

APPENDIX B
BASE DIMENSIONS AND DESIGN STANDARDS
(Normative)

B1 SCOPE

This Appendix gives the derivation and specifies the use of base dimensions by indicating the clearances which are to be added to the base dimensions to create design standards, in the following cases:

- (a) Swept path (Paragraph B3).
- (b) Parking spaces and parking aisles (Paragraph B4).
- (c) Ground clearance (Paragraph B5).
- (d) Headroom (Paragraph B6).

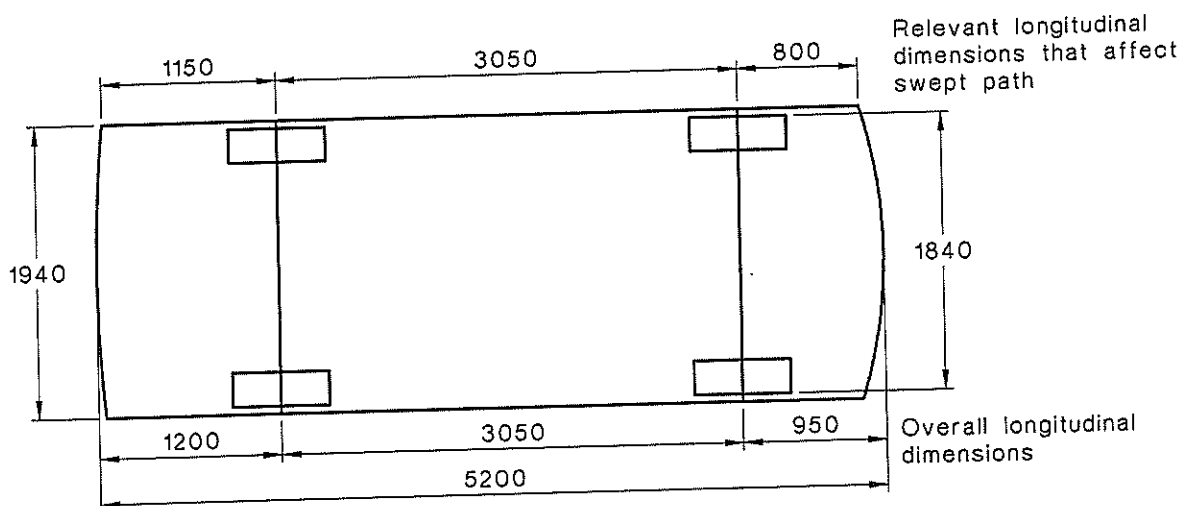
B2 THE BASE DIMENSION

B2.1 General

The base dimension for the B99 and B85 vehicles referred to in this Standard shall be as specified in Figures B1 and B2.

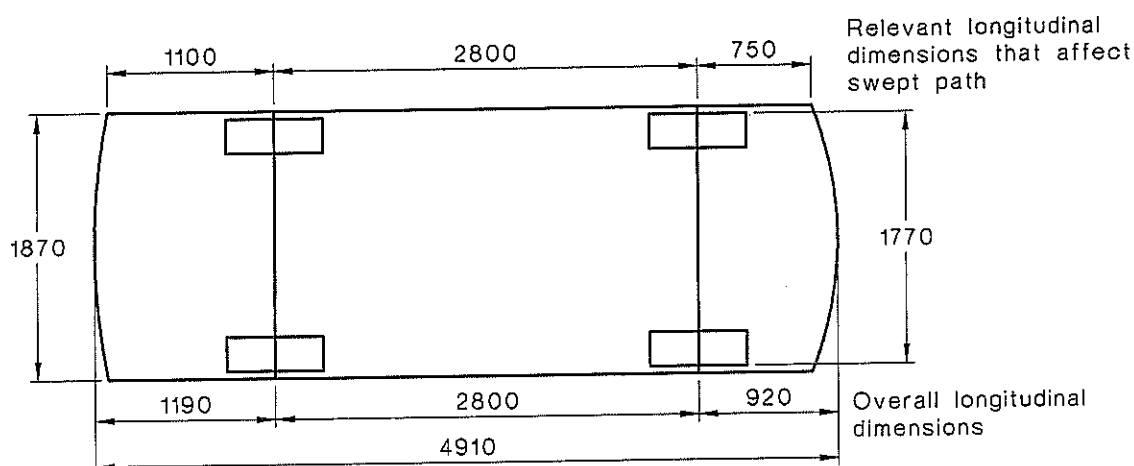
NOTE: These base dimensions have been developed from the vehicle survey in Appendix A.

Design dimensions are derived from these base dimensions by the incorporation of operating clearances. These clearances have been determined from various trials, and allow for different levels of driver skill combined with other factors such as frequency of turnover, type of facility and clientele served. They are applicable to those dimensions in which the driver is required to make a judgment such as turning, manoeuvring and parking, or where slight variations in mechanical or structural attributes of vehicles require a safety margin to be allowed.



DIMENSIONS IN MILLIMETRES

FIGURE B1 B99 (99.8TH PERCENTILE) VEHICLE



DIMENSIONS IN MILLIMETRES

FIGURE B2 B85 (85TH PERCENTILE) CAR

B2.2 The B99 vehicle

Design dimensions based on the B99 vehicle are required at all locations where failure of a vehicle to be able to physically fit into the facility would occasion intolerable congestion and possible hazard. Such locations shall include all access driveways, ramps and circulation roadways, unless there are special circumstances of severe space limitation coupled with relatively low traffic volumes in which case the B85 vehicle dimensions may be used.

B2.3 The B85 vehicle

Except as permitted in Clause 2.5.2(c) and Paragraph B2.2, design dimensions based on the B85 vehicle shall be limited to parking spaces and parking aisles.

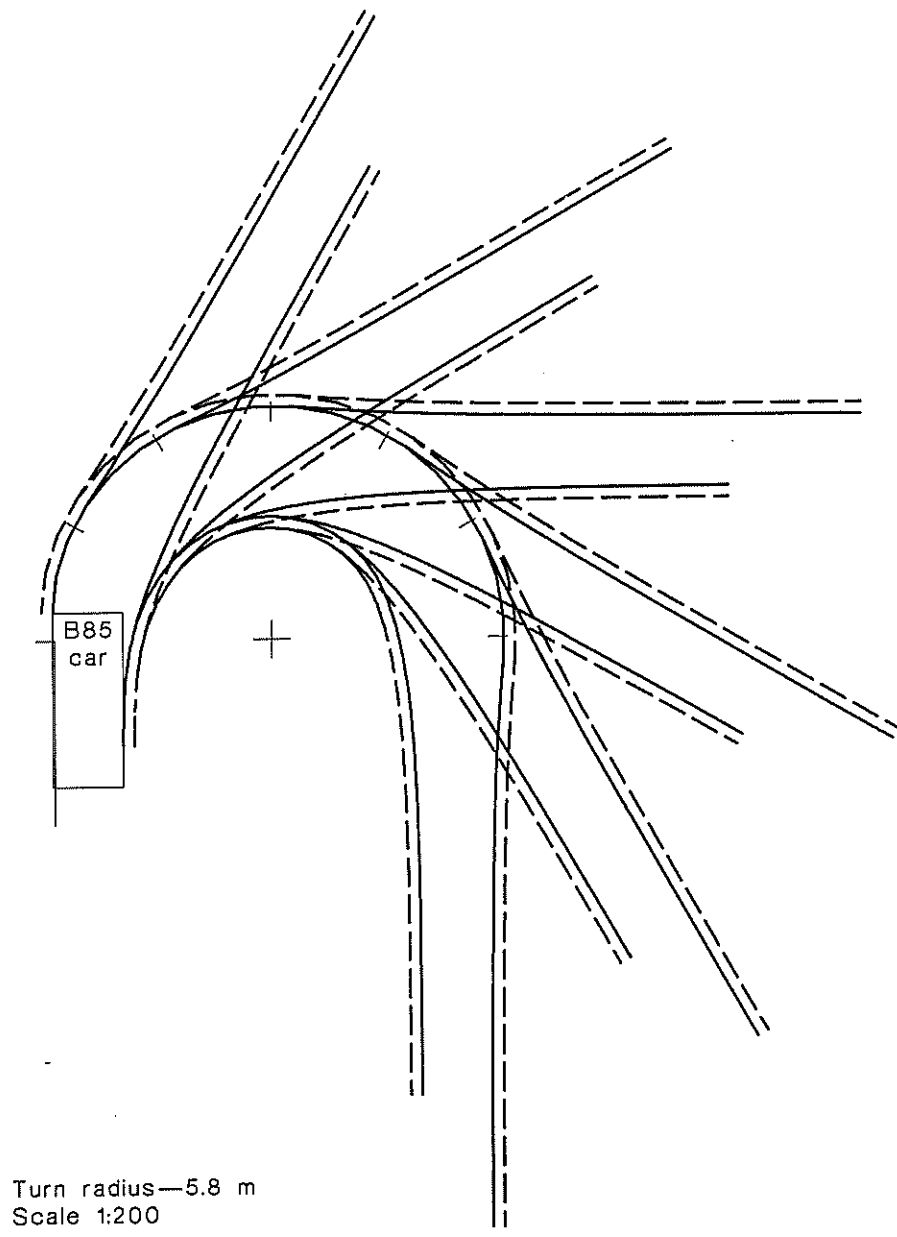
NOTE: This is based on the philosophy that the statistical chance of two or more longer vehicles seeking to occupy adjacent parking spaces at the one time is relatively low, and where this does occur, a driver can divert to an alternative space with only minor disruption to other users.

B3 SWEPT PATHS

B3.1 Standard single turn swept path templates

The following specifies the standard single turn swept path templates to be used for design purposes:

- (a) *The B99 design templates* The B99 template comprises an inner pair of unbroken lines representing the B99 base dimension swept path, and an outer pair of broken lines which include both the manoeuvring clearance (see Paragraph B3.2(a)) and the circulation clearance (see Paragraph B3.2(b)). The broken line templates shall be used in the design of all access roadways, ramps and, circulation roadways, except where otherwise indicated in Paragraph B2.2. Examples are shown in Figure B3 for a 6.3 m radius turn and in Figure B4 for an 8 m radius turn.
- (b) *The B85 design templates* The B85 template comprises an inner pair of unbroken lines representing the B85 base dimension swept path, and an outer pair of broken lines which includes the manoeuvring clearance (see Paragraph B3.2(a)). These templates shall be used only in the special circumstance described in Paragraph B2.3. Examples are shown in Figure B5 for a 5.8 m radius turn and in Figure B6 for an 8 m radius turn.

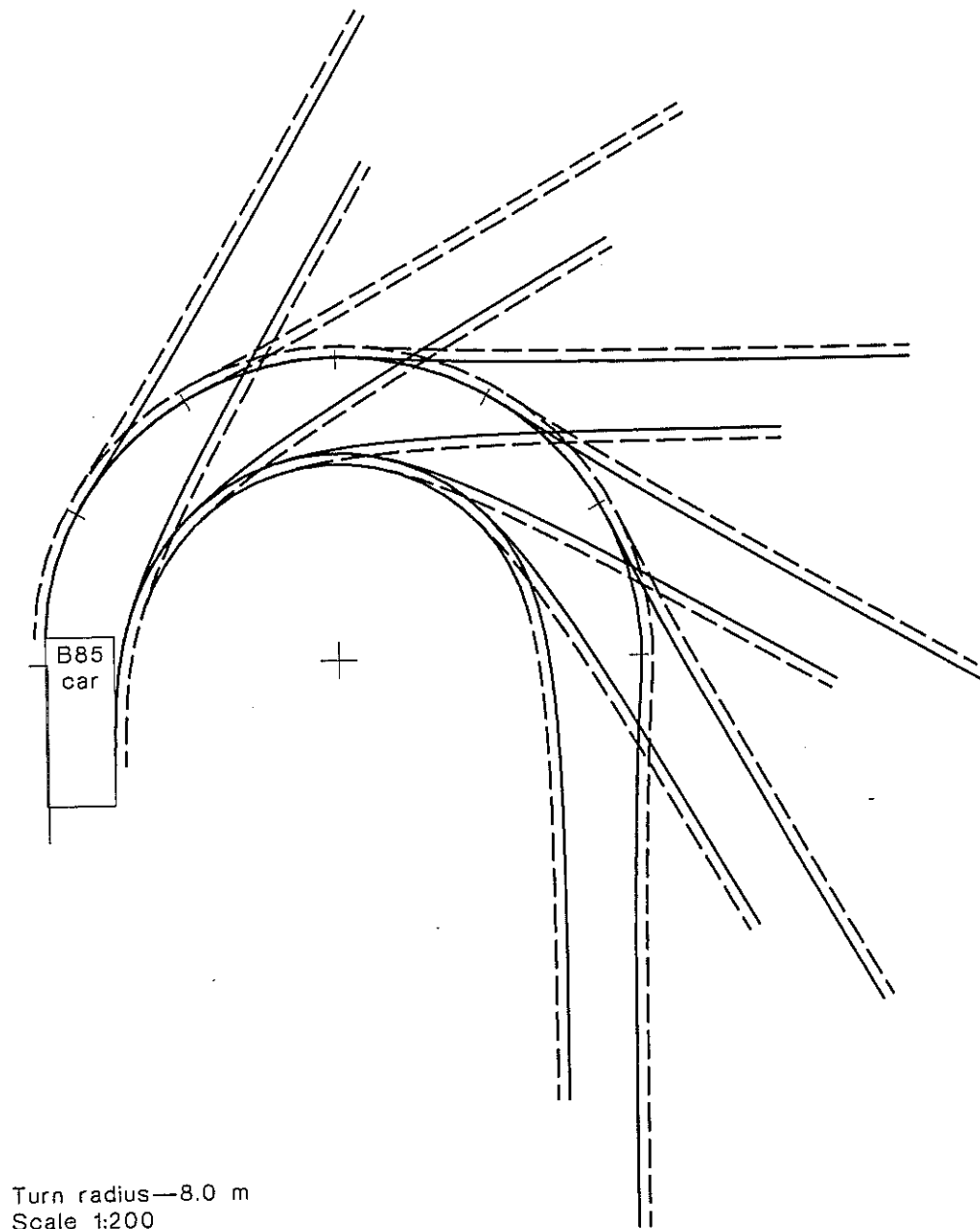


Turn radius—5.8 m
Scale 1:200

LEGEND:
—— = Denotes the B85 base dimension swept path
- - - = Denotes the B85 design template which includes
2 x 300 mm manoeuvring clearances only

NOTE: This is the minimum radius turn for a B85 vehicle.

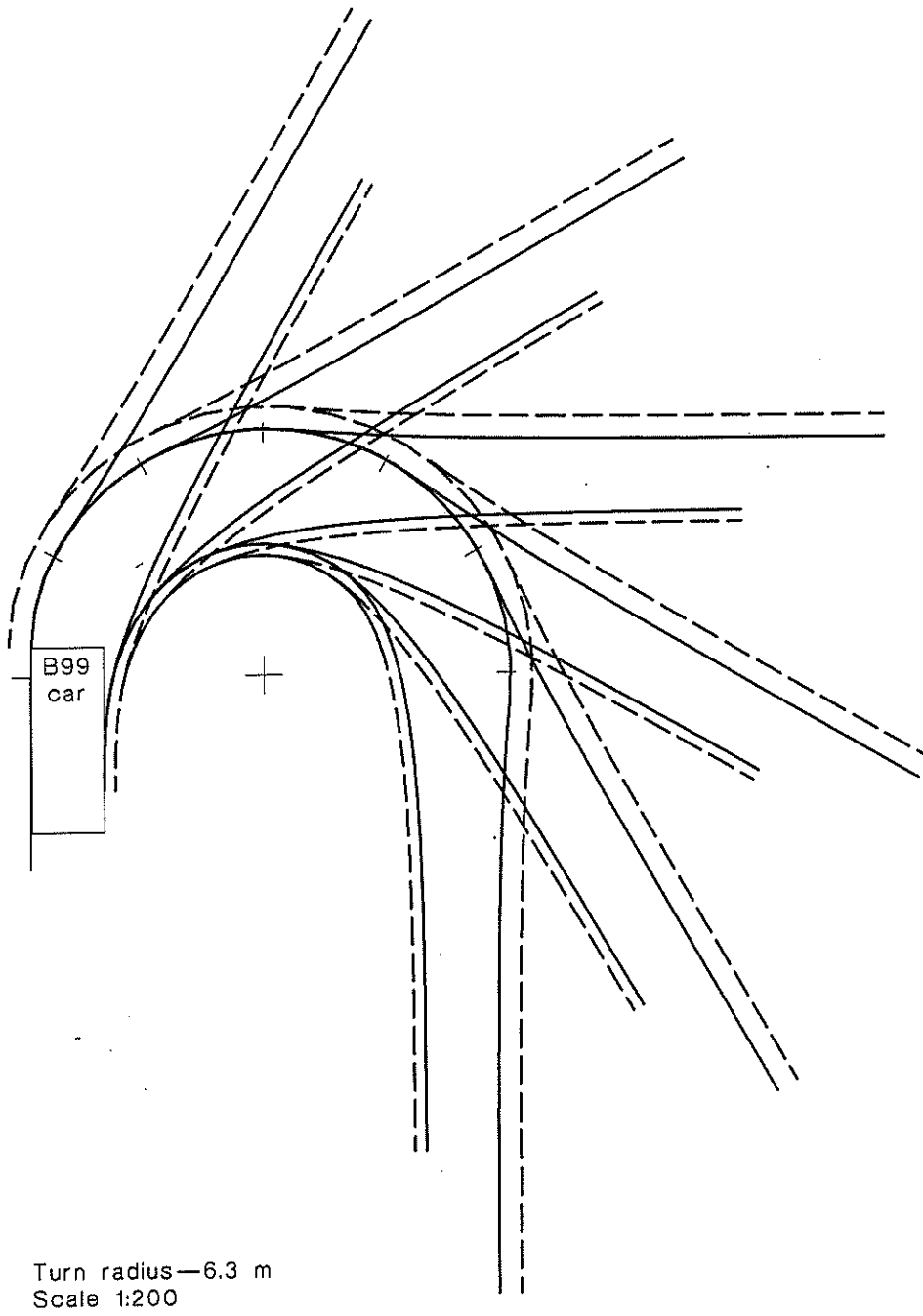
FIGURE B5 EXAMPLE OF THE B85 DESIGN TEMPLATE—5.8 m RADIUS TURN



LEGEND:

- = Denotes the B85 base dimension swept path
- - - = Denotes the B85 design template which includes 2 x 300 mm manoeuvring clearances only

FIGURE B6 EXAMPLE OF THE B85 DESIGN TEMPLATE—8.0 m RADIUS TURN

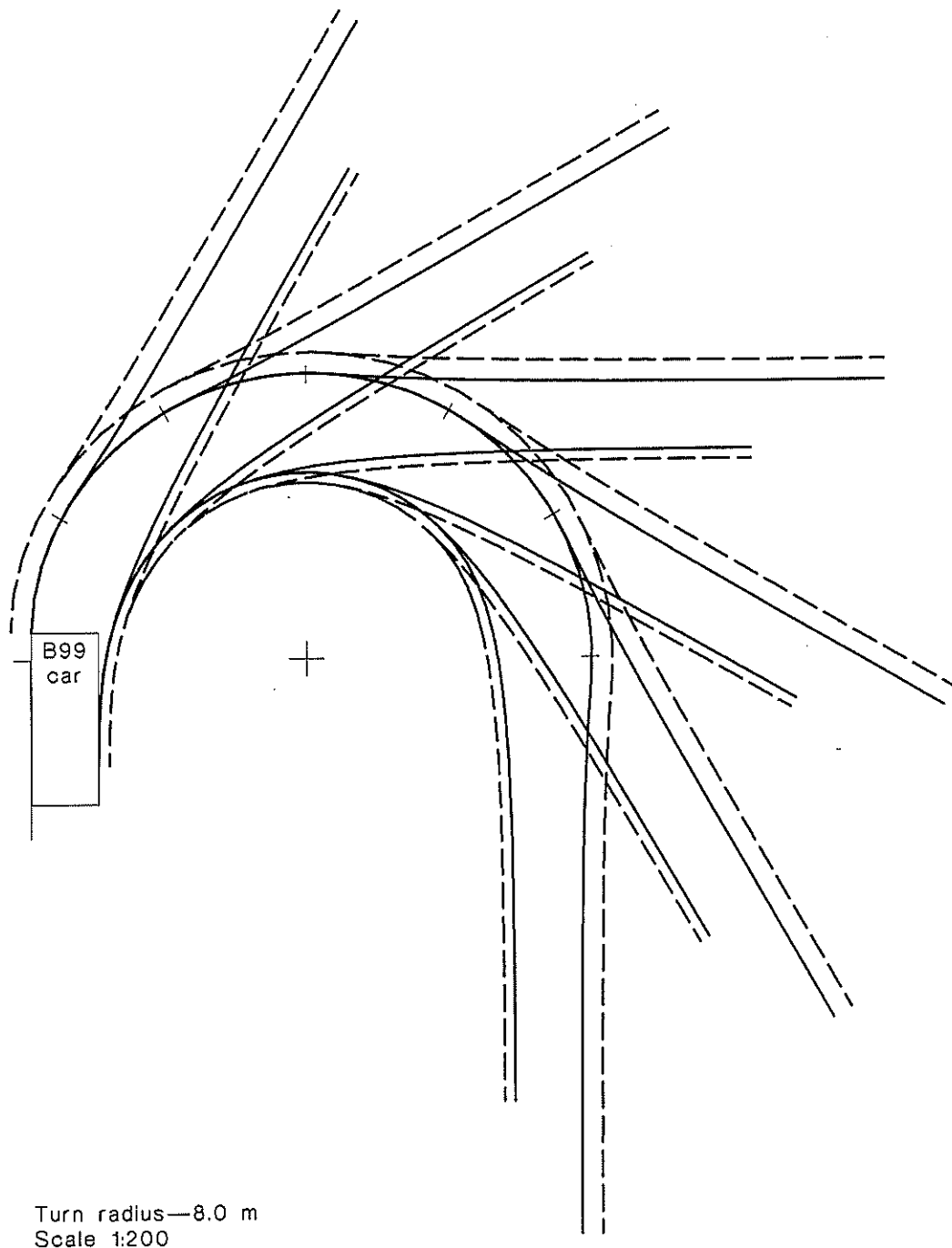


LEGEND:

- = Denotes the B99 base dimension swept path
- - - = Denotes the B99 design template which includes manoeuvring and circulation clearances, 300 mm on the inside and 600 mm on the outside

NOTE: This is the minimum radius turn for a B99 vehicle.

FIGURE B3 EXAMPLE OF THE B99 DESIGN TEMPLATE—6.3 m RADIUS TURN



LEGEND:

- = Denotes the B99 base dimension swept path
- - - - = Denotes the B99 design template which includes manoeuvring and circulation clearances, 300 mm on the inside and 600 mm on the outside

FIGURE B4 EXAMPLE OF THE B99 DESIGN TEMPLATE—8.0 m RADIUS TURN