NH PDWG

Refresh discussion.
Call to minimise risk in gantry access:

March 2022

Personal pride in our public service

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amey

To cover

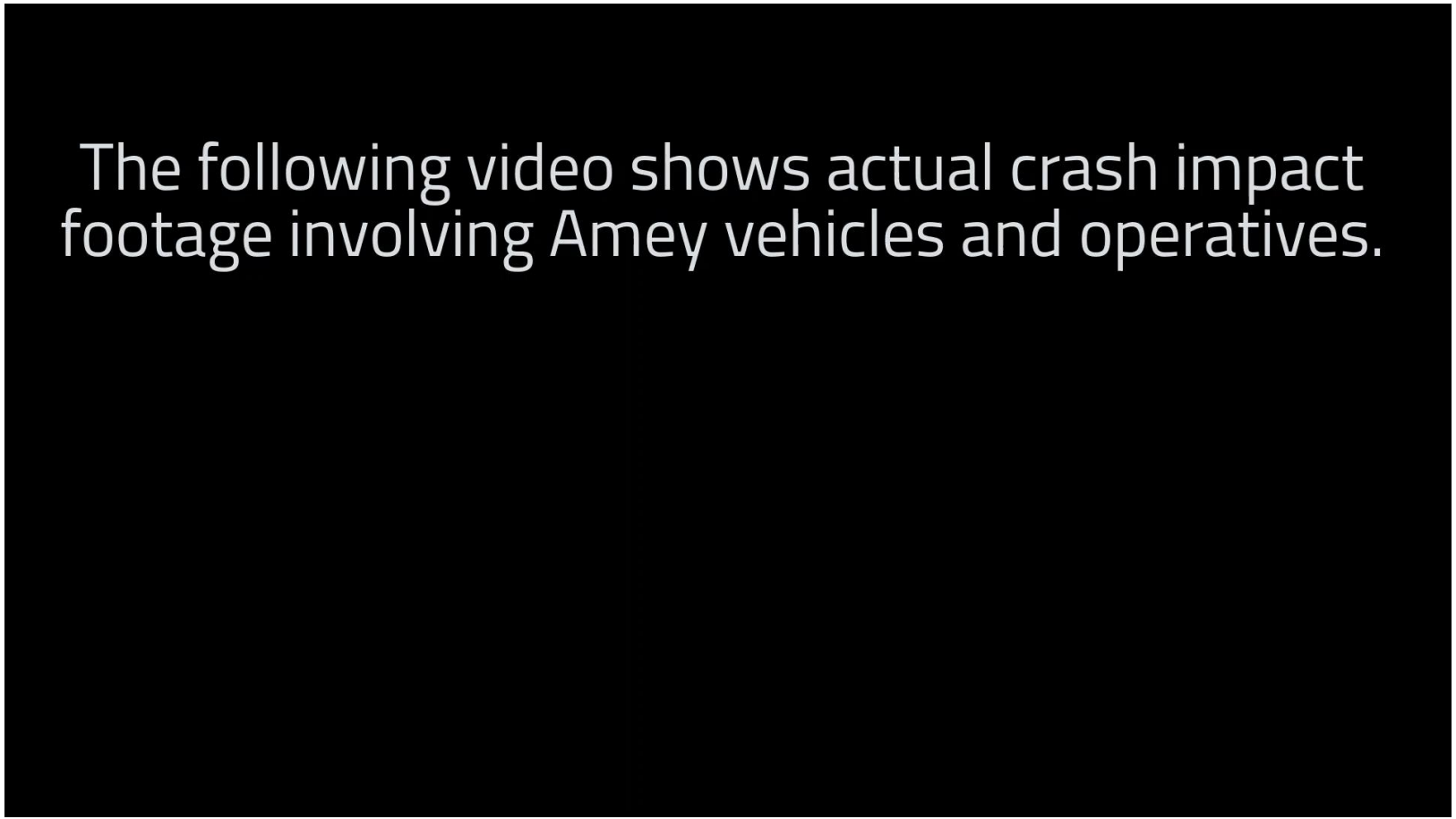
- So what?
- What has been concluded
- What information do you need from us?
- What are we asking for

So what?

Two of the significant fatal and serious injury hazards that Amey and the industry are focussed on.

- MEWP operation under structures and in shared road space
- Adjacent high speed traffic.

So what?



https://www.youtube.com/watch?v=6gEHu-aWLAw

Designers' duty

Status: This is the original version (as it was originally made).

Duties of designers

9.—(1) A designer must not commence work in relation to a project unless satisfied that the client is aware of the duties owed by the client under these Regulations.

(2) When preparing or modifying a design the designer must take into account the general principles of prevention and any pre-construction information to eliminate, so far as is reasonably practicable, foreseeable risks to the health or safety of any person—

(a) carrying out or liable to be affected by construction work;

(b) maintaining or cleaning a structure; or

(c) using a structure designed as a workplace.

(3) If it is not possible to eliminate these risks, the designer must, so far as is reasonably practicable—

(a) take steps to reduce or, if that is not possible, control the risks through the subsequent design process;

(b) provide information about those risks to the principal designer; and

(c) ensure appropriate information is included in the health and safety file.

(4) A designer must take all reasonable steps to provide, with the design, sufficient information about the design, construction or maintenance of the structure, to adequately assist the client, other designers and contractors to comply with their duties under these Regulations.

Principal Designers' duty

(3) In fulfilling the duties in paragraph (1), the principal designer must identify and eliminate or control, so far as is reasonably practicable, foreseeable risks to the health or safety of any person—

(a) carrying out or liable to be affected by construction work;

(b) maintaining or cleaning a structure; or

(c) using a structure designed as a workplace.

Asset owners' duty

(2) It shall be the duty of each person who has, to any extent, control of premises to which this section applies or of the means of access thereto or egress therefrom or of any plant or substance in such premises to take such measures as it is reasonable for a person in his position to take to ensure, so far as is reasonably practicable, that the premises, all means of access thereto or egress therefrom available for use by persons using the premises, and any plant or substance in the premises or, as the case may be, provided for use there, is or are safe and without risks to health.

CD365

9. Design of gantries with permanent maintenance access

9.1 Where the risk assessment in Section 2 identifies a need for permanent maintenance access then the provisions within this section shall apply.

What has been concluded

- There is much gantry access variety across the network without any evident basis.
- A decision is based on design risk assessment the but there is no evident common platform or framework upon which those decisions are based.
- Some evidence that consideration is only of the gantry design, not of the wider environment, parking etc.
- DRAs conclude that access ladder and parking are safest, but then are sometimes removed through “value engineering”
- The initial design assumption was that the signs would be maintenance free; there has been a high failure rate leading to far more maintenance visits than would have been anticipated.
- There is great inconsistency of asset performance and failure rates; suggesting an opportunity to reduce risk.
- There is not failure data analysis to target and inform selection of assets and reduce failure and reactive maintenance frequency.
- On M74 in 2010; 21 gantries were constructed; (where possible) all with hardstanding or access paths.
- Transport Scotland and Southwest Operating Company looked to improve access to the existing overhead gantries by installing hardstanding areas or paths from safe locations. This forms part of the existing sign gantry refurbishment works.
- National Highways surveys are structural integrity; they do not include wider items such as barrier rail hight and pedestrian access.
- Risk of items dropped onto live carriageway has been mentioned as a reason to not provide access; as distinct from the risk designed out

CD 365

9.15 To prevent any items falling onto the carriageway, those parts of the walkway handrail over the carriageway and at least 1.5m beyond the back of the hard-shoulder/ strip or verge shall be infilled with either solid plate or with mesh with openings that will prevent the passing of a ball 5mm in diameter, or a combination of both.

What is being done operationally to mitigate the risk.

- Off network access options noted and added to contract gantry asset databases so engineers know of other options.
- Discussion with National Highways / client to arrange retrospective installation of access from off-network parking.
- MEWP and closures to gain access where access is not available.

What information do you need from us?

- We will record all gantries without pedestrian access and egress onto AVA (Amey) system as a close call;
  - we close it out by saying we have informed the client
  - we build our in-contract database.

- We offer to record all gantries without pedestrian access and egress in England onto NH HART system;
  - recorded as HART event type“ Infrastructure Asset"
  - using consistent wording to aid searches - text to include one or both of the following;
    - “gantry does not have permanent maintenance access; accessible off carriageway parking”
    - “gantry does not have permanent maintenance access; fixed hoop ladder or better”.
  - we will record when first attending; and on distinct repeat visits if still not in place, except as part of one scheme of (e.g.) inspection.

What we are asking for

- Design risk assessment default position for pedestrian access ladder and parking with path unless where genuinely not possible or reasonably practicable.
- DRA to always include consideration of the gantry design and the wider environment, parking etc.
- M&R /Technology Maintenance teams consulted on design / design risk assessment
- Formal approach to the design audit to test the design risk assessment default position for permanent maintenance access.
- Consider provision of stair access rather than ladder access to make general access and egress safer, assist transporting tools and goods, assist rescue of incapacitated person.
- Improve access to the existing overhead gantries by installing hardstanding areas or paths from safe locations allowing safe access to the structures. Risk based retrofit and/ part of planned sign and/or gantry refurbishment works.
- NH data analysis to build the extent and profile of assets not meeting their design failure criteria and consequent additional risk.
- NH gantry surveys' scope extended to include barrier rail height, barrier rail integrity and pedestrian access.
- NH share the experiences and SSoWs of their structural engineers in respect to gantry access for inspection.
- NH extend their gantry structural surveys to include barrier rail hight and pedestrian access.
- Smart Motorway task and finish group to consider all of the above in their scope and remit.
- Smart Motorway task and finish group to update this group monthly.