



Simpler, Faster, Better

OWNER BUILDERS & BUILDERS MANUAL 2010

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If you require more information please feel free to call us -



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YOU AND YOUR PROJECT

1. Helping to get the best out of ECO Block on your Project

If you have not used ECO Block before, you will require On Site Training in all of the facets of construction with ECO Block on your project. We do not supply ECO Block to untrained users as there are risks when you construct with insulated concrete formwork.

Our experienced team know how to construct safely and efficiently with ECO Block and will help you to safely manage those risks. On your project the Onsite Trainer will work with you to plan organise and manage the building process ensuring an easy and efficient work flow on your project.

We will demonstrate and supervise each of the three main stages of construction with you prior to checking and signing off each stage to an acceptable standard before completing the check lists and beginning each new stage.

The three stages are:

1. Assembly/Stacking
2. Bracing
3. Pouring Concrete

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What you need to know?

Well before you begin construction you will need to read and understand the following:

ECO Block Installation Manual

Construction Work Flow Process

On Site Training Agreement

On Site Training Pre Authorisation Form

On Site Check Lists

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2. What you must do 2 weeks before you start

Before you begin constructing with ECO Block it is very important to have everyone and everything ready to ensure that your project flows smoothly to plan.

Put This in your Diary Now

You will need to arrange the following:

- On Site Trainer - Provide the latest Plans and Engineering Details (to familiarise and pre plan the training process)
- Organise Tools - All of the Tools in the Job Site Tool List must be safe and ready to go on site for Day 1.
- Organise Materials - Allow at least 2 weeks lead time when ordering:

- ECO Block
- Accessories (foam, ties screws etc)
- Brace Hire
- Window and Door Formwork

All of these materials will be included in your estimate, don't forget to allow for any changes to your plan before ordering.

- Planning Resources - Labour, when you begin construction the minimum number of people working on site to ensure good work flow and productivity is 5 including the Onsite Trainer

Then.....

- Confirm/Sign - On Site Training Agreement
- Brace Hire Agreement
- Job Site Tool List

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3. Final Check List (1 day before you start)

Check the Following:

1. Slab has been poured and detailed correctly
2. Site is Clean and Safe
3. Labour on site help ready
4. Job Site Tool List is complete and ready
5. All Materials, Accessories & Braces on site
6. All Corner Blocks assembled
7. Min 150 Straight Blocks assembled (OS Wall)
(follow block assembly guide)

This Check List must be complete and confirmed the day before you start construction with ECO Block on your project.

We have already allocated a maximum number of training hours on your project. If any of these items are not included or ready to go there will be delays with On Site Training and reduced efficiency on your job. Beyond these training hours additional hours may be charges for, if required.

By effectively Planning & Managing your project you will enjoy the many benefits of ECO Block.

ECO Block is - Simpler, Faster, Better

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4. BUILDING with ECO Block

Day 1 On Site Meeting :

Materials

1. Check Plan
2. Check Materials Quantities
3. Check Job Site Tool List
4. Check Braces on site
5. Check All Corner Blocks assembled
6. Check Min 150 Straight Blocks assembled (OS Wall)
7. Check all cnr Blocks Assembled

Project Site

8. Check Site Clear Safe & Clean
9. Labour Allocation (assembling Blocks if required)
10. Plan Orientation
11. Overview of Work Flow Process Day 1
12. Determine Starting Point
13. Determine Labour Allocation

Getting Started

14. Checking Slab
15. Wall Layouts
16. Block placement
17. Assembly of Window and Door frames
18. Mark out Window & Door Frames
19. T Wall assembly
20. Laying Corner Blocks
21. Process review in afternoon break

Following on from Getting started the On Site Trainer will with the Project Owner determine the order of process and review during that day, based on progress and site conditions. This order will be based on best logical path in following the Work Flow Process List.

We will demonstrate and supervise each of the three main stages of construction with your team prior to checking and signing off each stage to an acceptable standard before completing the check lists and beginning each new stage.

The three stages are:

4. Assembly/Stacking
5. Bracing
6. Pouring the Concrete

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JOB SITE TOOL LIST

Before starting your project you will need these tools, safe, onsite and ready to use:

Tools and Materials check list

Tools	Checked on site Y/N
Hammer Drill Cordless	
Masonry Drill bit (5mm) for hex head screws	
Hand saws / Pruning saw	
Electric or cordless saw	
Table saw	
Chalk line	
Hammers	
Pliers / Wire ties / tin snips	
Rebar cutter and bender for N12 / N16	
Angle grinder / Hot knife	
Brace / Scaffold / Brace extensions for pours higher than three meters	
Laser Levels	
Nail Gun	
Concrete vibrator with 2.5cm pencil head	
Sledge Hammer	
String line	
3 x 3 meter ladders	
8 to 10 meter tape measure	
Levels 2 and 3 meter	
Building Materials	
Low expansion gun foam	
Foam Guns	
Gun Cleaner	
Zip ties 1.2m or tie wire	
Anchor and tie down bolts	
Acrow props to brace large door and window openings	
5mm x 50mm hex head screw bolts (box) to fix brace feet to slab	
8g x 25mm button head screws to fix strong backs to blocks	
Window and Door form work	
T2 pine 90mm x 35mm and Eco Block poly formwork either the 100 or 150 series	
Plastic EPS washers	
10 – 8g x 75mm treated pine screws to fix poly form work to T2 pine	
14g – 125mm (or longer) gal screws screwed to formwork as anchor	
OR	
Traditional form ply minimum of 19mm thick. Sufficient to form up all windows and doors	
Bracing timber 90 x 35mm used to brace formwork for windows &	

doors	
200mm x 400mm strip of form ply to be used for bracing. Approximately 20 pieces. This will depend on the job size.	

The above listed items are required to be on site and available for your training. By your signature below you agree to have all material and supplies staged and ready.

Date _____

If you require more information please feel free to call us



ON SITE TRAINING (OST) AGREEMENT

This agreement is between the Building Contractor / Owner Builder or Trainee and the ECO Block Australia:

Fee for training; (additional days will be charged out at \$50 per hour including travelling time.)
Training Period: Five (5) days with lunch breaks, morning and afternoon tea breaks.
Fee: The fee is prepaid, prior to OST date or Trainer being scheduled.

ECO Block Australia agrees to provide;

1. Skilled trainer
2. The Tools and Materials check list (previous page) must be endorsed by the builder / owner builder / trainee.
3. Wall plan review with Builder / Owner Builder / Trainee two weeks prior to the first training day.
4. All weather hands-on training / instruction of wall assembly and placing of concrete;

Builder / Owner Builder / Trainee agree to;

1. Possess all applicable Building Permits.
2. Possess approved "White Card" authority including any governing local safety regulations.
3. Provide a safe job site.
4. Provide Builders Risk insurance on OST subject property.
5. Coordinate Eco Block order forms with Eco Block Distribution Pty Ltd.
6. Send wall plans, for Trainer review, after OST fee is paid, and a minimum of two weeks prior to start date.
7. Slab and footing should be level to within 5mm.
8. Provide adequate, consistent, supervision and labours, for the entire process to achieve maximum OST results.
9. Note the Trainer / Instructor is not a supervisor or labourer
10. Clearly mark out the wall on the footing or slab including all door openings and window openings.
11. Make window and door formwork assembled ready to insert into wall prior to trainers arrival.
12. Stage all materials and tools on OST jobsite.

Signed _____ Builder / Owner Builder /
Trainee

Signed _____ ECO Block Australia Trainer

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On-Site Training Information and Pre-Authorization Form

Customer Name:		
Company Name:		
Business Address:		
City:	State:	Post Code:
Phone:	Fax:	Mobile:
Email Address:		
Shipping Address:		
Address:		
City:	State:	Post Code:
Phone:		
Email Address:		
Builder if Different to Customer:		
Name:		
Business Address:		
City:	State:	Post Code:
Phone:		
Email:		

Credit Card: ___MC ___ Visa # _____ - _____ - _____
Expiry Date ____/____
Name on the card:

Requested Dates for On Site Training;
Your trainer will need a minimum of a two week lead time.

Job Site Address:	
City:	State
Special Instructions:	

Your On-Site training will not be reserved until this form is completed and acknowledged.

Date:

Signed _____

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Construction work flow process

DAY	WORK FLOW PROCESS LIST
1	
*	<p>Resources & Materials Check List :</p> <ol style="list-style-type: none"> 1. Check Plan 2. Check Materials Quantities 3. Check Job Site Tool List 4. Check Braces on site 5. Check All Corner Blocks assembled 6. Check Min 150 Straight Blocks assembled (OS Wall) 7. Check all cnr Blocks Assembled
	<p>Project Site & Safety Check List:</p> <ol style="list-style-type: none"> 1. Check Site Clear Safe & Clean 2. Labour Allocation (assembling Blocks if required) 3. Plan Orientation 4. Overview of Work Flow Process Day 1 5. Determine Starting Point 6. Determine Labour Allocation
	Getting Started
	Builder / Owner builder / Site Foreman - clearly verify and mark out the wall layout in accordance with the plans.
	To ensure accurate 90 degree corners, use methods such as; <ul style="list-style-type: none"> ➤ Equal diagonal measurements ➤ 3-4-5 triangle ➤ Surveying
	Snap chalk lines on footings or slab according to plan.
	Make sure the outside face of the forms line up with the overall building dimensions.
	Builder / Owner builder / Site Foreman clearly marks out the openings for all doors and windows.
	The balance of the crew should start work on the following; <ul style="list-style-type: none"> ➤ Assemble blocks ➤ Assemble window and door formwork ready for placement ➤ Prepare reinforcement steel by cutting it to length and bending for corners ➤ Ensure all braces are ready for installation ➤ T wall assembly ➤ Set corner blocks
*	<p>Mid afternoon break - Review the day's process & plan the next day.</p> <p>Always Clean & Tidy Job site before the following day</p>
Day 2	<ul style="list-style-type: none"> ➤ Assemble blocks ➤ Install sleeves for services ➤ Set corner blocks ➤ Stack blocks and place rebar
	Stand and Brace door formwork

	Set window form work. If you are using polystyrene form work ensure that you have glued all formwork in place (Refer to training manual if unsure.)
	Stand wall braces once you are more than four blocks high. (Refer to the training manual if unsure)
	Plumb and level wall as you stack blocks and place rebar
*	Mid afternoon break - Review the day's process & plan the next day. Always Clean & Tidy Job site before the following day
Day 3	<ul style="list-style-type: none"> ➤ Stack Block and place rebar
	Determine when you think that the walls will be ready for concrete placement.
	Contact concrete company and inform them of the concrete mix that is required. Always refer to the Engineers specification. Refer to Eco Block training manual for typical concrete mix.
	Contact concrete boom truck contractor and advise when you expect to pour.
	Inform the concrete company that you will require trucks to be approximately 40 minutes apart.
	Check that all areas have been glued/foamed
	Continue to plum and level wall
	Place sleeves in wall for services and glue in place
*	Mid afternoon break - Review the day's process & plan the next day. Always Clean & Tidy Job site before the following day
Day 4	Safety meeting
	<ul style="list-style-type: none"> ➤ Stack block and place rebar ➤ Glue all sleeves for services ➤ Run string line at mid point around outside of building
	Check and adjust bracing to plumb and level wall
*	Mid afternoon break - Review the day's process & plan the next day. Always Clean & Tidy Job site before the following day
Day 5	<ul style="list-style-type: none"> ➤ Crew stack block and place rebar ➤ Run plumb line around the top of the wall ➤ Adjust brace for plum and level
	Remember it is always better for the walls to lean slightly inwards because it is easier to push the walls out.
	Refer to the pre pour check list in this manual
	Complete Pre Pour check list and review all areas of the job, make adjustments as required.
	You should not be making any adjustment to the walls on the day the concrete will be placed into the wall.
	Once you have completed the check list then you may confirm concrete and boom pump arrangements
	Make sure your Engineer has checked the walls and sign off on the certificate
	Ensure that floor connections and wall connection have been inserted.
*	Mid afternoon break - Review the day's process & plan the next day. Always Clean & Tidy Job site before the following day
Day 6	Safety meeting and Duty assignments for concrete placements. We recommend the following; <ul style="list-style-type: none"> ➤ Minimum 2 people on control the pump (generally the concrete pumping contractors)

Pre Placement checklist

Owner builders must initial the **“Done”** column with the training officer to confirm the matters below have been check.

Item	Done
Make sure the layout matches the plan everywhere?	
Is the walls plumb everywhere?	
Are the walls square?	
Is there a concrete vibrator with a 2,5mm head?	
Is the top of the wall level?	
Have all braces been fixed to the Eco Block and the ground?	
Have all the planks been secured to the brace? There must be enough planks to allow the boom pump operator to walk around the whole building with out getting down. (This may not always be possible)	
Is each window/door formwork in place, level, plumb and square?	
Polystyrene formwork should be glued in with low expansion foam.	
Are all window/door formwork diagonally braced against racking?	
Are all cuts and potential weak spots reinforced? Use strips of form ply and screw to webs.	
Are all penetration sleeves in place and glued securely?	
Are all anchor bolts for interior walls fixed in place?	
Are all vertical bars in position and tied securely?	
Are all beams pockets installed?	
Is the ledger or ledger connections (if any) in place and securely fastened?	
Do you have enough anchor bolts or straps on hand for the top of the wall?	
Have you planned out the position of the anchor bolts or straps (if any) at the top of the wall? Have you marked the spots for the anchor bolts?	
Do you have squares of plywood or scrap 19mm form ply to screw over the wall to reinforce weak spots and bulges?	
Are all vertical bars in position?	
Are all lintels properly reinforced and propped from below?	
Has your engineer inspected the wall and given his approval?	
Is the job site clear for the operation of the concrete truck, pump (if any) and the crew that will be on the ground?	
Is the concrete ordered and quantity verified?	
Is the pump (if any) ordered?	
Is there good access for the pump truck and concrete truck?	
Check and make sure that there are no overhead power lines.	
Additional comments	

If you require more information please feel free to call us -