



The **ELECTRONIC BLUEPRINT** is the principal point of reference for Architects, Engineers and Builders and the only package that fully integrates regulatory and standards requirements with comprehensive, editable specifications, CAD details and approved industry training. Click here to view www.electronicblueprint.com.au

December 2005 Bi-Monthly Electronic Update

Welcome to the December **ELECTRONIC BLUEPRINT** Bi-monthly Electronic Update. This month, marking the first anniversary of the **South-East Asian Tsunami**, we have focused our Feature Articles on the reconstruction processes in progress.

- **Feature Articles - [Introduction](#)**
 - [Architect](#) - **Audit of South-East Asian Tsunami Reconstruction – House Design**
 - [Engineers](#) - **Audit of South-East Asian Tsunami Reconstruction – Structural Issues**
 - [Builders](#) - **Audit of South-East Asian Tsunami Reconstruction – Building Control**
- **Changes to Australian Standards**

This is a list of current [Changes to Australian Standards](#) affecting building construction.
- **Forum**

The [Forum](#) provides an opportunity for Architects, Engineers and Builders to raise questions and voice comment on technical matters. **ELECTRONIC BLUEPRINT** will forward comments to the relevant Technical Committees of Standards Australia for consideration.
- **Distance Learning Packages**

The **ELECTRONIC BLUEPRINT** [Distance Learning Packages](#) provide Architects, Engineers and Builders with the opportunity to upgrade their Continuing Professional Development and obtain the required CPD points. New courses listed in this edition.
- **Product Directory**

The [Product Directory](#) enables specifiers and purchasers to quickly access a list of building products that comply with the specific requirements of the **ELECTRONIC BLUEPRINT**.
- **ELECTRONIC BLUEPRINT Section Update (See Attachments)**

In this issue:
A complete & EDITABLE UPDATE of **ELECTRONIC BLUEPRINT Section27 - Paving**, with all relevant modifications to specifications, supplied as a Microsoft Word document for direct addition to your existing specifications and files.
SEE ATTACHEMENTS on the lower left hand side of your screen.

Wishing you a safe and happy festive season!

Rod Johnston
Principal Author

Karen Bloomfield
Specification Manager

Email us now for free
Consultant inclusion in the
NEW WEBSITE
coming in
February 2006

To cease receiving these newsletter please email us at info@electronicblueprint.com.au .
Email addresses are never sold nor used for reasons other than **ELECTRONIC BLUEPRINT** notification and information.

Feature Articles - Introduction

Reconstruction in the Wake of the Tsunami and Earthquake

The Electronic Blueprint Bi-Monthly Electronic Update normally provides feature articles relevant to design and specification by Architects, Engineers and Builders. As we approach the anniversary of the South-East Asian Tsunami however, in which over 223,000 people perished and over 600,000 homes were destroyed,¹ we have decided to devote these December articles entirely to the reconstruction work.

Rod Johnston (Consulting Engineer and Editor of the Electronic Blueprint) and Barry Clark (Quantity Surveyor and Builder) recently carried out Design and Construction Audits in Indonesia (Aceh), Sri Lanka, India and Thailand, reporting on the quality, consistency and effectiveness of the reconstruction. The Audits were conducted through Partner Housing Australasia (Building) Inc on behalf of Habitat for Humanity International, the NGO (Non-Government Organisation) carrying out the major re-construction work in the four countries visited.

The Consultants were greatly impressed by the commitment and professionalism of the teams assembled by Habitat for Humanity to execute the reconstruction. They report that, despite some initial time to establish the operations, the construction is now proceeding effectively with reasonable levels of quality and efficiency in most areas. Although there are some structural questions that need to be resolved (see Engineers article) and some questions relating to safety, supervision and project control (see Builders article), the overall work is proceeding well.



Partner Housing Australasia is committed to empowering and coordinating Architects, Engineers and Builders who wish to volunteer part of their professional services to assist NGOs (Non-Government Organisations) to reconstruct affordable housing in the wake of disasters such as the South-East Asian Tsunami and Pakistani Earthquake. Work assignments may be carried out in the professionals own office in Australia or in the field overseas. Partner Housing Australasia has commenced discussions with Habitat for Humanity International to provide technical support to their initiatives for reconstruction of houses damaged by the Pakistani Earthquake. We need your help – please contact us now.

For further information on this topic, or for relevant Continuing Professional Development Distance Learning Packages (suitable for CPD points), please contact **ELECTRONIC BLUEPRINT** by email at info@electronicblueprint.com.au.

¹ United Nations Statistics – 183,172 dead and 40,320 missing. In the four most seriously affected countries, Indonesia, Sri Lanka, India and Maldives, there were approximately 1.8 million people displaced and 580,000 homes destroyed.

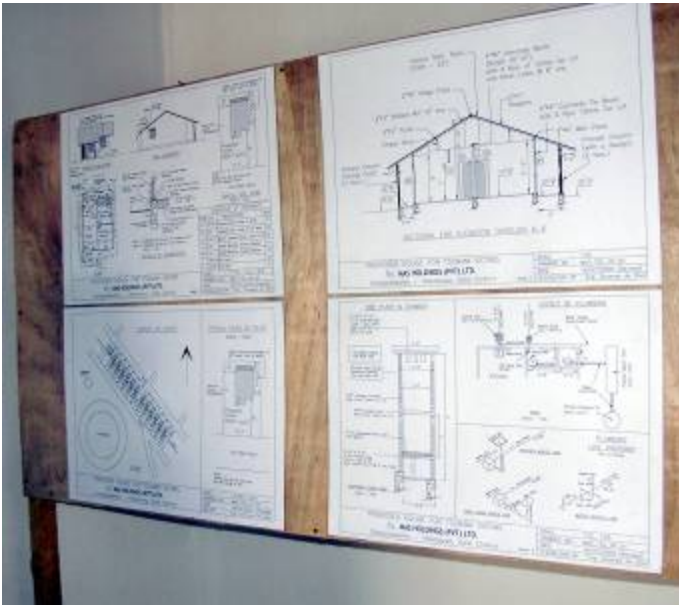
Architects

Audit of South-East Asian Tsunami Reconstruction – House Design

Design of Culturally Sensitive Housing for Disaster response

Design and Construction Audits of reconstruction in Indonesia, Sri Lanka, India and Thailand were conducted in September and December 2005.

A wide variety of housing was detected, reflecting not only the cultural differences, but also the different aspirations of the governments and government agencies involved. For example, the Government of Tamil Nadu (India) Guidelines specify a small but very strong heavily reinforced concrete and masonry house with a concrete roof serviced by an external staircase, while a mere 200 km across the Palk Strait, the Sri Lanka Government specifies an unreinforced masonry house with a tiled roof, and (in cases) up to 100% larger floor plan.



Plans for “500 sq.ft” house in Sri Lanka



Standard House, Villupuram, India



“500 sq.ft” House Galle, Sri Lanka

Amongst the Consultants’ recommendations is the suggestion that contingency planning for future disasters should include the advance preparation of suitable standard affordable housing drawings. Partner Housing Australasia needs the assistance of experienced architects and house designers, to prepare standard drawings of affordable housing, to be used in disaster relief as required throughout the Asia-Pacific area – Can you help?

For further information on this topic, or for relevant Continuing Professional Development Distance Learning Packages (suitable for CPD points), please contact **ELECTRONIC BLUEPRINT** by email info@electronicblueprint.com.au

Design Detail & Deliver Pty Ltd Trading as ELECTRONIC BLUEPRINT ABN 31 088 338 532 Inc in NSW
49A Parklands Road, Mt Colah NSW 2079, Australia www.electronicblueprint.com.au
Phone: +61 2 4360 2255 Fax: +61 2 4360 2256 email: info@electronicblueprint.com.au
D05103101-1 December 2005 Bi-Monthly Electronic Update

Approved : Rod Johnston 21/12/05

Page 3

Engineers

Audit of South-East Asian Tsunami Reconstruction – Structural Issues

Uniform Structural Performance Criteria?

During the Design and Construction Audit, the Consultants reported a wide variation in structural designs across the region. Although it is desirable to achieve uniform performance requirements for all reconstructed houses in South-East Asia, forcing uniformity will cut across “local practice”, in some cases with serious economic consequences. Therefore, the Consultants have recommended against the imposition of uniformity, but rather, have opted for a policy of “transparent flexibility” in which:

1. The Regional Performance Criteria are clearly defined and communicated.
2. Local designs are tailored to suit the prevailing local conditions and expectations, provided the deviations from the Regional Performance Criteria are clearly justified on economic and/or cultural grounds, documented and communicated widely.

A few of the relevant questions.



Should houses include reinforced concrete columns on pad footings or unreinforced masonry on a grouted rubble strip footings? What about slab-on-ground rafts?



How much reinforcement is “enough”? Footings, Columns and Walls



Should tiles be tied down? Should roof frames be tied down? How should corrosion be prevented?

Partner Housing Australasia needs the assistance of experienced design engineers to advise on these and other issues – Can you help?

For further information on this topic, or for relevant Continuing Professional Development Distance Learning Packages (suitable for CPD points), please contact **ELECTRONIC BLUEPRINT** by email info@electronicblueprint.com.au.

Builders

Audit of South-East Asian Tsunami Reconstruction – Building Control

Supervision, training, monitoring quality and cost?

Construction Audits were conducted in September and December of reconstruction in Indonesia, Sri Lanka, India and Thailand. The Consultants concluded that there was “across-the-board” good control on materials and labour costs, although there was a general need for a greater number of well-trained building supervisors. They sight the following incident in Banda Aceh in September as an example.

During the course of inspecting a group of houses, the Consultant was asked by the client’s representative to give an opinion on the suitability of construction of one particular house. They were accompanied by a reasonable crowd, including the home owner, the subcontract builder and some very vocal local people. The problems with the particular house were several:



Wall built over Septic Pit



Exposed Reinforcement

- The required foundation was not compacted.
- The reinforcement of the base ring beam had no cover, was placed in the bottom of the trench, and the concrete was very boney.
- The floor level was lower than in adjacent houses, with insufficient freeboard to prevent flooding.
- The concrete columns were not adequately formed and were undersize, so much so that the reinforcement was clearly visible even after the concrete had been poured.
- The corner of the house was built over the edge of the septic tank.

When the Supervisor was informed, he immediately recommended demolition to the house, which was carried out promptly. Whilst the quality of this house was unusually poor, and not representative of the general level of quality in the area, the incident revealed a general lack of close supervision. The ability of the Supervisor, or his commitment, are not in question. When the problem was drawn to his attention the Supervisor acted decisively, and, in the opinion of the Consultants, correctly. The consultants concluded:

- There is an insufficient numbers of Supervisors to correctly inspect and control the numbers of houses being built.
- There are few properly documented inspection procedures or check lists for use by Supervisors. It is doubtful whether inspectors receive suitable training.
- There are no clear and simple construction details (e.g. Picture Posters) showing acceptable and unacceptable forms of construction.

There are simple remedies to each of these problems. Partner Housing Australasia has undertaken to provide detailing and training information, to be prepared by volunteer Builders and other building professionals – Can you help?

For further information on this topic, or for relevant Continuing Professional Development Distance Learning Packages (suitable for CPD points), please contact **ELECTRONIC BLUEPRINT** by email info@electronicblueprint.com.au.

Changes to Australian Standards

New Standard	Superseded Standard
AS 1905.1 – 2005 Components for the protection of openings in fire resistant walls – Fire resistant doorsets	
AS 1905.2 – 2005 Components for the protection of openings in fire resistant walls – Fire resistant roller shutters	
AS 4072.1 – 2005 Components for the protection of openings in fire resistant separating elements – Service penetrations and control joints	
AS 1357.1 – 2004/Amdt 1 – 2005 Valves primarily for use in heated water systems – Protection valves	Draft Standard DR 04565
AS 1357.2 –2005 Valves primarily for use in heated water systems – Control valves	Draft Standard DR 05265 CP
AS 4552 – 2005 Gas fired water heaters for hot water supply and/or central heating	AS 4552 - 2000
ATS 5200.006 – 2005 Technical Specification for plumbing and drainage products – Reflux valves – Sewerage	ATS 5200.006 - 2004
ATS 5200.460 – 2005 Technical Specification for plumbing and drainage products – Grey water diversion device (GWDD)	ATS 5200.460 - 2004
AS 4786.2 – 2005 Timber flooring – Sanding and finishing	
ATS 5200.050 – 2005 Technical Specification for plumbing and drainage products – Prefabricated bathroom modules	
ATS 5200.051 – 2005 Technical Specification for plumbing and drainage products –Bidet douche seats	
ATS 5200.420 – 2005 Technical Specification for plumbing and drainage products – Tap-priming valves	

These changes are reflected in the next version of the **ELECTRONIC BLUEPRINT** , which will be distributed shortly. For more information on changes to Australian Standards, visit SAI Global at www.standards.com.au.

Forum

The Forum provides an opportunity for Architects, Engineers and Builders to raise questions and voice comment on technical matters. **ELECTRONIC BLUEPRINT** will circulate the comments electronically, and will, where appropriate, communicate them to the relevant Technical Committees of Standards Australia for consideration. Names will not be published unless requested by the writer. The comments and questions raised in this Forum are not necessarily those of the Electronic Blueprint or its staff. Where appropriate, Editor's comments have been added.

To add your comments and questions, [click here](#), and fill in the Contact Form. Space providing, your comments will be published in the next Bi-monthly Up-date.

1. Compacting subgrade and service trenches under residential pavements

Comment Geotechnical Engineer – NSW (Paraphrased by Editor)

When specifying the compaction of service trenches within residential pavements, it is counterproductive to specify a value that is too dense, since this could lead to application of excessive compactive effort, resulting in disintegration of the soil. The appropriate compaction will vary from soil to soil, and application to application. A compaction of the order of 100% Standard Compaction is probably appropriate in many cases.

2. Fixing anchors into masonry walls

Question by Structural Engineer - NSW

How do you determine the capacity of anchors into masonry walls.

Answer

In all cases, the advice of the anchor manufacturers should be sought. The following publications may also give guidance:

- Mackay Sim, R. (1999), *Fastening to Concrete – Limit State Design*, Concrete 99 Our Concrete Environment Conference.
- Anon (1986), *Anchor Bolts for Brick Masonry*, Technical Note on Brick Construction No 44, Brick Institute of America.

The shear capacity of a masonry anchor is its ability to support loads, “hanging” close to the face of a wall. The tensile capacity of a masonry anchor is its ability to resist loads “pulling” it out of the wall. For example, a shelf will apply both shear and tensile forces on an anchor, as it pulls both down and out of the surface. The shear and tensile capacities of masonry anchors depend on a number of factors.

- Low tensile (splitting) strength of the substrate (concrete block, clay brick or mortar joint) will permit the anchor to pull out more easily. Although compressive strength of the substrate is not directly involved, it may be an appropriate indicator of tensile (splitting) strength.
- Anchors placed in mortar joints will pull out more easily than those placed in brick or block.
- Anchors placed close to the edge of a masonry unit will spall the edge off and permit pullout.
- Often the depth of penetration is limited by the proximity of hollows and cores. For example, significant anchors should not be placed in the face shells of hollow concrete blocks, which have a thickness of only 25 to 35 mm, unless the core is filled with concrete grout.
- The nature of the anchorage system will influence splitting during installation, and thus influence pullout. Chemical anchors do not rely on expansion of the anchor to engage the substrate, and therefore may be preferred to anchors that rely on expansion.
- The manufacturers of the various anchors should be consulted for recommendations and test results. Test data should only be used in accordance with the principals set out in AS 1170.0 Appendix B, which describes the appropriate strength reduction to account for a limited number of tests.

Distance Learning Packages

The **ELECTRONIC BLUEPRINT** Distance Learning Packages provide Architects, Engineers and Builders with the opportunity to upgrade their Continuing Professional Development and obtain the required CPD points.

ELECTRONIC BLUEPRINT Distance Learning Courses are designed with currency as our main goal. What does this mean? It means that apart from ensuring our technical content is researched and written by leaders in the field, we aim to provide information that keeps you abreast of the industry changes as they are happening. This service is followed up with a Bi-monthly Electronic update and distribution of the **ELECTRONIC BLUEPRINT** CD.

The following pages outline the current list of Distance Learning Package Modules available through the **ELECTRONIC BLUEPRINT**.

Description of Type Codes

Module Type Codes are made up of Duration and Level of Complexity.

Modules are broken into three Levels of Complexity:

B signifies 'Building Modules' – Providing Details, Background, and Construction Inspections.

D signifies 'Design Modules' – These provide Specifications, Details and Concepts.

E signifies 'Engineering Modules' – These generally involve complex design calculations and engineering detailing.

Duration code is a ranking to account for the overall completion time including run time, research, assignment, tutor communication etc.

Use the following tables to work out individual module cost and CPD points gained, e.g. *Design & Construction of Earth Retaining Structures* with type code **D4** (Design / Duration Code 4) costs \$200 and gains 12 CPD points upon successful completion.

Module Costs

	B	D	E
2	\$100		
4		\$200	\$300
6		\$300	\$400

CPD Points Gained

	B	D	E
2	6 points		
4		12 points	16 points
6		18 points	24 points

ABOUT THE MODULES AND PACKAGES

Format

Each presentation is a Power Point presentation on CD, complete with audio facility.

Support facilities include the **ELECTRONIC BLUEPRINT** CD & web site, and email communication with your tutor.

CPD Point Accrual

These courses have been approved by the NSW Office of Fair Trading for the accrual of CPD points. CPD points have been based on the overall completion time for the module or package. In order to receive your Certificate of Completion and CPD points, you must complete and return the "Open Book" assignment, which is set at the end of the presentation and addresses key points of learning.

Points awarded for each unit have been based on 5 points per hour for Builders (NSW).

Architects and Engineers can work out their CPD Points accrued based on

- 2 points per hour for Architects, and
- 'hour-for-hour', for Engineers.

Please note that Building (B) Modules may only be purchased alongside an A or E module

An order form is located at the end of this document however for immediate help please email sales@electronicblueprint.com.au

Modules Available – October 2005 (New packages at Dec '05 have been highlighted in yellow)

OFT Approval Code	Section	Type Code	Module Content
	0 – General Design Considerations	D4	Embodied Energy and Sustainability
		D4	Colour, Solar Absorptance & Reflectivity
Rpa5f197		D4	Issues in Sustainability – Residential Construction
Rpa5zy99		E4	AS 1170.4 <i>Earthquake loadings</i>
	1 – Site Establishment	B2	Inspections & Tests
		D4	Site Inspection General
	2 – Earthworks & Drainage	B2	Inspections & Tests
		D4	Earthworks & Drainage General
	3 – Concrete	B2	Inspections & Tests
		D4	Concrete General
		E4	Concrete Advanced
	4 – Retaining Walls	B2	Inspections & Tests
Rpa5zy99		D4	Introduction to Retaining Walls
Rpa5zy99		D4	Design & Construction of Earth Retaining Structures
Rpa5zy99		E4	Background & use of AS4678 <i>Earth retaining structures</i>
Rpa5zy99		E4	Design of Segmental Concrete Gravity Retaining Walls
Rpa5zy99		E4	Design of Segmental Concrete Reinforced Soils Retaining Walls
Rpa5zy99		E4	Design of Reinforced Concrete Masonry Cantilever Retaining Walls
	5 – Drainage & Plumbing	B2	Inspections & Tests
		D4	Drainage & Plumbing General
	6 – Windows, Doors & Glazing	B2	Inspections & Tests
		D4	Windows, Doors & Glazing General
	7 – Structural Steel Work	B2	Inspections & Tests
		D4	Structural Steel Work General
	8 – Wall, Roof & Floor Framing	B2	Inspections & Tests
		D4	Wall, Roof & Floor Framing General
	9 – Carpentry & Joinery	B2	Inspections & Tests
		D4	Carpentry & Joinery General
	10 – Roof Cladding	B2	Inspections & Tests
		D4	Roof Cladding General
	11 – Roof Plumbing	B2	Inspections & Tests

Design Detail & Deliver Pty Ltd Trading as ELECTRONIC BLUEPRINT ABN 31 088 338 532 Inc in NSW

49A Parklands Road, Mt Colah NSW 2079, Australia www.electronicblueprint.com.au

Phone: +61 2 4360 2255 Fax: +61 2 4360 2256 email: info@electronicblueprint.com.au

D05103101-1

December 2005 Bi-Monthly Electronic Update

Approved : Rod Johnston 21/12/05

Page 9

		D4	Roof Plumbing General
	12 - Masonry	B2	Inspections & Tests
Rpa5zy99		D4	Design Considerations
Rpa5zy99		D4	Acoustic Performance of Masonry
Rpa5zy99		D4	Residential Masonry Details
		D4	Salt Damp in Concrete & Masonry
Rpa5zy99		D4	Sustainability of Clay Brickwork
Rpa5zy99		D4	Thermal Performance of Masonry
Rpa5zy99		E4	Residential Masonry Control of Cracking
Rpa5zy99		E4	Masonry Design for AS 1170.4 <i>Earthquake Loadings</i>
		E4	Compressive Strength & Vertical Load
		E4	Fire Performance of Masonry
Rpa5zy99		E4	House Design to AS 3700
Rpa5zy99		E4	Multi – Unit Design
Rpa5zy99		E4	Reinforced Concrete Masonry Houses
	13 – Ceiling & Wall Lining	B2	Inspections & Tests
		D4	Ceiling & Wall Lining General
	14 – Insulation	B2	Inspections & Tests
Rpa5fl97		D4	Specifications for Insulated Roof, Wall & Floor Systems
Rpa5fl97		D4	Thermal Insulation of Buildings
	15 – Floor & Wall Tiling	B2	Inspections & Tests
		D4	Tiling General
Rpa5wh73		D4	Issues in Measuring Slip Resistance
Rpa5wh73		D4	Measuring Slip Resistance of New Pedestrian Surfaces to AS/NZS 4586
Rpa5wh73		D4	Measuring Slip Resistance of Existing Pedestrian Surfaces to AS/NZS 4663
Rpa5wh73		D4	Slip Resistance Specifications
Rpa5wh73		D4	Maintaining Slip Resistance
	16 – Electrical Installation	B2	Inspections & Tests
		D4	Electrical Installation General
	17 – Kitchen	B2	Inspections & Tests
		D4	Kitchen General
	18 – Vehicular Doors	B2	Inspections & Tests
		D4	Vehicular Doors General
	19 - Painting	B2	Inspections & Tests
		D4	Painting General
	20 – Resilient Floor Coverings	B2	Inspections & Tests
		D4	Resilient Floor Coverings General
	21 – Carpets & Soft Furnishings	B2	Inspections & Tests
		D4	Carpets & Soft Furnishings General
	22 – Windows & Door Shutters	B2	Inspections & Tests
		D4	Windows & Door Shutters General
	23 – Mechanical Ventilation & Services	B2	Inspections & Tests
		D4	Mechanical Ventilation & Services General
	24 – Cleaning (Package)	B2	Inspections & Tests
Rpa5zy99	(Package)	D4	Occurrence of Efflorescence

Rpa5zy99			Prevention of Efflorescence
Rpa5zy99			Removing Efflorescence
Rpa5zy99			High Pressure Water Jet Cleaning
Rpa5zy99			Cleaning Pedestrian Surfaces
	25 - Landscaping	B2	Inspections & Tests
		D4	Landscaping General
	26 - Fencing	B2	Inspections & Tests
		D4	Fencing General
	27 - Paving	B2	Inspections & Tests
		D4	Paving General
		D4	Issues in Measuring Slip Resistance
Rpa5wh73		D4	Measuring Slip Resistance of New Pedestrian Surfaces to AS/NZS 4586
Rpa5wh73		D4	Measuring Slip Resistance of Existing Pedestrian Surfaces to AS/NZS 4663
Rpa5wh73		D4	Slip Resistance Specifications
Rpa5wh73		D4	Maintaining Slip Resistance
Rpa5wh73	(Package)	E6	Design of Residential Pavements using AS 3727
Rpa5wh73			Specification & Details for Concrete Residential Pavements
Rpa5wh73			Specification & Details for Asphalt Residential Pavements
Rpa5wh73			Specification & Details for Bitumen Spray Seal Residential Pavements
Rpa5wh73			Specification & Details for Segmental Residential Pavements
Rpa5wh73			Design & Specification of Permeable Pavements
Rpa5wh73			Maintaining Residential Pavements
Rpa5wh73			Compaction
	28 – Metalwork & Balustrades	B2	Inspections & Tests
		D4	Metalwork & Balustrades General

(Print PAGE 11 to access this order form)

OFT Approval Code (where appropriate)	Section	Type Code	Module Content	Cost
			Total	

Please post my **ELECTRONIC BLUEPRINT** Distance Learning Package to:

Name:	Profession:
Company name:	Licence number:
Postal address:	
State:	Postcode:
Phone number:	Fax number:
Email	

- **My cheque/money order (made payable to Quasar Management Services) for the amount of \$ (inc. GST) is enclosed**

Please allow 14 – 21 days delivery time for all packages

Contact us: web: www.electronicblueprint.com.au email: info@electronicblueprint.com.au

We supply Bi-monthly Electronic Updates of important changes relating to the industry. This is a free email service aimed at keeping industry professionals abreast of pertinent developments.

Please indicate if you do not wish to receive Electronic Blueprint Bi-Monthly Electronic Updates

The following people have also requested to receive Bi-Monthly Electronic Updates.

Email addresses:

.....

<p>Please post this form with payment to:</p> <p>ELECTRONIC BLUEPRINT Distance Learning Packages 49A Parklands Road, Mt Colah NSW 2079, Australia</p> <p>Phone: +61 2 4360 2255 Fax: +61 2 4360 2256 Email: info@electronicblueprint.com.au</p> <p>ACN 31 088 338532 Inc in NSW</p>

PRODUCT DIRECTORY

Enabling specifiers fast access a list of building products that comply with the specific requirements of the **ELECTRONIC BLUEPRINT**.

Supplier	Product Details	ELECTRONIC BLUEPRINT
Abey Australia Pty Ltd www.abey.com.au	Wall ties for all environments, including stainless steel cavity ties for use in Marine (R3) and Severe Marine (R4) environments	Section 12
Action Tanks (NSW) www.actiontanks.com.au	Rotational moulded polyethylene rainwater tanks, polyethylene above ground and underground rainwater management systems; stormwater Detention-Retention	Sections 2, 5, 11
A.G.P Group www.agpgroup.com.au	Laminated, 'switchable' privacy glass to AS 1288; Operable frameless glass louvres to AS 1288 & AS1170; Sliding, bi – fold or stackable Slimline Shutters & Operable metal louvres to AS 1664 & AS 1170; Range of custom build, automatic revolving doors to AS 4290; High security entry/exit systems.	Sections 6, 22
Air Cell www.aircell.com.au	Fibre-free, thermo-cellular reflective insulation blanket products, certified to AS/NZS 4859.1 and providing a protective vapour, insulation and radiant barrier	Section 14
Allvent Ventilation Products Phone: 02 4966 8499	Mechanical fans & ventilation products including axial fans (all size applications), centrifugal fans, roof-top units, ceiling header box fans, grills & components	Section 23
Ancor Loc Earth Systems www.ancorloc.com.au	Ground anchor systems to comply with AS 4678 <i>Earth retaining structures</i>	Section 4
Breezeway www.breezeway.com.au	Energy and cyclone rated louvre windows made from non-corrosive materials complying with AS 2047; Skylights manufactured in accordance with AS2485 and AS1288 and energy rated according to WERS Scheme; Solid timber loft ladders with a high load capacity of 160kg; insulated and dust retardant trap doors	Section 6
Brunswick Sales www.brunswicksales.com.au	Vertical control joint ties to AS 2699 Part 1. Available fully galvanised or grade 316 stainless steel.	Section 12
Concrete Colour Systems www.concretocoloursystems.com.au	Pigments and systems for resurfacing, colouring and stencilling existing and new concrete surfaces	Sections 3, 27
C&M Brick claudia.tapia@cmbrick.com.au	Retaining wall systems to meet the requirements of AS 4678; Water-repellent masonry blocks; Concrete block systems, including insulated blocks and acoustic block systems, to meet the BCA requirements; Segmental pavers for roadways, driveways, gardens and pool surrounds to meet AS 3727 Residential pavements	Sections 4, 12
Cold Jet www.coldjet.com	Waterless, pressurized carbon dioxide dry ice blasting cleaning system. Non abrasive, environmentally friendly, fast, no secondary waste residue.	Section 24
Everbreeze Ventilation www.everbreeze.com.au	Design, supply, installation and maintenance of quality ventilation systems complying with BCA and AS 1668.2	Section 23
Helifix (Australia) Pty Ltd www.helifix.com.au	Products to repair cracked or damaged brickwork	Section 12
Industrial Galvanizers Corporation Pty Ltd Ingal Building Systems www.indgalv.com.au	Lightweight hot dip galvanized lintels (to AS/NSZ 4680) complying with durability ratings up to R3 of AS/NZS 2688.3; Building Code approved. Corrosion mapping system to help determine the life expectancy of hot dip galvanized steel in different exposure conditions in Australia.	Section 7
Stramit Building Products www.stramit.com.au	Cold-rolled galvanised steel products complying with AS 4600 Permanent formwork of cold-rolled steel complying with AS 1538 and AS 1397 Sheet steel metal roof and wall cladding complying with AS 1397 Metal rainwater goods complying with AS 2179.1	Sections 3, 7, 8, 10, 11
Design, Detail, Deliver Pty Ltd sales@electronicblueprint.com.au	Steel mullions for brickwork and blockwork to provide wind and earthquake resistance to the new AS/NZS 1170.2 and AS 1170.4. Resilient ties to comply with BCA Vol 1&2 for the separation of leaves of cavity walls to eliminate the transmission of impact sound	Sections 7, 12
Edmonds www.edmonds.com.au	Adhesive mechanical fastening for ridge caps for use in cyclonic areas and tested in accordance with AS 2050 Exhaust fans providing mechanical ventilation in accordance with AS 1668.2 Active sub-floor ventilation for areas of high humidity to aid in the reduction of termite activity and growth of mould and fungi	Sections 10, 23
Ensyntex Australasia Pty Ltd www.exterra.com	Non-toxic , in-ground or above-ground, termite colony elimination and protection system complying with AS3660.2	Sections

Design Detail & Deliver Pty Ltd Trading as ELECTRONIC BLUEPRINT ABN 31 088 338 532 Inc in NSW

49A Parklands Road, Mt Colah NSW 2079, Australia www.electronicblueprint.com.au

Phone: +61 2 4360 2255 Fax: +61 2 4360 2256 email: info@electronicblueprint.com.au

D05103101-1 December 2005 Bi-Monthly Electronic Update

Approved : Rod Johnston 21/12/05

Page 13

		3, 4, 8
Erosion Control Systems www.erosioncontrol.com.au	Retaining wall systems up to and over 1500mm for both domestic and commercial applications in accordance with AS 4678 (Including Amendment 1)	Section 4
Hanson Building Products www.hanson.biz	Retaining wall systems to meet the requirements of AS 4678; Water-repellent masonry blocks; Concrete block systems, including insulated blocks and acoustic block systems, to meet the BCA requirements; Segmental pavers for roadways, driveways, gardens and pool surrounds to meet AS 3727 Residential pavements Energy Efficient Masonry Housing Systems	Sections 4,12
Lafarge Plasterboard Pty Ltd www.lafargeplasterboard.com.au	All boards produced by Lafarge Plasterboard are manufactured under a quality system certified as complying with ISO AS/NZS 9001:2000 by an accredited certification body.	Section 13
Magnetite – NSW www.magnetite.com.au	Secondary glazing system. Magnetic seal and insulating acrylic panel capable of reducing heat gain or loss through windows by up to 80% and noise by up to 70%.	Section 6
Master Builders Association www.mbansw.asn.au	Construction area safety signage.	Section 1
Nofire Technologies Australia www.nofire.net.au www.nofiretechnologies.com	A one part non-flammable water based intumescent coating similar in appearance to ordinary latex base paint which immediately foams and swells (intumesces) upon exposure to flame or heat, providing an effective insulation and heat shield to protect the subsurface.	Sections 7, 12, 19
Raven Product Pty Ltd www.raven.com.au	Sealing Systems, for doors and windows, which are frequently multi-purpose, sealing against a combination of intrusions and leakages including sound (AS 1191), fire (intumescent) & smoke (to AS 1530.4 & AS/NZS 1905.1), rain, draughts, dust, embers, light insects, vermin, and energy inc. heating & air conditioning (to AS 4420.4, AS 4420.5, AS 2047, AS 1939, AS 1530.7)..	Section 6
Robert Bosch (Australia) Pty. Ltd. www.bosch.com.au	Commercial and domestic continuous flow gas hot water systems-Hydropower, Pilot & Electronic ignition, available in natural gas & LPG. All gas hot water systems compliant with AS 4552.	Section 5
Sunplus CPC Solar www.sunplusCPC.com.au	Commercial and domestic evacuated tube solar hot water system complying with AS 2712 Solar and heat pump water heaters – Design and construction.	Section 5
VELUX Australia Pty Ltd www.VELUX.com.au	Integrated solar hot water design tested and approved in accordance to Australian Standard AS2712,Sun Tunnels ,operable, curb mounted, and fixed skylights to AS4285, Venetian, pleated and Electric Blockout Blinds	Sections 5, 6, 21, 23

ELECTRONIC BLUEPRINT Section Up-date

Section 27 –Paving

Attached as an EDITABLE Word file in the attachments section of this PDF.

(See tabs at lower left-hand side of PDF; click on ATTACHMENTS)