

# **Report on the Building Industry Summit on Weathertightness November 2002**

## **Introduction**

One of the recommendations of the Report of the Overview Group on the Weathertightness of Buildings prepared for the Building Industry Authority (BIA) was for consideration to be given to:

*... convening a meeting of leaders of the building industry and associated sectors to discuss the issue of weathertightness, to explore the means by which the current disturbing trends can be halted and to agree on actions which might be taken to improve the performance of the sector in future.*

The BIA acknowledged that such a meeting would be a useful platform for facilitating the development of solutions to prevent a continuation of leaky building problems. Therefore, a meeting of industry representatives from the wider building industry was convened by the BIA, on behalf of the Minister of Internal Affairs, on 11 October 2002.

## **The Meeting**

The daylong Building Industry Summit was held at the Sheraton Hotel in Auckland. The meeting was chaired by Paul Carpinter.

Approximately 115 invitations were issued to individuals representing various sectors of the wider building industry, as well as to individual companies and to industry stakeholder groups.

## **Objective**

The Summit's objective was to generate a collective commitment from building industry leaders to resolve the weathertightness problems, rather than discuss issues of liability or compensation.

## **Participants**

Around 80 people from industry sectors and stakeholder groups participated in the Summit. They were drawn from five broad industry categories:

**Owner/Developer** - those with an interest in commissioning and owning residential dwellings.

**Design** - those involved in the design of residential dwellings.

**Build** - those involved in the construction of residential dwellings including builders and other trades.

**Supply** - those involved in the manufacture and supply of building product, particularly those products associated with housing exteriors.

**Compliance** - those involved in developing and administering building industry laws, regulation, standards and the research that underpins the regulatory regime.

A list of the organisations and businesses represented by the participants is attached as Appendix One.

### **Order of Meeting**

Participants were asked to attend the Summit with firm commitments and ideas on three agenda items:

1. How the industry can enhance the knowledge, skill level and performance of its people.
2. How the industry can improve the performance of its building methods and materials.
3. How the industry can achieve a greater level of accountability and responsibility within, and between the industry sectors.

The opening address was delivered by Hon George Hawkins, Minister of Internal Affairs and was followed by presentations from Don Hunn, the Weathertightness Overview Group Chairman and Barry Brown, BIA Chairman, Pieter Burghout, Building and Construction Industry Training Organisation, and Maurice Hinton, Building Officials Institute of New Zealand.

Barry Brown outlined a number of key action areas that he urged the participants to consider when developing their proposals. These key action areas were:

- The need to provide consumers with a higher level of information and advice on weathertightness issues.
- Developing means to gain measurable improvements in building contract and procurement arrangements – this could include the registration of builders and other trades.
- Improving the standard of design documents.
- Improving education and training for all industry sectors, including the development of continuing professional development (CPD) systems and linking this to registration.
- Developing support mechanisms for local government building officials.
- Enhancing the legislative and regulatory environment so there is a better balance between a performance based and prescriptive approach.
- Instituting a weathertightness research programme with some short, medium and long-term goals.

Participants then broke into sector groups to consider the three agenda items and to develop short and long term response mechanisms.

## Summit Outcomes

### Three key outcomes emerged from the meeting:

1. The meeting agreed on the need to work together swiftly to develop real and durable means of arresting the weathertightness problem.

Specific commitments by various industry organisations to activities that are about to be implemented, or are already under way, were announced. These include:

- The BIA is collaborating with consumer groups to prepare consumer information and advice on residential buildings, including the development of a “Home Building Guide”. The BIA is also investigating the establishment of field staff to support territorial authority inspectors and technical staff.
- The Building and Construction Industry Training Organisation (BCITO) will work with the industry to commission a review of the BCITO qualification packages.
- The Building Officials Institute of New Zealand will develop a code of practice for building inspection by February 2003 and will work with the BIA and other relevant parties to address recommendations in the Overview Group Report which relate to building certifiers and territorial authorities.
- BRANZ is committed to conducting a comprehensive research and education programme on weathertightness.

2. The development of a series of **specific action points**.

The table in Appendix Two summarises these action points under the headings of “People”, “Methods” and “Responsibilities” (consistent with the stated agenda items). Due to the time constraints of the day, the groups were allocated a short time period to identify and discuss these specific action points. As a result, these action points, as agreed at the Summit, are unrefined and undeveloped.

3. A broad agreement to establish a **building industry taskforce** to analyse, develop and implement, where necessary, the ideas and action points identified at the Summit, and to support the implementation of the Overview Group Report recommendations which relate to the general industry.

There was general consensus that this taskforce should comprise a relatively small number of individuals drawn from the building industry and associated sectors operating on a partnership basis – that is, no one agency “owns” the taskforce, rather its role is to facilitate industry solutions.

Suggested participants included the New Zealand Construction Industry Council, Department of Internal Affairs, Building Industry Authority, Consumers Institute, Local Government New Zealand, the Building Research Association of New Zealand and Standards New Zealand.

## APPENDIX ONE – Summit Participants

Developer/Owner	Design	Build	Supply	Compliance
<ul style="list-style-type: none"> <li>▪ Taradale Property Group</li> <li>▪ The Consultancy Ltd</li> <li>▪ Consumers Institute of NZ</li> <li>▪ Insurance Council of NZ</li> <li>▪ Bankers Association of NZ</li> <li>▪ Housing NZ Corporation</li> <li>▪ NZ Institute of Building Surveyors (NZIOBS)</li> <li>▪ Alexander &amp; Co</li> <li>▪ PRENDOS</li> <li>▪ GR Bayley &amp; Associates</li> </ul>	<ul style="list-style-type: none"> <li>▪ NZ Institute of Architecture (NZIA)</li> <li>▪ Pepper Dixon Architects</li> <li>▪ ADC Architects</li> <li>▪ Leuschke Group Architects</li> <li>▪ Norman Williams (Architect)</li> <li>▪ Architectural Designers of NZ (ADNZ)</li> <li>▪ Assoc. of Consulting Engineers of NZ (ACENZ)</li> <li>▪ Unitec – School of Architecture</li> <li>▪ Auckland University School of Architecture</li> <li>▪ Design Assoc. of NZ (DANZ)</li> <li>▪ Institute of Professional Engineers of NZ (IPENZ)</li> <li>▪ Deighton Gibbs Architects</li> </ul>	<ul style="list-style-type: none"> <li>▪ NZ Construction Industry Council</li> <li>▪ Registered Master Builders Federation</li> <li>▪ NZ Certified Builders Assoc.</li> <li>▪ Mainzeal Property &amp; Construction</li> <li>▪ Jennian Homes Group</li> <li>▪ Harwood Pacific</li> <li>▪ Building &amp; Construction Industry Training Organisation (BCITO)</li> <li>▪ NZ Building Subcontractors Federation (NZBSF)</li> <li>▪ NZ Contractors Fed. Inc.</li> <li>▪ Building Industry Fed. (BIF)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Cement and Concrete Association of NZ (CCANZ)</li> <li>▪ Winstone Wallboards</li> <li>▪ Claddings Institute of NZ (CINZ)</li> <li>▪ Carter Holt Harvey Innovision</li> <li>▪ ITM</li> <li>▪ James Hardie</li> <li>▪ CSR Monier Brickmakers</li> <li>▪ Rockcote Architectural Coatings NZ</li> <li>▪ Nuplex Industries and Plaster Systems</li> <li>▪ Fosroc</li> <li>▪ Architectural Profiles</li> <li>▪ Window Association of NZ (WANZ)</li> <li>▪ NZ Metal Roofing Manufacturers</li> <li>▪ Roofing Association of NZ (RANZ)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Department of Internal Affairs</li> <li>▪ Building Industry Authority (BIA)</li> <li>▪ Building Research Association of NZ (BRANZ)</li> <li>▪ Weathertightness Building Steering Group</li> <li>▪ Standards NZ</li> <li>▪ Local Government NZ</li> <li>▪ Building Officials Institute of NZ (BOINZ)</li> <li>▪ Auckland City Council</li> <li>▪ North Shore City Council</li> <li>▪ Manukau City Council</li> <li>▪ Wellington City Council</li> <li>▪ Christchurch City Council</li> </ul>

		<ul style="list-style-type: none"><li>▪ NZ Institute of Building (NZIOB)</li><li>▪ Fletcher Construction</li><li>▪ Unitec – School of Construction</li></ul>		
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## APPENDIX TWO – Summary of Summit Ideas and Action Points

### Key

Comments by:

O- Owner/Developer

B - Builder

S - Supplier

D - Designer

C- Compliance

### 1 People

- o The developer takes the risk and the responsibility e.g. bond market. The aim is that each developer be required to obtain a suitable bond that protects future owners from weathertightness failures for the 10-year period required by the Building Act.
- o Initiate a public awareness programme to inform consumers of their choices re the decay resistance levels available in framing timbers.
- o Improved management of quality control during the building process especially with respect to the linkages between trade activities. Can only be achieved by initiatives that require one individual or organisation be entirely responsible for the building process.
- o Improvement in the consent and inspection process - more attention to documentation standards at the consent applications stage and an increase in the number of mandatory inspections. Further training of inspectors.
- o Transparent systems for the transfer of risk through the entire design, constructing and development process. May be obtained by applicant registration or by other methods that ensure each participant in the process accept responsibility for their actions. May become a contractual requirement at consent issue stage.
- D Dialogue across sector facilitated on a regular basis by BIA.
- D Develop consistent remedies and accredit appropriate skills for design of remedial work.
- D Lift awareness of research within the sector.
- D Accreditation of provider groups by skill.
- D Develop an auditable link between CPD and accreditation in each skill group.
- D Development of acceptable solutions for weather proofing within the sector.
- B Provide project management, skills training for foreman level, specifically on managing sub-contractors. (This was a comment on the reduction of skills through 1990s; also on the focus on lowest price rather than the best value.)
- B Improve the use of labour-only sub-contractors; give more ownership / demand more accountability. Avoid untrained sub-contractors.
- B Develop accreditation / registration schemes for both companies and individuals to counter the industry's low-entry barriers.

- B Revert back to original apprenticeship with appropriate mix of practical and theory and management skills – standardise pre-entry.
- B Get back to basics: Get design/details right; Review appropriateness of exams.
- s Introduce a registration system for trades (and professional participants) with selection/approvals criteria and performance monitoring **by third parties.**
- s Single-point quality management accountability on a site. Pre-construction briefing of trades inclusive of acceptance/rejection criteria, customer expectations and handover/sign-off procedures.
- s Enhance knowledge of the consumer re choice of design specifications to enable informed choices and ensure responsibility for those choices.
- s Tax incentives for research development and training – encourage private-sector investment in robust innovative building systems specifically designed for NZ market/environment.
- s Putting more suppliers’ resources toward funding solutions in a collaborative manner.
- s Organisations to develop simple checklists to prompt adequate consideration of key elements in relation to their areas of responsibility in the building chain.
- c Identify expertise in problem areas, develop additional resources and make available to certifiers and TAs.
- c BIA to run short-term courses on current problems for TAs and certifiers.
- c When reviewing training needs, include people from outside the industry e.g. homeowners, government, overseas learning. The aim is to increase the number of people with expertise in weathertightness issues ‘on the ground’ to advise designers and builders and to assist certifiers and TAs with inspection.
- c Compulsory parallel system for training of builders/trades people and registration and CPD.
- c Cladding systems need to be accredited by BIA: Accredite the installers. The aim is to increase training of builders/tradespeople, require builders to be registered and as part of this, to complete a certain level of CPD each year.
- c Establish a professional institution e.g. BOINZ, with compulsory training courses for CPDSD and incorporate disciplinary measures. The aim is to introduce compulsory training and other professional requirements for certifiers.

## 2. Methods/Materials

- o Framing timber must be decay resistant e.g. 0.4% Boron. This will provide a period of time between cause of leaks and appearance of leaks sufficient to prevent structural failure of the framing members.
- o We have to go to drained cavities for monolithic cladding systems. These types of cladding systems have a higher risk level than the traditional weatherboard, plank or veneered systems, and drained cavities will prevent moisture from reaching and affecting the structural frame. Drained cavities will prevent moisture from reaching and affecting the structural frame by allowing water to drain away before it reaches the structural framing. Ventilation in the cavity means that any water absorbed by surrounding material can dry out. This will assist in the prevention of toxic mould growth.
- o Higher minimum standards of the verification methods to prove that they meet the code. The minimum performance standard of many systems has deteriorated to unacceptable levels – they must be raised by regulation.
- o Every design system must have an inherent robustness to account for site discrepancies. Too many cladding systems have been designed to a minimum price and their performance is dependant on work being performed as if factory-type conditions are present.
- o Classification and compatibility of building construction components – vital that all of the elements in a building envelope system are capable of connection to each other to ensure that a waterproof result is achieved.
- D Strengthen building consent to require supervision by appropriate registered persons on behalf of the owner.
- D BIA to advise TAs on the extent of documentation they should require at consent approval stage.
- D TAs to require specific design for water-tightness detail at building consent stage.
- D Adopt Tasmanian-type matrix linking building type to accredited providers.
- D Rigorous accreditation of building systems.
- D Improved system evaluations.
- B Full and proper design documentation.
- B Develop generic and prescriptive key details within the code's acceptable solutions, e.g. vulnerable areas, junctions, etc.
- B Development of second line of defence appropriate to risk as part of the code's acceptable solutions – a level of redundancy is required.
- B Proprietary system manufacturers must provide guarantees of applications including the work of applicators.

- B Re-establishment of non-commercial, independent, product and system testing / validation agency: also approve applicators; rigorously test under site conditions. (This was comment on BRANZ's commercial relationship with manufacturers and various/confusing levels of product approvals – BRANZ should be an independent certifying authority).
- B Manufacturers' instructions should be simple but complete, vetted by above agency.
- s Prohibit the use of single-site producer statements on multiple sites. Allow only producer statements that are supported by credible/independent experts. Direct levy funding towards a review of gaps in Building Standards and to support broad industry input into development/improvements.
- s Suppliers do not have a good awareness of process for providing input to BRANZ research programme – BRANZ to improve (possibly through industry bodies or EMA).
- s BIA to shortly deliver a national programme of training/education for TAs/certifiers on key aspects of approval and inspection process (particularly re the building envelope). BIA to recruit greater depth/breadth of expert building people resources to establish Acceptable Solutions encompassing critical performance criteria (to promote innovation).
- s The industry/consumer must move from focus on products to focus on systems (allows for performance validation). Suppliers/manufacturers to create a conduit to establish aligned interests and so to collaborative developments (cost-sharing benefits). Keep looking to what is happening overseas. Willingness to open doors to others.
- s Suppliers' input to the BIA for development of guidelines on performance criteria for Acceptable Solutions (to allow for submission of robust Acceptable Solutions).
- c Uniform inspection process to ensure weathertightness of buildings - statement from weathertightness experts.
- c Code of practice to be developed (for building consent applications).
- c B2 review to be completed by 1 December 2002 (inclusive of monolithic cladding).
- c Aimed at addressing immediate issues that are either known, or likely causes of leaking – partly through increasing inspection and partly through providing greater clarity in building consent documents and approved solutions.
- c Produce a guide for alternative solutions (now to evaluate alternatives).
- c Minimum level of documentation required for each project.
- c Significant building elements to be nationally certified (ensure scope is fully spelled out). These are to provide guidance on how alternative solutions should be evaluated by TAs; standardise a minimum level of documentation of building consents; and introduce a nationwide certification process for major building elements.

### 3 Responsibilities

- o Owners should be responsible for using certified contractors.
- o More effective construction industry co-ordination – require return to on-site and off-site co-ordination. Each building product/system designed and considered as part of an overall system.
- o Prescriptive standard must be better than the minimum code standard. The minimum may only be achieved by appropriate and conclusive test processes.
- o Consumer accountability of levy-based organizations e.g. BRANZ and BIA. They have focused on satisfying industry needs at expense of consumer. More science is needed to prevent future failures.
- o Mandatory bonding of stakeholders involved in building developments to prevent companies being liquidated to avoid accountability for weathertightness problems.
- o Higher minimum code standards (acceptable solutions). Developers and builders who deliberately operate in the low-cost market currently face unacceptable risks. If legislation raised required minimum standards, no competitive advantage would be lost by any operator.
- o Create a levy to cover longer-term issues such as testing of materials/processes. Many failures result from haste and insufficient long-term testing for appraisals because appraisals generally provided for manufacturers at their expense, and so at minimal cost.
- D Liability matrix.
- D Make clear the linking of responsibility and accountability to the contract between buyer/provider.
- D Minimum end-user value to be identified.
- D Providers to acknowledge liability for what they do.
- D Introduce proportional liability statute.
- D Reintroduction of continuity of responsibility.
- B Registration of individual building practitioners across all trades. Sanctions should include: loss of licence, fines, claims for damages.
- B Eliminate producer statements – sign off to be by competent independent person. (BIA comment: refers to self-certification ie producer statements provided by person doing the work.)
- B Members of building organizations to be urgently re-trained and briefed on new standards.
- B All construction requiring consents to be undertaken by members of recognized building or sub-contractor organizations.
- B Building Act review should include the BIA – consider providing more teeth.

- B Manufacturers to provide full guarantee for supply, installations and finishing.
- s Legislate to allow only registered builders meeting strict criteria.
- s Legislation that details responsibilities – legislated process for each party in the construction process.
- s An umbrella organisation covering the building and construction industry to be formed and allocated responsibility for developing a Code of Practice for each group of professionals or trades.
- s Support people producing good product rather than being cost driven – consumer information to be developed to ensure consumers in particular are fully aware of their choices and responsibilities.
- s Field-testing period. Education about appraisals. Appraisals and accrediting authorities must perform full assessment on systems. Re high-risk systems - should be a stipulation not to use technical opinions, reports or appraisals issued by overseas bodies as the basis for use under NZ conditions. Encouragement for installation of systems ‘as tested’ as part of the conditions of issuing appraisals or accreditation certificates and subsequently for occupancy certificates.
- c Carry out an overview of who is accountable - roles/responsibility and prepare guide for dissemination.
- c Clarify in law that interim code compliance certificates trigger the long step (sic). (BIA comment: 10 year long stop = reference to Section 91 of Building Act that states claims must be made within 10 years of the act or omission.)
- c Need some mechanism for forcing code of compliance occupancy. (BIA comment: forcing people to complete buildings to the point where a code compliance certification can be issued or investigate occupancy certificate.) Aimed at clarifying who has responsibility during all phases of design construction and completion of a building project.
- c Registration of builders by a national body.
- c Create categories (A, B,...) of documentation sets. These recommendations call for registration of all builders so responsibility can be clearly assigned and levels of competence evaluated (also relates to training and CPD); and providing some assurance to the original homeowner and subsequent purchasers re the quality of the original construction.