

Part 12.3

Attachment of framed decks and balconies to external walls of buildings using a waling plate

12.3.1 Application

[New for 2022]

Part 12.3 applies subject to the limitations set out at H1D11.

12.3.2 Fixing decks and balconies to external walls

[2019: 3.10.6.2]

Where a deck or balcony relies on the *external wall* of a building or structure for support, the method of attachment, including any fixings, to the *external wall* must comply with the following:

- (a) The deck or balcony's joist framing members must be supported at the wall by a waling plate.
- (b) The joist span nearest the *external wall* must not be more than 3 m (single or continuous span).
- (c) The size of a waling plate *required* by (a) must be not less than—
 - (i) for a timber waling plate—
 - (A) 140 x 35 mm with a minimum stress grade of F5 or MGP10 when fixed to concrete core-filled masonry using M12 chemical or expanding/mechanical anchors; or
 - (B) 90 x 35 mm with a minimum stress grade of F5 or MGP10 when fixed to timber frames using No. 14 partial threaded self-drilling screws; or
 - (ii) for a steel waling plate — C15015 (minimum Grade G550) with the web located against the *external wall*.
- (d) A waling plate must be attached so that—
 - (i) for core-filled reinforced concrete masonry *external walls*, fixings are staggered along the waling plate at not more than 300 mm centres measured along the waling plate; and
 - (ii) for timber *external wall* frames, two No. 14 Type screws are provided—
 - (A) into a solid joist or bearer framing member that is not less than 90 x 45 mm with a minimum stress grade of F5 or MGP10; and
 - (B) for deck construction— at not more than 450 mm centres measured along the waling plate; and
 - (C) for tiled balcony construction— at not more than 400 mm centres measured along the waling plate; and
 - (iii) for steel framed *external walls*, two fixings are provided into a joist or bearer framing member not less than C20015 (Grade G550) at not more than 300 mm centres measured along the waling plate; and
 - (iv) fixings are installed within 300 mm of each end of the waling plate, and in accordance with the following (as applicable):
 - (A) For a timber waling plate — deck construction: two No. 14 partial threaded self-drilling screws at not more than 450 mm centres and not located within 65 mm from the ends or within 30 mm from the top and bottom edges.
 - (B) For a timber waling plate — deck construction: M12 chemical or expanding/mechanical anchors at not more than 400 mm centres and not located within 120 mm from the ends or within 60 mm from the top and bottom edges.
 - (C) For a timber waling plate — tiled balcony construction: two No. 14 partial threaded self-drilling screws at not more than 400 mm centres and not located within 65 mm from the ends or within 30 mm from the top and bottom edges.
 - (D) For a timber waling plate — tiled balcony construction: M12 chemical or expanding/mechanical anchors at not more than 300 mm centres and not located within 120 mm from the ends or within 60 mm from the top and bottom edges.
 - (E) For a steel waling plate — not located within 50 mm from the ends or within 30 mm from the top and