NARANGBA TIMBERS

GUIDE TO DIY DECKING

*Before you know it, **you've built something special!***

A timber deck transforms your home. It's the essence of indoor-outdoor living, making your backyard a truly livable space for relaxing mornings and fantastic evenings entertaining your mates.

So pick up all the tools and materials you need from Narangba Timbers, and get ready to build your own DIY deck.

This how-to guide to building a deck will cover all the steps you need to build something special for you and your family.

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At Narangba Timbers, we have a variety of timber options to cover all your decking needs.

What kind of deck should I build?

While there are countless styles of decks, this guide covers the basics of building a simple, ground-level, freestanding or attached deck. The customisation for your deck comes primarily from your choice of timber, as well as from its size and shape.

Before you purchase your materials, spend some time developing a well-structured project plan. This means looking at where you're going to place your deck, what materials you're going to use and – most importantly – how much you're looking to spend.

Once you've come up with a feasible idea, draw your floor plan to scale on graph paper.

Fig. 1 - Species Selection

Species	Posts in ground H4	Framing above ground H3	Decking H3
Treated pine	✓	✓	✓ *(See Note 1)*
Mixed open forest hardwood	✓	✓	✓
Blackbutt	✓	✓	✓
Gum - forest red	✓	✓	✓
Gum - spotted	✓	✓	✓
Ironbark*	✓	✓	✓
Merbau (kwila)	X	✓	✓

Note: 1. CCA treated timber shall not be used for domestic decking boards.
** Ironbark does not require treatment. Dura 1 above & in ground.*

Tip: For advice on more complex decks, such as two-storey decks or those with handrails, speak to the Decksperts at Narangba Timbers. They've helped build countless decks across South East Queensland.

What kind of timber should I use for a deck?

See Fig.1 for a quick guide on which timber species to use for each part of your deck. Note: The minimum stress grade for softwood timber is F7 and for hardwood is F14.

To shop for timber online, visit NarangbaTimbers.com.au

SOFTWOOD

We recommend treated pine for the structural components of your deck. Because of treated pine's superior protection against termites and decay, it's ideal for Aussie backyards.

When building your deck, ensure that you use H3 timber for framing above ground and H4 for posts on or below ground. This will ensure that the foundation of your deck is tough and lasts for as long as possible.

Remember that treated pine is treated with chemicals, which means that you should always:

- ***Wear gloves and masks while sawing.***
- ***Reseal any cut or sawn surface.***
- ***Dispose of any off-cuts by burying them. Do not burn.***

COMPOSITES

Wood composites are mixed products that are made from both wood and plastic, and often from recycled materials. They are suitable only as decking boards (and not to form the structural components of a deck).

Composites are a solid alternative to natural timber, because they require minimal upkeep, are available in a wide range of colours and are also environmentally friendly.

HARDWOOD

Renowned for its strength, durability and natural beauty, hardwood timber is ideal for decks. Many hardwood species also provide natural protection against termites and decay.

Durability Class 1-2 hardwoods are suitable for above ground decking applications, and we recommend them for the decking boards over treated pine when budget permits.

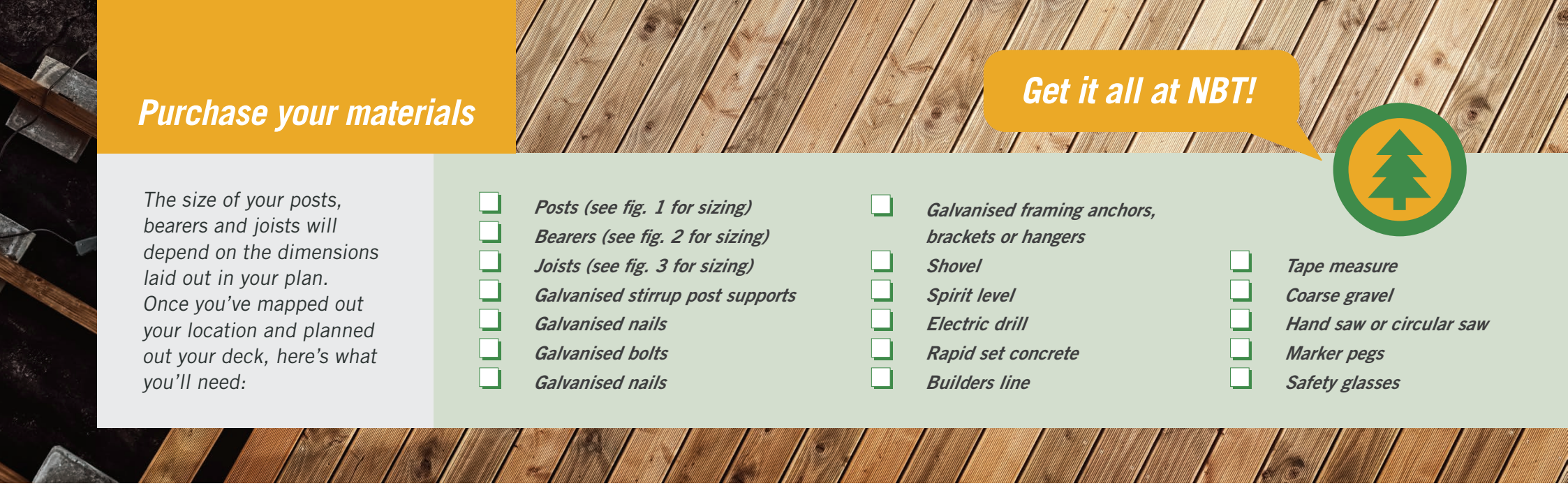
Before you begin

Check the locations of underground utilities and local regulations that could affect your deck before you begin construction.

You must employ a physical or chemical termite management system to protect your deck and ensure it does not undermine the termite management of nearby structures.

I have:

- ❑ *Ensured that there are no underground utilities where I will build my deck.*
- ❑ *Implemented a termite management system for my deck.*
- ❑ *Protection ready for my eyes, nose and mouth.*



Purchase your materials

Get it all at NBT!

The size of your posts, bearers and joists will depend on the dimensions laid out in your plan. Once you've mapped out your location and planned out your deck, here's what you'll need:

- ☐ Posts (see fig. 1 for sizing)
- ☐ Bearers (see fig. 2 for sizing)
- ☐ Joists (see fig. 3 for sizing)
- ☐ Galvanised stirrup post supports
- ☐ Galvanised nails
- ☐ Galvanised bolts
- ☐ Galvanised nails
- ☐ Galvanised framing anchors, brackets or hangers
- ☐ Shovel
- ☐ Spirit level
- ☐ Electric drill
- ☐ Rapid set concrete
- ☐ Builders line
- ☐ Tape measure
- ☐ Coarse gravel
- ☐ Hand saw or circular saw
- ☐ Marker pegs
- ☐ Safety glasses

Fig. 2 - Timber Imports - Supporting Roof and/or Floor Loads

		Floor area supported (m^2)	5				10				15			
		Roof load area (m^2)	0	5	10	20	0	5	10	20	0	5	10	20
		Size dxb (mm)	Maximum post height (mm)											
Seasoned treated pine, f7	Sheet roof	90 x 90	2400	2200	2100	1900	1700	1600	1500	1400	1200	1200	1100	900
	Tile roof	90 x 90	4100	3700	3500	3100	2900	2700	2600	2500	2300	2300	2200	2100
Unseasoned hardwood, f14	Sheet roof	100 x 100	2900	2600	2500	2200	2000	1900	1900	1700	1600	1600	1500	1500
	Tile roof	100 x 100	4800	4600	4300	3800	3500	3400	3300	3000	2900	2800	2700	2600
Treated pine roundsf8	Sheet roof	100 Dai 125 dia 150 dia	3300 4800 4800	3000 4700 4800	2800 4400 4800	2500 3900 4800	2300 3600 4800	2200 3500 4800	2100 3300 4800	2000 3100 4600	1900 2900 4200	1800 2900 4200	1800 2800 4100	1700 2700 3900
	Tile roof	100 Dai 125 dia 150 dia	3300 4800 4800	2800 4404 4800	2500 3800 4800	1900 3000 4400	2300 3600 4800	2100 3300 4500	2000 3100 4500	1700 2700 4000	1900 3000 4400	1800 2800 4100	1700 2600 3900	1500 2400 3500

Note: i) Suitable for wind classifications up to N3/C2. i) D = member depth. B = member breadth, NS = not suitable.
ii) The above table was based on a maximum Sheet Roof Mass of 40 (kg/m^2),
Tile Roof Mass of 90 (kh/m^2), Total Upper Floor Mass of 50 (kg/m^2), Floor Live Load of 1,5(kPa).

Fig. 3 - Floor Joists

		Maximum floor joist span (mm)	
	Member size (mm)	Single span	Continuous span
Seasoned treated pine, f7	90 X 45 140 x 45 190 x 45 240 x 45	1300 2600 3600 4500	1700 2600 3600 4500
Unseasoned hardwood, f14	100 X 50 125 x 50 150 x 50 175 x 50 200 x 50	2200 2800 3400 3900 4400	2500 3200 3800 4500 5100

Note:
1. *Joists to support floor loads only. Posts supporting roof to be directly over deck supports.*
2. *Maximum cantilever can be 25% of allowable span provided the actual back-span is at least twice the actual cantilever.*
3. *Sizes greater than 200mm deep and >6000mm long may not be readily available.*
4. *45/50mm wide joists are recommended where decking boards are nail fixed to tops of joists. 35/38mm wide joists are suitable where side of joists proprietary fixings (e.g. Deklok) are used.*

Fig. 4 - Decking

Species	Min. Grade	Thickness (mm)	Max. Joist Spacing (mm)	Nailing Requirements (see Note#)
Treated Pine (H3)	Standard Grade (AS 1782)	22	450	10G x 50 Stainless screws
Hardwood	Standard Grade (AS 2796)	19	500	10G x 50 Stainless screws
		25	650	10G x 65 Stainless screws

Note: Where joists are treated softwood, nails shall be deformed, ring shanked and 65mm long.

Fig. 5 - Bearers

		Floor Load Width (mm) (Length of joists supported)							
		1800	2400	3000	3600	1800	2400	3000	3600
		Maximum Bearer Span (mm)							
	Member Size (mm)	Single Span				Continuous Span			
Seasoned Treated Pine, F7	140 x 45	1300	1100	1000	900	1300	1100	1000	900
	2/140 x 35	1700	1500	1300	1200	1700	1500	1300	1200
	2/140 x 45	2000	1700	1500	1400	2000	1700	1500	1400
	190 x 45	1750	1500	1200	1350	1750	1500	1350	1200
	2/190 x 35	2400	2000	1800	1600	2400	2000	1800	1600
	2/190 x 45	2700	2300	2100	1900	2700	2300	2100	1900
	240 x 45	2200	1900	1700	1550	2200	1900	1700	1550
	2/240 x 35	3000	1600	2300	2100	3000	2600	2300	2100
	2/240 x 45	3400	2900	2600	2400	3400	2900	2600	2400
Unseasoned Hardwood, F14	100 x 75	1600	1400	1300	1100	1600	1400	1300	1100
	2/100 x 50	1900	1700	1600	1400	2100	1800	1600	1400
	125 x 75	2100	1800	1600	1400	2100	1800	1600	1400
	2/125 x 50	2400	2100	2000	1800	2600	2200	2000	1800
	150 x 75	2500	2200	1900	1800	2500	2200	1900	1800
	2/150 x 50	2800	2600	2400	2200	3100	2700	2400	2200
	175 x 75	2900	2500	2300	2100	2900	2500	2300	2100
	2/175 x 50	3300	3000	2800	2600	3700	3200	2800	2600
	200 x 75	3400	2900	2600	2400	3400	2900	2600	2400
	2/200 x 50	3700	3400	3200	3000	4200	3600	3200	3000

Note: 1. Bearers to support floor loads only. Posts supporting roof to be directly over deck supports.
2. Maximum cantilever can be 25% of allowable span provided the actual back span is at least twice the actual cantilever.
3. Sizes greater than 200mm deep may not be readily available.

It's time to build!

They don't call the team at Narangba Timbers the Decksperts for nothing. Our team can offer advice and guidance for every step of the deck building process. Simply reach out on 07 3888 1293.

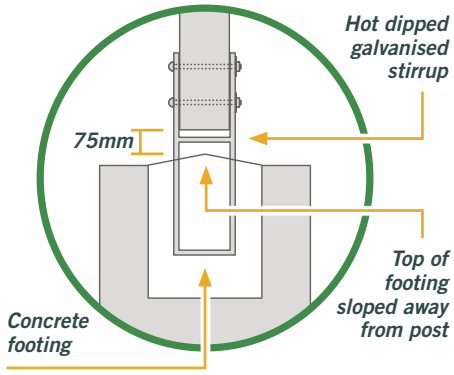
STEP 1:
LOCATE YOUR POSTS

1. Remove any grass and topsoil with a shovel.
2. Use a tape measure and pegs to measure out and mark the posts of your deck. The distance between your posts will depend on your maximum bearer span, which you can determine in fig. 3.
   Note: If your deck is going to attach to your house framing, you will not need a post next to the wall. Instead, affix the deck to the wall-plate.
3. Run a builders line between each marker peg.
4. Use the 3-4-5 rule to ensure that your string grid forms a perfect square. To do this, measure 3 metres away from a corner in one direction and 4 metres in the other direction. The corner is square if the distance across those two points is 5 metres.

STEP 2:
SET FOUNDATIONS

1. Mark each post hole using a bright-coloured spray paint.
2. Dig post holes 300 mm wide and 300 mm deep.
3. Fill 100mm of each hole with coarse gravel to allow water drain. Backfill with mixed rapid set concrete.
4. Position galvanized stirrups at each post location while the concrete is still wet.

   Ensure that the concrete slopes away from the stirrup and that there is a 75 mm gap between the concrete and the base of the stirrup.



Note: Skip this step if you are building a freestanding deck.

STEP 3:
ATTACH TO YOUR HOUSE

1. Fix a joist to the wall of your house framing to act as a ledger board/wall-plate, using 12 mm galvanised screw bolts at 600 mm maximum spacing.

   Ensure that the ledger is 25 mm to 50 mm below the interior floor level to help keep rain and debris out of your house.

STEP 4:
INSERT POSTS

Note: If your bearers will be housed in the posts, create checkouts for these bearers using a circular saw.

*A) **For fully-housed bearers** – Cut checkouts in the sides of your posts that are the width of your bearers. Ensure that at least 35 mm of the post remains after creating the housing.*

*B) **For partially-housed (double) bearers** – Cut 10 mm checkouts in the sides of your posts.*

1. Insert posts firmly into each stirrup and temporarily fix using galvanised bolts and washers.
2. Use the builders line and a level to mark the bearer height onto each post.
3. Check that all heights are correct, before numbering each post in sequence, removing and cutting to the appropriate height.
4. Reinsert posts in sequence, checking the height once more, before firmly bolting the posts into the stirrups.

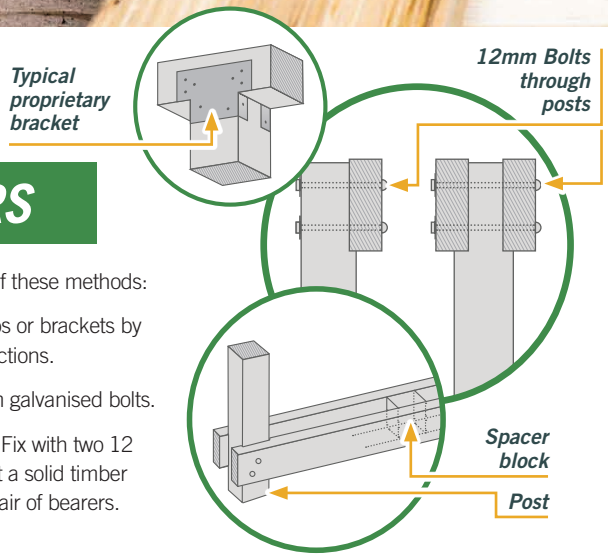
STEP 5:
INSTALL BEARERS

Attach bearers to your posts using one of these methods:

A. **On top of posts** – Fix with post caps or brackets by following the manufacturer's instructions.

B. **Fully housed** – Fix with two 12 mm galvanised bolts.

C. **Partially housed double bearers** – Fix with two 12 mm galvanised bolts, and then bolt a solid timber block at mid-span between each pair of bearers.

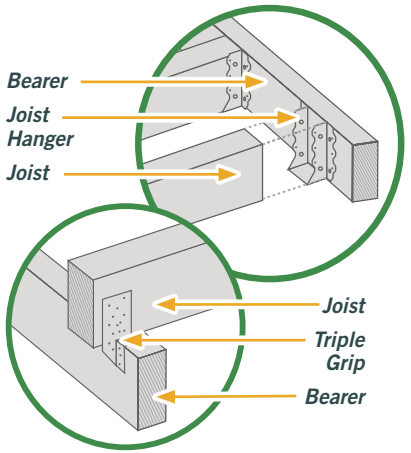


STEP 6:
ATTACHING JOISTS

Attach joists to your bearers using one of these methods:

A. Fix your joists to the **top of the bearers** or ledgers at 450 mm maximum spacing, skewing either 75 mm nails or using framing anchors or brackets.

B. Fix your joists to the **sides of the bearers** or ledgers using joist hangers.

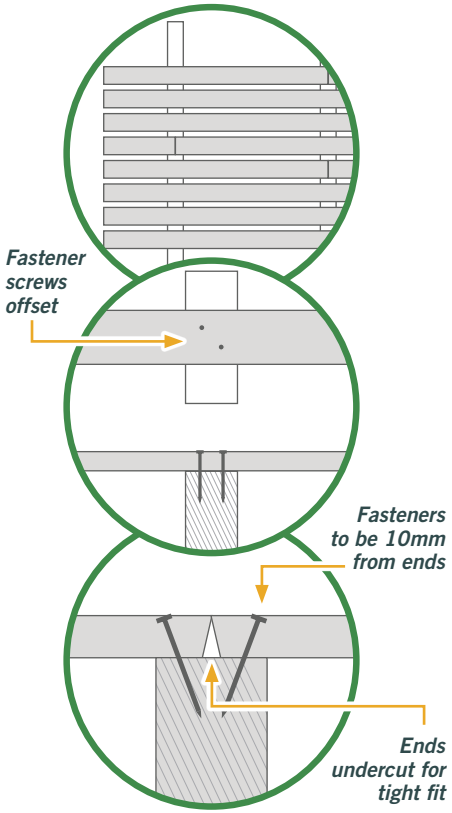


Final Steps

STEP 7:
LAY THE DECKING

Tip: Choose narrow decking boards. They are less prone to pooling water, and therefore, cupping and twisting. When cutting any decking boards, always seal the ends with a sealant to prevent water from penetrating your deck timbers.

1. Apply a coat of Qcoat decking oil to all four sides of your decking boards and the top of your joists before fixing them and/or add joist tape for extra protection.
2. Pre-drill the ends of the boards 12 mm from the edges and ends (at 80% diameter) to prevent fasteners from splitting the wood.
3. Position your decking boards across your joists, spaced around 4 mm apart for hardwood or 6 mm apart for pine – use decking spacers between the boards as guides. If your boards are not long enough to span the width of the deck, ensure that the butt joints are staggered as indicated.
   Tip: If you find that the final board does not sit flush with the edge of the deck, adjust the spacing slightly to ensure that it fits correctly. Any boards that are adjacent to your house framing should have a 6 mm gap and not sit flush with the house.
4. Notch any boards around posts or other obstructions, leaving a 6 mm gap for drainage.
5. Fix the decking boards into joists diagonally as indicated. For joists with butt joints, skew the fasteners inwards at the ends of the deck boards.
6. Mark along the edges of the deck and saw off excess. You can leave either a few centimetres of decking board over the frame or cut the boards flush and fit decking boards to the side joists as a fascia.



Decking hints and tips:

MEASURE TWICE... CUT ONCE!

Make sure to double-check all of your measurements and markings before you cut any piece of timber.

MAINTENANCE

If laying decking with reeded or ribbed decking boards face up, they are more susceptible to dirt and mould build-up. Regularly clean and dry them to reduce slipperiness and protect against decay.

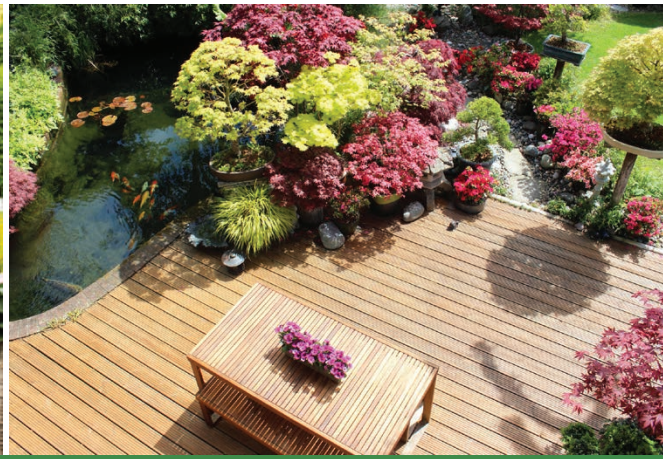
OILS

Use quality decking oils. Penetrating oils are best, film form decking oils may require sanding or stripping back later. We recommend oiling at least yearly with Qcoat.

Congratulations! You've built something special

Gallery

Looking for some inspiration to kickstart your timber deck project? Check out our gallery for a range of different timber deck styles.



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