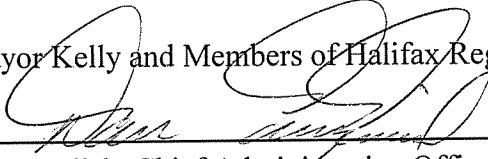
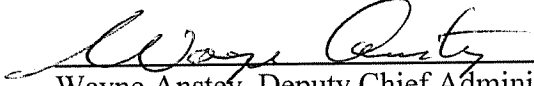


Halifax Regional Council
March 27, 2007

TO: Mayor Kelly and Members of Halifax Regional Council

SUBMITTED BY: 
Dan English, Chief Administrative Officer


Wayne Anstey, Deputy Chief Administrative Officer - Operations

DATE: March 21, 2007

SUBJECT: Armdale Roundabout and Chebucto Reversing Lane Project

ORIGIN

- May 11, 2004: Roadway Network Optimization Plan (including Chebucto Road) approved;
- May 9, 2006: Councillor Fougere requested an information report on the Chebucto Road Reversing Lane project;
- May 23, 2006: Councillor Mosher asked staff to prepare a report discussing the options to the Chebucto Road project;
- May 30, 2006: Chebucto Neighbourhood Association made presentation to Regional Council expressing opposition to the project;
- June 13, 2006: staff submitted a report indicating that an independent consultant would be retained to review the process HRM used to determine the need for the Chebucto Road Reversing Lane project, and to meet with the Chebucto Neighbourhood Association to understand their proposed alternatives;
- June 27, 2006: Councillors Mosher and Adams present petitions supporting the Chebucto Road project; and
- March 20, 2007: a motion was passed directing staff to bring a report on the Chebucto Road reversing lane project to Council for discussion.

RECOMMENDATION

It is recommended that Halifax Regional Council endorse:

- The Armdale Rotary Conversion project;
- The Chebucto Road reversing lane project; and
- Phase 1 of the St. Margaret's Bay Road widening project.

EXECUTIVE SUMMARY

Staff have applied their skills and expertise towards developing solutions to increasing transportation demands. It is Regional Council, however, who ultimately decides the level of service that will be provided through proposed projects such as the Chebucto/Roundabout project which is discussed in this report.

To ensure that staff's plan was technically sound and that all other opportunities for managing growth in trip demand were considered, an independent consultant was hired to review the project. The consultant's review endorsed the staff approach, but identified some additional analysis and consideration for staff. That additional work was completed to the satisfaction of the consultant.

There are a number of important aspects to consider in evaluating this project. The key points which are foremost include:

1. The transportation strategy developed for the HRM Regional Plan is aimed at managing an increase in person-trips and sets very high targets for capturing those increasing trip demands through transit, active transportation and carpooling. Although staff project this strategy to be successful in significantly reducing our requirement for future roadbuilding, there remain a few roadway expansion projects needed to handle future roadway demands. Projects like these are not intended to save commuters a few minutes of driving, they are intended to maintain current levels of service while providing needed capacity for future transportation demands.
2. Both a staff analysis and an independent review by an expert in the field of transportation demand management concluded that the Chebucto Road reversing lane project is an appropriate response to future transportation demands.
3. The conversion at the Armdale Rotary to a modern roundabout has received nearly universal public acceptance. The project described in this report provides the geometric changes needed to make the roundabout operate safely and effectively with the regulatory changes. The effectiveness of the roundabout is not fully realized without the Chebucto Road and St. Margaret's Bay Road projects providing the needed capacity for exiting traffic. The roundabout conversion, St. Margaret's Bay Road widening and Chebucto Road reversing lane are an integrated system of roadway improvements. The conversion of the rotary to a roundabout and the proposed physical improvements to the roundabout will have benefits without the other two roadway upgrades, however the roundabout capacity will be significantly under utilized.

Once a final determination is made on which, if any, of the elements of the project will be implemented, staff will resume engineering design, property negotiation and neighbourhood consultation on the design elements of the project. If any, or all, of the proposed elements of the project are not endorsed, staff seeks direction from Council on how to proceed with the issue of increasing traffic demands. Staff could redevelop the transportation strategy to include a new, more significant roadway project to replace the Chebucto Reversing Lane project, or quantify the degree to which traffic congestion and delay can be expected to increase.

BACKGROUND

The Roadway Network Optimization Plan, approved by Regional Council in 2004 included five fundamental upgrades to the existing roadway network and that these would be the basis upon which a regional transportation strategy would be built. Three of those five projects have since been constructed. The two remaining projects are the Chebucto Road Reversing Lane and the Lacewood Drive four-lane project. The Lacewood Drive project has been initiated.

Upon approval of initial funding for the Chebucto Road project in the 2006-07 Capital Budget, staff initiated engineering design work, as well as property acquisition discussions with individual residents. As a result of this work, petitions opposing the project were initiated and an independent review of the project was undertaken by a consultant, including consideration of alternatives proposed by the Chebucto Neighbourhood Association.

DISCUSSION

Project Description

The Rotary Conversion/Chebucto Reversing Lane project includes three main components.

1. **Conversion of the Armdale Rotary to a modern roundabout.** This includes enacting the needed regulatory changes (which was done in the summer of 2006) and implementing physical changes to the roadway layout. The functional plan for the roadway layout changes was completed in January 2007 and the engineering design work is now underway.
2. **Creation of a reversing center lane on Chebucto Road.** This employs a center reversing lane within the existing three lane width of Chebucto Road from the roundabout to Sherwood Street to provide two lanes of flow in the peak direction. This is similar to the existing section of Herring Cove Road as it approaches the roundabout. For the reversing lane to transition properly into the existing six lanes on Chebucto Road east of Mumford Road, it is necessary to do some limited street widening through the intersection at Mumford Road. This localized widening is expected to impact nine properties on Chebucto Road.
3. **Widening of St. Margaret's Bay Road to create a center left turning lane from the roundabout to Douglas Drive.** Modeling indicates that left turning traffic on St. Margaret's Bay Road in the westbound direction will create delays that result in queues backing into the roundabout. Creation of a storage lane for left turning vehicles will eliminate those delays. This project also includes the installation of sidewalks on both sides of the street and a designated pedestrian crosswalk. The engineering design work is now underway and the project will be phased over several years. The first phase will be from Keating Drive to Douglas Drive.

Sketches of these projects are provided in Attachment One of this report.

Project History

The section of Chebucto Road between the Armdale Rotary and Mumford Road has a long history of proposed widening dating back to 1965. The 1972 Halifax Dartmouth Metropolitan Area Transportation Plan recommended that this section of roadway be increased to four lanes in width within the next ten to fifteen years. In following years, a number of transportation studies continued to identify the importance of the Chebucto Road corridor and the need for additional capacity in the section between the Armdale Rotary and Mumford Road.

Independent Consultant Review

Phil Grubb, a consultant with Paradigm Transportation Solutions was retained to conduct an independent review of the data, analysis and conclusions which lead to the proposed Chebucto Road Reversing Lane project. Mr Grubb was selected based upon his well-respected credentials in the field of transportation demand management techniques, including high occupancy vehicle lanes. The Chebucto Neighbourhood Association had proposed high occupancy vehicle lanes as an alternative to the Chebucto Road Reversing Lane project. His mandate was to review staff's methodology in recommending the Chebucto project and to review the alternative proposal put forward by the Chebucto Neighbourhood Association.

Mr. Grubb spent a week in Halifax, meeting with staff and residents, and submitted his report on October 25, 2006. That report, which is included as Attachment Two, generally supported the position of HRM staff, but did recommend further analysis and consideration of means to mitigate the project's impact. That additional analysis has been completed and is described below.

Mr. Grubb did not support the suggestion of the Chebucto Neighbourhood Association to implement a short section of high occupancy vehicle lane as it would have "many barriers to overcome and several disbenefits". In particular, he cited the ineffectiveness of a high occupancy vehicle lane on a short section of street like Chebucto Road.

Staff Response to Consultant's Recommendations

The report submitted by Mr. Grubb made four recommendations to HRM staff. Those recommendations have been addressed as follows:

1. *Finalize the recommended improvement plan for the Armdale Rotary and determine the potential increase in traffic demand and impact that will occur on Chebucto Road with the improvement plan in place.*

When Mr. Grubb wrote his report, the functional planning of the roundabout conversion was still in progress. That work is now completed and has determined that the recommended functional layout of the roundabout could accommodate an increased throughput of 300 vehicles in the peak hour if the Chebucto Road Reversing Lane project is undertaken with the roundabout improvements.

The modeling component of this study indicates confirmed that if queues in the morning peak back up on Chebucto Road from the Mumford intersection into the roundabout the operation of the roundabout will be severely impacted. The study determined that a capacity increase on Chebucto Road is needed for the roundabout to operate properly.

2. *Evaluate the net benefit of the project to address the CNA's request to ensure that the proposed improvement does not simply relocate the congestion to downstream intersections. Evaluate the improvement against the "Do-Nothing" option.*

A computer model was employed to provide more detailed analysis of increased flow on downstream intersections. The model confirmed that the Chebucto/Mumford intersection has the greatest capacity constraint of any of the intersections along the Chebucto corridor and that a modest capacity increase at this intersection improves capacity of the entire corridor. The analysis also confirmed that adding capacity to the Armdale Rotary (by its conversion to a roundabout) without doing anything to increase the capacity of the receiving roads would result in significant additional delays and traffic queuing into the roundabout, thereby significantly reducing its ability to serve traffic from all approaches. A summary of this analysis is included as Attachment Three.

3. *If the Chebucto Road reversing lane project is still required, evaluate lower impact design solutions including eliminating the eastbound left turn lane and implementation of possible urban design elements.*
4. *Consider acquisition of the most impacted properties. If properties most affected by the eastbound left turn lane implementation are acquired, this may reduce the need to eliminate it as noted in "3" above.*

In response to Mr. Grubb's third and fourth points, staff agree that a solution with lower property impact is available. Staff have made modifications to the design to eliminate the need for property acquisition on the northwest corner of the Chebucto/Mumford intersection.

There is some concern, however, that eliminating the planned left turn storage lane will compromise the operation of the intersection and cause additional delay. Furthermore, the left turns are the primary movement for Metro Transit buses to access the West End Terminal. Although staff is prepared to consider this reduced width design to minimize property impact, the revised approach with full property acquisition described in Mr. Grubb's fourth recommendation may be a better approach. This approach allows sufficient space for adequate street and sidewalk design, plus the introduction of landscaping elements to create a buffer between the street and remaining properties. An opportunity to discuss this approach with residents and to explore its feasibility will not be available until the issue of whether the project will proceed or not is determined.

Mr. Grubb further suggested that:

Consideration of some urban design components in the project is recommended to address [the issue of aesthetics].

In response to this suggestion, Ekistics Planning and Design were retained to develop some preliminary landscape design ideas to soften the impact of street expansion on adjacent properties. If the project proceeds, these ideas will be pursued further with the design team and the residents.

Mr. Grubb has reviewed HRM staff's response to the issues and, in a letter dated March 14, 2007 (see Attachment Four) he indicates that "we can confirm that the recommendations of our Peer Review have been addressed and that the improvement will provide a more efficient use of the existing road network by providing an additional lane of capacity entering the Peninsula in the morning and exiting in the afternoon."

Connection of the Project to the Regional Plan

The HRM Regional Plan included a detailed computer modeling analysis of the impact of trip-making in the region resulting from future growth. The analysis determined that extensive expansion of the roadway network would be required if the pattern of existing trip-making continued. To avoid the significant fiscal, environmental, and social costs of roadway expansion, the Regional Plan adopted an aggressive approach of developing new transit services and locating future settlement to where it could best take advantage of those transit investments. In addition to enhancing transit services, a plan of developing transportation demand management measures (including high occupancy vehicle lanes and active transportation links) was included.

The ability of those measures to capture trips from single-occupant vehicles was projected using data and experience from other jurisdictions. Despite these measures realizing significant shifts in travel towards transit and other travel means like bicycle and carpooling, there was still found to be a need to accommodate vehicle trips within specific sections of the roadway network. A need for additional roadway capacity onto and off of the peninsula was determined and two projects, the Roundabout/Chebucto and the Fairview Interchange upgrade, were found to provide the needed capacity with minimal cost and impact.

The transportation strategy in the Regional Plan includes a reasonable mixture of public transit investment, transportation demand management programs, and road expansion projects to manage future trip demand at existing levels of road congestion. Staff believes that the plan maximizes our ability to attract trips to these alternative modes. Therefore, to remove any roadway element from the plan without replacing it with a similar roadway project will result in significantly increased levels of congestion. The Chebucto/Roundabout project was recommended based on its ability to provide the needed capacity increase without significant cost or impact on property. The only realistic alternative to this project would be to widen the Bayers Road or Mumford Road corridors, projects with significantly more cost and property impact than the Chebucto Road project.

All three components of the project contribute its success. A computer simulation of the conversion to a roundabout indicates an additional throughput of 300 vehicles per hour in the peak direction. However, this throughput is realized only when the roundabout is able to clear all of its egress points. The functional modeling demonstrated the need for additional capacity on Chebucto Road and accommodation of left turns on St. Margaret's Bay Road to avoid having queues back into the roundabout and hamper its function for all directions of traffic. The modeling also confirmed the

need for signalization at certain entry points and at certain times of the day to prevent one entry direction from dominating access to the roundabout.

A Focus on Transit

A common critique of the Chebucto Road Reversing Lane project is that instead of roadway upgrades, HRM should be investing in public transit, thereby eliminating the need for roadway upgrades. Currently, approximately 18% of all commuting trips within the region use transit and the Regional Plan has set a very aggressive target of increasing that to 23%. This, when most transit systems in North America are striving to maintain existing ridership.

The Regional Plan recommends MetroLink service to Clayton Park, Spryfield and rural express transit along Highway 103 and eventually Prospect Road. The projections of how many trips these services will remove from the roadway network indicate that the need for increased road capacity onto the peninsula will be significantly reduced, but not entirely eliminated.

Neighbourhood Information Meeting

On February 15, 2007, a public meeting was held at St. James Anglican Church and attended by approximately 120 people. Information and displays were provided on the connection of the Chebucto Road Reversing Lane project to the Regional Plan's transportation strategy, the functional layout of the proposed roundabout conversion, and creation of a turning lane on St. Margaret's Bay Road. A presentation was made by Mr. Grubb on the findings in his report as well as a presentation by the landscape architect hired by HRM.

A transcript of the question-and-answer section of this meeting is included as Attachment Five. A summary of written responses received during and after the meeting is provided in Attachment Six.

Next Steps

If the staff recommendations are approved, the integrated process of engineering design, land acquisition negotiation, and public consultation will resume in an effort to create a design that is safe, effective and minimizes impact on property and the community.

If any, or all, of the proposed projects are not endorsed, staff seeks direction from Council on how to proceed with the issue of increasing traffic demands. Staff could redevelop the transportation strategy to include a new, more significant roadway project to replace the Chebucto Reversing Lane project, or quantify the degree to which traffic congestion and delay can be expected to increase.

BUDGET IMPLICATIONS

Capital funding of \$1,200,000 has previously been approved for Capital Project CTV00732-Rotary Conversion/Chebucto Reversing Lane, and additional funding of \$2.7 M to complete implementation is included in the proposed 2007-2008 Capital Budget. Regional Council may deal with the implications of removing all or any of the proposed projects during budget discussions.

FINANCIAL MANAGEMENT POLICIES / BUSINESS PLAN

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

ALTERNATIVES


Alternatives are described in the Discussion section of this report.

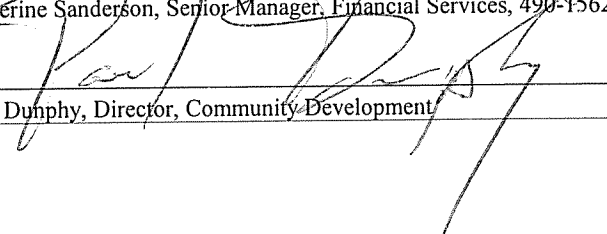
ATTACHMENTS

- Attachment One: Project Sketches
- Attachment Two: Chebucto Road Capacity Peer Review (Grubb Letter dated October 25, 2006)
- Attachment Three: Chebucto Corridor Traffic Analysis
- Attachment Four: Chebucto Road Capacity Improvement (Grubb Letter dated March 14, 2007)
- Attachment Five: February 15, 2007 Public Meeting Transcript
- Attachment Six: Feedback Forms from Public Meeting

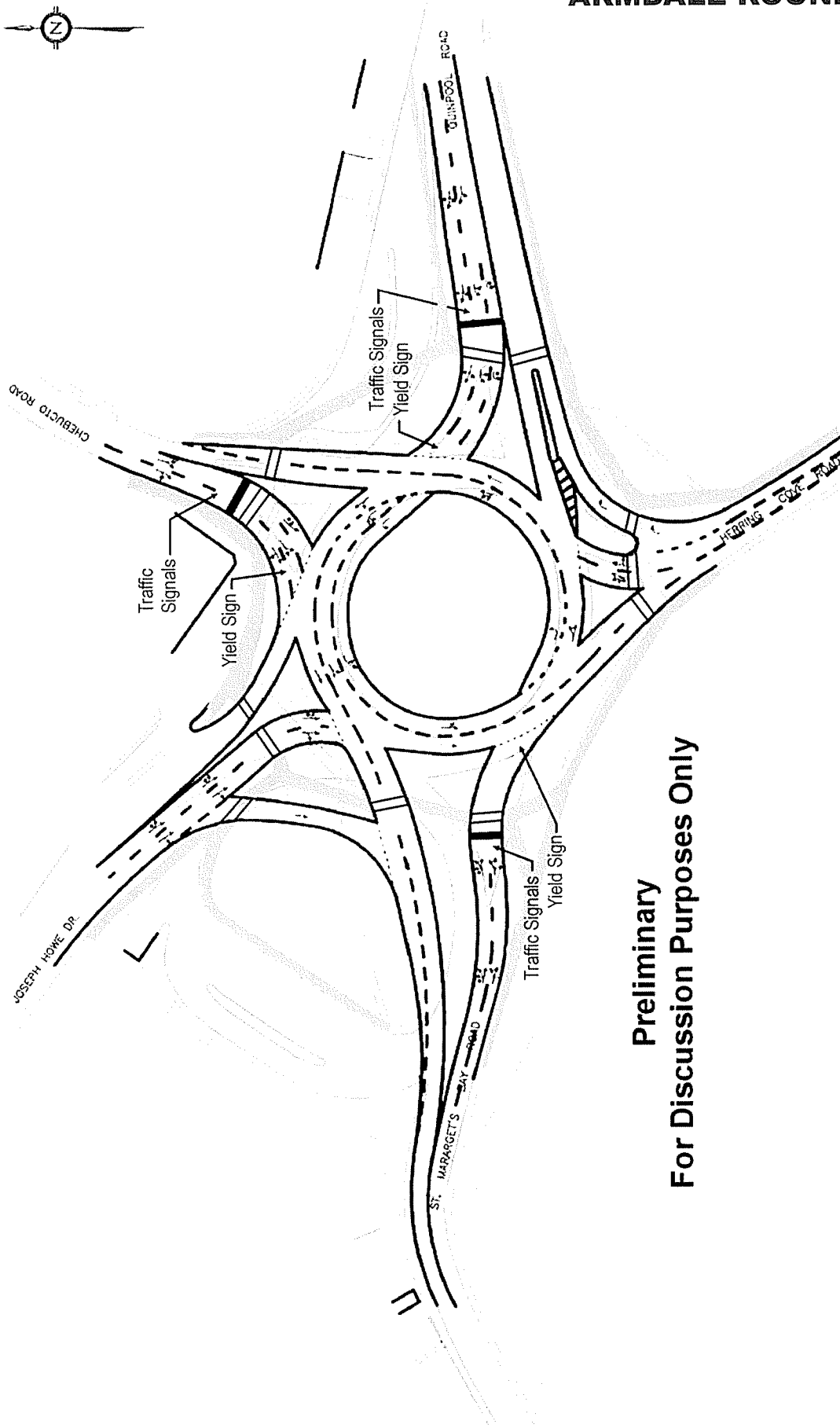
A copy of this report can be obtained online at <http://www.halifax.ca/council/agendasc/agenda.html> then choose the appropriate meeting date, or by contacting the Office of the Municipal Clerk at 490-4210, or Fax 490-4208.

Report Prepared by: Dave McCusker, P.Eng., Manager, Regional Transportation Planning
490-6696

Financial Approval by: 
Catherine Sanderson, Senior Manager, Financial Services, 490-1562

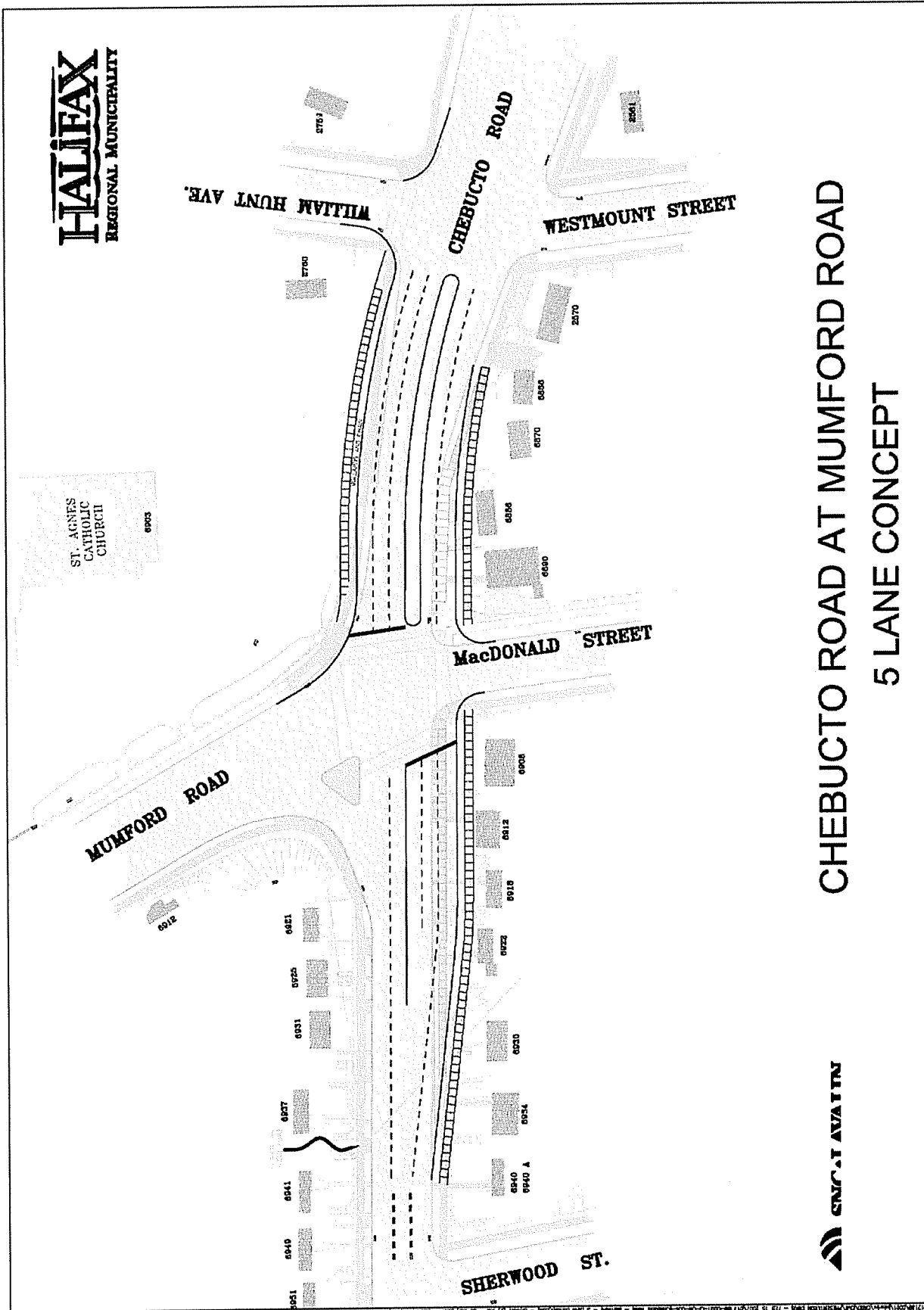
Report Approved by: 
Paul Dunphy, Director, Community Development

ARMDALE ROUNDABOUT

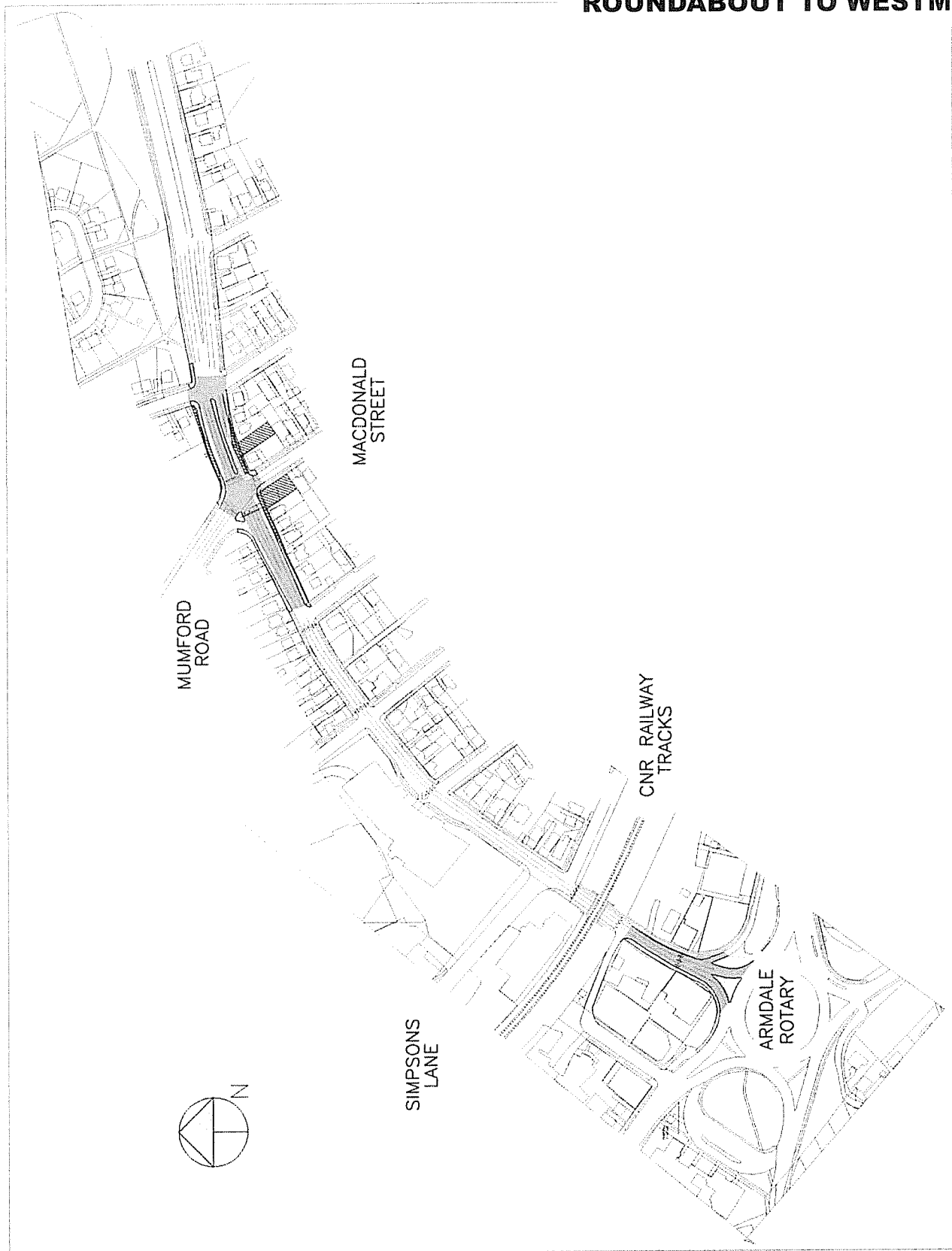


**Preliminary
For Discussion Purposes Only**

**CHEBUCTO/MUMFORD
INTERSECTION WIDENING**



**CHEBUCTO ROAD
ROUNDAABOUT TO WESTMOUNT**





October 25, 2006

Halifax Regional Municipality
PO Box 1749
Halifax, Nova Scotia B3J 3A5

ATTENTION: DAVE MCCUSKER, MANAGER, TRANSPORTATION PLANNING

Dear Mr. McCusker:

RE: CHEBUCTO ROAD CAPACITY IMPROVEMENT PEER REVIEW

The Halifax Regional Municipality (HRM) has adopted a Regional Plan that provides the foundation and strategy from which a Functional Transportation Plan will be developed. The transportation strategy focuses on public transit, active transportation and transportation demand management (TDM) measures to meet future transportation needs. However, the strategy also proposes some expansion and improvement of the road network in strategic locations.

The Project

The Chebucto Road Reversing Lane Project is one of the improvements identified in the Regional Municipal Planning Strategy. This project proposes expansion of the Chebucto Road/Mumford Road intersection to enable efficient use of the existing three lane capacity of Chebucto Road between this intersection and the Armdale Rotary to the west through the implementation of a reversing centre lane. It was previously identified as a Roadway Network Optimization Project that, in conjunction with improvements to the Armdale Rotary, would make the best use of existing roadway infrastructure and help reduce the need to undertake major roadway corridor expansion in this area.

The Issues

The Chebucto Neighbourhood Association (CNA) has raised several concerns with this project. These can be divided into three categories as noted below:

1. *Cost/Benefit:* The net benefit to commuters given the cost of the project should it simply relocate the congestion or queues to downstream intersections. How much time will it save commuters?
2. *Impact:* Its impact on the adjacent community (safety, aesthetics, property values, accessibility to adjacent streets).

3. *Options:* The adequate consideration of other options such as car pooling (HOV lanes) and alternative transportation modes have not been considered.

The CNA has also indicated that the real problem is with the operation of the rotary and that the operation of the rotary should be addressed first.

The Review

Paradigm Transportation Solutions Limited was retained to undertake an independent review of the process used to identify the need for this project and the alternatives. This review was intended to be based on readily available information (see Attachment A), our experience with similar issues/projects and our knowledge of the application of various TDM alternatives. No specific additional analysis was requested as part of this review.

Need and Justification

The need and justification for the project improvement is based on future demand modelling undertaken by HRM staff as part of the development of the Regional Plan. Our review of the analysis of demand indicates that the five east west routes onto the Peninsula are currently close to capacity; in particular Chebucto Road and Quinpool Road. These results agree with our field observations of congestion during the week of September, 27, 2006 where long queues of commuters occur on Chebucto Road and Quinpool Road during the AM and PM peak hours.

With future growth of 20,000 to 30,000 people on the mainland and further economic development of the Halifax Harbour as outlined in the Regional Plan, travel demand forecasts by HRM staff indicate that these conditions will deteriorate further even considering a high (optimistic) diversion of future travel demand to transit, active transportation modes and car pooling through planned TDM initiatives. Planned roadway expansion improvements including the Chebucto Road and Armdale Rotary are intended to maintain congestion to at least existing levels. There will always be a need to accommodate, passenger vehicles including high occupancy vehicles (HOV), public transit and goods movement onto the peninsula as some SOV commuters require personal vehicles for job related or other reasons.

Innovative strategies such as bus rapid transit, fast ferry services, rail transit, community based transportation services, active transportation and transportation demand management are all part of the Regional Plan. While targets for vehicle reduction are included in the Regional Plan, there is no guarantee that these targets will ever be achieved. Most of these strategies will take a long time to have any significant effect on single passenger vehicle (SOV) reduction as public education, infrastructure improvements and TDM initiatives (i.e. increased parking pricing and supply reduction, HOV etc.) are required. These changes need to be implemented carefully given that they affect the personal choice and freedom of individuals. Many of our firm's transportation studies have recommended the implementation of TDM programs in various cities such as London, Guelph and Kelowna with limited if any real progress being made in many cases due to the lack of political will.

Based on the above, it is our view there is a need for increased road capacity onto the Peninsula now and certainly, in the short term future (i.e. 5 years). In the longer term, more of this capacity will be available for conversion to accommodate HOV (transit and passenger vehicles) and additional facilities that support active transportation (i.e. bicycle lanes) as various transit and TDM support programs and facilities are implemented and become successful.

Cost/Benefit

The Chebucto Road project is intended to eliminate lane discontinuity along the corridor. Currently, Chebucto Road varies from one to three lanes in each direction as one travels from the Rotary past Mumford Road to Poplar Street. This lane discontinuity, in particular, the single lane through lane at the Mumford Road intersection reduces the capacity of the corridor. The single east/west through lane at the Mumford Road/Chebucto Road intersection controls the capacity of the corridor and causes the additional lanes upstream and downstream to be underutilized. The project is not a major corridor widening but an intersection widening.

HRM staff have recommended this project for the following reasons:

1. *More Efficient Use of Past and Proposed Corridor Capacity Enhancements:* The intersection improvement will increase capacity of the corridor and allow more efficient use of the past investment in roadway infrastructure on Chebucto Road between Westmount Street and Connaught Avenue and proposed future capacity increases at the rotary, thereby reducing or eliminating the need for a more expensive and higher impact corridor improvement elsewhere.
2. *Benefit to Commuters:* It will reduce the extensive queuing and delays that occur presently and are expected to grow in the future along Chebucto Road and Mumford Road during peak hours.
3. *Prevent Gridlock of the Rotary:* It will prevent queuing on Chebucto Road or Quinpool Road from extending to the Armdale Rotary in the AM peak hour causing gridlock to occur thereby reducing the capacity of the rotary. This is especially important since the planned improvements to the Armdale Rotary is expected to increase its capacity in both directions causing longer queues and more frequent disruption of the rotary by traffic entering Chebucto Road or Quinpool Road without a capacity increase along the Quinpool/Chebucto Road corridor.
4. *Maintain Existing Mobility Levels in Future:* Planned roadway expansion improvements including the Chebucto Road and Armdale Rotary are intended to maintain existing mobility levels to/from the Peninsula in the future.
5. *Lower Cost Capacity Investment:* Quinpool Road as an alternative is currently operating at capacity and would require more than one intersection improvement and higher cost/impact to increase its capacity to the same degree.

The rationale for the proposal to implement the Chebucto Road improvement is, in our opinion, reasonable and supportable provided that HRM can demonstrate that the following conditions can be met:

1. The proposed capacity enhancements to the rotary will accommodate any expected increase in westbound PM peak hour traffic from Chebucto Road with the intersection improvement in place.
2. The project will eliminate the impact of eastbound queues in the AM peak hour from affecting the operation of the rotary.
3. There is a net benefit in travel time savings, fuel consumption and emission levels to justify the project.

In summary, the CNA's request to provide more quantitative analysis to ensure that the proposed improvement has a net benefit and does not simply relocate the congestion to downstream intersections (i.e. Connaught/Chebucto, Connaught/Quinpool, Chebucto/Oxford, the rotary) is reasonable and should be provided through modelling of "before" and "after" conditions.

Community Impact

We offer the following comments to address the CNA community impact issues related to the Chebucto Road/Mumford Road intersection widening project:

1. *Property Impact:* The Chebucto Road intersection improvement will physically affect approximately 180m of the 700m stretch of Chebucto Road between Westmount Road and the rotary by reducing the front yards of up to 12 residential homes by an amount ranging from 0 to 3.5m as it is proposed. The CNA has requested that HRM eliminate the eastbound left turn lane at the Mumford Road intersection by prohibiting left turns. Subject to further analysis by HRM, we anticipate that this is a reasonable design alternative to consider and should provide most of the capacity benefit that would otherwise be achieved while reducing the property impact of the project. As HRM buses must turn at this location, the left turn prohibition would exclude transit vehicles.
2. *Property Values:* We do not have the expertise to address this issue. However, this issue could be addressed by qualified real estate appraisal firms. In our experience on similar projects, this issue is very difficult to address in a quantitative manner. It is our suggestion that HRM consider retaining a qualified appraiser to address this issue or to consider acquiring properties that are most significantly affected.
3. *Aesthetics:* Consideration of some urban design components in the project is recommended to address this issue.

4. *Accessibility:* It is our opinion that accessibility from side streets along Chebucto Road will not be significantly affected by the reversible lane project. The additional lane in the peak direction will help create more gaps in the traffic stream. As currently exists today, motorists in the curb lane will likely continue to provide the courtesy of allowing local residents to enter the road from side streets. For left turn movements, the use of Quinpool Road (via right turn) or turning left at the Mumford/MacDonald traffic signal provide alternatives for local residents.
5. *Safety:* Changes to pedestrian safety will not be significantly affected as the widening is focused in the vicinity of the Mumford/MacDonald intersection. Pedestrian safety in this area will be enhanced by the proposed implementation of a southbound dual left turn from Mumford Road. This dual left turn will only be permitted during a protected phase eliminating the condition that currently occurs where left turns are permitted to cross the east pedestrian crosswalk when pedestrian crossings occur. Further, elimination of the eastbound left turn lane will reduce the width of road required to cross on the west leg. Textured interlocking brick cross walks could be installed as part of an urban design element to visually enhance the crossing area. In our experience, pedestrian safety is not significantly affected by the requirement to cross five lanes at signalized intersections.
6. *Street Maintenance:* Snow removal and storage will not be significantly affected as the most significant boulevard reduction will occur within 40m of the intersection.

It is our view that the project is sensitive to reducing the community impact in that a reversible lane is proposed to effectively provide the capacity of a four lane facility for the peak direction of traffic within the existing three lane cross-section. In this way additional widening of the roadway is avoided.

CNA HOV Alternative

We applaud the CNA for their initiative to become engaged on the issues and for the many hours of volunteer time that has been expended to date. Unfortunately, we cannot support the alternative of simply converting Chebucto Road, from the rotary to Mumford Road, a HOV only facility during peak hours without implementing the proposed intersection widening and reversible lane. 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:

1. *Legislation:* We understand legislation does not currently exist to implement HOV facilities in the Region.
2. *Local Property and Business Impacts:* Restricting traffic to HOV users only during peak hours would create issues in obtaining reasonably direct access to local businesses and residences by SOV motorists. To obtain access, increased use of streets within adjacent residential areas would occur causing neighbourhood impacts within these areas. Access to businesses by SOV users would be very inconvenient. In our experience, successful HOV facilities are not implemented on existing arterial roads without retaining lanes for general purpose use.

3. *Acceptance:* Taking existing general purpose lanes away from SOV drivers generally leads to significant public controversy. HOV lanes have improved acceptance when a new lane is added for the purpose of accommodating high occupancy vehicles.
4. *Effectiveness:* The implementation of such a facility in this short stretch of road would not necessarily generate more HOV use or provide increased people movement capacity. Many existing HOV users already on other facilities such as Quinpool Road, Bayers Road and Mumford Road will divert to Chebucto Road if it offers improved travel time and they can avoid delays currently experienced on other routes into the Peninsula. This would effectively reduce any increase in person carrying capacity onto the Peninsula as existing HOV drivers will effectively use up the capacity available and therefore any incentive for SOV motorists to car pool.
5. *Need Supporting Programs:* Successful HOV facilities need to be part of an overall Transportation Demand Management Program that includes such measures as public education, promotion, congestion pricing, limited parking supply, and high parking costs at destination, ride matching programs, employer guaranteed ride home programs and conveniently located park and ride facilities. Many SOV drivers cannot car pool or use public transit as they work odd hours or require their vehicle for work. Research on barriers to car pooling and measures to encourage car pooling at a major employment centre in Waterloo is attached (Attachment B).
6. *Substantial Time Savings:* Successful HOV lanes need to generate substantial time savings to encourage car pooling. The proposed short section of HOV may not be substantial enough to convert SOV users. Generally, a longer network of HOV facilities is required to encourage HOV use.
7. *Institutional Support:* Needs strong support from public officials and transportation agencies.
8. *HOV Better With Reversing Lane Project:* The reversing lane project proposed by HRM has higher person carrying capacity than the CNA proposal. As well, when conditions are right for the implementation of an HOV facility, the Chebucto Road Reversing Lane project will also generate greater person carrying capacity than the CNA proposal and is therefore a better long term solution if HOV was to be implemented along the corridor during peak periods with one general purpose lane and one HOV lane in the peak direction of travel.
9. *Congestion Impact:* The CNA proposal will reduce congestion on Chebucto Road to some degree but it will increase traffic demands on Quinpool Road. Given that this facility is now operating at capacity and queues frequently extend almost to the rotary, any increase in traffic can be expected to cause queues to extend to the rotary causing gridlock to occur.
10. *Signage/Enforcement:* Given that the HOV facility would begin at the rotary, signage would be difficult for motorists to observe due to the need to focus on adjacent drivers in the rotary. Many SOV motorists may enter the roadway not knowing that the lane is HOV only and will need to either continue or turn around. Much confusion would result.

We agree with the concept of HOV and creating people carrying capacity rather than vehicle capacity as suggested by the CNA. This concept is embedded in the Regional Plan and is intended to be the focus of future transportation in the Region. However, some limited road projects are required to support this concept including the Chebucto Road Reversing Lane project which may provide for an effective short term capacity increase and as well as an effective long term solution.

Other Options

The CNA has expressed the concern that HRM has not adequately addressed other innovative strategies such as Water-based strategies (i.e. fast ferries), rail based strategies (i.e. light rail transit), HOV, express bus and active transportation. Most of these strategies are part of the Regional Plan, will take many years to implement and require a considerable amount of planning and funding to implement. They have been examined to some degree by HRM staff but not as an alternative solution to Chebucto Road. Over the long term, if these initiatives reduce travel demands on Chebucto Road to eliminate the need for the reversing lane project, the additional pavement available as a result of this project can be used to for HOV and/or bicycle lanes to support the overall transportation vision.

At the May 30th, 2006 meeting of Regional Council a motion was passed that staff be directed to come forward with a solution that would work better than the Chebucto Reversing Lane Project and alternatives that would ensure safe and effective flow without enticing more drivers than the usual patterns to utilize the Armdale Rotary including but not limited to a parclo, tunnel, bridge and overpass.

A partial grade separation (overpass) of some of the approaches to Armdale Rotary was examined in 2002 in the Halifax Peninsula Traffic Capacity Opportunities Study. In general, it is expected that a parclo, tunnel, bridge or overpass could be implemented at a significant cost to improve safe and effective flow at the rotary. These could be designed to not increase capacity onto the Peninsula as requested above. However, lower cost at grade configurations of the rotary are being considered to address the objective of safe and effective flow. In any event, improvements to the operation of the rotary will not likely effect the need for the Chebucto Road Reversing lane project unless the capacity of the rotary is reduced creating even more congestion on its approaches.

CNA Questions

At a meeting with the CNA representatives, additional questions were raised for Paradigm to address. These are further discussed below:

1. *Chebucto Road/Armdale Rotary Relationship:* A solution to the operation of the Armdale Rotary is currently being developed under a separate contract with HRM. The two projects are interrelated as the amount of traffic that enters or leaves Chebucto Road is controlled by the capacity of the rotary. If improvements to the Rotary increase its capacity to accommodate more traffic to/from the Peninsula, this will increase the need for the Reversing Lane solution. If the solution reduces the capacity of the rotary, queuing and delays on Chebucto Road will increase in the PM and decrease in the AM. While decreasing the capacity of the Rotary may or may not eliminate the need for the Reversing Lane project it will cause significantly increased congestion on Chebucto and Quinpool and on the Peninsula in general in the PM and on Bay Road and Herring Cove in the AM. Furthermore, this would increase traffic demands on neighbourhood roads to bypass congested areas and cause difficulties for emergency services. In general, once the plans are approved for the Rotary then the need for the Chebucto Road improvements will be confirmed. The construction would desirably occur at the same time.
2. *Public Participation:* It is our view the neighbourhood should have been informed of the project early in the planning process by reviewing the need and justification and introducing some of the alternatives to obtain input at that stage. A second meeting to review the selection of the alternative and obtain further input on its design would then follow. This is especially the case given that the project has land requirements and is within a residential neighbourhood.
3. *Evaluation of Options:* There are very few feasible options to the Chebucto Road project. However, with every project proposal, it is our view what ever options are available should be evaluated against each other.
4. *Trial HOV Implementation:* For reasons noted above, a trial HOV implementation would likely not be successful. A bad experience with such an initiative would negatively influence future potential implementation of further HOV initiatives.

Conclusions

Based on our review and experience we offer the following recommendations for HRM related to the Chebucto Road project:

1. *Finalize Rotary Improvement Plan:* Finalize the recommended improvement plan for the Armdale Rotary and determine the potential increase in traffic demand and impact that will occur on Chebucto Road with the improvement in place.
2. *Operational Analysis of Chebucto Road Reversing Lane:* Evaluate the net benefit of the project to address the CNA's request to ensure that the proposed improvement does not simply relocate the congestion to downstream intersections (i.e. Connaught/Chebucto, Connaught/Quinpool, Chebucto/Oxford, the rotary). Evaluate the improvement against the "Do-Nothing" option.
3. *Evaluate Reduced Impact Solution:* If the Chebucto Road reversing lane project is still required, evaluate lower impact design solutions including eliminating the eastbound left turn lane and implementation of possible urban design enhancements.

4. *Property Acquisition:* Consider acquisition of the most impacted properties. If properties most affected by the eastbound left turn lane implementation are acquired, this may reduce the need to eliminate it as noted in "3" above.

We trust that this review will assist the HRM and the CNA relative to the Chebucto Road issue.

Yours very truly,

PARADIGM TRANSPORTATION SOLUTIONS LIMITED



Phil Grubb., P.Eng.
President

chebucto road peer review.doc

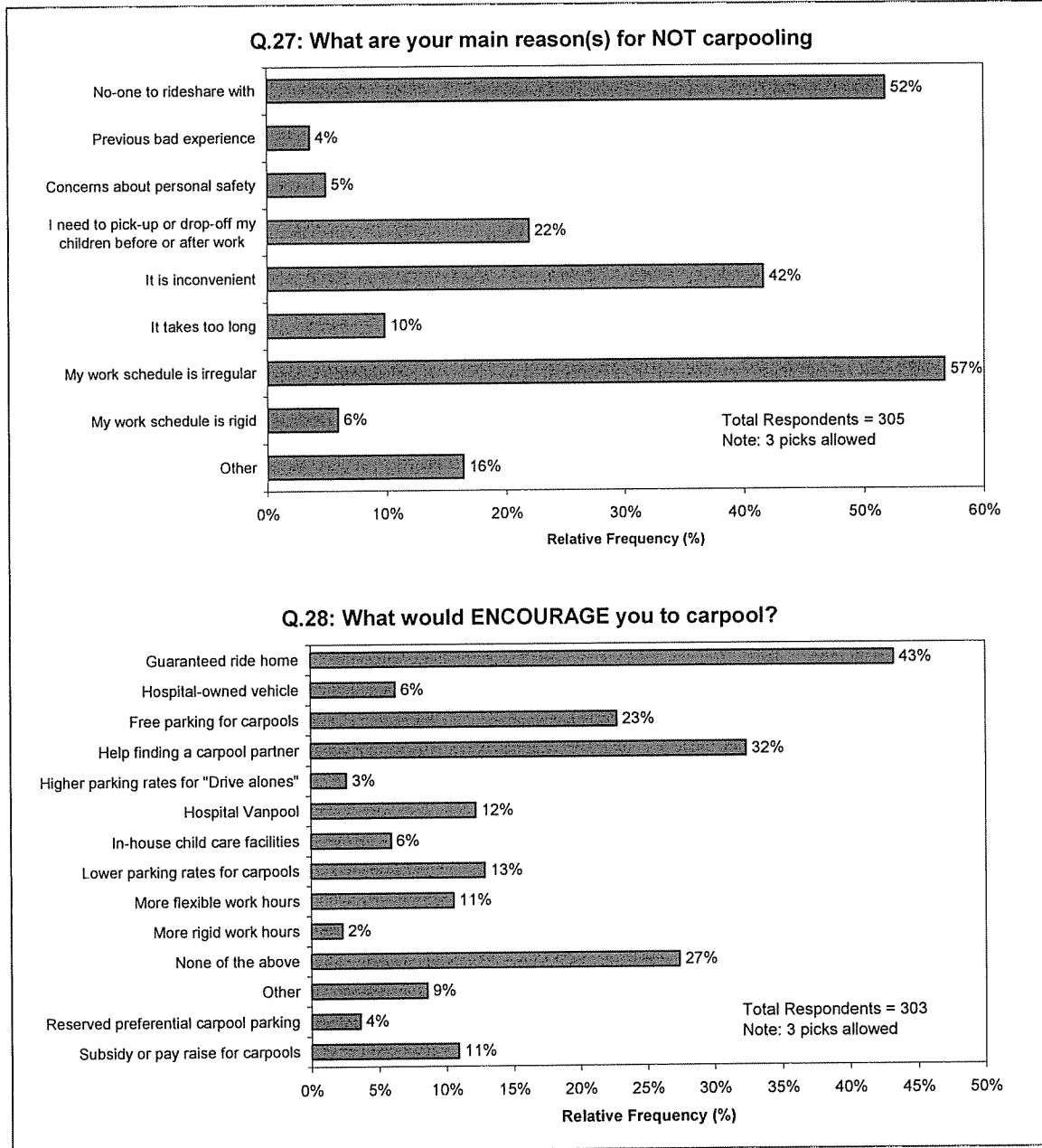
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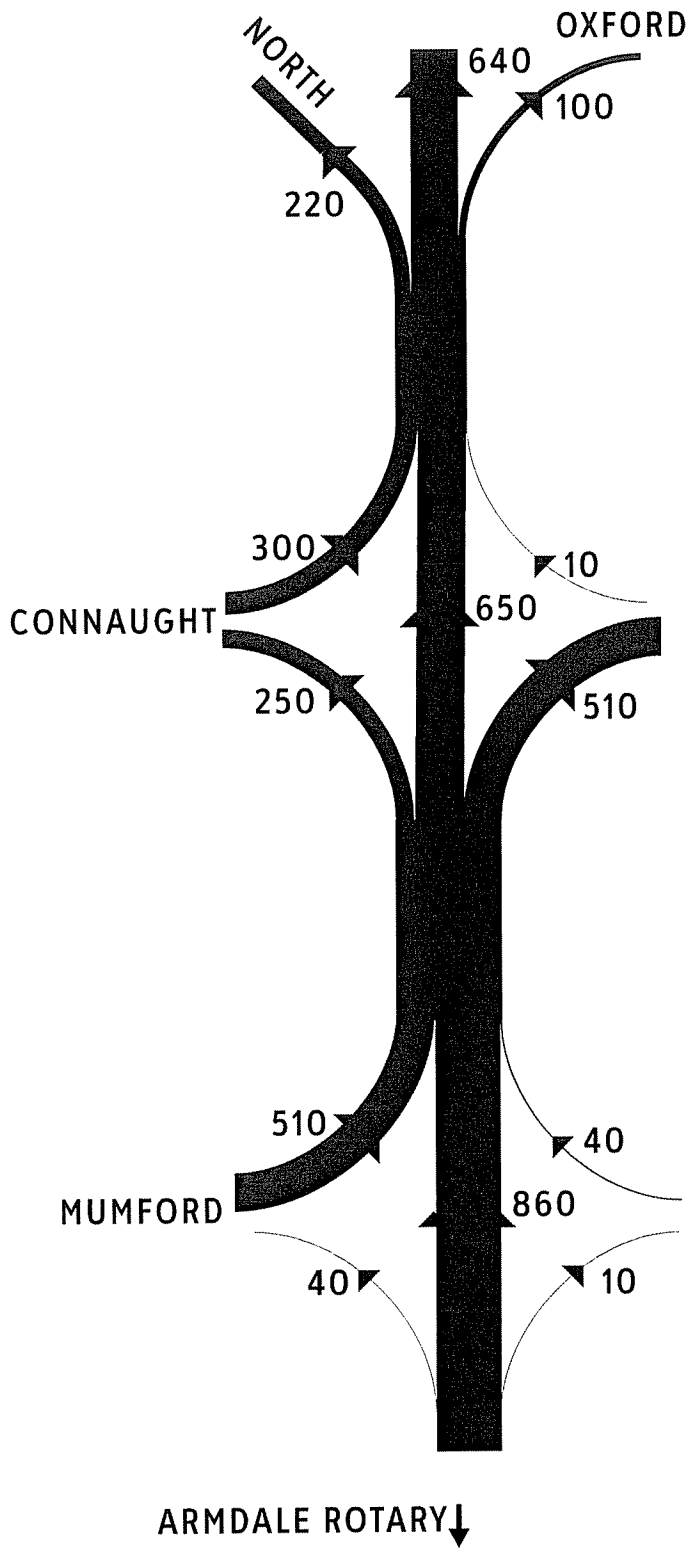
ATTACHMENT A
CHEBUCTO ROAD REVERSING LANE PROJECT
DOCUMENTS REVIEWED

1. Notes for Mr. Phil Grubb Regarding HRM's Proposal to Widen Chebucto Road, Andrea McQuillin, CNA, Sept. 26, 2006.
2. Letter from Dave McCusker to Phil Grubb, September 26, 2006 and Screenline Analysis Attachments.
3. CNA Web Site, Working Toward a Better Solution to Armdale Rotary Congestion, Additional Information (letter, news articles), September, 14, 2006.
4. Letter from Andrea McQuillin, CNA, to June 26, 2006.
5. Chebutco Road Reversing Lane Project, June 13, 2006, Staff Report, Regional Council.
6. Letter from Andrea McQuillin, CNA, to Paul Dunpy dated June 12, 2006.
7. Halifax Regional Council Minutes, May 30, 2006 related to Chebucto Road.
8. Halifax Regional Council Presentation and Attachments by CNA, May 30, 2006.
9. Halifax Regional Council Minutes, May 9, 2006 related to Chebucto Road.
10. Alternatives to Widening Chebutco Road, Andrea McQuillin, May 30, 2006.
11. Letter from Andrea McQuillin, CAN, to Mayor Kelly, May 26, 2006.
12. Regional Council Minutes, May 16, 2006, Delegations regarding Regional Plan.
13. Public Information Meeting Notes, Chebucto Road Reversing Lanes Project, April 27, 2006.
14. Regional Municipal Planning Strategy, April 2006.
15. Memo from Andrea McQuillin to Mayor Kelly, Request to Speak, May 17, 2006.
16. Roadway Network Optimization Plan, May 11, 2004, Staff Report, Regional Council.
17. Roadway Network Optimization Plan, April 28, 2004, Staff Report, Regional Council.
18. Halifax Peninsula Traffic Opportunities Study, Final Report, April 2002.

ATTACHMENT B: BARRIERS AND INCENTIVES FOR CAR POOLING

CLARICA INSURANCE COMPANY/ GRAND RIVER HOSPITAL WATERLOO

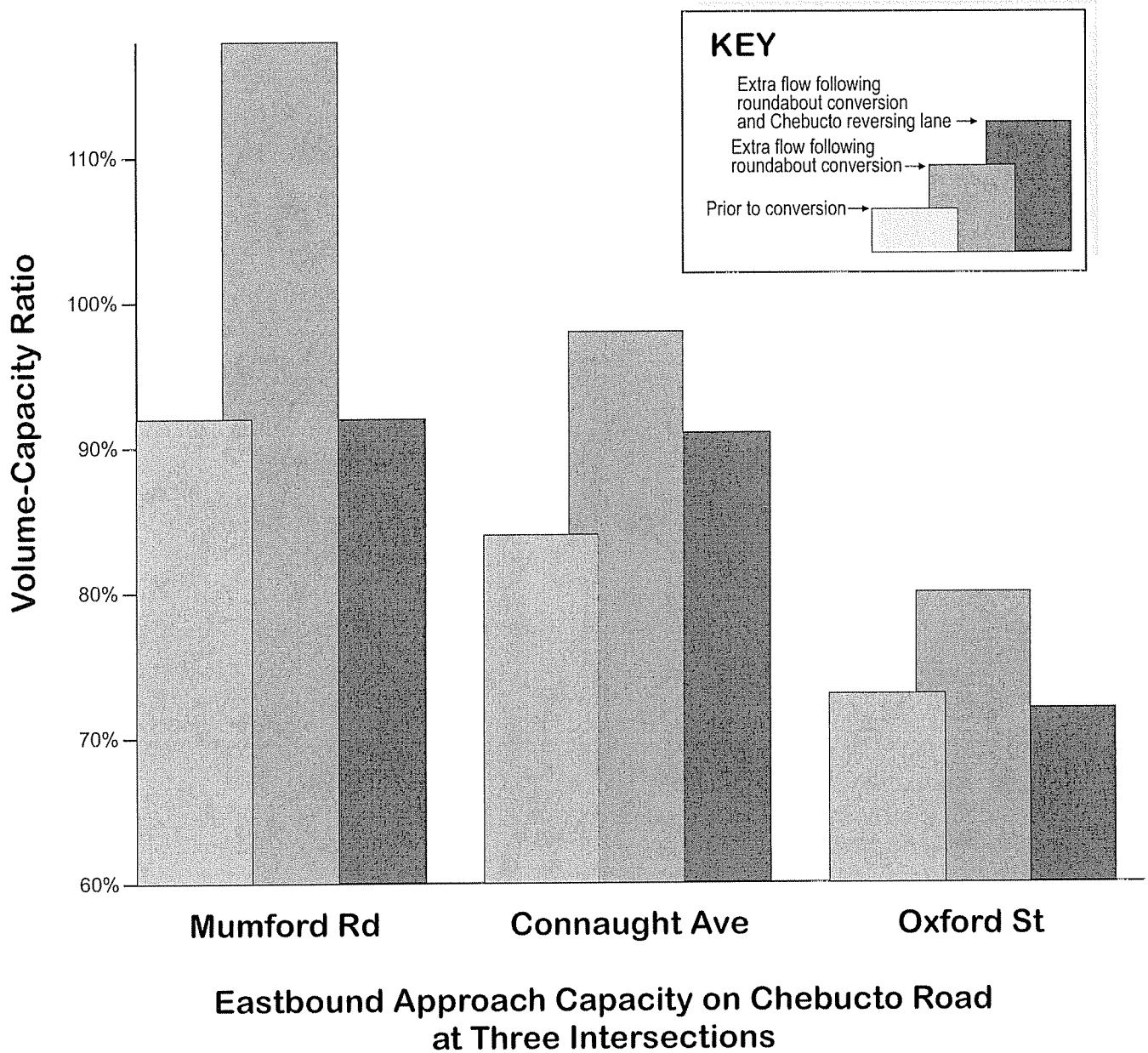




Numbers are rationalized based on manual turning movement counts taken in Oct/04, Jun/05, and Jul/05.

Not to scale.

VOLUME-CAPACITY RATIOS AT INTERSECTION ON CHEBUCTO CORRIDOR



Figures are for AM peak hour



March 14, 2007

Halifax Regional Municipality
PO Box 1749
Halifax, Nova Scotia B3J 3A5

ATTENTION: DAVID MCCUSKER, P. ENG., MANAGER, REGIONAL TRANSPORTATION PLANNING

Dear Mr. McCusker:

RE: CHEBUCTO ROAD CAPACITY IMPROVEMENT

Further to your request, we have reviewed the information provided in relation to the recommendations outlined in our Peer Review dated November 3, 2006. These are outlined below along with our comments resulting from additional work undertaken in addressing them.

- 1. Finalize Rotary Improvement Plan: Finalize the recommended improvement plan for the Armdale Rotary and determine the potential increase in traffic demand and impact that will occur on Chebucto Road with the improvement in place. The recommended improvements to the Rotary have been finalized and the analysis provided indicates that the resulting capacity improvements will result in an estimated increase in eastbound traffic demand on Chebucto Road of 300 vehicles per hour in the AM peak hour.*
- 2. Operational Analysis of Chebucto Road Reversing Lane: Evaluate the net benefit of the project to address the CNA's request to ensure that the proposed improvement does not simply relocate the congestion to downstream intersections (i.e. Connaught/Chebucto, Connaught/Quinpool, Chebucto/Oxford, the rotary). Evaluate the improvement against the "Do-Nothing" option. Without the reversing lane project, the intersection of Chebucto Road will fail causing eastbound traffic queues at the Mumford Road to extend into the Rotary thereby causing gridlock to occur and effectively eliminate any benefit from the proposed improvements to the Rotary. The analysis indicates that the gridlock will be eliminated with the reversing lane project and the increased traffic demand can be absorbed by downstream intersections. Therefore, the project will not simply relocate traffic congestion or gridlock downstream on Chebucto Road. The corridor analysis provided indicates that the improvement will as well reduce traffic delays in the area by about 25%, reduce fuel consumption, reduce the rate of vehicle emissions and reduce the number of vehicle stops along the corridor. It will reduce traffic delays for both transit and vehicles using the corridor. It will also reduce congestion on Mumford Road. It will improve the people movement capacity along the corridor now and in the future.*

3. *Evaluate Reduced Impact Solution:* If the Chebucto Road reversing lane project is still required, evaluate lower impact design solutions including eliminating the eastbound left turn lane and implementation of possible urban design enhancements. *As noted above, the reversing lane project is still required and has many benefits. It is our understanding that the recommended improvement will eliminate the originally proposed eastbound left turn lane thereby reducing property requirements. Urban design enhancements are also proposed to visually improve the project.*
4. *Property Acquisition:* Consider acquisition of the most impacted properties. If properties most affected by the eastbound left turn lane implementation are acquired, this may reduce the need to eliminate it as noted in "3" above. *The eastbound left turn lane has been eliminated as the analysis indicates that it is not needed to support future traffic increases.*

Given the above, we can confirm that the recommendations of our Peer Review have been addressed and that the improvement will provide a more efficient use of the existing road network by providing an additional lane of capacity entering the Peninsula in the morning and exiting in the afternoon.

Yours very truly,

PARADIGM TRANSPORTATION SOLUTIONS LIMITED



Phil Grubb., P.Eng.
President

Chebucto Road Compliance.doc

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MINUTES
CHEBUCTO PUBLIC MEETING
THURSDAY, FEBRUARY 15, 2007
ST. JAMES ANGLICAN CHURCH

We're about to begin the presentation if you would like to take your seats. Okay, we're going to start in one minute if those of you who haven't taken your seats, please do so.

Thank you very much everyone for coming out to this public meeting. My name is Ken Donnelly and I'm just going to act as a moderator this evening and I'd like to introduce, we have a number of councillors here. We have Councillor Fougere in the back there, beside her Councillor Adams, Councillor Mosher. I knew I'd seen you come in and Councillor Walker is here as well. Thank you very much.

Just a few things, washrooms are over here just behind that wall. Cell phones, if you could turn them off; they all have off switches; I'd appreciate that, or just put them on vibrate or something.

We're going to have a number of presentations and we'll have some questions and answers after the presentations, so excuse me, bad time to start losing your voice. We have a number of speakers here at the front panel, and they're going to speak, you can see their subjects there. The first is Dave McCusker with HRM who is going to give an overview of the Regional Plan and beside Dave we have Phil Grubb from Paradigm, who is an independent consultant who is going to talk about the Chebucto Road Project Review that he did and then Ken Reashor is going to talk about the roundabout conversion and the Bay Road and then Rob LeBlanc from Ekistics is going to talk of Urban Architecture and opportunities and show us some pictures and that sort of thing and then I'll just wrap up with the next couple of steps after the questions; so we'll have questions right after Rob speaks. We're going to try and have all the presentations done in about half an hour so there'll be lots of time for questions, okay?

All right so with that bear with me for a second, I'm just going to take a minute or two to speak a little about how we got here as I understand it. First of all, HRM staff identified Chebucto Road as one of the few bottlenecks in HRM and were to be addressed and Council approved funds for the design a new design for Chebucto Road and also approved funds for property acquisition. So at that time, staff developed a design and then contacted the affected landowners in the area who would be affected by the design. But it was at that time that others in the community became aware of the project and as I understand it and after probably getting a number of phone calls, Councillor Fougere asked for a public meeting be held and a public meeting was held and at that public meeting, residents identified concerns about the project and told staff about some ideas they had, so alternative ideas. So then staff took the results of that meeting and presented it to Council and Council asked to engage the Chebucto Road Neighbourhood Association and the residents of the area more fully. So HRM hired a consultant here, Phil Grubb, an independent consultant to undertake a review of the process so far and the need for the project and potential alternatives from the designs that had been developed. So Phil, the consultant met with the association. He took a lot at how the work was done, look at the process behind and the design itself and examined those alternatives. So this meeting primarily is for Phil to allow the independent consultant to present his findings directly to the residents of the community without a filter, to allow yourselves to find out more about the traffic projects, there are three of them being considered in this area and to gather input from residents. So hopefully that short introduction, Dave McCusker is going to talk about the regional plan and give us some background and then we'll get into Phil's presentation.

Dave's presentation took approximately six minutes at which time he passed the mike over to Phil. Phil's presentation took approximately 20 minutes. Ken Donnelly stated that the next two presentations would be much shorter and then introduced Ken Reashor, HRM's Traffic Authority, who would be speaking on the roundabout and the Bay Road. Ken spoke for approximately six minutes. Ken said that he was assured that the last presentation would only take three or four minutes at the most. He introduced Rob

Leblanc who would be speaking of urban architecture design from Ekistics and then we will get right to the questions. Rob spoke for approximately four minutes.

Ken thanked Rob and explained how the question and answer session would proceed and apologized for the lengthy time it took for the presentations. He explained that in order for everyone to get a chance to ask questions, that they were to proceed to the mike and introduce themselves, where they lived and then ask their questions. He explained that each person was to be limited to three minutes to avoid giving speeches instead of asking questions so that everyone could have a chance to have their questions answered.

Carolyn King - resident of Chebucto Road - "I stand to lose my front yard for this lovely project and for that I've been offered three thousand dollars I just might add. Anyway, not even American, just the Canadian but my question gets back, I appreciate your report so that and yes the key thing that you're trying to tell us is that we will spend many millions of dollars, several millions of dollars anyway for this project, to increase the capacity, so that more cars can travel faster up Chebucto Road and you've already made mention to take five to ten minutes off the commute into the city isn't much of an incentive. Can you give us what your proposed project - how much time is that going to save these people sitting in the rotary so they so they can get downtown faster with the proposed reversing lane.

Dave answers: From the modeling we did there's no time saving for additional commuters. The volume to capacity ratio stays the same afterwards as it has been. The issue for us is providing more additional capacity for more trips onto the peninsula which is generated from future growth in the region. As I say, the majority of those future trips are managed through Transit but there is some need for additional vehicle trips and that has increased with the project. The other issue in terms of time saving is if those queues do back into the roundabout, there are significant delay penalties because of the congestion in the roundabout and there is some added delay there and we do have some numbers on those, I'm not sure what it is but it's in the order of two to three minutes of additional delay for each vehicle if the roundabout itself gets clogged.

Alan Ruffman - Ferguson's Cove - so I do use the rotary each day and I will say that I think the conversion to a roundabout has been really quite successful and I was very skeptical I gotta say when I first heard about it. Yeah the rotary works fairly well but I think it works much better for most people and there is the odd time like a snowstorm on a Monday afternoon when nothing can help but I'm impressed that the assumption we have here entirely the assumption is that we're going to lay back and let as much traffic as come into the rotary as we possibly can, yes and maybe the Tantallon bus will take a little of it but I would try everything under the sun to reduce the traffic entering the rotary hence and the principle I would say to operate on is that we don't let our community that's been here for two hundred and fifty years effectively get raped by the demands of suburban traffic. I spent a week in London, walked a mile from my hotel to the conference I was at and I was impressed of how little traffic there was. We aren't London England obviously but the reason there is so little traffic in the morning hours is people pay a toll and I paid that toll in Oslo and they're installing that toll in Copenhagen. This peninsula is extremely easy to introduce that concept so in effect before we start tearing up our streets and in effect trying to ruin peoples' neighbourhoods, and I'm sorry those houses may only get three thousand dollars but in fact you ain't gonna probably want to live there anymore and I feel that so strongly that look at all those other alternatives. Sorry if you're moving out to Tantallon and you're willing to commit that amount of time to commute then you pay a penalty and the penalty is at the rotary, the Fairview interchange and a couple of other places and in effect that's aggressive, that we don't have to spend a lot of money. You could even try these HOV lanes with very little expense. I think you could try the experiment and Phil is concerned that you will move the problems elsewhere but it seems to me try those experiments for six months or three months experiment. The roundabout was really successful. Let's be imaginative and be transportation engineers as opposed to traffic engineers and I think that's what we need.

Jim Crouse - Spryfield-Sambro area - and I've lived here for over twenty-five years and it's too bad we

didn't have all these wonderful ideas when we were building the MicMac Rotary because that sure is a mess over there right now. They obviously must have made the wrong decision but you want to get to the point just like Mr. Ruffman said that we gotta make it more attractive for people not to take their cars into the downtown area. I've taken my wife to work in the morning and driven back home along Chebucto along Quinpool and in the morning rush hour and 90% of the cars have one person in them, 90% and the reason that is it's because it's more attractive for them to take their cars than to use public transit. We have a transit system, yes we do, but we do not have a transit service. Its gotta be a service. Why take buses when you're going to sit for the same length of time in traffic as you would if you were driving the car by yourself. It's gotta be more attractive, the surcharge in the downtown area, more expensive for parking, whatever, bus lanes, I mean two people in a car, two people that isn't going to alleviate the problem, if you got three people or more okay fine. Make the bus lanes more attractive. Now, in closing I got one point I'd like to make about Chebucto Road. At the present time in the evening traffic going home, let's fix the evening traffic that along Chebucto Road east of Mumford, you got two lanes, one of them is going to continue on down Chebucto, the other one is going to turn right onto Mumford, however the thing that really ticks me off are the lane jumpers. You got lane jumpers wanting to get in all the time and I'm sorry if I'm in the car you're trying to butt in on, you ain't getting. What's going to happen when we widen this road, all those lane jumpers are then everybody who wants to go up the Herring Cove Road is going to be in both lanes, they're going to breeze through Mumford Road blocking the right turn access up Mumford Road off of Chebucto. They're going to go down there and right about the bridge, they're going to all of a sudden decide oh, I'm not going to St. Margaret's Bay, I'm going to Herring Cove Road and so let me in, uhuh, that ain't gonna happen on me. Policing the lane jumpers is gotta be done, solid lines, whatever, right turn only, this lane only, a similar problem with this in the morning when you come down the Herring Cove Road because you got to go in the right lane, the other lane, because the right lane goes into the bus lane up Quinpool Road. The other lane runs on into the Rotary up Chebucto Road or um St. Margaret's Bay Road or Dutch Village Road. However, check out the number of people take the easy route down and jump in on everybody except me. Thank you.

Mike Christie - resides at the bottom of the Bay Road - and I agree with an earlier speaker that the roundabout is a great improvement. As a frequent flyer through the rotary/roundabout I think it does work better. My concern is the widening of the Bay Road. We got some nice trees there that might have to come down if there's any sort of widening and I guess we would prefer it not to happen. I heard a couple of times that the reason we're doing the widening is for the left turning lane to avoid any back up into the roundabout but I guess in our experience antidotally, we have never seen it back up into the rotary and I'm just wondering if you've got any gathered data on that and if that could be made available.

Ken's answer - Yeah, Mike I live on the St. Margaret's Bay Road as you know and I certainly see it but I usually sit there for an hour to two hours watching traffic. Most people that make observations one minute, two minute, five minutes look at things. Certainly we did it in the modeling and the modeling shows back up and again it's not all the time but it's almost instantaneous as soon as somebody wants to turn left into the properties very close to the rotary and obviously into the Needs store it backs up very quickly and it's something to have to sit there and observe and certainly with the modeling obviously the ability, the people that are getting to the St. Margaret's Bay Road are actually being hampered right now by the ability of the rotary to function as well as it can so there is a pent up demand so what you will see is cars getting there faster not that they're going to get out any faster to get on the St. Margaret's Bay Road but they're going to build up so that's the reason we need the extra lane and the reason we're only making it a left turning lane is not to increase traffic but for the left turners and we're clearly not trying to route more traffic but we're just trying to accommodate what traffic needs to get there and far enough away from the rotary so that it doesn't affect the other users.

(Mike) As a follow up Ken, so far all we have received for our property specifically is a request for an easement construction. At what point will we know the distances involved of how much the road and the sidewalk will expand into our property.

Ken - You will actually be given a plan with the details if there is any property requirements or how wide the easement is. That'll be provided in the drawings specific to your property.

Mike - Ball park idea of when that will happen Ken.

Ken - Well, we're right in the middle of the detailed design right now. I know property owners have been given letters, some cases they have been given sketches. There actually have to be legal surveys done so we can actually identify so you'll be able to see where on the property, where those are located. The actual survey is probably not going to happen until later on in the summer. We normally get an estimate of what we think the property is and we get the final details from the detailed survey because we clearly have to go out and establish existing pins so on and so forth.

Mike - I'm not going to push you for information you don't have but do you think we're talking weeks, months.

Ken - Well the detailed survey will be months but the indication and it will be very close to that but we were able to verify very closely and that should be within a matter of a month.

Andrea MacQuillin - lives on Willow Street but heart is still with Chebucto Road - I have had some back and forth with you people for some months now and I really don't have any questions for you but I do want to put a couple of rhetorical questions maybe asking for a higher level of debate than what we can answer here. I'm not talking numbers, I'm talking about values and the kind of city we want to live in, that we choose to live in and I hoping that some of the Councillors who are here, the people on and off the peninsula that want to take part in this debate because I think that Chebucto Road represents, it could be a stake in the heart for the next twenty five years of development of what HRM looks like so here's one rhetorical questions- What is the basic unit of measurement we're talking about here?. I hear a lot of talk about trips, I hear a lot about cars but I don't hear anything about people and people is what we're trying to move here not cars and it's not just a matter of trips so there are people behind the numbers and I don't dispute the fact that people need to go downtown because all of the services are here. My second question is about some of the assumptions that are going on when we talk about a problem like this and when is the assumption that peoples' driving behaviours are going to remain the same and right now I mean, we had two weeks ago we had the world's scientists coming to consensus that global warming is going to have a profound effects on us and our children and grandchildren in you know, it's happening in our lifetime and people are starting to think seriously about carbon emissions and what they can do so that their kids don't live in a polluted environment and gas could go up fifty cents a litre and that may change driving habits but the thing that irks me the most is that we assume the people in Halifax are not stupid enough to make good choices when those choices are provided for them. I think you know that if we had efficient transit and so on that they would make use of that. We have some finite geographical constraints on the growth on this peninsula. And my third point is just you know this is sort of being presented as just one little construction project that has minor impacts on a limited number of people and benefits for the larger community are so great that it can't be avoided and I wonder whether everyone agrees. I wonder who the people are that are trying to get in and through the rotary agree that this is the best way to go and it's only the sort of people that who are directly affected that have made a big stink of it. I think there's a larger debate here that I would like to see happen because I don't see that squeaking this little construction project is the one ugly mark on your beautiful twenty-five year regional plan is all that helpful.

Wayne Berthier - lives on Quarry Road - and I am a frequent user of the rotary. My partner and I, she usually walks to work in the morning, it's only about a kilometer up from the main rotary itself but just from her alone I hear nightmares about problems walking down the hill. Sidewalks on the right-hand side coming down, you have to cross over at one of two crosswalks. They aren't even marked properly even one that's being used now by children just up past the Needs convenience store and they got the crossing guard there in the mornings and the evenings but you try and cross there during rush hour traffic and getting off a Metro Transit bus, you know it's hell there. The other thing I wanted to mention is are there any alternatives being considered here that I never heard about other than the fact of people coming up to the microphone here and Mr. Ruffman, one in particular, and I'm in total agreement with him. It's not about vehicles either, it's about people Now I know that a lot of places in North America had carpooling systems where people have gone and parked their cars and they've taken shuttle services to town to go to work. It eliminates the problem of hassles within the city and being able to travel a little bit quicker. Whatever happened to the ferry service that they were talking about for Bedford? We have rails sitting out in Bedford that are not being utilized that you could set a Transit system from here to Truro all

the way down to Chester if you had the mind to and points in between that could leave their darn cars at home and they could travel back and forth to town here at any drop off point anywhere from Bedford all the way down to the train station. Other safety issues that I have, this is near and dear to me because I'm in the safety business. I'm an Occupational Health and Safety consultant for quite a number of years and my concern with the Chebucto Road area is that a lot of people that live in this community of the rotary itself perse when this change is going to go through, have young people, they have kids going to school, they have kids to going to high school and college whatever the case might be. I'm not too keen on the environment that's going to turn around and create in order for them to bring up their children in this case, I'm not. My next question is: Is this a done deal or is this just a little show put on by you guys. It's a done deal now is it? So what's the point of having this meeting if we can't turn around and express our opinions. Has there been a plebiscite offered around the table so people can turn around and make a decision on their own rather than you guys do it?

Ken's answer - I was going to talk a little bit about the Bay Road. These projects are all subject to Council approval. We have not gotten approval for all the budget yet. Certainly design and so on is dealt with. We have some advanced funding obviously to proceed to a certain level in terms certainly of the Bay Road property acquisition and things like that.

Question: So this meeting is meaningless then?

Answer: No, I still think there's opportunity and Council has to make the final decision whether these projects actually go ahead. Even when we tender the projects, even if that happens and that proceeds on that basis, the tender has to be approved by City Council.

Comment: I think the people should be the one to approve it, not City Council.

Ken: And crosswalks on the Bay Road I hear what you're saying but the existing crosswalk that is there is marked appropriately according to the rules under the Motor Vehicle Act. I certainly concur with the pedestrian issues and safety concerns on the St. Margaret's Bay Road. That's part of the reason we are going to be adding new sidewalks and we will actually be installing overhead pedestrian crosswalk along with that project so. Those issues will be addressed.

Carolyn King - I just wanted to answer with one of the questions from this gentleman over here was asking with the easement on St. Margaret's Bay, if it's anything like ours. We received letters on Nov. 21st, that the project would be underway and they would be taking property. We received our offers on January 15th and the construction was meant to go ahead in April was the time line we had. Luckily our neighbourhood jumped up and down and we formed this and we stalled them last April so we'll see where this goes. My question is to Phil actually when you said and I'm not going to quote you but I know you made question that our neighbourhood association brought up safety issues in addition to the five schools in the area where young children are crossing and I guess, and I work with children so I know a bit about gait velocity, how fast basically children can cross the but I'm going to leave that to talk something about seniors. We have two seniors' residences pretty well at that intersection and right now and I who may be called a senior I suppose but at least I'm a reasonably fit one who walks to work. I can cross barely to get across to catch the bus from Mumford to Chebucto. I cross Chebucto from Macdonald to the Mumford bus station and I can rarely at a run get across before the light changes. Now I don't pretend to think that I'm in great shape but I would hazard a guess that maybe I might be able to do that a little quicker than some of the seniors living in the facilities who use walkers or crutches and I might be able to do it faster than a mother with a stroller and two toddlers and I can't and maybe I'm stupid please can you draw it out for me because I keep hearing the City and Phil say yes, we're going to widen the road but it won't be any less safe. One comment came last year was that we'll make the crosswalk light longer and I go in my stupidity duh, well, if the crosswalk light is longer that means a longer red light and we got three hundred more cars coming up there. They're going to be sitting at a red light longer and I can't see how that makes it go faster because I'm not an engineer. So, could you explain that to me please?

Ken's response: Phil can add any comments if he likes. I'm not sure of the quote my comment was exactly that phrase, however, all pedestrian crossings are timed according to the width of the intersection and most people and found out this because most people don't understand the crosswalk lighting. The walk signal is generally seven seconds. Well, you know some people are unfortunately because we find this all the time. They don't understand the operation even though we have attempted to explain it

through a number of public forums but the walk signal is set up for seven seconds, the flashing don't walk hand is set up to allow for 1.2 metres per second based on the width of the intersection so you gain an additional time over and above the seven seconds so in theory an average walker if they step off the curb just as it changes to a flashing don't walk, there is sufficient time. That is an average walker plus you have the additional seven seconds and what we encourage people that are seniors or have any form of disability or that are slower walkers to wait for basically a new signal so they can gain the seven seconds plus the full walk time and that's how the signals are set up and the signal crossing time in fact is shorter than the full phase of the red light so if there is a need to modify it slightly for a unique situation it can be and will not affect the traffic light in terms of being longer. The cycle of the traffic light is always longer than the walk in any event of the whole walk time period.

George Venture - resident of Purcell's Cove Road - I realize that this conversation is primarily about Chebucto Road but I live on the area of Purcell's Cove Road and from approximately where John W. MacLeod school is to the rotary. Any of us who want to go out to Chain Lake or we want to go the Bi-Hi, we have to go through the rotary. If we want to go on Herring Cove Road, we have to go into the rotary to go around. There's no alternative except to go Williams Lake Road which is in the wrong direction and quite a ways back or to go zig zagging through a home area with a lot of children, not a good idea. One of the issues to reduce traffic in the rotary would be to provide some alternative mechanism for those of us who live where we live to get up to Dunbrack or that other area up there, I can't remember the other name of it 'cause I call it Dunbrack and I haven't seen that and there's no way for me to get there except through the rotary so in effect the traffic pattern is set up forces all of us who live in the Fleming Tower area, Anchor Road and that area to drive into the rotary even though we don't want to.

Rick Baker - I have a question for Mr. Grubb. On your first slide I believe it said, it might have been the third point, that one of your mandates was to look at other alternatives, other options is that correct including HOV? My question is what other options were you looking at whether alternatives whether by the City, were you given an open thing to say like what other alternatives as other people have stepped up before me and asked what else could we do? Were you given that mandate to look at anything else but their option or that one single HOV option?

Phil's answer: The main option was HOV. That was the option that CNA wanted the region to look at. Were there any other options?

Comment: Your slide had said look at other options. So you did not look at any other options.

Answer: No, there are no other options that I could see.

Comment: So you're saying that this is the only option.

Answer: The objective is to reducing the queuing into the roundabout, into the rotary and make some improvements to Chebucto Road so that it can accommodate increased capacity at the rotary. I mean Quinpool Road is the other option. What can you do to Quinpool Road? That's the other way into the downtown.

Question: In your expert opinion is there any other option to bring more people into the city versus cars?

Answer: Definitely and that's all mapped out in HRM's master plan.

Question: What do you think of that master plan?

Answer: Pardon me. (Question asked again) I think it's great and they're only doing some very minor improvements to accommodate...

Comment: But you weren't asked to look at any other option, your opinion is only one option.

Answer: I would have explored more but the master plan has all the other options that you can consider.

Comment: But not of that area, you were asked only to look at one other option.

Answer: And I couldn't think of any other that wasn't already in the master plan.

Comment: Thank you.

Eric Thompson - resident of Westmount Subdivision - I have lived there for fifty-two years. The first question I have for Mr. McCusker perhaps not quite related to Chebucto Road but I would like him to publicly tell us now if there is any plans over the next five years let's say to do any work on Connaught Avenue and/or Bayers Road in this area and the only reason I ask that is because it was referred to in one of the ear slides because Chebucto Road was referred to as one of a few bottlenecks. Well if you

refer to Chebucto Road as a bottleneck I don't what you would say about Connaught Avenue and Bayers Road around five o'clock on any day of the week, three hundred and sixty-five days of the year.

Dave's response: There are no plans to anything on Connaught Avenue. Typically the north/south streets are not the issue on the peninsula, it's the east/west ones where we have the difficulties. Bayers Road is listed in the Regional Plan as one potential candidate for road capacity. We're hoping through the Regional Plan we're hoping to avoid that. There was talk about the need to do dedicated lanes for Transit to make that a more competitive service and in fact we are doing work now to consider how we can put dedicated Transit lanes on Bayers Road. It's my hope the only additional lanes that would go on Bayers Road are Transit lanes but the Regional Plan does leave that window open that there may have to be some capacity issues dealt with on Bayers Road.

Mr. Thompson: I would challenge that because Connaught Avenue is just a major traffic jam almost every night of the week. My second question is When it relates to reversible lanes, there are very few reversible lanes in the city of Halifax. I challenged Mr. Reashor I believe at the last meeting on Jubilee Road and I believe he told me and confirmed to me that Jubilee Road between Oxford Street and Cambridge had been being used as a three-lane street and Jubilee Road through your offices was narrowed to restricted clearly to a two-lane street and the explanation was safety. So that leads me to my question, in that when I look for an example like at the bridge which is clearly a reversible lane, there's huge effort made by the Bridge Authority to restrict traffic so that there's obvious no accidents. In running a reversible lane in this area it seems to me there are so many arterial streets, there's so much traffic from the shopping centres, it seems to me it's not a question of when it's going to happen. There will be accidents, there will be regrettably I'm sure at some point there will be someone injured seriously injured on that street. There are pedestrians on that street. So has the department and the legal department from HRM because I believe we, the taxpayers, are self-insured a lot through Halifax. Have you analyzed the long term liability risks that HRM's going to incur if in fact, you and the experts are wrong and that the safety is not an issue because there's a third party called the Supreme Court of Nova Scotia will make a determination otherwise, so has that been analyzed?

Dave's response: Nothing we're doing is out of national standards for roadway operation and those are reviewed consistently for safe operation and we're doing nothing out of the normal so there's no expectation that additional risk will be created.

Comment: But if the risk is created and it's found, then HRM will be assuming the liability.

Answer: No, not if we design according to national standards. There's no risk in doing that.

Comment: If there's proper signage not in place, that type of thing and the City's found either partially or totally contributing to negligence in that issue then clearly there's going to be a responsibility. And my third question is and truly this is one of the few R-Zone areas in the city, we had someone earlier said that we have a huge number of seniors here, both in senior citizen manors as well as in their own homes here and on the other side of Westmount. Has any analysis been done on a twenty-four cycle as to the number of pedestrians actually cross the streets and travel flow particularly with the students back and forth because it may not be necessarily be the high peak areas and if there's not a lot of cars on the road, people have a tendency to do one thing and that is speed because I can go fastest because there are no cars around so has there been any because all I see here is traffic flow and I don't see any pedestrian flow analysis that have been completed.

Ken's response: Any time we deal with any roadway crossings where there's traffic signals and such, the pedestrians are dealt with obviously the signal timings are set up to deal with pedestrians. When there are new locations requested for crosswalks for example, we would go out and we count and we differentiate between children and seniors and the regular other folks and we make our assessment based on detailed data. And that's collected over an eight-hour period of the day and so those factors are always taken into account. But any roadway that we design takes into consideration pedestrians and that's standard protocol.

Comment: I don't recall the last meeting we had and this one. I mean you talk about car counts but I have never heard about the people counts that move back and forth across there because I've sat there and the numbers are very large. I mean if you have the information than why don't you share it with us.

Answer: Well, it wasn't to hide anything. At the intersections where we have pedestrian crossings now,

just like any other location, there already crosswalks located there. Those crosswalks will be supplemented if they need for any additional. Right now there are crosswalks on Chebucto Road that are marked and have overhead flashers. That's the highest level of supplementary devices that are required for that particular location. We only use those on multi-lane locations, in fact, they're not required to be at that location, they are only supplemental devices. So the standard signage is put in place at every crosswalk that is required under the Motor Vehicle Act.

Question: What is the signage then there that will designate for a ten-year old, a twelve year old or myself when I cross the street that's a reversible lane, a lane that is reversing in the middle of the street?

Answer: Well, there are overhead flashers and just like every other location, somebody pushes the button whether it's a child, adult or senior. Then we advise all parties to then look for the traffic. Traffic is required to yield to pedestrians.

Comment: I will go tomorrow morning to the location in HRM that provides this type of signage. Can you tell where I can go in HRM to sit and watch the reversible lane function with the proper signage that you're talking about to sit and watch it and then I'll be a believer. Where do I go?

Dave's response: We did do a cross-country survey of other cities in Canada that do have crosswalks and reversing lanes and we saw what signage they used. Nobody uses particular signage but we also sought safety records and antidotal evidence and not a one suggested there was abnormal concern on crosswalks with reversing lanes.

Comment: So my answer Mr. McCusker is one there's nowhere in Halifax that this exists and two your department has got nothing planned that you can produce and show how you are going to deal with that issue.

Answer: We have no intention of getting any specs on it.

Comment: Thank you.

Peter Zimmer - resident of Willow Street - The question came up earlier can things be changed. I'm part of the Commons North Neighbourhood and we had a confrontation a couple of years ago with city staff about the desirability of a five-lane conversion of Robie Street and Cunard. We made a presentation to Council and Council voted with us and said no. City staff you can't build five lanes you have to design it for four, so it is possible to change it. I'm here as part of the transportation committee from the Ecology Action Centre and I'm going to speak particularly about the active transportation issues that I don't think are well addressed. Both the city and the province have active transportation plans which means that are supposed to make plans to encourage the benefits of getting around by human power, wheel, skateboard, inline skating, whatever, wheelchair even. I think that the Armdale Rotary exists even more as a bigger cloud on the active transportation users than it does for people who are stuck in a large metal can that's got air conditioning in them or heat. As citizens, walkers and cyclists we think that it's time for some equity in the treatment of pedestrians, non automobile users or whoever you have to be at the time as automobile user. Some instances where we have issues of national standards and the Motor Vehicle Act, great things to protect us and it may legally cover the city's ass but it isn't good enough. There is stupidity imbedded in technology and I'm sorry but a proper human factors analysis, how people behave at crosswalks, how they make mistakes, what kind of mistakes they make and what we can do to change the design, signage of the system to make it safer, to make it a default so that people behave better. The air force has done that with the controls in their jet planes. Every time there is a plane crash there is an extensive analysis of what caused for the safety of the people that were killed or nearly killed and they are looking at the issues of not just what mistake was made and slug it off and say we gotta train those pilots better. What might there have been in the design process, the design of the signals cause this mistake to happen. It's called human factor analysis and it really has not been done very well. I guess anywhere in Canada if the national standards are what we see here, I would really like as a part this redevelopment that the city undertake a close look at that, a close look at making all the pathways, user pathways they're prescribing. I think multi-user pathways are a good idea but they're gonna cause problems unless we go to some new signs, new means nothing that's standard in the Motor Vehicle Act and the city has to figure out what those are, whether consultants have to, not national standards and practices. I don't think we should settle for less and we are going to be stuck with a whole lot of less than best practices than to just go with national standards.

One other quick note are projections and predictions. The city instituted the MetroLink buses, wonderful idea. They have projected about two years out that they would be running at capacity, what was it two months or less than two months that they were running at capacity. The City of Halifax is one of two cities that have a notable increase in the amount of transit use in the past year, the other one I think was Victoria, BC. I think maybe the citizens here they want to use the bus, we need more buses, more accommodations for that. I suspect that these projections what the traffic demand are probably overblown and if we get another bump in gas prices, the statistics that say these growing demands that are up there in the pie charts are just going to be out of date and we will have overbuilt and undersafetied and not enough attention to get about because the government doesn't want us to by our own muscles, better for us, better for our wallets, better for our whole environment, thank you.

Todd Currie - resident of Westmount Street - and I'm terribly worried about the outbound traffic taking the left, going through Westmount, speeding through my street, hitting Macdonald, speeding through Macdonald ahead of the lights. We have a blind crest right in the middle of our street. Five metres on either side you would not be able to see a child. Traffic has already increased dramatically in the last ten years. It is only going to get worse. Have you looked at the impact to our side streets, of Westmount Street, of Macdonald Street. We have seven families on our street with children under five. We have two special needs children on our street. I think this has been totally irresponsible. You've talked about volume and speed, that is the bottom line. Three hundred cars, that's crap. It's gonna be a hella of a lot more. You're looking at huge volumes. You've talked nothing about side streets. You've talked nothing about Westmount, nothing about Macdonald, nothing about other side streets. Thank you.

Jack Leitau - resident of St. Margaret's Bay Road - I was just wondering if HRM has done any studies to reduce the traffic flow to the city coming from the 103 towards the Armdale Rotary and perhaps mingling all the traffic together such as large trucks at St. Margaret's Bay Road.

Dave's response: There's no intention to prohibit truck traffic from the St. Margaret's Bay Road. The truck routing system we have is the one we intend to stay with. There needs to be good access for trucks throughout the region on roads that can handle it. St. Margaret's Bay Road is one of those roads.

Comment: So that is actually is going to make things harder at the rotary or the roundabout and with regards to looking before you get to the St. Margaret's Bay Road from Timberlea and those areas and the 103 to reroute the traffic towards Bayers Road.

Response: I mean that traffic has access either to St. Margaret's Bay Road or Bayers Road. People choose based on the availability of capacity and right now it's pretty much balanced. If Bayers Road were a much quicker trip, people would use it.

Comment: So if you are improving all the accesses into the roundabout, you are actually asking for people to come down St. Margaret's Bay Road.

Response: That's right.

Comment: So you won't be creating the traffic at all, making it even heavier.

Response: The ability to increase traffic on Bayers Road is far far more expensive than the shorter area we have to do on Chebucto Road and the roundabout changes. There's much more value in terms of the project that we are doing than having to widen the entire Bayers Road corridor.

Ken Donnelly: To you have a last question here?

Comment: I don't think that the traffic especially the large heavy trucks should not be allowed using the St. Margaret's Bay Road especially from the roundabout up to the section of the 103. The road is too, the slopes are too steep to match too many curves, not wide enough. Right now it's getting so much denser in population that the children coming and going those trucks shouldn't be there period.

Response: Thanks for your comments.

Cheryl Paraskevoulos - resident of Roosevelt Drive - and I am one of the mothers with a stroller and two small children and that I walk up Chebucto Road to Westmount school every day and Ken I welcome you to walk with me anytime and see if you can cross the street and see if you get on the other side of the street and with a car coming from Chebucto turning onto Mumford actually stops for you and almost collides with your stroller. I'd love you to do that.

Shirley Harding - resident of Chebucto Road - just down from Mumford Road and my question is how will you help me to turn into my driveway if I'm coming down with the late afternoon traffic with the traffic

heading down towards the rotary. They go really fast now, if you put in two lanes, how am I going to turn into my driveway without getting rear ended cause now I'm looking back at and I really have to watch it. I really don't think that they're going to slow down any and they will go more fast. Have you any ideas how I might do that?

Dave's Response: Well all I can say is that we have a number of areas in Halifax where driveways are along arterial streets and people get in and out of their driveways with some degree of difficulty and that's the case on Chebucto Road now.

Comment: Well I think one had mentioned earlier about the lane jumping. I see that quite a bit and that's very evident and one lane I can deal with because one lane coming behind most part of the time but if you add a double lane there I think that I'm going to creamed one of these days and I'm wondering if there is anything you can do to prevent that.

Response: I would suggest making right-hand turns and not left-hand turns if that's what one does.

Comment: That is a right-hand turn. They come down so fast and with that extra lane it's just gonna be an accident waiting to happen.

Response: Well all I can say is that the characteristic of Halifax typically have driveways along our busier streets and people have to manage.

Elizabeth Pearo - resident of Connolly Street - and I'm sorry I don't have a speech or opinion prepared for you but I do have a question for you - prior to the meeting this evening I had the chance to look at some very well put together and some very well thought out displays at the back of the room. Two of the options work for Chebucto Road were a four-lane option and a five-lane option. Could someone briefly summarize the differences other than the obvious ones of four and five. The differences between those two suggestion plans and could you also tell us is the planning department leaning towards one or the other of those designs at some point in time. Thank you.

Dave's response: Good I appreciate the opportunity to do that. Originally the design was for a five-lane cross section and we did prepare a storage lane the same one as is now for the buses to turn onto Mumford Road in addition to the two through lanes. Through our modeling we found that there was some additional delay without doing the five lanes but it's not that much different than the four lanes in having vehicles turn left from the through lane so we are considering both options. It's part of the negotiation we have with the landowners affected by the particular widening as to what we might accomplish but we are leaning toward that four-lane process.

Graham Read - former resident of Herring Cove Road - my mother still lives there and my sister lives nearby and I go there quite often. I spent part of my growing time up there and I observed the rotary from my bedroom for almost the last fifty years. I will say that the changes you have made recently to the rotary have been a tremendous success and I would commend all the people who drive through the rotary for how quickly they have adopted to this new scheme. Certainly those of us who sort of pushed or lobbied for this in the past were told this was going to be a big effort to convince people to change their ways but they did change their ways quite quickly and I think all those people responsible both for publicity and everything else on doing it should be commended as well as the drivers and perhaps I think that it justifies what we were saying that finally we were included and it was the right thing to do so yes a hand clap is deserved to everybody. However, I do and some of the changes that you have been proposed in the past by various people have been, and I think they are worthwhile. It would make a difference, the bypass lane from what I call it from Dutch Village Road to the Bay Road is worthwhile but why not make use of a bypass from Quinpool Road onto to Chebucto Road through what is the parking lot there I use that to move some more vehicles out of the rotary. However, at this stage things working as well as they are I don't think you have to spend all that money on major capital expenditures just at this time this year, perhaps not for five years or a decade from now. We don't want our taxes to be spent now unnecessarily. But there are some simple changes that maybe are in the works that should be implemented now and what I one, is now is the illogical lane markings that exit in the rotary now. Another requirement should be is that if you're in the right-hand lane anywhere in the rotary you have to exit at the next exit and what I've observed time and again where it clogs up because everybody goes coming down the Herring Cove Road or the Bay Road, some want to go up Chebucto Road and some want to go up Dutch Village Road, but everybody goes in the outside lane and there are two empty lanes on the left. If people would exit if you're

in the right-hand lane and then those that are in the next lane over can eventually move over to the next lane and it also gives some signal for people who want to get on see a car he's in the right-hand lane he's going to exit before he gets to me and that means that I can go so perhaps you are going to do that, I don't know. With respect to Chebucto Road my wife is not here tonight but she does commute by car from our home over to Dartmouth every day and she goes into Chebucto Road and she wanted me to say tonight that she doesn't think Chebucto Road needs to be widened nor does she think it's necessary to have a reversible lane. I wander around through this area on foot quite often and I've walked down Herring Cove Road through the rotary up Chebucto Road to West End Mall and back at 10:00 and 11:00 and there's times I haven't seen a car in the rotary. There's times I haven't seen a car on Chebucto Road between 10 and 11 so all of the efforts we are making to increase traffic flow for a couple of hours in the morning and a couple of hours in the evening only five days a week so I think maybe people could adjust their work schedule. What would be useful would be some very slight widening in the vicinity of the Esso station on the inbound lane so we can get by the car that's trying to get into Esso or just prohibit left turn lanes into Esso and the other area is just past the railway bridge and then there's sort of that overhead thing, just a slight little widening there because when one car stops to make the left hand turn into the Cash and Carry you can get by him. Two big cars and a hummer stop, you can't get by, you just need a little bit more space and while I'm talking about hummers maybe we could have it that nobody can drive a car unless it's a certain length or width. I will be getting to questions. The projects seem to be more to get more vehicles through the rotary and onto the peninsula but we live in these neighbourhoods. They're good neighbourhoods and I don't think we should be or they should be compromised in order to put more houses farther out. We should be reducing the need for commuters. If you want to live in Tantallon perhaps you should have some employment there. If you want to work on the peninsula perhaps you should live there. There is room I believe for 40,000 more people to live on the peninsula. There used to be 40,000 more people living on the peninsula by redeveloping some of the underutilized commercial lands and the car dealerships after all. The gentleman who spoke of the difficulty getting going through the rotary could be solved by having left-hand turn lanes only from Purcell's Cove Road to Herring Cove Road and Mr. McCusker and I did talk about that about seven years ago and perhaps you could tell us where that fits now. A regional plan should have as a target a specified number for a region, reduction of the number of vehicles or vehicle miles traveling in from place to another and are there methods by which we could encourage that and I would suggest. What about a municipal fuel tax or what about a municipal tax on machinery that are vehicles that are larger than needed for essential transportation. Well I think I've taken up enough time and I think you got some questions there.

Question: I actually have a question and I was wondering if we could look at the slide again of the downstream traffic. I just wanted to clarify something or ask for clarification.

Ken's Response: We'll try to get it up for you.

Comment: Thank you, that'll be great. It was in Dave's presentation so it'll be way back. So I think you just passed it. So the middle bars there the blue middle bars represent the increase in traffic congestion after the rotary construction conversion project. Is that correct?

Answer: That's correct.

Question: The bar that we have on the left in green is the congestion we have now with the change in the roundabout rules, right?

Answer: No, that's before the roundabout conversion.

Question: Okay so we don't have numbers for how congested it is with the roundabout. Is it fair to say it's functioning, there's less congestion now that we have the changed roundabout rules from the rotary to the roundabout is that?

Answer: There's less congestion in the roundabout, clearly yes.

Question: And then there's less congestion at any of these other of these downstream traffic points?

Answer: No, there's more.

Question: And you measured those?

Answer: We've measured traffic volumes I mean volumes fluctuate over the year and we're in a low period now but it's not a fair comparison with the expectation when we measure again in September and October, the volumes will be higher. Well certainly the demands will be higher. The volumes don't increase

much because it's at its capacity.

Question: Okay, I see. So I guess my point is that I look at these and I understand you said these in a response to a question that after the construction changes to, the proposed construction changes to the rotary and to Chebucto Road we essentially have congestion at all these points that is exactly the same that it is now or more or less? I think that it goes up at Connaught slightly right so the bars indicate? And I'm just trying to draw this out, you talked about, no it was Ken Reashor who said that definitely on St. Margaret's Bay Road we're not trying to increase capacity or traffic back to St. Margaret's Bay Road so it's going to stay those single lanes. So I just want to make absolutely clear that we are building this road to attract traffic to Chebucto Road, correct?

Answer: To handle more traffic on Chebucto Road, yes.

Question: So, so we're going to get with these proposals three hundred more cars per hour, that's what you're estimating?

Answer: Yes, in the peak hours.

Question: Right, and all of those cars will go down Chebucto Road with your modeling?

Answer: Yes.

Comment: Okay, thanks.

Question: Ken I think it was you that said I mean we'd looked at the improvement with the roundabout and you I think showed us a design change, one of the design changes and you hope to make it a better entry for cars to slow them down from coming to the end of the roundabout, was that you or was it David I can't remember? What I want to know is whether when we studied the changes to the roundabout did we predict this increase in cars coming into the roundabout and hence the safety problem that ensued. Did we know that that would happen or is that something we now realize after seeing it?

Answer: No, it's already happening. Clearly in the design of roundabouts, the design takes that into account because you don't want to increase speeds. Any roundabout that's built nowadays has the entry angles at such a fashion.

Question: We made the changes before we made the entry angle changes. Did we know that we'd have that safety problem or is that?

Answer: That safety problem's been there. We've always had calls about people coming into the rotary too fast to beat other vehicles. Even when it was one on one and I mean I know from experience on St. Margaret's Bay Road you can come in at 70 to 75 k/ph.

Question: And that part of the plan and certain parts are going happen on St. Margaret's Bay Road for the left turns, you plan to have construction done this summer, does the rotary angle changes occur this summer as well?

Answer: That's the proposal.

Comment: And therefore the changes in pedestrian traffic and such, well I'm sorry but I was really looking for. I've had occasion to walk through the rotary, ie the buyers pass and I certainly not knowing where to hell to cross on St. Margaret's Bay Road and get through but I would have liked to seen tonight some sort of plan that how pedestrians were gonna get around and that's worth thinking of for the public once you've done the detailed design or is the public not going to have a chance to comment on that?

Answer: Well certainly the feedback we're getting tonight is important to us. We clearly have indicated that we have to address the pedestrian issue and bicycles and we're proposing multi-use pathways around the rotary so that both pedestrians and bicyclists can use it if they wish or they can use the rotary itself and clearly the pedestrian issue will be addressed in the relocation of the traffic signals. Right now where the signals are located it's not safe for pedestrians. Their primary purpose is in looking to see if there is a gap rather than looking for pedestrians so the signals will be set back. The concept you see will identify that kind of issue and you know we still have to go through the details.

Comment: So I may not have actually in fact looked at your concept closely enough. I'll do that. The last question I have is the number of people in vehicles. Have we done traffic counts for people in vehicles at various times of the day. Do we have that information for the rotary?

Answer: Not specifically but other counts have shown that probably four out of five vehicles are single occupancy.

Comment: What impresses me is that probably, the bridge commission doesn't even know how many

people are in a car at a specific unless they've done the studies in the last couple of years. What people are in a car at a particular time on a particular day so they don't even know the tolls for the number of people that would make a difference in the bridges. I guess that you don't that here either.

Answer: We certainly know it overall and conditions like that don't vary significantly from one location to another.

Comment: I'd like to see you prove that and I'd like to see those diagrams which is the volume which is ie. numbers of rubber tires are translated into people so that you know. Yes a lot have single people in them, one in four, I think, whatever it is. In effect I think that's essential to know that in any traffic I can't imagine that there are still people doing traffic counts on just rubber wheels because big trucks come, maybe three times to one car. you gotta know the numbers of people and ultimately you want to know where they are coming from. We don't know that at all. You know it's a car maybe from Tantallon but maybe it's from Three Rivers or Five Lakes or Goodwood. We just don't know. If we are really going to try and manage traffic and spare the people on Chebucto Road and we just don't know that.

Ken Donnelly: Just before you start sir, this meeting is planned to end at nine and people are starting to leave so just before start and we have two people behind you and I would suggest that the lady be the last person to ask any questions but anybody else, people will come forward and we'll try and answer your questions one on one and the last thing I want to say is that there are comment/question forms at the back so if you feel you haven't had a chance to get your comment in or your question asked, please fill them out and if they are questions we'll take time to make sure somebody gets back to you. Okay sir.

Comment: I have comments more than I have questions I guess. My name is Ernie Pass. I've had some experience with the Motor Vehicle Act, some forty years. I'm a little bit concerned that it keeps me from being referenced as though it's a second set of tablets that came down from the mountain with Moses. The Motor Vehicle Act just like any legislation can be changed if there is a reason to change it and the other concern is the comments made about pedestrians and I am reminded of a safe conference I attended in Montreal many years ago where the traffic engineer/traffic manager for the City of Montreal was there and we had a private conversation with about half a dozen others and myself and him and he was saying he was in the process of changing the speed limit in the City of Montreal to just 60m/ph. Of course, we stepped back when we heard this 60m/ph. That's quite a fast speed. The answer we got the drivers that survive will be good drivers. That's what I'm concerned about, the comments on pedestrians, that the pedestrians who can run across the road and survive will be alive but the other ones, God help them. I think that the last comment I'll make in keeping it short and go on for the next hour and I would be shocked, about getting out of here but with pedestrian traffic we have in the roundabout, there were comments made about moving the signals. Has there been anything talked about having a pedestrian activated light so that when they press the button and walk safely when the light changes and traffic stops. If there hasn't been, I think there should be and the other thing with regard to bicycles going around the roundabout so often I'm sure you've seen a rider to respect the space of a rider that barrels off a curb into the crosswalk while riding expecting vehicular traffic to stop. They need to be educated they have no bloody right of way, they are another vehicle not a pedestrian at that point. If they're going to look for pedestrian right of way then they should dismount and walk, then the right of way should be given to them. Thank you.

Peter Foley - resident of Mumford Road - and I was wondering why nobody in my area got a notice of this meeting. I got this yesterday from one of the passengers that was kind enough to tell what was going on. Anyway, I'm here and I see up there that Mumford Road is plastered with a 40% increase in traffic, 30% on Mumford Road.

Answer: On Chebucto Road.

Comment: No, I'm talking about Mumford Road.

Answer: This is the traffic on Chebucto Road.

Question: All right how much traffic is on Mumford Road now that bites into Chebucto Road?

Answer: How many turns onto Mumford Road?

Comment: No, how much traffic?

Answer: The volume on Mumford Road. I can get that for you.

Question: Good, how many trucks use that road?

Answer: I'd have to look that up for you.

Question: Do you know it's not a truck route?

Answer: Yes

Question: Good, is it being enforced as not a truck route? No, any comment.

Ken's response: Yes, the police have tried to enforce the trucks, however trucks are allowed to take the nearest route to where.

Comment: That's bs. You have a couple of lawyers downtown that I tried to see and they wouldn't give me the time of day. They have an opinion and I have the right one. Anyway, there's not going to be any increase on Mumford Road, right?

Ken's response: I would suggest to you that there's going to be an increase on every road in the city. Traffic is continuing to grow whether we like it or not.

Comment: I'm not talking about whether traffic continues to grow, I'm talking about this present scenario we have upon us now.

Ken's response: This particular scenario isn't geared to provide additional traffic to Mumford Road. It's to provide additional capacity to Chebucto Road coming down to the rotary. That's the purpose of this.

Comment: And then my thoughts on the Chebucto mess that's up for approval is to my mind leave the rotary as it is. A few tweaks here and there will make a difference, no problem.

Carolyn King: And at this point I actually would like to introduce myself as a concerned citizen of HRM as opposed to just Chebucto Road and this is probably a question that is more to go out to our esteemed Councillors and those particularly who have been vocal against changes to this but I sat through a meeting here over a year or so ago when the city unrolled their Active Transportation Plan and those of you who came up with it, sit there and sit there and think this is wonderful. Active Transportation that you showed us earlier Dave, the proposed high buses and the ferry and all this. What I'd like to put forward is as fairly intelligent citizens in the HRM, I'm quite impressed with my neighbours anyway. Why can't we take since there are a lot of uncertainties in the answers this evening, there's a lot of perspectives, potentials, possibilities and at the same time there are really some solid, wonderful plans in place for us to deal with other ways to deal with traffic congestion and our neighbours who are off the peninsula, could we not and I speak for a lot of citizens, the 3.5 million dollars or and as we know as in most city things we wait and more than that in the end go and expropriate our properties, widen Chebucto Road, kill a few of our seniors and possibly some of our children maybe we could put that money first into some of these other alternatives instead, that we know actually work. See where we are in five years, if we still have major problems, then maybe go to this route that doesn't possibly have the answers.

Ken Donnelly: Thank you everyone for coming and just before wrapping up a bit I would just like to point out that MLA Howard Epstein is here and has been here since the beginning. Sorry I didn't acknowledge you before. Again thanks very much for coming. This has been recorded. We have been recording this meeting so we have this input and all of this input will be compiled. As I said before, there are comment forms, well their question. One form for comments and questions. They are in the back just around that partition. Feel free to fill them out. The comments will be looked at the questions will be answered. Also the consultants and the staff people who are in the back will still hang around a bit if you still want to look at some of those displays and I know everyone wants to get out of this meeting. Just some next steps, the comments and dialogues of this meeting behind me will be presented to Regional Council and then Council will be requested for guidance on including the Chebucto Road and the Bay Road project in this year's budget. That will be a request as stated before, that's a decision Council will make, a decision that has not been made yet. But if the decision moves forward, it happens then there will be property negotiations and meetings with the residents and if the project goes ahead, construction will begin this summer on the roundabout changes and the remainder in 2008. Finally we figured there's a lot of information that you got here, at the back, through those presentations back there. We will take written submissions until March 8th for some people who have some thought, what they heard and what they've seen and you can call Paul Burgess and that's his address and as well as his email address and you can send them into him until March 8th. Okay, thank you very much for coming.

Armdale Roundabout and
Chebucto Reversing Lane Project

ATTACHMENT FIVE
Page 15/15

Minutes transcribed by:

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COMMENTS AND QUESTIONS	
Comments	Questions
Looks good ! Obviously a lot of thought & planning went into this project.	
Phil Grubb - presentation lacked logic. I did not understand his comments (e.g. spoke about pedestrian <u>safety</u> on "Mumford Road" - It could not have been Mumford he was speaking about; the description did not match McDonald so I'm not sure what he was speaking about....) He did not state his conclusions until the end. When he said "we" was he referring to HRM staff? (I'm failing to understand what value he has given you.) I was interested in the "operational analysis" of the traffic flows at various intersections. I would be interested in understanding the quantitative study behind the study which the HRM did the "... slide.* I just don't believe you have considered appropriate factors in this project: Safety(crossing wider road), additional cars, esthetics & community values vs the "benefit" of a wider road. Please send me this analysis. I am so sad that we keep having these meetings about a project that does not at all address our needs, as a community, or as a city. As a taxpayer I'm willing to fund more buses but <u>not</u> more roads. Please tell the councillors when they vote, that this will save no commuter's time (per HRM staff this evening).	*When was it done? What was it based on?(And, I did look at the station at the back of the room.)
Very disappointed to see no rep's from Metro Transit here. I'm sure some input on <u>Mass</u> transportation <u>would</u> have been needed in this day & age. Also, no talk on Ferry service along Northwest Arm to certain points. <u>HOV</u> - Highly impractical for a city this size. OK if we had 1 million <u>plus</u> with 4-6 lane streets.	
If we want to increase traffic flow, a decent design - it's just frightening that we are speeding more so more people can increase their carbon footprint more quickly. I wish we could seriously look at entry tax like London or at least develop commuter rail. It's too expensive in many ways <u>not</u> to do that.	
I live on Brook Street in Fairmount, and the bus is infrequent, does not come to our end of Brook Street and takes an hour to get downtown, with several changes. If this were improved, I am sure many more people would be inclined to take the bus. I would.	
Tweak the roundabout in 2007-08 and do the sidewalks and left turn help on the Bay Road in 2007. But for heavens hold off & give no approval to the proposed Chebucto widening.	

COMMENTS AND QUESTIONS	
Comments	Questions
<p># of people entering the city is a more accurate measure of effectiveness. Need these numbers. Need to take into account changes in fuel costs and changes to traffic flow over the next few years. Hopefully, the plan is to REDUCE the number of cars on the peninsula. Not convinced at all that other ways to get more people downtown have been exhausted. More public Transit...less new roads.</p>	
<p>I welcome a call or meeting to discuss my questions. Thank you.</p>	<ol style="list-style-type: none"> 1. Is it possible to see the study concerning property values on Chebucto between Phillip Street and Mumford? 2. With so many driveways on Chebucto and the mall traffic coming from Phillip Street, how can safety be ensured? What if someone pulls into the reversing lane going the wrong direction? 3. Due to the nature of our driveway the lane closest to our home is insufficient for pulling in and out. If a reversing lane is installed our driveway will not be usable at certain times of the day. How would this be handled?
<p>Your so-called "independent" reviewer is not at all independent. How can someone who has a professional interest in the increase of traffic flow evaluate plans to increase traffic flow in an unbiased way? You need a truly independent review: one that considers the quality of life of the residents, the status of the local/neighbourhood environment, the property value of homes regarding the ability to sell, the sound and air pollution. The presentations and panel's answers this evening demonstrated a shameful lack of research in regard to human safety, pedestrian movement, aesthetic impact, true consideration of alternatives, etc. The "artistic" impressions this evening were insulting. They presented images of Chebucto Road as expanded without cars and the intrusions on property obscured - the properties were hardly in the picture. This is a misrepresentation of a plan that merely intends to further overload our roadways and peninsula. HRM should be ashamed!</p>	

COMMENTS AND QUESTIONS	
Comments	Questions
Displays & presentations were very well done. Clearly there are no solutions that will please all, but I believe the proposals that will improve the traffic flow in & out of "old" Halifax. I would appreciate any handouts, info etc., to be mailed to me. thanks again for the opportunity to view the displays & hear the presentations.	
I am not happy that the underlying principles of the Regional Plan do not put first & foremost for every "minor" construction project - an evaluation of how that project contributes to the pillars of the plan - namely encouraging liveable communities on & off the peninsula. Halifax itself must not be sacrificed as a liveable city while public transport improvements throughout the region are being implemented. I want to see a staged approach to the Rotary/Roundabout Conversion with evaluation of impacts with each improvement. We don't want overbuilt traffic solutions before a series of other inducements/deterrents (such as tolls) are tried and used.	