

An aerial, black and white photograph of a city street grid. The streets are laid out in a regular pattern. In the upper left, there is a large, circular baseball field. The buildings vary in height and style, with some having flat roofs and others with more complex structures. The overall scene is a dense urban environment.

TRAFFIC CONTROL PRACTICES & WARRANTS

HALIFAX

January, 2018

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1. CROSSWALKS

1.1 Marked Crosswalks

What are they?

Crosswalks are painted markings at intersections where there is potential for conflict between vehicular and pedestrian movements, at pedestrian connectivity points with high pedestrian volumes and where the best place to cross may not be obvious to pedestrians (per TAC).

What types are installed?

Marked crosswalks at controlled intersections (traffic signals, stop signs) are painted as two parallel lines. Marked crosswalks at uncontrolled intersections are painted as 'zebra' crosswalks, a series of 0.6m wide bars and spaces covering the width of the crossing.

Controlled Intersections

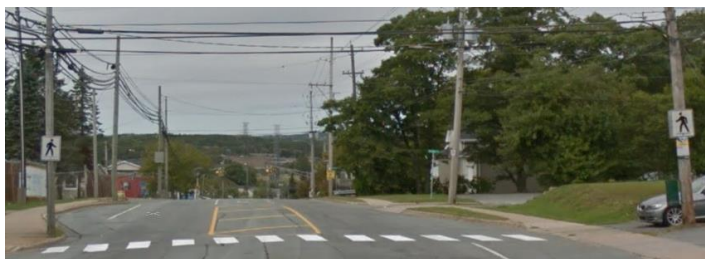
- Unless there is a specific pedestrian crossing restriction, all legs of a signalized intersection are painted with parallel line crosswalks.
- If required at a stop controlled intersection based on factors such as pedestrian flow, geometry, etc, parallel line crosswalks are painted.

Uncontrolled Intersections

The TAC Pedestrian Crossing Guide is used as a reference to determine proper marked crosswalk treatments. Several factors including pedestrian and traffic volumes, lanes of traffic, speed, etc. are applied to a matrix with the outcome indicating one of three types of marked crosswalk treatments:

Basic Crosswalk

Has zebra markings and side-mounted pedestrian signs, two for each direction of travel.



...continued

RRFB Crosswalk

- Has zebra markings and side-mounted pedestrian signs, two for each direction of travel, plus Rectangular Rapid Flashing Beacons (RRFB) above each side-mounted sign and pedestrian push buttons.



RA-5 Crosswalk

- Has zebra markings, side-mounted pedestrian signs (two for each direction of travel), internally illuminated overhead mounted signs (RA-5) with alternating amber flashing beacons and down lighting, side-mounted amber flashing beacons and pedestrian push buttons.



What are the issues?

Some residents feel marking a crosswalk automatically makes it safer. By painting only those crosswalks which meet the warrant in the Crossing Guide, we do not oversaturate the streets with unwarranted, marked crosswalks, leaving those we paint much more effective in improving pedestrian crossing safety and opportunities as well as driver compliance.

1.2 Pedestrian Signals



What are they?

Pedestrian signals are used at busy intersections when it is necessary to control the sequence of, or time allocated to, pedestrian movements.

Understanding Pedestrian Signals

A WALK or a walking pedestrian symbol means you may begin crossing. A pedestrian facing this signal may proceed across the roadway in the direction of the signal and while so proceeding has the right-of-way over all vehicles. A street crossing may only begin on a WALK signal.

A flashing DON'T WALK or a flashing upraised hand symbol means it is too late to begin crossing. Do not enter the street but finish crossing if you have already started. There is enough time included in the flashing DON'T WALK to complete your crossing. A pedestrian proceeding across the roadway when the signal starts flashing should continue crossing and has the right-of-way for that purpose over all vehicles. A pedestrian may not start to cross on this signal.

A steady DON'T WALK or a steady upraised hand symbol means the allocated crossing time has completed. Do not enter the street but finish crossing if you have already started. A pedestrian facing this signal shall not commence to cross the roadway in the direction of the signal until a WALK or a walking pedestrian symbol is shown.

Pedestrian Countdown Signals may be used in conjunction with conventional pedestrian signals to display the amount of time remaining to cross the street. The countdown timer starts at the beginning of the flashing DON'T WALK phase and continues counting down the seconds of time remaining until the solid DON'T WALK symbol appears.

What are the issues?

- Some people are confused about what pedestrian control signals mean. A common complaint is that the DON'T WALK signal starts to flash before pedestrians are able to get all the way across the street.
- The flashing DON'T WALK display is intended to warn pedestrians not to step off the curb to start crossing the street. Pedestrians already in the crosswalk have ample time to complete their crossing at a normal pace before opposing traffic gets a green light.
- The flashing DON'T WALK signal performs a function similar to an amber light: it provides a clearance interval and a measure of warning that the lights are about to change.

2. BICYCLES

2.1 Bicycle Route Marker Sign

What are they?

The “*Bicycle Route Marker*” sign is an information sign used to guide cyclists and indicate the on and off road facilities that form part of a bicycle route. These signs also inform motorists about the presence of cyclists along these routes. To direct cyclists, “*directional arrow ta-b*” signs should be used at intersections and entrances to off-road facilities.



Where are they installed?

The “*Bicycle Route Marker*” sign is used to indicate that the road is part of a bicycle route. The roads selected have wider lanes that will accommodate cyclists and motorists comfortably side-by-side.

These signs should be placed at intervals frequent enough to keep cyclists aware of the changes in route direction and to remind motorists of the presence of cyclists.

These signs are not installed where “*Reserved Bicycle Lane*” signs are used.





2.2 Share the Road Sign

What are they?

The “*Share the Road*” sign is used to warn motorists that they are to provide adequate driving space for bicycles and motor vehicles on the road and that both cyclists and motorists use the road. It advises motorists and cyclists to use extra caution on an upcoming section of roadway.

“The *Shared Use Lane Single File Sign* is used to warn motorists and cyclists that cyclists are allowed full use of the lane ahead and to warn motorists that the lane is too narrow for side-by-side operation” (TAC Bikeway Traffic Control Guidelines 2012).

Commented [NM1]: Add the single file shared lane sign + tab.



Where are they installed?

This sign is used in situations where roads have unusual characteristics. These include narrow lanes, poor visibility, changes to the roadway alignment or where a reserved bicycle lane ends.

This sign is to be used in conjunction with the “*Share the Road*” supplementary tab.

What are the issues?

- Nova Scotia has a 1 metre rule which is designed to encourage safe sharing of the road by cyclists and drivers. Bill 93 requires drivers leave at least one metre (three feet) of space when passing a cyclist.

2.3 Reserved Bicycle Lane Sign

What are they?

The “*Reserved Bicycle Lane*” sign is a regulatory device which consists of a bike symbol and a diamond-shaped symbol to indicate that the lane is reserved for bicycle use only. They help to separate motor vehicles from bicycles and potentially help reduce on-road conflicts between the two.



Where are they installed?

Signs may be mounted either directly above the lane or installed on posts adjacent to the lane. The reserved lane sign should be used only where the bicycle lane has been painted on the road, along with bicycle symbol pavement markings. The “*Reserved Bicycle Lane Ends*” sign should be used to indicate where the reserved lane ends.

2.4 Pavement Markings for On-Road Bicycle Facilities

What are they?



The bicycle symbol indicates that this section of the roadway is part of a bicycle lane. They are designed to advise motorists that an area of the street has been set aside for bicycles and that cyclists are present in the area. The symbols are designed to indicate to cyclists the location of the bike lane.



A shared use lane marking or “Sharrow” is a pavement marking indicating to motorists and cyclists that a lane is to be shared by vehicles and bicycles

The marking designates the preferred positioning in the lane for cyclists and may be located for single file movements or side by side, shared with motor

vehicles.

Commented [NM2]: There are side-by-side shared lanes and single-file shared lanes.

Where are they installed?

The bicycle symbol will be used where there is a ‘Reserved Bicycle Only’ lane.

Sharrows are in areas where a continuous reserved bicycle lane cannot be achieved due to geometry or street widths, or on local street bikeways.

3. SIGNALS

3.1 Traffic Signals

What are they?

Traffic signals are familiar to everyone. While stop signs at intersections can dictate which direction of traffic will have the right-of-way, traffic signals can vary the direction and even the individual turning movement that will have right-of-way.



When are they installed?

The Transportation Association of Canada has developed a warrant for signalization of an intersection. The methodology calculates priority points based on such factors as vehicular and pedestrian volumes, intersection geometry, and the location of other nearby traffic signals. Generally, a total of 100 or more priority points is an indication that signalization of an intersection may be warranted. However, other factors such as collision history are considered to determine where signalization would be most beneficial and appropriate.

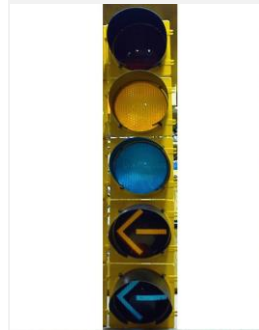
What are the issues?

- Traffic signals can be beneficial in managing traffic since they can provide nearly equal service to each approach at an intersection. On busy roadway corridors, however, too many signals can create significant disruption and increased driver delay where once there may have been smooth flow.
- When signals are installed and push-buttons for pedestrian signals are included, it is often seen as a hindrance / nuisance for pedestrians and only provides priority to vehicles. However the use of traffic signals can help to provide benefit to all road users and including an actuated pedestrian phase helps to balance the needs of all users.
- Disruption in traffic flow can cause an increase in rear-end collisions and exhaust emissions in some circumstances.

3.2 Protected Left Turn Phase

What is it?

A protected left turn signal phase provides the motorist a period of time where left turns can be made without encountering conflicting vehicular and pedestrian movements.



When are they used?

- where left turns are permitted from two lanes on one approach and there is an opposing through movement
- where the left turn traffic queue frequently extends beyond the left turn lane, thus blocking the through movement
- where a significant left turn volume is present during peak traffic hours
- where intersection geometry creates a visibility problem which may be alleviated by a left turn phase
- where the speed of approaching traffic is sufficiently high to make driver judgment of gaps difficult
- where a demonstrated pedestrian safety issue exists from the interaction of pedestrians and left-turning vehicles

What are the issues?

- Motorists naturally feel safer making a left turn with an arrow. However, in many cases, the turning capacity provided by gaps in oncoming traffic, plus the amber signal phase, can safely accommodate left turns at an intersection.
- The careful design of a phasing plan for a signalized intersection is essential to its safe and effective operation. Unwarranted signal phases create undesirable effects in terms of stops, vehicular delay and increased fuel consumption.

3.3 Flashing Beacons

What are they?



Commonly called flashers or flashing lights, these are a type of traffic control signal that continually flashes amber or red at intersections or in advance of a location which would require the driver to take greater care due to unusual conditions.

They serve to alert drivers of such things as a physical obstruction in the roadway, sharp curves or hidden intersections and are used when regulatory or cautionary signs are insufficient. When properly located they serve a useful function.

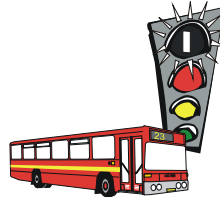
Where are they installed?

Flashing amber beacons used as a warning for an obstruction are installed on a pole in or on the obstruction. When used as a warning at intersections, the beacons are suspended over the centre of the intersection. Used in conjunction with warning signs, they are located in the most beneficial location dependent on the purpose.

What are the issues?

- In some municipalities, they are often installed as a 'quick fix' to a perceived traffic problem leaving the underlying problems unaddressed. In most cases, improvements to signage, pavement markings and sight distance can help solve the issue.
- Improper usage of flashing beacons greatly reduces the effectiveness of other beacons installed where there is a real need. It is important to limit their usage to locations where there is a demonstrated need, thus maintaining motorists' respect.

3.4 Transit Priority Signal



What are they?

The transit priority signal is a white vertical bar light which is positioned above the red light on a signal display. The purpose of this device is to allow buses to perform more efficiently in congested traffic. The transit priority signal is activated a few seconds before the green light indication, but while the signal is still red for other traffic. Transit buses in adjacent traffic lanes may proceed into the intersection while the transit priority signal is on, allowing them to get a 'jump' on the rest of the traffic waiting for the green signal.

Where are they installed?

They are installed at intersections where buses have an opportunity to get to the head of the queue at an intersection. In some cases, this may be a lane where vehicle traffic is required to turn right, but buses are allowed to travel through. In other cases, it may be in a lane exclusively reserved for buses.

What are the issues?

- In some cases, a bus sitting in a transit priority lane may block cars wishing to turn right on red.
- Allowing buses to compete more effectively with cars is an important step in the Municipality's efforts to encourage increased transit ridership.

3.5 Accessible Pedestrian Signals (APS)

What are they?

Accessible Pedestrian Signals (APS) are devices used to allow visually impaired pedestrians to use the 'walk' and 'don't walk' signals when they are attempting to cross at a signalized intersection. The APS provide walk sounds such as a 'coo-coo' to indicate that it is safe to cross in a north-south direction and a 'three note melody' to indicate that it is safe to cross east-west. This directional guidance information is especially important at skewed intersections and at wide multi-lane crossings.

At some signalized intersections, the pedestrian walk phases are activated by push buttons. Push buttons, in general, aid all pedestrians by giving them sufficient time to cross the street. Locating these push buttons, however, can be a challenge for visually impaired pedestrians. In these cases, the push buttons can be equipped with a pushbutton locator - a repeating sound that identifies the location of the button. The tone or ticking sound is set so it can be heard from no more than 6 to 12 feet (2 to 4 meters).



Where are they installed?

All new traffic signal installations and major traffic signal upgrades include accessible pedestrian signals. They are also considered at other locations not undergoing general signal upgrades based on requests and feedback from advocacy groups and the general public.

What are the issues?



HRM receives several requests per year for the installation of APS units at signalized intersections. Unfortunately, budget will not allow for APS installation at all intersections but only a small number can be installed each year, where conditions allow and other equipment can support their installation (i.e. poles properly located near the crosswalk).

3.6 Leading Pedestrian Interval (LPI)

What are they?

A Leading Pedestrian Interval (LPI) is a timing option used at signalized intersections to activate the pedestrian walk signal before the adjacent (parallel) vehicle signal, providing a head start to pedestrians wishing to cross. This head start provides an advantage to the pedestrian over vehicles turning at the intersection and can help improve driver yielding behavior. The LPI enables pedestrians to establish their presence within the crosswalk, making them more visible to drivers.

Where are they used?

LPIs are used at signalized intersections where there is a significant amount of turning traffic, especially left turns, travelling over a crosswalk. Signalized "T" intersections would be priority candidate locations since all traffic exiting the side street would be turning across the main street crosswalks. Consideration is also given to locations where turning traffic encounters limited or no opposing through traffic (i.e. intersections with one-way streets), near schools or seniors' facilities or where collision history indicates a pattern of vehicle/pedestrian collisions associated with turning traffic.

What are the issues?

1. Any change to traffic signal timing has the potential to impact all road users (pedestrians, cyclists, transit and passenger vehicles). Locations must be assessed individually to determine the impact timing changes could have on the location as well as any corridor or network impacts that could arise. LPIs are not considered where advanced (protected) turning phases exist for vehicles turning toward a crosswalk as this introduces additional safety risks related to turning vehicles clearing the intersection.

4. TRAFFIC CONTROL SIGNS

4.1 Stop Signs



What are they?

Stop signs are used to assign right of way and to minimize accidents and personal injury by reducing potential conflicts among roadway users.

Where are they installed?

Stop signs are typically installed on the minor volume approaches to an intersection, providing and favoring unobstructed flow along the major volume street. The Transportation Association of Canada has developed installation criteria and warrants for all-way stop control. Adherence to these guidelines brings about a greater understanding on the part of drivers who will tend to respect the stop control.

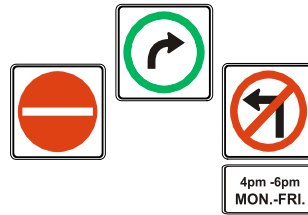
All-way stop control may be warranted at intersections which have a significant and relatively equal volume of traffic on each of the intersecting roadways, or where an unusual collision history exists. The volume warrant requires that the combined pedestrian and vehicular volumes on the minor street average 200 per hour for an eight hour period. The collision warrant may be satisfied where, regardless of volume, an average of 5 collisions per year deemed preventable by all-way stop control are reported over a five-year period.

All-way stop control may also be used as an interim measure prior to the installation of traffic signals and as an educational tool for an interim period when stop control at an intersection is being reversed.

What are the issues?

- All-way stops are in effect full time and therefore should reflect traffic conditions as outlined in the warrant. They should not be used to address irregular traffic events or phenomena.
- A popular misconception is that stop signs can be used to solve any number of traffic related problems. Requests for stop signs to control speeding and reduce short-cutting are common. Approval of such requests can lead to the proliferation of all-way stops. Unwarranted all-way stops are ineffective and can have negative consequences as motorists speed in areas away from the stop sign to make up for lost time and they also become conditioned to 'not stop' or 'roll through' the intersection since there is seldom any conflicting traffic on the minor volume street. They also contribute to the unnecessary increase in noise, air pollution, and fuel consumption.

4.2 Turn Control Signs



What are they?

Turn control signs are regulatory devices used at intersections to prohibit or designate specific turning movements. They are used predominately as a safety device and to facilitate more efficient traffic flow by restricting certain turning movements which may unnecessarily delay traffic. Turn control sign messages have evolved over the years to the point that the restrictions may be in effect on a full time basis, for only a portion of the day, or only whenever certain conditions exist.

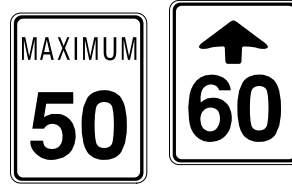
Where are they installed?

As safety devices, full time turn control signs are especially important at intersections to prevent motorists from turning the wrong way into a one-way street. They may also be used to restrict turns which are hazardous due to prevailing speeds or roadway alignment. Full and part time turn controls are also very effective in increasing the vehicular capacity of intersections by eliminating turns which can cause unnecessary delays to other major traffic movements. Turn controls which are only in effect for certain conditions may restrict movements such as right turns on red where these turns would be in conflict with other major vehicle movements which may not be obvious due to the size and design of the intersection.

What are the issues?

- Turn control signs are a valuable traffic control device when used under the right circumstances. They promote safety and efficiency throughout a roadway network. Drivers learn to expect, understand and respect appropriately installed signs.
- Signs alone cannot always restrict motorists who choose to willfully make illegal turns. Therefore, the signs may be supplemented with physical obstructions such as concrete medians or other forms of barriers when and where conditions warrant.
- Turn control signs are often ineffective when installed for reasons other than safety or to improve traffic flow. Those used to mitigate through traffic from using local streets are seldom respected by most motorists and often must be supplemented by physical barriers to be truly effective. Without physical barriers, these signs may require significant enforcement by police which is not always possible due to demands and can generate public relations issues.

4.3 Speed Zone Signs



What are they?

Speed zone signs indicate to motorists the maximum legal vehicle speed which is permitted on a section of roadway. Maximum speed limit signs shall be located at the beginning and at the end of various speed zones as well as at appropriate intermediate locations.

The Maximum Speed Ahead sign shall be erected to indicate to motorists that they are approaching a section of roadway in which the speed limit has been reduced.

Where are they used?

Under the Motor Vehicle Act, the minimum legal speed limit on urban and residential streets is 50 km/h. Signs are not required for enforcement of this provision unless it is necessary to reinforce a maximum 50 km/h limit on rural highways or major arterials. “Maximum 50 km/h” speed limit signs may be erected on the entrances to subdivisions when the entrance is off of a roadway having a higher posted maximum speed limit.

How are speed limits determined?

- The process for establishing an appropriate speed limit for a given roadway is generally governed by determining the 85th percentile speed as well as considering other factors such as roadway geometry, accident history and adjacent land use.
- A widely accepted principle is to set speed limits as near as practicable to the speed below which 85% of the vehicles are traveling on the highway. Experience has shown that approximately 85% of motorists drive at a speed that is reasonable and prudent. Speed limits established in this manner encourage voluntary compliance because they appear reasonable to the public.
- There is a common misconception that lowering the posted speed limit will cause motorists to react accordingly. However, experience has proven that unrealistically low speed limits will invite violation by responsible drivers.

4.4 Lane Designation Signs



What are they?

Lane designation signs are regulatory devices which consist of white arrows on a black background. They may be suspended above traffic lanes or mounted along the side of the road adjacent to the curb lane and on center medians to supplement painted lines and arrows.

Why do we have them?

Lane designation signs are used to indicate to drivers which lanes are designated for desired vehicle movements. They are effective at increasing the vehicular capacity and reducing delays on roadways and at intersections. They help to overcome confusion and frustration enabling drivers to reach their destination more safely and conveniently.

Where are they used?

- These signs may be found on the approaches to intersections and throughout mid-block sections where lane choice may be contrary to normal driver expectations.
- They are used to designate two-way left-turn lanes on multi-lane roadways facilitating safe and more convenient left turns into private driveways and minor side streets while at the same time reducing delays to through traffic.
- They indicate multiple lane usage for a particular turning movement at intersections thereby moving greater volumes of traffic during a shorter green signal phase.
- They are especially effective in controlling traffic on the approaches to and across intersections, especially wider ones, where there are fewer receiving lanes than expected on the far side of the intersection.

What are the issues?

- Lane designation signs are regulatory and overcome the limitations of painted arrows which are often not enforceable since their visibility and effectiveness can be diminished by road salt, snow, natural wear and congested traffic.

4.5 Truck Route Signs

What are they?

Truck Route signs are installed to restrict truck traffic from using certain streets and roads to protect the physical structure of the roadway itself, as well as to protect residential neighborhoods and other areas not well suited to the size, noise and nuisance factors associated with large trucks.



Where are they installed?

Under HRM Bylaw T-400, no street is a truck route unless so designated by appropriate signs. Truck Route signs are installed at intersections where truck drivers may have the option of choosing more than one route to reach their destination. The signs will have directional arrows and may also indicate the time of day that trucks are permitted on a given roadway. Since only a small percentage of streets and roads are designated truck routes, the bylaw prescribes that permissive rather than restrictive truck route signs shall be used to designate where trucks ARE allowed. This permissive sign system is much more cost effective, easily conveys the message to the drivers, and prevents the proliferation of restrictive signs on all roadways which are not truck routes.

What are the issues?

- Truck drivers are not always willing to remain on designated routes when other routes are more advantageous, therefore the designated truck route system must address the needs of the trucking industry.
- Large areas without a designated truck route are open to unrestricted truck traffic.
- Complaints from the public regarding illegal truck traffic are common. Enforcement of truck route violations is very time consuming and labor intensive for police, especially when violations are infrequent and alleged violations are unfounded.

5. PAVEMENT MARKINGS



January, 2018

5.1 Painted Centrelines



What are they?

Centrelines are yellow lines placed along the length of two way roadways and are used to designate the portion which is available for each direction of travel.

Where are they installed?

In urban areas, they are painted on arterial and major collector roads which carry higher volumes of traffic and therefore pose a greater potential for conflicts. National guidelines indicate they may not be necessary on residential streets having a two-way peak hour volume of less than 500 vehicles.

In rural or suburban areas, centrelines may be considered depending on a variety of conditions such as pavement widths, traffic volumes and collision histories.

What are the issues?

The public expectation is that a painted centreline will provide the guidance drivers require to stay on the right hand side of the roadway, and this may be necessary on streets with higher volumes and higher speeds. However, on low volume roadways it is natural for motorists to drive near the centre to provide better separation between traffic and pedestrians and/or parked vehicles. As a result, this actually helps to slow down traffic.

5.2 Pavement Edge Lines



What are they?

Pavement edge line markings are used to delineate the pavement edge providing a guide for drivers. Where the line is to the right of the lane, the edge line is white and where the line is to the left of the travel lane it is yellow.

Where are they installed?

Edge lines may be used on rural or secondary highways to delineate the pavement edge from the gravel shoulder area where it has been determined, after a review of the accident history, that edge lines would be beneficial to improving the safety of the roadway.

In instances where the shoulder is paved, and to separate the shoulder from the travelled lane, edge lines may be used at the following locations:

- a) where the shoulder is paved and is of similar texture and color to the pavement on the travelled lane;
- b) in advance of and over narrow bridges;
- c) in advance of and around sharp curves;
- d) in merging and diverging areas;
- e) at pavement width transitions;
- f) where obstructions on the shoulder are close enough to the pavement edge to constitute a hazard to the motorist;
- g) where unusual physical conditions exist.

Pavement edge lines should not be used in instances where there are concrete curbs and/or sidewalks installed and where the edge of the travelled lane is clearly identified. They should not be continued through intersections and should not be broken for driveways.

5.3 Intersection Boxes

What are they?

A painted intersection box is an area at or near a signalized intersection or driveway where crisscross diagonal white stripes have been painted. These markings indicate to the driver that the area should be kept clear while waiting for a signal change or to allow driveway ingress/egress. The painted intersection box may be reinforced by a DO NOT BLOCK INTERSECTION sign.



Where are they used?

They are used at intersections which may have odd geometry where one or more of the traffic movements is not apparent and the area needs to be kept clear for traffic to complete that movement. They may also be used at busy driveways which may need to be accessed by emergency or other vehicles.

Blockage of driveways can occur at almost every busy intersection throughout HRM and experience has shown this application to be ineffective in those cases. Overuse of painted intersection boxes lessens their effectiveness, so they are reserved for very specific locations based on a demonstrated need.

What are the issues?

- The Motor Vehicle Act states that it is illegal to block a street or railroad crossing while waiting for a traffic signal. The painted intersection box simply reinforces an existing law.
- Maintaining pavement markings is a major expense for HRM and painted intersection boxes require significant maintenance due to the large painted area.

6. PARKING



January, 2018

6.1 On-Street Parking

What is it?

On-street parking is not a right but is rather a privilege and is subject to any number of functional, safety, geometrical, and adjacent land use access characteristics of a given street. By default, parking is permitted unless signs are posted to indicate otherwise.



Where are parking control signs installed?

The issue of on-street parking can be one of the most contentious issues for traffic practitioners to deal with due to the number and variety of competing uses for a limited amount of curb space. A street network must move traffic safely and expeditiously, commercial districts depend upon available curb space for unloading and customer parking, and residents become frustrated at the high level of demand for long-term parking spaces within their neighborhood.

Restrictive parking control signs are installed to address the need for extra travel lanes, safety concerns, and commercial/passenger vehicle loading zones. Permissive parking control signs are installed to limit the amount of time that a vehicle may be parked, and are primarily found in business and commercial areas to generate parking turnover for the mutual benefit of businesses and their clientele. These same signs have also been used extensively on residential streets around hospitals, universities, major industrial complexes, and the downtown where there is a high demand for parking by people who live outside of the area.

What are the issues?

- Off-street parking lots are being lost to new development.
- There is an ever increasing demand for the limited supply of on street parking spaces.
- Residential streets with a width of less than 9 metres may accommodate one-sided parking.
- Residential streets with a width of 9 metres or more can be considered for two-sided parking.
- The streets are public domain.
- Should residential on-street parking be open to all, or just to residents, or is there middle ground?
- Is charging a fee for a permit to park in a residential area a reasonable way to control parking demand?

6.2 Loading Zones

What are they?

Loading zones are areas of curb space where public parking is prohibited to provide commercial delivery and pickup services for local businesses.



Where do we have them?

Whenever possible, loading zones are created as near as possible to a storefront or in a mutually agreeable location to serve several businesses. They can only exist in areas where parked vehicles do not infringe upon overall public safety or reduce the vehicular capacity of a portion of roadway. Recognizing the need for such zones and that (un)loading activity is primarily a temporary condition, these zones may also be found in areas where public parking is not otherwise permitted such as No Parking zones.

What are the issues?

- Many businesses and commercial enterprises do not have the availability of off-street vehicle access. This is especially true in older parts of our business districts where continuous storefronts do not allow for driveways. Commercial as well as customer vehicle access to a business is crucial to its survival.
- Officially signed loading zones are very often abused, which limits access for legitimate users causing them to park elsewhere in perhaps less safe and more congested areas. Therefore, regular enforcement of signed loading zones is a necessity.
- Unless otherwise indicated on the signs, a loading zone is only in effect on weekdays between the hours 6 a.m. and 6 p.m. – the zone may only be used for 30 minutes at a time during these hours. They are available for public parking at all other times.
- Since the Motor Vehicle Act provides that commercial (un)loading activity may be conducted in signed “no parking” zones, ‘*No Parking*’ signs are often the most effective method of designating loading zones for the benefit of the business and the truck drivers.

6.3 Accessible Parking



What are they?

These are on-street parking spaces found in both commercial and residential areas and are designated by regulatory signs for use by qualified persons with disabilities who have valid accessible permits.

Vehicles eligible to use these spaces are identified by means of an “Accessible License Plate” or by an “Accessible Parking Permit” which suspends from the rearview mirror. The Accessible Parking Permit may be red or blue. A red Accessible Parking Permit signifies a person with a temporary disability and are typically issued for a period less than a year. There may also be occasions where individuals from jurisdictions outside of Nova Scotia have different shaped or coloured permits.

Where are they installed?

In commercial areas, it is often difficult for persons with disabilities to find a parking space conveniently close to their destination. The provision of on-street accessible parking is an attempt to reserve a limited number of spaces for those who might otherwise be unable to attend functions or conduct business in that immediate area.

On residential streets, accessible parking spaces may be established for those without driveways or suitable off-street parking. Anyone who has a valid Nova Scotia Registry of Motor Vehicles accessible parking permit or numbered license plate can apply. For further information on obtaining a permit, please contact your nearest Access Nova Scotia outlet. Requests for spaces on residential streets are only considered if the applicant’s accessible parking permit information is verified by Access Nova Scotia.

What are the issues?

- Accessible parking spaces are available on a first come first served basis to any eligible user.
- In commercial areas, there is an increasing need for accessible on-street parking which competes with the need for loading zones, metered spaces and short-term parking. It is sometimes difficult to provide safe and accessible parking on congested downtown streets or streets with steep grades.
- Time-limits govern spaces to generate parking turnover in commercial areas and to discourage monopolization of the spaces to the detriment of others. It can vary, but 3 hours is the typical time limit in business districts.

6.4 Parking Meters

What are they?

A parking meter is a mechanical or electronic parking control device in which a motorist deposits coins to purchase an amount of time to park a vehicle legally in a parking space. The meter's time clock will automatically indicate when the purchased time has expired and that the vehicle is then in violation.



Where are they installed?

Parking meters are only successful where the 'demand for' exceeds the 'supply of' available and conveniently located on-street parking spaces. Due to their installation and maintenance costs, they are not recommended to be installed in areas where there is an abundance of underutilized parking spaces.

What are the issues?

- An effective parking control and enforcement program is important to the success and viability of a business and commercial district. Business owners and their employees, as well as customers and clients all want the ability to park as close to their destination as possible. It is important to generate parking turnover at regular intervals so that all motorists have an equal opportunity to access short-term on-street parking. Parking meters are more effective than signs in generating parking turnover.
- Meters can be a deterrent to shoppers who can find similar goods and services at other locations which offer free parking. The cost of parking at a meter should be competitive with adjacent off-street parking rates so that long-term parkers are encouraged to park off street. The fine structure for parking meter violations should be a deterrent to willful violators. The maximum allowable parking time for a metered space should reflect the parking demands generated by the adjacent land use.

6.5 Fire Lane Signs



What are they?

Fire lanes are designated areas on private property where signs are installed to strictly prohibit parking. They are required to ensure that emergency response teams and vehicles have unimpeded access to a building or its property to minimize the chance of injury, loss of life, and property damage in the event of an emergency.

Where are they installed?

Pursuant to the National Building Code, The Fire Marshall's office determines which sides of buildings, parking areas and travel lanes must be kept clear of parked vehicles on private property. ~~Any potential parking areas along the emergency vehicle access route are reported to the local Traffic Authority who, pursuant to the Nova Scotia Motor Vehicle Act, authorizes appropriate signs to be installed.~~ The property owner must work with the Fire Marshall's office to determine appropriate signage requirements.

What are the issues?

- The Fire Marshall determines which areas are to be designated as fire lanes.
- ~~The Traffic Authority gives approval for appropriate signs to be installed.~~
- The property owner must pay for the signs and the associated installation costs.
- New developments may be required to have fire lanes established prior to the issuance of an occupancy permit.
- ~~The property owner and the Traffic Authority enter into a Fire Lane Agreement governing the purchase, installation, and maintenance of the signs.~~
- ~~Parking enforcement personnel monitor the fire lanes similar to on-street parking control.~~ In some cases, property owners may have personnel deputized to enforce parking regulations or property owners may report violations to HRM Parking Enforcement by calling 3-1-1.
- Offending vehicles may be ticketed and/or towed away at the owner's expense.



6.6 Angled Parking

What is it?

Angle parking is the method by which a motorist parks a vehicle at an angle rather than parallel to the curb.

Where do we have it?

The Nova Scotia Motor Act requires that all vehicles are to be parked parallel to the curb except at locations where signs or pavement markings exist to indicate the manner in which angle parking is permitted. Angle parking is not a common practice throughout the Province.

What are the issues?

Angle parking provides a means to maximize the number of parking spaces in an area and should only be permitted where there is a desire or genuine need to accommodate as much on-street parking as possible.

The difficulties and dangers associated with angle parking, such as limited visibility for drivers and lack of room to exit the space, make parallel parking a safer and more popular choice.

Due to these safety considerations, angle parking should only be permitted on streets which have an excessive width and relatively low traffic volumes. One-way traffic flow is also a benefit when considering implementation of angle parking.

7. WARNING & INFORMATION SIGNS



January, 2018

7.1 School Area Signs

What are they?

School Area signs are regulatory pentagon-shaped signs that may be used in advance of a school ground.



What are the issues?

Beginning September 1st, 2012, new provincial legislation went into effect regarding school area speed limits in Nova Scotia:

1. Where the posted speed limit immediately prior to entering the school area is 50 km/h, motorists are required to reduce speed to 30 km/h, when children are present in the school area. The end of the school area is marked with an "END SCHOOL AREA" sign.



2. Where the posted speed limit immediately prior to entering the school area is greater than 50 km/h, motorists will continue to be required to reduce speed to 50 km/h, when children are present in the school area.

NOTE:

SCHOOL ZONE SPEED LIMITS ARE ALWAYS IN EFFECT IF A CHILD IS PRESENT WITHIN THE ZONE, OUTDOORS, AND WITHIN 30 METRES OF THE CENTRELINE OF THE ROAD.

When are they used?

School Area signs are not used for high schools. The School Area sign may be used in advance of a school ground to provide advance warning to motorists that they are approaching an area where children walk along or may cross the roadway and that the driver should exercise caution when proceeding through these areas.

Generally, the School Area sign should be erected only where the school property abuts a street or highway. The zone should designate the area where most children will be walking along and/or crossing the roadway. Therefore, it is important that the signs are located within a reasonable distance from the school ground.

7.2 School Bus Ahead Sign



What are they?

The “*School Bus Stop Ahead*” sign indicates to drivers that they are approaching a school bus stop.

Where are they used?

The “*School Bus Stop Ahead*” sign may be installed in advance of school bus stops which have less than the minimum stopping sight distance and cannot be relocated to a location with adequate visibility. Roadway curvature and foliage are factors that may restrict stopping sight distance. A supplementary tab may be used to indicate the distance to the bus stop.

What are the issues?

Due to the large numbers of school bus stops throughout the municipality, it is important that the signs are used at only those locations where they are most needed. The integrity of the signs may be jeopardized if used indiscriminately. The consequences may be that the sign will lose its effectiveness and be ignored in a critical situation. Uniform application throughout HRM is important to maintain driver respect.

7.3 Playground Area Signs



What are they?

The Playground Area sign is a warning device that may be used to indicate sections of roads adjoining public playgrounds, where the presence of children on, or near the road, would represent an unexpected hazard to the driver.

What are the issues?

It is important that the signs are used only in advance of public playgrounds that abut the roadway. These signs are not intended to be used in residential areas simply because children may, on a regular basis, play on or near a street even though there isn't a designated playground area. This is a common element on most residential streets and one that doesn't require advisory signage.

7.4 Hidden Driveway Signs

What are they?

The "*Hidden Driveway*" sign is a warning sign which may be erected in advance of private driveways with restricted stopping

sight distance causing an unusual degree of hazard.



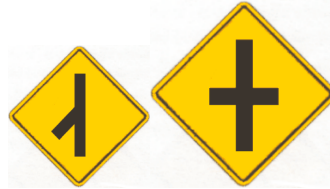
Where are they installed?

'*Hidden Driveway*' signs are typically installed on rural roadways where the presence of driveways might not be expected by the approaching motorist. Where sight distance is restricted due to horizontal or vertical curves in the roadway, the sign may be beneficial to the road user, particularly those who are unfamiliar with the area.

'*Hidden Driveway*' signs are not intended to be installed on residential or low-volume streets where most the traffic is local to the area and the presence of driveways is a common expectation. As with any warning device it is important that this sign be used only where conditions warrant. Too many of these signs will only diminish their effectiveness. If there are several sight restricted driveways on a stretch of highway, one of these signs may be installed with a tab reading "Next # kms", where the # indicates how many kilometres of driving to expect to see sight restricted driveways.

The '*Hidden Driveway*' sign may be supplemented with an '*Advisory Speed*' tab sign at locations where the safe stopping sight distance requirement cannot be obtained.

7.5 Concealed Road Signs



What are they?

Concealed Road signs are intersection warning signs which may be installed where the crossroad is concealed to the extent that a driver would not be adequately prepared for turning movements or cross traffic from a crossroad. For a crossroad intersection with a slight offset the sign should indicate that the side streets are not opposite each other.

Where are they installed?

Concealed Road signs are generally reserved for use on major roadways such as arterials and collectors where it has been determined that vehicles turning from a side street would pose a hazard to an approaching motorist on the major street.

Concealed Road signs are generally not installed within residential areas where vehicle speeds are relatively low and most traffic is local in nature.

7.6 Blind Crest Vertical Visibility Constraint Signs



What are they?

The “*Blind Crest*” sign is a warning sign which may be erected to advise motorists of a section of roadway that due to its vertical alignment causes an unusual degree of hazard.

Where are they installed?

“*Blind Crest*” signs may be used on roadways where the visibility of the motorist is restricted by the vertical alignment and where stopping sight distance is inadequate due to prevailing operating speeds.

The signs are most commonly used on roadways having significant volumes of traffic and higher operating speeds which combined with the alignment constitute a hazard to the motorist. This would include rural highways, collector and arterial roadways.

Generally, we do not install “*Blind Crest*” signs within residential areas where volumes and speeds are both relatively low and most traffic is familiar with the characteristics of the street system.

7.7 Curve Warning Signs

What are they?

Curve warning signs are placed in advance of a horizontal curve in a roadway and are intended to warn drivers of the forthcoming roadway geometry. They consist of a yellow background with a black arrow designating the direction, type and severity of the curve.



Where are they installed?

Curve warning signs are only posted for curves where the safe driving speed of a curve is at least 10 km/h below the posted speed limit. These signs may be supplemented with an advisory speed tab at locations where the speed at which a curve may be safely driven falls 20 km/h below the posted speed limit.

Advisory speeds are posted in multiples of 10 km/h. The Advisory Speed tab is not a regulatory speed zone sign and cannot be enforced by Police.

7.8 No Exit and Cul-de-Sac Signs

What are they?

No Exit and cul-de-sac signs are warning signs posted at the entrance to a street, to inform drivers that they are entering a dead end street or a series of streets from which there is no other exit.



Where are they installed?

- The No Exit sign is used in situations where there is no provision at the end of the street for vehicles to conveniently turn around.
- The cul-de-sac sign is used in situations where there is room, especially for large trucks and service vehicles to conveniently turn around in the bulb at the end of the street.

What are the issues?

- Some streets may receive unnecessary traffic because drivers are not aware that the street is a dead end. The No Exit /cul-de-sac signs are intended to warn drivers of this situation.
- These signs are not required if the end of the street is visible from the intersecting street.

7.9 No Engine Braking Signs



What are they?

These signs indicate to drivers that a diesel engine enhanced braking system may not be used on streets with a speed limit of 50km/h or less unless it is an emergency. These signs are commonly requested by residents in residential areas who are concerned by the noise generated by these brakes.

Where are they installed?

The Nova Scotia Motor Vehicle Act restricts a driver from using an engine enhanced braking system during the normal operation of a vehicle in areas where the maximum speed limit is posted at 50 km/h or less, unless the use of the braking system is required by an emergency.

These signs are installed on major roadways where they enter the HRM core service area and may be considered for installation in site specific chronic problem areas. The signs are not required for enforcement of the regulation.

What are the issues?

- Engine enhanced brakes are a popular and effective aide among drivers to brake a large vehicle. They are used because they reduce the wear and tear and maintenance costs of traditional brake systems. However, engine enhanced brakes result in a very loud noise which can be a nuisance to area residents.
- Increasingly, residential development is occurring in traditional commercial areas where the number and frequency of large trucks along with their associated noise is a regular source of complaint.
- Although the public expectation is that the installation of signs will curb the use of engine enhanced braking systems, this is not the case. The trucking industry is well aware that it is illegal to use engine enhanced brakes in 50 km/h zones.
- Enforcement of the regulation is problematic because only police officers who have received specialized training to identify engine enhanced brakes can issue citations which can withstand a court challenge by the driver.

7.10 Children Playing Signs



What are they?

These signs are commonly requested by residents who are concerned with speeding in residential areas, and want a warning sign to provide protection for their children playing on or near the street.

Why are they not used by HRM Traffic Services?

National standards do not support the use of these signs because they suggest it's okay for children to play on or near the street. This is not something to be encouraged as the safety of children on or near the street cannot be guaranteed.

What are the issues?

Children live on nearly every residential street and this should be an expectation of all drivers. Experience has shown that attempts to warn motorists of obvious conditions have little benefit. Warning signs are most effective when used sparingly to advise motorists of unusual or unexpected conditions ahead.

8. OTHER



January, 2018

8.1 Permits for Parades, Walks, Runs, Marches, etc.

What is required to have a parade in HRM?

Section 90(7) of the Motor Vehicle Act provides that *“No parade, procession or walkathon shall march, occupy or proceed along any highway within the boundaries of a city or town unless a permit has been granted by the Traffic Authority of the city or town prescribing the route to be followed and the time when the parade, procession or walkathon may take place.”*

Traffic Management currently does not charge for a parade permit, however, any costs associated with Police escort or the closing of streets for an event are the sole responsibility of the parade organizers. Events on streets within the HRM Core Service Area (basically the urban areas) must obtain a parade permit from the HRM Traffic Authority, while permits for rural roadways (within HRM but outside the Core Service Area) are issued by the Provincial Central District Traffic Authority. The Provincial Central District Traffic Authority also issues permits for all 100 series highways within HRM. (i.e. Bicentennial Drive, Circumferential Highway, etc.)

To minimize the congestion and delay caused by numerous marches, processions and parades in Downtown Business Districts, the Traffic Authority may refuse to issue permits for on-street events on major routes. Marches and processions may be restricted to sidewalks and/or limited to less busy streets and off-peak times. All on-street events require a Police escort for safety reasons, while sidewalk only events do not require Police presence (although Police assistance may be requested). All arrangements for Police services are the responsibility of the event organizer and must be negotiated in advance with the applicable Police force - either RCMP or Halifax Regional Police depending on the location.

To obtain more information about obtaining a permit for HRM controlled streets, visit <https://www.halifax.ca/transportation/parade-permit-application> or call 3-1-1.

To host an event on streets maintained by NSTIR, call 1-844-696-7737 or contact them by email at tir-occ@novascotia.ca.



8.2 Traffic Mirrors



What are they?

Traffic mirrors are convex mirrors which are placed at the intersection of two streets or at the intersection of a street and a private driveway. The intent of this type of mirror is to assist a driver on a restricted site distance approach to enter the intersection more safely.

Why are they not used by HRM?

The main disadvantages with installing mirrors are maintenance and liability. They are often the target of vandalism and are easily broken. Repeat maintenance is costly in terms of the product and the time required to replace it.

By installing or allowing the installation of a mirror in the street right-of-way, a liability issue may arise. An assumption could be made that the mirror is a safety device, but a driver unfamiliar with the mirror may not properly judge vehicle speeds or distances when using it. As well, a mirror installed in the right-of-way may become a hazard to pedestrians and vehicles should it fall or be vandalized.

What are the issues?

Some residents that have driveways with limited sight distance feel that the installation of a traffic mirror will improve their safety.

8.3 Traffic Calming



What is Traffic Calming?

Traffic calming is the combination of mainly physical measures that reduce the negative effects of motor vehicle use, alter driver behaviour, and improve conditions for non-motorized users.

The HRM Traffic Calming Administrative Order identifies the process for requests to be assessed for the installation of traffic calming measures on residential streets.

Where is it installed?

The HRM Traffic Calming Administrative Order applies only to streets owned by the Municipality that meet the following conditions:

- Are within residential areas;
- Are classified as “local streets” or “minor collector streets”;
- Are two-lane roads;
- Have a posted speed limit not greater than 50 kilometers per hour;
- Are not part of a transit route; and
- Are not part of a primary emergency response route.

If these conditions are met, the review process could continue with data collection, internal stakeholder consultation, Traffic Authority approval, project implementation ranking, and lastly installation. At any step of the review, the process could be terminated pending each result.

What physical measures are considered?

Examples of traffic calming measures that could potentially be considered for implementation include, but are not limited to: speed humps; raised intersections; raised crosswalks; curb extensions; traffic circles/mini roundabouts; on-street parking; raised median islands; etc. The posting of a reduced speed limit (below 50 km/h) would not be considered as part of this AO as there is typically no impact to driver behaviour through the simple posting of a reduced speed limit. Stop signs are not generally used as traffic calming devices, as although they slow traffic down in the immediate area, vehicles tend to accelerate after going through the intersection.

Commented [DJ3]: The AO is currently written this way, however with the large volume of requests it is not practical to poll streets before ranking them. In practice, we have been ranking streets, obtaining TA approval and then polling the top ranked streets.

...Continued

How to apply for traffic calming on your street?

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Residents of a street or Councillors on behalf of a resident(s), may initiate a request for a traffic calming assessment by contacting the HRM Citizen Contact Centre at 311 or online at <https://apps.halifax.ca/311>. Required details include the street name and street limits to be assessed.

More information can be found at:

More information can be found at:

~~For more information about the procedure, residents can visit our website can be found at:~~

<https://www.halifax.ca/transportation/streets-sidewalks/traffic-calming-safer-streets>