**John Stillich**

1247 Mary-Lou Street, Innisfil, Ontario, Canada L9S 0C2

Phone: 705-294-4110, or 416-400-0553; E-mail: johnstillich@rogers.com

**A Proposal for a Real Public Transit System for Innisfil**

In 2015, the Town of Innisfil produced a Transit Feasibility Study that identified a 1-bus and 2-bus transit service on a single route in Innisfil, with service frequency at one bus every 60 minutes. However, for a variety of reasons that included low ridership projections and high subsidy costs, the Town decided to enter into a contract with Uber to subsidize trips on-demand by town residents.

However, the future of Innisfil has changed significantly since the decision to use Uber as Innisfil’s transit model. The Town’s population will double in thirty years, from 43,300 in 2021 to 85,000 by 2051. A new hospital near Yonge Street and Innisfil Beach Road is now planned, a GO station at 6th Line has been approved, and there will be a “Mobility Orbit” high-density development around the GO station. Moreover, transportation systems based on travel by personal automobile are causing great damage to the natural environment, and the climate change emergency requires ending almost all greenhouse gas emissions. The cost of private transportation has become more of an issue for many households.

The Town of Innisfil’s budget includes a forecast of 100,000 trips using Uber in 2022, and includes a subsidy budget of $413,000 -- $4.13 per trip taken. A straight-line projection, assuming a population of 85,000 by 2051 or shortly thereafter, suggests a tax-supported expenditure of approximately $825,000 for Uber services. Whether there will be enough Uber drivers to safely and efficiently serve Innisfil’s growing population is uncertain. The congestive effects of Uber service may also become an issue (every trip to a client’s destination means a trip ***to*** the client and another to the destination). Currently, the Uber-based Innisfil Transit system uptake is 0.3% of all trips taken (all modes). Concerns have been expressed about driver availability, wait times and user cost, but overall, 51% of survey respondents happy with the service. With increased use of Uber, origin-destination service overlaps will grow. Compared to a fixed route service, the Uber service is also invisible to the public eye.

The 2015 Transit Feasibility Study, as part of its analyses, found that

* Support for a public transit system in Innisfil had the support of 77% of residents surveyed, with more than half expressing “strong” support;
* People prefer a scheduled service rather than a reservation system;
* More than six in ten residents believe that an extra $25 a year in property taxes is reasonable to pay for transit;
* Residents stated that they would be more likely to use a fixed schedule bus service than an on-demand transit service;
* Only 37% of residents indicated support for a service that runs every hour on weekdays, and only 21% noted that they would be interested in a service that required advance reservation.

An Innisfil Transit Community Engagement survey on Transit completed in 2019(?) found that, of the 801 residents who participated,

* 20.2% did not have a driver’s licence (including seniors, students, young adults, persons with physical disabilities, and persons of households of modest income);
* 31.7% of participants do not want to wait for transit more than 5 minutes; however, 35.2% would wait up to 10 minutes;
* Approximately 40% of respondents said Innisfil Transit (i.e. Uber) has benefited them (frequency of use varies);
* 35% had concerns about service availability, 34% were concerned about wait time to get the service, and 31% were concerned about the cost to use the service;
* To the statement that protecting the environment was important to them, 40% “strongly agreed”, and another 40% “agreed”.

As a measure of the importance placed on public transportation by the Transportation Master Plan under development, the January 2022 “Open House” presentation of the plan included just a single page about public transit. There was no indication that some manner of scheduled fixed-route transit model can be envisioned for Innisfil, and every indication was that the priority will be almost exclusively on supporting an increased use of private automobiles and trucks for daily trips, save for some attention to infrastructure for bicycles and active transportation.

This document suggests that it is time for a new look at a new transit system for Innisfil based on scheduled fixed routes. The model presented here identifies possible transit routes, potential ridership, revenues and expenses, and the net cost to residential property taxpayers.

The model presented assumes that it is no longer appropriate to consider transit in Innisfil as a service fit only for people who are unable to drive a car or cannot afford to, but as a system that is attractive to the whole of the general public as an alternative to driving. The model also assumes that it is *not* appropriate to base system decisions on lowest public cost. The survey results mentioned above indicate a high acceptability of a modest tax cost to households and suggest indirectly that better transportation is needed to protect the natural environment.

The awareness of the devastating effects of rapid climate change and the many destabilizing effects it will have on all people and on our natural life support systems makes it an appropriate and important responsibility to consider implementing a transit service that contributes to Innisfil’s fair share of reducing greenhouse gas emissions. Reliance on electricity-powered vehicles is insufficient.

**A New Public Transit Model**

A new transit service should be in place well before 2031. The illustration below shows one possible scenario. Note that scenarios for transit routes evolve over time as information improves. The routes presented connect travelers to popular destinations and trip origins in Innisfil and Barrie – the new GO Transit station at 6th line, the planned high-density Mobility Orbit centre that will develop over the next several decades, the growing neighbourhood population clusters in Alcona, the Town Hall area and its nearby future hospital campus (likely maturing in size soon after 2031), the Innisfil Heights employment area, the Sandy Cove community area, Lefroy and Belle Ewart, and Big Bay Point, Tanger Outlet Mall and Cookstown.

The proposed new transit network differs significantly from that of the 2015 feasibility study due to changes in how Innisfil will grow. The single route included in the 2015 transit feasibility study is no longer an appropriate reference. The scenario is a scheduled fixed route model, and does not include an Uber component, which should be available for people whose trip origins and/or destinations are too remote from the fixed route. The scenario also does not include potential shorter community services on additional roads that could use small autonomous (driverless) buses or vans. It also assumes that the transit service is operated by the Town of Innisfil, and that if the County of Simcoe operated the service, service frequencies would not be frequent enough to attract sufficient ridership (Simcoe LINX services run at 30- to 60-minute headways).

The scenario for a new public transit service for Innisfil are presented to include three routes, all implemented together:

* **Route 1 – IBR/25th Sideroad** is proposed to operate from the Big Bay Point/Friday Harbour community, south on the 25th Sideroad to Innisfil Beach Road (IBR), and westerly to Yonge Street, detouring slightly to serve the Recreation Centre and planned hospital, then continuing on IBR to serve the Innisfil Heights employment area. Potentially, the service area north of Lockhart Road to Big Bay Point can be replaced by a route that turns west on Mapleview Road instead of continuing north to Big Bay Point.
* **Route 2 – Alcona/Cookstown** is proposed to operate on a route operating from Innisfil Beach Road at 20th Sideroad (a retail centre) to Jans Boulevard, southward to Nantyr Shores Secondary School, to 6th Line via Webster Boulevard to the planned GO station and “Orbit” development, then southward to Ewart Street, westward on Killarney Beach Road, southward on Yonge Street, and westward on Highway 89 to Cookstown.
* **Route 3 – Yonge/Barrie** is proposed to operate westward from the planned GO station and “Orbit” development to Yonge Street, and from there northward to the Town Hall and hospital area, and from there northward to Stroud and Mapleview Drive in Barrie, westward on Mapleview to Highway 400, and then northward on Highway 400, with stops at Barrie Transit connections at Essa Road, Dunlop Street, Bayfield Street, Duckworth Street, Georgian College and Royal Victoria Hospital.

This transit service is recommended to operate 17 hours per day for 7 days per week, at 15-minute service frequencies on all routes.

All buses are assumed to be electricity-powered and attractively comfortable, and recommended to be able to accommodate 30 seated travelers beyond 2031. Transit stops shown in the illustration are limited in the initial scenario in order maximize speed, although it is likely that more stops would be useful as population increases. Stopping bays for buses may be needed at a few stops where there may be significant impacts to road traffic.

Importantly, *every* transit stop should include a shelter with a bench, and lock-up posts for bicycles and scooters to maximize ridership. The growing use of e-bikes and e-scooters, which enable access to transit stops without muscular effort, can become a significant attractor to public transit.

**Operating Costs and Revenues**

The recommended new transit service also assumes 7-day service per week for all routes, and longer service hours per day (17), in contrast to the 6-day service and more limited hours per day presented in the 2015 transit feasibility study. While the 2015 transit scenario was based on a minimalist one-bus-per-hour service frequency – a deterrent to use by the great majority of potential transit users ─ the Innisfil Transit service should operate at a 15-minute service frequency.

The overall operating assumption is that the ‘all-in’ operating cost per bus will be $400,000 per year (compared to a $389,000 pre-pandemic ‘all-in’ operating cost per bus in Mississauga for its 7-days-a-week service). The average operating cost per bus identified in the Innisfil Transit Feasibility Study was $350,000. A decision to use a contracted service may affect the cost (however, private sector profit margins can be balanced against higher public sector wage costs). With the fixed-route system in place, there would no longer be a need for a tax-supported Uber service. Route trip times and frequency of service determine how many buses will be needed for Innisfil and what the overall annual operating expenditure will be.

The net property tax cost to the average household in Innisfil will vary with population, deficit funding grants from Ontario, changes in ridership, and other factors. For a 2026 start-up, assuming that Innisfil Transit picks up 3.3% of all trips taken by residents, and the Province pays a start-up subsidy of 100% of the operating deficit, there would be no cost to the average Innisfil household. Appendix 1 provides details. Assuming no increase in operating costs per bus and transit fares held to $2.50, by 2031, the average tax cost could increase to 23 cents per household per day, with 4.3% of all daily trips attracted, and with no deficit funding from Ontario. By 2051, as Innisfil’s population increases to 85,000, and assuming that costs and fares remain unchanged and the modal share of all daily trips increase to and average of 6%, revenues will cover costs. In comparison, in a recent year, Barrie households paid approximately 53 cents per day for transit operating costs, and Toronto households paid 89 cents per day.

There was no precise calculation of the transit modal shares of all daily trips by Innisfil residents; transit modal shares in other municipalities were found or estimated, and assumptions made about how Innisfil ridership might compare, given the nodal characteristics of populations and employment in Innisfil, and the growth of the town, and some understanding of the demographics and household sizes in Innisfil. More analysis is recommended, *including* a new survey of residents.

A 23 cents per day ($83 per year) tax increase per average household in 2031 is the peak scenario for costs to households. It should be affordable and acceptable to most of the residents of Innisfil, once the benefits of the transit system become clear. In the 2015 survey, six of every ten survey respondents said a $25 property tax increase would be acceptable.

Householders may recognize that one or more of its members may benefit from a scheduled fixed-route transit service rather than using Uber or relying on household members or friends who drive. Heightened awareness of climate change issues and the rising costs of automobile ownership and use may also be motivators for transit use.

**RIDERSHIP ANALYSIS**

The level of transit ridership for a scheduled fixed-route system in Innisfil is difficult to measure. The costings presented here assume that for the 2026 and 2031 scenarios, average transit modal shares of 3.3% of all trips taken and 4.3% of all trips taken, respectively (see appendix), could be achieved. Those estimates for Innisfil compare to a pre-pandemic 6% for the Regional Municipality of York, 3% for Durham, 7% for Vaughan, and 7% for Brampton (all per MTO’s 2016 TTS Reports), each of which have distinct qualities of service (other comparisons at right). The figures exclude trips by GO Transit. Barrie Transit’s pre-pandemic modal share of all trips was 3.2%**;** service frequencies on the city’s bus routes range from 30 to 60 minutes apart – resulting in wait times too long for all but a few travelers.

The surveys produced for Innisfil in the past have highlighted indications of future transit ridership. Support for a public transit system in Innisfil was found to be 77%, with more than half expressing “strong” support. 80% of survey residents said environmental protection is important; this can mean support for public transit ─ and its costs ─ even if they do not use it.

The fact that the transit system proposal is for three routes, all at 15-minute headways for buses, maximizes the utility of transit as a practical mode of travel that can connect with all significant population and employment centres in Innisfil, unlike the single route presented in the Innisfil Transit Feasibility Study. The Innisfil system would serve, either directly or via transfers between routes, most of its population, employment and service clusters. Every stop on the system can be reached directly on one route or with no more than one transfer between routes.

Transit ridership is also enhanced by the length of each route – the longer the continuous route, the more successful ridership uptake will be. For example, Route 1 (25th Sideroad and Innisfil Beach Road) in 2031 is 26 kilometres long and directly connects the Big Bay Point and Sandy Cove communities, the jobs and services along Innisfil Beach Road, the IdeaLAB library centre and new Town Square, Town Hall, the Innisfil recreation centre, two schools, existing and planned health care centres at Yonge Street, and the Innisfil Heights employment area. The full-length Route 2 (Alcona-Cookstown) is 20 kilometres long and would stop directly at jobs and services on Innisfil Beach Road, the Nantyr Shores Secondary school, the new GO station and the Orbit community, Lefroy and Belle Ewart, Churchill, Tanger Mall and Cookstown, and perhaps New Tecumseh as a future extension. Route 3 would provide multiple connections for many travelers, including the new GO station, the Town Hall and RVH South campus, Stroud, retail centres on Mapleview Drive, the Georgian College campus, and the Royal Victoria Hospital, and connections to Barrie Transit at several Highway 400 intersects. End-to-end travel time from the new GO station to RVH would be approximately 30 minutes, which is reasonably competitive with travel by automobile.

The added comfort and convenience of enclosed glass shelters at all bus stops, with lock-ups for bicycles and scooters, and reasonably wait times will increase transit ridership. The new GO station at 6th Line will increase transit use as a means to access trips by GO Transit. Innisfil residents may also be more inclined to use public transit if buses are of superior quality and comfort.

Some transit ridership would come from young adults who are unhappy with the costs of car ownership and use, seniors who no longer wish to or cannot drive a car, students, and members of households where there is not a car for every adult. Approximately 20% of adult Innisfil residents do not have a driver’s licence. The economic profile of Innisfil is likely not very dissimilar to Ontario overall; there are lower-income households of all types that may find financial relief with an effective transit service.

**An essential early step** in the development of proposed four-route network is to undertake a new an attitudinal survey of Innisfil residents to clarify what potential and likely transit ridership may be. The survey should inform participants about the features of the proposed service network, including fares, wait times and hours of service per day, household tax costs (quoted in cents per day), what benefits of the proposed transit service may apply to them, and elicit personal concerns about the costs of ownership and use of personal automobiles.

One of the determinants of ridership and overall acceptability of its tax impacts is that householders may recognize that transit can help at least one member of their own family household avoid or delay buying a car, or reduce the need for chauffeuring non-drivers to destinations (and back; often a daily task).

The climate emergency, affordability issues with housing and transportation costs to households, and the inefficiencies of sprawling communities, suggests strongly that compact mixed use land development should dominate future growth management. Sustainable urban development means more people being closer to local amenities and being within easier walking distance to public transit. It significantly boosts transit ridership, and reduces daily dependence on travel by personal automobile. Assumptions that single detached housing should form the bulk of residential development in Innisfil is no longer appropriate; a rebalancing of housing options, including more attached and apartment-style housing that is affordable and fits a range of lifestyles, should be a timely focus of public decision-making as Innisfil’s populations grows rapidly.

**CAPITAL COSTS**

Transit infrastructure costs to Innisfil vary depending on if it is a directly-operated service or outsourced, and what arrangements are made regarding ownership of infrastructure. The capital costs of purchasing electricity-powered vehicles varies greatly, depending on the type and size of vehicle. Based on a cursory review of options, it has been assumed here that full-sized electricity-powered buses can be purchased for approximately $1,000,000 each. For the base 2031 scenario, 21 buses will need to be purchased. The vehicle numbers include a standby bus along each route that is recharging. The 2015 Transit Feasibility Study identified that a basic (non-electric) 18-24 capacity low-floor bus would cost $175,000 to $250,000.

Including maintenance facilities and bus stop shelters, the gross start-up infrastructure cost would be approximately $28 million, excluding vehicle replacement costs. Innisfil would participate in current cost-sharing programs with Canada and Ontario, and also negotiate strongly for additional funding from Ontario. Comparisons to other municipalities can help. For example, Toronto’s $23.9 billion share of the 100%-funded $28.5 billion rapid transit infrastructure plan that was announced in 2019, is the equivalent of approximately $7,200 per 2031 Toronto resident. 100% capital funding for the Innisfil transit system proposed here would be the equivalent of approximately $580 per Innisfil resident in 2024. Capital funding can also be argued politically as an initiative to help small municipals in the fight against climate change and its heavy costs to people. If shared at 80%, the Net Town Cost of $5.7 million in 2026 can be amortized over multiple years to reduce the annual cost to taxpayers.

**Timing of Implementation**

As young people become of age to drive automobiles, the availability and quality of transit to them will determine to some degree when and if they buy a car. If a useable transit service is not available, they will buy a car and will seldomly or never use transit again. The sooner public transit is implemented, the sooner the ridership base of transit users begins to build over the longer term. This also affects new residents who, when they move to live in Innisfil, can have fewer cars than adult members of their household.

The urgency of action to reduce greenhouse gas emissions applies to rapidly-growing Innisfil. The rapidity of change in Innisfil, high growth targets, a new GO rail station and a new hospital make the town’s contribution to achieving ‘net zero’ GHG emissions increasingly important. This urgency is respected by many residents of Innisfil (as per survey). Unfortunately, electricity-powered automobiles and trucks are, in the overall, roughly half as GHG-emitting as gasoline-powered vehicles over their lifecycles, given the mining, production, maintenance and disposal impacts of EVs; the fuels used to supply electric power is also problematic. The only true solutions are mass transit and active transportation, or not traveling at all.

The survey of Innisfil residents should be a focus of effort in the development of the 2022 Transportation Master Plan update. An example of what this survey could include is attached as Appendix 2. The 3-route proposal is appropriate to become *fully operational* by end of 2026, as soon as vehicles, transit stop shelters, maintenance equipment and infrastructure can be procured.

Overall, the timing for implementation may be as follows:

1. Transportation Master Plan draft at Council by or before the end of June 2022;
2. Council motion decision to undertake a ridership-potential focused public survey;
3. Survey completed and final TMP delivered to Council and approved by the end of 2022;
4. Aggressive negotiation for funding for 100% of capital and sliding scale of operating deficit funding over start-up years of operation; Agreement before end of 2023;
5. Bus purchases received and infrastructure completed by mid-2025;
6. Innisfil Transit service becomes operational soon thereafter.

Starting slowly with a single route will not generate the volume of transit ridership and operating revenues that will encourage next steps; a single route will serve only people whose tip origins and destinations are near its stops. It will not serve people who live elsewhere but whose destinations are along the single route, nor will it serve people whose destinations are not along the route. Ridership volumes increase geometrically with full geographic coverage. A small, single-route start-up in Innisfil will create doubts about the affordability and success of adding more service. Strong start-up transit ridership also depends on high service frequencies and affordable fares.

**MARKETING –** Just a few thoughts

A new public transit system for Innisfil as described, or similar system, will need to be promoted to potential funding partners as an important investment by them in support of the efforts of smaller municipalities in the fight against climate change. This includes messaging to the governments of Ontario and Canada that justifies 100% funding for capital infrastructure plus start-up operating deficit funding.

Residents will need to be informed of the transit system’s practicality and affordability for daily use for themselves or for family, friends and neighbours, and that it is an affordable public service. Marketing of Innisfil Transit should precede implementation, and be a continuous effort to encourage use of the system. Marketing also means keeping the system running effectively and maintaining the comfort and safety of transit vehicles.

Some messages to the public can include promoting support for climate action (e.g., “Innisfil has to be part of the solution, not part of the problem, of rapid climate change; we must do our fair share, do what we can for our kids and grandkids.”).

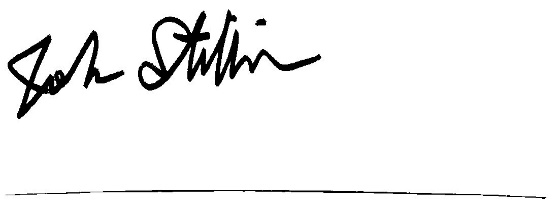
The benefits of Innisfil Transit to themselves can be described (e.g., “a new, high-quality transit system that everyone can use – including people you are now chauffeuring around town, seniors who cannot drive, and perhaps your neighbours”).

(A benefit for those freed from ownership of a personal automobile: It has been said that, in urban areas, people who do not own an automobile have more money in their pockets to spend on restaurants, entertainment and art, travel, education, friends, loved ones, and on other life priorities, while car owners spend their money owning, fueling and maintaining their vehicles, with little left over for the finer things in life.)

**THE FOLLOWING RECOMMENDATIONS WERE SUBMITTED TO INNISFIL TOWN COUNCIL:**

1. Accept this submission for consideration as part of Innisfil’s Transportation Master Plan update.
2. Recognize that a new public transit system for Innisfil is necessary for the overall social, environmental and economic well-being of the town and its residents;
3. Recognize that the current Uber service model is inadequate, serving far fewer residents (0.3% of all daily trips) than a more a visible transit service can;
4. Do not let least property tax cost be the primary determinant for decision-making on a new transit system;
5. Conduct a new survey of town residents as an input to the development of the 2022 Transportation Master Plan update, to determine the levels of support for the implementation of, and potential ridership of, a new scheduled fixed-route bus transit system of the type and quality described, to replace the current subsidy contract with Uber.
6. Do not delay.

**Thank you** for reading and following up on the opportunities and issues raised in this document. Thank you also for accepting, with patience, this revision of an earlier version of this request for a new transit system for Innisfil. Please contact me for more information, or to provide comments or ask questions. I can be reached at [johnstillich@rogers.com](mailto:johnstillich@rogers.com) or by phone at 705-294-4110.



John Stillich

**Appendix 1**





**Appendix 2 A Sample of a Survey About a New Innisfil Transit System**

The Town of Innisfil periodically reviews its transportation systems, to ensure that they meet the travel needs of its residents and visitors. Innisfil’s population will almost double by 2051, and the current Uber-based transit system is unlikely to be adequate for the future. To help determine whether a regularly-scheduled fixed route transit system will be practical and affordable for you and Innisfil overall, please answer the following questions.

How many people live in your household? (please circle)

1 2 3 4 More than 4

Do you have a drivers license?

* Yes No

Do you own an automobile or small truck, or have regular use of one?

* Yes No

How often do you drive other adults (ages 15 to 80+) to their destinations?

* I don’t drive anyone.
* Once in a while; infrequently
* Most days of the week

How many automobiles and small trucks are there in your household?

* 1 2 3 More than 3

To what destinations do you go often? (select as many as appropriate)

* Children’s school Big Bay Point
* Stroud Lefroy or Belle Ewart
* Destinations along Innisfil Beach Road
* Other destinations between 9th Line and 7th Line
* Barrie South GO Station
* Other destinations in Barrie
* Tanger Mall Cookstown
* Innisfil Heights employment area
* Other destinations

Do you use Innisfil’s subsidized Uber Transit system?

* Often Infrequently No

Financially, how do you feel about the costs of your car or small truck (Ownership, use, maintenance)?

* + It’s not a problem
  + It limits what else I can spend money on
  + It’s a heavy financial burden

Please look at the map that shows an example of a scheduled bus service for Innisfil. Would the transit stops shown be within reasonably close walking distance to one or more of your trip origins or trip destinations?

* Yes, several of them
* Yes, one of them
* No

How would you feel if the buses on the routes shown on the map come every 15 minutes and there is an enclosed shelter at every stop?

* That’s good enough; I can time my walk to the bus to get there to minimize my wait times
* Buses would come too infrequently; I would have to wait too long
* I won’t wait for a bus

How much time to walk to or from a bus stop would be acceptable to you?

* + - 5 minutes
    - Up to 10 minutes
    - Up to 15 minutes
    - More than 15 minutes

Do you think other adults living in your household would take this kind of Innisfil Transit?

* + Yes, often Yes, sometimes Not likely

If there were lock-ups at bus stops for bicycles, would that make you more likely to use the bus?

* + Yes, I’m a bit too far from a stop to walk
  + No, I wouldn’t need it
  + No, I don’t use a bicycle

How would you feel about a fare of $3.00 to use the bus when you need to use it?

* That’s a reasonable fare
* I would pay, but that’s really too much
* I wouldn’t use the bus

How would you feel about a less expensive transit pass that any member of your household could use?

* It would be useful to me
* It would be useful for other family members
* I wouldn’t buy a monthly pass

If there were a transit system in Innisfil with the routes shown on the map, with a bus arriving every 15 minutes, and shelters at every stop, how would you feel if operating the system would cost 25 cents per day in taxes per household?

* That’s okay, I see the benefits to the community and the environment
* It would be difficult for my household to pay 25 cents per day
* I would not approve of this tax increase.

Regarding the protection of the environment, how do you feel about a transit system in Innisfil?

* + Innisfil should do its fair share of reducing environmental damage
  + Innisfil is too small to make a difference
  + Public transit is not important at all