

Assessment of Learning Outcomes of *Boardwalk Design*

Taught by Edgar Stubbersfield. Date _____

PERSON BEING ASSESSED _____

Learning Outcome 1 – Understand best practice for terminations



Q1 The author advises designers consider four things in particular when terminating

1. _____
2. _____
3. _____
4. _____

Q2 What is the weakness of hardwood posts

Learning Outcome 2 – Understand best practice with bearers and Joists

Q1 What is the advantage of a double bearer

Q3 Why does the lecturer recommend a minimum of 75 mm wide joist

Q3 what are the advantages of a lapped joist

Learning Outcome 3 – Understand how timber requirements differ to house framing

Q1 In the lecturers opinion, is house framing suitable for decking?

Q2 In the lecturers opinion, what is the maximum width to thickness ratio for decking?

Q3 In the lecturers opinion, should decking be joined on a joist _____

Q4 In the lecturers opinion, what decking surface finish should be used? _____

Learning Outcome 4 – Control your gap



Q1 explain the maths of a 200 mm wide deck laid with a 5 mm gap

Q2 Will this meet the disability code? _____

Learning Outcome 5 – Detail your handrail for durability



Q1 List the six problems the lecturer identified with this handrail

Learning Outcome 6 – Understand best practice with fasteners



Q1 Does the lecturer recommend the use of gal bolts in boardwalks _____

Q2 What does the Branz long term exposure trial demonstrate

Learning Outcome 7 – Understand the danger/importance of coatings



Q1 The lecturer does not recommend film finishes. Explain what is happening in the left hand image

Q2 is it sufficient to just oil the top of the decking

Answers

LO1. – Q1. The four considerations are 1. Don't let soil touch the timber, 2. Have sufficient clearance, 200 mm recommended, 3. Height adjustment for shrinkage and 4. Integrate the approach path with the boardwalk

LO1. – Q2. Hardwood posts decay if set in concrete

LO2. – Q1. Timber size is more manageable

LO2. – Q2. To prevent split joists

LO2. – Q3. To prevent safety issues with end splitting, desking and potentially better connections

LO2. – Q4 Cypress checks badly in the sun and cannot be treated with waterborne preservatives

LO3. – Q1. House framing is unsuitable for decking

LO3. – Q2. 3.5 to 1

LO3. – Q3. No – it causes decay at the ends

LO3. – Q4. Rough sawn

LO4. – Q1. 200x50 spotted gum shrinks 6% i.e 12 mm plus 5mm = 17 mm

LO4. – Q2. It will not meet the disability code

LO5. – Q1. The six faults are 1. Low grade timber, 2. Poor placement of defect, 3. Handrail is flat, 4. Top Fixing, 5, eyed coachscrews, and 6. Film finishes

LO5. – Q2. Most structural sizes contain insufficient sapwood to make any real difference

LO6. – Q1. No

LO6. – Q2. The use of 304 or 316 stainless is a sensible precaution given the performance of galvanised

LO7. – Q1. Water was trapped underneath causing decay

LO7. – Q2. Decking (and all members) should be oiled all round.