

pdh estimating - residential costing services

owner builders construction guide

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introduction...

this is a general guide for the owner builder to help in the construction of their own home. It must be stated from the very outset that this can be a complicated task, especially for those who have not ventured down this path before, however, this will not deter the owner builder from attempting to do so, which is why we have put this simple guide together.

owner builders can save money but this comes at a cost - and that cost is time - because owner builders have to do the work of a registered builder, making lots of telephone calls, scheduling trades and then rescheduling them when they cancel and so forth. Owner builders need to be on site to unlock doors for deliveries, or allow tradesmen to enter the locked up residence. This takes time, so please allow yourself plenty of time to build your residence.

a general guide only...

homes today come in a myriad of styles and sizes, so attempting to put together a guide for the owner builder is not an easy task. Please be advised that this is a **guide only** and should not be taken as the most accurate method for the construction of your residence, let me explain this further, if your proposed residence uses lightweight cladding in preference to brickwork then you have no need to complete **sections 10** or **20** in the following construction program.

If your home has a special feature like a swimming pool or water feature, then you will notice that there are no sections for these works and you should organise with the suppliers or trades as to when they should be installed - **remember this is a guide only.**

builder loyalty...

owner builders need to be aware of the fact that trades people, in most instances, are loyal to the builder who will provide continual work throughout the year. You only require their service once, so be prepared for the inevitable fact that once you have a tradesperson booked, you may receive a call informing you that they cannot turn up today as they have another job to finish.

make sure you allow at least 2 spare days in the week to compensate for this, don't book all your trades one day after the other, as you might have to spend an entire day re-scheduling the next trades - only to find they cannot come for several days or even weeks, so allow yourself ample time to build your residence.

ordering materials and trades...

this is a very important point, some people think you can pick up the phone and order some

bricks for delivery the next day, nothing could be further from the truth. Because of the buoyant housing market, suppliers find it difficult to keep up with the demands of the industry, so please pre-order your building supplies & trades around 6 weeks before you require them, and if the materials come early, ask the supplier to hold them until they are required.

always be prepared in advance, do not keep trades waiting for materials - order ahead!

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how to complete the construction program...

the construction program will guide you through the organisational process of building your own home. Please read the following guide carefully to ensure you complete the program correctly.

set out below is an example of the program with each section explained in detail.

				week 1				week 2				week 3				week 4				
				m	t	w	t	f	m	t	w	t	f	m	t	w	t	f	m	t
1	contractor	trade/task	estimated time - 1 day	proposed																
	home owner	site signage		actual																
2	contractor	trade/task	estimated time - 1 day	proposed																
	hire co	site toilet & temporary fencing		actual																
3	contractor	trade/task	estimated time - 1 day	proposed																
	excavator	clear & level site		actual																
4	contractor	trade/task	estimated time - 1 day	proposed																
	surveyor	set out		actual																
5	contractor	trade/task	estimated time - 2 days	proposed																
	plumber	sub floor sewer & water tapping		actual																
6	contractor	trade/task	estimated time - 2 days	proposed																
	excavator	dig foundations		actual																

a - sections...

each successive trade or task is given in numerical order - remember some trades may not be required for your project whereas other trades or tasks may need to be added

b - contractor...

this is the tradesperson, supplier or even yourself who is responsible for this particular section of works to be completed

c - trade/task...

what work is required by the contractor to complete that section of works - refer to the definition section following the program for a more detailed description of each trade/task

d - estimated time...

the average required time for each trade/task to be completed, based on a average 20 square home, so make sure you allow more time if your home is larger or more complicated

e - proposed versus actual...

the "proposed" line is where we enter the expected date of the particular works to be completed, the "actual" line is where you enter the date the works were completed

f - week ending...

enter the week ending date in this field, being the friday of each week

an example...

as you can see from the above example, we have booked in the excavator (section 3) for thursday of that particular week by blocking in that proposed date with a pen of highlighter, you may then receive notice that the excavator cannot complete the works until the next day, so we then enter the "actual" date that the excavator arrived, being the friday.

you can then adjust the remainder of the program accordingly, this is the reason we allow a couple

of spare days a week in the programming of trades.

you do not need to book in all the trades prior to construction, (after all who can guarantee they can work in 6 months time) so just book the trades or suppliers around 6 weeks before required.

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pdh estimating - construction program - page 2 - to be read in conjunction with the owner builders guide & definitions

				week 19	week 20	week 21	week 22	week 23	week 24	week 25	week 26	week 27	week 28	week 29	week 30	week 31	week 32	week 33	week 34	week 35	week 36		
insert date - week ending																							
section				m	t	w	t	f	m	t	w	t	f	m	t	w	t	f	m	t	w	t	f
26	contractor	trade/task	estimated time - 1 - 2 days	proposed																			
	heating co	ducted heating/air con - rough in		actual																			
27	contractor	trade/task	estimated time - 1 day	proposed																			
	insulation co	wall insulation		actual																			
28	contractor	trade/task	estimated time - 1 day	proposed																			
	stair co	internal staircase		actual																			
29	contractor	trade/task	estimated time - 10 - 15 days	proposed																			
	plaster co	wall & ceiling lining		actual																			
30	contractor	trade/task	estimated time - 1 day	proposed																			
	stair co	balastrading to staircase		actual																			
31	contractor	trade/task	estimated time - 3 - 4 days	proposed																			
	flooring co	lay timber floors		actual																			
32	contractor	trade/task	estimated time - 2 days	proposed																			
	cabinetmaker	kitchen & bathroom cupboards		actual																			
33	contractor	trade/task	estimated time - 1 day	proposed																			
	brick cleaner	clean external brickwork		actual																			
34	contractor	trade/task	estimated time - 5 - 15 days	proposed																			
	renderer	external rendering		actual																			
35	contractor	trade/task	estimated time - 5 - 6 days	proposed																			
	carpenter	internal fixing		actual																			
36	contractor	trade/task	estimated time - 4 days	proposed																			
	tiler	lay wall & floor tiles		actual																			
37	contractor	trade/task	estimated time - 5 - 6 days	proposed																			
	painter	internal Painting		actual																			
38	contractor	trade/task	estimated time - 2 days	proposed																			
	plumber	fit off		actual																			
39	contractor	trade/task	estimated time - 2 days	proposed																			
	electrician	fit off		actual																			
40	contractor	trade/task	estimated time - 1 day	proposed																			
	vacuum co	ducted vac system - fit off		actual																			
41	contractor	trade/task	estimated time - 1 day	proposed																			
	heating co	ducted heating/air con - fit off		actual																			
42	contractor	trade/task	estimated time - 1 day	proposed																			
	insulation co	ceiling insulation		actual																			
43	contractor	trade/task	estimated time - 1 day	proposed																			
	antenna co	install tv antenna		actual																			
44	contractor	trade/task	estimated time - 1 day	proposed																			
	garage door co	install garage door & remote		actual																			
45	contractor	trade/task	estimated time - 1 day	proposed																			
	glazier	shower screens & mirrors		actual																			
46	contractor	trade/task	estimated time - 2 days	proposed																			
	hire co	site clean		actual																			
47	contractor	trade/task	estimated time - 2 - 3 days	proposed																			
	concreter	paving & driveway		actual																			
48	contractor	trade/task	estimated time - 3 - 4 days	proposed																			
	carpenter	veranda & pergola framing		actual																			
49	contractor	trade/task	estimated time - 4 days	proposed																			
	sanding co	floor sanding & polishing		actual																			
50	contractor	trade/task	estimated time - 2 - 3 days	proposed																			
	painter	external painting		actual																			
51	contractor	trade/task	estimated time - 1 day	proposed																			
	cleaner	clean residence		actual																			

<i>section</i>	1 - home owner - site signage	<i>trade/supplier details & notes</i>
<i>brief</i>	display a sign at the front of your property stating the lot number, street name, your name & phone no's, this will prevent any misunderstandings in trades or supplies being delivered to the wrong site	
<i>have ready</i>	n/a	
<i>notes</i>	make sure the sign is properly fixed on something permanent like a boundary fence to prevent it from being moved	
<i>estimated time</i>	1 day	
<i>section</i>	2 - hire company - site toilet & temporary fencing	<i>trade/supplier details & notes</i>
<i>brief</i>	a site toilet is required for every site and must be delivered prior to any tradesmen starting their works, it is the owners responsibility to protect the existing crossover (footpath) these can also be hired - if temporary fencing is required, it should be erected at this stage also	
<i>have ready</i>	n/a	
<i>notes</i>	temporary fences are not mandatory	
<i>estimated time</i>	1 day	
<i>section</i>	3 - excavator - clear & level site	<i>trade/supplier details & notes</i>
<i>brief</i>	remove all vegetation and prepare the site for set out, the site is levelled only around the immediate location of the proposed residence	
<i>have ready</i>	site plan	
<i>notes</i>	it is the owners responsibility to remove any excess debris other than vegetation	
<i>estimated time</i>	1 day	
<i>section</i>	4 - surveyor - set out	<i>trade/supplier details & notes</i>
<i>brief</i>	surveyor sets out of the residence and garage on the site according to the location shown on the site plan	
<i>have ready</i>	site plan	
<i>notes</i>		
<i>estimated time</i>	1 day	

<i>section</i>	5 - plumber - sub floor sewer & water tapping	<i>trade/supplier details & notes</i>
<i>brief</i>	laying of sewerage drains in the ground for future connection to the toilets, baths, vanities, sinks & troughs - layed prior to the digging of the foundations. connection of the water tap (usually at the front of the block) for water usage during construction	
<i>have ready</i>	site & floor plans	
<i>notes</i>	it is the owners responsibility for payment of connections fees and water usage during construction	
<i>estimated time</i>	2 days	
<i>section</i>	6 - excavator - dig foundations	<i>trade/supplier details & notes</i>
<i>brief</i>	excavation of the trenches for the foundations (edge beams or strip footings)	
<i>have ready</i>	site plan, floor plans & engineers computation for the foundations	
<i>notes</i>	surplus soil is spread over the remainder of the site unless otherwise organised with the excavator	
<i>estimated time</i>	2 days	
<i>section</i>	7 - electrician - temporary power	<i>trade/supplier details & notes</i>
<i>brief</i>	temporary power is connected from the supply authority source to the location shown marked on the drawings as "meterbox" - a meterbox is installed on a temporary pole for construction use	
<i>have ready</i>	site & floor plans	
<i>notes</i>	it is the owners responsibility for payment of connections fees and power usage during construction	
<i>estimated time</i>	1 day	
<i>section</i>	8 - concreter - pour slab & footings	<i>trade/supplier details & notes</i>
<i>brief</i>	laying of slab reinforcing & concrete to create the floor slab or footings as designed by the engineer - 1st inspection to check reinforcing prior to pouring the concrete - 2nd inspection after concrete pour to check the slab and/or footings	
<i>have ready</i>	slab design drawing & floor plans	
<i>notes</i>	inspections can be organised by the concreter or yourself. do not lay any concrete paving of driveways as they may be damaged during construction - they will be laid at the finish of the project	
<i>estimated time</i>	5 - 7 days	

<i>section</i>	9 - carpenter - sub floor frame	<i>trade/supplier details & notes</i>
<i>brief</i>	construction of timber floor system as detailed by the designer & engineer also waterproof floor sheeting can be laid at this point to give a safe floor surface to work on	
<i>have ready</i>	engineers floor details & floor plans	
<i>notes</i>	you do not require this section if you are building on a concrete slab	
<i>estimated time</i>	4 - 6 days	

<i>section</i>	10 - bricklayer - garage & base brickwork	<i>trade/supplier details & notes</i>
<i>brief</i>	brickwork to the garage is laid at this point only (to allow the roof trusses to be installed after wall frames) if you have a timber floor instead of a concrete slab, then the bricklayer will lay bricks to the perimeter of the residence finishing at the floor level	
<i>have ready</i>	approx 4000-4500 bricks, floor plans, elevations & steel lintel	
<i>notes</i>	the brick supplier will be able to work out how many bricks you need for this stage	
<i>estimated time</i>	5 - 6 days	

<i>section</i>	11 - carpenter - stick frame & steelwork	<i>trade/supplier details & notes</i>
<i>brief</i>	once the slab or timber floor system is finished the carpenter will erect the timber frame and install the second storey flooring (if applicable) & prefabricated roof trusses, any structural steel work that is required will be installed in conjunction with the frame at this stage	
<i>have ready</i>	framing materials, floor plans, elevations & structural details	
<i>notes</i>	stick framing is constructing the frame piece by piece, it takes a little longer to erect but can be a cheaper way of construction - ask your carpenter for more information	
<i>estimated time</i>	8 days	

<i>section</i>	12 - carpenter - prefabricated frame & steelwork	<i>trade/supplier details & notes</i>
<i>brief</i>	once the slab or timber floor system is finished the carpenter will erect the prefabricated timber frame and install the second storey flooring (if applicable) prefabricated roof trusses, any structural steel work that is required will be installed in conjunction with the frame at this stage	
<i>have ready</i>	prefabricated materials, floor plans, elevations & structural details	
<i>notes</i>	prefabricated wall frames are delivered to site already made up, your carpenter only has to erect then according to the manufacturers guide. prefabricated wall frames are dearer than stick frames walls	
<i>estimated time</i>	5 - 6 days	

<i>section</i>	13 - hire company - safety rails for roofing	<i>trade/supplier details & notes</i>
<i>brief</i>	safety rails are fitted around the perimeter of the house just above the gutter, to protect the workers from falling off the roof during construction	
<i>have ready</i>	n/a	
<i>notes</i>	safety rails are mandatory for roofs over 3m from the ground level	
<i>estimated time</i>	1 day	
<i>section</i>	14 - roof plumber - metal fascia & gutters	<i>trade/supplier details & notes</i>
<i>brief</i>	metal fascia & gutters are installed by the roof plumber, they are fitted before the roof cladding to allow the cladding or tiles to overlap into the gutter	
<i>have ready</i>	roof plans, floor plans & elevations	
<i>notes</i>	n/a	
<i>estimated time</i>	2 days	
<i>section</i>	15 - roof plumber - metal roof cladding	<i>trade/supplier details & notes</i>
<i>brief</i>	the roof plumber will install the metal roof cladding including the valleys, hips, ridge cappings, boxed gutters	
<i>have ready</i>	roof cladding, roof plan, floor plans & elevations	
<i>notes</i>	n/a	
<i>estimated time</i>	3 days	
<i>section</i>	16 - roof tiler - tiled roof & cappings	<i>trade/supplier details & notes</i>
<i>brief</i>	installation of the selected roof tiles including the tile capping for ridges, hips & valleys	
<i>have ready</i>	roof tiles, roof plan, floor plans & elevations n/a	
<i>notes</i>		
<i>estimated time</i>	5 days	

<i>section</i>	17 - carpenter - window & entry door frames	<i>trade/supplier details & notes</i>
<i>brief</i>	installation of the window frames, front & laundry doors frames and sliding doors. Sidelights to entry doors can be installed during lock up. make sure you remove the keys for the window lock otherwise they may go missing	
<i>have ready</i>	window & door frames, floor plans & elevations	
<i>notes</i>	window & door screens should not be delivered at this point, they will be delivered when the residence is finished and the windows cleaned otherwise they may go missing during construction	
<i>estimated time</i>	1 day	
<i>section</i>	18 - insulation co - sisalation	<i>trade/supplier details & notes</i>
<i>brief</i>	completed wall frames are wrapped in sisalation foil, this is a basic wall insulation which can be used in conjunction with more effective wall insulation such as batts	
<i>have ready</i>	floor plans & elevations	
<i>notes</i>	the insulation company will supply & install the sisalation	
<i>estimated time</i>	1 day	
<i>section</i>	19 - hire co - scaffolding for bricklayers	<i>trade/supplier details & notes</i>
<i>brief</i>	if the external brick walls exceed 3m in height then scaffolding is required along the perimeter of that wall, this is for the bricklayers safety and is required by law	
<i>have ready</i>	floor plans & elevations	
<i>notes</i>	scaffolding can be erected around half the house then relocated around the remainder to cut down the hiring expence	
<i>estimated time</i>	2 days	
<i>section</i>	20 - bricklayer - remainder of residence	<i>trade/supplier details & notes</i>
<i>brief</i>	the remainder of the residence is bricked up and completed by the brickkayer	
<i>have ready</i>	remainder of bricks, floor plans & elevations	
<i>notes</i>	bricks will be cleaned at a latter stage after mortar has had time to cure	
<i>estimated time</i>	10 - 15 days	

<i>section</i>	21 - carpenter - lock up - internal	<i>trade/supplier details & notes</i>
<i>brief</i>	installation of shower bases, bath tubs, spa baths & cavity sliding door units, gas log fires that are built into stud walls can also be installed at this stage - these all need to be installed prior to any plaster works	
<i>have ready</i>	shower bases, bath tubs, spa baths & cavity sliding units (do not include doors) - gas log fires if applicable	
<i>notes</i>	shower screens & other fittings should not be delivered yet	
<i>estimated time</i>	2 days	
<i>section</i>	22 - carpenter - lock up - external	<i>trade/supplier details & notes</i>
<i>brief</i>	installation of the front (entry) and laundry (rear) doors, including door locks, sheet all external walls with any external claddings and line the eaves with the selected linings	
<i>have ready</i>	external doors, door locks, floor plans & elevations	
<i>notes</i>	make sure when your purchase your external locks (including door lock between the garage & house) that you request the locks be keyed alike so you only need a single key to open all doors - include sliding doors	
<i>estimated time</i>	2 - 4 days	
<i>section</i>	23 - plumber - rough in	<i>trade/supplier details & notes</i>
<i>brief</i>	installation of all internal hot & cold water pipes to the various plumbing fittings shown located on the floor plans, also the installation of the gas pipes to ovens, hot plates and heater - if required	
<i>have ready</i>	floor plans	
<i>notes</i>	the plumber should be aware of the location of all the plumbing fittings and appliances that are going in the project	
<i>estimated time</i>	2 days	
<i>section</i>	24 - electrician - pre-wire	<i>trade/supplier details & notes</i>
<i>brief</i>	installation of the electrical wiring to the light points, power points, hot water service, heating, cooling, smoke detectors, door bells ceiling fans & appliances as shown located on the electrical plans - these are all then connected to the meterbox	
<i>have ready</i>	electrical plans	
<i>notes</i>	if you do not have electrical plans then mark up a copy of your floor plan showing the location of these items	
<i>estimated time</i>	2 days	

<i>section</i>	25 - vacuum co - ducted vacuum - rough in	<i>trade/supplier details & notes</i>
<i>brief</i>	installation of the ducted vacuum system prior to sheeting of the internal plaster walls	
<i>have ready</i>	floor plans	
<i>notes</i>	n/a	
<i>estimated time</i>	1 day	
<i>section</i>	26 - heating co - ducted heating - rough in	<i>trade/supplier details & notes</i>
<i>brief</i>	installation of the ducted heating and/or air conditioning unit in the roof space prior to the sheeting of the plaster ceiling - ductwork will be placed to a location in each room requiring heating and/or cooling	
<i>have ready</i>	floor plans	
<i>notes</i>	n/a	
<i>estimated time</i>	1 day	
<i>section</i>	27 - insulation co - wall insulation	<i>trade/supplier details & notes</i>
<i>brief</i>	if additional wall insulation is required, it can be installed now or along with the plastering - section 29	
<i>have ready</i>	floor plans & elevations	
<i>notes</i>	generally external walls only require insulation - unless you require sound proofing to certain internal walls	
<i>estimated time</i>	1 day	
<i>section</i>	28 - stair co - internal staircase	<i>trade/supplier details & notes</i>
<i>brief</i>	installation of the internal staircase - this is installed prior to the plastering the balastrading and handrails are not installed until the plaster is fitted	
<i>have ready</i>	floor plans	
<i>notes</i>	make sure stairs are measured as soon as the frame is erected to allow ample time for manufacturing	
<i>estimated time</i>	1 day	

<i>section</i>	29 - plaster co - wall & ceiling linings	<i>trade/supplier details & notes</i>
<i>brief</i>	installation of all the plasterboard wall & ceiling linings & cornices. villaboard lining should be used in the bathroom, ensuite, laundry & garage to prevent moisture damage	
<i>have ready</i>	floor plans & elevations	
<i>notes</i>	your plasterer will be able to calculate how much material & hardware is required for the project	
<i>estimated time</i>	10 - 15 days	
<i>section</i>	30 - stair co - balastrading to staircase	<i>trade/supplier details & notes</i>
<i>brief</i>	installation of the balastrading to the internal staircase	
<i>have ready</i>	floor plans	
<i>notes</i>	n/a	
<i>estimated time</i>	1 day	
<i>section</i>	31 - flooring co - lay timber floors	<i>trade/supplier details & notes</i>
<i>brief</i>	strip timber floors that are to be directly fixed to the concrete slab should be installed at this stage, they should cover the entire floor area in the required rooms, floating timber floor systems should not be done at this stage	
<i>have ready</i>	floor plans showing extent of flooring	
<i>notes</i>	do not install kitchen or bathroom cabinets before the floor is installed	
<i>estimated time</i>	3 - 4 days	
<i>section</i>	32 - cabinetmaker - kitchen & bathroom cupboards	<i>trade/supplier details & notes</i>
<i>brief</i>	installation of all kitchen, bathroom, laundry & ensuite cabinets, the cabinets should arrive with cut outs for the appliances, vanities & sinks (to be installed at a latter date)	
<i>have ready</i>	floor plans & joinery details	
<i>notes</i>	customised joinery for living, rumpus & study should also be installed at this time	
<i>estimated time</i>	2 days	

<i>section</i>	33 - brick cleaner - clean external brickwork	<i>trade/supplier details & notes</i>
<i>brief</i>	cleans all the excess mortar, dirt and any other debris of the face of the external brickwork - this needs to be done prior to constructing and verandahs, decks or pergolas	
<i>have ready</i>	n/a	
<i>notes</i>	n/a	
<i>estimated time</i>	1 day	
<i>section</i>	34 - renderer - external rendering	<i>trade/supplier details & notes</i>
<i>brief</i>	application of selected render to the extent as shown on the elevations brick joints will be flush to produce a smooth finish to the render	
<i>have ready</i>	floor plans & elevations	
<i>notes</i>	colored acrylic render is more versatile than cement render which has to be painted afterwards	
<i>estimated time</i>	5 - 15 days	
<i>section</i>	35 - carpenter - internal fixings	<i>trade/supplier details & notes</i>
<i>brief</i>	fix door jambs, internal room & wardrobe doors, fix all architraves & skirtings around window, install hanging rails and robe inserts to the wardrobes, install manhole & cover.	
<i>have ready</i>	internal room & robe doors, door furniture, architraves, skirtings, towel rails, toilet roll holders, robe hooks etc	
<i>notes</i>	towel rails, toilet roll holders & robe hooks can be installed after the painting stage - section 37	
<i>estimated time</i>	5 - 6 days	
<i>section</i>	36 - tiler - lay wall & floor tiles	<i>trade/supplier details & notes</i>
<i>brief</i>	lay all floor & wall tiles to the extent shown on the detailed drawing	
<i>have ready</i>	all wall & floor tiles including border tiles and soap dish tiles	
<i>notes</i>	n/a	
<i>estimated time</i>	4 - 5 days	

<i>section</i>	37 - painter - internal painting	<i>trade/supplier details & notes</i>
<i>brief</i>	paint all walls & ceilings as specified	
<i>have ready</i>	paint colors	
<i>notes</i>	external painting can be done at a later stage, after veranda of pergola has been built	
<i>estimated time</i>	5 - 6 days	
<i>section</i>	38 - plumber - fit off	<i>trade/supplier details & notes</i>
<i>brief</i>	fit off of all plumbing fittings, tapware, dishwasher & gas appliances, hot water service & gas heating	
<i>have ready</i>	sinks, basins, tapware, dishwasher, gas appliances, hot water service & gas wall heaters if applicable	
<i>notes</i>	keep all warranties & manuals from appliances for future reference	
<i>estimated time</i>	2 days	
<i>section</i>	39 - electrician - fit off	<i>trade/supplier details & notes</i>
<i>brief</i>	connection of all light point to switches, installation of downlights, smoke detectors, exhaust fans, ixl tastics, ceiling fans & door bells the electrical appliances are fitted at this point also	
<i>have ready</i>	downlights (inc transformers) smoke detectors, exhaust fans, ixl tastics, ceiling fans, door bells & any other electrical fitting	
<i>notes</i>		
<i>estimated time</i>	2 - 3 days	
<i>section</i>	40 - vacuum co - ducted vacuum - fit off	<i>trade/supplier details & notes</i>
<i>brief</i>	fit off and commisioning of the ducted vacuum system	
<i>have ready</i>	n/a	
<i>notes</i>	n/a	
<i>estimated time</i>	1 day	

<i>section</i>	41 - heating co - ducted heating/air con - fit off	<i>trade/supplier details & notes</i>
<i>brief</i>	fit off and commisioning of the ducted heating and/or air conditioning system, a hole will be cut in the ceiling of each room that requires heating and/or cooling to which a vent will be fitted	
<i>have ready</i>	n/a	
<i>notes</i>	the system must be commisioned with a demonstration to the owner regarding system operation	
<i>estimated time</i>	1 - day	
<i>section</i>	42 - insulation co - ceiling insulation	<i>trade/supplier details & notes</i>
<i>brief</i>	after the ducted heating and/or air conditioning system is installed then you can proceed to install the ceiling insulation	
<i>have ready</i>	ceiling insulation	
<i>notes</i>	generally ceiling insulation does not get installed in the garage ceiling	
<i>estimated time</i>	1 day	
<i>section</i>	43 - antenna co - install tv antenna	<i>trade/supplier details & notes</i>
<i>brief</i>	installation of the tv antenna	
<i>have ready</i>	location for the antenna	
<i>notes</i>	if 3 or more are required then you will need a splitter installed in the roof space which will also require a single power point	
<i>estimated time</i>	1 day	
<i>section</i>	44 - garage door co - install garage door	<i>trade/supplier details & notes</i>
<i>brief</i>	installation of the garage door and remote control system if required	
<i>have ready</i>	garage door, remote control	
<i>notes</i>	a single power point is required in the garage ceiling for the remote control system to be connected to	
<i>estimated time</i>	1 day	

<i>section</i>	45 - glazier - shower screens & mirrors	<i>trade/supplier details & notes</i>
<i>brief</i>	install the shower screens & mirrors as shown detailed on the joinery details	
<i>have ready</i>	shower screens & mirrors	
<i>notes</i>	n/a	
<i>estimated time</i>	1 day	

<i>section</i>	46 - hire co - site clean	<i>trade/supplier details & notes</i>
<i>brief</i>	organise mini skip bin and bobcat to clean all debris from site (a couple of loads might be needed) clear site ready for driveways & paving	
<i>have ready</i>	n/a	
<i>notes</i>	clean out all rubbish from inside the residence and place in the bins for removal	
<i>estimated time</i>	2 days	

<i>section</i>	47 - concretor - paving & driveway	<i>trade/supplier details & notes</i>
<i>brief</i>	organise concretor to box up & pour concrete driveway or paving (if required)	
<i>have ready</i>	site plan	
<i>notes</i>	concretor will return to clean paving & create control joints	
<i>estimated time</i>	2 - 3 days	

<i>section</i>	48 - carpenter - verandah & pergola framing	<i>trade/supplier details & notes</i>
<i>brief</i>	construct all verandahs, pergolas, decks & external stairs as shown on the working drawings	
<i>have ready</i>	floor plans, elevations	
<i>notes</i>	n/a	
<i>estimated time</i>	3 - 5 days	

<i>section</i>	49 - sanding co - timber floor sanding & polishing	<i>trade/supplier details & notes</i>
<i>brief</i>	strip timber flooring to be sanded & polished	
<i>have ready</i>	n/a	
<i>notes</i>	no one to access the inside of the residence during this stage until the polish has completely dried	
<i>estimated time</i>	2 - 4 days	
<i>section</i>	50 - painter - external painting	<i>trade/supplier details & notes</i>
<i>brief</i>	Paint veranda, pergola, decking, eaves lining, timber fascias, render & any other feature requiring paint	
<i>have ready</i>	paint colors	
<i>notes</i>	n/a	
<i>estimated time</i>	2 - 3 days	
<i>section</i>	51 - cleaner - clean residence	<i>trade/supplier details & notes</i>
<i>brief</i>	clean interior of the residence ready for carpet laying etc, clean all cabinets, windows & wash all walls	
<i>have ready</i>	n/a	
<i>notes</i>	n/a	
<i>estimated time</i>	1 day	