

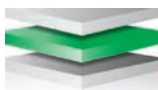


## ALPHA DECKS

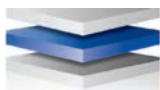
INTEGRATED SUSPENDED CONCRETE SLAB SOLUTIONS

**"SUPERIOR IN EVERY WAY"**

### **NEXT GENERATION** BUILDING SOLUTIONS



**MULTI**BOARD  
MGO  
PERFORMANCE  
WALLS



**MULTI**BOARD  
INTEGRATED  
CONCRETE SLAB,  
PLATE SYSTEMS



**MULTI**BOARD  
STRUCTURAL /  
CIVIL  
ENGINEERING

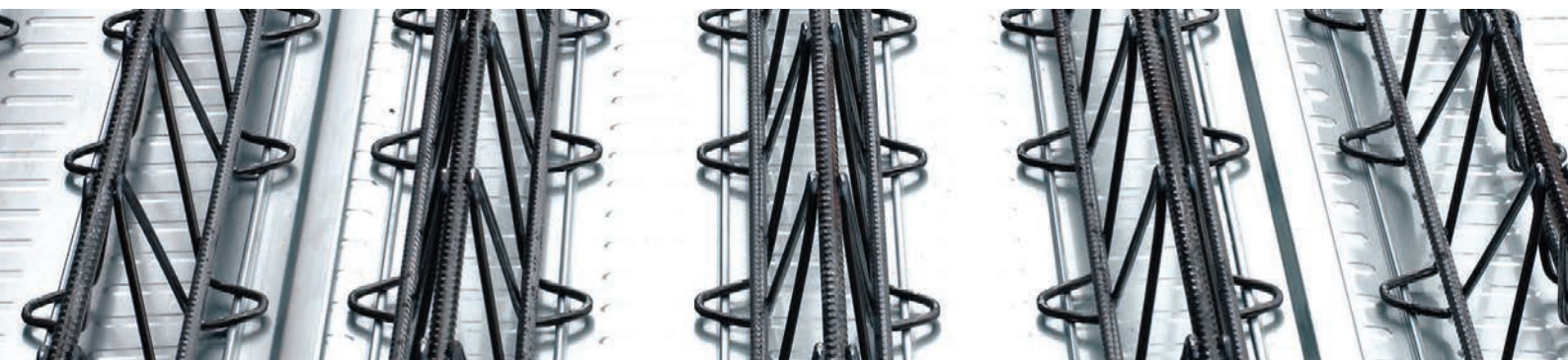


**MULTI**BOARD  
STRUCTURAL  
STEEL  
FABRICATION



**MULTI**BOARD  
CONCRETE  
SERVICES

[www.multiboard.com.au](http://www.multiboard.com.au)





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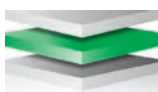
## NEXT GENERATION BUILDING SOLUTIONS

Now more than ever, the need for high performance, efficient, cost effective, sustainable and safe building materials is an expected minimum standard. MultiBoard Australia is committed to leading the way in setting new standards with cutting edge technology within construction, building and design. Our next generation building solutions are designed to meet the multifaceted demands of today's new age buildings.

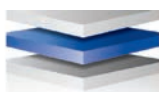
Leading the way with an innovative generation of lightweight internal/external Magnesium Oxide (MgO) performance walls; our range of products are designed to meet the current fire and acoustic requirements in single layer application.

For more information on our MgO performance walls please visit [www.multiboard.com.au](http://www.multiboard.com.au)

### NEXT GENERATION BUILDING SOLUTIONS



**MULTIBOARD**  
MGO  
PERFORMANCE  
WALLS



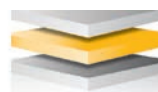
**MULTIBOARD**  
INTEGRATED  
CONCRETE SLAB,  
PLATE SYSTEMS



**MULTIBOARD**  
STRUCTURAL /  
CIVIL  
ENGINEERING



**MULTIBOARD**  
STRUCTURAL  
STEEL  
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**MULTIBOARD**  
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## INTEGRATED CONCRETE SLAB PLATE SYSTEMS

The Multiboard modular suspended concrete slab systems are all designed to save time, money and on-site labour. With all the products (and services) in our Alphas Deck range project-specific, each job is manufactured to suit each one of our clients needs to ensure the delivery of our high quality service.

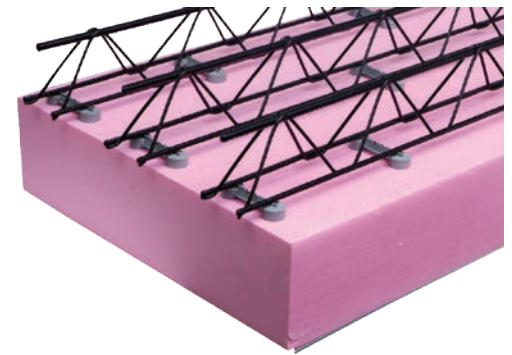
The point of difference with our suspended concrete slab systems is that they are all designed to save time, money and labour. Our Cap Deck panel systems could span and support wet concrete and construction loads for up to a maximum of 8.6 metres, without the requirement of temporary propping during construction. The Ferro Deck, Eco Deck and Insul Deck suspended concrete slab systems could span up to 5.8 metres without the aid of temporary back-support. This is subject to the height of the truss (slab thickness), which is checked and treated on a case-by-case basis.

For spans greater than the required maximum, one single row of props is required to support the panels mid-span during construction. Having no back-support presents many time and cost advantages as the cost to install and strip the form work is eliminated. The absence of form work beneath the slab being poured also allows for trades to immediately fit-out the level below, without delaying work until the (above) concrete slab cures, present further time and cost savings to our clients.

With regards to the Ferro Deck, Eco Deck and Insul Deck systems, all aspects of these suspended concrete slab systems can be modified such as the height of the trusses (effectively the slab thicknesses), the concrete cover to the top and bottom reinforcement and to the types of top and bottom reinforcement required. As these panels are manufactured in an automated factory, the spacing and reinforcement concrete cover of the primary reinforcement bars are consistently located in the correct locations, as specified. Also, the trusses in these panels and the Cap Deck panels are accurately manufactured with an upward camber to cater for immediate deflections during the construction phase.



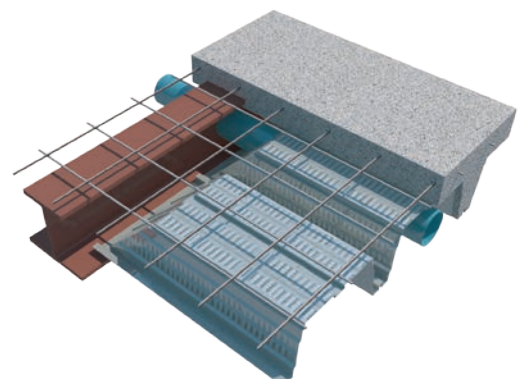
**FERRO DECK**



**INSUL DECK**



**ECO DECK**



**CAP DECK**

**A modular suspended concrete slab deck system offering a slim floor design which enables storey height reduction. Designed with a unique steel profile to carry construction loads for up to 8 meters without temporary propping. A system providing an on-flow of effects designed to save time, money and labour.**

Features, advantages and benefits:

### Efficiency

- No temporary propping required for up to 8 metre spans with longer spans available
- Saves time and money on projects by enabling trades to access the levels below due to the absence of formwork
- Technologically designed with folded down panel ends
- Design contributing to a 80% reduction in structural steel fire rating
- A composite beam design allows for lighter supporting steel beams to be used
- Shear studs and panel-end stoppers not required
- Reduced project costs up to 30%
- Minimal site storage space required
- Reduced suspended concrete slab installation time of up to 40%

### Quality

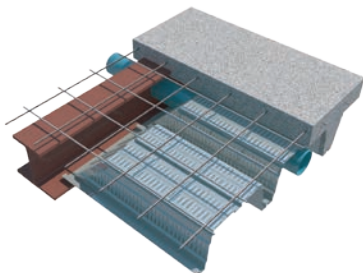
- Certified Concrete Structures as per AS 3600
- Certified Steel Structures as per AS 4100
- High quality steel Cap Deck panels
- The Cap deck panels are designed by Multiboard and is a contributor to the strength of the slab during serviceability
- BTM of panels comes in 1.2mm or 1.4mm or 1.6mm
- With a weight of 1.2mm and 1.4mm are 19.95kg/m<sup>2</sup> and 23.22kg/m<sup>2</sup> respectively
- Proven and tried system

### Versatility

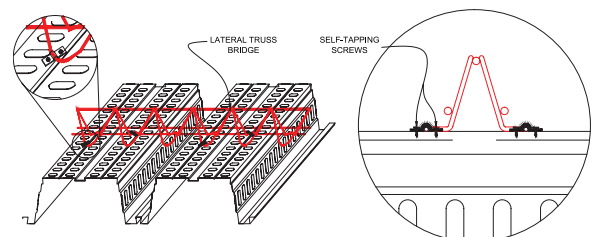
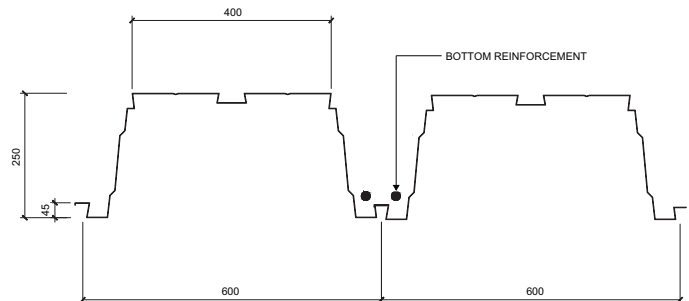
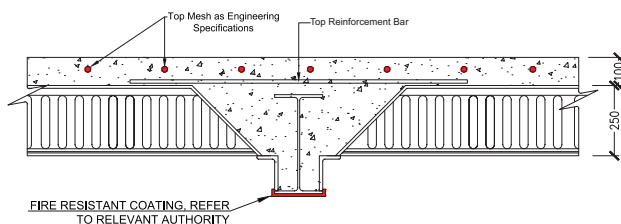
- Capabilities to work with a steel, concrete and or pre-cast slab system
- Tailor-made system to suit different slab designs and applications. Also adaptable to existing designs

### Eco-factor

- Reduction of cladding and building materials used due to reduced story height
- Minimized steel wastage from the tailor-made system design
- Minimized construction wastage based on no formwork requirements



**Typical Section in Composite**



*The Cap Deck system is supplied with full shop drawings and structural certification as per the requirements of AS 3600: Concrete Structures and AS 4100 Steel Structure.*



A modular suspended concrete slab deck system with a detachable lower steel plate for eco-friendly recycling, designed with the option of an exposed concrete soffit. Eco Deck is an all-in-one deck plate system of which the upper truss girder is connected with the lower plate through a spacer, enabling the detachment of the lower plate the curing of the concrete. Designed to carrying construction loads for up to 5.8 meters unsupported contributing to a cost effective project.

Features, advantages and benefits:

### Efficiency

- No temporary propping required for up to 5.8 metre spans. Longer spans available
- Saves time and money on projects by enabling trades to access the levels below due to the absence of formwork
- Provides 95% of the steel required in the slab
- Reduced project costs up to 30%
- Minimal site storage space required
- Control of truss pitch guarantees superb structural stability

### Quality

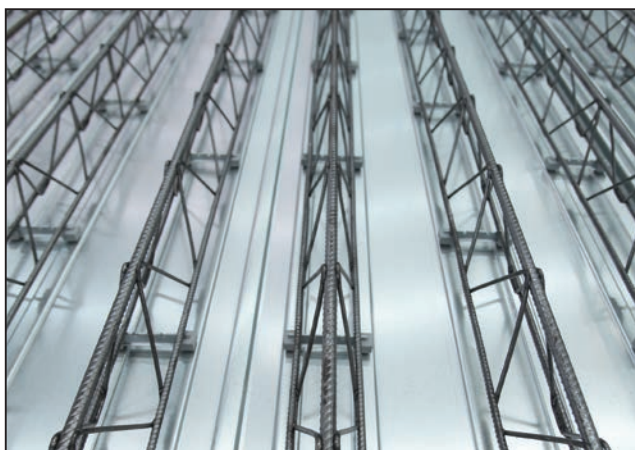
- Certified Concrete Structures as per AS 3600
- Certified Steel Structures as per AS 4100
- High quality galvanized iron sheeting with precision welding to the trusses hold the concrete in place during construction
- contributing to the strength of the concrete
- Precise location of steel reinforcement and rebar positioning within the concrete slab
- Proven tried system

### Versatility

- Capabilities to work with steel, concrete or pre-cast slab structures
- Tailor-made system to suit different slab designs and applications. Also adaptable to existing designs

### Eco-factor

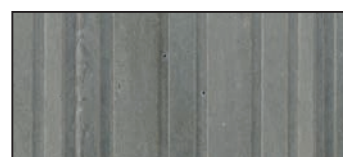
- Recyclable steel plate
- Contributor to a Green Star Rating
- Minimized steel wastage from the tailor-made design
- Minimized on-site wastage based on no formwork requirements



**Before plate separating**



**After plate separating**  
(Concrete surface)



*The Eco Deck system is supplied with full shop drawings and structural certification as per the requirements of AS 3600: Concrete Structures and AS 4100 Steel Structure.*

**A modular suspended concrete slab deck system inclusive of an all-in-one eco-friendly insulated steel deck plate, with no back-propping required for up to 5.8 meters. Insul Deck has a life longevity eco-friendly insulation material incorporated contributing to many factors saving time, money and labour.**

Features, advantages and benefits:

### Efficiency

- No temporary propping required for up to 5.8 metre spans
- Saves time and money on projects by enabling trades to access the levels below due to the absence of formwork
- Provides 95% of the steel required in the slab
- Reduced project costs up to 33%
- Cost effective by eliminating supply and labour of a separate insulation

### Quality

- Certified Concrete Structures as per AS 3600
- Certified Steel Structures as per AS 4100
- High quality galvanized iron sheeting with precision welding to the trusses hold the concrete in place during construction contributing to the strength of the concrete
- Precise location of steel reinforcement and rebar positioning within the concrete slab
- Proven tried system
- Insulation with life longevity and no degradation

### Versatility

- Capabilities to work with steel, concrete or pre-cast slab structures
- Tailor-made system to suit different slab designs and applications. Also adaptable to existing designs
- Incorporates the insulation within the suspended concrete slab formwork

### Eco-factor

- Contributor to a thermal energy conservation
- Minimized steel wastage from the tailor-made design
- Minimized on-site wastage based on no formwork requirements



*The Insul Deck system is supplied with full shop drawings and structural certification as per the requirements of AS 3600: Concrete Structures and AS 4100 Steel Structure.*

**A modular suspended concrete slab deck system tailor manufactured to fabricate the top and bottom reinforcement from a conventional concrete slab into a truss girder. Designed to enable the steel deck to support the wet concrete and construction loads for up to 5.8 meters with no temporary propping. A system designed to save time, money and labour.**

Features, advantages and benefits:

### Efficiency

- No temporary propping required for up to 5.8 metre spans. Longer spans available
- Saves time and money on projects by enabling trades to access the levels below due to the absence of formwork
- Provides 95% of the steel required in the slab
- Reduced project costs up to 30%
- Reduced suspended concrete slab installation by up to 60%
- Minimal site storage space required

### Quality

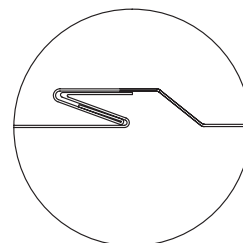
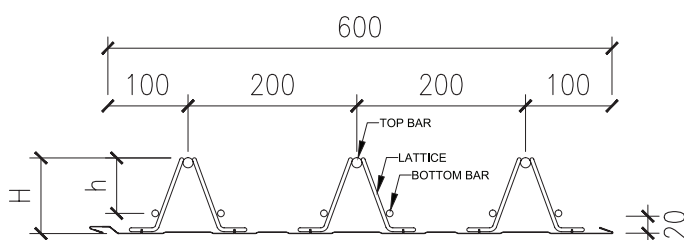
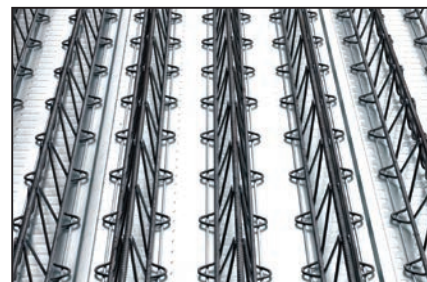
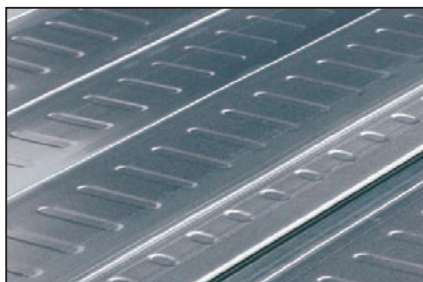
- Certified Concrete Structures as per AS 3600
- Certified Steel Structures as per AS 4100
- High quality galvanized iron sheeting with precision welding to the trusses hold the concrete in place during construction
- Precise location of steel reinforcement within the concrete slab
- Proven tried system

### Versatility

- Capabilities to work with steel, concrete or pre-cast structures
- System to suit different slab designs and applications. Also adaptable to existing designs

### Eco-factor

- Minimizes steel wastage from the tailor-made design
- Minimizes on-site wastage based on no formwork requirements

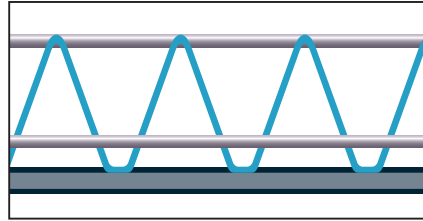


**Ferro Deck**  
Male/Female Connection

*The Ferro Deck system is supplied with full shop drawings and structural certification as per the requirements of AS 3600: Concrete Structures and AS 4100 Steel Structures.*



The ribs of the sheets are formed in a way to ensure a stronger weld to the trusses, and to prevent spot welds from appearing to the underside of the panels. The concealed weld joints also prevent the potential of corrosion forming to the underside of these panels.



The threefold S-shaped connection structure prevents concrete from leaking in between the panels.



Open



Closed

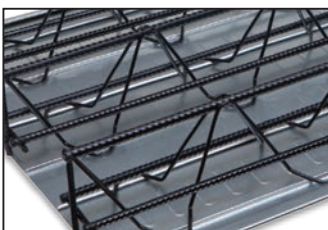
Ferro Deck is manufactured by international patented facilities and is the only product that allows for the free adjustment of the truss pitch ( $200 \pm 10$ ).

## PLANNING FLOW



## CONSTRUCTION FLOW

Productive and efficient



Tailor Manufactured



Delivery



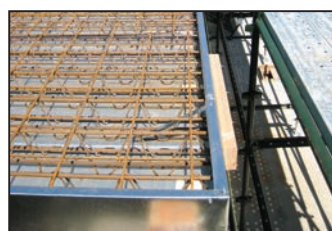
Lifting



Placement



Slab Arrangement



Reinforcement



Electrical & Services



Concrete Pouring



# PRODUCTION FLOW

The largest tailor-made manufacture and international patented production facility.



Wire Rods



Deforming Wire Rods



Deformed Wire



Truss Welding



Truss Girder



Galvanized Iron Sheets



Forming



Formed Sheet



Welding



Completed Product



# DESIGN AND SERVICES



## Structural/Civil Engineering

Multiboard offers Structural/Civil Engineering services, tailor-designed to suit new and/or existing projects. Our designs are focused around increasing the speed of construction, functionality and the performance of the construction cycle. We assess, design and certify all our projects in compliance with the relevant and current Australian Standards.



## Structural Steel Fabrication

To compliment the in-house Structural Engineering designs, Multiboard offer the supply and installation of local structural steel fabrication. Our designs and services are focused on providing quick and cost-effective solutions for our contractors by utilising structural steel members in composite with concrete. This allows our designers to reduce the size of structural steel materials with lighter sections, saving the client thousands of dollars.



## Concrete Services

To supplement the preceding two services, Multiboard also offer the supply and installation of concrete services, should the client wish to engage Multiboard for a hassle-free, whole structure sub-contracting solution. This is where we develop and coordinate our engineering designs with the whole installation of the structure, significantly reducing the risk of potential errors with the designs or installations on-site.

## Integrated Concrete Slab, Plate Systems

- Engineered and tailor-made to new and/or existing designs
- Supply of Shop Drawings
- Supply
- Installation

## Structural Steel Fabrication

- Engineered and tailor-made to new and/or existing designs
- Supply of Shop Drawings
- Fabrication of Steel Material
- Supply of Steel Material
- Installation Services - If Required

## Concrete Services

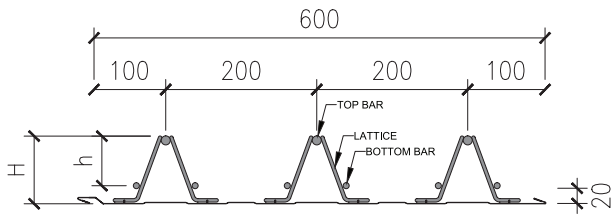
- Installation of Edge-Form
- Installation of On-Site Steel Fixing
- Supply of Concrete Material
- Concrete Pouring and Installation

All the products and services outlined above are compliant with the relevant Australian and New Zealand Standards, including:

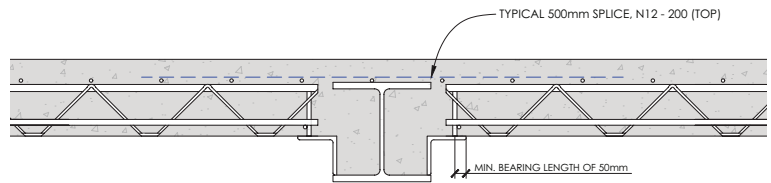
- AS 1170: Structural Design Actions
- AS 4100: Steel Structures
- AS 3600: Concrete Structures
- Partial or complete supply and/or install packages
- Start to finish support on all products and services provided by Multiboard Australia

CONTACT MULTIBOARD TODAY FOR AN OBLIGATION-FREE DESIGN  
AND QUOTATION TO YOUR NEW OR EXISTING PROJECT

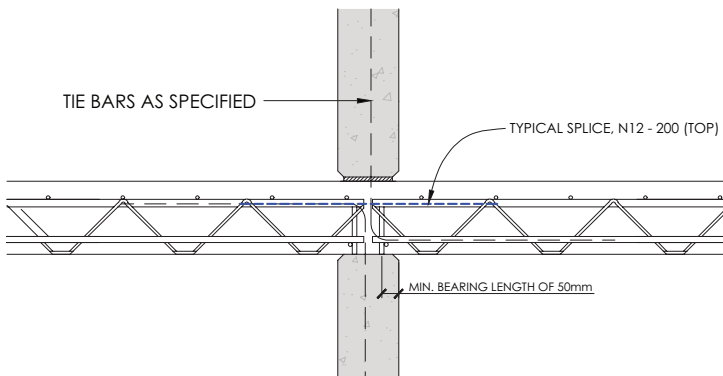
# ALPHA DECK CONSTRUCTION DETAILS



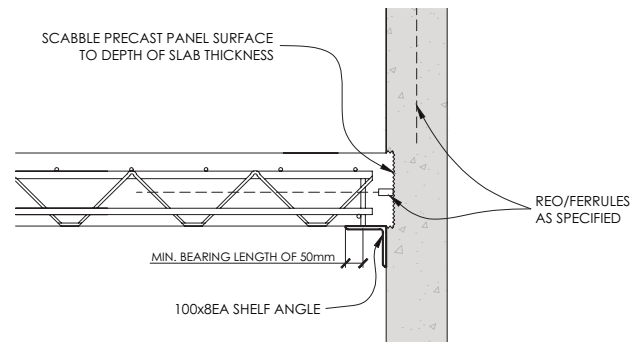
**Ferro Deck Panel Elevation**



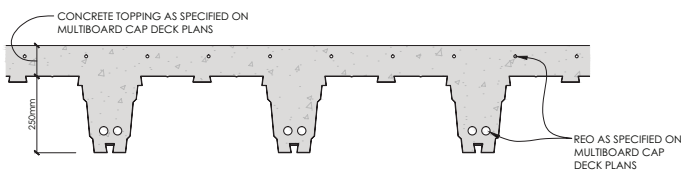
**Ferro Deck to Steel Beam W/ EA's Detail**



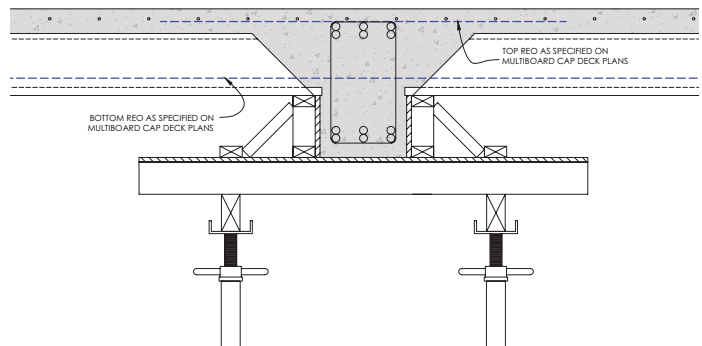
**Ferro Deck to Discontinuous Precast Panel**



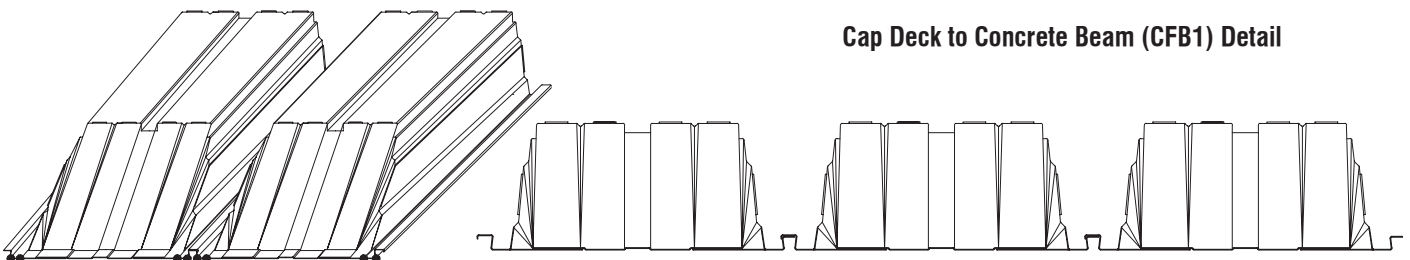
**Ferro Deck to Precast Panel End Detail**



**Section - Typical Cap Deck Slab**

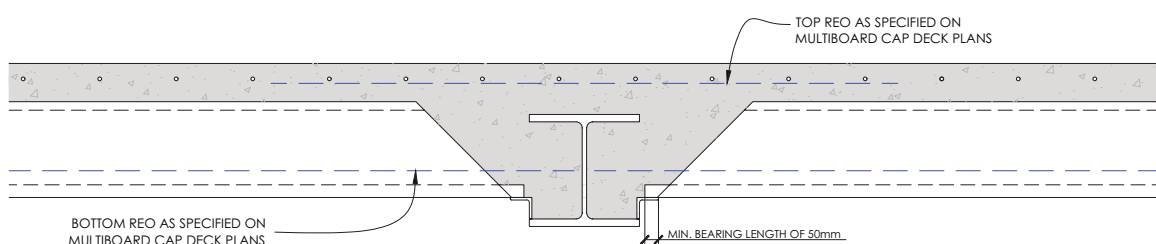


**Cap Deck to Concrete Beam (CFB1) Detail**



**Cap Deck Fixing Locations**

**Cap Deck Panels - Elevation**



**Cap Deck to Steel Beam W/ EA's Detail**





**Multiboard Australia Pty Ltd**  
11/285 Diamond Creek Road,  
Plenty, Victoria, Australia 3090

PO Box 647, Eltham  
Victoria, Australia 3095

Tel: + 61 3 **9466 9900**

**[www.multiboard.com.au](http://www.multiboard.com.au)**

