

[REDACTED]

From: system@accelo.com on behalf of Raj Prasad <[REDACTED]>
Sent: Thursday, 25 October 2018 10:32 AM
To: [REDACTED]
Subject: Submission Details for Raj Prasad of Dincel Construction System Pty Ltd (comments)

Confidentiality Requested: no

Submitted by a Planner: no

Disclosable Political Donation:

Agreed to false or misleading information statements: yes

Name: Raj Prasad
Organisation: Dincel Construction System Pty Ltd (CFO)
Email: [REDACTED]

Address:
[REDACTED]

Erskine Park, NSW
2759

Content:
Dear Sir or Madam,

Please find our submission attached.

Kind Regards

Raj Prasad

IP Address: - 220.233.149.98

Submission: Online Submission from Raj Prasad of Dincel Construction System Pty Ltd (comments)
https://majorprojects.accelo.com/?action=view_activity&id=289354

Submission for Job: #9552
https://majorprojects.accelo.com/?action=view_job&id=9552

Site: #0
https://majorprojects.accelo.com/?action=view_site&id=0

This email is missing attachments because they were too large to send. Please contact Raj Prasad to retrieve them, or reply to this email.



DINCEL SUBMISSION TO NEW SOUTH WALES PLANNING DEPARTMENT

WESTERN SYDNEY AEROTROPLIS ZONING

OCTOBER 2018

24 October 2018

Director, Aerotropolis Activation
Department of Planning and Environment
GPO Box 39
Sydney NSW 2001

Dear Sir or Madam,

Based on our discussion with the Planning Team during a phone consultation meeting on 17 September 2018, we respectfully submit for your review, our feedback on the Stage 1 Planning of the Aerotropolis including our proposal for new manufacturing plant.

We appeal to the New South Wales Government to assist fast track our planned commitment for 919-929 Mamre Road Kemps Creek. We as a business have done all that is required for this project and now faced with the issue which requires your kind intervention. This is a barrier which can only be resolved via Government intervention. This is holding back our planned commitment to developing our business.

Our business has reached a critical stage, where further expansion is required to meet the current demand. We had looked at various options of managing the demand, which resulted in the business recently undertaking capital works at our existing plant to increase our production capacity by 33%. Shortly after that project was completed, we found the demand to be much higher than anticipated. We were always confident that the demand on our product, a "disruptive technology" would take hold on large scale and continue to build, however its success has caught us all by surprise. We thus are at an important decision point, on where to locate our next manufacturing plant.

During our due diligence, our discussion with logistic experts revealed that additional 6 more production lines at our existing premises at 101 Quarry Road creates very serious logistic problems for us to handle. We also had completed additional power studies and were informed that unless major infrastructure works are commissioned there is no additional power capacity which exists at 101 Quarry Road Erskine Park. We have now come to the clear understanding that additional production facility at our current location is not possible. Our options are therefore to build the plant at recently acquired property at 919-929 Mamre Road, Kemps Creek (approx. 4.6 kilometres away) or have the same plant in the state of Victoria.

The Project will require financial commitment from our business as follows:

Investment	Estimated Cost	Status
Land	\$6,953,000	A large part of this investment has already been made
Building	\$9,095,000	Planned commitment.
Plant & Equipment	\$29,746,000	Planned commitment
Total	\$45,764,000	

Whilst building a factory in the Mamre Road Precinct makes a lot sense, we cannot achieve this without the NSW Government's assistance. In order to proceed with investing in a new manufacturing plant at 919-929 Mamre Road Kemps Creek NSW, our business would need essentially two main things to occur:

1. The first is that we will need the land zoning to be changed from Rural to Industrial. We believe the re-zoning of the land in the area is scoped in the Government planning and are essentially seeking to have some of that decision made sooner. We understand there are no dates yet on when the Mamre Road Precinct will be rezoned. We note that only the Northern Gateway and Aerotropolis precinct have a rezoning date set for December 2019
2. The second and essential item is the supply of services such as water, sewage and perhaps the most critical of all Electricity. With the electricity, we will need up to 5,200KVA to be made available at the immediate frontage of the proposed plant

The creation or availability of the above two facilities will go a long way in expediting our investment in the Mamre Road Precinct. We need to start building the new plant no later than 12 months from the date of this letter as the complete commissioning with the equipment will take a further approximately 12 months. The timing is therefore critical and will influence the decision on moving part or whole of our operations to state of Victoria.

Attached with this letter is Project Briefing Paper. This document outlines the project in brief and is very similar to our previous proposal on this matter. The success of this project will see the creation of 209 new fulltime employment (we also provide full time job opportunities to another minimum 50 contractors) taking the combined total to 317 fulltime employees engaged in the business.

In addition to the above, there will be other businesses which will stand to benefit from early rezoning of the Mamre Precinct. There are existing businesses in the area which operate on a restricted basis. We have spoken to some of these businesses and believe there are many others waiting for the rezoning to occur. Once the zoning is changed, it will motivate these entities to further develop their business, which will generate the much-needed economic activity in the local area.

Thank you once again and I look forward to your support to this request.

Yours Faithfully

DINCEL CONSTRUCTION SYSTEM PTY LTD



Burak Dincel
Chairman

Project Briefing Paper

Revision A1

October 2018

New Dincel Plant to cater for the increase in demand for Dincel products in Australia and the nations of the Pacific Island, New Zealand and Singapore



Dincel Construction System Pty Ltd

101 Quarry Road, Erskine Park, NSW 2759 | Tel: 02 9670 1633 Fax: 02 9670 6744 | W: www.dincel.com.au |

MATTERS SPECIFIC TO PROPOSED INVESTMENT AT 919-929 MAMRE ROAD KEMPS CREEK.

Site Plan

A draft layout of the Dincel Plant is attached. This plant layout allows an increase in production capacity of 75%.

Hours of Operation

We would expect the plant to operate non-stop between 6:00am Monday and 6:00am Saturday morning initially. After the third year, we will expect this plant to be operating non-stop every day of the week (24/7). We do not foresee any risks with noise from the production machinery to the residents in the area. Our production facility noise is within the accepted decibels of what is considered a safe workplace. The sounds do not pass 20 m beyond the walling of the factory. For instance, if you stood outside our factory at Erskine Park, you will be struggling to hear the sound of the machines. Truck movement will be concentrated mainly in the early hours of the working week (Monday to Friday). Dincel is extremely lightweight hence minimal truck engine activity is involved which also a significant sound reduction created by trucks. We do not have a need for deliveries on the weekend or after 6:00pm between Mondays to Friday.

Environmental Impact

The Dincel products are made from re-engineered PVC. It is one of the few PVC products in the world which is manufactured without any heavy metals. The metals are used as stabilisers during the heat extrusion process. One of the major drawback of these heavy metals are that they are toxic to environment. **Dincel test confirms that the material is NON-TOXIC and VOC component is below the detection level.** We have developed through material science, a new breed of raw vinyl which can be extruded without the need for heavy metal stabilisers. The heavy metals are replaced with eco-friendly organic stabilisers. Refer attached Corporate Social Responsibility statement which address the environment impacts of the Dincel products. In this particular project, the impact in the environment will be minimal. The inclusion of a recycling facility ensures we will have a whole of product life cycle covered. We do not use any chemicals within our productions so there is no issues with in storage and handling of hazardous materials. The only impact to consider would the frequency of trucks enter and leaving the premises usually between 6:00am and 10:00am, the busiest period to cater for the construction sites. The layout of the premises is designed in such a way that traffic outside the premises is avoided, multiple trucks are capable of being serviced at once.

BACKGROUND OF THE BUSINESS

Dincel Construction System Pty Ltd is a privately held business involved in the manufacture of the Dincel Wall or the Dincel Construction System “DCS”.

Dincel Wall or DCS is a waterproof polymer formwork for walls and columns. The forms can be manufactured to suit any custom lengths; up to 8 metres; which is the most practical length for manufacturing, packaging and transportation. DCS consists of permanent polymer formwork which is most commonly used with normal or lightweight concrete infill for structural building wall purposes. The forms can also be filled with foam, sand and mud for different non-structural applications. The most economical, fastest and safest way in construction is achieved when DCS is used as a load bearing wall construction system rather than a conventional frame system incorporating concrete columns and a variety of non-structural infill walls between columns. [\(Download – Cost Comparison\)](#).

Most recently Dincel was awarded by the Financial Times as one of the fastest growing companies in the Asia Pacific Region. The Financial Times analysed the 2013-2016 economic growth performance of 10 million companies across 11 countries – in unlimited industry sectors – including Australia, New Zealand, Hong Kong, India, Taiwan, Japan, Malaysia, Indonesia, Singapore, South Korea, and the Philippines. It then ranked the top 1000 companies according to revenue percentage growth for report inclusion.

Following 190 per cent revenue growth between 2013 and 2016 financial years, Dincel Construction Systems ranked:

- 1st as a building product supply company
- 7th fastest-growing as a construction-relevant company
- 231st overall, amongst 10 million companies over 11 countries

OBJECTIVE

To undertake an assessment on the viability of setting up a new manufacturing plant to cater for the growth in local and international demand.

Proposed locations for the new plant will be assessed on the following key criteria:

- strategic fit to the style of operation,
- demographic of the markets/customers,
- proximity to shipping ports,
- availability of skilled labour force,
- availability of suitable land and amenities such as power, town water,
- local ordinances with respect to zoning restrictions
- initial cost of construction and
- operational costs

CURRENT STATUS – PRE-DUE DILIGENCE

Preliminary discussions are underway with the engineers to construct a new manufacturing plant at 919-929 Mamre Road Kemps Creek. This will yield an additional 6-line production capacity bring the total production capacity to 14 (8 lines exist at present)

Alternate locations which are being seriously considered include the following:

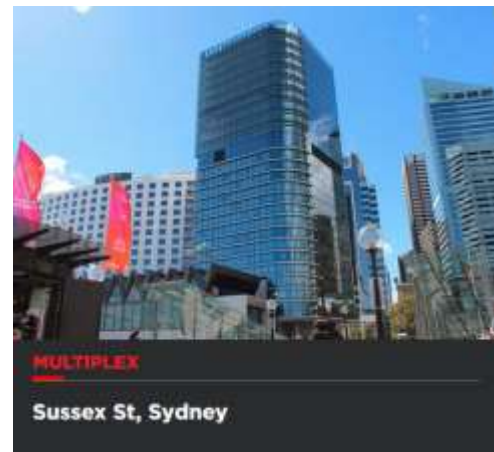
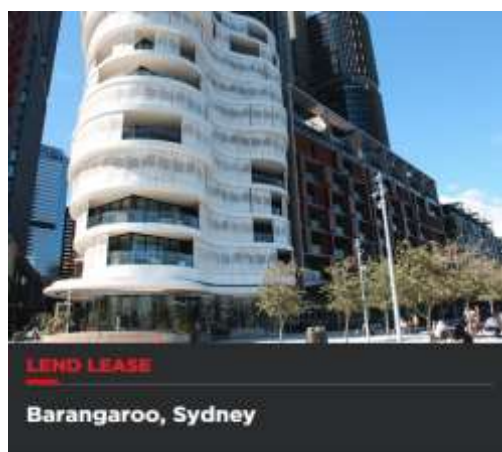
- Yatala Queensland
- Victoria
- International – Puchong Selangor, Malaysia or Singapore
- International - Gwangyang Bay Area Free Economic Zone, Korea
- Hamilton New Zealand
- Perth Western Australia

Market Analysis

PRODUCT APPLICATIONS & USES

DCS can be used for Low cost housing, flood recoverable buildings and solution to earthquakes and cyclones. More specific usages are highlighted in the table below.

Building Walls	Private residences, villas and townhouses. Basements, lift-stair shafts, party-corridor-façade walls of apartments, offices, retail, industrial, warehouses, hospitals, shopping centres. Excellent corrosion resistance for marine and agricultural building structures such as poultry, piggeries, fertiliser, sewerage plants, irrigation, water management channels and controlling devices. Replacement of conventional precast, tilt-up and masonry block walls.
Retaining Walls	Basement walls below permanent water table, earth retaining, mining, erosion control, river embankment protection, sea walls.
Storage Tanks	Water (detention, retention, stormwater pits), fish farming tanks, waste water, sewerage, sludge, petrol, diesel oil, liquid natural gas, manure, grain and contaminated soil.
Special Uses	Mining related structures; buildings, storage tanks, cable trenches, a variety of structural and non-structural walling needs. Bushfire Prone Areas, mine subsidence areas, sound / temporary road barriers, stormwater pits, contaminated ground water barrier, construction in acid sulphate soils, bund walls, sea walls, reclaimed lands in coastal areas for developments, energy free flood levies to protect township or generate flood free developable lands. Cold storage rooms.



RECENT DEVELOPMENTS & DINCEL'S PLAN

We are proud to announce that our internationally patented snap-connect technology structural walls - world's only warranted waterproof structural wall, has now achieved CODEMARK for the purposes of Fire Safety in buildings. In simple terms, CODEMARK is supported by building construction legislation which provides approval by Australian Building Authorities for the use of PVC based material as a permanent formwork. **Dintel is the only brand in Australia to get this CODEMARK certification for PVC structural walls.**

We reiterate the fact that Dintel's material formulation principles of using heavy metal free stabilisers, non-toxic additives, being non-combustible equivalent, suitable for potable water use, not supporting algae, mould/mildew is an ideal PVC structural wall product ready to be adopted by all parties in world-wide construction markets. The 2017 fire tragedy at the Grenfell Tower in UK was a clear reminder to incorporate smoke toxicity testing requirement within Australian building code. While the code supports smoke quantity requirements, which can be suppressed by utilising well known toxic additives, it does not support the smoke toxicity testing requirement. We used the reference to the Grenfell Tower to make an impact on the readers that we should not allow this type of tragedy to ever happen again. This was not to upset the sensitivities of the readers, or gain any commercial advantage, but to raise awareness of the high risks associated with smoke toxicity, and that it **MUST** be controlled. The feedback we received indicates that the building was a social housing, lifts were already out of action, and number of stairs were not adequate to vacate the occupants on time. This reiterates how, unless smoke toxicity is addressed, the risks associated with smoke poisoning in some buildings can be even higher due to maintenance issues.

We have been supplying to the Australian construction market since October 2006 and have achieved acceptance within a very short time. The achievement of Codemark will further enhance the acceptance and use of Dintel within the Australian market. Our competitors started to enter the Australian construction market over the last few years, but unlike Dintel, do not have the waterproof option, or the Dintel's patented snap-connect technology. Dintel is the clear market leader in the permanent (stay-in) formwork market, and our products are not only being used in Australia, but NZ and Fiji too. Please click on the following link to see [New Building Technology to Launch in Fiji](http://fijisun.com.fj/2018/03/24/new-building-technology-to-launch-in-fiji/). <http://fijisun.com.fj/2018/03/24/new-building-technology-to-launch-in-fiji/>. Majority of islands in the Pacific Ocean do not have clean aggregates for concrete making. The main construction material for walls/columns are either Besser Blocks filled with concrete or in-situ conventionally formed concrete in the Pacific Islands. Corals and beach sand are often used for concrete making. As a consequence, premature concrete cancer appears within 5 to 10 years' time. Dintel being waterproof (i.e. no

oxygen intake, no concrete cancer), will mean that all these islands' asset life will be increased from 5 years to 100 years.

We are also trying to reach to open minded American construction leaders. Nearly every American house has a basement. The majority of these basements built out of conventional construction walling materials often leak, resulting in damage to the property, mould/mildew and sick building syndrome. The American housing basement wall market would be a very easy market to penetrate for waterproof Dincel Wall, without even considering multi-storey buildings, water/gas/oil/sewage/ grain storage tanks, and energy free flood levees. In fact, Dincel will allow reasonably cold weather concreting possible which is also a big obstacle in countries having cold climate.

Some of the biggest problems facing worldwide construction markets are;

- **Shortage of skilled labour** (Dincel basement walls can be installed by a totally unskilled individuals, Dincel is a gloried Lego, a basement represents a simple box to be built by Legos. Even non-skilled Australian mums and dads are capable of installing Dincel at their house basement walls, hence the product is suitable for DIY market for basements, garden walls, fencing etc.)
- **Poor productivity and profitability** (a skilled labour can install 18m²/man/hour of Dincel Wall and eliminates the need of using waterproof membranes and excessive excavation beyond the basement walls. Please read “ Why Dincel is Faster to Build”
<https://www.dincel.com.au/site/DefaultSite/filesystem/documents/xls-pdf/Why-Dincel-is-Faster-to-Build.pdf> In addition to this the use of Dincel as a loadbearing wall system can reduce the cost of building no less than 20 % , please read
<https://www.dincel.com.au/site/DefaultSite/filesystem/documents/Comparison/Cost-Comparison-Dincel-vs-AAC-Walls.pdf>)
- **Sustainability Concern** (important topic, please read
<https://www.dincel.com.au/site/DefaultSite/filesystem/documents/environment/Sustainable-Construction.pdf>)
- **Safety on construction site** (please read
<https://www.dincel.com.au/site/DefaultSite/filesystem/documents/xls-pdf/Dincel-Solution-for-Construction-Safety.pdf>)

DINCEL'S BUSINESS CASE

The world's population is increasing exponentially and so are our construction needs. The construction industry's growing problems are numerous. Some of the main areas of concern are:

- Availability of skilled labour and safety in construction. [\(Download\) Dincel Solution for Construction Safety.](#)
- Significant cost and construction speed effectiveness.
- Elimination of common maintenance issues and offering affordable building insurance. [\(Download\) Risk Minimisation for the Insurance Industry.](#)
- Depleting naturally available material sources for concrete making. [\(Download\) Sustainable Construction.](#)

The majority of the construction world still works with 5,000-year-old brick technology. The most abundant construction material is concrete and it has not experienced any further development since the invention of Portland cement in the 1800's, used in combination with steel reinforcement. The construction materials industry is perhaps significantly behind other industries such as Information Technology, Space, Electronics, Medicine, Automotive, etc.

DINCEL is a new composite material utilising both polymer forms and concrete infill working together. The composite material eliminates the brittleness and ductility concerns of conventional concrete walls as proved by Dincel's earthquake testings. Waterproof Dincel polymer encapsulation as proven by CSIRO – Australia eliminates conventional concrete's durability, water damage and cracking concerns. Dincel, being factory manufactured, eliminates conventional in-situ reinforced concrete wall/columns tolerance concerns. Dincel significantly minimises the risks for the insurance industry [\(download\) Risk Minimisation for the Insurance Industry.](#)

Durability (cracking, porosity, honeycombing, corrosion, material degradation), ductility (brittleness, not having enough resilience, hence the need for steel use), geometrical imperfections (in-situ concrete's workmanship reliance), inappropriate concrete forms (permanent polymer forms improves curing, eliminates air pockets, segregation in concrete) are the main contributions that Dincel offers to concrete science. As an answer to these problems, Dincel now has the ability to utilise the majority of waste process materials and naturally occurring materials that previously could not be used for concrete making.

Dincel is the next generation in the construction methodology and material science bringing concrete and polymers together. The end product is the solution to many currently known concrete problems which includes: waterproofing, concrete cancer, steel corrosion, use of fly ash, sea sand, corals in concrete making, reduction in cement and steel use, cracking, workmanship defects, skilled labour, increased construction speed, and safety.

UNIQUE SELLING PROPOSITIONS

The following is a list of new benchmarks set by Dincel in the construction industry.

- **WATERPROOFING:** Dincel is the world's first waterproof and structural wall system as tested and certified by CSIRO Australia, eliminating the need for additional waterproofing membranes, sealants and chemical concrete additives. Dincel Installation (an entity within the Dincel Group) offers a waterproof guarantee any walls built below the water table. This offering is unmatched by any supplier in the marketplace.
- **MEMBRANE SYSTEM:** Dincel-Wall is the only monolithic structural/waterproof wall having in-built membrane system which is tested and approved under 6m of water head pressure.
- **VAPOUR TRANSMISSION:** Dincel's polymer vapour transmission is 180 times better than the standard membrane vapour transmission threshold as tested by CSIRO.
- **STEEL CORROSION AND CONCRETE CANCER:** New benchmark is ZERO corrosion and concrete degradation when Dincel is used.
- **LONG LIFE:** The Australian standards benchmark for the life of a concrete structure is 50 years. Dincel's benchmark exceeds 100 years life.
- **CRACK CONTROL REINFORCEMENT:** Dincel is a joint free concrete wall that can be built without crack control reinforcement.
- **JOINTS:** Dincel can be built without joints.
- **BACK FILLING:** Dincel patented design allows backfilling against "unfilled" Dincel walls. The wait before the walls are ready for backfilling can commence can be as long as 12 weeks. The Dincel wall can be backfilled no later 24 hours after concrete infill. This allows reduction in the construction program of up to 12 weeks, substantial savings for any developer or builder.
- **CRACKING:** The new Dincel benchmark is to eliminate cracking in walls which exceed community standards as set out by the Department of Fair Trading and Australian Design Codes.
- **VOC:** Dincel's volatile organic compound is 50 times better than the Australian Green Star threshold as tested by CETEC Australia. This makes Dincel-Wall the most suitable material for the construction of museums and archive type of buildings in which the contents are affected by the presence of VOC's.
- **FIRE:** Dincel's polymer formwork offer Group 1 material classification when tested in accordance with Building Code of Australia (BCA) which allows the use of Dincel Polymer Formwork without any protection in a building fire. Dincel is also certified by Codemark as a non-combustible.
- **SMOKE:** Dincel's polymer smoke performance is 2.5 times better than the BCA's smoke threshold.

- **NON-TOXIC** : Tests reveal that Dincel's toxicity rating is 300 % better than the international threshold.
- **CONCRETE FINISH**: The construction industry sets standards to control workmanship for the quality of concrete finishes. Class 1 being the best target to achieve a concrete surface which can have applied architectural coating finishes with minimum wall surface preparation. The new Dincel benchmark is to achieve a finish that is equivalent or better than Class 2 at each application.
- **BUILDING CONSTRUCTION EFFICIENCY**: The utilisation of load bearing Dincel-Wall's structural frame system in multi-level accommodation structures sets a benchmark for cost and time effectiveness and a safer construction system when compared with the column-frame systems with infill walls. Cost savings of up to 43% and up to 50% reduction of construction time savings are achievable.
- **ENERGY EFFICIENCY**: A new benchmark in energy efficiency if accommodation types of buildings adopt Dincel Construction System, the savings are up to 42% energy and reduction of 75 tonnes of CO₂ emission for a two bedroom + study apartment at the completion of the construction period which is an average of 12 months.
- **WATER EFFICIENCY**: Dincel significantly reduces the reliance on town water supply.
- **FOOD EFFICIENCY**: Dincel's storage silos can increase the current 3 months grain life to a minimum of 12 months, i.e. next harvest.
- **WASTE MINIMISATION**: The waste in construction related formwork and walling products is an accepted major problem. Dincel achieves ZERO waste during manufacturing. Dincel achieves 100% recycling of Dincel polymer and concrete infill at the end of its life exceeding 100 years. Dincel eliminates a minimum of 90% wastage during construction.
- **EARTHQUAKE RESISTANCE**: The polymer encapsulation of Dincel offers additional ductility and tensile capacity to the concrete infill to resist magnitude 9 earthquake resistance which has been proven by testings from the University of Technology Sydney.
- **STRAY CURRENT AND CATHODIC PROTECTION**: The polymer encapsulation of DCS is the only construction system that provides an electrical isolation to the walls of any buried structure subject to stray current conditions (e.g. structures adjacent to high voltage facilities, railway corridors, power stations, and mining projects).
- **CHEMICAL RESISTANCE**: The 1,406 days Dincel polymer submersion test results with diesel oil shows excellent resistance normally not possessed by common PVC. Dincel's 48 hours acid (e.g. sulphuric, nitric, hydrochloric and phosphoric acids) resistance tests also provides very good results.

- **ACOUSTICS** : Dintel Walls are CSIRO acoustically tested walls. We have partnered with Knauf, arguably the world's largest plasterboard manufacturer to achieve this outcome

The above are the reasons in a very short summary of why DCS is unique in the construction industry

COMPETITOR ANALYSIS

There are two major players in the polymer wall market. One of them is our business and the other is new entrant called AFS Wall. AFS is a subsidiary of CSR Building Products which was acquired in 2014. AFS has been in the business of manufacturing a wall system made out of fibre cements sheeting glued to a metal webbing. They did not have a competing product to Dincel, so eventually went overseas and secured a licence on a product called Rediwall, which is a polymer-based formwork, much similar to the Dincel Wall. There are other suppliers in the market, almost all of which are importing their products from China.

Despite the threat of competition, the key fact is the sheer size of the market. Even if we doubled the number of competitors in the market, there will still be enough work for all. For example, our projections are only based on achieving approx. 0.79% of the market size in Australia, New Zealand, Singapore and the Pacific Islands (size of the Australian market has been calculated in year 2012 by CSR Limited- based on the year 2008/2009 data published by the ABS and confirmed as 92 million square meters per annum wall area). Additionally, the cost of entry into the polymer formwork business is quite high, thus a prohibitive barrier offering further protection to our business. Dincel also hold patents on its novel design both locally and overseas. Some of these patents have a life of almost 17 years before they run out. The distinguishing factors of the Dincel Wall to its competitors are:

- Waterproof, ready finish.
- No crack, no joints, no concrete cancer.
- Minimum 100 years life even in salinity and acidic conditions.
- Vapour barriers on both faces.
- No thermal bridging.
- Termite proof, VOC free, non-toxic
- No water damage, damp proof, rot proof and non-combustible
- Does not support condensation, mould, mildew and fungus growth.
- Significantly cost effective and faster.
- Light and easy to be installed by non-skilled labour
- Easily handled by man, no craneage.
- Improves work place safety.
- Solutions to access problems.
- Eliminates scaffolding.
- Flexible for building curve, arch, wave, circle shaped walls.
- Increased concrete flowability, no air voids, honeycombing or segregation.
- Reduces cement and steel use.

DINCEL SWOT ANALYSIS – AUSTRALIAN MARKET

STRENGTHS

As a Product:

- *Extensive Testing*
- *Highly accredited product*
- *Complete*
- *Custom sizes*
- *Simple design*
- *OHS friendly*
- *Increase efficiency*
- *Easy to handle*
- *Eliminates the need for skilled labour*
- *Fast and safe to install*
- *VOC, heavy metal stabiliser and plasticiser free*
- *Waterproof, increased fire safety*

As a Business:

- *Cost effective*
- *Payment terms, cash flow*
- *Multiple market opportunity*
- *Strong internal technical/business inputs*
- *Extensive patent protection*
- *Unique material formulation*
- *Unique manufacturing tools and equipment*

OPPORTUNITIES

- Multiple business opportunities and applications, including:
 - Flood recoverable buildings
 - Bush fire, earthquake, and cyclone prone areas.
 - Construction, PVC and concrete supply businesses.
- Very large growth market
- Appeals to younger generation of tradesmen
- International distribution
- Volume based pricing rebates
- Volume buying opportunities for raw materials
- Strong sales management plans and reports
- Increase brand awareness

WEAKNESSES

- No national install platform in place
- Limited national distribution
- Limited brand awareness in some regions
- Not being long enough in the market may be perceived as a weakness. However, PVC polymer and concrete already have a long history in the construction industry which eliminates this concern (otherwise Dincel would not have been in this position in such a very short space of time).

THREATS

- Rapid business growth leads to capacity limitations. Dincel plans to overcome this by having in place spare infrastructure capacity. Additional production lines then can be added as need basis.
- Brand management to differentiate from similar but inferior products
- Cheap import copycat products (only a threat if they are able to overcome Dincel's extensive engineering/construction knowledge, production technology, patents and material's quality).

Financial Assessment

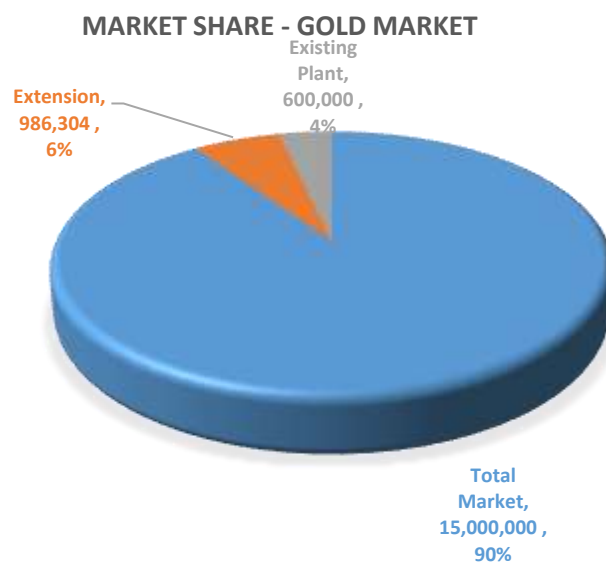
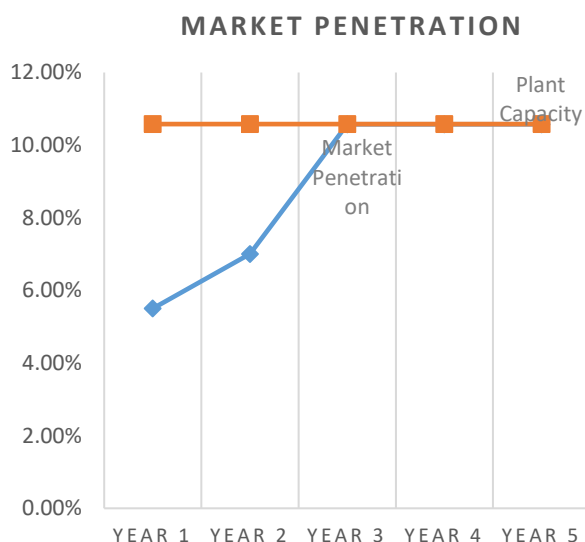
Investment expenditure and value of the entire project and method of funding is as follows:

	Estimated Cost	Method of Funding
Land	\$6,953,000	Internal
Building	\$9,095,000	External – bank
Plant & Equipment	\$29,746,000	External – bank. This investment will be staged over two phases.
Total	\$45,764,000	

Market Size and Expected Share

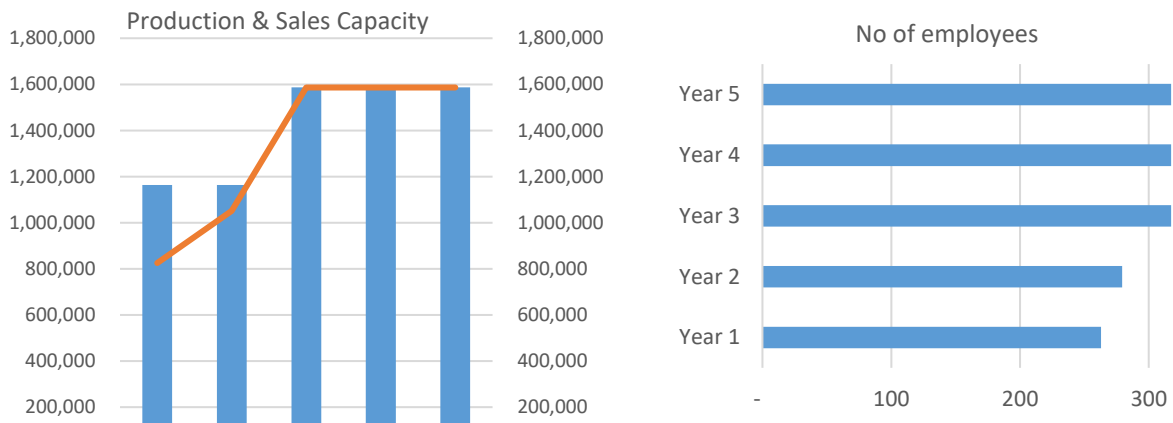
The total market size for Dincel Wall application is approximately 92 million square metres per annum. The “Gold Market” for Dincel Wall is about 15 million square metres per annum.

We expect the new plant to be capable of only addressing at it maximum capacity, a mere 0.79% of the total market or 10.6% of the “Gold Market”.



Anticipated productivity

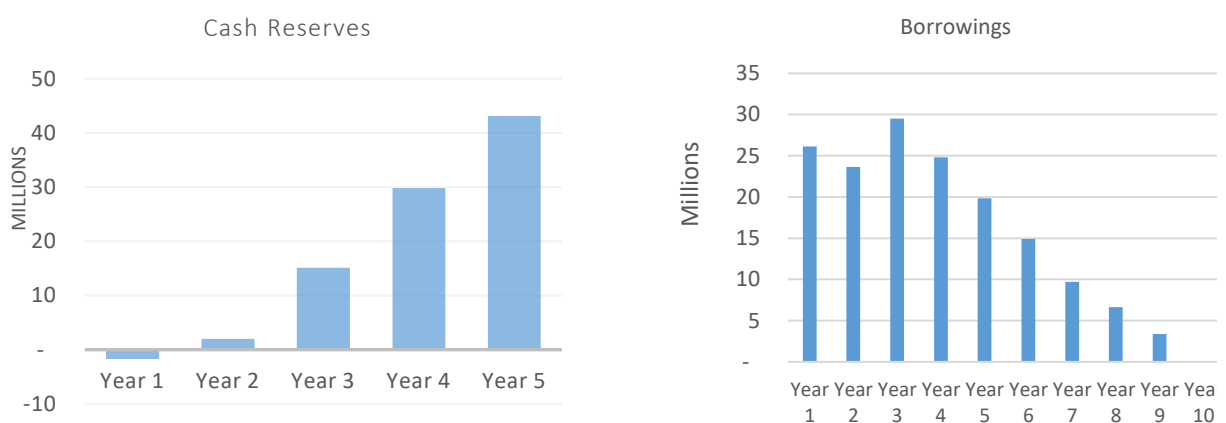
We will expect to reach full capacity of the new plant by year 3. Beyond this, we will need to build additional facilities and increase the number of extrusion lines (plant & equipment)



Lending and Liquidity

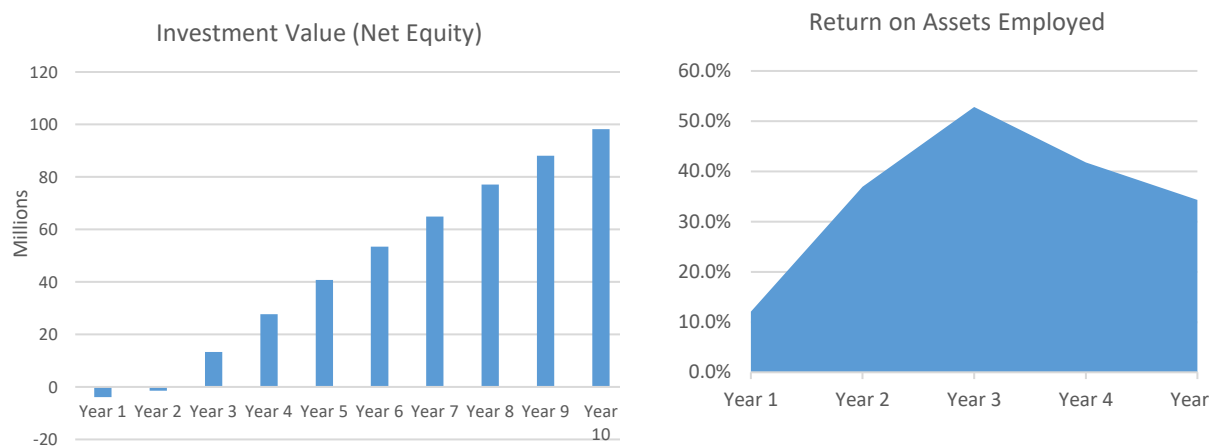
The business is expected to become cash flow positive by the end of year 2. The reserves will increase at a considerable pace from the second year. This is mainly due to the policy of reinvesting and retaining profits within the business. Initial cash flow funding will be need to be met by the business.

The loans will be paid in full within 10 years. There will be two phases of borrowing, one will occur at the start and then based on growth and market conditions phase two borrowing will occur at in the third year.



Investment Value

Our financial modelling indicates positive returns on this investment, the value of which will grow year on year. The growth will be steady in the first five years until the plant reaches capacity, after which we will see a steeper growth. We expect to have completed all of the CAPEX and operational spending (staffing & resources) by this stage.



Products

There will be four different types of main profiles and more than twenty-two different sets of accessory profiles which will be manufactured at the new plant. More details of the product lines are available in the company's construction manual.

Innovation

The business, fundamentally based on bringing to market innovation within the construction sector, has at any time at least a dozen different R&D project running. We have commercialised 3 patents in the past 10 years with at least 5 more commercial secrets which gives the business an edge over the competition.

Price

The pricing of the product line is well established in the local and international market. We will review it regularly in a bid to remain competitive.

We have modelled in a reduction in our sell rate over time and at the same time have also allowed for increases in our operational costs. In other words, our financial forecast is very conservative. As in the case of most manufacturing businesses, our profitability is determined by the volume of production. Effectively the more we produce, the lower our costs becomes, and the wider our ability to manage price expectations.

Promotion

The promotion and marketing strategies of product and branding is already in place. It will become a matter of developing the brand further in the export destinations.

Business Models & Financial Plans

We have compiled a business forecast (Profit & Loss, Balance Sheet and Cashflow statement) for this project. As these are commercially sensitive information, they are not included in this report. We will be in position to disclose this information at our head office should there be a need.

Management Structure

Dincel Construction System is a privately-owned business. The middle management team possess distinctive skills in structural engineering, drafting, product development, product assessments, residential, commercial and civil construction, sales and marketing, commercial legal drafting and litigation, accounting and finance, OH&S, human resources, tool/die designing and extrusion machinery design and technology.

Staff are knowledgeable and experienced in markets and such as polymer extrusions, plastic moulding, civil and structural engineering, mining and resources, building products, marketing, banking, retail, warehouse management, logistics, property development and construction. An organisational chart is attached to illustrate the types of positions that are likely to be created with this new project.

The promoter of this project is Mr Burak Dincel. Mr Dincel is the inventor of the Dincel Wall and the ultimate owner of the Dincel Group of Companies. A bio of Mr Dincel is available on his [LinkedIn page](#).

The Nature of Assistance Sought

As a business, which has outgrown its current premises and is looking to expand and create addition 209 more fulltime jobs, we are seeking from the Government of NSW, the following:

- The Government to prioritise the rezoning of the Mamre Road Precinct.
- The rezoning of 919-929 Mamre Road Kemps Creek (the site) to industrial
- Making available at the immediate front of the above site, adequate electricity and other essential services such as sewage and water.

Appendices

- Dincel Corporate and Social Responsibility Statement
- Organisation Chart
- Draft Layout of New Plant at 919-929 Mamre Road, Kemps Creek.
- Location for New Dincel Plant

Dincel Construction System Corporate Social Responsibility Policy Statement

August 2018

Through its products, services and above all, its people, Dincel Construction System (Dincel) is committed to promoting a high level of Corporate Social Responsibility.

We at Dincel strive at all times to be a good corporate citizen by continuously striving for and exhibiting the following responsibilities:

- Best practices for our people
- Equal opportunities
- Health, Safety, and Welfare at work
- Information security
- Environment, Green living, and Sustainability
- Charitable giving
- Educational
- Best practices for customers
- Best practices for suppliers
- Industry participation

The above is achieved through creation of jobs, and opportunities for research and development.

Best practices for our people

Dincel recognises that its long-term future is best served by ensuring that its employees have the highest levels of honesty and integrity. The business recognises that our people are our greatest asset and key to continued growth and success and as such, we are committed to providing lifelong careers and working environments in which our people can achieve to their fullest potential.

We operate in a very transparent manner by keeping employees informed of all business affairs through announcement at staff meetings. We operate a cloud based information and resource centre which can be accessed by employees from any location. We encourage employees to discuss operational issues with their line management and to suggest ways to improve performance and efficiency.

We develop future talents through graduate recruitment priority schemes and encourage and support employees to further their tertiary education and upskilling. We ensure staff are aware of Dincel's policies on corruption, bribery and inappropriate gifts, money laundering and whistle blowing and encourage a harmonious working environment with zero tolerance to bullying or to any form of harassment linked to an individual's sex or other personal characteristics.

We provide all modern offices and amenities to our employees ensuring that their time spent at work is safe, congenial and uplifting. The business also undertakes team bonding activities and social activities where staff and their families take part, encouraging a much tighter knit Dincel community.

Equal opportunities

Dincel promotes the policy of equal opportunity and diversity in employment. We select, recruit, train and promote the best candidates based on suitability for the job; to treat all applicants fairly, regardless of race, sex, marital status, age, nationality, ethnic origin, religious belief, sexual orientation or disability; and to ensure that no employee suffers harassment or intimidation.

Health, Safety and Welfare at work

The health and safety, welfare and wellbeing of our employees and the employees of our customers are of paramount importance to Dincel. One of the key benefits of our product design is the ability to manufacture and supply a construction solution in a light weight format. We believe a lot of workplace injury risks are inherent to construction site will be greatly reduced by the availability and use of our products. This will ensure our customer's employees have an injury, risk free workplace and a prolonged working career.

As a business we comply with all Health and Safety legislation. A detailed Health and Safety Policy Statement can be accessed from our corporate head office. In essence we have in place Work Health and Safety Committees and designated Safety Officers, which meet regularly to discuss all work health and safety related matters. Staff are encouraged to always be alert and identify risk/s and then report to their immediate supervisor/s for action.

Information security

The company is committed to ensuring the integrity and security of its business information with particular attention given to personal and sensitive data where inappropriate use or inadequate maintenance and safeguarding could have serious repercussions. Access to information is granted to pre-qualified and assessed personnel. Security based tools such as multifactor authentication, access privileges, disaster management are deployed within the business.

Environment, Green Living, and Sustainability

We are a firm believer in the philosophy of leaving the environment in a better place than what it was when first discovered. There is a lot of literature available on Dincel which focuses on environment and sustainability, a selection of which are summarised as follows:

- Dincel Factory Plant was constructed on reclaimed land. The machines are all state of the art, with compliance to low energy consumption and emissions ratings. The average age of machine is 2 years. Energy consumption equates to 9.9 kilo watts per square metre of product produced, which is considered at the lower end of energy consumption scale within a high energy demand manufacturing environment.
- **Dincel Plant is designed with a “zero waste philosophy”.** All offcuts including dust is recycled during production with the use a proprietary and intelligent automated recycling system. This unique manufacturing technology allows near zero manufacturing wastage. The product has a lifetime of 100 years, after which they are capable of being re-ground and reused without loss to any structural and chemical composition aspect. Engineering Codes such as Eurocode allows the non-use of crack control reinforcement, which is normally horizontal bars,

provided the concrete wall has adequate crack control mechanism. Dincel's formwork has in-built crack inducers at maximum 125 mm centres to comply with this requirement of Eurocode. This way only having steel bars in one direction allows Dincel wall can crushed at the end of minimum 100 years life and polymer, concrete infill and steel bars can be totally recyclable. This cannot be achieved if steel bars are placed in both vertical and horizontal direction. Refer ["why engineers can omit crack control reinforcement"](#)

- Dincel manufacturing plant utilises close circuit recycled water. The system is protected by oil, contaminant separators. The sophisticated filtering system allows the same water to be used for many years to come.
- Dincel encourage its suppliers and subcontractors to implement good environmental practices and procedures which support our own objectives and targets
- Compliance to the Building Code of Australia, which is governed by a body wholly committed to the protection of environment and sustainability in the construction sphere, more information is available on website by accessing the document titled : [Building Code of Australia Compliance Manual & Certification.](#)
- [TNS Sustainability Study of Dincel.](#) This report was commissioned by the Natural Step, which is a not for profit organisation founded with the vision of existence of a sustainable society and can be accessed on our website
- The testimonial by [CHC Affordable Housing](#) for the development of a project consisting of 200 apartments highlights the numerous principles of the Green Building Council of Australia which have been achieved on the project. This testimonial can be accessed on our website
- Dincel press release on a Crocodile farm explaining the use of an unpainted Dincel product used as breeding enclosures for crocodiles. The crocodile farm also required a solution proven to be suitable for aquaculture, presenting no risk of toxins leaching into the water. **Dincel was the perfect system, made from a PVC polymer that contains no heavy metal stabilizers, plasticizers, VOC or contaminates that could affect the crocodiles.**
- The plasticizer and heavy metal free Dincel formulation achieves superior fire safety measures even better than the paper faced plasterboard commonly used in the buildings. Refer page 6 of the [Dincel Structural Walling Fire Assessment.](#)
- Ability to construct lightweight and mobile building structures, which are essentially a low embodied energy building. Please refer to attachment A01
- Energy Efficiency for Building Operation Use. This documents, are in two parts titled [Energy Efficiency in Building Embodied Energy](#) and [Energy Efficiency for Building Operational Use](#) describe the embodied energy aspects and the efficiencies in heating and cooling and R Values that can be achieved with the use of the Dincel product.
- Dincel Construction System has been awarded the [Best Environmental Practice](#) (BEP) Approval Mark after meeting the strict Green Building Council Best Practice Guidelines for PVC. A copy of the certificate is enclosed as attachment A05.
- In addition to the normal solutions, Dincel can be used in a variety of other places. A few examples are:
 - Detention / retention tanks – conservation and re-use of harvested rainwater.

- Residential development designed using sustainable development principles – one such examples is a complex located at Harrington Grove in Sydney. .
 - Development of low cost – cyclone proof housing.
 - Revetment water edge protection – Lake Burley Griffin, Canberra.
 - Revetment flood water edge protection – Cooks River, Tempe.
 - Communications huts in isolated locations.
 - Breeding tank for fish (trouts). Trouts are considered extremely sensitive to pollutants and algae, the use of Dincel products prevents the growth and formation of algae under submerged conditions.
- Dincel worked on an interesting project within the National Archives building. The building requires a controlled environment for the storage of documents due to Volatile Organic Compounds (VOC) and its effect on documents and art collections. Dincel’ s VOC level is below the detection level which is 50 times below the Australian Green Building Council- Green Star threshold. The project is currently waiting its budget approval by the federal government. The attached documents in A06 is the VOC test result relevant to Dincel.
 - Green Star Rating – The ability to achieve a 7 star rating with the use of Dincel product, more information available on our website on the document titled [7 Green Star for your next Project](#)
 - Dincel Environment Policy. Please refer attachment A02
 - Dincel Material Safety Data Sheet. Please refer attachment A03

Charitable giving

Dincel supports non-profit organisations involved in charity and the wellbeing of everyone. The effort extends to:

- Support of the Rotary Club of Australia (Mt Druitt Chapter). Dincel staff has acted in the capacity of board members and President.
- Support of the Rotary Club of Australia (Camden Chapter). Dincel staff have again provided support through fund raising, acting board members and President
- Assisting the Penrith Business Alliance, a local not for profit business chamber. Staff have contributed time and efforts in assisting the PBA achieve its objective in promoting business growth, employment and sustainable use of the natural resources in the area.
- Supporting of local soccer teams, fund raisers organised by business within the construction industry and sponsoring and co-sponsoring of charity events.

Educational

We support the University of Western Sydney. Presentations are given to University Graduates on high tech manufacturing practices, concrete science, building structures and energy efficiency. All presentations are provided by Dincel staff on a non-fee basis designed to educate students on how businesses are able to put theoretical knowledge to use in a real life situation.

Best practices for customers

Dincel seeks and encourages honest and fair relationships with its customers. It provides a high standard of product with supporting engineering services. The staff of Dincel are suitably trained and considered experts in their field of wall construction. Dincel is a quality assured organisation, certificate is attached (A04).

Best practices for suppliers

Dincel seeks to be honest and fair in our relationships with suppliers and subcontractors. We pay suppliers and subcontractors in accordance with agreed terms and have a policy not to offer, pay or accept bribes or substantial favours. We encourage suppliers and subcontractors to abide by the same standards and principles.

Industry Participation

Dincel has actively participated in Industry initiatives over many years. Some of the recent activities include:

- Master Builders Association: the MBA is a premier body governing the conduct of licensing of builders and other stakeholders. Dincel has supported this industry through sponsorships of award nights and take part in the process of rewarding the people involved in the industry for their participation.
- Working with the Australian Institute of Engineers on training programs under the continuous professional development scheme (CPD).
- Independent expert advice in the areas of structural and civil engineering for the Consumer, Traders and Tenancy Tribunal, Fair Trading NSW, Land and Environment Court, insurance companies and other legal disputes
- In-house testing programs in conjunction with research establishments such as University of Western Sydney, University of Technology, Sydney, University of New South Wales, CSIRO to carry out specialist testing and reporting
- Active campaigning for the introduction of laws to ensure the use of safe and risk-free building materials in the Australian market through advertorial in various publications, social media and via the governing bodies.

Attachment A01

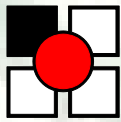
Lightweight Mobile Structures



**LIGHTWEIGHT – MOBILE STRUCTURES FOR
POLICE/EMERGENCY SERVICES/ENERGY
COMPANIES IN BUSH FIRE AND REMOTE AREAS**

Attachment A02

Dincol Construction System Environment Policy



ENVIRONMENTAL POLICY

Dincel Construction System (DCS) endeavours to meet the building/construction needs of the present generation without compromising the ability of future generations to meet their own needs.

DCS environmental policy within our organisation:

- Dincel is committed to providing and maintaining the highest standards of environmental and safety performance, whereby we shall conduct all of our business activities to the best of our ability to protect the environment, safety and health of all who work with us, or come into contact with our products and operations.
- We will provide our employees with the necessary education and ongoing training to ensure all environmental issues and impacts are considered when performing their duties.
- We will reduce waste onsite by recycling all manufacturing wastes.
- We will maximise the use of environmentally friendly and give preference to sustainable materials for all purposes within our production.

DCS environmental policy for our end product:

- Elimination of material wastage to land fill and incineration wherever practical.
- Eliminate wastage of electricity, water and materials wherever practical.
- Help reduce/eliminate the waste of the construction industry by the intrinsic recyclability of our product during manufacturing, construction and at the end of the useful life cycle.
- Promote construction technologies consistent with the associated material usage thus offering:
 - › Increase the life of buildings beyond what is achievable with the current building technologies and materials.
 - › Reduce the need for raw material usage so that **DINCEL®**'s end of life recycled product is available for future generations reclamation and usage as well.
 - › Reduce overall energy consumption needed to produce building raw materials hence providing a reduction in greenhouse gas emissions.
 - › Produce an economically viable alternative product with improved properties to replace less environmentally sustainable alternatives.
 - › Continuously incorporate sound sustainability principles such as low embodied energy, etc and provide affordability, plus safer and stronger construction, water and food conservation opportunities, plus work place safety and end-product fire resistance.

Burak Dincel
DIRECTOR

Attachment A03

Dintel Construction System Material Safety Data Sheet

MATERIAL SAFETY DATA SHEET

Dincel Wall PVC Formwork

SECTION 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Details

Trade Name: Dincel Wall PVC Formwork

Processed (formed) rigid PVC article designed for use as formwork for retaining concrete when pouring and subsequently as a permanent cladding.

Manufacturer/Supplier

Dincel Construction System Pty Ltd A.B.N: 78 083 839 614

PHYSICAL ADDRESS:

101 Quarry Rd,
ERSKINE PARK NSW 2759

POSTAL ADDRESS:

PO BOX 104
ST CLAIR NSW 2759
Australia

Telephone Number (02) 9670 1633

Facsimile Number (02) 9670 6744

Email: admin@dincel.com.au

Further Information Available From:

	Australia	International
Sydney:	Bora Dincel (02) 9670 1633	61 2 9670 1633

SECTION 2: HAZARDS IDENTIFICATION

Overall Hazard Statement: **NON-HAZARDOUS SUBSTANCE**
 NON-DANGEROUS GOODS

Hazard Classification [according to criteria of Worksafe Australia]: **NONE**

Risk Phrases [Hazard Statements]

None required.

Safety Phrases [Precautionary Statements]

None required.

Classification system: This classification is according to NOHSC guidelines as detailed in Section 8 and other literature and company data.

MATERIAL SAFETY DATA SHEET

Dincel Wall PVC Formwork

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components: NONE

CAS Number	Chemical Name/s	Proportion
NONE		

The product is a manufactured heat processed finished article made from PVC resin, pigments, fillers, organic stabiliser and process aids etc. All of these components are non-hazardous in themselves.

SECTION 4: FIRST-AID MEASURES

General Information:

As the product is a formed (shaped) article, hazards related to inhalation, swallowing and eye contact are considered most unlikely. However, if the product is sawed, cut or similarly machined, then it is possible that particles and dust may be generated and the following first-aid measures are provided.

After inhalation:

Remove patient to fresh air or alternatively establish supply of fresh air. If patient is not breathing, apply artificial respiration. Call for medical attention.

After skin contact:

Wash immediately with plenty of water. Remove contaminated clothing. If redness, swelling, irritation or rash develops, seek medical attention. If burned by hot product, treat area with cold water and continue until hot mass has cooled. Obtain immediate medical attention as considered necessary according to severity of injury.

After eye contact:

Flush opened with water for 15 minutes. Check for presence of any particles. Seek medical attention as considered appropriate and if irritation persists.

After swallowing:

Rinse mouth with water provided patient is conscious. Do not induce vomiting as material may obstruct airways. Seek medical attention as considered appropriate.

Notes to doctor:

Show this safety data sheet to doctor.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable extinguishing agents:

Water, Carbon dioxide, dry chemical or foam.

For safety reasons, unsuitable extinguishing agents:

None reported.

Special hazards caused by the substances, its products of combustion or resulting gases:

Product will burn when exposed to heat and flame. Hazardous decomposition products include hydrochloric acid, hydrocarbon fragments, carbon monoxide and carbon dioxide.

Protective equipment:

MATERIAL SAFETY DATA SHEET

Dincel Wall PVC Formwork

Wear self-contained breathing apparatus, rubber gloves, rubber boots and suitable protective clothing.

Additional information:

Product will support combustion when in contact with a flame but will stop burning when flame is removed.

Hazchem Code: None allocated as material is not classified as dangerous goods.

SECTION 6: ACCIDENTAL RELEASE MEASURES

The product is transported and stored in packs of 10 or 12 with dimensions 1.7M by 1.0M and 2.0 M by 1.2 M with lengths from 1 M to 10 M. Each pack is in a timber framework.

Lifting of packs should be done around the timber supports and not on the product itself.

Person-related safety precautions:

Ensure adequate ventilation.

Measures for environmental protection:

Do not allow product to enter sewers, surface water or ground water as it will form a physical obstruction or barrier.

Measures for cleaning/collecting:

Isolate area. Pick up manually or mechanically (lifting devices, fork-lift etc) as considered appropriate.

For generated powder or dust, remove mechanically by vacuum or by sweeping and ensuring that dust is not generated

SECTION 7: HANDLING AND STORAGE

The product is transported and stored in packs of 10 or 12 with dimensions 1.7M by 1.0M and 2.0 M by 1.2 M with lengths from 1 M to 10 M. Each pack is in a timber framework.

Lifting of packs should be done around the timber supports and not on the product itself.

Handling of Product :

Information for safe handling:

Use leather or suitable gloves such as riggers' gloves to handle product to safeguard hands and skin from repeated work.

The product may be sawed, cut or drilled and adequate precautions should be taken so that heat is not generated in the operation, eg use of cooling water etc.

Information about fire and explosion protection:

No special requirements have been reported.

Storage:

Requirements to be met by storerooms and receptacles:

No special precautions are required but product should be stored away from sources of heat and contact with direct flame.

Further information about storage conditions:

Store in dry, well-ventilated conditions.

Storage class:

Class according to regulation on flammable liquids: None

MATERIAL SAFETY DATA SHEET

Dintel Wall PVC Formwork

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional information about design of technical facilities

Ensure that product is handled so as not to disintegrate it and generate dust. There is a maximum concentration of dust allowed in a workplace and this is 10 mg/m^3 for non-hazardous compounds. Consequently, the design of handling facilities should take these considerations into account.

National Exposure Standards

Any dust generated has limit of 10 mg/M^3 limit.

Additional information:

The following sources were used for the compilation of data for this material safety data sheet and were the current versions at the time of writing:

1. 'Adopted National EXPOSURE STANDARDS FOR ATMOSPHERIC CONTAMINANTS IN THE OCCUPATIONAL ENVIRONMENT [NOHSC:1003(1995)]'
2. 'HSIS - Hazardous Substance Information System'
3. 'AUSTRALIAN DANGEROUS GOODS CODE 6th Edition' .
4. 'APPROVED CRITERIA FOR CLASSIFYING HAZARDOUS SUBSTANCES [NOHSC:1008 (2004)/3rd Edition'

Personal Protective Equipment

General protective and hygienic measures:

Do not inhale dust. If necessary, wear appropriate respirator with P2 filter.

Wear protective clothing such as overalls. Wear safety goggles or glasses and appropriate work gloves such as leather gloves, rigger's gloves. Wash hands before breaks and at the end of work

Respiratory protection:

If dust is generated, respiratory protective device with P2 filter is recommended.

Protection of hands:

Protective gloves of leather or hard wearing material.

Eye protection:

Safety goggles or glasses.

Body protection:

Wear protective clothing such as overalls as well suitable boots or other appropriate footwear.

MATERIAL SAFETY DATA SHEET
Dincel Wall PVC Formwork**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES****Form:** Formed product,**Colour:** Off-white**Odour:** None

Change in condition	Value Range	Unit	Method
Melting Point/Melting Range	Softens at ~80°C, fused at about 190°C.		
Boiling Point/Boiling Range	Not applicable		
Flash Point	Not applicable.		
Specific Gravity	1.4		
Self-igniting:	Product is not self-igniting.		
Danger of explosion:	None reported under ambient conditions		
Explosion Limits:			
Lower:	Not determined.		
Upper:	Not determined.		
Solubility in / Miscibility with water:	Immiscible		
Solvent Content:			
Organic solvents:	0.0%		
Solids Content:	100.0%		

SECTION 10: STABILITY AND REACTIVITY**Thermal Decomposition / conditions to be avoided:**

Stable at ambient conditions; will soften at 80°C.

Materials to be avoided: None reported**Dangerous Reactions:** None reported**Dangerous Decomposition Products:** Hazardous decomposition products include hydrochloric acid, hydrocarbon fragments, carbon monoxide and carbon dioxide.**SECTION 11: TOXICOLOGICAL INFORMATION****Acute Toxicity:** Not reported as toxic effects could not be induced.**Primary Irritant Effect:****On the skin:** Not reported to be an irritant.**On the eye:** Not reported to be an irritant, except as foreign body in eye.**Sensitisation:** Not reported**Subacute to chronic toxicity:** Not reported.**NOTE:**

MATERIAL SAFETY DATA SHEET

Dincel Wall PVC Formwork

SECTION 12: ECOLOGICAL INFORMATION

General Notes: Not biodegradable. However, it is easily removed due to its physical dimensions and should be recycled.
Water hazard class: It is insoluble in water.

SECTION 13: DISPOSAL CONSIDERATIONS

Product:
Check with local authorities. Suitable for landfill

SECTION 14: TRANSPORT INFORMATION

Hazchem Code: None allocated as material is not classified as dangerous goods.
Land Transport (Road/Rail): Not classified as dangerous goods.
Marine Transport: Not classified as dangerous goods.
Air Transport: Not classified as dangerous goods.

Hazard –Determining Components of Labelling
NONE

Risk Phrases: None required.
Safety Phrases: None required.

SECTION 15: REGULATORY INFORMATION

Materials are not listed in the SUSDP.

Other regulations, limitations and prohibitive regulations: None.

SECTION 16: Other Information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Contact: Bora Dincel (02) 9670 1633
Fourth edition.

Attachment A04

Dincol Construction System ISO 9001 Certificate

ISO 9001

CERTIFICATE OF REGISTRATION



ApprovalMark International hereby grants:

DINCEL CONSTRUCTION SYSTEM

101 Quarry Road, Erskine Park
NSW 2759
Sydney, AUSTRALIA

Evaluated to:

ISO 9001: 2008 - QUALITY MANAGEMENT SYSTEM

This covers the following scope;

"The registration covers the Quality Management System for design, manufacture, purchasing, warehousing, distribution and sale of Dincel profiles. Dincel profiles are filled with form, light and normal density concrete to be used for walls and columns; including water, sewerage, fire tanks, basements, and landscaping"

Certificate No. QMS 00786

Issued: 10th March 2016

Expires: 31st August 2018

A handwritten signature in black ink, appearing to read "John Prasad".

John PRASAD
Certification Manager

JAS-ANZ



WWW.JAS-ANZ.ORG/REGISTER



ApprovalMark

Registered by: ApprovalMark International Pty Ltd (ABN 69 143 259 974) Unit 20, 33 Holbeche Road, Arndell Park, NSW 2148 Australia. The assessment was carried with appropriate skill and assessment by ApprovalMark International Pty Ltd; however it will only accept its responsibility for proven negligence. The certificate remains the property of ApprovalMark International Pty Ltd.

Attachment A05

Dincol Construction System Best Environment Practice Certificate



BEST ENVIRONMENTAL PRACTICE



ApprovalMark International hereby grants:

DINCEL CONSTRUCTION SYSTEMS PYT LTD
101 Quarry Road
Erskine Park 2759
Sydney, AUSTRALIA

Best Environmental Practice - PVC

Evaluated to:

Dincel PVC-U formwork building products for - use by the construction industry

Complies with the requirements of Best Environmental Practice – PVC as per the relevant Australian Standard and Best Practice Guidelines for PVC in the Build Environment as per specified in the Green Building Council Literature Review and Best Practice Guidelines for the Life Cycle of PVC Building Product document. The Manufacturer's Technical Documentation have been reviewed and found to comply with the following:

- **Manufacture of PVC Resin**
- **Manufacture and end of life management of PVC products**
- **Use of PVC Recyclate in PVC products**

Any changes introduced to above requirements shall immediately be reported to ApprovalMark International in order to examine the validity of the certificate.

Certificate No. BEP-PVC - 0786

Issued: 14th March 2018
Expires: 31st August 2018

Originally Certified: 17th March 2014
Current Certification: 17th March 2018

Certification Manager
John PRASAD

John PRASAD
Certification Manager

**BEP
CERTIFIED**

ApprovalMark

Attachment A06

CETEC Emissions Test Certificate
Toxicity Test Certificate - Singapore

Emission Test Certificate

Wednesday November 14th, 2007

Supplier: Dincel Construction Systems (Level 3, 7K Parkes Street, Parramatta NSW 2150)

Product Description: Polymer Formwork

Date Tested: October 2007

Test Method: ASTM D5116-97 "Standard Guide for Small-Scale Environmental Chamber Determinations of Organic Emissions from Indoor Material/Products".

Emission Data:

Dincel Polymer Formwork	Total Volatile Organic Compound Specific Area Emission Rate mg/m ² /hr
Newly Manufactured (24 hours)	0.02
Aged (ca. 30 days)	<0.01 (below detection limit)
<p>This product can be classed as low VOC-emitting. The material emissions are less than the recognised threshold of 0.5 mg/m²/hr; e.g. "Green Star".</p> <p>When this product is used in accordance with the technical specifications for a building the resulting airborne total volatile organic compound concentration can be expected to be less than 0.5 mg/m³ acceptable limit specified by the scientific literature.</p>	



Dr. Vyt Garnys
PhD, BSc(Hons) AIMM, ARACI, ISIAQ
ACA, AIRAH, FMA
Managing Director and Principal Consultant

CV071106

TEST REPORT: 7191127129-CHM15-TSL_CR2

Date: 01 DEC 2015

Tel: +65 68851312 Fax: +65 67784301

Client's Ref:

Email: zhou.xiao@tuv-sud-psb.sg

Note: This report is issued subject to the Testing and Certification Regulations of the TÜV SÜD Group and the General Terms and Conditions of Business of TÜV SÜD PSB Pte Ltd. In addition, this report is governed by the terms set out within this report.



PSB Singapore

Choose certainty.
Add value.

SUBJECT

Evaluation of Toxic Fumes Generated From Material Sample During Burning

CLIENT

Principal:

Dincel Construction System Pty Ltd
101 Quarry Rd, Erskine Park NSW 2759, Australia

Attn : Mr. Burak Dincel

Exclusive Distributor (Singapore):

Current Pte Ltd
160 Paya Lebar Road
#08-05, Orion @ payalebar
Singapore 409022

Attn : Mr. Raymond Pang

SAMPLE SUBMISSION DATE

04 Nov 2015

DESCRIPTION OF SAMPLE

A piece of material sample labelled as follows was received. The test was confirmed to be analysed on 23 Nov 2015.

Sample Information		Figure of Sample
Brand & Model Reference:	Dincel Construction System	
Generic Product Name:	PVC Permanent Formwork	
Density of Material (g/m ³):	1.5	
Nominal Thickness (mm):	2.4	

DATE OF ANALYSIS

23 Nov 2015 – 01 Dec 2015

Amendments:

The following amendment was made on 21 Dec 2015:

The Sample Information were amended as requested.



Laboratory:
TÜV SÜD PSB Pte. Ltd.
No.1 Science Park Drive
Singapore 118221

Phone : +65-6885 1333
Fax : +65-6776 8670
E-mail: testing@tuv-sud-psb.sg
www.tuv-sud-psb.sg
Co. Reg : 199002667R

Regional Head Office:
TÜV SÜD Asia Pacific Pte. Ltd.
3 Science Park Drive, #04-01/05
The Franklin, Singapore 118223
TÜV®



METHOD OF TEST

Analysis of Pyrolysis and Combustion Gases Generated From the Sample

The test was conducted according to BS 6853:1999 Annex B, B.1 Mass Based Test Method - NF X 70-100 (2006) Method:

1.1 Sample Preparation of Test Specimen

The sample was conditioned at 23°C and 50% Relative Humidity for 48 hours and tested as whole for the following tests.

1.2 Generation of Pyrolysis and Combustion Gases

Approximately 1.0 g of the sample was then used for the test in a stream of air at the air flow rate of 120L/hr at 800°C for 20 minutes in a tube furnace. A further 20 minutes was used to air-flush the apparatus once residue sample was removed from tube furnace.

Toxic fumes collected during the burning were analysed by the following methods:

- a) Carbon Monoxide and Carbon Dioxide : Directly determined by Testo 300 XL-I Flue Gas Analyser
- b) Hydrogen Cyanide : By Pyridine – Pyrazalone Method
- c) Others ions: By Ion Chromatography

RESULTS**Table 1: The Toxic Fumes Results For “Dincel Construction System, PVC Permanent Formwork” Sample**

Toxic Fumes Generated	“Dincel Construction System, PVC Permanent Formwork” (mg/m ³ of Fire Effluents)	IDLH Values Limits ^a (mg/m ³)
1. Carbon Dioxide, Average (Carbon Dioxide, maximum)	<200 <200	73000 -
2. Carbon Monoxide, Average (Carbon Monoxide, maximum)	<200 <200	1400 -
3. Hydrogen Fluoride, HF	<5	25
4. Hydrogen Chloride, HCl	<5	76
5. Hydrogen Bromide, HBr	<5	101
6. Sulfur Dioxide, SO ₂ ^b	<5	270
7. Nitrogen Dioxide, NO ₂ ^c	<5	38
8. Hydrogen Cyanide, HCN	<5	56

^a The values in Table 1 are the IDLH values of the listed gases (the concentration of the gas in the atmosphere which for an exposure time of 30mins is immediately Dangerous to Life or Health) given in the NIOSH Guide [1].

^b Sulfur Dioxide includes Sulfur trioxide expressed as sulfur dioxide

^c Nitrogen dioxide includes nitric oxide expressed as nitrogen dioxide

1. The above results from the analysis of the toxic fumes generated from the specimen were found to be below the IDLH Value of listed gases.
2. The weighted summation index, R, is less than 0.3.

Remarks

The weighted summation index R for the sample tested was found to be within the requirement of 1.0 max when tested and assessed according to NF X 70-100 with R calculated in accordance with Annex B of BS 6853:1999.

“Dincel Construction System, PVC Permanent Formwork” Sample, Toxicity emission - R<0.3, complies with FSSB, “Table 2B: Fire tests and acceptance criteria for plastic wall/ ceiling material/ finishes” of FSR 10:2014.



MS TAN SER LING
TECHNICAL EXECUTIVE



DR XIAO ZHOU
PRODUCT MANAGER
MICROCONTAMINATION DIAGNOSIS
CHEMICAL & MATERIALS

TEST REPORT: 7191127129-CHM15-TSL_CR2

01 DEC 2015

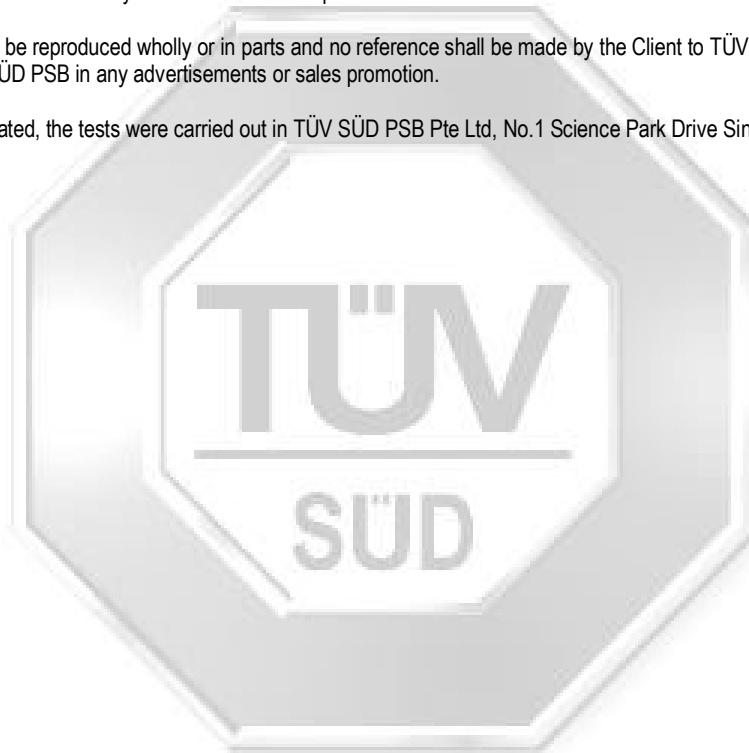


PSB Singapore

Please note that this Report is issued under the following terms :

1. This report applies to the sample of the specific product/equipment given at the time of its testing/calibration. The results are not used to indicate or imply that they are applicable to other similar items. In addition, such results must not be used to indicate or imply that TÜV SÜD PSB approves, recommends or endorses the manufacturer, supplier or user of such product/equipment, or that TÜV SÜD PSB in any way "guarantees" the later performance of the product/equipment. Unless otherwise stated in this report, no tests were conducted to determine long term effects of using the specific product/equipment.
2. The sample/s mentioned in this report is/are submitted/supplied/manufactured by the Client. TÜV SÜD PSB therefore assumes no responsibility for the accuracy of information on the brand name, model number, origin of manufacture, consignment or any information supplied.
3. Nothing in this report shall be interpreted to mean that TÜV SÜD PSB has verified or ascertained any endorsement or marks from any other testing authority or bodies that may be found on that sample.
4. This report shall not be reproduced wholly or in parts and no reference shall be made by the Client to TÜV SÜD PSB or to the report or results furnished by TÜV SÜD PSB in any advertisements or sales promotion.
5. Unless otherwise stated, the tests were carried out in TÜV SÜD PSB Pte Ltd, No.1 Science Park Drive Singapore 118221.

July 2011



Attachment A07

CodeMark

Certificate of Conformity

Certification Body:


 ABN: 80 111 217 568
 JAS-ANZ Accreditation
 No. Z4450210AK
 PO Box 7144, Sippy
 Downs Qld 4556
 +61 (07) 5445 2199
www.CertMark.org

Certificate Holder:

Dincel Construction
 System Pty Ltd
 ABN: 78 083 839 614
 101 Quarry Road
 Erskine Park, New
 South Wales 2759
 Ph: +612 9670 1633
www.dincel.com.au

Certificate number: CM40220

THIS TO CERTIFY THAT

Dincel Wall System

Type and/or use of product:

Structural concrete wall element.

Description of product:

Extruded PVC permanent stay-in-place formwork system which is filled with concrete and required reinforcement to create a structural concrete wall.

COMPLIES WITH THE FOLLOWING BCA PROVISIONS AND STATE OR TERRITORY VARIATION(S)

BCA 2016 Amdt. 1

Performance Requirement(s):

Volume One

- CP1 Maintain Structural Stability
- CP2 External Fire Spread
- CP4 Fire hazard properties of materials
- CP8 Openings and penetrations

Volume Two

Not Applicable

Deemed-to-Satisfy Provision(s):

- Spec C1.1 Fire Resistance –
 200mm and 275mm = -/240/240
 155mm = -/180/180
 110mm = -/90/90
- C1.10 (a)(ii) Fire hazard properties - Group 1 - Average Specific
 extinction area of 143.6m²/kg
- G5.2 Bushfire BAL Low to BAL FZ

State or territory variation(s):

SA C1.1


 John Thorpe - CMI


 Don Grehan – Unrestricted Building Certifier

Date of issue: 21/03/2018

Date of expiry: 21/03/2021



Certificate of Conformity

SUBJECT TO THE FOLLOWING LIMITATIONS AND CONDITIONS AND THE PRODUCT TECHNICAL DATA IN APPENDIX A AND EVALUATION STATEMENTS IN APPENDIX B

Limitations and conditions:

1. The Dincel Wall System meets the relevant Performance Requirements of the BCA as detailed above and is suitable for use in internal and external applications for Type A, B & C Construction.
2. The Dincel Wall System is to be installed in accordance with the [Dincel Construction Manual for Designers and Builders September 2017 Manual](#); or [275mm Dincel Construction Manual - November 2017](#). These manuals are provided as a source of information and is only intended for guidance. It cannot fulfil the functions of a professional, engineering or design consultancy. Professional advice should be sought to determine the suitability of this product for the intended end use. The use of sound building practices should always be applied and this manual may not contain all the necessary relevant information. Please seek professional advice on all aspects of design, engineering and installation.
3. The Dincel Wall Unit must be designed by a Professional Structural Engineer with reinforcement and concrete fitted in accordance with AS 3600-2009 Concrete Structures.
4. This Certificate is issued based on the evidence of compliance as detailed herein. Any deviation from the specifications contained in this Certificate is outside of this document's scope and the installation of the certified product/system will not be covered by this CodeMark certification. This may result in the product being classified as a non-conforming building product/system.

Building classification/s:

Class 2,3,4,5,6,7,8 & 9

Scope of certification: The CodeMark Scheme is a building product certification scheme. The rules of the Scheme are available at the ABCB website www.abcb.gov.au. This Certificate of Conformity is to confirm that the relevant requirements of the Building Code of Australia (BCA) as claimed against have been met. The responsibility for the product performance and its fitness for the intended use remain with the certificate holder. The certification is not transferrable to a manufacturer not listed on Appendix A of this certificate.

Disclaimer: The Scheme Owner, Scheme Administrator and Scheme Accreditation Body do not make any representations, warranties or guarantees, and accept no legal liability whatsoever arising from or connected to, the accuracy, reliability, currency or completeness of any material contained within this certificate; and the Scheme Owner, Scheme Administrator and Scheme Accreditation Body disclaim to the extent permitted by law, all liability (including negligence) for claims of losses, expenses, damages and costs arising as a result of the use of the product(s) referred to in this certificate.

APPENDIX A – PRODUCT TECHNICAL DATA

A1 Type and intended use of product

As per page one

A2 Description of product

As per page one

A3 Product specification

The Dincel® Wall System is a permanent polymer formwork for concrete filling.

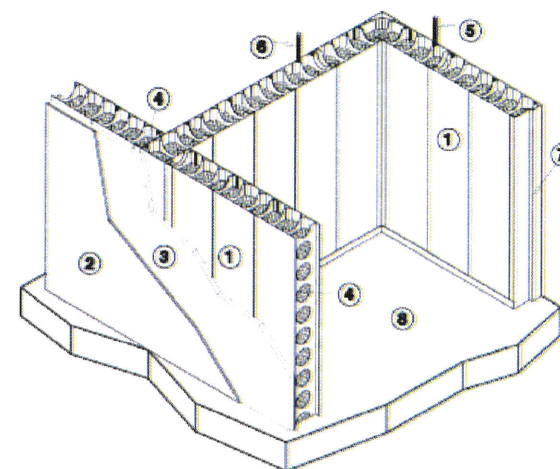
Note: The Dincel-Polymer forms DO NOT provide fire rating, the concrete infill provides the fire rating.

1. Dincel wall;
2. Polymer rendered/Plasterboard Insulated finish (Optional);
3. Insulation (Optional);
4. Concrete conforming to Type GP in accordance to AS 3972-2010
(Fly ash in accordance with AS 3582.1:2016 may be used as cement replacement and/or improve workability);
5. Service space/electrical & communication cables;
6. Service space water pipes;
7. Door jamb;
8. Floor.

Fire

The Dincel wall system complies with seven components of the BCA:

1. Clause C1.10(a) Group 1 material is achieved and Average Specific extinction area of 90.5m²/kg and 143.6m²/kg from both tests being less than 250m²/kg under the BCA. Based on this result, the exposed Dincel is considered an internal wall lining and is applicable for internal walls or as the internal lining of an external wall for buildings of Type A, B or C construction and Occupancy Classification 2-9 inclusive.
2. Fire Resistance Level under BCA Specification A2.3 Clause 2(d)(ii) where an FRL of -/240/240 is achieved from the 275mm & 200mm wall, -/180/180 is achieved from the 155mm wall and -/90/90 is achieved from the 110mm.
3. Bushfire where an FRL of at least -/30/30 is achieved - BAL low to BAL FZ.
4. External fire spread - the AED Fire Engineering report documents the product's ability to mitigate the spread of fire as per Performance Requirement CP2.
5. Maintain Structural Stability as per Performance Requirement CP1.
6. Fire Hazard Properties of materials as per Performance Requirement CP4.
7. Openings and Penetrations as per Performance Requirement CP8.



Source: Ignis Solutions Advisory Notice No. IGNS-5395 Issue 01 Revision 02; Dated 09/02/2018 & AED Group; Report No. F1887 FER Rev 07; Dated 15/03/2018; Fire Assessment.

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The performance solution, completed by AED Group, demonstrates compliance with the following performance requirements: CP1, CP2, CP4 and CP8.

CP1

A building must have elements which will, to the degree necessary, maintain structural stability during a fire appropriate to-

- | | |
|---|---|
| (a) the function or use of the building; and | Any class of building could use the Dintel Wall System or products. |
| (b) the fire load; and | Any fire load but the Dintel Wall System to be used would achieve the FRL required by the deemed-to-satisfy provisions of the BCA. |
| (c) the potential fire intensity; and | Any fire size as this system could be used in any building class and type. The FRL will be achieved by the system to comply with the deemed-to-satisfy provisions of the BCA. |
| (d) the fire hazard; and | As above. |
| (e) the height of the building; and | Any height. |
| (f) its proximity to other property; and | As applicable to the building. |
| (g) any active fire safety systems installed in the building; and | As applicable to the building where the Dintel Wall System is used. |
| (h) the size of any fire compartment; and | Any fire compartment size as this system could be used in any building class and type. The FRL will be achieved by the system to comply with the deemed-to-satisfy provisions of the BCA. |
| (i) fire brigade intervention; and | Unaffected by the use of the system. |
| (j) other elements they support; and | The assessment has shown that the comparison to the C1.9 exempt materials supports this solution as the Dintel Wall System has been shown to be at least equivalent to a compliant material deemed to be non-combustible under the deemed-to-satisfy provisions of the BCA. The nature of the polymer material has also shown in testing that the material does not melt but forms a char and this acts to protect the layers of the material under the char. The material also has a low fire spread possibility and the burning of the polymer has been shown not to have an impact on the FRL and therefore the support of another part would not be affected as the FRL is achieved with the polymer included in the system tested. |
| (k) the evacuation time. | As applicable to the building design where the Dintel is used. |

CP2

(a) A building must have elements which will, to the degree necessary, avoid the spread of fire -

- | | |
|---|--|
| (i) to exits; and | The assessment using the comparison to the testing for the C1.9 exempt materials has shown that the Dintel Wall System is at least equivalent to a compliant material deemed non-combustible by the BCA. Other testing and the assessment above has also shown that the Dintel Wall System would meet the likely intent of the BCA for the non-combustible requirement and prevent the spread of fire across the external wall system. The external wall system is also deemed to show compliance on an absolute basis, providing additional support for the comparative assessment. |
| (ii) to sole occupancy units and public corridors; and | As above. |
| (iii) between buildings; and | As above. |
| (iv) in a building. | As above. |
| (b) Avoidance of the spread of fire referred to in (a) must be appropriate to - | |
| (i) the function and use of the building; and | Any class of building could use the Dintel Wall System or products. |
| (ii) the fire load; and | Any fire load but the Dintel Wall System to be used would achieve the FRL required by the deemed-to-satisfy provisions of the BCA. |
| (iii) the potential fire intensity; and | Any fire size as this system could be used in any building class and type. The FRL will be achieved by the system to comply with the deemed-to-satisfy provisions of the BCA. |
| (iv) the fire hazard; and | As above. |
| (v) the number of storeys in the building; and | Any height. |
| (vi) its proximity to other property; and | As applicable to the building. |

Certificate of Conformity

(vii) any active fire safety systems installed in the building; and	As applicable to the building where the Dincel Wall System is used.
(viii) the size of the fire compartment; and Any fire compartment size as this system could be used in any building class and type. The FRL will be achieved	Any fire compartment size as this system could be used in any building class and type. The FRL will be achieved by the system to comply with the deemed-to-satisfy provisions of the BCA.
(ix) fire brigade intervention; and	Unaffected by the use of the system.
CP4	
A material and an assembly must, to the degree necessary, resist the spread of fire to limit the generation of smoke and heat, and any toxic gases likely to be produced, appropriate to—	
(a) the evacuation time; and	As applicable to the building design where the Dincel Wall System is used but as the product could be used in a fire stair this indicates that the polymer in Dincel Wall System is of minimal risk. The toxicity testing has shown that the material used would be unlikely to cause an issue for the toxicity of the material in a fire scenario.
(b) the number, mobility and other characteristics of occupants; and	As applicable to the building.
(c) the function or use of the building; and	The Dincel Wall System achieves a Group 1 rating and supports the fact that the smoke production from the external wall is a low risk for the product (i.e. this could be used in fire stairs). It is also noted that for an external wall system the production of smoke is a minor issue as the smoke would be vented directly to the atmosphere.
(d) any active fire safety systems installed in the building.	As applicable to the building where the Dincel Wall System is used.
CP8	
Any building element provided to resist the spread of fire must be protected, to the degree necessary, so that an adequate level of performance is maintained—	
(a) where openings, construction joints and the like occur; and	The use of Dincel Wall System as the spandrels and projections for compliance with C2.6 would therefore be equivalent to a compliant system used in the BCA. The fire properties of the product have been shown to further support the Performance Solution.
(b) where penetrations occur for building services.	Not applicable to this Performance Solution.

Source: AED Group; Report No. F1887 FER Rev 07; Dated 15/03/2018; Fire Assessment.

A4 Manufacturer and manufacturing plant(s)

Dincel Construction System Pty Ltd
101 Quarry Road,
Erskine Park, New South Wales 2759
Australia.

A5 Installation requirements

Refer conditions and limitations.

Concrete Placement

The placement of concrete can cause the formwork to move laterally if large variations in the concrete height are created. The surface movement may not be important where Dincel is cladded with plasterboard and façade wall claddings; however, the aesthetics will be an important issue where Dincel is not covered, such as basement or rendered/painted façades and/or internal walls.

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The following table is recommended to be used as a guide to achieve a reasonable surface appearance.

For Vertically Installed Dincel Wall

Wall Thickness	Use	Wall Height (metres)	1st Pour	Minimum Wait Time (Hour)	2nd Pour	Minimum Wait Time (Hour)	3rd Pour	Concrete Type
200mm, 155mm Or 110mm	Above Ground or Walls Not Subject to Earth/Water Pressure	1.8m 3.0m 4.0m 5.0m	1.8m 1.2m 1.8m 1.2m	- 0.5 0.5 0.5	- 1.8m 2.2m 1.8m	- - - 1.0	- - - 2.0m	Type A
275mm	For All Applications	6.0m	4.5m	0.5	1.5m	-	-	Type B
Design Target Slump and Aggregate Size:		Concrete Type A: 10mm Aggregate; Minimum 120mm Slump; Maximum 150mm Slump Concrete Type B: 10mm Aggregate; Minimum 180mm Slump; Maximum 230mm Slump						

Cement Type:	Type GP in accordance to AS 3972-2010. Fly ash in accordance with AS 3582.1:2016 may be used as cement replacement and/or improve workability.
Characteristic 28 Days Compressive Strength:	3MPa to 100MPa (as specified by design engineer). AS 3600-2009 allows up to 100MPa. Dincel has already successfully utilised 80MPa concrete.
Concrete Pump Nozzle Size:	Nozzle with internal diameter of 75mm maximum. (100mm nozzle size can be considered provided the concrete flow pressure is controlled).
Vibration:	Proper concrete compaction is paramount to prevent voids in the concrete. Pay special attention to the sides of all openings, bulkheads and any areas that have a higher than normal concentration of steel. <ul style="list-style-type: none"> Dincel-Form is a non-porous material which does not absorb water unlike masonry blocks, fibre cement or plywood forms. This increases the flowability of concrete and eliminates honeycombing of the concrete. It is recommended that tapping walls with a rubber mallet or hand rodding would assist. However, the best practice is to use 25mm pocket vibrators in all cases. The vibrator forces concrete mix slurry to fill the voids at the snapping joints which further assists waterproof and render finish performance. Vibrators that are bigger than 25mm shall not be used. Extreme care is required when vibrators are used as they can damage the web-links between each face of the formwork which may cause bulging.

Certificate of Conformity

A6 Other relevant technical data

No other relevant technical data.

APPENDIX B – EVALUATION STATEMENTS

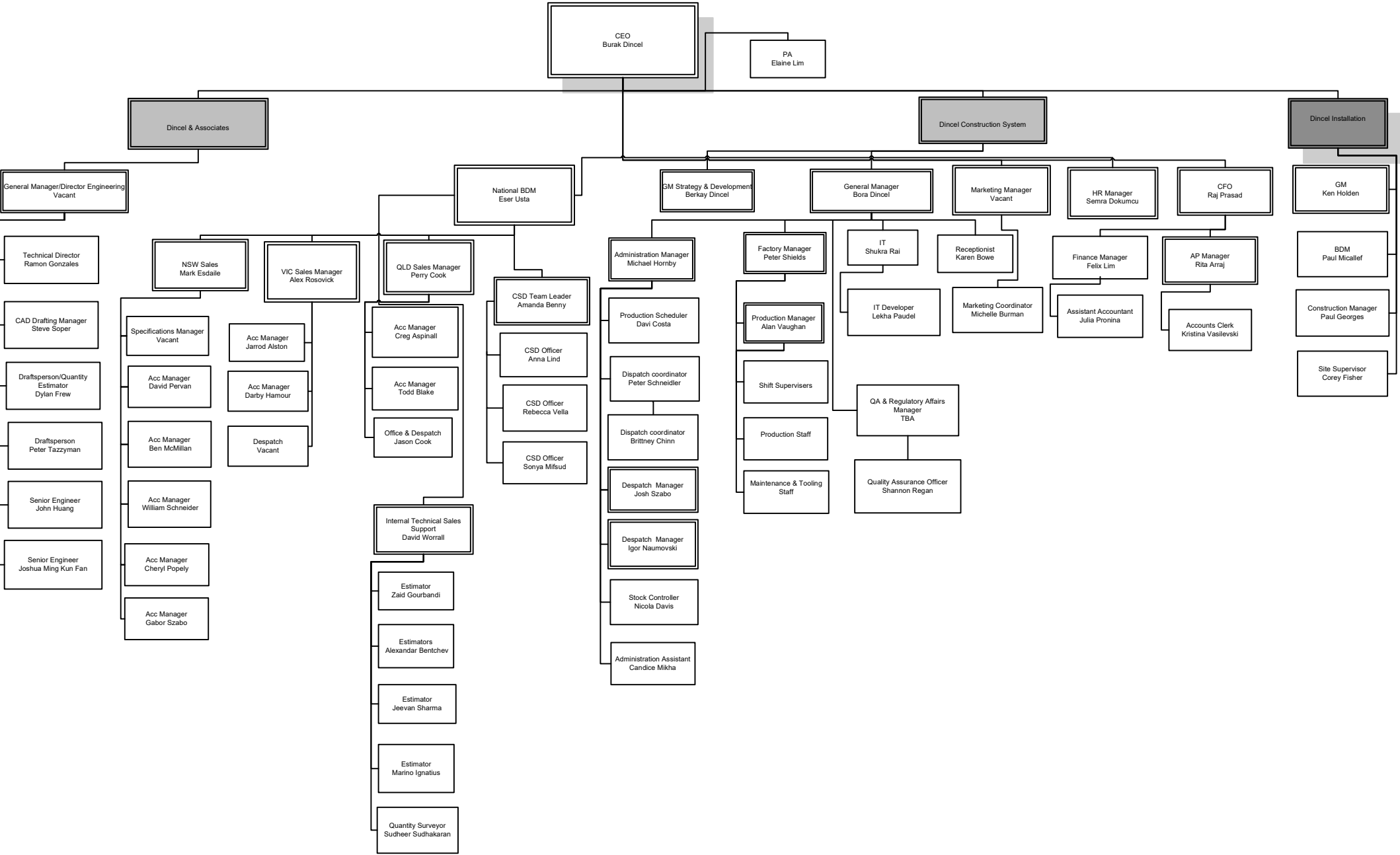
B1 Evaluation methods

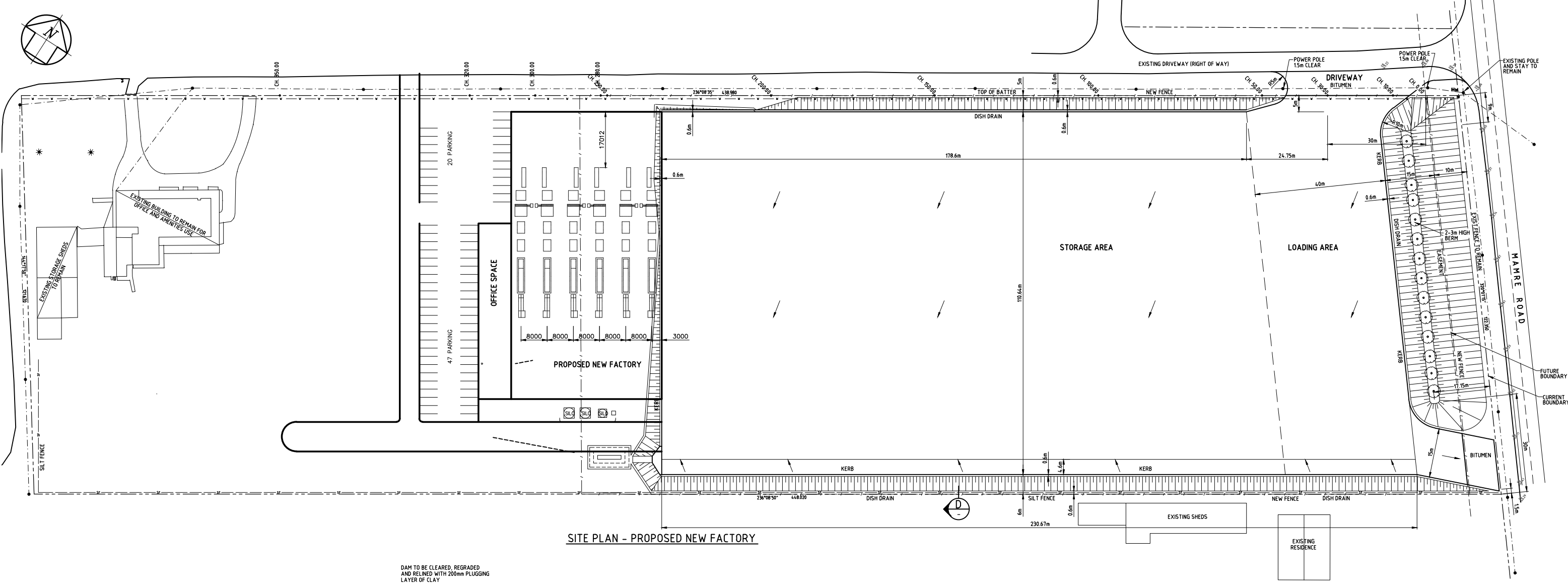
1. Fire Safety Provision A2.2 (a)(iv) & (v) and 1.2.2 (a)(i) & (iii) Reports from NATA accredited test laboratories and certificates from Professional Engineer.

B2 Reports

1. AED Group; Report No. F1887 FER Rev 07; Fire Assessment; Dated 15/03/2018.
2. CSIRO; NATA Accreditation No. 165; Report No. FCO-2725; Likely performance of the Dintel-Form concrete filled wall system if tested in accordance with AS 1530.8.2-2007; Dated 23/02/2015.
3. CSIRO; NATA Accreditation No. 165; Report No. FCO-2674; Likely performance of the Dintel-Form concrete filled wall system; Dated 08/12/2014.
4. CSIRO; NATA Accreditation No. 165; Report No. FCO-2800; Fire performance comparison of Dintel extruded rigid PVC profile/concrete wall and plasterboard; Dated 20/10/2016
5. CSIRO; NATA Accreditation No. 165; Certificate 439; Compliance with AS/NZS 3837:1998; Classified as a group 1 material meets C1.10 (a)(ii); Dated 08/02/2007.
6. CSIRO; NATA Accreditation No. 165; Job No.: NK7381; Compliance with AS/NZS 3837:1998; Classified as a group 1 material meets C1.10 (a)(ii); Dated 03/08/2015.
7. Ignis Solutions; Advisory Notice No. IGNS-5395 Issue 01 Revision 02; Dated 09/02/2018.

The Certificate Holder has chosen not to make the above evidence of compliance publicly available, due to the documents being considered commercial in confidence.






SITE PLAN - PROPOSED NEW FACTORY

DAM TO BE CLEARED, REGRADED
AND RELINED WITH 200mm PLUGGING
LAYER OF CLAY

THIS DRAWING IS NOT FOR
CONSTRUCTION, UNLESS SIGNED
BY THE DESIGN ENGINEER


USE OF THESE DRAWINGS
THE DESIGN AND DETAILS SHOWN ON THESE DRAWINGS
ARE APPLICABLE TO THIS PROJECT ONLY AND MAY NOT
BE REPRODUCED IN WHOLE OR IN PART OR BE USED
FOR ANY OTHER PROJECT OR PURPOSE WITHOUT THE
WRITTEN PERMISSION OF DINCEL & ASSOCIATES WITH
WHOM COPYRIGHT RESIDES.

MARK	DATE	AMENDMENT	BY	MARK	DATE	AMENDMENT	BY	MARK	DATE	AMENDMENT	BY

DESIGNED	
CHECKED	
APPROVED BY, FOR AND ON BEHALF OF DINCEL & ASSOCIATES	
 MEMBER	

SUB-CONSULTANT ENGINEER	
ARCHITECT	
CLIENT	DINCEL CONSTRUCTION SYSTEM

PROJECT	PROPOSED STORAGE AREA AT LOT 35 MAMRE ROAD KEMPS CREEK
---------	--



dincel & associates
consulting engineers
Discipline:

101 Quarry Road
Erskine Park, NSW 2756
Phone: (02) 9670 1633
Fax: (02) 9670 5526
Email: dincel@dincel.com.au

DRAWING TITLE PROPOSED FACTORY LAYOUT AND DETAILS		AMEN'T P B1
SCALE	1:500	
DATE	AUG. '17	
DRAWN	DF	
DRAWING No.		
17076-DIN		

