

## Standards for Safety Padding for Bus Handrails, Seats and Partitions

Operators are required to comply with vehicle requirements specified in Schedule 1 of the *Transport Operations (Passenger Transport) Standard 2010*. This information bulletin outlines the requirements for safety padding for bus handrails, seats and partitions for public passenger services.

### Buses to be padded

- Information Bulletin VS11 "Standards for Public Passenger Vehicle Type, Age and Use" explains which buses require additional padding and the date of implementation.
- Information Bulletin VS10 "Standards for Heavy Bus Service Life Extensions" also specifies padding as part of the life extension process.

### Areas to be padded

Padding is to be fitted to those hard surfaces in a bus which are likely to be struck by the head of a seated passenger if the bus is involved in a frontal collision.

Seats which do not have exposed hard surfaces in the zones described in figures 1 and 2, do not require additional padding. Typically, high back coach style seats or new style metro seats, which have foam backed upholstery or moulded foam coverings, do not require additional padding.

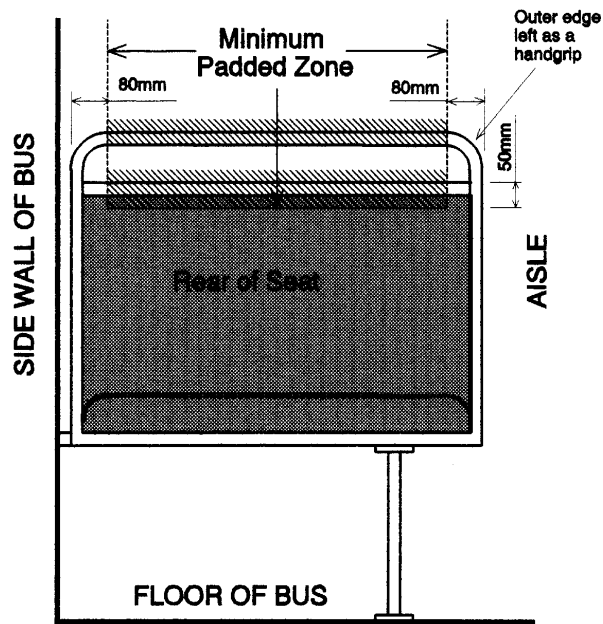


Figure 1

## Tops of seats

If the top face and the rear face of the seat is a hard surface, padding must be fitted to these surfaces. The padding of the rear face of the seat is to extend at least 50 mm down the back of the seat from the top face. The padding across the seat is to be as wide as that required for the handrails. Refer to figure 1.

## Handrails

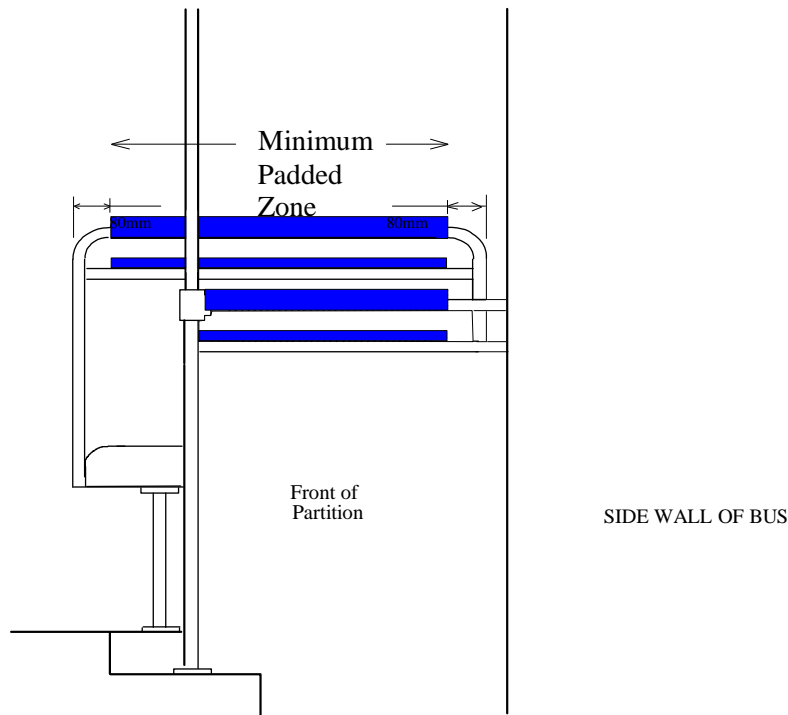
Exposed handrails are to be padded at least on the top, rear and front faces to within 80 mm of the outside edge of the seat and to within 80 mm of the aisle side of the seat. This allows for the handrail at the aisle to be retained as a handgrip. Refer to figure 1.

Note: Some handrails have large diameter bends at each side making it difficult to pad to within 80 mm of the sides. It is permissible to pad up to the start of the bend in these cases, but the padding should not be more than 120 mm from the sides.

## Partitions

Partitions directly in front of a seat are to be padded along their top edge in a similar manner to seats. That is, the top face and the upper 50 mm of the rear face of a partition are to be padded to at least cover a zone between two longitudinal, vertical planes 80 mm from either side of the seat behind. Refer to figure 2.

Should the aisle side of the partition have a large diameter bend (in a similar manner to the seat handrails) the bend does not need padding.



**View from the front of the bus**

**Figure 2**

### **Fittings on the back of a seat or partition**

Each fitting on the back of a seat or partition of the bus, which is outside the minimum padded zone, must not be likely to cause injury to a passenger from an impact from a frontal collision.

### **Stanchions**

Padding of stanchions is not recommended as it has been proven in tests to be sufficiently resilient to not produce severe head injury on impact. Additionally, the thickness of padding could impair the grip of standing passengers, thus increasing the risk of injury to these passengers.

### **Padding materials**

The padding must be made of the following specified material (or a material that is of a thickness and density that gives the same protection):

- semi-rigid moulded polyurethane, self-skinning rigid moulded polyurethane, closed-cell polyethylene foam or closed-cell EVA foam that is at least 25mm, but not more than 30mm, thick and has a density of at least 270 kg/m<sup>3</sup>, but not more than 300kg/m<sup>3</sup>.

The material must be securely fastened to the seat, handrail or partition with fastenings that are protected to ensure they do not cause injury.

## **Additional information**

The information contained in this bulletin has been produced as a guide to assist in the understanding of the legislation and policy. Clarification of any information in this bulletin may be obtained from The Department of Transport and Main Roads by contacting your local Passenger Transport office of the Department.

This bulletin is an interpretation of the relevant Acts, Regulations and Standard and should not be used as a reference to a point of law.

Copies of the *Transport Operations (Passenger Transport) Act 1994*, *Transport Operations (Passenger Transport) Regulation 2005* and *Transport Operations (Passenger Transport) Standard 2010* can be purchased from GoPrint.

The legislation may be viewed on the internet at [www.legislation.qld.gov.au](http://www.legislation.qld.gov.au). Additional information about public passenger services is available on the Department of Transport and Main Roads internet site at [www.tmr.qld.gov.au/information\\_bulletins](http://www.tmr.qld.gov.au/information_bulletins) .