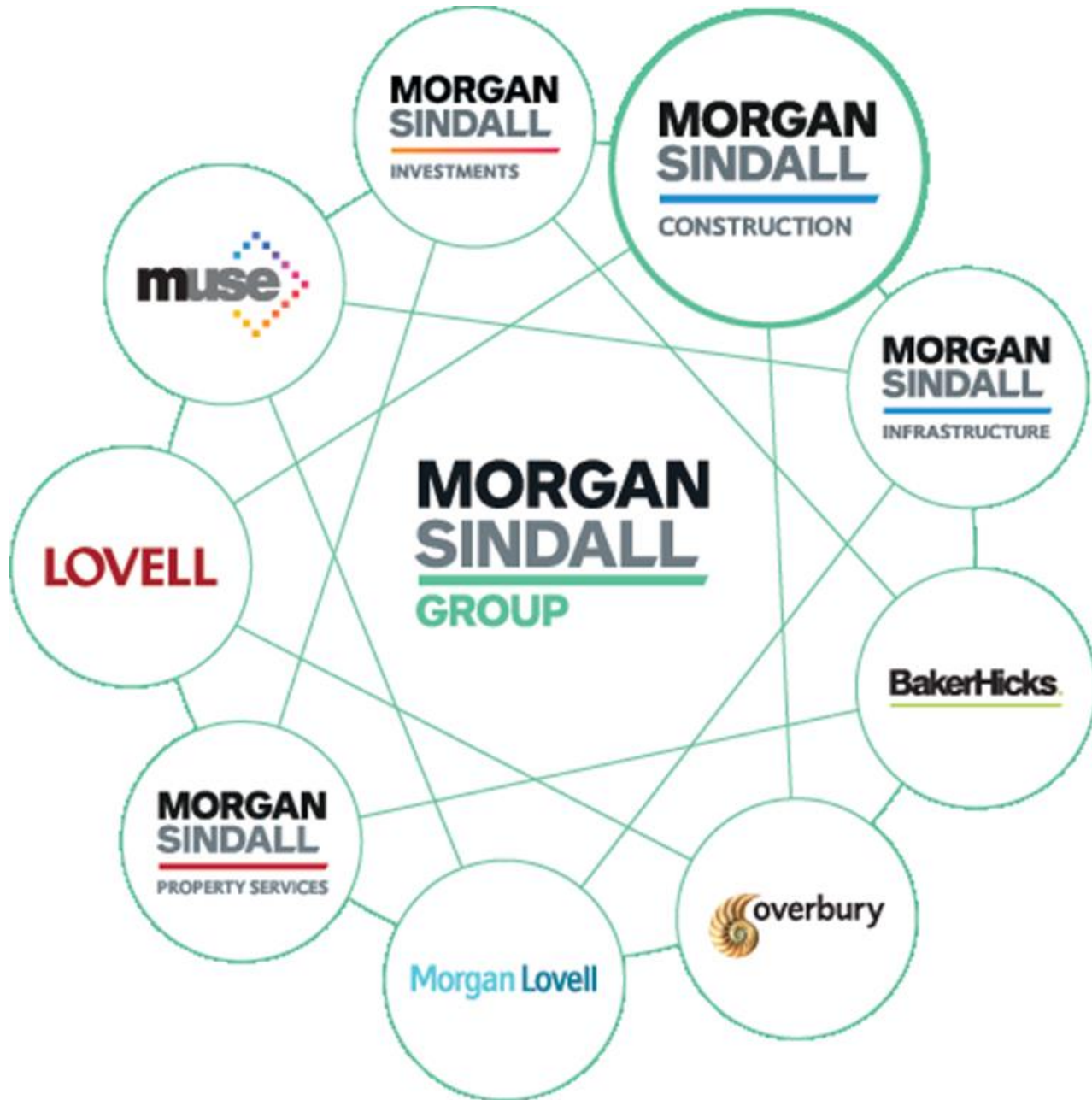




# Safety – A Contractors View

Martin Hall – Safety, Health & Environment  
Director - Date 2022

**MORGAN  
SINDALL**  
CONSTRUCTION



## VISION

To be the most **sought-after** and **sustainable** business in our industry

## VALUES



The customer comes first



Talented people are the key to our success



We must challenge the status quo



Consistent achievement is key to our future



We operate a decentralised philosophy

## PURPOSE

To create **inspiring places** that **enhance** the communities in which we all, live, learn, work, play, care and protect





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# My Thoughts and Considerations to achieve

*Everyone has the right to be*

**100% Safe**





## Dropped Objects

A very serious Challenge



## Carbon

Decarbonising Communities



Its not a crane

Misuse of equipment



## Its an Emergency

What and how to rescue an operator

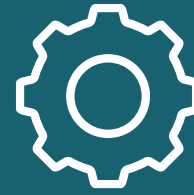
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## Help me Select

The right bit of kit for the task!

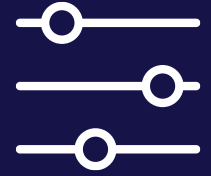
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## Competency

What is competency

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## Charging & Fuel

High risk element

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# Dropped Objects

Everyone has the right to be **100% Safe**

**MORGAN SINDALL CONSTRUCTION**


### Dropped tool from Mast Climber

Whilst hammering fixings into cement board an operative dropped a hammer from a mast climber.

The hammer fell within the site boundary, but into an area where people had been previously that day.

**Learnings**

- Mast climbers present an increased risk of dropped objects as tools/materials are regularly held outside the basket.
- Tool tethering could have prevented this tool from falling
- The tool fell into a place of danger. Exclusion zones could have been better managed, access was easily gained via red hoop gates.



Not a Morgan Sindall project – I was supporting another sector of MS Group



Roof repair after object bounced through the adjacent building

Shuttering fork drop from approx. 18 stories, landed on concrete reinforced open gully

# Dropped Objects Impact Force!

		Weight of Dropped Object									
		0.5 kg (1 lbs)	0.9 kg (2 lbs)	1.4 kg (3 lbs)	1.8 kg (4 lbs)	2.3 kg (5 lbs)	2.7 kg (6 lbs)	3.2 kg (7 lbs)	3.6 kg (8 lbs)	4.1 kg (9 lbs)	4.5 kg (10 lbs)
Drop Height	91 m (300 ft)	197 kg (434 lbs)	393 kg (867 lbs)	590 kg (1,301 lbs)	787 kg (1,735 lbs)	983 kg (2,168 lbs)	1,183 kg (2,608 lbs)	1,377 kg (3,036 lbs)	1,574 kg (3,469 lbs)	1,770 kg (3,903 lbs)	1,967 kg (4,337 lbs)
	61 m (200 ft)	161 kg (354 lbs)	321 kg (708 lbs)	482 kg (1,602 lbs)	642 kg (1,416 lbs)	803 kg (1,771 lbs)	964 kg (2,125 lbs)	1,124 kg (2,479 lbs)	1,285 kg (2,833 lbs)	1,446 kg (3,187 lbs)	1,606 kg (3,541 lbs)
	46 m (150 ft)	139 kg (307 lbs)	278 kg (613 lbs)	417 kg (920 lbs)	557 kg (1,227 lbs)	695 kg (1,533 lbs)	835 kg (1,840 lbs)	974 kg (2,147 lbs)	1,113 kg (2,453 lbs)	1,252 kg (2,760 lbs)	1,391 kg (3,067 lbs)
	30 m (100 ft)	113 kg (250 lbs)	227 kg (501 lbs)	341 kg (751 lbs)	454 kg (1,002 lbs)	568 kg (1,252 lbs)	681 kg (1,502 lbs)	795 kg (1,753 lbs)	909 kg (2,003 lbs)	1,022 kg (2,253 lbs)	1,136 kg (2,504 lbs)
	15 m (50 ft)	80 kg (177 lbs)	161 kg (354 lbs)	241 kg (531 lbs)	321 kg (708 lbs)	401 kg (885 lbs)	482 kg (1,062 lbs)	562 kg (1,239 lbs)	642 kg (1,416 lbs)	723 kg (1,593 lbs)	803 kg (1,771 lbs)
	6 m (20 ft)	51 kg (112 lbs)	102 kg (224 lbs)	152 kg (336 lbs)	203 kg (448 lbs)	254 kg (560 lbs)	305 kg (672 lbs)	356 kg (784 lbs)	406 kg (896 lbs)	457 kg (1,008 lbs)	508 kg (1,120 lbs)
	3 m (10 ft)	36 kg (79 lbs)	72 kg (158 lbs)	108 kg (238 lbs)	144 kg (317 lbs)	180 kg (396 lbs)	215 kg (475 lbs)	251 kg (554 lbs)	287 kg (633 lbs)	323 kg (713 lbs)	359 kg (792 lbs)
	2 m (6 ft)	28 kg (61 lbs)	56 kg (123 lbs)	83 kg (184 lbs)	111 kg (245 lbs)	139 kg (307 lbs)	167 kg (368 lbs)	195 kg (429 lbs)	223 kg (491 lbs)	250 kg (552 lbs)	278 kg (613 lbs)
		Serious			Severe				Fatal		

The average hammer weighs 0.5Kg and would have an impact force of 51Kg if dropped from just 6m, potentially causing serious injury. A 1.75Kg cordless drill dropped from the same height would have a force of around 200Kg

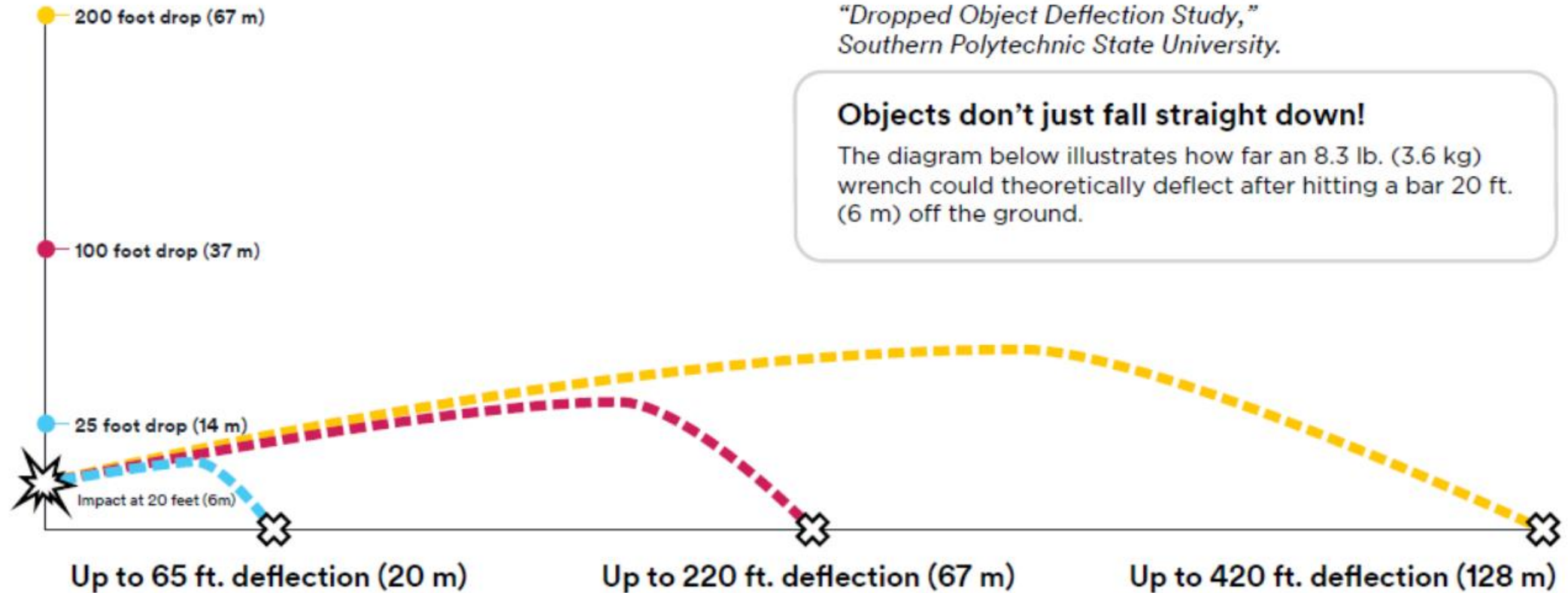


# Falling Object Deflections

*"Dropped Object Deflection Study,"  
Southern Polytechnic State University.*

## Objects don't just fall straight down!

The diagram below illustrates how far an 8.3 lb. (3.6 kg) wrench could theoretically deflect after hitting a bar 20 ft. (6 m) off the ground.





## MEWPS

For all MEWPs the following must be implemented to prevent materials and tools from being dropped:

- Focus on containment of equipment within the basket – the basket is not designed for storage of tools and materials:
  - such as SkyScreen basket protection (See image right)
- Use of proprietary handling equipment for MEWPs such as:
  - pipe cradles
  - panel or board carrier
  - cladding brackets

**REMEMBER** that any accessory added to a MEWP will have an impact on the wind rating – always check with the provider



Innovation to reduce risk

## MEWPS

Tool tethering is mandatory when working within any MEWP where the platform is at a height of 2m or more.

In addition to tool tethering, small tools and materials, such as fixings must be secured, solutions such as those below should be considered.

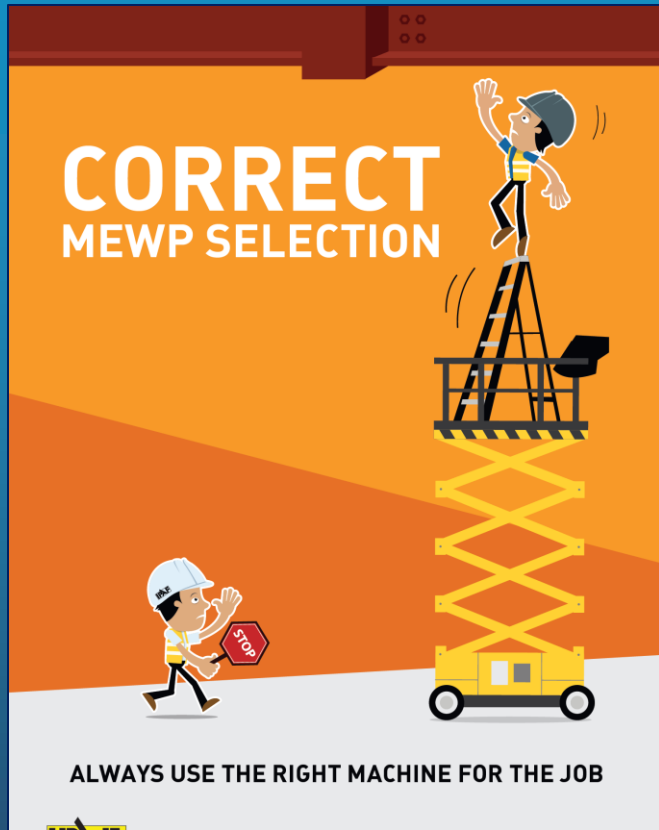
- MEWP tool bags
- Tool pouches



Exclusion Zones must be in place around all MEWP operations to a 5:1 ratio based on the operating height and radius of the basket?



# Selection and industry support



Selection of the correct bit of kit is fundamental to the safe and efficient delivery of the task.

MEWP Master Class

**Nationwide Platforms**  
A **LOXAM** Company

**BlueSky Solutions**  
A **LOXAM** Company



**SkyRak®**  
Material Handling Attachment

SkyRak® is a lightweight material handling attachment designed to work with a wide range of materials.

**SkySentry®**  
Reducing costs and improving safety

**SkyRakPlus®**  
Material Handling Attachment

SkyRakPlus® is a lightweight material handling attachment designed to carry a wide range of materials on large scissor Mobile Elevating Work Platforms (MEWPs).

**Features**

- Holds materials securely
- Removes material weight from handrails
- Materials held close to working area

**Benefits**

- Reduces risk of materials falling from height
- Reduces handrail damage
- Complies with HSE regulations
- Improves productivity and reduces manual handling
- Clear deck

**Nationwide Platforms**  
A **LOXAM** Company

0345 745 0000  
nationwideplatforms.co.uk

**SkyScreen™**  
Innovation in Safety

**SkySiren®PCS™**  
Booms  
Intelligent Secondary Guarding

**SkySiren® for scissiors**  
Secondary guarding

SkySiren® for scissiors is an industry-first secondary guarding solution designed to reduce the risk of injury from crushing on scissor type Mobile Elevating Work Platforms (MEWPs).

**Harness ON Intelligent Anchor Point™**

The world's first MEWP innovation designed to actively ensure an operator is connected to an anchor point

The Harness ON latch plate **MUST** be connected to the Harness ON Intelligent Anchor Point to enable all MEWP functions

If an operator can't get to height, they can't fall from height

- Reduces the risk of falling from the MEWP - one of the highest causes of death (IPAF Global MEWP Safety Report 2020)
- MEWP will only operate when the operator is connected to an approved manufacturer's anchor point (specific lanyard required)
- No change to operator behaviour
- Specific lanyard requirement
- Simple to implement as company minimum standard
- Reassurance that an operator is connected to an anchor point when a MEWP is in use

**Product Benefits**

**Reduces the Risk of Falls**  
Through a fixed connection to the MEWP when operating

**Reduces Lost Time**  
Avoidance of operators being removed from site through non-compliance

**Compatibility**  
Can be fitted to all MEWPs with a harness anchor point

**Supports Best Practice**  
Promotes safer working standards through best practice

**Nationwide Platforms**  
A **LOXAM** Company

Contact our National Contact Centre for more information:  
**0345 745 0000 option 1**  
harnesson@nationwideplatforms.co.uk



Equipment Abuse



Utilisation of the MEWP as a harness point during deliveries was immediately stopped.

**DON'T USE A MEWP AS A CRANE!**

MEWPS ARE DESIGNED TO ELEVATE PEOPLE, TOOLS & EQUIPMENT INSIDE THE WORK PLATFORM

**IPAF**  
THE WORLD AUTHORITY IN POWERED ACCESS  
Download free posters at [www.ipaf.org/andyaccess](http://www.ipaf.org/andyaccess)  
Tel: 44 900 747 1100 2-400





# Emergency Preparedness



## Summary

- Still lots of machines coming out to our projects without basic safety equipment
- Many users still have a misunderstanding of the risk of entrapment – “These are qualified operators” (secondary guarding not fitted)
- We are working to ensure that dropped objects are well considered, including properly designed exclusion zones.
- The organisations I am working with are key to 100% Safe.
- Innovation from the industry is excellent.
- *'I don't know what I don't know until you try and sell it to me'*





*Everyone has the right to be*

**100% Safe**



Safe  
places



Safe  
choices



Safe  
relationships



Safe by  
design



Safe  
lives