Table 3.2: Permissible limits on Properties dZ, dX, d^2Z and d^2X in defined-movement areas.

Floor classification	Racking top beam height	Property Z_{SLOPE}	Property dZ	Property d^2Z	Property dX	Property d^2X
Calculation	–	mm per m	$Z \times Z_{SLOPE}$	$dZ \times 0.75$	Fixed values $2 \times Z_{SLOPE} \times 1.1$	Fixed values
DM1	Over 13m	1.3	$Z \times 1.3$	$Z \times 1.0$	2.9	1.5
DM2	8–13m	2.0	$Z \times 2.0$	$Z \times 1.5$	4.4	2.0
DM3	Up to 8m	2.5	$Z \times 2.5$	$Z \times 1.9$	5.5	2.5

Properties measured

The following properties are defined in Figures 3.8–3.10 as follows:

- **Property Z:** The transverse dimension between the centres of the truck front wheels, in m.
- **Property X:** The longitudinal dimension between the centre of the front and rear truck axles. This is taken to be a fixed 2m.
- **Property Z_{SLOPE}:** The cross-aisle slope between the centres of the truck front wheels in mm/m.
- **Property dZ:** The elevational difference in mm between the centres of the truck front wheels.
- **Property dX:** The elevational difference in mm between the centre of the front axle and the centre of the rear axle.

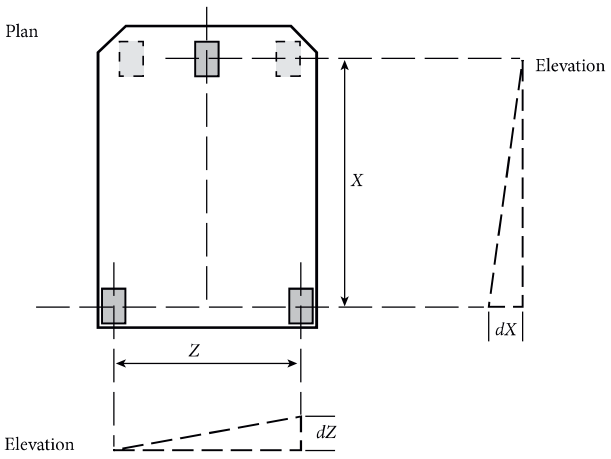

Figure 3.8: Symbols for dimensions.

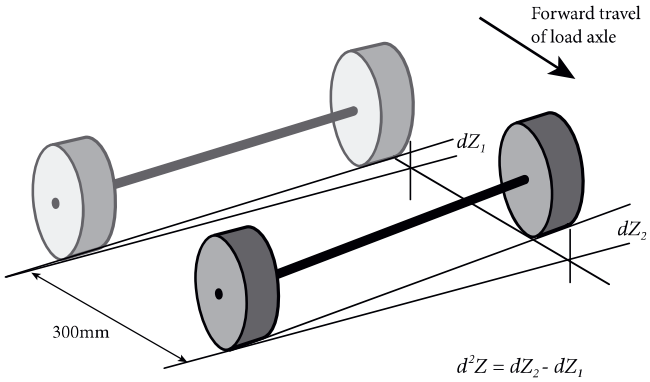

Figure 3.9: Determination of d^2Z.

Property d^2Z: The change in dZ in mm over a forward movement of 300mm along the wheel tracks
Property d^2X: The change in dX in mm over a forward movement of 300mm along the wheel tracks.

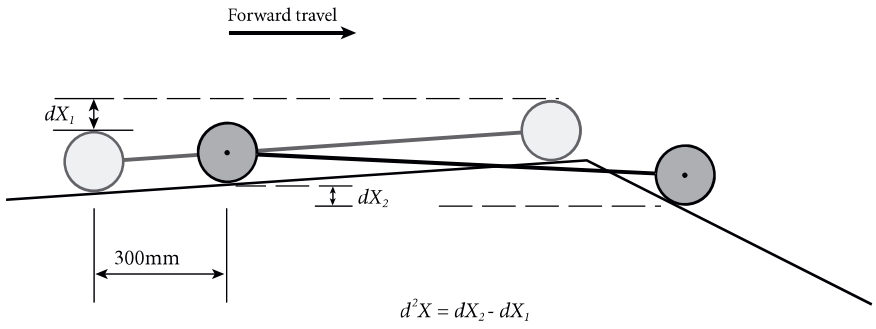

Figure 3.10: Determination of d^2X.