



PO Box 1749
Halifax, Nova Scotia
B3J 3A5 Canada

11.1.16

Halifax Regional Council

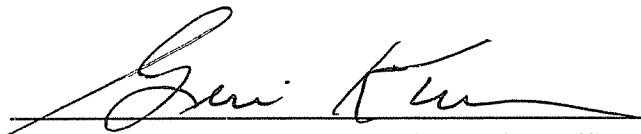
May 29, 2007

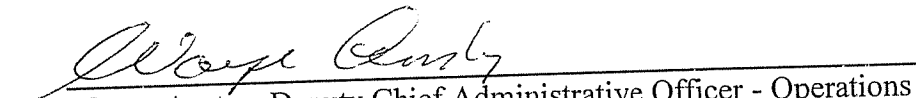
Committee of the Whole

Regional Council - June 12, 2007

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: May 9, 2007

SUBJECT: **Proposed By-Law S-900, Respecting the Establishment of Controlled Access Streets for Streets within the Halifax Regional Municipality**

ORIGIN

The Nova Scotia Municipal Government Act was amended in 2006 and the amendments proclaimed on January 9, 2007. One amendment increased the power of municipalities to regulate or prohibit access to a controlled access street. The provincial government wants to rescind some provincial control of access regulations now that HRM can put in place its own legislation. HRM should replace the provincial regulations with its own legislation.

RECOMMENDATION

It is recommended that Council adopt the proposed Controlled Access Streets By-Law S-900 as shown in Attachment One of this report.

BACKGROUND

The Nova Scotia Municipal Government Act was amended in 2006 and the amendments proclaimed on January 9, 2007. One amendment increased the power of municipalities to regulate or prohibit access to a controlled access street. The Nova Scotia Department of Transportation and Public Works has turned over certain roadways to Halifax Regional Municipality that were designated as controlled access under the Nova Scotia Public Highways Act, in particular Hammonds Plains Road between Pockwock Road and Highway 103 and Burnside Drive from 200 metres south of Commodore Drive to Akerley Boulevard. The provincial government wants to rescind the provincial control of access now that HRM can put in place its own legislation. HRM should replace the provincial regulations with its own legislation.

DISCUSSION

Arterial and major collector roadways that carry large volumes of traffic are attractive locations for strip development. Residential and commercial developments locate along the street over time until strip development becomes the predominant land use pattern. The ability of the street to move traffic then becomes seriously compromised, resulting in increased traffic congestion and reduced safety for motorists, pedestrians, and cyclists. Often small and medium-scale businesses cumulatively create the worst problems (because large developments' driveways function more like side streets in their scale and spacing).

Access management is defined as "the process that provides access to land development while simultaneously preserving the flow of traffic on the surrounding system in terms of safety, capacity and speed." In practical terms it means managing the number, design, and spacing of driveways that a driver may encounter without hampering reasonable access to property and removing slower, turning vehicles from the street as efficiently as possible. Access management deals with traffic problems caused by unmanaged development before they occur. Access management addresses how land is accessed along arterials and major collectors and focuses on mitigating traffic problems arising from development and increased traffic volume attempting to use these developments.

Subdivision regulations already require that developers provide interior road connections to adjacent, undeveloped land, where feasible, and that adjacent subdivisions interconnect. A similar requirement does not now exist in HRM with respect to commercial developments. Access control will allow HRM to require commercial developments to be designed to connect with adjacent commercial development or, if the adjacent land is vacant, to allow for future internal connections.

The by-law proposed as contained in Attachment One lists a number of arterial and major collector streets in HRM. There are basically two sorts or types of streets proposed to be regulated under the by-law.

The first type of street is the relatively wide-open, high capacity arterial roadway. This includes in particular Hammonds Plains Road (between Pockwock Road and Highway 103) and Burnside Drive

(between Highway 111 and Akerley Boulevard). At this time these streets are controlled access under the control of the Nova Scotia Department of Transportation and Public Works. In the past, no new driveways have been allowed, and new roadway connections to subdivisions have only been permitted at a limited number of locations. It is the intention of HRM staff, if the proposed by-law is adopted, to generally continue the strict prohibition of private driveways and to limit new road connections to locations acceptable to HRM. Additional streets that come into a similar situation are Victoria Road in Dartmouth in the vicinity of the Highway 111 interchange, Woodland Avenue, Portland Street, and similar streets near Highway 111, Dunbrack Street, and the Robie Street Extension, and similar streets. These streets are listed in Schedule A of the draft by-law.

The second type of street is an existing street that serves as an arterial or major collector, that already has considerable development on it, and that has redevelopment occurring. Such streets as Barrington Street north of Cogswell, or Herring Cove Road from the Rotary to the old City Limit already have driveway demands that would be made worse if HRM cannot restrict or control the design of driveways and site plans. For these type of streets, the law already provides that land parcels must have access to roadways and this by-law cannot take that away from land-owners. What the proposed by-law can do is allow HRM to work with the developer to get the best design possible for the road users, the customers, and HRM. Safe access is good for business. These streets are listed in Schedule B of the draft by-law.

Listing a street on Schedule B as serving as an arterial or major collector does not change the designation of the street under the various Municipal Planning Strategies. Indeed, listing a street in Schedule B may actually reduce the potential for traffic growth in these streets by reducing the potential for development out of the control of HRM.

The proposed by-law requires a permit from the Engineer. HRM staff will review any driveway permit application and use the following considerations in evaluation of the proposed driveway:

- The requirements of HRM By-Law S-300, the Streets By-Law (Attachment Two)
- Adequate sight distance shall be provided for a passenger motor vehicle making a left or right turn exiting from a driveway.
- As determined by the Engineer, engineering judgement shall override the recommended dimensions for driveway accesses if warranted by specific traffic conditions.
- In making a determination as to the location and design of a driveway access, the Engineer shall consider:
 - the characteristics of the proposed land use;
 - the existing traffic flow conditions and future traffic demand anticipated on the development and the adjacent street system;
 - the location of the property;
 - the size of the property;
 - the orientation of structures on the site;
 - the number of driveways needed to accommodate anticipated traffic;
 - the number and location of driveways on existing and proposed adjacent and opposite properties;

- the location and carrying capacity of nearby intersections;
- the proper geometric design of driveways,
- the spacing between opposite and adjacent driveways;
- the internal circulation between driveways; and
- the speed of traffic on the adjacent roadway.
- Driveway access to arterials shall not be allowed for parking or loading areas that require backing manoeuvres in a public street right of way. Driveway access to collector streets for commercial or multifamily development shall not be permitted for parking or loading areas that require backing manoeuvres in a public street right of way.
- No cuts through a left turn storage lane or taper shall be permitted in order to provide for left turn movements to driveways.
- Driveways in right turn lane transition areas shall not be permitted.
- When a commercial or multifamily development abuts more than one public street, access to each abutting street may be allowed only if the following criteria are met:
 - It is demonstrated that such access is needed to adequately serve driveway volumes and will not be detrimental or unsafe to traffic operations on public streets. The Engineer may require a traffic study be done which demonstrated that such access is needed.
 - The minimum requirements for corner clearance for commercial or multifamily driveways are met.

Details of the proposed design criteria and guidance are shown in Attachment Three to this report.

It is not the intention of HRM staff that all access to the listed streets be prohibited when there is a legal right of access, but instead that accesses be controlled and properly designed for the benefit of users of the roads and residents, customers, and employees of the proposed developments. Existing driveway accesses to existing land-uses will not need to be changed under this proposed by-law unless a change in the land use requiring HRM agreement is proposed. If the design of an existing driveway is proposed to be changed, whatever requirements under the design criteria can reasonably be applied should be applied without removing an existing driveway. (In other words, owners should be able to make existing driveways better.)

For a few streets, it is intended that no new private accesses be permitted. These are listed in Schedule A of the proposed by-law. Other streets, listed on Schedule B, are intended to be controlled but which HRM generally must grant reasonable access under the law.

As an example of where the use of such a by-law as is proposed could have been useful Council may consider Windmill Road between Victoria Road and Wrights Brook in Burnside. Commercial strip development has naturally sprung up alongside this busy roadway. Business owners want their customers, employees and suppliers to have full access to the businesses. But with the large volume of traffic on Windmill Road in this area, HRM staff are now trying to design a circulation system using a median on Windmill road to reduce the number of left-turn-related collisions in the area and to preserve and enhance the traffic-carrying capacity of the road. If the proposed by-law had been in place when the area was first planned or development was beginning, restrictions put in place at

that time would have permitted orderly and safe development, and owners would not now face either a perceived loss of business and nor would HRM face opposition to roadway changes from adjacent business and land owners.

The draft by-law contains an appeal process under which any person denied the permit he or she sought can appeal the decision of the Engineer to the HRM Council Appeal Committee.

It is the intention of HRM staff, if this by-law is passed and once the provincial control of access is removed from Hammonds Plains Road, to permit the completion of construction and opening of the intersection of Hammonds Plains Road and Winslow Drive, near Westwood Boulevard in Tantallon.

BUDGET IMPLICATIONS

There are no direct financial implications from passage of the proposed by-law. If adopted HRM staff will need to administer the by-law requirements from day to day but it is not anticipated any additional staff will be needed because many applications for development already have review of access provisions made.

If adopted, the by-law may show the desire of Council to prohibit driveway or roadway access to certain streets (such as in Schedule A of the draft by-law). If a property owner has a legal access to the street, for Council to absolutely prohibit such a driveway, first the appeal process would likely be used and elected representatives would have to consider the matter, and second, if taking away the legal access would be a form of expropriation, then Council would have to approve the money to compensate the land owner as appropriate or else allow the access. These matters would be decided at that time.

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

HRM Council could turn down the proposed by-law, but to do so would allow development on the Schedule A roadways without the controls that have been in place under the jurisdiction of the Nova Scotia government and would possibly lead to increased collisions, reduced traffic carrying capacity, and potentially the need for road widening or parallelling in the future. The roads proposed to be listed in Schedule B would have a higher potential for undesirable development and driveway arrangements adding to congestion and reducing safety on those roads.

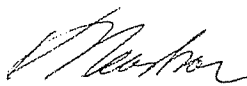
ATTACHMENTS

Attachment One - draft Controlled Access Streets By-Law S-900
Attachment Two - By-Law S-300 the Streets By-Law
Attachment Three - Access Management Guidelines for Development in HRM


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

Report Prepared by: Alan Taylor, P.Eng., Transportation Planner

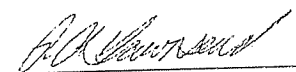
Report Approved by:


Ken Reashor, P.Eng, Manager, Traffic and Right of Way, 490-6637

Report Approved by:


Catherine Sanderson, Senior Manager, Financial Services, 490-1562

Report Approved by:


Mike Labrecque, P.Eng., Transportation and Public Works, 490-4855

BY-LAW NO. S-900
RESPECTING THE ESTABLISHMENT OF CONTROLLED ACCESS STREETS
FOR STREETS WITHIN THE HALIFAX REGIONAL MUNICIPALITY

BE IT ENACTED by the Regional Council of the Halifax Regional Municipality, under the authority of section 309(4) of the Municipal Government Act, being chapter 18 of the Revised Statutes of Nova Scotia, 1998 as amended, as follows:

Number and Short Title

1. This By-Law shall be known as By-Law No. S-900, and may be cited as the “Controlled Access Streets By-Law”. This By-Law shall apply to those areas of the Halifax Regional Municipality located in the Urban Core Service Area.

Purpose And Intent

2. The purpose of this By-Law is to promote the safe and efficient ingress and egress to specific Halifax Regional Municipality streets in the interest of public safety, convenience and general welfare; to protect the public investment in streets by preventing premature functional obsolescence; to reduce accidents caused by frequent and poorly designed points of access; to promote the balanced use of land for the mutual protection of land owners, motorists and Halifax Regional Municipality; and to enhance the street appearance by making street travel more pleasant.

This By-Law also provides for the review and approval of proposed new points of access onto streets designated as “controlled access”.

Definitions:

3. In this By-Law:

(a) “Municipality” means the Halifax Regional Municipality.

(b) “Street” means all public streets, roads, lanes, sidewalks, thoroughfares, bridges and squares, and all curbs, gutters, culverts and retaining walls in connection therewith, and without restricting the generality of the foregoing, includes the full right of way width of a street.

(c) “Private road” is a road that is not accepted by the municipality as a public right of way and includes a driveway.

(d) “Controlled access street” means a street or a portion thereof listed in Schedule “A” or Schedule “B”.

(e) "Engineer" means the Director of Transportation and Public Works and includes a person acting under his/her authority.

(f) "Core area" means that portion of the Municipality for which the Municipality has assumed responsibility for maintenance of public streets and is more particularly described in Agreement No. HRM - 01 between the Municipality and the Minister of Transportation & Public Works which became effective on June 24, 1996, as may be amended from time to time.

(g) "Existing parcel" means any parcel of land which legally exists on the date this By-Law is approved by Halifax Regional Council.

Designated Streets

4. This By-Law designates the streets or portions thereof within the core area or under the control of the Municipality, as established in Schedule "A" and Schedule "B" hereto annexed, as controlled access streets.

By-Law S-300

5. Where there is a conflict between By-Law S-300 Respecting Streets - Section V and this By-Law, this By-Law prevails.

Prohibited Activity on Schedule A Streets

6. (1) Where a street, or a portion thereof, or any land has been designated as a controlled access street, as listed in Schedule "A", no new public roadway or driveway connections shall be permitted except as approved by the Engineer.

(2) On a street listed in Schedule A, no person shall, without a written permit from the Engineer:

(a) construct, use or allow the use of, any public road, private road, entrance-way or gate which or part of which is connected with or opens upon the controlled access street; or

(b) sell, or offer or expose for sale, any vegetables, fruit, meat, fish or other produce, or any goods, wares or merchandise upon or within forty-five meters of the limit of the controlled access street.

Prohibited Activity on Schedule B Streets

7. Where a street, or portion thereof, or any land has been designated as a controlled access street, as listed in Schedule B, no person shall, without a written permit from the Engineer:
 - (a) construct, use or allow the use of, any private road, entrance-way or gate which or part of which is connected with or opens upon the controlled access street; or
 - (b) sell, or offer or expose for sale, any vegetables, fruit, meat, fish or other produce, or any goods, wares or merchandise upon or within forty-five meters of the limit of the controlled access street.

Exemption For Public Utilities

8. This By-Law shall not apply to municipal vehicles or public utility vehicles while actively engaged in maintenance and repair work on Municipal streets or utility appurtenances included therein, or to emergency vehicles.

Closure of Private Road or Gate

9. The Engineer or any person acting under his authority may at any time block access to a private road, entrance-way or a gate that has been constructed, opened or used in violation of this By-Law and, for that purpose, may enter by himself, his servants and agents, if necessary, into and upon any land or part thereof to remedy.
10. The Engineer may seek to recover the costs associated with remedying a violation of this by-law from the person or corporation in violation.

Existing Points of Access

11. All existing points of access approved by The Municipality and/or Nova Scotia Transportation and Public Works as of the date of approval of this By-Law may be continued after the implementation of this By-Law. However, if the use of an established point of access is discontinued for a period of one year, the Engineer may revoke the access privilege or require alterations or changes to achieve compliance with this By-Law.
12. In the interest of public health, safety and general welfare, the Engineer may revoke an access permit or may require modifications to remedy a problem situation.

Change in Use

13. Any point of access permitted by this By-Law shall be subject to review and approval by the Engineer where the Engineer determines that there has been a change in use which will affect safe and efficient ingress to and egress from, and use of, a controlled access street. This determination shall be based primarily on a significant change in the volume of traffic, change in traffic patterns or the type of vehicle using that point of access.

Standards for Access spacing and frequency:

14. The Engineer shall enforce the following standards when reviewing applications for access under this By-Law:

(a) A minimum of one two-way access will be permitted for each existing parcel of land adjacent to a controlled access roadway except where an alternate means of access is available and would better serve the public interest.

(b) Access permits shall not be issued where the horizontal distance between access points will be less than 200 meters, except as provided under subsections (a),(c),(d), (e),(f) and (g).

(c) Access permits shall not be issued where the horizontal distance between an access point and a signalized intersection will be less than 70 meters, except as provided under subsections (a) and (g).

(d) A maximum of four (4) two-way access points or equivalent per side per kilometer of highway shall be permitted, except as provided under subsections (a), (b), (c), (e), (f) and (g).

(e) In areas where a speed zone of less than sixty (60) kilometers per hour is posted by the Municipality Traffic Authority, the minimum horizontal distance between access points shall be 100 meters with a maximum number of nine (9) two-way access points or equivalent per side per kilometer of street, except as provided under subsections (a), (b), (c), (d), (f) and (g).

(f) In areas controlled by paragraphs (a), (b), (c), (d), (e), and (g), additional access points may be permitted where the sole purpose of the additional access is to facilitate the continuance of agriculture or silviculture operations on adjacent properties, and provided further that the public safety, convenience, general welfare and investment is protected. The Engineer shall make appropriate findings in each individual case before granting any such additional access permits.

(g) At the discretion of the Engineer, two one-way accesses may be used in place of one two-way access as allowed under subsections (a), (b), (c), (d), (e) and (f).

(h) Where the property owner wishes to subdivide an existing parcel into two or more new parcels, the Engineer may allow the creation of shared access points along the property line. Such an access must be a legal mutually-shared easement between adjacent properties along the new shared property line. At no time shall the number of accesses to a street be greater than the number of two-way accesses allowed prior to the subdivision as provided under this section.

Engineer may deny access

15. Notwithstanding Section 14, the Engineer may deny access to an existing or proposed parcel of land on the basis that the access would not be in the public interest.

Design

16. (a) The design of a driveway for appropriate sight distances, return radii, angles, profiles and widths shall be based upon engineering standards as established by the Engineer.
- (b) A property shall have sufficient on-site storage to accommodate vehicles waiting to park or exit without using any portion of the street right of way or in any other way interfere with street traffic as determined by the Engineer.
- (c) Provision for circulation between adjacent parcels shall be provided through coordinated or joint parking systems, or other method, as specified by the Engineer.
- (d) Driveway placement shall be such that loading and unloading activities will in no way hinder vehicle ingress or egress as determined by the Engineer.
- (e) Direct access driveway placement shall be such that an exiting vehicle has an unobstructed sight distance as determined by the Engineer.
- (f) In locating access points, consideration shall be given to the alignment of future street intersections and access points in order to facilitate the safe and efficient flow of traffic as determined by the Engineer.
- (g) Traffic projections or analysis may be required by the Engineer to determine the effect of an access.

Special Conditions

17. Where the proposed access does not meet desired engineering criteria as set out in this By-law, the Engineer may refuse access or place special conditions on any access. Special conditions may include turn restrictions, modified driveway specifications, or other engineering-related criteria.

Revocation of Permits

18. (1) The Engineer may cancel, revoke or suspend any permit where there is a violation of this By-Law, any order made pursuant to this By-Law and any condition of any permit issued under the authority of this By-Law.

(2) Any person who has been refused a permit or whose permit has been revoked pursuant to the exercise of any discretion by the Engineer may appeal to the Appeal Committee.

(3) All appeals shall be in writing, in the form of a notice, and filed with the Municipal Clerk within 15 days of the refusal or revocation and shall clearly state the grounds for the appeal.

(4) The Appeal Committee shall hear the appeal at a time and place as it determines and may confirm the refusal or revocation by the Engineer or direct the immediate issuance or re-issuance of the permit by the Engineer subject to such conditions as the Appeal Committee may determine.

Penalties

19. (1) Every person who contravenes any of the provisions of this By-Law, or who fails to comply with the terms or conditions of any permit issued under the authority of this By-Law is guilty of an offence and shall be liable, upon conviction, to a penalty of not less than One Thousand Dollars (\$1,000.00) and not more than Ten Thousand Dollars (\$10,000.00).

(2) In the case of a violation of this By-law of a continuing nature, in addition to any other remedy and to any other penalty imposed, Council may direct the Clerk to apply to a Judge of the Trial Division of the Supreme Court, by way of action or originating notice for an injunction ordering the person violating to cease the violation and the Judge may make any order that in the Judge's opinion the justice of the case requires.

Done and passed by Council this ___ th day of _____, 2007.

Mayor
Municipal Clerk

I, Jan Gibson, Municipal Clerk for the Municipality hereby certify that the above-noted By-Law was passed at a meeting of the Council held on _____, _____.
Jan Gibson, Municipal Clerk

Schedule "A"

Private and Public Roadway Access Prohibited

<u>Street Name</u>	<u>Between</u>
Portland Street	Green Village Lane & Bruce Street
Forest Hills Drive	Main Street & Cole Harbour Road
Burnside Drive	Highway 111 and Akerley Boulevard
Cogswell Interchange	entire
Dunbrack Street	North West Arm Drive & Kearney Lake Road
Glendale Avenue	Cobequid Road & Duke Street
Glendale Drive	Beaver Bank Road & Cobequid Road
Hammonds Plains Road	Pockwock Road & Highway 103
Massachusetts Avenue	Robie Street & McKay Bridge Ramps
Timberlea Village Parkway	St. Margarets Bay Road & Highway 103
Victoria Road (Dartmouth)	Highfield Park Drive & Windmill Road
Woodland Avenue	Highway 118 & Pinehill Road

Schedule "B"

Private Roadway Access Prohibited or Controlled

<u>Street Name</u>	<u>Between</u>
Akerley Boulevard	entire length
Alderney Drive	Wyse Road & Prince Albert Road
Alma Crescent	entire length
Barrington Street	South Street & McKay Bridge
Bayers Road	Windsor Street & Dutch Village Road
Beaver Bank Road	Highway 1 & Beaver Bank Windsor Junction Cross Road
Bedford Highway	Windsor Street & Highway 102
Bell Road	Robie Street & Sackville Street
Braemar Drive	MicMac Parclo & Red Bridge Pond
Caledonia Road	Main Street & Avenue du Portage
Chain Lake Drive	Lacewood Drive & Susie Lake Drive (2 nd Intersection)
Chebucto Road	Armdale Rotary & Windsor Street
Cogswell Street	Robie Street & Cogswell Interchange
Cole Harbour Road	Caldwell Road & Ross Road
Connaught Avenue	Windsor Street & Jubilee Road
Cunard Street	Windsor Street & North Park Street
Dartmouth Road	Bedford Highway & Bedford By-Pass
Duke Street (Bedford)	Highway 102 & Rocky Lake Drive
Dutch Village Road	Alma Crescent (west intersection) & Joseph Howe Drive
Gottingen Street	Duffus Street & Rainnie Drive
Hammonds Plains Road	Bedford Highway & Pockwock Road
Herring Cove Road	Armdale Rotary & Core Area Boundary
Joseph Howe Drive	Armdale Rotary & Fairview Overpass (Bedford Hwy.)
Kearney Lake Road	Bedford Highway & Hammonds Plains Road
Lacewood Drive	Evans Avenue & Chain Lake Drive
Larry Uteck Boulevard	Bedford Highway & end
Lower Water Street	Terminal Road & Barrington Street
Main Street - Route 7	MicMac Parclo & Ross Road
Main Road	Pleasant Street & Cow Bay Road
MicMac Boulevard	Woodland Avenue & Highway 111
Mumford Road	Joseph Howe Drive & Chebucto Road
North Street	Barrington Street & Chebucto Road
North Park Street	Cunard Street & Cogswell Street
Pleasant Street	Renfrew Street & Main Road
Portland Estates Boulevard	Portland Street & Portland Estates Boulevard West
Portland Estates Boulevard West	Portland Estates Boulevard & end
Portland Street	Gaston Road & Green Village Lane
Portland Street	Bruce Street & Caldwell Road
Prince Albert Road	Portland Street & Breamar Drive

Quinpool Road
Robie Street
Rocky Lake Road
Sackville Drive
St. Margarets Bay Road
Titus Street
Victoria Road (Dartmouth)
Windmill Road
Woodland Avenue
Woodlawn Road
Wyse Road
Young Street

Armdale Rotary & Robie Street
Inglis Street & Massachusetts Avenue
Bedford Highway & Waverley Road
Highway 102 & Core Area Boundary
Armdale Rotary & Highway 103 (Exit 4)
Alma Crescent & Evans Avenue
Woodland Avenue & Highfield Park Drive
Victoria Road & Limit of Municipality control
Victoria Road & Pinehill Road
Main Street & Portland Street
Alderney Drive & Albro Lake Road
Windsor Street & Gottingen Street

HALIFAX REGIONAL MUNICIPALITY

BY-LAW NUMBER S - 300

BY-LAW RESPECTING STREETS

Number and Short Title

1 This By-law shall be known as By-law Number S-300 and shall be cited as the “Streets By-law”.

Application

2 This by-law shall apply to those areas of the Halifax Regional Municipality located within the core area.

Definitions

3 In this By-law:

- (a) "abutter" means the owner, lessee, or occupier of any premises or lot in the Municipality which abuts a street, and where the premises or lot has been registered as a condominium under the Condominium Property Act, includes the condominium corporation which manages the premises or lot;
- (b) “construct” includes the installation, alteration, or removal of any facility;
- (c) “core area” means that portion of the Halifax Regional Municipality for which the Municipality has assumed responsibility for maintenance of public streets and is more particularly described in Agreement No. HRM - 01 between the Halifax Regional Municipality and the Minister of Transportation & Public Works which became effective on June 24, 1996;
- (d) "Council" means the Council of the Halifax Regional Municipality;
- (e) “crosswalk” means that portion of a roadway ordinarily included within the prolongation or connection of curblines or the edge of a roadway and property lines at intersections or any portion of a roadway clearly indicated for pedestrian crossings by lines or other markings on the road surface;
- (f) “eating establishment” includes any premises where foodstuffs are offered for sale

or sold to the public for immediate consumption thereon or for immediate consumption or delivery where take-out is provided.

(g) "Engineer" means the Engineer of the Halifax Regional Municipality and includes a person acting under the supervision and direction of the Engineer;

(h) "facility" means any pole, pole lines (including braces and anchors), aerial cables, manholes, conduits, underground cables, pipes for the carriage of gas or liquids, and associated apparatus for the provision of utility services, including amplifiers, connection panels, transformers, valves and other fittings or equipment, but shall not include any service connection between private property and any main, wire, cable, conduit, duct or pipe in or upon any street.

(i) "municipal infrastructure" includes infrastructure that supports the provision of municipal services as well as water services, and without restricting the generality of the foregoing includes public trees, street lighting, traffic lights, traffic signs and other municipal signs;

(j) "municipal street furniture" includes banners, flower pots and other decorations owned by the Municipality;

(k) "Municipality" means the Halifax Regional Municipality;

(l) "owner" includes

(i) a part owner, joint owner, tenant in common or joint tenant of the whole or any part of land or a building, and

(ii) in the absence of proof to the contrary, the person or persons assessed for the property;

(m) "public tree" means a tree the majority of the trunk of which, is located within a street or on municipal property;

(n) "roadway" means that portion of a street between the curb lines or the travelled portion of a street designed for vehicular travel;

(o) "sidewalk" means that portion of a street between the curb line and adjacent property line or any part of a street especially set aside for pedestrian travel and separated from the roadway;

(p) "street" means all public streets, roads, lanes, sidewalks, thoroughfares, bridges and

squares, and all curbs, gutters, culverts and retaining walls in connection therewith and without restricting the generality of the foregoing includes the full right of way width;

(q) “utility” includes any person or corporation that provides water, electric power, telecommunications service, natural gas or other gas intended for use as fuel to the public.

PART 1 - REMOVAL OF ICE AND SNOW FROM SIDEWALKS

Removal of Snow and Ice

4 (1) Owner, except where snow removal service is provided by the Municipality, shall remove all snow and ice,

(a) from any sidewalk which abuts any side of their property; provided, however, that where a property containing a detached one-family dwelling unit, a duplex dwelling or a semi-detached dwelling unit as defined in the Land Use Bylaws has frontage on a street at both the front and rear of the property, the owner shall not be required to remove the snow and ice from a sidewalk which is part of the street at the rear of the property, where the street at the front of the property is defined as the street on which the property has its civic address, and

(b) from any pathway leading from a sidewalk abutting their property to the roadway, and

(c) between any sidewalk abutting their property and a crosswalk

for a minimum width of three feet or the full width of the paved sidewalk, whichever is less, within twelve hours after the end of any snowfall or, where the snow stops falling during the night, six hours after daylight, and without restricting the generality of the foregoing, owners shall render the sidewalk completely free of snow and ice to bare pavement within said times.

(2) No person shall deposit snow or ice on the travelled way of any street.

Removal of Icicles

5 No person shall permit icicles to accumulate on the eaves or gutters of any building owned or occupied by him so as to become dangerous to persons passing on the street.

Engineer May Remove

6 (1) Where the owner fails to remove snow or ice from sidewalks or structures as required by this By-law, the Engineer or a peace officer may serve an Order to Remove Snow and Ice from Sidewalks upon the owner by posting the Order in a conspicuous place upon the property.

(2) If the owner fails to comply with the Order to Remove Snow and Ice from Sidewalks within 24 hours of service of the Order, the Engineer or a peace officer may remove such snow and ice and may recover the cost of such work from the owner.

(3) The Municipality's cost in removing the snow and ice pursuant to subsection (2) shall constitute a lien against the property which shall be applied and enforced in the same manner as for rates and taxes under the Assessment Act.

PART II - USE OF SIDEWALKS

Animals on Sidewalk

7. No person shall drive or ride any horse, cow, sheep or other animal, on any sidewalk where the passage or excrement of such animal would be likely to cause annoyance to persons using the sidewalk.

Damage to Sidewalks, Curbs and Landscaping

8. Whenever any sidewalk, landscaping between the sidewalk and the curb, or curb has been broken or otherwise damaged as a result of construction on an abutting property by the owner, his servant or agent, the Engineer may serve notice in writing upon the owner of the property requiring the owner to take immediate action to render the damaged area in a safe condition, to obtain a permit to repair said damage within 48 hours, as hereinafter provided, and to effect repair of such damage within 7 days from service of such notice or such time as stated on the notice, and if the owner fails to make such repairs within such time, the Engineer may cause the same to be done at the expense of the owner and the cost thereof may be recovered by the Municipality as by lien as provided by s. 49 of the Halifax Regional Municipality Act.

Encroaching hedges, tree roots, tree branches

9. (1) Abutters shall trim the branches or roots of any tree, hedging, bush or other shrubbery which encroaches from the abutting property over or under any street so as to prevent such trees, hedging, bushes or other shrubbery from interfering with or affecting the sightlines of any person travelling on a street or interfering with any structure on or in a street.

(2) Where the abutter has failed to comply with subsection (1), the Engineer may serve notice in writing upon the abutter requiring the trimming of said tree, hedging, bush or other shrubbery within such time as stated on the notice, and if the abutter fails to do so within such time, the Engineer may cause the same to be done at the expense of the abutter and the cost thereof may be recovered by the Municipality by action.

Littering

10. (1) Owners shall maintain the area between the curb and their property line free from garbage, waste or debris whether or not it is placed in containers.

(2) Where the owner fails to maintain the area between the curb and their property line as required by subsection (1) the Engineer or a peace officer may serve an Order to remove Improperly Placed Solid Waste upon the owner by posting the Order in a conspicuous place upon the property. Such an Order shall not be given on a collection day for the property pursuant to By-Law S-600 Solid Waste Collection and Disposal by-law.

(3) If the solid waste is not removed from the sidewalk in accordance to the by-law and the 24 hour time period outlined in the Order to Remove Improperly Placed Solid Waste, the Engineer or a peace officer, may remove such garbage, waste or debris and may recover the cost of such work from the owner.

(4) The Municipality's cost in removing the garbage, waste or debris pursuant to subsection (3) shall constitute a lien against the property which shall be applied and enforced in the same manner as for rates and taxes under the Assessment Act.

(5) Abutters who operate an eating establishment shall empty all garbage receptacles within the sidewalk abutting the eating establishment immediately prior to closing each day.

Maintenance of Grass

11. Abutters, except where grass cutting and maintenance service is provided by the Municipality, shall maintain any grass between the sidewalk and the curb closely clipped and to a height not greater than six inches and shall keep such areas in good order including raking and renewal of the grass as necessary.

PART III

UTILITY PERMITS

Application

12. This Part shall apply to any utility constructing a facility in or upon any street.

Utility Permit Required

13. (1) No facility shall be constructed without first obtaining a permit therefor from the Engineer and shall be constructed in accordance with the conditions set out in the permit. The location thereof shall be subject to the approval of the Engineer.

- (2) A separate permit shall be required for the construction of a facility on each street affected.

Contents of Application

14. The application shall include plans satisfactory to the Engineer showing the location of such facility, existing municipal and utility infrastructure, including public trees.

Permit Conditions

15. Every permit shall be issued on the following conditions:

- (a) every line of poles must be run on one side of the street only, except when absolutely necessary to change to the other side, but such change may be made only by the permission of the Engineer;
- (b) new poles must not be deposited on any street more than 3 days in advance of their erection;
- (c) two lines of poles shall not be erected on the same side of the street;
- (d) when directed by the Engineer, or when required to clear trees, poles and wires shall be of such height as the Engineer deems necessary;
- (e) poles shall be located at least 18 inches (0.5m) from the curb face on local streets and 24 inches (0.6m) on major or collector streets unless specifically permitted by the Engineer;
- (f) underground facilities shall be constructed no less than 30 inches (0.8m) from the surface grade of the street; and
- (g)
 - (i) the utility shall provide and maintain public liability insurance which names the Municipality as an additional insured party, such insurance shall indemnify the Municipality and its employees against any and all claims made as a result of the presence, operation and maintenance in the street of the facility and shall further agree to reimburse the Municipality for any damages caused to the Municipality or its property as a result thereof, except to the extent such loss or damage is caused by the Municipality; or
 - (ii) where the utility can satisfy the Municipality that it is financially capable of responding to a claim without the benefit of insurance, the utility need not provide proof of insurance as set out in clause (i) but shall save the Municipality and its employees harmless in the event of any claim made as a result of the presence, operation and

maintenance in the street of the facility and shall further agree to reimburse the Municipality for any damages caused to the Municipality or its property as a result thereof, except to the extent such loss or damage is caused by the Municipality.

Removal of Wires and Poles

16. (1) All broken and dead wires, and all wires, poles and fixtures not actually in use must be removed by the owner unless permitted to remain by the Engineer.

(2) Any broken pole or dead wire that is on any street more than 3 days may be removed by the Engineer at the expense of the owner, after three days notice to remove same.

(3) When a pole is taken down it must be removed the same day.

Change of Location

17. Where in the opinion of the Engineer the location of any facility shall interfere with any works or undertakings of the Municipality, the facility shall be changed or altered and, wherever necessary removed; whenever the Engineer orders such changes of location or removal, it shall be done by the utility without unnecessary delay and at its expense, or it may be done by the Engineer at the expense of the utility.

Street and Services Permit

18. In addition to securing a Utility Permit as herein required, every utility which opens any street as part of the construction of a facility, shall first obtain a Street and Services Permit in accordance with Part IV and shall otherwise comply with the provisions of Part IV hereof.

Use by Municipality

19. Every utility owning poles shall allow the Municipality free of charge,

(a) (i) the use of a portion of each pole for the purpose of erecting and maintaining thereon municipal infrastructure or municipal street furniture owned by the Municipality, and appurtenances thereto advance notification of which will be provided to the utility; and

(ii) the Municipality indemnifies and saves the utility harmless in the event of a claim made as a result of the presence, operation and maintenance on poles of the utility of such municipal infrastructure or municipal street furniture, except to the extent that such loss or damage is caused by the utility or by a party or parties other than the Municipality;

(b) where the utility wishes to remove a pole which is being used to support municipal infrastructure, the Municipality shall have the option of requiring the pole to remain, and upon removal of the utility's facilities from the pole, ownership of and responsibility for the pole shall be transferred to the Municipality.

Records

20. When required by the Engineer, every utility shall file in the office of the Engineer such records of the facilities owned by it as the Engineer requires.

Public Trees

21. (1) Except in the event of an emergency, no utility shall disturb a public tree by pruning or other means without first obtaining permission therefor from the Engineer.

(2) In constructing any facility, a utility shall minimize any disturbance to public tree.

(3) Where it is necessary for a utility to alter a public tree, the Engineer may assign an inspector to supervise the work, the cost of which shall be borne by the utility.

(4) The Engineer may require that the utility do such things as are necessary to ensure the health and safety of public trees affected by any works carried out by the utility, even where not required by the utility's own standards.

(5) Where a utility disturbs a tree by pruning or other means, the utility shall use sound arboricultural practices as determined by the Engineer.

Utility Penalty

22. Every utility constructing a facility in or upon a street shall comply with this bylaw; and in the event of failure to do so within the time specified by the Engineer, the Engineer may require the removal of the facility.

PART IV - STREETS & SERVICES PERMIT

Permit Required

23. (1) No person shall:

(a) make any excavation in a street;

(b) connect service laterals, whether within the street or on private property, to the public sewer or water system;

(c) repair an existing water or sewer lateral;

without first obtaining a Street and Services Permit from the Engineer.

(2) Every application for a permit shall include a fee in the amount of

\$100.00.

Performance Security

24. (1) Where there is an excavation within the street, the application shall include a security deposit in the amount of \$1,000.00 and a non-refundable maintenance fee in the amount of \$250.00 or 15% of the total restoration costs based on current unit prices, whichever is greater.

(2) Where the Municipality gave notice to the property owner of its intention to pave or repave the street within two years of the date of application, the non-refundable maintenance fee shall be \$500.00 or 30% of the total restoration costs based on current unit prices, whichever is greater.

(3) The security deposit shall be retained as a guarantee that the applicant will properly perform and complete the work for which the permit is granted, and restore and keep the surface of the street when such work is done, to a good condition and to the satisfaction of the Engineer, for a period of twelve months after the works are accepted by the Municipality.

(4) If the Engineer is of the opinion that the work is not being properly performed, or the surface of the street is not kept in good condition, he may, with notice, perform such work in respect of the work or street as he considers necessary and the cost shall be deducted from the deposit, and the balance, if any, returned upon the expiry of the six month period referred to in subsection (3). If the cost of such work exceeds the deposit, the balance may be recovered from the applicant by action.

Annual Permits

25. (1) The Engineer may grant a periodic or annual Street and Services Permit to a utility for the purpose of the installation of poles and supporting appurtenances, water service emergencies and routine water service maintenance including pavement patching related thereto which require the excavations in municipal streets, subject to such conditions as the Engineer may determine, and, without restricting the generality of the foregoing, any such permit shall require that the Engineer be informed of the location and time of such work prior to its commencement.

(2) An application for an annual permit shall include a fee of \$1,000.00 and a security deposit in the amount of \$20,000.00 to be maintained in place for the duration of the

permit.

(3) The provisions of s.24 shall apply, mutatis mutandis, to the annual permit security deposit and the said security deposit shall be returnable, upon the Engineer being satisfied that the provisions of this bylaw have been adhered to, on expiration of the permit.

(4) Every utility shall file in the office of the Engineer a notice of completion of work for all facilities constructed or repaired within a street within one week of the completion of the work.

(5) A water utility shall be responsible for all future maintenance of cuts made in the roadway portion of the street by the utility for water service works undertaken pursuant to the issuance of an annual permit until the street is repaved.

Closing of Openings

26. (1) Every excavation in a street shall, after notice, either written or verbal, given by the Engineer to the permit holder or abutter, be closed and filled as required by the notice, and if not so closed and filled within 48 hours after such notice, then it may be closed and filled by the Engineer at the expense of the permit holder or abutter.

(2) In the event of an emergency arising at the location of the excavation, the Engineer may immediately fill the excavation and recover the costs thereof from the permit holder or the abutter.

Protection of Excavations at Night

27. Every person obtaining a permit to make any excavation or opening in or near any street shall at night sufficiently and continuously light the same and shall in addition, enclose and secure the same by a fence or barrier at least three feet in height, and sufficient to protect the public from injury in accordance with the provisions of any applicable regulations enacted pursuant to the Occupational Health & Safety Act.

Permit Conditions

28. In addition to any other conditions imposed by the Engineer for the granting of a street and services permit, all permits shall be subject to the following conditions:

- (a) the Engineer may stipulate the hours of work;
- (b) the applicant shall keep the work site at all times safe with respect to vehicular and pedestrian traffic, including direction of traffic, barricades, lights, signs, and supply of properly equipped and trained Traffic Control personnel for protection of traffic, in accordance with the Temporary Workplace Control Manual in force pursuant to the Occupational Health and Safety Act;

- (c) notice being given to the Engineer prior to the installation of temporary steel plates over openings;
- (d) the Engineer may order additional precautions, work stoppages and restorations of the street should circumstances warrant such action; upon the failure of the applicant to comply within 24 hours with such order or in the event of an emergency, the Engineer may undertake any necessary action and recover the cost of such action from the applicant;
- (e) the applicant shall ensure that the street is kept free from nuisance, dirt, and dust;
- (f) the applicant shall dispose, store, or haul away any clean material suitable for use as structural fill excavated from a street in accordance with the directions of the Engineer and the material shall remain Municipal property;
- (g) the applicant shall ensure that all excavations are backfilled and restored in such manner and with such material as is approved by the Engineer and that advance notice of a minimum of 24 hours of the backfilling operation shall be provided to the Engineer so that it may be properly inspected;
- (h)
 - (i) the applicant shall provide and maintain public liability insurance in the minimum amount of \$2 million per occurrence, such insurance shall indemnify the Municipality and its employees from any and all claims made as a result of the excavation, and the Municipality shall be named as an additional insured;
 - (ii) where the applicant is a utility and can satisfy the Municipality that it is financially capable of responding to a claim in the amount of \$2 million per occurrence without the benefit of insurance, the utility need not provide proof of insurance as set out in clause (I) but shall save the Municipality and its employees harmless in the event any claim is made as a result of the excavation;
- (i) the permit shall be valid for a period of six months from date of issuance, but where work has commenced the permit shall expire 12 months after the date of issuance;
- (j) any other condition in respect of safety that the Engineer may impose.

Emergencies

29. In the event of an emergency requiring the immediate excavation of the street, the

Engineer may give verbal permission for such excavation on the condition that a Street and Services Permit is applied for and obtained on the first working day subsequent to the granting of such permission.

Obstructions

29. (1) No person shall obstruct any street without first obtaining a Street & Services permit from the Engineer.
- (2) Where the obstruction may cause damage to the street, the Engineer may require a security deposit in the amount of \$1,000.00, such deposit to be held until the Engineer is satisfied that no damage has occurred to the street after the obstruction has been removed.
- (3) The Engineer may permit any person to use any portion of a street for construction or other temporary purpose subject to any conditions that he may reasonably impose.
- (4) The Engineer may refuse to issue a Street & Services permit when it is in the public interest to do so.

PART V - DRIVEWAY ACCESS

Permit Required

31. Every property owner is required to obtain a street and services permit from the Engineer before constructing a driveway access.

Cost and Driveway Specifications

32. Every driveway within a street shall be constructed and maintained at the expense of the property owner of the lot served and in conformance with the specifications as determined by the Engineer in accordance with good engineering practice.

Separate Driveways

33. With the exception of signalized intersections, where more than 100 vehicles will enter or leave a street in any one hour, separate driveways are required, one for egress and the other for access, subject to the following conditions:

- (a) separate driveways shall not be permitted to join or meet the roadway at an angle less than 45 degrees;
- (b) separate driveways shall be physically separated from other driveways and shall be clearly marked as an entrance or an exit to the property the driveway will serve;

(c) separate driveways shall have a width greater than 10 feet (3m) and less than 23 feet (7m) at the point where the driveway joins the roadway.

Two-Way Driveways

34. (1) Driveways permitted to allow vehicles to both enter and leave a street by means of the same driveway shall conform to the following requirements:

(a) two-way driveways shall not be permitted to join the roadway at an angle less than 70 degrees;

(b) Two-way driveways serving residentially used property with 4 or fewer units shall have a width not less than 10 feet (3m) and not greater than 16 feet (5m) at a point where the driveway meets the edge of the public right of way, except where the property frontage exceeds 60 feet (18 m), a driveway up to 20 feet (6m) in width may be permitted;

(c) Two-way driveways serving commercially, institutionally or residentially used property with 5 or more units shall have a width not less than 23 feet (7m) and not greater than 33 feet (10m) at a point where the driveway meets the edge of the public right of way;

(d) Two-way driveways serving industrial used property or property which is zoned for industrial or construction and demolition use shall have a width not less than 33 feet (10m) and not greater than 39 feet (12m) at a point where the driveway meets the edge of the public right of way.

(2) Notwithstanding subsection (1), where there are limiting or special circumstances, the Engineer may approve a driveway width subject to special conditions, where in the opinion of the Engineer the driveway will not affect the safe movement of traffic.

Maximum Number of Driveways

35. (1) The Engineer shall not issue a permit to construct a driveway which does not conform to the following requirements:

(a) no more than one driveway may serve any residentially used or zoned lot having less than 100 feet (30m) of frontage on one street, except where the lot is a corner lot fronting on two local streets in which case one driveway on each street may be permitted by the Engineer;

(b) no more than two driveways may serve any residentially used or zoned lot which having less than 600 feet (180m) and more than 100 feet (30m) of frontage on one street;

(c) no more than two driveways may serve any commercially used or zoned lot having less than 100 feet (30m) of frontage on one street;

(d) no more than three driveways may be permitted to serve any commercially used or zoned lot which has less than 600 feet (180m) and more than 100 feet (30m) of frontage on one street.

(e) any lots having more than 600 feet (180m) of frontage on one street may be permitted an additional driveway for each additional 500 feet (150m) of lot frontage on the street.

(2) Notwithstanding subsection (1), the Engineer may refuse more than one access where the additional access would affect the safe movement of traffic on the street due to high traffic volumes or other reason.

(3) Notwithstanding subsection (1), where there are limiting or special circumstances, the Engineer may approve an additional driveway subject to special conditions, where in the opinion of the Engineer the driveway will not affect the safe movement of traffic

Proximity to Intersections

36. (1) No driveway shall be located

(a) within 100 feet (30m) of a street intersection controlled by traffic signals;

(b) within 100 feet (30m) of the intersection of a major street;

(c) within 25 feet (8m) of the intersection of a local street;

measured from the nearest street line of the intersecting street or property line where no street line exists.

(2) No driveway shall be located on any street where the property to be served abuts and has reasonable access to another street that carries a lesser amount of daily traffic

(3) Notwithstanding subsection (1), the Engineer may approve a driveway where there is no other means of access to the lot, and in such cases, the Engineer may issue the permit subject to any condition which, in the opinion of the Engineer, will minimize the impact to traffic by reason of said access.

(4) Notwithstanding subsection (1), the Engineer may refuse access, or approve access

subject to special conditions, where there are limiting circumstances such as compound curves, right turn by-pass lanes, acceleration or deceleration lanes.

Driveway Culverts

37. Where a driveway crosses an existing ditch, the property owner shall install a culvert at the owner's expense and in conformance with the specifications as determined by the Engineer in accordance with good engineering practice.

Sight Distances

38. (1) All driveways shall meet minimum stopping sight distances requirements in conformance with the specifications as determined by the Engineer in accordance with good engineering practice.

(2) Notwithstanding subsection (1), the Engineer may approve a driveway where there is no other means of access to the lot, and in such cases, the Engineer may issue the permit subject to special conditions.

Curbs

39. No person shall drive a vehicle over a curb.

Driveway Drainage

40. Driveways shall be constructed and maintained so as to prevent surface drainage, dirt or dust from private property such as to constitute a nuisance or hazard or in such amount as will enter the public sewer system, from being carried onto the street or sidewalk by means of the surface of a driveway.

GENERAL PROVISIONS

Encroaching Gates

41. No person shall construct or permit to be used any gate or barriers that open into or encroach upon any portion of the street or that may in any way impede pedestrian or vehicular traffic.

Revocation of Permits

42. (1) The Engineer may cancel, revoke or suspend any permit where there is a violation of his bylaw, any order made pursuant to this bylaw and any condition of any permit issued under the authority of this bylaw.

(2) Any person who has been refused a permit or whose permit has been revoked pursuant to the exercise of any discretion by the Engineer may appeal to the Appeal Committee.

(3) All appeals shall be in writing, in the form of a notice, and filed with the Municipal Clerk within 15 days of the refusal or revocation and shall clearly state the grounds for

the appeal.

- (4) The Appeal Committee shall hear the appeal at a time and place as it determines and may

confirm the refusal or revocation by the Engineer or direct the immediate issuance or re-issuance of the permit by the Engineer subject to such conditions as the Appeal Committee may determine.

Dirt and Other Nuisances

43. No person shall place, permit to be placed, or permit to escape from an abutting property dirt, dust, or other nuisance onto the street surface.

Signs

44. No person shall place or allow to be placed any sign or advertising board, including sandwich boards, within the street without first obtaining a permit therefor pursuant to a sign or encroachment bylaw.

Penalty

45. (1) Any person who contravenes any provision of this By-law is guilty of an offence and is liable on summary conviction to a penalty of not less than one hundred dollars (\$100) and not more than five thousand (\$5,000.00) dollars and in default of payment to imprisonment for not more than sixty days.

(2) A person who is alleged to have violated this bylaw and where the notice so provides, may pay a penalty in the amount of \$50.00 to the Chief of Police at the Halifax Regional Police Department provided that said payment is made within a period of fourteen (14) days following the day on which the alleged violation was committed and where the said notice so provides for a voluntary payment, said payment shall be in full satisfaction, releasing and discharging all penalties and imprisonments incurred by the person for said violation.

Repeal

46. Parts I, II, III, IV and V of Ordinance 180, the Streets Ordinance of the City of Halifax; Bylaw S-1400 of the City of Dartmouth; Halifax County Municipality Bylaw No. 6 respecting Municipal Streets and Property; City of Halifax Ordinance No. 7 respecting Poles and Wires in Streets; and City of Halifax Ordinance No. 7A respecting Wires, Cables, Conduits, Ducts and Pipes in the Street are repealed but City of Dartmouth amending bylaw S-1401 is not repealed.

Done and passed in Council this 18th day of November, 1997.

Walter R. Fitzgerald
__MAYOR

Vi Carmichael
__MUNICIPAL CLERK

I, Vi Carmichael, Municipal Clerk for the Halifax Regional Municipality, hereby certify that the above-noted by-law was passed at a meeting of the Halifax Regional Council held on November 18, 1997.

BY-LAW S-300

Notice of Motion:	September 15, 1997
First Reading:	September 30, 1997
"Notice of Intent" Publication:	October 18, 1997
Second Reading:	November 18, 1997
Third Reading:	November 18, 1997
Approval of Minister of Housing & Municipal Affairs:	N/A
Effective Date:	November 22, 1997

No. 1 Amendment by S-301
Subsection (2) of Section 23

Notice of Motion:	November 17, 1998
First Reading:	December 1, 1998
"Notice of Intent" Publication:	December 5, 1998
Second Reading:	December 15, 1998
Third Reading:	December 15, 1998
Approval of Minister of Housing & Municipal Affairs:	N/A
Effective Date:	January 2, 1999

No. 2 Amended by S-302

Clause (a) and (c) of Subsection (1) of Section 4

Notice of Motion:	February 20, 2001
First Reading:	March 6, 2001
“Notice of Intent” Publication	March 10, 2001
Second Reading:	March 27, 2001
Approval of Minister of Housing & Municipal Affairs:	N/A
Effective Date:	March 31, 2001

No. 3 Amended by S-304

Subsection (1) of Section 10; Subsection (2) of Section 10 is renumbered as subsection (5) and subsections (2), (3), and (4), inserted between subsections (1) and (5).

Notice of Motion:	July 17, 2001
First Reading:	August 21, 2001
“Notice of Intent” Publication:	August 25, 2001
Second Reading:	October 2, 2001
Approval of Service Nova Scotia and Municipal Relations:	N/A
Effective Date:	October 6, 2001

No. 4 (V-101)

Amending Subsection (1) of Section 45

Notice of Motion:	August 19, 2003
First Reading:	August 26, 2003
“Notice of Public Hearing” Publication:	September 6, 2003
Second Reading:	September 23, 2003
Approval of Service Nova Scotia and Municipal Relations:	N/A
Effective Date:	September 27, 2003

No. 5 (S-305)

Amending Subsection (3) of Section 24
Amending Section 34 & 35 Amending
Subsection 2 and 4 of Section 42

Notice of Motion:	December 16, 2003
First Reading:	January 13, 2004
“Notice of Public Hearing” Publication:	January 17, 2004
Second Reading:	February 3, 2004
Approval of Service Nova Scotia and Municipal Relations:	N/A
Effective Date:	February 7, 2004

No. 6 (S-307)

Amending Sections 4, 5 6 and 10

Notice of Motion:

October 26, 2004

First Reading:

2004 Notice of Public Hearing "Publication":

2004 Second Reading:

November 9,

November 20,

December 7, 2004

Approval of Service Nova Scotia and Municipal Relations:

N/A Effective Date:

December 11, 2004

Access Management Guidelines for Development in Halifax Regional Municipality

May 9, 2007

Traffic and Right of Way
Transportation and Public Works



HRM - Traffic and Right of Way Services

Access Management Guidelines

This material is a set of guidelines for internal development review and to assist external companies with the development of their properties. At the present time HRM has adopted in principle the guidelines suggested by the Transportation Association of Canada (TAC). These guidelines have not been integrated in HRM legislation and thus HRM and TAC standards may conflict with each other. This document is based on the TAC standards except where Halifax Regional Municipality By-laws over rule. Where HRM or TAC standards do not exist, guidelines are based on good planning practice and/or generally accepted design standards. Where a By-Law standard is stricter than these guidelines, the By-Law over-rules these guidelines.

HRM - Traffic and Right of Way Services

Access Management Guidelines

Table of Contents

X.	INTRODUCTION	
X.1.	What is Access Management? What's the Point?	2
X.2.	What are the Benefits of Access Management?	3
X.3.	Who wins when Access is Effectively Managed	3
X.4.	What Are the Access Management Guidelines?	4
X.5.	Where Do We Go From Here?	4
A.	POLICY	
A.1.	Direct Access To A HRM Road	6
A.2.	Rights-of-Way	6
A.2.1.	Set-Back	7
A.2.2.	Encroachments.	7
A.2.3.	Property Protection	7
A.3.	Transportation Impact Studies	8
A.4.	Funding Development Related Changes	8
A.4.1.	Road Modifications	9
A.4.2.	Traffic Signal Control Modifications	9
A.5.	Parking.	9
B.	ACCESS CONTROL	
B.1.	Number Of Driveways	12
B.2.	Corner Clearance	13
B.3.	Driveway Spacing	15
B.4.	Driveway Alignment	16
B.5.	Angle of Intersection	16
B.6.	Mutually-Shared Driveway	17
B.7.	Turning Activities	17
B.8.	Lay-By	19
B.9.	Plans of Subdivision	20
C.	SITE OPERATIONS	
C. 1.	Driveway Dimensions	22
C. 1.1.	Width and Radius	22
C.2.	Driveway Grades	23
C.3.	Clear Throat Distance	24
C.4	Carwash Stacking Space	25
C.5.	Drive-Through	27
C.6.	Service Facilities	28
C.7.	Site Inter-Connection	29
C.8.	Parking Lot Design	29
C.9	Pedestrian and Bicycle Facilities	29

List of Figures

Figure 1:	Corner Clearance at Stop Controlled Intersections	14
Figure 2:	Corner Clearance at Signalized Intersections	14
Figure 3:	Minimum Driveway Spacing	15
Figure 4:	Centreline Alignment	16
Figure 5:	Angle of Intersection	16
Figure 6:	Mutually-Shared Driveway	17
Figure 7:	Left Turn Restriction from Driveway	18
Figure 8:	Left Turn Restriction to Driveway	18
Figure 9:	Both Left Turns Restricted	18
Figure 10:	Lay-By	19
Figure 11:	Subdivision Road Network	20
Figure 12:	Residential or Commercial Driveway	22
Figure 13:	Industrial Driveway	23
Figure 14:	Minimum distance to a Parking Space	25
Figure 15:	Minimum Distance to a Parking Aisle	25
Figure 16:	Drive-Through Facility	27
Figure 17:	Loading and Courier Areas	28

List of Tables

Table 1	Clear Throat Distances for Major Driveways	24
Table 2:	Carwash Stacking Space	26

X. INTRODUCTION

X.1 ***What is Access Management? What's The Point?***

The final product of Access Management is the safe and efficient flow of traffic on the road system with access to their destination. There is a nationwide interest in Access Management because of concerns over traffic safety, as well as a method of dealing with growing traffic congestion and the increasing costs of upgrading our roads.

Halifax Regional Municipality has a unique opportunity to learn from the experience of other municipalities. We can apply that knowledge to proactively deal with our regions road system. However, to ensure the system will continue to function as intended, Public Works and Transportation must prepare and administer an Access Management plan now.

Many people believe that Access Management is simply a concern over the spacing of driveways and street intersections, but Access Management is much more. A combination of many techniques is needed to support a comprehensive program. These techniques include:

- ♦ Spacing and design of driveways
- ♦ Median use, including design and openings
- ♦ Provisions of turn lanes
- ♦ Proper spacing of traffic signals
- ♦ Inter-parcel circulation
- ♦ Freeway interchanges
- ♦ Functional road hierarchy
- ♦ Functional area of intersections
- ♦ Local road infrastructures

These techniques are integral to the main goal of Access Management, the concept of reducing conflicts. Using these tools effectively can limit the number of conflict points a driver experiences during travel; separate the conflict points that can not be eliminated; and remove slower, turning vehicles from the traffic lanes.

X.2 *What are The Benefits of Access Management?*

Fewer Accidents

Access Management, in other jurisdictions, has been shown to drastically reduce the accident and injury rate.

Increased Capacity

Access Management can increase the capacity of existing transportation facilities. For example, using Access Management techniques on a four lane highway in Colorado, the capacity benefits equaled widening the highway to six lanes.

Reduced Travel Times

Overall traffic speeds increase where Access Management techniques are implemented. This translates into reduced travel times, lower emissions, and substantial fuel savings. Lower fuel emissions is a critical issue for Halifax Regional Municipality as we are members of the Federation of Canadian Municipalities 20% Club. The goal of this group is to reduce greenhouse gas emissions by 20% by the year 2007.

Protecting the Public Investment

Halifax Regional Municipality's maintains approximately 1400 km's of road with an estimated value of \$1 billion. Access Management is a means to ensure that we achieve the maximum return on the road system.

Good Business

Access Management presents tremendous opportunities for financial savings, in the form of reduced accident costs, reduced need to construct additional travel lanes, reduced need to purchase additional right-of-way, and by extending the service life of interchanges.

X.3 *Who Wins When Access is Effectively Managed?*

Access Management produces positive results for:

The Motorist.

- ♦ Faces fewer decision and conflict points which simplifies the task of driving.
- ♦ Has reduced travel times.

The Cyclist.

- ♦ Faces fewer decision and conflict points which simplifies the task of driving.
- ♦ Benefits from more predictable motorist travel patterns.
- ♦ Can choose alternative travel routes as local roadway support systems are developed.

The Pedestrian.

- ♦ Can use some medians as a refuge when crossing streets.
- ♦ Faces fewer and better spaced accesses where motorists enter and exit the roadway.

The Business Person.

- ♦ Is served by a more efficient roadway system
- ♦ Can increase their market area and allows higher traffic volumes by their location.

The Government Agencies involved.

- ♦ Benefit from the lower cost of delivering an efficient and safe transportation system.

Society.

- ♦ Receives a safer transportation system
- ♦ Benefits from a lesser need for major widening of highways, which causes displacement of businesses, homes, and communities.
- ♦ Can protect and preserve its investment through access management.

X.4 What Are the Access Management Guidelines?

The Access Management Guidelines is a document which outlines a set of HRM policies and standards that relate to the redevelopment of land. There are three sections in the Guidelines: Policy, Access Control, and Site Operations. Each section defines specific issues, provides a standard and, in most cases, a corresponding diagram.

The Policy Section documents guidelines within the Traffic and Transportation Section. This section addresses such things as the criteria for permitting access to an HRM road and developers' obligations in regard to mitigating the traffic impact of the development they propose.

The Access Control Section addresses the site-specific issues of how a new driveway will be integrated with the existing road operations. This section addresses such issues as the number of driveways and the type of operations that will be permitted.

The Site Operations Section addresses the traffic activities on the site itself so that the site operations will not negatively impact the existing operation of HRM roads. This section addresses such issues as the width of the driveway and the layout of the parking.

X.5 Where Do We Go From Here?

The Access Management Guidelines will continue to evolve as new issues are defined. As each new issue is defined and tested, it will be documented and the new standard will be added to the Guidelines.

A. POLICY

A. POLICY

The Municipal Government Act gives the Halifax Regional Municipality many responsibilities, one of these responsibilities is to maintain and control most roads within the municipality.

One of the main objectives of the Traffic and Transportation Section is to move people and goods within and across the core area of Halifax Regional Municipality safely, conveniently, and reliably by providing an integrated and accessible transportation system. This system should comprise a balanced range of travel options. It should encourage walking and cycling, the use of transit and other high-occupancy vehicles, and should make efficient use of existing and future transportation infrastructure.

The POLICY Section of the Guidelines attempts to address the goals and objectives of official transportation policies laid out in several planning documents such as individual Municipal Planning Strategies as well as in the Regional Plan.

A.1. Direct Access To A HRM Road

The main objective of the HRM arterial and collector road network is to provide carrying capacity for inter-regional and intra-regional trip making. The number of direct access points to the road network must be effectively managed to reduce delay, minimize turning conflicts, and maintain an acceptable level of safety for both motorists and pedestrians.

Therefore, before direct access to the HRM arterial or collector road will be permitted, alternate access opportunities must be explored. The following are considered to be valid criteria to justify direct access to a HRM arterial or major collector road:

- ♦ *land parcels are otherwise landlocked;*
- ♦ *a site possesses unique constraints which negate any other access opportunities, such as the lot depth, the footprint of existing buildings, grades, or minimal frontage onto local streets;*
- ♦ *alternate access creates unacceptable traffic operation conditions on, or in close proximity to, the arterial road, and*
- ♦ *land parcels are currently developed with uses which have been proven (documented) to rely heavily on pass-by traffic for business trade, such as service stations.*

A.2. Rights-of-Way

Major road rights-of-way are designated on individual Municipal Planning Strategies and in the Regional Plan. These designated rights-of-way, and others yet unidentified, are required to provide for transportation services throughout the Halifax Regional Municipality. These services will include roads, the physical amenities for pedestrians as well as utility corridors.

Where existing HRM rights-of-way are deficient, the Municipality may acquire, for a nominal consideration, the property necessary to conform to the rights-of-way as designated in the MPSs, the Regional Plan or as identified as part of the planning process.

A.2.1. Set-Back

It is recommended that a minimum 1.0-metre building setback from the ultimate HRM right-of-way be required to allow for developer-funded landscape features to be provided on private as well as public lands. This will ensure that some of these landscape features will be maintained regardless of the road improvements likely to be implemented in support of local development. In addition, a 1.0 metre setback will also assist HRM in providing adequate space between building fronts/sidewalks and curbs.

Developer-funded landscape features are an integral part of the visual aesthetics of each proposed development as envisioned by the local municipal planners and, as supported by HRM. Often these landscape features are proposed to be implemented exclusively on HRM's rights-of-way because new building(s) are proposed to be located at the a zero (0) lot line to maximize development potential.

HRM is concerned that when these features are provided exclusively on its rights-of-way where the ultimate paved width of roadways have not been achieved, what can result is the unavoidable loss of a significant portion of the developer-funded landscape features when the roadway is reconstructed or widened. The two key effects of these constraints are the actual physical loss of the landscape features and the loss to the community that has grown accustomed to these features.

HRM's primary role is the implementation of a road network that (a) sustains the future development plans envisioned in each district of the Municipality and (b) supports all modes of travel. Although HRM endeavours to provide some landscape features within the right-of-ways, adequate funding is not available to fully replace the landscape features provided exclusively within its rights-of-way as originally implemented by the developer.

In addition, the placement of buildings at a zero lot line can also result in greater community impacts when implementing the road improvements required to support local development. If there is not adequate right-of-way, desirable elements such as an adequate pedestrian system may not be able to be built to ideal specifications.

Therefore, we encourage municipal planners to consider these issues and to take into account possible future curblines when planning new buildings and landscape features so that both local and HRM transportation goals and objectives can be met with the least negative impact on area communities and the road network.

A.2.2. Encroachments

Encroachments on HRM rights-of-way should be avoided; however, they can occur either above-grade, at-grade, or below-grade. These potential encroachments are reviewed on a site-specific basis so that the intended use of the rights-of-way are protected. Please consult Development Services if you wish to encroach on an HRM right-of-way.

A.2.3. Property Protection

There are several road proposals in HRM that have been identified as having the potential to be built at some point in the future. These road projects may be sponsored by HRM and/or Nova Scotia Transportation and Public Works.

When developments are proposed in areas where these roads are proposed to be located the developer should contact Planning and Development Services and set up a meeting to discuss the proposed road and how it affects the development.

Issues such as reserving and the acquisition of right-of-way, connections to proposed roads and access restrictions will be discussed at this time.

A.3. Transportation Impact Studies

Transportation Impact Studies (TIS) are required to be undertaken by a qualified traffic consultant in order to identify the impact a proposed development will have on the adjacent road network, and to identify the potential improvements that will be required to mitigate the travel demands problems associated with the proposed development.

However, not all development proposals will require a TIS, nor will they all require as comprehensive a TIS as outlined in the "*Guidelines for the Preparation of Transportation Impact Studies*". It is important that the developer contact HRM Planning and Development Services to obtain an exemption from all or part of the TIS requirements.

A comprehensive Transportation Impact Study (TIS) will generally be required when a proposed development generates one or more of the following conditions:

- ♦ *100 peak hour, peak direction person trips added to the HRM road network;*
- ♦ *proposal incorporates direct vehicular access to a major collector or arterial road;*
- ♦ *the vehicular traffic generated by the development would result in volume/capacity ratios at a signalized intersection becoming critical (i.e. Greater than 0.85 overall or for a shared through/turning movement, or greater than 1.0 for an exclusive turning movement);*
- ♦ *the proposal is in an area with significant traffic congestion and/or a high expected rate of population or employment growth;*
- ♦ *the proposal requires an amendment of the applicable MPS or transportation plan(s); and,*
- ♦ *the proposal is not envisioned by local land use/transportation plans.*

Note: Even proposed developments that generate less than 100 peak hour, peak direction person trips will require consultation with HRM staff to determine if a TIS is required and to establish the appropriate scope and level of detail required.

A.4. Funding Development-Related Changes

Road and/or traffic signal control changes are often required to mitigate the traffic demands of a proposed development and are typically provided at no expense to the HRM however, cost-sharing arrangements between other developers, the Province of Nova Scotia and/or the HRM are feasible and supportable. *Please note that due to current fiscal conditions there is very limited funding available for cost sharing.*

A.4.1. Road Modifications

Road Modifications include any physical changes that must be made to the HRM road network to mitigate the traffic effects of a proposed development. These modifications can be modest or extensive, such as making changes to existing pavement markings or physically constructing a turn lane.

The developer will be responsible for the actual cost of installing any road changes where:

- ♦ *the changes alleviate the effect of the development-related site traffic on the road network;*
- ♦ *the benefits of the changes extend beyond the development but where the developer requests that implementation be accelerated ahead of the schedule set by Regional Council.*

The Capital Costs Contribution Policy may allow the cost of any modifications which affect more than one new subdivision to be distributed to all new affected subdivisions in the area at a later date.

A.4.2. Traffic Signal Control Modifications

Traffic signal control modifications include any physical changes that must be made to the existing traffic control signal network to alleviate the impacts of a proposed development. These modifications may require the provision of additional signal hardware at an existing location and/or the installation of traffic control signals at a new location as well as associated geometric changes.

HRM will assess the need for traffic control signals by using the technical warrants established by the Transportation Association of Canada (TAC), as well as sound engineering judgement. Traffic control signals may be approved if the warrant criteria for the installation of traffic control signals have been met or are expected to be met within twelve months of the proposed installation date. The developer will be responsible for all costs associated with the provision of traffic control signals, signal hardware and related improvements.

A.5. Parking

It is a goal of Halifax Regional Municipality to reduce the level of automobile dependency, thus use of transit, car pooling, bicycling and walking is encouraged. HRM also supports and encourages the provision of a minimum (essential) parking supply on a site and shared parking arrangements because this can be an effective measure to reduce peak hour auto demands on the arterial road network.

In most instances, local municipal land-use by-laws place controls on the minimum amount of parking that must be provided. In most cases, however, the maximum amount of parking that will be permitted is not governed by bylaws. Therefore, to discourage the provision of excess parking, the following guideline has been established.

The provision of parking in excess of 20 percent above the minimum amount of parking permitted by the local municipal by-law will not be supported by HRM Traffic and Right of Way.

HRM - Traffic and Right of Way Services

Access Management Guidelines

B. ACCESS CONTROL

B. ACCESS CONTROL

The function of the road network is to provide for the safe and efficient movement of people, goods and services. Access control contributes to the safety and operational efficiency of a road and is an important factor in minimizing the potential for collisions and delays to motorists.

Driveway location is influenced by the following factors: the amount of site frontage available for access; the approach directions of development traffic; the locations of existing cross roads, driveways and/or busbays; the location of existing traffic control signals, queuing patterns along the road and road classification. Where access can be gained from a lower class road, certain driveway locations may be denied approval by the Municipality subject to By-Law S-300 Respecting Streets.

This Access Control Section addresses the issues that affect the integration of new driveways with the existing roads and adjacent properties such that the traffic generated by the proposed new development will not negatively affect existing traffic operations.

B.1. Number Of Driveways

The number of new driveways that will be permitted to a specific site depends on several factors: the density and type of land use, the type of operations that will be permitted at the new driveway(s), the location and operating activity of existing driveways or local road connections, and By-Law requirements.

The implementation of mutually-shared driveways, shared by adjacent land owners, is encouraged and supported by HRM Traffic and Transportation.

Direct access to an HRM arterial or collector road should be technically justified, and developers are encouraged to pursue alternate access arrangements as follows:

- ♦ where a property has access to a roadway which is a lower classification, the access should be to the lower class street;
- ♦ developers should attempt to negotiate mutually-shared access arrangements with adjacent property owners.

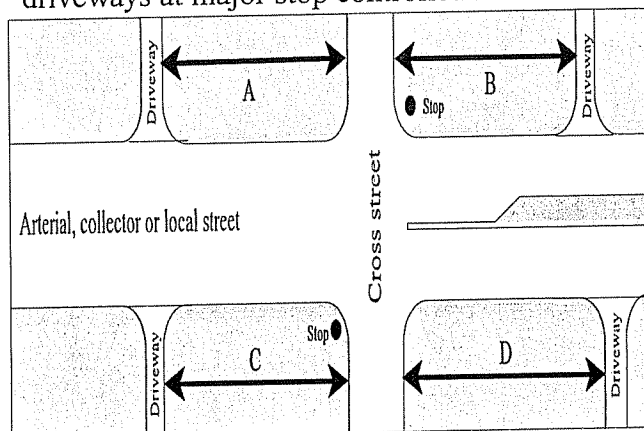
Bylaw S-300 Respecting Streets and Bylaw S-900 Controlled Access Streets regulates the maximum number of allowable driveways. Please refer to the current version of these bylaws to ensure accurate information.

B.2. Corner Clearance

Corner clearance is the distance between an existing intersection and a proposed driveway/public road upstream or downstream from the intersection. It is measured from the ultimate right-of-way limit to the near curb of the proposed driveway/public road. Corner clearance is the sum of three key components: the intersection curb radius, a tangent section and the radius of the driveway/public road. Corner clearance should be sufficient to allow a driver to enter the road without interfering with traffic operations.

Criteria that influence corner clearance include the road classification, volume of traffic, the driveway/public road volume, left turn storage requirements, and whether or not the existing intersection is (or will be) signalized or unsignalized.

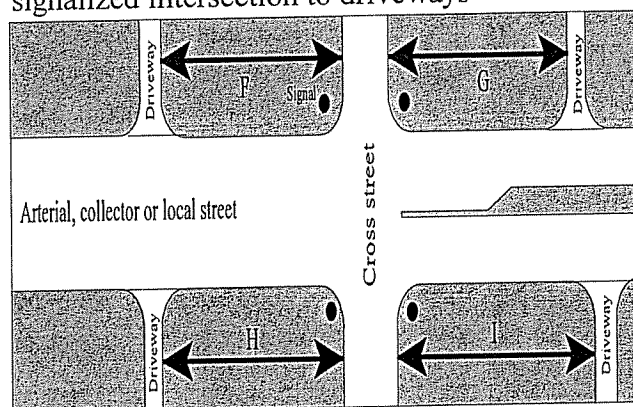
Minimum corner clearances vary depending on street classification. Figure 1 and Figure 2 show suggested minimum corner clearances which should be provided between an HRM intersection and a proposed driveway. Figure 1 shows suggested clearances at stop controlled intersections and Figure 2 shows suggested clearances at signal controlled intersections. Additional clearance may be required to ensure that the driveway movements do not conflict with intersection movements.

Fig.1-Suggested minimum corner clearances to driveways at major stop controlled intersections

	minimum clearance (metres)		
Item	arterial ¹	collector ²	local ²
A	35 (30)	20 (30)	15 (8)
B	#(30)	25 (30)	15 (8)
C	(30)	25 (30)	15 (8)
D	(30)	20 (30)	15 (8)

Notes:

1. Distance (#) must position driveway in advance of left turn storage length (minimum) plus taper (desirable).
2. Lesser values reflect lower volumes and reduced level of service on collector and locals.

Fig.2-Suggested minimum corner clearances at a signalized intersection to driveways

	minimum clearance (metres)		
Item	arterial ¹	collector ²	local ²
F	70 ³ (30)	55 (30)	15 (30)
G	# ¹ (30)	25 (30)	15 (30)
H	70(30)	55 (30)	15 (30)
I	70 ³ (30)	55 (30)	15 (30)

Notes:

1. Distance (#) must position driveway in advance of left turn storage length (minimum) plus taper (desirable).
2. Lesser values reflect lower volumes and reduced level of service on collector and locals.
3. Reduced distance feasible if auxiliary lane is implemented

B.3. Driveway Spacing

The spacing of driveways is related to the number and location of existing adjacent driveways and the number of new driveways proposed to serve the subject site. Two key factors influence minimum driveway spacing requirements: traffic activity to/from the road and the specific design elements of the proposed driveway. Spacing criteria seek to achieve the following objectives:

- ♦ clearly identify which property or properties the driveway is serving;
- ♦ minimize the conflict areas between vehicles that enter/exit the proposed driveway, existing driveways and the road;
- ♦ ensure that there is adequate space between driveways for the placement of utilities, traffic control devices and road amenities.
- ♦ provide appropriate space between driveways for on-street parallel parking, where permitted and in consideration of site line requirements¹.
- ♦ increase the length of safe pedestrian areas by minimizing the number and width of driveways.

The minimum spacing between two driveways should be the sum of the minimum curb radii (R), and a tangent (T). The tangent varies by class of road, from a 1.0 metre tangent (T) for residential driveways on a local street to a 3.0 metre tangent (T) for commercial driveways on a collector or arterial. The radii are determined by the type of vehicular traffic. Truck traffic requires a greater radius. Figure 3 illustrates minimum driveway spacing. As stated earlier the Municipality encourages the use of shared driveways to reduce the number of access points.

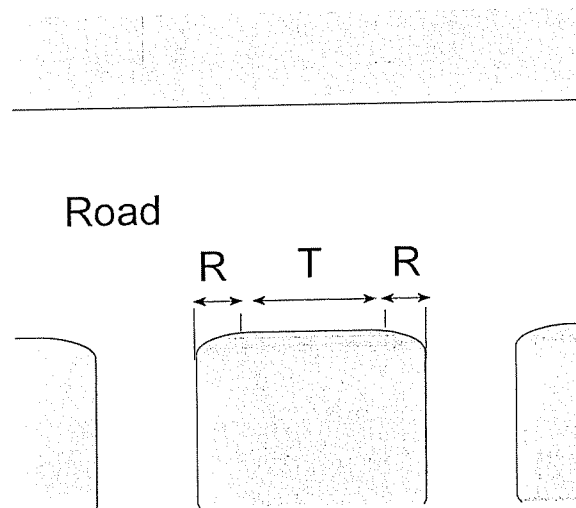


Figure 3
Minimum Driveway Spacing

¹Urban Supplement to the Geometric Design Guide for Canadian Roads.

B.4. Driveway Alignment

The introduction of a new driveway affects directly on the existing traffic operations to and from the road. Careful integration of a new driveway into the existing operating character of the road is required to minimize turning conflicts and disruption to through traffic.

The centreline of a new driveway to the road should align with the centreline of any opposite existing driveway or road. Figure 4 illustrates the preferred driveway alignment. Although this may not be possible on a local street, it is more important on collector and arterial roads.

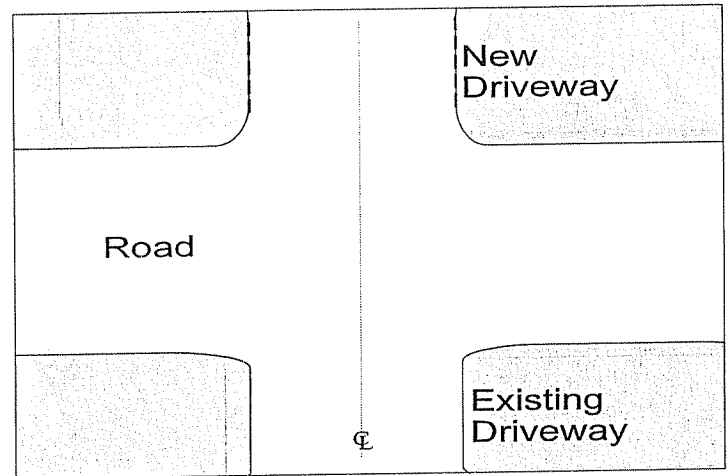


Figure 4:
Centerline Alignment

B.5. Angle of Intersection

The angle of intersection is the degree at which a driveway or road intersects with the HRM road as measured between the centreline of the new driveway and the centreline of the road. It is desirable that the centreline of the new driveway and the centreline of the road meet at or nearly at right angles to ensure safe sight visibility when manoeuvring to and from the site.

The angle of intersection at which a new driveway intersects with the HRM road should be 90 degrees as illustrated in Figure 5. An angle of intersection less than 70 degrees or greater than 110° will not be permitted. The exception is access arrangements for service stations which are permitted one-way operation driveways with 45° to 60° angles due to the unique operating nature of this type of facility.

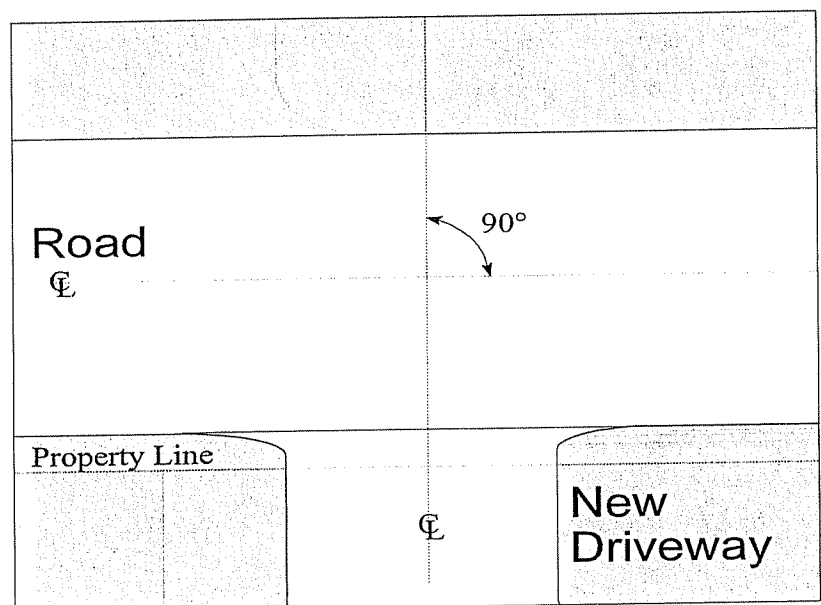


Figure 5: Angle of Intersection

B.6. Mutually-Shared Driveway

Mutually-shared driveway arrangements reduce the number of direct access points to the road, and minimize the opportunity for turning conflicts to occur. This type of access can also be beneficial in providing flexibility to meet local municipal objectives relating to such things as parking, loading facilities and landscaping.

The use of mutually-shared driveway arrangements is supported and encouraged by HRM. This type of driveway should be registered on title of both properties in order to protect the interests of both property owners in the event that either of the properties is sold. Figure 6 illustrates a mutually-shared driveway arrangement.

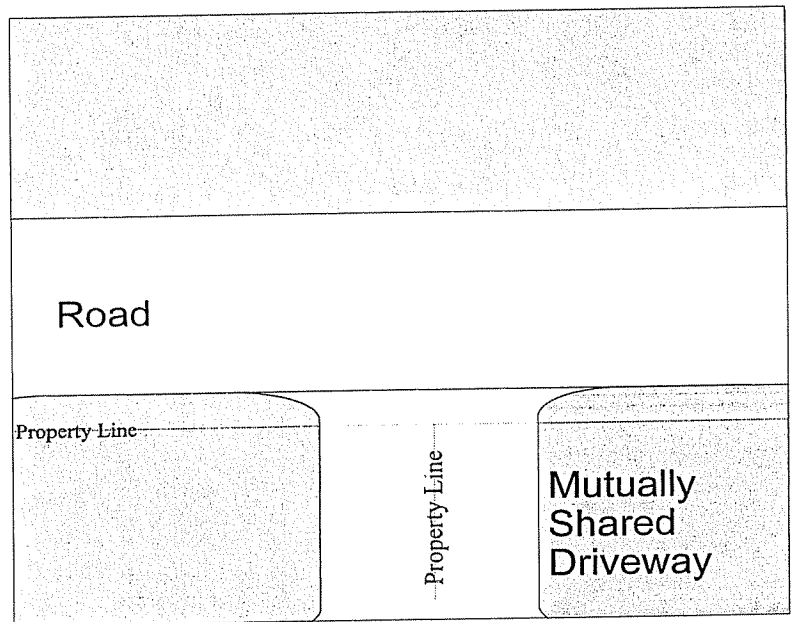


Figure 6 : Mutually Shared Driveways

B.7. Turning Activities

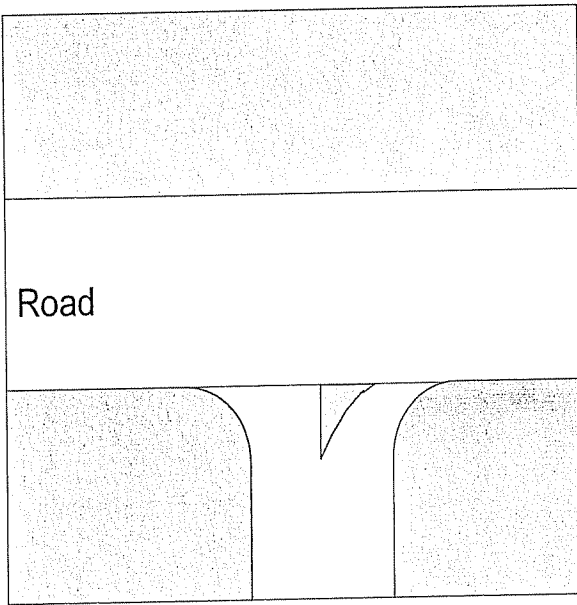
Turning activities should be controlled when safe and efficient traffic operations cannot be maintained between the road and the proposed driveway. The two methods of controlling turning activities are: turn prohibitions and turn restrictions. Turn prohibitions are controlled with the enactment of regulations accompanied by appropriate signage. Turn restrictions are controlled by physical means.

Turn prohibitions enforcement is difficult and therefore, physical barriers are often required to provide an effective means of ensuring compliance with turning controls. The installation of concrete islands/medians physically prevents the specific turning movement(s) and directs vehicles into the defined turning paths. The location, configuration and design parameters to be adopted for the concrete islands/medians are reviewed on a site-specific basis.

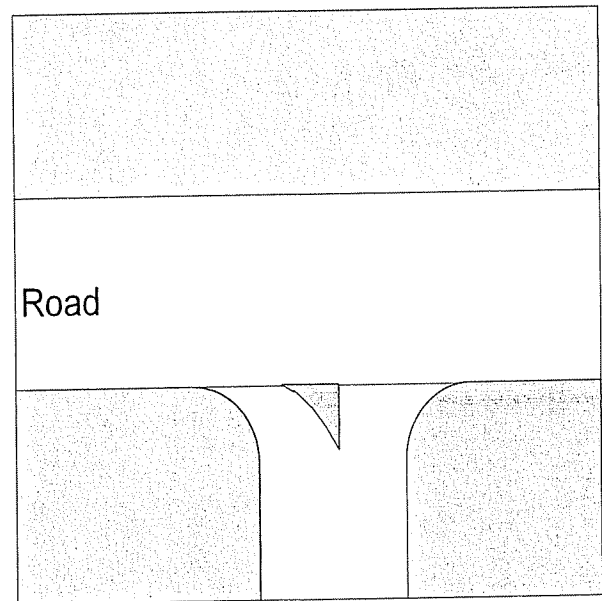
Specific turning movements to/from a driveway will be controlled if these movements cannot be executed safely and efficiently with minimal disruption to arterial traffic operations as illustrated in Figures 7, 8 and 9. The following criteria must be met:

- ♦ adequate reserve gaps are available in the arterial traffic to accommodate the anticipated turning traffic demands;
- ♦ adequate spacing between driveways is provided to ensure that left turn conflicts are minimal;

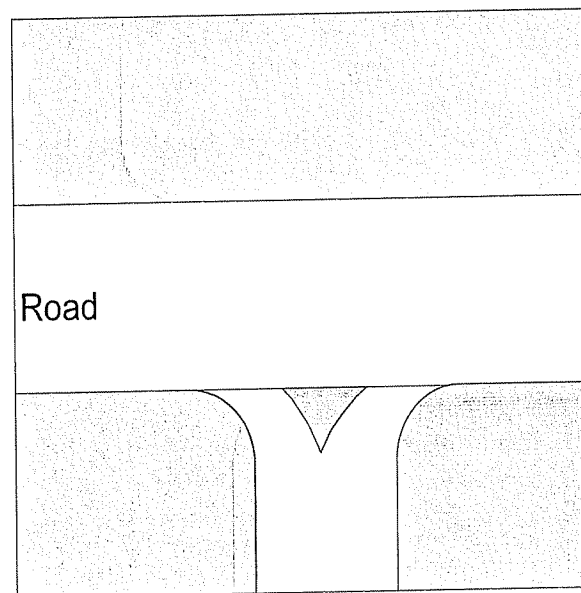
- ♦ minimum safe sight distances are maintained in order to execute the anticipated turning movements to/from the arterial road while minimizing interference with existing traffic operations on the arterial road.



**Figure 7:
Left Turn Restriction from Driveway**



**Figure 8:
Left Turn Restriction to Driveway**



**Figure 9:
Both Left Turns Restricted**

B.8. Lay-By

A lay-by is used to facilitate high turnover demand for the pick-up and drop-off of people at facilities such as hotels, schools/daycare centres, hospitals, seniors residences, etc. The use of a lay-by ensures that a safe environment is provided for these activities, and that operations on the arterial road are not disrupted.

A lay-by will be considered to facilitate the high turnover demand of specific person activities on sites that meet the following criteria:

- ♦ the need for the lay-by facility is justified for its intended purpose, and that traffic operations on the road will not be disrupted;
- ♦ sufficient stacking space is provided to accommodate the peak pick-up and drop-off demands;
- ♦ the operation of the lay-by is restricted to one-way movements on the site (the turning movements permitted to and from the access points will be determined on a site-specific basis);
- ♦ the lay-by is provided exclusively on private property; and sufficient width is provided for one vehicle to pass another.

Figure 10 illustrates a lay-by facility.

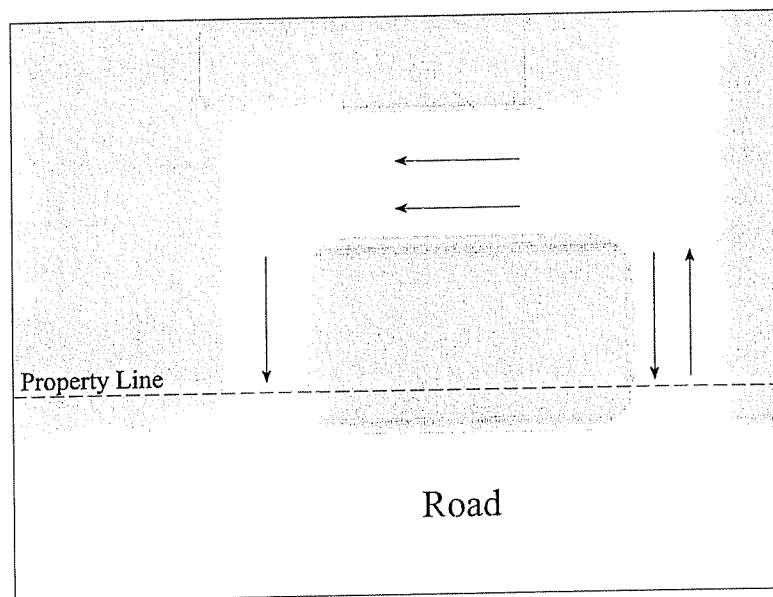


Figure 10: Lay-By

B.9. Plans of Subdivision

A Plan of Subdivision usually entails the redevelopment of a substantial parcel of land such that a local road network is required to service the lands. The development of a local road network is encouraged so that traffic activities are organized at specific access points.

Direct access to a new parcel of land should be obtained from a local road network. The local roads must then connect to a collector or arterial road. For large tracts of land, roads of several classes of road may be required. Ideally access to a newly created parcel should be obtained from a local road, however depending on the circumstances access to a higher class road may be granted. In the case of this type of access, special conditions may be applied in order to maintain the functionality of the road. One of the most common examples of this type of condition is the requirement that driveways be paired and opposite on a collector road. Figure 11 shows an ideal road hierarchy, where all lots are access via a local street.

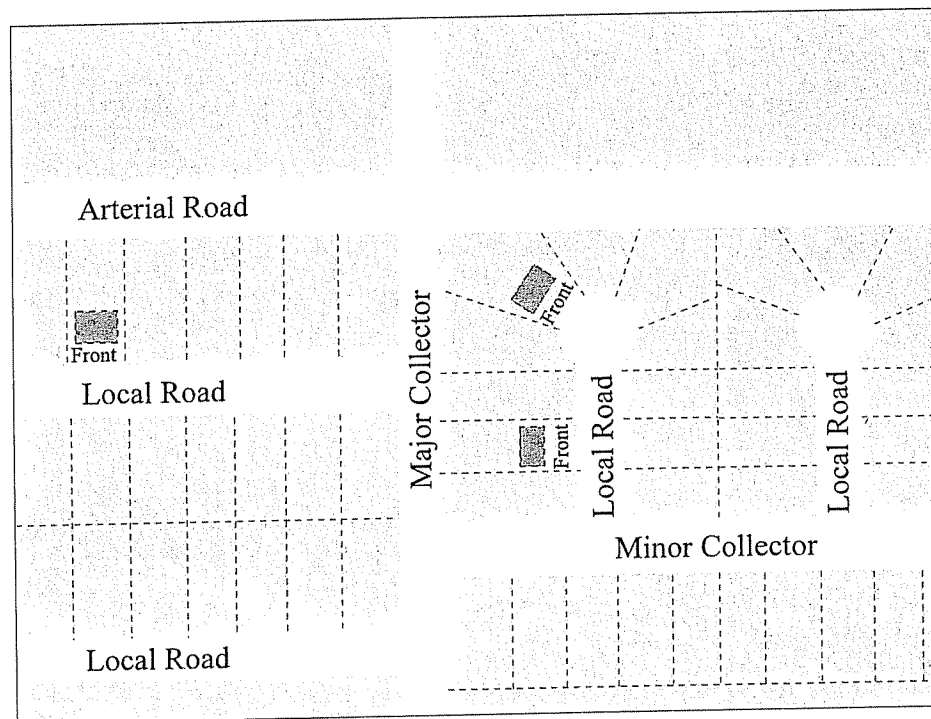


Figure 11 - Subdivision Road Network

C. SITE OPERATIONS

C. SITE OPERATIONS

The traffic activities that occur on a site in the vicinity of the proposed driveway can affect the traffic operations of the road. Key HRM objectives for the effective management of traffic operations are: to reduce delay, minimize turning conflicts and maintain an acceptable level of safety for pedestrians and motorists.

This SITE OPERATIONS Section provides guidance on a variety of issues that affect the physical design of the driveway and the provision of pedestrian facilities.

C.1. Driveway Dimensions

Adequate driveway width (W) and radii (R), as illustrated in Figures 12 and 13, are important factors in ensuring safe and efficient traffic operation to/from the road. Factors that should be considered include: the proposed land use, the type of operation (1-way or 2-way traffic flow), the volume of traffic, and the design vehicles the driveway will serve.

By-Law S-300 Respecting Streets lays out a range of criteria which all driveways must meet, for up-to-date criteria please consult a copy of the latest version of the By-Law.

C.1.1. Width and Radius

Driveway width (W) should accommodate the appropriate design vehicles, control the location and angle of conflict points, and limit entry/exit to the intended number of lanes of operation. Whether a driveway will operate with one-way or two-way traffic flow should also be considered. Due to the Municipality's wish to give pedestrians priority, most driveways are to be constructed as a dropped curb with no radius return. Industrial driveways are to be constructed with a radius return. Driveways which exceed 100 vehicles in any one hour must have one way driveways — one for access, one for egress. Driveways with traffic greater than 1000 vehicles per must be constructed as a street intersection.

One way driveways shall have a width greater than 10 feet (3m) and less than 23 feet (7m) at the point where the driveway joins the roadway;

Two-way driveways serving residentially used property shall have a width greater than 10 feet (3m) and less than 16 feet (5m) at the point where the driveway joins the roadway except where the property frontage exceeds 60 feet, (18m) a driveway up to 20 feet (6m) in width may be permitted;

Two-way driveways serving commercially or institutionally used property or property zoned for commercial or institutional use shall have a width not less than 23 feet (7m) and not greater than 33 feet (10m) at the point where the driveway joins the roadway.

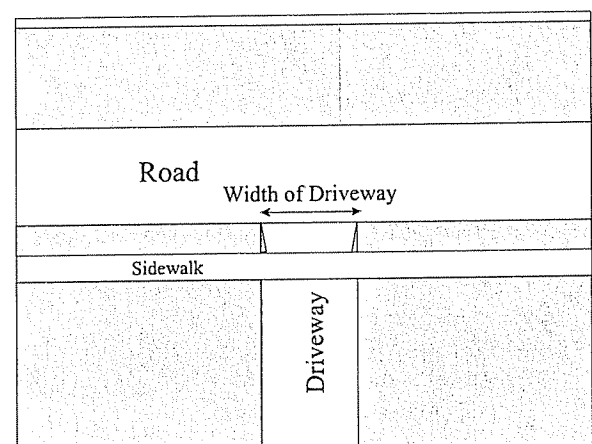


Figure 12
Residential or Commercial Driveway

Two way driveways serving industrially used property shall have a width not less than 33 feet (10m) and not greater than 39 feet (12m) at the driveway throat plus a 20 foot (6m) radius return.

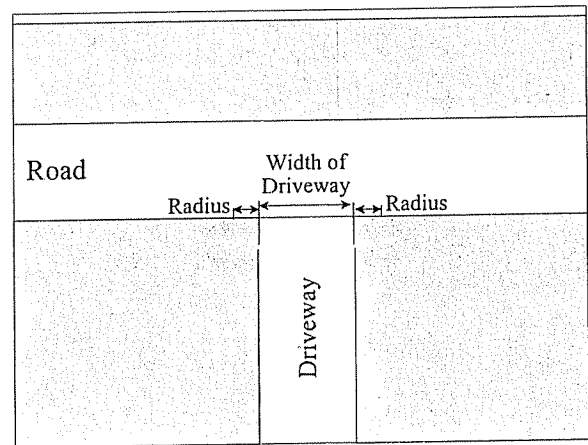


Figure 13
Industrial Driveway

C.2. Driveway Grades

Access to/from above-grade or below-grade parking facilities is provided by ramps. A landing is required between the ramp to the parking facility and the road to ensure that adequate visibility is maintained for both pedestrian and vehicular activities. maximum driveway grades also ensure that emergency vehicles can access the property if required.

A landing, with a maximum gradient of six (6%) percent must be provided for a minimum distance of three metres from the right-of-way limit to ensure safe sight lines for vehicular and pedestrian traffic.

A maximum grade of eight (8%) percent for commercial and industrial driveways and fifteen (15%) percent for residential driveways will be permitted for any further ramping beyond 3 metres of the right-of-way.

C.3. Clear Throat Distance

Clear throat distance is the area provided on a driveway to store vehicles waiting to circulate into the site, usually a parking area. Failure to provide an adequate clear throat distance can create congestion and operational concerns on the road, as well as safety concerns for pedestrians attempting to cross the driveway.

The amount of storage space required is directly related to the peak hour traffic demands of land use, and should be assessed on a site-to-site basis. The amount of clear throat distance also relates to the amount of traffic on the adjacent road. The greater the traffic the longer the throat distance should be. Table 1 shows the range of throat distances which should be used depending on the land use and the class of the adjacent roadway.

Table 1: Clear Throat Distance for Major Driveways

Land Use	Collector	Arterial
light industrial	8-15m	15-60m
discount store	8m	15-25m
shopping centre	8-40m	15-75m
supermarket	15-25m	25-40m
apartments	8-25m	15-40m
quality restaurant	8m	15-25m
drive-in restaurant	8-15m	25-30m
office	8-40m	15-75m
motel	16m	25-30m

For land uses not covered above, the following should be used as a guideline. A clear throat distance of 6.0 metres to 15.0 metres should be provided between the right-of-way to the designated point where turns would be executed or gate controls would be located.

Access to a...	Minimum	Maximum
parking aisle less than 50 spaces	6.0m	8.0m
parking aisle less than 200 spaces	8.0m	15.0m
parking aisle greater than 200 spaces	15.0m	24.0m

A queuing study may be required to determine that an appropriate amount of storage space will be provided. Figures 14 and 15 illustrate direct access to a parking space and access to a parking aisle, respectively.

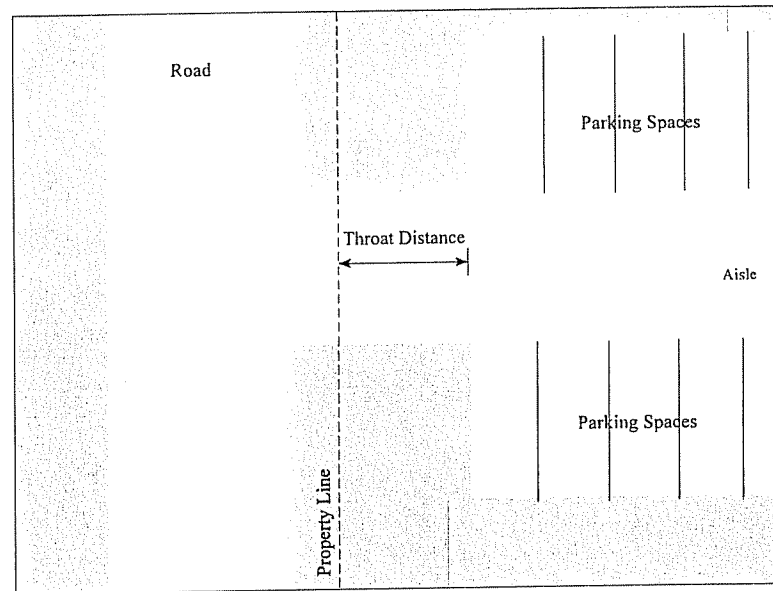


Figure 14: - Minimum Distance to a Parking Space

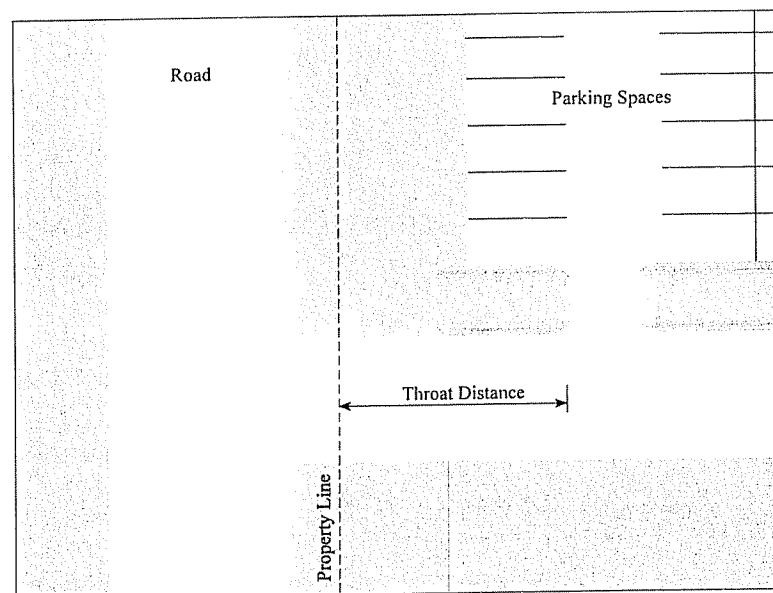


Figure 15 - Minimum Distance to a Parking Aisle

C.4. Carwash Stacking Space

The amount of stacking space provided on a site with a carwash facility has a direct relationship with the type of carwash facility and the amount of traffic anticipated to enter the parking area. The site should have the ability to provide sufficient stacking space to accommodate inbound traffic surges without causing queues to form on the road.

The carwash site should have the ability to provide the amount of stacking space as outlined in Table 2.

Table 2: Carwash Stacking Space

Type	Definition	Number of Vehicles	Stacking Space per Waiting Line
Dry Mechanical	...where the car is moved through a series of cleaning and drying processes	24 <i>(not more than 2 waiting lines)</i>	96m
Wet Mechanical	...where the car is moved through a cleaning process only	14 <i>(not more than 2 waiting lines)</i>	56m
Stationary	...where the car is stationary through a cleaning process only	7 <i>(in tandem)</i>	56m
Manual	...where the car is washed by means of hand held devices	2 <i>(in tandem at each wash bay)</i>	16m

C.5. Drive-Through

Drive-through facilities are becoming more popular and are used predominately at banks and fast food restaurants. Parking and circulation activities on these sites should be accommodated simultaneously without creating internal conflicts that may result in congestion or queuing on the road.

The provision of a drive-through facility should meet the following criteria:

- ♦ drive-through traffic is separate from other site traffic and parking facilities;
- ♦ the drive-through area and the remaining parking lot circulation is clearly defined and delineated with appropriate pavement markings and signage; and
- ♦ adequate vehicle queue storage is provided to meet the peak design traffic demands so as not to interfere with pedestrian and/or vehicular movements.

A queuing study may be required to determine that an appropriate amount of storage space will be provided. A drive-through facility is illustrated in Figure 16.

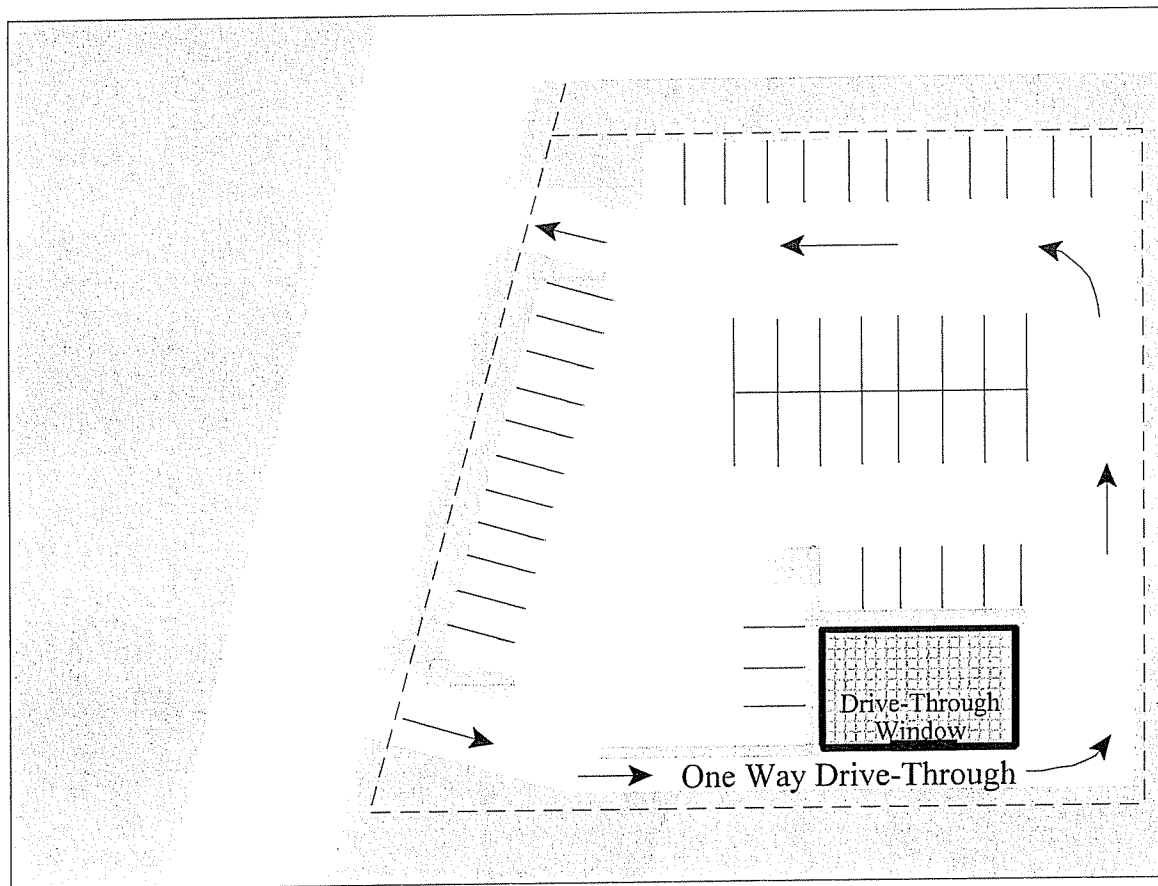


Figure 16 - Drive-Through Facility

C.6. Service Facilities

Loading, garbage pick-up, and courier areas are used to facilitate intermittent pick-up/drop-off activities, and are usually provided at separate locations, as illustrated in Figure 17. These activities should be provided on site to minimize the potential for conflicts and disruptions to traffic operations on the road.

The provision of service (loading, garbage, courier) facilities should meet the following criteria:

- ♦ entry and exit should be in a forward motion;
- ♦ provision of separate "service" driveways should not be required;
- ♦ provided exclusively on private property;
- ♦ should be located internally on the site so as not interfere with traffic operations in the area of the site driveway; and
- ♦ use of these facilities should not interfere with the remaining site circulation.

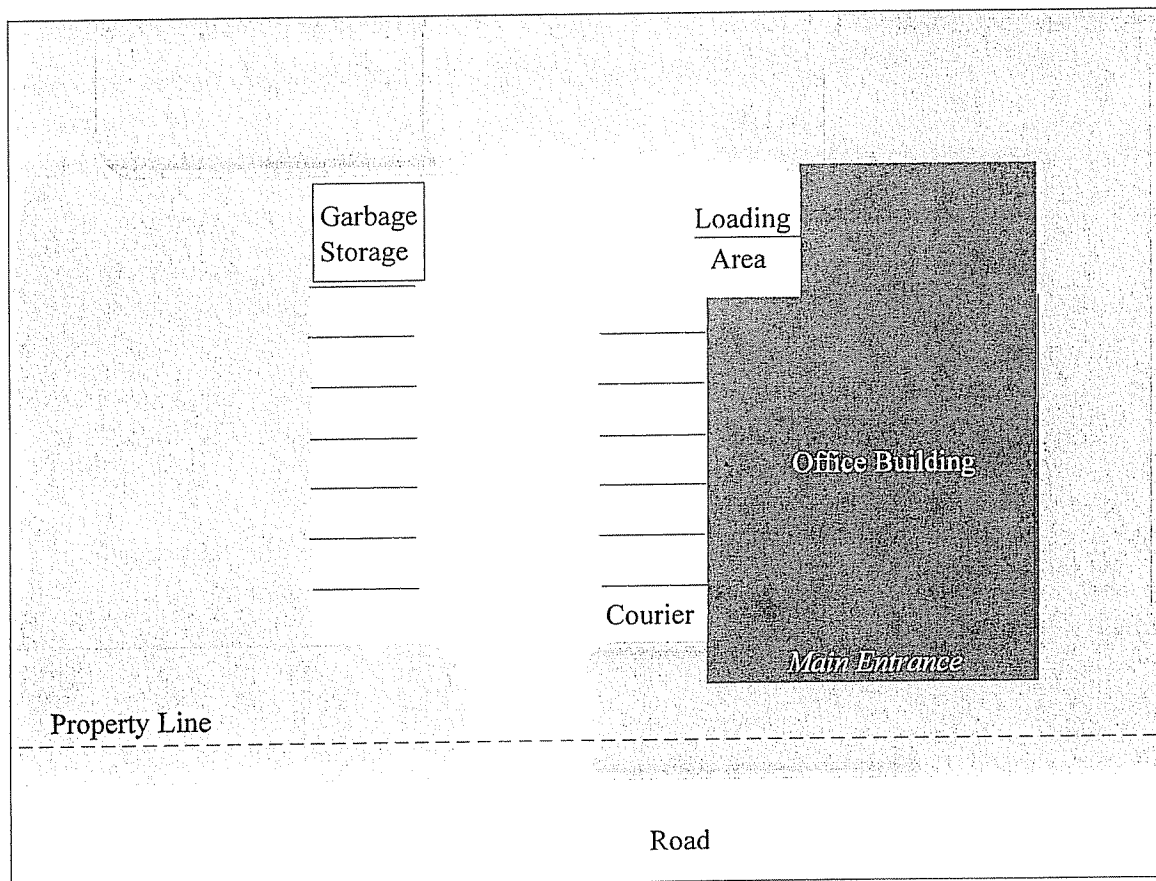


Figure 17 - Loading and Courier Areas

C.7. Site Inter-Connection

Service station sites are unique in that they rely exclusively on pass-by traffic and are thereby permitted unique access arrangements of two or more access points located in close proximity to unsignalized/signalized intersections. For these reasons, activities between these sites and adjacent lands should be controlled.

Vehicular inter-connection between service station sites and adjacent lands will not be permitted and will be physically controlled.

C.8. Parking Lot Design

Besides being easily access from the existing or proposed street network, parking lots should be designed to provide with the following in mind:

- ♦ parking access systems should be clear and simple — use loops and avoid dead ends.
- ♦ parking modules should be used to break up parking lot expanse and create simple circulation patterns.
- ♦ parking modules should be used to provide a safe haven for pedestrians by orienting them perpendicular to the buildings entrance.
- ♦ parking areas should be easily accessible from the main entrances of the building.
- ♦ the provision of adequate fire lanes should be considered.
- ♦ local land-use by-laws should be consulted in order to determine the minimum space required for a parking stall.

C.9 Pedestrian and Bicycle Facilities

One portion of site design that has often been neglected is the provision of pedestrian and bicycle facilities. The following are guidelines which will improve site design for pedestrians and cyclists:

- ♦ commercial buildings should be sited close to the road with parking provided in the rear.
- ♦ sidewalks adjacent to any development which will serve pedestrians should be provided by the developer, if they do not exist.
- ♦ sidewalk connections should also be provided between sites and to connect buildings with pedestrian facilities. If a parking lot is being shared by two or more buildings, each should have convenient pedestrian links to the parking area and adjacent pedestrian facilities.
- ♦ Service roads and driveways should have limited widths to contribute a low speed environment.
- ♦ Minimize pedestrian-vehicle conflict points in the orientation and configuration of parking areas and the location of driveways.

- ♦ Provide bike racks and storage areas near entrances to public buildings, including civic, commercial and industrial buildings.
- ♦ a system of bicycle routes should be created, separate if possible from traffic, and linked to existing bicycle facilities.