The City of BARRIE

**STAFF REPORT LTF001-12**
**February 27, 2012**


**File:**
**Pending #:**

| | |
|---|---|
| **TO:** | **GENERAL COMMITTEE** |
| **SUBJECT:** | **MAYOR'S PLAN FOR TRANSIT** |
| **PREPARED BY AND KEY CONTACT:** | **G. KAVECKAS, MANAGER OF TRANSIT, EXT. 4464** |
| **SUBMITTED BY:** | **B. ROTH, DIRECTOR OF LEISURE, TRANSIT & FACILITIES** |
| **COMMISSIONER APPROVAL:** | **J. SALES, GENERAL MANAGER OF COMMUNITY OPERATIONS** |
| **CHIEF ADMINISTRATIVE OFFICER APPROVAL:** | **R. FORWARD, CHIEF ADMINISTRATIVE OFFICER (Acting)** |

## RECOMMENDED MOTION

1. That the Mayor's Plan for Transit, as presented to Council November 28, 2011 and as outlined in Staff Report LTF001-12 incorporating a new multi-hub transit route model be adopted.

2. That the implementation strategy, as outlined in Staff Report LTF001-12, be used as a basis for planning with timing that reflects the City's long range financial plan, financial policy and affordability thresholds.

3. That spending authority be granted to staff to proceed with the 2012 Business Plan approved components of the Mayor's Plan for Transit consisting of fleet expansion, Real-Time Passenger Information system and a Mobility Hub Feasibility Study.

## PURPOSE

4. The purpose of this report is to present the business case and recommend the implementation of a new multi-hub transit model which will better accommodate current ridership demands, be capable of meeting the future needs of a growing city, and supports the Plan for Transit Goals:
    - Service Level Improvements,
    - Increased Ridership,
    - New, Efficient Service Route Model able to accommodate current needs & have the capacity to expand to meet future growth.

5. The business case review concludes that with the full implementation of the multi-hub transit service model over the next five years, as compared to the existing radial system for a similar number of service hours:
    - There will have been 716,000 additional riders use the system, with operating net cost savings of between $1.4M - $4.8M and a savings of $1.35M in capital dollars for fleet expansion.

## BACKGROUND

6. In 2008 and 2011 the City conducted Citizen Satisfaction Surveys on City services through Environics which indicated that public transit was a service of high importance but with low satisfaction scores. The primary reasons for low satisfaction, as cited in the survey results, were:

| | |
|---|---|
| • Poor Service Schedule/Frequency<br>• Lack of Direct Routes<br>• No Service to/from the Area | • Late Arrivals, Not on Schedule, Not Reliable<br>• Not Enough Hours of Operation<br>• Limited Evening and Weekend Schedules |

7. The existing transit service model has many challenges including:
   - 21 uni-directional radial routes,
   - The convergence of all routes to one central hub station increasing congestion to the downtown core.
   - Transfers which are necessary for all riders seeking cross-city destinations.
   - The inability to meet on-time performance schedules and service frequency due to the inevitable demands placed on the system by increased traffic congestion, road and weather conditions, available in-service fleet vehicles and other operational barriers resulting in long wait times.
   - Average trip times are in excess of an hour from point of departure to point of arrival/destination.

8. In October 2009, Council endorsed the City of Barrie Transit Strategic Operating Study completed by Genivar Inc. (formerly known as ENTRA Consulting Inc.) with the mission:

   *"To provide the customer with focused, efficient, reliable and affordable public transportation services; link people, workplaces and the community through an integrated, easy to use public transit system; and promote economic development and improve the quality of life in Barrie".*

9. The Operating Study recommended the City of Barrie undertake the investigation and development of a new transit service system model designed to address and eliminate the deficiencies of the current system and position Barrie with the capabilities of system expansion to accommodate population growth and boundary expansion.

10. February 2011 Council approved Motion 11-G-032 supporting the need to undertake a City of Barrie transit service review. Genivar Inc was retained to undertake the review, including completion of a transit ridership study, a public consultation program and development of a new transit concept.

11. As a result of Motion 11-G-032, Mayor Lehman established an informal working group in March 2011, referred to as the Mayor's Transit Task Force, to lead the Plan for Transit initiative.

12. From March to October 2011, the Transit Task Force developed a new multi-hub transit service model reflecting the City of Barrie Transit Services Strategic Plan.

13. The approved 2012 Business Plan includes the following items related to the Plan for Transit:

    a) Acquisition of 2 fleet vehicles for $900,000.
    b) Real-Time Passenger Information system for $300,000 (as amended during Business Plan approval)
    c) Mobility Hub Feasibility Study for $125,000 (50/50 cost share with Metrolinx) for the Allandale Waterfront Station lands to link public transit services – GO, inter-City transit and Barrie Transit.

14. Motion 12-G-010 as amended stated in paragraph 11, "That no expenditure of funds occur for the capital projects of the Mayor's Plan for Transit until the business case is presented in a separate report and approved for implementation."

## ANALYSIS

### Service Alignment

15. The existing radial transit service model does not meet current ridership needs and has no capacity for future expansion to handle City forecasted growth and increased ridership. Rider confidence in the system and user satisfaction with the service is consistently ranked low through the Environics Citizen Satisfaction Surveys.

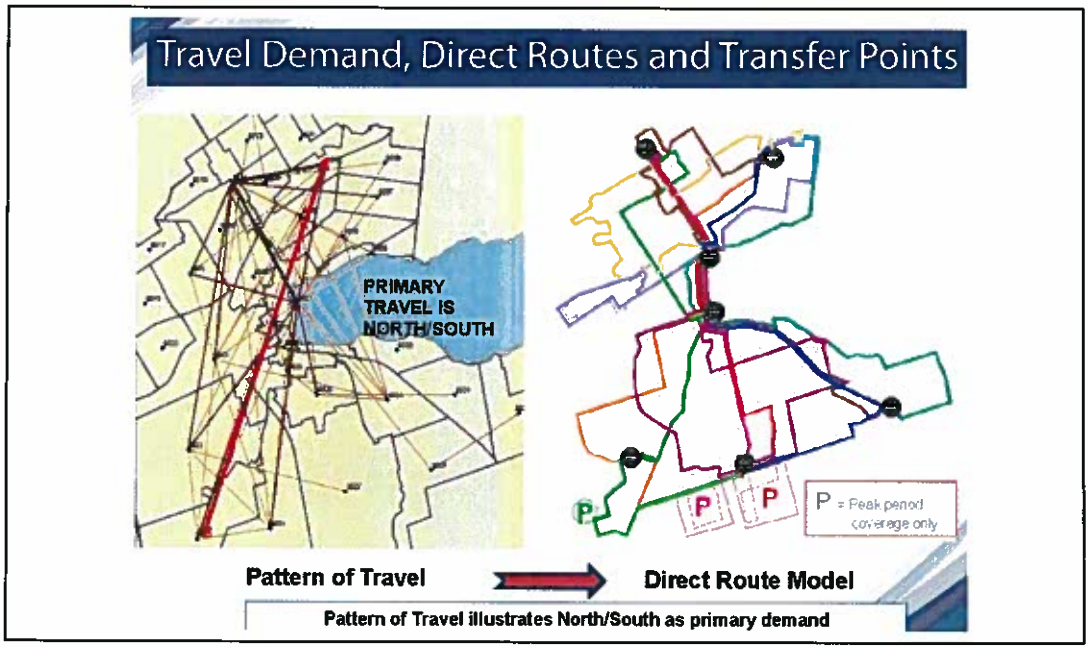
16. Stakeholder consultations consistently reinforced Environics Citizen Satisfaction Survey findings that Transit service delivery improvements are required to meet user expectations for increased service frequency, longer hours of operation, implementation of express services and service related technology.

17. In order to address current ridership concerns and needs, the existing transit service system model would require a minimum of five (5) new fleet vehicles in order to improve frequency and reliability of service at a cost of $450,000 per fleet vehicle for purchase and fit up. This additional capital investment of $2.25M would only temporarily alleviate short term needs of our riders and would still fall drastically short of providing a viable long term transit solution to meet the future needs of a growing and expanding municipality.

18. With the goals in mind as outlined in paragraph #4, the Mayor, the working committee and consultants set out to research and develop a comprehensive solution for the City to address our current ridership needs and future system requirements resulting in the development of a new Plan for Transit and recommend a new multi-hub transit service model.

**Service Improvements**

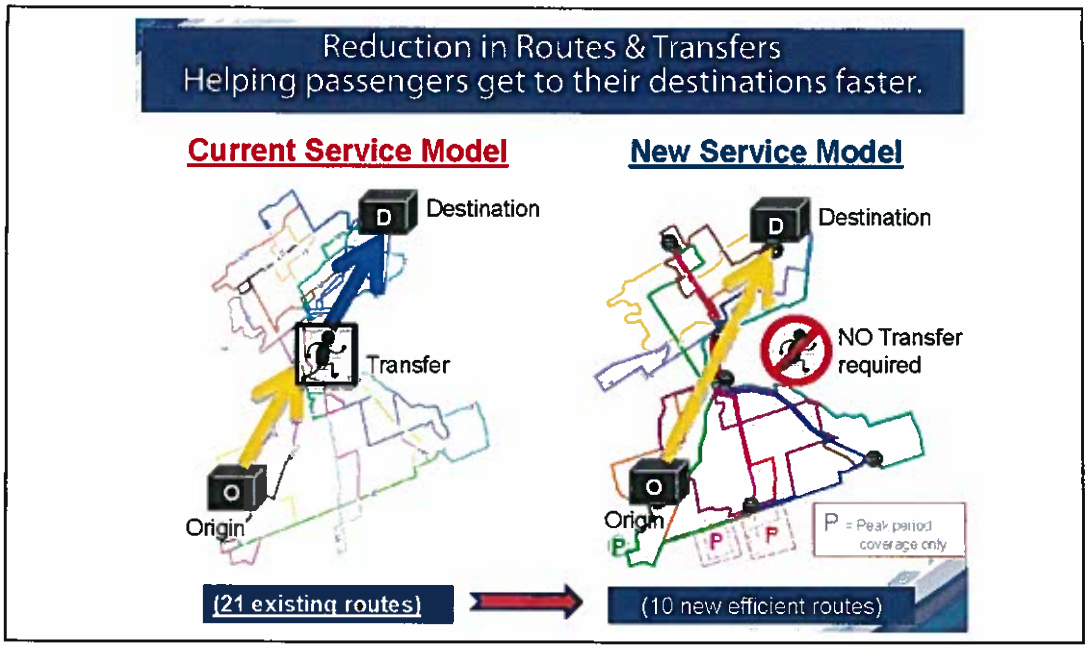
19. Primary travel patterns within the City demonstrate a strong need for north ~ south travel requirements. East ~ west travel within the City, was listed as a secondary need to our riders. This east ~ west travel is more dominant in the north end of the City. The new direct service route model addresses these findings by providing non-stop direct routes of travel to connect destinations in the south to destinations in the north. The new service model is designed to also accommodate secondary travel patterns for east ~ west travel within City limits.




20. The new multi-hub transit route model is not based on a single central hub/transit terminal point of transfer, as is the case with the existing radial service model.

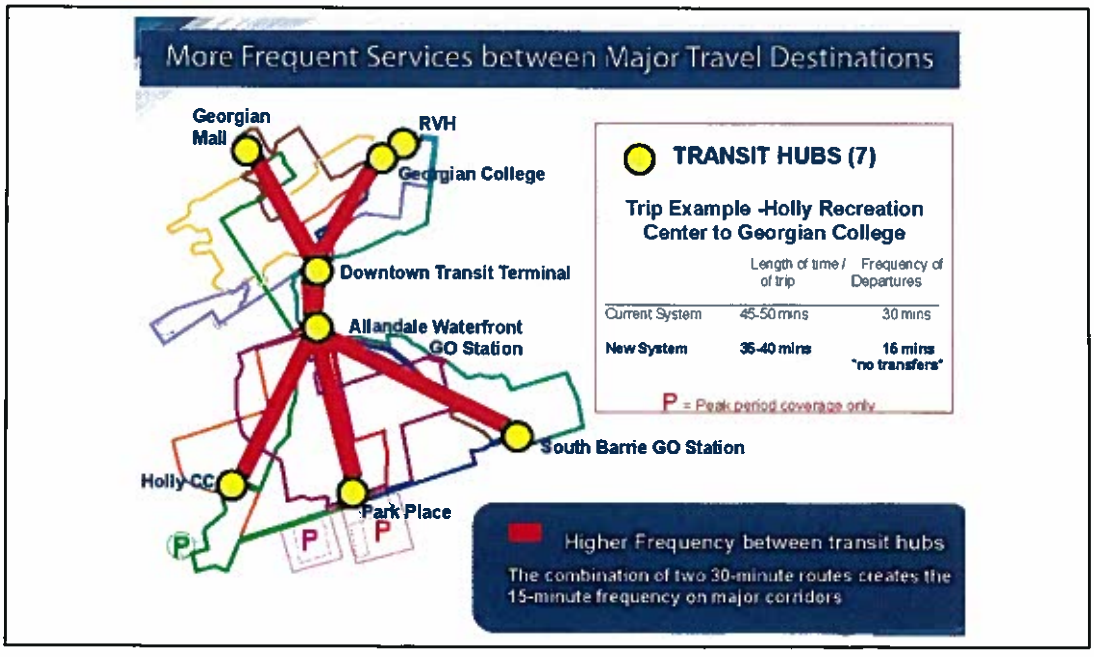
21. The new multi-hub transit service model aligns services with ridership needs by offering ten (10) efficient multi-directional service routes along all primary corridors matching new routes with user travel patterns and achieving enhanced service coverage to South Barrie.

22. Service level improvements will be achieved by incorporating multiple exterior hubs, each servicing a specific area/region within the City reducing and eliminating the need for transfers and reducing trip times from departure points to destination points.

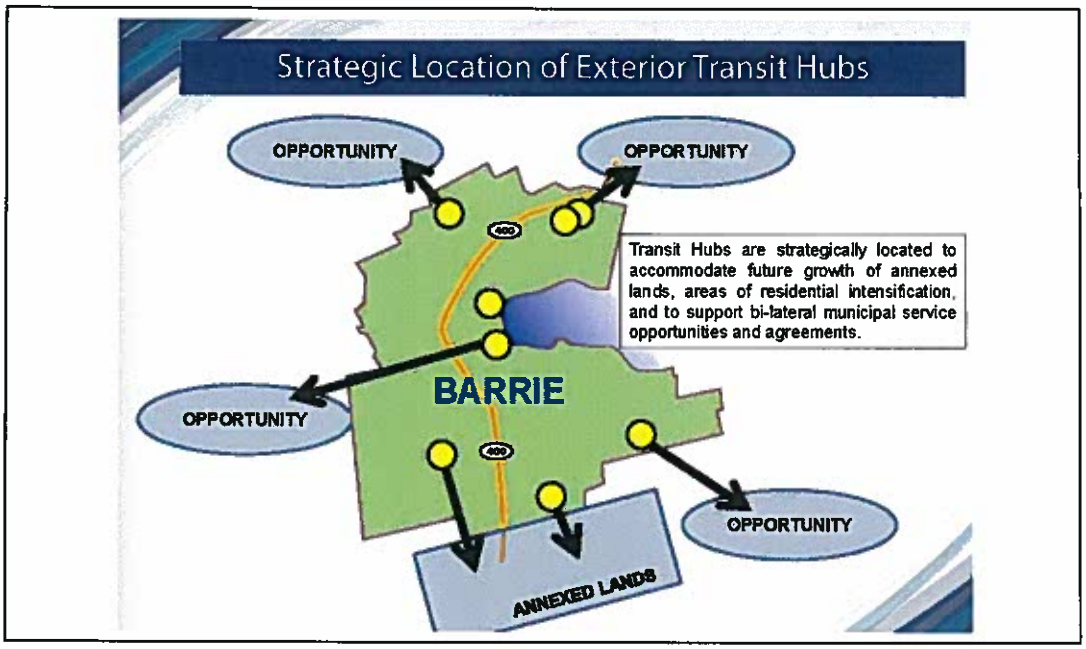



23. The hubs are strategically located in areas of the City at/or near high travel demand areas. Frequent departures, scheduled on a 15 minute frequency, will occur at these hubs / scheduled transfer points creating more frequent connections between major travel destinations. The new service model will offer:

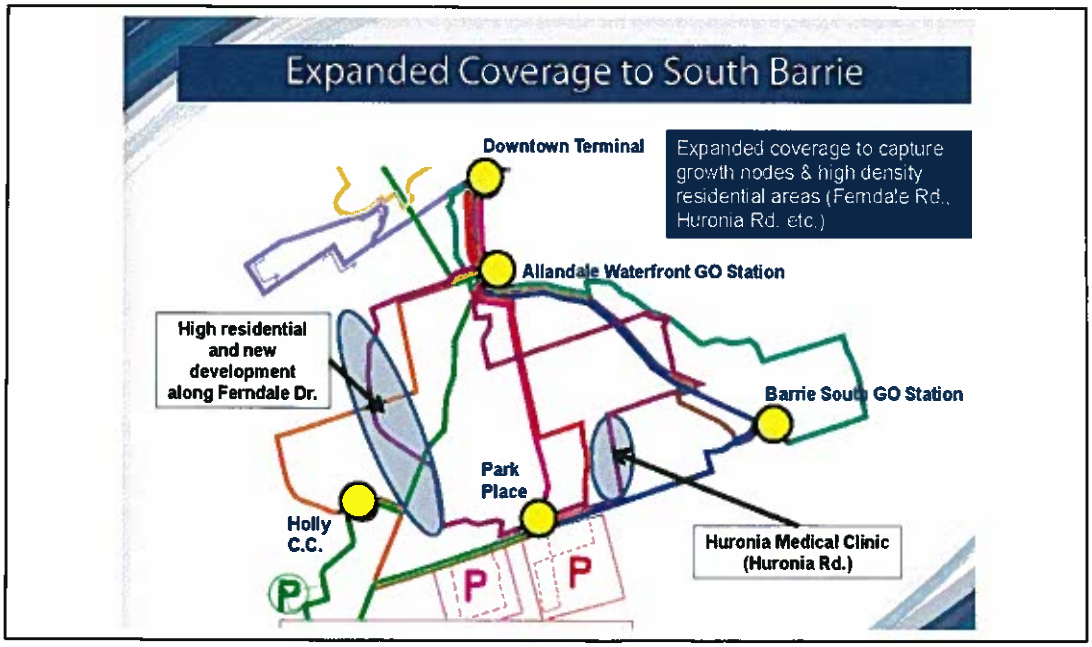
- 15 minute frequency major corridors
- 15 minute service frequency on most corridors during peak week-day service hrs.
- 15 minute frequency departures from transit hubs,



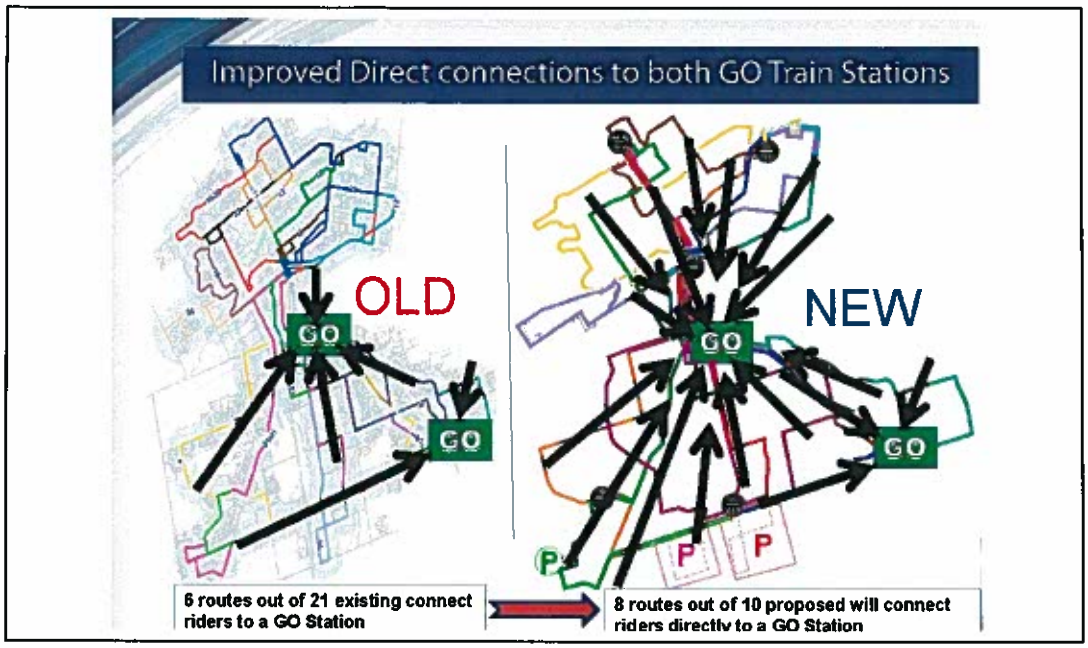
24. This new route model will put into place a system that will accommodate growth long into the future. The transit hubs will be strategically located at points throughout the City that will help to enable this future growth to the transit system as the City continues to grow. This will enable the addition of future transit routes that can start and finish from these exterior scheduled transfer points and into areas such as the annexed lands, or even areas outside of the City limits.




25. There is a need for improved transit service coverage in south Barrie. The new service model will address these current coverage deficiencies, capturing high residential areas and identified areas of residential intensification and development such as along Ferndale Drive and along Huronia Road where service is currently lacking or non-existent.



26. With the new Allandale Waterfront GO Station opening January 30, 2012, there is a need for the provision of direct connections for commuters to integrate public transit services provided by Barrie Transit, Inter-City operators and Metrolinx GO Services. This can best be achieved using a multi-hub transit service model.




27. The introduction of Real Time Bus Information Technologies (SMART BUS TECHNOLOGY) to the new multi-hub transit service model will provide riders the ability to monitor and track bus locations, route schedules and transit stop arrival times through convenient internet applications, cell phone messaging, transfer stop announcements and display, supporting further service level improvements and contributing to an enhanced level of customer service and satisfaction.

**New Multi-Hub Transit Service Model**

28. To ease the financial impact on the City of Barrie's Capital and Operating Business Plans staff recommend a phased implementation strategy to transition from the existing central hub radial transit service operation of 141,000 service hours to the new multi-hub transit service model of 183,000 service hours and performance based contract.

29. The addition of 42,000 service hours to the new multi-hub transit service model will:

- Reduce Wait Times
- Improve On Time Performance
- Improve Service Frequency

- Improve Reliability
- Build Ridership Confidence
- Improve Service Attractiveness

- Provide Service Level Improvements
- Increase Ridership
- Enable Transit System Expansion

30. The performance based contract will provide the municipality with the ability to implement and monitor specific criteria related to itemized standards and measures of service levels and expectations. Please refer to ***Appendix A*** for a chart identifying a Performance Based Contract Matrix.

31. Implementation of the performance based contract is dependent on the completion of the new transit garage in 2015, made possible under the recently endorsed P3 Canada Agreement and Federal funding announcement of October 13, 2011.

32. **IMPLEMENTATION STRATEGY FOR PLAN FOR TRANSIT (2012 – 2015)**

| 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|
| **GROUNDWORK FOUNDATION TASKS** | **KEY OBJECTIVES & TASKS** | **KEY OBJECTIVES & TASKS** | **PLAN FOR TRANSIT ACHIEVED** |
| Request For Proposal document released to market for the design, build and finance of a transit garage and Performance Base Contract.<br><br>Analysis of RFP Submissions & report to Council to award.<br><br>Award contract for construction of transit garage & future Service Provider.<br><br>Program Change Form Requests (submitted October 2011) for:<br>(1) Two fleet buses,<br>(2) Mobility Hub Feasibility Study<br>(3) Real Time Bus Information Systems Technologies,<br>(4) Transit System Rebranding (deleted)<br><br>Preparation of RFP Documents for above listed projects and issue to market. | New multi-hub transit route system to be unveiled to media & public.<br><br>Site Preparations and Construction of Transit Garage<br><br>City of Barrie to receive 2 new transit fleet buses.<br><br>Implementation of Real Time Bus Information Systems Technologies to transit fleet services to enhance customer service experience.<br><br>Relocation of Inter-City bus services to Allandale Waterfront GO Station<br><br>**PHASE 1**<br>Implementation of New Multi-Hub Transit Route System. | Service Provider, under Performance Based Contract (PBC), to provide New Transit System BRAND recommendations.<br><br>Launch Marketing Campaign in alignment with new Plan For Transit<br><br>Construction of Transit Garage on-going throughout the year with anticipated completion and occupancy in 2015.<br><br>Program Change Form (PCF) Requests for:<br>(1) One additional City Staff person to monitor contract<br>(2) Brand Implementation of New Transit System | Performance Base Contract (PBC) fully implemented upon completion of Transit Garage.<br><br>Completion and occupancy of Transit Garage.<br><br>**PHASE 2**<br>Implementation of New Multi-Hub Transit Route System (Q2~2015) |

Please refer to ***Appendix B*** which illustrates the table above as a progressive, pyramid representation of the Phased Implementation Strategy for the Plan for Transit.

33. **OUTCOMES**

**Phase 1**

- Implementation of the new multi-hub transit service model with an increase in operations to 169,000 service hours per year (addition of 28,000 service hours).
- Weekday transit services to begin at 5:00 am and operating through to 12:30 am. The early start will provide a connection for commuters to early morning GO Train departures.
- Peak operating transit service frequency will run weekday mornings from 6:00 am to 9:00 am and afternoons from 3:00 pm to 7:00 pm. No additional late evening services are proposed.
- Enhanced evening transit service will be offered on Sundays from 9:00 am to 10:00 pm from existing 9am – 7pm service (3 additional hours in the evening).
- Refer to ***Appendix C*** for the Proposed Phase 1 new multi-hub transit service model Implementation ~ 2013

**Phase 2**

- The completion of the new Transit Garage
- Implementation of a Performance Based Contract for transit service provision.
- Increase in operations to 183,000 service hours per year (additional 14,000 service hours)
- Peak operating transit service frequency extended during weekday early morning & evenings
- Weekday and Saturday evening services will ramp up to 30 minute frequency.
- Saturday and Sunday transit service will be extended to cover early morning hours.
- Refer to ***Appendix D*** for the Proposed Phase 2 new multi-hub transit service model Implementation ~ 2015.

- There will have been 716,000 additional riders use the system, with operating net cost savings of between $1.4M - $4.8M and a savings of $1.35M in capital dollars for fleet expansion.

34. **KEY PERFORMANCE MEASURES (Based on Medium Ridership Forecast)**

| Outcome | Key Performance Measure | | | | | |
|---|---|---|---|---|---|---|
| Financial indicator | ***Revenue : Cost ratio*** | | | | | |
| | | **2012** | **2013** | **2014** | **2015** | **2016** |
| | Plan for Transit | 47% | 48% | 46% | 46% | 44% |
| | Existing system | 47% | 46% | 46% | 45% | 45% |
| Increased Ridership | ***Total # of passenger trips*** | | | | | |
| | | **2012** | **2013** | **2014** | **2015** | **2016** |
| | Plan for Transit | 2,643,732 | 2,795,365 | 2,952,316 | 3,044,274 | 3,081,234 |
| | Existing system | 2,643,732 | 2,700,836 | 2,759,174 | 2,818,772 | 2,879,658 |
| Reduced travel time | ***Average time to destination*** | | | | | |
| | | **2012** | **2013** | **2014** | **2015** | **2016** |
| | Plan for Transit | 60 | 52 | 43 | 40 | 38 |
| | Existing system | 60 | 60 | 61 | 61 | 62 |
| Improved ridership confidence, service attractiveness & customer satisfaction | ***Passenger Trips per In-Service Vehicle Hour*** | | | | | |
| | Plan for Transit | **2012** | **2013** | **2014** | **2015** | **2016** |
| | Total # of passenger trips | 2,643,732 | 2,795,365 | 2,952,316 | 3,044,274 | 3,081,234 |
| | Annual Vehicle Service Hrs | 141,000 | 155,000 | 169,000 | 176,000 | 183,000 |
| | Existing System | | | | | |
| | Total # of passenger trips | 2,643,732 | 2,700,836 | 2,759,174 | 2,818,772 | 2,879,658 |
| | Annual Vehicle Service Hrs | 141,000 | 155,000 | 169,000 | 176,000 | 183,000 |
| | Result - Plan for Transit | **19** | **18** | **17** | **17** | **17** |
| | Result - Existing system | **19** | **17** | **16** | **16** | **16** |
| | ***Number of Conventional Transit Trips per Capita*** | | | | | |
| | Plan for Transit | **2012** | **2013** | **2014** | **2015** | **2016** |
| | Population (serviced) | 127,926 | 128,952 | 129,978 | 131,004 | 132,030 |
| | Total # of passenger trips | 2,643,732 | 2,795,365 | 2,952,316 | 3,044,274 | 3,081,234 |
| | Existing System | | | | | |
| | Population (serviced) | 127,926 | 128,952 | 129,978 | 131,004 | 132,030 |
| | Total # of passenger trips | 2,643,732 | 2,700,836 | 2,759,174 | 2,818,772 | 2,879,658 |
| | Result - Plan for Transit | **21** | **22** | **23** | **23** | **23** |
| | Result - Existing system | **21** | **21** | **21** | **22** | **22** |

35. **NEW MULTI-HUB TRANSIT SERVICE MODEL**

***Table 1.0*** illustrates the applicable operating forecast and implications of the proposed new multi-hub transit service model

**Table 1.0 Operating Financial Forecast of new multi-hub transit service model.**

| | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|
| **Total Service Hours** | 141,000 hours | 155,000 hours (+14,000 hrs) | 169,000 hours (+28,000 hrs) | 176,000 hours (+35,000 hrs) | 183,000 hours (+42,000 hrs) |
| **Annualized Contract Cost (3.0%)** | $11.1M | $12.6M | $14.1M | $15.1M | $16.2M |
| **Projected Revenue Recovery (Low Ridership)** | -$5.2M | -$5.8M | -$6.1M | -$6.4M | -$6.7M |
| EXPOSURE | $5.9M | $6.8M | $8.0M | $8.7M | $9.5M |
| **Projected Revenue Recovery (Medium Ridership)** | -$5.2M | -$6.0M | -$6.5M | -$6.9M | -$7.2M |
| NET COST | $5.9M | $6.6M | $7.6M | $8.2M | $9.0M |

**BENEFITS OF MULTI-HUB TRANSIT SERVICE MODEL:**

- ✓ Ability to accommodate growth
- ✓ Direct routes matching travel demands
- ✓ Reduced number of routes
- ✓ Two directional service along routes
- ✓ Reduced wait times
- ✓ improved service frequency
- ✓ Enhanced coverage in South Barrie
- ✓ More direct connections to GO Stations
- ✓ Enables customer service improvements
- ✓ Encourages increased ridership
- ✓ Net operating savings potential
- ✓ Reduced fleet expansion requirements to meet growth

36. **STATUS QUO RADIAL TRANSIT SERVICE MODEL WITH INCREASE IN SERVICE HOURS**

***Table 2.0*** illustrates the applicable operating forecast and implications if the existing radial transit service model were maintained with a phased increase to service hours matching the multi-hub model.

**Table 2.0 Operating Financial Forecast of Status Quo Radial Transit service model with a respective annual service hour increase comparable to the new proposed multi-hub transit service model.**

| | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|
| **Total Service Hours** | 141,000 hrs | 155,000 hrs (+14,000 hrs) | 169,000 hrs (+28,000 hrs) | 176,000 hrs (+35,000 hrs) | 183,000 hrs (+42,000 hrs) |
| **Annualized Contract Cost (3.0%)** | $11.1M | $12.6M | $14.1M | $15.1M | $16.2M |
| **Projected Revenue Recovery (Low Ridership)** | -$5.2M | -$5.3M | -$5.4M | -$5.5M | -$5.6M |
| EXPOSURE | $5.9M | $7.3M | $8.7M | $9.6M | $10.6M |
| **Projected Revenue Recovery (Medium Ridership)** | -$5.2M | -$5.7M | -$6.2M | -$6.5M | -$6.8M |
| NET COST | $5.9M | $6.9M | $7.9M | $8.6M | $9.4M |

**CHALLENGES OF STATUS QUO (RADIAL SERVICE MODEL) WITH AN INCREASE TO SERVICE HOURS:**

- ☒ No ability to accommodate future growth.
- ☒ Continues to lack direct route options.
- ☒ No two directional services along routes.
- ☒ Lengthy trip times & wait times.
- ☒ Service Model will require additional capital investment of 5 fleet vehicles to the transit system to maintain increased service hour model. ($450,000 per bus = $2.25M)
- ☒ Increased congestion of single hub, downtown terminal with no transfer points.
- ☒ Continues to provide minimal direct connections to GO Stations
- ☒ Does not achieve desired customer satisfaction levels or expectations.

37. **STATUS QUO – RADIAL TRANSIT SERVICE MODEL / NO INCREASE IN SERVICE HOURS**

***Table 3.0*** illustrates the applicable operating forecast and implications if the existing radial transit service model (status quo) with no increase in service hours were to remain . Given the many challenges noted continuance of the status quo is not deemed to be a viable option as it would fail to address even modest growth demands.

**Table 3.0 Operating Financial Forecast of Status Quo Radial Transit Service Model**

| | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|
| **Total Service Hours** | 141,000 hrs | 141,000 hrs | 141,000 hrs | 141,000 hrs | 141,000 hrs |
| **Annualized Contract Cost (3.0%)** | $11.1M | $11.4M | $11.8M | $12.1M | $12.5M |
| **Projected Revenue Recovery (2.0%)** | -$5.2M | -$5.3M | -$5.4M | -$5.5M | -$5.6M |
| EXPOSURE / NET COST | $5.9M | $6.1M | $6.4M | $6.6M | $6.9M |

**CHALLENGES OF STATUS QUO (RADIAL SERVICE MODEL) WITH NO INCREASE TO SERVICE HOURS:**

- ☒ Unable to accommodate future growth.
- ☒ Lack / absence of direct routes.
- ☒ Absence of two directional services along routes.
- ☒ Long trip times & wait times.
- ☒ Poor service frequency.
- ☒ Offers no exterior transit hubs or transfer points.
- ☒ Provides little coverage in south end of City.
- ☒ Minimal direct connections to GO Stations
- ☒ Unreliable & unpredictable route schedules
- ☒ Increasing frustration and low customer satisfaction

38. **TABLE 4.0 COMPARISON SUMMARY OF TRANSIT SERVICE DELIVERY OPTIONS**

| NET SUBSIDY REQUIREMENTS OF SERVICE MODEL DELIVERY OPTIONS | | | | | | Net over 2012 |
|---|---|---|---|---|---|---|
| | 2012 | 2013 | 2014 | 2015 | 2016 | |
| **New Multi-Hub Service Model** (+42,000 hours) | **$5.9M** | **$6.6M** | **$7.6M** | **$8.2M** | **$9.0M** | $3.1M |
| **Existing Service Model** Status Quo with increase in service hours (+42,000 hours) | **$5.9M** | **$6.9M** | **$7.9M** | **$8.6M** | **$9.4M** | $3.5M |
| **Existing Service Model** Status Quo with no increase in service hours | **$5.9M** | **$6.1M** | **$6.4M** | **$6.6M** | **$6.9M** | $1.0M |

**ASSUMPTIONS IN FORECASTING THE THREE SERVICE MODEL FINANCIAL PLANS:**

1) Staff have assumed a flat 3.0% escalation in the annual operations contract rate;
2) Staff have assumed a flat 3.0% increase in annual transit fare rates;
3) Staff have not calculated the impact of a performance based contract on service provision.
4) Staff have not anticipated a spike or increase greater than 3.0% to contract renewal rates.

**SUMMATION OF TABLE**

The annual net operating investment to implement the new multi-hub transit service model will increase by $3.1M dollars by 2016.

The annual net operating investment to continue with the existing radial service model ~ Status Quo with a phased increase in service hours, comparable to the proposed new multi-hub transit service model will increase by $3.5M dollars by 2016.

The annual net operating investment to continue with the existing radial service model ~ Status Quo with no increase to service hours will increase by $1.0M dollars by 2016.

Based on the operating forecasts, the projected cost to maintain and operate the new multi-hub transit service model provides the City with an annual net tax based cost avoidance of **$0.4M** versus maintaining the existing radial transit service model status quo with increased hours.

39. The business case review concludes that with the full implementation of the multi-hub transit service model over the next five years, as compared to the existing radial model for a similar number of service hours; there will have been 716,000 additional riders use the system, with operating net cost savings of between $1.4M - $4.8M and a savings of $1.35M in capital dollars for fleet expansion.

## ENVIRONMENTAL MATTERS

40. An efficient and effective transit system facilitates an alternative to single passenger automobile trips, thereby reducing greenhouse gas emissions.

41. The transportation sector accounts for 30% of Canada's greenhouse gas emissions and passenger vehicles are the highest contributors with 70% of total vehicle emissions.

42. The recommendation to provide a transit garage facility will reduce CO2 emissions by 192,000 kg annually due to the elimination of overnight winter idling of buses stored outside.

## ALTERNATIVES

43. There are three alternatives available for consideration by General Committee:

**Alternative #1** The Committee could choose not to adopt the Plan for Transit for future Transit Services planning and maintain the status quo radial service delivery model.

This alternative is not recommended nor deemed viable as the current service levels are not meeting current ridership needs as clearly articulated by participants in the stakeholders' consultations and the Environics Satisfaction Survey findings for Transit services. This alternative does not:

a) Provide any opportunity for improvements to the services or for future growth.

b) Provide an optimal situation or scenario in which to implement a performance based contract operation.

**Alternative #2** The Committee could choose not to adopt the Plan for Transit for future Transit Services planning and maintain the status quo radial service delivery model with an increase to service hours of operation.

This alternative is not recommended as an increase in service hours to the current service delivery model does not address current service model delivery challenges and is more costly both in capital and operating expenditures than the new proposed multi-hub service model without the value added service level enhancements and improvements. This alternative also does not:

a) Provide any opportunity for improvements to the services or solid foundation for future growth.

b) Provide an optimal situation or scenario in which to implement a performance based contract operation.

**Alternative #3** The Committee could choose to fully implement the Plan for Transit in one single phase strategy in 2015. This alternative is feasible although not recommended.

Full service model implementation is dependent upon completion of the transit garage in 2015. Delaying implementation until 2015, however, does not address present day service needs, and this does not support or align with this Council's Strategic Priorities for Transit.

Based on the forecasted expenditure model, the City would experience a significant spike in capital and operating costs placing tremendous pressure on the City's business planning process and the affordability threshold.

The proposed Phased Implementation Strategy rationalizes the dependence and order of tasks/objectives required to achieve the desired Plan for Transit Goals and serves as a guiding business planning document to staff, recognizing that the implementation of the Plan for Transit may be modified as part of the Business Plan process.

## FINANCIAL

### General

44. The charts below summarize three identified scenarios and related costs and revenues, as well as estimating the incremental yearly increase on the tax levy:

| Existing Service Model (Status Quo) | | | | | |
|---|---|---|---|---|---|
| in millions $ | Budget 2012 | Forecast 2013 | Forecast 2014 | Forecast 2015 | Forecast 2016 |
| Gross contract cost | 11.1 | 11.4 | 11.8 | 12.1 | 12.5 |
| Fare revenue | (5.2) | (5.3) | (5.4) | (5.5) | (5.6) |
| Tax levy subsidy | 5.9 | 6.1 | 6.4 | 6.6 | 6.9 |
| Estimated incremental increase on tax levy (based on 2012 ratios and assessments) | - | 0.13% | 0.15% | 0.08% | 0.02% |

| Existing Service Model (Increased Contract Hours - 42K) | | | | | |
|---|---|---|---|---|---|
| in millions $ | Budget 2012 | Forecast 2013 | Forecast 2014 | Forecast 2015 | Forecast 2016 |
| Gross contract cost | 11.1 | 12.6 | 14.1 | 15.1 | 16.2 |
| Fare revenue | (5.2) | (5.7) | (6.2) | (6.5) | (6.8) |
| Tax levy subsidy | 5.9 | 6.9 | 7.9 | 8.6 | 9.4 |
| Estimated incremental increase on tax levy (based on 2012 ratios and assessments) | - | 0.54% | 0.51% | 0.27% | 0.36% |

| Plan For Transit Multi-Hub Service Model (Increased Contract Hours - 42K) | | | | | |
|---|---|---|---|---|---|
| | Budget 2012 | Forecast 2013 | Forecast 2014 | Forecast 2015 | Forecast 2016 |
| Gross contract cost | 11.1 | 12.6 | 14.1 | 15.1 | 16.2 |
| Fare revenue | (5.2) | (6.0) | (6.5) | (6.9) | (7.2) |
| Tax levy subsidy | 5.9 | 6.6 | 7.6 | 8.2 | 9.0 |
| Estimated incremental increase on tax levy (based on 2012 ratios and assessments) | - | 0.42% | 0.33% | 0.16% | 0.23% |

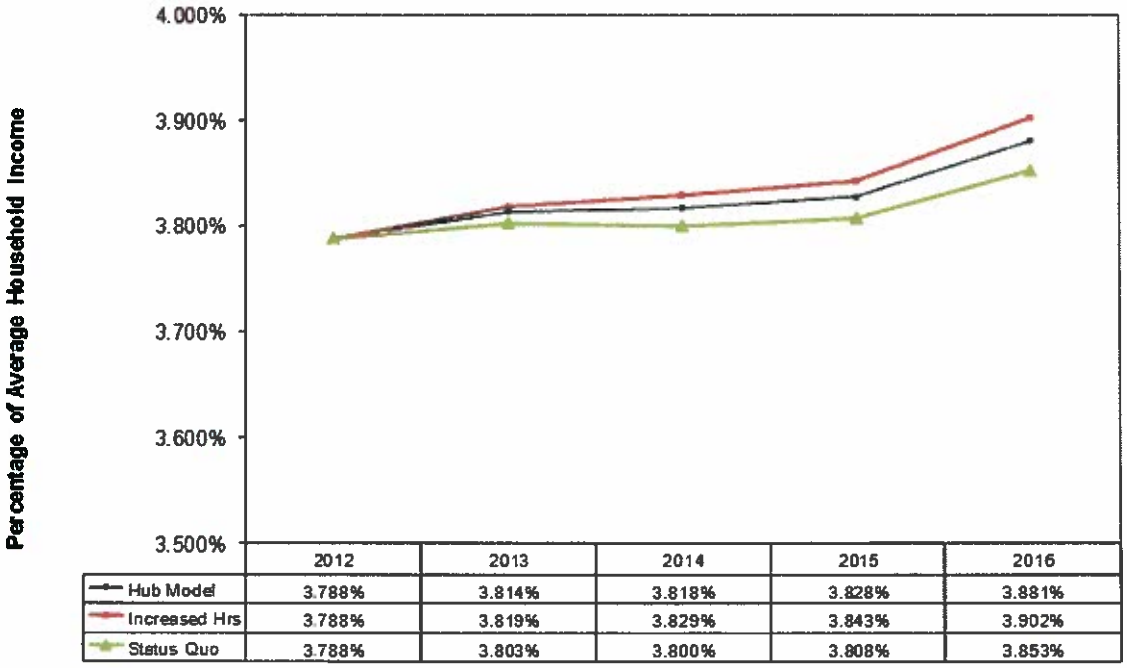
45. The underlying assumptions driving the forecasted costs and revenue streams are indentified in Appendix E, which includes estimates for future ridership projections in three scenarios (low, medium, and high). Staff assume a medium increase in ridership is the most likely outcome of the Plan for Transit.

46. The assumed annual contract cost increase of 3% does not reflect potential increases associated with a performance based operating contract, which is an integral component required under the P3 Canada Agreement and Federal Funding announcement.

**Long Range Financial Plan & Affordability Threshold**

47. The Financial Policies Framework includes a property tax affordability threshold of 4%. This ratio calculates the average residential property taxes as a percentage of household income. Incorporating the approved 2012 business plan into the long range financial plan, it is estimated the impact of the identified alternatives over the next four years maintains the property tax affordability threshold below 4%.

BARRIE Affordability of Residential Tax Levy




| | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|
| Hub Model | 3.788% | 3.814% | 3.818% | 3.828% | 3.881% |
| Increased Hrs | 3.788% | 3.819% | 3.829% | 3.843% | 3.902% |
| Status Quo | 3.788% | 3.803% | 3.800% | 3.808% | 3.853% |

48. There are no plans for issuing debt in relation to any of the items discussed in this staff report.

**Capital**

49. The total value of capital projects directly attributable to the Plan for Transit over the next two years is $1,425,000. The table below shows the gross cost of each project in proposed year of execution:

| CAPITAL PROJECTS - Attributable to Plan for Transit | 2012 | 2013 |
|---|---|---|
| **FLEET** | | |
| Fleet expansion - 2 new buses | 900,000 | |
| **TECHNOLOGY** | | |
| Real Time Bus Information System | 150,000 | 150,000 |
| **OTHER** | | |
| Mobility Hub Feasibility Study | 125,000 | |
| Transit - System Rebranding (deleted) | | 100,000 |
| **Gross Capital Projects** | **1,175,000** | **250,000** |

50. The total tax based funding for the capital projects attributable to the Plan for Transit is $774,950. $141,250 of this amount is to come from the in-year tax levy, while the remaining $633,700 will come from the tax capital reserve (to be replenished from contributions in future years or surpluses from other capital projects). Funding from other sources for these projects totals $650,050. The table below shows the funding breakdown for each of the proposed capital projects.

| CAPITAL PROJECT - Funding Sources | Other | Tax based | Gross |
|---|---|---|---|
| **Fleet Expansion (2 buses)** | | | |
| Provincial Gas Tax | 297,000 | | |
| Development Charges | 114,300 | | |
| Tax Capital Reserve | | 488,700 | |
| Subtotal | 411,300 | 488,700 | 900,000 |
| **Real Time Bus Information System** | | | |
| Provincial Gas Tax | 145,000 | | |
| Tax Capital Reserve | | 145,000 | |
| Tax | | 10,000 | |
| Subtotal | 145,000 | 155,000 | 300,000 |
| **Mobility Hub Feasibility Study** | | | |
| Metrolinx | 62,500 | | |
| Provincial Gas Tax | 31,250 | | |
| Tax | | 31,250 | |
| Subtotal | 93,750 | 31,250 | 125,000 |
| **Transit - System Rebranding** | | | |
| Tax | | 100,000 | |
| Subtotal | - | 100,000 | 100,000 |
| **Grand Total** | **650,050** | **774,950** | **1,425,000** |

**LINKAGE TO COUNCIL STRATEGIC PRIORITIES**

51. The recommendation(s) included in this Staff Report support the following goals identified in the 2010-2014 City Council Strategic Plan:

- ☒ Manage Growth & Protect the Environment
- ☒ Improve & Expand Community Involvement and City Interactions.

52. To best meet the needs of a growing community focused on intensification, transit services will continue to grow in importance and user expectations for expanded transportation choices and improved services.

53. With the ability to expand the fleet, new revenue opportunities can be explored in developing potential partnerships within the region and neighbouring municipalities for transit service agreements.

54. The implementation of technology will enable customers to stay connected to Barrie's Transit service and foster ongoing interaction between the customer, the service contractor and City staff.

# Performance Based Contract Standards Matrix

| Performance Standard | Description |
|---|---|
| **1. Service Quality** | |
| 1.1. On-Time Performance | Early departures not permitted. Departures more than five minutes after scheduled time considered late. For BACTS, a departure before the start of Pick-up Window is considered early, and is considered late if more than five minutes after the end of Pick-up Window. |
| 1.2. AVL / MDT System Log-on | Revenue Service Vehicles must not depart facility without being properly logged on to on-board AVL or MDT Systems. |
| 1.3. On-Board Checks | Bus operators must be in compliance with on-board check criteria. |
| **2. Vehicle Maintenance** | |
| 2.1. Kilometres Between Road Calls | Revenue Service Vehicles must not exceed more than one road call per 9,000 in-Service kilometres. |
| 2.2. Wheelchair Ramp / Lift & Passenger Restraint Failures | Wheelchair ramps and lifts must be fully functional, as must passenger restraint systems for persons in wheelchairs or scooters. |
| 2.3. In-Service Air Conditioning / Heating | Revenue Service Vehicle air conditioning and heating systems must be fully functional. |
| 2.4. Preventive Maintenance Inspections (PMIs) | PMIs must be done within 1,000 kilometres of scheduled interval. |
| 2.5. Accident Damage Repairs | Repairs must be completed within 20 days of accident. |
| 2.6. Vehicle Damage Observations | All vehicle damage, including to exterior and interior decals, exterior paint, and seat covers must be repaired within five days of observation. Also applies to accident damage of less than $1,000 value. |
| 2.7. Exterior Vehicle Clean | All vehicle exteriors must be washed before leaving Facility each day. |
| 2.8. Interior Vehicle Clean | All vehicle interiors must be cleaned before leaving Facility each day. |
| **3. Safety** | |
| 3.3. Commercial Vehicle Operator's Registration (CVOR) | Contractor must maintain "Satisfactory-Audited" Carrier Safety Rating or better. |
| 3.4. Preventable Accidents | Contractor must achieve a minimum of 250,000 kilometres between Preventable Accidents. |
| 3.5. Vehicle Safety Inspection Check | Vehicles assigned to Revenue Service must comply with all Highway Traffic Act inspection requirements and performance standards used to inspect buses and physically disabled passenger vehicles. . |
| **4. Customer Satisfaction** | |
| 4.1. Customer Complaints | Contractor must achieve less than five complaints per 100,000 revenue boardings for Conventional Transit, and less than two complaints per 1,000 revenue boardings for BACTS. |
| 4.1. Customer Satisfaction Survey | Contractor must achieve customer satisfaction ratings of 70% for Conventional Transit and 85% for BACTS. |

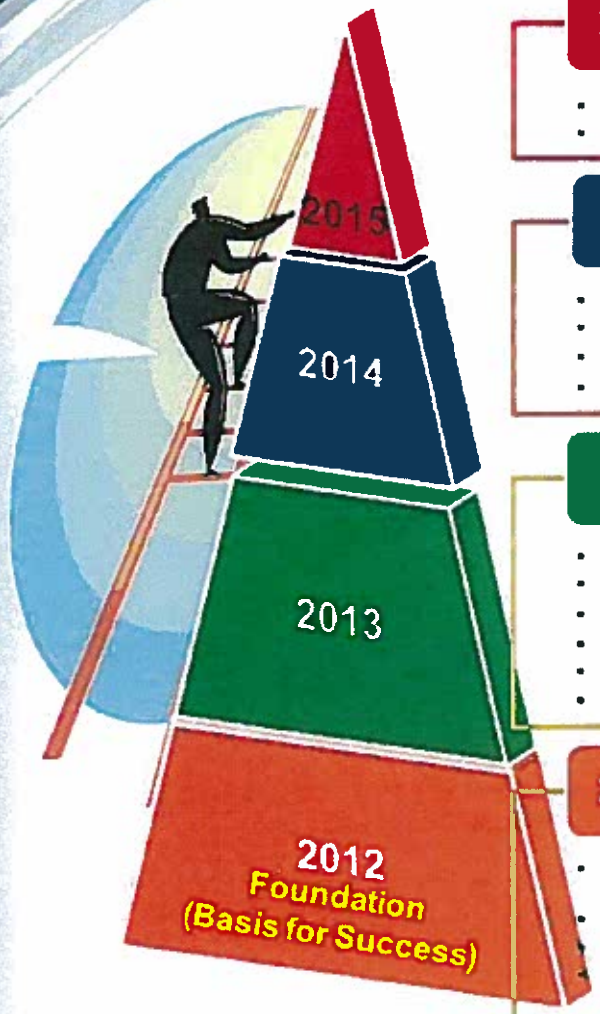
# Performance Base Contract Standards Matrix

| 5. Personnel / Training | |
|---|---|
| 5.1. Ongoing Bus Operator and Control Centre Staff Training | Bus operators must receive at least 24 hours of ongoing training annually including at least one hour in ramp / lift use and securement training. Control Centre staff must receive at least 8 hours of ongoing training annually. |
| 5.2. Ongoing Maintenance Employee Training | Maintenance staff must receive at least 40 hours of ongoing training annually. |
| 5.3. Escorting Passengers (BACTS only) | Bus operators must escort BACTS passengers to and from first Accessible Door at Pick-up or Drop-off Point. |
| 5.4. Security of BACTS Passengers and Mobility Aids (BACTS only) | Bus operators must ensure that BACTS passengers and Mobility Aids are properly secured at all times. |
| 5.5. Hand-to-Hand Passenger Transfers (BACTS only) | Bus operators must follow hand-to-hand passenger transfer procedures. |

| 6. Reporting Requirements | |
|---|---|
| 6.1. Management Reports and Complaint Tickets | Daily Re-cap, Daily Service Summary, Electronic Farebox Data Probe and Missed Trip reports, and complaint ticket responses must be submitted within time requirements. |
| 6.1. Accident / Incident Reports | Accident / Incident reports must be submitted within one business day following date of Accident / Incident. |

| 7. Efficiency | |
|---|---|
| 7.1. Passengers Carried per Hour (BACTS only) | Contractor is expected to maximize the number of BACTS passengers carried for each Revenue Vehicle Hour of Service. Benchmark established at start of Contract and calculation done each Contract year. |

# Proposed Implementation Strategy of Mayor's Plan for Transit




## 2015 - 2016 (GOAL ~ Transit Plan Realized)

- **PHASE 2** Implementation of New Transit System Model under new brand
- Completion of Transit Garage

## 2014 (Key Objectives / Milestones)

- New Transit System BRANDING recommendations
- Launch Marketing Campaign for new Transit System Model and new brand
- On-going construction of Transit Garage
- Capital PCF request for 1 additional Transit Staff and new Brand

## 2013 (Key Objectives / Milestones)

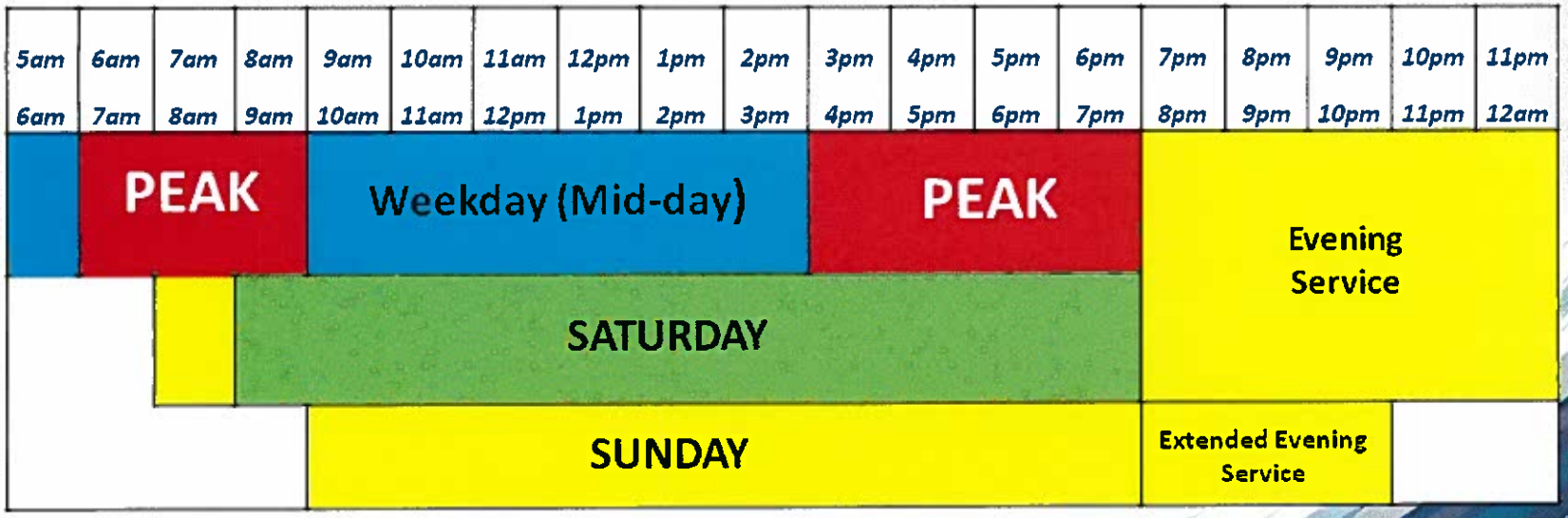
- New Transit System Model unveiled
- Construction of Transit Garage begins
- Receive 2 new transit fleet buses.
- Incorporate Real Time Bus Information Systems Technologies to Transit Service Model.
- Relocation of Inter-City bus services to Allandale Waterfront Go Station
- **PHASE 1** Implementation of new Transit System Model

## 2012 (Ground Work / Foundation)

- RFP Document to market for Performance Base Contract (PBC) Specifications & Transit Garage Specifications.
- RFP Submissions Analysis & Report to Council
- Award contract for future Service Provider& transit garage construction.
- Capital PCF requests for: fleet buses, Mobility Hub Feasibility Study, Real Time Bus Information Technologies, and a Communications Marketing Plan

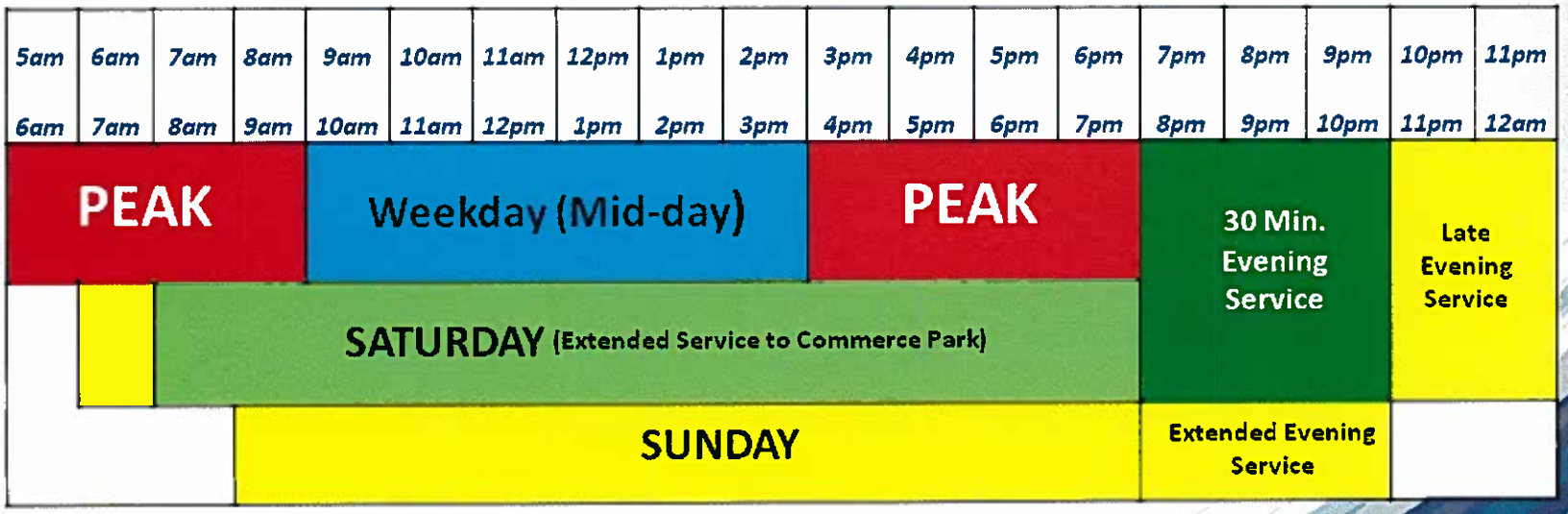
# PHASE 1 - Service Model Implementation - 2013

| Service Period | Service Description |
|---|---|
| Peak Weekday Service | High Level of Service – Includes additional buses in service to accommodate for heavy traffic |
| Midday Weekday Service | High Level of Service – Less buses in service during lower traffic periods |
| Saturday Daytime Service | Medium Level of Service - Reduced Frequency on Low Ridership Routes |
| Sat - Sun / Late Evening | Low Level of Service – 60 minute Frequency on all routes with 30 Minute Frequency on Transit Corridors |



# PHASE 2 - Service Model Implementation - 2015

| Service Period | Service Description |
|---|---|
| Peak Weekday Service | High Level of Service – Includes additional buses in service to accommodate for heavy traffic |
| Midday Weekday Service | High Level of Service – Less buses in service during lower traffic periods |
| Saturday Daytime Service | Medium Level of Service (Commerce Park) - Reduced Frequency on Low Ridership Routes |
| Mon-Sat Evening Service | Medium Level of Service - Reduced Frequency on Low Ridership Routes |
| Sat / Sun / Late Evening | Low Level of Service – 60 minute Frequency on all routes with 30 Minute Frequency on Transit Corridors |



# 10 YEAR OPERATING FINANCIAL FORECAST FOR THE PLAN FOR TRANSITCONTRACT

## APPLYING AN ANNUAL ESCALATION RATE OF 3.0%

Escalation Rate: 3.0%

| YEAR | Service Hours | Hourly Rate (Including Fuel) | LOW (9%) PROJECTED RIDERSHIP | LOW (9%) TOTAL NET COST/YEAR (before HST) | MEDIUM (17%) PROJECTED RIDERSHIP | MEDIUM (17%) TOTAL NET COST/YEAR (before HST) | HIGH (29%) PROJECTED RIDERSHIP | HIGH (29%) TOTAL NET COST/YEAR (before HST) |
|---|---|---|---|---|---|---|---|---|
| 2012 | 141,000 | $78.70 | 2,643,732 | $5.6 | 2,643,732 | $5.6 | 2,643,732 | $5.6 |
| 2013 | 155,000 | $81.06 | 2,700,836 | $6.8 | 2,795,365 | $6.6 | 2,889,895 | $6.4 |
| 2014 | 169,000 | $83.49 | 2,759,174 | $8.1 | 2,952,316 | $7.6 | 3,173,050 | $7.1 |
| 2015 | 176,000 | $85.99 | 2,818,772 | $8.8 | 3,044,274 | $8.3 | 3,382,527 | $7.5 |
| **2016** | 183,000 | $88.57 | **2,879,658** | **$9.5** | **3,081,234** | **$9.0** | **3,397,996** | **$8.3** |
| 2017 | 183,000 | $91.23 | 2,941,858 | $9.6 | 3,118,370 | $9.2 | 3,412,556 | $8.5 |
| 2018 | 183,000 | $93.97 | 3,005,403 | $9.8 | 3,155,673 | $9.4 | 3,426,159 | $8.7 |
| 2019 | 183,000 | $96.79 | 3,070,319 | $9.9 | 3,193,132 | $9.6 | 3,438,758 | $9.0 |
| 2020 | 183,000 | $99.69 | 3,136,638 | $10.0 | 3,230,737 | $9.8 | 3,450,302 | $9.2 |
| 2021 | 183,000 | $102.68 | 3,204,390 | $10.1 | 3,300,521 | $9.9 | 3,460,741 | $9.4 |

- Average Fare is determined by a formula calculation of the single cash fare rates, ride card rates and monthly pass rates based on ridership purchasing patterns.
- Low Ridership Projections are based on an expected, historic 2.0% annual increase.
- Medium Ridership Projections are based on a 15% increase in ridership within two full years of implementation as supported by consultant data.
- Medium Ridership Projections would then decrease slightly each year thereafter until ridership projections return to an expected, historic pattern (2.0% increase per annum)

| | | | |
|---|---|---|---|
| **TOTAL INCREASE OVER 10 YEARS:** | **$4.5M** | **$4.3M** | **$3.8M** |