



Frequently Asked Questions
Chebucto Road Reversing Lanes Project
November 2007

1. What is the total cost of the project ?

The estimated cost of the Chebucto Road Reversing Lanes project is \$1,700,000. More accurate costs will not be known until the engineering design work is completed.

2. What problem does this project intended to solve?

Traffic studies have indicated that inbound traffic volumes on Chebucto Road during the morning rush hour period are at or near capacity. Queues extending back from the Chebucto/Mumford intersection cause traffic to back up into the Armdale Rotary. This affects the traffic flow on St. Margaret's Bay Road, Herring Cove Road, and Joseph Howe Drive.

The HRM Regional Plan has identified where future settlement is to occur, how many trips will be generated, how many of those trips will be captured by enhanced transit service, and how much additional vehicle demand will be created. It was determined that additional capacity is required through the Armdale Rotary, and a conversion to a modern roundabout design will achieve this, provided the roadways connecting to it have sufficient capacity to receive the traffic exiting the roundabout.

Creating a reversible lane on Chebucto Road, between the Roundabout and Mumford Road, will increase the inbound capacity to accept the increased flow of traffic through the Roundabout. Overall, the increased flow is projected to be 300 vehicle per hour in the peak. This capacity also ensures that traffic queues will not back into the roundabout.

3. Has the city looked at any alternatives ?

The HRM Regional Plan manages future trip demands through a number means other than vehicle trips. The plan includes transit enhancement, active transportation and development of transportation demand measures such as carpooling, and road pricing policies.

There are alternative ways of adding vehicle capacity onto and off of the peninsula. The Fairview interchange is already identified as a project for added capacity. Adding capacity to Bayers Road, Mumford Road and Quinpool Road is far more expensive and intrusive because widening of the full corridor length is necessary. Adding capacity to the Chebucto corridor is most cost-effective, as only a short section of roadway needs to be widened to realize the value of existing, unutilized capacity.

4. Does this project contradict the Regional Plan ?

This project is an integral part of the Regional Plan and has appeared as a project in every draft of the plan. Although the plan focuses on transit, active transportation and transportation demand management measures to handle the additional trips produced by future growth, modeling has indicated that even aggressive measures are not enough to handle all of the future growth.

5. Several numbers have been quoted 100 more cars per hour, 1400 additional cars per hour at the intersection, 900 cars per hour - What is the predicted increase in traffic in this corridor, in terms of capacity, after completion of the reversing lane, measured in vehicles per hour ?

The capacity of Chebucto Road in the one direction is currently 900 vehicles per hour and this will increase to about 1600 vehicles per hour. Not all of this added capacity can be utilized, however, as the Armdale roundabout conversion is only capable of handling an additional 300 vehicles per hour to and from Chebucto Road. Therefore, the maximum increase in traffic will be 300 vehicles per hour, although this volume is not expected to be reached for several years.

6. Has there been any traffic modelling to support this ?

A QRSII model has been used since 1995 to project traffic and transit demand regionwide based on population and employment patterns. A SYNCHRO model is used to simulate traffic along the Chebucto corridor and Rodel and VISSUM models were used for roundabout analysis.

7. Will this solve the problem identified ? Has there been any traffic modelling to support this ?

With the completion of the reversing lane project, the Chebucto Road corridor will have sufficient capacity to handle additional traffic volumes from the Armdale Roundabout conversion.

8. What will be the actual effect of not completing the project ?

While HRM's Regional Plan attempts to slow and manage traffic demand growth through a series of policies encouraging other modes of transportation, the traffic studies completed for the Plan projected that traffic demand to and from the Peninsula would continue to grow over the next 20 years.

If the project is not completed, traffic congestion going onto and off of the peninsula will worsen significantly, and more motorists will choose side streets as a means of

shortcutting and avoiding the traffic congestion.

Although it could be argued that high levels of traffic congestion are beneficial in forcing commuters to choose other modes, it also harms commercial operations that rely on the roadway network as well as transit operation. The Regional Plan has set the objective of maintaining overall congestion systemwide at their current levels.

9. Can this project be designed to accommodate adequate snow storage and proper width of sidewalk. ?

Sidewalk widths will be the same as they are now. Snow storage near the Mumford Road intersection will be reduced but will be sufficient for snow removal crews to manage.

10. How many street trees will be removed ? Will they be replaced ?

The exact number of street trees that will be removed will not be known until the detailed design is completed. From the preliminary design plans, approximately 8 trees would be removed. Any street trees that will be removed will be replaced.

11. How many properties will be affected by having HRM purchase a piece of their property?

The number of properties affected cannot be confirmed until after the detailed design has been completed. Preliminary design plans indicate that 8 to 18 properties could be affected.

12. What is the extent of land purchases in terms of area from least to most area ?

The exact extent of land purchases will not be known until the detailed design is completed. From the preliminary design plans, the extent of land purchases range from 60 to 1350 square feet. There is one property that staff will be recommending to purchase outright.

13. Are there future plans to further remove any other Chebucto Road bottlenecks ? (For example: where Chebucto Road reduces to a single eastbound lane was of Connaught Avenue, where Chebucto Road reduces to one eastbound and one westbound lane, east of North Street, the intersection of Chebucto Road and Windsor.) If so, what is the time line?

There are no immediate short term plans (1 to 4 years) to further remove any other Chebucto Road bottlenecks. Longer term opportunities to create a second inbound lane from Connaught as far as the North Street split will be considered to balance the existing

two lanes outbound, although creation of a reversing centre lane may be considered here as well.

14. Can you demonstrate with actual data that traffic disperses in several directions at Connaught Avenue ?

Traffic volume data taken from May 2005 indicates that during the morning rush period, approximately 45 percent of all eastbound vehicles continue travelling on Chebucto Road, approximately 20 percent of all eastbound vehicles turn right onto Connaught Avenue, and 35 percent of all vehicles turn left onto Connaught Avenue.

15. What is the proposed distance measurement of the pedestrian crossing on Chebucto Road between Mumford Road and MacDonald Street ?

The existing pedestrian crossing distance on the west side of Chebucto Road is approximately 13.8 metres. The existing pedestrian crossing distance on the east side of Chebucto Road is approximately 16.2 metres.

The proposed pedestrian crossing distance on the west side of Chebucto Road is approximately 19.6 metres. The proposed pedestrian crossing distance on the east side of Chebucto Road is approximately 19.7 metres. These figures will be confirmed after the detailed design is complete.

16. How does the proposed pedestrian crossing distance at the intersection (above) compare to other intersections that have no boulevard or pedestrian refuge, and how ill this affect the timing of the lights ?

The following intersections have at least one marked crosswalk where the pedestrian crossing distance exceeds the proposed pedestrian crossing distance for Chebucto Road:

Bayers Road at Joseph Howe Drive

Chebucto Road at Connaught Avenue

Mumford Road at Halifax Shopping Centre Entrance

Bayers Road-Young Street at Windsor Street

None of these crosswalks have abnormal collision rates. The timing of the lights will be changed so that more time is given to pedestrians crossing Chebucto Road.

17. How many overhead lane markers will there be, and where will they be placed in relation to peoples properties ?

The exact number of overhead lane signals cannot be confirmed until after the detailed design is complete. Based on the preliminary plans, staff estimate the need for 7 overhead lane control signals. Poles for the signals will be placed in the grass area between the sidewalk and the curb. The exact location will be based on visibility



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requirements. Wherever possible, the poles will be placed to minimize the inconvenience to adjacent property owners.

18. What if the same money is used for transit instead?

Previous growth modeling exercises identified a substantial deficiency in road capacity which would continue to escalate if our growth and infrastructure priorities stayed as they had in the past. This would result in a major investment in road capacity projects. To avoid this, the plan put forward substantial funding to bolster existing transit service and create new types of transit service such as MetroLink, rural express transit, and high speed ferry. Although this increase in transit investment is projected to result in meaningful shifts from vehicle trips to transit trips, it can not realistically capture all of the future projections for trip-making within the region. Other measures like high occupancy vehicle lanes, ridesharing programs, and bicycle network expansion are also factored into the regional plan model. Although road capacity projects have been dramatically reduced from previous planning exercises, they can not completely be eliminated.

19. Shouldn't the broader community have been consulted?

Development of the HRM Regional Plan involved consultation with hundreds of residents from across the region interested in a future vision for the region. The workshops that were held included a broad range of focused discussion in a number of areas, including transportation. In discussing the issue of accommodating more trips onto the peninsula, some participants felt no additional vehicle traffic should be allowed, while others thought that road projects more extensive than those proposed in the plan should be included. Overall, most people accepted that the plan's strong focus on transit investment to minimize roadway expansion projects was a good middle ground.

20. Can the project be delayed for a year to allow more options to be considered?

The regional plan has already modeled a wide variety of options including greatly expanded transit services, ridesharing, HOV lanes, bike lanes, parking management and other demand management measures. Even with very optimistic projections for success of these alternatives, there were continued demands on our roadway network, including Chebucto Road.

In October 2006, an independent expert in transportation demand management was hired to meet with the Chebucto residents to go over their alternatives with them. In his report, the consultant confirmed the validity of the regional plan which included this project. His comments were, "Based on our experience and research, the CNA 'Thinking Outside the Box' HOV proposal has many barriers to overcome and several disbenefits as outlined below. ..." (He listed 10 reasons why it would be ineffective and difficult to implement.)

It has been suggested that the moratorium would allow time to view the effect of the changes to the roundabout on traffic patterns. Firstly, the Chebucto/Roundabout project is intended not only for current loading, but for future loading resulting from already approved development off the peninsula. Secondly, the effects of the roundabout changes are already evident. As predicted by the computer simulation, lack of capacity on Chebucto Road chronically causes morning queues to back into the circle. Although queuing in the circle was tolerable with rotary rules, it causes significant breakdown in a roundabout because it allows vehicles to force their way into the backlog from an approach when they don't have right of way. In other words, the roundabout can't work properly if queues back into it, and queues will always back into it from Chebucto Road if a reversing lane system is not implemented.

21. If transit is a priority in the Regional Plan, why can't more buses be purchased before the Chebucto project is undertaken.

The conversion of the Armdale Rotary to a modern roundabout was needed to conform with standard operation of such facilities around the world, particularly with more roundabouts planned throughout Nova Scotia and changes to the provincial Motor Vehicle Act in 2005. Computer simulation showed very clearly that operation of the roundabout could not be effective or safe without a way of consistently clearing the exits and capacity limitations on Chebucto Road prevented that from happening. Although the Regional Plan includes a significant investment in transit over the upcoming years, that investment can be made in a carefully paced manner. There are several reasons for this, including the pacing of federal funding and the requirement to moderate the impacts to Metro Transit related to driver training and storage and maintenance requirements.