

**REGIONAL MUNICIPALITY OF WATERLOO  
POLICY AND PROCEDURES  
FOR  
ACCESS ONTO REGIONAL ROADS  
September 27, 1984**

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## **1. INTRODUCTION**

### **1.1 Purpose**

The purpose of this policy is to preserve and/or improve upon the integrity of the roadway network while recognizing that one of the keys to successful development is a properly designed access. This is accomplished by promoting a progressive and high caliber design standard for access.

### **1.2 Goals**

The factors which affect the operation of an access and the roadway include the location, geometrics of the access, auxiliary lane requirements, capacity of the roadway, drainage, safety and operational efficiency of the access as they relate to the roadway and land use. Access to private property should consider the location and number of accesses required and provide good service to users while at the same time minimizing interference to roadway traffic.

The goals of this policy are:

- a) to provide the maximum protection to the public through the orderly control of traffic movements onto and from the road network;
- b) to maintain the traffic carrying capacity of the road network;
- c) to protect the public investment in roadway facilities;
- d) to reduce the potential for and the severity of collisions thereby protecting investment in property and personal well being;
- e) to minimize public investment in maintenance functions;
- f) to ensure uniform practices in the design and construction of accesses for the safety of the general motoring public;
- g) to maintain and regulate legal access to private property fronting onto a highway.

## **2. DEFINITIONS**

An illustration depicting access terms is included in Figure 1, Page 18.

### **Access**

An access is the means by which vehicles are provided with ingress to or egress from a public or private property to the roadway.

### **Non-Commercial Access**

A non-commercial access is one providing access to a residential use of six units or less or to agricultural land, including field accesses.

**Commercial Access**

A commercial access is one providing access to property being used other than for a residential use of six units or less or for farm or field uses.

**High Volume Commercial Access**

A high volume commercial access is one providing access to facilities which generate high volumes of traffic and/or heavy truck traffic, i.e. shopping centres, athletic fields, hospitals, industries, temporary subdivision roads, etc.

**Mutual Access**

A mutual access is one providing access to adjoining properties under common and/or separate ownership.

**Temporary Access**

A temporary access is one providing access to a property for a **specified period of time** for the purpose of construction, repairs or improvement on that property or to facilitate staged development.

**Applicant**

An applicant is any person, partnership, agency, corporation (public or private) or institution who desires to construct, alter or retain any access to a Regional Road.

**Auxiliary Lane**

An auxiliary lane is a lane parallel to the roadway and its associated taper which are provided to assist in the acceleration or deceleration and storage of vehicles entering or leaving the roadway.

**Boulevard**

A boulevard means that portion of the highway situated between the curb line and the property line of the lot abutting the highway, but does not include a sidewalk or shoulder.

**Centre Line**

The centre line is the line dividing an access into two parallel portions.

**Curb Line**

- a) Where a curb has been constructed, means the line or curb, and
- b) Where no curb has been constructed, means the edge of the roadway.

**Day-Light Triangle**

A day-light triangle includes land acquired as part of the highway which is intended to provide clear vision for the safe movement of traffic or improved turning lanes.

**Commissioner**

The Commissioner means the Commissioner of Engineering for the Regional Municipality of Waterloo or his designate.

**Frontage**

The frontage is the length of property line abutting a highway.

**Highway**

A highway includes a common and public highway, street, avenue, parkway, driveway, square, place, bridge, viaduct or trestle designed and intended for, or used by, the general public for the passage of vehicles and pedestrians. Highway is synonymous with right-of-way and road allowance.

**Property Line**

A property line is the common boundary line between two adjoining properties under common and/or separate ownership.

**Radius**

The radius is the curved outer edge of an access connecting the throat to the curb line.

**Region**

The Region means the Regional Municipality of Waterloo.

**Roadway**

Roadway means that part of the highway that is improved, designed or ordinarily used for vehicular traffic, but does not include the shoulder, and, where a highway includes two or more separate roadways, the term "roadway" refers to any one roadway separately and not to all of the roadways collectively.

**Low Speed Roadway**

A low speed roadway is one with a posted speed limit less than 70 km/h.

**High Speed Roadway**

A high speed roadway is one with a posted speed limit equal to or greater than 70 km/h.

**Shoulder**

The shoulder is that part of the highway lying adjacent to the roadway which is improved with granular or paved surface and is not intended for the passage of vehicular traffic.

**Throat Width**

The throat width is defined by the minimum width dimension at the intersection of the radius points with the parallel portion of the access.

## **Traffic**

Traffic includes all vehicular and pedestrian activity occurring on or adjacent to the highway.

### **3. ADMINISTRATION**

#### **3.1 Authority**

An access permit is required to ensure conformity with Controlled Access By-law #51 - 84 of the Regional Municipality of Waterloo and with this policy.

##### **3.1.1 Controlled Access — Prohibited**

No person shall construct, alter the geometric design of, enlarge or otherwise use any access to a highway designated as Controlled Access— Prohibited under Controlled Access By-law #51 - 84 of the Regional Municipality of Waterloo except where the Council of the Regional Municipality of Waterloo grants an exemption upon amendment to Controlled Access By-law #51 - 84. Where an exemption is approved, the applicant will be required to obtain an access permit in accordance with the provisions of this policy.

##### **3.1.2 Controlled Access — Regulated**

No person shall construct, alter the geometric design of, enlarge or otherwise use any access to a highway designated as Controlled Access— Regulated unless said access has been approved by the Commissioner upon issuance of an access permit pursuant to this policy.

#### **3.2 Penalty**

Any person violating any provision of Controlled Access By-law #51 - 84 shall be guilty of an offense and shall be liable on conviction to a fine as indicated therein. Council may also require, by notice that such person close up an access which violates this By-law. If the access is not closed, Council may close it and charge any costs back to the person.

#### **3.3 Access Permit**

An access permit may be required of all persons, agencies, corporations (private or public) or institutions as a condition of approval of a development control application including a severance, plan of subdivision, rezoning, variance or site plan approval or when a new access or change to an existing access is proposed.

The Region may require the applicant to construct, alter the geometric design of or retain any access within the highway.

An access constructed or altered under the provisions of Controlled Access By-law #51 - 84 shall conform to this policy and all conditions and provisions attached to any access permit issued.

### 3.4 Application For Access

Applications for access forms may be obtained by telephone or in person from the Traffic Engineering Section of the Regional Roads and Traffic Division. Applications are to be completed by the applicant and delivered by mail or in person to the Regional Traffic Engineering Section along with four copies of a site plan. The site plan should be drawn to scale and where required provide the following information :

- Existing:**
- property lines (dimensions and bearings)
  - width and location of roadway and highway
  - curbs
  - shoulders
  - boulevard
  - ditches
  - existing accesses
  - aboveground utilities
  - parking and traffic control devices
  - landscaping
  - existing structures
  - adjacent land uses
  - a key plan (indicating location of property)
  - legal description of the property
  - north arrow

- Proposed:** The geometrics of:
- proposed accesses
  - curb returns
  - highway widenings
  - auxiliary lanes
  - pavement markings
  - parking layout
  - landscaping
  - paved areas
  - buildings
  - site circulation

If required, the applicant is responsible to stake or suitably mark the location of a proposed access and/or the limits of the frontage of the subject property immediately following an application for access. The applicant is responsible to ensure that any application for access is in accordance with local land use and zoning by-laws.

### **3.5 Processing Procedures For Applications For Access**

Since the Region receives a large number of applications for access and as the amount of time required to process each application varies with the complexity of the specific proposal, the applicant is advised to make application well in advance of the proposed commencement of work.

Upon receipt of an application for access the Regional Traffic Engineering Section will circulate the application to Regional and local agencies affected. Where an approved access permit is issued, the final design, number and location of accesses will reflect the concerns expressed by the agencies circulated.

### **3.6 Access Permit Approval**

Approved access permits will be forwarded to the applicant. No work shall be undertaken on the highway until the approved access permit has been received by the applicant.

The access permit will be issued only for the specific development proposal indicated on the application for access.

An access permit issued by the Region does not release the applicant from compliance with other Regional and local by-laws or other requirements.

The access permit is transferable within the time period specified on the permit should ownership of the subject property be changed. The new property owner will be bound by the conditions of the access permit if the development proposal remains unchanged.

The access permit will indicate a specific date by which construction of the access must be completed otherwise the permit will expire and become null and void. The maximum time period is one year from the date of approval. Should the applicant desire to amend his application at anytime or construct an access after expiry of the access permit, he is required to re-apply in writing. The above time limit will not apply to plans of subdivision which have received 'Draft Approval'. Should 'Draft Approval' status be rescinded the permit will become null and void.

Access permits may be issued for the construction and operation of a temporary access for a specified period of time. Such permits will indicate the date upon which the access will be removed. Should the applicant desire to extend the expiry date of a temporary access permit, he is required to re-apply in writing. The maximum period is one year from the date of approval.

Where access to a property from a Regional Road is desired for a period of seven days or less to allow for construction, repair or improvement on that property, and no alternate point of access is available, an access permit is not required. However, the applicant will be required to obtain a Work Permit from the Traffic Engineering Section which will specify the restoration requirements.

### **3.7 Appeal**

Where the applicant wishes to appeal the decision of the Commissioner of Engineering or his designate as to the issuance of a permit or any conditions thereto pertaining, his appeal will be reviewed by the Council of the Regional Municipality of Waterloo. Unless Council directs otherwise, all such requests shall stand referred to the Engineering Committee of the Regional Municipality of Waterloo for report to Council.

### **3.8 Costs**

All costs associated with an access permit shall be the responsibility of the applicant. These costs may include any and all costs for the construction or alteration of an access such as labour and materials for the access itself, alteration to the roadway, utilities, traffic control devices, layout and surveying of the access, legal costs, preparation of plans, removal of non-conforming works, etc.

Where the Region constructs or reconstructs a roadway, the Region will undertake at its discretion, to improve accesses within the highway where required at the Region's expense.

### **3.9 Work Permit**

The performance of work under the terms of an access permit within the highway requires a work permit. While work is carried out, care must be taken to ensure the protection of workmen and minimization of interference with normal traffic operation. All signing and traffic control shall be in compliance with the Manual of Uniform Traffic Control Devices for Ontario (M.U.T.C.D.).

A copy of the access permit and work permit shall be available on - site during construction.

All works carried out under a work permit within the highway shall be done by the Region, their designate or by an approved contractor.

A copy of the access permit and work permit shall be available onsite during construction.

### **3.10 Acceptance of Works**

A field inspection will be carried out upon completion of the works or at the expiration of the access permit whichever occurs first. The Region reserves the right to have any modifications performed if the installation does not conform to the access permit at the applicants cost.

Where a culvert is installed it shall be inspected by the Region prior to the placement of any back-fill material. Culverts installed otherwise shall be removed at the discretion of the Region at the applicants cost.

### **3.11 Maintenance of Accesses**

Property owners having access onto a Regional Road are fully responsible for the maintenance of the access including the removal of snow and ice and keeping the portion of the access within the highway in a safe condition for vehicular traffic.

A culvert installed under the terms of access permit shall become the property of the Region upon acceptance of the work and all subsequent maintenance, repairs, alterations, etc. shall be the responsibility of the Region.

## **4. PRINCIPLES**

This policy has been prepared using fundamental engineering and planning principles and is provided to afford the applicant a better understanding of Regional requirements relating to access.

### **4.1 General Principles**

- a) Access to a Regional Road will be allowed for a development on a corner lot of a Regional Road and a Local Street where it is determined by the Area Municipality that Regional Road access is required to support an arterial oriented land use designation and safe access can be designed according to the criteria set out in this policy.
- b) New subdivisions will be backlotted with access from local streets. Exceptions to this provision will be considered where development is of an infilling nature and/or it is evident that direct access is acceptable from a traffic operations viewpoint.
- c) New access to Regional Roads for new non farm related residential lots created outside settlement areas as designated in the Regional & Area Municipal Official Plans will conform to provisions of the Regional Official Policies Plan and the Area Municipal Official Plan.

#### 4.2 Principles Of Design

- a) Reduction of the speed differential between through vehicles and vehicles using the access;
- b) Compatible interaction among all points of access;
- c) Prohibition of the use of the highway as a portion of the internal circulation system of abutting property;
- d) Discouragement of hazardous traffic movements which may prove detrimental to the operation of the roadway;
- e) Preservation or improvement of the effectiveness of traffic control devices (i.e. traffic control signals);
- f) Control the method and type of access construction in order to minimize hazards to traffic.

#### 4.3 Auxiliary Lanes

Auxiliary lanes to promote smooth ingress or egress at an access may be necessary for capacity purposes where the roadway and/or turning volumes are high or for the motorists safety when the roadway speeds dictate. The final determination of the need for such facilities shall rest with the Region.

The design of auxiliary lanes shall be in accordance with the current edition of the Roads and Transportation Association of Canada (R.T.A.C.) Manual and shall take into consideration the speed differential between through vehicles and those using the access and the amount of vehicular storage that will be required. Where circumstances dictate, the volume and size of trucks that will use the auxiliary lane and the steepness of an ascending or descending grade shall be taken into consideration.

#### 4.4 Median Openings

Where roadways have been constructed with a centre median, openings in the median for new private accesses will generally not be permitted. Under special circumstances and based on substantial trip generation calculations, the Region may consider the need for additional mid-block median openings and their related traffic control strategy.

The layout of accesses should take advantage of existing or pre-planned median openings. In such cases, the construction of left turn lanes should be considered.

#### **4.5 Shoulders**

The shoulders adjacent to an access shall be constructed /reconstructed to match the shoulders in the immediate area. A paved access constructed where drainage is carried by an open ditch, shall have in addition to the required width of pavement, a shoulder constructed parallel to the pavement edge of at least 1.0 m width. This shoulder shall be constructed within the highway and extend onto private property as required.

#### **4.6 Illumination**

The Region may require the property owner to illuminate a Commercial or High Volume Commercial Access used after dark. Such illumination may be erected on private property or on the Regional Road right-of-way subject to an encroachment agreement. The illumination must not constitute a nuisance to traffic nor resemble traffic control signals.

#### **4.7 Traffic Control Devices**

The Region may require a traffic control device such as regulatory or warning signs, traffic control signals, delineators, pavement markings, parking meters, etc. to be installed, relocated or removed on a highway as a result of the construction or alteration of an access. All such devices shall be in accordance with the M.U.T.C.D. and Regional Municipality of Waterloo Standards. The installation, relocation, removal and maintenance of such devices shall only be undertaken by the Region or its designate.

The Region may require traffic control devices to be installed, relocated or removed on private property. All such devices shall meet the approval of the Region and the installation, maintenance, relocation and removal of such devices shall be the responsibility of the applicant.

#### **4.8 Location Of Accesses**

In the interest of public safety and convenience, the Region may restrict the placement of an access to a particular location along the applicant's frontage. An access must be located so as to provide:

- a) favorable vision, grade and alignment conditions for all traffic using the proposed access and the roadway;
- b) no undue interference with the safe movement of through traffic;
- c) safety and convenience for pedestrians and other users of the highway.

In general, accesses will not be permitted:

- a) along a lane which is identified for the purpose of an exclusive vehicular turning movement;
- b) in close proximity to traffic control signals;

- c) in close proximity to intersections;
- d) in close proximity at grade railway crossings;
- e) in close proximity to abutments or structures on a highway;
- f) within the day-light triangle at an intersection;
- g) where minimum sight distance requirements are not met.

Additional requirements regarding the location of accesses are included in Appendix 'C', Page 26.

#### **4.9 Number Of Accesses**

The Region will consider each application on its own merit. Need must be demonstrated or substantiated where multiple accesses are requested. Careful consideration must be afforded to the internal circulation, layout and frontage with a view to minimizing the disruption of traffic while achieving optimum spacing between points of intersection with Regional Roads. Direct access from single lots of a new subdivision onto a Regional Road will be discouraged.

#### **4.10 Layout Of Accesses**

The throat width, angle, radius and other geometric features of an access and islands will be considered when determining access layout.

##### **4.10.1 Throat Width**

The throat width of accesses shall be based on the speed and volume of through traffic on the roadway and the type and volume of vehicles using the access. Accesses shall be wide enough to prevent vehicular conflict in the access or on the roadway yet definitive enough to prevent parallel entry into the traffic stream, while at the same time recognizing its use by pedestrians. Throat width requirements are included in Appendix 'B', Page 25.

##### **4.10.2 Radius**

In all cases, the throat width shall be increased by a specified radius to allow for smooth ingress and egress at the roadway connection. The radius for an access is dependent upon and must be compatible to the desired departure speeds of the drivers and must be correlated to the required level of service for known or planned use. The outside edge of a radius will be curved around a radius point and shall tie into the throat of the access and the existing curb line. Where the width of the highway is restrictive, a compound curve may be acceptable. Radius requirements are included in Appendix 'B', Page 25.

The selection of a radius for an access with truck generated traffic will require special consideration and will be determined using turning vehicle templates designed in accordance with R.T.A.C. specifications so as to prevent vehicles which use the access from encroaching outside the curb lanes of traffic. All radii for Commercial and High Volume Commercial Accesses shall be defined by curbing where the adjacent roadway has curb and/or gutter existing.

The radius may fall onto the applicant's property where the highway is narrow and may project beyond the point of intersection of the property line at the curb line. However, it shall not interfere or prejudice the design of an adjacent access.

#### **4.10.3 Definition**

Multiple accesses will require separation by the use of curbing and/or landscape treatments in accordance with local by-laws to create positive identification of the access and good on-site circulation characteristics. At the discretion of the Region, curbing may also extend into the highway to reinforce positive access definition.

Where on-site parking facilities are in close proximity to the access itself, curbing may be required to extend onto private property so as to ensure an adequate queuing area and to minimize on-site interference between those intending to use the access and the internal traffic.

#### **4.10.4 Mutual Accesses**

##### **4.10.4.1 Non-Commercial Accesses**

Where a mutual Non-Commercial Access is requested, the access shall straddle or abut the property line and shall not exceed twice the minimum access width specified for the appropriate speed classification of the roadway.

##### **4.10.4.2 Commercial Accesses**

Where a mutual Commercial Access is desired, the access shall straddle or abut the property line and shall not exceed the maximum access width specified for the appropriate speed classification of the roadway.

#### **4.10.5 Angular Placement**

All accesses should be constructed so that the centre line is at right angles to the curb line. No access shall be placed that has a centre line angle measured from the roadway less than 70 degrees.

An angled Commercial Access may be allowed for high speed or one way roadways, large volume movements or special function land uses.

#### 4.10.6 Number of Lanes

A High Volume Commercial Access shall be designed to avoid congestion caused by traffic entering or exiting the facility. The number of lanes on the access shall be determined by the Region in consideration of the anticipated trip generation and distribution.

### 5. DESIGN SPECIFICATIONS

The applicant is advised that it may be in his best interest to retain the services of a professional engineer or other qualified consultant for the purposes of identifying grade, drainage, construction, circulation, illumination and other development requirements.

#### 5.1 Grades

##### 5.1.1 Existing Gutter

The grade of an access within the highway where gutter exists shall not exceed 10%. Where the access profile forms a crest curve, the access grade beyond the highway shall not exceed 8% change within any 3.0 metres distance as shown on Figure 2 on Page 19. This will avoid vehicles "bottoming" on the crest. Where the access profile forms a sag curve, the access grade beyond the highway shall not exceed 10% change within any 3.0 metres distance as shown on Figure 2 on Page 19. This will avoid the bumper of a vehicle "dragging" on the sag.

##### 5.1.2 Existing Ditch

The grade of an access where no curb and gutter exists shall slope away from the curb line at a rate equal to the slope of the shoulder and shall continue for a distance equal to the prevailing shoulder width. Beyond the shoulder the access profile shall not exceed 8% change within any 3.0 metres distance as shown on Figure 2, Page 19.

#### 5.2 Cross Section And Material

##### 5.2.1 Existing Sidewalks

Where a sidewalk is located across a proposed access and does not meet the applicable Regional Specifications, it shall be removed and replaced. Where a sidewalk is located close to a curb line, and the access opening is to be provided across a depressed curb, the sidewalk shall be removed and replaced with a concrete sidewalk, ramped to Regional Specifications, and conforming to the access profile. In special cases (i.e. High Volume Commercial Accesses) where the sidewalk is to be discontinued across the access, the access shall be defined by curbing and a sufficient amount of sidewalk shall be replaced meeting the necessary Regional wheelchair specifications.

### 5.2.2 Existing Curbs

Where a depressed curb must be provided or restored, the entire curb and gutter section to the nearest expansion joint must be removed and replaced to Regional Specifications. The removal of only the raised portion of the curb will not be allowed, unless an approved grinding or cutting method is employed.

### 5.2.3 Surfaces

Accesses must be surfaced and maintained to ensure the original profile is retained, that operational speeds are not reduced by pot holes or rough surfaces, and that no damage or deterioration of the highway is caused by the condition of the access.

All accesses shall be surfaced with an asphaltic or concrete material to Regional Specifications within the limits of the highway, except all non-commercial accesses in locations where no curb and gutter exists. In this case, as a minimum, the access is required to be surfaced with a thickness of gravel or crushed stone to Regional Specifications.

## 5.3 Drainage

Accesses must be constructed so that they do not adversely affect the roadway drainage, drainage on adjacent properties, or the drainage or stability of the roadway subgrade. The construction of an access must not cause water to flow across the road pavement, or to pond on the shoulders or in the ditch, or cause erosion within the highway.

### 5.3.1 Existing Gutter

Where drainage is carried along the curb, the access must be sloped to prevent run-off spillage into private property and the flowline of the gutter through the access shall be maintained.

### 5.3.2 Existing Ditch

Where construction of an access necessitates crossing an open ditch, a culvert pipe shall be installed. The culvert shall be installed such that the invert elevation is compatible with the profile of the existing ditch line. No ditch or gutter shall be filled without adequate alternate provision for drainage being made.

Culvert pipes shall be of a size adequate to carry the anticipated flow in the ditch as determined by the Region in most instances it shall not be less than 400 mm inside diameter.

The structural material and gauge of the culvert pipe shall be adequate to withstand the anticipated vehicular traffic across the access and shall meet Regional Specifications.

## 5.4 Sight Distance

The location of an access should provide sufficient sight distance for the motorist on the access as well as on the roadway to perceive potential conflicts and to carry out the actions needed to prevent a collision.

### 5.4.1 Low Speed Roadways

An access should not be located on a low speed roadway where the available "crossing sight distance" does not meet or exceed the minimum standards contained in the latest edition of the Manual entitled "Geometric Design Standards For Canadian Roads And Streets" published by the Roads and Transportation Association of Canada.

"Crossing sight distance" should be provided to allow a vehicle time to cross or enter the roadway without unduly affecting an approaching vehicle. The crossing time required is dependent upon the perception and reaction time of the crossing motorist, vehicle acceleration time, the width of the roadway, the length of the crossing vehicle and the speed of an approaching vehicle. "Crossing sight distance" requirements are included in Appendix 'A', Page 24.

### **PLEASE NOTE:**

**THIS CHART IS NO LONGER APPLICABLE. PLEASE CONTACT TRANSPORTATION PLANNING STAFF AT 519-575-4435**

#### 5.4.1.1 Commercial And High Volume Commercial Accesses

Where "crossing sight distance" requirements cannot be satisfied at any point along the frontage of a property to which access must be provided, the construction of an auxiliary lane should be considered.

Where "crossing sight distance" requirements cannot be satisfied in one direction, the prohibition of a turn in that direction should be considered.

Where a property has frontage onto two roadways, and where "crossing sight distance" requirements cannot be satisfied onto one of those roadways, access should only be provided onto the roadway where "crossing sight distance" requirements are satisfied.

### 5.4.2 High Speed Roadways

An access should not be located on a high speed roadway where the available "safe sight distance" does not meet or exceed the minimum standards contained in the latest edition of the Ministry of Transportation and Communications "Geometric Design Standards for Ontario Highways".

“Safe sight distance” should be provided to allow a vehicle time to enter the roadway and attain the posted speed limit before being overtaken by a vehicle approaching in the same direction. The time required is dependent upon the perception and reaction time of the entering motorist, vehicle acceleration time, the width of the roadway and the speed of an approaching vehicle. “Safe sight distance” requirements are included in Appendix ‘A’, Page 24.

#### **5.4.2.1 Commercial And High Volume Commercial Accesses**

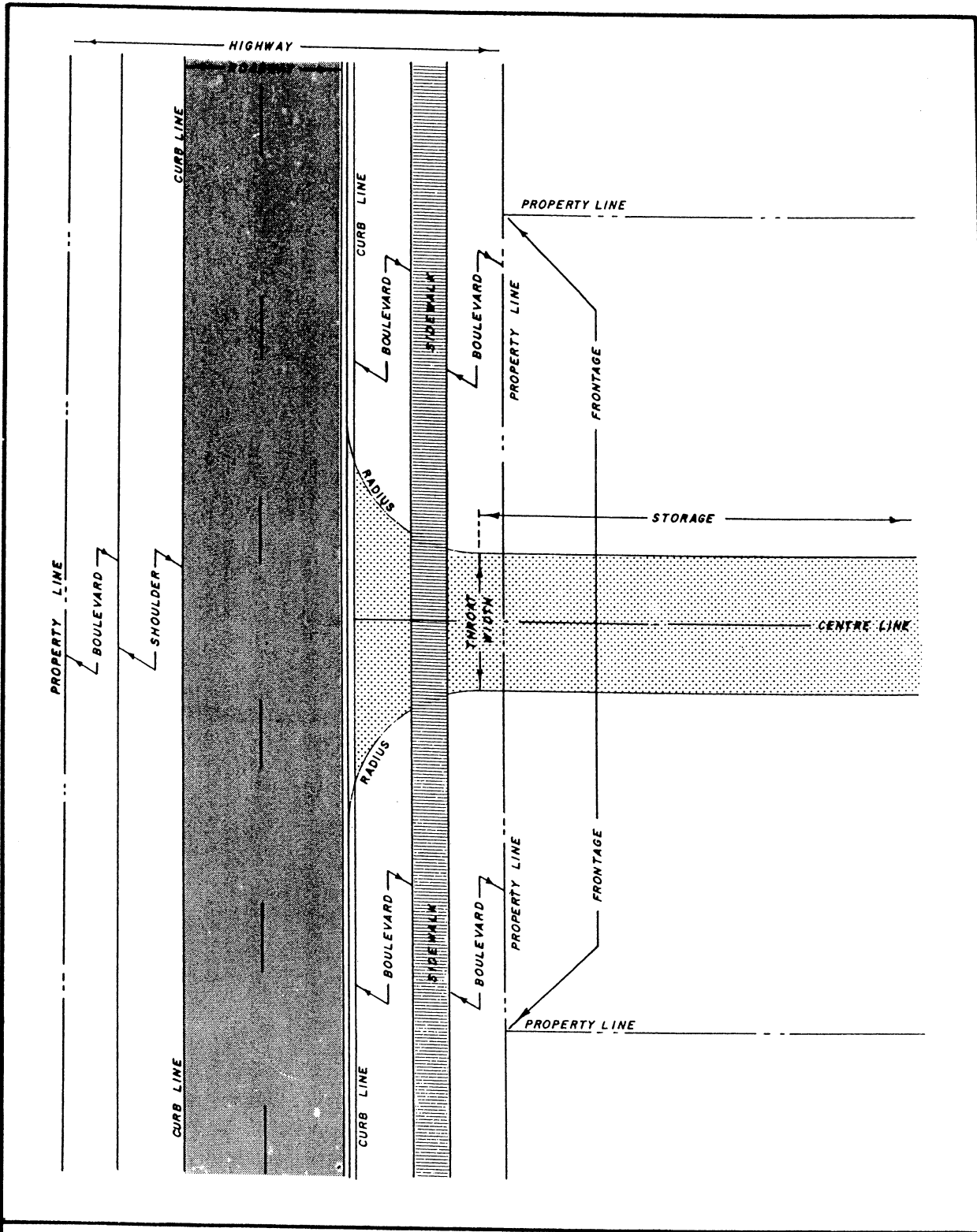
Where “safe sight distance” requirements cannot be satisfied at any point along the frontage of a property to which access must be provided, the construction of an auxiliary lane should be considered.

Where a property has frontage onto two roadways and where “safe sight distance” requirements cannot be satisfied onto one of those roadways, access should only be provided onto the roadway where “safe sight distance” requirements are satisfied.

#### **5.4.3 Sight Lines**

The applicant must ensure that clear vision is maintained at the mouth of an access and no structure or vegetation is allowed to obscure the vision of an entering or exiting motorist.

**FIGURES**

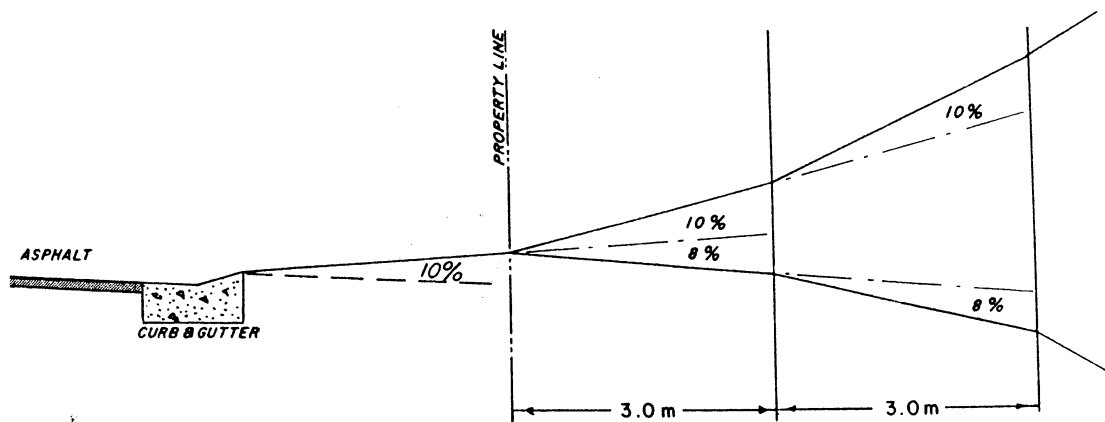


*The Regional Municipality of Waterloo*

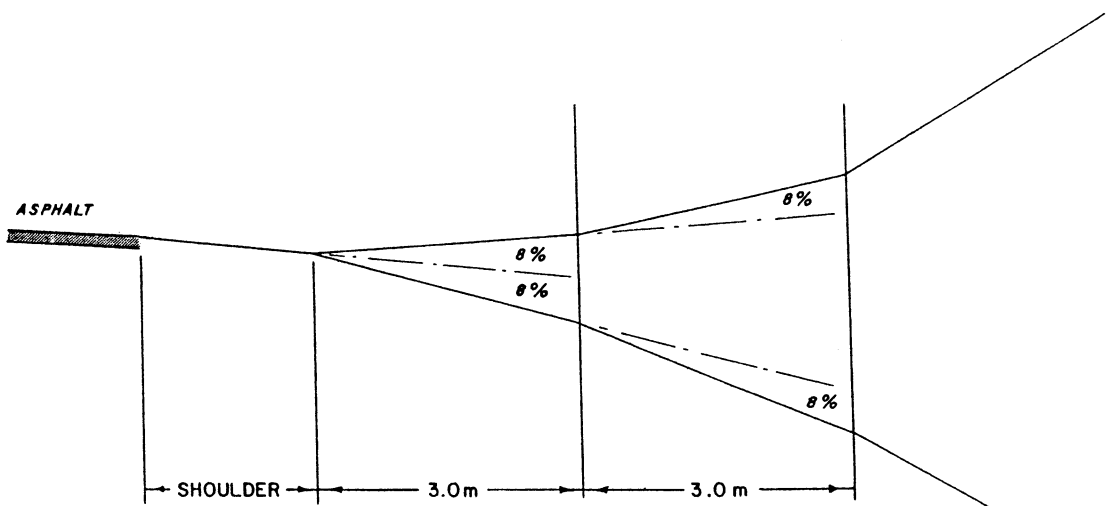
*Policy And Procedures For Access Onto Regional Roads*

**ILLUSTRATION DEPICTING ACCESS TERMS**

**FIG.  
1**



**EXISTING GUTTER**



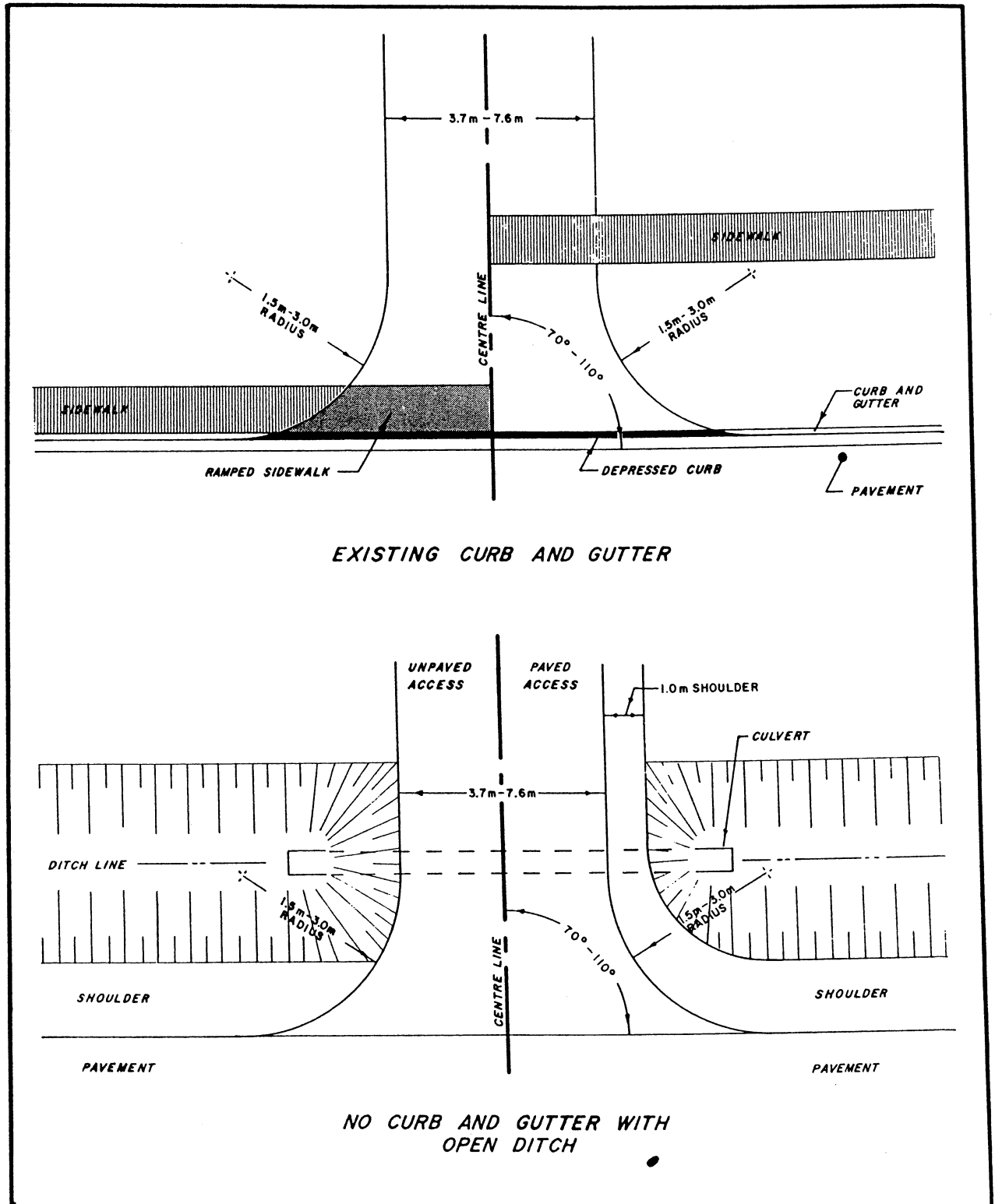
**EXISTING DITCH**

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**ACCESS PROFILES**

**FIG.  
2**

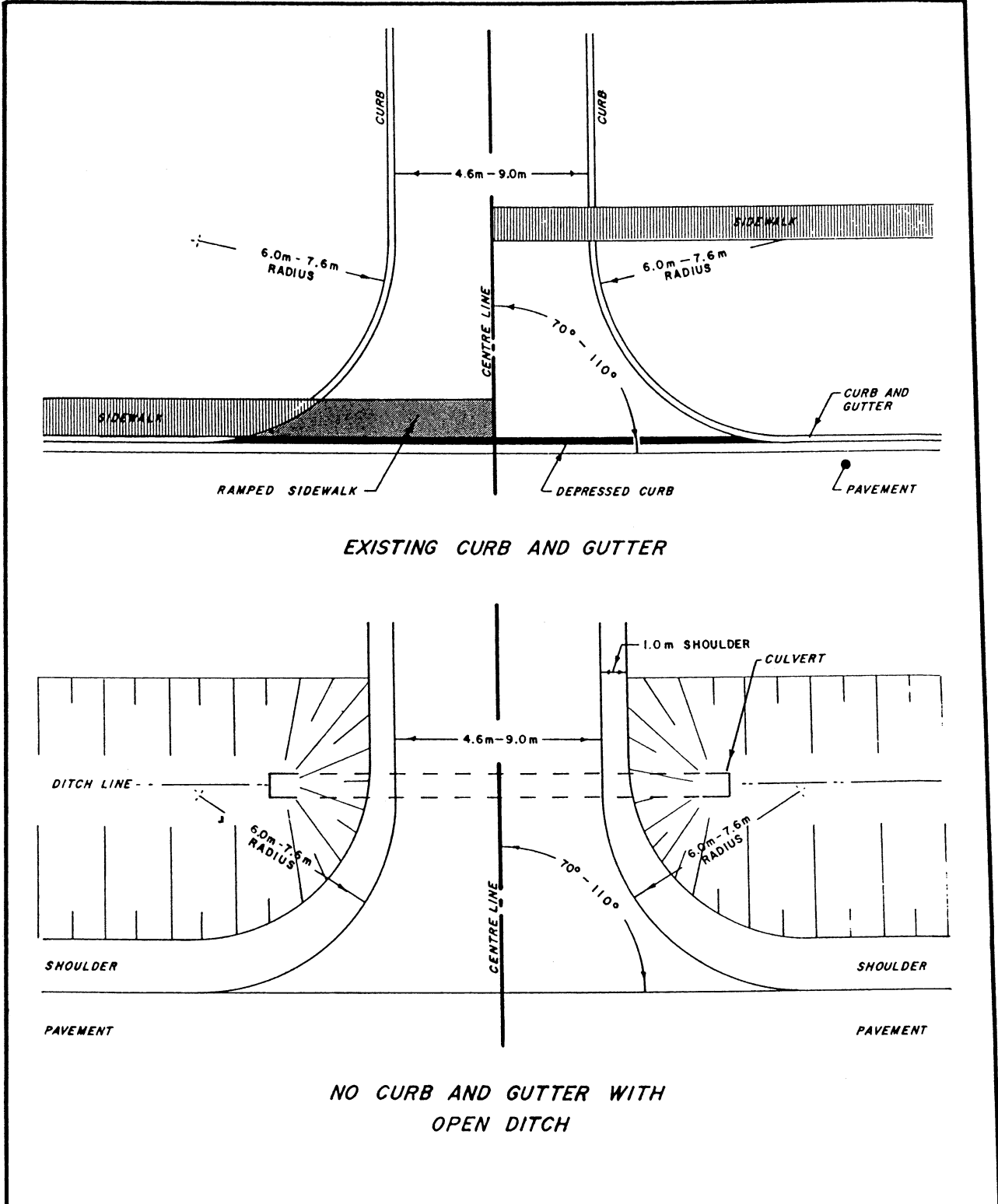


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**NON-COMMERCIAL ACCESS REQUIREMENTS**

**FIG.  
3**

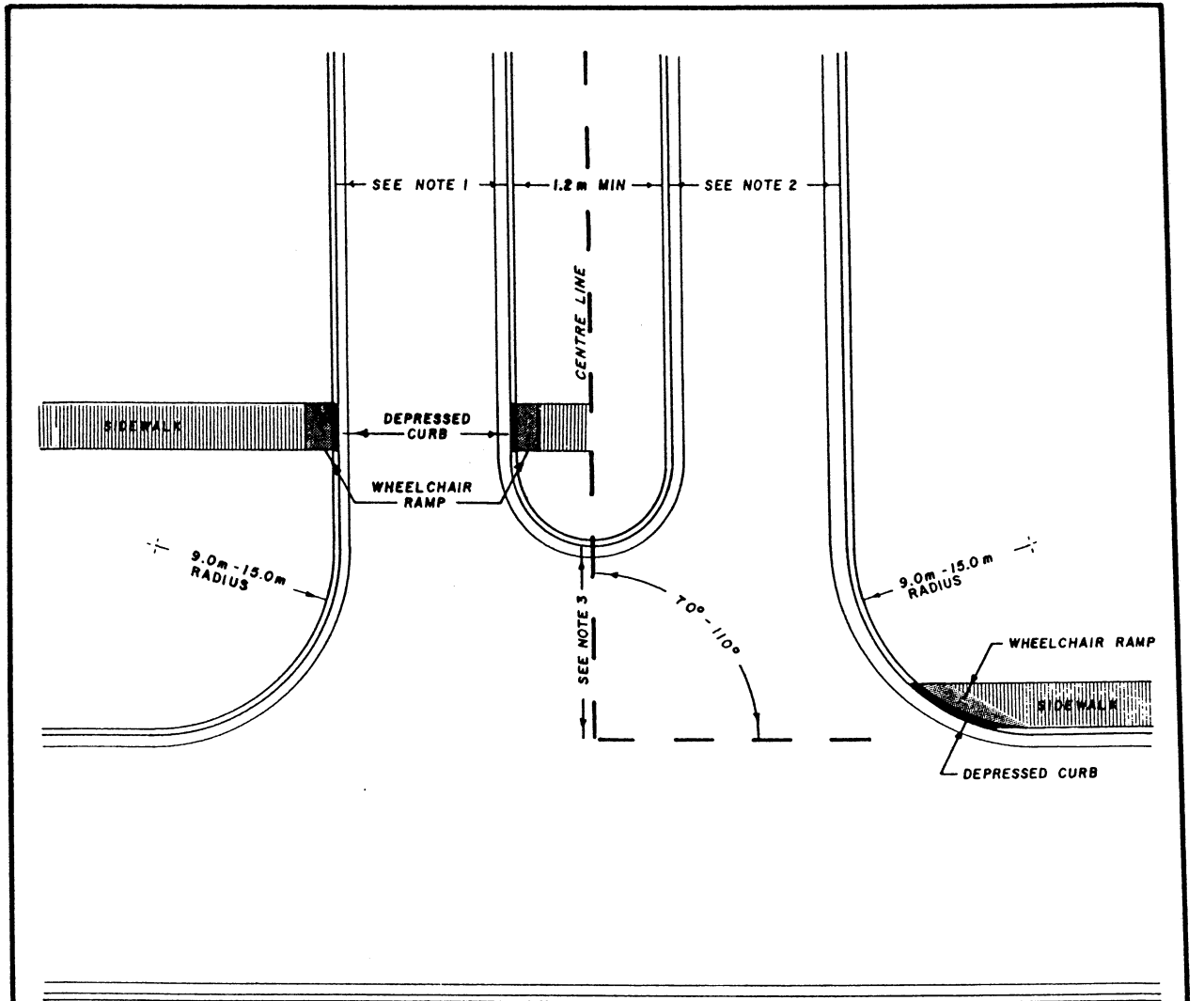


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**COMMERCIAL ACCESS REQUIREMENTS**

**FIG. 4**



**NOTES:**

1. THROAT WIDTH VARIES WITH PROJECTED VOLUMES AND TURNING MOVEMENTS ;  
 - A 3.6 m WIDTH SHALL BE PROVIDED FOR EACH THROUGH LANE AND RIGHT TURN LANE.  
 - A 3.0 m WIDTH SHALL BE PROVIDED FOR A LEFT TURN LANE.
2. THROAT WIDTH VARIES WITH PROJECTED VOLUMES AND TURNING MOVEMENTS ;  
 - A 3.6 m WIDTH SHALL BE PROVIDED FOR EACH LANE.
3. THE POSITION OF THE BULLNOSE SHALL TAKE INTO CONSIDERATION THE TURNING RADIUS OF VEHICLES.

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**HIGH VOLUME COMMERCIAL  
ACCESS REQUIREMENTS**

**FIG.  
5**

**APPENDICES**

**\*\*\* THIS CHART IS NO LONGER  
 APPLICABLE PLEASE CONTACT  
 TRANSPORTATION PLANNING STAFF  
 AT 519-575-4435, PRIOR TO USING  
 THIS CHART**

APPENDIX 'A'

Sight Distance Requirements (1)

Type Of Vehicle	Posted Speed Limit In km/h	Number Of Lanes On Roadway	Sight Distance In metres
Passenger Car	50	2	100
	60	2	120
	70	2	260
	80	2	310
	50	4	170
	60	4	200
	70	4	260
	80	4	310
Semi-Trailer	50	2	120
	60	2	140
	70	2	260
	80	2	310
	50	4	200
	60	4	240
	70	4	260
	80	4	310

(1) Based upon recommendations contained within the Manuals entitled "Geometric Design Standards For Canadian Roads And Streets" published by the Roads And Transportation Association Of Canada and "Geometric Design Standards For Ontario Highways" published by the Ministry of Transportation and Communications.

## APPENDIX 'B'

### Layout Of Accesses

<b>Access Classification</b>	<b>Roadway Classification</b>	<b>Throat Width</b>	<b>Radius</b>	<b>Angular Placement</b>
Non-Commercial	Low Speed	3.7 m — 6.0 m	1.5 m min	70° — 110°
	High Speed	4.6 m — 7.6 m	3.0 m desirable	70° — 110°
Commercial (Two Way)	Low Speed	7.6 m — 9.0 m	6.0 m min	70° — 110°
	High Speed	9.0 m	7.6 m min	70° — 110°
Commercial (One Way)	Low Speed	4.6 m	6.0 m min	70° — 110°
High Volume Commercial	Low Speed	Variable	9.0 m — 15.0 m	70° — 110°
	High Speed	Variable	9.0 m — 15.0 m	70° — 110°

#### **Notes**

1. Based upon recommendations contained within the Manual entitled "Geometric Design Standards For Canadian Roads And Streets" published by the Roads And Transportation Association Of Canada.
2. Non-Commercial access requirements are illustrated on Figure 3, Page 20.
3. Commercial access requirements are illustrated on Figure 4, Page 21.
4. High Volume Commercial Access requirements are illustrated on Figure 5, Page 22.

## APPENDIX 'C'

### Number And Location Of Accesses

Access Classification	Roadway Classification	Number of Accesses Allowed (note 1)	Minimum Dimension From Non-Signalized Intersecting Highway (note 2)	Minimum Dimension From Signalized Intersecting Highway (note 2)	Minimum Dimension From Pedestrian Signals (note 3)	Minimum Dimension From Adjacent Non-Commercial Access (note 4)	Minimum Dimension From Adjacent Commercial Access (note 4)	Minimum Dimension From Adjacent High Volume Commercial Access (note 4)	Minimum Dimension From At Grade Railway Crossing (note 5)	Minimum Dimension From Abutment Or Structure On A Highway (note 6)
Non - Commercial	Low Speed	One	16.0 m	33.0 m	33.0 m	7.0 m	13.0 m	37.0 m	8.0 m	varies
	High Speed	One	28.0 m	55.0 m	N/A	8.0 m	16.0 m	59.0 m	8.0 m	varies
Commercial	Low Speed	One	33.0 m	65.0 m	65.0 m	13.0 m	20.0 m	69.0 m	13.0 m	varies
	High Speed	One	55.0 m	110.0 m	N/A	16.0 m	24.0 m	115.0 m	13.0 m	varies
High Volume Commercial	Low Speed	One	150.0 m	300.0 m	300.0 m	37.0 m	69.0 m	304.0 m	150.0 m	varies
	High Speed	One	150.0 m	300.0 m	N/A	59.0 m	115.0 m	304.0 m	150.0 m	varies

**NOTES**

1. Need must be demonstrated where multiple accesses are requested. Refer to Section 4.9 Number of Accesses on Page 11.
2. Minimum dimension shall be measured from centreline of access to property line abutting an intersecting highway.
3. Minimum dimension shall be measured from centreline of access to centre of crosswalk.
4. Minimum dimension shall be measured from centreline of access to centreline of adjacent access. *Minimum*
5. Minimum dimension shall be measured from centreline of access to property line abutting railway right-of-way.
6. Minimum sight distance requirements must be satisfied. Refer to Appendix 'A', Page 24

**SOURCE**

Based upon recommendations contained within the Manuals entitled "Geometric Design Standards For Canadian Roads And Streets" published by the Roads And Transportation Association of Canada and the "Manual Of Uniform Traffic Control Devices" for Ontario published by the Ministry of Transportation and Communications.