



The City of Kawartha Lakes Lindsay Transit Master Plan 2018



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Executive Summary

The City of Kawartha Lakes retained the services of Transit Consulting Network to develop a Transit Master Plan for the next 10 years (2018-2027). The plan is to build on recent successes, improve service reliability and accessibility, expand transit's reach within the City where supported by a sound business case, and identify alternatives to improve upon the existing routes and route network design. A ten-year transit asset management plan was also developed to ensure sufficient rolling stock with supporting infrastructure and technology is in place to support the proposed transit service plan.

The Transit Master Plan study was broken down into the following phases and tasks:

- Phase I: Evaluation of Existing Public Transportation Services
- Phase II: Preliminary Route and Service Concepts, Community Engagement
- Phase III: 2018-2027 Public Transportation Service and Financial Plan

Evaluation of Lindsay Transit

Lindsay Transit operates a fixed route service from 0700 hrs. to 1900 hrs. Monday through Saturday. Lindsay Transit is a well-established service that consists of three separate routes. Lindsay Transit also operates a Specialized Transit system called LIMO that provides accessible door to door transportation within the Town of Lindsay to residents that are unable to use Lindsay Transit.

There was a 22.1 % growth in total transit ridership from 2012 to 2016 while the service area population grew by only 7.2%. For every 1% in population growth, the public transportation demand grew by 3%. Both services have experienced an increase in ridership, operational efficiencies and community acceptance.

Community Engagement Process

A critical and extensive community engagement process was initiated to determine community priorities within the City of Kawartha Lakes to help guide the study. The engagement process included:

- Questionnaire survey undertaken by Lindsay Transit staff during Spring 2017 (199 responses received)
- Lindsay Employer Survey (32 businesses representing 868 employees)
- Bus Operator focus group
- Municipal Staff focus group

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

- Business Community focus group
- Bus Ride-along/ passenger interviews (22)
- Fleming College student interviews
- Accessibility Committee
- Transit Advisory Board (TAB) focus group
- TAB Six Sigma Exercise Meeting

2018-2027 Public Transportation Service and Financial Plan

The Transit Master plan proposes for 2018-2027 a transit service plan to increase the amount of service on an annualized basis from 15,027 revenue hours of service to 27,459 revenue hours. This plan has been separated into two parts, 2018-2022 and 2023-2027

Table 1 - 2018-2022 service developments

Year	Description	Additional Annual Revenue Hours	Annual Operating Cost (\$70 per hour)	Annual Additional Revenue	Annual Net Cost
2018	Modify Routes	No added service hours	Nominal (added bus stops)	NA	NA
2019	Add Sunday service (1000 -1600 hours)	936 Transit + 312 LIMO	\$87,400	\$11,000	\$76,400
2020	No change				
2021	Add Orange Route (Monday – Sunday)	3,936	\$275,500	\$41,700	\$233,800
2022	Add weekday evening service to 2300 hrs.	4,000	\$280,000	\$42,400	\$237,600
Total	Lindsay Transit + LIMO	9,184	\$642,900	\$95,100	\$547,800

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

Table 2 - 2023-2027 service developments

Year	Description	Additional Annual Revenue Hours	Annual Operating Cost (\$70 per hour)	Annual Additional Revenue	Annual Net Cost
2023	3 roundtrips per day from Bobcaygeon to Lindsay, 3 days a week	936	\$65,500	\$15,000	\$50,000
2024	Increase service between Bobcaygeon and Lindsay to 5 days	624	\$43,700	\$10,000	\$33,700
2025	- Add 2 trips per weekday between Bobcaygeon and Lindsay	1,000	\$70,000	\$16,000	\$54,000
2026	Weekday Commuter service from Lindsay to GO bus stop at HWY 35/115	1,000	\$50,000	\$16,000	\$34,000
2027	No change				
Total		3,560	\$229,200	\$57,000	\$172,200

The Transit Master Plan builds on past successes of Lindsay Transit and LIMO service and incorporates best practices that have evolved over the years throughout Ontario and Canada. The transit market has changed and as such, the proposed Master Plan will take Lindsay Transit and LIMO service to the next level. The plan also includes a community Transit plan for locations outside of Lindsay in the years 2023-2027.

The extensive community engagement process provided the study team with the information needed to prioritize transit service improvements and investments. The first five years of the plan focus on the current Lindsay Transit service area while the next five years addresses expansion of Lindsay Transit and LIMO to outlying communities such as Bobcaygeon and Fenelon Falls. The transit improvements that have been laid out over the 2018-2027 period will take transit to a value-added level that will support growth, existing needs and the Kawartha Lakes Strategic Plan.

TABLE OF CONTENTS

Executive Summary	i
Evaluation of Lindsay Transit	i
Community Engagement Process.....	i
2018-2027 Public Transportation Service and Financial Plan.....	ii
1. Introduction	1
1.1 Background	1
1.2 Study Scope	1
1.3 The Case to Support Transit Investments	2
1.4 Description of Lindsay Transit Service	4
1.4.1 Lindsay Transit Service Description	4
1.4.2 Lindsay Transit Fleet	6
1.4.3 Other Transit Services	7
1.5 Description of LIMO Service.....	8
1.5.1 Communities Served	8
1.5.2 Route and Service Design	8
1.5.3 LIMO Eligibility	9
1.6 Community Care (outside of Lindsay)	10
1.6.1 Community Care Transportation.....	10
1.6.2 Service Considerations.....	11
1.6.3 Eligibility considerations.....	11
1.6.4 Summary of Specialized Transit Service	11
2. Phase I: Existing Transit Environment	13
2.1 2011-2015 Lindsay Transit Report Card and Peer Review	13
2.1.1 2011-2015 Lindsay Transit Report Card.....	13
2.1.2 2015 Lindsay Transit Peer Review	14
2.1.3 Assessment of Lindsay Transit Performance	15
2.1.4 Lindsay Transit Financial Indicators	18
2.1.5 Summary of Report Card and Peer Review.....	21
2.1.6 2012-2016 Lindsay Transit and LIMO Ridership	21
2.2 Community Engagement.....	21

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

2.2.1	Lindsay Transit Survey	21
2.2.2	Lindsay Employer Survey	25
2.2.3	Transit Focus Group Discussions	26
3.	Phase II: Preliminary Route and Service Concepts	35
3.1	Goals and Objectives	35
3.2	Transit Service Design Guidelines	37
3.2.1	Transit Service Standards	37
3.2.2	Transit Service Level Policies	37
3.2.3	Service Reliability	38
3.3	Land Use Planning and Transit	38
3.3.1	Acceptable Transit Route Design	39
3.3.2	Walk Distance to Bus Service	40
3.3.3	Bus Stop Locations and Design	41
3.3.4	Trade-offs	42
3.4	Transit Ridership Growth Plan	42
3.4.1	Transit Service Expansion	43
3.4.2	Transit Fare Pricing Strategy	44
3.4.3	Transit Technology	46
3.4.4	Bus Stop Infrastructure	48
3.4.5	Branding and Marketing	51
3.4.6	Travel Training	52
3.4.7	Community Liaison	53
3.4.8	Bike Racks on Buses	55
3.4.9	Development Growth	56
3.4.10	Summary of Transit Ridership Growth Strategies	56
3.5	Public Transportation Service Alternatives	57
3.5.1	Heavy-duty Conventional Transit Fixed-route Service	57
3.5.2	Community Bus Fixed-Route Service	57
3.5.3	Specialized Transit	57
3.5.4	Fixed Flex-route Concept	58
3.5.5	Fixed-route Shared-ride Taxi	59
3.5.6	Dial-a-Ride	60
3.5.7	Summary of Service Delivery Options	60
4.	Phase III: 2018-2027 Transit Service Plan	61

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

4.1	Proposed 2018-2023 Route and Service Plan	61
4.1.1	Proposed Three-route Plan (2018)	62
4.1.2	Proposed 2019-2023 Four-route Plan	63
4.1.3	Growth Management Plan	64
4.1.4	Summary of 2018-2022 Lindsay Transit Service Plan	65
4.2	Proposed 2023-2027 Lindsay Transit and LIMO Service Plan.....	67
4.2.1	Proposed 2023-2027 Lindsay Transit and LIMO Service Plan	67
4.2.2	Summary of 2018-2027 Transit Service Plan	70
4.2.3	Dedicated Provincial Gas Tax	70
4.2.4	Grant Availability.....	71
4.2.5	Transit Organization	71
5.	Transit Asset Management Plan.....	74
5.1.1	Smart Card Technology (2020)	74
5.1.2	Transit Operations Centre	74
5.1.3	Fleet Replacement and Expansion Plan.....	74
5.1.4	Bus Stop Infrastructure (2018-2027)	76
5.1.5	Bike Racks.....	76
5.1.6	Future Off-street Transit Hub.....	76
5.1.7	Summary of 2018-2027 Transit Asset Management Plan	77
6.	Transit Master Plan Recommendation.....	79
Figure 1	- CAA 2015 Driving Costs	2
Figure 2	- Lindsay Transit System.....	4
Figure 3	- Lindsay Transit 2016 Weekly Averages	5
Figure 4	- Lindsay Transit Bus	6
Figure 5	- LIMO Total Monthly Passengers 2016	9
Figure 6	- Lindsay Transit Report Card	14
Figure 7	- Lindsay Transit 2016 Peer Review Table	15
Figure 8	- 2011-2015 Transit Ridership.....	15
Figure 9	- 2011-2015 Revenue Vehicle Hours	15
Figure 10	- 2011-2015 Lindsay Transit Revenue Vehicle Hours per Capita	16
Figure 11	- 2015 Peer Group Revenue Vehicle Hours per Capita	16
Figure 12	- 2011-2015 Passengers per Hour	16
Figure 13	- 2015 Peer Group Passengers per Hour.....	16

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

Figure 14 –2011-2015 Lindsay Transit Revenue Passengers/Capita	17
Figure 15 – 2015 Peer Group Revenue Passengers/Capita	17
Figure 16 - 2011-2015 Lindsay Transit Cost/Hour	19
Figure 17 - 2015 Peer Group Cost/Hour	19
Figure 18 - 2011-2015 Lindsay Transit Average Fare	19
Figure 19 - 2015 Peer Group Average Fare.....	19
Figure 20 - 2011-2015 Lindsay Transit Net Investment/Capita	20
Figure 21 - 2015 Peer Group Net Investment/Capita	20
Figure 22 - 2012-2016 Lindsay and LIMO Ridership.....	21
Figure 23 - Transit Customer Usage	22
Figure 24 - Usage Frequency and Timing	22
Figure 25 - Length of Years using Lindsay Transit.....	23
Figure 26 - Main Destinations	23
Figure 27 - What would entice you to use Transit more often?	24
Figure 28 - What would entice you to use Lindsay Transit?	24
Figure 29 - How many vehicles are there in your household?.....	24
Figure 30 – Type of Business.....	245
Figure 31 – TAB Six Sigma Table	24
Figure 32 - Current Fares Table.....	44
Figure 33 - Smart Card/Farebox Photo	47
Figure 34 - Posted Schedules at Bus Stops.....	50
Figure 35 - Annual Planning and Budget Process Flow Chart	54
Figure 36 - Bus with Bike Rack	55
Figure 37 - Proposed Three-route Plan (2018) Map.....	62
Figure 38 - Proposed Four-route Plan Map.....	63
Figure 39 - Urban Settlement Area	64

1. Introduction

1.1 Background

The City of Kawartha Lakes completed a Transit Master Plan in April of 2008. The City of Kawartha Lakes retained the services of Transit Consulting Network to develop a Transit Master Plan for the next 10 years (2018-2027). The plan is to build on recent successes, improve service reliability and accessibility, expand transit's reach within the City where supported by a sound business case, and identify alternatives to improve upon the existing routes and route network design. A ten-year transit asset management plan will also need to be in place to ensure sufficient rolling stock with supporting infrastructure and technology in place to support the proposed transit service plan.

1.2 Study Scope

The Transit Master Plan study was broken down into the following phases and tasks:

- Phase I: Evaluation of Existing Public Transportation Services
 - To provide the City with an in-depth understanding of both fixed-route transit and specialized transit operations from a logistics and community-wide perspective
- Phase II: Preliminary Route and Service Concepts
 - Development of a Policy Framework for both fixed-route transit and specialized transit that is in line with the City's strategic direction and the community's transit priorities
 - Develop route and service concepts based on the policy framework, development and best practices that would be carried forward to Phase III
- Phase III: Public Transportation Service and Financial Plan
 - Development of draft service and financial plan
 - Development of Transit Asset Management Plan
 - Review with Project Steering Committee
 - Review with public
 - Present Transit Master Plan to Council

The ultimate goal and challenge of the study was to make adjustments to Lindsay Transit that will maintain an ability to meet the community needs and comply with existing and impending AODA requirements, while operating effectively within available

resources, and not over-committing the City of Kawartha Lakes financially. The study was designed to find solid evidence on which to base recommendations that will lower the cost and/or improve the quality of transit and mobility services, while ensuring full and timely compliance with AODA IASR (Integrated Accessibility Standards Regulations of Ontario) requirements.

1.3 The Case to Support Transit Investments

Communities are finding that residents who are faced with the loss of personal mobility or are unable to afford a car, are increasingly inclined or obliged to move to communities where affordable public transportation exists. Likewise, employers consider the availability of public transportation when making business location decisions. A major factor that makes possible a good quality of life is the availability of affordable public transportation since it enables those without access to a private car to access goods, services, jobs, and maximizes social connectedness, which is now considered a health-related benefit.

The market for transit – students, the working poor, people with disabilities, senior citizens, people on social assistance, and those that simply want to do without that 2nd or 3rd car are all segments of the population whose needs should not be ignored. People are also choosing transit for environmental reasons,

affordability and as a quick practical option. The viability of policies to maintain the elderly in their homes instead of in long-term care, access to health care, social services, and essential maintenance such as shopping and banking all depend on personal mobility. Community leaders seeking to reverse or stabilize a potential decline in population must consider access to transportation as a key issue affecting the vitality and the financial health of their community.

Another key factor that can be considered to support the availability of affordable public transit is the positive financial impact transit can have on a community. For example, the ability to reduce car ownership can have a profound effect on a household's finances and quality of life. Figure 1: CAA 2015 Driving Costs provides the true cost of car ownership using a Camry LE.

ANNUAL DRIVING COSTS – based on the Camry LE				
Km driven per year	Annual operating costs (variable)	Annual ownership costs (fixed)	Total cost	Cost per km
12,000 km	\$1,975.20	\$7,179.84	\$9,155.04	\$0.76
16,000 km	\$2,633.60	\$7,494.00	\$10,127.60	\$0.63
18,000 km	\$2,962.80	\$7,494.00	\$10,456.80	\$0.58
24,000 km	\$3,950.40	\$7,801.08	\$11,751.48	\$0.49
32,000 km	\$5,267.20	\$8,373.48	\$13,640.68	\$0.43

Figure 1: CAA 2015 Driving Costs

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

For auto owners that drive 16,000 kilometres per year, the total annual cost reported to own and operate a vehicle is \$10,127 per year. Arbitrarily applying a factor of 75% to be conservative, this would still equate to \$7,600 per year or \$630 per month compared to a Lindsay Transit monthly bus pass at \$52.50 for seniors and \$63 for adults, saving residents \$583 per month. The savings would likely be spent on local goods and services, improving the quality of life of residents and supporting local businesses.

For those residents that earn little income and are forced to own a vehicle in order to get to and from work, car ownership becomes a financial burden. For example, a person working part-time 24 hours per week with a net income of \$12 per hour must work 13 hours per week to own and operate a vehicle to get to and from work; this consumes over 50% of their earnings. A major car repair expense can be devastating. Those on low fixed incomes or under-employed face even more challenges. Fortunately, the City of Kawartha Lakes has a record of financially supporting fixed-route transit.

The modern understanding of public transportation is to see it as a Family of Services rather than being limited to the usual fixed route bus service (Lindsay Transit) and specialized transit such as LIMO. Each member of the Family of Services has different strengths and cost levels. Taken together, they support each other to provide, overall, an excellent range of mobility choices as an alternative to the private car.

1.4 Description of Lindsay Transit Service

The City of Kawartha Lakes (and the former Town of Lindsay) has provided a public transit service, known as Lindsay Transit, within the Lindsay urban area since the 1970's. Following the amalgamation of the former municipalities to form the current City of Kawartha Lakes, the municipal funding for the transit service within Lindsay has been provided through an area rating property tax that applies only to properties within the former Town of Lindsay boundaries. The City also provides a dedicated transit service known as LIMO for persons with disabilities within the Lindsay urban area.

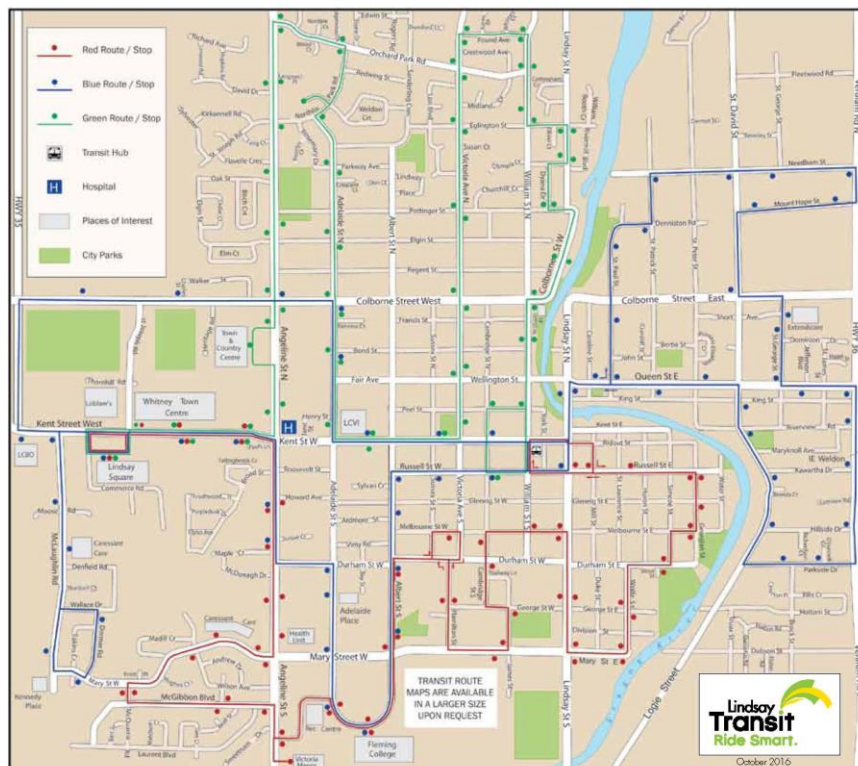


Figure 2 - Lindsay Transit System

Lindsay Transit is a well-established service that consists of three separate routes as shown in the figure above. The three routes (Green Route, Red Route and Blue Route) connect at an on-street transit terminal in the central business district (CBD) of Lindsay and provide service to the different parts of the community. The service is well utilized with approximately 100,000 passenger trips carried annually.

1.4.1 Lindsay Transit Service Description

The Lindsay Transit service operates from 07:00 AM to .19:00 PM, Monday through Saturday. Operating hours, routes and schedule can be found on the Lindsay Transit website at <https://www.kawarthalakes.ca/en/living-here/lindsay-transit.aspx>. The Green, Red and Blue routes are designed to meet at the downtown transit hub every hour, on the hour with a timed transfer that accommodates transfers between the three routes. The areas served by each route are as follows:

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

- The Green Route provides a two-way service along a route that serves the area of Lindsay north of Kent Street. The outer terminus of the route is at Lindsay Square, a large commercial mall near the west side of Lindsay and it also provides service to the hospital and the Town and Country Centre mall.
- The Red Route provides a two-way service along a route that serves the area of Lindsay south of Kent Street, including Fleming College and the hospital. It also terminates at Lindsay Square at the same time as the Green Route.
- The Blue Route consists of two one-way loops, one serving the east side of Lindsay and the other loop serving the west side of Lindsay. This route provides service to Fleming College, the hospital and Lindsay Square.

As can be seen from detailed data collected by Lindsay Transit staff, there was an average of 1,969 passengers carried weekly. Monthly averages deviated from -13.8% to +16.1%. Variations exist due to weather conditions and, in part, the lack of service on statutory holidays.

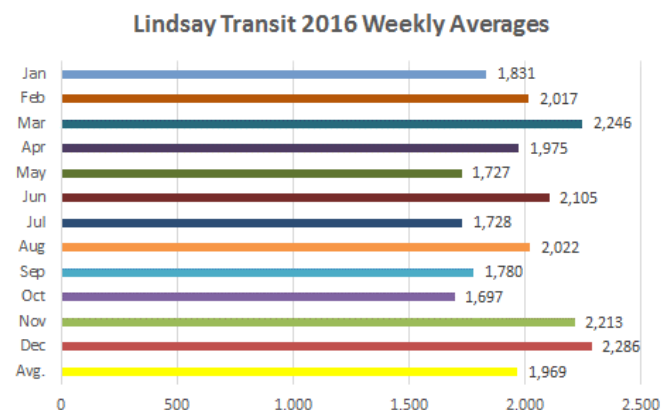


Figure 3 - Lindsay Transit 2016 Weekly Averages

In September 2017, the downtown transit hub was relocated from William Street to Victoria Avenue, just south of Kent Street. This new location has designated stops for each of the routes with a shelter and benches providing weather protection. This location also has an increased length of curb space for stopped buses providing improved manoeuvrability for the buses entering and leaving stops and increased safety of patrons.

The three routes have designated on-street stops at regular intervals with bus stop marker signs at all stops indicating the route using that stop. Most bus stops have pads connecting from the curb to sidewalk and many busy stops also have bus shelters provided. At Lindsay Square the three routes operate into the mall property to a bus stop adjacent to the building front. The Green Route currently operates into the Town and Country Centre property to a bus stop adjacent to the building and the Red Route

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

currently operates into the Victoria Manor to an internal bus stop that enables buses to turn around.

On-board observations, coupled with bus operator discussions revealed the following with respect to the reliability of each of the routes:

- Green Route has minimal recovery time, which results in buses being late on most trips
- Red Route buses are sometimes late
- Blue Route buses are rarely late
- Traffic delays, circuitous routing and route deviations onto private properties (e.g. seniors' residences) were cited as the primary cause of late buses

The minimal recovery time built into the bus schedules needs to be increased to approximately five minutes per trip to allow for timely transfers between buses. This can be addressed through a route re-design that limits deviations while still maintaining reasonable walk distances to bus stops.

1.4.2 Lindsay Transit Fleet

The Lindsay Transit bus fleet consists of Ford Model 4500 low-floor buses with wheelchair ramps to accommodate people with mobility devices. These buses accommodate up to 20 seated passengers plus standees and two rear-facing wheelchair positions. These buses are capable of accommodating the peak passenger demand and manoeuvre well on the local streets in Lindsay. Fleet Services reported that the service life of these buses can be as high as 10 years since the improvements to the maintenance program has proven effective. Fares are collected with mechanical fare boxes mounted near the Operator position.



Figure 4 - Lindsay Transit Bus

The 11-bus Transit and LIMO fleet is allocated as follows:

- 2 undergoing preventative maintenance and other repairs
- 1 bus allocated as an operating spare (a mandatory requirement to maintain service in case of in-service breakdowns)

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

- 3 buses utilized daily (1 red, 1 green and 1blue)
- 1 bus set aside for charter services
- 4 buses allocated to LIMO service (up to 3 in-service plus one spare)

Since the Lindsay Transit and LIMO buses are identical, buses can be used in both services, which have proven to maximize fleet flexibility and reliability.

1.4.3 Other Transit Services

There are several inter-municipal transit services that operate within or through the City of Kawartha Lakes, as follows:

- GO Transit has two inter-regional bus routes operating through the municipality:
 - GO Route 81 operates along Highway 12 between Whitby GO Station and Beaverton four trips in each direction on weekdays and weekends. This route is located approximately 28 kilometres west of Lindsay and just outside of Kawartha Lakes boundaries.
 - GO Route 88 Operates along Highway 115 between Trent University in Peterborough and the Oshawa GO Station with service approximately every two hours in each direction on weekdays and weekends. This route stops at the Highway 35 and Highway 115 Park and Ride facility about 35 kilometres south of Lindsay, approximately 1.5km outside of Kawartha Lakes boundaries.
- Can-Ar Coach Service provides daily bus service between Haliburton and Toronto (Union Station Bus Terminal) with several stops within Lindsay as well as Fenelon Falls. It operates an inbound trip in the morning and an outbound trip in the afternoon on weekdays and Saturdays with a different trip schedule on Sundays.
- Fleming College operates a shuttle bus service between the Sutherland campus (Peterborough) and the Frost campus (Lindsay) with a morning and afternoon round trip on weekdays, Saturdays and Sundays. This service is funded by the Frost campus students through a fee added to the regular tuition fee and is not open to the public at the present time. Frost campus students ride free on this service with a stickered student ID card and other Fleming College students and staff can ride the service by purchasing a pass.

1.5 Description of LIMO Service

Lindsay Mobility Specialized Transit or LIMO as it is known to its customers and residents, is the division of Lindsay Transit that provides demand-response specialized transit service. Similar to Lindsay Transit, LIMO operates from 7:00am – 7:00pm on weekdays and Saturdays. There is no service on Sundays or statutory holidays. Hours of operation, application form, and fares can be found on the LIMO Transit website at <https://www.kawarthalakes.ca/en/living-here/accessible-and-specialized-transit.aspx>

LIMO is directly operated by the City, using up to three low-floor buses similar to the vehicles operated by Lindsay Transit on its three bus routes. LIMO drivers are part-time employees, as are Lindsay Transit drivers. LIMO staff provide trip booking, scheduling and dispatch services. Vehicles are owned and maintained by the City at the transit facility located at the Public Works Garage on Little Britain Rd.

Approximately 75 % of LIMO passenger trips are regular ‘subscription’ bookings, and 20 % are ‘casual’ trips booked at least 2 hours before the requested trip time. An estimated 5% per cent are ‘on-demand’ trips booked on the day of service.

Unaccommodated requests for trips are less than 1 per cent of all trips, which indicates that service capacity is adequate to meet the demand for service.

1.5.1 Communities Served

LIMO serves residents within the Town of Lindsay boundaries, as does Lindsay Transit with identical transit fares. Specialized demand-responsive transit service beyond the Lindsay city limits is provided by City of Kawartha Lakes Community Care.

1.5.2 Route and Service Design

LIMO is operated as a completely in-house municipal service. This service design provides maximum control over service quality and reliability, since the City hires, trains, and manages the performance of all personnel. It was observed by the consulting team that LIMO vehicles are in a high state of repair and cleanliness. Drivers are well-trained and provide excellent, friendly service.

The City of Kawartha Lakes uses essentially the same type of vehicle for both conventional and specialized transit – 24 to 26-foot low floor, ramp-equipped accessible vehicles. This approach simplifies vehicle maintenance and spare parts inventory, and

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

provides operational flexibility, since LIMO and Transit vehicles can be easily adapted to fill equipment needs of the other service.

LIMO is presently in the process of installing a state-of-the-art specialized transit scheduling software product with a view to improving scheduling productivity and reducing the level of effort necessary to produce statistical reports on LIMO service.

As is commonly the case with specialized transit services, LIMO trips must be booked in advance by a registered passenger. LIMO trips are mainly regular subscription trips (75%). Trips booked before the day of travel account for 20%, while 5% of trips are delivered on the same day they are requested.

LIMO's subscription trip percentage, at 75%, is significantly higher than other services in its population peer group, which average about 50%. Although the high ratio of subscription trips relieves LIMO passengers and LIMO Dispatch of the need to book repeating trips individually, which saves time and effort, the disadvantage is that relatively little service is available to accommodate requests for casual trips. However, since LIMO reports that less than 1% of trip requests are not accommodated, this does not appear to be a problem. This was confirmed by customers/participants in this study.

There was an average of 1,135 LIMO passengers carried each month in 2016. Monthly averages deviated from -14.5% to +16.9% with the highest months of use being, as expected, during the inclement winter and spring months.

Variations exist due to weather conditions and, in part, the lack of service on statutory holidays.

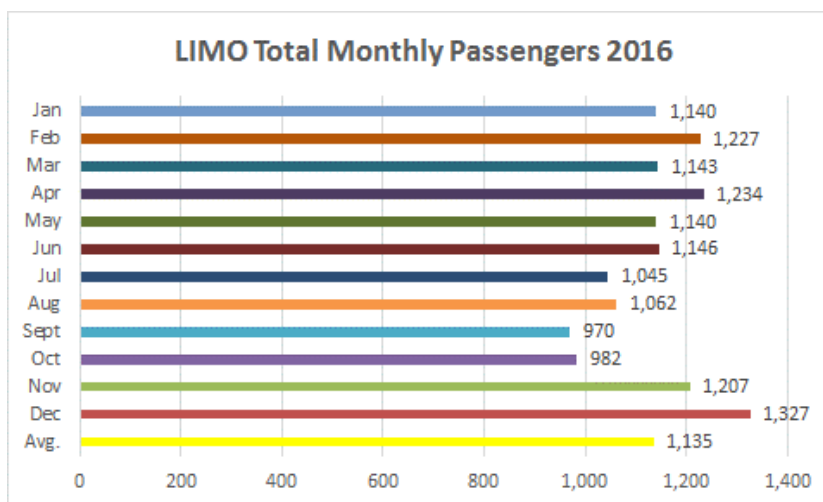


Figure 5 - LIMO Total Monthly Passengers 2016

1.5.3 LIMO Eligibility

Passengers must meet LIMO eligibility criteria and be registered to use the service. Eligibility criteria include being unable to board or use a conventional transit bus.

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

Currently there are approximately 350 registered passengers, of which about half are considered active (having used the service within the past year). Of the active passengers, other than personal care attendants, one third use a wheelchair or scooter, and two thirds are ambulatory.

1.6 Community Care (outside of Lindsay)

1.6.1 Community Care Transportation

Specialized Transit service outside Lindsay is provided by Community Care City of Kawartha Lakes (CCCKL), which is a health and community support agency. CCCKL is financially assisted by the Local Health Integration Network, and by its own fundraising initiatives. It provides volunteer-based rides, professionally-driven specialized transit, and non-emergency patient transfers. Community Care Transportation's mandate is to provide service to older adults and people with special needs, including those with physical disabilities.

There is also a working partnership between the City and CCCKL as customers are regularly referred between services and the City provides links on its website to Community Cares services. (www.ccckl.ca/services/transportation/)

CCCKL provides service seven days per week from 6:00 am to 10 pm., using a fleet of professionally-operated wheelchair-accessible vans, supplemented by volunteer drivers who operate their personal vehicles. Eligibility criteria are 'older adults and people with special needs'. There is no restriction on trip purpose. A per kilometre or flat rate is charged per ride depending on the pickup and destination locations. Travel must be booked at least 12 hours in advance.

CCCKL has comparatively low operating costs. The MTO Specialized Transit Fact Book for 2010 (the most recent published data)¹, lists Total Expenses Per Passenger as \$13.07, which was 25% below the provincial average for its population group of less than 50,000 population. Its revenue to cost ratio was 27%, versus 21% for its population group. Relatively low operating costs are likely the result of the low-cost structure of a registered charity, the use of some volunteer drivers, and the absence of a collective bargaining unit for paid drivers.

1.6.2 Service Considerations

If Lindsay Transit decide to offer public transit to areas outside of Lindsay, it is the consultants' understanding, based on Ontario Regulation 191/11, section 45 (2), cited below, that it would not be required to offer LIMO service beyond Lindsay. Community Care Transportation (CCCKL) is already providing specialized transit in those areas.² However, Lindsay Transit may have to enter into an agreement with CCCKL to harmonize fares between the two services. Lindsay Transit should seek guidance on this from the Ontario Accessibility Directorate.

Since Lindsay Transit vehicles are fully accessible, any service it provides beyond the town limits would provide an additional travel option for people with disabilities, available without prior reservation. This would be a positive development.

1.6.3 Eligibility considerations

AODA regulations require that, as of January 1, 2017, eligibility criteria for specialized transit consider the range of disabilities, including cognitive disability. If and when Lindsay Transit offers conventional transit beyond Lindsay, it would have to ensure that CCT eligibility includes people with cognitive and other non-physical disabilities.

O. Reg 191/11 Integrated Accessibility Standards 45. (1) states " ... A conventional transportation service provider that does not provide specialized transportation services shall ensure that any person with a disability... is provided with an alternative accessible method of transportation. (2) Subsection (1) does not apply where specialized transportation services are provided by a specialized transportation service provider in the same jurisdiction where the conventional transportation service provider provides transportation services. O. Reg. 191/11, s. 45 (2)."

1.6.4 Summary of Specialized Transit Service

LIMO does a very good job of complementing the Lindsay Transit service within the Lindsay urban area while communities outside Lindsay and within the City of Kawartha Lakes are provided with specialized transit through Community Care. While Lindsay

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

Transit use has grown over the last several years, LIMO has grown at a quicker pace (80% from 2011 to 2015). It is expected that this will continue as the population ages.

It is worth noting that if Lindsay Transit's fixed route service is expanded to serve residents outside of Lindsay in the future, demand-responsive specialized transit service will also need to be expanded to accommodate identical service hours under AODA legislation.

As the average age of the population continues to increase and residential and commercial development continues to grow, it can be surmised that additional resources (fleet and staffing) will be required.

2. Phase I: Existing Transit Environment

A comprehensive review of existing Lindsay Transit and LIMO services was undertaken by Transit Consulting Network to assess service operating performance and to understand community-wide expectations and priorities to improve the services offered today. The data analyzed and feedback received was instrumental in providing an updated policy framework to guide the development of a transit service plan over the next 10 years.

2.1 2011-2015 Lindsay Transit Report Card and Peer Review

2.1.1 2011-2015 Lindsay Transit Report Card

The Canadian Urban Transit Association (CUTA) has kept records of individual transit systems and their performance across Canada since the late 1970's when transit systems began reporting data annually. The data is summarized in annual editions of the Canadian Urban Transit Fact Book. This mature database has evolved over the years, is consistent, and is designed for industry professionals.

The data was analyzed for two purposes:

- To measure how Lindsay Transit performance has changed over a 5-year 2011-2015 period
- To compare key 2015 Lindsay Transit performance metrics in relation to its peer group

In summary, Lindsay Transit's performance has shown improvement over the 2011-2015 period in terms of transit ridership growth, which has resulted in Lindsay Transit being more efficient than the peer group average.

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

Figure 6: 2011-2015 Lindsay Transit Performance Data quantifies the change in performance over the five-year period.

2011 to 2015 CUTA Statistics - Kawartha Lakes Report Card													
Year	Municipal Population	Service Area Population	Ridership	Total Direct Operating Expense	Passenger Revenues	Revenue Vehicle Hours	Cost Efficiency (Cost per Hour)	Revenue Passengers per Revenue Hour	Revenue Vehicle Hours per Capita	Revenue Passengers per Capita	Net Investment per Capita	Adult Cash Fare	Average Fare
2011	73,214	19,361	76,074	\$1,023,375	\$136,422	11,232	\$81.87	6.77	0.58	3.93	\$22.46	\$2.00	\$1.60
2012	73,214	19,361	74,821	\$1,239,603	\$127,141	11,232	\$99.17	6.66	0.58	3.86	\$40.65	\$2.00	\$1.61
2013	73,214	26,490	88,974	\$1,632,950	\$153,259	15,027	\$100.21	5.92	0.57	3.36	\$23.94	\$2.00	\$1.72
2014	73,214	26,490	98,955	\$1,814,984	\$190,873	15,027	\$111.38	6.59	0.57	3.74	\$22.61	\$2.00	\$1.93
2015	73,214	20,354	92,248	\$1,698,046	\$162,302	15,027	\$104.18	6.14	0.74	4.53	\$34.92	\$2.00	\$1.76
Change 2015 Vs 2011	0	993	16,174	674,671	25,880	3,795	\$22.31	-0.63	0.16	0.60	\$12.46	\$0.00	\$0.16
% Change 2015 Vs 2011	0.0%	5.1%	21.3%	65.9%	19.0%	33.8%	27.3%	-9.3%	27.6%	15.3%	55.5%	0.0%	10.0%

Figure 6 - Lindsay Transit Report Card

2.1.2 2015 Lindsay Transit Peer Review

Comparisons were made of the various operating, service performance and financial data with eight other Ontario transit systems serving similar sized communities. Caution must be exercised when comparing peer review statistics since the peer review only provides a high-level assessment of transit service levels and costs in other comparable jurisdictions. The data requires careful interpretation based on industry experience as well as knowledge of the different transit systems.

The criteria guiding the selection of peer review jurisdictions for comparison purposes with the City of Lindsay were Ontario municipalities with a transit service population below 40,000 and similar community characteristics. It should be noted that transit system performance across Ontario can vary significantly due to factors such as:

- Local labour costs
- Municipally operated versus contracted services
- Climate and topography
- Local bus fare policies
- High school student transportation policies (yellow school bus versus public transit)
- Local financial commitment to transit
- Proximity to the GTA

Ten (10) Ontario municipal jurisdictions were selected and the 2015 data is illustrated in Table 3 below. Since transit operating environments can vary significantly, direct comparisons between one jurisdiction and another should not be made.

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

Lindsay Transit 2015 Peer Review - CUTA/ MTO Statistics													
Jurisdiction	Municipal Population	Service Area Population	Ridership (revenue passengers)	Total Direct Operating Expense	Passenger Revenues	Revenue Vehicle Hours	Cost Efficiency (Cost per Hour)	Revenue Passengers per Revenue Hour	Revenue Vehicle Hours per Capita	Revenue Passengers per Capita	Net Investment per Capita	Adult Cash Fare	Average Fare
Kawartha Lakes	73,214	20,354	92,248	\$1,698,046	\$162,302	15,027	\$104.18	6.14	0.74	4.53	\$34.92	\$2.00	\$1.76
Wasaga Beach	18,615	18,615	72,553	\$552,491	\$126,976	9,984	\$55.34	7.27	0.54	3.90	\$15.12	\$2.00	\$1.75
Collingwood	43,231	19,000	137,690	\$757,237	\$189,547	11,641	\$59.38	7.26	0.61	7.26	\$22.76	\$2.00	\$1.37
Fort Erie	29,650	21,200	47,558	\$514,542	\$26,000	8,749	\$74.86	5.44	0.41	2.24	\$23.67	\$2.50	\$0.55
Huntsville	19,056	10,000	28,966	\$260,151	\$31,705	5,500	\$47.30	5.27	0.55	2.90	\$12.16	\$2.00	\$1.09
Midland	17,000	12,500	48,750	\$235,029	\$64,156	3,150	\$74.61	15.48	0.25	3.90	\$13.22	\$2.00	\$1.32
Port Colborne	18,600	18,600	26,417	\$296,517	\$57,705	2,520	\$78.51	10.48	0.14	1.42	\$8.14	\$2.75	\$2.18
Tecumseh	24,330	17,274	28,134	\$270,368	\$27,446	3,600	\$75.10	7.82	0.21	1.63	\$6.94	\$2.00	\$0.98
Leamington	30,000	20,000	22,200	\$216,635	\$26,941	3,612	\$59.98	6.15	0.18	1.11	\$4.77	\$2.00	\$1.21
Quinte West	43,086	19,500	54,997	\$547,403	\$66,655	11,186	\$46.54	4.92	0.57	2.82	\$5.64	\$2.00	\$1.21
Brockville	21,870	21,870	106,363	\$737,908	\$195,032	10,847	\$64.85	9.81	0.50	4.86	\$20.41	\$2.25	\$1.83
Average of Peer Group	26,544	17,856	57,363	\$553,302	\$81,216	7,079	\$63.65	7.99	0.40	3.20	\$13.28	\$2.15	\$1.35

Figure 7 - Lindsay Transit 2016 Peer Review Table

2.1.3 Assessment of Lindsay Transit Performance

2.1.3.1 Transit Ridership and Service Hours

As can be seen in Figures 8 and 9, transit use grew by an impressive 21.3% from 2011 to 2015, which can largely be attributed to the 33.8% increase in the amount of service provided during the same period.

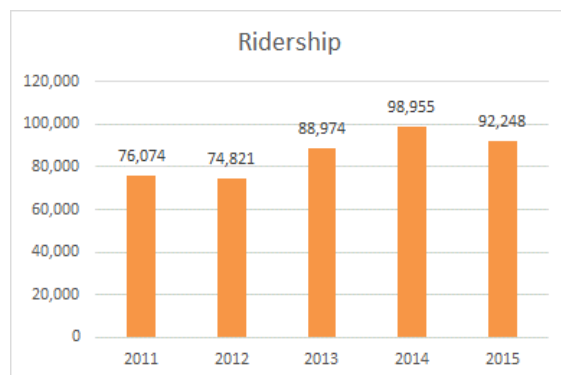


Figure 8 - 2011-2015 Transit Ridership

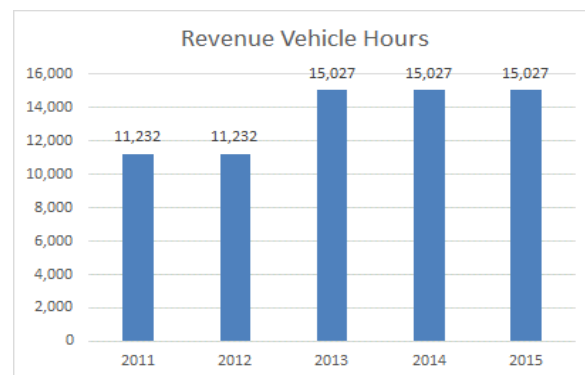


Figure 9 - 2011-2015 Revenue Vehicle Hours

To quantify the relative amount of service provided by Lindsay Transit, the Service Hours per Capita measure has been developed in the industry. This is simply the number of annual hours of revenue service divided by the service area population. These have been summarized in Figures 10 and 11.

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

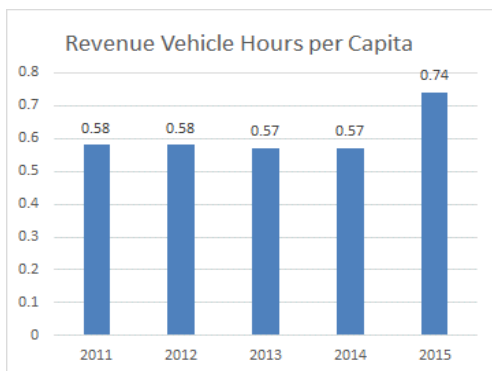


Figure 110 – 2011-2015 Lindsay Transit Revenue Vehicle Hours per Capita

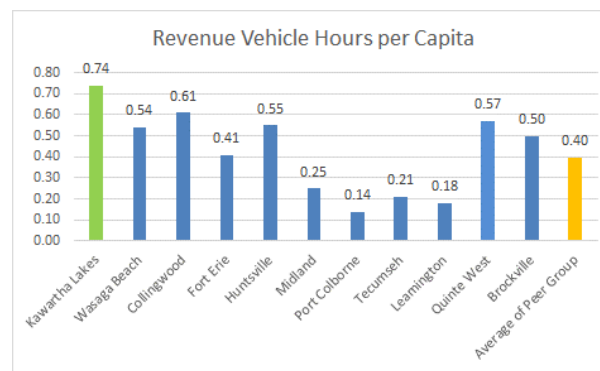


Figure 101 - 2015 Peer Group Revenue Vehicle Hours per Capita

Lindsay Transit provided 0.74 hours of service per capita in 2015, 27.6% more than in 2011. The significant jump from 2014 to 2015 can be explained by a reduction of the service area population when a pilot project to serve outlying communities was eliminated. This is an indication that the City of Kawartha Lakes places a higher emphasis on public transportation, which bodes well for its economic competitiveness and the quality of life in the community. In the future, and as population grows, it is not unreasonable to plan for 1.0 or more revenue hours per capita to better meet resident and business needs. This could be achieved with Sunday service and later evening service to establish transit as a preferred mode of choice.

2.1.3.2 Lindsay Transit Efficiency

Transit systems across Canada use the Revenue Passengers per Hour of Service statistic as one measure to quantify transit efficiency and to help determine when to increase or modify service. Figures 12 and 13 illustrate Lindsay Transit's efficiency from 2011 to 2015 and in comparison, to its peer group, respectively.

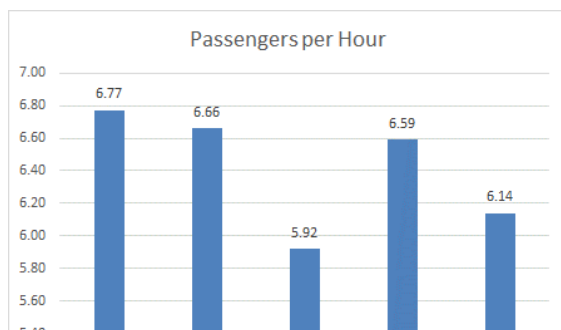


Figure 12 - 2011-2015 Passengers per Hour

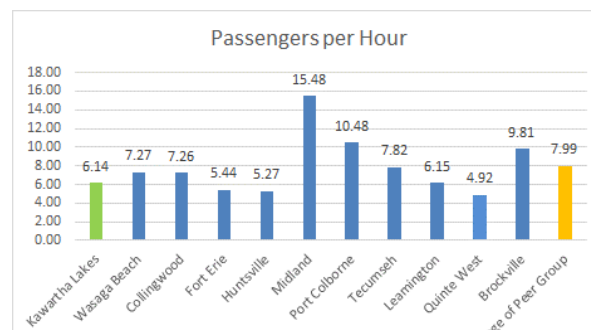


Figure 13 - 2015 Peer Group Passengers per Hour

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

The slight reduction in service efficiency of 9.3% from 2011 to 2015 can be attributed to the service expansion in 2013. Although 23% below the average of the peer group in 2015, this can be attributed to more service hours being provided than other transit systems (i.e. 0.74 service hours per capita versus 0.4 service hours of the peer group average). Ultimately, there are transit ridership growth strategies that can be implemented to increase transit efficiency, which is a continuous improvement initiative.

Transit ridership growth will occur in response to service increases; however, it takes time to improve transit efficiency. For example, if service hours are increased to accommodate more work shifts, households may opt to eventually eliminate the need for that 2nd or 3rd car.

2.1.3.3 Lindsay Transit Service Effectiveness

A key measure of a transit system's effectiveness is how many trips are taken annually based on the population served in a given year, which is expressed in the industry as Revenue Passengers per Capita. This is calculated using the total passengers carried in a given year divided by the population reported. If transit ridership growth exceeds population growth then service is deemed to be more effective and as such, transit becomes a more integral component of urban travel.

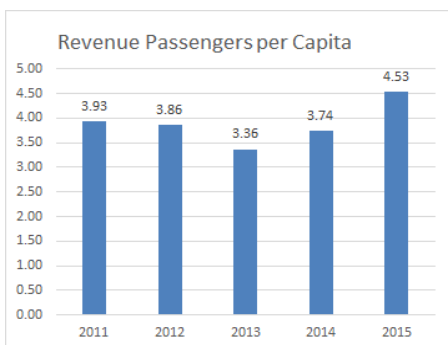


Figure 14 –2011-2015 Lindsay Transit Revenue Passengers/Capita

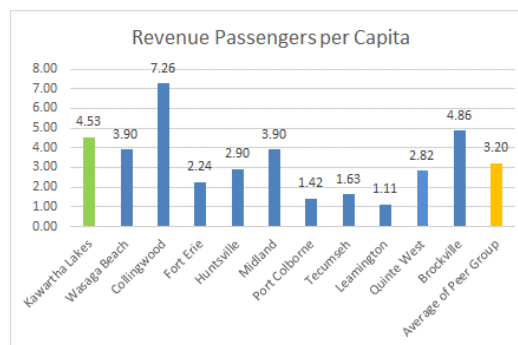


Figure 15 – 2015 Peer Group Revenue Passengers/Capita

Figure 14 clearly shows that Lindsay Transit's effectiveness has improved by a very significant

15.3% from 3.93 trips per capita in 2011 to 4.53 trips per capita in 2015. It also exceeds the Ontario peer group average of 3.2 passengers per capita in 2015 by an impressive 41.6%. This is, of course, largely attributed to the fact that the City of Kawartha Lakes provides more service hours on a per capita basis.

2.1.4 Lindsay Transit Financial Indicators

A key metric that transit systems use to track financial performance is the direct cost per hour of service. This can vary significantly between transit systems due to differences in operating environments. A more important comparison would be to look at individual transit system performance over time to identify trends while a peer group comparison provides an opportunity to determine whether or not a transit system is in line with the norm.

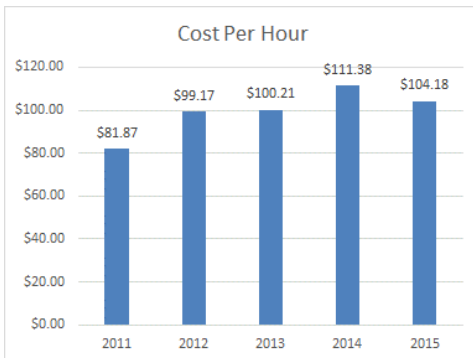


Figure 16 – 2011-2015 Lindsay Transit Cost/Hour

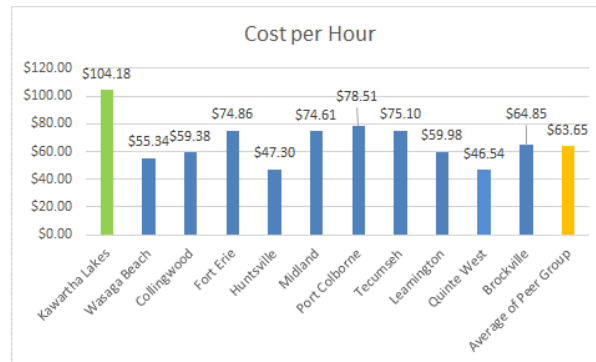


Figure 17 - 2015 Peer Group Cost/Hour

Figure 16 illustrates that Lindsay Transit's \$81.87 hourly cost in 2011 increased by 27.3% when compared to 2015 and is 64% higher than the average of the peer group transit systems. This can be attributed to a number of factors:

- LIMO and Conventional transit costs are combined which has inflated conventional bus costs by 33%. These costs should be separated moving forward to give an accurate costing per hour for each service
- Air bags associated with the wheelchair ramp unexpectedly require replacement every 2 years year (5 out of 10 buses each year had air bags replaced)
- Higher level of suspension repair work due to road surface conditions in some areas
- All maintenance is undertaken in-house and is closely monitored to ensure vehicle breakdowns are minimized and buses are cleaned thoroughly
- Bus life is extended from a recommended 5-year life cycle to 10 years, which requires transmission rebuilds after 5 years (Note: capital budget reduced accordingly)
- MTO audits were implemented for 5 years beginning in 2012, which necessitated a more stringent maintenance program than would normally be required

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

Transit system wage rates, operating environments, topography, etc. can vary significantly across Ontario and as such, the hourly cost of service should not be compared directly with any individual transit system.

To address the higher maintenance cost issue, future bus purchases will eliminate the need for air bags and the MTO audits will be completed in 2017. On the positive side, Transit Consulting Network investigated the 2015 cost for fuel. In 2015, municipalities with less than a 50,000-service area population spent, on average, \$14.38 per vehicle hour on fuel (predominantly diesel) while Lindsay Transit's gas engines consumed only \$6.46 per hour in fuel (\$7.90 less per hour). It is also noted that the operating cost per vehicle hour has been reduced by about 6% in 2015 compared to the costs in 2014.

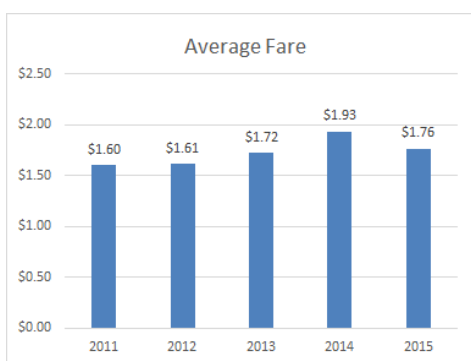


Figure 168 - 2011-2015 Lindsay Transit Average Fare

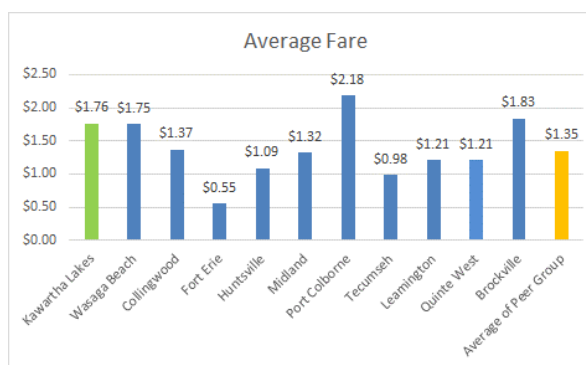


Figure 19: 2015 Peer Group Average Fare

The average fare calculation is the total number of passengers paying a fare upon boarding divided by the total revenue received. The higher the concession fare discounts offered for tickets and passes and discounts offered to various groups such as seniors, the lower the average fare will be. To off-set the 27.3% increase in hourly transit costs in 2015 versus 2011, the average fare paid by Lindsay Transit passengers increased by a nominal 10%. Although the average fare paid by Lindsay Transit passengers is 30% higher than the peer group average in 2015, the higher fare could be justified since all of the peer group transit systems had fewer hours of service on a per capita basis. It is worth noting that there has been no increase in bus fares from 2011 to 2015. Although unpopular, fare increases or changes to fare pricing policies (discussed later in this report) are better justified when service is expanded.

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

A municipality’s commitment to transit is reflected by the quality of the transit service (i.e. service reliability) and the quantity of the transit service provided (i.e.. hours of service per capita), which is dictated by the financial resources made available. The Net Investment per Capita is a high-level measure of the local municipal investment in transit that is calculated by dividing the total municipal contribution through taxes by the population served by transit.

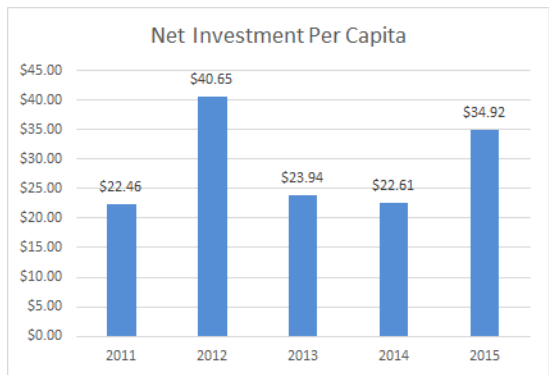


Figure 20 – 2011-2015 Lindsay Transit Net Investment Per Capita

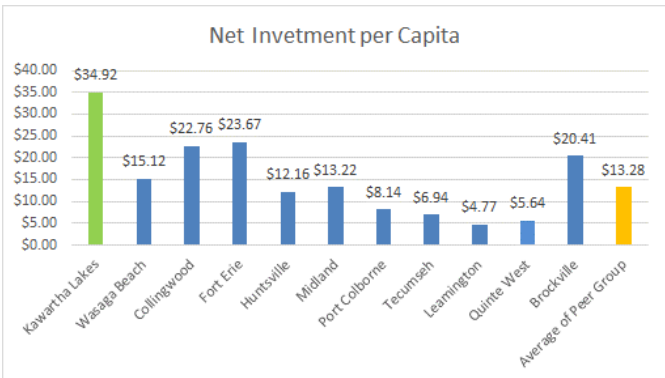


Figure 21 - 2015 Peer Group Net Investment Per Capita

As shown in Figure 20 there have been variations over the 2011-2015 period in terms of the City of Kawartha Lakes municipal contribution (net investment) per capita. When service expanded in 2013, the net cost per capita decreased from \$40.65 per capita in 2012 to \$23.94 per capita in 2013 since the number of residents being served had increased. The number of people reported as being served in 2015 then decreased to 20,354, which explains the jump in the net investment per capita to \$34.92 in 2015. Going forward, the population served in 2016 is now in line with the number of residents served in 2015.

As expected, given the higher hourly cost discussed earlier, combined with relatively higher levels of service, the City of Kawartha Lakes contributed 2.6 times per capita than the average value of the peer group. This is not expected to be the case in the longer term since many municipalities such as the Town of Fort Erie and Town of Wasaga Beach in the Kawartha Lakes peer group have taken initiatives to expand service. In the opinion of Transit Consulting Network, many municipalities are playing catch-up in order to better meet resident and business needs in an effort to grow their tax base.

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

2.1.5 Summary of Report Card and Peer Review

Based on the Report Card and Peer Review findings, Lindsay Transit has made significant progress from 2011 to 2015 with the key metric being that Lindsay Transit has become more effective at meeting community needs since the City has invested accordingly and needs to continue to invest in Transit. Although the statistics reflect well on the performance of Lindsay Transit, they do not necessarily mean things should not change. At the staff level, efforts are underway to reduce maintenance costs, grow transit ridership and meet the changing needs of the public and to do so in a fiscally responsible manner.

2.1.6 2012-2016 Lindsay Transit and LIMO Ridership

A separate review of the 5-year Lindsay Transit and LIMO ridership was undertaken for the more recent 2012-2016 period to help identify a trend in overall public transportation demand.

2012 to 2016 Lindsay Transit and LIMO Ridership					
Year	Lindsay Transit Ridership	LIMO Ridership	Total Ridership	% Lindsay Transit	% LIMO
2012	80,969	7,559	88,528	91%	9%
2013	85,691	11,253	96,944	88%	12%
2014	88,810	13,601	102,411	87%	13%
2015	92,248	12,385	104,633	88%	12%
2016	94,511	13,623	108,134	87%	13%
Change 2016 Vs 2012	13,542	6,064	19,606	-4.1%	4.1%
% Change 2016 Vs 2012	16.7%	80.2%	22.1%	-4.4%	47.5%

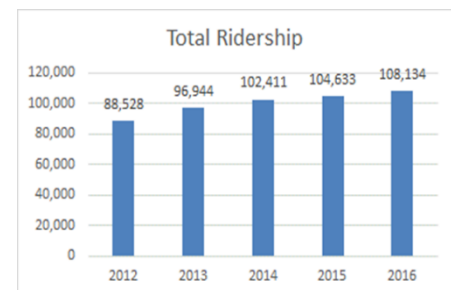


Figure 22 - 2012 - 2016 Lindsay and LIMO Ridership

There was a 22.1 % growth in total transit demand from 2012 and 2016 while the service area population grew by only 7.2% based on population reported by the City to the MTO for dedicated transit gas tax funding submission. For every 1% in population growth, the public transportation demand grew by 3%. This clearly signals that transit is far more effective; however, the notable statistic is that LIMO demand increased from 9% of the total demand to 13%. Since the cost per passenger to transport a specialized transit customer is far more than a Lindsay Transit customer, it will be prudent to ensure Lindsay Transit is a mode of choice for eligible LIMO registrants.

2.2 Community Engagement

2.2.1 Lindsay Transit Survey

Prior to initiating the Transit Master Plan study, the City of Kawartha Lakes had undertaken a community 16-question survey in the spring of 2017 that was completed

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

by 199 individuals. Although not statistically significant, it provided a good snapshot of resident needs, opinions and priorities.

The raw survey data was provided to Transit Consulting Network and summarized as follows:

Of the 199 respondents, 124 (62%) used Lindsay Transit in the previous two months.

How long have you been using Lindsay Transit?		
Answer Options	Response Percent	Response Count
More than 5 years	54.8%	68
2-5 years	23.4%	29
1-2 years	9.7%	12
Less than a year	12.1%	15
		124

Less than 20% used Lindsay Transit less than 2 years. Of those that responded, over half were regular transit customers that used transit 3 to 6 days per week as illustrated below.

Figure 23 - Transit customer usage

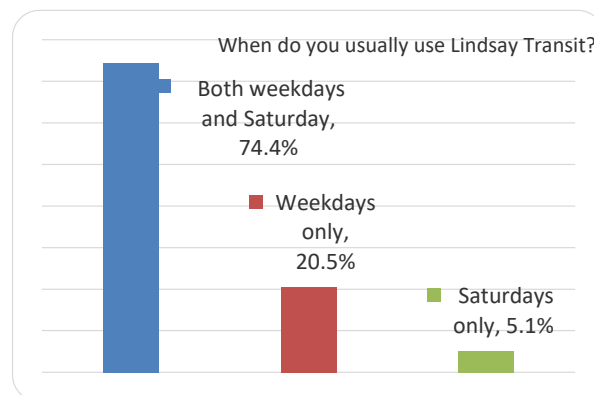
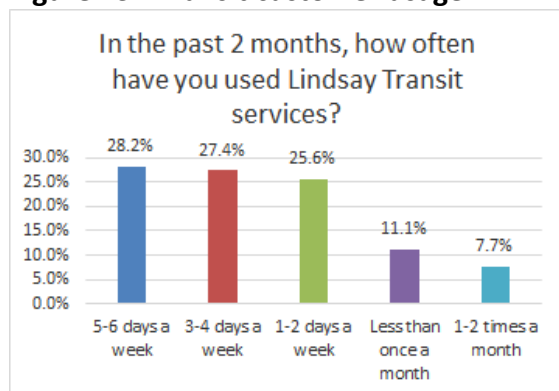


Figure 24 - Usage Frequency and Timing

The 74% of the transit customers that usually take transit Monday through Saturday can be considered 'captive' and likely do not have a choice due to lack of access to a household vehicle whether as a driver or passenger, or they simply may be unable to drive or not have a license. These transit customers are most likely to use Lindsay Transit service on Sundays if it were introduced. The 20% that responded that they used transit on weekdays only are likely students or working adults that have regular weekday travel requirements, or they may be stay at home spouses that have access to a household vehicle on weekends should travel be required.

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

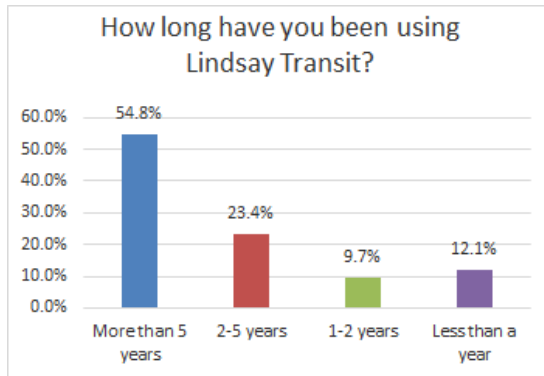


Figure 25 - Length of Years using Lindsay Transit

Over half the respondents that reported they took transit in the last two months, used transit for more than five years and three-quarters more than two years. It can be surmised that a larger portion of the current client base will continue to be longer-term transit customers if service remains static. This will change; however, if service is expanded in terms of coverage and hours and days of operation then one can expect that in the future, the proportion of respondents will report fewer years of transit

use since newer transit markets would be served.

Given the span of service hours and infrequency of service, only 12.8% and 4.3% of transit customers reported they used Lindsay Transit to get to work and school,

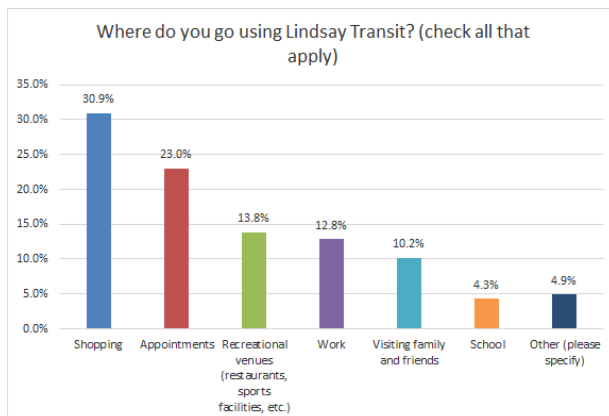
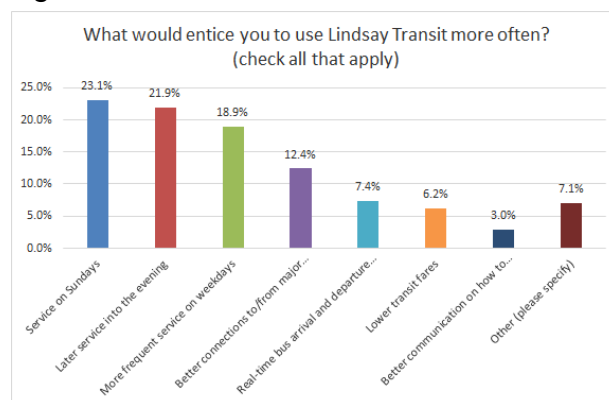


Figure 26 - Main Destinations

respectively. Work and school trips generally are taken during the peak morning and afternoon periods of service. The remaining 83% of respondents reported they used transit for what are generally referred to as non-peak period trips such as shopping, medical and socio-economic trip purposes. The non-work and non-school market demand can be met by a community bus level of service, where service frequency is not an issue for those being served, today.

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

Again, it can be surmised that if service hours were expanded and frequency of service



were increased, future responses will likely reflect a larger portion of work and school trips.

Current Lindsay Transit customers provided input to identify improvements that would entice them to use transit more. Non-Lindsay Transit customers were then asked what would entice them to use transit.

Figure 177 - What would entice you to use Transit more often?

The need for Sunday service, later evening service and more frequent service topped out the list for existing transit customers, receiving 63.9% of the responses followed by better connections (12.4%) and real-time schedule information being available (7.4%).

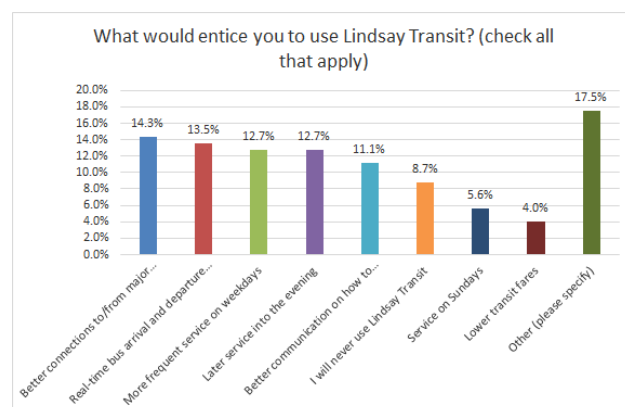


Figure 188 - What would entice you to use Lindsay Transit?

The non-transit customers identified, as expected, different priority weightings since they currently travel by other means; however, efforts can be made to attract the non-transit customer – the largest potential market – by addressing their criteria, which also mirrors those on the transit customer with the exception of providing Sunday service.

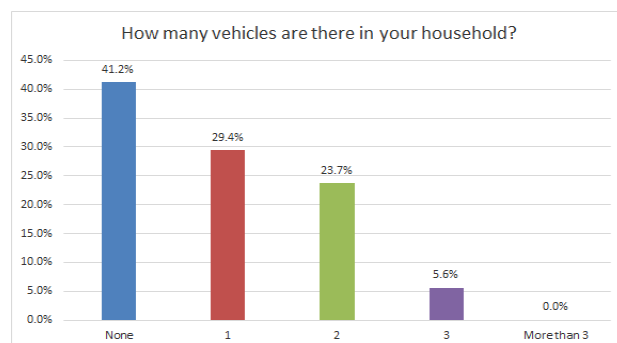


Figure 199 - How many vehicles are there in your household?

There were 177 respondents to the question related to vehicle ownership. The 41.2% that indicated they have no household vehicle are, of course, the most transit dependent. If efforts are in place to address priority improvements, one can surmise that transit could attract existing non-transit customers over time by reducing their need for one or more vehicles.

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

Going forward, it will be important that as new residents move to Lindsay, it will be important that a reasonable level of transit service is in place to mitigate the need for the 2nd or 3rd car.

2.2.2 Lindsay Employer Survey

An employer survey was undertaken by Transit Consulting Network from August 28 through September 20, 2017; 32 businesses responded to the questionnaire. The retail sector represented the largest single group responding. The employers represented 626 full time, 242 part-time and 20 seasonal employees. Shift times and days of operation for each of the employers were provided and the results passed onto to City staff for future references.

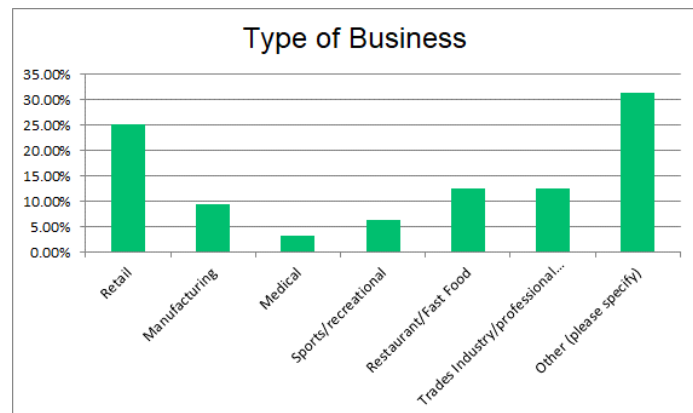


Figure 30 - Type of Business

Employer respondents were provided with an opportunity to provide comments and suggestions about Lindsay Transit. The 15 employers that responded provided a range of comments and suggestions were given, such as:

- Add Sunday service
- More direct bus routes
- Cover more areas of Lindsay such as SE Lindsay
- Extend evening service to accommodate retail hours
- Connecting hotels with key destinations such as the Rec Centre, Ken Reid and LEX was suggested
- Provide service outside of Lindsay

The comments and suggestions provided are considered to be in line with those expressed by participants of the general public transit survey previously undertaken by transit staff. As the City of Kawartha Lakes expands transit service, transit staff should build on the opportunity to obtain additional feedback from the business community.

2.2.3 Transit Focus Group Discussions

Transit Focus Groups (TFGs) are designed to help prioritize local transit investments based on industry best practices in route and service design. The TFG information received would be used to complement a community survey that was undertaken by City of Kawartha Lakes staff in 2017.

The stakeholder consultations consisted of informal roundtable meetings presenting all participants with an opportunity to be involved in very frank discussions, which would go a long way to a successful study completion. Transit Consulting Network provided an overview of the study and the desired study outcomes along with best practices in similar municipalities with transit systems across Ontario. This information provided the Transit Focus Group (TFG) participants with background relative to the role that transit can play to better enable them to provide meaningful input based on their own perspectives. The TFG discussions enabled TCN to more fully understand community needs from a cross-section of interest groups.

TCN facilitated a number of stakeholder consultations in August and September, 2017 summarized as follows:

- Bus Operator focus group
- Municipal Staff focus group
- Business Community focus group
- Bus Ride-along/ passenger interviews
- Fleming College student interviews
- Accessibility Committee
- Transit Advisory Board focus group

Bus Operator Focus Group:

August 9, 2017. Attendees Bill O'Brien (TCN), Tammy Orr, Julie Wilson, Susan Fraser, Janet Farrow. (Also, briefly Todd Bryant, Enzo Ingribelli).

- Ridership is estimated to be 60% seniors, 20% low income persons and 20% workers. Also a few students at the College and Adult Ed Centre. Very few high school students as students in Lindsay have yellow bus service if over 1.6 km from school.
- Main travel destinations (in approximate order of importance) are Lindsay Square Mall, Whitney Town Centre, Downtown, Giant Tiger and Health Unit/Medical Centre near Angelina & Kent.

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

- In terms of schedules, the Green and Red routes are tight (i.e. need more time to maintain schedules)
- Approximate recovery times during busy mid-day periods are 3 to 5 minutes on Blue, 1 – 2 minutes on Red and 0 to -3 minutes on Green routes.
- Green route comments:
 - Left turn out of Giant Tiger Mall on return trip has high delays.
 - Westwood Court. cul-de-sac off Northlin Park Rd has delay and not a lot of passengers.
 - Delay at 2-way stop control intersection at Colborne & William
 - Narrow southbound thru lane on William at Wellington creates delay when vehicles are in left turn lane.
- Red Route comments:
 - Problems with parked vehicles in loop at Victorian Manor (south end, off Angeline). Low ridership at Victorian Manor.
 - Delays making left turn at Auk Trail & Angeline. High school students can walk to Auk Trail with sidewalks along Angeline St.
 - Route has an excessive number of turns, especially in Pumpkin Hollow (south east area- where route could go on Simcoe St instead of Georgian St) and west of Lindsay Street.
 - Community Care bldg. at 65 Melbourne St needs stop but could streamline routing on Melbourne and Durham.
- Blue Route comments:
 - Westbound bus stop on Kent St at Cambridge St has stop in right turn lane. It is not safe to use the ramp in winter, conflict with bike racks and stop not being long enough.
- New developments that are not well served by transit are in the southeast corner of Lindsay on the east side of Logie St down to intersection with Lindsay St and the Springdale Gardens north on Angelina Street.
- The operators estimate that the ramps are used at about 30% to 50% of the stops.
- The operators noted concerns with fare collection. The fare boxes are located mounted behind the operator and are difficult to see to monitor fare payment
- It was also noted that monthly passes are the same colour each month from year to year.
- Extended service hours in the evenings past 9:00 PM.

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

- Possibly one late night bus doing a late-night loop for people working until 9:00 PM
- Add some Sunday service, perhaps one bus

Municipal Staff Focus Group:

August 9, 2017. Attendees Bill O'Brien (TCN), Todd Bryant, Leanne Mitchell (Treasury), Oliver Vigelius (Public Works).

- Transit area rating boundaries follow the former Town of Lindsay (limits do not extend south to Hwy 7 or north to Springdale Gardens).
- Mapping of the Town and development areas and the former Town of Lindsay should be available through Planning.
- Lindsay Fall Fair (LEX) occurs on September 18 to 23 and Lindsay Transit provides service from the downtown terminal from 11 AM to 10 PM.
- Kawartha Lakes amalgamated in 2001. Sixteen former municipalities became 16 Council wards. Next year some redesign of the wards is planned with the number being reduced to 8 wards.
- Road maintenance and snow clearing is given priority on bus routes.
- About 95% of bus stops have concrete pads at present. Pads are usually provided when road and sidewalk construction occur. Transit maintains a budget for new bus stop pads and pays Public Works an allocation for snow clearing at stops in winter.

Business Community Focus Group:

August 9, 2017. Attendees Bill O'Brien (TCN), Todd Bryant, Charles McDonald (BIA President), Tana Torch (BIA General Mgr.), Gord James (Councillor), Jim Garbutt (LOBIA), Rebecca Mustard (CKL Ec Dev).

- New bus terminal will be on east side of Victoria Ave, south of Kent St and was implemented on September 4, 2017.
- Inter-city service operated by Can-Ar Coach along Hwy 35 corridor to Toronto has a stop at William & Kent.
- Gord James noted that downtown parking supply is an issue but the free two-hour parking has been successful in bringing people downtown. Long term vision should be for a parking garage with a transit hub.

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

- Transit service needs likely include extended evening service and some Sunday service.
- Lindsay is experiencing considerable growth driven by retirees relocating to Lindsay.
- Possible service to outlying hamlets and to villages of Fenelon Falls and Bobcaygeon should be investigated. Previous bus service was discontinued but needs should be clarified and a commitment to service is necessary to support ridership development.
- There is also a need for bus service between Lindsay and Peterborough. This could possibly be combined with Fleming College bus service.
- The draft employer survey was discussed. Suggested revisions:
 - Note the location of each route as employers may not be familiar with them.
 - Perhaps simplify the questions or reduce the number of questions.
 - Provide question about transit service needs.
- If the employer survey is updated and a link provided, Tana can send this to members and can also forward to Chamber of Commerce. It is suggested that a deadline of 3 – 4 days be noted. Tana is away last week of August.
- College activity noted. Todd has ongoing contacts with College and ridership is very limited. It is noted that bike rental is a big travel mode and the College has about 500 rental bikes.
- Rebecca Mustard can send the employer survey link out to large employers in the area.
- VCCS is a large employment placement service and Rebecca will provide an introduction by e-mail for contacts. Global Career Service is a private recruitment service that may be able to provide input.
- It was noted that Rebecca is involved in a project to help redevelopment of upper levels of downtown commercial business buildings.

Community Ride Along: Approximately 22 passengers interviewed

Consultants conducted both on-street interviews at the downtown bus terminal, complemented by ride-alongs on all three bus routes to undertake informal discussions with transit customers from approximately 9:00am to 2:00pm. A summary of the feedback received is provided as follows:

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

- Most of the riders were complimentary in regards to the service as it fit their needs. “Can’t do without it”. “I use it every day to go into town. If it wasn’t here I would be home alone”.
- The drivers are courteous and friendly. They know all of the transit customers by name.
- Additional service was also a key subject as to times and days. Earlier daily service (6am start) to get to 7:00am shift, later hours to 11:00pm to accommodate those who work until 9:30pm, and Sunday service. For Sunday service, the suggestions was for a 7-hour route from 10:00am to 5:00pm or have it exactly the same as Saturday service.
- Add another route so as to cut down the time it takes to get anywhere.
- Many riders were vocal regarding the condition of the roads and how bumpy the ride was. They expressed that perhaps better buses with better shocks and springs be focussed on as well as road repair.
- As the buses are fairly small multiple strollers, walkers and wheelchairs are not being accommodated well.
- Access to the other Kawartha Lakes communities that are not being serviced today through feeder routes or routes a few times a week.
- Tweak the Fleming college schedules so that one of the buses is at the half hour versus on 15 min past the hour.
- Sometimes the token machines are empty.
- Smart card technology that can be refilled online at any time.
- Educate Fleming College students to increase ridership. Provide passes with tuition.
- Have a cleaner bus by using vinyl seats. Easier to clean more often.
- Work with infrastructure and development to ensure a safe cross to a bus stop, and to alleviate traffic.
- Holiday service.
- Travelled on Green Route, leaving at 3:00 PM. From passenger perspective, Improved communications needed for detours. Suggested messages on radio, Info in newspapers, notices on buses, signs at stops), etc.

Fleming College: 20 students interviewed on campus

September 11, 2017 – Fleming College Student Interviews

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

Many of the 20 students that spoke to TCN did not know much about Lindsay Transit.

- Preferred mode of transportation is vehicle as a driver, walk, or bicycle.
- Real-time App for stop and real-time location information would be ideal (e.g. using Google)
- Smart card technology
- Red and Blue are too close in timing.
- Lindsay Transit takes too long to get where I want to go.
- Need bike racks on buses
- Better schedules, and information.

Community Care Ride-along

Specialized Transit service outside Lindsay is provided by Community Care City of Kawartha Lakes (CCCKL), which is a health and community support agency. CCCKL is financially assisted by the Local Health Integration Network, and by its own fundraising initiatives. It provides volunteer-based rides, and professionally-driven specialized transit and non-emergency patient transfers. Community Care's transportation mandate is to provide service to older adults and people with special needs, including those with physical disabilities.

There is also a working partnership between the City and CCCKL as customers are regularly referred between services and the City provides links on its website to Community Cares services. <https://www.ccckl.ca/>

It was observed by the consulting team while at Ross Memorial Hospital that CCCKL specialized service appears to be of high quality. The LIMO driver assigned to provide the ride-along for the team member stated that she works for both LIMO and CCCKL Specialized Transit. The LIMO driver performed her work in an exemplary manner – excellent wheelchair securement skills, capable and careful driver, friendly and well-liked by customers.

Accessibility Committee

Transit Consulting Network (TCN) and Kawartha Lakes staff met with the Accessibility Committee on September 21, 2017 in order to obtain input on the Transit Master Plan relative to identify unmet needs or areas of improvement that would better accommodate their mandate relative to improving community accessibility. It was noted

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

by TCN that both LIMO and Lindsay Transit ridership has outpaced population growth while LIMO use has outpaced Lindsay Transit use.

The following highlights of the Accessibility Committee input were received:

- Rural coverage is needed given the inability to access Lindsay goods and services, particularly medical
- Concern that people are forced to move into Lindsay (e.g. spouse visiting spouse at long-term care is expensive using taxis)
- Need for Sunday service
- People do not know the boundaries of Lindsay and as such, not clear about LIMO service area (clarified by Kawartha Lakes staff)
- Concern expressed about adequate snow clearing. It was clarified that 123 out of 167 bus stops are scheduled for snow clearing
- Perception that there are unaccommodated trips; however, it was pointed out that this was an issue that has been resolved with the additional LIMO bus, which brings the LIMO complement to three vehicles
- Consideration can be given to implementing a pilot service to outlying areas that would be scaled down from previous attempt.
- Support was received regarding the potential use of LIMO service to accommodate areas outside Lindsay (e.g. weekly shopping, medical appointments, etc.)
- It was noted that the Transit Master Plan will identify strategies to accommodate rural areas with consideration given to the proposed increase in the dedicated Provincial gas tax to take effect in 2018/2019 and double by 2022

Transit Advisory Board (TAB) Focus Group:

A TAB focus group meeting was held on August 17, 2017 and was attended by staff and four TAB members. Transit Consulting Network provided a PowerPoint overview of the project objectives, a report of the Lindsay Transit performance from 2012 to 2016 and compared Lindsay Transit performance with 10 other transit systems in its peer group.

A summary of the consensus and input received is provided as follows:

- Agreement that it is important for continuous improvement initiatives that the CUTA information submitted for MTO gas tax funding purposes be separated

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

between Lindsay Transit and LIMO services; this also allows for more realistic peer group comparisons

- Service hours:
 - Expand span of service to better accommodate earlier and later shift work times
 - Add modest level of Sunday service
 - Extend evening service to accommodate socio-recreational and work trips
- Efforts to reduce the bus travel time within Lindsay should be explored
- Suggestion to split the Blue Route and modify other routes, as required
- Improve service coverage to areas such as: Pixie to accommodate employees, Springdale Gardens and Country Estates, LEX, jail, connect to waterfront, south of Parkside on east side of river, new developments and upcoming developments, churches, and schools and industrial areas outside the urban area of Lindsay
- Provide links to GO Transit Rail service (concept of shared-ride taxis was supported)
- Transit infrastructure: add shelters, benches, bike racks, expand transit hub and improve bus operator facilities
- Bus operator complement: convert to full time or mix of full- and part-time operators
- Improve maintenance capability through the addition of licensed mechanic(s); also have both Maintenance and Operations house in one facility (i.e. 89th David St.)
- Target marketing with focus on youth, multiple car households, revisit December free ride initiative, promote transit for special events, use Google Maps, and work with media (e.g. radio interviews, news releases, etc.)
- Branding: new slogan, tie transit to Active Transportation initiatives
- Administration: part time Assistant should be added to accommodate various employee absences (e.g. vacation, training, sick leave, etc.) and to have skill sets available from more than one staff member

TAB Six Sigma Exercise Meeting:

Todd Bryant, City of Kawartha Lakes, attended a meeting with the Transit Advisory Board (TAB) on July 27, 2017 to present the findings of the transit survey undertaken by

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

staff prior to commencement of this study. The following is a summary of the post-it notes that were collected and transposed as follows:

What would entice you to use Lindsay Transit? <ul style="list-style-type: none"> • Access near house. Convenient access. • Rural connections • Shorter Ride times • More frequent stops • Extended hours for weekday and weekend • Sunday Service • Holiday Service 	Goals: Mid Term Goals: 3-6 years – <ul style="list-style-type: none"> • Buddhist Temple • Farmfest • Tours and Events • Seasonal Special Event routes • Rural areas such as Fenelon Falls, Bobcaygeon, and Conservation Areas • Rural events • Go, Via, and 407 connections • LEX events not just the Lindsay Fair 	Are there any specific stops or destinations in Lindsay you would like to see serviced? <ul style="list-style-type: none"> • Pickseed • Springdale Gardens • Feed Store • Court House • Ponty Pool • Admiral Inn • LEX • Jail • All new developments • Logie Street • Rural Communities • Valentia • Conservation Area 	Rate Lindsay Transit Services <ul style="list-style-type: none"> • Reliability: <ul style="list-style-type: none"> ○ Good ○ Don't have access (3) • Convenience: Fair ▪ Affordability: <ul style="list-style-type: none"> ○ Great ○ Good ▪ Available Maps and Schedules: Good ▪ Customer Service: <ul style="list-style-type: none"> ○ Good ▪ Cleanliness: Fair ▪ Accessibility: Good
What is your primary mode of travel in Lindsay? <ul style="list-style-type: none"> • Car (5) ▪ Lindsay Transit (LIMO) ▪ Scooter 	What are your reasons for not using Lindsay Transit? <ul style="list-style-type: none"> ▪ No Access to Rural (4) ▪ Too Long to get to where I want to go ▪ I own a car 	Do you have access to a vehicle? <ul style="list-style-type: none"> ▪ Yes (4) ▪ No (1) ▪ Yes, but would only need one car in the household 	Parking Lot Items <ul style="list-style-type: none"> ▪ What is the population of the service area? ▪ Routes to be made a priority for Road resurfacing
How familiar are you with Lindsay Transit? <ul style="list-style-type: none"> ▪ Routes? <ul style="list-style-type: none"> ○ Good, Very Good (all) ▪ Bus Stop closest to your home? <ul style="list-style-type: none"> ○ Right on the corner ○ 20-minute drive ○ 36 Km ▪ Fares? <ul style="list-style-type: none"> ○ Good, Very Good (all) ▪ Information? <ul style="list-style-type: none"> ○ Good (4) ○ Fair 	What would entice you to use Lindsay Transit more often? <ul style="list-style-type: none"> ▪ Access to rural communities ▪ Shorter Routes ▪ Connection to Go and VIA ▪ More Shelters ▪ Smart Card ▪ Schedule that accommodates tourism in other communities ▪ Faster /shorter routes 	Where do you go when you use Lindsay Transit? <ul style="list-style-type: none"> ▪ Doctor ▪ Visit friends ▪ Shopping ▪ Downtown ▪ Fleming College ▪ Meetings ▪ Giant Tiger ▪ Restaurants 	General Comments <ul style="list-style-type: none"> ▪ Increase and Advertise access to tokens ▪ More token machines ▪ Promote monthly passes ▪ Better Winter Maintenance of Stops, and more bus shelters ▪ Add weekends and Holidays ▪ Increase service area and hours of operation for all days of the week. ▪ Shorter route times ▪ Parking hub / Park and ride if expand to connect to Go/VIA ▪ Rework routes and expand area coverage

Figure 31 - TAB Six Sigma table

3. Phase II: Preliminary Route and Service Concepts

Transit policy drives the decision-making process by providing transit management and political decision-makers with the tools needed to support service recommendations and to maximize transit growth opportunities while maintaining cost effectiveness. Setting policies early also drives the planning process and clarifies, for example, whether service changes should be designed to expand the system and target new riders, or whether existing funding levels should be reallocated to better serve existing customers. It is important to ensure that the policies reflected input from all stakeholders, including non-transit users.

The policy framework consists of:

- **Goals and Objectives** provide general policy direction for the community
- **Service Standards** assist in determining where service will be provided, when service will be provided, and how it will be provided.

3.1 Goals and Objectives

Through the consensus-building process that the consultant team advocated throughout the study, Transit Consulting Network developed a number of goals and objectives based on the vision and mission statement that was developed in 2012.

Vision Statement

The preferred future of public transportation in the City of Kawartha Lakes:

“To provide safe, efficient and environmentally friendly public transportation services that support the economic vitality, growth, environmental sustainability, and health of the community.”

Mission Statement

The purpose of Lindsay Transit:

“To ensure that the public transportation services are cost-effective, energy efficient, and contribute to improving the quality of life of all residents of the City of Kawartha Lakes.”

To support the transit vision, a number of goals and objectives were developed.

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

Service Goals

To provide a public transportation system as a viable alternative to the automobile in the City of Kawartha Lakes to:

- Improve the quality of life of residents who do not have access to an automobile.
- Improve pedestrian access to transit service.
- Meet the travel demand generated by various target markets in the employment, academic, commercial, medical, and service industries.
- Recognize that transit is an integral component of urban growth and that growth spurs transit needs.

Performance Goals

Transit performance targets have been updated and established for the next five years as follows:

- **Effectiveness:** Increase transit use by 20% - from 4.5 to 5.4 revenue passengers per capita served by 2023.
- **Efficiency:** Increase service utilization use by 20% from 9.8 to 11.8 passengers per hour of service by 2023.

Financial Goals

To keep financial costs and cost increases in line with Council objectives

The performance targets identified can be adjusted, as required, and are designed to be slightly out of reach to ensure continuous improvement is sought to help ensure ridership growth initiatives are balanced with fiscal responsibility.

Service Area Objective

Current: Lindsay Transit should provide service within the urbanized area of Lindsay

Post 2023: Lindsay Transit and LIMO should provide service to all communities within the City of Kawartha Lakes

Service Objective

The minimum frequency of service and service hours to be provided shall be adequate to meet the various target markets within the City of Kawartha Lakes.

3.2 Transit Service Design Guidelines

3.2.1 Transit Service Standards

The goals and objectives provide general policy direction for the City to follow with respect to the provision of Transit service. Transit service standards are needed to guide Kawartha Lakes in determining when transit service will be provided, how often it will be provided and how it will be provided through:

- A framework for making rational decisions on the level and quality of service in the community
- Increased public awareness of the philosophy of service and growth for Lindsay Transit
- A strong commitment by Council to maintain service standards within the context of balancing social and environmental objectives with fiscal responsibility
- A high degree of acceptance for Transit expenditures since the decision-making process will be perceived as fair

3.2.2 Transit Service Level Policies

The transit service level policies have been designed, within reason, to enable residents that are captive to transit to expect a minimum level of service. Within these policies, staffing, equipment and maintenance costs will be defined. The proposed increase in the span of service and days of operation are designed to accommodate retail sector employees and customers, and urban growth while also enabling other residents to travel for all trip purposes.

Current

Monday through Saturday (no Sunday service)

- Span of Service: 07:00am – 19:00pm
- Frequency of Service: 30 minutes

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

Proposed (within 5 years)

Weekdays

- 0700 hrs – 1900 hrs: 30-minute frequency
- 0700 hrs – 2300 hrs: 60-minute frequency

Saturdays

- Span of Service: 0700 hrs – 1900 hrs
- Frequency of Service: 30 minutes

Sundays

- Span of Service: 1000 hrs – 1600 hrs
- Frequency of Service: 60 minutes

3.2.3 Service Reliability

It is reasonable to expect buses to be reliable, that is, buses must be on time at all publicly scheduled time points. 'On time' should be defined as buses never being early at a scheduled time point (zero minutes early) and not being more than 5 minutes late to allow for unforeseen delays.

When a bus leaves the downtown terminal, the bus operator should travel their designated route in the most efficient and safest travel time possible. This would ensure bus operators never arrive early along the route and are not late more than a few minutes. If this results in much earlier arrivals at the terminal for some routes, this is considered acceptable. By following this practice, schedules along the route would be consistent and layover times that take place at the downtown terminal and other transfer points would be maximized.

3.3 Land Use Planning and Transit

Arterial transit routes offer a more attractive service because they are more direct and cost-effective than transit routes along slower internal collector roads and residential streets. However, transit service along collector roads and local streets is necessary in many cases since arterial roads are often spaced too far apart to accommodate acceptable transit walk distance requirements. When designing for new residential developments, maximum transit route coverage at minimal cost must be viewed as a priority, not unlike other services the City provides.

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

Following the development of community master plans are two planning phases that should address public transit needs – the Secondary Plan and the Draft Plan of Subdivision as summarized in the following:

- Determine basic location and orientation of transit routes
- Determine a street system and walkway layout, which attempts to accommodate efficient transit service along the arterial and collector road system
- Determine location of activity centres (schools, shopping facilities and medium to high density residential areas) along transit routes
- Determination of mobility hubs and transfer facilities to maximize integration of modes and reduce overall transit travel times
- Co-ordinate location of bus stops with design of intersections and walkways in order to minimize walk distances, provide for reasonable bus stop spacing, and provide for safe pedestrian routes; and
- Locating walkways which would serve as many purposes as possible (e.g, access to bus stops, schools, shopping, parks, and trail links)

When developing bus routes, best practices are applied to route design, walk distances to bus stops, the locating of bus stops, and bus stop accessibility. Transit and Planning Development staff continually engage each other in transit issues surrounding development and how transit needs will be addressed.

3.3.1 Acceptable Transit Route Design

There are various ways of arranging transit routes to provide service. Best practices have been introduced relative to route design principles that provide for:

- Reasonable walk distances to bus service for residents
- Directness of travel by bus
- Safe travel speeds and reliable schedules

The guidelines can be applied when re-designing bus routes and used for land use planning purposes to help ensure transit requirements are being met during periods of urban growth. Applying the guidelines consistently provides transparency and objectivity when determining where bus routes will be placed.

Transit Travelways: Transit routes should be provided along arterial and collector roads to the extent possible, which have reasonable through access rather than on

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

crescents or cul-de-sacs. A 9.0 metre pavement width is the minimum for transit routes. Exceptions can be made where no reasonable alternative is available to provide for acceptable walk distances to residential dwellings and businesses.

One-way Transit Loops: Provision should be made to minimize the length of one-way transit loops to no more than 2.0 kilometres. One-way transit routes provide for transit service on one side of the street only and will typically be found in residential areas to minimize vehicle requirements and where two-way service may not be warranted.

Bus Route Design Speeds: Safe travel speeds are needed to ensure buses can maintain their schedule and be designed such that people can get from A to B in the quickest and safest manner possible. An average design travel speed of approximately 18-22kph should be in place in urban environments. Lindsay Transit's average speed was reported at 18.23 kph in 2015, which is considered acceptable since it is within the range.

Bus Route Lengths and Population Density: Road layouts in residential developments should be designed such that transit routes require a minimum 1,000 residents served per 1.0 kilometre of two-way transit route distances. The distance of a one-way route travel way would be factored in at 50% of the transit travel way.

Transit Customer Travel Times: Routes and Schedules would be designed to enable residents within Lindsay to board a bus and reach their destination in no more than 45 minutes.

3.3.2 Walk Distance to Bus Service

A guideline used to help design or redesign bus services is ensuring there is a reasonable walk distance to bus service as follows:

- 95% of dwelling units should be within a 450 metre walk distance of an existing or future bus stop
- 70% of dwelling units should be within a 300 metre walk distance of a bus stop. The 450m walk distance equates to an approximate 5-minute walk time to a bus stop for most people (walking 4kph).
- All multiple housing units should be within a 300 metre walk distance of an existing or future bus stop.

- Special needs housing, high density employment, shopping, medical, and institutional development should be within a 150 metre walk distance of a bus stop.

The 450-metre standard is considered a realistic goal. If a more stringent standard than 450 metres is chosen, this may result in improved coverage being required in existing residential areas but at a higher cost. It should be noted that under most circumstances, residents of multiple housing units tend to be more captive as transit customers and as such, should be located close to transit service.

3.3.3 Bus Stop Locations and Design

Once bus routes are designed or existing routes modified, the following strategies should be applied to bus stop locations and bus stop design:

- **The location of bus stops should be coordinated with the design of walkways, intersections and development in order to minimize walk distances and provide for reasonable bus stop spacing.**
Ideally, bus stops should be located at walkways and intersections as well as being in proximity to high density residential complexes and major shopping facilities in order to minimize walk distances for most people. Other factors used to determine bus stop locations and reasonable spacing are demand, road type, pedestrian safety, and public requests.
- **In industrial areas, sidewalks should be provided along at least one side of the roadway.**

Industrial areas are considered to be 'hostile' environments due to higher volumes of truck traffic; however, it is important that employees are provided with safe pedestrian access from bus stops to their places of employment, particularly during winter weather conditions.

Walkways, for the purpose of transit connections, must be constructed out of a material which can be maintained year-round. Responsibility for the maintenance of these walkways must be allocated to the appropriate department.

- **Bus stops and bus stop amenities must meet Accessibility for Ontarians Disability Act (AODA) requirements.**

Meeting AODA requirements will better enable some LIMO customers to use Lindsay Transit for at least some of their trips. Each time an eligible LIMO

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

customer uses Lindsay Transit, a savings will be realized. (Note: the extent of the savings that would be realized could not be obtained since the required financial data is not available. In this regard, improvements in the financial reporting have been recommended by the Consultant to address this issue).

3.3.4 Trade-offs

Since the types of residential community design varies significantly from high density apartment complexes to low density estate type development, design objectives may not be met in some cases. Trade-offs may be necessary from time to time in view of other design considerations.

In order to provide some flexibility in the guidelines, the following recommendations should also be considered:

- That land use/transit coordination is a necessary and valuable goal recognizing that, in the implementation of the transit subdivision design guidelines, trade-offs may exist in some instances with other planning, engineering and environmental considerations.
- That secondary plans and draft plans of subdivisions recommended by staff shall reflect efforts used in trying to achieve the transit guidelines stated herein.
- The City of Kawartha Lakes should initially inform the development industry of the proposed guidelines as set out in this report. It is suggested that the Planning and Development Department in conjunction with Public Works staff be responsible for informing developers and their representatives on an ongoing basis.

The key factor at the outset of community design, is whether or not the design guidelines have been met and every effort was made to attain them. It is likely that existing and planned subdivisions which do not meet all of the guidelines would receive a lower level of transit service (e.g. peak period only) than more transit-oriented subdivisions which meet or exceed the design objectives.

3.4 Transit Ridership Growth Plan

Expanding route coverage within Lindsay while increasing the annual transit service hours over the next five years and beyond is a significant transit ridership growth strategy that will address current needs as well as growth within Lindsay. Residents will have better access to jobs while businesses will have a larger pool of both employees and customers that do not have affordable access. Equally important is that the

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

increased investment in transit enhances the quality of life of existing and future residents that have no other affordable means of travel.

The following addresses specific strategies to maximize the effectiveness of the service expansion.

3.4.1 Transit Service Expansion

Expanding the reach of transit and increasing service hours will have the largest impact in growing transit use within the City of Kawartha Lakes. Since many goods, services and employment opportunities are outside of Kawartha Lakes, it is reasonable to assume that transit connections to GO Transit will increase local transit use as well; however, the span of service (hours of operation) will need to be increased.

3.4.1.1 City-wide Transit

In smaller communities such as Fenelon Falls, Bobcaygeon and some of the village areas in Kawartha Lakes, some form of public transit would improve mobility for the many residents unable to utilize private vehicles for their travel needs. Access to medical facilities in Lindsay was a need clearly expressed during the community engagement process. It would also provide Lindsay residents with the ability to travel to Kawartha Lakes communities outside of Lindsay. This need should be addressed with a business case detailing costs and feasibility related to growth, subdivision plans and future development.

3.4.1.2 Commuter Service

The ability to travel by bus to destinations outside of Kawartha Lakes can be accommodated by linking local transit service to inter-city services provided by GO Transit. Low-cost strategies such as fixed-route or demand-responsive taxis could be considered for peak hour travel. For example, the City could enter into an agreement to subsidize one or two fixed-route taxi trips for residents that wish to travel to the GO Transit park and ride station at Highway 35 and 115. The cost would be offset through higher transit fares.

3.4.2 Transit Fare Pricing Strategy

Bus fare revenues are needed to off-set transit costs and, in the end, the cost of transit to the taxpayer. The bus fares increased in 2017 for the first time since 2011. Although unpopular, fare increases are necessary.

The current fares are as follows:

Fare Category	Cash Fare	Token Fares	Monthly Pass
Adult	\$2.10	\$20 for 12 tokens \$1.67 each (20% discount)	\$63 (\$1.58 each based on 40 trips per month)
Students/ Seniors	\$1.60 (25% discount to adult fare)	\$20 for 14 tokens \$1.43 each (10% discount)	\$52.50 (\$1.31 each based on 40 trips per month)
Children (6-14)	\$1.05 (50% discount to adult fare)	NA	NA
Children under 6	Free	NA	NA

Figure 32 - Current Fares Table

In 2016, a total of \$158,764 was collected in passenger fares as follows:

- \$92,376 (58%) was collected in cash
- \$27,133 (17%) was prepaid by tokens
- \$39,255 (25%) was received in monthly pass sales

It was interesting to note that although cash fares represent the highest fare price, cash fares represented more than half of the fare revenue received.

To encourage prepaid fares, discounts – also referred to as concession fares – it is recommended to be 20% when compared to the cash fare. While the adult token fare is priced at a 20% discount to the cash fare, student and senior discounts are only 10%.

3.4.2.1 Single Base Cash Fare

A fare pricing principle recognizes that infrequent transit customers who board by cash are more likely to be less sensitive to the cost of taking transit while those that are frequent users are likely to be more sensitive. Regular transit customers will use tokens and passes, which speeds up the passenger boarding time. To encourage increased

use of tokens and passes, it is suggested that the \$2.10 adult cash fare be applied to all transit customers with the exception of children 6 to 14 years old.

3.4.2.2 60-minute Transfer

Upon request, transit passengers are provided with a paper transfer that enables them to transfer to the next bus on a connecting route at no additional cost. Each route has a different transfer colour. A strategy used in many Ontario transit systems is to allow a transfer to be valid on all routes in any direction and be valid within a specified time frame, acting as a 'period' pass. For example, in Greater Toronto Area municipalities, a transfer is valid for two hours due to the longer distances travelled by bus.

It is suggested that Lindsay Transit have a 60-minute free transfer. One example of the benefit is that a customer can board a bus and shop then board the next bus within 60 minutes to another destination within Lindsay or even return home on the same bus route. Only one fare would be required. When introduced in Kitchener-Waterloo in 1986, which was one of the first transit systems in Ontario to do so, the strategy was found to be revenue neutral since it resulted in increased transit use. The 'free' transfer was designed for 1) the single parent who had to drop off their child at daycare then resumed travel to work on the next bus and 2) the stay at home parent who needed to go to a store with their pre-school child during the day and shop for essentials rather than wait for the family car at the end of the work day.

Another benefit of the 60-minute transfer is the need to have a single paper transfer rather than three, which is easier to administer and more bus operator and transit customer friendly.

3.4.2.3 High School Student Monthly Activity Pass

With expanded hours of operation, the high school activities monthly pass can be made available to students to use after school should they remain to participate in after school hours activities or travel to their part time job. For example, a deep discount of \$20 per month would provide for very inexpensive travel when bus capacity is available (e.g. evenings and weekends). The pass would also benefit parents who do not have to drive to pick up high school youth who attend after school activities.

3.4.2.4 Annual Transit Fare Increases

Transit fare increases are never popular but they are necessary if there is a need to keep deficits as low as possible and to support transit service improvements. In this regard, people are willing to pay more for improved service. It is recommended that fare increases keep pace with inflation and be implemented annually rather than every few years as was the case with Lindsay Transit. Given the low \$2.10 cash fare, it is the opinion of Transit Consulting Network that the cash fare could be increased by \$0.15 to \$0.40 in 2018 provided the concession fares are only increased marginally if at all.

After 2018, transit fare increases should be applied to all fare categories. In this regard, the current concession fares based on the base cash fare being applied to all fare categories. For example, if the base cash fare increases by 5%, all concession fares should increase 5%.

3.4.3 Transit Technology

3.4.3.1 Smart Card Technology

A number of small transit systems throughout Ontario utilize low-cost fare collection technology that is integrated with GPS. The use of 'proximity' smart cards is considered to be a transit ridership growth strategy by the Province of Ontario given its ease of use (simply tap the card reader) and eliminating the need for exact cash fare. By integrating with GPS, the City of Kawartha Lakes will be able to track transit use by bus stop, direction and time period (by trip, by hour, time of day, week, month, and annually). The data can also provide origin-destination information that will be critical to future route design.

Knowing bus stop boarding activities by passenger classification (student, senior, adult, mobility) will also help identify priorities for transit shelter enhancements such as benches and shelters. The data would complement the automatic passenger counter (APC) information that is being collected today.

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

Other benefits of the smart cards include:

- Reduced boarding times
- Tracking of smart card use through embedded serial numbers
- Flexibility in fare pricing (i.e. to the one cent level, if required)
- Ease of implementing fare changes
- Built-in times for transfers, which do not have to be viewed by the bus operator
- Reduces the need for bus operators to turn sideways to observe fare payment and clear fare boxes if cash is used
- Eliminates fare evasion
- Enables mobility payment from a smart phone



Figure 33 - Smart Card/Farebox Photo

A critical benefit of an integrated smart card-GPS system is that the City of Kawartha Lakes will not only be able to monitor bus stop activities, schedule adherence performance data can also be obtained. This would provide the information needed to adjust schedules, as required. Since cloud-based software is used, there is no ongoing requirement for a server or support required from City of Kawartha Lakes IT staff.

With GPS-equipped buses through Lindsay Transit's APCs or smart card technology, the opportunity for the public to track buses on-line at home or outside with their smart phones will enable them to reduce their wait time at buses and ensure that buses are not missed. This is important during inclement weather conditions when buses could be behind schedule.

3.4.3.2 Real Time Passenger Information

Real time passenger information is currently available given all buses are equipped with GPS. The opportunity for the public to track buses on-line at home or outside with their smart phones to be aware of delays due to construction, accidents and inclement weather; this enables them to reduce their wait time at stops and ensure that buses are not missed. This is important during inclement weather conditions when buses are more

likely to be behind schedule and will be used extensively when service is infrequent (e.g. late evenings and Sundays). Based on the experience of the consultant project manager, he measured a 3% increase in off-peak transit use (1.5% total daily increase) one year after interactive transit schedule information was made available via telephone.

3.4.4 Bus Stop Infrastructure

Bus stop infrastructure relates to bus stop signage, sign posts, landing areas, shelters, and links to sidewalks. By ensuring bus stop areas are able to accommodate all residents such as eligible LIMO registrants, the elderly and those using strollers, Lindsay Transit use can grow further. Specifically, by enhancing accessibility, some LIMO registrants would be provided with the opportunity to travel dynamically, without the need to book ahead.

3.4.4.1 Bus Stop Areas and AODA Compliance

The AODA (Accessibility for Ontarians with Disabilities Act, 2005), specifically Ontario Regulation 191/11, the Integrated Accessibility Standards (IASR), establishes the accessibility standards pertaining to information and communications, employment, transportation, the built environment (design of public spaces) and customer service, as well as additional general requirements that a municipality must comply with.

With regard to bus stops and shelters for municipalities providing conventional transit service, a municipal transit service provider must (Section 47 (1)) ensure that persons with disabilities are able to board and alight a transportation vehicle at the closest available safe location, if the official stop is not accessible and the safe location is along the same transit route.

It is important to note that a limited number of bus stops along accessible routes may not be accessible due to the absence of sidewalks, insufficient road right-of-way, gravel shoulders and the presence of ditches in semi-rural areas. Furthermore, bus stops may also be temporarily inaccessible due to construction, weather, or damage.

It is a requirement (Section 78 (1)) that consultation with the municipality's accessibility advisory committee be undertaken in the development of accessible design criteria in the construction, renovation or replacement of bus stops and shelters and outlined in

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

the municipality's Accessibility Plans. The Integrated Accessibility Standard Regulation does not set a specific timeline for all bus stops or shelters to be made accessible.

Bus stops and shelter requirements fall into the category of IASR, "Exterior Paths of Travel," which specifies the technical requirements for pedestrian travel along outdoor sidewalks and walkways in the following sub-sections:

- 80.21 - Exterior Paths of Travel, application
- 80.22 - Exterior Paths of Travel, general obligation
- 80.23 - Exterior Paths of Travel, technical requirements
- 80.24 - Exterior Paths of Travel, ramps
- 80.25 – Exterior Paths of Travel, stairs
- 80.26 – Exterior Paths of Travel, curb ramps
- 80.27 – Exterior Paths of Travel, depressed curbs.

For budgeting purposes, the flowing unit costs have been estimated for the supply and installation of various bus stop area components:

- \$50 Bus stop sign on existing post
- \$300 Bus stop post and sign
- \$75 Framed bus schedule
- \$1,400 Concrete or asphalt bus stop landing area (designed for 12.2 metre transit bus)
- \$300 Bench
- \$200 Waste bin
- \$6,500 4 ft. X 8 ft. standard shelter
- \$10,000 4ft. x 8ft. solar light shelter
- \$20,000 (est.) for heated shelter

There are various bus stop spacing guidelines (e.g. 100, 150, 200, 400 metres) applied to urban areas served by transit. In the future, as services are expanded to locations outside Lindsay, bus stops can be installed within the smaller urban communities while residents along rural roads can use the 'flag stop' method to board a bus and request a stop.

Recommendation: Assess all Lindsay Transit bus stops relative to meeting AODA requirements.

3.4.4.2 Snow Clearing Policy

During the community engagement process, there was concern expressed with the existing bus stop snow clearing policy. In this regard, municipalities have a roadway snow clearing policy that gives priority to emergency vehicle routes. A similar policy should be in place where bus stop area snow removal is undertaken within 24 hours of a snowfall. Priority should be given to the downtown bus stops, stops located at medical facilities, seniors' residential complexes, and other institutions where transit use is the greatest or where transit customers are the most vulnerable.

Recommendation: That the City of Kawartha Lakes develop a bus stop snow removal policy that outlines a specific time frame for downtown, shelters and higher use transit stops to have snow removal completed.

3.4.4.3 Bus Stop Signage

Bus stops will provide the branding needed to increase the profile of Lindsay Transit as mentioned previously. Based on the consulting team's municipal experience, the demand for bus shelters and street furniture will likely be the top requests once transit service levels have improved. It will, therefore, be important that the City of Kawartha Lakes maintain an ongoing bus stop installation and replacement program in the capital budget.

The following should be available at each bus stop:

Minimum

- Phone number (to access transit information)
- Website addresses to link to Lindsay Transit's GPS/Real time application and other information about transit (fares, hours of service, routes, etc.)
- Name or Identification number of the stop



Figure 34 - Posted Schedules at Bus Stops

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

- Routes that serve the stop by posting each route number
- Decals to be 50 mm square or round providing high tonal contrast colour for easy viewing by persons with vision loss
- Bus stop signs should be double sided with the international bus pictogram, so prospective customers may see the location of the bus stop from 2 directions
- Bus stop signs should use 3M reflective sheeting material (similar to other traffic signs) to enable bus drivers to easily view them during nighttime and low visibility periods.

At Major (busy) Bus Stops

- Schedule departure times (see example from Burlington Transit in Figure)
- Route map
- Fare information

At Transit Shelter Locations

- Same information as above
- Transit system map, including other transit operators i.e. routings of Niagara Region Transit, Niagara Falls Transit and GO Transit (if applicable) to/from Lindsay

3.4.5 Branding and Marketing

With the implementation of the new transit services, there is now an opportunity to brand the entire transit system by adopting clear and consistent messaging and information through a communications plan. Branding builds and enhances transit system visibility by communicating a clear message to existing and potential transit customers that this is their transit service.

The branding would consist of common and universal images throughout the following components of the transit system:

- Lindsay Transit logo (consistent colour & shapes for all material and new vehicles)
- Website
- Fonts (including AODA compliance with font size and contrasting colours)
- System route maps (printed, online and posted in transit shelters)
- Bus stops (and posted schedules at major busy stops) and shelters
- Service announcements, detours, route changes, etc. via social media

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

- Media promotions (e.g. radio, print media, other social media such as Facebook and Twitter)
- All promotional and marketing materials
- Fare media

Funding of the branding work should be part of the planned infrastructure project and budget. Any branding decisions will be coordinated under the direction of the Communications, Advertising and Marketing division. Consideration of any future brand changes to the City of Kawartha Lakes brand and related brands (Lindsay Transit, Lindsay Mobility/LIMO) should be considered to avoid costs and/or brand confusion.

Expanding the reach of transit and increasing service hours will have the largest impact in growing transit use within the City of Kawartha Lakes. Since many goods, services and employment opportunities are outside of the City of Kawartha Lakes, it is reasonable to assume that transit use on the Kawartha Lakes bus will grow as well; however, the span of service (hours of operation) will need to be increased. This is being considered in the Niagara Region regional transit study, which was underway during the writing of this report.

Expanding service as recommended will better address existing needs of residents that have no choice. For residents that are fortunate to own a car or multiple cars – the largest transit market potential - the change from auto to transit will not occur overnight; it will take time. As a newly branded transit system becomes more visible, the hours of operation are expanded and more communities are served, a choice will emerge. Some households will not need that 2nd or 3rd auto and they may choose to reduce car ownership immediately or when a car needs replacement.

3.4.6 Travel Training

As the bus stop infrastructure meets AODA requirements and more LIMO customers are able to use Lindsay Transit services, the need to train LIMO clients to use Lindsay Transit will grow. In addition, as the population ages and individuals are no longer able to drive, many may not be comfortable with using transit for the first time. This is where customized travel training can be useful.

Residents that currently use LIMO service and others would have an improved quality of life if they were able to use conventional bus services as required without reserving service for some or all of their trips.

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

In this regard, Lindsay transit recognizes that there are five distinct groups of residents that will benefit from the ability to travel by bus:

People who could benefit from travel training are:

- Young people with physical disabilities, who may be transported by family and/or special needs school bus, and who, with appropriate familiarization with how to use transit, would not develop a life-long dependency on specialized transit
- Adults with physical disabilities who may be able to travel on conventional services, at least for some of their trips
- Senior citizens who suddenly find themselves either unable or unwilling to drive, and if never having used transit, simply do not know how, and may feel intimidated and reluctant to use a system they do not understand
- People with cognitive disabilities who, although possessing the physical ability to use conventional transit, lack the knowledge and skills to do so, but who are capable of assimilating training so as to at least be capable of making a regular, unvarying one-way or return trip. Training these people to use conventional transit, in addition to the mobility advantages for the individual, allows LIMO to use its services in the most cost- effective manner and helps to protect specialized service for customers who have no other travel options due to the more constricting nature of their disabilities

Recommendations:

- City staff should coordinate the administration of a travel training program
- Lindsay Transit should establish a budget dedicated to travel training, which includes the cost of free transit fares provided to customers undergoing travel training along with their trainers/caregivers, costs relative to marketing, the use of vehicles, and the portion of a co-ordinator's salary.
- That third-party agencies could be trained to provide direct travel training to their clients and that Lindsay Transit provide a Train the Trainer Travel Training Manual. There are a number of best practices training manuals that can be referenced such as 'myRide' that was developed by York Region Transit

3.4.7 Community Liaison

Bus operators are the front-line public liaison for Lindsay Transit and based on community feedback and observations of the consulting team, they do an excellent job

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

relative to customer service. On the other hand, incidents such as late bus complaints and requests to extend service are beyond the control of the bus operator and require other levels of assistance.

The Transit Master Plan will take the City of Kawartha Lakes to a new level by meeting a wider range of resident and business needs throughout the vast service area. The level of expertise required and the amount of time dedicated to addressing transit issues has increased significantly and will continue to do so as a result of:

- Assessing and implementing a more integrated and complex 'family of services' within Lindsay and throughout the City of Kawartha Lakes will require far more due diligence and increased staff accountability
- Co-ordinating the annual planning and budget process*
- Co-ordination of transit travel training activities within the community
- Connectivity to transit service providers to destinations to the east (e.g. Peterborough), south and west through GO Transit to the GTA
- Ridership growth translates to more passenger incidents and liaison (i.e. telephone, e-mail)
- More communities served equates to the need for additional community outreach
- Addressing AODA issues
- Working with school boards to transport some students to and from school to reduce transit costs to municipalities
- Enhanced liaison through various social media mediums (e.g. Facebook and Twitter)
- Increased liaison with local businesses, social service agencies and academic institutions
- Transit-specific technologies will be playing a greater role
- Transit planning technical expertise will increasingly be relied upon

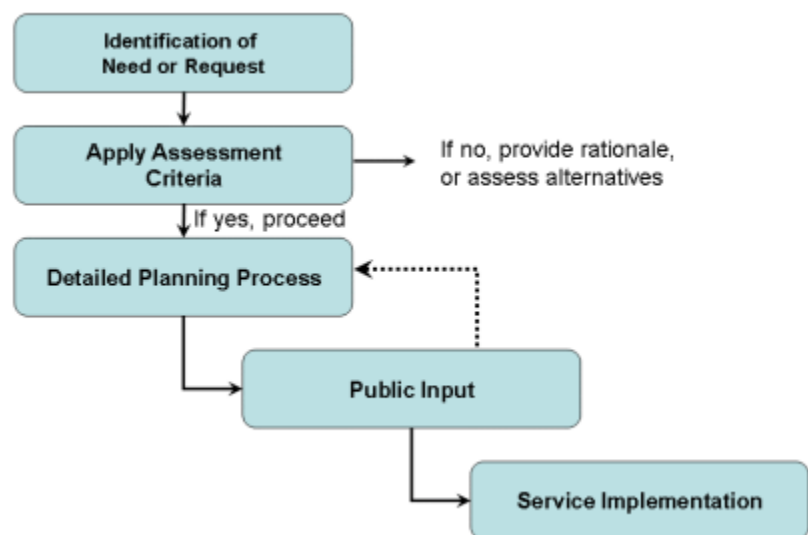


Figure 35 - Annual Planning and Budget Process Flow Chart

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

- Expanding service will require more staff accountability
- Attendance at transit workshops to stay aware of industry best practices should be encouraged
- Provincial and Federal transit funding for small and rural communities is increasing and as such, a more dedicated transit staff member will be needed to assess opportunities for enhanced external funding (e.g. to expand bus stop infrastructure)
 - Seeking low-cost service alternatives to reduce costs is an ongoing requirement to minimize the impact to the City of Kawartha Lakes taxpayer

Recommendation: It is the view of the consultant team that an additional staff member dedicated to public transportation in the City of Kawartha Lakes will be needed within two years, providing council supports the proposed Transit Master Plan.

3.4.8 Bike Racks on Buses

Active transportation has been playing a significant role in the overall transportation choice across Canada. Since all transit customers are pedestrians, they benefit from walk distance guidelines as proposed in this report. One active transportation market that has not been accommodated are those that travel by bicycle, which was made clear through the community engagement process. Bike racks on buses have now become the norm for public transit systems (e.g. Barrie Transit and Bradford West Gwillimbury Transit have 100% of their buses so equipped).



Figure 36 - Bus with Bike Rack

Bike racks, which were requested by students, allow transit customers to bicycle to transit stops, mount their bicycle on one of two bike mounts then board the bus. At the end of a trip, the cyclist can then continue travel. Doing so expands the transit market potential and is a step towards a successful active transportation strategy that does not unduly burden the ability of buses to maintain schedules. With the advent of bike racks on buses, bike storage facilities could be made available at the downtown bus terminal and other key destinations and institutions.

Recommendation: A budget be created to start the installation of bike racks on all conventional buses

3.4.9 Development Growth

Much of transit expansion in Kawartha Lakes is directly related to urban and rural development. Transit expansion in Lindsay should initially be addressed through the LIMO Specialized Transit as it is the most flexible service and can be the indicator of need for conventional services. In recent years, single family and multifamily development has steadily grown the population of Lindsay. This growth is expected to accelerate with the expansion of the 407, completion of the northwest trunk service and in the inviting surroundings of Kawartha Lakes, transit must be ready to meet the need.

Rural transit, outside of Lindsay, will be dependent on community outreach and development. Fenelon Falls and Bobcaygeon have seen many recent developments with more planned. Transit should assess the viability of providing service to these urban areas outside of Lindsay to service resident's needs.

3.4.10 Summary of Transit Ridership Growth Strategies

Expanding service as recommended will better address existing needs of residents that have no choice. For residents of households that are fortunate to own a car or multiple cars – the largest transit market potential - the change from auto to transit will not occur overnight; it will take time. As a newly branded transit system becomes more visible, the hours of operation are expanded and more communities are served, a choice will emerge. Some households will not need that 2nd or 3rd auto and they may choose to reduce car ownership immediately or when a car needs replacement.

It is also worth noting that Kawartha Lakes is growing as a retirement location and as such, there will be increased demands on both LIMO and Lindsay Transit. The consultant project manager has engaged with numerous small municipalities where new residents made it very clear that they selected a retirement location based on not simply the amenities that are available but that the availability of public transit was equally important.

3.5 Public Transportation Service Alternatives

Based on the community engagement process and policy framework developed, there are a number of transit route and service concepts that were considered for the City of Kawartha Lakes.

3.5.1 Heavy-duty Conventional Transit Fixed-route Service

Low-floor heavy-duty conventional buses are the norm in larger urban centres such as Peterborough, having a capacity to accommodate 40 or more seated passengers, 20 to 30 standees, and two wheelchair positions. Given the lower transit demand levels in Lindsay, heavy-duty conventional transit buses service cannot be justified at this time.

Recommendation: Not to be considered further for the next 5 to 10 years.

3.5.2 Community Bus Fixed-Route Service

A community bus typically, but not necessarily, is a small- to medium-sized vehicle that is easy to board and able to arrive close to locations that generate or attract a larger proportion of seniors, serving areas such as seniors' residences, shopping centres, recreation, social, and medical facilities. Service frequencies tend to be hourly or even every two hours, and buses usually operate at off-peak periods for larger urban centres. In smaller communities such as Lindsay those throughout the City of Kawartha Lakes, the community bus is provided as the all-day fixed-route service to accommodate the work and school trip in addition to service.

Recommendation: Community bus to continue to be used as scheduled fixed-route service in Lindsay.

3.5.3 Specialized Transit

Municipalities typically have what is referred to as specialized transit, which is demand-responsive and normally operates separately from regular fixed-route transit services (e.g. Lindsay Transit) to serve residents that are unable to use Lindsay Transit. Specialized transit customers must meet eligibility criteria established by Kawartha Lakes. Under the Accessibility for Ontarians Disability Act (AODA), the City of Kawartha Lakes must ensure its residents have access to specialized transit during the same hours and days of operation as Lindsay Transit. Specialized transit is currently provided outside of Lindsay by the Community Care; however, the eligibility criteria for

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

Community Care does not meet AODA requirements as most of their fleet utilizes volunteer drivers in their personal vehicle.

When transit service is expanded to the rural communities of Kawartha Lakes, the cost per passenger will be high given the long distances that need to be travelled when travelling to access goods and services only available in Lindsay (e.g. medical, shopping, etc.). Given the LIMO fleet and Lindsay Transit fleet vehicles are similar, a non-eligible LIMO customer should be able to use LIMO services or vice versa. This strategy negates the need to send two buses to the same area at the same time.

A two-tier eligibility program could be implemented that gives priority to registered eligible LIMO customers while those that are ineligible would be able to book if seating is available.

Recommendation: To be considered in the future when transit service is expanded outside Lindsay or if a person that resides within Lindsay is not able to walk to a Lindsay Transit stop.

3.5.4 Fixed Flex-route Concept

A Fixed-flex route service combines some of the advantages of fixed route (predictable service, low cost per passenger) with those of door-to-door specialized transit services. A fixed-flex route bus would follow a normal scheduled route but have the ability to deviate off the route and return to the route within 5 minutes to continue their trip, if requested. The service; however, is not a replacement for all LIMO or Community Care customers since many will require the more personalized door-to-door customer service due to their unique limitations of mobility.

A fixed flex-route can be employed along both arterial and collector roads similar to other scheduled transit service. The vehicle can deviate from the established route to pick up and drop off individuals with limited mobility. Route deviations for pick-ups must be requested in advance, either through dispatch or by phoning the vehicle directly, if permitted. Deviations for drop-offs may be requested in advance, but can also be requested on-board and accommodated if the driver has sufficient time to do so.

Given the need to have a reliable schedule at stops and route-end points, it is necessary to set limits to both the number and the distance of deviations. In the case of travel within Lindsay; however, the fixed flex-route service is not an option at this time

since allowable route deviations of 5 minutes cannot be accommodated by the fixed-route community bus schedules.

Recommendation: To be considered when service is expanded to outlying communities within the City of Kawartha Lakes.

3.5.5 Fixed-route Shared-ride Taxi

Where demand is low, the taxi industry can be used to offer a low-cost option to fixed route transit service. Shared-ride taxis (accessible vans or small buses) can be used in conjunction with bus service until bus service is warranted. No dedicated dispatch service is required for this option. Since taxis would not offer a door-to-door service and are shared, the service is not viewed as competing with regular taxis.

The benefits are lower cost, extended reach for transit, and the ability to establish a regularly scheduled service over the longer term. Taxis would travel along a set route and schedule while customers would board at designated bus stops, similar to the fixed-route Lindsay Transit service.

Taxis could be used in a number of ways:

- Feeder services from outlying communities to link up with Lindsay Transit
- A fixed schedule or fixed flex-route schedule
- As a feeder service to employment areas not adequately served by public transit
- As a commuter feeder service to link residents with GO Transit (e.g. along Highway 35)
- Connections to VIA Rail (formerly Shining Waters Railway)

Contracted taxi service providers would be compensated based on a negotiated hourly rate. The City of Kawartha Lakes can undertake to offer a minimum revenue guarantee in the contract tender, if deemed necessary to secure good quality bids. As an example, taxi vans can provide daily off-peak service from 9am to 3pm two days per week, reaching areas currently not served. The schedules could be developed upon consultation with residents and adjusted, as required over time.

Recommendation: To be considered when service is expanded to outlying communities within the City of Kawartha Lakes, particularly on HWY #35 to HWY #115 and to VIA Rail.

3.5.6 Dial-a-Ride

Dial-a-Ride service is a demand-responsive curb-to-curb service whereby residents call into a dispatch centre or driver cell phone to request service. For regular trips (i.e. daily, weekly, etc.), service can be arranged on a reservation basis so that the customer is not required to book daily. Service can be completely in response to requests, or can be structured to operate on a frequency basis (e.g. every two hours) in a given area. In that case, the requester is given the next available time the vehicle can arrive to pick him or her up, and an approximate arrival time at their destination.

Similar to fixed-route shared-ride taxis, dial-a-ride service is generally used in place of bus service in areas where population is sparse and demand for service is low. The need to request each trip and wait for the next available time can make it less convenient for the customer; however, this is offset by the convenience of door-to-door service, especially important during inclement weather.

Recommendation: To be considered when service is expanded to outlying communities within the City of Kawartha Lakes.

3.5.7 Summary of Service Delivery Options

There are several service delivery options that are available to residents throughout the City of Kawartha Lakes. Each has its benefits and cost structure. Service options that are considered viable over the next five years and beyond are:

- Enhancements to the existing Lindsay Transit community bus service
- LIMO specialized transit
- Fixed flex-route transit
- Fixed-route shared ride taxi outside of Lindsay
- Dial-a-Ride to rural communities

Moving forward, as service is expanded and the transit market evolves, it will be important for City staff to undertake its due diligence and feasibility studies by working with the community to match a low-cost service delivery type with the demand.

4. Phase III: 2018-2027 Transit Service Plan

The community engagement process revealed a number of transit service improvement priorities to be considered for the short-term within Lindsay and in the longer term to the rural communities outside of Lindsay.

The City of Kawartha Lakes Transit Master Plan is structured to address the former Town of Lindsay requirements for fixed-route transit service during the 2018-2022 five-year period. The outlying communities within the City of Kawartha Lakes are proposed to have transit service provided commencing in 2023.

The Transit Service Plan is provided in four sub-sections:

- Proposed 2018-2022 Lindsay Transit Service Plan
- Proposed 2023-2027 Lindsay Transit Service Plan
- Proposed 2023-2027 Rural Transit Service Plan
- Dedicated Provincial Gas Tax
- Summary of 2018-2027 Public Transportation Service Plan

4.1 Proposed 2018-2023 Route and Service Plan

Transit Consulting Network and City staff have developed the route and service design options that were guided by the following principles for the first five years:

- Improved service coverage
- Limited impact on existing bus stops and route design
- Ease of understanding/ comprehension
- Timed bus transfers at the downtown terminal and Lindsay Square Mall
- Ability to expand to newer developments over the next five years
- Reliable schedules
- Expanded hours and days of operation

The 2018-2023 Transit service plan is presented in two parts:

- Immediate (2018) – route modifications with no increase in service hours
- Short-term (2019-2023) – added route, annually increase in service hours

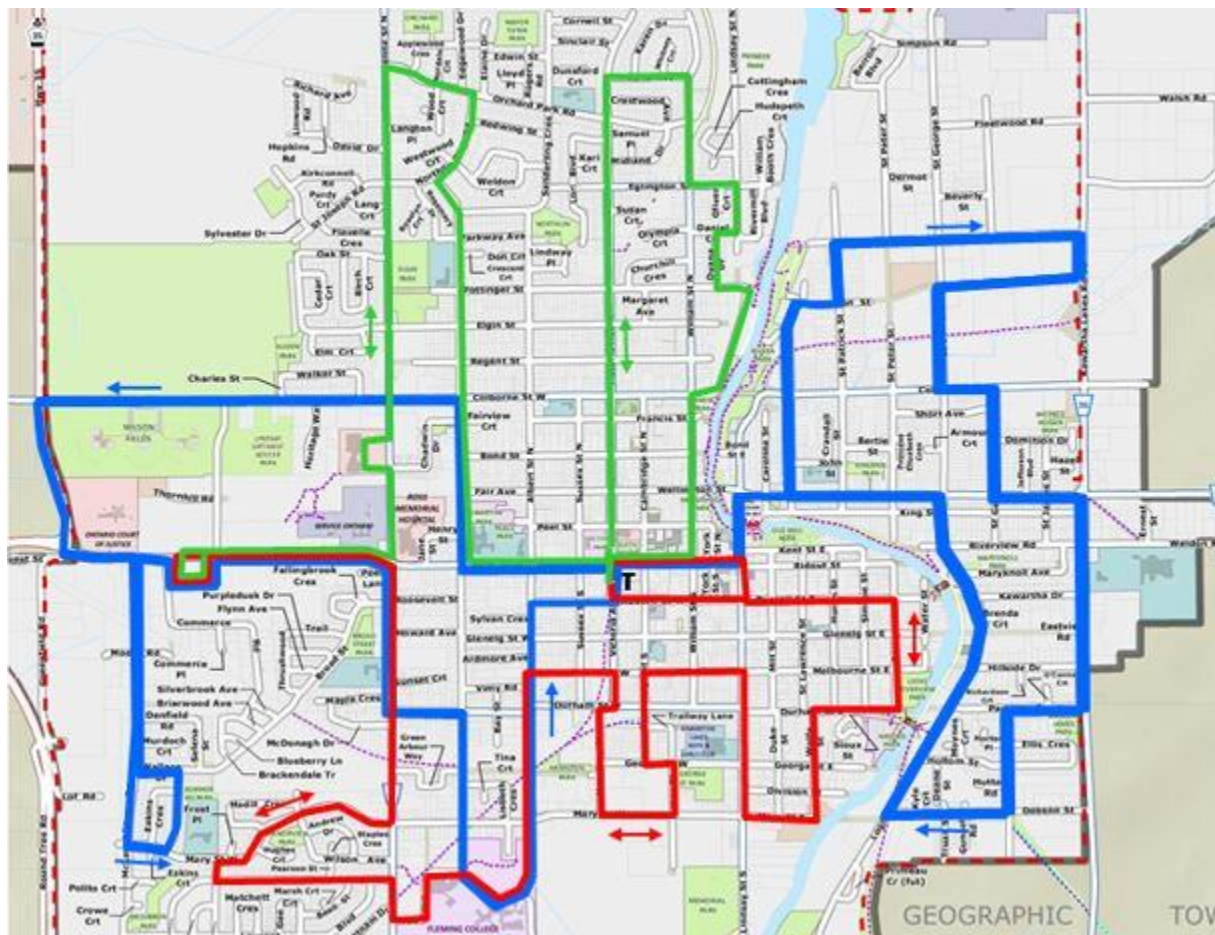
City of Kawartha Lakes 2018 Lindsay Transit Master Plan

4.1.1 Proposed Three-route Plan (2018)

The three-route plan builds on the existing blue, red and green routes with slight modifications needed to:

- Streamline the service for improved schedule adherence
- Expand service to the Dobson Street area in the south-east area of Lindsay
- Accommodate timed transfers at the downtown terminal
- Expand LIMO to Country Estates, Springdale Gardens, Jennings Creek, Ravines of Lindsay and South East Lindsay to accommodate development growth

Figure 37 – Proposed Three-route Plan (2018) Map



City of Kawartha Lakes 2018 Lindsay Transit Master Plan

4.1.2 Proposed 2019-2023 Four-route Plan

The proposed four-route plan provides for a fourth route (Orange Route) that is:

- Sufficiently flexible to accommodate service expansion to the new commercial (e.g. Walmart) and newer residential areas in the north-west area of Lindsay
- Additional Blue Route expansion of service to the north-east area of Lindsay (e.g. Fleetwood Road)
- Dividing Lindsay into four easily understood route quadrants with two meeting hubs

Figure 38 - Proposed Four-route plan map



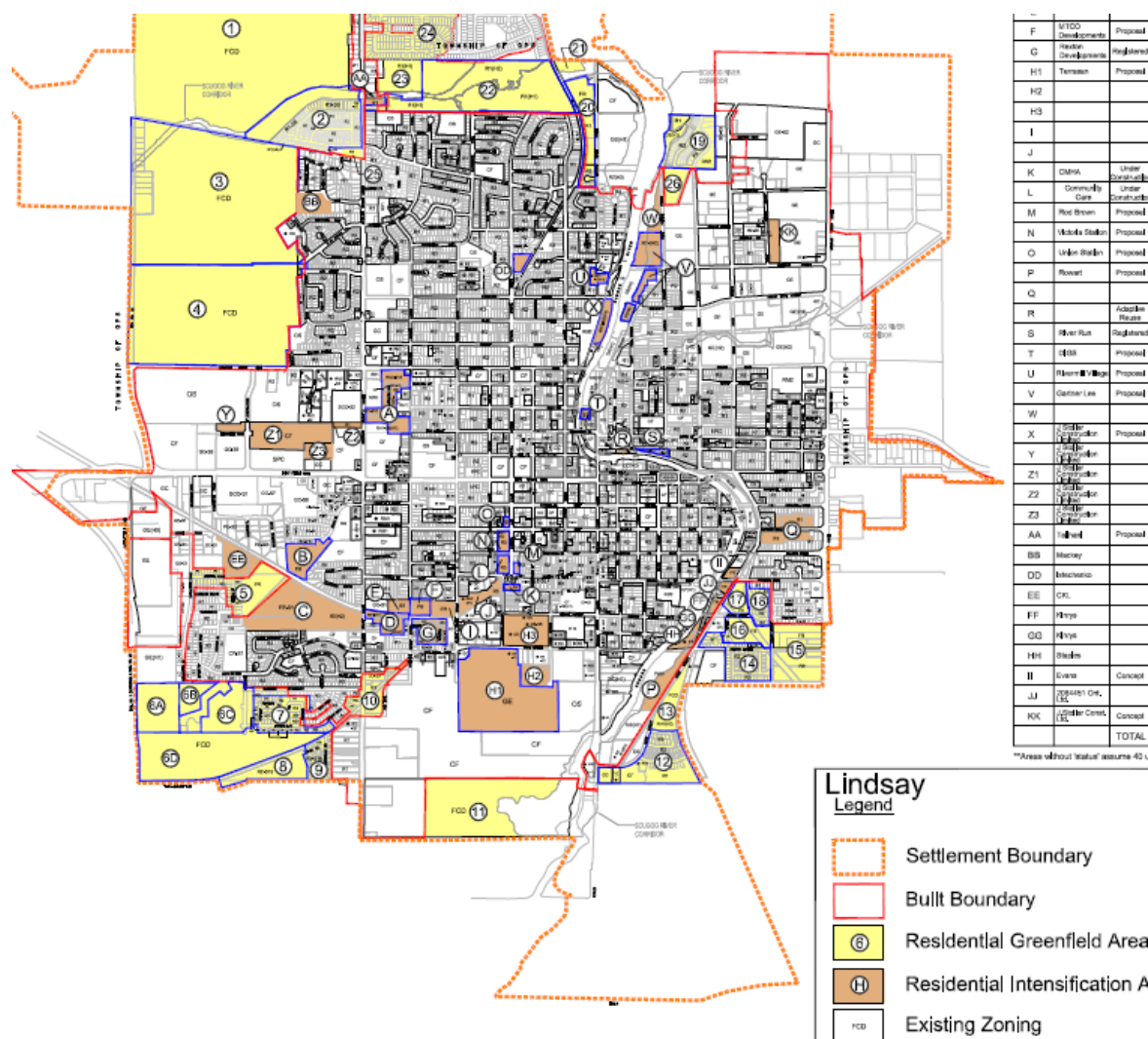
City of Kawartha Lakes 2018 Lindsay Transit Master Plan

4.1.3 Growth Management Plan

The City of Kawartha Lakes Growth Management Study provided a number of Community Vision statements and also provided direction relating to infrastructure and servicing, as follows:

“2. Encourage urban development to locate where servicing costs are minimized and use is maximized. Avoid premature service and utility extensions and locate development where municipal services exist or where they can be logically and economically extended.”

Figure 39 - Urban Settlement Area



City of Kawartha Lakes 2018 Lindsay Transit Master Plan

The proposed Lindsay Transit service plan ultimately provides for four routes that can be modified and extended to accommodate service expansion into newly developed areas by applying service design guidelines relative to coverage and route design. The proposed four-route concept effectively addresses recent growth in urban areas, customers' needs and effective service scheduling.

4.1.4 Summary of 2018-2022 Lindsay Transit Service Plan

Lindsay Transit currently provides 15,027 revenue hours of service on three routes. It is proposed to increase the number of service hours by 2022 to 23,900 hours per year, which represents an increase of 60%. This growth related route expansion project would include transit to new and existing developments.

Lindsay Transit service standards are to meet the following criteria within five years:

Service Area: 95% of households in the Lindsay Transit service area are to be served within a 450-metre walk of a bus stop

Span of Service:

Weekdays

- 0700hrs – 1900hrs: 60-minute frequency
- 0700hrs – 2300hrs: 60-minute frequency

Saturdays

- Span of Service: 0700hrs – 1900hrs
- Frequency of Service: 60 minutes

Sundays

- Span of Service: 1000hrs – 1600hrs
- Frequency of Service: 60 minutes

A summary of each year (2018-2022) is provided as follows:

2018

Description: Modify existing three-route system

Impact on annual revenue hours of service: None

Comments:

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

- Green Route inter-linked with Red Route
- Extends reach of transit
- Few existing bus stops impacted
- LIMO to provide service to Springfield Gardens, LEX, and County Estates

Impact on annual revenue hours of service: none

2019 and 2020

Description: Add Sunday service to all three routes (1000hrs – 1600hrs)

Impact on annual revenue hours of service: 1248 hours

LIMO Specialized Transit to new developments within Lindsay boundaries

2021 and 2022

Description: Modify routes adding service to 2300 hours and add Orange Route bus with same level of service as all routes

Impact on annual revenue hours of service for 2021: 3,936 hours

Impact on annual revenue hours of service for 2022: 4,000 hours

Summary of 2018-2022 Transit Service Improvements

Year	Description	Additional Annual Revenue Hours	Annual Operating Cost (\$70 per hour)	Annual Additional Revenue	Annual Net Cost
2018	Modify Routes	No added service hours	Nominal (added bus stops)	NA	NA
2019	Add Sunday service (1000 -1600 hours)	936 Transit + 312 LIMO	\$87,400	\$11,000	\$76,400
2020	No change				
2021	Add Orange Route (Monday – Sunday)	3,936	\$275,500	\$41,700	\$233,800
2022	Add weekday evening service to 2300 hrs.	4,000	\$280,000	\$42,400	\$237,600
Total	Lindsay Transit + LIMO	9,184	\$642,900	\$95,100	\$547,800

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

Note (*) Based on 6.29 revenue passengers per hour at \$1.68 average fare reported in 2016 Urban Transit Statistics to MTO for gas tax purposes

Lindsay Transit currently provides 15,027 revenue hours or 0.74 hours per capita served in Lindsay. When service increases to 23,900 hours per year by 2022 (excludes 312 hours for additional LIMO Sunday service), there will be approximately 1.2 service hours per capita based on the current population service area; this should be maintained for subsequent years to ensure that service increases keep pace with anticipated population growth.

4.2 Proposed 2023-2027 Lindsay Transit and LIMO Service Plan

The consultant and transit staff study team developed a preliminary service strategy that would commence expansion of transit service to the outlying communities and rural areas of Kawartha Lakes to complement Lindsay Transit and LIMO. It should be noted that the dedicated gas tax funding is proposed to increase from 2 (two) cents to 4 (four) cents per litre by 2021-2022. The enhanced funding, if approved in 2018, could result in the proposed 2023-2027 service expansion being implemented sooner.

4.2.1 Proposed 2023-2027 Lindsay Transit and LIMO Service Plan

The 2023-2027 route and service design plan proposed for Lindsay Transit and LIMO based on development growth within Lindsay and routing that would link Bobcaygeon and Fenelon Falls to Lindsay as well as introducing specialized transit to the outlying communities.

The transit service plan provides for additional service delivery options. Many locations outside Lindsay need to be considered when transit planning activities take place. It is difficult to accurately predict what will happen in 5 (five) to 10 (ten) years and as such, a transit service review should be undertaken in 2022 to ensure that community consultations can take place in time for implementation.

2023

Description:

- Investigate feasibility of a fixed flex-route community bus service from Bobcaygeon to Lindsay via Fenelon Falls

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

- To serve both LIMO and regular transit customers
- Weekdays 3 trips per day (am, mid-day, pm) Monday, Wednesday, Friday
- One bus, 6 hours per day, 156 days per year, 936 hours per year
- \$65,500 per year at \$70/ hour cost
- Investigate the feasibility of a fixed flex-route community bus service operating from Lindsay to Go Bus stop at HWY #35 and 115 using a contracted accessible taxi van/ small bus. This bus could also provide service to the Shining Waters Railway that is scheduled to run between Havelock and Toronto

2024

Description:

- Investigate the feasibility of a full weekday fixed flex-route community bus service from Bobcaygeon to Lindsay via Fenelon Falls
 - Add Tuesday and Thursday service 3 trips per day (full weekday)
 - One bus, 6 hours per day, additional 104 weekdays, 624 hours per year
 - \$43,700 per year at \$70/ hour cost;
 - Premium fare to apply

2025

Description:

- Effective 2025 add 2 trips per weekday (one morning, one afternoon) to fixed flex-route community bus service from Bobcaygeon to Lindsay via Fenelon Falls
 - One bus, 4 hours per weekday, 250 weekdays, 1,000 hours per year
 - \$70,000 per year cost

2026

Description:

- Add weekday fixed flex-route community bus service operating from Lindsay to Go Bus stop at HWY #35 and 115 using a contracted accessible taxi van/ small bus:
 - Assumes 4 hours per weekday (1,000 hours annually)
 - Contracted cost of \$50 per hour (\$50,000 per year)
 - Assumes 6 passengers per hour

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

Summary of 2023-2027 Transit Service Improvements

Year	Description	Additional Annual Revenue Hours	Annual Operating Cost (\$70 per hour)	Annual Additional Revenue*	Annual Net Cost
2023	3 roundtrips per day from Bobcaygeon to Lindsay, 3 days a week	936	\$65,500	\$15,000	\$50,000
2024	Increase service between Bobcaygeon and Lindsay to 5 days	624	\$43,700	\$10,000	\$33,700
2025	Add 2 trips per weekday between Bobcaygeon and Lindsay	1,000	\$70,000	\$16,000	\$54,000
2026	Weekday Commuter service from Lindsay to GO bus stop at HWY 35/115	1,000	\$50,000	\$16,000	\$34,000
2027	No change				
Total		3,560	\$229,200	\$57,000	\$172,200

Note (*) Based on 4 revenue passengers per hour at \$4 average fare assumptions

The 2023-2027 Transit service plan will result in adding 3,560 hours of service by 2025, which is an increase of 15% over the total 23,900 revenue hours estimated for Lindsay Transit in 2022. The fixed flex-route community bus service proposed to commence in 2023 may be supplemented by specialized transit service.

The proposed 2018-2027 transit service plan will increase the amount of service on an annualized basis from 15,027 revenue hours of service to 27,459 revenue hours – an increase of 83%. It should be noted that this does not include any additional hours for LIMO service outside of Lindsay, since it is assumed the proposed Fixed Flex-route service is adequate to meet registrant needs that cannot be accommodated by volunteer agencies.

4.2.2 Summary of 2018-2027 Transit Service Plan

The City of Kawartha Lakes Transit Master Plan builds on the successful performance growth of both Lindsay Transit and LIMO over the last five years. Both the relative amount of service and the investment in transit on a per capita basis currently exceeds its peer group. The Transit Master Plan is designed to take the City to the next level - to expand the reach of transit within Kawartha Lakes and to meet the needs of an aging population that wants to 'age in place'. The demand for accessible public transportation both within the Lindsay urban area and to adjacent and remote areas outside of Lindsay will continue to grow.

The transit service increases were designed to reflect the key priorities of a variety of stakeholders, including businesses. What is unique with the services offered today is that both the Lindsay Transit and LIMO fleet and staff are fully integrated and cross-trained. This provides economies of scale and supports the 'family of transit services' approach to service delivery.

The proposed recommendations provide a blueprint for the City of Kawartha Lakes to follow for the next five years and beyond. By generating transit conversations through the use of evidence-based data, the residents of Kawartha Lakes will be properly served. The timing of the improvements; however, are subject to change depending upon budget constraints, the timing of new residential and commercial development, and the availability of enhanced external funding such as the federal Public Transit Infrastructure Fund and the dedicated Provincial gas tax.

4.2.3 Dedicated Provincial Gas Tax

For every litre of gasoline sold, Ontario currently provides two cents to municipalities to help fund local public transit improvements. For the 2016 operating year, the City of Kawartha Lakes applied to receive \$630,508 while the City's contribution would be \$659,735. On January 27, 2017 the Province of Ontario announced that beginning in 2019, Ontario is proposed to gradually double the municipal share of gas tax funds to a total of \$0.04 per litre by 2021-22 as follows:

- 2.5 cents for 2018-2019
- 3.0 cents for 2019-2020
- 3.5 cents for 2020-2021
- 4.0 cents for 2021-2022

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

In 2016, 99 municipalities received a share of a dedicated transit tax collected by the Province, which is determined by a formula of 70% ridership and 30% cent population. In this regard, if the number of municipalities receiving the dedicated gas tax remains constant, maintain their existing ridership levels and population, the doubling of the gas tax could also double the gas tax received by City of Kawartha Lakes. In this regard, the City could receive up to approximately \$1.26 million.

Since the funding proposed is not confirmed, the study team elected not to apply the proposed increases to the budget; however, City staff would take this into consideration should it be passed in 2018.

Going forward, since the gas tax allocation among municipalities is heavier on transit ridership growth (i.e. 70%) than population (30%), transit ridership growth strategies take on a more important role. If transit system effectiveness (revenue passengers per capita) improves better than the provincial average, the City will benefit in two ways:

- Increased passenger revenues
- Increased gas tax revenue attributed to transit ridership gains

Another factor that comes into play is the amount of gasoline sold. Ironically, if more gasoline is sold, this adds to the carbon footprint; however, more gas tax revenues will be collected by the Province of Ontario and as such, Ontario transit systems will benefit further.

4.2.4 Grant Availability

The Federal and Provincial governments have recognized the importance of transit to municipalities and residents. As such, these levels of governments are investing more in public transit. Lindsay Transit should be encouraged to apply for and invest in the granting process. This could accelerate, accommodate or augment many of the existing and newly proposed services provided at a reduced rate, benefiting all residents.

4.2.5 Transit Organization

In order to support the short- and long-term Lindsay Transit and LIMO service plans, the City of Kawartha Lakes will need to be prepared with the appropriate staffing plan to ensure resident needs are being addressed and transit staff have the resources and tools to effect change and be accountable to Council.

4.2.5.1 Technical and Marketing Support

As mentioned in the Transit Ridership Growth Plan, there is a need for a Community Liaison staff person to perform technical and marketing support to effect the necessary change. A budget of \$100,000 is proposed for a full-time staff member to provide technical, planning, data analysis and marketing support to initiate and support the various transit ridership growth initiatives. From the observations of Transit Consulting Network, there is insufficient staffing in place, today.

The staff hiring should take place in 2019- 2020, which is in advance of the implementation of the fourth route.

4.2.5.2 Bus Operators

As service expands, it is recommended that one full-time equivalent bus operator (FTE) be hired for every 2,080 hours of service per year. The bus operator costs are reflected in the cost for the service. Based on the proposed service plan, the hiring is recommended as follows:

2019: 0.5 FTE bus operators

2021: 2.0 FTE bus operators

2022: 2.0 FTE bus operators

2023: 0.5 FTE bus operators

2024: 0.5 FTE bus operators

2025: 0.5 FTE bus operators

Total: 6.0 FTE bus operators

To provide transit management with the flexibility needed to operate a growing transit system cost-effectively to accommodate shorter peak period service in some cases, cover for vacations and sick leave, etc. It is recommended that management develop a framework with the union to reach a desirable split between full-time and part-time staff.

Fortunately, Lindsay Transit and LIMO operators are trained for both services.

4.2.5.3 Licensed Mechanics

It is recommended that Lindsay Transit hire one additional licensed mechanic in mid-2020 to accommodate the proposed service expansion. No additional budget needs to be added since the variable costs are included in the transit service plan and service is provided by the Fleet Services division.

5. Transit Asset Management Plan

To support the implementation of the 2018-2027 Lindsay Transit and LIMO service plan, the, a number of capital investments are required. In this regard, the City of Kawartha Lakes could consider the capital identified as potential growth-related investments as candidates for local development charges.

5.1.1 Smart Card Technology (2020)

In 2020-2021, it is proposed to equip all Lindsay Transit and LIMO buses with a smart card reader, transfer printer and bus operator console that would be linked with the existing fare boxes. Over time, only cash fares and smart card should be accepted for payment. The system should also be able to accept mobility payments through smart phones.

Estimated equipment and customized reports: capital cost: \$8,000 per bus X 11 buses = \$88,000. Estimated annual support costs: \$200 per bus per year = \$2,200.

5.1.2 Transit Operations Centre

Best practices indicate that all transit operation functions should be located under one roof. This location could be either at 89 St. David Street (preferred) or at 2094 Little Britain Rd. and should be implemented as soon as reasonably possible. This centralized location would realize efficiencies by having mechanics, drivers and staff in one spot. Communication, equipment repairs and cost savings will be realized.

Currently, many hours a year are spent in the transportation of equipment in need of repair or maintenance from one location to another. Further, another 40-50 times a year a mechanic is required to attend to start or repair equipment before it can go into service for public use. Having one location for all services will improve service reliability and mitigate rising costs.

5.1.3 Fleet Replacement and Expansion Plan

The 11-bus Transit and LIMO fleet is allocated as follows:

- 2 undergoing preventative maintenance and other repairs
- 1 bus allocated as an operating spare (a mandatory requirement to maintain service in case of in-service breakdowns)
- 3 buses utilized for conventional service (1 red, 1 blue and 1 green)
- 1 bus set aside for charter services

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

- 4 buses allocated to LIMO service (up to 3 in-service plus one spare)

The model year and 10-year replacement schedule for the existing 11-bus Transit and LIMO fleet is summarized below:

Bus No.	Year	Model	Replacement Year
E13	2006	International	2017
E14	2009	International	2019
E15	2010	International	2020
E16	2012	Ford	2021
E17	2012	Ford	2022
E18	2012	Ford	2023
E19	2014	Ford	2024
E20	2016	Ford	2026
E21	2017	Ford	2027
E22	2017	Ford	2027
E23	2017	Ford	2027

Based on the 2018-2027 Transit Service Plan, the following Transit fleet expansion will be required:

- One bus in 2018 to accommodate the fourth Lindsay Transit route
- One bus in 2019 to provide for an additional spare vehicle
- One bus in 2024 to accommodate service to Bobcaygeon

In the case of LIMO service, the City should budget for one additional vehicle in 2024 to accommodate service outside the Town of Lindsay, subject to other alternatives being available such as the proposed fixed flex-route service, contracted taxi or other agencies serving residents that would qualify for LIMO service.

It is suggested that the scheduled fleet replacement and expansion plan, which is based on a 10-year vehicle life cycle, be modified to even out the annual fleet purchases.

5.1.4 Bus Stop Infrastructure (2018-2027)

The bus stop infrastructure is proposed to be enhanced to support branding initiatives and improvements to passenger comfort.

During the first five years (2018-2022) \$20,000 per year should be allocated to bus stop signage, landing area improvements, including enhancement of accessibility. A nominal amount of \$15,000 per year thereafter should be allocated for improvements.

As service is expanded into new residential and commercial developments, bus stop infrastructure will be required. For budgeting purposes, there will need to be a requirement for bus stops in new developments that are spaced at an average of every 250-300 metres on both sides of future bus travel ways. For every 1.0 km of bus route, the City should budget for up to 8 bus stops with landing pads and two shelters.

For budgeting purposes, the following unit costs have been estimated for the supply and installation of various bus stop area components:

- \$300 Bus stop post and sign
- \$300 Bench
- \$1,000 Concrete bus pad (12-metre length)
- \$6,500 4 ft. X 8 ft. standard shelter

5.1.5 Bike Racks

Bike racks have proven popular across Canada, providing transit customers with the ability to ride to a bus stop when going to complete their trip by bus and eliminate the walk when returning home. This accommodates the 'first mile-last mile' travel, making transit more convenient.

It is proposed that bike racks be included on future bus purchases, while the existing 11 buses be equipped in 2019 at an estimated total cost of \$20,000.

5.1.6 Future Off-street Transit Hub

As service is expanded, transit ridership will also increase accordingly. The current radial route network will continue to be the route network design for the next 10 years and beyond. It is ideal to have an off-street transit terminal that should meet Lindsay Transit and LIMO bus needs for the next 25 years and beyond.

A new bus terminal would ensure that passengers:

- Do not have to cross a street to transfer
- Have a comfortable and climate controlled waiting area

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

- Have access to public washroom facilities
- Have a short walk to destinations within the downtown

Ideally, a future downtown bus terminal/ mobility hub would be able to house inter-city bus services, taxis, and provide for bike storage. Best practices dictate that downtown bus terminals should be located in close proximity to high density and mixed-use transit-oriented development.

Although addressing an off-street transit terminal is out of the scope of this study, it is something the City could consider now in terms of locating a bus terminal. In this regard, it is suggested that a bus terminal be sufficient to accommodate six Lindsay Transit buses, one LIMO transit bus, one inter-city bus, a taxi stand and short-term parking.

An off-street transit hub with attached parking could offer commuter parking for those taking transit and provide a space for commercial and retail opportunities. As Lindsay grows, this need could be addressed through consultation with LDBIA and City staff.

During the interim it is suggested that the downtown terminal provide a large heated shelter for transit customers at a cost that would range from \$30,000 to \$50,000 to accommodate needs today. The shelter could be disassembled and relocated at a future date, if required.

Since no costs were identified, \$40,000 was allocated for a terminal location and functional design study.

5.1.7 Summary of 2018-2027 Transit Asset Management Plan

The Transit Asset Management Plan was developed to support the 2018-2027 Transit Service Plan

The 2018 – 2027 capital budget consists of \$2,470,000 for fleet replacement and expansion and \$577,000 in other infrastructure summarized below.

City of Kawartha Lakes 2018 Lindsay Transit Master Plan

City of Kawartha Lakes 2018-2027 Capital Budget

Budget Item	2018	2019	2020	2021	2022
Vehicle for Expansion Service	\$190,000	\$190,000			
Vehicle Replacement				\$380,000	\$570,000
Integrated Smart Card Fare Collection System			\$88,000		
Bike Racks on buses (11)		\$22,000			
Bus stop infrastructure	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
Terminal Location and Functional Design Study	\$40,000			TBD	
DowntownHeated Bus Shelter	\$40,000				
Operations Centre				TBD	
Total	\$290,000	\$232,000	\$108,000	\$400,000	\$590,000

Budget Item	2023	2024	2025	2026	2027	Total 2018-2027
Vehicle for Expansion Service		\$190,000				\$570,000
Vehicle Replacement		\$190,000		\$190,000	\$570,000	\$1,900,000
Integrated Smart Card Fare Collection System	\$130,000					\$218,000
Bike Racks on buses (11)	\$22,000					\$44,000
Bus stop infrastructure	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$175,000
Terminal Location and Functional Design Study						\$40,000
DowntownHeated Bus Shelter						\$40,000
Operations Centre						\$0
Total	\$167,000	\$395,000	\$15,000	\$205,000	\$585,000	\$2,987,000

6. Transit Master Plan Recommendation

The Transit Master Plan builds on past successes of Lindsay Transit and LIMO service and incorporates best practices that have evolved over the years throughout Ontario and Canada. The transit market has changed and as such, City of Kawartha Lakes transit staff have undertaken due diligence in taking Lindsay Transit and LIMO service to the next level.

The extensive community engagement process provided the study team with the information needed to prioritize transit service improvements and investments. The first five years of the plan focus on the current Lindsay Transit service area while the next five years addresses expansion of Lindsay Transit and LIMO to the outlying communities such as Bobcaygeon and Fenelon Falls.

The transit improvements have been laid out over the 2018-2017 period; however, this is to be viewed as a guide only since the existing dedicated transit gas tax may double to 4 cents per litre, which will be confirmed in 2018. Regardless, the Transit Master Plan is to be used as a blueprint to adapt to the growth and population demographics that are occurring.

In conclusion, it is recommended that:

“The City of Kawartha Lakes approve, in principle, the recommendations within the City of Kawartha Lakes 2018 Transit Master Plan report.”