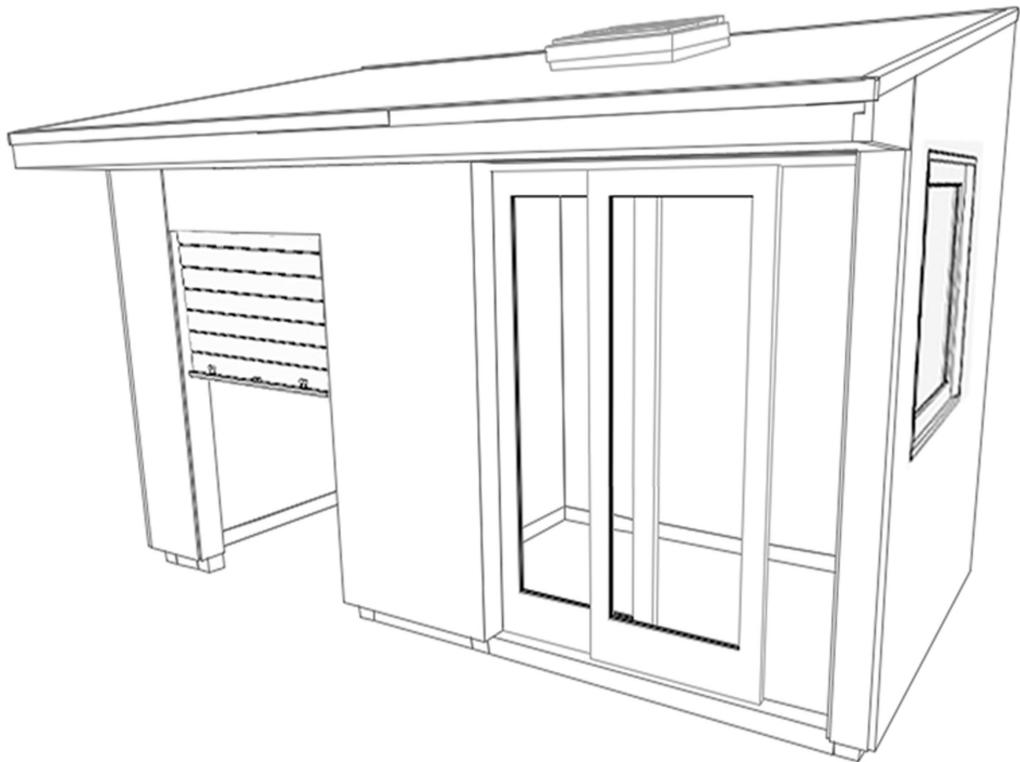


SHED



Build your own designer garden
office for less than £3000

by **Dominic Jones**



MAKING SOMETHING FABULOUS ON THE CHEAP

SHËD: Build your own designer garden office for less than £3000

The book of the
"OneGrandDesigns.com" shed:
winner, Garden Office Category,
Shed of the Year 2010

Dominic Jones

This book is for sale at
<http://leanpub.com/diygardenoffice>

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until you have the right book and build traction
once you do.

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<https://twitter.com/search?q=#shedbook>

*For Sarah, love of my life. Thank you for putting up
with me "just finishing off the book". I love you.*

*And for all the sheddies, readers and builders who
have contributed their little bit of build knowledge to
improving the book over the years. It wouldn't be
what it is without your help.*

Thanks guys.

Contents

About the Author	1
About this edition	3
Hello!	6
The Mission: A Grand Design for a grand	7
How Much will it cost?	11
How long will it take?	14
DISCLAIMER	15
Can I really build it all myself?	18
Before you get started	19
Bigger Sheds	21
REGULATIONS (UK as at July 2015)	23
Planning Permission	23

CONTENTS

Building Regulations (details correct as at July 2015)	26
Electrics	27
Stoves and Heaters	27
What am I going to need?	29
Tools (to buy)	29
Tools (to Hire)	30
Components (for the standard build)	31
CHAPTER ONE: FOUNDATIONS	33
Marking out your plot	35
Preparing the ground	38
Laying the concrete slab	43
CHAPTER 2: Beginning the frame	50
Fit posts	51
Lay bricks	53
Fit Damp Proof Membrane	55
Cut front posts to fit door	56
Secure patio door and top out the posts . .	59
CHAPTER 3: Fitting the Roof	63
Fit roof trusses	64
screw panels to trusses	66
Mount insulation to panels	67
Complete the sandwich	68
Remove overhang	69
Start felting the roof	71
Lay the top felt layer	72

CONTENTS

CHAPTER 4: Walls	75
A note about different wall builds/fence post sizes.	76
Option 1: 75mm fenceposts, 50mm insulation	77
Option 2: 75mm fenceposts, 75mm insulation	79
Option 3: 100mm Fenceposts, 75mm insulation	81
Start framing up	83
Fit outer wall panels	86
Fit bracing piece	88
Fill the wall sandwich	89
Fit the inner wall panels	90
Put the rest of the outside walls in	92
CHAPTER 5: Fitting Windows	93
CHAPTER 6: Electrics (all details correct at July 2015)	99
Chapter 7: Non-mains electric Heat and light	105
Wood Burning/multifuel Stoves	105
Solar Electricity	108
CHAPTER 8: The Floor	110
Floor joists	110
CHAPTER 9: Cladding & Finishing	114

CONTENTS

Cladding	114
Cladding the roof overhang	119
FINITO!	124
Finishing Options:	125
1. Rainwater Management:	125
2. The Damp-proof membrane:	127
3. A hidden hinged door instead of the roller shutter:	128
4. Exterior Lighting:	130
CHAPTER 9: What Next?	131
A New Website	131
A New Shed(?)	133
A New Book?	136
PLEASE GET IN TOUCH!	137
Resources for Builders	138

About the Author



DOMINIC JONES Is a self confessed “Sheddie”. By day a mild mannered council worker unhampered by any skill for or knowledge of building, Dominic

embarked on the production of his own DIY Garden Office in the small back yard of a terraced house in South Liverpool in April of 2009. The garden office went on to win the garden office section of the prestigious “Shed of the Year” competition 2010, briefly garnering Dominic the dubious title of “Liverpool’s Mr Shed”.

He is still occasionally called up by his local radio station to talk on the subject of sheds and shed working.

He's since moved house, away from the house where he built his shed into the middle class ghetto. He can mostly be found staring at a corner of his new garden, wielding a tape measure and a steely glint in his eye.

About this edition

This is the third (and final) edition of this little book. I built my shed in the summer of 2009 - that's 6 years ago now as I write this (July 2015). I blogged about it at the time at [One Grand Designs¹](#) and had a lot of comments on that blog asking me if I could put my experiences down in the form of a book and maybe include a set of plans too. That was how the book started. I've sold over 800 copies since then (which is more than I ever expected to) and have roughly (by my estimation) paid for the original shed in the four years the book has been available. Which is a nice circular journey.

Over the years since I have had lots of readers and shed builders get in touch telling me their experiences - how they've altered the design and changed and tweaked it here and there. I've attempted to incorporate the more important bits into the book and offered my own advice where I thought it might be useful.

I had hoped to be building a second shed in the garden of my new house this summer and to use

¹<http://onegranddesigns.com>

that build as the basis for a significant update, but alas life has, as they say, gotten in the way (in the form of a leaky house roof, windows which need painting and the creeping realisation that Mrs Jones and I haven't had a holiday in over 5 years). In reality that means it's more than likely going to be another year before I can save up the readies to have another crack at it.

I've taken the time when I would have been clearing the foundations to have a long hard think about the book and how I could make it more useful and up to date without adding details from another build. I've deliberately stayed clear of adding too much more information about actually BUILDING a shed because it's no longer fresh in my mind - like I say it's 6 years since I built mine and 2 years since I moved house (so I can't even go and LOOK at my shed to see how it compares). I have never claimed to be any kind of expert at this - just a bloke who built one shed he was really proud of :-)

I considered for a while simply stopping selling the book, but then I had so many people asking me where they could get a hold of a copy that that seemed a silly idea.

Instead what I have done is to add a bunch of stuff that has never been in the book before - advice about what to do before you consider building,

links to helpful resources that I've used over the years to help out readers and research shed 2.

The book is almost 5 years old now and a lot has happened since then - Garden Offices grow ever more popular every year and the rise of telly programmes such as George Clarke's Amazing Spaces and Shed of the Year mean everybody wants one - this is good news for you the builder of course as it means the price of an "off the shelf" kit design has come down and there's an ever wider range to choose from.

The fabulous, idiosyncratic builds on display on the Shed of the Year programme are truly inspirational, as is the proof that a truly great building can be built on a tiny budget. For all that there does still seem to be a gap in the market for something to help get you started - to show how you might screw one together - that it's really not that difficult... Which is, of course, why you're reading this.

Hello!

This is what you're going to be building.



The “One Grand Designs” Garden Office - winner of Garden Office of the year 2010

The Mission: A Grand Design for a grand



This was my goal: The beautiful Ecospace Garden Studio. If I was richer, I'd just buy it.

I love Grand Designs. Really I do. What's not to love about creative people building their dream home?

It's inspiring, it's intelligent, it makes me feel good about myself as a designer. Yes, Kevin McCloud can be unbearably smug (and what is with the puffa jacket Kev?) – but he's a smart man, passionate about his job and the people whose projects he follows. I marvel at the beautiful modern lines of the architectural wonders on display, the clean lines of the glass (always last to arrive because it's been shipped from Germany – why is it always Germany? What's wrong with St. Helens?). I share in the joy and secretly imagine myself and the family squatting in a caravan while we wrestle a minimalist palace out of a muddy hole cut into some obscure Welsh hillside...

... Then, about two thirds of the way through the program I start getting really angry – angry enough to throw things at the telly (or at least turn over to Britain's got Talent)... it's at the point where the couple in question start discussing how they're just going to have to go another £100,000 over budget because they simply must have the taps they saw in Turin... £100k over budget?

I'm annoyed because I'm jealous of course – where do they get the money? – They're almost always retired bankers or something or other "in the city", moving out to the sticks to raise the next generation of Jeremys and Jocastas away from the hustle and bustle of the lives which paid for their lovely

house in the country.

Well, I'm not a retired banker, I work for the council. I don't live in London, I live in Liverpool. I haven't bought a fabulous undisturbed plot of land overlooking a Welsh valley, I've got a back yard with a ropey old shed. But I still have dreams... designs... even, dare I say it, Grand Designs...

ONE Grand Designs to be exact. In 2009 I lived in a small terraced house with my beautiful wife, my twin sons (17 year old young men), my 11 year old son, a bearded collie with training issues and two cats. There wasn't a huge amount of space to go around. If I wanted to be creative I had to do it on the table in the back room surrounded by piles of ironing and clean up after myself. I dreamed of clean empty space. In the Guardian one weekend I read a fascinating article about "garden rooms" (check it here) – "They're cheap, chic, eco-friendly and above all – there is no commute. Could shed-working be the way forward for those looking to work from home?" – works for me! – where do I sign up?

Except of course as I read on I felt a familiar red mist rising – they're not that cheap are they? ... £25,000 for the sleek cedar-clad box I fancied ... **£25k for a shed?**

Which brings us to the point of this exercise. My

One Grand Design. I planned to replace my wonky old shed with something as near to the Ecospace garden studio as possible on a budget of £1000. I intended to scav, borrow and bodge wherever possible to keep the costs down, but my aims were as follows...

- I want it to be beautiful – like a grand design
- I need a shed where I can keep the kids bikes and my tools and stuff safe and locked out of sight
- I want a clean, insulated room where I can work undisturbed both summer and winter
- I will not, at any point, resort to wearing a puffa jacket.

How Much will it cost?

Well, of course, that all depends (!) My initial idea to build one for £1000 failed (it was more about the name of the project really... that "One Grand Designs" worked for me) - I ended up spending nearer to £2000 (and this was at 2009 prices). The thing is, you're embarking on a mission here - it's going to take time, it's going to be hard work and once you get into it, you're going to want to make it as good as you can.

You're not just making a shed here. you can buy one of those from B&Q for £300 and build it in a day. We're making a Grand Design, and you're going to want to make it as special as you can. I could have saved £300 by cladding my shed in shiplap rather than cedar - but once I'd built it, I realised it deserved the cedar cladding - and it's paid dividends in the long run - I haven't had to treat the cladding every summer and the cedar just keeps looking better and better as it ages...

Things may well go wrong - I've spent about £250 on new power tools coz I burnt out/broke all my power tools building it (probably my fault for having crappy tools, but did I mention I'm a cheap-

skate?) I could have left out the roof-light or used thinner (cheaper) insulation, but that would have added to my build time (and how much is your time worth per hour?)

I maintain that this design CAN be built for £2500 - but you'll need to pinch every penny to do it. If you're building the standard plan, then I'd bank on spending closer to £3000 - then you'll be pleasantly surprised at the end. As a rough rule of thumb you can use the "Shed Calculator" at <http://www.gardenofficeplans.com/calculator.html>² to get a rough idea of the cost of the major components - I update the prices there fairly often and they're just based on UK high street (Mostly B&Q) prices, so you CAN get cheaper if you look around. You can get MUCH cheaper if you use second hand or reclaimed timber.

You can save money by using 75mm fenceposts rather than 100mm fenceposts - the difference in price is about £80-£100 and if you're using 75mm fenceposts you can save a further £100 or so by using 50mm insulation board for the walls rather than the 75mm specified but please see the chapter on walls for the impacts of these changes (and don't consider them for a larger building).

Garden offices are cheaper now than they were in 2009, mainly down to competition in the sector,

²<http://www.gardenofficeplans.com/shed-calculator.html>

but they still aren't this cheap - By building this plan, you will be saving at least £5000 on an equivalent "built for you" project.

How long will it take?

Well, how long have you got? I built mine in 3 months - I am a father of three with a full time job. I did it single-handed (there's not a piece of the job which really needs more than one person). I worked weekends (around the British weather, family responsibilities and a bout of swine flu) and took one week off work to devote to the project.

I also had to demolish my old brick-built shed and take all the rubble to the local tip (as well as the debris generated by the build itself!) - factor that time in too - you're not going to be popular if you leave your yard in an absolute disgrace while you build your office!

The project was left standing at one point for two weeks while it simply rained and rained. I reckon it could be done in two weeks - given a team of two, good weather and devoted build time... But you're building a substantial structure here - don't think you can simply "throw it up" in a weekend.

DISCLAIMER

I have to point out to you that I can take no responsibility for the quality of your finished shed - this book simply details how I built my own garden office. I am not an architect, I am not a builder - I'm a reasonably confident and keen DIY'er. Before building my shed I researched basic building techniques online and over-engineered everything. I am not the best person to ask about how modifications to the design or components may impact on the structural integrity of the building - If you are concerned about that then I strongly urge you to engage the services of an architect or structural engineer. I link out to planning and building regulations where appropriate but please be aware that these online notes are given for guidance only and are only applicable in the UK.

This building is intended as a storage shed and occasional use garden office for adults. It's a simple, no-frills building built down to a budget. It comes with no warranty or guarantee of safety: you are building it yourself from components you select so I cannot vouch for the quality of components used or the safety of the build. This isn't a flat-pack shed

from the DIY store - it's a substantial construction which (if well screwed together) should last a long time - but if it's NOT well screwed together, then it (or any other DIY building project) is a heavy thing that might fall on whoever is inside at the time. I can accept no liability or responsibility for the structural integrity of your building. If at any point you think to yourself "does that need to be stronger?" make it so. Add more nails, glue, screws, wood whatever.

If you're planning on putting mains electrics into the building please consult an electrician - there are many, many regulations and considerations relating to putting electrics into a wooden building - do not proceed yourself unless you really know what you're doing and have engaged with your local authority building regulations compliance officers.

This book and the advice herein is was last updated in July 2015. Where I link out to web resources I cannot vouch for the accuracy or up-to-dateness of the content therein, they are just websites that I have found useful and whose content was relevant at the time of writing - regulations change rapidly and I'm not watching them like a hawk. Take care to read any disclaimers and/or terms and conditions on any website and do not consider my linking to them any guarantee.

There are many companies out there who will happily come and build you a garden office for a good price - part of the additional cost of these buildings is to cover the approvals they will have had to achieve in order for them to be able to sell you a finished product. Part is in the skilled and experienced staff they employ to build it for you and part is for the liability insurance they have to have in order to build it for you. In buying this book I assume that you are prepared to accept full responsibility for your building - my aim is just to help you along the way using the experience I gathered from building mine.

Can I really build it all myself?

The short answer is yes. I built my shed entirely single handed. I'm not a builder, I'm a web developer. I like to consider myself reasonably "handy", but if you can handle a drill, a screwdriver, a circular saw and a hammer and you're not afraid of a bit of hard work, then you CAN do it all yourself.

That said, if you have a few mates who are prepared to muck in, then many hands make light work - it's no fun handling 2.4 metre long posts on a step ladder, but it CAN be done. I do NOT recommend swinging a sledgehammer to knock in 2.4m long posts whilst stood on top of a step ladder either but sometimes needs must. A committed spouse/significant other can usually be convinced of the benefit of lending a hand "Can you just hold that for me love?" by being allowed a say on internal fixtures.

The one bit you can't do yourself is the electrics (but I don't really consider that "building") - you should engage an electrician to design and commission the circuit for you. Please see chapter 6.

Before you get started

In building a garden office there are a number of considerations to think about before we even get to the plans. The design we're using is pretty flexible and has been designed to be "modular", so your first thoughts have to be

- "What do I want the building to do?" - "How much space do I have available?" - "How public/secluded do I want it to be?"

When I was building my office for example my requirements were fairly basic - I needed:

An office (so I could work undisturbed without getting cold feet and in the way of the ironing pile) with electricity, broadband and a phone. This should be big enough for a desk and chair, warm, quiet, light and easily accessible.

A shed (I'd be knocking down my existing shed to build the office, so I still needed somewhere for bikes, tools, hedge-trimmers, spiders etc). This should have a concrete floor, have power and be secure.

I had a limited space in my back yard (limited by the back gate's position to a maximum of 7.5 ft

wide and by the length of the yard to about 14ft long)

My building then (which forms the basis for the “standard” plan) consists of two rooms (or “modules”); an office (roughly 9ft x 7.5ft) and a shed (5ft x 7.5ft). By carefully considering the space, I’ve been able to fit as much into the shed module as used to go in my old brick-built shed (which was roughly the same floor plan as the whole new building).

Positioning is very important. The building is well insulated, intended to be warm in winter and cool in summer - your choice of position will either help or hinder this. It is wise to position the building out of direct sunlight, but not in deep shade either.

Pay attention to any party wall or boundary conditions you may have on your property before considering building too close to a wall or fence and please read the section on regulations regarding planning permission and building control.

Bigger Sheds

If I'm going to be honest with you I reckon that small is beautiful when it comes to sheds - the bigger the building, the less of a shed it becomes. Part of the attraction for me is in squeezing everything you can into as small a space as possible. The design is specified to be overengineered for its size and that's the way I like it :-)

I've had a few people asking me about sheds 4m x 4m and the only answer I can give is "I have no idea, I've never built one". This size does take you up into the 15-30 sq metre floor plan zone, which means if you build it within 1m of the boundary of your plot then you would have to comply with building regulations (see "regulations", page 22) - this is something you should really avoid if you can as it'll bump the cost of the whole thing up to the point where you might as well just buy one.

If you're building a deeper roof then it's a fair bet you'll need to make everything stronger - the roof will be bigger and heavier, the roof trusses will be longer and more prone to bending in the middle, so some sort of support like a central beam or supporting wall would be required...

I would recommend 100mm square fence posts as a matter of course on any larger design - they carry the weight of the roof and the cladding and there's more of both in a bigger design.

The one method of making the design bigger that I can feel relatively confident offering advice on is making it longer by adding on another "cube". The additional weight of the roof is supported by the additional posts.

By making a bigger shed, then you're really coming up with your own design and I'd highly recommend going and having a look at the "Secrets of Shedbuilding" website, where advice is given on doing your own designs.

REGULATIONS (UK as at July 2015)

Please note, I built my shed in England - if you're reading this book elsewhere, please consult your local laws regarding planning and building before committing to your build.

Planning Permission

The phrase used on the end of every episode of George Clarke's Amazing Spaces springs to mind... "Please check with your local planning office before embarking on any building project".

The rules are subtly different depending on where in the UK you live (I can't begin to comment on the situation elsewhere in the world). In short - whilst the planning regulations for outbuildings are not massively strict, you can't just build whatever you like, wherever you like. You should absolutely check the government's [Planning Portal³](#),

³<http://www.planningportal.gov.uk/permission/commonprojects/outbuildings/>

but architect Lynn Fotheringham's excellent and thorough guide to Garden Office planning permission puts it all in wonderfully plain english.

Please take the time to check it out [Planning Permission for garden buildings⁴](#)

Also, if you live in a conservation area, national park or other designated area then it may not be as simple as you think, in some cases there are strict party wall observations which may impact on you building right up to the boundary so absolutely, please do get in touch with your local planning office early on in the process. You're probably going to be planning this out for a while (not to mention allocating an appropriate time in your diary), so the couple of months you may have to wait will pass very quickly.

Another thing to consider very carefully is the impact what you want to DO in the shed may have on any regulations which come to bear. If you want to set up a business to which you bring clients then you will almost definitely need to ensure that the building is fit for purpose. If you wish to rent it out as somewhere people will sleep then you will DEFINITELY need to meet building regulations. If you're setting up a workshop within which you are using power tools and/or welding equipment

⁴<http://www.iobuild.co.uk/garden-buildings-planning-permission/>

then please think of the implications of it being a wooden building(!)

Building Regulations (details correct as at July 2015)

Building regulations define the quality and design of the structure as well as things like fire proofing and structural integrity - they are NOT the same thing as planning permission.

If your building has a floorplan of less than 15 square metres and is not directly attached to your house then in most cases it does not have to meet building regulations (apart from electrics and heating - see below).

The one big exception to these rules is if your building contains sleeping accommodation. As soon as you put a bed in there, then technically you need to comply - which makes life significantly more complicated. Might I suggest a well stuffed, comfortable armchair instead?

Electrics

It's important that any electrical system in your garden office which is connected to the mains complies with Part P of the Building Regulations. To achieve this; the electrics need to be installed or signed off by a certified electrician.

Have a think about what you're going to be doing in your shed though, because if it doesn't use HUGE amounts of electricity for long periods of time, then you might want to consider going Solar - which does NOT need to be installed by a qualified electrician - see the chapter on electrics later in the book.

Stoves and Heaters

Part J of the Building regulations apply to fitting heat producing appliances to buildings including outbuildings (ie sheds) - I have done extensive research regarding fitting a wood-burning stove to this design (as was my intention for Shed 2) and have come to the conclusion that it really isn't worth the effort. This is a wooden building and the clue is really in the name "wood burning" stove. Please see chapter 7 for more details. If you insist that a wood burning stove or similar is a

vital component of your garden office (and I can understand why it might) then I would suggest that you consider a different design or consult a HETAS registered installer to discuss ways by which you might modify the design to fit a stove safely.

If you are considering fitting a permanent electric heater, then you need to ensure that part J (above) does not apply (it more than likely will). Please make sure you discuss it with your electrician to ensure that the electrical load is factored into any circuit which is designed for the shed.

What am I going to need?

Well, before we get onto the actual components of the shed itself, lets talk tools.

Tools (to buy)

If you can't beg or borrow these, then you will need to buy them (plus, it means you'll have plenty of stuff to put in your shed once it's been built!)

- A good, powerful corded hammer drill with wide selection of wood bits
- A cordless drill with spare battery (for driving in screws mostly)
- A circular saw with rough and fine blades
- A jigsaw
- A lump hammer
- A claw hammer
- A “work mate” or similar portable bench/vice
- A long spirit level

- A good quality free-standing step ladder (or convertible ladder)
- A brick laying trowel
- An extension lead
- A “stanley” knife
- A large and small rip type handsaw

Tools (to Hire)

- A cement mixer (if you're making a foundation slab)
- A wheelbarrow (for mixing cement and moving rubble)
- A sledgehammer

Components (for the standard build)

- 8 x 75mm or 100mm fence post spikes
- 8 x 2.4mx75mm or 100mm treated fence posts
- 8 x sheets 8'x4' Marine Plywood (12mm)
- 24 x sheets 12mm exterior grade OSB board 8x4 (12mm)
- 11 x 75mmx8'x4' "Kingspan" type foam board insulation for the walls
- 6 x 50mm x 8'x4' "Kingspan" type foam board insulation for the roof and floor
- 1 x sliding aluminium patio door (with frame) 2nd hand from eBay or freecycle
- 1 x double glazed panel 2nd Hand from eBay or Freecycle
- 1 x small double-glazed roof-light
- 6m² damp-proof membrane
- 40 x 2.4m 3x2 Treated Construction Timber (sometimes called "CLS" or "scant")
- 50 bricks
- 1 x Roller shutter door 2nd Hand off eBay or Freecycle
- 200 x 60mm x 8 screws
- 200 x 30mm x 8 screws
- 200x 5x100mm screws

- 500 x 2" nails
- 30m² cladding (cedar planking or shiplap panels)
- Large Tub Roofing felt adhesive
- 15m underlay roofing felt
- 15m top layer roofing felt

Please consult your electrician for exact specifications of all electrical equipment, these are listed purely as an illustration.

- 1 x bulkhead light fitting
- 1 x low voltage LED spotlight kit
- 1 x single 13amp switched socket
- 1 x dual 13amp switched socket
- 2 x light switches from
- 1 x 2 circuit RCD protected consumer unit
- 25m 2.5mm twin & earth cable
- 25m 1.5mm twin & earth cable

Examples of all these components can be found on the website "Shed Calculator" [here](#)⁵, which will also do the job of adding up a rough total for them all for you - please note prices are not exact(!) Oftentimes it pays to speak with a local supplier or builders' merchant who may be prepared to give a substantial discount in exchange for providing most or all of the components.

⁵ <http://www.gardenofficeplans.com/shed-calculator.html>

CHAPTER ONE: FOUNDATIONS

Your shed will sit on a concrete plinth. This is important as you need a firm, flat foundation for the course of bricks which will protect the woodwork of the building from damp. Don't worry, this is not the huge job it sounds! It's well within the capabilities of the average DIYer, requires no specialist knowledge and is cheap, easy and relatively quick. It also (it has to be said) makes you feel like a "proper builder" - there's a real sense of achievement to puring a slab. You will feel better for it. Trust me.

Of course you may be lucky enough to be building your shed in a concrete back yard (like me) - in which case go and pour yourself a smug glass of red and read the next bit with a raised eyebrow. Don't get too smug though - you will need to do *some* work.

As with anything there are more than one way to pour a slab, and I'm only speaking from limited experience here. Others go into far more detail such as:

- Garden Buildings Direct⁶
- Secrets of Shed Building⁷

⁶<http://www.gardenbuildingsdirect.co.uk/blog/build-a-shed-base/>

⁷<http://www.secrets-of-shed-building.com/concrete-shed-base.html>

Marking out your plot

Before you can start your foundation of course, you need to know how big your building is going to be. If you're following the standard template, then this is easy - your building is going to be about 4400mm wide by 2100 mm deep.

Root out your tape measure and go and mark out exactly where you want your building to sit, making sure the ground is firm, dry and reasonably level. If the ground slopes very slightly, then you can compensate for this with your plinth - but the bigger the slope; the more difficult this will be (a significant slope will require you to level it out with hardcore and sand before commencing).

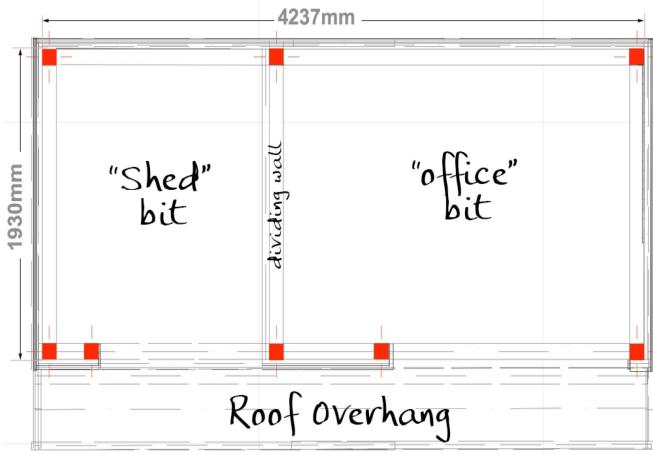


fig. i: fencepost locations marked in red

Now, the structure of the building is based around strong fenceposts which are sunk into the ground to provide a firm anchor for the cross-braced panel walls. These fenceposts are sunk at the four corners of the building, at each end of the dividing wall, and at either side of the doors. There are eight posts in total as some posts "share" the duties of wall-end and door-frame. Their positions are marked in red on the plan view above. If you space your posts apart by multiples of 1220mm (the width of your OSB/Kingspan panels) you will save yourself a HUGE amount of hassle cutting boards to fit later.

It's important to know before we lay the slab where these posts are going to go, as the post-holders will be "embedded" into the slab for extra strength. Notice that the posts do not mark out the actual edge of the building - this is formed by the cladding which is fitted at the last stage. Be sure to allow about 4 inches around the edge for battening and cladding. Also, I'm sure this goes without saying but please remember you're going to have to allow space for yourself to access the back and sides of the building once you've built it if you want to clad it. (seriously, just saying!)

Preparing the ground

Start by marking out your plot with string and then place your four corner fencepost holders. These are smashed into the ground with a sledge-hammer (use a small “noggin” of fencepost inside to stop the post holder getting all bent out of shape)

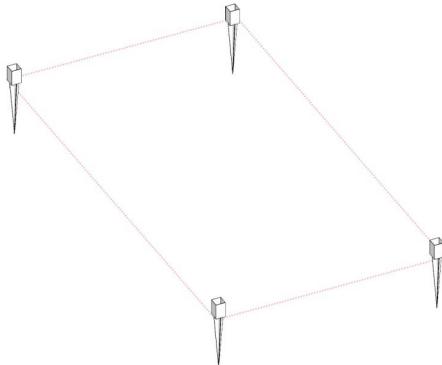


fig. ii: corner postholders in

IMPORTANT!

One thing to bear in mind before you start the slab is how thick you actually need it to be... The slab does not support the weight of the building - that is done by the fence posts, so it doesn't need to be hugely thick - and the thicker it is, the more concrete you're going to need and the longer it

will take to dry. I'd say you want it about 50mm thick, and what governs its thickness is the height of the post-holders above ground. Aim to sink the postholders so that just 50-60mm of the retaining "box" is sitting proud of the ground.

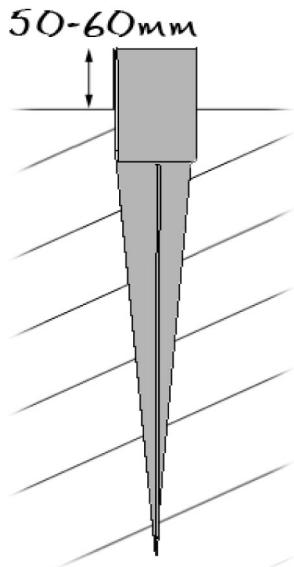


fig. iii: leave the postholders just proud enough to accommodate the height of the concrete plinth

Also, remember that these posts will form the main supporting structure of the building, so

MAKE SURE YOU SINK THEM SQUARE TO THE GROUND!

Next, offer up your office and shed doors to the floorplan. The patio door should sit flush next to the corner fencepost. Mark where the other end comes to

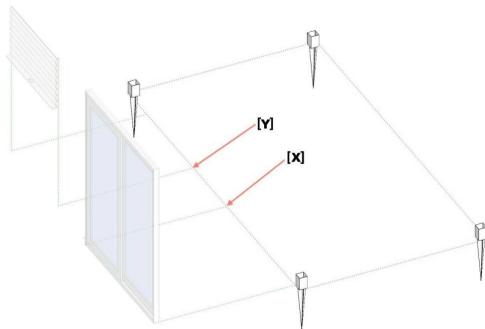


fig. iv

The “shed” door is a little bit more fluid. It is up to you how wide you want to make the shed (obviously the wider your shed, the narrower your office). Walk the floor of your office (if you have a desk and chair place them inside the “office” section and see how they fit). Once you’ve decided where you want your inner wall to sit, mark that position.

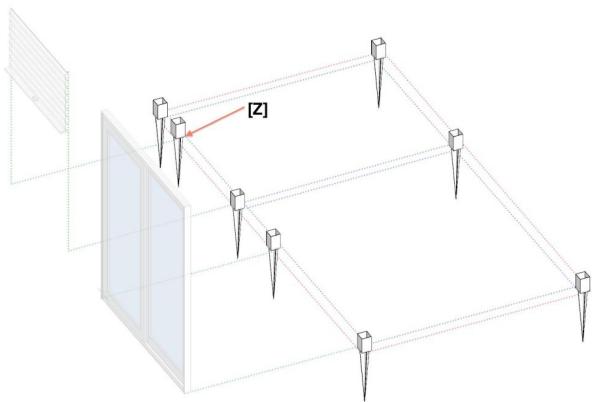


fig. v

OK, so now you've marked out the foundations of the building, you're ready to start work on the slab.

Laying the concrete slab

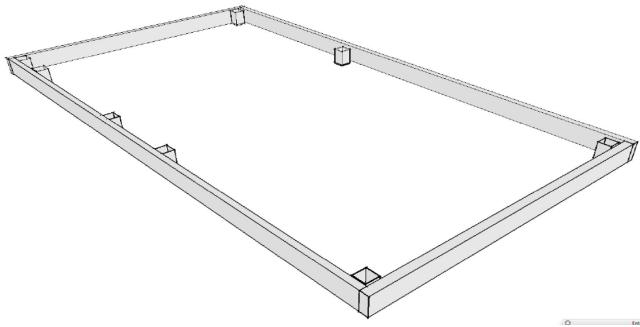


fig. 1:

Cut boards to fit snug to the tops of your post holders. It's important that they be the exact same height above ground as the tops of the post holders.

Different types of postholders

There are different type of post hoders available, and the type you choose will have an impact on the way you build your form.

I used the straightforward "Smash 'em in" type, but more common (and more expensive) are the type which use a bolt to "pinch" the grip on the post tight. If you have these, then consider the following:

Align the bolts with the tightening nuts pointing outwards (you want the thread to move outwards as you tighten - if it moves inwards towards the concrete then you won't be able to get it tight enough) and cut a notch for the bolt.

I would suggest the best way to stop the concrete getting in the way and ruining everything is to gaffer tape some thick plastic (like a rubble sack cut into bits) around (and over the top of) the postholders before you build the form. If you're careful when you pour then the plastic should stop the concrete getting in the way of the screw mechanism (it'll be important to keep that clean) by covering the tops you'll also stop concrete getting in and stopping you fitting your posts.

If you want to be double sure (and that's always best) then stuff newspaper tight inside your postholders to ensure no concrete can sneak in.

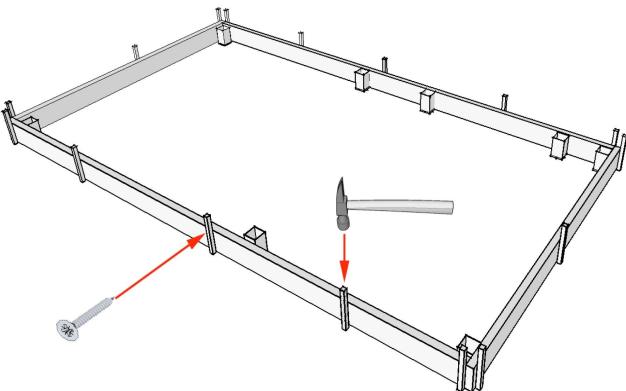


fig. 2

Hammer pegs in around the boards fitting them tight to the post holders, leaving no gaps. Then screw the pegs to the boards for extra security.

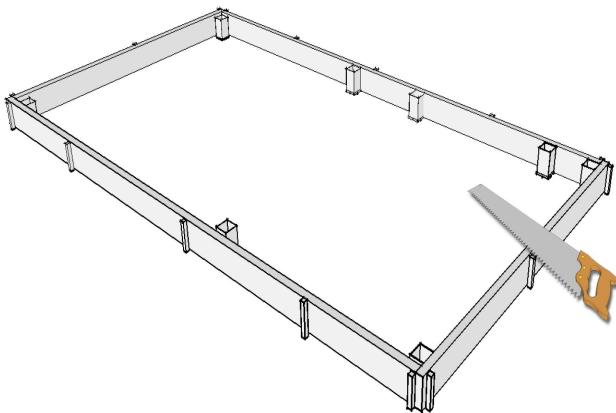


fig. 3

cut the pegs so that they fit snug with the top of the boards.

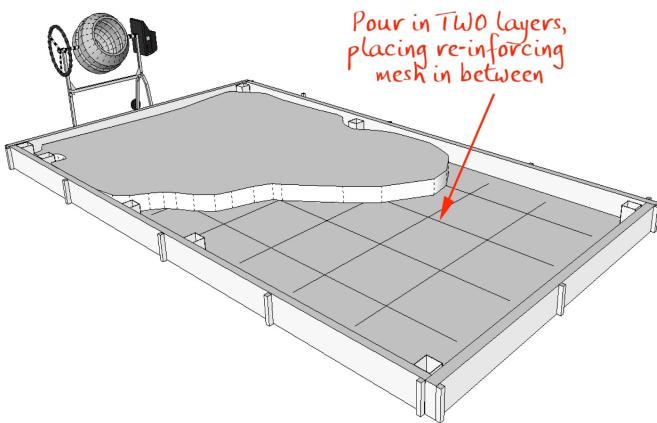


fig. 4

Pour your concrete into the form in two layers placing a steel reinforcing mesh in the middle for strength.

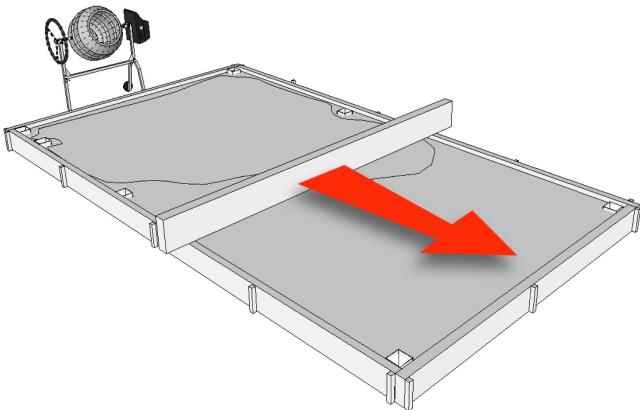


fig. 5

Smooth your concrete flat by pulling a flat board across the top of the form

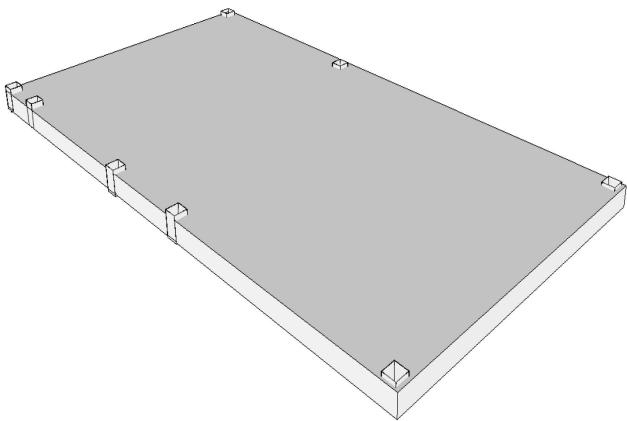


fig. 6

After about 24-48 hours, remove the pegs and boards leaving your slab ready to build on.

Congratulations, now go and make yourself a brew!

CHAPTER 2: Beginning the frame

You will need:

- fence posts
- A big hammer
- bricks
- sand & cement for mortar
- Damp proof membrane
- instant grab adhesive
- Alligator saw
- 2.4m 3x2 treated timber
- Spirit Level
- tape measure
- gumption (plenty)
- long screws (3" at least)

Fit posts

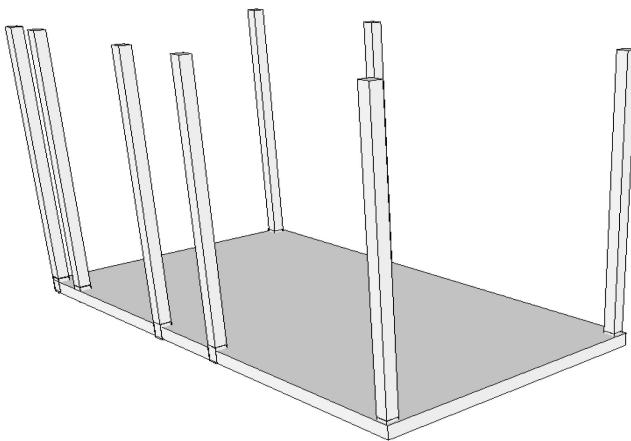


fig. 7

Fit your fenceposts into the post holders. Smack them down with a lump hammer (If they're the "smash 'em in" type - if you're using the screw tightening type then place them in gently and tighten up the bolts!)



post henge: At this point you might want to dance around the poles invoking the gods of shed construction.

Lay bricks

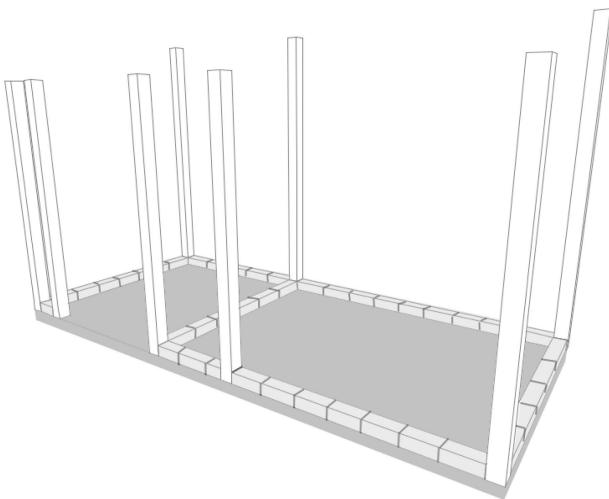


fig. 8: bricks

Lay a single course of bricks between the posts, leaving open the entrance to the “shed” half of your building



laying the course of bricks

Fit Damp Proof Membrane

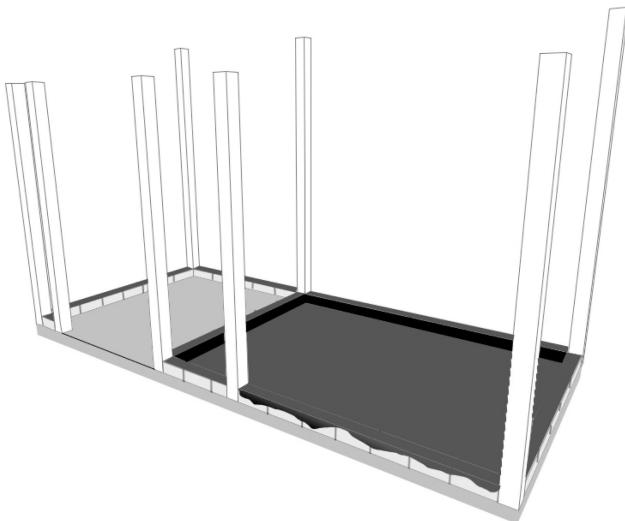


fig. 9: lay the DPC

Cut and lay the Damp Proof Membrane ensuring an unbroken single sheet under the “office” section.

Leave the concrete floor bare in the “shed” section. Cover the top of the bricks with the sheet using “liquid nails” glue or similar to fix if necessary. Overlap the bricks rather than trying to fit them exactly

Cut front posts to fit door

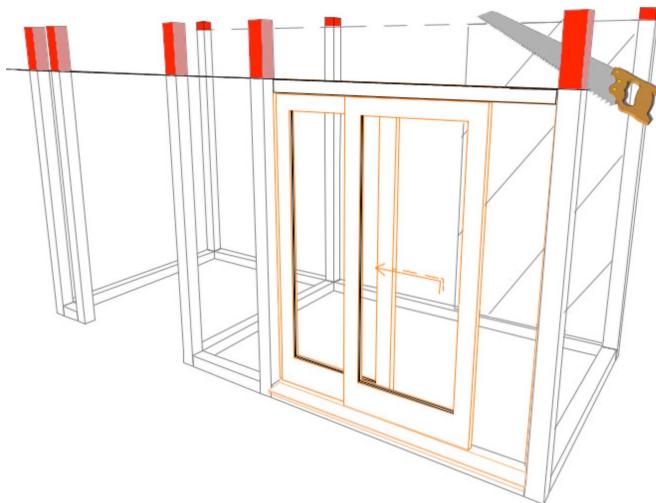


fig. 10

Loosely fit the office door in place (make sure you include the sill at the bottom as well!) to establish the correct height for the front posts. Mark this height (allowing the height of one of your scant posts for fitting purposes) against all the front posts, checking with a spirit level that the tops of all 5 posts are level (it's more important that they're level than all *exactly* the same height). **CHECK AGAIN!** Then saw off the surplus from the top of the posts.

While you've got your saw out, place one of the kingspan boards up against the fenceposts at the rear of the shed, marking the top against all 3 posts, you can then saw the top off these as well



Performance art. If you step through, you end up in Narnia

Screw your door frame in place securely, then

Secure patio door and top out the posts

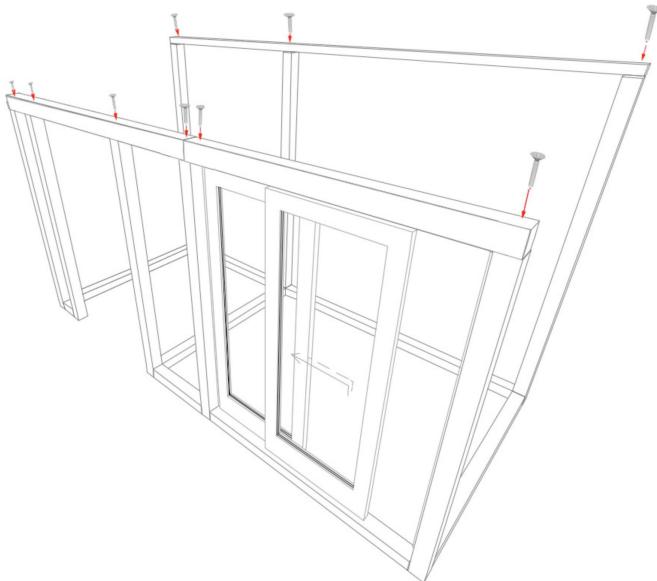


fig. 11

top off the door and posts with scant beams and screw them in. You'll need long screws (3" or about 10cm).

Make sure to check as you go along with spirit level and tape measure that all the fence posts

remain perfectly vertical and the gaps between freestanding posts at the bottom are the same as the gaps at the top.

If your screws aren't quite long enough to get a good bite then use a 10mm wood bit to drill a pilot hole an inch or so into the scant to ensure the best joint. Once the top beam is in place don't forget to screw the top of the door frame to it (!)

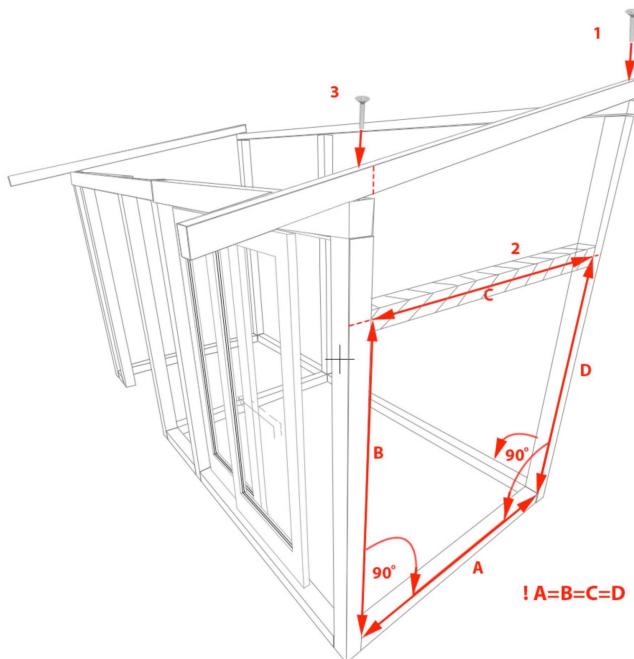


fig. 12: check everything is square

Before you put the roof trusses in just take a few moments to make sure everything is absolutely square. Starting on the sliding door end, measure the distance between the front and back of the shed to the insides of the posts (A).

Cut a scrap length of post to this length. Measure this distance up front and back posts (B & D) and mark it up. Fix one end of a 2.4m beam at the top rear corner of the building (1).

Wedge your offcut of wood between these two marks (C).

You can now fix the other end of the roof truss to the front beam (3) happy in the knowledge that your building is square!

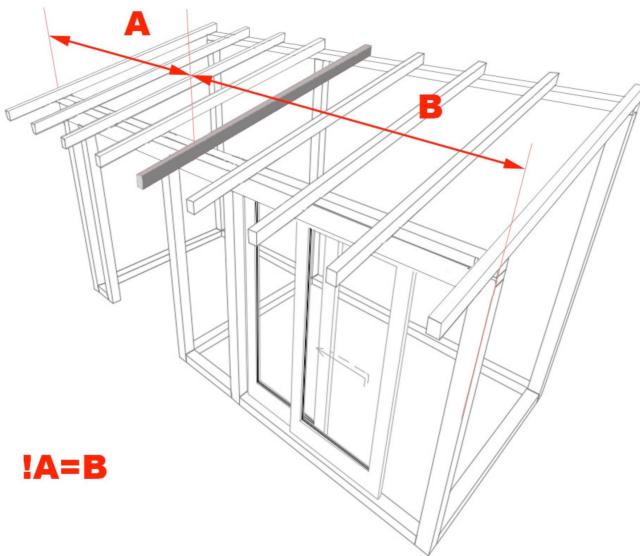
Knock the wedged-in beam out and repeat the process on the other end.

CHAPTER 3: Fitting the Roof

You will need:

- Tape measure
- 2.4m 3x2 treated timber
- 2 inch screws
- drill with screwdriver bit
- 8 x OSB sheets
- 4 x 50mm Kingspan sheets
- instant grab adhesive
- T-Square
- Circular/Alligator saw
- Roofing Felt
- Roofing Felt Adhesive
- Guts - this is not the nicest bit

Fit roof trusses



!A=B

fig. 13: Make sure your central truss is EXACTLY central

Attach 7 more 2.4m scant posts to the beams atop the walls an equal distance apart to form roof trusses. These can either be screwed in as above or simply nailed in using 6" nails and a lump hammer.

Make sure your centre truss is exactly half way along the building as you will be using this to make sure you sit your roof straight.



roof trusses in - at this point you really start to get a sense of the building

screw panels to trusses

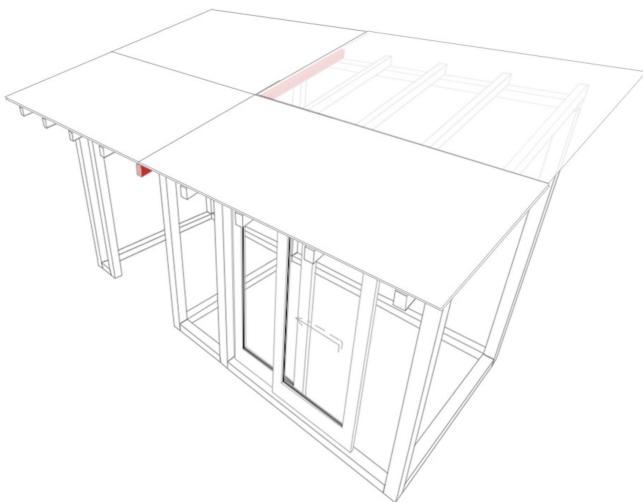


fig. 14:

Screw 4 pieces of 8x4 weatherproof OSB (Shiny Side DOWN) to the rafters in a 4 way cross centred on your middle truss

Make sure any overhang is limited to the sides and back of the building as shown (see fig 17).

Mount insulation to panels

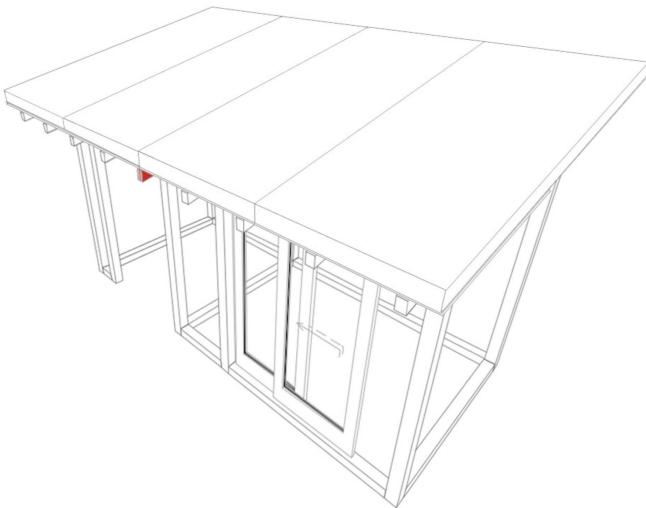


fig. 15

Using “Liquid Nails” or similar glue 4 sheets of 8x4 50mm thick Kingspan insulating board to the OSB

Complete the sandwich

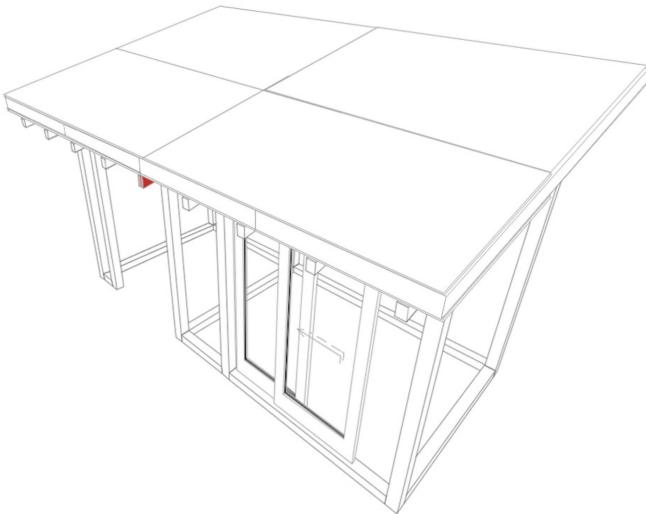


fig.16

Break out the liquid nails again to glue 4 more sheets of OSB to the kingspan (Shiny side UP this time).

Remove overhang

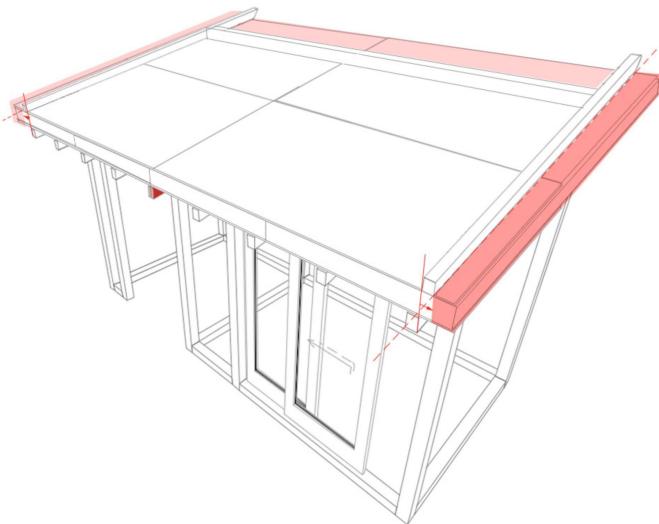


fig. 17

Using a T square, mark the top of the roof where the building edges lie. Against these marks rest a length of scant so that you are effectively ADDING the width of the scant to the width of the building. Draw along the edge of the scant. Repeat this process on both sides and the rear of the shed.

What we are doing is reducing the overhang of the roof to the exact width of one piece of scant - This

is important as the cladding of the shed sits proud of the building by the width of one piece of scant, so this allows the cladding to sit snug to the side of the roof.

Once you have double (and triple!) checked your measurements, using a circular saw or “alligator” reciprocating saw, remove the surplus roofing material.

Start felting the roof

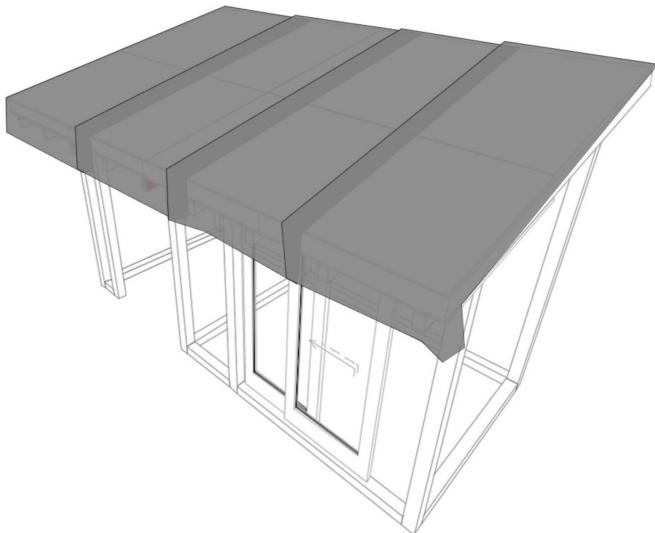


fig. 18

Using a bitumen based adhesive, affix overlapping sheets of base-layer roofing felt working left to right across the building. This is horrible work. Wear clothes you hate (they will be ruined)

Lay the top felt layer



fig. 19

Working front to back, using bituminous adhesive, affix overlapping sheets of garage/flat roof roofing felt on top of the base layer.

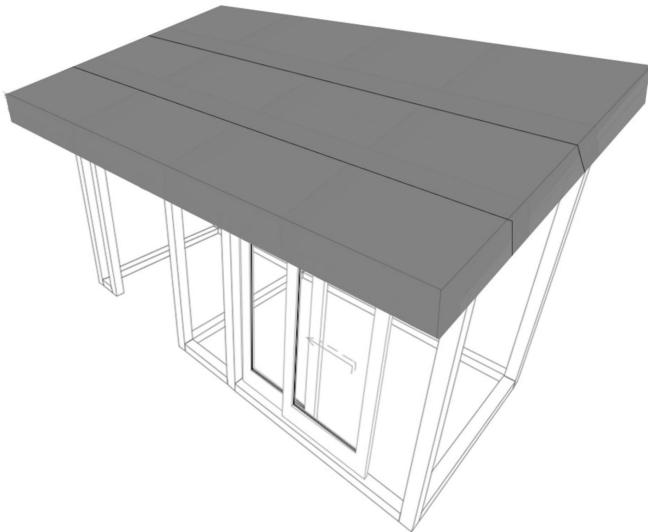


fig. 20

Trim the felt to the bottom line of the roof - making sure the felt covers the rafters.



felted

CONGRATULATE YOURSELF!! This is probably the hardest part over. Now go wash yourself in White spirit >>EWW<<

CHAPTER 4: Walls

You will need:

- Spirit level
- 2.4m 3x2 treated timber
- 2 Inch screws (loads)
- OSB Board (for the outside walls and the interior of the “shed” bit)
- Plywood (for the interior of the “office” bit)
- 75mm Kingspan insulation board
- Instant Grab adhesive (loads)

A note about different wall builds/fence post sizes.

There are different sizes of fence post available, 75mm and 100mm, just as there are different widths of insulation board. It's not for me to tell you which to use (although for a larger build I would suggest 100mm posts as a matter of course) - the illustrations over the next few pages detail the Pros and Cons of each. Depending upon which size of post you use there are different options for building your walls which affect the neatness of the finish.

Option 1: 75mm fenceposts, 50mm insulation

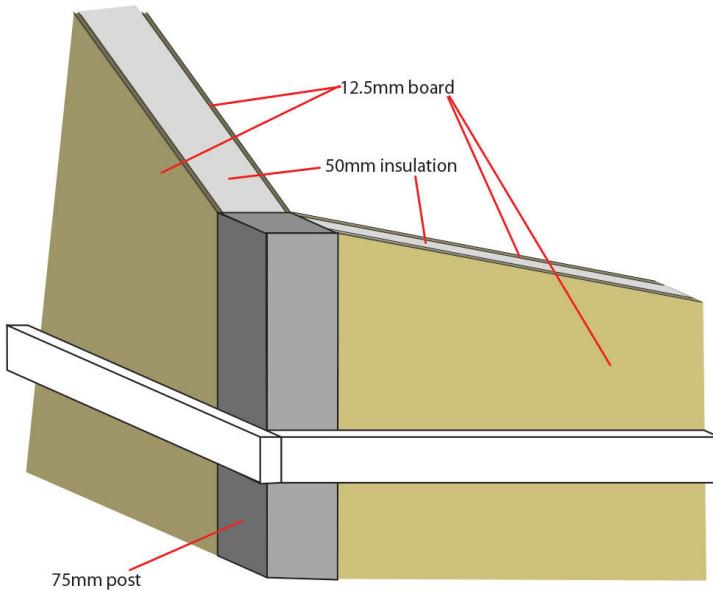


fig20.5(i) 75mm posts, 50mm insulation

This is a cheap and lightweight solution (50mm insulation board is cheaper, as are 75mm fenceposts and postholders) - but the 50mm insulation

is not good for a shed in which you spend a lot of time - it will get colder in winter. It is also not recommended for larger builds as the walls are more flimsy and the fenceposts not as strong as 100mm.

Option 2: 75mm fenceposts, 75mm insulation

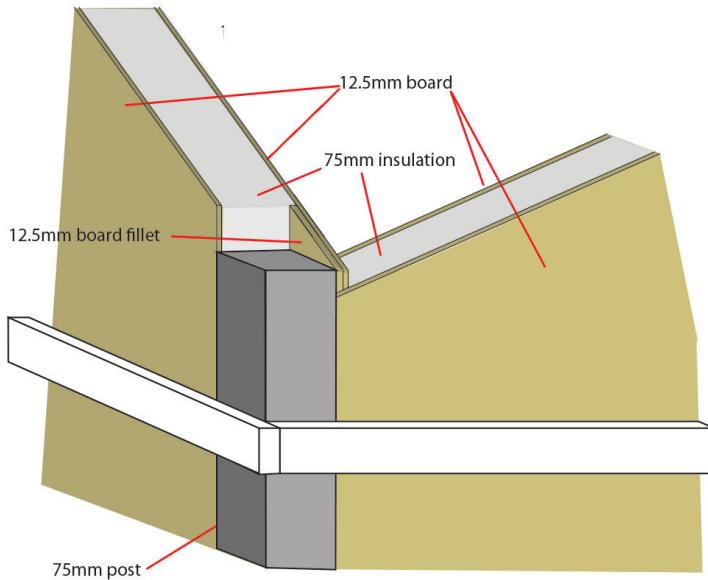


fig20.5(ii) 75mm posts, 75mm insulation

This is a good compromise for most builds. The 75mm insulation is warm and the 75mm posts and post-holders are slightly cheaper than the 100mm

ones. Having to cut a “fillet” piece of board is a pain though (remember you will also need to cut the panels you use for your internal walls as they will be narrower than the external walls to accommodate the fillet) and the extra you spend on board may well mitigate the savings made on fenceposts. I would also recommend 100mm fenceposts if you intend to go any larger than the standard build.

Option 3: 100mm Fenceposts, 75mm insulation

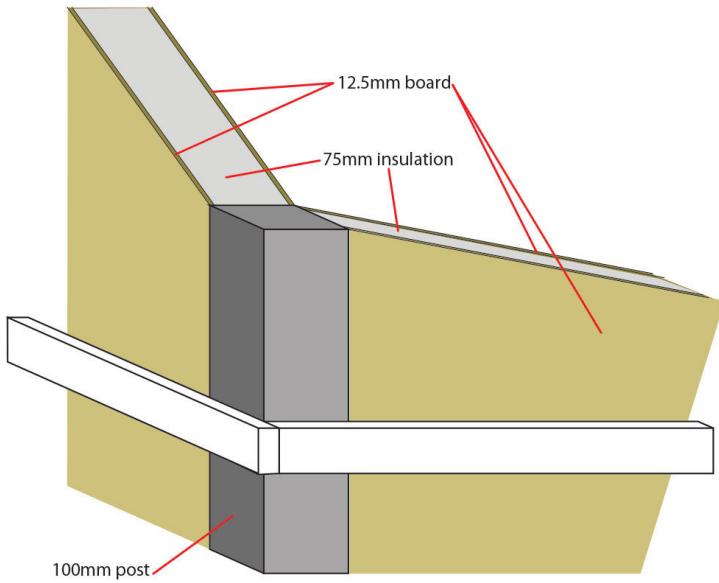


fig20.5(111) 100mm posts, 75mm insulation

This is (in my opinion) the best solution. 100mm (4 inch) fenceposts are hugely strong and the panels sit neatly between them with no fiddly fillet pieces

to cut. The downside is it will up the cost of your build by about £100 over option 2.

Start framing up

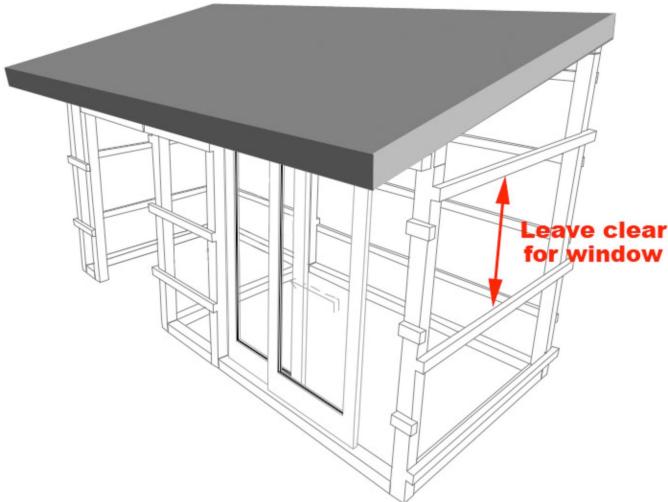


fig21. fix battens to the posts

Affix scant battens to the outside of all the exterior walls. On the back and “shed” side you should fix 4 battens equidistant from top to bottom. On the “Window wall” you will need to leave space for your window (obviously).

These battens are multi-purpose. They support the posts and hold the building square, they also act as support for the wall panels and exterior cladding. Their multi-purpose nature requires that they be affixed firmly. Use countersunk two inch

screws through into the main supporting posts.



framing up for a stud wall

Fit outer wall panels

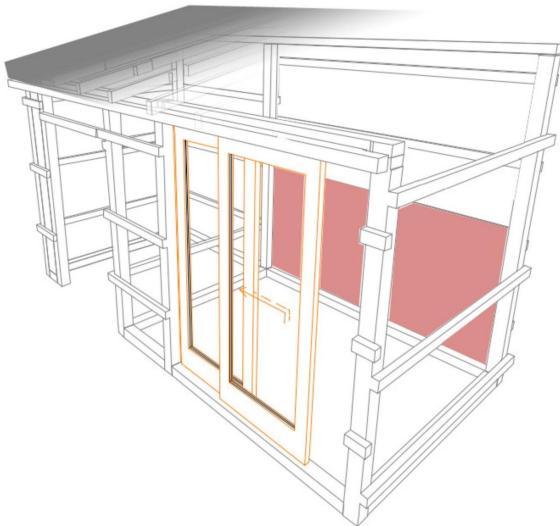


fig. 22

Working from the inside, screw a 8x4 plywood board to the battens to form the bottom of the wall - make sure the board is in straight and true and there are no gaps. Follow up by screwing the top board in.



fig. 23

Fit bracing piece

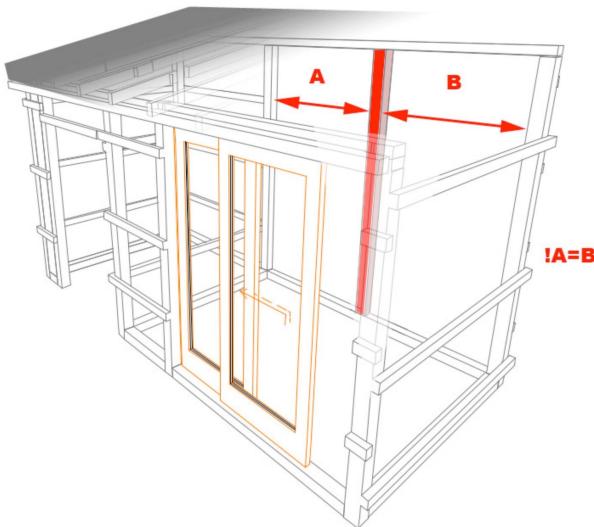


fig. 24

Screw a scant strut to the exact centre of the back wall, through the plywood into the mounting struts. This will help brace the back wall and give you something to screw the inner panels to. (If your office is wider than two panels you can ignore this, as you will have a fencepost to tie this to)

Fill the wall sandwich

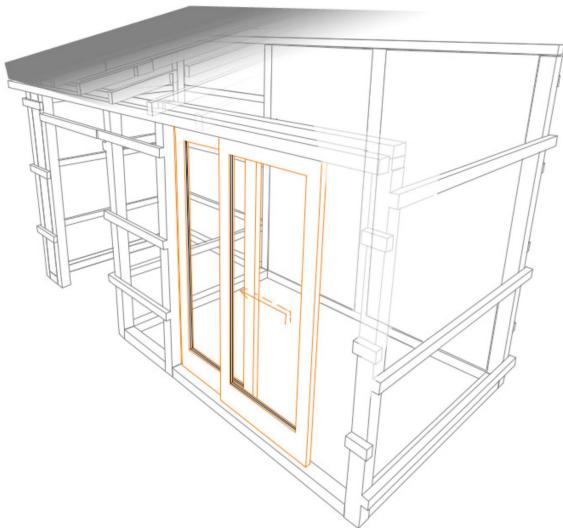


fig. 25

Line the inside of the outer OSB skin with “liquid nails” or similar, then cut 75mm kingspan panels to fit snug into the rectangular recesses you have made

Fit the inner wall panels

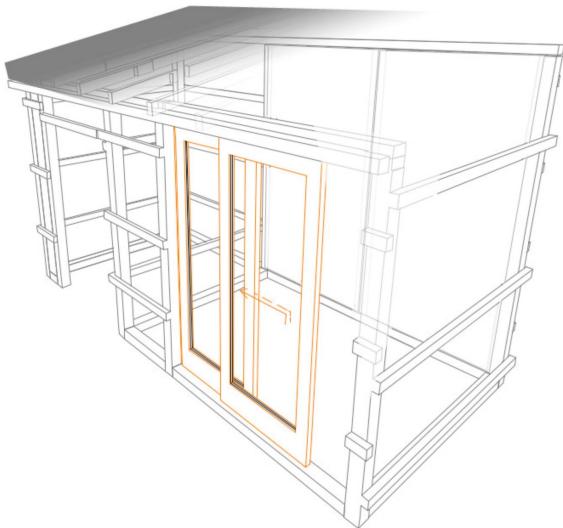


fig. 26

Cover the kingspan with more liquid nails and glue two pieces of 8x4 plywood to the kingspan joining them in the middle - They should just overlap the posts on either side. Screw the boards to the posts on either side and the scant post in the middle.



fig. 27

AT THIS POINT YOU NEED
TO CONSIDER THE ELECTRICS
- PLEASE GO TO CHAPTER 6

Put the rest of the outside walls in

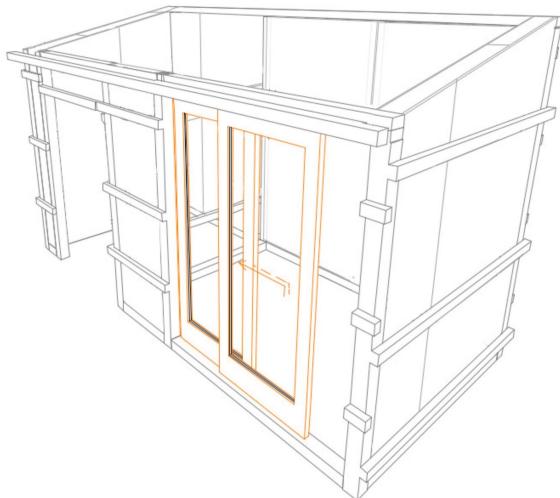


fig. 29

Continue round the rest of the outer walls. Where walls aren't an exact multiple of 4' try to overlap plywood and kingspan as shown above so that the finished wall has no gaps for wind to whistle in.

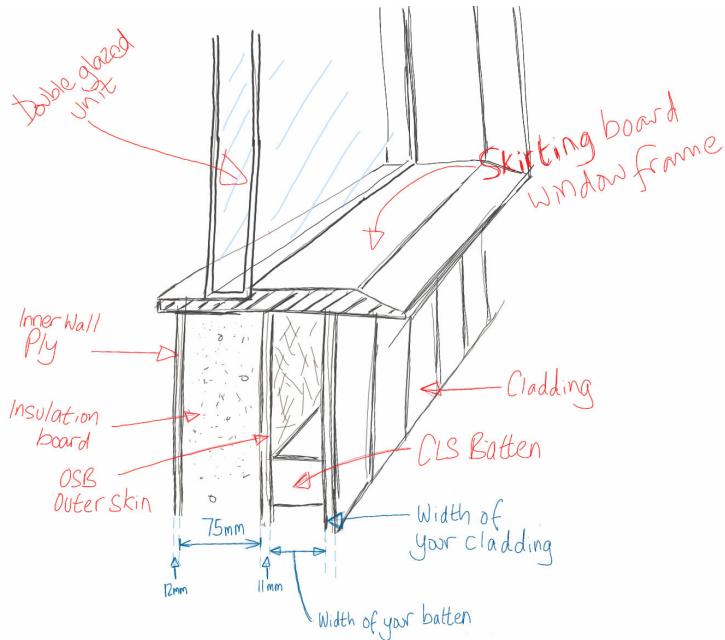
When putting in the back wall of the "shed" part of the building, you'll have to cut sections out for the cross-struts forming the back of the inner wall.

CHAPTER 5: Fitting Windows

You will need:

- Skirting board
- Double Glazed Unit(s)
- Spirit level & T-square
- drill with long bit
- Plane
- Circular saw
- Clear mastic frame sealant
- pencil
- Mitre Saw

Ok, windows are fairly straightforward. You're going to need one of your double glazed units and some skirting board. The height of the skirting board should be longer than the depth of the walls, plus the width of one of your 3x2 battens, plus the width of your cladding, plus about another 2 inches (!) Why? because it's going to be a frame/window-sill Like this:



Your window frame needs to span the depth of the whole wall

The length of the skirting board should be longer than the sum of all four sides of your double glazed unit.

If you can't find pre-shaped skirting board that high, then you can just use regular planed timber and shape it with a router/plane.

It's fair to say that the trickiest part of this is cutting the hole. You need to measure your window unit then add about 1cm all round. Hopefully you left room between your wall battens at step (fig 21) for the window - if not, then you're going to have to move 'em!

Using a spirit level and t-square, draw a perfect square on your inside wall to the size you just measured. Is it the right height from the floor? (only you will know this). Check and check again - you're about to take a circular saw to your lovely plywood wall ;-)

With the saw blade set as deep as it can be, carefully cut the square out - watch the corners!! You don't want to cut too far and leave "slots" cut in your wall.

Now, carefully follow the grooves you've cut in the insulation foam with a long knife (your kitchen bread knife is ideal for this purpose - I won't tell if you don't).

Fit a long (30cm) bit to your drill and drill through the outer wall at the corners of your square hole. Now go round to the outside and measure between your four holes. Hopefully, if you've been super accurate, they're just the right distance apart! If not then you're going to have to dig out your spirit level and t-square again and try to make it all line up.

For the life of me I couldn't think of a simple way of doing this - it's a trial and error process (if anybody can think of a better way - that's what the forum is for!). Once you're happy as you can be with your outer hole, dig out the circular saw again and cut a hole in the outer wall. It should line up. :-D

Using your mitre saw set at 45 degrees cut your skirting board to fit the hole you now have in your wall (REMEMBER TO ACCOUNT FOR THE MITRE WHEN MEASURING YOUR WOOD). You should now have a frame which pokes through your wall but doesn't yet fit your window. You will need to cut a rebate into the inside of your frame for the window to nestle in. This should be the depth of your frame minus the 1cm you added to the width of your window earlier on.

You want to cut it so the window sits sort of halfway through your wall ideally - but in practice you're going to be limited to the width of your plane. There's going to be a bit of jiggery-pokery

getting it all to fit nicely, but you should have by the end of the process a window frame which sticks out substantially from the side of your building, into which nestles snugly your double glazed window. This is profoundly satisfying.



The window frame will stick out some distance from the side of the shed

Don't worry if it looks like it's sticking out way too far at this point - remember, there's a substantial gap between the outside wall you have now and the cladding you'll be fitting later, and the window frame should stick out a couple of inches from the outside of the cladding.

Once you're happy with your window, glue it all in using the frame sealant.

CHAPTER 6: Electrics

(all details correct at July 2015)

Before I start this section I need to remind you that this is the one section of the build you really **SHOULDN'T** consider doing yourself (unless you're completely confident in your abilities or an electrician of course). Part P of schedule 1 of UK Building Regulations states that all electrical installations into outbuildings must be completed or certified by a registered 3rd party (typically an electrician or local authority building control body representative)

An alternative you may wish to consider if you don't require massive amounts of electricity and you're dead set on doing the whole thing yourself is to invest in a Solar Power kit - there's no Part P stipulations required for that - I'll go into that later on.

In order to give you an illustration of what may be involved (and what it might cost) I've suggested

a basic setup below but this is only indicative - please discuss with an electrician exactly what you want to use the shed for - any devices with significant power requirements (such as an electric heater or any kind of large workshop equipment such as a lathe) may have an impact on the design of the electric circuit - particularly if your shed is some way from your house.

When drawing up your requirements, please pay consideration to the fact that you're fitting them into a (flammable) wooden building. When specifying light fittings for example (which typically sit next to the ceiling) ensure you use bulbs which emit a minimum of heat - A halogen bulb, while nominally low voltage can generate a lot of heat, which if placed into a wooden ceiling with insulation behind it has nowhere to go, causing a potential fire risk - an LED bulb, as well as using a fraction of the energy, generates next to no heat, significantly mitigating any risk.

Your shed should be supplied by a separate feed from the main consumer unit in your house with any external wiring either fed through metal weatherproof conduit fixed to the wall (if you have a wall going directly to your shed) or via an armoured cable buried in a trench under the ground.

As a bare minimum I would expect most garden offices to require two basic circuits - a socket cir-

cuit and a lighting circuit. (see below)

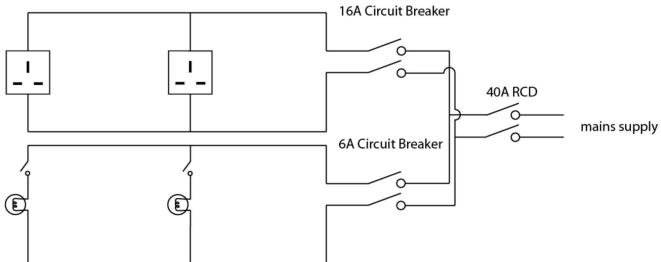


fig. 29: parallel circuit

The Shed will also require its own BS EN 61439-3 compliant RCD protected consumer unit (such as the one shown below). This will provide you with additional shock protection in the case of a wire being cut or a short circuit of any kind. Particularly important given that any power in the shed is likely to be used outside.



fig. 30: twin circuit RCD protected consumer unit

Agree with your electrician appropriate locations for your consumer unit, switches and sockets giving thought to how you intend to use the space so as to minimise trailing wires or the possibility of a child accessing the consumer unit.

You have a couple of options when it comes to routing the cables - if you're not fussy about aesthetics (or don't mind a bit of "industrial chic") then it is MUCH simpler to put the cable in trunking mounted to the wall (this also makes it far easier to avoid the cabling when mounting shelving etc and to add sockets/spurs/switches later should you need to) - in which case your electrician can simply come and fit it at any time.

If you'd rather have clean, sleek walls unadorned by electrical clutter then you can consider "bury-

ing” the cable in the kingspan panel - this is a bit of a faff frankly and requires you reaching an agreement with your electrician over how it’s going to be done (once you’ve buried the cable he’s only got your word for it that it’s been done right!), but it does leave a nice sleek look. If you’re going to be using this method then you should pay attention to the rules given in Part P of building Regulations governing cable routing and protection. DIYFAQ has a plain english explanation here [DIYFAQ⁸](#). If burying cables in insulation it’s important to consider the load on the circuit - the foam insulation does not readily dissipate any heat generated by overloaded wiring so may prove hazardous if the circuit is not designed correctly.

Once you’re happy where you want your sockets and switches to go, draw around the metal back boxes onto the plywood in these locations. Drill a hole in each corner and then join them up using a jigsaw. The consumer unit will be mounted to the plywood, so it only needs a 2 inch hole drilling to take the input and ouput cables.

Offer your plywood up to the kingspan and draw round the inside of the holes you’ve just cut, then remove the plywood. Using a stanley knife and chisel “chase out” the insulation contents of the

⁸ http://wiki.diyfaq.org.uk/index.php?title=Cable_Routes_and_Protection

outlines down to the depth of the back boxes (minus the width of the interior plywood - when sat in the wall there must be no gap between the backbox and the switch/socket plate where a spark might ignite the combustible wall).

Paying attention to the definitions of “safe zones” for concealed cabling - see DIYFAQ [here⁹](#) using your spirit level and a permanent marker mark out the runs of your cables. Cut a channel in your kingspan insulation using a stanley knife to cut a 1 cm wide slot and a chisel to “chase out” the foam, joining the sockets and consumer unit. Try to get an even depth of around 40mm (or halfway through the board).

Run your cable into the channels you've cut. If your cable has more than one socket on it then create a “bunny ear” loop of about 9 inches of cable at each socket - this will poke through the hole you cut in the wall allowing your electrician enough spare cable to easily connect the sockets and switches with the plywood back in place.

⁹http://wiki.diyfaq.org.uk/index.php?title=Safe_zones_for_electric_cables

Chapter 7: Non-mains electric Heat and light

Wood Burning/multifuel Stoves

Everybody loves a wood burner. They add an immediate “cosy” factor to any building they’re sat in. I have one in my house and love it. I didn’t have the budget for one for my last shed - I just made do with a little ceramic heater and an extra jumper when it got REALLY cold, but just about every build you see on “Amazing Spaces” seems to feature one. I’m guessing most readers probably factor one fairly high up on the wish list for an ideal shed.

Is it just me then who thinks “Is it really that sensible to put a wood burning stove inside a building made of wood?”. I got so far as drawing one in my designs for shed 2 without even thinking - erm isn’t this thing going to get REALLY HOT - right next to my wooden walls?

So I started doing some research. In short, the answer seems to be that whilst it’s technically pos-

sible to put a wood burning stove into your shed, like electrics there are regulations you must follow for your own safety (and those around you - after all, if you set a shed this size on fire it'll have an impact on your neighbours) - those regulations are Part J of the Building Regulations, available from the government planning portal.

If you plan on putting a wood burner in the shed, it will impact on the height of the ceiling and what the ceiling can be made of. It may well render your building as no longer a shed (depending on the interpretation of planning rules by your local council). You will need to set a solid, fireproof hearth into the floor of the building for the woodburner to sit on. You will need to ensure that any walls around the wood burner are non-combustible (ie NOT plywood!) and protected from overheating. The woodburner will need to be the right size for the enclosed space it sits in (from personal experience, a woodburner gets very hot very quickly, but once it's hot it'll take a LONG time to cool down again).

Given the roof contains wood, you will need a double-lined flue to ensure that heat from it doesn't set the roof on fire and there are complicated maths to ensure that the flue is the right height above the roof to ensure carbon monoxide doesn't leak out of the door.

In short? If you're dead set on a wood burning stove or similar, then please get in touch with a registered HETAS installer before you start work on your shed. This design is simply not best suited to fitting one and you'll need to make some changes.

Solar Electricity

When I built my shed, back in 2009, solar electricity was still very much in the “hippy enthusiast” field. To the extent that I never considered it because it simply wasn’t “on my radar”. This is a real shame, because I reckon solar is absolutely perfect for this shed and my personal requirements from it.

I’m not a big power user - I need light, enough power for my laptop, a radio, to charge my drill and that’s about it.

Solar kits are available from reputable suppliers online such as Maplin and Amazon (although I’d recommend shopping around for a better deal). They typically use 12v car (or better still, deep cycle boat) batteries to store the power the panel generates and by the use of a device called an inverter, can be used to power regular 240v devices like your laptop.

I’m not claimimg to be any kind of an expert in solar - I haven’t had the opportunity to get my hands on a kit yet. But for the same price as your electrician would charge you to cable up your shed (roughly £500), you could be completely self sufficient and “off-grid” with none of that painful messing around with Part P regulations.

Rather than attempt to write any more on a sub-

ject I know very little about I will simply point you dear reader in the direction of those who know best:

Shedbog:

Uncle Wilco has some great articles from solar experts at this page: [Shedbog¹⁰](#)

The Solar Shed: Have received favourable reviews from my go-to trustworthy blogs (shed blog and Workshop Shed) [The Solar Shed¹¹](#)

WorkshopShed Interviewing Kevin Holland from The Solar Shed, [here¹²](#)

Instructables This great (really basic) how to do DIY solar is of value as much for the comments at the end (instructables)[<http://www.instructables.com/id/Run-your-Shed-from-a-Solar-Panel/>]

¹⁰<http://www.shedbog.co.uk/?s=solar>

¹¹<http://www.thesolarshed.co.uk/>

¹²<http://workshopshed.com/2015/02/solar-powered-workshop/>

CHAPTER 8: The Floor

You will need:

- 2.4m 3x2 treated timber
- OSB Sheets
- 50mm Kingspan insulation

Floor joists

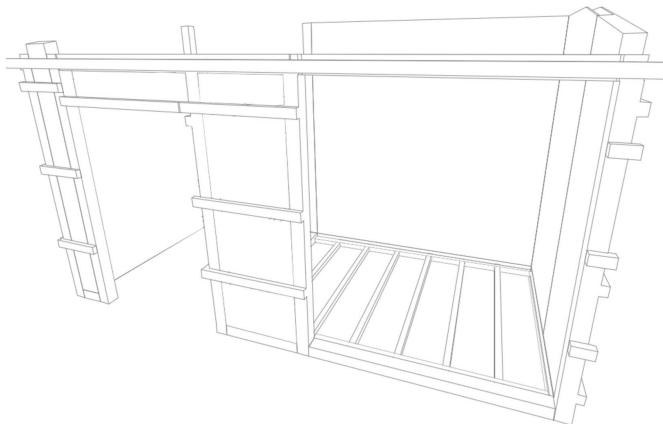


fig. 32: battens in

Place floor “joists” in place in the floor well - these don’t need to be huge - their only job is to allow air to circulate under the floor insulation - 3cm square battening will do the job.

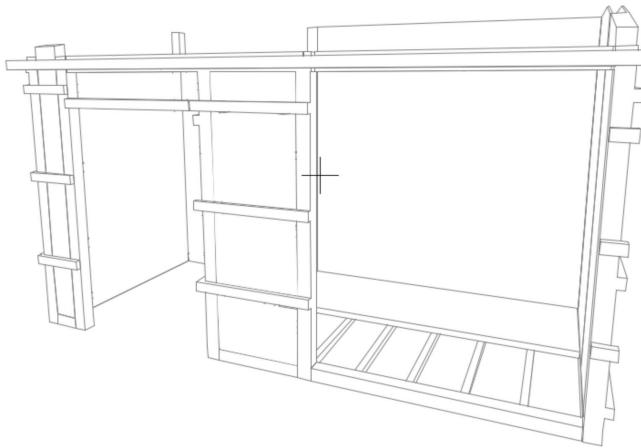


fig. 31: Put kingspan on top of the battens

Lay 50mm kingspan insulation panels down on top of your battens.x

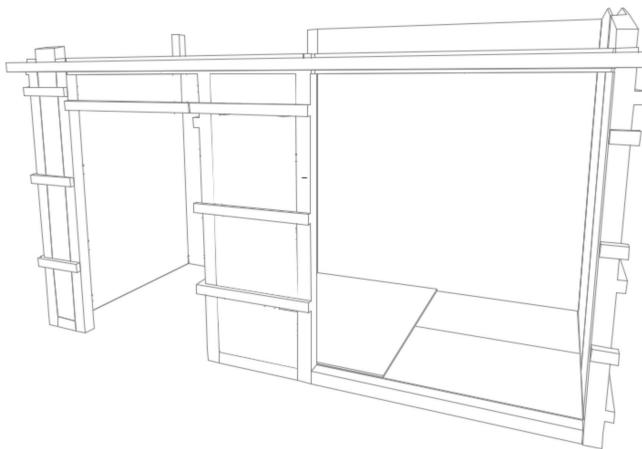


fig.32

Then lay OSB on top of the kingspan.

CHAPTER 9: Cladding & Finishing

Cladding

You will need:

- Tape Measure
- Tongue & Groove Cedar Cladding
- spirit Level
- Chop Saw
- Hammer
- waterproof frame sealant
- 1" hidden head nails
- extruded aluminium "L" profile edging trim

So. You've got this far - sit back and have a cuppa, you've done well! You have a building. This is very good. It might look kinda humble, but this is where everything changes. I was originally going to offer instructions in here for different types of cladding - wainscoting, shiplap etc, but you know - there's really only one finish that matters and that's vertically aligned tongue & groove Western Red Cedar Cladding.

That's what the Ecospace studios use. It's what you see on Grand designs. By now you've worked bloody hard, you've got splinters, aches, tar covered knees. You should have broken at least one power tool (if not, then I want to know why - you're clearly not working hard enough). You and your partner will more than likely have had one significant row about the state of the back garden or the amount of time you've been absent.

You know what? you've EARNED cedar. Yes it's more expensive, but you know what? You won't be spraying it with preservative every 3 years (and that stuff's not cheap). Instead you will be able to watch as over the years, just like a Grand Design, your shed weathers, turns that lovely grey which Kevin McCloud describes as "becoming one with the landscape".

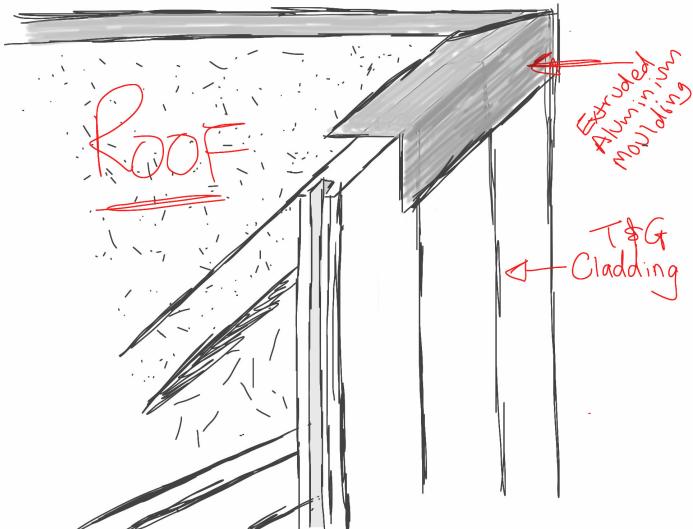


just look at that would you?

Convinced yet? Good. Actually cladding the shed is a pretty simple exercise. The first thing to make sure is that you've got battens everywhere you need them. You might need to attach a CLS batten across just above the top of your roller shutter and ones sticking out from the walls to the leading edge of the roof. The actual front of the roof we'll deal with in a bit.

Start at a corner. If your shed is freestanding then we'll do the back first, if you've built it against a wall or into a corner, then we'll start with the side(s).

Measure from the bottom of the OSB outer panel to the top of the roof (if you're doing the sides then make sure you measure both the "front" and "back" edges of the plank to account for the pitch of the roof).



the join between the roof and the cladding is covered with aluminium extrusion for neatness and weather-proofing

The best way to nail them on without the nails showing is to set the nails into the groove of the t&g at an angle - it's a bit fiddly and if you're using this method then you'll have to saw off the "tongue" from the first plank - alternatively you can do what I did and just nail 'em on through the cedar - (be aware though that this method will leave streaks in the cedar as the wood ages)

Saw the plank to length and nail it to the battens. Repeat. Seriously, that's it.



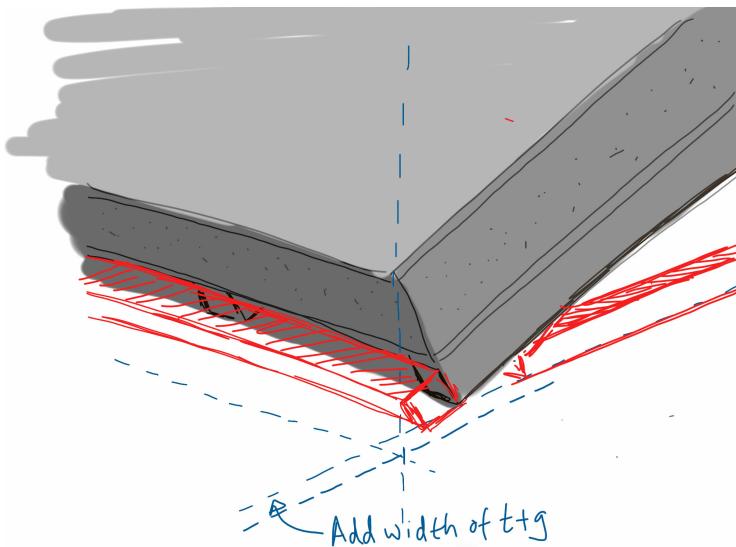
fixing cladding

Cladding the roof overhang

Due to its construction, the front of the roof is not precisely vertical. Cut and tack the roof felt to the edge of the roof joists, then using a spirit level, attach a 3x2 batten to the ends of the roof joists (screwing through the roof felt) such that

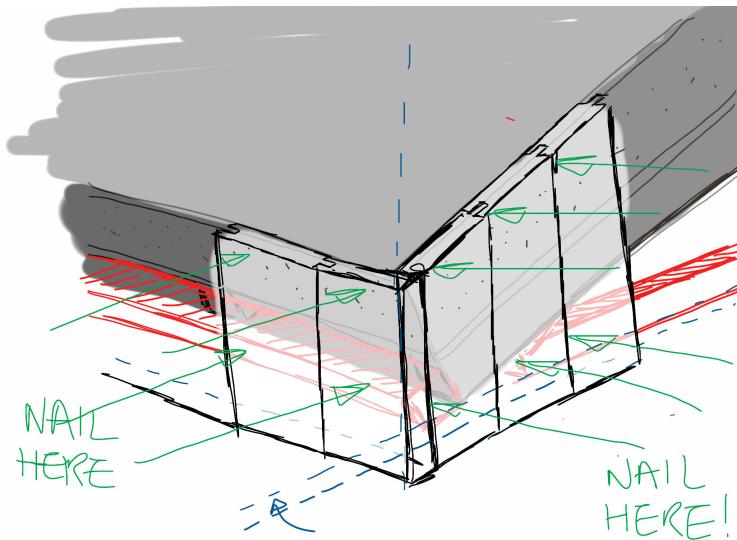
resting the spirit level against the edge of this batten and the top of the roof overhang results in a clear vertical (the vertical blue dotted line in the fig below)

Attach another 3x2 batten horizontally (measure using the spirit level again) between the corner fencepost of the shed and the bottom of the edge roof joist. When we attach the cladding to the front and sides, we're going to leave an exact "slot" in the underside of the overhang to which we will attach more cladding (later).



attach battens for roof overhang

You can now attach cladding to the front and sides of the overhang, nailing into the battens and glueing directly to the roof felt/nailing into the OSB at the top of the roof (you can use cedar off-cuts for this) - don't worry if the top isn't exactly level as it will be finished with the aluminium extrusion as above.

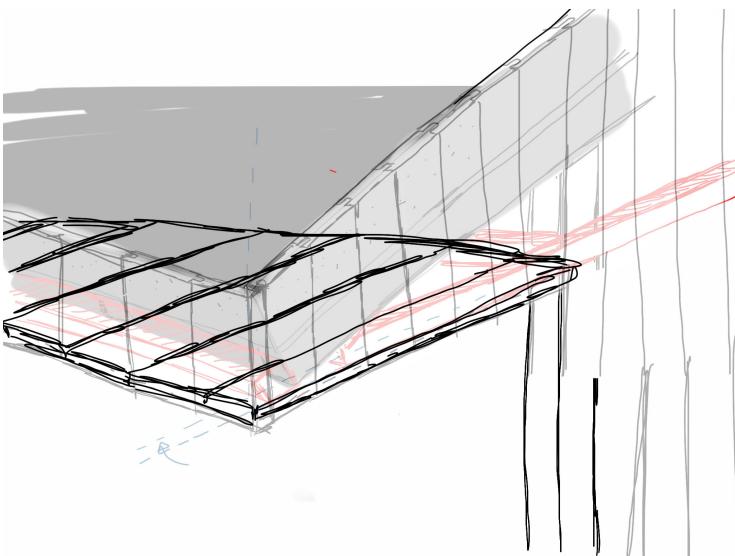


attach battens for roof overhang

Now you've got the front and sides done, the only part of the shed left to clad is the underside of the roof overhang - you didn't think we were going to leave it just empty did you?

Firstly, run a batten along the top of your patio

door - making sure that the bottom is level with the bottom of the batten you screwed to the front of the overhang. Now you can cut and fit tongue & groove between these two battens to fill the underside of the roof overhang.



filling the overhang underside

Here are some photos of what it should look like when finished...



Look how much it holds!

internal



finished



Warmth

internal



The "Box Shot"

finished

finished views

FINITO!

OK! Stop! you did it! you built yourself a shëd! Take your partner out for a meal - they've put up with you traipsing mud through the house for weeks. They've possibly even made you many cups of tea and put up with you utterly destroying the back yard - Don't worry, that mess can wait for a week or two... Sit back, take photos, BLOG - Send me an email about your shëd - I'm at dom@oddjones.com but most importantly sit back and congratulate yourself on a job well done. Like I said at the beginning, this isn't a small job, like putting up a garden shed from your local DIY store - you've built a proper building, one which will stand the test of time. You'll be able to look at it over the years to come and think back with a smile at that time you nearly sawed through your arm or the number of times you smacked your thumb with a hammer (just me then?) or the vile, horrible job tarring the roof was. You'll smile because you'll be sitting in a warm cosy little building, doing whatever is was that you said you were going to do in it. Well done you!

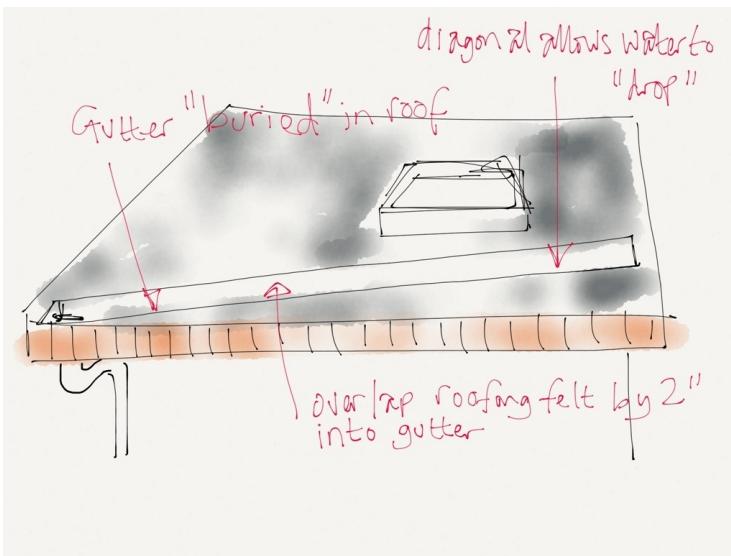
Finishing Options:

Just some thoughts really about how I might have done it differently. I lived with the shéd for about three years before I moved house, and there were some points which never made it into the original design that might be worth considering...

1. Rainwater Management:

I sloped the roof down to the front because I preferred the look of it. However there were a number of times I was sitting there on a rainy day watching raindrops fall off the front onto the decking (or worse, down my neck when I went in to get a cup of tea) and thinking - Why on earth didn't I fit some kind of guttering into it? I didn't want to ruin the sleek look of the building by hanging guttering off the front, but one thought I had was that the roof is technically thick enough to bury a gutter in - it would be possible - BEFORE FELTING! to cut a channel in the insulation board within which I could bury a gutter... and I could take advantage of the natural slope of the roof to

do the work of channelling the water away... Much care would need to be taken to ensure that it was waterproof - In my belt-and-braces kind of way I'd probably want to felt both underneath the gutter and overlap the felt INTO it to make sure that there was no way water could get into the roof because that would surely ruin the building



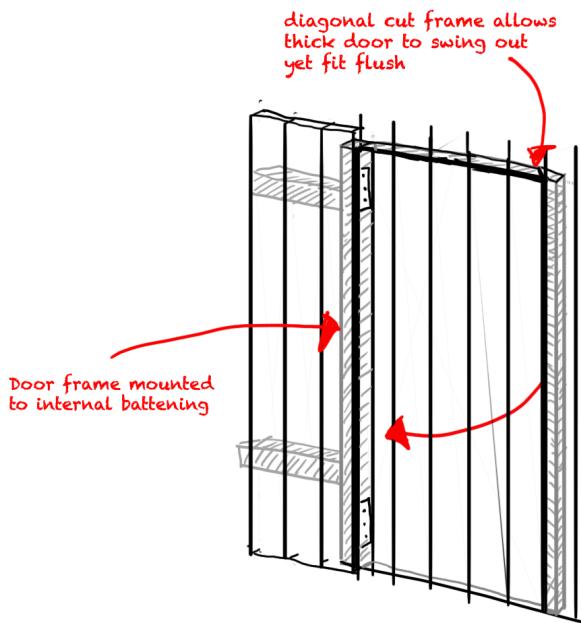
like this:

2. The Damp-proof membrane:

When I first built the shed I ran the membrane between the course of bricks and the walls - like you would expect in your house. This makes sense for a standalone building as it stops water rising up through the bricks into the wall. What I neglected of course was that I'd built right up to a wall and water would INEVITABLY (somehow) get down between the wall and my shed. So what happened was, after a couple of months I started to see a light dusting of mould in the inside walls - because tiny amounts of water were running down the garden wall, hitting my membrane and getting INSIDE. I had basically created a small pond into which I'd set my floor insulation and channelled this tiny trickle of water. I fixed this by yanking the membrane out from between the wall and floor and tucking it up inside the walls - the effect of this was to let the water trickle out UNDERNEATH the membrane and out to the front of the building. As soon as I did this the shed dried out a treat.

3. A hidden hinged door instead of the roller shutter:

I had a couple of people email me about this option - I realise the roller shutter is a bit "urban chic" for some people's back gardens and they wondered if I'd given any thought to a regular shed door type arrangement. It's perfectly feasible of course (Indeed I'm seriously considering it myself for my next build) - something like this... The door could be clad just like the rest of the building and a simple deadlock fitted to secure it. Less secure, but if you're only keeping the lawnmower in there then that's not such a worry.



hinged door

4. Exterior Lighting:

Another realisation which hit me after I'd finished the roof was that I could've run some low voltage cabling up under the overhang and had 2 or three downlighters in there. To be honest my back yard was too small for entertaining, so I never really contemplated exterior lighting as I was never out there in the evening! I now have a proper garden and the consequent urge to make the most of every last minute of a summer's day. Time and lighting tech has moved on significantly also, with the rise of solar powered LED lighting convincing me to maybe make use of the large expanse of roof to put some non-mains based lights in my next build...

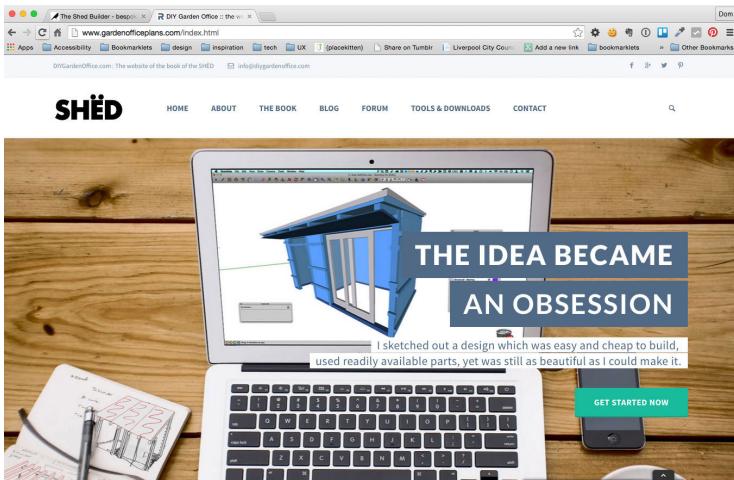
...speaking of which...

CHAPTER 9: What Next?

A New Website

To those loyal readers who purchased the book a while ago (it's been over a couple of years now since I first put it up for sale). First of all a heartfelt thanks for sticking with it (Yes - I know it just kind of petered out after the cladding and I'm really sorry - you get this new version for free, I hope it's worth it). I have built a new website around the book and the shÃ¢f «d - you'll find it at <http://gardenofficeplans.com>¹³

¹³<http://gardenofficeplans.com>

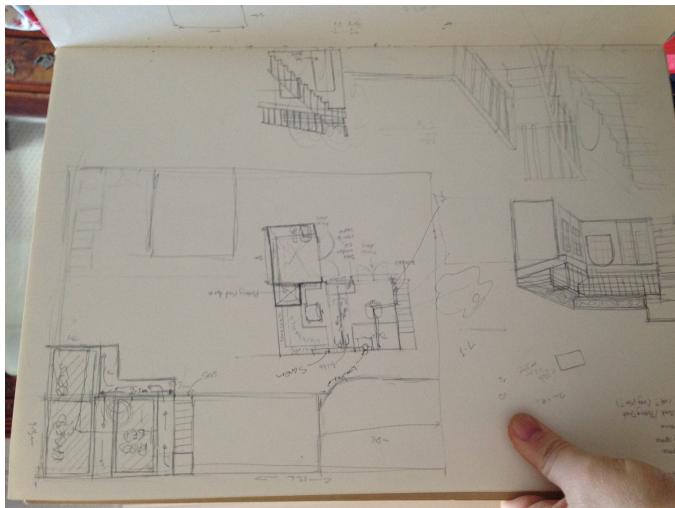


check out the new website

A New Shed(?)

I've been inspired by Joel Bird's fabulous 2014 Shed of the year winner "the allotment roof shed" - you can see Joel's amazing work at www.joelbird.com¹⁴. Joel is a talented artist and musician as well as shed builder, but it was his inspired idea to put an allotment on the roof which finally got me started on my plans for the corner of my new garden. I was also donated a wonderful arched window by my local church in exchange for some work I did on their website so that will form a vital part of the build.

¹⁴<http://www.joelbird.com/theshedbuilder>



plans afoot

My plans to start work in August 2015 have been stymied by forces beyond my control but I'm still saving the pennies so hopefully I may be able to get it done in summer 2016.

This shed is going to be a bit more adventurous than the last one - it's going to be slightly bigger - the same length as the last one, but with an "L-shaped" toolshed on the side, allowing me to fit an office for my wife who works from home, a workshop for me and a gym/cycle turbo-trainer setup for us all (we're a family of rabid cyclists).

The build will (of course) be blogged - both at [gar-](#)

denofficeplans.com/blog¹⁵ and my original blog onegranddesigns.com¹⁶

I will also be making sure to photograph all parts of the build to make sure that this book is fully illustrated in future versions.

There may even be a return of the dreaded SHED-CAM!

¹⁵<http://gardenofficeplans.com/blog>

¹⁶<http://onegranddesigns.com>

A New Book?

Here's where you guys come in! This book has sold over 800 copies to date. When I originally put it together I was hoping there would be a lively community of shed builders at the builders forum but as a result of installing difficult to use forum software it just never really happened and my saddest admission is that I lost touch with you all - Leanpub don't pass on purchasers' emails to me unless you explicitly say that's OK, so I have no way of getting in touch or knowing how many sheds you have built!!!

I had a couple of lovely builders get in touch with me, thanking me for the help the book gave in getting them started on their builds, including fabulous pictures and stories - (You can Find Andy and Meryken's builds detailed on the blog) and that got me thinking (especially the picture of Andy gleefully hammering the roof of his shed) what a great book you could make out of 800 stories of people all building the same shed - why are they building it? what do they get up to in it? how did they find it? how different is THEIR shed from the others?



a happy shedbuilder like you!

PLEASE GET IN TOUCH!

I'd love for you to get in touch. Whether you've actually built a shed or not - please contact me at <mailto:dom@gardenofficeplans.com>¹⁷ or use the contact form at [gardenofficeplans.com/contact.html](http://www.gardenofficeplans.com/contact.html)¹⁸

You can find me on twitter at @diygardenoffice

¹⁷ <mailto:dom@gardenofficeplans.com>

¹⁸ <http://www.gardenofficeplans.com/contact.html>

Resources for Builders

Building a shed can be a lonely business sometimes - you're stuck out in the back garden in the tipping down rain trying to figure out how to attach a roller shutter with no instructions...

Here are some really valuable resources I've either bumped into directly myself or been put onto by readers and fellow shed builders.

Secrets of Shed Building

[Secrets of shed building¹⁹](#)

I was put onto this site just recently by the esteemed Uncle Wilco. Site author and structural engineer John Coupe has put together a mine of useful information for any would be builder (which would have saved me considerable head scratching if I'd discovered it earlier). I can't recommend his content highly enough.

¹⁹<http://www.secrets-of-shed-building.com/>

SHEDBlog

[shedblog²⁰](#)

The original and best :-) The blog of the Shed of the Year. Uncle Wilco is the originator of the word sheddie and has been single handedly running shed of the year since 2007.

OneGradDesigns

[OneGrandDesigns²¹](#)

Bit of a plug for myself here, but this is the original blog I did when I was building this shed - you'll recognise a lot of the pictures (and some of the content!) from this book.

Shedworking

[shedworking²²](#)

Alex Johnson writes the Independent newspaper's Home Front property column but is better known in shed circles for his long running blog on sheds and working from them. This blog contains some real gems on DIY and planning. His book makes a great conversation piece too.

²⁰<http://www.shedblog.co.uk>

²¹<http://onegranddesigns.com>

²²<http://www.shedworking.co.uk>

Amazing Spaces

Amazing Spaces/Shed of the Year²³

If you're reading this then amazing spaces needs no introduction. Still great for inspiration though.

Inside Out

Inside Out Garden Building Guide²⁴

Produced by architect and ex garden-office company owner Lynn Fotheringham offers valuable insight from inside the industry as well as a MUST READ section on planning permission and building regulations.

Workshopshed

Workshopshed²⁵ A blog about building a workshop in a shed at the bottom of the garden. Has some excellent detail about electrics including Part P and why you really need to have an electrician wire your shed to the mains!

²³ <http://www.channel4.com/programmes/george-clarkes-amazing-spaces>

²⁴ <http://www.iobuild.co.uk/>

²⁵ <http://workshopshed.com/about/theshed/>