HALIFAX
REGIONAL MUNICIPALITY

P.O. Box 1749
Halifax, Nova Scotia
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Item No. 11.3.1
Halifax Regional Council
January 10, 2012

TO: Mayor Kelly and Members of Halifax Regional Council

SUBMITTED BY: Original Signed

for: Councillor Reg Rankin, Chair, Transportation Standing Committee

DATE: December 20, 2012

SUBJECT: **Commuter Rail Feasibility Study**

ORIGIN

Discussion held at the October 27, 2011 Transportation Standing Committee meeting with regard to agenda item 7.4.1 "Councillor Watts – Commuter Rail Feasibility Analysis".

Motion approved at the November 24, 2011 Transportation Standing Committee meeting with regard to agenda item 6.1 "Commuter Rail Feasibility Analysis" (deferred from the October 27, 2011 meeting).

RECOMMENDATION

The Transportation Standing Committee recommends that Halifax Regional Council:

1. Consider directing staff to engage a consultant through a Request for Proposals for a full feasibility analysis of Commuter Rail in the Halifax to Windsor Junction and Enfield Corridor as part of the 2012/13 budget process.

2. To appropriately engage CN Rail in participation in the study.

In order to provide Regional Council at the earliest possible date with a full analysis of the opportunities, costs and feasibility of commuter rail along the Corridor.

BACKGROUND

On February 1, 2011 an information report (dated January 10, 2011) was presented to Council at a Committee of the Whole session (Attachment 1).

The following motion was approved by Council at that time:

> **MOVED by Councillor Lund, seconded by Councillor Dalrymple, that Halifax Regional Council request staff to continue to study all three options, as set out in the January 10, 2011 Information Reports, as potential long term strategies with review being undertaken by the Transportation Standing Committee and with the public and experts involved in this review and further that a report come back to Council. MOTION PUT AND PASSED.**

At the request of Councillor Watts, "Commuter Rail Feasibility Study" was added to the October 27, 2011 Transportation Standing Committee agenda for discussion. Discussion was held at this meeting, and deferred to the November 24, 2011 meeting, at which time further discussion was held and the recommendation on the first page of this report was approved.

DISCUSSION

The Transportation Standing Committee is concerned that there appears to be substantial delay in moving forward on a detailed feasibility study, carried out in conjunction with CN Rail, to enable The Committee and Regional Council to make an informed decision regarding Commuter Rail services as a possible solution to growing congestion and pressure from development along the Bedford corridor. Concerns were noted about the deterioration of the rail line, and missed opportunities for reuse of the line for commuter rail purposes.

During the November 24, 2011 discussion with the Transportation Standing Committee, staff indicated that the cost of the study would be approximately $250,000. The study would include compensation to CN Rail in return for their participation in the study effort.

The intent of the motion is to ensure that staff proceed to undertake the study necessary to provide the Committee and Regional Council, at the earliest possible date, with a full and complete analysis of the opportunities, costs and feasibility of commuter rail along the Halifax to Windsor Junction and Enfield Corridor.

BUDGET IMPLICATIONS

Through the budget process this project will be brought forward for council's consideration for inclusion in the 2012/13 capital budget.

FINANCIAL MANAGEMENT POLICIES/BUSINESS PLAN

Compliance with the Financial Management Policies/Business Plan will be outlined in detail in a future staff report.

COMMUNITY ENGAGEMENT

The Transportation Standing Committee is comprised of eight duly elected members of Council. Composition is made up of a member from each of HRM's six Community Councils, along with two members-at-large.

Transportation Standing Committee meetings are held once a month and are open to the public, unless otherwise stated. Agendas, reports, and minutes from these meetings are posted online.

ALTERNATIVES

Council may choose not to approve the Transportation Standing Committee's recommendation, or may request a staff report for further information on this topic.

Should council decide to proceed immediately the Strategic Growth Reserve could potentially be used as a funding source.

ATTACHMENTS

1. Information report presented at February 1, 2011 Committee of the Whole (dated January 10, 2011)

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

Report Prepared by: Jennifer Weagle, Legislative Assistant, 490-6517

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Item No. 4
Halifax Regional Council
February 1, 2011
Committee of the Whole

TO: Mayor Kelly and Members of Halifax Regional Council

SUBMITTED BY: Original Signed by Director
Ken Reashor, P.Eng., Director, Transportation and Public Works

DATE: January 10, 2011

SUBJECT: Commuter Rail Feasibility Analysis

INFORMATION REPORT

ORIGIN

January 12, 2010 Committee of the Whole, item #3, Council Focus Areas.

MOVED BY Councillor Outhit, seconded by Councillor Dalrymple, that Halifax Regional Council request a staff report on the feasibility of a commuter train service for HRM, extending beyond HRM boundaries as required. During the discussion Council indicated that the report also needs to address, future transportation requirements and day liner approach.

MOTION PUT AND PASSED.

BACKGROUND

Commuter rail has been the subject of several feasibility studies and discussions with CN in the past, most recently in 2003.

Staff has had limited discussions with CN representatives in preparing this study. CN indicated that in order to prepare a complete analysis of feasibility with their participation, HRM would be required to engage a consultant with CN's approval. Based on their past experience, they expected the cost for such a study to be approximately $250,000.

As such, the information provided in this report is based on a review and analysis of previous work, with modifications made for factors that have changed in the subsequent years such as population patterns, transit service levels, costs, and operating environment. If there was a decision to move any further with commuter rail, additional study using external resources would be required.

DISCUSSION

Rolling Stock

This study has been undertaken under the assumption that the service would use remanufactured Budd RDC cars (also known as "Dayliners"). A remanufactured RDC is one that is essentially stripped of most mechanical elements; these are then replaced with current technology. It is expected these vehicles would have a lifespan of approximately 20 years.

Corridor Selection

There are two railway corridors leading into HRM. CN operates a corridor to Truro and points west known as the Bedford Subdivision. The Windsor and Hantsport Railway (WHRC) operates a corridor to the towns of Windsor and Hantsport from a connection with the CN Bedford Subdivision at Windsor Junction.

The Bedford Subdivision is capable of operating trains at much higher speeds than the WHRC line. Beyond Windsor Junction, the Bedford Subdivision would require minimal (if any) improvements to accommodate passenger service since relatively high speed passenger service is already provided on the line. However, the WHRC line is infrequently used between Windsor Junction and Windsor and would likely require significant upgrades to accommodate passenger service.

Additionally, Truro is often raised as a potential terminus for a commuter rail service into HRM. For these reasons, the decision was made to analyze the Halifax – Truro corridor rather than the Halifax – Windsor corridor.

Approximate station locations were then determined along the Bedford Subdivision based on potential access to the rail line from adjacent roads, station spacing, and proximity to development where possible.

Ridership

In order to estimate ridership, a judgemental (modal split) analysis was used. This is a methodology most useful in cases where the mode of transit is significantly different from existing modes, making it difficult to develop mathematical models based on usage of that mode.

There are three steps to estimating ridership using this method:

1) Calculate the total population travel demand for a given origin and destination (i.e. Bedford and Downtown Halifax) that is within the catchment of a station;
2) Develop assumptions for the proportion of these trips that could be deviated to transit, creating modal split rates; and
3) Apply the modal split rates to the total population demand to derive the number of trips that could potentially be attracted to transit.

Population and travel pattern data from the Census and HRM's recent electoral boundary review was used as the basis for the analysis.

Initial ridership estimates for the service are shown in Table 1.

Table 1 – Initial Ridership Estimates

Station	Daily One-Way Boardings
Truro	18
Stewiacke	9
Enfield	2
Wellington	14
Windsor Junction	31
Duke Street	42
Mill Cove	273
Rockingham	381
Armdale/Mumford	Destination Only
VIA Rail Station	Destination Only
Total	**769**

Some of the ridership numbers noted above are slightly lower than what has been estimated during earlier studies on commuter rail in Halifax. This may seem counter-intuitive given that HRM's population is growing. However, the catchment areas used in this analysis have been reduced from the catchments used in previous analyses to account for existing and planned MetroLink and MetroX routes that did not exist when previous studies were completed. The result of these services is that some communities have express-bus travel options that would bring them to Downtown more quickly than could be achieved by driving to a rail station and utilizing the rail service.

Building a commuter rail service in an effort to capture existing automobile commuting trips originating from outside of HRM may appear to be a reasonable solution to reducing auto trips overall. However, it is likely that some people who work in the Regional Centre and are willing

to use public transportation to commute will now choose to live outside of HRM and travel by commuter rail, rather than choosing to live within the region near other more sustainable public transit systems. Encouraging more population to locate outside of HRM is contrary to the objectives of the Regional Plan's efforts to concentrate population. Furthermore, increasing the total distance that people commute may add to overall energy consumption and greenhouse gas emissions, even though the trips are being made by public transport.

Based on the Regional Plan implications noted above, and the low potential for ridership beyond Windsor Junction, the service concept carried through the study was between Halifax and Windsor Junction only. The revised ridership estimate to Windsor Junction only is shown in Table 2. A map of the proposed route and stations considered further in this study is attached to this report.

Table 2 – Revised Ridership Estimate

Station	Daily One-Way Boardings
Windsor Junction	45*
Duke Street	42
Mill Cove	273
Rockingham	381
Armdale/Mumford	Destination Only
VIA Rail Station	Destination Only
Total	**741**

*Ridership from Wellington was added to the Windsor Junction ridership since it is conceivable that these passengers would drive to Windsor Junction

Schedule

Based on previous studies and discussions with CN, a preliminary schedule was developed for the service. It is shown in Tables 3 and 4.

Table 3 – Preliminary Morning Peak Schedule

Station	1	2	3	4	5	6
Windsor Junction	607	637	707	737	807	837
Sackville/Duke	612	642	712	742	812	842
Mill Cove	615	645	715	745	815	845
Rockingham	622	652	722	752	822	852
Mumford	626	656	726	756	826	856
VIA Station	635	705	735	805	835	905

Table 4 – Preliminary Afternoon Peak Schedule

Station	1	2	3	4	5	6
VIA Station	1530	1600	1630	1700	1730	1800
Mumford	1539	1609	1639	1709	1739	1809
Rockingham	1543	1613	1643	1713	1743	1813
Mill Cove	1550	1620	1650	1720	1750	1820
Sackville/Duke	1553	1623	1653	1723	1753	1823
Windsor Junction	1558	1628	1658	1728	1758	1828

Costs

Costs for this service consist of both capital start-up costs and ongoing operating costs. A high-level estimate of these costs is shown in Table 5 and 6. The capital costs do not include any land acquisition that may be required.

Table 6 – Estimated Capital Costs

CN Track Infrastructure	$9,900,000
Stations (5)	$2,000,000
Park & Ride Lots (2)	$600,000
Rolling Stock	$15,000,000
Shuttle Buses	$3,200,000
Other Start-Up Costs	$250,000
Total	**$30,950,000**

Table 7 – Estimated Annual Operating Costs

Train Operations, Track Rent & Maintenance	$5,686,200
Station Management and Other Services	$660,000
Park & Ride Lots (2)	$253,800
Total	**$6,600,000**

BUDGET IMPLICATIONS

There are no budget implications.

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

Community Engagement was not deemed to be necessary in this process as this report is only providing Council with information.

ATTACHMENTS

Map – Proposed Route and Stations

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

Report Prepared by: Dave Reage, MCIP, LPP, Supervisor of Service Design & Projects, Metro Transit (490-5138)

Report Approved by: Original signed
Lori Patterson, A/General Manager, Metro Transit (490-6388)

Proposed Route and Stations