

# **AOSH** Bristol 09<sup>th</sup> March 2023

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# Introduction



- Overview/Context – Statistics
  - Accidents/ill health
- MAC tool overview
- Lorry Loader safety
- Welfare
- Really?
- The Plan/Questions

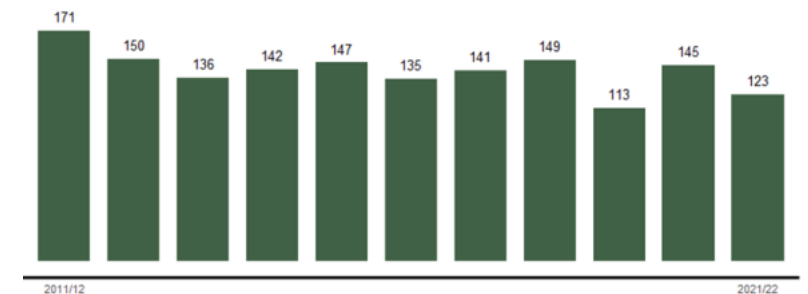
# Overview - statistics

- Broadly numbers returned to levels seen pre covid with flat lining of the trends
  - Fatalities generally down but tends to fluctuate so average trend maintained
  - Slightly above average for the SW



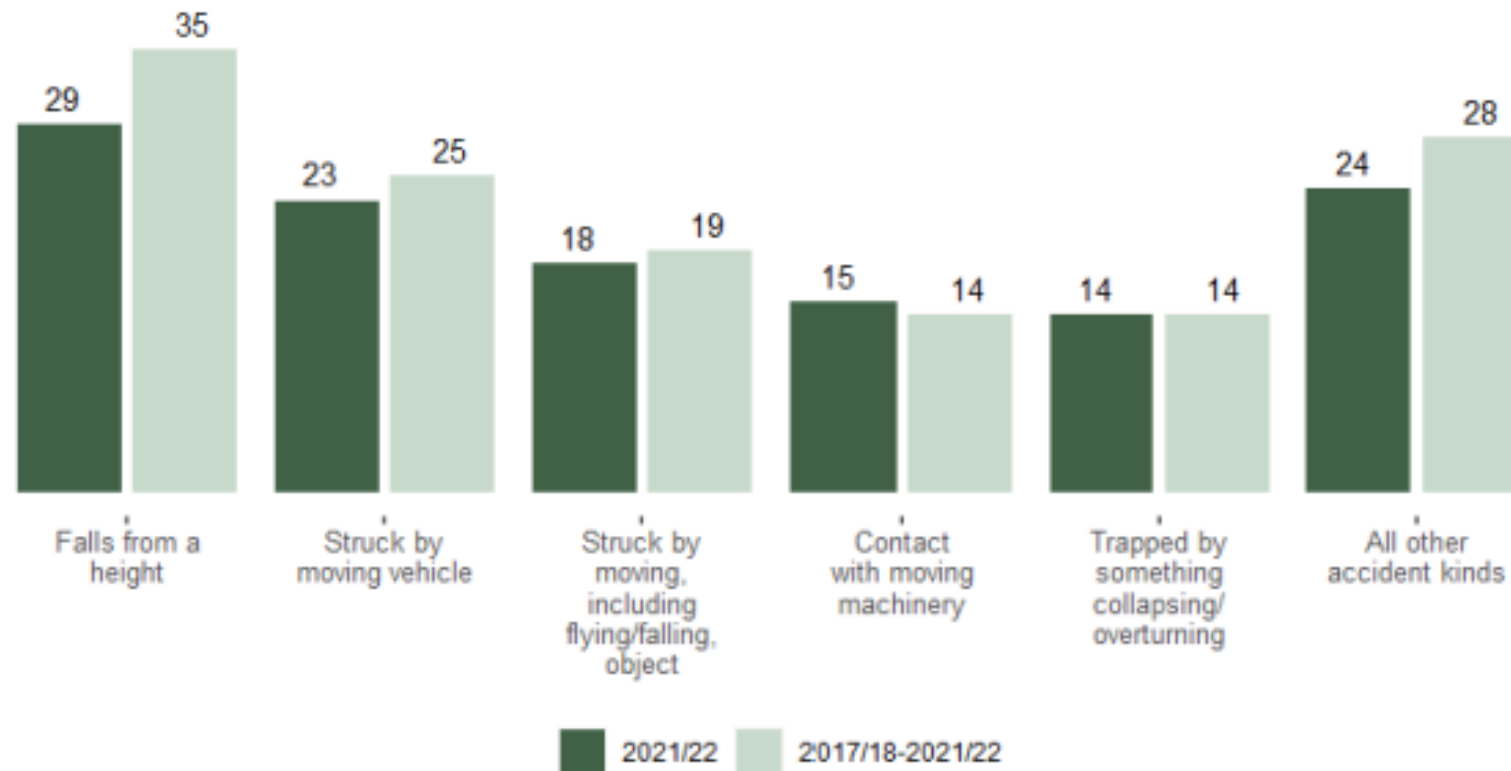
## Headlines – fatalities (all industry)

- In 2021/22 there were:
  - 123 workers killed
    - 22 down but broad number average is flat
    - 30 Construction - below average (36)
  - 80 Members of the public
    - Above previous low of 63
    - Construction 5
  - 565000 non fatal injuries
    - Of which 61713 reported by employers....



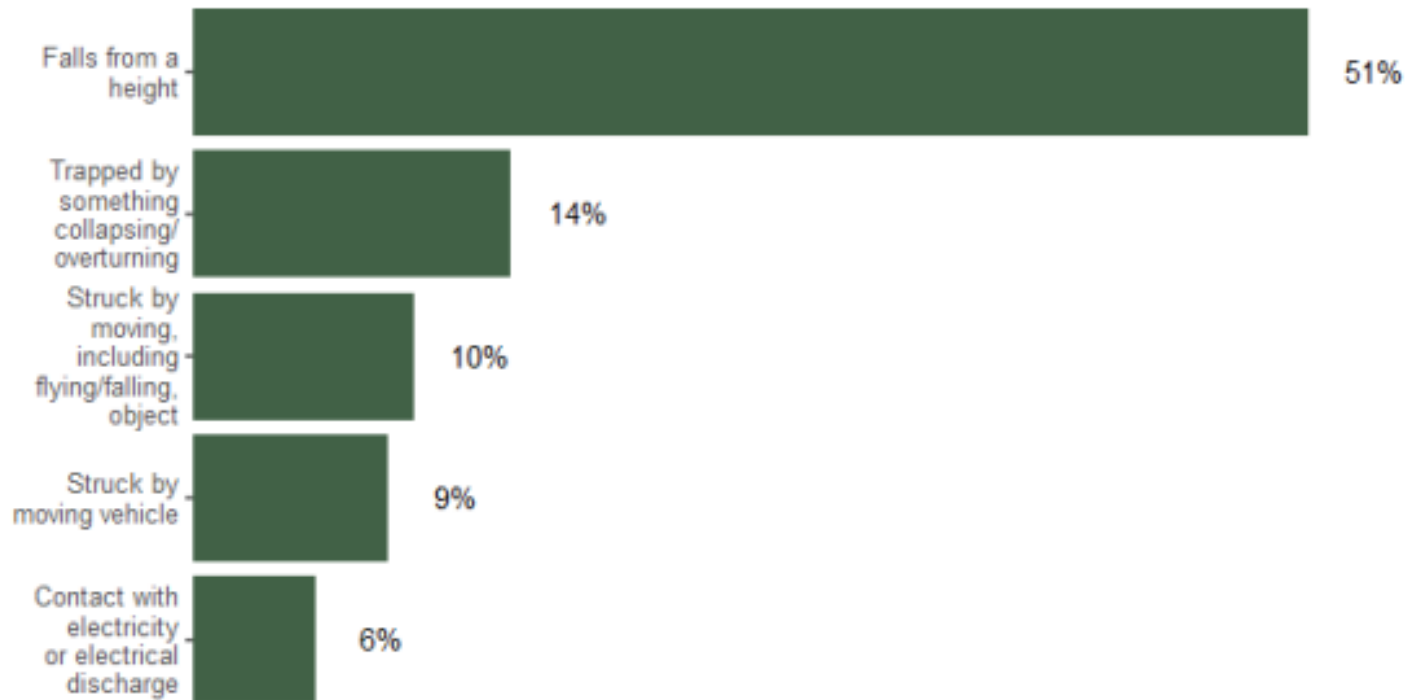
# Fatals – All industry by Incident

- No change in the trend yet again other than the numbers!



# Fatals – Construction by Incident

- Again a familiar picture which reflects the nature of the Industry



## Health - Construction

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- 78,000 Ill health cases (new and pre-existing)
- Slightly up but trend is flat
  - Showing limited signs mental health increase but still under industry average
- MSD's still high – 53% of sector figures
  - 25% of reported over 7 day injuries
  - Around 2% of workforce (1.1% all industry average)

## Health campaign

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- Autumn 22 manual handling campaign
  - 1125 inspections
  - Nearly 300 notices
  - 45% NOCs
- Reached 1.1 million social media impressions
- 16000 campaign website views
- 3400 material downloads
- Currently being evaluated but aim was to promote handling issues



# MAC Tool

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- Properly known as Manual Handling Assessment Charts
  - Aka MAC tool
  - Part of a family of tools
    - RAPP – risk assessment of pushing and pulling
    - ART – Assessment of repetitive tasks of the upper limbs
- Simple basis to help start risk assessing manual handling activities

## MAC tool

- Works on the principal of a simple colour code for risks
- Provides a scoring system to help prioritise
- “New” online version available – free single assessment

**G = GREEN - Low level of risk** Although the risk is low, consider the exposure levels for vulnerable groups such as pregnant women, disabled, recently injured, young or inexperienced workers.

**A = AMBER - Medium level of risk** Examine tasks closely.

**R = RED - High level of risk** Prompt action needed. This may expose a significant proportion of the working population to risk of injury.

**P = PURPLE - Unacceptable level of risk** Such operations may represent a serious risk of injury and must be improved.

## MAC tool

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- Covers
  - lifting operations – load/weight frequency, static lift
  - carrying operations – terrain factors
- Gives indicative scores to help prioritise and generic solution ideas
- Provides a basic indicator
  - So limitations such as high frequency lifts
  - Seated lifts
  - Vulnerable worker categories need individual consideration

# MAC tool

- Step1 – select your activity

Select the type of assessment(s) you want to complete: \*Required



Back Next

# MAC tool



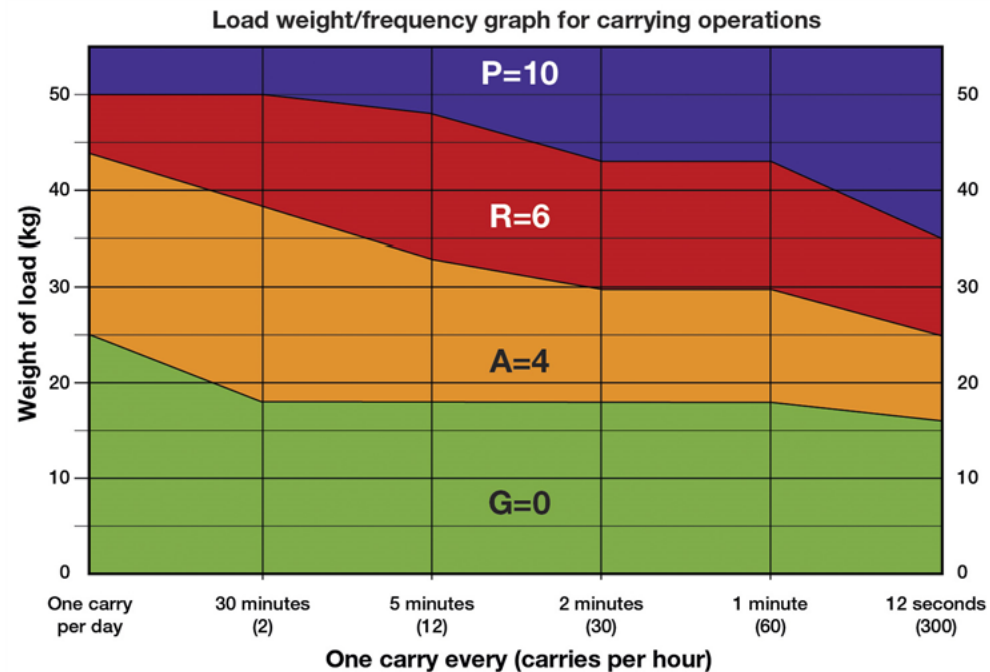
- Weight vs frequency

Load weight/frequency

Note the weight of the load and the frequency (or repetition rate) of the carrying operation.

Select the risk band from the graph below. \*Required

G=Green/Low risk, A=Amber/Medium risk, R=Red/High risk, and P=Purple/Very high risk



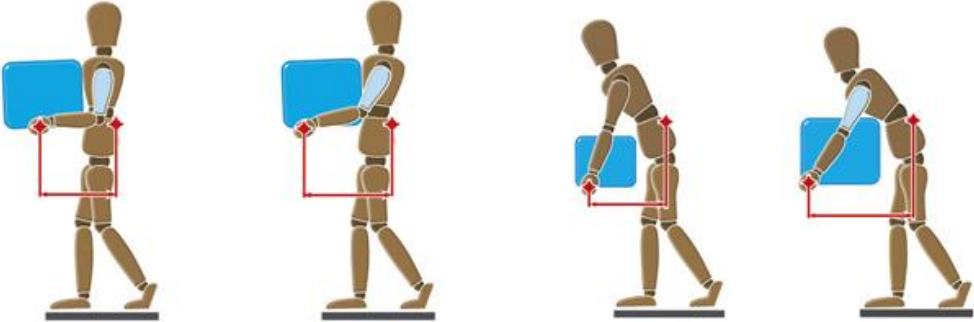
# MAC tool

- Posture

## Hand distance from the lower back

Observe the horizontal distance between the worker's hands and lower back. You should assess the 'worst-case scenario', including the start or finish of the task. Use the following illustrations and descriptions as a guide and select the one which matches your task. \*Required

G=Green/Low risk, A=Amber/Medium risk, and R=Red/High risk



Upper arms vertical AND torso upright	Upper arms angled away from torso	Torso bent forward	Upper arms angled away from torso AND torso bent forward
Hands close to the low back	Hands at moderate distance from the low back	A/3	Hands far from the low back
G/0		R/6	

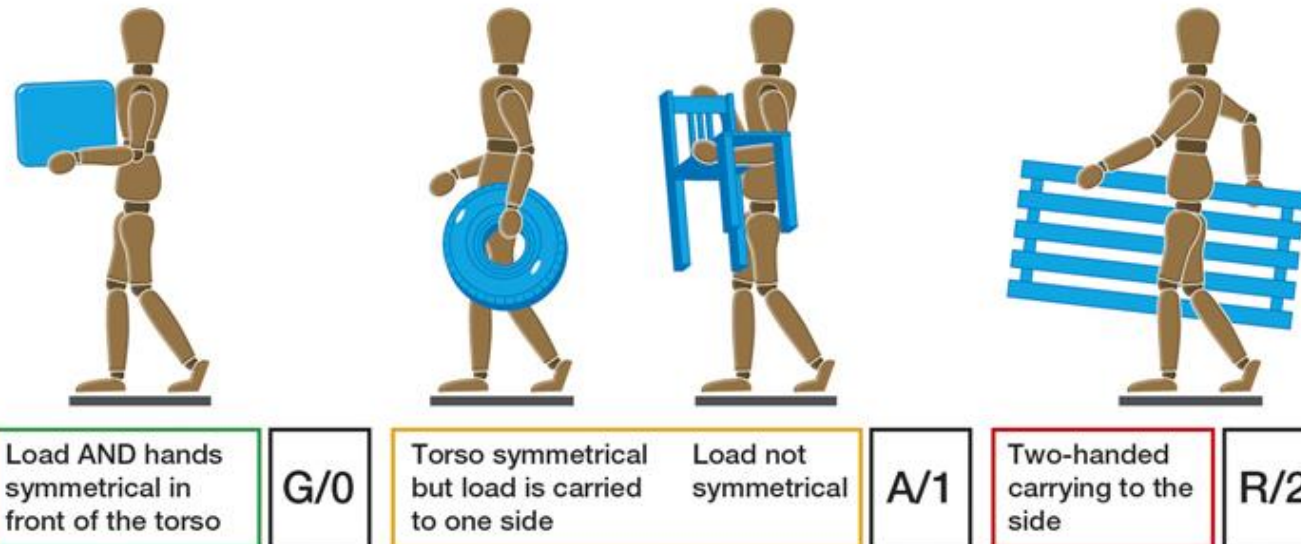
# MAC tool

- Torso load

## Asymmetrical torso or load

When carrying, the posture of the worker's torso and the position of the load are risk factors associated with musculoskeletal injury. Use the following illustrations and descriptions as a guide and select the one which matches your task. \*Required

G=Green/Low risk, A=Amber/Medium risk, and R=Red/High risk



# MAC Tool

- Postural Constraint
  - Access, cramped corners...

## Postural constraints

Look for factors that force workers to modify their postures.

If there are no postural constraints or restrictions on movement during the carry the colour band is Green, the risk is low and the score is 0. If their movements are restricted when carrying (eg a narrow doorway forces the worker to turn or move the load to get through) the colour band is Amber, the risk is medium and the score is 1. If the posture is severely restricted (eg having to bend forward to carry in an area with a low ceiling), the colour band is Red, the risk is high and the score is 3.

Select the one which matches your task. \*Required

No postural constraints	G/0	Restricted posture	A/1	Severely restricted posture	R/3
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# MAC tool



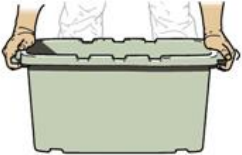







- Grip

## Grip on the load

Look at the quality of the grip that the worker can use to get hold of and control the load. The worker may need to reposition their hands on the object as a lift progresses. If this is so, assess the 'worst-case scenario'.

Select the one which matches your task. \*Required

G=Green/Low risk, A=Amber/Medium risk, and R=Red/High risk

			
Fit-for-purpose handles/handholds matched to the size and weight of the load	Handles or handholds too small or lack finger clearance or only the fingers support the load	No handles or handhold areas	Rough, slippery or with pressure points
			
Cylindrical handles or items the whole hand can wrap round comfortably	No handles or handholds but can be held underneath, or has strap or loop handles	Palm, pinch or fingertip grip or force used to keep items together	Irregular, bulky or non-rigid
Good grip	Reasonable grip	Poor grip	
G/0	A/1	R/2	

# MAC Tool

- Floor surface
  - Be realistic - housekeeping

## Floor surface

Examine the condition of the floor at the locations where the handling task occurs. Note that for outdoor work this will depend on the weather. Always assess the 'worst-case scenario'.

Select the description which matches your task. \*Required

G=Green/Low risk, A=Amber/Medium risk, and R=Red/High risk

Non-slip, dry, clean, firm, level and undamaged		Mostly dry and clean (damp or some debris), OR reasonably firm OR minor damage		Slippery (greasy, oily, wet, icy) OR debris in several areas OR soft OR unstable OR severe damage	
Good floor surface	G/0	Reasonable floor surface	A/1	Poor floor surface	R/3

# MAC tool



- Distance

## Carry distance

Observe the task and estimate the total distance that the load is carried (not the distance 'as the crow flies').

Select the one which matches your task. \*Required

G=Green/Low risk, A=Amber/Medium risk, and R=Red/High risk

Between 2 m and 4 m	G/0	Between 4 m and 10 m	A/1	Over 10 m	R/2
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# MAC tool

- Obstacles

- Not a school sports day obstacle race but...

## Obstacles on route

Count the number of different types of obstacle along the carrying route.

If there are no obstacles along the route the colour band is Green the risk is low and the score is 0. If the person has to carry the load up or down a steep slope, up or down steps, through closed doors/narrow doorways or around tripping hazards or round bends and corners, the colour band is Amber, the risk is medium and the score is 2. If the task involves carrying items up ladders or past two or more obstacles, the colour band is Red, the risk is high and the score is 3.

Select the one which matches your task. \*Required

No obstacles AND carry route flat or slopes gently	G/0	One type of obstacle OR steep slope	A/2	Ladders OR at least two types of obstacle	R/3
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# MAC tool

- Environment
  - May be limited what can be done about it or may lead to PPE issues

## Environmental factors

Observe the work environment and score if the carrying operation takes place: in extremes of temperature; with strong air movements; or in extreme lighting conditions (dark, bright or poor contrast). If no environment risk factors are present the colour band is Green, the risk is low and the score is 0. If one of the risk factors is present the colour band is Amber, the risk is medium and the score is 1, if two or more of the risk factors are present the colour band is Red, the risk is high and the score is 2.

Select the one which matches your task. \*Required

No factors	G/0	One factor	A/1	Two or more factors	R/2
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# MAC Tool

- Scores on the doors..
  - Does provide some ideas for solutions as well

## Carrying operations scores

Risk factors	Colour band	Numerical score (for comparison)
Load weight/frequency	RED - HIGH RISK	6
Hand distance from the lower back	AMBER - MEDIUM RISK	3
Asymmetrical torso or load	GREEN - LOW RISK	0
Postural constraints	AMBER - MEDIUM RISK	1
Grip on the load	RED - HIGH RISK	2
Floor surface	AMBER - MEDIUM RISK	1
Carry distance	RED - HIGH RISK	2
Obstacles on route	RED - HIGH RISK	3
Environmental factors	AMBER - MEDIUM RISK	1

# Lorry Loader Safety

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- Number of fatalities on lorry loaders with swing up stabilisers
  - Occurring when packing up
- Issue with position of controls leading to creation of crush risk
  - Capable of multiple operations at once
- Sequence of works critical
- Retrofits available and Tier 1 contractors ban on site using the if not fitted

# Lorry Loader safety

Operator stowing swing-up stabiliser using levers at the crane base



Location of levers at the crane base





# Welfare

- New Operational Guidance published
  - Internal guidance but externally available  
<https://www.hse.gov.uk/foi/internalops/og/og-00002.pdf>
- Reinforces Hierarchy
  - Water Closet flushing to drainage
  - Water Closet flushing to collection facility
  - Chemical Closet – the automatic choice???
    - 1 per 7 persons
- Provision of facilities for ladies sanitary products

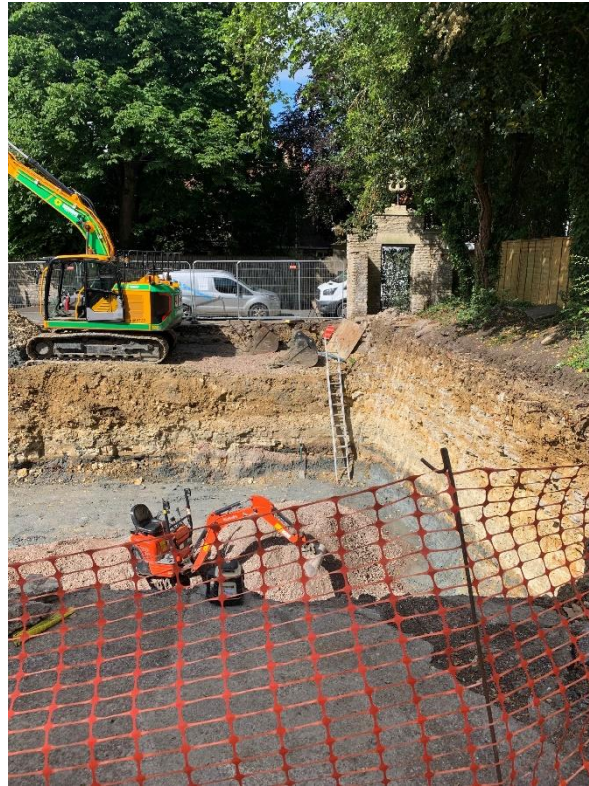
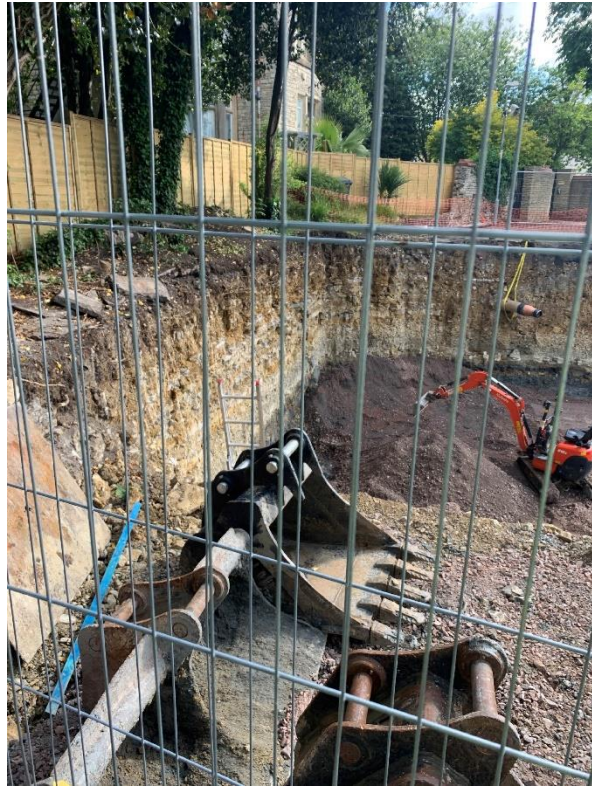
- Running hot water
  - Clear distinction between general washing and food preparation facilities
  - *in the immediate vicinity of every sanitary convenience, whether or not also provided elsewhere;*
  - *...draw a distinction between general washing and those facilities provided to ensure that meals can be prepared and eaten... food preparation requirement is incompatible with the contaminants being removed from toilet and construction work related activities....The two are essentially separate and require separate washing provisions for different purposes.*

# Welfare

- How far is too far?
  - 5 min van drive to facilities?
  - 2 min walk to local café?
  - 200m across site?
  - 500m across site?
  - 5 min walk across site?



# Really?



# Really?



# Really?



# The Future?

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- Plodding on!
  - Spring Respiratory risk campaign
  - Autumn handling campaign
    - These may be spread across different times depending on area
  - Asbestos campaign for trades due to launch
    - Sampling asbestos surveys
- Proactive inspection
  - Re cladding inspections
  - Client track back – welfare?
  - Asbestos visits
- Estimated 2000 complaints
- Reactive work – ongoing estimate of 100+ fatal investigations

# The Future?

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- Thank you for Listening
- Questions?

Ian Whittles

HSE