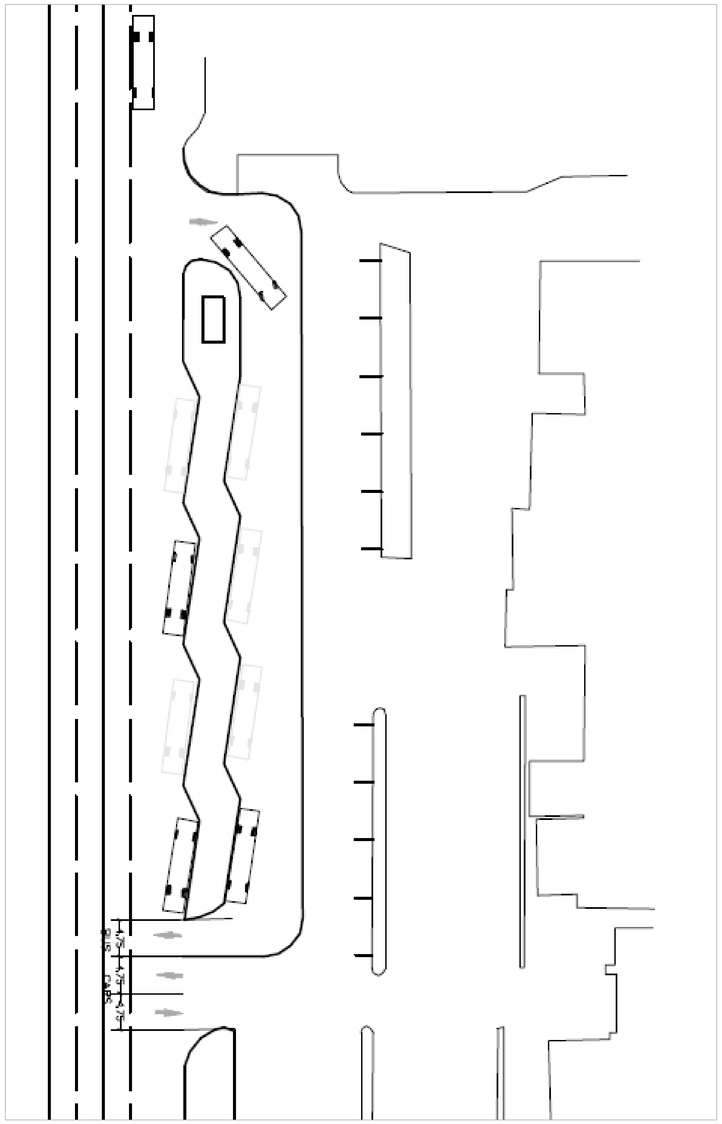
1. City Hall



2. Market Square

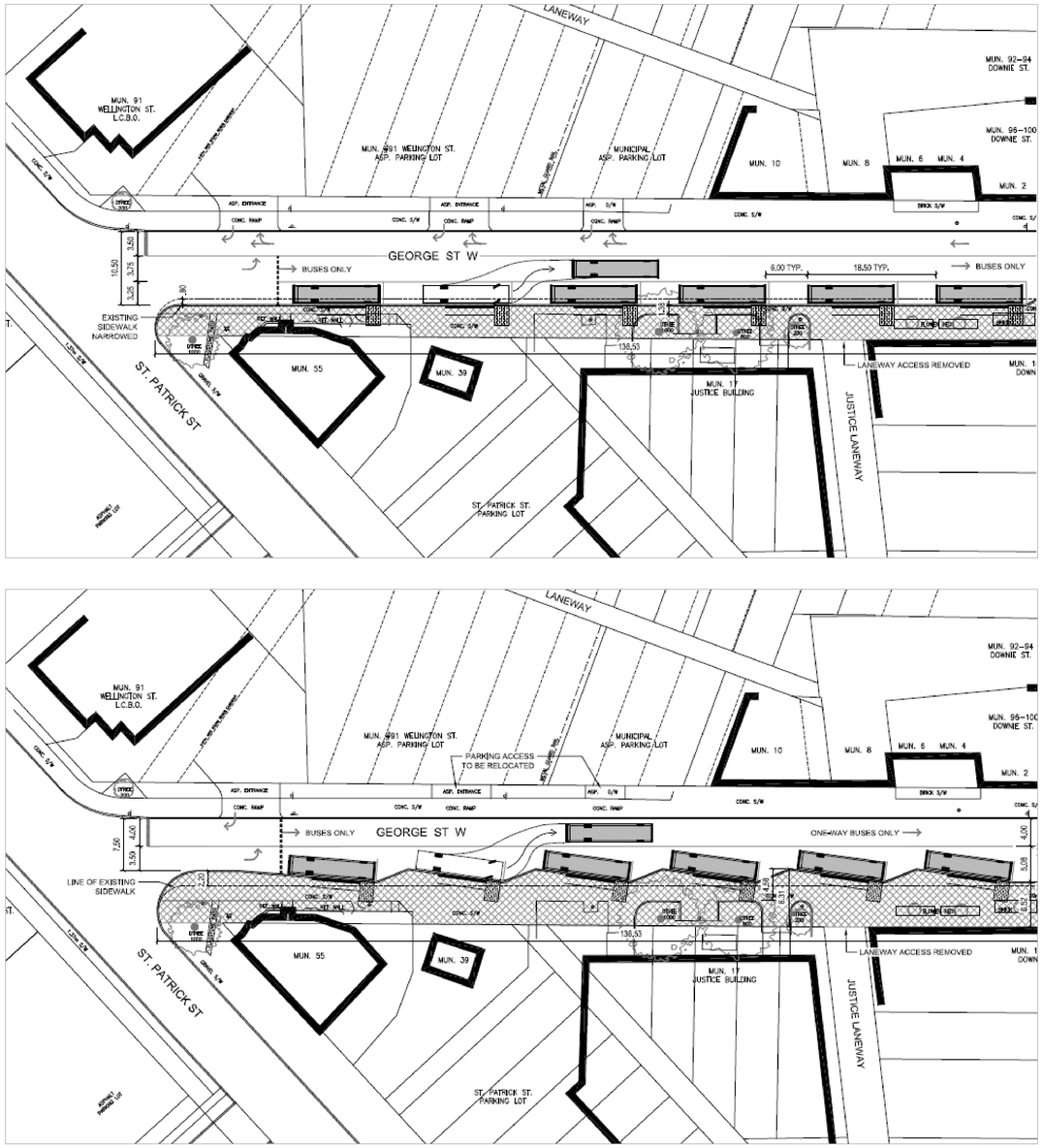


3. Erie



Downtown Terminals

5. George Street



6. St. Patrick Street

Operational Issues

Bike Racks

- Rack attached to front of bus, accommodates two bikes
- Costs $2,500/bus
- Limited value in small town – takes longer to wait and load/unload than to bike to destination
- Constrained bus garage space – added bus length with rack could not be accommodated
- Alternative: Allow bikes on bus
  - Subject to capacity, bus operator's discretion

Route Schedule

- Consideration of change of departure times to 15/45 minutes past hour (instead of 00/30) from downtown
- Benefits downtown-related travel
- Not attractive for non-downtown-related travel
- Current schedule has not been identified as a disincentive to transit use

Thanks for coming out!

- We’d love to hear from you
- Let us know what you think about the Stratford Transit Service Review:
  - Chat with one of our staff here today
  - Fill out a comment form
  - **Send us an email at ?**
- **Please submit comments by ?**