

PDWG Task Group – Safety Shares

Summary on a page

Purpose of the Meeting –

- to review draft shares that have been developed, to get them to finalise/publish state
- to review status of other draft shares that have been potentially identified.

Attendees

- Martin Partington (Jacobs) - Chair
- Doug Potter (Arcadis)
- Sophie Gwynne (Arcadis)

Attendees

- Rob Butcher (Jacobs)
- Stuart Dawes (National Highways)
- Tim Goddard(Arcadis)

Apologies

- Jim Gallagher (National Highways)
- Paul Brown (WSP)

Meeting Summary -

- The group agreed after discussion to not split out a further Designing for Maintenance sub-group, as the Safety Shares already identified specific issues , that identified designing for maintenance improvement options. Setting up another group would just be duplicating what the safety shares team already does. However the group would keep this in mind in case it was more beneficial to split.
- The group reviewed two more shares:
 - **High Voltage Cables under Construction Areas** – linked this back to PAS 128 and the levels A-D that reduce the risk
 - **Danger to member of public from poor site security** – The link to the alerts database helps raise the profile of what may seem innocuous issues, in this case the statistics identify potential fatality impacts for an activity that is reducing impact on the environment and helping others


Next Meeting: Next meeting on Tues 30th Jan 2024, 2.30-4pm

Other Points:

- Martin has reached out to the YNE Maintenance Community with Andrew Stagg (Premier TM) requesting to join the group.
- Doug is working with the Knowledge Management T&F Group to ensure the Safety Shares and other Lessons learnt can be found when searched. Documents may need metadata identifying to support that.

PDWG Task Group – Safety Shares

Draft Safety Share around high voltage underground cables



HIGH VOLTAGE CABLES UNDER CONSTRUCTION AREA

WLD.0XX

Description of Event

Pavement coring was undertaken close to 2 275kV cables which were unmarked on the utility plans

Population at Risk

Construction and Maintenance Workers

Hazardous Activity and Residual Risk Description

- Construction Workers on site were exposed to the serious risk of being electrocuted or damaging equipment and the potential of doing so has an assessed risk of an almost certain likelihood of potentially multiple fatalities.
- Coring was undertaken within 1m of high voltage cables which had not been identified by the design team during the pre-construction phase or construction team once site.

Potential consequences of this event

- HSE reported that yearly there are over 1000 received injuries with 30 being fatal.

Safety Hub Alert Database

- Sub-category 1 Electrical Safety with Sub-category 2 Electrocution and sub-category 2 Unsafe Act/Condition has 19 incidents with 4 fatality and 7 injuries.




Photo of Plans for the Cores with Nation Grid cables (Purple) added.

Potential Mitigation Measures

Design

- Always follow the NRSWA procedures for Utilities identification.
- Make sure that utilities packs are properly prepared during the planning and design phase and comprehensive pre-construction information gap analysis is undertaken.
- Where possible undertake site investigation, in advance of construction activities, to obtain missing Statutory Undertaker information.
- Hazard triangles should always be located on drawings and within 3D models with reference to PAS 128.

Construction


- Safe Systems of Work including scanning and trial holing should always be undertaken before any invasive works are carried out.

Maintenance / Operations

- When receiving as-built information as part of project Handover ensure the information has been reviewed and checked by the Principal Designer and Principal Contractor prior to transferring to the H&S File and databases.
- As-built records should always be checked in-line with the NRSWA procedures.

Further Guidance and Reading

- [RtB 9](#) – Utility Avoidance
- [RtB 26](#) – Safety by Design
- [NRSWA Act](#)
- [PAS 128](#) – Specification for underground utility detection
- [NUAR](#) -



Please send ideas for Whole Life Design safety shares to wellbeing@nationalhighways.co.uk

LEAN

Material

Alternative

Reduced

Alternative

Reduced

Reduced

Reduced

Reduced

Improved end user


Reduced Activity

Reduced

Reduced Reportable

PDWG Task Group – Safety Shares

Draft Safety Share around endangering members of the public and site security



DANGER TO MEMBER OF THE PUBLIC– POOR SITE SECURITY

WLD.0XX

Member of the Public collecting timber from the access ramp on an active site

Population at Risk

Member of the Public, Workers Entering Site

Hazardous Activity and Residual Risk Description


- A Member of the Public (MoP) was observed on site collecting material being stored on an access ramp. As they were unsupervised, there was the potential for them to be injured or struck by a vehicle using the access ramp, which has an assessed residual risk of and almost certain likelihood of severe harm.
- Additionally, should an incident occur on-site, the MoP may be placed in further danger as they were not accounted for, had not been given a site induction and were not wearing appropriate PPE.

Potential consequences of this event

- HSE reported that in 2022/23 - 68 MoP were killed in work related incidents.
- MoP could have been seriously injured whilst accessing site without the awareness of the site team to provide assistance.

Safety Hub Alert Database


- Category 1 Security with Sub-category 1 MOP and sub-category 2 Unsafe Act/Condition has 4 incidents with 2 fatalities and 1 injury.



Potential Mitigation Measures

Design

- Potential access locations should be considered during design development and concerns captured within the pre-construction information.
- Construction sites should be secure at all times, and the Principal Contractor should be made aware of those specific areas of concern, and particularly issues locally which may lead to the increased risk of trespass e.g., schools, or proximity to residential areas, which may make it more likely for people and particularly children to enter the site unsupervised.



Construction

- The Principal Contractor is specifically required under the CDM Legislation to ensure sites are secure and measures are put in place to prevent trespass.
- The Principal Contractor should set out their site security measures within the Construction Phase Plan and undertake regular inspections of the site to ensure that security measures are maintained in good condition with construction materials properly stored in areas away from sight.
- All incursions should be reported on HART.

Maintenance / Operations

- The maintainer should ensure that all security measures are kept in good order and that maintenance depots or specific infrastructures assets are adequately fenced.

Further Guidance and Reading

- [B23 – Site Inductions](#)
- [B27 – Managing Incursions](#)