

chapter C-24.2, r. 51

Regulation respecting road vehicles adapted for the transportation of handicapped persons

Highway Safety Code
(chapter C-24.2, s. 621, par. 2.1).

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DIVISION I

GENERAL

1. Any bus or minibus manufactured after 1 January 1994 and used mainly for the transportation of handicapped persons shall meet the minimum safety standards set out in this Regulation.

Notwithstanding the foregoing, the first paragraph does not apply to a minibus used for personal purposes by a handicapped person or for such person.

O.C. 1058-93, s. 1.

2. Unless indicated otherwise in this Regulation, compliance with the minimum standards prescribed herein is incumbent upon the owner of the vehicle.

O.C. 1058-93, s. 2.

DIVISION II

MINIMUM STANDARDS WITH RESPECT TO CONSTRUCTION OR DESIGN

§ 1. — *General standards*

3. A bus or minibus shall be designed in such a way that the axial loads and the total loaded mass do not exceed those indicated by the chassis manufacturer.

To determine those loads and that mass, the following weights are fixed for each space occupied:

(1) 70 kg for the driver and for each ambulatory passenger, in other words, each passenger able to move about without a wheelchair;

(2) 150 kg for each passenger in a wheelchair.

O.C. 1058-93, s. 3.

4. The structure of the body of a bus or minibus shall be made of steel or of a similar material at least as resistant as steel; it shall be capable of supporting one and one-half times the curb mass of the vehicle.

O.C. 1058-93, s. 4.



The application of this section concerning the minimum standards for the construction of the structure of the body and roof of a bus or minibus used for the transportation of handicapped persons with respect to a bus or minibus that complies with the requirements provided for in section 6.16 of CSA Standard D-409-16, "Motor vehicles for the transportation of persons with physical disabilities", published by the Canadian Standard Association is suspended. (M.O. 2019-21, s. 1)

5. The roof of a bus or minibus shall be built with steel bows capable of supporting one and one-half times the curb mass of the vehicle and of preventing the vehicle from breaking up in the case of an accident.

O.C. 1058-93, s. 5.



The application of this section concerning the minimum standards for the construction of the structure of the body and roof of a bus or minibus used for the transportation of handicapped persons with respect to a bus or minibus that complies with the requirements provided for in section 6.16 of CSA Standard D-409-16, "Motor vehicles for the transportation of persons with physical disabilities", published by the Canadian Standard Association is suspended. (M.O. 2019-21, s. 1)

6. The chassis frame side-rails of a bus or minibus may not be cut or extended unless those alterations are guaranteed by the body manufacturer.

O.C. 1058-93, s. 6.

7. The capacity of each suspension component of a bus or minibus shall be in proportion to the vehicle's total loaded mass.

The front and rear shock absorbers shall be double action.

O.C. 1058-93, s. 7.

8. Metal guards shall be installed over and under the drive shaft to prevent it from perforating the floor or from dropping to the ground if it breaks or becomes detached.

O.C. 1058-93, s. 8.

9. The gas exhaust shall not be located under an access door of a bus or minibus.

O.C. 1058-93, s. 9.

10. The alternator shall have an output of not less than 100 amperes when the engine of the bus or minibus is running at its maximum speed and of not less than 40 amperes when the engine is idling.

O.C. 1058-93, s. 10.

11. The battery shall have a cold crank rating of not less than 450 amperes at -18°C with a minimum reserve capacity rating of 140 minutes.

O.C. 1058-93, s. 11.

12. The heating system shall be capable of providing a volumetric thermal capacity of not less than 0.9 kWh/m³ to the entire part of the compartment reserved for passengers.

It shall be capable of maintaining a minimum inside temperature of 16°C when the outside temperature is -18°C, the engine is idling and the ambient air is moving at a maximum speed of 5 km/h.

For the purposes of the second paragraph, the inside temperature shall be measured at a point located between 40 cm and 45 cm from the floor, at the centre of the bus or minibus.

O.C. 1058-93, s. 12.

13. The heating system supply lines shall comply with the following requirements:

- (1) they shall be solidly attached so as to protect them against wear due to vibrations;
- (2) they shall not be suspended from the chassis nor rub against it or any sharp edge that might damage them;
- (3) inside the passenger compartment, they shall be sufficiently shielded to avoid any burn to the driver and passengers in the case of breakage.

O.C. 1058-93, s. 13.

14. A bus or minibus shall be equipped with a safety locking device preventing any person other than the driver from starting the vehicle.

O.C. 1058-93, s. 14.

§ 2. — *Doors and emergency exit*

15. The passenger access doors of a bus or minibus shall be located on the right side of the vehicle. The emergency exit shall be located at the rear, or, if the motor of the vehicle is located at the rear, on the left side as close as possible to the rear. The doors and the emergency exit shall be equipped with an automatic light and be capable of being opened manually at all times.

O.C. 1058-93, s. 15.

16. The access door for ambulatory passengers shall be glazed over a surface of not less than 60% of its area.

In the case of a swing-type door, the vertical edges shall be covered with flexible padding.

The height of the access door shall allow for an opening of not less than 178 cm, and its width shall allow for an opening of not less than 61 cm at its narrowest part.

O.C. 1058-93, s. 16.

17. The access door for ambulatory passengers shall be equipped with a locking and unlocking device that can be activated from the driver's station, and it shall be designed to prevent any accidental opening or closing.

Components for the mechanisms of that device shall be installed so as to prevent any risk of injury to the driver and passengers.

O.C. 1058-93, s. 17.

18. Grab rails placed not less than 90 cm nor more than 1 m from the ground shall be installed to help passengers get on or off a bus or minibus.

Where those rails are attached to the door for ambulatory passengers, they shall be installed so that they are maintained inside the vehicle at all times.

O.C. 1058-93, s. 18.

19. The access door for passengers in wheelchairs shall be not less than 145 cm high and its width shall provide for an opening that is sufficient to allow the installation of a power lift platform or a loading ramp.

O.C. 1058-93, s. 19.

20. That door shall be equipped with a locking or unlocking device designed to prevent any accidental opening or closing.

It shall also be equipped with a device to hold it in place when it is opened.

O.C. 1058-93, s. 20.

21. That door shall bear on the outside the words “NE PAS STATIONNER À MOINS DE 3 MÈTRES DE CE CÔTÉ”. The lettering shall be not less than 25 mm high and shall be of a colour contrasting with that of the bus or minibus.

O.C. 1058-93, s. 21.

22. The emergency exit shall be not less than 135 cm high nor less than 81 cm wide. Notwithstanding the foregoing, it shall not be less than 145 cm high if it is located at the rear and is used other than in an emergency.

No fixed object shall obstruct that exit and the upper part of its frame shall be padded.

O.C. 1058-93, s. 22.

23. That exit shall consist of a door that opens toward the outside and whose opening mechanism is capable of being activated from the inside by a person using a force of at least 180 N.

The door shall be capable of being opened from the inside and from the outside, and its operating instructions shall be posted on it both inside and outside the bus or minibus.

O.C. 1058-93, s. 23.

24. The emergency exit door shall be connected to an indicator light installed on the instrument panel or shall be equipped with a buzzer.

O.C. 1058-93, s. 24.

25. The words “PORTE DE SECOURS, EMERGENCY DOOR” shall appear both inside and outside the passenger compartment of a bus or minibus. The words shall be located directly above the emergency exit and the lettering shall be not less than 50 mm high and of a colour contrasting with that of the body of the bus or minibus.

O.C. 1058-93, s. 25.

26. Any door with an electrical opening mechanism shall be capable of being opened manually in the case of a defect in the mechanism.

O.C. 1058-93, s. 26.

§ 3. — *Passenger compartment*

27. The clearance in the part of the passenger compartment reserved for passengers, measured at the centre of the bus or minibus on the longitudinal axis and between the vertical axes, shall be not less than 183 cm.

That clearance shall be maintained over an area not less than 30 cm wide on either side of the longitudinal axis and for the full length of that axis; clearance may not be less than 152.5 cm along the lateral walls.

O.C. 1058-93, s. 27.

28. Subject to section 31, the inside of the passenger compartment shall not contain any protuberances and shall be sound-proofed with a non-combustible insulating material with a thermal resistance factor of not less than 0.53 W/(m°C).

O.C. 1058-93, s. 28.

29. The floor of the passenger compartment shall be made of steel sheet metal of 14-gauge thickness, shall be riveted, bolted or welded to the bus or minibus structure and shall be sealed so as to prevent any infiltration of vapours or fumes.

O.C. 1058-93, s. 29.



The application of the requirement provided for in this section, with respect to a bus or minibus whose passenger compartment floor is made of a material with mechanical properties equivalent or better than those of a steel sheet metal of 14-gauge thickness, is solidly attached to the structure of the vehicle and is sealed so as to prevent any infiltration of vapours or fumes is suspended. (M.O. 2019-21, s. 2)

30. The floor shall be covered with plywood not less than 13 mm thick, consisting of 5 sheets, or with any other hardwood or material having at least the same properties of resistance and insulation, and shall be bonded with metal screws or nuts and bolts.

No particle board shall be used in bus or minibus floor coverings.

O.C. 1058-93, s. 30.

31. The floor shall have no protuberances except for the location of the wheels, power lift platform, driver's seat and the securement devices for wheelchairs.

O.C. 1058-93, s. 31.

32. The floor and step covering shall be permanently bonded by a waterproof adhesive. It shall be made of rubber or a material having the same properties and shall have a static friction coefficient equal to or greater than 1.0, measured in accordance with the testing method described in Standard ONGC1-GP-192 of the Canadian General Standards Board.

That covering shall contain smoke inhibitors and shall be fire-retardant.

O.C. 1058-93, s. 32.

33. The windows located in the lateral walls shall be not less than 50 cm high. The bottom of the windows shall be at a height of not more than 1 m measured from the floor of the passenger compartment.

There shall be at least 2 windows per wall each providing an opening of 350 cm² or more.

O.C. 1058-93, s. 33.

§ 4. — *Seats and restraining barriers*

34. Seats in a bus or minibus shall comply with the following standards:

(1) they shall be not less than 40 cm nor more than 48 cm high measured from the floor to the top of the seat;

(2) they shall be sufficiently wide so that each passenger has a space of not less than 44.5 cm;

(3) they shall have seat bottoms not less than 38 cm nor more than 43.5 cm deep;

(4) they shall have seat backs not less than 51 cm high;

(5) they shall each be capable of withstanding a breaking force in any direction resulting from a deceleration of 20 g;

(6) they shall be located at a distance of not less than 70 cm from one another measured horizontally between the seat backs and at the centre of those seat backs.

O.C. 1058-93, s. 34.

35. Where a seat is situated with its back against one of the side walls, it shall be equipped with 2 armrests; where it is located next to a restraining barrier, only the side opposite that barrier shall be equipped with an armrest.

O.C. 1058-93, s. 35.

36. Folding seats with a seat back may also be installed in a bus or minibus.

The bottoms of the folding seats shall be capable of folding up and remaining in that position when not in use.

Each folding seat shall be capable of withstanding a breaking force in any direction resulting from a deceleration of 20 g.

O.C. 1058-93, s. 36.

37. Two restraining barriers shall be installed, one behind the driver's station and the other adjacent to the steps, so as to leave a free space of not less than 70 cm between the barrier and the back of the first seat. Those barriers shall comply with the following standards:

- (1) they shall be not less than 78.5 cm nor more than 90 cm high measured from the floor;
- (2) they shall be capable of withstanding a breaking force of 450 N in any direction;
- (3) they shall be equipped, on the upper part, with handrails with a diameter not exceeding 50 mm, including their padding.

O.C. 1058-93, s. 37.

§ 5. — *Safety belts and wheelchair positions*

38. All the spaces in a seat where a passenger may sit, all the folding seats and all the spaces reserved for a wheelchair in a bus or minibus shall be equipped with a subabdominal safety belt or a combined subabdominal belt and shoulder belt.

O.C. 1058-93, s. 38.

39. A subabdominal safety belt shall be capable of withstanding a breaking force of 26.7 kN and a combined subabdominal belt and shoulder belt shall be capable of withstanding a force of 22.2 kN and 17.8 kN respectively.

Subject to the second paragraph of section 42, the anchorage points of a subabdominal belt shall be capable of withstanding a force of 22.2 kN even when a shoulder-belt is attached to it. In such case, the anchorage points shall in addition be capable of withstanding a combined force of 26.8 kN applied simultaneously, half on the abdominal belt and half on the shoulder belt.

O.C. 1058-93, s. 39.

40. The space reserved for a wheelchair shall be not less than 81 cm wide nor less than 130 cm long. That space shall be equipped with a device to secure the wheelchair in a face-forward position on the bus or minibus and a subabdominal belt or combined subabdominal belt and shoulder belt, in accordance with section 39.

O.C. 1058-93, s. 40.

41. Any securement device for a wheelchair shall allow for the securement of the wheelchair at 4 points, capable of withstanding a force, in any direction, resulting from a deceleration of 20 g applied to a wheelchair of 80 kg; the movement of the chair shall be restricted to not more than 10 mm in any direction.

O.C. 1058-93, s. 41.

42. The anchorage points of a securement device for wheelchairs shall be secured to the floor. Those points shall be capable of withstanding a force, in any direction, resulting from a deceleration of 20 g applied to a wheelchair of 80 kg.

Where the safety belt of the passenger in a wheelchair has no anchorage points that are independent of the wheelchair's anchorage points, the latter anchorage points shall be capable of withstanding, in addition to the force provided for in the first paragraph, an additional force equal to that determined in the second paragraph of section 39, in accordance with the type of safety belt used.

O.C. 1058-93, s. 42.

§ 6. — *Steps, platform and loading ramp*

43. The steps of a bus or minibus shall comply with the following standards:

- (1) they shall be not more than 23 cm high;
- (2) there shall be no difference in height of more than 25 mm between any 2 of the steps;
- (3) they shall be not less than 21 cm deep over a minimum width of 38 cm;
- (4) they shall have a nosing of not more than 10 mm;
- (5) they shall be lighted by at least one light;

(6) they shall have a strip of a contrasting color along their horizontal raised border meeting the requirements of section 32 with respect to covering.

O.C. 1058-93, s. 43.

44. The lowest step shall be located at a height of not more than 30 cm measured from the ground.

O.C. 1058-93, s. 44.

45. The highest step leading to the passenger compartment shall be at the floor level of the passenger compartment.

O.C. 1058-93, s. 45.

46. A bus or minibus equipped with a power lift platform or a non-detachable loading ramp shall in addition be equipped with a detachable ramp to be used in an emergency.

O.C. 1058-93, s. 46.

47. A power lift platform shall comply with the following standards:

(1) it shall be capable of lifting a weight of not less than 350 kg at a temperature that may vary between 40°C and -40°C;

(2) it shall be attached to the structure of the bus or minibus so as to withstand a horizontal force in any direction resulting from a deceleration of 20 g;

(3) it shall have a net width of not less than 76 cm and a net length of not less than 112 cm;

(4) it shall be covered with a skid-resistant surface;

(5) it shall be equipped with a lateral raised edge 75 mm high and 3 mm thick;

(6) it shall be equipped with 2 safety railings not less than 70 cm long and not less than 75 cm nor more than 85 cm high, measured from the platform; those railings shall be equipped with a device enabling the use of a wheelchair restraint strap;

(7) at its front end, it shall have a flap that is not less than 10 cm nor more than 11 cm high and that is 3 mm thick; that flap shall have the same width as the platform; it shall be capable of folding down when the platform touches the ground and folding up when it leaves the ground;

(8) it shall operate on an independent electrical circuit;

(9) it shall operate at a speed of not less than 6 cm/s nor more than 13 cm/s;

(10) it shall be equipped with a device that allows the platform to be activated manually in the case of a break-down or power shortage and its operating instructions shall be displayed in proximity to it.

O.C. 1058-93, s. 47.

48. The power lift platform shall be activated by a single control accessible from either side of the platform.

The control shall be of the momentary contact type, operable with one hand and equipped with recessed buttons.

O.C. 1058-93, s. 48.

49. A power lift platform shall be capable of folding inward only after completing its upward movement and only if it is free of any load weighing more than 22 kg.

O.C. 1058-93, s. 49.

50. The platform and its mechanism shall be lighted by a light.

O.C. 1058-93, s. 50.

51. A loading ramp may be used only if its slope does not exceed 25% when in use.

O.C. 1058-93, s. 51.

52. Section 51 does not apply to the loading ramp intended for use in an emergency.

Where an area is provided inside the bus or minibus for storing the loading ramp, that ramp shall be attached to a wall of the passenger compartment so as to withstand a force in any direction resulting from a deceleration of 20 g and so as not to obstruct the emergency exit.

O.C. 1058-93, s. 52.

53. A loading ramp may be a one-piece construction that can be folded in 2 by means of hinges, or a 2-piece construction, each piece of which can be folded in 2 by means of hinges.

O.C. 1058-93, s. 53.

54. Where a loading ramp is a one-piece construction, its useful width shall be of not less than 76 cm; where it is a 2-piece construction, each piece shall be not less than 20 cm wide.

O.C. 1058-93, s. 54.

55. A loading ramp shall be capable of supporting, without any permanent deformation, a weight of not less than 350 kg. It shall be attached to the vehicle's floor structure so as to withstand a force in any direction resulting from a deceleration of 20 g.

A loading ramp shall be covered with a skid-resistant material of an open-grid type and, where the ramp is a one-piece construction, it shall have an outer lateral raised border not less than 75 mm high nor more than 3 mm thick.

Where it is a 2-piece construction, each piece shall have an outer lateral raised border not less than 75 mm high nor less than 3 mm thick and an inner lateral raised border not more than 50 mm high nor less than 3 mm thick.

O.C. 1058-93, s. 55.

§ 7. — *Mobility assistance devices*

56. In this Division, the term “mobility assistance device” means any equipment on a bus or minibus that a person may grip or use as support and that is intended to allow that person to move about more easily.

Mobility assistance devices shall have a diameter of not more than 50 mm, padding included, and shall be capable of withstanding a breaking force in any direction of not less than 450 N.

O.C. 1058-93, s. 56.

57. Mobility assistance devices shall be padded where they protrude, except those that are located near the door for ambulatory passengers and those that are attached to the power lift platform.

O.C. 1058-93, s. 57.

58. The padding of any mobility assistance device shall be made of closed cell urethane foam, rubber or vinyl not less than 5 mm thick.

O.C. 1058-93, s. 58.

§ 8. — *Rearview mirrors and tires*

59. A bus or minibus shall have an inside rearview mirror and 2 outside rearview mirrors.

All rearview mirrors shall be adjustable.

O.C. 1058-93, s. 59.

60. The reflecting surface of an inside rearview mirror shall provide a view of all the passengers.

That rearview mirror shall have rounded corners and be made of non-tinted safety glass.

O.C. 1058-93, s. 60.

61. The outside rearview mirrors shall comply with the following standards:

(1) they shall have a reflecting surface of not less than 320 cm²;

(2) they shall be located on each side of the vehicle, in front of the driver’s station, so as not to obstruct the driver’s lateral field of vision;

(3) they shall be attached to supports.

O.C. 1058-93, s. 61.

62. A bus or minibus shall have an adjustable sun visor not less than 15 cm high and not more than 40 cm long, installed above the driver's station.

O.C. 1058-93, s. 62.

63. A bus or minibus shall have an automatic backup warning buzzer.

O.C. 1058-93, s. 63.

64. A bus or minibus shall be equipped with tires marked with the national tire safety symbol in accordance with the Motor Vehicle Tire Safety Regulations, 1995 (SOR/95-148).

All tires installed on a vehicle shall be of the same category.

O.C. 1058-93, s. 64.

§ 9. — *Safety equipment*

65. A bus or minibus shall carry the following safety equipment:

- (1) 3 red emergency lamps or reflectors or 3 fluorescent triangles;
- (2) 1 chemical extinguisher with a capacity of 5 kg or 2 chemical extinguishers with a capacity of 2.5 kg each;
- (3) an axe or a wrecking bar;
- (4) a safety belt cutter;
- (5) a first-aid kit containing at least the following:
 - 1 pair bandage scissors;
 - 1 pair splinter forceps;
 - 12 safety pins;
 - 25 sterile bandages (25 mm × 75 mm) individually wrapped;
 - 25 sterile gauze squares (101.6 mm × 101.6 mm) individually wrapped;
 - 4 rolls sterile gauze bandages (50 mm × 9 m) individually wrapped;
 - 4 rolls sterile gauze bandages (101.6 mm × 9 m) individually wrapped;
 - 6 triangle bandages;
 - 4 sterile bandage compresses (101.6 mm × 101.6 mm) individually wrapped;
 - 1 roll adhesive tape (25 mm × 9 m);
 - 25 alcohol swabs individually wrapped.

O.C. 1058-93, s. 65.

66. Each of those pieces of equipment shall be placed in close proximity to the driver's station, and its location shall be clearly identified.

Those pieces of equipment shall be attached so as to withstand a horizontal force in any direction with a deceleration of 20 g.

The axe or wrecking bar shall be kept in a closed compartment.

O.C. 1058-93, s. 66.

67. Every tool box installed in a bus or minibus shall be attached so as to withstand a horizontal force in any direction with a deceleration of 20 g and so as not to hinder passenger movement.

O.C. 1058-93, s. 67.

DIVISION III

OBLIGATIONS OF DRIVER AND OWNER

68. The driver of a bus or minibus shall:

- (1) switch on flashing lights when the vehicle stops to let passengers on or off;
- (2) assist any passenger who needs help to get on or off the vehicle;
- (3) ensure that all wheelchairs are well secured and that the safety belt of each passenger is properly buckled before driving off;
- (4) where there are any passengers using a wheelchair that cannot be secured by a device provided for that purpose, seat those passengers on one of the vehicle's seats;
- (5) where there are any passengers whose wheelchair cannot be secured by the devices provided for that purpose and who cannot be seated on one of the vehicle's seats or who refuses to do so, refuse access to those passengers;
- (6) only use or allow the use of an emergency exit located on the left side of the vehicle in the case of an emergency.

O.C. 1058-93, s. 68.

69. The owner of a bus or minibus shall maintain the following systems and equipment in proper working order: the loading ramp, the power lift platform, the emergency exit door, the locking and unlocking devices for doors, the securement devices for wheelchairs, the safety belts, the rims, the tires, the braking system, exhaust, heating, ventilation and defrost systems, the buzzers, the windshield wipers and the chemical extinguisher.

O.C. 1058-93, s. 69.

70. Before entrusting his vehicle to a bus driver, the owner of a bus or minibus shall ensure that the driver has the abilities required to perform the following duties:

- (1) operating the power lift platform and using the loading ramp;
- (2) providing safe service to passengers in wheelchairs when using the loading ramp, the power lift platform and the securement devices for wheelchairs;

(3) using the communication equipment installed in the vehicle, if any.

O.C. 1058-93, s. 70.

71. Before each occasion on which a bus or minibus is operated, the owner or, failing that, the bus driver shall check the condition of the tires, the lights, the reflectors, the rearview mirrors, the windshield and the other windows and the communication equipment, if any.

They shall also keep the first-aid kit clean and fully equipped at all times.

O.C. 1058-93, s. 71.

72. *(Omitted).*

O.C. 1058-93, s. 72.

TRANSITIONAL

2019

(M.O. 2019-21) SECTION 3. For the suspension provided for in sections 1 and 2 of this Order to apply to a bus or minibus, the design of the body, roof and floor for the adaptation for the transportation of handicapped persons and any alteration to any of those elements must be carried out by a person authorized to apply the national safety mark within the meaning of the Motor Vehicle Safety Act (S.C. 1993, c. 16) or the compliance label prescribed by that Act.

The bus or minibus must also bear the national safety mark or the compliance label applied by the person who carried out the design or alteration of the body, roof or floor of the vehicle.

The materials used for the design or alteration must have the properties required to maintain their integrity over the useful life of the vehicle.

UPDATES

O.C. 1058-93, 1993 G.O. 2, 4667

M.O. 2019-21, 2019 G.O. 2, 3111

