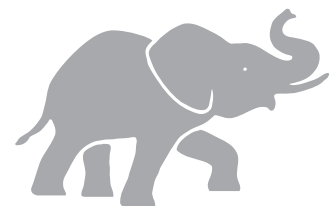


# Elephant QuickBrace® Systems Supplementary Document 2 May 2011

## Key Features:

- Large Headed Bracing Fasteners now Obsolete
- Quicker and Easier to Install
- Lower Cost Solutions
- All Systems start at 400mm wide
- A Revised and more Logical Numbering System
- Revised Performances
- Replaces Elephant QuickBrace® Supplementary

Document October 2010



**Elephant**

**Plasterboard**

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### Elephant QuickBrace® Systems May 2011

This Elephant QuickBrace® Supplementary Document May 2011 supersedes and replaces the October 2010 Supplementary Document, and is to be used in conjunction with the Elephant Plasterboard Bracing Systems April 2008 Technical Manual.

#### Appraisal

The bracing ratings published in this document have been obtained by independent testing and opinions sourced from organisations with accredited quality assurance, and have also been appraised by independent Consulting Engineers.

Full details can be found at [www.elephantplasterboard.co.nz](http://www.elephantplasterboard.co.nz)

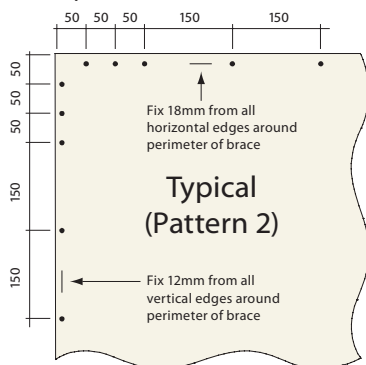
#### Key Changes

- All Systems use Small Head Fixings only
- A new Set of Braced Corner Fixing Patterns
- All Systems start at 400mm wide
- A Revised and more logical Numbering System

#### The New Set of Braced Corner Fixing Patterns:

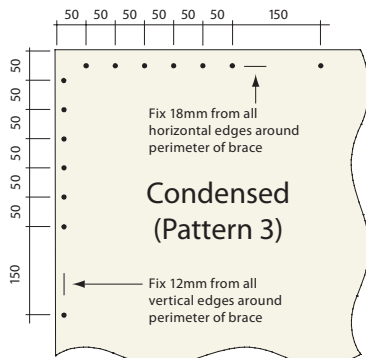
##### The Typical Braced Corner Fixing Pattern

The most common Braced Corner Fixing Pattern has been referred to in our past literature as Pattern 2. This is the "Typical" Braced Corner and perimeter pattern.



##### The Condensed Braced Corner Fixing Pattern

Bracing System names containing the suffix 'c', E.g. EXSc, EXMSc, etc. require this slightly more condensed Braced Corner Pattern on at least one Plasterboard side.



NB: The perimeter spacing is the same as with Pattern 2; i.e. 150mm centres.

#### Key Benefits

##### Large Headed Bracing Fasteners no longer required

All Elephant Plasterboard QuickBrace® Systems no longer require "Bracing Nails or Bracing Screws" (large headed fasteners). All bracing systems now only require the use of small headed fasteners; i.e. 30mm x 6g Drywall Screws.

This has a number of benefits over Large Headed Bracing Fasteners;

- The small head fasteners are about 60% lower in cost.
- The small head fasteners are usually 3 times faster to drive in.

Not only that, Large Headed Bracing Fasteners often make a mess, break the paper, or stick out proud. All of which make it difficult for the plasterer to get a top quality finish.

##### Revised Performances

The new Set of Braced Corner Fixing Patterns have resulted in improved bracing performances from those detailed in the Technical Manual titled "Elephant Plasterboard Bracing Systems April 2008."

##### All Systems start at 400mm wide

All bracing elements can start at 400mm wide on both single and double sided wall bracing systems, giving the designer or engineer full flexibility.

##### April 2008 Systems

The April 2008 Elephant Plasterboard Bracing Systems remain valid. However we encourage the use of these May 2011 systems and system performances.

If an April 2008 'EM' system set (Large Head Fixings, Pattern 2) has been specified, this can be changed to an 'EXMc' system set (Small Head Fixings, Pattern 3), as it outperforms the 'EM' system set.

All other aspects of these bracing systems remain the same and are as per the manual Elephant Plasterboard Bracing Systems April 2008. Note that the fixing of the ply requires 40mm x 2.8mm flat head galvanised or stainless steel nails.

##### Elephant QuickBrace® Software

We strongly recommend the use of the Elephant QuickBrace® Software May 2011 and the discontinuance of the use of any earlier versions. The Software can be downloaded from our web site: [www.elephantplasterboard.co.nz](http://www.elephantplasterboard.co.nz) or you can request a copy by emailing: [info@elephantpb.co.nz](mailto:info@elephantpb.co.nz) or phoning: 0800 ELEPHANT (353 742)

##### New NZS3604:2011 & Elephant QuickBrace® Systems August 2011

A new technical manual and relevant software are being produced to comply with NZS3604:2011 and will be made available sometime after 1st August 2011.



**The Elephant QuickBrace® Numbering System**

The Elephant QuickBrace® Numbering System has also been revised and made more logical and easier to understand for designers, engineers, building officials, and builders.

E	= Elephant Plasterboard Systems	13	= 13mm Plasterboard
X	= Panel Hold Downs (15 kN minimum strength)	c	= Condensed Pattern (3, instead of "Typical" Pattern 2)
S	= Standard Plasterboard one side	a	= Angle Brace
SS	= Standard Plasterboard both sides	d	= Double Strap or Double Bottom Plate
SP	= Standard Plasterboard one side, Plywood the other		
M	= Multiboard one side		
MS	= Multiboard one side, Standard Plasterboard the other	NB: The Elephant QuickBrace® Numbering System and the sub components thereof are protected by copyright.	
MP	= Multiboard one side, Plywood the other		

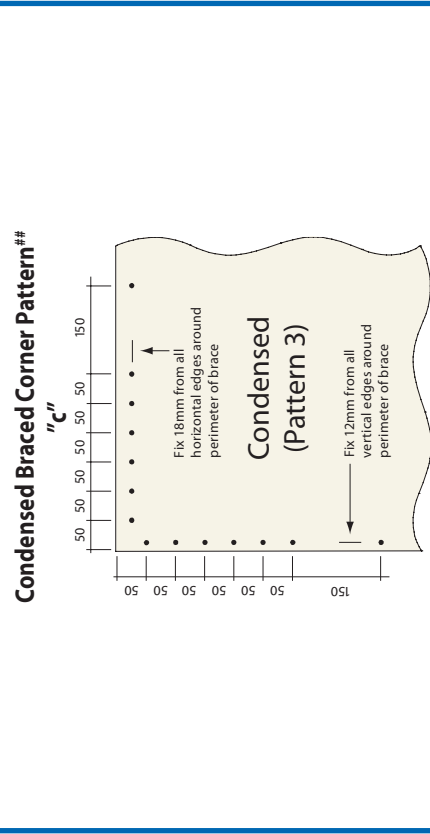
**The New Range of Elephant Plasterboard Bracing Design Solutions**

		Status:	See Notes:
<b>10mm Plasterboard Systems using Typical Braced Corner Pattern</b>			
ES	= Elephant Standard Plasterboard one side.	Existing	1
ESa	= Elephant Standard Plasterboard one side plus angle brace.	Existing	1
ESS	= Elephant Standard Plasterboard both sides.	Existing	1
ESP	= Elephant Standard Plasterboard one side, Plywood the other side.	Existing	1
EXS	= Elephant Standard Plasterboard one side, with panel hold downs.	Existing	
EXSa	= Elephant Standard Plasterboard one side, with panel hold downs plus angle brace.	Existing	
EXSS	= Elephant Standard Plasterboard both sides, with panel hold downs.	Existing	
EXSP	= Elephant Standard Plasterboard one side, Plywood the other side, with panel hold downs.	Existing	
<b>10mm Plasterboard Systems using Condensed Braced Corner Pattern "c"</b>			
		Status:	See Notes:
EXSc	= Elephant Standard Plasterboard one side, with panel hold downs.	New	
EXSca	= Elephant Standard Plasterboard one side, with panel hold downs plus angle brace.	New	
EXSSc	= Elephant Standard Plasterboard both sides, with panel hold downs.	New	
EXSPc	= Elephant Standard Plasterboard one side, Plywood the other side, with panel hold downs.	New	
EXMc	= Elephant Multiboard one side, with panel hold downs.	New	2
EXMca	= Elephant Multiboard one side, with panel hold downs plus angle brace.	New	2
EXMSc	= Elephant Multiboard one side, Standard Plasterboard the other side, with panel hold downs.	New	2
EXMPc	= Elephant Multiboard one side, Plywood the other side, with panel hold downs.	New	2
EXMcd	= Elephant Multiboard one side, with either panel hold downs and double bottom plate, or double strap.	New	2
<b>13mm Plasterboard Systems:</b>			
Same as above, but codes have a "13" after the Plasterboard type to indicate thickness:			
E.g. ES13, ES13a ESS13, ESP13, EXS13c.			
Further:			
		Status:	See Notes:
EXS13	= 13mm Elephant Standard Plasterboard one side, with panel hold downs.	Was "E13S"	3
EXS13a	= 13mm Elephant Standard Plasterboard one side, with panel hold downs plus angle brace.	Was "E13Sa"	3
EXSS13	= 13mm Elephant Standard Plasterboard both sides, with panel hold downs.	Was "E13SS"	3
EXSP13	= 13mm Elephant Standard Plasterboard one side, Plywood the other side, with panel hold downs.	Was "E13SP"	3
EXM13c	= 13mm Elephant Multiboard one side, with panel hold downs.	New	2
EXMS13c	= 13mm Elephant Multiboard one side, Standard Plasterboard the other side, with panel hold downs.	New	2
EXMP13c	= 13mm Elephant Multiboard one side, Plywood the other side, with panel hold downs.	New	2

- Notes:**
- The 'ES' system set formerly required Bracing Corner Pattern 1, now requires 'Typical' Braced Corner Pattern 2.
  - The new set of 'EXMc' and 'EXM13c' Multiboard systems that use Small Head fixings and 'Condensed' Corner Pattern 3, replace and outperform the current 2008 set of 'EM' and 'EM13' Multiboard systems that used Large Head Fixings and 'Typical' Bracing Corner Pattern 2.
  - These 13mm Systems were previously called E13S, E13Sa, E13SS, and E13SP respectively. They now contain an "X" in the system number to clarify that panel hold downs are required.

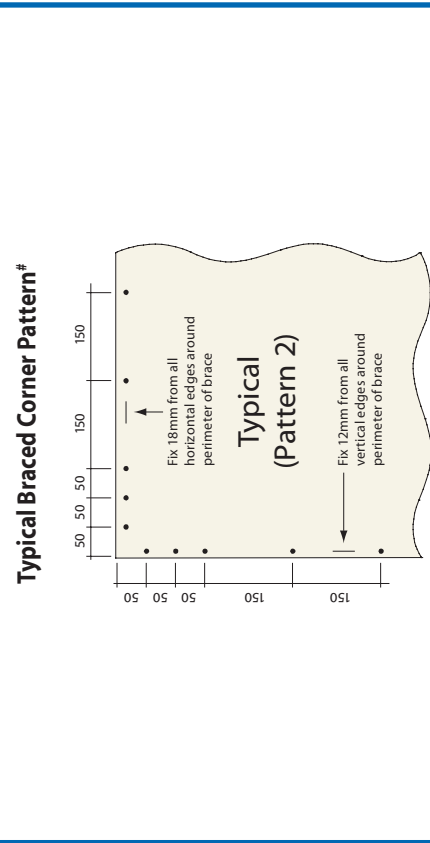


10mm Standard Plasterboard "S"					10mm Multiboard "M"						
Panel Hold Downs "X"					Panel Hold Downs "X"						
System Number	Min. Length (m)	Wind BUs/m	EQ BUs/m	System Number	Min. Length (m)	Wind BUs/m	EQ BUs/m	System Number	Min. Length (m)	Wind BUs/m	EQ BUs/m
ES	0.4	75	70	EXS	0.4	95	85	EXMc	0.4	110	120
	0.9	80	70		0.6	110	120				
	1.8	85	70		0.9	115	130				
ESa	1.8	95	75	EXSca	1.8	120	90	EXMcd	1.2	150	130
	0.4	80	75		0.4 to <0.45	125	125				
	0.9	85	75		1.8	150	140				
	1.8	95	80		0.4	Use EXSSc	140				
ESS	0.4	85	75	EXSSc*	0.5	130	130	EXMSc*	0.5	140	135
	0.9	85	75		0.6	145	135		0.6	150	150
	1.8	95	80		1.2	150	150		1.2	Use EXSSc	150
ESP	2.4	100	80	EXSPc	0.4	125	130	EXMPc	0.4	135	140
	0.4	80	75		0.5	140	140		0.5	145	145
	0.9	85	75		0.6	150	145		0.6	150	150
	1.8	95	80		1.2	Use EXSP	145		1.2	Use EXSP	150
2.4	100	80	1.2	150	150						



\* For Systems requiring plasterboard both sides, the Condensed Braced Corner Pattern is only required on **any** one side, with Typical Braced Corner Pattern on the other.

10mm Standard Plasterboard "S"					10mm Standard Plasterboard "S"						
Panel Hold Downs "X"					Panel Hold Downs "X"						
System Number	Min. Length (m)	Wind BUs/m	EQ BUs/m	System Number	Min. Length (m)	Wind BUs/m	EQ BUs/m	System Number	Min. Length (m)	Wind BUs/m	EQ BUs/m
ES	0.4	75	70	EXS	0.4	85	75	EXSa	1.8	115	95
	0.9	80	70		0.9	90	75		0.4	110	115
	1.8	85	70		1.2	95	75		0.5	125	120
ESa	1.8	95	75	EXSS	0.6	140	130	EXSP	0.6	140	135
	0.4	80	75		1.2	150	135		0.4	120	125
	0.9	85	75		0.4	120	125		0.5	125	130
	1.8	95	80		0.6	140	140		0.6	140	135
ESP	2.4	100	80	EXSP	0.4	120	125	EXSP	0.4	120	125
	0.4	80	75		0.5	125	130		0.5	125	130
	0.9	85	75		0.6	140	135		0.6	140	135
	1.8	95	80		1.2	150	150		1.2	150	150
2.4	100	80	1.2	150	150						



<b>Wall Type</b>	
<b>External or Internal walls.</b> Plasterboard one side. ... and with Angle Brace. "a"	
<b>Internal walls.</b> Plasterboard both sides.	
<b>External walls.</b> Plasterboard one side, Plywood the other.	
<b>Bracing Corner Fixing Patterns.</b> Min. 30mm x 6g Drywall Screws	

NB: The Elephant QuickBrace® Numbering System and the sub components thereof are protected by copyright. 1



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# 13mm Elephant Plasterboard QuickBrace® Systems May 2011



13mm Standard Plasterboard "S13"				13mm Multiboard "M13"			
Panel Hold Downs "X"				Panel Hold Downs "X"			
System Number	Min. Length (m)	Wind BUs/m	EQ BUs/m	System Number	Min. Length (m)	Wind BUs/m	EQ BUs/m
EXS13c	0.4	100	90	EXM13c	0.4	125	125
	0.6	110	100		0.5	130	130
	1.2	120	100		0.6	140	135
	1.8	125	100		0.9	150	145
EXSS13*	0.4			EXMP13c	0.4	Use EXSS13	
	0.5				0.5	140	140
	0.6				0.6	150	150
	1.2				1.2	Use EXSS13	
EXSP13	0.4				0.4	135	140
	0.5				0.5	145	145
	0.6				0.6	Use EXSP13	
	2.4						

13mm Standard Plasterboard "S13"				13mm Standard Plasterboard "S13"			
Panel Hold Downs "X"				Panel Hold Downs "X"			
System Number	Min. Length (m)	Wind BUs/m	EQ BUs/m	System Number	Min. Length (m)	Wind BUs/m	EQ BUs/m
ES13	0.4	75	70	EXS13	0.4	95	90
	0.9	80	70		0.9	100	90
	1.8	85	70		1.2	105	90
ES13a	1.8	95	75	EXSS13	1.8	110	90
	0.4	80	75		1.8	135	110
	0.9	85	75		0.4	125	130
ESP13	1.8	95	80	EXSP13	0.5	135	135
	2.4	100	80		0.6	150	140
	0.4	80	75		1.2	150	150
	0.9	85	75		0.4	130	135
	1.8	95	80		0.5	140	140
	2.4	100	80		0.6	150	150

**Wall Type**

**External or Internal walls.**  
Plasterboard one side.

... and with Angle Brace. "a"

**Internal walls.**

Plasterboard both sides.

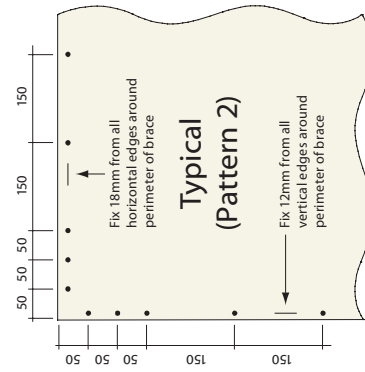
**External walls.**

Plasterboard one side,  
Plywood the other.

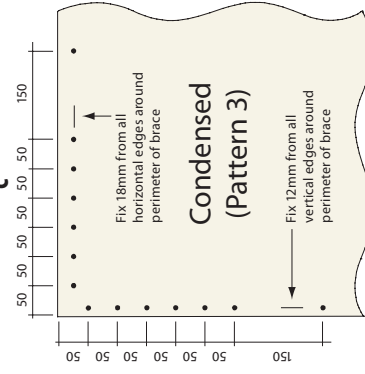
**Bracing Corner Fixing Patterns.**

Min. 30mm x 6g  
Drywall Screws

**Typical Braced Corner Pattern#**



**Condensed Braced Corner Pattern#**



\* For Systems requiring plasterboard both sides, the Condensed Braced Corner Pattern is only required on **any** one side, with Typical Braced Corner Pattern on the other.



# The Elephant QuickBrace® Numbering System...

## EASY!

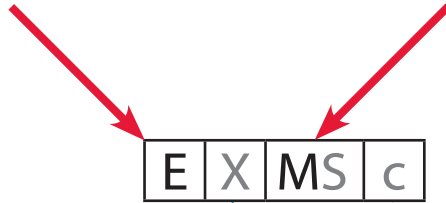
'E' = Elephant Plasterboard Systems.

Identifies the type of board, and if the System is single or double sided.

For example:

M = Multiboard one side.

MS = Multiboard one side, Standard Plasterboard on the other.



'X' = Denotes that the system requires Panel Hold Downs.  
**Optional**

'c' = Denotes that the system requires the Condensed Braced Corner Fixing pattern.  
**Optional**

# The Elephant QuickBrace® System...

## SMART!

NB: The Elephant QuickBrace® Numbering System and the sub components thereof are protected by copyright.