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HALIFAX
REGIONAL MUNICIPALITY

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Halifax Regional Council
May 29, 2007

TO: Mayor Kelly and Members of Halifax Regional Council

SUBMITTED BY: Geri Kaiser, Acting Chief Administrative Officer

DATE: May 25, 2007

SUBJECT: **Legislative Amendments - 2007**

ORIGIN

Legal Services has prepared a list of proposed amendments, as requested by staff and Council, in relation to the *Municipal Government Act* for consideration by the Province at the Fall 2007 sitting of the Legislature.

RECOMMENDATION

1. **It is recommended that Halifax Regional Council approve the recommended amendments to the *Municipal Government Act* and related legislation and that the recommended amendments be forwarded to the Province of Nova Scotia for consideration.**

BACKGROUND

Since the last report to Council on October 10, 2006, Legal Services has received various requests for amendments to the *MGA*. Legal Services has compiled these requests and drafted appropriate wording.

DISCUSSION

I. Noise

Rationale:

(1) Currently, to successfully prosecute a noise offence, the prosecutor must prove beyond a reasonable doubt the identity of the individual or individuals actually engaging in the activity creating the noise. It is often difficult for police officers, bylaw enforcement officers, or neighbours to identify who is actually making the noise but determining the identity of the property owner is not an issue. Given that the tenant is the responsible party, it is the tenant that should continue to have primary responsibility for their own actions. To address the difficulty in ascertaining who the occupant of the premises is for prosecution purposes, it is recommended that additional investigative powers be granted to require a property owner to provide the name of the occupier to a peace officer in furtherance of the peace officer's investigation, and to provide a copy of any lease if requested.

(2) In circumstances where noise problems continue even though the tenants differ from year to year, the owner should be accountable for his or her management of the premises. Therefore, it is recommended that the *MGA* be amended to so provide. To assist landlords in their management of noisy tenants, it is suggested that the statutory lease provisions of the *Residential Tenancies Act* be amended to include a provision in respect of noise to provide a landlord a form of redress for noisy tenants.

(3) Currently, the *MGA* provides that it is an offence to "engage in any activity that unreasonably disturbs or tends to disturb the peace and tranquillity of a neighbourhood". It is recommended that the section be amended to an alternative test more appropriate where the responding officer is the only Crown witness.

Proposed Amendments:

Amending subclause 172 (1)(d)(vi) by adding immediately following the word "neighbourhood":

", or the noise is excessive or unusual in relation to the time of day, and may

prescribe responsibility therefor to an owner or occupier where a written warning has been provided of previous disturbances";

Adding subsection 172 (3):

(a) When an occupier of property disturbs the peace and tranquillity of a neighbourhood, the owner, on the request of a peace officer shall, within forty-eight hours of the request, supply the peace officer with a copy of any lease, if applicable, and the name and address of the person occupying the property at the time of the disturbance.

(b) An owner who refuses, fails, neglects or is unable to supply the name and the address of the person occupying the premises or a copy of the lease where applicable within forty-eight hours of being so requested, shall be liable on summary conviction to the penalty prescribed for the offence of the occupier.

(c) For the purposes of this section, "peace officer" includes a member of the Royal Canadian Mounted Police, a police officer appointed by a municipality or the Attorney General, a bylaw enforcement officer, and a special constable.

Amending Section 9 of the *Residential Tenancies Act, Statutory Condition*, by adding:

10. Noise - A tenant shall conduct himself in such a manner as not to unreasonably disturb the peace and tranquillity of a neighbourhood.

II. Obstructions on Streets

Rationale:

The *MGA* allows an Engineer to order an owner to remedy an obstruction on a street. It appears that it was intended that it be the responsibility of the owner to pay for remedying the condition. For greater clarity, it is recommended that the *MGA* be amended to clarify that the owner is required to pay for the costs of remedying the condition.

Amendment:

Amending subsection 318 (4) by adding:

"and any costs associated with remedying the condition shall be paid by the owner".

III. Retention of Trees

Rationale:

Clause 214 (1)(f) of the *MGA* allows a municipality to include in its municipal planning strategy, in connection with a development, the retention of trees and vegetation for the purposes of landscaping, buffering, sedimentation or erosion control. Clause 220(5)(d) grants municipalities, where the MPS so provides, the power to provide in the LUB, in connection with a development, the power to regulate or require the planting or retention of trees and vegetation for the purposes of landscaping, buffering, sedimentation or erosion control. Property owners sometimes clear cut tracts of land before an application for a development agreement or permit is made thereby defeating the purpose of these sections.

In 2001, further to a resolution of Council, the Mayor wrote to the then Minister of SNSMR requesting an amendment to the *MGA* allowing municipalities to regulate the cutting and removal of trees on private property in urban areas. To date, the *MGA* has not been amended to grant HRM such authority and the problem of clearcutting on private property, in advance of a development application, continues in the urban areas. As a result, existing provisions in the MPS or the LUB allowing control of tree removal as part of the development process are circumvented.

It is recommended that Council request the Minister to revisit the 2001 recommendation and grant municipalities the authority, by bylaw, to regulate the removal of trees and vegetation in the urban core before the development process is engaged. Such an amendment would be similar to that found in s. 135 of Ontario's *Municipal Act* which permits a local municipality to prohibit or regulate the destruction or injuring of trees; or ss. 923 (1) of B.C.'s *Local Government Act* which allows a bylaw, in a designated area of land, to regulate or prohibit the cutting of trees and to require the owner to get a permit:

Amendments:

Amending s. 63(1) by adding:

(c) may make by-laws respecting the removal of trees and vegetation on public and private property in any area of a municipality designated as urban core;

Amending s.63 by adding:

(1A) Where there is a conflict between the *Forests Act*, and a bylaw passed under clause 63(1)(c), the *Forests Act* prevails.

IV. Active Transportation

Rationale:

The Council approved Regional MPS promotes and encourages active transportation by integrating land use and transportation planning. Broadly speaking, HRM's Active Transportation Functional Plan provides the framework for the development of active transportation within HRM. The August 14, 2006 report to COW recommending the adoption of the Active Transportation Functional Plan, in Attachment 5, a copy of which is attached as Appendix "A", recommends amending the *MGA* to permit active transportation charges at the building permit and subdivision stage.

Currently, section 274 of the *MGA* permits infrastructure charges in the subdivision bylaw. HRM is recommending that the *MGA* be amended to allow HRM to recover all or, in part, Active Transportation Charges at the subdivision stage and that section 81 be amended to allow Council to impose charges for active transportation facilities. This would provide Council with the enabling powers to impose such a charge in the future should it determine that this was in the best interest of the Municipality.

Amendments:

Amending section 3 by renumbering 3 (a) as 3 (ab) and adding:

> 3 (a) "active transportation" means any form of non-motorized self propelled or muscular powered mode of transportation that relies on use of human energy or human power including recreational uses such as walking, bicycling, inline skating, skiing, skateboarding, snowshoeing, and jogging;
>
> 3 (aa) "active transportation facility" means any structure, building, bicycle or pedestrian trail, bicycle lanes on streets, sidewalk, multi use trail, walkway, path, boardwalk, field or park, used, or intended to be used, in whole or in part, for active transportation;

Amending subsection 81(1) by adding:

> (h) constructing, expanding, repairing, improving, and maintaining an active transportation facility;

Amending subsection 274 (2) by adding:

> (f) new or expanded active transportation facilities;

V. Enforcement Remedies

Rationale:

Section 505 of the *MGA* provides that it is an offence to violate a provision of an order issued under the *MGA*, the regulations or a by-law. When a violation occurs, one remedy is for the judge to order the person to comply with the municipal order, bylaw or regulation. Section 505(5) provides that it is an offense for a person to fail to comply with the court's compliance order. Legal Services is recommending that subsection 505 (5) be amended to provide that it constitutes contempt of court, for a person to fail to comply with a court's compliance order; thereby, allowing HRM to charge the accused with the more serious offence of contempt rather than the lesser offence of failure to comply.

Amendment:

Amending subsection 505 (5) by replacing the words "an offence" with "contempt of court".

VI. Non-Profit Tax Rates

Rationale:

The *MGA* permits Council, by bylaw, to exempt certain organizations from taxes. By-law T-200 lists a number of non-profit organizations that are exempt or partially exempt from taxes. Currently, the by-law has to be amended to grant an exemption or partial exemption to each individual non-profit organization. To foster a more efficient process, rather than continually amending By-law T-200, it is proposed that Council have the option of setting a rate for partially exempt non-profit organizations. It is recommended that the *MGA* be amended to allow Council to set a different tax rate for non-profit organizations that are only partially exempt from taxation thereby allowing a decrease in taxes payable without the need to amend the bylaw for a partial exemption.

Amendments:

Amending section 74 by adding

> 74(4)(a) Notwithstanding section 71, the council may, by by-law, to the extent and under the conditions set out in the by-law, set separate tax rates including commercial, residential and resource rates, for the whole or part of the property used or occupied by:
>
> > (i) a named registered Canadian charitable organization, that is used directly and solely for a charitable purpose including a registered charity under the *Income Tax Act*, R.S.C. 1985, Chapter 1 (5th Supp.); and

(ii) a non-profit community, charitable, recreational, cultural or sporting organization, that is incorporated pursuant to the *Societies Act*, 1989 RSNS c. 43 or otherwise,

providing that the non-profit or charitable organization annually applies to the municipality for the separate tax rate.

74(4)(b) The council may, in its discretion, refuse to grant separate tax rates for a non-profit or charitable organization.

74(4)(c) Separate tax rates set pursuant to this section extend only to properties specifically named in a policy.

VII. Notice of Claim

Rationale:

The *MGA* requires that an action be commenced within 12 months from the date of the accident. Often HRM does not receive notice of the claim until the last day. This prejudices HRM's ability to gather evidence, interview witnesses, examine the place where the damage has occurred and otherwise investigate the loss in a timely manner to defend the allegations. For example, for a slip and fall, the ice and snow may have dissipated in as little as 12 hours after a fall due to the freeze and thaw cycle; for trip and falls, the condition of HRM's property can change drastically in a year; or, in the case of passenger injuries on Metro Transit buses, it is difficult for drivers to remember details such as a vehicle cutting in front of a bus, but not resulting in a collision, 12 months after an alleged event. At the present time, the *MGA* requires notice 30 days before the claim is filed with the Court which fails to achieve the primary objective of allowing the municipality to gather information related to the event within a time frame necessary to secure that evidence. Therefore, it is recommended that a 21 day notice period be added to the *MGA* for snow and ice claims and in respect of transit claims, similar to that which exists in other jurisdictions as reflected in the attached Appendix "B".

Amendments:

Amending section 512 (4) by adding:

512(4) (a) A municipality is not liable for any damages or injuries sustained by:

(i) a person resulting from a slip, trip or fall due to snow, ice, rain, freezing rain, or slush,

(ii) a person resulting from a trip or fall on a sidewalk or street, or

(iii) an occupant on a public transportation service provided under this *Act;*

unless notice in writing, setting out the time, place and manner in which the injury or damage has been sustained, is served on the municipality within 21 calender days from the date on which the damage or injury was sustained.

512(4)(b) This section does not apply to injury or damages sustained before the date of the coming in force of this section.

VIII. Accident Benefits and Unidentified Motorist Payments on Metro Transit Buses

Rationale:

The *Municipal Government Act* allows Council to spend money on and operate a public transportation service. The *Insurance Act* requires that HRM, through its automobile insurance, provide accident benefit insurance to occupants of busses regardless the degree of fault to a maximum of $25,000 or for a period of four years, whichever comes first, plus weekly salary replacement up to $140 per week, collectively, commonly referred to as "Section B benefits". For a seven year period commencing in 1998, HRM spent a total of $919,958 on accident benefits claims, an average of $131,358 per year or $2,767 per claim.

Unlike Section B benefits, the *Insurance Act* also requires HRM to pay for the injuries of an occupant on a bus whose injuries are caused by an uninsured or unidentified automobile, again regardless of fault, to a maximum of $500,000, commonly referred to as "Section D benefits". In the case of Section B benefits, the *Insurance Act* requires the occupant's own Section B insurer to pay, rather the insurer of the automobile in which the person was an occupant when he or she was injured. This no fault insurance approach seems inappropriate where there is no fault on the part of the public transit system. It is recommended the *Insurance Act* be amended to transfer some of HRM's costs to other insurers while still providing protection to those occupants without insurance.

Therefore, it is recommended that a priority for payment be sought requiring an occupant of a bus, who is insured under his or her own automobile insurance, to claim, in the first instance: (1) accident benefits against his or her own policy rather than against HRM, and (2) uninsured or unidentified coverage against his or her own policy rather than against HRM.

Amendments:

Amending the *Insurance Act* by adding:

143 (1) Where a person who is entitled to benefits pursuant to Section 140 and is an

occupant in a public transportation service provided under the *Municipal Government Act*, 1998, SNS, c.18, and is a named insured or insured person under any contract of insurance to which this part applies, that person shall:

a) in the first instance, recover from the contract of insurance in which the person is a named insured or listed driver, or

b) if recovery is unavailable under clause 143(1)(a), recover from the owner of the public transportation service in which the person was an occupant.

139 (8) Where a person is entitled to benefits pursuant to Section 139 and is an occupant in a public transportation service provided under the *Municipal Government Act*, 1998, SNS, c.18, and is a named insured or insured person under any contract of insurance to which this part applies, the person shall:

a) in the first instance, recover damages for bodily injuries, death, or property damage from the contract of insurance in which the person is a named insured or listed driver, or

b) if recovery is unavailable under clause 139(8)(a), the person may recover from the owner of the public transportation service in which the person was an occupant.

IX. Maximum and Minimum Bylaw Provisions

Rationale:

Subsection 220 (4) of the *MGA* permits a land use bylaw to regulate certain land uses including: the "minimum" dimensions for frontage and lot area for any class of use and size of structure; the "maximum" floor area of each use to be placed upon a lot, where more than one use is permitted upon a lot; the maximum area of the ground that a structure may cover; and the "maximum" density of dwelling units.

To clarify the legislation and provide more flexibility, it is recommended that the words "minimum" and "maximum" be deleted from subsection 220(4).

Amendments:

Amending subsection 220(4) by deleting the words "minimum" and "maximum" where ever they appear.

X. Clarify Bonus Zoning

Rationale:

The MGA includes a Statement of Provincial Interest Regarding Housing that requires all municipalities to provide in their planning documents for "housing opportunities to meet the needs of all Nova Scotians". The Regional MPS proposes a range of tools to address housing diversity and affordability to meet the needs of its residents, including policies for incentive and bonus zoning for affordable and barrier-free housing [RMPS Policy S-34]. The application of these methods will be determined by communities during the secondary planning process. The use of incentive or bonus zoning provides opportunities to implement these provisions. While bonus or incentive zoning is currently enabled under the MGA, the legislation is unclear whether they can be used for affordable housing or housing that exceeds current barrier-free requirements.

Broader powers to promote these housing types would stimulate partnership development and increase access to diverse housing options in HRM and other Nova Scotian communities. Similar tools are being successfully used by municipalities in other provinces: BC Local Government Act, s. 904 and 905 and Ontario Municipal Act, 2002 s. 107, 110 and s. 28.

One of the anticipated outcomes of the HRM by Design Project presently in progress is to provide a regulatory regime that requires new buildings in the Regional Centre to be of a high quality design. Building designs will vary based on their context and it is conceivable that some building designs will include public amenity spaces. Incentive or bonus zoning could also be used to encourage and support this type of design.

It is recommended that the MGA be amended to clarify that bonus zoning includes the provision of public amenity space, affordable housing and housing that provides barrier-free units with barrier-free features in excess of the requirements under the Nova Scotia Building Code Regulations.

Amendments:

Clause 220(5)(k) is amended by adding after "zoning", "including incentives and bonus zoning for public amenity space, affordable housing and housing that provides barrier-free units in excess of the requirements of the Nova Scotia Building Code Act and Regulations".

XI. Increasing Building Construction Standards Near Nuisances

Rationale:

Generally, zoning regula tions aim to reduce impact between incompatible uses, such as minimizing impacts to residential uses from heavy industrial uses. One way to reduce incompatibility between uses is to design buildings so a specific nuisance is reduced. For example, improving sound insulation in residential buildings will enable them to locate closer to a noise generator (such as an airport) than would be possible with standard construction. The Provincial *Building Code Act*, which enables HRM's Building Bylaw (B-201), only permits municipalities to increase construction standards with the approval of the Minister.

It is recommended that the *Building Code Act* be amended to allow HRM to impose more stringent construction standards to reduce and manage nuisances between land uses.

Amendment:

Amending Section 7 of the *Building Code Act* by adding:

(1A) (i) Notwithstanding sections 4(2), 7(1) and 26, to minimize the impact of nuisances, a council may, by bylaw, impose more stringent standards for the construction of buildings.

(ii For the purposes of this section, "nuisances" includes industrial uses, airports, streets and highways.

XII. Senior Citizen Housing

Rationale:

Private sector developers, residents and Councillors have at various times indicated a need for housing that is limited to seniors. With a growing population of seniors in HRM, this need is likely to increase. Section 5 of the Nova Scotia Human Rights Act places restrictions on this type of development. Other provinces in Canada such as Saskatchewan have adopted changes to their human rights legislation to address this issue. It is recommended that the Province of Nova Scotia look at addressing this issue.

BUDGET IMPLICATIONS

At present, there are no budget implications associated with these recommendations.

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

Council could delete any of the proposed amendments.

ATTACHMENTS

Appendices "A" and "B".

Additional copies of this report, and information on its status, can be obtained by contacting the Office of the Municipal Clerk at 490-4210, or Fax 490-4208.

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Report Approved by: _____
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HALIFAX
REGIONAL MUNICIPALITY

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Halifax Regional Council
November 14, 2006
Committee of the Whole

TO: Mayor Kelly and Members of Halifax Regional Council

SUBMITTED BY: Geri Kaiser, Acting Chief Administrative Officer

Wayne Anstey, Deputy Chief Administrative Officer - Operations

DATE: August 14, 2006

SUBJECT: **Active Transportation Functional Plan**

ORIGIN

Regional Municipal Planning Strategy, Transportation Chapter requiring an Active Transportation Functional Plan be created as part of the Transportation Master Plan.

RECOMMENDATION

It is recommended that Regional Council adopt the Active Transportation Functional Plan to guide the promotion and implementation of active transportation within HRM.

BACKGROUND

Within HRM, the framework for promoting and encouraging active transportation has been established within the Regional Municipal Planning Statement (to be referred to as the Regional MPS). The Regional MPS integrates land use and transportation planning allowing for improved management of travel demand and the strategic improvement of the transportation network. As well, this approach allows for the integration of mixed use transit- and pedestrian-oriented centres which are complemented by a multi-modal transportation system. The design and location of these centres will encourage the use of active modes of transportation. The development of HRM's Active Transportation Plan began in May 2005 with the award of contract to SGE Acres Ltd., in association with Marshall Macklin Monaghan and Go for Green.

DISCUSSION

Overview of the Active Transportation Functional Plan

The Active Transportation Functional Plan is a comprehensive document that is comprised of two components.

- The first document contains the framework for policies, implementation, promotion and development of active transportation in HRM. Attachment 2 is the Summary of the main document, including a summary of the policies contained within it.

- The second document is the Technical Appendix: Facility Planning and Design Guidelines. Recommended guidelines for the development of the on and off road facilities are included in this component. A summary of the recommended technical guidelines is included as Attachment 3.

The plan promotes and encourages active transportation through the integration of the on-road and off-road network. The on-road network includes sidewalks, bike facilities and trails within the right-of-way. The off-road network is the trail system. A hierarchy of primary and secondary active transportation is also established (see Attachment 4).

The Active Transportation Functional Plan is dynamic and will require updating as circumstances change and communities evolve. It is a high level guiding document for the municipality that will establish the conceptual network and policies that will establish a frame of reference within which active transportation will be developed and promoted. As a result, not all of the details have been included in the document.

Implementation

The plan is to be divided into two phases - Phase 1 will occur in Years 1 to 5 and Phase 2 will occur in Years 6 to 20. The recommended implementation schedule is included as Attachment 5.

Phase 1 priorities include beginning the development of the primary (spine) network, which includes both on-road facilities and off-road trails and eliminating gaps between existing routes. Other priorities include connecting the on-road network (sidewalks, bicycle facilities) to transit facilities throughout HRM.

Active Transportation Advisory Committee

To successfully implement the Active Transportation Plan, staff will require the support of an advisory committee. The current Bikeways Advisory Committee's mandate is to advise staff on the implementation of infrastructure, policies and programs related to bicycle activities. However, the implementation of the Active Transportation Plan will require expanding the mandate of the Bicycle Advisory Committee to an Active Transportation Advisory Committee. The new committee will advise staff on infrastructure, policies and programs pertaining to all modes of non-motorized transportation. The Active Transportation Plan will serve as the guide for this committee.

The membership of the committee will be broadened to include individuals and organizations concerned with a variety of issues related to non-motorized modes of transportation. These includes pedestrian issues, the interests of youth with regards to active modes of transportation, persons with disabilities, community trails, provincial interests, and bicycle infrastructure and programs. Staff will submit a terms of reference for the new committee to Council in the near future.

Funding Active Transportation

To develop the active transportation network, it is estimated that it will cost approximately $100 million dollars (including a 35% contingency and HST) over the lifetime of the plan. This amount encompasses yearly capital budget expenditures such as sidewalks, regional trail projects, bikeways infrastructure and road improvements (where bicycle infrastructure is included). While some new money will be required to implement this plan, most of the elements are already included in HRM's annual capital budget. The plan will assist in prioritizing and coordinating projects and capital expenditures rather than requiring a significant increase in spending. This will allow for integrated capital budget planning to create a holistic network.

It is anticipated that external funding sources and partnerships may also be used to develop some aspects of the system. An Active Transportation Plan that sets out the direction for facility development within the municipality will enable HRM to pursue funding opportunities from outside sources that are directed at promoting alternative modes of transportation and developing infrastructure for active transportation.

BUDGET IMPLICATIONS

The budget to implement the Active Transportation Functional Plan will be decided by Council on a yearly basis. The approval of this plan does not represent a budget commitment.

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

Regional Council may choose not to adopt the plan. This is not recommended as the plan will enable HRM to move ahead with infrastructure planning and promotion of Active Transportation. HRM will be able to create a network of facilities that will provide choice and viable alternatives to the automobile with the approval of the Active Transportation Functional Plan. Plans with direction and goals will also result in improved funding opportunities.

ATTACHMENTS

Attachment 1: Summary of Background Report
Attachment 2: Summary of Active Transportation Functional Plan and Recommended Policies
Attachment 3: Summary of the Technical Recommendations
Attachment 4: Network Map
Attachment 5: Implementation Schedule

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

Report Prepared by: Roxane MacInnis, TDM Planner 490-4160

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ATTACHMENT ONE

Executive Summary - **HRM Active Transportation Plan**
Background Working Paper
SGE Acres Ltd., Marshall Macklin Monaghan and Go for Green
August 2005

Introduction

Active Transportation (AT), by definition is any form of self-propelled (i.e., non-motorized) mode of transportation that uses human energy such as walking, cycling, inline skating, jogging, skiing, skateboarding and snowshoeing. These modes can utilize on and off-road facilities (eg. sidewalks, bicycle lanes, multi-purpose trails) and may also be combined with public transit, especially for trips to and from work, shopping and entertainment areas, school and other community facilities like recreation centres and libraries.

Why do we need an Active Transportation Plan?

There is a consensus of opinion by health care professionals, urban planners and other professions that regions like HRM need an action plan to accommodate a more active lifestyle by a larger segment of the population in an environmentally and financially sustainable manner. Developing an Active Transportation Plan is one of the building blocks being undertaken by HRM to meet these needs.

Vision

The purpose of the Active Transportation Plan is to build upon the existing system of on and off road pedestrian, trail and cycling facilities, link them together in an integrated network that also supports transit use and design and existing programs to promote, educate and encourage more people of all ages to choose Active Transportation modes more often.

"Develop a region-wide, visible and connected AT network of on and off road facilities that are convenient, accommodate the needs of existing and future users and promotes an increase in non-motor vehicle travel, particularly for short distances. This network will be supported by various programs, policies, and strategies that will help and encourage AT year round and improve quality of life for both residents and visitors to the region and make HRM one of the most desirable municipalities in which to live, work and visit in North America."

Objectives

1. **Develop a Connected Region-wide Active Transportation Network Plan**. This will be a continuous network that is seamless, clearly marked, accessible.
2. **Develop Active Transportation Routes and Facility Planning and Design Guidelines**. Need to address design issues that will work for HRM and meet accepted standards.

3. **Review Active Transportation Promotion, Education Programs and Supporting Facilities.** Look at what is existing (both from HRM and partners) and recommend improvements to both content and delivery. Need to educate all road users.
4. **Develop a formal set of Active Transportation Policies.** Review all existing policies related to active transportation.
5. **Define the priorities and develop an implementation strategy to integrate long term road, bikeway, sidewalk and trail system planning in the region.** Priorities for implementation will be established. Will look at capital project forecasts to allow for effective implementation plan that will consider management structure, planned projects and where users want to be.
6. **Develop the financial costs of establishing a "tiered" Active Transportation system.** Realistic calculation of network development cost and costs of education programs, end of trip facilities and so on.

Background Information

A variety of information has been collected to prepare the Active Transportation Plan. This information includes active transportation related policies from the draft Regional Plan; relevant provincial statutes such as the Municipal Government Act, the Motor Vehicle; variety of data and information from HRM, other jurisdictions ;and a similarities and differences review of provincial policy and the Regional Plan.

Network Design

1. **Design Fundamentals** - This includes the need to take a balanced approach to the design fundamentals so that no one takes precedence over others. The design fundamentals have been grouped into two categories: facility design and operational design.

a) **Facility Design** influences design and ultimately the use of active transportation facilities. Several elements are required for good facility design.
Horizontal Dimensions - facility must be wide enough to accommodate intended users.
Vertical Dimensions - must have adequate vertical clearance for intended users.
Surface Materials - for off road trails in particular, the surface material varies depending upon the use and users.
Location - Location is important because it can affect safety and efficiency of trails in particular.
Grades - Grades that are too steep can create difficult conditions for users.
Geography - Taking advantage of natural geographic features creates pleasant environments.

b) **Operational Design** influences how active transportation facilities operate. Operational design is important because it can influence how well a facility may function.
Signs - should be located in conspicuous areas and be comprehensible. There should not be an over saturation of signs and need to meet acceptable national,

provincial or municipal standards.
Pavement Markings - Need to use appropriate materials for the symbols, and should be of a size and colour that makes them clearly visible. They should be located where they are visible to motorists and AT users.
Traffic Signal Location - consideration should be given to using half signals where AT volumes are high and signals warranted.
Traffic Signal Phasing - Minimum pedestrian crossing times may not be sufficient for all users and may not reflect pedestrian volumes in some locations where congestion may result.
Lighting - the requirement for lighting along AT corridors depends upon the location and use of the facility. Some pathways should not have lighting along them.

Design Solutions from other Jurisdictions

A review of other areas has indicated the following:

a) need to establish design guidelines
b) innovate design solutions are sometimes required to achieve key connections when developing a comprehensive network
c) look at jurisdictions throughout Canada, North America and elsewhere for ideas

CPTED

CPTED stands for Crime Prevention Through Environmental Design an dis a set of site design initiatives and principles to reduce the incidence and fear of crime and improve quality of life. The fear of crime can keep people from using Active Transportation modes and facilities because the automobile is deemed to be a safer mode of transportation.

CPTED offers an unique approach to design that creates "built-in" physical crime prevention elements that exist in and of themselves and are not dependent upon the continued vigilance by active organizations and residents.

There are four (4) CPTED principles. These are natural surveillance, territorial reinforcement, natural access control and maintenance.

It may be difficult to implement the CPTED principles because off-road pathways are removed from the public eye and therefore the natural surveillance element is missing (also referred to as "eyes on the street"). CPTED principles are also often at conflict with site development. The safety measures required to improve surveillance often conflict with the desire to preserve the natural settings.

However, there are benefits to applying CPTED to Active Transportation networks and

infrastructure. If AT facilities are perceived to be more secure and safe, then it will lead to increased levels of usage.

Benefits of an Active Transportation Network

There are many benefits to developing a comprehensive active transportation network. Cycling and walking, for example, are cost effective, environmentally sensitive and healthy modes of transportation. It has been determined that to increase the amount of residents using active modes of transportation, investment in infrastructure and a network plan are necessary.

Benefits to HRM

The professional and academic literature contains significant amounts of data on community health and physical activity that confirm the need for an active transportation plan. Changes to our lifestyle have led to a significant increase in obesity. Lack of physical activity, changes in our diet and increasing income levels are all factors. Physical activity provides proven health benefits; protects against a number of diseases; and decreases health care costs. Evidence=based research indicates that the Active Transportation Plan should strive to meet that needs for active lifestyles for all residents.

Transportation Benefits

There are several benefits of active transportation for the transportation network. Active modes of transportation are efficient. For example, the transportation network can carry 12 times more people by bicycle then by car per hour and twenty times more people per hour by walking than the car. Studies have shown that many people would like to use active modes of transportation for commuting. Therefore there is potential to increases the number of trips by active modes. Other benefits include decreased congestion, decreased roadway costs, improved road safety and a decrease in the amount of parking spaces required.

a) Congestion - increases in traffic congestion lead to increased travel time, operating costs, stress and air pollution.
b) Roadway Costs - shifting to active transportation can contribute to lower road costs because less maintenance costs. A small percentage of the overall transportation budget can lead to high levels of bicycle use.
c) Road Safety - there is evidence to suggest that increases in the number of cyclists on the leads to decrease in risk of cycling.
d) Parking Space Reduction - parking has significant costs associated with it, such as land costs, construction costs and operating expenses. On the other hand, parking costs for bicycles for example are significantly lower and there are no parking requirements for pedestrians, inline skaters and so on.

Environmental Benefits

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Managing airborne pollutants will be a challenge for municipalities, particularly from transportation. At the moment, about 70% of greenhouse gas emissions come from the transportation sector, with 45% coming from cars and light trucks. Short distance trips by cars generate the most pollution per kilometre and it is these trips that can be easily replaced by active modes. Air pollution, noise, water quality and land use cause damage to the environment and people's health.

a) Air pollution reduction - motor vehicle emit nitrogen oxides, carbon monoxide, sulphur dioxide and particulate matter - all of which have a significant impact upon the environment and health. By switching to active modes of transportation, which do not emit any pollutants into the air, a reduction of .64 tonnes per active commuter will be achieved annually.

b) Noise reduction - motor vehicles cause various types of noise pollution and in turn results in disturbances, discomfort and possible health risk. Active transportation tends to reduce the volume and speed of vehicle traffic and therefore noise levels.

c) Water Quality - motor vehicles and infrastructure source of water pollution and hydrologic disturbance (mainly due to fluid leakage from vehicles, road salt, construction and loss of wetlands, herbicides, air pollution settlement and flooding due to increased run off. Active transportation will have limited impact.

d) Land use - Type of community - auto-oriented versus pedestrian-oriented results in amount of land used for transportation related infrastructure. Car-oriented land use patterns use a considerable amount of land for transportation related infrastructure compared to pedestrian-oriented communities. Reducing motor vehicle dependence by providing improved active transportation infrastructure can both reduce the amount of land in urban areas required for roads and parking and can also reduce the requirements for the construction of new subdivisions, making the entire system easier to manage from a transportation perspective.

Economic Benefits

In 2004, Go for Green and Better Environmentally Sound Transportation (BEST from BC), released a business case for AT entitled: "The Economic Benefits of Walking and Cycling". The benefits included reduced road construction, repair and maintenance costs; reduced costs due to greenhouse gas emissions; reduced health care costs; reduced fuel, repair and maintenance costs to user; reduced costs due to traffic congestion; increased bicycle tourism; increased bicycle sales and increased property values along greenways and trail, to name a few.

A small proportion of a community's transportation budget can lead to high levels of active transportation use. The infrastructure for active transportation can be lower than for motor vehicle transportation. AS well, active modes are lightweight and take up less space and cause less wear and tear on the road surface.

As well, the following can occur: a) increasing the usage of active transportation can lead to

reduced demand for parking and therefore lower costs; b) trails can provide economic benefits to adjacent landowners and businesses; c) potential for increased benefits from cycling tours.

In summary, experiences from other jurisdictions as well as data collected a the provincial and federal levels in Canada confirm the positive benefits of supporting Active Transportation and trail development. Active transportation can provide a number of transportation, economic, environmental and social benefits to the Halifax Region. According to the aforementioned Go for Green study, "The current economic benefits are enough to justify increased government expenditures on active transportation in Canada. The projected benefits of doubling the modal share of Active Transportation made the case even more compelling".

Developing an Active Transportation Network

Why a Network?

HRM has taken a number of key steps in recent years to plan for pedestrian and cycling improvements. Need to see how various modes interrelate so that they can complement each other. These modes include active modes of transportation, public transit (including the ferries). The aim of the AT plan is to build upon the existing and previously proposed initiatives to create a complete, integrated and readily accessible region-wide network. To do this, a network of facilities that includes sidewalks, cycling facilities and trails need to be integrated and connected to each other and public transit facilities, since this has been a barrier to increasing AT person-trips.

The AT network will achieve the following key objectives:

a) make AT modes more convenient and safer by removing barriers to walking, cycling and public transit;

b) encourage more people to walk, cycle, inline skate, etc, more often by providing them with the connections to where they want to go; and

c) support efforts to achieve a greener and healthier HRM by encouraging residents and visitors to choose AT modes as part of a fitness regime and to reduce greenhouse gas emissions by reducing reliance upon the motor vehicle.

A continuous and connected network of pedestrian and cycling facilities is needed in HRM to overcome barriers and create links among urban, suburban and rural communities and other key destinations within the Region, while at the same time promoting connections to surrounding communities outside of HRM.

The Network Concept

Increasing the number of people using AT for trips, particularly utilitarian trips, is a goal of this plan. A hierarchy of routes needs to be established to accomplish this, accompanied by an educational and promotional campaign. It will be developed to encourage a variety of users,

from the most experienced to the beginner.

The network will include a hierarchy of routes and facility types. These include:

a) A primary "spine" system; and
b) A secondary "community" system

Primary "Spine" System
This will provide direct links between major nodes throughout the region, such as commercial, employment, institutional, residential and tourist destinations. This will be the backbone of the network. This will consist mainly of sidewalks and on-road bicycle routes and some linear off-road multi-purpose trails.

Secondary "Community" System
These are routes that will feed into the primary system. These may not be as direct and will serve local destinations as well as feeding into the primary system. These will be mainly sidewalks, signed-only bicycle routes and off road multi-use pathways and trails.

Proposed Network Development Approach

The following steps are proposed for the development of the network:

a) Developing a route selection process - principles which derive qualitative and quantitative criteria to assist in selecting a preferred route and facility type;
b) completing an inventory and assessment of existing conditions;
c) identifying and assessing candidate routes - selecting and investigating potential AT routes and evaluating each to determine its feasability; and
d) recommending a draft network plan.

Network Objectives:

- complete the propped AT network within 20 years;
- develop on and off road network;
- better integrate on and off road network facilities;
- connect to pedestrian, trail and cycling facilities in adjacent municipalities where possible;
- serve a broad range of users and interests;
- respect and support the natural environment, cultural heritage, urban design and long rang planning objectives of HRM;
- link all residents to desirable or important destinations.

Route Selection Principles and Evaluation Criteria

- Attractive - take advantage of attractive and scenic areas and vistas;
- Diverse - provide a diverse range of route options and experiences;
- Visible - should be a visible component of transportation network;
- Connected - all facilities should be connected to form a network;

ATTACHMENT ONE

- Accessible - easily accessible within and from local community and to major destinations;
- Reduce Risk of use - planned and design to reduce risk to users and balance location etc to meet needs;
- Accommodating - accommodate all modes
- Integrated - integrated with other modes of transportation;
- supported - support services such as bicycle parking should be available;
- Distributed -
- Pedestrian and bicycle friendly -

ATTACHMENT TWO

Active Transportation Summary
June 26, 2006

INTRODUCTION

The Active Transportation Plan has been developed to meet the needs of a diverse range of users, both present and future. Active transportation is defined as any form of self-propelled (non-motorized) mode of transportation such as walking, cycling, inline skating and jogging. These modes can utilize on-road and off-road facilities (sidewalks, bike lanes, multi-use trails) and may also be combined with public (land and water) transit, especially for trips to and from work, shopping and entertainment areas, school and recreation facilities.

Active transportation is not about restricting the use of the motor vehicle, but rather enhancing choice and opportunities for multi-modal travel and recreation that promotes physical activity and healthy lifestyles for all ages. It is part of a larger program of transportation demand management which looks to utilize the transportation network in a more efficient and effective way through the use of alternative modes of transportation (other than the single occupant vehicle trip).

Vision, Goals and Objectives
The vision for the Active Transportation Plan is the following:

> *"Develop a region-wide, visible and connected Active Transportation network of on-road and off-road facilities that are convenient, accommodate the needs of existing and future users and promotes an increase in non-motorized vehicle travel, particularly for short distance trips. This network will be supported by various programs, policies, and strategies that will help and encourage Active Transportation year-round, and improve the quality of life for both residents and visitors to the area and make HRM one of the most desirable municipalities in which to live, work and visit in North America."*

Six (6) objectives were developed to the development of the Active Transportation. The six objectives are:

Objective 1: Develop a connected region-wide active transportation network plan.
Objective 2: Develop planning and design guidelines for active transportation (pedestrian and cycling) routes and facilities.
Objective 3: Review active transportation promotion, education programs and supporting facilities.

Objective 4: Develop a formal set of active transportation policies
Objective 5: Define the priorities and develop an implementation strategy to integrate long-term road, bikeway, sidewalk and trail system planning in the Halifax Region
Objective 6: Develop the financial costs of establishing a "tiered" active transportation system.

Connections to the Regional Plan and Other Initiatives

The new Regional Municipal Planning Strategy (MPS) speaks directly to Active Transportation, and demonstrates a clear intention to promote AT modes and to integrate the Active Transportation Plan into broader regional policy directives. The Regional MPS promotes the integration of transportation and land use planning, with a view of creating more compact and mixed use development, accompanied by an interconnected system of streets, pathways, sidewalks and bicycle lanes. Other policy areas including urban design, parks and open space development, transit, and growth management also directly address Active Transportation.

Integrating Active Transportation into each of these areas is described below:

1. Urban areas - are pedestrian oriented, contain mixed uses and are walkable. However, the streets are narrow and there is little room to expand to incorporate active transportation infrastructure.
2. Suburban areas - are more car-oriented (though some are pedestrian oriented), generally have segregated land uses and are not always walkable. However, integrating active transportation into suburban areas is more feasible with wider road right-of-ways, lower density development with more opportunities for linkages.
3. Rural areas - have unique challenges and opportunities. The small settlements were historically developed along the water or surface transportation routes. Older settlements have similar issues to the urban area as they have little room for expansion. The linear development along the highways results in safety issues that are not encountered in other areas of the region.

Barriers and Problem Areas

There are a number of physical barriers that can result in an active transportation network not being fully utilized by current and potential users. These barriers include:

- Lack of through streets
- Large lot or strip development
- Lack of crosswalks
- Long blocks
- Unappealing environments
- Flat or "dead" wall space

- Wide streets
- Shopping mall or "big box" developments
- Isolated schools and recreational areas
- Isolated shopping and employment areas
- Geography
- Lack of connectivity

Consultation Findings

A broad-based consultation process was undertaken as it was considered essential for the Active Transportation Plan to be successfully developed. To reach the greatest number of people, the consultation program included workshops, newsletters, email address, stakeholder interviews and a website.

Summary

1. The following topics were discussed throughout the consultation process:
   a. Network ideas including rural and urban routes, difficult connections, regional trail connections.
   b. The lack of alignment with the HRSB policy regarding the requirement for children to walk to school if they live within 2.4 km radius around schools and the plan indicates that there is a requirement for neighbourhood active transportation networks to be built at a minimum radius of 550 metres from schools, transit terminals, community facilities etc. In the case of sidewalks, facilities could be expanded to eventually surpass the 550 metre measurement with priority being given to special destinations such as schools. Where local need exits, additional AT linear connections could be implemented around schools in order to establish safer and more visible connections with the 2.4 kilometre zone.
   c. HRM could investigate the option of providing development incentive bonuses for new commercial and mixed use projects that include AT facilities.

2. The following themes were brought forward:
   a. HRM must establish trail standards for all the Halifax Region and secure the right-of-way for new facilities that are developed by community groups.
   b. HRM must work with the Province of Nova Scotia and the Federal Government to have consistent guidelines, standards and regulations for the funding, design and maintenance of off-road trails.
   c. HRM should take over the maintenance (including winter maintenance) and liability insurance for off-road trails after community groups build the facility.
   d. All new subdivisions should have sidewalks that are installed to the "Red Book"

standards.

e. There are over 20 community groups engaged in AT in the Halifax Region. HRM should facilitate the integration of these groups into a standardized (region-wide) management structure.
f. Funding through the Department of Health Promotion and Protection, the Halifax Regional Development Agency (with support from ACOA) and HRM has been very valuable in community engagement and current network development. The efforts of these public sponsors should be reorganized to provide HRM with an ongoing budget for AT planners, designers, engineers and community health facilitators.

RECOMMENDED NETWORK

One of the goals of the Active Transportation Plan is to build upon existing and previously proposed initiatives to establish a complete, integrated and readily accessible region-wide AT network of rural, suburban and urban areas.

The current lack of a connected and easily navigable network is a major barrier to past efforts to increase the number of AT person-trips as well as the percentage of people who choose to use these modes as part of a trip that also includes public transit.

To build upon past actions and achieve the overall intent of the Active Transportation Plan, a comprehensive region-wide AT network is recommended that achieves the following key objectives:

- Make active transportation modes more convenient and less risky by removing barriers to walking, cycling (including youth-oriented travel) and improving connections to public transit in the Region;
- Provide a connected off-road and on-road AT network to visitors as a premier tourism asset;
- Encourage more people to walk, cycle, inline skate, etc more often by providing them with connections to where they want to go; and
- Support efforts to achieve a greener and healthier Halifax Region by encouraging residents and visitors to choose Active Transportation modes and to reduce greenhouse gas emissions through decreasing dependency upon the private automobile for travel, especially for short distance trips.

To achieve the above objectives, a continuous and connected network of pedestrian and cycling facilities is needed to overcome barriers and create links. Creating a seamless, clearly marked and signed network, featuring linkages to both on-road and off-road systems, is a pre-requisite to

increasing the Active Transportation modal share (the goal is to double the number of people using AT for a portion of their utilitarian trip). To achieve this, a hierarchy of routes and facility types is recommended to appeal to a wide range of skill levels and includes:

- Off-road multi-use trails
- Sidewalks
- Signed-only cycling routes
- Bicycle lanes
- Paved shoulders on arterial and higher volume collector rural roads

A network concept is recommended that includes a hierarchy of routes and facility types. These include:

- A primary "spine" system
- A secondary "community" system

These are each further broken down into two segments, a pedestrian system and a cycling system (which includes all users).

Network Development Approach and Objectives

The process includes the following:

1. Developing a route selection process (set of principles that derive qualitative and quantitative criteria)
2. Completing an inventory and assessment (using the principles and criteria developed for this study) of existing conditions (digital mapping)
3. Identifying and assessing candidate routes (selecting and investigating potential AT routes and determining feasibility for inclusion)
4. Suggest route networks and zone systems
5. Determining facility types for selected routes (choosing appropriate facility type for each route or system)
6. Selecting the network plan

The following objectives were established for the pedestrian and cycling network components of the AT plan:

- Complete the proposed network within 20 years and incorporate AT into all new developments.
- Develop the on-road and off-road network based on either the HRM "Red Book" or the facility design guidelines (companion document).
- Better integrate on and off road network facilities.
- Connect to pedestrian, trail and cycling facilities in other municipalities.
- Serve a broad range of users and interests.

- Respect and support the natural environment, cultural and heritage resources, urban design and longer range planning objectives.
- Link residents and visitors to desirable or important destinations and attractions.
- Provide connections to transit.

Route Selection Principles and Evaluation Criteria
The following is the list of principles that were used to evaluate the existing network and recommend new routes:

- Attractive
- Diverse
- Visible
- Connected
- Accessible
- Reduce risk of use
- Accommodating
- Integrated
- Supported
- Distributed
- Pedestrian and Bicycle Friendly

Facilities Description
The design fundamentals are grouped into two categories – Facility Design and Operation Design

Facility Design
Effective facilities must consider the following elements of good design:

- Horizontal Dimensions
- Vertical Dimensions
- Surface materials
- Location
- Grades
- Geography

Operational Design
The following fundamentals influence how AT facilities operate:

- Signs.
- Pavement Markings
- Traffic Signal location
- Traffic Signal phasing

- Lighting

Crime Prevention Through Environmental Design (CPTED)

CPTED is the application of a range of design initiatives and principles to an area or site in order to reduce the incidence and fear of crime and thereby improve quality of life. This can be done by reducing or eliminating aspects of the physical environment that lend themselves to supporting criminal behaviour.

Four main CPTED principles were reviewed while selecting the AT network:

1. Natural Surveillance
2. Territorial Reinforcement
3. Natural Access Control
4. Maintenance

CPTED should be incorporated into the AT network planning, but creating sterile and uninteresting routes should be avoided. Urban areas should have CPTED principles included as part of a larger urban design strategy to help reduce potential criminal behaviour.

The Regional and Community Network

The overall AT system is based upon the principle of providing neighbourhood connectivity within a framework of on-road and off-road routes that connect communities and neighbouring municipalities. The Active Transportation Plan is designed for integration with the Regional MPS, particularly in respect to transit systems and residential growth. Key features of the proposed network include:

- A defined system of on-road cycling routes.
- The linking of the regional trail system into Peninsular Halifax and major employment/destination areas.
- The development of a new off-road multi-use trail that circles Peninsular Halifax and connects the Seaview Park/Fairview Cove area with Downtown Halifax, Point Pleasant Park and the Armdale Rotary.
- A new multi-use trail that links the Dartmouth/Shubenacadie Canal system to the Halifax International Airport.
- Linking of the Trans Canada Trail into the urban core and points beyond.
- Linking of existing and major new residential areas (Bedford South, Bedford West, Russell Lake) into existing bus terminals and proposed transit hubs.

The Primary System

The spine system consists of AT facilities designed to provide direct links between major nodes throughout the Halifax Region and serves as the backbone of the network. The spine network is broken down into cycling routes and pedestrian zones.

The Community System

The secondary community system consists of routes that feed into the spine system. These routes are intended to serve both utilitarian and recreational AT users. The community system is also broken down in a network of cycling routes and a system of pedestrian zones.

Neighbourhood and Community Connectivity

The network recognizes that it is essential for neighbourhoods to be connected internally. For there to be increased AT use, there must be safe, connected routes from where people live to where they wish to go. In order to assist with travel distances, access to transit facilities and proposed transit hubs is provided; all transit stops should be connected to walkways and sidewalks.

Off-road Facilities

Off-road facilities provide safe options for AT use that help improve the attractiveness of walking/biking to new users. These off-road routes will also:

- Connect off-road trails through the urban core.
- Complete the Trans-Canada Trails through the Halifax Region.
- Permit bicycle tourist access for major neighbouring regions.
- Provide recreational destination for neighbourhood pedestrian/bicycle trail systems.
- Provide destinations such as parks and specialized trail networks.

Benefits of the Recommended Active Transportation Network

The recommended network contains many benefits, including the following:

- Integrating the AT network into the Regional MPS.
- Providing an on-road and off-road route through the urban core.
- Providing for connecting current and planned routes into a system of interconnected on-road and off-road walking and bicycling trails.
- Integrating AT with the public transit system.
- Enabling access to more destination, making AT a more practical alternative.
- Place walking and wheeling on the planning agenda with all future land development.
- Providing trails with status on the planning agenda.
- Recognizing the benefits of AT usage to health and tourism.
- Creating a safer setting for AT engagement by the application of CPTED principles.
- Helping to make the Halifax Region on of the leading communities in Canada for linking on-road and off-road transportation options.
- Protecting public right-of-way from loss through piecemeal abandonment.
- Highways with paved shoulders are easier to maintain.

RECOMMENDED IMPLEMENTATION TASKS AND SCHEDULE

The AT Plan will need to be implemented through an incremental process over a 20-year period. The AT Plan is designed to be flexible so that it can be adapted to changes, constraints and opportunities as they arise.

Implementing the Plan
Ease of implementation can be defined by six criteria:

1. A practical strategy that identifies a recommended approach and addresses priorities and phasing.
2. The quality and clarity of the Plan in terms of its vision, goals, objectives and principles that guide it, and the set of recommendations that provide the strategy to achieve the Plan.
3. A source of ongoing funding that is defined by HRM.
4. An administrative structure responsible for implementing the Plan.
5. Funding by the Regional Council and HRM's partners.
6. Monitoring of the Plan to assess implementation results.

The estimated implementation cost is around $100 million over 20 years. In addition, maintenance costs are estimated at around $200,000 by Year 6 and $2.4 million by Year 20. On an average annual basis, the cost is around $5 million.

Phasing
Implementation should occur in two phases:

- Phase 1: Years 1 to 5.
- Phase 2: Years 6 to 20.

Network Priorities
Phase 1 priorities include the following:

- Commence developing the spine network connecting major nodes in urban and suburban areas.
- Commence developing links within and between the rural group centres specified in the Regional MPS.
- Connecting existing on-road facilities to transit terminals and proposed transit hubs under the Regional MPS.
- Improving walking and cycling access within neighbourhoods.
- Designating AT corridors for those parts of the network that will be installed in undeveloped or alternative use areas in Phase 2.

- Commencing formal discussions with NC Rail and other major property owners to facilitate the feasibility assessment of AT links across their lands.
- All on-road routes that are designated as part of the spine network should be marked and signed in Phase 1.
- Scheduling network implementation with already planned capital road and servicing projects.
- Commencing formal discussions with Service Nova Scotia and Municipal Relations regarding amendment to Section 274 of the *Municipal Government Act* to allow capital cost contribution charges to be applied at both the building permit and subdivision by-law approval stage with AT charge areas defined as urban, suburban and rural in accordance with the Regional MPS.
- For all roads and rural highways that will be resurfaced or reconstructed, consideration should be given to improving cycling facilities.
- All on-road routes that are designated as signed-only routes should have signs posted in Phase 1.
- A formal process should commence for the possible transfer of assets (off-road trails) from community groups in rural areas if these trails form part of the off-road multi-use trail network.

Environmental and Related Impacts
The AT Plan represents a significant investment over 20 years. The justification of these investments becomes clear when the benefits are considered:

Environmental Benefits
- Reduction in air pollution
- Noise reduction
- Land use reduction

Resident and Tourist Benefits
- Increased mobility
- Improved liveability

Transportation Benefits
- Reduction in traffic congestion
- Increased physical activity

Economic Benefits
- Roadway Cost Savings

Monitoring
Collecting data to monitor the different and changing aspects of user behaviour will assist in evaluating the effectiveness, performance and overall contribution of various activities to achieve

the stated vision, goals and objective of the AT Plan. This data collection should begin in 2007, and on-going public consultation should also continue following the adoption of the AT Plan. Assessing the impact and costs of the AT network and programs should be based on information such as:

- Origin/destination counts
- Tourist attitudinal surveys
- Screenline counts on a finer scale that are appropriate to wheeling travel patterns
- Intersection counts to coincide with routes on which improvements are proposed, and also on parallel routes.

This information should be collected at least every five years and during the late spring to mid fall season.

Policy Recommendations

The success of the Active Transportation Plan will be measured in part by the ease with which it can be implemented. To implement the AT Plan, the following recommendations are put forward:

1. The vision, goals and objectives and network development approach contained in this report and the companion document (planning and design guidelines, draft trail by-law) should be formally reviewed on an annual basis during implementation. To facilitate implementation, the Route Selection Evaluation Criteria (Exhibit 4.2) should be formally adopted by HRM as an internal policy.
2. The capital works activities of HRM, the province of Nova Scotia and other major land owners/developers should make Active Transportation modes more convenient and less risky by removing barriers to walking, cycling (including youth oriented travel) and improving connections to public transit. Improvement should include connections between communities and within new residential and commercial areas.
3. HRM, the Province of Nova Scotia and partners should support efforts to achieve a greener and healthier Region by encouraging residents and visitors to choose Active Transportation modes as part of a fitness regime and to reduce greenhouse gas emissions through reducing their dependence on the private automobile for travel, especially for short distance trips.
4. HRM, the Province of Nova Scotia and partners should continuously monitor the AT Plan with a focus on the central goal of doubling the number of people who use AT modes for a portion of their entire trip (particularly commuting).

The proposed off-road trail system is an important component of the AT Plan. A Draft Trail By-Law is included in the AT Plan, to regulate activities on these off-road trails. To enact the Trail By-Law, it is recommended that:

5. HRM proceed with drafting a formal by-law that adheres to the intent of the Draft Trail By-law.

Technical recommendations and standards for all elements of the Active Transportation system are outlined in detail in the Technical Appendix, and summarized in Appendix E. To ensure consistent standards for the development, operation and maintenance of the AT network, it is recommended that:

6. HRM and partners use the technical recommendations in Appendix E and detailed in the Technical Appendix: Facility Planning, Design Guidelines and Draft Trail By-law to implement the Active Transportation Plan.
7. The priorities in Exhibits 5.1 and 5.2 should guide implementation.

From a human resources perspective, the effective implementation of the Active Transportation Plan will require dedicated staff positions. It is recommended that:

8. HRM allocated three new full-time equivalent positions to implement the AT Plan (capital project integration, community liaison and trail by-law enforcement). Payroll and expenses is estimated at $200,000 per annum. The community liaison staff person will br responsible for the Healthy and Active Rural Communities Program (see Section 4.6.2) and upgrades to sidewalks at the neighbourhood level in urban and suburban areas.

Changes are also recommended to the Advisory Committees that deal with aspects of Active Transportation. It is recommended that:

9. The mandate of the HRM Bikeways Advisory Committee be expanded to include Active Transportation. The new Advisory Committee and the Advisory Committee for Persons with Disabilities should be given a $10,000 annual budget for AT-related activities (including surveys).

Some portions of the current spine network are managed by community groups, while parts of the recommended network will be located on non-HRM lands. To address the role of partners and asset management, it is recommended that:

10. HRM commence a formal process for the transfer of multi-use off-road trail facilities from community organizations where these assets form part of the AT spine network.
11. Formal discussions commence with private land owners to secure easements, options or agreements of purchase and sale. These discussions should include CN Rail, the Halifax Port Authority, the Halifax Dartmouth Bridge Commission, the Halifax Regional Water Commission, NSP Inc., Maritimes and Northeast Pipeline, the Department of Transportation and Public Works, DND and Canada Lands Company Ltd. The private holdings that are crossed by the AT network are shown in Exhibit 5.3. While the costs of easements or land purchases are subject to negotiations, an annual budget of $100,000 is allocated for unspecified actions.

The implementation of the Active Transportation Plan will require a continuous source of new cash flow. The preferred reliable funding strategy is to apply a capital cost contribution charge (also called a development cost charge or development levy) to new developments. In order to expand the current capital cost contribution policy of the HRM, approved under Section 274 of the *Municipal Government Act*, the following recommendation is put forward:

12. To implement this own-source funding framework under amendment to Section 274, Infrastructure Charges of Part IX - Subdivision of the *Municipal Government Act,* it is recommended that a formal process be started with Service Nova Scotia and Municipal Relations.

Funding from senior levels of government and corporate partners are required to implement the Active Transportation Plan. To pursue a coordinated approach to partner commitments, it is recommended that:

13. HRM facilitate an annual Funding Partners Workshop to determine five year increments. The commitments should be reviewed on an annual basis and integrated with HRM's capital costs and maintenance budget.

An educational and promotional campaign is critical to the success of the Active Transportation Plan. To implement this campaign, it is recommended that:

14. The new community liaison staff person be responsible for working with partners to design and implement the program outlined in this section. An annual program should be prepared with regular monitoring of outcomes or outputs. The proposed annual budget is $75,000.

The Active Transportation Plan will lead to numerous environmental, transportation, economic, resident, and tourist benefits. In order to guide all AT actions in the Halifax Region, the following recommendations is made:

15. The vision, goals and objectives for AT should be the foundation for all actions and frame HRM decisions that also consider environmental, visitor and economic benefit.

The technical and operational recommendations in the Active Transportation Plan and Technical Appendix seek tor educe risk. The following recommendations provide a policy framework that is risk management focused:

16. HRM should endeavour to ensure the safe and comfortable year round operation of the AT spine network through the adoption, implementation and monitoring of maintenance practices and standards for both on-road and off-road routes.
17. HRM and the Department of Transportation and Public Works should recognize AT modes as important elements towards maximizing efficient operations of the transportation and land use system, by helping to reduce the space needed for mobiilty requirements such as parking, and being supportive of more intensive land use practices.
18. On a project by project basis, HRM should seek to assign a preferential status to AT modes as a means to achieve a more sustainable transportation system, by giving priority to supportive and AT friendly considerations as part of the transportation and land use planning and implementation process.
19. HRM and partners should recognize and promote the many benefits of AT which underline why this mode of transportation must be supported and given a preferential implementation status. Active Transportation provide benefits that include community health from exercise, economic returns from retail sales and tourism, positive

environmental impacts from less air pollution, energy consumption and mobility space requirements, and increased social interactions.

20. HRM and partners should provide appropriate funding and resource support to AT programs and initiatives, in recognition of the priority placed on this efficient and enjoyable mode of transportation, and its important role in supporting the achievement of the Regional MPS growth management objectives to create a healthy and environmentally sensitive community.

Implementation of the Active Transportation Plan is expected to begin in 2006. A monitoring program, including data collection and on-going public consultations, will assist in evaluating the effectiveness, performance and overall contribution of various activities to achieve the stated vision, goals and objectives of the AT Plan. In order to ensure proper monitoring, it is recommended that:

21. HRM and partners should monitor the implementation and effectiveness of the Active Transportation Plan through measurements of liability exposure, priority achievements, counting programs, surveys and target modal splits.
22. HRM (including Metro Transit) continue collecting data on AT modes.
23. Designated HRM staff, with assistance from the proposed Active Transportation Advisory Committee, conduct AT User surveys every two years and a statistically valid Public and Visitor Attitude Survey at least every five years.

ATTACHMENT THREE

Guidelines from Active Transportation Plan
Technical Appendix

Guidelines from Technical Appendix: Facility Planning and Design Guidelines

1. Planning and design of the AT network should be primarily based on two design modes: cycle based and pedestrian based. Most other modes fall under these two categories.

2. Skateboarders, in-line skaters and cross-country skiers have special design requirements which should be considered when designing a trail.

3. Although ATV's are not an AT mode of travel, their requirements and interaction with AT users should be considered where ATV use is permitted.

4. The bicycle network portion of the HRM AT Plan should consist of a primary "spine system", and a secondary "community system".

5 The spine system should consist of routes designed to be direct and that support cycling for commuting purposes.

6. The spine network should be comprised mainly of on-road bike lanes, paved shoulder bikeways with some wide curb lanes and signed-only routes as well as linear off-road multi-use pathways, serving as a higher-order cycling network for experienced and confident cyclists. Most on-road facilities on Peninsular Halifax may consist of signed-only routes due to spatial constraints.

7. The community system should consist of routes that lead into the spine system. Community system routes should connect local destinations such as schools, community centres, residential areas, local stores, commercial nodes, parks and recreational areas.

8. The pedestrian-based portion of the HRM AT Plan should consist of a pedestrian zonal system, which consists of connections between zones and key missing links within zones.

9. The pedestrian zonal system should consist of geographic zones of pedestrian facilities that see increased pedestrian infrastructure as one gets closer to schools, Regional Centres and transit nodes.

10. Pedestrian zones should be connected to encourage longer and more frequent trips across zonal boundaries.

11. Key missing links within pedestrian zones should be identified so they may be scheduled as high infrastructure implementation priorities.

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12. The minimum ROW width of a multi-use trail should be between 3.0m and 5.0m and the minimum height should be between 2.4m and 3.0m where feasible.

13. The recommended minimum horizontal space for a pedestrian or wheelchair is 1.5m.

14. The recommended operating space that should be allocated for an in-line skater 3.0m of horizontal clearance, and 2.5m of vertical clearance. Trails accommodating two-way travel should be a minimum of 3.0m, or 4.0m where frequent in-line skating is expected.

15. Providing the operating envelope design width of 1.5m for a cyclist is always recommended and should be provided whenever possible.

16. When conditions permit, an additional 0.5m should be included in the width of the paved shoulder or bike lane for on-road facilities where the grade of the road approaches or exceeds 8%, where possible (1.5m + 0.5m = 2.0m).

17. When grades exceed 8% and/or are in constrained situations, either wide curb lanes or signed-only routes (descent) and Share the Road signs (ascent) may be considered.

18. On steep road segments where motor vehicle volumes or the percent of commercial traffic exceed a desirable threshold for a cycling facility type, consideration may also be given to reducing the posted speed limit or selecting an alternative route for cyclists.

19. All off-road pedestrian and cycling routes (with the exception of footpaths and hiking trails) should be designed in such a way that they are accessible to cyclists, pedestrians, and those using mobility devices.

20. Grades in excess of 5% should be avoided wherever possible on accessible trails or those intended for inexperienced users.

21. Steps and ramps should be provided along routes where steep grades cannot be avoided.

22. Where roadway design characteristics such as sight-distances and curvatures exceed cycling route design parametres, special design consideration should be given to any existing or proposed roads that do not meet the minimum design parameters for a cyclist or may pose a potential hazard to on-road users.

23. The guidelines set out in this report should be referenced and any geometric modifications made as required.

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24. Although new or improved HRM roads will typically be designed to the "Red Book" roadway standards and thus exceed the minimum design parameters related to speed for pedestrian and cycling facilities, some existing roads may not. In these cases, additional signing should be considered when implementing on-road facilities.

25. When designing off-road facilities, consideration should be given to the design speed for cyclists and all other expected user groups.

26. The design of off-road cycling and pedestrian systems should take into consideration stopping sight distances for bicycles and wheelchairs.

27. Horizontal curves of roads proposed for on-road bikeway facilities should conform to roadway design standards set out in the HRM Red Book and/or the TAC Geometric Design Guide for Canadian Roads. When this condition cannot be met, additional cautionary signing should be introduced.

28. Consideration should be given to providing additional width on off-road bikeway segments at curves that have less than a 32m radius.

29. The Nova Scotia Trail Federation's Trails Manual should be consulted for issues relating to the width and route planning of off-road trails.

30. HRM should adopt bicycle friendly design guidelines for all streets, whether a road is designated as part of a cycling network or not.

31. The minimum design width for a bike lane in an urban area without on-street parking should be 1.2 m from the face of curb. Bike lanes 1.5m in width are recommended as a standard, while a preferred width of 1.8 m should be considered on roadways with higher AADT's, speed limits, and truck volumes such as found on busy arterial roadways.

32. Bike lanes should be clearly identified on roadways through bicycle route signing, bicycle symbol pavement markings and bike lane signs.

33. Bike lanes are typically recommended where feasible for collector and arterial roads designated to have cycling facilities. In locations where a bike lane is not deemed feasible following a review, consideration should be given to providing a wide curb lane. If this is not possible, as a minimum, a Bicycle Signed only routes should be provided if thresholds permit.

34. On proposed bikeway routes in the Halifax Region where on-street curb parking exists,

an assessment should be undertaken to determine whether the parking can be removed or relocated. In the event that on-street parking is seen as a priority, parking bays should first be considered as a preferred design.

35. The desired width of the parking lane should be a minimum of 2.2 m, with the adjacent bike lane 1.8 m. Where the road right-of-way or other factors limit the opportunity to provide parking bays, standard on-street curb parking widths should be assumed.

36. Contra-Flow bike lanes may be considered for streets designated for one-way motor vehicle traffic to permit cyclists to travel in the opposite direction of motor vehicle traffic. Cyclists may also ride in the same direction as motor vehicle traffic in a separate bike lane or share the motor vehicle travel lane.

37. Boulevard bikeways and multi-use trails are separated from regular motor vehicle travel lanes and located in place of, or sometimes adjacent to, a sidewalk. They should be used along primary recreational corridors, reverse frontage lotting, and segments where there are few if any mid-block driveways.

38. Appropriate signing at intersections where bi-directional bikeway boulevards are present is very important to warn and provide clear direction to both motorists and cyclists as to where they should proceed when travelling through an intersection.

39. Paved shoulders are the preferred facility for creating connections between rural communities.

40. Paved shoulder bicycle routes in the Halifax Region should have a preferred design width of 2.5m (including a gravel shoulder). In locations where this lane width for paved shoulders cannot be achieved, especially in constrained rights-of-way, a minimum paved shoulder width of 1.2 m with an adjacent granular shoulder of at least 0.5 m is a reasonable compromise.

41. Paved shoulder facilities should always be separated from the motor vehicle travel portion of the road by an edge line (pavement marking), and should be clearly identified through bicycle route signing. Edge lines should only be used on rural roads where there are no curbs, and should be a single line placed on the right side of the travel lane closest to the paved shoulder.

42. Edge lines to denote a bike route are only recommended for paved shoulders in rural areas since these roads typically have a gravel shoulder beyond the paved shoulder for a cyclist to recover should they be forced off of the paved section of the roadway.

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Technical Appendix

43. Paved shoulders on rural roads should not be denoted as reserved bicycle lanes since they should still be used as a refuge for disabled vehicles. Paved shoulder cycling routes should only be signed as bicycle routes.

44. Signed-only cycling routes are appropriate for the community system that consists of cycling routes that are "local" in nature and feed into the spine network.

45. Streets with signed-only cycling routes should typically only be signed as on-road bike routes if there is adequate pavement width to safely accommodate both motor vehicles and cyclists, and when adequate sight lines and acceptable AADT volumes exist.

46. On very low volume rural roads with limited truck traffic, good sight lines and sometimes physically constrained ROW's, the existing travel lane may be designated as a cycling route, with cyclists and motorists expected to share the same lane. In these cases, "Share the Road" signs should be erected at strategic locations to communicate this message to all road users.

47. The preferred width for a wide curb lane is between 4.2m and 4.5m.

48. In urban areas, proposed signed-only cycling routes should be implemented along roads with wide curb lanes and bicycle route signs where possible.

49. Where the width of a wide curb lane extends beyond 4.0m along a designated cycling route, the application of pavement markings such as a bicycle stencil should be considered to indicate the presence of cyclists on the roadway to motorists.

50. Existing and future pedestrian sidewalks should be incorporated into the spine and neighbourhood systems in urban areas for all system segments proposed within road rights-of-way.

51. A "buffer" zone should also be provided where applicable to separate pedestrians from the street.

52. Different sidewalk surface materials should also be used when designing sidewalks. Patterns of cross-hatching, dimpling or scoring should be applied at sloped or potentially slippery areas.

53. The recommended minimum width for a multi-use trail is 3.0 m while the preferred width is 4.0m. In areas with frequent in-line skating or other traffic a 4.0m to 6.0m with should be considered depending on local conditions.

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54. The recommended minimum clear height for a multi-use trail is 2.4m – 3.0m.

55. In locations where high use is anticipated, trails with a width of 4.0m – 5.0m should be considered, where feasible.

56. That HRM adopt the retrofitting guidelines recommended in Tables 3.2 and 3.3 of the Planning and Design Guidelines.

57. HRM should continue to use its current pavement marking scheme for on-road bicycle facilities and consider the use of Shared Use Lane Markings where applicable.

58. Cycling facilities at intersections should be carefully designed to encourage safe and predictable movement of pedestrians, motorists and cyclists.

59. Any "hatched" area along rural paved shoulders at intersections with right-turn lane curbs should not be designated as an on-road cycling facility unless it is greater than 1.2 m in width and it forms part of a continuous cycling route.

60. A detailed review of intersections with sub-standard bike lanes should be undertaken when intersections are improved to determine if sufficient right-of-way can be obtained to provide standard bike lanes at these locations.

61. Coloured pavement treatments should be considered at intersections with complex geometry or in areas with high conflict zones between cyclists and motorists.

62. Appropriate signing should be used in conjunction with the coloured pavement to identify to both motorists and cyclists the priority at an intersection.

63. Should HRM decide to pursue coloured pavement, the emerging technology of "microsurfacing" should be investigated.

64. HRM should initiate a practice of considering bicycles in the timing of traffic signals at intersections and in the selection, sensitivity and placement of vehicle detection devices wherever there is bicycle traffic.

65. The application of pavement markings is recommended to increase the efficiency of bicycle detection at intersections to actuate either a mixed traffic or bicycle signal phase. These pavement markings could also help to direct cyclists to the actuation zone and to position themselves properly in the lane.

66. Since cyclists are considered vulnerable road users, consideration and care must be given

to them when designing facilities for their use.

67. The general countermeasures indicated in Table 4.1 should be considered for minimizing common motor vehicle and cyclist collisions.

68. Advanced stop bars and bike boxes should be considered at locations in the Halifax Region where cyclist volumes are high and measures are being considered to give cyclists more priority at intersections (e.g. adjusting signal timings or phasing sequences).

69. The minimum 60 m transition zone between the curbside cycling facility, and the bike pocket, left of the right turn lane / channel, should be maintained, whether the curbside facility is a bike lane, paved shoulder or signed-only route.

70. When a bicycle lane situated between two motor vehicle travel lanes extends for a distance greater than 240 metres, consideration may be given to relocating it to the curbside of the roadway with the applications recommended by TAC for a Bicycle Lane Adjacent to a Curb Lane Transition applied at each end of the roadway.

71. Given the absence of applicable local guidelines, the values indicated in Table 4.2 should be referenced for determining the minimum side clearances on bridges when the installation of cycling facilities on bridges is being considered.

72. The creation of a bike lane on a bridge may be considered if the bridge has shoulders, or if the traffic lanes are wide enough to permit the creation of a wide curb lane to accommodate bicycles on the travelled way.

73. The TAC standards for accommodating on-road bikeways over expressway interchanges should be adopted by HRM for future cycling facilities.

74. In situations where it may be more desirable to allow a cyclist to choose their own merge, weave or crossing manoeuvres, it is recommended that the pavement markings for the bicycle lane be discontinued through the crossing area.

75. Coloured pavement may also be considered for the portion of the bicycle route crossing the motor vehicle travel lane.

76. HRM should ensure the accommodation of pedestrian and cyclist safety and access during all road construction activities. This should include, but not be limited to:
- construction notices posted on the Region's website;
- advance signing for construction activities;

- temporary conditions that are compatible with bicycles such as non-slip surfaces, ramped utility cuts and timber decking placed at right angles to the direction of travel; and
- pedestrian and bicycle specific detours where appropriate

77. HRM should investigate the possibility of using coloured and/or textures pavement at high volume crossings and at 100 series highways on and off ramps.

78. Pedestrian displays should be installed at all signalized intersections and should be placed at levels that are clearly visible to pedestrians and motorists. Push buttons for pedestrian signals should be placed at heights that are within reach of all pedestrians, including children and those in wheelchairs or other mobility devices. Countdown and audible traffic signals are other enhancements that may be considered for signalized intersections in the Halifax Region.

79. A study of the effectiveness of animated signals in reducing pedestrian injuries at crosswalks should be undertaken. If the results are favourable toward animated signals, a program to install these signals at high conflict intersections should be initiated.

80. HRM should consider the installation of sidewalk extensions along key pedestrian routes, especially along routes that form part of the community pedestrian system.

81. Curb ramps should be provided on all route segments that are identified or signed to accommodate wheelchairs. Curb ramps should be added where any new sidewalks are constructed.

82. Advanced stop bars are recommended in locations where there are heavy right-turning traffic volumes and no exclusive right turn lanes are provided.

83. HRM should review its spacing threshold for installing mid-block pedestrian crossings to ensure it strikes the best balance between the needs of motorists and pedestrians.

84. It is recommended that HRM consider pedestrian refuge islands as an appropriate measure to accommodate a mid-block crossing on high volume and/or multi-lane roads.

85. It is recommended that HRM continue to use mid-block signal controlled crosswalks and expand the program to other locations where appropriate.

86. HRM should continue to evaluate the effectiveness of the advanced stop / yield markings and implement them at intersections where they would be most effective if test results

continue to be positive.

87. Railroads with wide enough rights-of-way can typically accommodate a multi-use trail.

88. Trails adjacent to active and / or under-utilized rail corridors should be separated from the rail line through the provision of a planted berm or fence.

89. Barriers should be considered at off-road trail entrances to prevent access by unauthorized users such as motor vehicles, and to caution trail users that they are entering or exiting a trail environment.

90. Other barriers should be installed where appropriate.

91. Barriers should not restrict access to those with disabilities.

92. Multi-use trail bridges should be designed with non-slip surfaces, have vertical railings attached to the outside of the structure and include cover plates over expansion joints.

93. The Nova Scotia Trails Federation's Trails Manual features detailed information on the suitability of many bridge types and should be consulted before any trail bridge decisions are made.

94. Safety "rub-rails" may be considered along bicycle trails with railings to prevent a cyclist's handlebar from catching the vertical supports of the railing.

95. The four main underlying principles of CPTED should always be considered when implementing the AT Plan:
- Natural Access Control;
- Natural Surveillance;
- Territorial Reinforcement; and
- Maintenance.

96. Properly located entrances, exits, fencing, landscaping and lighting should direct both foot and automobile traffic in ways that discourage crime.

97. The needs of AT users should be fully incorporated into any roundabout designs in HRM.

98. Transitions between different facility types is especially important between on-road cycling facilities and off-road cycling facilities or multi-use trails, as they typically require a change in the cyclist's trajectory and / or a transition between routes shared with

motor-vehicle traffic to routes that are not, or vice versa.

99. Appropriate signing and / or pavement markings should be installed to direct cyclists to the new cycling facility type.

100. Bicycle racks should be designed to provide lateral support to the parked bicycle and should be made from materials that can resist being cut by common hand tools such as bolt and pipe cutters, wrenches and pry bars.

101. Racks, whether as single units or grouped together, should be securely fastened to a mounting surface to prevent the theft of a bicycle attached to a rack.

102. Bicycle racks should be placed adjacent to the entrance that it serves without inhibiting pedestrian flow in and out of the building. Rack areas should be no more than 15 m from an entrance and should be clearly visible along a major building approach line.

103. HRM should ensure that all catchbasin covers are bicycle friendly. Bicycle covers on proposed bicycle routes should receive priority for adjustment.

104. Rest and staging areas should be provided at strategic locations along the AT route system. HRM and its partners, including the private sector, should work together to identify and implement rest and staging areas, where possible.

105. It is suggested that a hierarchy of Regional and Local Gateways be established that represents region-wide and local level contexts.

106. Gateways should become a recognizable feature in the Halifax Region's landscape to both tourists and residents alike.

107. Gateways should become an integral part of the marketing initiative and should be identified on the bicycle and other AT map.

108. HRM should further promote and expand its bus-mounted bike rack program to include conventional transit buses, eventually covering all Metro Transit core routes. Quality bicycle parking facilities should also be provided at transit and ferry terminals throughout the Region.

109. Transit terminals should feature safe and convenient pedestrian access, including direct links to sidewalks and major destinations.

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Guidelines from Active Transportation Plan
Technical Appendix

110. HRM and its partners should provide trip-end facilities for employees and visitors at all public buildings where feasible, and the private sector should be encouraged to do the same. The option of development incentives for new commercial and mixed use projects should be investigated by HRM.

111. Consideration should be given to promoting and / or implementing trip-end facilities as part of efforts to apply a region-wide transportation demand management (TDM) strategy.

112. HRM should develop a formal logo for the HRM AT system.

113. HRM should develop and implement a formal on and off-road AT System Signing Plan to support the existing and proposed HRM AT System.

114. HRM should ensure that all designated bicycle routes are properly signed.

115. All AT signage should be consistent throughout the Region.

116. When possible, especially in the spring, summer and fall months, priority consideration should be given to debris removal on arterial roads with cycling facilities and sidewalks.

117. Off-road trails should be swept at least once a year following winter and / or prior to special events except those that are designed to be challenging and would be compromised by sweeping.

118. The maintenance of AT facilities should be based on HRM's road, sidewalks and trails maintenance standards.

119. In the spring, summer and fall months a program of litter, debris and leaf removal for AT facilities should be implemented.

120. Other maintenance guidelines set out in this report should be adopted by HRM as the basis for a maintenance regime for on and off-road AT system maintenance in the Region.

121. In the winter months, on and off-road AT systems that serve as part of the primary cycling network should receive priority for snow clearing and removal.

122. HRM should ensure that bus stops and sidewalks, particularly those that connect to bus stops, receive a higher priority during snow clearing efforts.

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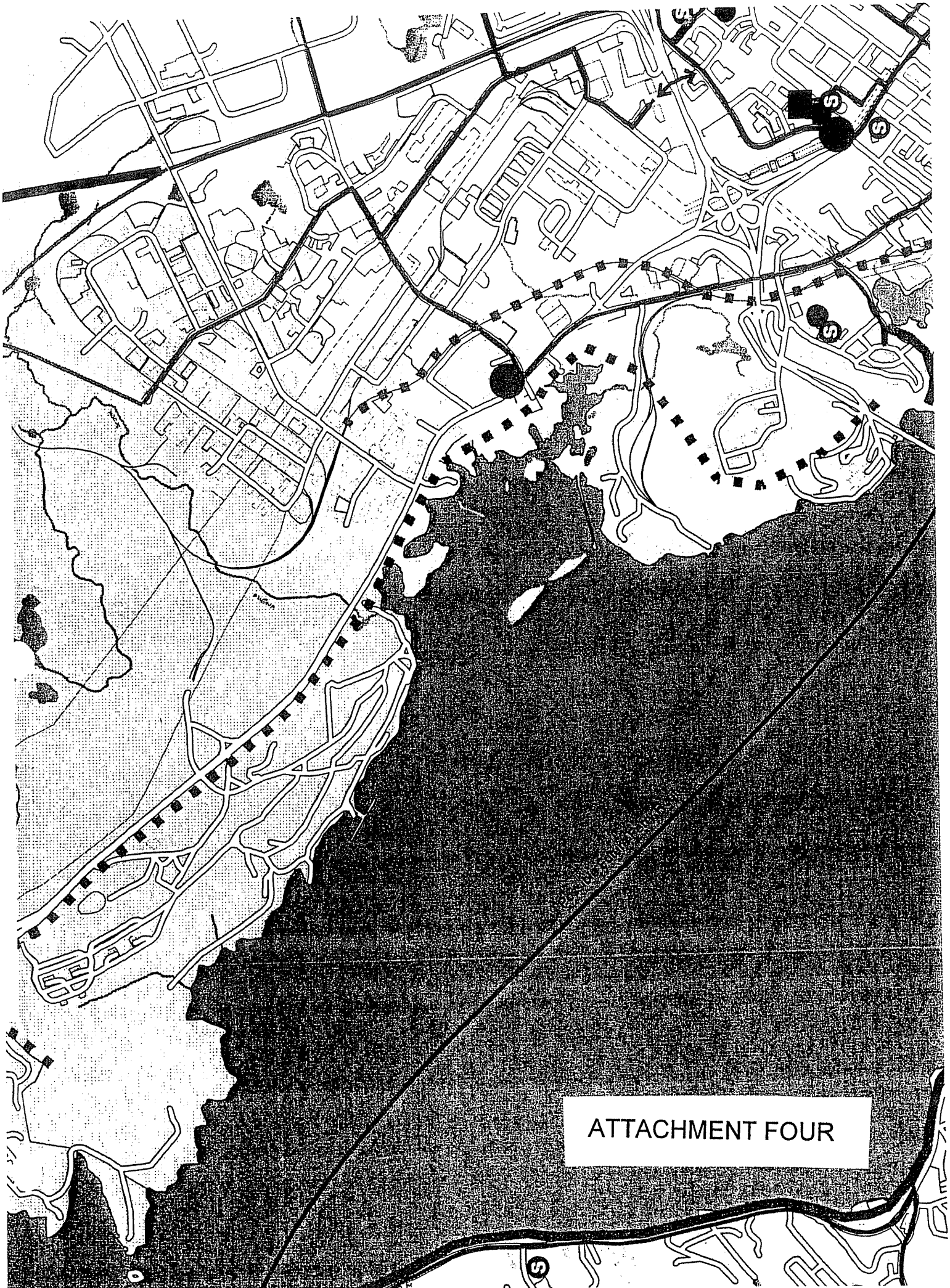
123. HRM should provide sidewalk snow-clearing throughout the entire municipality in order to provide a uniform standard of service.

124. Consideration should be given to clearing trails during the winter that provide key connections or links to "spine" segments of the AT system.


ATTACHMENT FOUR

ATTACHMENT FIVE

Exhibit 5.2
Recommended Implementation Schedule

#	Technical & Operational Recommendations	Implementation Schedule: Phase 1 2006	2007	2008	2009	2010	Phase 2 2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Estimated Cost (20 years)
1	**Adopt and Implement the Active Transportation (AT) Plan.** The HRM Regional Council adopt in principle the proposed AT network plan and facility types as illustrated in Exhibits 4.3 to 4.8 and detailed in Technical Appendix: Facility Planning, Design Guidelines and Draft Trail By-Law.	●	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	$99.8 million Over 20 Years With Maintenance Costs of $2.4 million by Year 20
2	**Review and Update the AT Plan.** HRM and partners review and update the AT network plan every five years. Between the formal reviews, individual network route changes, additions and deletions should be considered. A priority in Phase 1 is detailed feasibility investigations of the rails-with-trails link from Bedford to Peninsular Halifax and the multi-use trail link to the Halifax International Airport.					●					●					●					●	$500,000
3	**HRM and Partners Funding Commitments.** HRM facilitate a *Funding Partners Workshop* to determine the commitments in five year increments. Participants should include the Departments of Health Promotion and Protection, Service Nova Scotia and Municipal Relations, Health and Transportation and Public Works; ACOA, Health Canada, Environment Canada, Transport Canada, Human Resources and Social Development Canada and Capital Health. Commitments should be reviewed on an annual basis.	●	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Existing Staff Resources
4	**New Own-Source Funding.** HRM should seek a formal review of the *Municipal Government Act* with Service Nova Scotia and Municipal Relations with the objective of amending Section 274 to permit Active Transportation charges at the building permit and subdivision approval stage of new projects.	—	—	—																		$100,000 Consulting & Legal Services
5	**New Staffing.** HRM allocate three new full-time equivalent positions to implement the AT Plan (capital project integration, community liaison and trail by-law enforcement). The community liaison staff person will be responsible for the Healthy and Active Rural Communities Program (See Section 4.6.2) and upgrades to sidewalks at the neighbourhood level in urban and suburban areas.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Existing Staff Repositioning
6	**Enact Trail By-Law.** HRM proceed with preparing a Trail By-Law that adheres to the intent of the Draft Trails By-Law included in the Technical Appendix. The draft calls for a Trail Control Officer.	—	—																			Existing Staff Repositioning
7	**Reorganization and Funding of Advisory Committees.** The mandate of the HRM Bikeways Advisory Committee be expanded to include Active Transportation. This new Advisory Committee and the Advisory Committee for Persons with Disabilities should be given a $10,000 annual budget for AT-related activities.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	$400,000
8	**Partners and Asset Management.** HRM commence a formal process for the transfer of multi-use off-road trail facilities from community organizations where these assets form part of the spine network. Also, formal discussions with private land owners be used to secure easements, options and agreements or purchase and sale. These discussions should include CN Rail, the Halifax Port Authority, the Halifax-Dartmouth Bridge Commission, the Halifax Regional Water Commission, NSP Inc., Maritimes and Northeast Pipeline, the Department of Transportation and Public Works, DND and Canada Lands Company Limited.	●	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	$2,000,000
9	**Educational and Promotional Campaign.** The new community liaison staff person be responsible for working with partners like TRAX to design and implement the program outlined in Section 5.10. An annual program should be prepared with regular monitoring of outcomes our outputs. The proposed annual budget is $75,000.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	$1,500,000

APPENDIX "B"

Statute	Areas for Notice	Required Notice	When is the lack of notice is not a bar to proceedings
British Columbia's *Local Government Act*	All Areas: s. 286. Notice must be in writing and set out the: a) time, b) place, and c) manner in which the damage has been sustained	**2 months** from the date the damage was sustained.	1) the person dies from the injuries sustained, or (2) if the court believes (a) there was reasonable excuse, **and** (b) the defendant has not been prejudiced in its defence by the failure to give notice.
Alberta's *Municipal Act*	1. Snow, ice or slush on roads or sidewalks - s. 531 2. Road or other public place that is subject to the direction, control and management of the municipality - s. 532 3. Decreased land value where municipality has constructed or erected a public work or structure - s. 534 Silent on type of Notice	1. for snow, ice or slush - 21 days after the occurrence of the event 2. for the road or other public place that does not relate to snow, ice or slush - 30 days after the occurrence of the event 3. 60 days after notice of the completion of work or structure	(1) there is a reasonable excuse for the lack of notice, and the municipality is not prejudiced by the lack of notice, or (2) death is the result of the event complained of, or (3) the municipality waives, in writing, the requirement for notice. None for decreased land value.

APPENDIX "B"

Statute	Areas for Notice	Required Notice	When is the lack of notice is not a bar to proceedings
Manitoba's *Municipal Act*	1. Failure to maintain a municipal road or a public facility - s. 396 Silent on type of Notice	3 days after the event.	1) the claimant has a reasonable excuse for the lack of notice **and** the municipality is not prejudiced by the lack of notice; **or** (2) the claim relates to the death of a person as the result of the event complained of; **or** (3) the municipality waives the notice requirement.
Saskatchewan's *Municipalities Act*	1. Snow, ice or slush on: i) sidewalks; **or** ii) extensions of the sidewalks used as street or road crossings if the municipality is grossly negligent. - s. 342 2. every street, road or other public place - s. 343 3. injurious affection by the construction of any municipal public work. The injurious affection claims must be in writing, with particulars of the claim. The Act is silent on the type of notice for the remaining claims.	1 and 2. For snow, ice, slash and sidewalk claims - 30 days after the occurrence of the event. 3. For injurious affection claims - within one year after: (a) the injury is sustained; or (b) the injury becomes known to that person	1 and 2. For snow, ice, slush and sidewalks: (a) there is a reasonable excuse for the lack of notice, and the municipality is not prejudiced by the lack of notice; or (2) the municipality waives in writing the requirement for notice, or (c) death of the person injured. 3. For injurious affection, i) when the person is a minor, **or** ii) a mentally incompetent person, **or** iii) a person of unsound mind, 2. (a) the longer of: (i) one year; **or** (ii) one year after the person ceases to be under the disability; **or** (iii) in case of the person's death while under disability, one year after the person's death.

APPENDIX "B"

Statute	**Areas for Notice**	**Required Notice**	**When is the lack of notice is not a bar to proceedings**
Ontario's *Municipal Act*	Highway or bridge. Notice must be: 1) in writing 2) identify the claim and injury , **and** 3) be sent by registered mail or served upon the municipality.	10 days after the occurrence of the injury,	1) death of the injured person 2) reasonable excuse for the want or the insufficiency of the notice **and** that the municipality is not prejudiced in its defence