Building Industry Consultative Council Industry Advisory Body

BICCIAB Industry Skill Needs Report

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Building Industry Consultative Council Industry Advisory Body (BICCIAB)

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Introduction

The purpose of this report is to provide authoritative and comprehensive advice to Skills Victoria on the current and emerging factors that are shaping the skill development needs of the General, Civil and Plumbing Services sectors. This report is an update on the BICCIAB Building and Construction Industry Change Driver Report 2008. It is not intended to provide advice on all factors affecting the industry, but to provide an update on the main issues that will be relevant in 2009.

1 Section One

Major developments in key change drivers shaping the building construction and plumbing industries that have arisen or significantly intensified over the last 12 months

1.1 Economic

The major change driver that will affect the building and construction industry in the next 12 months, like most industries, is the economy. The biggest impact has been felt in the commercial construction sector with CBD projects worth $450m in just two weeks in November[1] being postponed or cancelled outright, and this has continued throughout December and January. This is a direct outcome of commercial builders unable to attract finance as a result of the global credit crisis. Data from the Master Builders Association of Victoria shows that 90% of large commercial builders who have an annual turnover of over $50m, have had projects delayed or collapsed.

The economic downturn has also impacted on the residential sector which is experiencing a significant shift in areas of activity. Fewer funds are available for the large housing developers and a consequential shift towards renovation has occurred. In the context of the continuing housing shortage, the industry is optimistic that the demand for housing and apartment construction along with renovations will remain at a reasonable level. We are yet to see the fallout from the mild recession in 2009 in Australia predicted in the recent ANZ economic forecast[2] . Dwelling construction and profits are expected to be notably weaker. This trend is in line with the ABS which reported a 10.2% reduction in total dwelling units approved in Victoria in November 2008[3].

The recent $42 billion federal government economic stimulus package will ideally help to counteract this. The package includes major infrastructure improvements for schools and the construction of new homes. New jobs in the housing industry in solar hot water installation and insulation will be created however the impact of these changes on the economy will be slow. Rebuilding post the bushfires and the economic stimulus package will create demand that can be met by the current industry workforce.

[1] Randall Fuller, Speech at the BICCIAB Industry Forum, November 21 2008

[2] ANZ Economics and Markets Research, *ANZ Australian Markets Weekly*, 22 January 2009.

[3] ABS cited in Master Builders Association of Victoria, '*Drop in building work an opportunity for planning reform'* 8 January 2009.

Relevant to the Civil Construction sector, is the establishment of Infrastructure Australia. A result of the $20 billion Building Australia Fund, Infrastructure Australia's purpose is to fix and modernise transport, water, energy and communication infrastructure. The National Infrastructure Priority List will be announced in March 2009. The investment will provide ongoing work for the civil workforce, however the actual impact is difficult to predict as funding is directed through Local Government. In terms of economic stimulus, spending on Civil Infrastructure does not have the flow on effect of generating the number of additional 'downstream' jobs as does General Construction.

1.2 Sustainability

A second change driver that has intensified over the past twelve months, and will continue to do so, is the issue of sustainability. Currently, sustainable living options installed by the industry are driven by financial rewards together with regulation and compliance codes. Almost a quarter of greenhouse gas emissions in Australia come from the built environment. Whilst the government has implemented energy efficiency programs and renewable energy targets the skills behind achieving these initiatives have largely been ignored.

The CSIRO report *Growing the Green Collar Economy*[4] states that it is possible to predict that the demand for new skills will increase in the areas of design, trade skills and assessment, amongst others.

The introduction of the Emissions Trading Scheme will affect the manufacturing of essential building products– glass, bricks, concrete, iron, steel and aluminium - along with transportation costs associated with moving these products. The major industry associations provided submissions to the 'Carbon Pollution Reduction Scheme Green Paper' in September 2008. The submissions call for the need for systematic and reliable data (particularly for large projects), monitoring the transfer of emissions costs and ensuring reporting and compliance obligations are kept to a minimum.

1.3 Regulatory

An ongoing issue for the construction industry is the continued training required in Occupational Health and Safety. New 'construction specific' regulations, implemented by the Victorian Workcover Authority, were introduced from July 2008 and in October 2008 eight new Compliance Codes were released (attachment one). The implementation and adherence to these regulations is affecting how businesses operate requiring them to organise accredited OHS training for all construction workers, site specific induction and to formalise OHS management plans and documentation. Building industry enterprises, from subcontractors to large commercial operators, are reacting by participating in accredited OHS training (21883VIC Course in Construction OH&S Induction), improving OHS communication strategies and enhancing OHS documentation. This training is being provided by a range of RTOs.

The new regulations also require a 'Licence to Perform High Risk Work' such as rigging, scaffolding and EWPs from 1 July 2009. Government stimulus involves spending on many and varied large scale infrastructure projects such as the Westgate Bridge strengthening works, tunnelling and public transport and the Desalination Plant, to mention a few. These projects will require the application of new and in many cases more advanced specialist skills. Such areas require the 'Licence to Perform

[4] CSIRO, *Growing the Green Collar Economy,* June 2008

High Risk Work' which will create a demand for workers to increase their current level of skills to meet the job tasks of these very complicated and high risk work areas. The skill level required to attain the 'Licence in High Risk Work' does not align with the 'licencing' units in the CPC08 training package.

2 Section Two

The responses being made by businesses and industry organisations to these developments

2.1 Economic

An obvious and immediate effect of the decline in commercial construction is the loss of jobs. The PCI reported in January 2009 the ninth consecutive month that construction firms have reduced their workforce[5]. The Victorian Building Commission statistics confirm this report stating that in 2007-08, the number of employees in the building industry fell 1.6% to 164,100 people[6].This is reflected in national reports with a reported decline in construction skilled vacancies of 45.1% in the past 12 months[7]. Impacting on future skills development will be the consequential reduction of apprentice commencements and also the contraction of businesses 'bottom line' investment in training.

Incolink reported 4,000 terminations in December 2008, compared with the usual 1,800. These terminations are in the area of the start up trades, and include apprentices. There are an increasing number of outstanding invoices as a result of consumers and businesses delaying payments. There has been less work for architects, demolition workers and earthmovers (excavators) since late 2008 and it is expected that formwork carpenters and labourers will be affected significantly in the next 6 months as a result of the loss of commercial jobs. This will in turn flow on to the finishing trades and precast/off-site factories. Group training organisations are ensuring all off the job training is complete and are having difficulty finding employers, particularly for first and fourth year apprentices.

Construction enterprises wishing to tender for projects arising from the Federal Infrastructure spending are required to comply with rigorous OHS, financial and IR systems as part of being a 'preferred supplier'. The Federal Safety Commissioner accredits construction companies for their compliance with OHS, an expensive and challenging process. As a means of encouraging more and varied (including regional) construction companies to apply for accreditation feasible, targeted and timely training is required to respond to these new opportunities .

2.2 Sustainability

The industry has continued to support environmental compliance through adherence to the Building Code of Australia and the Plumbing Code of Australia. Upgrading the skills of the building and construction and plumbing industry's workforce in the area of sustainability have predominately been through industry associations. The associations have provided a marketing tool through recognising

[5] AiGroup ' *Performance of Construction Index*' December 2008

[6] Building Commission, Pulse, www.buildingcommission.com.au accessed 26 January 2009

[7] DEEWR '*Vacancy Report*' January 2009

their members who have completed a relevant training program such as MPMSAA 'GreenPlumbers', HIA 'Greensmart' and Master Builders 'Green Living' builders.

An increasing number of builders and plumbing businesses are offering services that are marketed specifically to 'environmentally conscious' consumers. These businesses have built on the ability of tradespeople to directly influence consumer behaviour through offering energy efficient alternatives when building or renovating. New business opportunities will be in environmental auditing and monitoring across General, Civil and Plumbing Services sectors in both the commercial and housing markets.

There has been significant growth in the commercial building industry voluntarily complying with the Green Building Council of Australia 'Green Star' rating program. 125 commercial construction projects have to date achieved 4 or 5 stars.[8]

Overall the industry is at the early stages of responding to the ETS. There are a small number of commercial building projects that have been constructed measuring the amount of green house gas produced and Multiplex for example are endeavouring to create manuals for their workforce on changes required in construction techniques and materials used. The Civil Construction sector is reacting to supplier demand for projects to be carbon neutral. An example of this is the duplication of Mickleham Road, used as a pilot project by Vic Roads to measure the carbon footprint of road construction and identify ways to potentially reduce and offset the greenhouse gas emissions from the construction works.

2.3 Regulatory

As a consequence of deregulating the Worksafe 'high risk' licences in 1994 a licence could be easily obtained through swift, on the job assessments with little or no training provided. This system has led to a skills gap, which will intensify to a skills shortage, as the more experienced workers are leaving the industry through retirement and the very real fact that as they get older they find it harder to maintain employment. The licensing system has enabled the workforce to operate without being competent over the full scope of skills and knowledge required of the occupation. With the impending changes to the 'Licence to Perform High Risk Work' from 1 July 2009 there is a very real opportunity to positively impact on employment and training but more importantly on health and safety.

The new OHS regulations also require specific tasks to be performed before and during work on a construction site. The commercial sector have voluntarily followed the requirements of the legislation for some time, however the housing sector has not been as vigilant in worksite induction and the preparation of Safe Work Method Statements (SWMS) for all 'High Risk' jobs. Small builders and subcontractors require targeted OHS information to comply with the new regulations.

The increasing complexity and volume of legislation, regulations and codes are impacting across all building occupations from labourers to building surveyors. This is resulting in businesses specialising in certain areas, however it is often only changes to legislation that will bring about change and improvements to safety and training.

[8] Green Building Council of Australia, '*Green Star Certified Projects'* 4 February 2009

3 Section Three

The emerging and critical skills implications of these developments and industry responses

3.1 Economic

In light of an increasingly competitive market, training needs to address the need for sound business planning and financial management skills particularly in the domestic sector. In the long term however, the industry will suffer the consequences of 'boom and bust' skills shortages and oversupply, with a time lag occurring between industry requirements and the availability of a trained, skilled workforce. The increase in narrow, task based short courses that provide a small component of a trade qualification contribute to increasing 'skills gaps' occurring in the industry. To meet the changing demands of consumers and government a broadly skilled, portable workforce that has the ability to move between the demands of residential and commercial construction and regional and metropolitan market needs is required. This skilled workforce, underpinned by the apprenticeship system, will have the ability to meet the needs of the industry in the long term.

Providing this workforce requires ongoing support for the trade occupations through apprenticeships. This must be strengthened with the implementation of an occupational licence for the trade areas. Providing occupational licensing will create an incentive to complete a qualification and increase the ability of the workforce to meet changing demands through having competence in the full scope of work required. The industry is keenly awaiting the COAG (recently deferred) decision on the Intergovernmental Agreement on the National Licensing system.

This is a similar situation to the Civil Construction industry. The Civil industry does not have a culture of training outside legislative requirements, with 70 – 80% of the workforce having no formal qualifications other than OHS induction. Current training efforts are focused on assessment only methods that have primarily developed (as a method of achieving a qualification) to compensate for the industry operating on short term contracts. The Civil industry is looking to new entrants with existing training to improve the level of skill and underpin a training culture of the industry.

3.2 Sustainability

There is a particular opportunity for the industry to contribute effectively to the reduction in green house gas emissions through providing advice to consumers as they plan to build or renovate. Trade occupations that have customer contact require skills in effective communication and product knowledge to provide environmental options. Occupations include plumbers, carpenters, painters, builders, project managers and building designers.

With the commercial construction and civil construction sectors becoming more aware of the ETS, skills will be required in measuring greenhouse gas emissions, identifying and purchasing environmentally sustainable alternative materials, updating technical skills in the properties of new materials and adapting existing skills to the installation of new appliances. Project managers on commercial building sites, housing developments and civil construction sites require environmental management skills to comply with environmental legislation, industry guidelines (ie Green Star) change management and document control.

The majority of the emerging skills needs identified form part of existing accredited training from preapprenticeship programs to Diplomas of Building and Building Design. It is the actual content and training delivery strategies that require updating and the ability to respond to new technologies needs to be developed. This is an issue for RTOs that should be supported by government and industry.

3.3 Regulatory

There are immediate critical skill needs in Occupational Health and Safety that must be addressed. Training in particular for the housing industry is required for principle contractors, employers, subcontractors and employees to comply with the new regulations and compliance codes. Support for training at post trade level to comply with the legislation should be a priority for funding by the government and would address the legislative needs. The process for obtaining a 'Licence to Perform High Risk Work' will change significantly from 1 July 2009. In addition to the changes to the licence regime, Worksafe now require assessment for a licence to be conducted by RTOs. This will result in a need for skills development for assessors to use the new assessment tools and comply with the AQTF concurrently.

The Master Builders has previously been funded by Worksafe to provide training on implementing SWMSs and related OHS requirements. The outcomes of the training highlighted; a strong resistance to the new regulations (particularly in country areas), attendance by subcontractors was rare and compliance was closely linked to the size of the enterprise. A snapshot of subcontractors working on domestic and small commercial sites revealed 11 out of 16 had completed the mandatory Construction Induction Training and 3 out of 16 had implemented SWMSs and worksite induction. The Master Builders believes that reinforcement by WorkSafe through subsidised training, information dissemination and support would assist in ensuring compliance particularly by subcontractors in the domestic sector. Alternative industry responsive delivery methods, such as timely onsite 'toolbox' training for subcontractors, needs to be supported and implemented.

The industry maintains the need to implement a 'trade licence' as it is a means of ensuring a highly skilled portable workforce with improved safety adherence.

This also needs to be complemented by a rigorous and well resourced, trade skills recognition program for highly experienced and skilled existing workers. This can only be achieved through the training of skilled and qualified industry assessors and the ability of RTOs to provide timely needs based gap skills training.

4 Section Four

The training demand and delivery consequences of addressing these skills needs

4.1 Develop Strategies

The industry highly recommends a 'rethink' of the Ministerial Skills Statement 'Securing Jobs for Your Future'. The BICC through BICCIAB provided input into this policy development before the significance of the downturn in the economy was fully realised.

The industry has the ability to manage cyclical changes in the economy by creating a highly skilled workforce that is portable and adaptable. Supporting apprentices and allied professionals is a method

of achieving this. However strategies need to be developed to overcome issues such as; promoting the industry to new entrants, retaining a quality workforce and improving apprenticeship completion rates. A strategy to implement an occupational licence as part of solving these issues must be investigated.

The current system of assessment for 'Licensing to Perform High Risk Work' areas must be examined. The current system is, on 1 July 2009, about to change, with more control by RTOs and the VET sector. The new system requires that applicants who wish to be assessed for High Risk Work Licences must first undertake a training course. It is pertinent that Worksafe and the VET sector implement and regulate minimum standards as far as the training is concerned, as this is currently not the case.

With around 40% of the workforce without a post school qualification[9] and 30% of apprentices not completing their qualification, there is the potential to provide off the job training opportunities. Retrenched workers could be provided with RPL opportunities by appropriately resourced RTOs. Such RTOs must have the ability to determine and provide training for the 'gap' between the individuals current skills and the skills required to achieve a qualification in their particular area of work. This may also be a mechanism for those with a Certificate III to obtain higher AQF level qualifications.

The industry does not support the attainment of a Certificate III trade qualification without competence being demonstrated and developed in the workplace or the notion of 'fast-tracking'.

4.2 Training required

The industry supports TAFE providing apprenticeship training and for the workforce to continue to upgrade their skills through industry and government strategic alliances. There are a range of methods for skill acquisition that need to be available – in addition to qualifications and short courses – such as mentoring, self directed learning, suppliers information and onsite training.

The following areas have been identified by the industry as critical skill needs

- Worksafe 'Licence to Perform High Risk Work' (General Construction, Civil Construction, ongoing) (attachment one).
- OHS Certificate III/IV level relevant for all sectors on; employers obligations relating to health and safety coordination plans, risk control, high risk construction work, SWMS's and their review, application and site induction processes. This would assist with compliance with the new OHS Regulations and could be achieved through an upgrade in the Certificate III in OHS
- Construction Induction Training
- Worksafe licence assessors/trainers (licence classes, one off)
- Estimating (All sectors, Certificate IV, ongoing)
- Climate change, Green Building, assessment and monitoring, design, environmental management (All sectors - particularly plumbing, ongoing)

[9] Skills Victoria 'Building and Construction Industry Training Needs Profile', Draft September 2008

- Tender preparation to comply with the State and Federal 'construction suppliers register' (all sectors, short, ongoing)
- First aid (General construction, ongoing)
- Working safely installing insulation

Training Packages are required to have a Continuous Improvement Process to address the issue of updating units of competency. As CPC08 has just recently been listed on the NTIS, this avenue of improvement is not yet available.

5 Attachment one – OHS regulatory requirements

New safety rules apply to construction from 1 July 2008. The minimum requirements include

- principal contractors to prepare health and safety coordination plans for construction projects costing $250,000 or more
- employers and self-employed people to prepare safe work method statements for high-risk construction work
- employees to be given OHS induction training before undertaking construction work, and
- employees to be trained about site specific risks and control measures before starting to work on a construction site.

5.1 Licence to Perform High Risk Work

A 'Licence to Perform High Risk Work' is required by Worksafe (Occupational Health and Safety Regulations 2007) in the following classifications.[10] The new training and assessment requirements will be implemented from 1 July 2009. Not all classifications are within BICCIAB scope. The licence units included in CPC08 do not correlate to the classifications.

Class Code	Class Name
Scaffolding, Dogging, Rigging	
SB	Basic Scaffolding
SI	Intermediate Scaffolding
SA	Advanced Scaffolding
DG	Dogging
RB	Basic Rigging
RI	Intermediate Rigging
RA	Advanced Rigging
Load shifting	
LF	Forklift Truck Operation
LO	*Order-picking Forklift Truck Operation*
Cranes and Hoists	
CT	Tower Crane Operation
CD	*Derrick Crane Operation*
CN	*Non-slewing Mobile Crane (>3 tonnes)*
CV	*Vehicle Loading Crane Operation (>10 tonne)*
C2	*Slewing Mobile Crane Operation (up to 20 tonnes)*
C6	*Slewing Mobile Crane Operation (up to 60 tonnes)*
C1	*Slewing Mobile Crane Operation (up to 100 tonnes)*
C0	*Slewing Mobile Crane Operation (over 100 tonnes)*
CB	*Bridge and Gantry Crane operation*
CP	*Portal Boom Crane Operation*
HM	Material Hoist Operation (Cantilever Platform)
HP	Hoist Operation (Personal and Material)
PB	Concrete-placing Boom Operation

[10] Worksafe Victoria, *'Licence to Perform High Risk Work'* 12 April 2007.

WP	Boom-type Elevated Work Platform Operation (boom length > 11 meters)

A licence is also required for

Construction	Worksafe Construction Induction Card
Asbestos	Class A licence – all forms of asbestos Class B licence – non-friable only (required for the business rather than the individual)

5.2 High Risk Construction Work

A Safe Work Method Statement (SWMS) is required as part of the regulations (Occupational Health and Safety Regulations 2007) for the following types of high risk work, as classified by Worksafe Victoria.

- Construction work where there is a risk of a person falling more than 2 metres
- Construction work involving demolition
- Construction work involving the removal or likely disturbance of asbestos
- Construction work involving structural alterations where some sort of temporary support will be used to prevent the structure from collapsing
- Construction work involving a trench or shaft deeper than 1.5 metres
- Construction work involving the use of explosives
- Construction work on or near:
    - pressurised gas distribution mains or piping, or
    - electrical installations or services
- Construction work involving tilt-up or precast concrete
- Construction work at a workplace where there is any movement of powered mobile plant
- Construction work in, over or near water or other liquids if there is a risk that someone may drown

5.3 Compliance codes

The following Compliance Codes were released to assist with complying with the OHS Act.

- Communicating occupational health and safety across languages
- Workplace amenities and work environment
- Confined spaces
- First aid in the workplace
- Prevention of falls in general construction
- Managing asbestos in workplaces
- Removing asbestos in workplaces

6 Attachment two - Consultation process

Initial consultation to inform this report occurred on 18 December 2008 with a focus group of industry representatives from the Master Builders Association of Victoria, the CFMEU, the Master Plumbers and Mechanical Services Association of Australia and the Plumbing Employees Trade Union.

Subsequent interviews were held with key industry stakeholders including the:

- Housing Industry Association
- Civil Contractors Federation
- AbiGroup
- Group Training Australia
- Master Painters Australia
- Australian Institute of Building Surveyors
- Incolink
- Boral Plaster Industries
- Fulton Hogan Pty Ltd (Civil Contractors)
- Air-Conditioning and Mechanical Services Association
- Interviews with 16 subcontracts in the domestic sector (General Construction).

As the industry experiences significant demand in the lead up to Christmas and are in stand down mode for the majority of January, consultation with individual businesses on recent events (economy stimulus package, bushfires) has been limited.

A register of comment has been maintained by BICCIAB.