  

Principal Designer Working Group (PDWG)

Working on behalf of HIGHWAY ENGLAND

Meeting No.10

**Minutes of the Principal Designer Working Group Meeting / Workshop No.10 – 11th October 2018**

**Location: Jacobs Offices, 2 Colmore Square, Birmingham. B4 6BN**

**Time: 10.00am to 3:30pm.**

**Attendees:**

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| **Name** | **Initials** | **Position** | **Organisation** |
| Richard Wilson (Chair) | RW | H&S Director (Major Projects) | Highways England |
| Etienne De Toney | EDT | H & S Lead CIP (HE) | Highways England |
| Doug Potter (Secretary)  | DP | Principal Designer Manager | Arcadis |
| Mark Lamport | ML | Principal Designer Manager | Arcadis |
| Pav Singh  | PSi | Principal Designer Manager | Arcadis |
| Tim Goddard  | TG | Principal Designer Manager | Arcadis |
| Ed French | EF | Principal Designer Manager | Arcadis |
| Paul Brown  | PB | Technical Manager  | WSP Group |
| Nicola Knowles  | NK | Principal Designer Manager | Arcadis |
| Rob Butler | RB | PD & Q.A Manager | Highways England |
| Simon Wilkinson | SWi | Technical Director | Aecom |
| Andrew Finch  | AF | Director of Operations | Jacobs |
| Roger Swainston  | RS | PD / CDM Advisor | Jacobs |
| Nick Boyle | NB | Technical Solutions Director | Balfour Beatty |
| Malcolm Shaw | MS | Principal Designer SMP M1 23-25a | Arup |
| Toria Thomas | TT | Principal Designer | Arup |
| Tim Bowles | TB | Principal Designer | Atkins |
| Liz Braithwaite  | LB | H&S Manager | Skanska |
| Kevin McPherson | KM | AIG | TRL / Highways England |
| David Owens | DO | Senior Consultant - Digital Transformation | Costain |
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**Apologies:**

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| **Name** | **Initials** | **Position** | **Organisation** |
| Julia Johnson | JJ | Director of Operations | Jacobs |
| Steve Davey | SD | Head of Technical Standards | Highways England |
| Dave Morrow | DM | Principal Designer | WSP Group |
| Ian Lockwood  | IL | RIP North Lead | Highways England |
| Dave Garton | DG | Portfolio Lead H&S, HE & RA | Jacobs |
| Peter Foster | PF | Principal Designer Area 9 & Section 278 Project Manager | Kier |
| Shirley Worrell | SWo | PCF Assurance Manager | Highways England |
| Steve Yates  | SY | Principal Designer | Jacobs |
| Rob Wood | RW | Associate Director | Amey |
| David Townsend  | DT | Head of Policy and Compliance, H&S Team | Highways England |
| Nigel Yeatman | NY | Area 12 Asset Manager | AOne+ |
| Jeremy Bird  | JB | Head of H&S Delivery | Highways England |
| Leventia Stoiou | LS | Structural Advisor | Highways England |
| John Winson | JW | Principal Designer | Atkins |
| Jonathan Giles | JG | Divisional Team Manager, Principal Designer | WSP Group |
| Jon Horrill | JH | Principal Designer / H & S | WSP Group |
| Simon Bourne | SB | Technical Director | Mott MacDonald |
| Chris Wearne | CW | Lean Practitioner | Jacobs |
| Richard Jones | RJ | Technical Solutions Manager | Balfour Beatty |
| Libby Allport | LA | AIG | Highways England |
| Steve Hamer | SH | Technical Manager | Skanska |
| Emma Codrington | EC | AIG – BIM Lead | Highways England |

**Actions:**

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| --- | --- | --- | --- |
| **Ref** | **Topic** | **Action** **Owner** | **Deadline** |
| **1.0** | **Welcome and Safety Moment** |  |  |
| 1.1 | RW provided a brief welcome, attendees introduced and apologies for absentees noted. |  |  |
| 1.2 | **Safety Moment** (Presentation Attached)NB provided a wide-ranging Safety Moment which generated significant debate. Key topics included: - • Temporary Works Forum - Safety by Design & Engineering- Visual Standards• Balance of offsite costs vs onsite costs for projects• Different languages and different units of measurement – causes for confusion on site• Access scaffolding - Fatigue Failure - several incidents on Crossrail where actual loads 3 x the design load.• Need to ensure fitness for purpose and that the brief is clear to all parties. What are the restrictions on access scaffolds?• Issues around what is the inspection routine?• Haki have produced an updated chart for testing scaffold types (from a loading perspective) and have developed loading recommendations.• Positioning of scaffold tags - where are they? Are they checked? What is the loading? Instead of Scaff-tags, should we change to visual standards and show how many people, or the loading, should be on the access tower, rather than provide a loading in units.• We need to move away from assuming proprietary systems are "safe". There needs to be a design in place and a system matched to that design requirement.• Proprietary systems are "temporary" by nature and not intended for long term use. • What are the disposal behaviours for the spent systems? Are they disposed of at the end of the design life or do they remain in the supply chain? • A14 prefabricated bridges images - offsite and onsite construction (see attachment)• Work of the Temporary Works Forum highlighted:O Proprietary access stairs O Crossrail safety alert – is there a common language of loading?O Temporary stairs - restriction on access scaffold and briefings. O CONIAC Working at Height Working Group – contacts to be established O Better information to the workforce • NB promoted TWF membership and the implementation of training for design teams (Building on previous presentation from Ray Philips – PDWG 8 – December 2017)  | All |  |
| **2.0**2.12.22.32.42.52.62.72.8 | **Highways England Proposed CDM Process****(Etienne De Toney) – Highways England**Draft documents had previously been issued for comment and comprised:o Highways England CDM Procedureo Highways England Pre-construction Information Pack – template and guidance o Pre-construction Health and Safety Plan – outline requirements o Health and Safety File Template and Guidance EDT set out the aspirations for each document in an open question and answer session: -O CDM Procedure – Is a management standard – the document sets out mainly what HE will undertake but will also contain guidance statements with regard to actions required from the supply chain.Suggestion from PB – Can/will the HE populate a first draft of the Pre- Construction Phase Plan (PCPP)? EDT - The PCPP will likely contain most of the management information. The CDM Implementation Plan – is needed to start the risk management process and capture key decisions that will shape the project as it develops.Suggestion from NK/PB- Can the PCPP be renamed to align with Construction Phase Plan (CPP) as defined in CDM so for example Pre-Construction Phase Plan? - CDM does not specify health and safety in the title of the CPP.o Question - AF - Who is the principle audience for the document?EDT – indicated it was aimed at the HE. So that HE’s PM’s would understand how CDM applies to the project right from the start. This document needs to help HE understand how the handover of PD roles and designer handovers take pace throughout the PCF stages. How the stats will be managed for example? At the start as a separate project or during Stage 6. PCF Stage 0 – CDM Implementation Plan needed a clear identification of duty holders at Stage 0 and if no PD appointed HE would assume this duty.o EDT indicated that HE had reinvigorated a training programme for CDM within HE and that they will also be running competency assessments. O EDT and PDWG felt the DOSTS / DAT? process was important but needed to be better formalised. o NEC contract documentation could be better developed to include the PCI as part of the contract tender pack, as the tender pack should contain most of the relevant information anyway. o Suggestion – PB - O&M manuals are often needed from the MSP’s during the early stages to identify constraints for design.o EDT - HE is looking to be challenged more on information gaps in the PCI.o EDT - Design reviews – HE recognised they should have more input into the design review process.  CPP - The document states that PD will advise the client on CDM arrangements as well as CPP suitability. These are not PD duties. This would currently be considered as an additional service to the HE? EDT to consider o CPP - Suggestion - NK - Whoever reviews CPP before the start of works on site - the review needs to be programmed in advance - most CPP's are not suitable and sufficiently developed before the start of works on site, from her experience of reviewing CPP's in the PD role over the years. o CPP – Cl 11.3 in the document - Text needs replacing with CPP regulation text and also some of the guidance text. o CPP - CPP reviews should be included in the SGAR process?o CPP - TG - CPP reviews are time hungry - will HE have the resource to do these? - Needs to be carefully included into the project programme.A reference to adequate time and resources is not stated in the document explicitly. This should be added. HE needed to consider this when agreeing dates with ministers. RW felt this may be easier to address going forward due to procurement routes. o Suggestion - PS - Procurement methodologies need to be in place to allow PC's to subcontract works out in order to prepare CPP's.o Suggestion - PS - CPP does not comply with PCF format due to the electronic systems used by PC's. EDT - suggests that checklists are used to ensure assurance on the product rather than duplicating the information into PCF format. o Reviews need to be carried out at frequencies suitable to the project programme duration and also after a major change on the project. o Suggestion - PB - NRTS compliance - worth looking at the compliance processes being developed for NRTS.O Suggestion - PB – some extracts in the document from L153 are being referenced as regulations in the document and they are not. They need to be explicit.O RW asked that feedback be provided by 19th October with regard to the draft documentation in order to turnaround comments quickly. ETD asked that all considered - What doesn’t work; What doesn’t make sense; What needs to be changed? - Comments to be forwarded to ETDPost meeting Note – Comments Tracker issued to all to collate feedback. | EDTEDTEDT EDTEDTEDTEDTEDTEDTEDTEDTEDTEDTEDTAllDP | 19/10/18Closed |
| **3.0** | **Major Projects – Objectives (update)** |  |  |
| 3.13.23.33.43.5 | **Richard Wilson – Highways England**RW provided a brief update on HE’s current H&S objectives and key areas for improvement:Occupational health - challenges required - offsite prefab needs encouragingIndustry Engagement - better engagement with the right people through initiatives like the Hub meetings. Promotion of good practice and making it easier to share good information. Natalie Mansell supporting the Health and Safety Hub.O Greater PDWG community representation needed at the Hub mtgs.O Development of PDWG section on the Hub webpage is in progress to share information.Promotion of good relationships are the way things get done - this is a partnership.Communications - for example Safety Alerts - they need to be simpler and communicate the information better. O Safety Alerts are not being followed up on, after the initial alert has been sent out. They also need to include design concerns. – DP highlighted the work PDWG are doing around the Design Change Process and the suggestion already made to the Hub to improve Safety Alerts, to provide better feedback on root cause analysis, so e.g. poor design, is better identified to enable the design processes to be improved, similarly with Near Misses and Lessons Learned being captured and actioned. (See 5.4)O Safety alerts in the PC world - so many they become invisible.What is seen as the success criteria - O Improved communicationo Giving rise to improved confidenceo People challenging the normo Requests for more support and informationo HE’s aspiration is to be an exemplar client body recognised as leaderso Note: Home, Safe and Well will be replacing the Aiming for zero initiative | NKThe Hub |  |
| **4.0** | **IAN 128 Supply Chain Incident Reporting - update** |  |  |
| 4.14.24.34.4 | **(Etienne De Toney) – Highways England** IAN 128 update document is now sitting with procurement to see if there are any costs considerations to addressO The update IAN 128/15a was released and not consulted on, which contained contradictions.O As soon as HE are in a position to release the next update they will, but no dates provided as yet.Commonly within the Supply Chain not all data is available for the Working Day 1 schedule for HE. RW recognised that estimates will have to be accepted by HE, which are subsequently updated as the values are firmed up.Question re IAN 128 - TG - Do all design hours have to be recorded? - ETD - general school of thought is all design office hours should be recorded to understand the number of design hours so this can be used as a positive indicator. But what is the purpose of collecting this data? It does not have a correlation to AFR necessarily. DP indicated that Arcadis capture - out of office hours and these are provided to the HE PM separately through monthly PM reporting processes.* EDT felt high potential near misses need better recording context to aid understanding of the grading of near misses. In order that the learning can be disseminate out.
 | AllEDT |  |
| **5.0** | **Whole Life Design Sub-Group** |  |  |
| 5.1.15.1.25.1.35.1.45.1.5 | **Andrew Finch - Jacobs** (Presentation attached)  OverviewAF provided a quick overview of the function of the group which had looked at a number of issues:-Traffic Officer Service• AF had met with the Castleford team at their office – They coordinate the regional Traffic Officer Service (TOS) and roadside assistance service - • 1500 traffic officers and inspectors;• Concerns over the implications of SMP on the TOS;• Lots to learn from the operations teams; • For example, challenges to the position of ERA's and design of embankments and safe refuge location for pedestrians (example provided); and• Key output - communication with the operations team needed to be carried out before any design is finalised. • Unions also have some good information that can inform the design.• AA service can also be a good source of information as they are frontline on the network and have high exposure to the live traffic. • Area 12 - Aone+ have a roadworker safety map – which capture RTA hotspots and traffic hotspots.Other key areas• AIRSweb has the facility to create an incursions heatmap for the national network to help inform design. • Where are we actually demonstrating that we are changing our designs via our learning from other projects? (see 5.4)• Example of safe design - Plan bracing in at the fabrication stage - temp works design - this reduces working at height and is more stable.* More examples required

Safety in Design - • PAS1192:6 - being used in the Manchester NW quadrant project - aiming to provide better information for all users of the data to assess whole of life considerations. • This allows easier identification of hazard descriptors i.e. working at height or presence of asbestos for example. • Having the hazards in the model allows engineers to review the hazard in 3D form and in context rather than as a line on the HES for example. • Adds value by aiding buildability and clash detection discussions. • GG104 has been included too. RAG rated to identify high, medium and low risk items.• Jacobs will be using the model to store the hazard data rather than on a separate HES spreadsheet, although the model has the capability to generate an exported data sheet, with all the hazards and status details as we normally see in the HES.• RIDDOR database - released by HE - 40K Records approx. <http://www.hse.gov.uk/construction-dashboard/>Down side is there is a lack of geospatial context or location.• HSE also have a project that is looking at all historic data to distil out lessons learnedStatutory Undertaker issues – picking up on the new CDM Procedures• STATS failure on SMP M1 J13-16 example - learning that Stats issues are still catching projects out, failures in requesting information, failures in handling the data, failure in compiling the data and communicating the data.  | All |  |
| 5.25.2.15.2.25.2.3 | **RTB 26 update - Whole of Life design for Health and Safety - (Paul Brown - WSP)**PB had edited the earlier PDWG draft to create a more concise version and ran through the base document to provide clarity to the various sections:• Objective• Scope• Background - ref to GG104• GG104 assessments should be requested to be undertaken by HE if the designer or PD feel a decision made by HE should be challenged• Planning for Safe design• Occupational hygienists lacking on HE projects• MP Strategy is that RTBs will have minimum requirements for compliance.• Procurement team had previously wanted to use the RTB as a KPI scoring tool, this had not been a great success.PB was awaiting issue of IAN 69, which was imminent as he wanted to ensure compatibility between IAN 69 and RtB 26. * Latest draft to be issued out for comment in the interim

Post Meeting NoteDraft RtB 26 issued out for comment – response requested by 2nd November | DPAll | Closed2/11/18 |
| 5.35.3.15.3.25.3.35.3.45.3.5 5.3.6 | **RTB 13 Excavations protection, access and egress** – **(Liz Brathwaite – Skanska)**LB request ideas/examples of good design stage prevention of excavation extents or need• Deadline for comments and good worked examples 26th October • Good photos /Visual standards would be welcomedWorking room - Client requirement to provide sufficient space for safe working.LB considered that there were many benefits to gain by improved and more extensive early site investigation by front loading projects and increasing investment to deliver savings and improved safety down the line.Projects need to have the right people on board at the right time to consider the whole of life stages for evaluation prior to DCO – too often projects were constrained due to limited access, leading to unsafe and often more expensive working.• The supply chain should challenge the HE more often with regard to working space, due to restrictive highway boundaries, lack of temporary land and limited easements.• PD's, Designers, PC's also have to challenge the client brief and design at all stages invoking the Principles of Prevention.• Drainage works - M4 example – Why is there such a huge quantity of trenching works which exposes the workforce? Why can't this be designed out?Post Meeting NoteRtB 13 and request for feedback to Liz issued out to all |  AllDP | 26/10/18Closed |
| **5.4** | **Design Change Process Improvement**  |  |  |
| 5.4.15.4.25.4.35.4.45.4.5 | **(Tim Goddard – Arcadis)** (Spreadsheet Attached)Building on comments earlier with respect to improving links with the Hub and the exchange of designer/contractor H&S safety data – TG presented the latest Design Change Spreadsheet, which captures Safety Alerts, Near Misses and Lessons learned, which Arcadis are using to deliver improvements in their design processes. This is being shared through the Whole Life Sub-group with the PDWG.TG explained that the idea is to improve the feedback loop from contractors to designers and designers to contractor etc.• Highways England Safety Alerts are being used as the base for this process, but PDWG are looking to supplement this by the capture of Near Misses and Lessons Learnt from the Contractor and Designer community.The issue of the limited information provided by Safety Alerts has already be raised.• Cause – currently the SA does not normally go into the "root" cause. • Investigation processes – need to be improved* + Principal Designer / Designer input – how often are they consulted in the investigation process?

Going forward the proposal is to review the top ten issues in the quarter to share design concerns and improvements and identify areas for further investigation. TG to coordinate.TG asked all to provide feedback on Near Misses, Lessons Learned which impacted on the design processes so that these could be actioned/improved and shared across PDWG. | TGAll |  |
| **6.0** | **Update on GG104** |  |  |
| 6.16.2 | **Ron Thompson (Highways England)** (See attached presentation)GG104 provides a framework that sets out the approach to safety risk review and supersedes GD04• The key differences with GD04 - • Emphasis placed on it being applicable to all activities having an impact on safety• Written in more usable style that conforms to new Highways England drafting rules• Identifying criteria for population and considering risk exposure steps combined, no longer includes HSE tolerability of risk triangle.•Activity type classification features have been redefined and reordered for better classification of projects i.e. Type A, B or C.Steps to follow1. Plan the safety risk assessment
2. Categorise the activity

• Complex• Complicated• Chaotic• Simple• Type A, B or C3. Identify the populations at risk/affected4. Determine the safety risk assessment scope5. Define a safety baseline & safety objective - quantitative assessment - safety risk model updated every year.* + No comparison data for de-trunking and bypasses.
	+ Using expert knowledge and experience a proxy baseline would need to be set.

 6. Safety Risk assessment process - (iterative)•Hazard identification & analysis, risk analysis and evaluation, mitigation selection7. Document safety risk assessment and all decisions• Schemes have a generic Hazard Log which can be used in addition to specific hazards for the particular project• Storage of this information needs to be determined. i.e. would it be compiled into the HSF?• The GG104 will also be part of the hazard log and safety reports. • From a CDM perspective the GG104 documents will form part of the HES and residual risk register. Therefore, forming part of the HSF. However, HE is the originator of the GG104 and would normally store the document so a request for the document may need to be made. As an alternative they could be stored on a shared drive i.e. SharePoint for example.8. Set monitoring and review parameters• Question - Do we have any good case studies or worked examples? RT would review.• RT’s team can offer workshops where projects can take examples and learn how to go through the process. * Email address to request support with GG104 assessments.

 safetygovernance@highwaysengland.co.uk  | RTAll |  |
| **7.0** | **Passport Steering Group - Update** |  |  |
| 7.17.27.37.47.57.67.7 | **(Mark Lamport - Arcadis)** – (Presentation Attached)5-Year Plan Action 38 Start date - April 2016, Target End date - March 2017 - lots of hurdles that have delayed the completion date.Objective * A common safety induction for all Highways England supply chain, which included all common safety induction material

• Delivery of shorter on-site more specific inductions• Electronic means of recording competence• 2-year proof of concept between HE and MitieThe system went live on 1st October 2017.Initial benefits• Single database• Ability to identify training and competency issues• Easier migration and sharing of people and data• Information transfers with employee when they move from site to site• Includes medical information• Possibility to manage fatigue - recording hrs worked and travel time• 24 hr helpline• Future benefitsAbility to manage access to sites/buildings• Lone working system available• More details in Mark's slidesCosts• Set up and capital expense funded by HE• Set up costs £30 per person• Larger organisations set up a DD which will be deducted for every new employee registered• The costs include:• Full 2-year registration• HE branded cardHighways Common Induction • Full days course• 3-year validity• Process managed by Lantra• Latest Update - October 2018GDPR issues have prevented the progress of the passport scheme.• Due to GDPR - drug and alcohol data will not be possible to store on the card. Andrew Page-Dove has been appointed the HE sponsor for this Passport Scheme• At this stage the passport does not replace the motorway pass. The motorway pass gives legal authority to be on the motorway and stopped on the hard shoulder to perform work.• Ambiguity remains re offline/online HE boundaries and also greenfield/brownfield sites. • Each Tier 1 supplier need a contract set up with MITIE• Each Tier 1 supplier to produce an implementation Plan• April 2019 - Passports will be required for everyone |  |  |
| **8.0** | **Afternoon Workshop – SMS/H&S File Introduction** |  |  |
| 8.1 | H&S File Format – EDT explained that the document was based on the draft proposal produced by PDWG earlier in the year. It replicated the thinking that in Line with L153 the H&S File should be a H&S focussed document, which would form Volume 2 of a bigger Handover Asset Data Document. The suggestion was that the contents and requirements of the Handover Asset Data Document – Vol1, 3-8 would be set out in a future iteration of the Asset Data Management Manual. Discussions were currently ongoing with AIG as to how this would be delivered. The ADMM contents is currently updated on a 6-monthly cycle.EDT asked that PDWG similarly provide comments by 19th October | **All** | **19/10/18** |
| **9.0** | **Issues and Action Tracker** (Not discussed DP to review and update post meeting) |  |  |
| 9.1 | **Copy of 2018 Issues and Action Tracker attached*** DP to set up meeting with RW to discuss future Governance and development of Action Plan for 2019

  | DP | **Nov 18** |
| **10.0** | **AOB**None |  |  |
| **11.0** | **Next meeting:** **Thursday – 10.00 am until 3.00pm – 24th January 2019:****Venue: AECOM Offices, Victoria Suite, 1st Floor Victoria Square House, Victoria Square, Birmingham, B2 4AJ**  |  |  |