



**NS BlueScope Lysaght Malaysia**

**LYSAGHT® BONDEK II**

# Structural Decking Installation

BONDEK® II formwork is normally placed directly on prepared propping. Props must stay in place during the laying of BONDEK® II formwork, the placement of the concrete, and until the concrete has reached the strength of 20 MPa.

Propping generally consists of substantial timber or steel bearers supported by vertical props. The bearers must be continuous across the full width of BONDEK® II formwork.

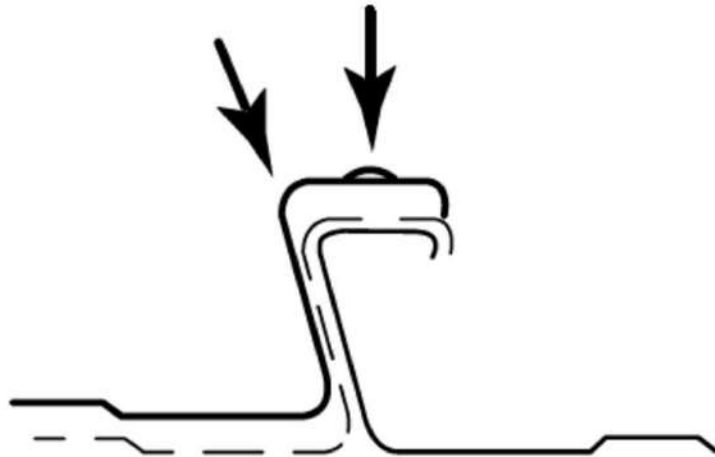
Where the underside of BONDEK® II formwork is featured as a finished ceiling, wide form-ply strips attached to the bearers will minimise marking. The width of the form-ply strips depends upon the slab depth, BONDEK® II metal thickness and spans. Form-ply strips of 300 mm width have been used successfully.



# Structural Decking Installation

## Method 1

Position BONDEK® II sheet parallel with previously-laid sheet. Interlock sheets by applying pressure to either position.



In the first method, lay adjacent sheets loosely in place. Place the female lap rib overlapping the male lap rib of the previous sheet and apply foot pressure, or a light kick, to the female lap rib

## Method 2

Position BONDEK® II sheet at an angle. Interlock sheets by lowering sheet through an arc.



**Figure 4.2**

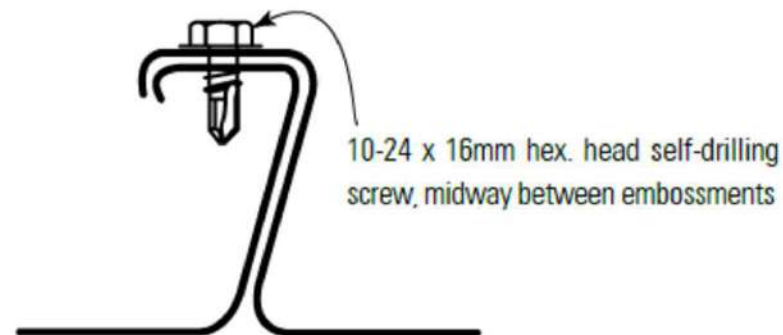
Two methods of interlocking adjacent BONDEK® II sheets

In the second method, offer a new sheet at an angle to one previously laid, and then simply lower it down, through an arc

If sheets don't interlock neatly (perhaps due to some damage or distortion from site handling or construction practices) use screws to pull the laps together tightly

# Structural Decking Installation

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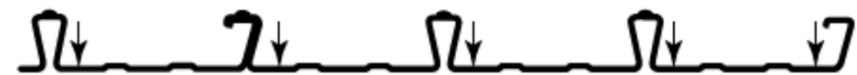


**Figure 4.5**

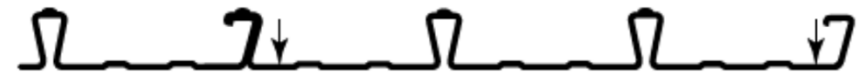
Fixing at a side-lap

## SECURING THE PLATFORM

Once laid, BONDEK® II provides a stable working platform. BONDEK® II shall be fixed to supporting structure at end supports with screws or nails or equivalent.



Fixing at end of sheets □



Fixing at intermediate slab supports over which the sheeting is continuous

One fixing system is as follows.

- At the end of sheets: use a fixing at every rib
- At each intermediate slab support over which the sheeting is continuous: use a fixing at the ribs on both edges
- Fix BONDEK® II with drive nails, self-drilling screws or spot welds.

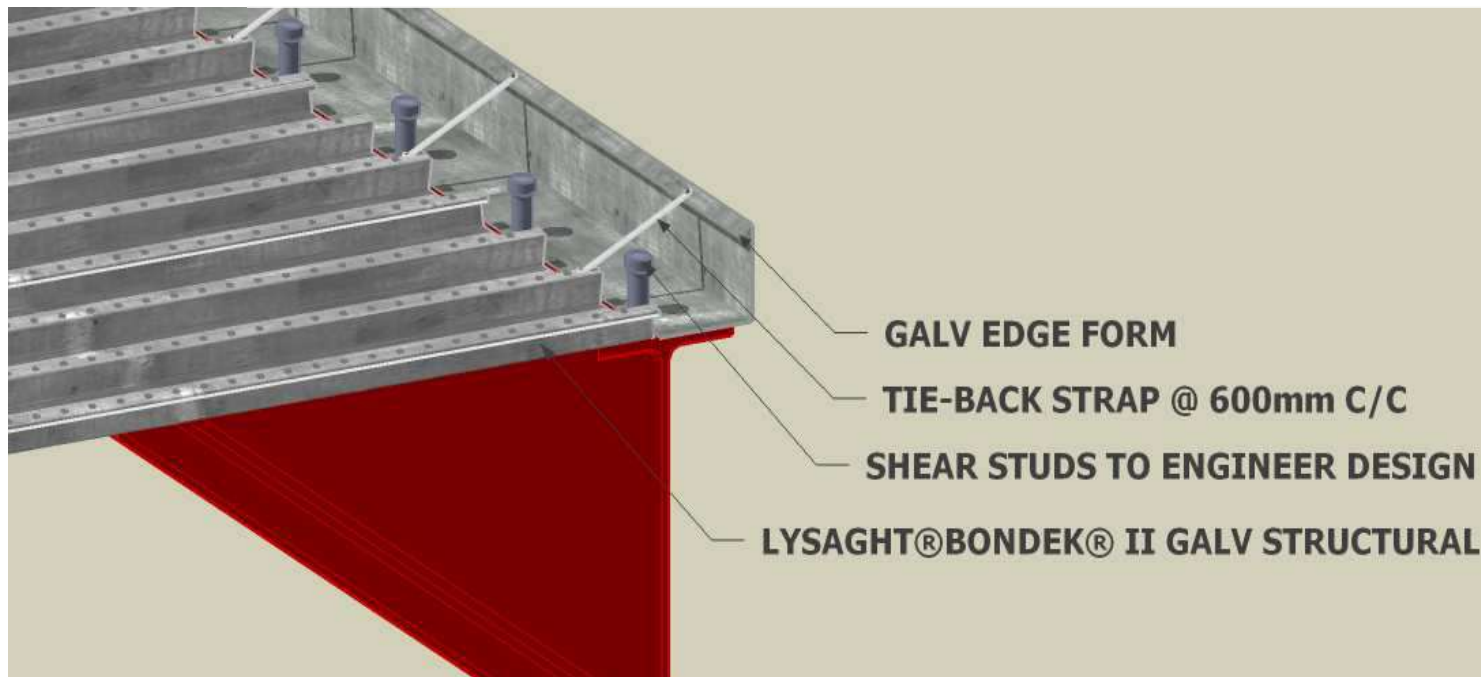
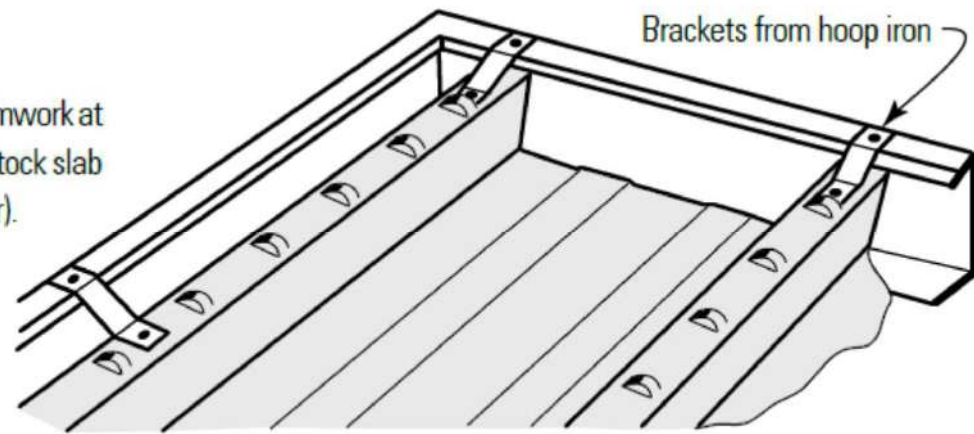


# Structural Decking Installation – Edge Form

## EDGEFORM

A galvanised section that creates a permanent formwork at the slab edges-cut, mitred and screwed on site. Stock slab depths: 100, 125, 150 mm (others to special order).

Stock length: 6100 mm



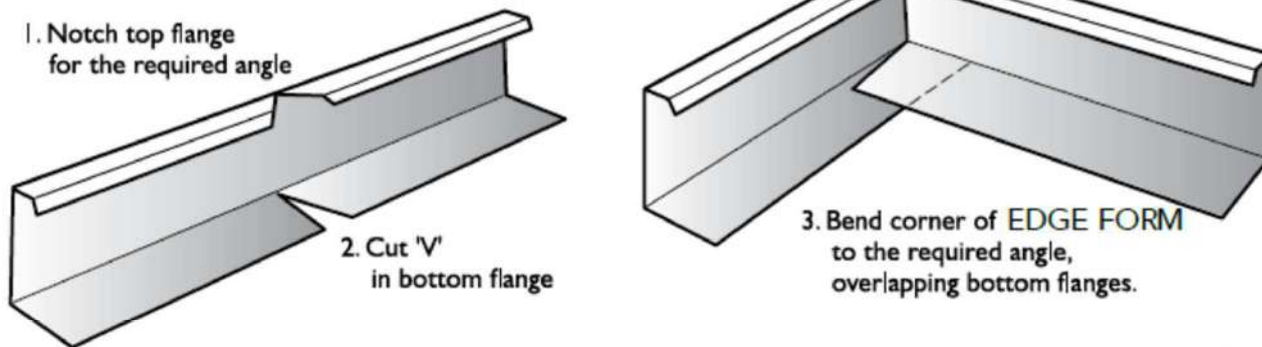
# Structural Decking Installation – Edge Form



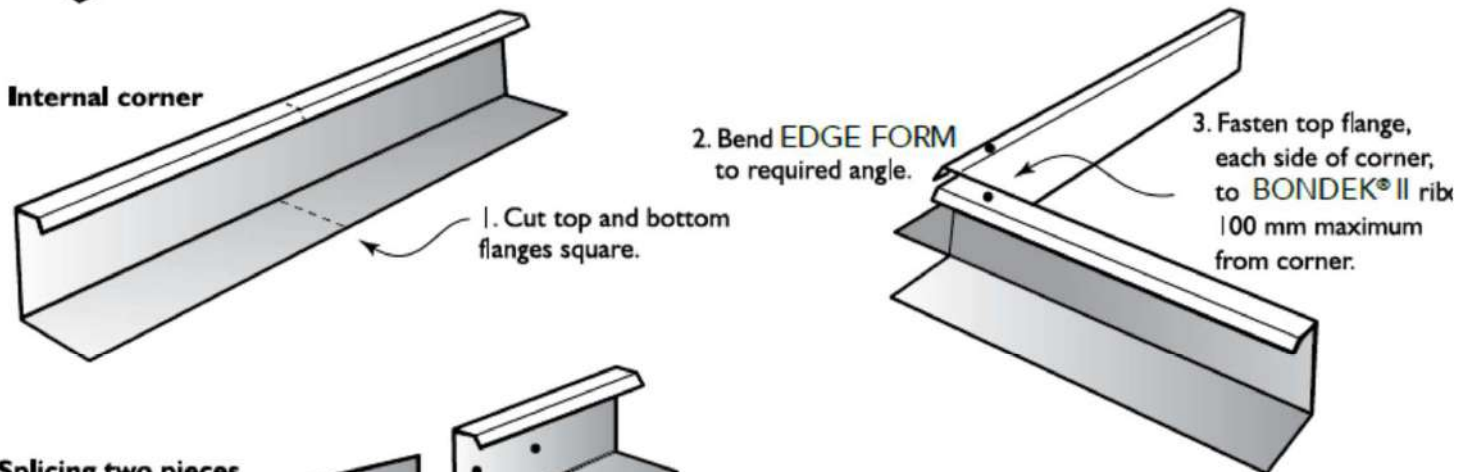


# Structural Decking Installation – Edge Form

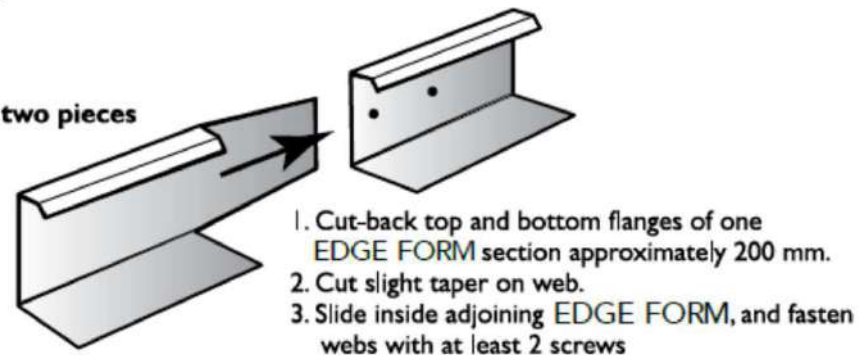
## External corner



## Internal corner



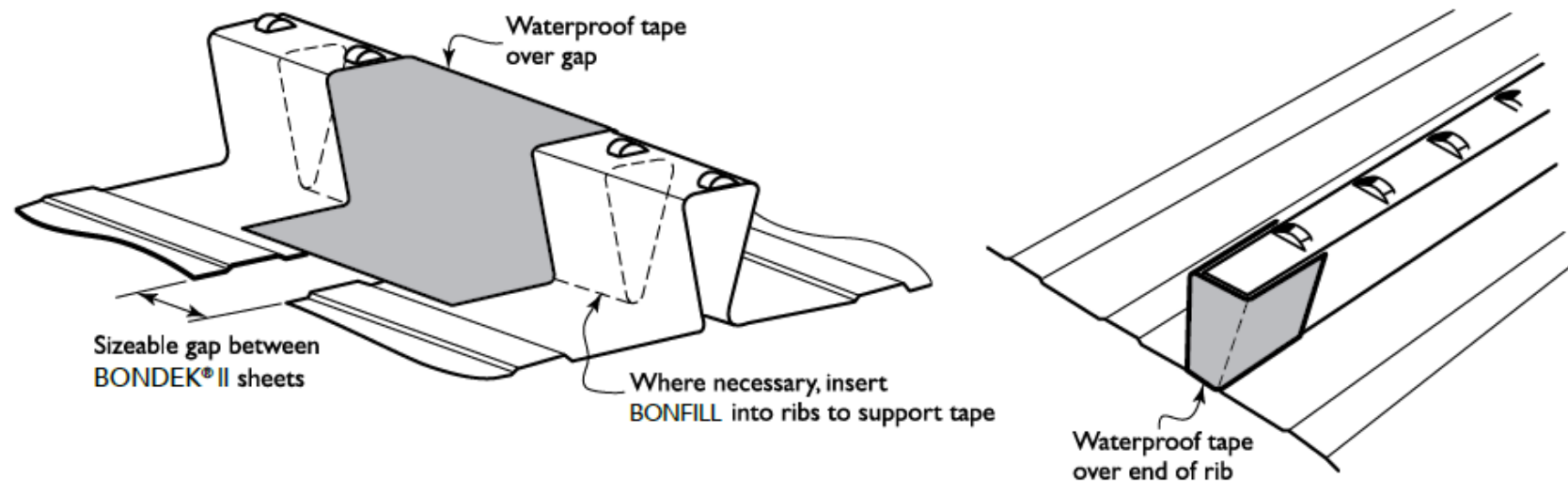
## Splicing two pieces



# Structural Decking Installation – Sealing

## SEALING

Seepage of water or fine concrete slurry can be minimised by following common construction practices. Generally gaps are sealed with waterproof tape or by sandwiching contraction joint material between the abutting ends of BONDEK® II sheet.



**Figure 4.8**

Use waterproof tape to seal joints in BONDEK® II sheets





# **Example of Installation work flow**

## Example of Installation work flow



**Load onto transportation**



**Off loaded on site**

# Example of Installation work flow



**BONDEK II bundles hoisted  
onto steel frames**



**BONDEK II can be cut on  
site using simple tools**



# Example of Installation work flow



**Laying is done with no  
machine aid**



**Lap the BONDEK II sheets**

# Example of Installation work flow



**Secure BONDEK II to steel beams**



**Provide necessary Propping**



# Example of Installation work flow



**Install Edgeform**



**Lay the reinforcement bars**



# Example of Installation work flow



**Remove dirt and  
contaminants**



**Pour concrete**



# Structural Decking – Picture



# Structural Decking – Picture



Road bridge in Silk Highway



## Structural Decking – Picture



Under side road bridge in Silk Highway

# Structural Decking – Picture



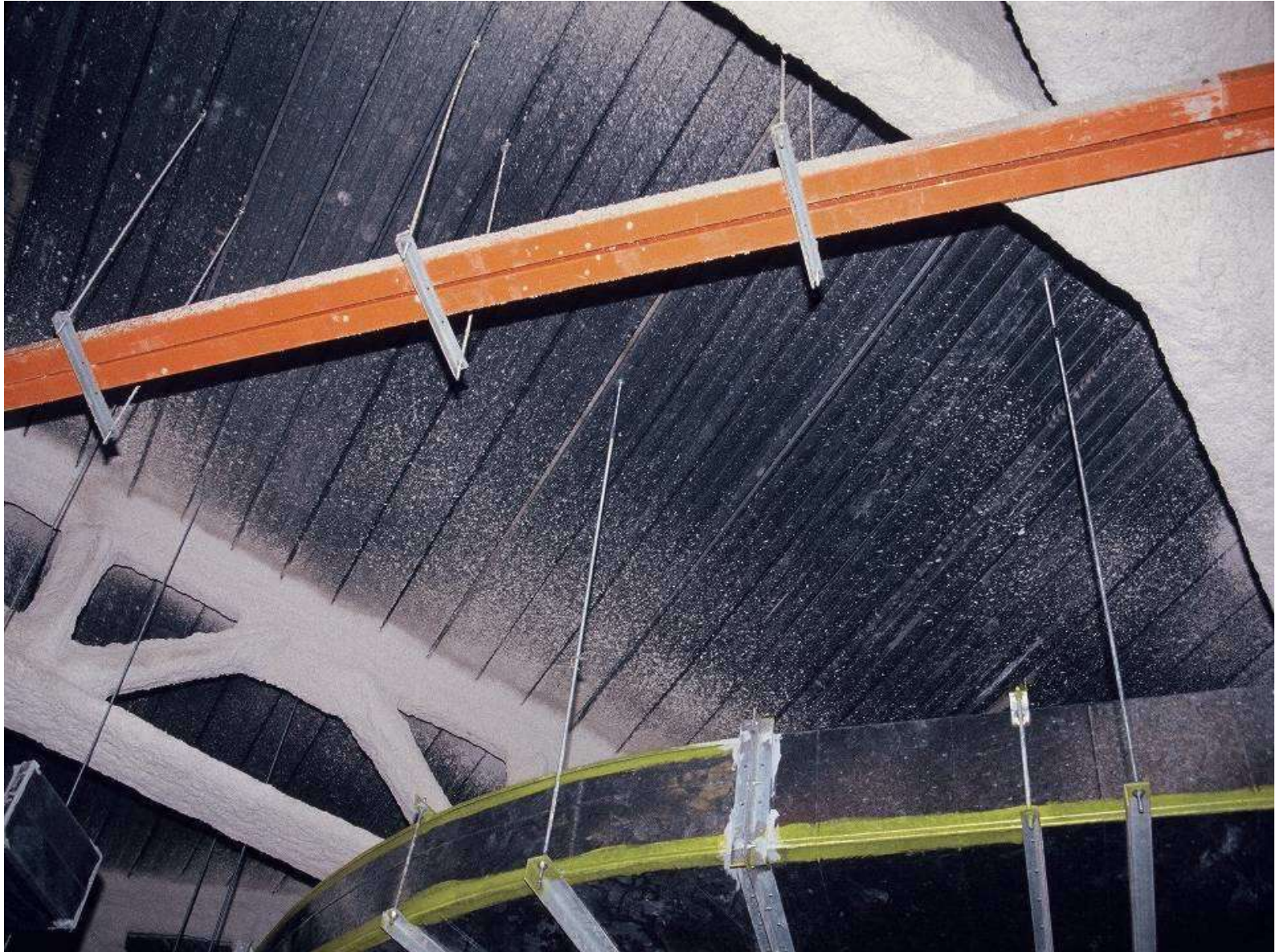


# Structural Decking – Picture





# Structural Decking – Picture





# Structural Decking – Picture





# Structural Decking – Picture



# Structural Decking – Picture



**SUBANG AIRPORT**  
**- QUICK CONSTRUCTION TIME**





# Structural Decking – Picture



**SUBANG AIRPORT**  
**- SPOT WELDING/ TACK WELDING (ON I-BEAM)**

# Structural Decking – Picture





# Structural Decking – Picture



**SUBANG AIRPORT**  
**- INSTALLATION OF SHEAR STUDS**



# Structural Decking – Picture



**SUBANG AIRPORT**  
**- INSTALLATION OF SHEAR STUDS**





# Structural Decking – Picture



**PEDESTRIAN BRIDGE FOR SPRINT HIGHWAY**



# Structural Decking – Picture



**BASEMENT CARPARKS**  
**- OPENINGS (HANGINGS) AND ON CONCRETE BEAMS**





# Structural Decking – Picture



**LYSAGHT BONDEK II**  
- IN CONCRETE FRAME CONSTRUCTION





# Structural Decking – Picture





# Structural Decking – Picture



**LYSAGHT BONDEK II**  
27-08-2004  
- IN CONCRETE FRAME CONSTRUCTION



# Structural Decking – Picture



**LYSAGHT BONDEK II**  
- IN CONCRETE FRAME CONSTRUCTION





# Structural Decking – Picture



# Structural Decking – Picture



**LYSAGHT BONDEK II**  
**- BAHRAIN FINANCIAL HARBOUR (STARTED CONVENTIONALLY)**





# Structural Decking – Picture



**LYSAGHT BONDEK II**  
- BAHRAIN FINANCIAL HARBOUR (UNDERSIDE OF LYSAGHT BONDEK II)



# Structural Decking – Picture



**LYSAGHT BONDEK II**  
**- BAHRAIN FINANCIAL HARBOUR (FORMWORKS)**





# Structural Decking – Picture



# Structural Decking – Picture



**LYSAGHT BONDEK II**  
- BAHRAIN FINANCIAL HARBOUR





# Structural Decking – Picture



**LYSAGHT BONDEK II**  
**- BAHRAIN FINANCIAL HARBOUR (CLEAR CONSTRUCTION WORK SITE)**



# Structural Decking – Picture

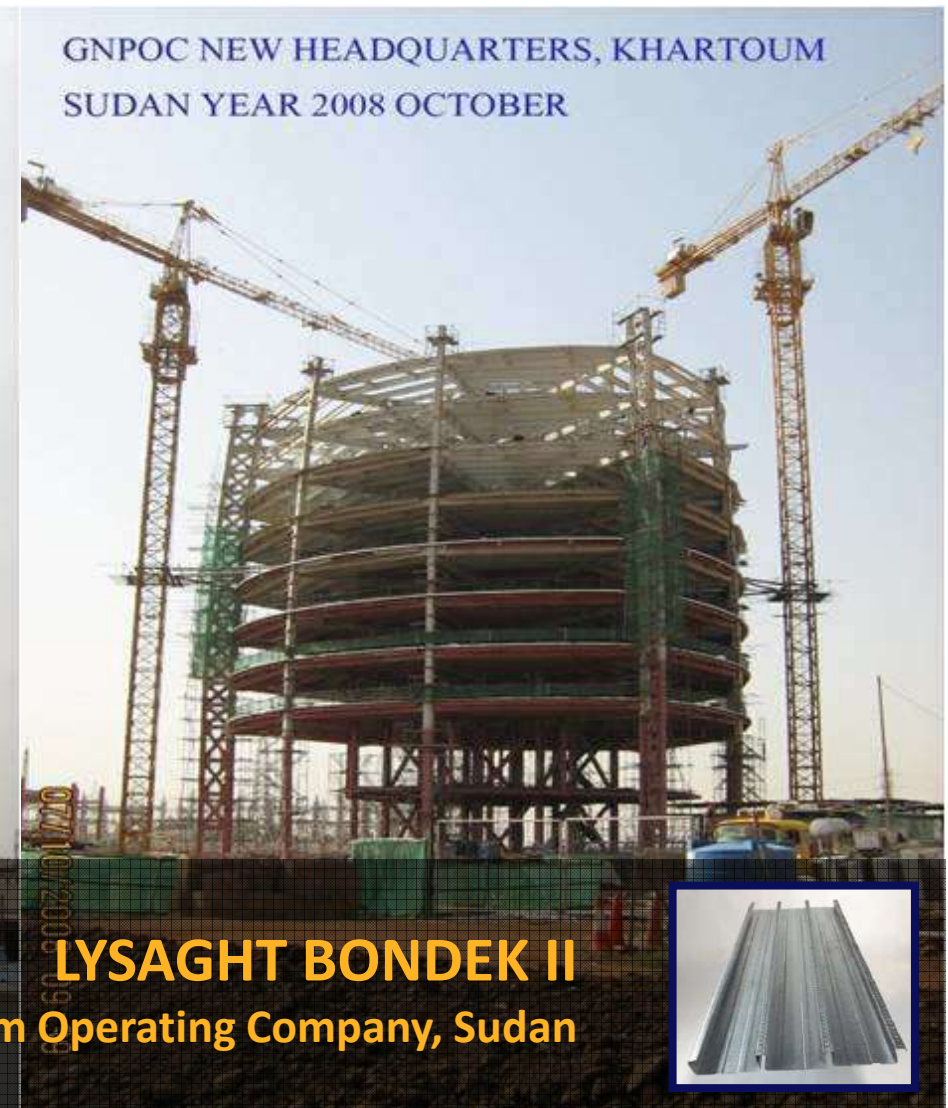


**LYSAGHT BONDEK II**  
**- BAHRAIN FINANCIAL HARBOUR (CLEAR CONSTRUCTION WORK SITE)**



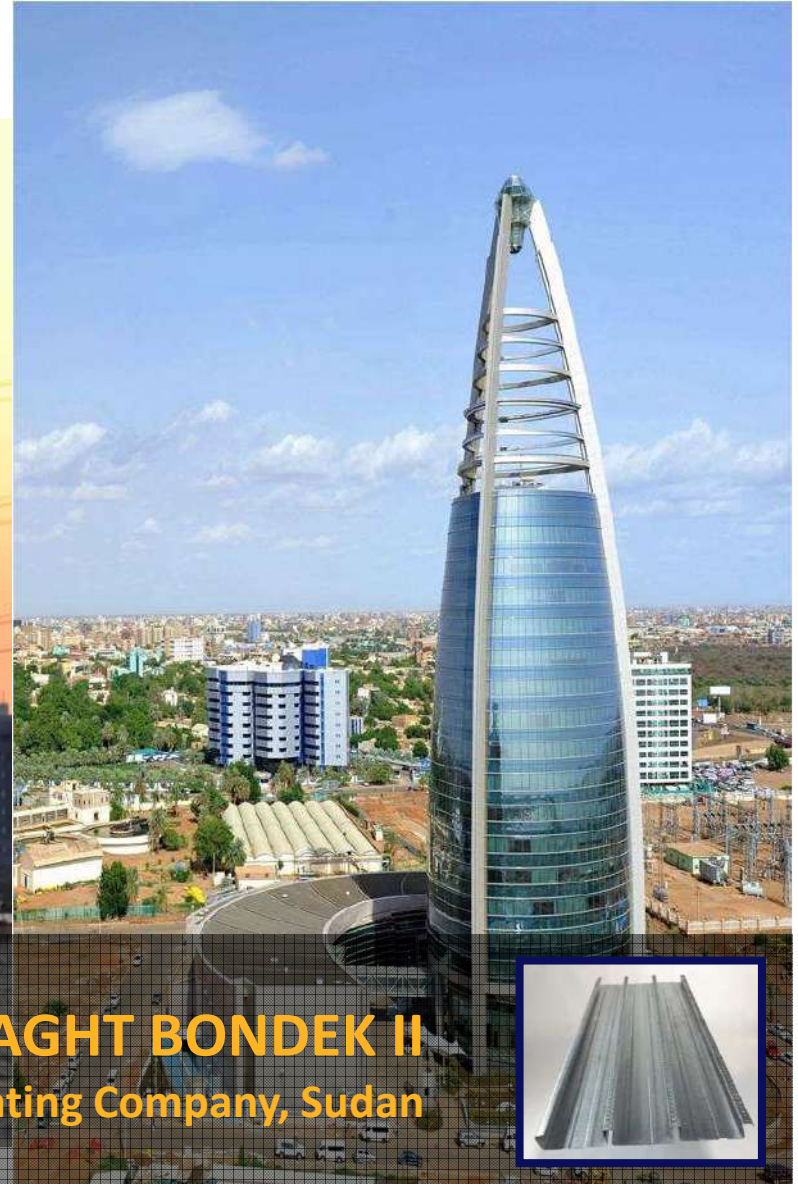
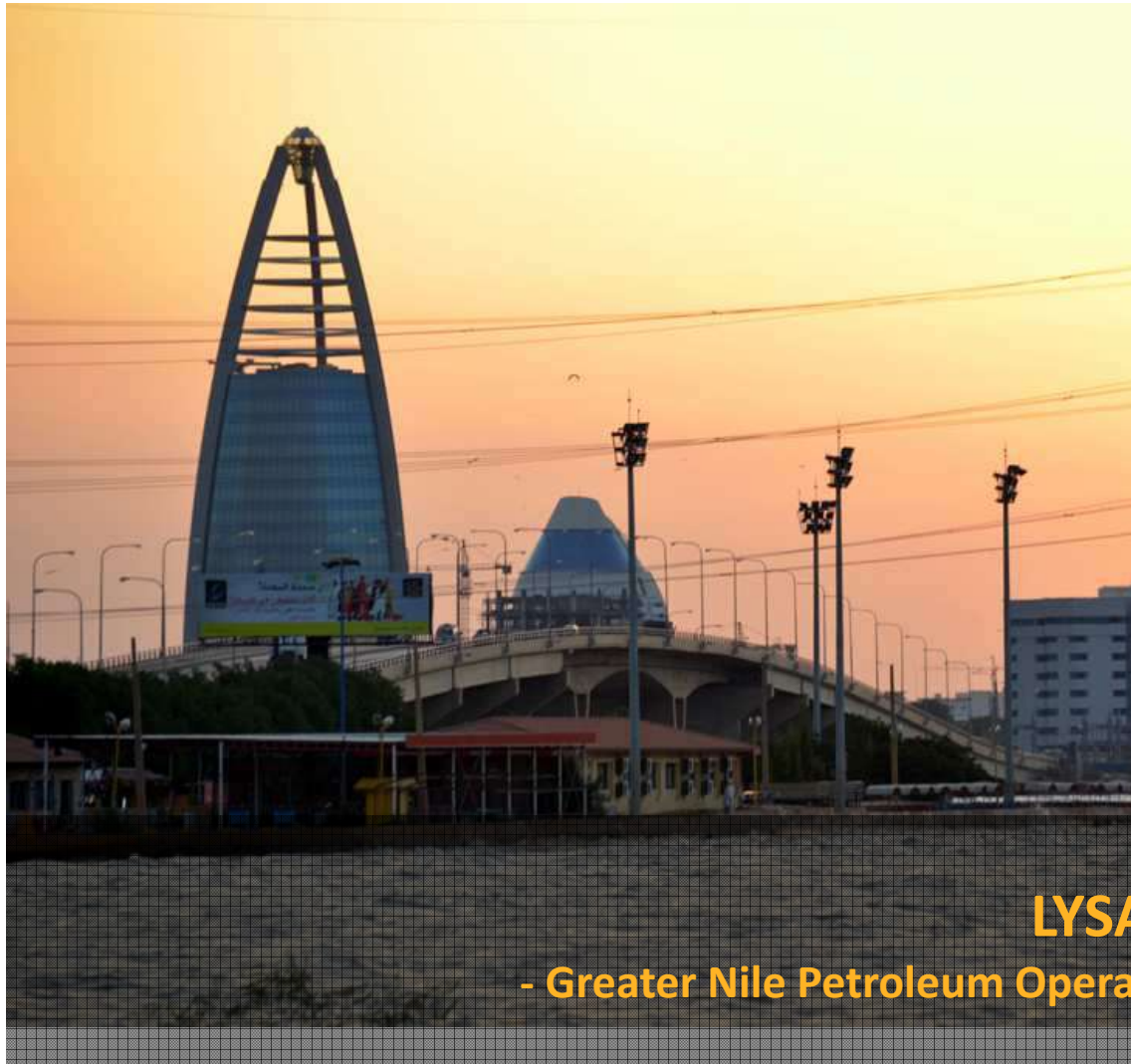


# Structural Decking – Picture





# Structural Decking – Picture



**LYSAGHT BONDEK II**  
- Greater Nile Petroleum Operating Company, Sudan





# Structural Decking – Picture



**LYSAGHT BONDEK II**  
- Al Hitmi Complex, Doha, Qatar





# Structural Decking – Picture

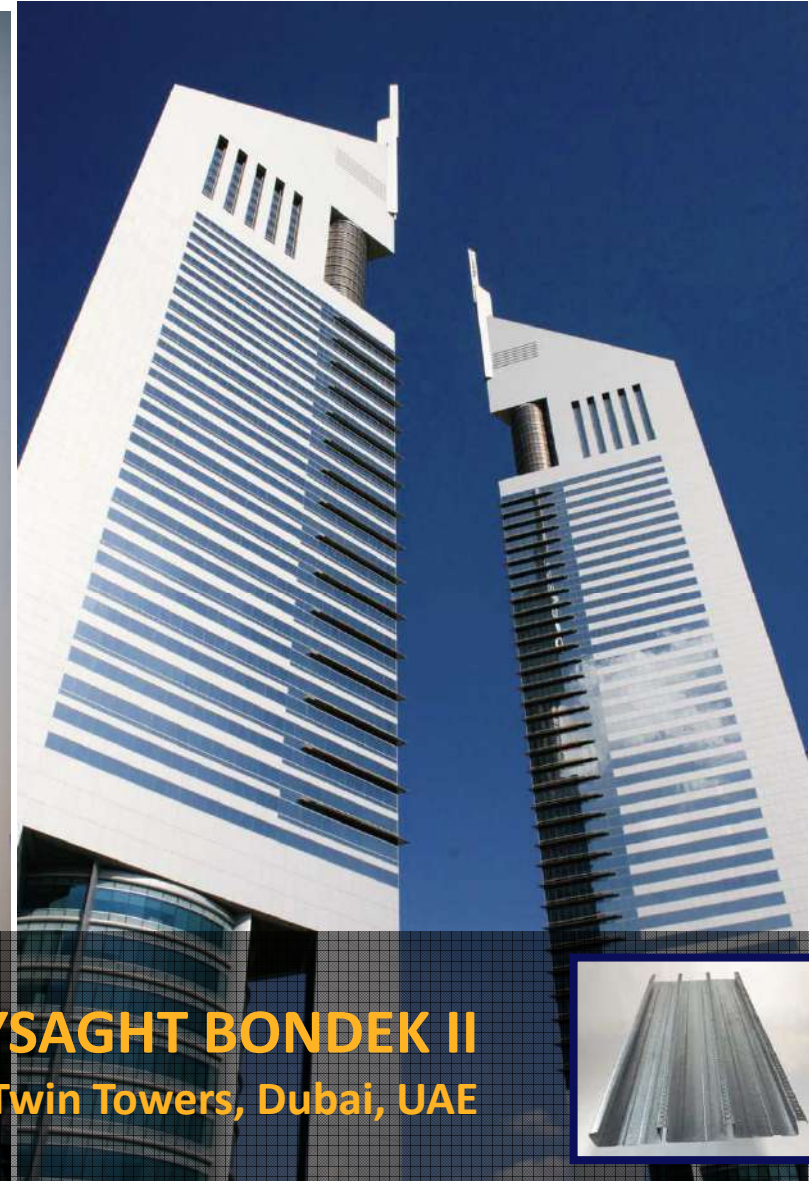


**LYSAGHT BONDEK II**  
- Jamarat Bridge, Saudi Arabia





# Structural Decking – Picture



**LYSAGHT BONDEK II**  
- Emirates Twin Towers, Dubai, UAE





# Structural Decking – Picture



**LYSAGHT BONDEK II**  
-Petronas Twin Tower







# HELPING YOU CREATE A BEAUTIFUL WORLD

BlueScope Lysaght has been providing solutions for the world's most demanding developments.



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