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Project -
Subject DIOHAS Meetings 2018 6/6 – meeting notes
Ref -
Job No H0005
Date 26.11.2018 (Monday)
Pages 1
cc. -

Meeting Notes – Peter Waxman

DIOHAS meeting 2018 5/6: 26th Nov 2018, 4.30-6.00pm at AHMM (5-23 Old Street, London EC1V 9HL)

Attendance (17):

1. Peter Waxman – Multiplex (guest speaker)
2. Andy Jobling – Levitt Bernstein
3. Sarah Susman – Scott Brownrigg
4. Gavin Bull – HSE
5. Gary Burden – PRP Architects
6. Patricia Holt – Nicholas Hare Architects
7. Carol King (?) – Nicholas Hare Architects
8. Janet McDougall – BLDA Architects
9. Nigel Ostime – Hawkins Brown
10. Richard Collis – Feilden Clegg Bradley Studios
11. Mustafa Hussain – Currie Brown
12. Aamir Shahzad (?) – Currie Brown
13. Nima Shamsipour – Rund
14. Martin Touška – Rolfe Judd
15. Jeffrey Tribich – Malcolm Hollis
16. Paul Bussey – AHMM (chair)
17. Goh Ong – AHMM

01	Guest speaker: Peter Waxman of Multiplex Presentation: Our guest speaker, will lead a discussion on a draft of a RIBA Core CPD 2019, titled "CDM 2015: your essential guide to Designer duties".	

**RIBA CPD CORE 2019 PROGRAMME
YOUR ESSENTIAL GUIDE TO
DESIGNER DUTIES
TOPIC 2, CDM 2015**

Peter Waxman, Director of CDM at Multiplex CDM Services

What is CDM?



CDM IS CONCERNED WITH DESIGN, CONSTRUCTION,
MAINTENANCE AND EVENTUAL DEMOLITION



“CDM HAS NOTHING TO DO WITH HEALTH AND SAFETY”

- the term “Health and Safety” carries a lot of baggage
- using these words often distracts the listener and leads them away from what I believe is the true definition of what I do
- CDM should be used as a tool to refine and develop the design and construction process



AN OVERVIEW OF CURRENT H&S LEGISLATION

Health and Safety at Work Act 1974

Then the “6 Pack” consisting of secondary (subordinate) legislation which allows the Government to make changes to the law without needing to push through a completely new Act:

1. Workplace (Health Safety and Welfare) Regulations 1992. (Concerned with the working environment)
2. Personal Protective Equipment at Work Regulations 1992
3. Manual Handling Operations Regulations 1992
4. Display Screen Equipment Regulations 1992
5. Provision and Use of Work Equipment Regulations 1998
6. Management of Health and Safety at Work Regulations 1999. (Concerned with managing risks from work activities)
7. Other statutory instruments include the Building Regulations, the Regulatory Reform (Fire Safety) Order 2005 and the Construction (Design and Management) Regulations 2015

CDM IS CONCERNED WITH THE MANAGEMENT OF HEALTH AND SAFETY RISKS THROUGH DESIGN, CONSTRUCTION AND EVENTUAL DEMOLITION

Design

- consideration of cleaning, replacement and general maintenance
- general build-ability
- general usability of completed building-adequate access

Construction

- deep excavations/working at height
- working in partially occupied premises
- access and construction sequence

Use

- internal and external cleaning
- working at height/deep risers, lift shafts etc.
- general access, repair, replacement and maintenance

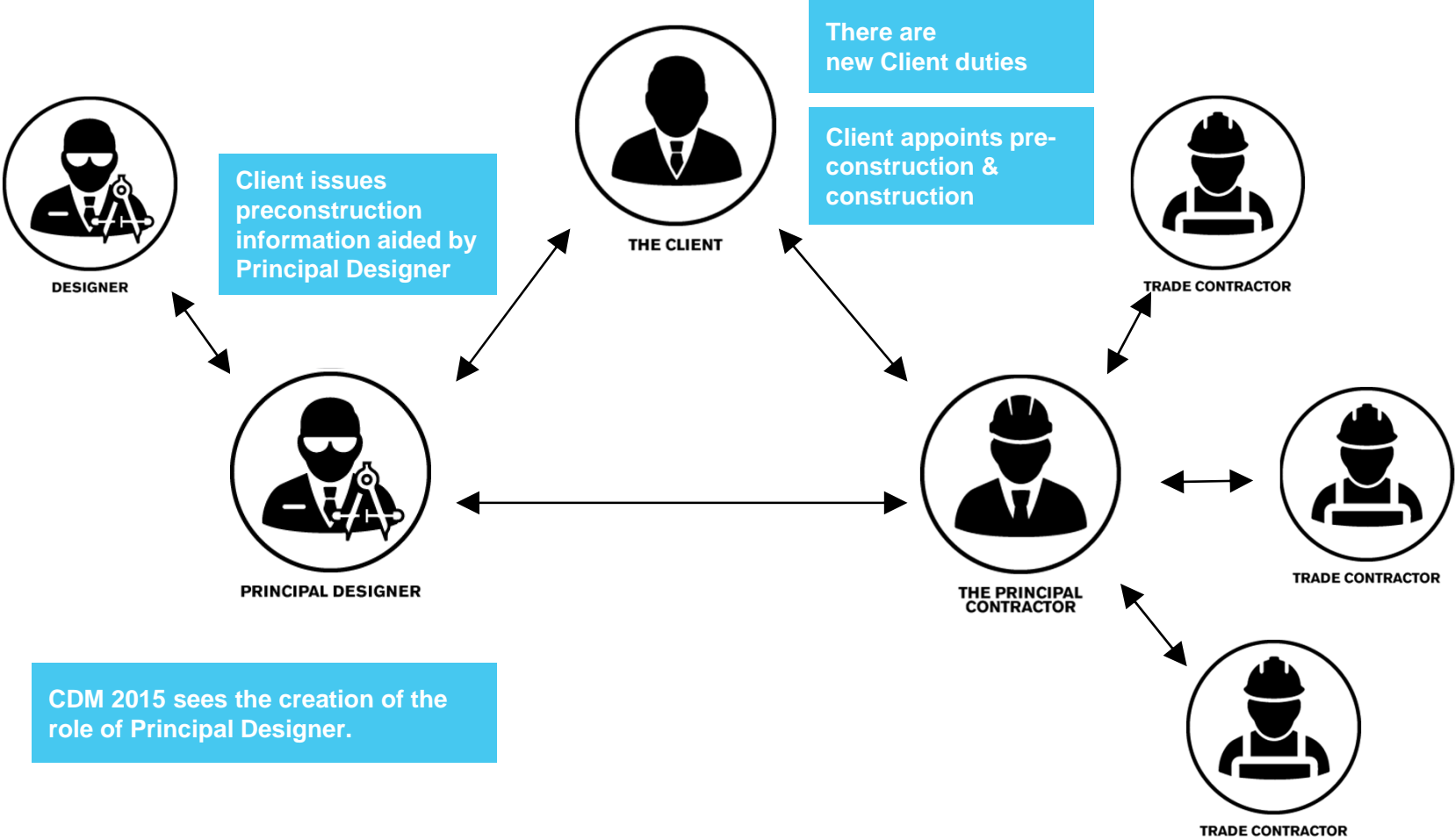
Demolition

- embodied energy-post tensioned concrete
- uncontrolled collapse
- risks from connected services

CDM LEGISLATION TIMELINE

- European Directive 92/57/EEC laid down minimum safety and health requirements for construction sites by establishing a chain of responsibility linking all the parties involved
- The Construction (Design and Management) Regulations 1994 (CDM) came into force in March 1995
- The CDM Regulations 2007 combined the CDM Regulations 1994 and the Construction (Health Safety and Welfare) Regulations 1996 into one regulatory package, aimed at alleviating the previous complex and bureaucratic approach taken by many duty holders
- The Construction (Design and Management) Regulations 2015 are the latest update, creating the duty holder known as the Principal Designer

CDM 2007 v 2015



CDM 2015 BECAME LAW ON 6th APRIL 2015

- the Regulations may be viewed at:
<http://www.legislation.gov.uk/ukxi/2015/51/contents/made>
- the HSE have published client guidance to CDM 2015. This may be viewed at: <http://www.hse.gov.uk/pubns/books/l153.htm>
- the CDM2015 Industry Guidance documents may be viewed at: <http://www.citb.co.uk/health-safety-and-other-topics/health-safety/construction-design-and-management-regulations/>



CDM DUTY HOLDERS

- Clients – Organisations or individuals for whom a construction project is carried out
- Principal Designer - A Designer appointed by the client in projects involving more than one contractor. The Principal Designer undertakes the co-ordination of CDM for the project
- Designers - Organisations or individuals who as part of a business, prepare or modify designs for a building, product or system relating to construction work
- Principal Contractors – Contractors appointed by the client to coordinate the construction phase of a project where it involves more than one contractor
- Contractors – Those who carry out the actual construction work, contractors can be an individual or a company

CDM REGULATIONS 2015 REQUIREMENTS AT A GLANCE

1. All projects defined as “construction” must have:

- Workers with the right skills, knowledge, training and experience
- Contractors providing appropriate supervision, instruction and information
- A written construction phase plan

2. All projects where more than one contractor is involved must have:

All of paragraph 1 (above) +:

- Principal Designer and Principal Contractor to be appointed
- Health and Safety File to be produced at project completion

If the work is scheduled to last longer than 30 working days and have more than 20 workers working simultaneously at any point in the contract, or exceeds 500 person days, then all of paragraphs 1&2 apply, plus the Client must notify the HSE.

DESIGNER RESPONSIBILITIES

Designers should:

- not start any design work unless they are satisfied the client is aware of their CDM duties
- take account of the general principles of prevention when preparing or modifying designs
- take account of pre-construction information provided by the client
- work towards eliminating, reducing or controlling foreseeable risks through design
- provide information to other duty-holders using or implementing the design
- co-operate with other duty-holders

PRINCIPAL DESIGNER RESPONSIBILITIES

In summary, the Principal Designer is responsible for:

- assisting the client in preparing the pre-construction information
- planning, managing and monitoring the pre-construction phase
- ensuring co-operation and co-ordination so that designers comply with their duties
- ensuring that where reasonably practicable, risks are eliminated or controlled through design work
- passing information on to the Principal Contractor
- liaising with the Principal Contractor and designers during the construction phase with respect to on-going design
- preparing the health and safety file

CLIENT RESPONSIBILITIES

In summary, the Client is responsible for ensuring that:

- Suitable arrangements are in place for managing the project and sufficient time and resources are allocated
- those they appoint are suitable and are adequately resourced to undertake the work required
- relevant information about the site and the project is prepared and provided to all duty holders
- they issue the F10 Notification Form to the HSE
- the Principal Designer and Principal Contractor carry out their duties
- welfare facilities are provided



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WHO IS A DESIGNER?

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WHO IS A DESIGNER?

#1
A DESIGNER IS ...



A DESIGNER IS AN ORGANISATION OR INDIVIDUAL WHOSE BUSINESS INVOLVES **PREPARING OR MODIFYING** DESIGNS FOR CONSTRUCTION PROJECTS (INCLUDING THE DESIGN OF TEMPORARY WORKS); OR **ARRANGING FOR, OR INSTRUCTING, OTHERS** TO DO THIS. DESIGNS INCLUDE **DRAWINGS, DESIGN DETAILS, SPECIFICATIONS, BILLS OF QUANTITY AND DESIGN CALCULATIONS.**

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#2
DESIGNERS ARE ...



DESIGNERS ARE THEREFORE; ARCHITECTS, CONSULTING ENGINEERS, QUANTITY SURVEYORS AND INTERIOR DESIGNERS, PLANNERS, OR ANYONE WHO SPECIFIES OR ALTERS DESIGNS AS PART OF THEIR WORK.

WHO IS A DESIGNER?

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#3 THEY SHOULD ENSURE ...



WHEN TAKING ON AN INHERITED DESIGN AS PART OF A DESIGN AND BUILD CONTRACT, THE DESIGN SHOULD BE **INTERROGATED** TO ENSURE **DESIGN HAZARDS AND RISKS** HAVE BEEN **IDENTIFIED** AND ARE **ACCEPTABLE.**



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**DUTIES OF A
DESIGNER**

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GENERAL DUTIES INCLUDING DESIGNERS REGULATION 8

This applies to all duty holders under CDM 2015 and relates to the need for cooperation between duty holders and others working on the project including any adjoining construction sites.

Report anything you are aware of that is likely to endanger health and safety

And ensuring information or instructions are comprehensible and provided as soon as is practicable, to the right people at the right time.

DUTIES OF DESIGNERS REGULATION 9 & 10

- (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.

DUTIES OF DESIGNERS REGULATION 9 & 10

- (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.

DUTIES OF DESIGNERS REGULATION 9 & 10

- (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.

DUTIES OF DESIGNERS HEALTH AND SAFETY FILE REGULATION 12

Designers must provide relevant information about the project which should be taken into account when using, cleaning, maintaining, carrying out future construction work or demolition after the project has finished in a safe manner and without risks to health.



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**WHAT ARE THE THOUGHT
PROCESSES THAT
DRIVE CDM?**

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LOGISTICS AND LIFTING FORM A LARGE PART OF CDM

How will they be lifted and installed into the building?

How will the materials be delivered?

Where will the crane(s) be sited?

How much can they lift?



Always work towards eliminating the risk rather than merely reducing it.



Remove the need to work at height wherever possible, particularly where it requires work from ladders or where safe means of access cannot be provided.

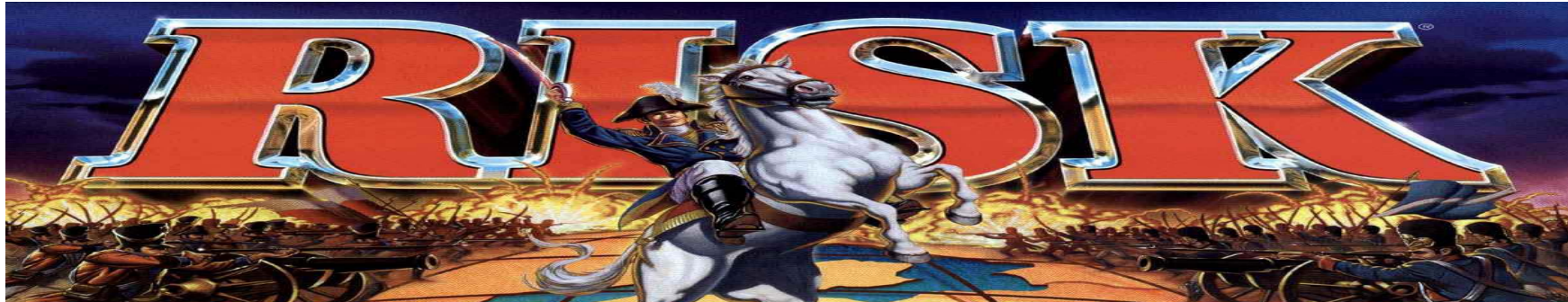


Always favour collective (e.g. roof perimeter barrier) protection over personal (e.g. work restraint harness) protection.



Understand the difference between “**fall restraint**” and “**fall arrest**” systems.

DESIGNERS' DUTIES UNDER CDM



"Designers have to weigh many factors as they prepare their designs. Health and safety considerations have to be weighed alongside other considerations, including cost, fitness for purpose, aesthetics, buildability, maintainability and environmental impact".

CDM 2015 allows Designers to take due account of other relevant design considerations.

The Regulations are designed to ensure that the risk creators are also the risk owners.

This sentiment is echoed in the Hackitt Report which states that "the principle of risk being owned and managed by those who create it was enshrined in UK health and safety law in the 1970s, following the review conducted by Lord Robens"

THE DUTY HOLDER'S ASSESSMENT OF RISK AS BEING ACCEPTABLE OR NOT IS ULTIMATELY A SUBJECTIVE DECISION



Colourised photo of W.H. Murphy and his associate demonstrating their bulletproof vest in 1923

PRINCIPAL DESIGNER FINED OVER FIRE RISK

- a Principal Designer and Principal Contractor have both been sentenced after serious breaches of their health and safety duties under CDM 2015
- Exeter Magistrates heard that concern was raised about the lack of health and safety controls on a large timber frame extension project at a residential home in Exmouth
- the CDM Principal Contractor was required to control how the work was carried out and to ensure that the work would be completed safely. The CDM Principal Designer failed during the pre-construction phase to consider the risk of fire spread to the vulnerable nearby residents

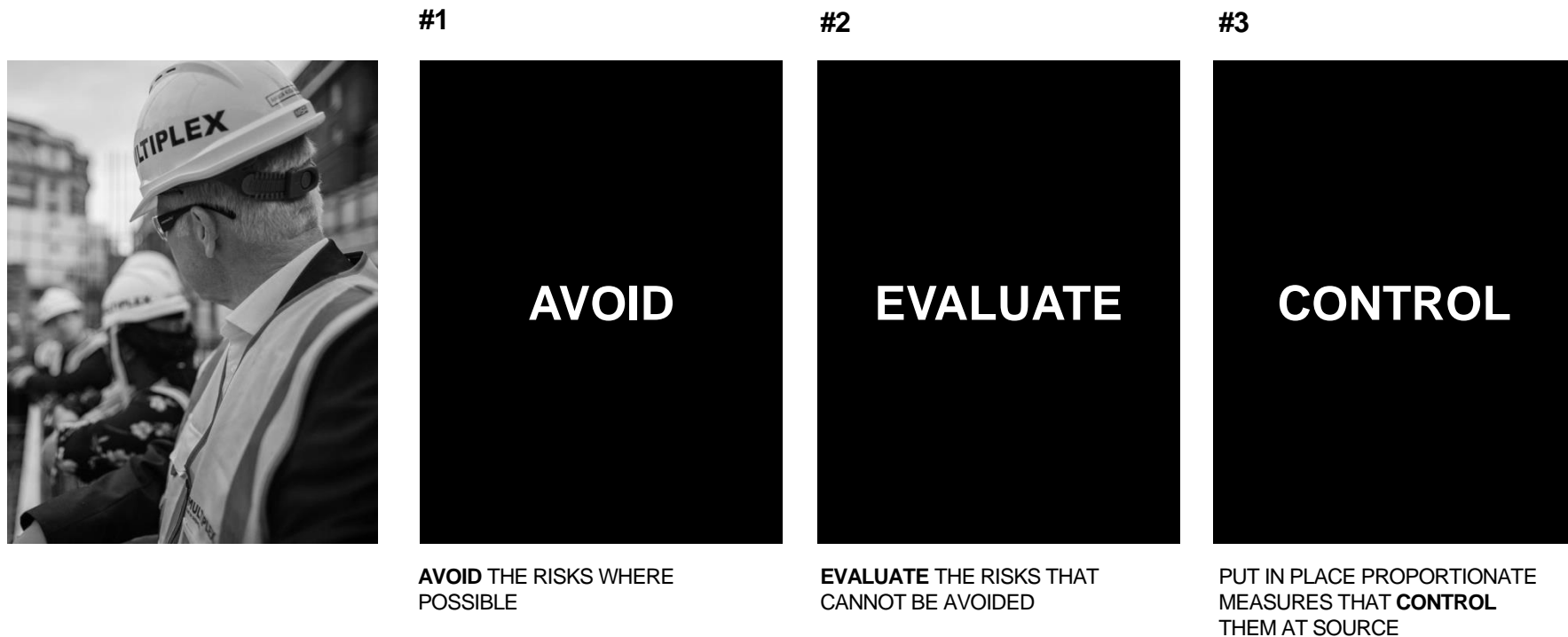


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**PRINCIPLES OF
PREVENTION**

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PRINCIPLES OF PREVENTION HIERARCHY OF CONTROL



CDM 2015 requires designers, principal designers, principal contractors and contractors to take account of the principles in carrying out their duties.

THE GENERAL PRINCIPLES OF PREVENTION

- (1) These principles are a requirement of the Management of Health and Safety at Work Regulations 1999 and apply to all industries, including construction. They provide a framework to **identify** and **implement** measures to control risks on a construction project.

THE GENERAL PRINCIPLES OF PREVENTION

- (2) The general principles of prevention are to:
- a) **Avoid** risks;
 - b) **Evaluate** the risks which cannot be avoided;
 - c) **Combat** the risks at source;
 - d) **Adapt** the work to the individual, especially regarding the design of workplaces, the choice of work equipment and the choice of working and production methods, with a view, in particular, to alleviating monotonous work, work at a predetermined work rate and to reducing their effect on health;
 - e) **adapt** to technical progress;
 - f) **replace** the dangerous by the non-dangerous or the less dangerous;
 - g) **develop** a coherent overall **prevention policy** which covers technology, organisation of work, working conditions, social relationships and the influence of factors relating to the working environment;
 - h) give collective **protective measures** priority over individual protective measures; and
 - i) give appropriate **instructions** to employees.

HAZARD AND RISK SUMMARY

- It is important to understand that the phrase “risk assessment” comes from the Management of Health and Safety at Work Regulations 1999. Under CDM 2015, the Designer is not required to produce an assessment.
- The Designer’s primary role as duty holder is to avoid **foreseeable risks** whilst designing, and not to simply assess the risks which they have introduced.
- Notwithstanding the above, Designers need to provide adequate information regarding any significant risks which remain in their design (residual risks).

There should be no surprises!




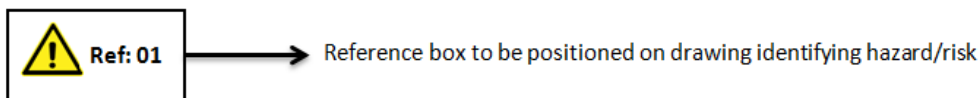
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NOTES ON DRAWING

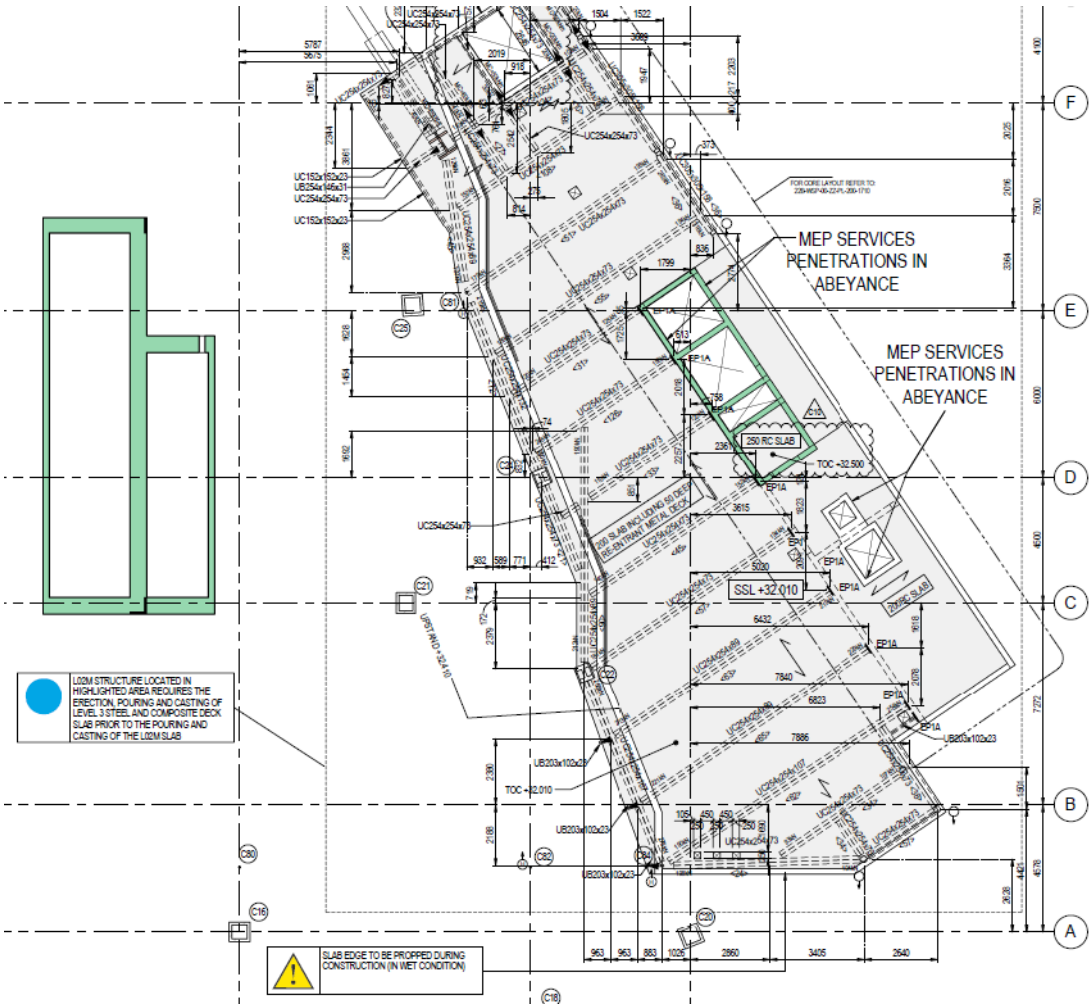
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PROVIDING DESIGN INFORMATION – NOTES ON DRAWING

CDM HAZARD & RISK IDENTIFICATION	
 Identifies Hazard / Risk	
HAZARD IDENTIFICATION	CONTROL AND MITIGATION MEASURES
Reference as noted on MCDM hazard and risk register	As noted on MCDM hazard and risk register
Ref: Prater 01 Glazing Scope - 5A,5B,8A,8B Can the project be installed, glazed and replaced safely. Prater have no cleaning regime input, there are no Abseil loads to consider. Check the project lift size to ensure the glass can be safely moved around the completed building. Ensure MEWP access can be deployed around the completed building perimeter. Glass Panes are 905mm x 1750mm approx - 90kg.	Refer to Prater Design Detail drawings; RAD-PRA-00-ZZ-DR-X-31000_03 / 31001_03 / 31002_03 / 31003_03 / 31004_03 / 31005_03 / 31006_03 / 31007_03 / 31008_03 / 31009_03
NOTE: Hazards listed above are only those considered significant risks and: <ul style="list-style-type: none"> a) not likely to be obvious to contractors or other designers that have the necessary skills, knowledge and experience b) unusual; or c) likely to be difficult to manage effectively The above should be read in conjunction with all available design information including information contained within Pre-Construction Information documentation.	



ADDING CDM HAZARD AND RISK INFORMATION TO DRAWINGS



KEY TO HEALTH & SAFETY SYMBOLS

- WARNING RISK
INDICATES A RESIDUAL RISK AS A WARNING.
- COMPULSORY RISK
INDICATES A RESIDUAL RISK REQUIRING A COMPULSORY ACTION.
- PROHIBITIVE RISK
INDICATES A RESIDUAL RISK REQUIRING A PROHIBITIVE ACTION.
- INFORMATION RISK
INDICATES A RESIDUAL RISK FOR INFORMATION.

SLAB EDGE STUB MEMBERS NOTE:

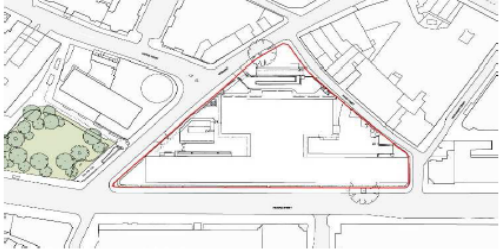
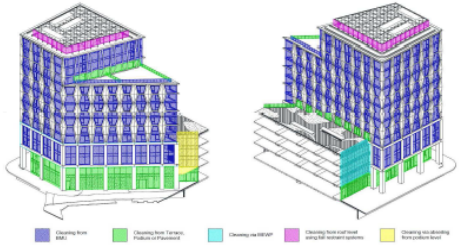
EACH CANTILEVERED STUB MEMBER ALONG THE SLAB EDGE PERIMETER TO HAVE A MOMENT CONNECTION AT THE SUPPORT.
 LDM DIMENSION CONNECTION TO BE DESIGNED TO:
 MC = 30kNm
 V = 50kN

ACCIDENTAL LOAD CASES NOTE:

1. CONNECTION FORCES FROM ACCIDENTAL LOAD CASES SHOULD BE USED IN ISOLATION TO THOSE FROM OTHER LOAD CASES.
2. FOR ACCIDENTAL LOAD CASES, BENDING MOMENT CAPACITY SPECIFIED ON EACH BEAM TO COLUMN CONNECTION SHOULD BE IN ISOLATION TO THE ACCIDENTAL TIE FORCES.

REV	DATE	BY	DESCRIPTION	CHK	APP
C10	26/04/2017	HJK	UPDATED TO LATEST ARCHITECTS COMMENTS	DPF	FAH
C9	16/03/2017	HJK	UPDATED TO LATEST ARCHITECTS COMMENTS	DPF	FAH
C8	30/06/2016	HJK	ADDED SETTING OUT INFORMATION	DPF	FAH
C7	30/06/2016	HJK	UPDATED ATTIC COORDINATION	DPF	FAH
C6	17/06/2016	HJK	CANTILEVER CORNER FINISHES	MK	FAH
C5	23/05/2016	MD	AREA IN ABEYANCE PERIMETER COLUMNS NOTED BY INFO	MK	FAH
C4	25/04/2016	CS	10% BEAM STRESS SETTING OUT DIMENSIONS CLARIFIED	MK	FAH
C3	22/04/2016	MD	END REACTION UPDATED; MOMENT CONNECTION TO PERIMETER STUBS ADDED; WINDING AND COLUMN REFERENCE UPDATED; EMBED PLATES ADDED; NOTES UPDATED	MK	FAH
C2	08/04/2016	CS	STEEL GENERAL ARRANGEMENT UPDATED	MK	FAH
C1	03/03/2016	MD	EXECUTION COORDINATION	DPF	FAH

ADDING EXTRACTS FROM DRAWINGS TO THE CDM RISK ANALYSIS REGISTER

Ref No.	Date	Hazard / Risk	Description / Activity / Location	Proposed Solution / Design Mitigation	Residual Risk	Action by	Status	Principal / Demolition Contractor Response
1.6	171130	Unknown survey information of existing building		A full and comprehensive survey of the existing building to be carried out prior to demolition.	Further investigation needs to be carried out by the Demolition Contractor. Risk remains until demolition is complete.	XXX	Construction Risk	
1.7	171005	Façade maintenance	Provision of maintenance zone for access to Ground and First floor façade 	Access consultant to confirm strategy. Refer to Façade Access Report by xxx		XXX	Mitigate Risk	

**A SAMPLE CDM (HAZARD & RISK)
RISK REGISTER**

ROYAL ALBERT DOCK				MULTIPLEX					
REF No.	ACTIVITY / WORK PACKAGE	ELEMENT		FURTHER ACTION / CONTROL MEASURES REQUIRED BY OTHERS					
					DATE ENTERED	COMMENTS	DATE CLOSE		
Prater 01	Glazing Scope - 5A,5B,8A,8B	Windows 1st - 5th floors	Can the replaced regime i consider	<p>Check the project lift size to ensure the glass can be safely moved around the completed building. Ensure MEWP access can be deployed around the completed building perimeter. Glass Panes are 905mm x 1750mm approx - 90kg.</p>					
Prater 02	Glazing Scope - 5A,5B,8A,8B	Juliet Doors - 1st - 5th	Can the replaced regime i consider						
Prater 03	Glazing Scope - 5A,5B,8A,8B	Windows & Doors - Terraces	Can the replaced regime i consider						
Prater	Glazing Scope -	Ground floor	Are the						

A SAMPLE CDM (HAZARD & RISK) RISK REGISTER

ROYAL ALBERT DOCK					DRAWING / REPORTS SURVEY REFERENCE		MULTIPLEX			
					Designers must provide details of proposed maintenance regimes. Significant hazards likely to be difficult to maintain are likely to be difficult to maintain.					
REF No.	ACTIVITY / WORK PACKAGE	ELEMENT	HAZARD / RISK IDENTIFIED	DESIGN MITIGATION		DATE ENTERED	COMMENTS	DATE CLOSED		
Prater 01	Glazing Scope - 5A,5B,8A,8B	Windows 1st - 5th floors	Can the project be installed, glazed and replaced safely. Prater have no cleaning regime input, there are no Abseil loads to consider.	All windows are safely installed. All windows are internally beaded and replacement to be complete and specialist glazing contractor. External aluminium panels to be replaced via MEWP by specialist contractor.	Prater Design Detail drawings; RAD-PRA-00-ZZ-DR-X-31000_03 / 31001_03 / 31002_03 / 31003_03 / 31004_03 / 31005_03 / 31006_03 / 31007_03 / 31008_03 / 31009_03	Jun-17	Nov 2017 - Design development ongoing			
Prater 02	Glazing Scope - 5A,5B,8A,8B	Juliet Doors - 1st - 5th	Can the project be installed, glazed and replaced safely. Prater have no cleaning regime input, there are no Abseil loads to consider.	All doors safely installed. All doors are internally beaded and replacement to be complete and specialist glazing contractor. External aluminium panels to be replaced via MEWP by specialist contractor.		Jun-17	Nov 2017 - Design development ongoing			
Prater 03	Glazing Scope - 5A,5B,8A,8B	Windows & Doors - Terraces	Can the project be installed, glazed and replaced safely. Prater have no cleaning regime input, there are no Abseil loads to consider.	All windows & doors are safely installed. All windows & doors are internally beaded and replacement to be complete and specialist glazing contractor. External aluminium panels to be replaced via MEWP by specialist contractor.		Jun-17	Nov 2017 - Design development ongoing			
Prater	Glazing Scope -	Ground floor	Are the Automated Ground floor doors safe	The Ground floor doors are		Jun-17				

A SAMPLE CDM (HAZARD & RISK) RISK REGISTER

ROYAL ALBERT DOCK					PRATER - HA		RISK OWNER		MULTIPLEX			
					Designers must populate this register with the hazards and risks shown below, that reflect their assessment of the project. Significant hazards/risks, or those likely to be difficult to manage or maintain, should be highlighted in yellow.							
REF No.	ACTIVITY / WORK PACKAGE	ELEMENT	HAZARD / RISK IDENTIFIED	DESIGN MITIGATION / CONTROL MEASURES				DATE ENTERED	COMMENTS	DATE CLOSED		
Prater 01	Glazing Scope - 5A,5B,8A,8B	Windows 1st - 5th floors	Can the project be installed, glazed and replaced safely. Prater have no cleaning regime input, there are no Abseil loads to consider.	All windows are safely installed and glazed on site. All windows are internally beaded and therefore the glass replacement to be completed by competent operatives and specialist glazing contractor. External aluminium panels and profiles will be replaced via MEWP by competent operative and specialist contractor.				Jun-17	Nov 2017 - Design development ongoing			
Prater 02	Glazing Scope - 5A,5B,8A,8B	Juliet Doors - 1st - 5th	Can the project be installed, glazed and replaced safely. Prater have no cleaning regime input, there are no Abseil loads to consider.	All doors safely installed and glazed on site. All doors are internally beaded and therefore the glass replacement to be completed by competent operative and specialist glazing contractor. External panels and the external Balustrade profile to be replaced via MEWP by competent operative and specialist contractor.				Jun-17	Nov 2017 - Design development ongoing			
Prater 03	Glazing Scope - 5A,5B,8A,8B	Windows & Doors - Terraces	Can the project be installed, glazed and replaced safely. Prater have no cleaning regime input, there are no Abseil loads to consider.	All windows & doors are safely installed on site via the project method statement. All windows are internally beaded and therefore the glass replacement to be completed by competent operative and specialist glazing contractor.				Jun-17	Nov 2017 - Design development ongoing			
Prater	Glazing Scope -	Ground floor	Are the Automated Ground floor doors safe	The Ground floor doors are complete with				Jun-17				

Multiplex with input from Prater Ltd

A SAMPLE CDM (HAZARD & RISK) RISK REGISTER

ROYAL ALBERT DOCK			PRATER - HAZARD & RISK REGISTER - NOVEMBER 2017				DATE ENTERED		MULTIPLEX	
			Designers must populate this register with their identified design, construction and shown below, that reflect their current design status. Significant hazards/risks, or those not likely to be obvious to a competent contractor likely to be difficult to manage effectively, or those that require a specific sequence maintenance requirements.				<input type="text" value="Jun-17"/>		<input type="text" value=""/>	
REF No.	ACTIVITY / WORK PACKAGE	ELEMENT	HAZARD / RISK IDENTIFIED	DESIGN MITIGATION / CONTROL MEASURES	FURTHER ACTION / CONTROL MEASURES REQUIRED BY OTHERS	STATUS				
Prater 01	Glazing Scope - 5A,5B,8A,8B	Windows 1st - 5th floors	Can the project be installed, glazed and replaced safely. Prater have no cleaning regime input, there are no Absell loads to consider.	All windows are safely installed and glazed in factory conditions. All windows are internally beaded and therefore the glass replacement to be completed by competent operatives and specialist glazing contractor. External aluminium panels and profiles would have to be replaced via MEWP by competent operatives and specialist contractor.	Check the project lift size to ensure the glass can be safely moved around the completed building. Ensure MEWP access can be deployed around the completed building perimeter. Glass Panes are 905mm x 1750mm approx - 90kg.	Planned		- Design		
Prater 02	Glazing Scope - 5A,5B,8A,8B	Juliet Doors - 1st - 5th	Can the project be installed, glazed and replaced safely. Prater have no cleaning regime input, there are no Absell loads to consider.	All doors safely installed and glazed on site. All doors are internally beaded and therefore the glass replacement to be completed by competent operatives and specialist glazing contractor. External aluminium panels and the external Balustrade profiles would have to be replaced via MEWP by competent operatives and specialist contractor.	Check the project lift size to ensure the glass can be safely moved around the completed building. Ensure MEWP access can be deployed around the completed building perimeter. Glass Panes are approx. 420mm x 2250mm approx - 50kg. The aluminium Balustrade will require Crane access for replacement	Planned		- Design		
Prater 03	Glazing Scope - 5A,5B,8A,8B	Windows & Doors - Terraces	Can the project be installed, glazed and replaced safely. Prater have no cleaning regime input, there are no Absell loads to consider.	All windows & doors are safely installed and glazed on site via the project method statement. All windows & doors are internally beaded and therefore the glass replacement to be completed by competent operatives and specialist glazing contractor.	Check the project lift size to ensure the glass can be safely moved around the completed building. Ensure MEWP access can be deployed around the completed building perimeter. Glass Panes are 1220mm x 2440mm approx - 160kg.	Planned		- Design		
Prater	Glazing Scope -	Ground floor	Are the Automated Ground floor doors safe	The Ground floor doors are complete with Schuco Anti	Barrier requirements to be determined	Planned				

A SAMPLE CDM (HAZARD & RISK) RISK REGISTER


ROYAL ALBERT DOCK			PRATER - HAZARD & RISK REGISTER - NOVEMBER 2017			COMMENTS
Designers must populate this register with their identified design, construction and shown below, that reflect their current design status. - Significant hazards/risks, or those not likely to be obvious to a competent contract likely to be difficult to manage effectively, or those that require a specific sequence maintenance requirements.						
REF No.	ACTIVITY / WORK PACKAGE	ELEMENT	HAZARD / RISK IDENTIFIED	DESIGN MITIGATION / CONTROL MEASURES	FURTHER ACTION / CONTROL MEASURES REQUIRED BY OTHERS	
Prater 01	Glazing Scope - 5A,5B,8A,8B	Windows 1st - 5th floors	Can the project be installed, glazed and replaced safely. Prater have no cleaning regime input, there are no Abseil loads to consider.	All windows are safely installed and glazed in factory conditions. All windows are internally beaded and therefore the glass replacement to be completed by competent operatives and specialist glazing contractor. External aluminium panels and profiles would have to be replaced via MEWP by competent operatives and specialist contractor.	Check the project lift size to ensure the glass can be safely moved around the completed building. Ensure MEWP access can be deployed around the completed building perimeter. Glass Panes are 905mm x 1750mm approx - 90kg.	Prater 01 31 31 31 31
Prater 02	Glazing Scope - 5A,5B,8A,8B	Juliet Doors - 1st - 5th	Can the project be installed, glazed and replaced safely. Prater have no cleaning regime input, there are no Abseil loads to consider.	All doors safely installed and glazed on site. All doors are internally beaded and therefore the glass replacement to be completed by competent operatives and specialist glazing contractor. External aluminium panels and the external Balustrade profiles would have to be replaced via MEWP by competent operatives and specialist contractor.	Check the project lift size to ensure the glass can be safely moved around the completed building. Ensure MEWP access can be deployed around the completed building perimeter. Glass Panes are approx. 420mm x 2250mm approx - 50kg. The aluminium Balustrade will require Crane access for replacement	Prater 02 31 31 31 31
Prater 03	Glazing Scope - 5A,5B,8A,8B	Windows & Doors - Terraces	Can the project be installed, glazed and replaced safely. Prater have no cleaning regime input, there are no Abseil loads to consider.	All windows & doors are safely installed and glazed on site via the project method statement. All windows & doors are internally beaded and therefore the glass replacement to be completed by competent operatives and specialist glazing contractor.	Check the project lift size to ensure the glass can be safely moved around the completed building. Ensure MEWP access can be deployed around the completed building perimeter. Glass Panes are 1220mm x 2440mm approx - 160kg.	Prater 03 31 31 31 31
Prater	Glazing Scope -	Ground floor	Are the Automated Ground floor doors safe	The Ground floor doors are complete with Schuco Anti	Barrier requirements to be determined	Prater 31 31 31 31

Nov 2017 - Design development ongoing

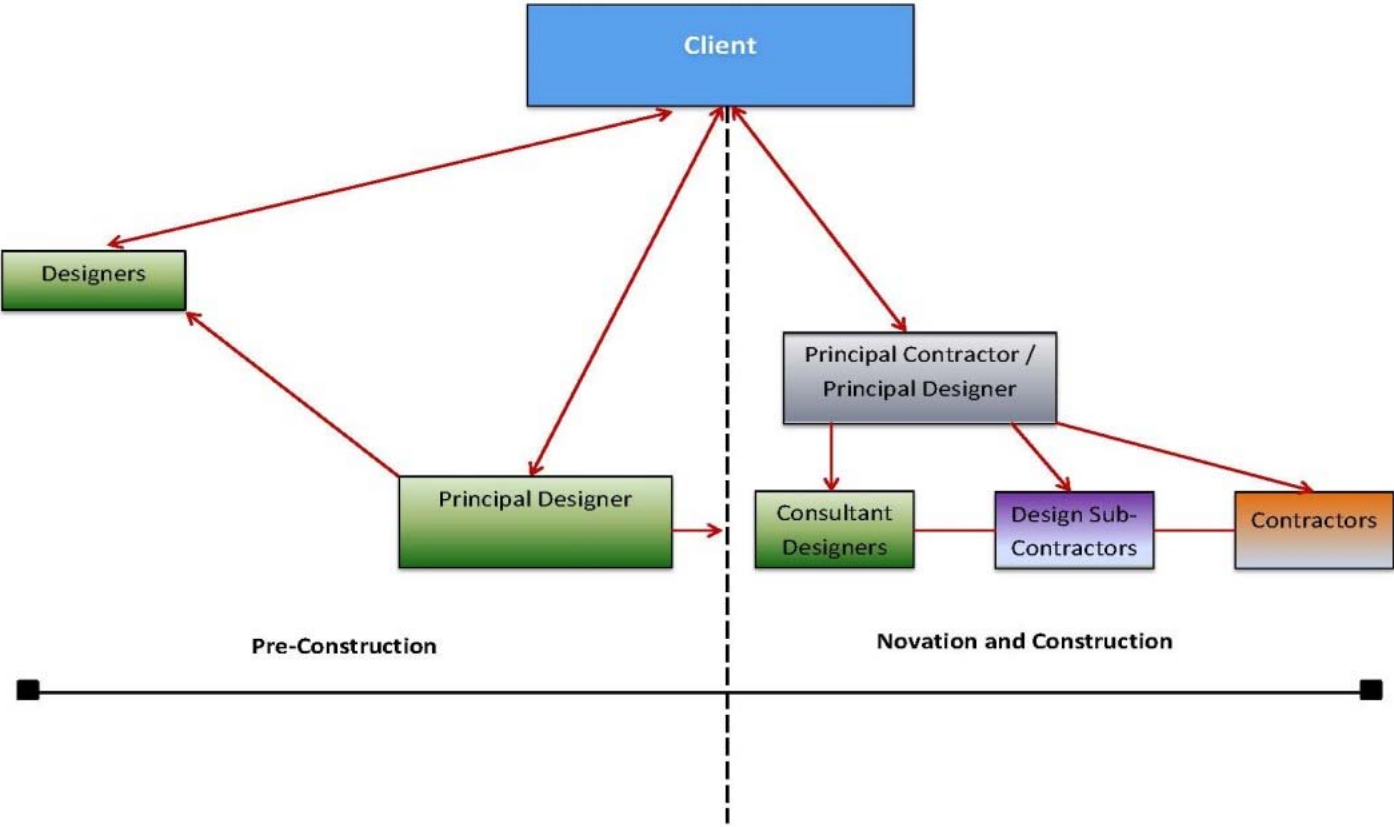
A SAMPLE CDM (HAZARD & RISK) RISK REGISTER

ROYAL ALBERT DOCK			PRATER - HAZARD & RISK REGISTER - NOVEMBER 2017						
			Designers must populate this register with their identified design, construction and maintenance hazards and risks, as shown below, that reflect their current design status. Significant hazards/risks, or those not likely to be obvious to a competent contractor or other designers, unusual or likely to be difficult to manage effectively, or those that require a specific sequence of works and any cleaning and or maintenance requirements.						
REF No.	ACTIVITY/ WORK PACKAGE	ELEMENT	HAZARD / RISK IDENTIFIED	DESIGN MITIGATION / CONTROL MEASURES	FURTHER ACTION / CONTROL MEASURES REQUIRED BY OTHERS	DRAWING / REPORT/SURVEY REFERENCE	RISK OWNER	D. ENT	
Prater 01	Glazing Scope - 5A,5B,8A,8B	Windows 1st - 5th floors	Can the project be installed, glazed and replaced safely. Prater have no cleaning regime input, there are no Abseil loads to consider.	All windows are safely installed and glazed in factory conditions. All windows are internally beaded and therefore the glass replacement to be completed by competent operatives and specialist glazing contractor. External aluminium panels and profiles would have to be replaced via MEWP by competent operatives and specialist contractor.	Check the project lift size to ensure the glass can be safely moved around the completed building. Ensure MEWP access can be deployed around the completed building perimeter. Glass Panes are 905mm x 1750mm approx - 90kg.	Prater Design Detail drawings: RAD-PRA-00-22-DR-X-31000_03/31001_03/31002_03/31003_03/31004_03/31005_03/31006_03/31007_03/31008_03/31009_03	Multiplex with input from Prater Ltd	Jun-17	
Prater 02	Glazing Scope - 5A,5B,8A,8B	Juliet Doors - 1st - 5th	Can the project be installed, glazed and replaced safely. Prater have no cleaning regime input, there are no Abseil loads to consider.	All doors safely installed and glazed on site. All doors are internally beaded and therefore the glass replacement to be completed by competent operatives and specialist glazing contractor. External aluminium panels and the external Balustrade profiles would have to be replaced via MEWP by competent operatives and specialist contractor.	Check the project lift size to ensure the glass can be safely moved around the completed building. Ensure MEWP access can be deployed around the completed building perimeter. Glass Panes are approx. 420mm x 2250mm approx - 50kg. The aluminium Balustrade will require Crane access for replacement	Prater Design Detail drawings: RAD-PRA-00-22-DR-X-31016_02/31019_02/31020_02/31021_02/31022_02	Multiplex with input from Prater Ltd	Jun-17	
Prater 03	Glazing Scope - 5A,5B,8A,8B	Windows & Doors - Terraces	Can the project be installed, glazed and replaced safely. Prater have no cleaning regime input, there are no Abseil loads to consider.	All windows & doors are safely installed and glazed on site via the project method statement. All windows & doors are internally beaded and therefore the glass replacement to be completed by competent operatives and specialist glazing contractor.	Check the project lift size to ensure the glass can be safely moved around the completed building. Ensure MEWP access can be deployed around the completed building perimeter. Glass Panes are 1220mm x 2440mm approx - 160kg.	Prater Design Detail drawings: RAD-PRA-00-22-DR-X-31025_02/31026_02/31027_03/31028_03/31030_03/31031_03/31036_03	Multiplex with input from Prater Ltd	Jun-17	
Prater	Glazing Scope -	Ground floor	Are the Autoroated Ground floor doors safe	The Ground floor doors are complete with Schuco Anti	Barrier requirements to be determined	Prater Design Detail	Multiplex with input	Jun-17	

DATE CLOSED



CDM D&B PROJECT PROCESS MAP





MULTIPLEX

ANY QUESTIONS?

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MULTIPIX

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