

SCHEDULE 1

AFFECTED HIGHWAY PROTOCOL

This Schedule describes the protocol for maintenance, repair and rehabilitation responsibilities of Highway 407 at interchanges, overpasses and underpasses.

1. Definitions

Unless otherwise specified or the context otherwise requires, for the purposes of this Schedule the following terms have the following meanings:

“Concession Agreement” means the Highway 407 Concession and Ground Lease Agreement between the Crown in Right of Ontario as represented by the Minister without Portfolio with responsibility for Privatization and Ontario Transportation Capital Corporation pursuant to which the Concessionaire is granted a concession to operate Highway 407.

“Maintenance of the Surface” means minor repairs, cleaning and other regular, routine activities which are required to keep the Surface of a highway in a safe, usable condition, including shoulder gravelling, dragging and washout repairs; minor pavement and sidewalk repairs; pot-hole patching, crack sealing depression or settlement repairs; sweeping, washing or flushing of bridge surfaces and expansion joints; winter maintenance (e.g. snow plowing snow removal, de-icing and maintenance of continuous through lanes), repainting or restoration of pavement markings; sign repair and replacement; repair of damaged guide rails (including concrete barriers) and other roadside hazard protective devices; debris and litter pick-up; roadside vegetation control; repair or clean-out of drainage facilities such as sewers, catch basins, curbs and gutters, sub-drains, gutter outlets, and ditches; and relamping or repair of illumination systems.

“Management” means development, planning, design, construction, operation, maintenance and rehabilitation, and Manage has a corresponding meaning;

“Minister” means the minister of transportation for Ontario.

“Municipal Highway” means any Ontario highway or road owned by a municipality.

“Provincial Highway” means any Ontario highway owned by the Province.

“Rehabilitation” means major repairs, improvements and complete replacement of highway infrastructure elements and the upgrading of certain elements to a higher or more up-to-date standard including pavement resurfacing; bridge deck rehabilitation, replacement and waterproofing; repairs to structural components of the bridge including all repairs to the railing systems, parapet walls and barrier walls, expansion joints, approach slabs or supporting members; upgrading or complete replacement of guide rail or illumination systems; replacement of painted

pavement markings with durable markings; improving or replacing curb and gutter, storm sewers and catch basins; and improvements intended to remove operational, safety or geometric deficiencies.

“**Responsibility**” means the duty to do work or to ensure that such work is performed, as well as the obligation to pay the costs associated with any work, maintenance or rehabilitation, and Responsible has a corresponding meaning;. While the duty related to performance of any work may be transferred to another party by mutual consent, the obligation to pay the costs of such work remains with the Responsible party.

“**Surface**” means the part of a highway required for the passage of vehicles and pedestrians, and includes traveled lanes and shoulders whether paved or not, boulevards, sidewalks, medians, and any appurtenances necessary for the illumination and drainage of the road surface, for the passage of vehicles and for the safety of road users.

2. Other Definitions

Capitalized terms used in this Schedule but not defined herein have the meaning ascribed to them in the Concession Agreement.

3. General

The Grantor shall continue to Manage all Provincial Highways. The Concessionaire shall be Responsible for the Management of Highway 407. Subject to the following sentence, the Grantor shall have the Responsibility for the Maintenance of the Surface of Provincial Highways which intersect or cross over or under Highway 407. The Concessionaire shall be Responsible for the costs of Management of Provincial Highways and Municipal Highways intersecting or crossing over or under Highway 407 when such Management is directly and specifically required because of the existence of Highway 407. The Concessionaire may negotiate alternate arrangements with the Grantor with respect to the performance of specified Management activities at specific locations. The obligation to pay for the costs and expenses of such Management shall be negotiated between the Grantor and the Concessionaire.

The Concessionaire, in consultation with the Grantor and the municipalities, shall develop any emergency response plans required by Laws and Regulations.

The Grantor and the Concessionaire shall work co-operatively on planning and engineering activities affecting areas of mutual concern. Prior to commencing Work on any Provincial Highway the Concessionaire shall submit drawings of any proposed Work to the Grantor for its Approval and will perform all Work in accordance with those Approved drawings. Prior to commencing any Work on any Provincial Highway that crosses Highway 407 the Grantor shall provide information relating to any such proposed Work to the Concessionaire and shall perform all such Work in accordance with the information provided.

The Concessionaire shall work co-operatively with any municipality on planning and engineering activities affecting areas of mutual concern with respect to Municipal Highways and Highway 407. The Concessionaire shall hold regular meetings with the transportation staff of the municipalities

traversed by Highway 407 in order to co-ordinate the operation of Highway 407 with municipal responsibilities relating to Municipal Highways.

The Concessionaire may negotiate alternate arrangements with a municipality with respect to the performance of specified maintenance and rehabilitation activities at specific locations. The payment of the costs of such maintenance shall be negotiated between the municipality and the Concessionaire.

The Responsibilities of the Grantor or municipality and the Concessionaire with respect to interchanges of Provincial Highways or Municipal Highways with Highway 407 shall be as shown in Figures 1 and 2.

4. Responsibilities If Provincial or Municipal Highways Intersect or Cross Over or Under Highway 407

The following are Responsibilities of the Grantor, a municipality and the Concessionaire for highway maintenance at locations where Provincial Highways or Municipal Highways intersect or cross over or under Highway 407.

The authority that has jurisdiction and control over the road crossing Highway 407 is Responsible for the Maintenance of the Surface of that highway.

The Concessionaire shall be Responsible for:

- maintenance, repair and rehabilitation of Highway 407, and the cost of maintenance, repair and rehabilitation required on Provincial Highways and Municipal Highways (including interchange ramps, and speed change lanes) because of the existence of Highway 407;
- maintenance, repair, and rehabilitation of structures that are part of Highway 407 or deemed to be part of Highway 407 pursuant to the *Highway 407 Act*, including bridge structures, footings, abutments, piers, bearings, expansion joints, ballast walls, approach slabs, retaining walls, parapet walls and handrails;
- winter maintenance of auxiliary or speed change lanes adjacent to the Provincial Highways and Municipal Highways that lead to or from Highway 407 interchange ramps;
- costs of maintenance, operation, rehabilitation and energy for traffic signals and illumination systems on Provincial Highways and Municipal Highways, if they are directly and specifically required because of Highway 407;
- costs of maintenance and rehabilitation of Highway 407 signage on Provincial Highways and Municipal Highways;

- costs of maintenance of pavement markings specifically related to interchange ramp connections to the Provincial Highways and Municipal Highways, e.g. stop blocks, crosswalks, and turn arrows; and
- inspection and identification of deficiencies on Highway 407 for which the Concessionaire has maintenance and rehabilitation Responsibility.

The Grantor or municipality shall be Responsible for:

- maintenance of the Surface of any Provincial Highway or Municipal Highway that crosses Highway 407, except for items specified above as the Concessionaire's Responsibility;
- winter maintenance of the continuous through lanes of Provincial Highways or Municipal Highways in interchanges;
- rehabilitation of the Surface of Provincial Highways or Municipal Highways, excluding bridge structures which are a part of or deemed to be a part of Highway 407;
- maintenance and energy costs of illumination systems on Provincial Highways or Municipal Highways that are not directly and specifically required because of the existence of Highway 407;
- all other maintenance and repair activities related to Provincial Highways or Municipal Highways not specifically mentioned above; and
- inspection and identification of deficiencies on all Provincial Highways or Municipal Highways and on provincial or municipal portions of interchanges for which it has maintenance and Rehabilitation Responsibility.

The Concessionaire, the Grantor and any municipality shall co-ordinate operation and maintenance activities in the vicinity of Provincial Highway or Municipal Highway intersections or crossings to ensure the travelling public does not experience abrupt changes to driving conditions.

Beyond the Highway 407 ramp exit bullnose and in advance of the Highway 407 ramp entrance bullnose, where a Highway 407 ramp runs parallel to a Provincial Highway or a Municipal Highway, the boundary of Responsibility shall be two (2) metres to the right of the ditch line between the roadways, or two (2) metres to the right of the toe of the slope where no identifiable ditch exists. Each party shall maintain its roadway and the roadside area to the right of the roadway down to the first ditch plus two (2) metres beyond, such that all culverts, catch basins and ditch inlets in the ditch form part of the Responsibility.

Major drainage structures such as box culverts and storm sewer tunnels, which pass under either a Provincial Highway or a Municipal Highway and Highway 407 shall be treated as follows:

- maintenance of the inlet and outlet of the structure shall be done by the party within whose roadside area the inlet or outlet is located.

- regular inspection and taking inventory of the entire drainage structure shall be done by the party within whose roadside areas the inlet or outlet are located.
- major repairs and rehabilitation costs of drainage structures shall be apportioned on the basis of how much of the length of such drainage structures lies under the roadway of each party. Determination of who performs the work shall be done at the time that such work occurs.

Within the following Provincial Highway interchanges, the Concessionaire shall have Responsibility for the following items, to the extent set out below:

Highway 400 interchange

Southbound ramp lanes exiting to Highway 407 beginning at Station 12+700 as a single lane developing into two (2) right lanes and eventually into a third either/or lane at the bullnose at Station 12+166.

The roadside area to the right of the above zone, which includes a concrete barrier wall and a paved boulevard separating the ramp lanes from the Grantor collector lane, out to but not including the back face of the concrete barrier on the Grantor southbound collector.

Southbound ramp lanes entering from Highway 407 beginning at bullnose at Station 19+350 as two lanes, which taper to one (1) lane at the south limit of Highway 407 at Station 18+734.

Northbound ramp lanes exiting, to Highway 407 beginning at Station 18+685 as a single lane, developing, into a second either/or lane at the bullnose at Station 19+275.

Northbound lanes entering from Highway 407 beginning at the bullnose at Station 12+1200 as 3 lanes enter, tapering to 2 lanes at the end point at Station 12+730.

From Station 12+200 to Station 12+360 for the concrete barrier wall and paved boulevard area to the right of the ramp lanes, out to but not including the back face of the concrete barrier wall along the Grantor northbound collector.

Highway 404 Interchange

Southbound ramp lanes exiting to Highway 407 beginning at the Highway 7 southbound exit bullnose at approximately Station 14+680, as a single lane which widens to two lanes at the bullnose at Station 14+140 just south of Highway 7).

Southbound ramp lanes entering from Highway 407 beginning at bullnose at Station 12+790, where two lanes enter and taper down to one (1) lane at the end point at Station 12+340.

Northbound ramp lanes exiting to Highway 407 beginning at Station 1 1+995 as a single lane that widens to two (2) lanes at bullnose Station 12+340.

Northbound ramp lanes entering from Highway 407 beginning at bullnose at Station 14+063, where two (2) lanes enter and taper down to none at the end point at Station 14+700 just south of the Highway. 7 northbound entrance ramp bullnose.

Highway 427 Interchange

Northbound ramp lanes exiting to Highway 407 beginning at Station 16+850 as a single lane, widening to three (3) lanes at bullnose at Station 17+290.

Northbound ramp entering from Highway 407 eastbound beginning at bullnose Station 18+135, tapering to nothing at Station 18+210.

Northbound ramp entering from Highway 407 westbound beginning at bullnose Station 18+645, ending where three (3) continuous lanes begin at Station 18+830.

Southbound ramp lane exiting to Highway 407 westbound beginning at start of taper Station 18+882, continuing to single lane exit at bullnose Station 18+537.

Southbound ramp lane exiting to Highway 407 eastbound beginning at start of taper Station 18+100, continuing to single lane exit at bullnose Station 17+975.

Southbound ramp entering from Highway 407 beginning at bullnose Station 17+435 where two (2) lanes enter, continuing to beginning of three (3) continuous lanes at Station 17+065.

Highway 410 Interchange

Northbound ramp lanes exiting to Highway 407 beginning at start of taper Station 7+632 developing a single lane and then widening to two (2) lanes at the bullnose Station 8+155.

Northbound ramp entering from Highway 407 beginning at bullnose Station 9+977 where two (2) lanes enter, tapering to a single lane at the end point Station 10+350 (where 4th continuous lane begins).

Southbound ramp lanes exiting to Highway 407 beginning at Station 10+200 as a single lane, widening to two (2) lanes at bullnose Station 9+722.

Southbound ramp entering from Highway 407 beginning at bullnose Station 3+075 where two (2) lanes enter, tapering down to nothing at the end point Station 7+320.

Highway 401 Interchange

Eastbound 401 ramp lane exiting to Highway 407 eastbound beginning at the start of taper at 401 Station 17+470, developing a single must-exit lane, which ends at bullnose at Station 18+007.

Eastbound 401 ramp lane exiting to Highway 407 southbound (westbound) beginning at start of taper at 401 Station 16+755, developing a single exit lane, which ends at bullnose at Station 17+100.

Westbound 401 ramp lane exiting to Highway 407 southbound (westbound) beginning at end of continuous auxiliary lane at 401 Station 18+915 and ending at bullnose at Station 18+77 1.

Ramp lane entering westbound 401 from Highway 407 westbound beginning at bullnose at 401 Station 17+334 and ending at end of taper Station 16+887.

Ramp lane entering westbound 401 from Highway 407 northbound (eastbound) beginning at bullnose at 401 Station 18+181 and ending at end of taper Station 17+807.

Ramp lane entering eastbound 401 from Highway 407 northbound (eastbound) beginning at bullnose at 401 Station 18+603 and ending at the beginning of the continuous auxiliary lane at Station 18+833.

Hwy. 403 Interchange

Eastbound 403 ramp lane exiting to Highway 407 northbound (eastbound) beginning at start of taper at Station 9+770 and ending at bullnose at Station 10+305 (ramp chainage).

Westbound 403 ramp lane exiting to Highway 407 northbound (eastbound) beginning at end of continuous auxiliary lane at Station 10+000 and ending at bullnose at Station 10+164 (ramp chainage).

Ramp lane entering eastbound 403 from Highway 407 southbound (westbound) beginning at bullnose at 403 Station 10+523 and ending at end of taper Station 10+968 (ramp chainage)

Ramp lane entering southbound (westbound) 403 from Highway 407 southbound (westbound) beginning at bullnose at 403 Station 12+065 and ending at end of taper Station 12+514 (ramp chainage).

5. Property Acquisition

The Province retains the power of expropriation for property needed for the Management of Highway 407 by the Concessionaire. The Province agrees to exercise its rights of expropriation upon the request of the Concessionaire in accordance with Section 2.22 of the Concession Agreement. All property expropriated shall be delivered to the Concessionaire in accordance with Section 2.23 of the Concession Agreement.

6. Coordinating with Municipalities

Without limiting the ability of the Grantor to issue Change Orders, the Concessionaire shall meet with officials of the Grantor and adjacent municipalities as required, but no less than twice per year, co-operatively to co-ordinate Management activities on Highway 407, and to negotiate joint cost sharing arrangements where applicable.

7. Interchange Work

When the construction or reconfiguration of an interchange or intersection with Highway 407 or any underpass, overpass or tunnel over or under Highway 407 is required by the Grantor or a municipality in the interest of an integrated transportation network, the Concessionaire is required to permit such work to proceed. Where such work is identified in the Concession Agreement as Work to be completed by the Concessionaire or where the Concessionaire initiates such work, the Concessionaire shall pay the full cost of such work subject to and in accordance with the provisions of the Concession Agreement. When the construction or reconfiguration of an interchange or intersection with Highway 407 or any underpass, overpass or tunnel over or under Highway 407 is required by the Concessionaire and a municipality in the interest of an integrated transportation network, the Concessionaire shall obtain the Grantor's Approval for such work.

If the Grantor wants to advance the construction of any such work which is identified in the Concession Agreement as Work to be completed by the Concessionaire, the Grantor shall pay the increase in costs (including, without limitation, any increased costs associated with advancing the financing such work) resulting from advancing such work. If a municipality wants to advance the construction of any such work which is identified in the Concession Agreement as Work to be completed by the Concessionaire, the municipality shall pay or provide security which the Concessionaire deems satisfactory for the payment of the increase in costs (including, without limitation, any increased costs associated with advancing the financing such work), resulting from advancing such work. The Concessionaire shall not be required to commence such work until the municipality provides such payment or security.

If any Work is initiated by the Grantor the Grantor shall pay the costs and expenses of such Work. If any Work is initiated by a municipality the Concessionaire shall not be required to commence such work until the municipality shall agree to pay the costs and expenses of such Work and provide security for such payment which the Concessionaire deems satisfactory. If it is determined that any such Work initiated by a municipality or the Grantor will have a negative effect on Toll Revenues, the municipality or the Grantor shall pay for any Losses caused by such Work. Calculation of Losses attributable to any Work shall take into account the time value of money based on the Concessionaire's cost of funds, including the cost of any funds required to undertake such Work. Before the Concessionaire is obligated to undertake any Work, the Concessionaire shall provide a detailed budget to the party requesting the Work setting out the costs of such Work and the projected effect such Work will have on Toll Revenues. The party requesting the Work shall review and comment on this budget. If the parties cannot agree on any element of the budget, the matter shall be arbitrated as provided in Section 8.

If such work will result in a net increase in Toll Revenues which would not have occurred in the absence of the completion of such work, the Concessionaire shall pay to the Grantor a fair and equitable portion of the actual cost of engineering, design and construction of such work (the "Concessionaire's Share"). In no event, however, shall the Concessionaire's Share exceed the net present value of the net increase in Toll Revenues referred to above.

The amount of the Concessionaire's Share and terms of payment shall be agreed upon between the Grantor and the Concessionaire. Failing such agreement, the obligation of the Concessionaire to pay any amount pursuant to this section and the amount of any Concessionaire's Share for which the Concessionaire is liable shall be determined by dispute resolution as provided in Article 25 of the Concession Agreement.

Subject to any agreement made between the Grantor and the Concessionaire as to the terms of payment for the Concessionaire's Share, the Concessionaire shall have the option to pay the Concessionaire's Share to the Grantor forthwith after the amount of the Concessionaire's Share is finally determined or on an amortized basis in equal annual installments over the 20 year period following the date of final determination of the Concessionaire's Share. In the event that the Concessionaire elects to pay the Concessionaire's Share on such amortized basis, payments shall be made annually in 20 equal installments commencing on the first anniversary date after of final determination of the Concessionaire's Share. Such annual installments shall include interest on the unpaid balance of the Concessionaire's Share at the Bank Rate in effect at the end of the first day of the last month of the quarter preceding the quarter in which the date of final determination of the Concessionaire's Share falls, plus three (3%) per cent, calculated semi-annually not in advance.

8. Traffic Information

The Concessionaire shall provide, at no cost to the Grantor, the following traffic information to the Grantor:

1. Ramp Counts at Intersecting Provincial Highways

Hourly breakdowns are required for a full 7-day period. In order to provide seasonal variation of these counts, these counts are to be provided 3 times per year (spring, summer and fall).

2. Hwy 407 Mainline Link volumes at Intersecting Provincial Highways

Calculation of average annual daily traffic, summer average daily traffic, summer average weekday traffic, and winter average daily traffic volumes including directional split, design hourly volume percent and commercial percent. These volumes are required on both approaches to each intersecting Provincial Highway.

3. Detailed Count Data for Mainline Sections at Intersecting Provincial Highways

Hourly, directional counts over a 7-day period. These counts are required 3 times per year (spring, summer and fall). These volumes are required on both approaches to each intersecting Provincial Highway.

4. Traffic Information

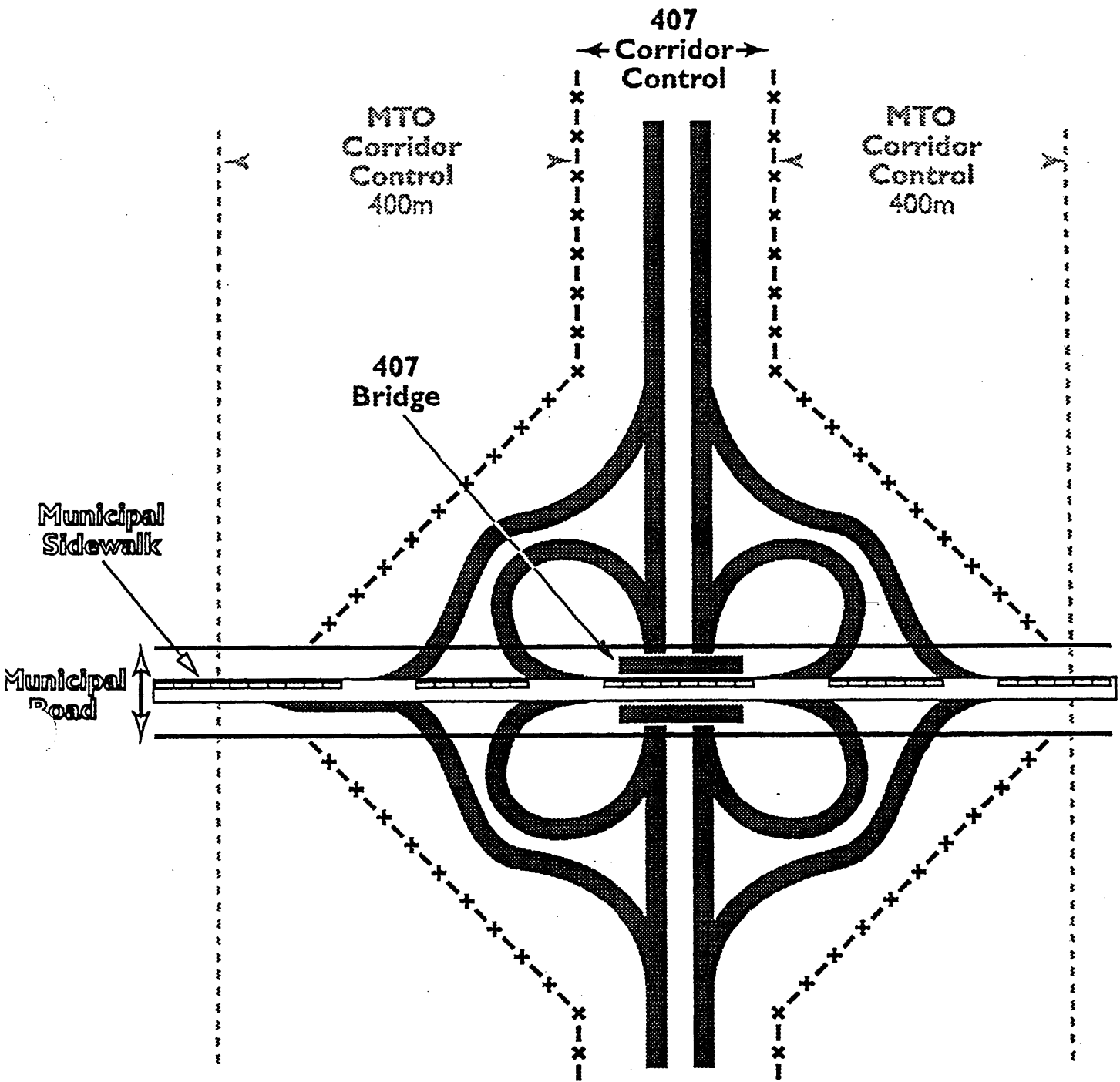
The Concessionaire shall also provide, at no cost to the Grantor, the same type, format and frequency of information required in subsections 8(1), 8(2) and 8(3) at intersecting Municipal Highways, if requested by the municipality or by the Grantor.

9. Dispute Resolution

Where the Concessionaire is not able to resolve a dispute with a municipality related to one of the matters which are permitted by the *Highway 407 Act* to be referred to the Minister, the Concessionaire may advise the municipality that the matter may be referred to the Minister and thereafter the Concessionaire may refer such matter to the Minister. When any such matter is referred to the Minister, the Minister may authorize the Concessionaire to undertake the proposed action including authorizing the Concessionaire to do anything that the Minister of Transportation of Ontario would be permitted to do under section 6 of the *Public Transportation and Highway Improvement Act*.

With respect to any matter referred to the Minister, the Minister shall not determine the damages to which either party is entitled. With respect to any unresolved dispute over damages with a municipality, or with respect to any other disputes, the Concessionaire shall, by notice, offer the municipality the opportunity to use a form of alternative dispute resolution, such as mediation, binding or non-binding arbitration or the dispute resolution provisions of Article 25 of the Concession Agreement. If within thirty (30) days of receipt of the Concessionaire's notice the municipality has not indicated that it agrees to use such alternate dispute resolution, then any party to the dispute may use any other alternative permitted by Laws and Regulations, including an application to a court.

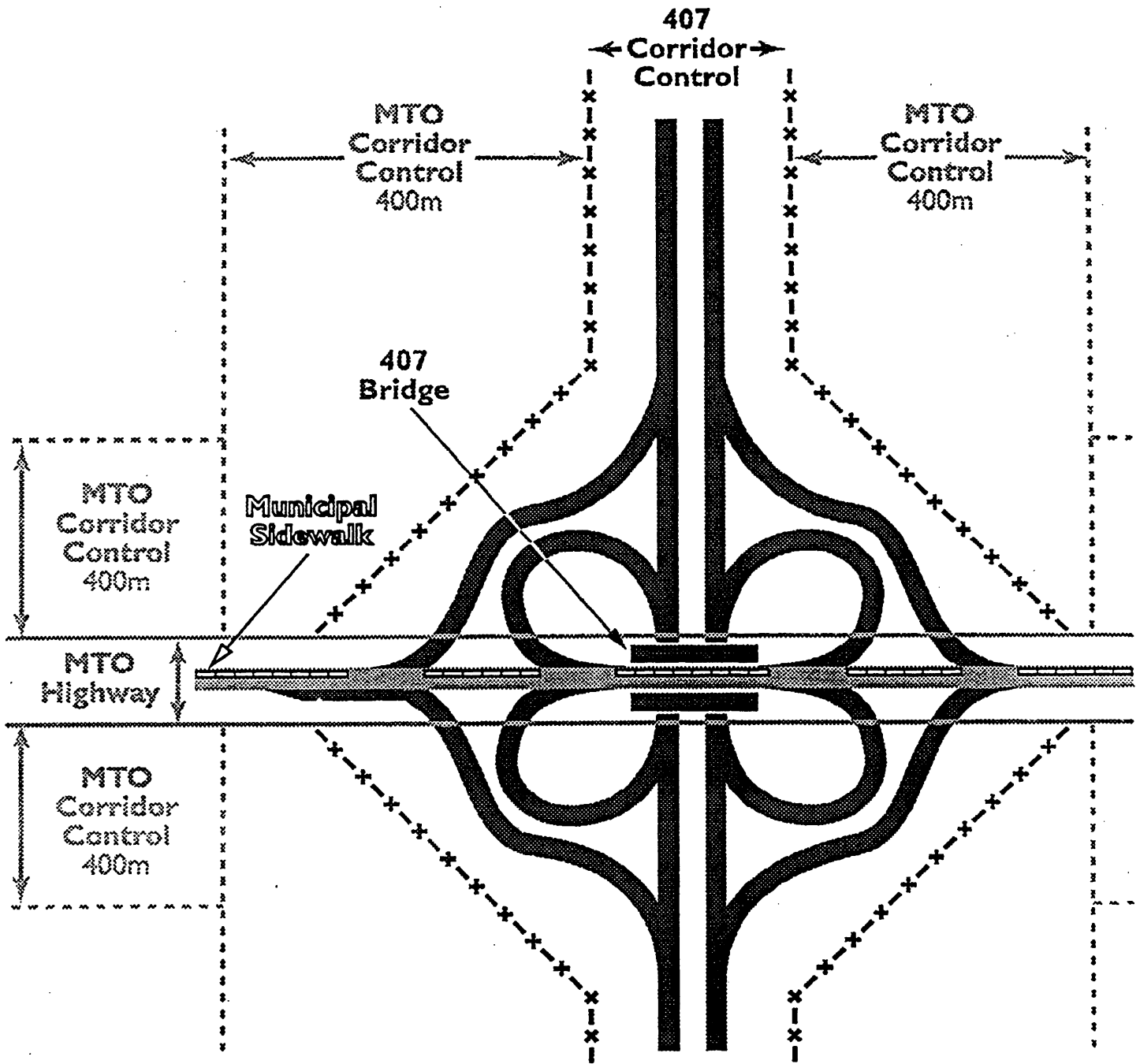
Figure 1






- 407 Responsibilities
- Municipal Responsibilities


**407 / Municipal Road
Corridor Management
Maintenance Responsibilities**

 **Ontario**
Ministry of Transportation
Engineering Standards Branch
Corridor Policy Office



-  407 Responsibilities
-  MTO Responsibilities
-  Municipal Responsibilities

**407 / MTO Highway
Corridor Management
Maintenance Responsibilities**

 **Ontario**
Ministry of Transportation
Engineering Standards Branch
Corridor Policy Office

