



## The Project

- Provide access to 130+ bents and mid spans
- Over 500 scaffolds now erected
- Massive single scaffold project

## The Project from a scaffolding viewpoint

- Massive volume of materials 400 miles of scaffold tube, 500,000 scaffold fittings, 80,000 scaffold boards, 4,000 alloy beams.
- Average of 45 CISRS directly employed, trained and competent scaffolders employed over a 12 month period, 100% erecting for period to date.
- Supervision ratio of 1 Non-working Supervisor to up to 12 scaffolders.
- Logistics a major challenge, getting the materials to site, distributed along tow paths etc

## The Accident

- On 20<sup>th</sup> September at 2.10pm Mark Edwards fell 3.8m from a birdcage scaffold and sustained life changing injuries
- The critical injury was the fracture of 2 vertebrae. He will be paralysed for life and wheelchair bound
- One moment a fit 56 year old father of 3, ex soldier scaffolder of 30 years, next paralysed and entirely dependant on other

## Why did the accident happen?

- Operative not clipped on bending down to pick up a board and lost his balance
- Supposition is that he believed he was in a safe environment. Most basic of structures, already erected 100 out of 120.

So a SG4 non compliance

- Violation or error?

## What has the investigation shown?

- All basic compliance in place
  - Trained and experienced
  - Supervision levels (Lyndon and BMV)
  - Designed structure
  - POWRA and RAMS all signed in place
  - Paper trail is all in place
- Culture and supervision
  - A number of new men brought to site to meet programme
  - SG4 toolbox talks, men removed from site
  - Active monitoring non compliance from BMV and client team
  - By July settled team working as wanted

## What steps have we taken? – Immediate aftermath

- Detailed safety action plan drawn up covering investigation and ways to prevent reoccurrence. Some of the highlights
  - Beyond Zero training for everyone
  - Bow tie exercises
  - Supervisors course
  - Independent review of scaffold
  - Chargehand to be identified in each gang
  - Trial different lanyards
  - Revise RAMS
  - Support from BMV

## What are the next steps we have taken?

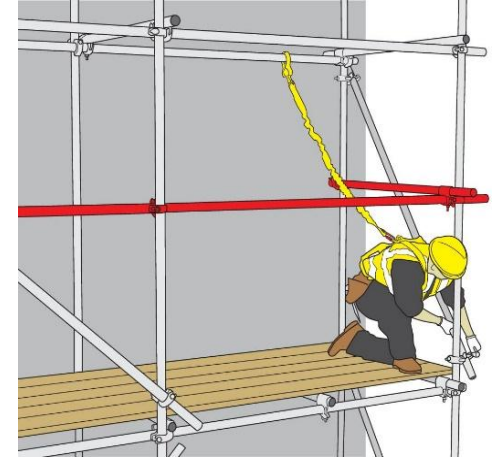
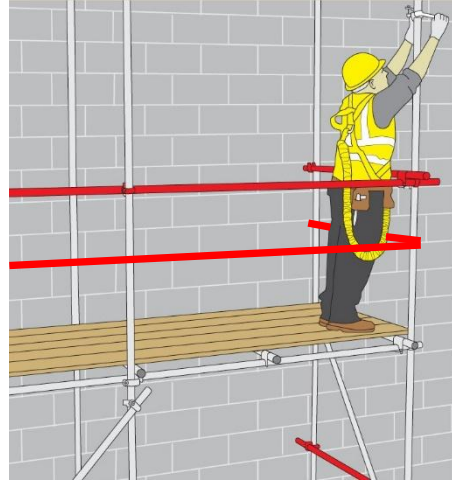
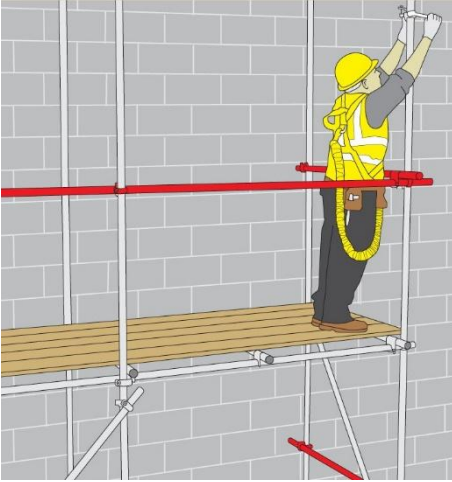
- Fall into two categories , technical and psychological
- Technical being to do with how we erect the scaffold
- Psychological aimed at improving behaviours
- Technical typically easier to adopt and to mandate as part of 'raising the bar'

## Next steps – technical

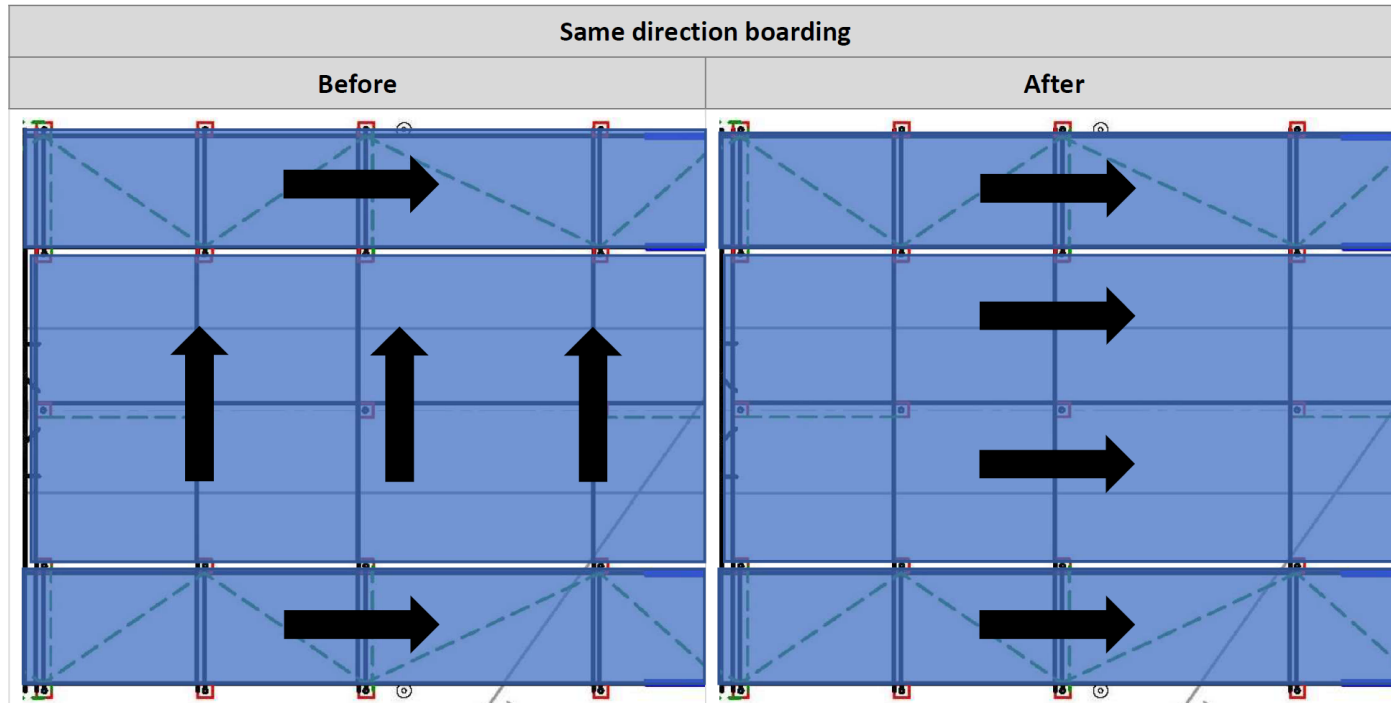
The goal is to raise the bar, all adopted by BMV

- Recognised that these suggestions would not have prevented the accident but they may stop future incidents
  - Double handrails in place before unclipping
  - Boarding method of birdcages
  - Retractable lanyards
  - Fit for work medicals
  - Revise RAMS
- Lyndon Scaffolding now adopted this on all HE projects





- Changing the clipping on protocol to go over and above what is required by SG4
- Mandate the requirement to be clipped on until the double guardrails are fixed
- Reduces exposure time to not being clipped on



- Boarding methodology, does not remove the need to clip on
- It does though make the work process more methodical
- Fully boarding birdcages would reduce the need to clip on, an investment. Is it an option HE would like to consider?



Fully boarding would be a major undertaking on future works

Could it be something HE considers especially on lower level jobs?

Early involvement would allow consideration



- Change lanyard from single fall arrest lanyard
- Twin retractable lanyards offer more options for protection
- Can remain attached in all circumstances removes 'excuse' for not clipping on

## Next steps - can we improve behaviour?

- Employed a psychologist to discuss with a significant number of scaffolders 'why don't they clip on?'
- Some of the findings and next steps can be uncomfortable for clients used to a standard approach
- Not a question of simply trying to raise awareness of risk as falls are very rare
- We are focusing only we can do. We are taking into account that the environment includes certain elements of behavioural training. Not trying to replicate

## What were the findings and what are we doing?

- Does everyone know the rules?
  - Most simple of all questions, always someone else!
  - Producing a video learning module and a test. Compulsory for all employees
  - Will make available to wider industry and clients.
- Are we managing non compliance?
  - Has been black and white, needs to be more nuanced
  - Are we being honest?
  - Involving the team, mentoring and coaching
  - Not being clipped on is near miss
  - Rolling out new training and disciplinary process for management to implement

## What were the findings and what are we doing?

- Where's the jeopardy?
  - May seem perverse given circumstances
  - View is the worst thing that can happen is sack but lots of work. Even less control of subcontractors
  - Issues left for supervisor and senior management, the men recognise this
- Time consuming, slows them down
  - This is not true and we can prove it
  - Education process to kill this perception and excuse
- Where's the recognition of good behaviour?
  - Are we learning from compliance?
  - Recognising, rewarding and thanking



## What is the end point?

- Small scaffold teams need to be self policing
  - Recognise that they cannot be man marked
  - Some behaviours to become unacceptable, others habit
- Tools and methodology need to be as safe as possible
  - Mainly technical issues
  - HE to raise the bar, needs clear 'scaffolder' friendly document
- Is there a way to make things safer by design?
  - May be some advantages from early involvement with HE

HE to set up committee to find ways to raise the bar specifically for scaffolding. Lyndon very happy to work on this team.