

A Guide on the Construction and Operation of Drive-From-Wheelchair (DFW) Vehicle

This document provides guidelines on the Drive-From-Wheelchair (DFW) vehicles in the perspectives of vehicle construction and operation. Any registered vehicle owner who wish to modify the vehicle to DFW vehicle should follow the guide to make application for notifiable alteration of the vehicle. The driver of DFW should note the guide on vehicle operation to ensure the safety of road users. New conditions will also be imposed on the vehicle licenses and the Disable Person Parking Permits to suit the operation of the DFW vehicles.

1. Vehicle Construction

1.1. Wheelchair-tiedown and occupant-restraint system (WTORS) refers to the complete restraint system for wheelchair-seated occupants comprised of equipment for wheelchair tiedown and a belt-type occupant restraint. Wheelchair securement is a device or system designed to secure a forward-facing wheelchair in place in a motor vehicle. Those WTORS and / or Wheelchair securement shall be tested in compliance of ISO10542-Part 1 (Technical systems and aids for disabled or handicapped persons – Wheelchair tiedown and occupant-restraint systems, Part 1: Requirements and test methods for all systems).

1.2. No alteration of original seat-belt anchorages is allowed. If it has been altered beyond the original design of the vehicle manufacturer, it shall be tested in compliance with UNECE-R14.

1.3. The Wheelchair accessible mobility device, such as automatic outgoing ramp or an electrically-powered lifting platform shall be equipped with an Emergency Stop Switch, and Audio & Visual warning signals. Audio and visual warnings shall be activated during operation of ramp or lifting platform.

1.4. According to Reg. 26(3) of Cap.374A Road Traffic (Construction and Maintenance of Vehicles) Regulations, the driver's seat of every motor vehicle, other than a bus or light bus, shall be capable of being adjusted in relation to the steering wheel of the vehicle so that it can be moved from 350 millimetres to at least 450 millimetres from the steering wheel measured from the nearest part of the back of the driver's seat.

1.5. The wheelchair adapted for use shall be in compliance with ISO 7176-19 and compatible with the WTORS. Only wheelchair accepted by the WTORS manufacturers shall be used with the DFW vehicles. DFW vehicle owners should pay attention to that additional licensing condition of the vehicles may be imposed about the wheelchairs compatibility.

2. Vehicle Dimension

2.1. In Hong Kong, the dimensions of on-street parking spaces reserved for drivers with disabilities for perpendicular-parking and parallel-parking is 5 metres (L) × 3.7 metres (W) and 6.2 metres (L) × 2.5 metres (W) respectively. Side / rear entry DFW vehicle should be parked at appropriate parking space with appropriate orientation. Any parts of the ramp or lifting platform of the DFW, under fully extended condition should not exceed the sizes of the parking space.

3. Vehicle Operation

3.1 For DFW vehicle, automatic outgoing ramp will be used for picking up / dropping off the driver. To minimize the risks to other nearby vehicles or pedestrian walking on adjacent pavement, the loading/ unloading activities should be contained in the parking space without any part protruding outside.

3.2 The drivers shall not extend any parts of the ramp or lifting platform into the carriageway outside the parking space or the associated yellow hatched markings (Fig.1-4). The drivers shall also make sure that operation of the ramp or lifting platform installed that the vehicle will not impose safety hazard or obstruction to other road users. Such requirements shall form part of the conditions for issue of the Disabled Person's Parking Permit ("DPPP") to a disabled person who use a DFW vehicle approved by TD. The DPPP holder concerned shall comply with the relevant conditions as stated in the DPPP when operating the DFW vehicle to park in the parking space.

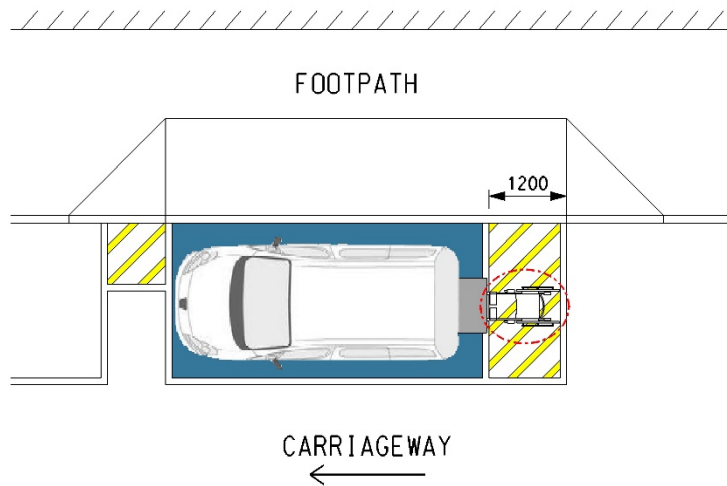


Fig. 1 – Rear entry + Parallel-parking

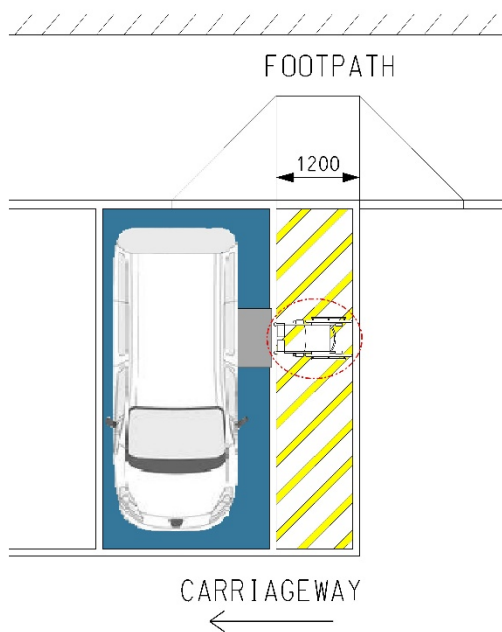


Fig. 2 – Side entry + Perpendicular-parking

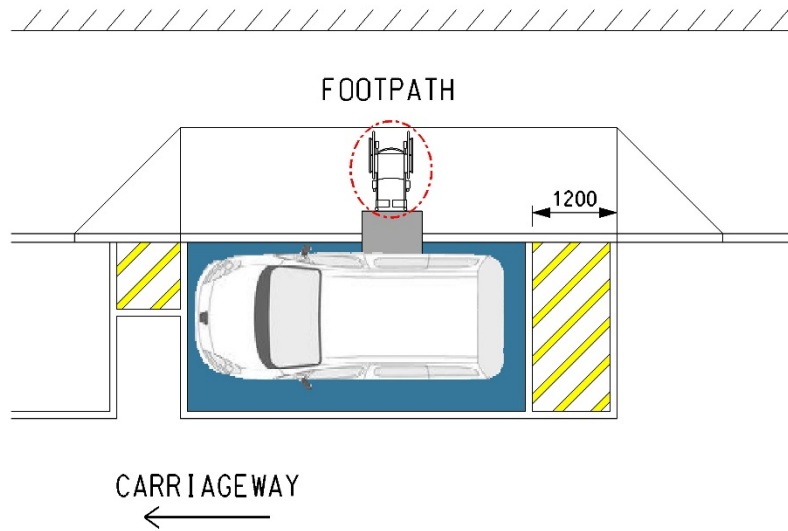


Fig. 3 – Side entry + Parallel-parking

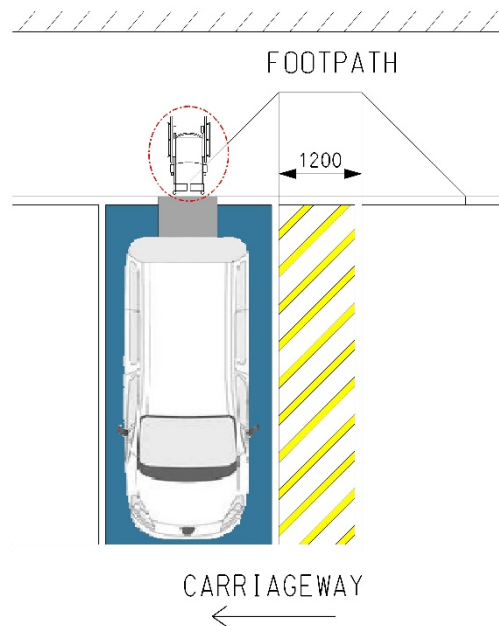


Fig. 4 – Rear entry + Perpendicular-parking

4. **Documents to be submitted for the application of notifiable alteration of DFW vehicle**

4.1. Applicants are required to produce the following information for approval:

- For notifiable alteration of a registered vehicle, a copy of Vehicle Registration Document (T.D.26).
- Approval letter specifying vehicle transmission type and nature of modification(s) required.
- Product information, installation manual of the WTORS, certificate of WTORS in compliance to ISO10542-Part 1 and certificate of the wheelchair in compliance of ISO7176, etc.
- Documentary support from vehicle manufacturer on the installation of WTORS to that particular model of vehicle. (The applicant may produce a survey report on the structural integrity endorsed by Registered Professional Engineer (R.P.E.) of appropriate discipline as an alternative).
- The WTORS shall be installed by a Registered Vehicle Mechanic (RVM) in accordance with the installation manual or local agent authorized and trained by the Original Equipment Manufacturer (OEM).

5. **Enquiries**

5.1. For enquiries, please contact the Transport Department at Tel. No. 3842 5729.

Transport Department

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