

## Meeting Record

<b>Date</b>	20 <sup>th</sup> January 2020 (Mon)
<b>Venue</b>	AHMM, Morelands, 5-23 Old Street, EC1V 9HL
<b>Chair</b>	Paul Bussey
<b>Author</b>	-

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<b>Attendees</b>	<b>Name</b>	<b>Initial</b>	<b>Organisation</b>
	Steve Coppin (guest speaker)	SC	Arcadis
	Paul Bussey (chair)	PB	AHMM
	Gavin Bull	GB	HSE
	Chris Mason	CM	Nicholas Hare
	Carol King	CK	Nicholas Hare
	Peter Waxman	PW	Multiplex
	Sarah Susman	SS	Scott Brownrigg
	Ian Wood	IW	Scott Brownrigg
	Kieran Gallagher	KG	Hawkins Brown
	George Poppe	GP	Sheppard Robson
	Richard Hartley	RH	Landlease
	Alan Speed	AS	Flanagan Lawrence
	Jeffrey Tribich	JT	Malcolm Hollis
	Peter Hegarty	PH	Chapman Taylor
	Martin Thorpe	MT	Mott MacDonald
	Sneha Dhamale	SD	AHMM
	Goh Ong	GO	AHMM

**Speaker** Steve Coppin, Associate Technical Director of Arcadis

**Details** Please refer to the following pages



**Stephen Coppin MSc BEng(Hons) FCIQB CFIOSH FaPS FIIRSM CIWFM**

**Associate Technical Director of Arcadis, a design & consultancy.**

Has worked with the HSE on best practice initiatives within the construction industry on CDM e.g. CONIAC/CONIAN since DWP Jobcentreplus and active on the BIM4 Working Group, incl. various other professional bodies on the CDM changes, integrated gateways and worker engagement research reports. Recent speaker at the IOSH International Construction Design for Safety conference on Digital and Design for Safety, incl. a master class for IOSH, Ministry of Manpower (MoM) and Building Construction Association (BCA) recently in Singapore.

**Digital Engineering enabling collaboration aiding Health & Safety within Design**

**Abstract of Presentation**

Design for Safety (DfS) or Safety in Design or Health & Safety within Design has changed and moved forward across all sectors within the construction industry. Whether it is infrastructure or large building developments. Where the HSE are seeking best practice case studies through using digital engineering/technology including Building Information Modelling (BIM) to aid DfS, but also help address health on an equal footing being recognised, as Design Risk Management (DRM).

We will also look at Clients / Developers expecting the first designer or a consultant or contractor to carry out their responsibilities in addition to their actual duties by having additional services in their contract and / or appointing an advisor.

Design for Manufacturing Assembly (DfMA) and related technologies implemented in a construction project that has substantially improved construction health & safety and productivity in the project.

Integrated Digital Delivery (IDD) and related technologies implanted in a construction project that had substantial impact in the improvement of construction health & safety and productivity. Example; Virtual Reality (VR) Design and construction, Building Information Modelling, Use of Drones, etc. Implemented successfully in a construction project can improve health & safety.

Adopting digital and the approach to BIM in line with PAS 1192-6 can be vitally effective in helping the Clients / Developers and Designers address health & safety risks within the design through the lifecycle of the project.

#### Key topics

- Procurement 1 - adopting the principles within the HSE's BIM4 Working Group guidance 'Employers Information Requirements (EIR)' in line with PAS 1192-6 Health & Safety Risk Information
- Procurement 2 – influencing Clients on the benefits of specifying prefabrication / off-site manufacturing and modular building of their assets.
- The emphasis on the right information to right people at the right time by using digital through BIM in identifying design risks earlier.
- Using drones to eliminate hazards and associated risks during preparation and surveys than just monitoring the construction phase.
- Site monitoring using digital devices and applications to check on any oversights in the design e.g. clashes, access and space, height etc.
- Use of project gateways to ensure at key milestones using RACI that the foreseeable significant risks are mitigated early.
- Identifying with the Design Risk Management process that health risks are equally important to eliminate or reduce as are safety risks.
- Including Buildability and Life Safety and Safe Use of the Asset or Building.
- Understanding who is responsible for what and when during the pre-construction and construction phases.
- Appointment and empowerment of the Design for Safety Professional ((DfSP) known as the Principal Designer in UK) with the project and design team to focus on Design Risk Management, by planning, managing, monitoring and coordination.
- Provision of training and workshops to share the right Skills, Knowledge and experience;
- Enabling and demonstrating Ownership Leadership and Partnership

#### Key Words:

Procurement, Developers (Clients), Skills, Knowledge and Experience, Design for Manufacturing Assembly (DfMA), Digital Technology, Coordination, Principal Designer, Design Risk Management for Buildability, Fire Safety and Use of the Asset by utilising Building Information Modelling.