HALIFAX
REGIONAL MUNICIPALITY

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Transportation Standing Committee
November 24, 2011

TO: Chair and Members of the Transportation Standing Committee

SUBMITTED BY: Eddie Robar, Director, Metro Transit

DATE: November 7, 2011

SUBJECT: **Five Big Moves for Transit**

INFORMATION REPORT

ORIGIN

At the September 22, 2011 Transportation Standing Committee meeting, following a presentation on the "It's More Than Buses" series by the Dalhousie Planning and Design Centre and Fusion Halifax, the following motion was approved:

MOVED by Councillor Watts, seconded by Councillor Hum, that the Transportation Standing Committee request Metro Transit staff to present at a future TSC meeting a brief report outlining five key steps/projects that Metro Transit needs to implement to increase ridership and provide improved service to residents of HRM with cost estimates. MOTION PUT AND PASSED.

BACKGROUND

Metro Transit currently has a number of significant projects underway. They are:

Bridge Terminal – The 16-bay Bridge Terminal is now under construction and is expected to be completed by summer 2012.

Woodside Ferry - A fourth conventional ferry has been identified by staff as a priority investment to improve the harbour ferry service between Woodside and Downtown Halifax. The final design is expected to be complete by February 2012 and the new ferry in service in 2014.

Airport/Fall River Metro X - This service will launch in May of 2012, travelling between Scotia Square, Bridge Terminal, Fall River, Barnes Drive and the Halifax International Airport 7 days a week. Vehicles have been procured and the Fall River park and ride lot is now in the preliminary construction stage.

Staff have identified the following key projects that Metro Transit should implement to increase ridership and provide improved service. They are:

Big Move #1 – High Frequency Corridors

Big Move #2 – Investing in Service Quality and Reliability

Big Move #3 – Focus On Cost Effective & High Ridership Service

Big Move #4 – Urban Express

Big Move #5 - Burnside/Dartmouth Crossing Realignment

DISCUSSION

BIG MOVE #1 – HIGH FREQUENCY CORRIDORS

Concept:

HRM has a number of existing transit corridors served by several key routes that would benefit from enhanced service. Some of these "corridors" experience uneven frequencies and caravanning of buses, particularly during peak travel times; while others are connecting growing suburban areas to major terminals offering frequent connections to a variety of locations. A review of other transit agencies revealed that most offering 'frequent service corridor service' have a frequency of 15 minutes or better throughout the day (week days), typically from early morning until evening (ie. 5am to 9pm). Metro Transit would develop a specific service standard for High Frequency Corridors.

Advantages:

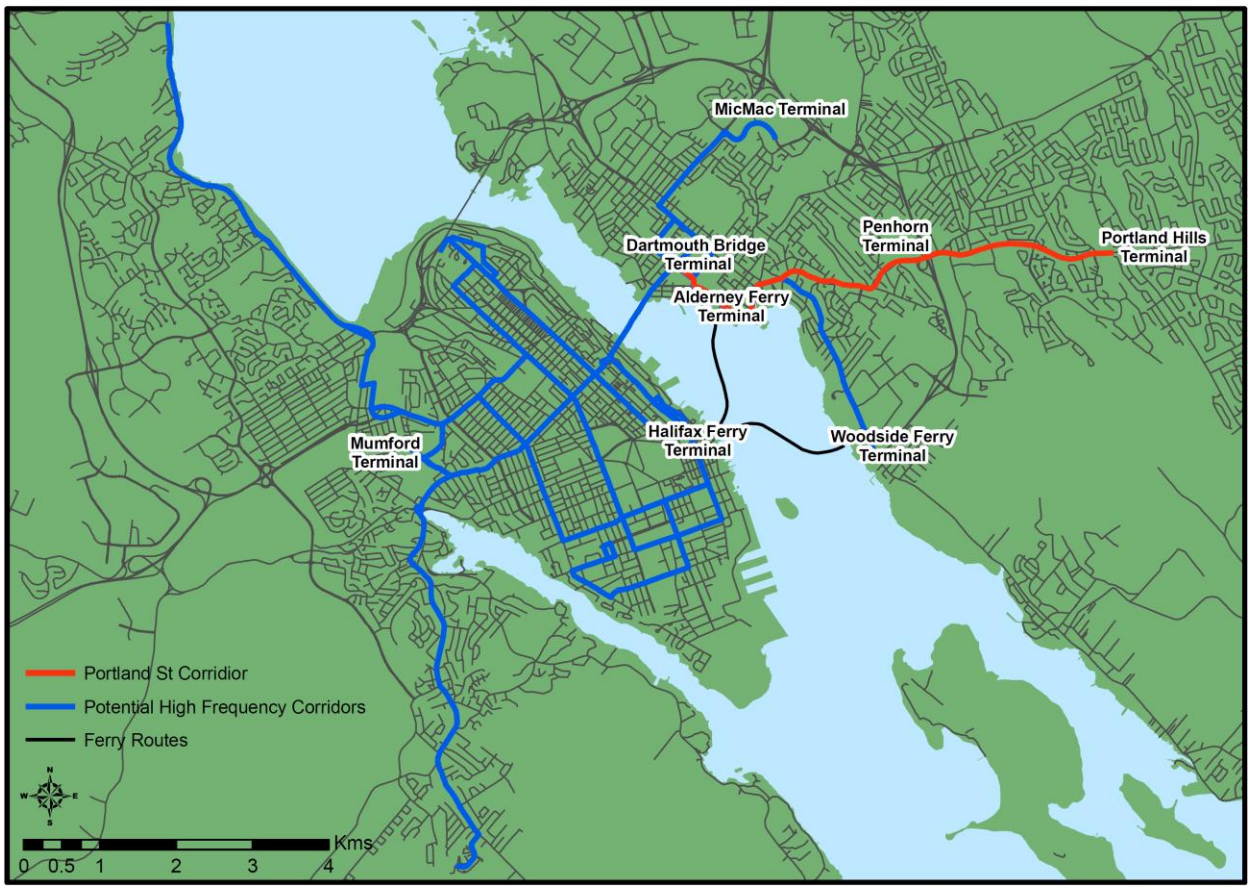
- Branding these busy corridors as "Frequent Service", would enable Metro Transit to correct uneven headways and improve the overall consistency of service.
- The end result would be increased reliability and more frequent service offering a convenient and efficient way to get to major transportation hubs.
- Implementation of Frequent Service Corridors could be achieved at a relatively low cost compared to implementing new services.

Possibilities:

Potential "Frequent Service Corridors" include:

- Portland Street (Portland Hills Terminal to Bridge Terminal)
- Pleasant Street (Woodside to/from Bridge Terminal)
- Herring Cove Rd (Greystone to/from Mumford Terminal)
- Bedford Highway
- North Street to Mumford Terminal
- Route 1 Spring Garden
- Route 7, 9 and 10 are existing routes that could be converted to high frequency service in the future

High Frequency Corridors



Example:

Portland Street is a key corridor in Dartmouth and would benefit from a rebrand as a "Frequent Service Corridor". By optimizing the resources within the corridor, Metro Transit could offer weekday frequencies of 15 min or better as well as weekday peak service to Halifax.

Cost implications:

Additional trips would be required to provide the required frequency. The additional annual operating cost is estimated at $840,000.

BIG MOVE #2 - INVESTING IN SERVICE QUALITY AND RELIABILITY

Metro Transit should concentrate on improving the customer experience by investing significantly in service quality and reliability. The following areas would greatly benefit from investment and improvement:

Schedule Adherence:

In a recent stakeholder consultation and web survey study conducted by the IBI Group for Metro Transit's Five Year Strategic Operations Plan, the number one stated preference for transit service improvements was "reliable schedules". In addition, over 40% of respondents felt that more reliable schedules would cause them to use transit significantly more often.

Exhibit 2-19: Stated preferences for Transit Service Improvements.

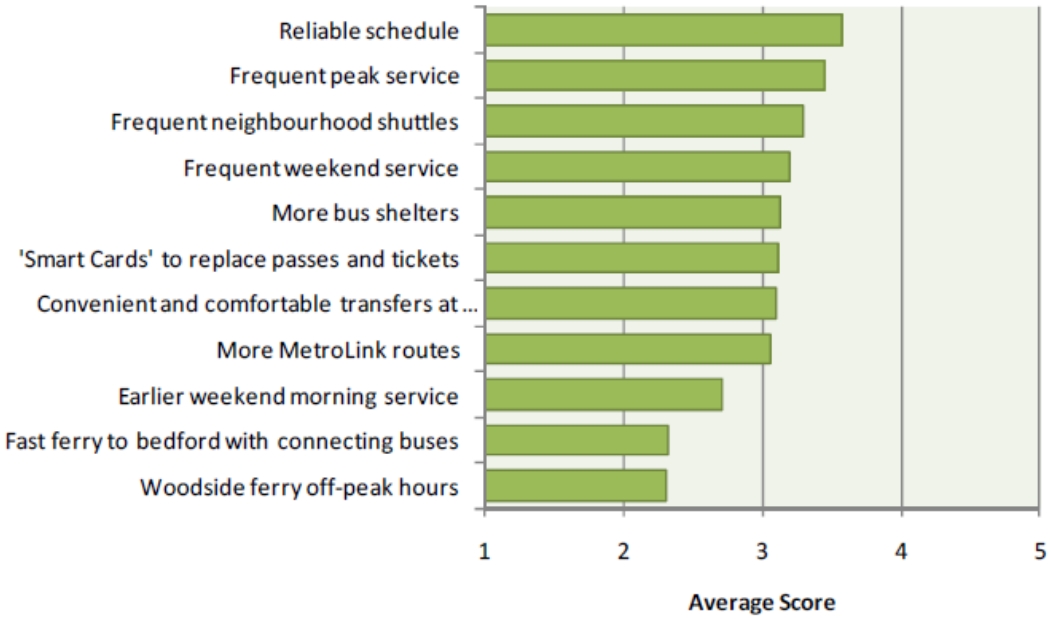
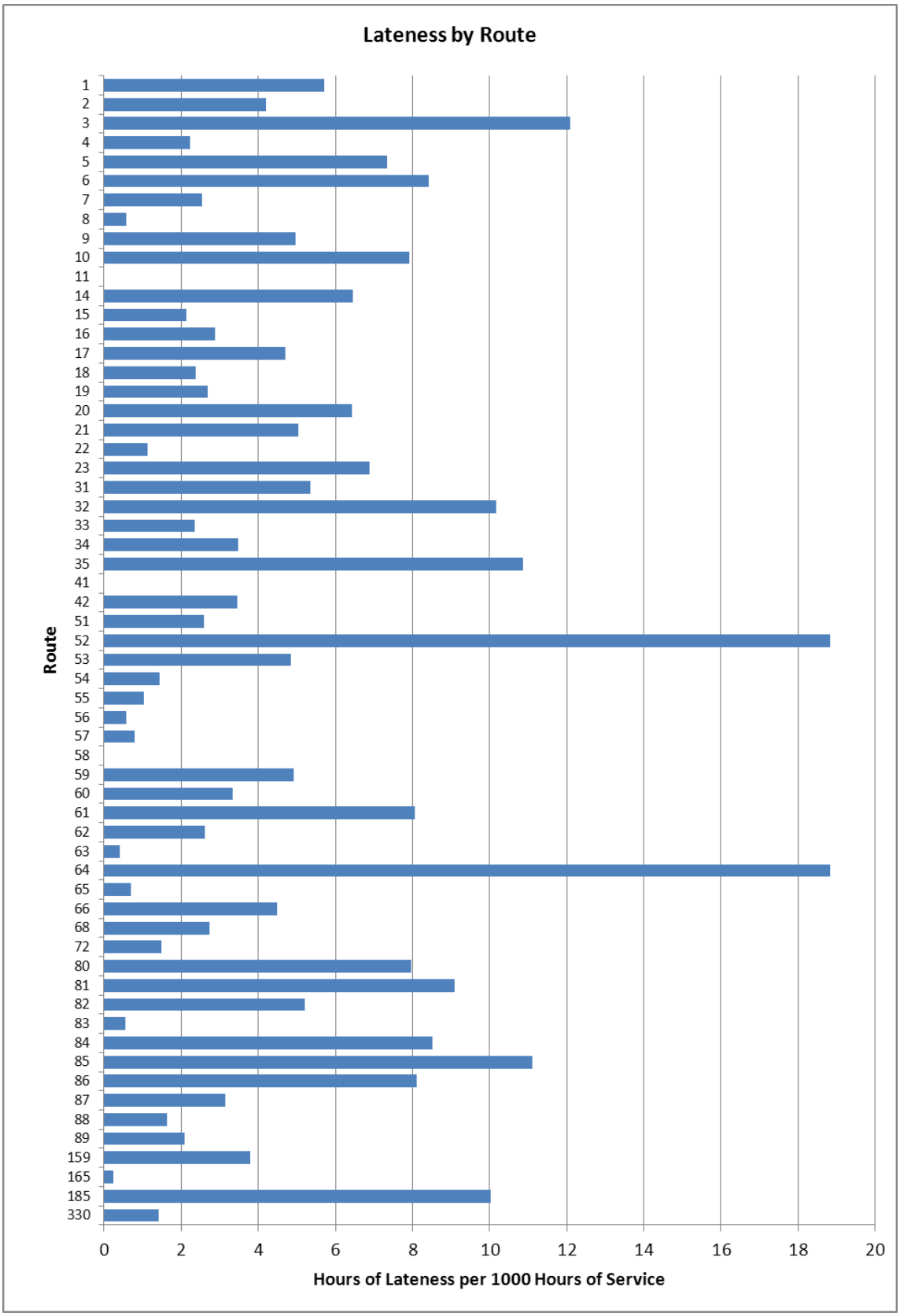


Exhibit 2-20: Potential For a More Reliable Schedule to Increase Ridership.

Emphasis should be placed on service reliability when allocating available resources. Lateness is prevalent throughout the system and resources should be allotted to travel time improvements on a consistent basis. A portion of all new buses ordered should be designated for this purpose. It is also important to note that as traffic congestion increases in HRM, trip travel times also increase, meaning schedules need to be adjusted to maintain consistent on-time performance.

Increasing traffic congestion has been an issue in peninsular Halifax for a number of years. In 2002, staff reviewed the actual running time for trips between Summer and Duke Streets. Although the allocated time was 10 minutes, it was determined that 73% of all the trips between 4pm and 6pm were late. Due to limited budget, a small number of trips were adjusted by 3 minutes to improve running times; however a significant number of trips still run late on a consistent basis. In fact, the Dartmouth routes are still to this day running with 10 minutes between Summer & Duke.

The following chart outlines the lateness of scheduled service for the first half of the 2011/12 fiscal year per 1000 hours of service.


Lateness by Route
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Hours of Lateness per 1000 Hours of Service

Lacewood Terminal

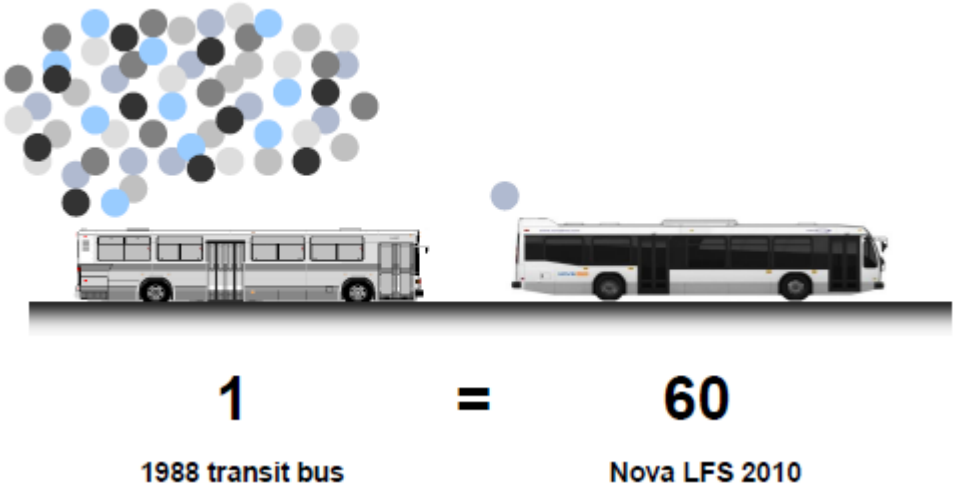
Transit terminals are an integral part of a positive customer experience. Efficient terminals improve service quality and offer opportunities for schedule efficiencies. The current Lacewood Terminal is at capacity and must be replaced in order to meet these objectives. There is no expansion room at the current location therefore HRM has been exploring alternate locations near the existing terminal. Space for up to 8 buses would be required as well as expanded passenger and bus operator amenities in a new terminal.

Fleet Recapitalization:

Metro Transit has fleet of 315 buses, 21 of which are over 18 years of age. Late model buses are more fuel efficient and reliable, resulting in lower maintenance costs, while older buses are more costly to maintain. Fleet recapitalization clearly represents a capital challenge for HRM. The following table outlines when buses should be replaced, based on an 18 year replacement cycle:

18 Year Replacement Cycle			
Replacement Year	**Retired**	**Replaced**	**Cost (in millions)**
2012	45	45	$27.7 M
2013	8	8	$4.2 M
2014	15	15	$6.6 M
2015	10	10	$1.5 M
2016	10	10	$2.0 M
2017	19	19	$7.3 M
2018	4	4	$2.4 M
2019	7	7	$1.3 M
2020	42	42	$22.0 M
2021	0	0	$0.0 M
2022	37	37	$20.2 M
2023	52	52	$30.9 M
2024	29	29	$18.1 M
2025	33	33	$18.2 M
2026	26	26	$17.4 M
2027	17	17	$8.5 M
2028	15	15	$18.1 M
2029	14	14	$13.1 M
Total	**383**	**383**	**$219.5 M**

Another benefit of the above recapitalization strategy is a more environmentally friendly bus fleet. Advancements in clean air technology and the reduction of GHG emissions have drastically reduced diesel pollution, meaning a cleaner, quieter transit fleet. In fact, it would take 60 new 2010 clean diesel buses to equal the soot emissions of one 1988 transit bus.



Technology

There are a variety of technologies available that would help improve transit efficiency. Improved fare box technology along with the introduction of smart cards would streamline the boarding process, provide ease of use for the customer and ensure more accurate data collection to better monitor service standards. The addition of APCs (automatic passenger counting devices) would also allow Metro Transit to better manage passenger boarding and alighting data. Many properties are able to offer real time schedule information, providing today's tech-savvy customer with the ability to receive accurate, up to the minute bus arrival information in a variety of ways (ie. Smart phones, internet, etc.). There is no doubt that the Metro Transit customer experience would be improved with the adoption of real time technology. In addition, the ability to provide stop annunciation would move Metro Transit even closer to universal accessibility.

BIG MOVE #3 - FOCUS ON COST EFFECTIVE & HIGH RIDERSHIP SERVICE

Metro Transit currently operates a variety of transit services including:

Conventional and Urban Express: The Conventional and Urban Express routes are the core of our public transportation system.

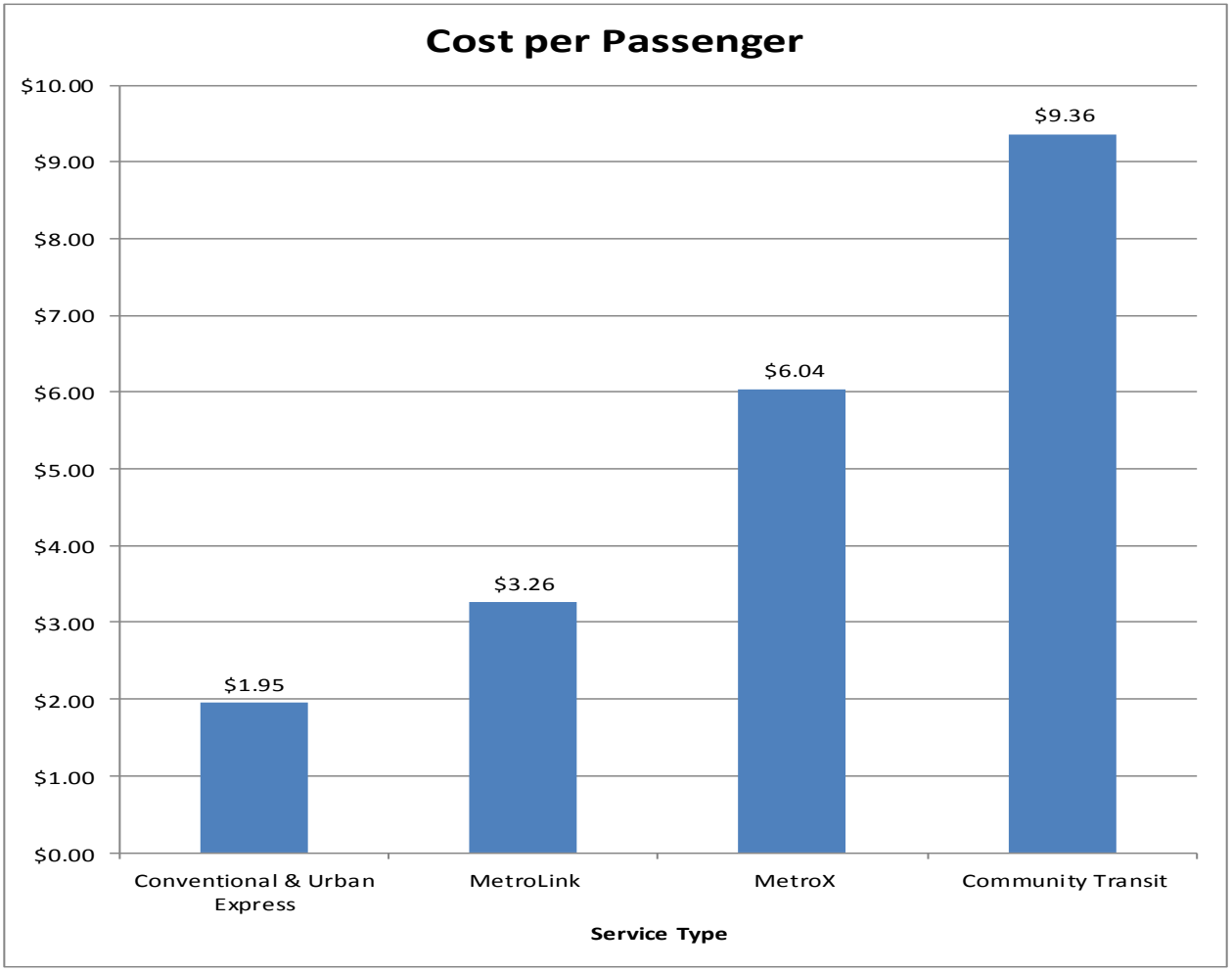
Number of routes = 56
Average weekday boardings in 2010 = 89,873

Metrolink: A premium bus rapid-transit service offering a faster and enhanced commuting option into downtown Halifax. A park and ride lot is an important component of this service.
Number of routes = 3
Average weekday boardings in 2010 = 2,995

MetroX: MetroX is a premium express service linking outlying rural areas with key destinations in HRM. MetroX customers rely on availability of park and ride lots. A park and ride lot is an important component of this service.
Number of routes = 1
Average weekday boardings in 2010 = 336

Community Transit: Community Transit buses run from transit terminals to smaller communities. Community Transit services are currently available in Porters Lake, Beaverbank and Sambro areas.
Number of routes = 3
Average weekday boardings in 2010 = 325

The following chart outlines the cost per passenger on the various service types.



In order to improve the efficiency and effectiveness of the transportation system with the resources available, Metro Transit should focus on a cost effective and high ridership service.

Example:

Increased service frequencies have the potential to generate significant additional ridership on key conventional routes. The following table outlines two investment scenarios: #1 - investing in service expansion (ie. MetroX) and #2 - investing in service frequency improvements (existing conventional routes):

Investing in MetroX Service or Conventional Service Frequency Increases		
	Original MetroX Plan	**Conventional Service Frequency Increases**
Capital Cost	$10,540,000	$5,400,000 to $6,750,000
Equivalent in 40' Transit Buses	23	12 to 15
Operating Cost	$2,100,000	$3,048,998
New Annual Passengers	255,000	460,000 to 631,000
Operating Cost per New Passenger	$8.24	$4.83 to $6.63
Service Hours	27,851	40,363
Capital Cost per New Passenger	$41.90	$8.57 to $14.70

Note:

- *Airport/Fall River MetroX service is not included as it is not a typical MetroX route*
- *Not all of the MetroX Plan is currently funded in the five-year Capital Budget.*
- *Conventional ridership increase ranges are based on elasticity rates of 0.3 and 0.4 calculated from previous service increases*

Above table shows that ridership can be increased in a more cost effective way by improving the conventional service.

BIG MOVE #4 - URBAN EXPRESS

Concept:

Urban Express routes operate as limited stop service after leaving the local residential area, thereby improving service reliability to and from the downtown core. Urban Express is similar to Metrolink services in this regard however; it reduces the need to transfer and includes local stops in the suburban area meaning customers can board buses close to their homes without having to drive to a park and ride lot.

Advantages:

- Reliance on park and ride lots is eliminated. In addition, potential future parking capacity issues are avoided and cost related savings are achieved.
- Residential pick-ups/drop offs
- More stops in desirable locations (ie. hospitals, dockyards, major employers, universities)
- No premium fare
- Flexibility of bus type – By avoiding the need for a branded fleet, schedules can be integrated with other conventional service, increasing efficiency.

Possibilities:

Potential Urban Express services include:

- Lacewood: Improving existing Urban Express
- Bedford West and South
- Wildwood/Mount Edward to Woodside Ferry Terminal
- Woodside Metrolink converted to Urban Express
- Eastern Passage/Heritage Hills to Woodside Ferry Terminal

Example:

The proposed Clayton Park/Lacewood Metrolink would provide service from the Lacewood Terminal to Scotia Square with a park and ride lot at Geizer's Hill. The schedule would operate at a 10 minute frequency at peak, and 60 minutes off-peak. The service would require up to 7 specially branded Metrolink buses.

It is proposed that the Metrolink resources would be reallocated to enhance the Urban Express service that already exists in this area resulting in:

- Combined peak service between Lacewood and downtown of 5 minutes or better
- Improved service levels on existing Urban Express routes
- Weekday peak headway of 15 minutes or better on all routes; 60 minutes off-peak on Route 31.

Focus on Urban Express would also mean that there would no longer be a requirement for the Geizer's Hill Park and ride and therefore no risk of parking demand exceeding parking capacity. In addition, Urban Express buses would not be branded (like MetroLink), meaning schedules could be integrated with other conventional service, increasing efficiency.

Cost Implications:

- Capital Cost Savings of Urban Express (vs Metrolink). The elimination of the Geizer's Hill Park and Ride would provide a savings of $1.5 to $2 million (parking lot construction and access ramp modifications)
- The operating cost for the MetroLink or the Urban Express would be similar, but the Urban Express offers opportunities for scheduling efficiencies and flexibility.

BIG MOVE #5 - BURNSIDE/DARTMOUTH CROSSING REALIGNMENT

Concept:

The current 5 Year Strategic Operations Plan outlines changes to Burnside bus routes that would significantly increase service above the level needed for a suburban industrial/business park and requires the construction of a new transit terminal in Burnside. Previous off-peak service increases have generated minimal ridership. This plan focuses on the level of service desired instead of the level of service required.

The suggested plan would rightsize the Burnside routes thereby realigning supply with demand. Service would be reduced in areas of Burnside with low transit demand and/or little opportunity for ridership growth (typically older industry) while increasing service in those areas with higher demand and greater potential for ridership growth (typically newer offices/retail).

Resources from underperforming off-peak service would be redeployed to meet growing business needs and provide better coverage of higher ridership areas and the route network rationalized to remove duplicate services. A direct connection from the Bridge Terminal and Halifax to Dartmouth Crossing would also be added as well as a direct connection from Clayton Park/Lacewood to Burnside.

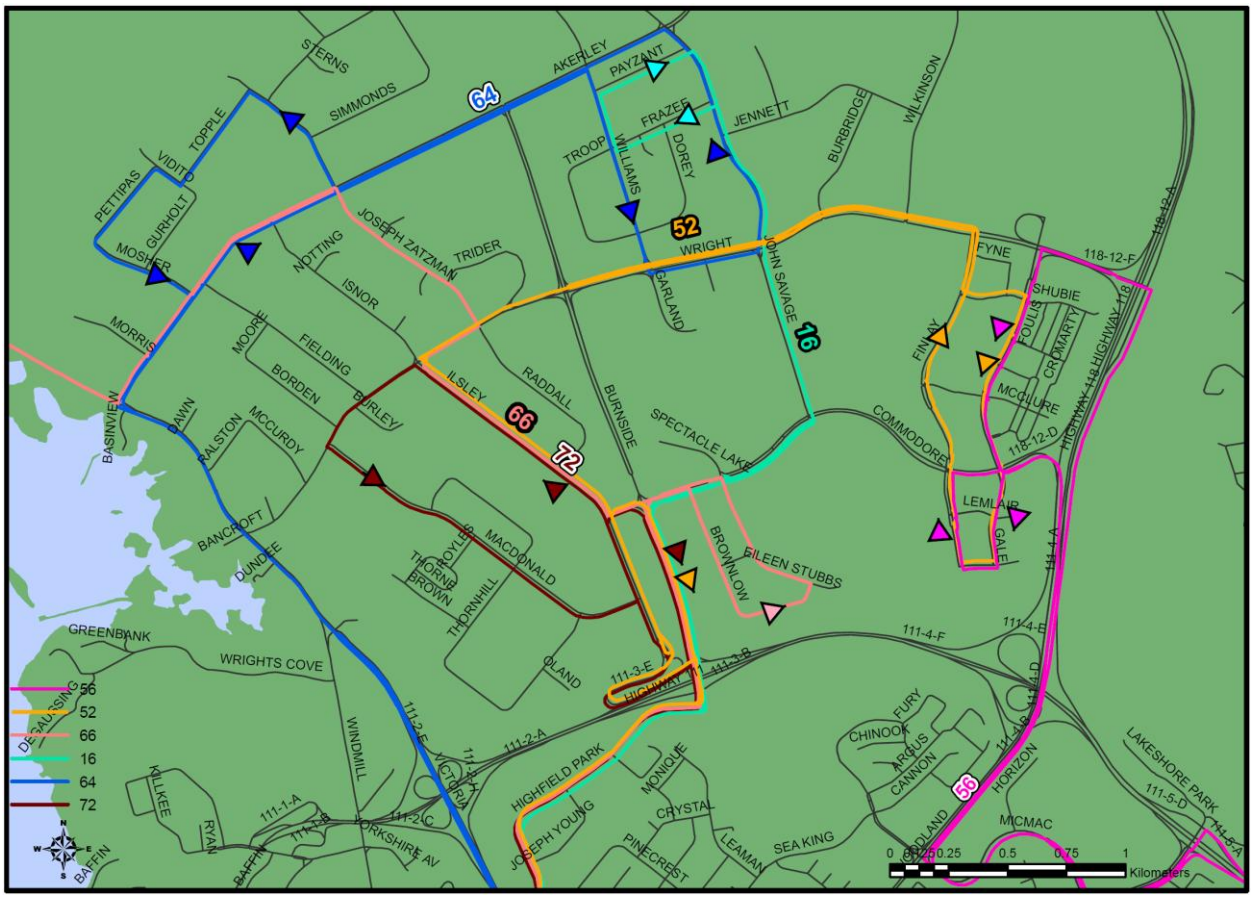
Advantages:

- Avoids the capital cost of constructing the Burnside terminal, estimated at $4,595,000.
- Allows HRM to sell the Burnside terminal site at full market value.
- Offers a direct connection with Clayton Park
- Offers a direct connection from Bridge Terminal to Dartmouth Crossing

Cost Implications:

- Additional annual operating cost (estimated) = $35,000

Suggested Burnside/Dartmouth Crossing Realignment



BUDGET IMPLICATIONS

There are no budget implications associated with this information report.

FINANCIAL MANAGEMENT POLICIES / BUSINESS PLAN

This report complies with the Municipality's Multi-Year Financial Strategy, the approved Operating, Project and Reserve budgets, policies and procedures regarding withdrawals from the utilization of Project and Operating reserves, as well as any relevant legislation.

COMMUNITY ENGAGEMENT

No community engagement is required as this report is only providing information to the Transportation Standing Committee.

ATTACHMENTS

n/a

A copy of this report can be obtained online at http://www.halifax.ca/commcoun/cc.html then choose the appropriate Community Council and meeting date, or by contacting the Office of the Municipal Clerk at 490-4210, or Fax 490-4208.

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