LRSSB - LRG - 23.0



# Application of the Construction (Design and Management) Regulations 2015













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THIS DOCUMENT PROVIDES GUIDANCE ON THE APPLICATION OF CONSTRUCTION (DESIGN AND MANAGEMENT) REGULATIONS 2015						
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document reflects good practice and is advisory only. Users are recommended to evaluate this guidance against their own arrangements in a structured and systematic way, noting that parts of this guidance may not be appropriate to their operations. It is recommended that this process of evaluation and any subsequent decision to adopt (or not adopt) elements of this guidance should be documented. Compliance with any or all of the contents herein, is entirely at an organisation's own discretion. <b>SOURCE / RELATED DOCUMENTS:</b>						
LRG 41.0 Road Safety Audit (RSA) Guidance (LRSSB) Managing health and safety in construction: Construction (Design and Management) Regulations 2015, Guidance on Regulations, L153: 2015 Health and Safety Executive BS 5975:2019 Code of practice for temporary works procedures and the permissible stress design of falsework CDM Plan (NR/L2/OHS/0047/F0052) Network Rail						
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### **Revisions from Previous Issue**

Changes to Page 1: removal of the named preparer, reviewer and authorising person and insertion of an explanatory note in relation to the status of this guidance document.

Reference inserted to LRG 34.0 Guidance on Control of Contracted Works and LRG 41.0 Road Safety Audit Guidance.

New footnotes inserted from existing text.

Numerous minor text amendments.

Minor presentational and typographical changes.



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### **TERMS AND ABBREVIATIONS**

### Table A – Terms

Term	Definition
Construction Phase	The period of time beginning when construction work in a project starts and ending when construction work in that project is completed.
Construction Phase Plan	A plan drawn up under CDM Regulations 12 or 15. It outlines the health and safety arrangements, site rules and specific measures concerning any work involving the specific risks listed in Schedule 3 of CDM.
Construction Site	Includes any place where construction work is being carried out or to which the workers have access but does not include a workplace within the site which is set aside for purposes other than construction work.
Construction Work	The carrying out of any building, civil engineering or engineering construction work.
Design	Includes drawings, design details, specifications, and bills of quantities (including specification of articles or substances) relating to a structure, and calculations prepared for the purpose of a design.
Duty Holder	Person in charge of operational activities at a particular time.
Health and Safety File	A file prepared under CDM Regulation 12(5). Its purpose is to ensure that at the end of the project, the Client has information that anyone carrying out subsequent construction work on the building will need to know about in order to be able to plan and carry out the work safely and without risks to health.
PAS 91	Standardised Pre-Qualification Questionnaire developed by BSI.
Place of Work	Any place which is used by any person at work for the purposes of construction work or for the purposes of any activity arising out of or in connection with construction work.
Pre-Construction Information	<ul> <li>Information in the Client's possession or which is reasonably obtainable by or on behalf of the Client, which is relevant to the construction work and is of an appropriate level of detail and proportionate to the risks involved, including information about: <ul> <li>The project;</li> <li>Planning and management of the project;</li> <li>Health and safety hazards, including design and construction; hazards and how they will be addressed; and</li> <li>Information in any existing health and safety file.</li> </ul> </li> </ul>



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Term	Definition	
Pre-Construction Phase	Any period of time during which design or preparatory work is carried out for a project and may continue during the construction phase.	
Project	A project which includes or is intended to include construction work and includes all planning, design, management, or other work involved in a project until the end of the construction phase.	
Risk Assessment and Method Statement	A composite document that contains a safe system of work to address the identified risks. Risk assessments are used to identify and record hazards relating to a particular construction activity, assess the likelihood and severity of the risks and to plan adequate control measures to eliminate or reduce those risks. Method statements build on the risk assessments. They detail how specific activities can be carried out safely, and describe the control measures to be used, how these can be implemented, and what people and equipment should be used.	
Structure	As defined by CDM cited in Paragraph 2.9	



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### Table B – Abbreviations

Term	Definition
BIM	Building Information Models
BS	British Standard
BSI	British Standards Institution
CIRIA	Construction Industry Research and Information Association
СІТВ	Construction Industry Training Board
СРР	Construction Phase Plan
HSE	Health and Safety Executive
HSF	Health and Safety File
KPIs	Key Performance Indicators
LOLER	Lifting Operations and Lifting Equipment Regulations 1998
LRSSB	Light Rail Safety and Standards Board
MEWP	Mobile Elevated Work Platform
ORR	Office of Rail and Road
PAS 91	Pre-Qualification Questionnaire
PCI	Pre-Construction Information
PUWER	Provision and Use of Work Equipment Regulations 1998
RAMS	Risk assessment and Method Statement
ROGS	The Railways and Other Guided Transport Systems (Safety) Regulations 2006 (as amended)
SMS	Safety Management System
SSIP	Safety Schemes in Procurement
SSST	Site Supervision Safety Training Scheme
TPG	Tramway Principles and Guidance
TWf	Temporary Works Forum
UK	United Kingdom



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### 1. Introduction

- 1.1. This guidance supports the high level principles set out in LRG 1.0 Tramway Principles and Guidance (TPG) published by the Light Rail Safety and Standards Board (LRSSB).
- 1.2. This document sets out the requirements to enable compliance with the legal requirements of the Construction (Design and Management) Regulations 2015 (CDM)<sup>1</sup> for those delegated this responsibility in relation to UK Light Rail (tramways) systems based on 'line-of-sight' operations only.
- 1.3. As with all guidance, this document is not prescriptive and is intended to give advice not to set a mandatory standard for the sector, and it is based upon goal setting principles as good practice. Much of this guidance is based on the experience and good practice gained from existing UK Light Rail systems and from published documents.
- 1.4. This guidance is not intended to be applied retrospectively to existing Light Rail systems. However, owners and operators should consider and assess any implementation of this guidance and / or any subsequent revision, to ensure continual improvement, so far as is reasonably practicable.

<sup>1</sup> https://www.legislation.gov.uk/uksi/2015/51/contents/made



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### 2. Scope

- 2.1. This guidance should be read in conjunction with the CDM Regulations and the Health and Safety Executive's (HSE's) L153 Guidance on CDM<sup>2</sup>. This section defines the scope of both the HSE's guidance and the CDM Regulations.
- 2.2. This guidance document has been written on the basis that the Light Rail system will perform the Client role. In this role, the Light Rail system may choose to appoint external organisations to undertake the other duty holder roles, or they may choose to undertake the other duty roles themselves. To assist both options, information has been provided on the other duty holder roles in order to provide the following:
  - Help Light Rail systems to undertake those roles;
  - Provide guidance to Light Rail systems on what is required from the duty holders they appoint; and
  - Include requirements for those duty holders that will help the Light Rail systems discharge their Client duties.
- 2.3. CDM is the term used for the Construction (Design and Management) Regulations 2015.
- 2.4. CDM first came into force in 1995 and were subsequently revised with a new version coming into force on 6 April 2007 along with an accompanying Approved Code of Practice (ACoP). The CDM Regulations were later further revised, and a new version came into force on 6 April 2015, supplemented by the HSE's L153 guidance.
- 2.5. The HES's accompanying L153 guidance gives practical advice on how to comply with the law and states:

'Following the guidance is not compulsory, unless specifically stated, and you are free to take other action. But if you do follow the guidance you will normally be doing enough to comply with the law. Health and safety inspectors seek to secure compliance with the law and may refer to this guidance.'

2.6. This guidance document is consistent with the requirements of the L153 and also provides clarification of elements of the L153 guidance.

Application of the CDM Regulations to Construction

- 2.7. The CDM Regulations apply to all construction work in the UK regardless of the size of the project, and apply to employers, employees and the self-employed. CDM applies to the whole process on all construction projects from concept to completion, including ongoing maintenance.
- 2.8. Construction work is defined in CDM as the carrying out of any building, civil engineering or engineering construction work and includes the following:
  - Construction, alteration, conversion, fitting out, commissioning, renovation, repair, upkeep, redecoration or other maintenance (including cleaning which involves the

<sup>2</sup> https://www.hse.gov.uk/construction/cdm/2015/index.htm



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use of water or an abrasive at high pressure, or the use of corrosive or toxic substances), de-commissioning, demolition or dismantling of a structure;

- Preparation for an intended structure including site clearance, exploration, investigation (but not site survey) and excavation (but not pre-construction archaeological investigations), and the clearance or preparation of the site or structure for use or occupation at its conclusion;
- Assembly on site of prefabricated elements to form a structure or the disassembly on site of the prefabricated elements which, immediately before such disassembly, formed a structure;
- Removal of a structure, or of any product or waste resulting from demolition or dismantling of a structure, or from disassembly of prefabricated elements which immediately before such disassembly formed such a structure; and
- Installation, commissioning, maintenance, repair or removal of mechanical, electrical, gas, compressed air, hydraulic, telecommunications, computer or similar services which are normally fixed within or to a structure.
- 2.9. Construction work is undertaken in relation to a structure and those items fixed within or to a structure. Structure is defined in CDM as any of the following. (The items highlighted in bold by this guidance are for information only and indicate the rail-related elements of the definition.)
  - Building, timber, masonry, metal or reinforced concrete structure, railway line or siding, tramway line, dock, harbour, inland navigation, tunnel, shaft, bridge, viaduct, waterworks, reservoir, pipe or pipeline, cable, aqueduct, sewer, sewage works, gasholder, road, airfield, sea defence works, river works, drainage works, earthworks, lagoon, dam, wall, caisson, mast, tower, pylon, underground tank, earth retaining structure or structure designed to preserve or alter any natural feature, and fixed plant;
  - Structure similar to anything specified above;
  - Formwork, falsework, scaffold or other structure designed or used to provide support or means of access during construction work; and
  - Reference to a structure includes part of a structure.
- 2.10. Works outside the scope of construction work might include non-intrusive surveys and inspections carried out as part of the pre-construction phase, vegetation clearance that is not associated with the construction phase, cleaning, examinations of structures and off-site manufacture of items for later use in construction work.
- 2.11. Some construction projects include operations, such as those described in the previous paragraph, which are not themselves construction work. Where this is the case, the overlap between the construction and non-construction work should be addressed in the management arrangements and the Construction Phase Plan (CPP).
- 2.12. Whilst they may not be construction work, other health and safety legislation will apply to those operations (for example, the Management of Health and Safety at Work



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Regulations 1999<sup>3</sup>, Work at Height Regulations 2005<sup>4</sup>, Manual Handling Operations Regulations 1992<sup>5</sup>, Provision and Use of Work Equipment Regulations 1998<sup>6</sup> (PUWER), Lifting Operations and Lifting Equipment Regulations 1998<sup>7</sup> (LOLER), plus product-related standards).

2.13. Light Rail systems may also have company procedures for non-construction work operations within their Safety Management System (SMS) prepared for ROGS<sup>8</sup>.

<sup>3</sup> https://www.legislation.gov.uk/uksi/1999/3242/made/data.pdf

<sup>4</sup> https://www.legislation.gov.uk/uksi/2005/735/made/data.pdf

<sup>5</sup> https://www.legislation.gov.uk/uksi/1992/2793/made/data.pdf

<sup>6</sup> https://www.legislation.gov.uk/uksi/1998/2306/made/data.pdf

<sup>7</sup> https://www.legislation.gov.uk/uksi/1998/2307/made/data.pdf

<sup>8</sup> https://www.legislation.gov.uk/uksi/2006/599/made/data.pdf



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### 3. Summary of the Duty Holder Roles and Responsibilities

- 3.1. CDM creates the following five duty holder roles:
  - Client;
  - Principal Designer;
  - Designer;
  - Principal Contractor; and
  - Contractor.
- 3.2. Where there is only one Contractor on site, CDM only requires three duty holder roles to be undertaken: Client, Contractor and Designer. Where there is more than one Contractor on site, CDM requires all five duty holder roles to be undertaken.
- 3.3. The roles and responsibilities of each of the duty holders are summarised in this section and details are provided in later sections.

### Client

- 3.4. The Client is the organisation for whom the construction project is carried out and is responsible for making suitable arrangements for managing a project.
- 3.5. This includes ensuring other duty holders are appointed in sufficient time and resources are allocated. They must also make sure of the following:
  - Relevant information is prepared and provided to other duty holders;
  - The Principal Designer and Principal Contractor carry out their duties; and
  - Welfare facilities are provided.
- 3.6. A detailed description of how to discharge the Client duties is contained in Section 4.

### Principal Designer

- 3.7. The main responsibility of the Principal Designer is to plan, manage, monitor and coordinate health and safety in the pre-construction phase of a project. In particular, they should undertake the following:
  - Plan, manage, monitor and coordinate health and safety in the pre-construction phase of a project including:
    - Identifying, eliminating or controlling foreseeable risks; and
    - Ensuring designers carry out their duties;
  - Prepare and provide relevant information to other duty holders; and
  - Provide relevant information to the Principal Contractor to help them plan, manage, monitor, and coordinate health and safety in the construction phase.
- 3.8. A detailed description of how to discharge the Principal Designer duties is contained in Section 5.



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#### Designer

- 3.9. The Designer is someone who prepares or modifies a design or arranges for, or instructs, any person under their control to do so.
- 3.10. A design includes drawings, design details, specifications, and bills of quantities (including specification of articles or substances) relating to a structure, and calculations prepared for the purpose of a design.
- 3.11. The Designer should provide the following:
  - When preparing or modifying designs, eliminate, reduce or control foreseeable risks that may arise during:
    - Construction; and
    - The maintenance and use of a structure once it is built; and
  - Provide information to other members of the Light Rail system's project team to help them fulfil their duties.
- 3.12. A detailed description of how to discharge the Designer duties is contained in Section 6.

#### **Principal Contractor**

- 3.13. The Principal Contractor is the main or managing Contractor. A Principal Contractor must also be a Contractor; they undertake, carry out or manage construction work.
- 3.14. The Principal Contractor is repsonsible for planning, managing, monitoring and coordinating health and safety in the construction phase of a project. This includes the following:
  - Liaising with the Client and Principal Designer;
  - Preparing the CPP; and
  - Organising cooperation between Contractors and coordinating their work.
- 3.15. The Principal Contractor is also repsonsible for ensuring the following:
  - Suitable site inductions are provided;
  - Reasonable steps are taken to prevent unauthorised access;
  - Workers are consulted and engaged in securing their health and safety; and
  - Welfare facilities are provided.
- 3.16. A detailed description of how to discharge the Principal Contractor duties is contained in Section 7.



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### Contractor

- 3.17. The Contractor is an organisation who undertakes, carries out or manages construction work. They are responsible for the following:
  - Planning, managing and monitoring construction work under their control so that it is carried out without risks to health and safety;
  - For projects involving more than one Contractor, coordinate their activities with others in the project team and in particular, comply with directions given to them by the Principal Designer or Principal Contractor; and
  - For single-contractor projects, prepare a CPP.

3.18. A detailed description of how to discharge the Contractor duties is contained in Section 8.



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### 4. Client Duties

4.1. This section provides guidance on the process of setting up and managing the project as a Client and the options for structuring responsibilities and appointing other duty holders.

### Key Duties

- 4.2. CDM requires the Client to undertake the following duties:
  - Record in writing which organisation(s) are to be treated as the Client if there is more than one Client (refer to Section 4.6);
  - Make, maintain, and review suitable arrangements for managing the project and communicate those arrangements to other duty holders (this includes ensuring that the Principal Designer and Principal Contractor carry out their duties) (refer to Section 4.9);
  - Where more than one Contractor is involved, appoint a competent Principal Designer in writing (refer to Section 4.24);
  - Where more than one Contractor is involved, appoint a competent Principal Contractor in writing (refer to Section 4.27);
  - Where the project is notifiable, use the F10 Form to notify the project to ORR (Office of Rail and Road) / HSE (refer to Section 4.31);
  - Ensure that Pre-Construction Information (PCI) has been prepared and shared (refer to Section 4.35 to 4.37);
  - Ensure a CPP has been prepared by the Principal Contractor (or the Contractor where there is only one Contractor involved) before the construction phase begins (refer to Section 4.38);
  - Ensure a Health and Safety File (HSF) has been prepared by the Principal Designer and is available for use (refer to Section 4.41); and
  - Ensure that welfare facilities have been provided by the Principal Contractor (or the Contractor where there is only one Contractor involved) (refer to Section 4.45).

#### Accountability

- 4.3. In the transition from CDM in 1994 to CDM in 2007 and then to CDM in 2015, HSE has strengthened the role and responsibilities of the Client. HSE has suggested that the evidence shows that where a Client is involved in setting out the standards and requirements for a project, the project runs more effectively, and risk is better controlled. CDM seeks to embed the Client at the head of the project team and thus take the lead in ensuring construction work is managed properly and risk is minimised.
- 4.4. Clients can engage someone to carry out the day-to-day tasks associated with their Client duties on their behalf, but the duty to comply with the Regulations (and the associated criminal liability) stays with the Client. The Client will be named as such on the F10 notified to ORR / HSE and remain accountable for the CDM duties, but the other party (such as a Delivery Partner or Project Management organisation) will be responsible for carrying out some of the tasks on a day-to-day basis.



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4.5. The extent of delegated authority should be specified in a contract between the Client and their Delivery Partner / Project Management organisation. They should also be recorded in a CDM Plan or other Project Plan for assurance purposes.

### Managing and Documenting Multiple Clients

- 4.6. There may be occasions where there is more than one Client for a project.
- 4.7. In such a case, one or more of the Clients should agree in writing to be treated, for the purposes of CDM, as the only Client or Clients. This provides clarity as to who is responsible for discharging the Client duties.
- 4.8. Those Clients who have not been identified as the Client for the purposes of CDM will still have duties to undertake the following:
  - Provide any information in their possession that may be relevant to help pull together the PCI; and
  - Cooperate with anyone involved in the project.

### Suitable Arrangements for Managing Projects

4.9. In many cases, a project will be discrete and well-defined. In other cases, it may need to be defined. For instance, a routine programme of maintenance work could be classed as a project rather than define each separate activity as a separate project.

#### General Requirements

- 4.10. One of the key duties of the Client is to make suitable arrangements for managing a project. These arrangements should be confirmed in writing.
- 4.11. This can be done via a Project CDM Plan or similar that documents the arrangements outlined in this section and acts as a repository for references to key documents and activities. An indicative checklist for inclusion in such a Plan is provided in Appendix 1.
- 4.12. A Project CDM Plan is not specifically required by CDM but it is a practical means for the Client to satisfy themselves and demonstrate compliance for audit and assurance purposes.

#### Suitable Arrangements

- 4.13. The Client should make the following arrangements:
  - Assemble the project team by appointing Designers (including, if necessary, a Principal Designer) and Contractors (including, if necessary, a Principal Contractor);
  - Ensure the roles, functions and responsibilities of the project team are clear. This could be achieved via the contracts between the Client and the project team;
  - Ensure sufficient resources and time are allocated for each stage of the project from concept to completion;



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- Ensure effective mechanisms are in place for members of the project team to communicate and cooperate with each other and coordinate their activities. This could be via progress meetings and sharing contact details;
- Take reasonable steps to ensure that the Principal Designer and Principal Contractor comply with their separate duties. This could take place at project progress meetings or via written updates;
- Set out the means to ensure that the health and safety performance of Designers and Contractors (both those appointed by the Client and those appointed by other duty holders) is maintained throughout. This could take place at project progress meetings or via written updates;
- Ensure that workers are provided with suitable welfare facilities for the duration of construction work. This could be via written confirmation from the Principal Contractor;
- Establish the expected standards of health and safety, including safe working practices, and how these standards will be maintained throughout. This could be by requiring compliance with specific Light Rail system procedures;
- Establish what is expected from the design team in terms of the steps they should reasonably take to ensure their designs help manage foreseeable risks during the construction phase and when maintaining and using the structure once it is built. This could be achieved by asking Designers to provide information on how they consider the General Principles of Prevention (refer to Section 0) and what steps they take to reduce risks or provide information where risks cannot be eliminated;
- Set out any specific arrangements when working on or about the Light Rail system;
- Set out the process for handover of the site to the Principal Contractor to access and undertake the work; and
- Establish the arrangements for commissioning the new structure and the handover to the Client.

### Reviewing the Arrangements

4.14. The Client should confirm that the arrangements put in place to satisfy Section **Error! Reference source not found.** (above) are reviewed, remain relevant, updated where necessary and documented throughout the project.

### Client Brief

4.15. A Client Brief provides useful means of communicating these arrangements to other duty holders.

### Appointment of the Principal Designer and the Principal Contractor

4.16. Where more than one Contractor is involved (or is likely to be involved) in a project, CDM requires the Client to appoint a Principal Designer and a Principal Contractor in writing. If no appointment is made in writing, that appointment and the relevant duties default back to the Client.



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4.17. The Client should get acknowledgment of appointments from both the Principal Designer and Principal Contractor. This clarifies who is doing those roles and minimises the potential for uncertainty or dispute later in the project.

Satisfying the Client that the Principal Designer and Principal Contractor Have Sufficient Skills, Knowledge, Experience, and Organisational Capability

#### External Appointments

- 4.18. CDM requires the Client to take reasonable steps to satisfy themselves that Principal Designers and Principal Contractors have the skills, knowledge, experience, and where they are an organisation, the organisational capability to carry out the work in a way that secures health and safety. The Client should also check that the Principal Designers and Principal Contractors have enough experience and a good track record in managing the risks involved in projects.
- 4.19. Organisational capability means the policies and systems an organisation has in place are set to acceptable health and safety standards which comply with the law, and the resources and people to ensure the standards are delivered.
- 4.20. The Light Rail system should either use the procedures within their organisation's SMS or should use the following:
  - Construction prequalification questionnaire PAS 91:2013+A1:2017 (PAS 91). This assesses the suitability of organisations for appointment as Principal Designer and Principal Contractor; or
  - Safety Schemes in Procurement (SSIP). This identifies Principal Designers and Principal Contractors who have been assessed and deemed to have met the required health and safety standards.
- 4.21. Temporary works are required in most projects and can account for up to 50% of the construction costs. Unfortunately, the assessment schemes provide little or no reliable knowledge about an organisation's capability to manage temporary works, and the Client should not rely on them in that respect.
- 4.22. To supplement PAS 91, the Temporary Works forum (TWf) has prepared several questions specific to temporary works along with suggestions for the evidence required and some notes to assessors. Those appointing duty holders should consider using these questions in addition to those set out in PAS 91. (Refer to Section 0 for details of PAS 91 and the TWf supplemental questions.)

#### Internal Appointments

4.23. In some projects, the Light Rail system may choose to undertake the Principal Designer and / or Principal Contractor roles themselves. Where this is the case, the Light Rail system should satisfy themselves that they have sufficient skills, knowledge, experience and organisational capability to undertake the role on that project using the same criteria as for external appointments. This assessment should be documented in writing, as should the appointment itself.



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#### Appointment of the Principal Designer

- 4.24. The Principal Designer should be appointed as early as possible in the design process, preferably at the concept stage. An early appointment will help the Client in compiling the PCI and help in identifying key risks that can be eliminated or reduced during conceptual design.
- 4.25. The Principal Designer appointment should carry on for as long as the design and other pre-construction preparatory work are being undertaken. This is likely to extend into the construction phase where Contractors will be undertaking designs including temporary works designs and where design changes will be required.
- 4.26. It may be necessary to end the appointment of one Principal Designer and appoint another Principal Designer as the project progresses and the project requirements change.

### Appointment of the Principal Contractor

- 4.27. The Client should specify in their procurement documents that the selected organisation will be required to take on the Principal Contractor role, following an assessment of the organisation's competence to perform the Principal Contractor role on the construction project in question. By doing so, this allows the organisation tendering for the work to understand the scope of the work, assess their competency to undertake that work and price for that work.
- 4.28. The HSE's CDM guidance (L153) requires both the Client (Paragraph 31 (c)) and the Principal Contractor (Paragraphs 123(c), 129(a) and 145(a)) to provide sufficient resources. Specifying that the Principal Contractor role needs to be undertaken as part of the procurement process allows for those resources to be estimated, priced, and provided.
- 4.29. The Principal Contractor should be appointed early enough in the preconstruction phase to help the Client meet their duty to ensure a CPP (refer to Sections 0, 09 and 0) is drawn up before the construction phase starts. This also gives the Principal Contractor time to carry out their planning duties (refer to Section 0).

Client Appointments of Designers and Contractors

4.30. The Client should use the approach described in Section 4.15 for the appointment of Designers and Contractors.

#### Notification of the Project to the Regulator

- 4.31. A project is notifiable if the construction work on a construction site is scheduled as the following:
  - Lasts longer than 30 working days and has more than 20 workers working simultaneously at any point in the project; or
  - Exceeds 500 person days.



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- 4.32. For notifiable construction projects, the Client should notify the HSE of the construction works using the HSE's online F10 notification form. The ORR will be able to access that notification.
- 4.33. Notification should be done early in the lifecycle of a project (well before the construction phase begins) and updated periodically.
- 4.34. The Client should display an up-to-date copy of the F10 notice in the construction site office, so it is accessible to anyone working on the site and in a form that can be easily understood. The Client can either do this themselves or ask the Principal Contractor or Contractor to do so.

### **Pre-Construction Information (PCI)**

- 4.35. The Client has the main duty for providing the PCI. This must be provided as soon as practicable to each Designer (including the Principal Designer) and Contractor (including the Principal Contractor) who is bidding for work on the project or has already been appointed.
- 4.36. For projects involving more than one Contractor, the Principal Designer (refer to Section 0) should help the Client to compile the PCI and provide it to the Designers and Contractors involved. In this case, the Client should prepare initial PCI to help those bidding for the Principal Designer role. The PCI will be developed further after appointment.
- 4.37. Suggested contents for the PCI are provided in Section 0.

### Construction Phase Plan (CPP)

- 4.38. CDM requires the Client to ensure a CPP has been prepared before the construction phase begins. The Principal Contractor should prepare the CPP unless there is only one Contractor on the project, in which case, that Contractor should prepare the CPP.
- 4.39. Appointing a Principal Contractor (or Contractor) early gives them the time to plan and prepare the CPP and thus enables the Client to discharge their duties.
- 4.40. Suggested contents for the CPP are provided in Section 0.

### Health and Safety File (HSF)

- 4.41. CDM requires the Client to ensure that a HSF has been prepared by the Principal Designer. The HSF is only required on projects where a Principal Designer has been appointed (those projects with more than one Contractor).
- 4.42. For significant projects with only one Contractor involved, the Client should arrange for a HSF to be prepared, particularly if the information is required for the Client's asset management system.



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- 4.43. Where a Principal Designer's appointment finishes before the end of the project, the Client should make sure that the Principal Designer passes the HSF to the Principal Contractor so it can be revised and added to during the remainder of the project.
- 4.44. Suggested contents for the HSF are provided in Section 0.

### **Welfare Facilities**

- 4.45. Before construction works starts, the Client should confirm that the Principal Contractor has provided the welfare facilities required in CDM Schedule 2 (as illustrated in Appendix 2 of this guidance document).
- 4.46. If the construction work is being carried out on the Light Rail system's premises, it is likely that the Principal Contractor will need to liaise with the Client (Light Rail system) to ensure that appropriate welfare facilities are provided (including gaining access to existing welfare facilities provided by the Light Rail system).
- 4.47. Although it is not a requirement of CDM, if the Principal Contractor included a list of the welfare provided in the CPP, that would help the Client confirm that appropriate welfare facilities are being provided. Appendix 2 provides a starting point for such a list.
- 4.48. Useful information is provided in HSE's Information Sheet 'Provision of welfare facilities during construction work'.

### Handover Arrangements from the Principal Contractor

- 4.49. As the project reaches completion, the Client should review arrangements for formal completion and handover. In some cases, the handover process may be in a phased arrangement, whereby the Client accepts and takes responsibility for sections of the construction works or assets as they are completed.
- 4.50. In the event of a phased handover, the Client should ensure that agreed controls and arrangements are in place to secure the health and safety of people occupying areas that have been handed over to them.

Further Information on Client Duties

- 4.51. Further information on Client duties can be obtained from the following publications:
  - Health and Safety Executive: Managing Health and Safety in Construction: Construction (Design and Management) Regulations 2015 – Guidance on Regulations, L153, HSE Books, 2015 (<u>https://www.hse.gov.uk/pubns/priced/l153.pdf</u>);
  - CITB<sup>9</sup>: CDM 2015 Industry guidance for Clients, CDM15/1, 2015 (<u>https://www.citb.co.uk/media/bwzklrv5/cdm-2015-clients-interactive.pdf</u>);

<sup>9</sup> Construction Industry Training Board



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- BSI: Construction prequalification questionnaires, PAS 91:2013+A1:2017 (https://shop.bsigroup.com/products/construction-prequalificationquestionnaires?pid=00000000030336960);
- TWf: PAS 91, Construction prequalification questionnaires Supplementary questions specific to temporary works, TWf Information Sheet No. 13, TW21.081, June 2021 (<u>https://www.twforum.org.uk/viewdocument/twf-information-sheetno-13-pas-9</u>);
- Health and Safety Executive: Provision of welfare facilities during construction work, Construction Information Sheet No 59, January 2011 (<u>https://www.hse.gov.uk/pubns/cis59.pdf</u>); and
- Health and Safety Executive: Need building work done? A short guide for clients on the Construction (Design and Management) Regulations 2015, INDG 411, April 201 (https://www.hse.gov.uk/pubns/indg411.pdf).



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### 5. Principal Designer Duties

5.1. This section provides guidance on how to discharge the CDM Principal Designer duties including advice on what to do when there is construction work, more than one Contractor, but no traditional design work.

### **Key Duties**

- 5.2. CDM requires the Principal Designer to undertake the following:
  - Plan, manage and monitor the pre-construction phase and coordinate matters relating to health and safety during the pre-construction phase (refer to Section 0);
  - Confirm the principles of prevention have been applied to the design, taking into account the whole lifecycle of the asset that is to be constructed (refer to Section 0);
  - Ensure the Designers have developed the measures required to eliminate or reduce risk to those involved with, or affected by, the construction work and those using, maintaining or cleaning the asset or decommissioning the asset at the end of its life as required by CDM Regulation 9 (refer to Section 0 of this guidance document);
  - Assist the Client in preparing the PCI and sharing that information where relevant (refer to Section 0);
  - Prepare the HSF (refer to Section 0); and
  - Liaise with the Principal Contractor for the duration of the Principal Designer's appointment (refer to Section 0).

The Pre-Construction Phase and the Requirements of the Role

5.3. CDM Regulation 2 states:

'*Pre-construction phase means any period of time during which design or preparatory work is carried out for a project and may continue during the construction phase*'.

- 5.4. The Principal Designer role has two components in pre-construction phase. These are in relation to the following:
  - Preparatory work if there is no traditional design required (such as a like-for-like replacement during maintenance work); and
  - Design work where specific design decisions are required.
- 5.5. This will have implications for who is best placed to undertake the Principal Designer role.
- 5.6. It is important to note that the pre-construction phase includes temporary works as well as design by Contractors and design changes to the permanent works.
- 5.7. CDM Regulation 5(1)(a) indicates that the Principal Designer is 'a Designer with control over the pre-construction phase'. This control may result from other roles that the Principal Designer is undertaking for the Client such as Lead Designer.



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5.8. If there are instances where it is not clear that the Principal Designer is in control of the pre-construction phase, there may be a need to establish that control by contractual mechanisms. This may be the case with design and build contracts where someone other than the Principal Contractor has been appointed as Principal Designer.

### Projects with More than One Contractor but No Traditional Design Work

- 5.9. This scenario is likely to occur in projects such as maintenance work where the construction work is a like-for-like replacement.
- 5.10. Whilst no traditional design work is required, there will be a need for planning and coordination of the preparatory work. The CDM definition of the pre-construction phase includes preparatory work.
- 5.11. In such a case as the above, the Principal Contractor may be suitable for appointment as Principal Designer given their planning and coordination role.
- 5.12. The Client should make a written appointment, or the Principal Designer role will default to that Client.

### Planning, Managing, Monitoring and Coordinating

- 5.13. In discharging these duties, the Principal Designer should take account of the following:
  - General principles of prevention (refer to Section 0);
  - PCI (refer to Section 0);
  - CPP if available as it is likely to have implications for design work carried out after the construction phase has started (refer to Section 05); and
  - Existing HSFs prepared as part of previous construction work (refer to Section 0).

#### Planning

#### Planning the Pre-Construction Work

- 5.14. Although not required explicitly by CDM, it may be helpful for the Principal Designer to develop a Pre-CPP that sets out the planning, managing, monitoring and coordinating steps to be undertaken.
- 5.15. This can then be updated to reflect what has been completed to date and highlight what is still outstanding. It also provides a means for the Client to discharge their duty to ensure the Principal Designer is discharging their duties.

#### Identifying the Foreseeable Risks

5.16. CDM requires Principal Designers to ensure, as far as is reasonably practicable, that foreseeable risks to health and safety are identified. In doing so, the Principal Designer should work with the other Designers involved with the project.



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- 5.17. The risks that should be identified are the significant ones which are likely to arise in the following scenarios:
  - While carrying out construction work; and / or
  - During maintenance, cleaning or using the asset as a workplace once it is built.

#### Managing

#### Managing the Pre-Construction Phase Work

- 5.18. The Principal Designer should inform the Designers of their expectations of how the preconstruction phase will be managed, including methods of communication, circulation of information and attendance at meetings.
- 5.19. The Designers should give the Principal Designer regular updates, including information about issues or design changes that could potentially impact on health and safety.
- 5.20. The Principal Designer may need to inform the Client about these, especially where changes have been made to their original brief.

#### Managing the Foreseeable Risks

- 5.21. Once the risks have been identified, CDM requires Principal Designers to follow the approach to managing them set out in the general principles of prevention (refer to Section 0).
- 5.22. CDM requires the Principal Designer to, as far as reasonably practicable, ensure that the design team works to provide the following (refer to Section 6.3):
  - **Eliminate** the risks associated with design elements where possible. However, if this is not possible:
  - **Reduce** any remaining risks to an acceptable level, or
  - **Control** the remaining risks.
- 5.23. Where it is not possible for the Designers to eliminate the significant risks, they have a duty to provide information on how those risks are to be reduced or controlled (refer to Sections 0 and 0). This information should also be provided to the Principal Designer for inclusion in the PCI.
- 5.24. Examples of this information could include risks identified on drawings, specific sequencing of erection, any phased handovers and any temporary support that is required.
- 5.25. As with planning, the focus should be on those design elements where there is a significant risk of injury or ill health.
- 5.26. It is advised that where identified risks have not been eliminated then the Contractor, Client or their representative (operator or system maintainer) should be involved in



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agreeing the transfer of those risks and mitigations. This could be done as part of the Design Reviews described in Section 0. *Monitoring* 

- 5.27. Monitoring provides a means by which the Principal Designer can ensure that Designers comply with their duties.
- 5.28. Appropriate checks should be made to ensure Designers are dealing with design risks appropriately. This can be done as part of the design process and through regular progress meetings and Design Reviews.
- 5.29. A Design Risk Management Register may help in keeping track of the significant risks.

#### Coordinating

- 5.30. Principal Designers have a responsibility to coordinate health and safety with all the Designers, including temporary works Designers. They need to be sure that designs are coordinated between the different Designers to identify any potential impacts on health and safety during the full project lifecycle. This includes construction, maintenance, cleaning and, where relevant, its use as a workplace.
- 5.31. The Principal Designer should also ensure that everyone working on the pre-construction phase cooperates with one other.
- 5.32. The Principal Designer needs to establish ongoing effective communication, and that information is being shared within the project team. This should involve holding meetings with others in the design team. Progress meetings with the Client and the Principal Contractor also provide a way of ensuring work on the project is properly coordinated.

#### Design Reviews

- 5.33. Design Reviews provide an effective means of discharging the Principal Designer's planning, managing, monitoring and coordinating duties and also assure the Client that health and safety issues are being addressed and resolved at the design stage.
- 5.34. Design Reviews should ensure that health and safety is considered in relation to the buildability, usability, and maintainability of an asset.
- 5.35. The Principal Designer should hold and chair regular Design Review meetings to enable the following:
  - Discuss the risks that should be addressed during the pre-construction phase;
  - Decide on the control measures to be adopted; and
  - Agree the PCI that should be provided to the Principal Contractor (to help their planning process including preparation of the CPP).
- 5.36. The Principal Designer should identify and involve relevant supply chain partners, operators, maintainers as well as the Client in Design Reviews.



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### Confirm All Designers Comply with their CDM Regulation 9 Duties

- 5.37. CDM requires the Principal Designer to ensure that the Designers comply with their duties.
- 5.38. The Principal Designer should speak with the Designers at an early stage to find out how they will consider health and safety in their designs and how they will demonstrate this. Later, they should seek confirmation that Designers have complied with their CDM duties.
- 5.39. In relation to temporary works, the Principal Designer should seek confirmation of the following:
  - Permanent Works Designers have complied with the requirements of BS 5975:2019<sup>10</sup> in general and Section 8.3 in particular; and
  - Temporary Works Designers have complied with the requirements of Section 8.4 of BS 5975:2019 in general and Section 8.4 in particular.

### Pre-Construction Information (PCI)

- 5.40. PCI is information already in the Client's possession or that which is reasonably obtainable.
- 5.41. The Client has the primary responsibility for PCI (refer to Section 0). However, CDM requires the Principal Designer to help the Client bring together the information the Client already holds.
- 5.42. Once the existing information has been collated, the Principal Designer should undertake the following:
  - Assess the adequacy of the existing information to identify any gaps which are necessary to be completed;
  - Provide advice to the Client on how those gaps can be filled, and help them in gathering the necessary additional information; and
  - Provide the additional information to Designers and Contractors who are being considered for appointment or have already been appointed.
- 5.43. It may be helpful to develop a register to keep track of the PCI.
- 5.44. Although not stated explicitly in CDM, it is good practice for the PCI to contain information that will be helpful to Temporary Works Designers as well as to Permanent Works Designers. The Principal Designer should help the Client in obtaining and providing such information.
- 5.45. Indicative contents of the PCI are provided in Section 0.

<sup>10</sup> Code of practice for temporary works procedures and the permissible stress design of falsework



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#### Health and Safety File (HSF) Liaison with the Principal Contractor

5.49. CDM requires the Principal Designer to liaise with the Principal Contractor for the duration of their appointment.

Liaison During the Pre-Construction Phase

5.50. During the pre-construction phase the Principal Designer should share information that may affect the planning, management, monitoring, and coordination of the construction phase. This will include the information needed by the Principal Contractor to prepare the CPP.

Liaison During the Construction Phase

- 5.51. The pre-construction phase for some elements of work is likely to continue whilst other elements of the work are being constructed.
- 5.52. Liaison should extend into the construction phase to deal with ongoing design, including temporary works design, ongoing permanent works design and design changes.
- 5.53. The Principal Designer should also obtain information for the HSF (refer to Section 0) during the construction phase.

*Termination of the Principal Designer's Appointment Before the End of the Project* 

- 5.54. If the Principal Designer's appointment finishes before the end of the project, CDM requires them to ensure that the Principal Contractor has all the relevant information so that the Principal Contractor is aware of the following:
  - The risks which have not been eliminated in the designs;
  - Understands the means employed to reduce or control those risks; and
  - Understands the implications for constructing the design for the rest of the project.
- 5.55. The Principal Designer should also arrange a handover of the HSF to the Principal Contractor and make them aware of any issues to consider when reviewing, updating and completing it. CDM requires the Principal Contractor to take over responsibility for reviewing, updating, and revising it and then passing it to the Client when the project finishes.
- 5.56. The Principal Designer should confirm in writing to the Client that such a handover has been completed.

#### **Temporary Works**

5.57. In relation to temporary works, Principal Designers should comply with the requirements of BS 5975:2019 in general and Section 8.5 in particular.



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#### Handover Between Principal Designers

- 5.58. In some projects, it may be necessary for the Client to terminate the appointment of one Principal Designer and appoint a new Principal Designer (for instance, if the Principal Designer role is to be undertaken by the Principal Contractor after tender award).
- 5.59. In this case, the existing Principal Designer should ensure that the new Principal Designer has all the relevant information (as described in Section 0).
- 5.60. The existing Principal Designer should confirm in writing to the Client that such a handover has been completed.

#### Further Information on Designer Duties

- 5.61. Further information can be obtained from the following publications:
  - Health and Safety Executive: Managing Health and Safety in Construction: Construction (Design and Management) Regulations 2015 – Guidance on Regulations, L153, HSE Books, 2015 (https://www.hse.gov.uk/pubns/priced/l153.pdf);
  - CITB: CDM 2015 Industry guidance for Principal Designers, CDM15/2, 2015 (https://www.citb.co.uk/media/nrnns1l1/cdm-2015-principal-designersinteractive.pdf);
  - John Carpenter: Designing a Safer Built Environment: A complete guide to the management of design risk, ICE Publishing, 2021 (<u>https://www.icebookshop.com/Products/Designing-a-Safer-Built-Environment-A-complete-gui.aspx</u>); and
  - Association for Project Safety: Principal Designer's handbook and Guide to the CDM 2015 Regulations, 2015 (<u>https://www.aps.org.uk/product/the-principal-designers-handbook-guide-to-the-cdm-regulations-2015-pdf</u>).



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### 6. Designer Duties

6.1. This section provides guidance on how to discharge the CDM Designer duties including advice on design risk management.

### **Key Duties**

- 6.2. CDM requires a Designer to undertake the following:
  - Eliminate risks to those involved with, or affected by, the construction work and those using, maintaining, or cleaning the asset or decommissioning the asset at the end of its life (refer to Section 0 below);
  - Where it is not possible to eliminate those risks, take steps to reduce or, if that is not possible, control the risks through the subsequent design process and provide information (refer to Section 0 below);
  - Provide sufficient information about the design, construction, or maintenance of the structure, to assist the Client, other Designers and Contractors (refer to Section 0);
  - Consider the general principles of prevention and any PCI when preparing or modifying designs (refer to Section 0); and
  - Confirm that the Client understands its duties under the CDM Regulations (refer to Section 0).

# Eliminating, Reducing or Controlling Foreseeable Risks Through Design and Providing Information to Manage Remaining Risks

- 6.3. CDM requires Designers to consider their designs and any potential risks which may affect the following:
  - Workers or anyone else who may be affected during the construction (such as members of the public);
  - Those who may maintain or clean the asset once it is built; and / or
  - Those who use the asset as a workplace.
- 6.4. The preference is for Designers to eliminate the risk through design.
- 6.5. Where it is not possible to eliminate the risks through design, CDM requires Designers to take reasonably practicable steps to reduce the risks or control them through the design process and provide information about the remaining risks to other duty holders.
- 6.6. Designers should apply the following principles in deciding how to eliminate, reduce or control the remaining risks:
  - Eliminate the risk to remove the hazard that gives rise to the risk (for example, by removing the need to work at height);
  - Reduce the risk by providing an option where harm is less likely, or the potential consequences are less serious (for example, by designing the permanent stairs so



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that they can be constructed early in the project to reduce the need for scaffolding or temporary access);

- Control the risk by making provisions in the design so the Contractor can organise the construction work to reduce exposure to hazards that gives rise to the risk (for example, make provision for traffic routes so barriers can be provided between pedestrians and traffic); and
- Provide information to ensure that those responsible for planning and managing the work (Contractors and Operators) are given the information they will need to manage the remaining risks (for example, tell them about machinery that will be particularly heavy to replace or elements of the asset that need temporary stability provisions during construction).
- 6.7. Where provided, the PCI should be used.

### Providing Sufficient Information

Who Information Should Be Provided To

- 6.8. CDM requires Designers to provide information to other duty holders using or constructing the design. This includes information to the following:
  - Principal Designer;
    - About significant risks associated with the design that cannot be eliminated, so it can form part of the PCI;
    - To consider in preparing or revising the HSF;
  - Other Designers;
  - Principal Contractor (or Contractor on a single-contractor project);
    - As they have responsibility for preparing, reviewing, and revising the CPP for the project; and
  - Contractors who construct the design.
- 6.9. Designers should agree the arrangements for sharing information with the Principal Designer. In this way, document issue can be controlled to avoid omissions and duplications.

#### What is Sufficient Information

- 6.10. The level of detail required in passing on information about risks should be proportionate to the risks involved. Insignificant risks can usually be ignored, as can risks arising from routine construction activities (where a competent Contractor should be aware of the risks and how they are managed), unless the design compounds or significantly alters these risks.
- 6.11. CDM notes that significant risks are not necessarily those that involve the greatest risks, but those (including health risks) that are not likely to be obvious, are unusual, or likely to be difficult to manage effectively.



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6.12. Information should be provided on drawings or within Building Information Models (BIM).

Information on Construction Methods

6.13. Section 1.7.5 of the CIRIA<sup>11</sup> C755 *CDM – Construction Work Sector Guidance for Designers* states:

'Although designers are not expected for normal structures to specify particular construction methods or sequences, they will be expected to have considered possible alternatives when the risks are being identified. If the assumptions of construction method and sequence become inextricably woven into the design, for example such that there is only one reasonable choice, this will have to be explained in pre-construction information.'

6.14. Designers should adopt this approach.

#### **General Principles of Prevention**

- 6.15. When preparing or modifying designs, CDM requires Designers to take account of the general principles of prevention.
- 6.16. The general principles of prevention are contained in both CDM and the Management of Health and Safety at Work Regulations 1999. The general principles of prevention and indicative examples are provided in Table 6.1 below.

Th	e General Principles of Prevention	Indicative Example
А	Avoiding risks by asking if you can get rid of the problem (or hazard) altogether	Move air conditioning plant on a roof to ground level, so that work at height is not required for either installation or maintenance Position a door away from a traffic route Design a roof with a high parapet to eliminate the risk of falls
В	Evaluating the risks that cannot be avoided	Work out whether the effort and expense of installing a fixed access system is appropriate if an area is only occasionally reached and the work can be done using a Mobile Elevated Work Platform (MEWP)
С	Combating the risks at source	Arrange for services to be isolated and diverted to where they will be away from the work area
D	Adapting the work to the individual, especially the design of workplaces, the type of work equipment and the	Provide workstations at an appropriate height

Table 6.1: General Principles of Prevention and Examples

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The	e General Principles of Prevention	Indicative Example
	choice of working and production methods, with a view, in particular, to reducing the health effects of monotonous work and work at a predetermined rate	Position lighting so it can be accessed easily for maintenance, such as by positioning bulkhead lights on landings and not halfway down staircases
E	Adapting to technical progress: consider new techniques or technologies	Specify self-cleaning glass Prefabricate elements off site
F	Replacing the dangerous with the non-dangerous or the less dangerous	Switch to using a paving block that is lighter in weight Substitute solvent-based products with water- based equivalents Recycle tyre kerbs instead of using heavy concrete ones
G	Developing 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 Set standards	Specify that all blocks should be cut using block splitter techniques rather than mechanical cutting, which produces large amounts of harmful silica dust
Н	Giving collective protective measures priority over individual protective measures, and making provisions so that the work can be organised to reduce exposure to hazards	Make provision for traffic routes so that barriers can be provided between pedestrians and traffic Provide fixed edge protection (barriers) rather than harnesses and lanyards
I	Giving appropriate instructions to employees	Provide information on drawings or instructions, such as intended sequencing

#### Confirm The Client Understands Its Duties Under the CDM Regulations

- 6.17. This can be done by asking which person is accountable for discharging the duties of the Client, and gaining evidence that this person is aware of the requirements placed on them by the CDM Regulations and this guidance.
- 6.18. For projects involving more than one Contractor, the task of informing the Client of their duties should normally fall to the Principal Designer. Other Designers should seek confirmation from the Principal Designer that the Client has been made aware of their duties.



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#### **Contemporary Practice and Design Risk Management**

- 6.19. Health and safety risks should be considered alongside other factors that influence the design, such as cost, programme, fitness for purpose, aesthetics and environmental impact.
- 6.20. When considering health and safety risks, Designers are expected to do what is reasonable at the time that the design is prepared, considering current knowledge and practice in the sector. Such knowledge and practice are typically contained in codes and guidance produced by organisations such as British Standards Institution (BSI), CIRIA, British Constructional Steelworks Association, Concrete Centre, Steel Construction Institute, TWf, and professional institutions, etc.

#### Temporary Works

#### Permanent Works Designers

- 6.21. Whilst the focus of the Permanent Works Designer may be on producing the permanent works design, attention to detail and decisions taken during that design process can have a significant impact on how easy and safe a structure is to build and the requirements for temporary works.
- 6.22. Permanent Works Designers should comply with the requirements of BS 5975:2019 in general and Section 8.3 in particular.

#### Temporary Works Designers

6.23. Temporary Works Designers should comply with the requirements of BS 5975:2019 in general and Section 8.4 in particular.

#### Record Keeping

- 6.24. Records may be useful for Designers to record their decisions so that they can go back to and remind themselves or explain why decisions were made. Such records would also help in confirming to the Principal Designer that the Designer has complied with their Regulation 9 duties (refer to Section 0 of this guidance document).
- 6.25. Design decisions may have been taken for reasons, and information on those reasons may be useful to those contemplating design changes at a later date (so that they do not negate previous decisions to eliminate, reduce or control risks).

#### Coordination, Cooperation and Communication

- 6.26. Designers should coordinate, cooperate and communicate with others (including the Principal Designer, either Designers and Contractors) to provide clear information on how to reduce or control any remaining risks.
- 6.27. There may be a need to carry out Design Reviews (refer to Section 0) to discuss how various aspects of the design fit together and to resolve issues where there are health



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and safety risks. In projects with more than one Contractor, the Principal Designer will coordinate such reviews.

### **Designs Prepared or Modified Outside UK**

6.28. It is the responsibility of the Client to ensure that overseas Designers comply with CDM Regulation 9.

#### Further information on Designer Duties

- 6.29. Further information can be obtained from the following publications:
  - Health and Safety Executive: Managing Health and Safety in Construction: Construction (Design and Management) Regulations 2015 – Guidance on Regulations, L153, HSE Books, 2015 (<u>https://www.hse.gov.uk/pubns/priced/l153.pdf</u>);
  - CITB: CDM 2015 Industry guidance for Designers, CDM15/4, 2015 (https://www.citb.co.uk/media/ndlbnb5v/cdm-2015-designers-interactive.pdf);
  - John Carpenter: Designing a Safer Built Environment: A complete guide to the management of design risk, ICE Publishing, 2021 (<u>https://www.icebookshop.com/Products/Designing-a-Safer-Built-Environment-A-complete-gui.aspx</u>);
  - CIRIA: CDM 2015 Construction work sector guidance for designers<sup>,</sup> 4<sup>th</sup> Edition, C755, 2015;
  - CIRIA: CDM 2015 Workplace 'in use' guidance for designers<sup>,</sup> 2<sup>nd</sup> Edition, C756, 2015;
  - Institution of Structural Engineers: Temporary Works Toolkit (<u>https://www.istructe.org/thestructuralengineer/article-series/temporary-works-toolkit/</u>) – a series of nineteen articles aimed primarily at assisting the permanent works designer with temporary works issues;
  - Mike Webster: Considering temporary works in permanent works design, 2019 (<u>http://mpwrandr.co.uk/cdm-2015-designer-duties-temporary-works</u>); and
  - TWf: TWf guidance Collated List with Links, TW21.043, 2021 (<u>https://www.twforum.org.uk/viewdocument/twf-guidance-collated-list-with-l</u>) – all of the TWf guidance listed here is available to download free of charge.



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### 7. Principal Contractor Duties

7.1. This section provides guidance on how to discharge the CDM Principal Contractor duties including advice on the planning, managing, monitoring and coordinating duties.

### **Key Duties**

- 7.2. CDM requires the Principal Contractor to undertake the following:
  - Plan the construction work (refer to Section 0);
  - Manage the construction work (refer to Section 0);
  - Monitor the construction work (refer to Section 01);
  - Coordinate the construction work (refer to Section 0);
  - Prepare, review and update the CPP (refer to Section 09);
  - Engage with workers (refer to Section 04);
  - Provide inductions (refer to Section 0);
  - Secure the site (refer to Section 0);
  - Provide welfare facilities (refer to Section 0); and
  - Liaise with the Principal Designer (refer to Section 0).

#### Planning, Managing, Monitoring and Coordinating

- 7.3. The Principal Contractor is like a conductor. They are responsible for planning the overall works, the management of the site, access / egress, ensuring adequate welfare facilities and most of all, the coordination of works so that Contractors can work on their own work packages in a safe way without problems arising at the interfaces of their work.
- 7.4. Other duty holders (particularly Contractors) have duties placed on them that will help the Principal Contractor to discharge their duties.
- 7.5. Planning, managing, monitoring and coordinating are interrelated, and all contribute to the overall management of risk on a project.
- 7.6. Each of these duties are considered separately in the following sections so that the reader can see the activities that should be undertaken for each.
- 7.7. The Principal Contractor is also a Contractor and may undertake construction work itself as well as managing the overall construction work.
- 7.8. Where reference is made to 'Contractors' in the following sections, the text should also be read as referring to the Principal Contractor when the Principal Contractor is undertaking construction work itself in addition to its overall managing duties.

Planning the Construction Work



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- 7.9. Much of the Principal Contractor's planning will be recorded in the CPP (refer to Section 09) and will also involve reviewing Contractor's Risk Assessment and Method Statement (RAMS).
- 7.10. The Principal Contractor should also programme the work activities concurrently or sequentially during the construction phase and allocate time for the completion of each activity or stage of the construction work.
- 7.11. Whilst significant amounts of planning will be done before construction work begins, there will also be a need to undertake planning whilst the construction work is underway in response to changes and new information. Unexpected issues can arise on site with the need for new plans to be developed to complete the work safely.
- 7.12. Paragraph 123 of the L153 CDM guidance states:

'Planning must take into account the risks to all those affected: workers, members of the public and the client's employees, if working in an occupied premise. It must cover: (a) the risks likely to arise during construction work;

- (b) the measures needed to protect those affected by planning to provide:
  - (i) and maintain the right plant and equipment;
  - (ii) the necessary information, instruction and training; and
  - (iii) the right level of supervision;

(c) the resources (including time) needed to organise and deliver the work, including its management, monitoring and coordination.'

7.13. This section contains information on how the Principal Contractor can implement that guidance.

#### Risks Likely to Arise During Construction Work

- 7.14. Each Contractor is responsible under Regulation 3 of the Management of Health and Safety at Work Regulations for assessing the risks arising from the construction work, and it is they who decide what methodology to adopt to control the associated risks.
- 7.15. The Contractor should document this in their RAMS and provide them to the Principal Contractor for review and approval.

#### Measures Needed to Protect Those Affected by Planning

7.16. Each Contractor will choose the plant and equipment to use, what information and instructions need to be passed to their operatives doing the construction work, what training is required of those operatives, and how they are to be supervised on site. The Contractors should document these measures in their RAMS.

Resources Needed to Organise and Deliver the Work



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7.17. Each Contractor is responsible for providing the resources to carry out all their tasks. Their RAMS should identify the workers assigned to the construction work and the skills, knowledge, experience and training required of those workers.

#### Principal Contractor to Review and Approve Each Contractor's RAMS

- 7.18. The Principal Contractor should review each Contractor's RAMS. If that review identifies any issues, then the Principal Contractor should inform the Contractor so that they can address those issues.
- 7.19. Once the RAMS have been completed to the Principal Contractor's satisfaction, the Principal Contractor should approve them as being suitable for construction. Typically, this would be done on a review form.
- 7.20. By undertaking this process, the Principal Contractor would get reasonable assurance that that each Contractor has identified the key risks that were likely to arise, is proposing appropriate measures and is proposing appropriate resources for the construction work.

#### Principal Contractor to Produce Additional Site-Wide RAMS Where Required

7.21. Once the Principal Contractor has reviewed each of the Contractor's RAMS, the Principal Contractor should consider whether they need to do anything else to protect other workers in an area (for example, to ensure that a range of Contractors can work safely in a particular area). If so, the Principal Contractor should undertake an additional risk assessment which identifies how as Principal Contractor it is going to manage and control the combined risks of several Contractors (for example, by providing vehicle routes, access scaffolding or lighting) and produce a RAMS.

Managing the Construction Work

- 7.22. Paragraph 125 of the L153 CDM guidance states:
  - 'To manage the construction phase, principal contractors must ensure that:
    - (a) those engaged to carry out the work are capable of doing so;
    - *(b) effective, preventative, and protective measures are put in place to control the risks; and*
    - (c) the right plant, equipment and tools are provided to carry out the work involved.'
- 7.23. This section contains information on how the Principal Contractor can implement that guidance.
- 7.24. Many of the activities required for managing the construction work are described in Sections 0 to 0 of this guidance.



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#### **Capability**

- 7.25. The Principal Contractor is responsible for ensuring that all Contractors are capable of doing the work. This duty is not limited to Contractors appointed by the Principal Contractor, but also covers Client-appointed Contractors.
- 7.26. The Principal Contractor should seek assurance that all Contractors are capable of doing the work for which they were appointed (refer to Section 0).

Effective Preventative and Protective Measures Put In Place to Control the Risks

- 7.27. Each Contractor's RAMS should provide information on the effective preventative and protective measures to be put in place to control the risks.
- 7.28. The Principal Contractor should check to see that the Contractor has provided the measures listed in the RAMS.

The Right Plant, Equipment and Tools are Provided to Carry Out the Work

- 7.29. Each Contractor's RAMS should provide information on the plant, equipment and tools to be provided to carry out the construction work.
- 7.30. The Principal Contractor should check to see that the Contractor has provided the plant, equipment and tools listed in the RAMS.

Monitoring the Construction Work

7.31. Paragraph 129 of the L153 CDM guidance states:

'Standards should be checked regularly given the rapidly changing nature of a construction site. Effective monitoring involves the following:

- (a) time and effort (with sufficient resource having been set aside for this at the planning stage see paragraph 123);
- (b) treating health and safety in the same way as other important aspects of the buless;
- (c) taking prompt action where necessary; and
- (d) using a mix of performance measures both active and reactive in nature, for example:

(i) routine checks of site access and work areas and plant and equipment, or health risk management to prevent harm (active);

(ii) investigating near-miss incidents and injuries as well as monitoring cases of ill health (reactive).'

7.32. Potential ways of achieving this include those in Table 7.1 below:



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#### Table 7.1: Achieving HSE Requirements

HSE Requirement	Typical Actions
Time and effort (with sufficient resource having been set aside for this at the planning stage)	<ul> <li>Set down the monitoring plan in the CPP</li> <li>The time and effort should be proportionate to the project and the risks involved</li> </ul>
Treating health and safety in the same way as other important aspects of the business	<ul> <li>Include health and safety on the agenda for project meetings and corporate meetings</li> <li>Produce minutes of those meetings</li> <li>If key performance indicators (KPIs) are used, then this should include health and safety KPIs</li> </ul>
Taking prompt action where necessary	<ul> <li>If something unsafe is identified on site during monitoring, then this should be addressed, and a written record kept</li> </ul>
Routine checks of site access and work areas and plant and equipment, or health risk management to prevent harm (active)	<ul> <li>Daily walkabouts / inspections by site management</li> <li>Inspections by in-house health and safety teams</li> <li>Specific monitoring of high-risk construction activities</li> <li>Site visits / safety tours by senior managers</li> <li>In-house health and safety audits</li> <li>External health and safety audits</li> </ul>
Investigating near-miss incidents and injuries as well as monitoring cases of ill health (reactive)	<ul> <li>Undertake investigations following the procedures contained in the organisation's SMS</li> </ul>

- 7.33. Monitoring is different to supervision. Supervision of their work is the responsibility of each Contractor whilst the Principal Contractor is responsible for monitoring each Contractor to ensure that they do what was agreed (in the RAMS and in site meetings).
- 7.34. The purpose of the Principal Contractor's monitoring is to encourage everyone on site to work appropriately and to work in compliance with the planned methods documented in the RAMS and to take actions to bring activities back into compliance when necessary. It also gives people on site opportunities to speak up if they have a concern.
- 7.35. The monitoring should be proportionate to the project and risk-based, that is higher risk activities (such as lifting) should receive more monitoring than lower risk activities.

Coordinating the Construction Work

7.36. The Principal Contractor has a specific duty to ensure that Contractors under their control cooperate with each other so the risks to themselves and others affected by the work are managed effectively.



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- 7.37. Regular planning meetings between the Principal Contractor and Contractors should be held to achieve this.
- 7.38. The Principal Contractor should also work with the Client to ensure there is cooperation with others outside the construction site who may be affected by the activities on site.

#### Preparation of the Construction Phase Plan (CPP)

- 7.39. For projects involving more than one Contractor, CDM requires the Principal Contractor to take the lead in preparing, reviewing, updating and revising the CPP. They must draw up the plan or make arrangements for it to be drawn up during the pre-construction phase and before the construction site is set up.
- 7.40. The Principal Contractor should expect help from both the Client (refer to Section 0) and Principal Designer (refer to Section 0) in doing this.
- 7.41. The Principal Contractor must also liaise with the Contractors to ensure that the plan takes into account their views on the arrangements for managing the construction phase.
- 7.42. CDM requires the Principal Contractor to ensure that the CPP is reviewed, updated and revised from time to time as appropriate.
- 7.43. The CPP is a working document and will need to be reviewed regularly enough to address significant changes to the risks involved in the work or in the effectiveness of the controls that have been put in place. This means that the Principal Contractor should monitor how effective the plan is in addressing identified risks and whether it is being implemented properly. Ensuring the plan remains fit for purpose also involves cooperating with the following:
  - Contractors who are most likely to see if the arrangements for controlling health and safety risks are working; and
  - Principal Designer and Designers when changes in designs during the construction phase have implications for the CPP.

#### Consulting and Engaging With Workers

- 7.44. The Principal Contractor should arrange to consult workers on matters of health and safety. The arrangements should be included in the CPP.
- 7.45. The arrangements for consulting and engaging Light Rail system staff and staff union and safety representatives should be in accordance with the requirements of the Light Rail system's SMS. The arrangements should be recorded in the CPP.

#### **Providing Suitable Site Inductions**

- 7.46. CDM requires the Principal Contractor to provide inductions to both workers and visitors to the site.
- 7.47. Inductions should cover both the Principal Contractor's requirements and any specific requirements stipulated by the Light Rail system.



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#### Securing the Site and Preventing Unauthorised Access

- 7.48. CDM requires the Principal Contractor to ensure reasonable steps are taken to prevent unauthorised access onto the construction site.
- 7.49. The Principal Contractor should liaise with the Client (Light Rail system) and Contractors on site to physically define the site boundaries by using suitable barriers which take account of the nature of the site and its surrounding environment.
- 7.50. The Principal Contractor should also take steps to ensure that only those authorised to access the site do so.

#### Providing Welfare Facilities

- 7.51. Contractors are required to provide welfare facilities which meet the minimum requirements set out in Schedule 2 of CDM (as illustrated in Appendix 2 of this guidance document).
- 7.52. Welfare facilities must be made available before any construction work starts and should be maintained until the end of the project.
- 7.53. Although it is not a requirement of CDM the completion of an appropriate welfare provision form by the Principal Contractor and its inclusion in the CPP is good practice and would help the Client confirm that appropriate welfare facilities are being provided.
- 7.54. The Principal Contractor should liaise with the Client (Light Rail system) and other Contractors involved with the project to ensure appropriate welfare facilities are provided. Such liaison should continue for the duration of the construction phase and take account of any changes in the nature of the site which require, in turn, changes to the provision of welfare facilities.

#### Liaising With the Principal Designer

- 7.55. CDM requires the Principal Contractor to liaise with the Principal Designer for the duration of the project.
- 7.56. The early appointment of a Principal Contractor by the Client will allow their construction expertise to be used from the earliest stages of designing and planning a project to improve constructability.
- 7.57. The Principal Contractor should also liaise with the Principal Designer throughout the construction phase on matters such as changes to designs and the implications these changes may have for managing the health and safety risks.
- 7.58. This liaison should cover drawing together information the Principal Designer will need the following:
  - To prepare the HSF; and



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• That may affect the planning and management of the pre-construction phase.

#### Appoint Other Contractors or Designers

- 7.59. The Principal Contractor should take reasonable steps to satisfy themselves that other Contractors and Designers they appoint have the skills, knowledge, experience, and, where they are an organisation, the organisational capability to carry out the work in a way that secures health and safety. The Principal Contractor should also check that other Contractors and Designers have enough experience and a good record in managing the risks involved in projects
- 7.60. Organisational capability means the policies and systems an organisation has in place to set acceptable health and safety standards which comply with the law, and the resources and people to ensure the standards are delivered.
- 7.61. The Contractor should either use the procedures within their organisation's SMS or should use:
  - PAS 91:2013+A1:2017 Construction prequalification questionnaires to assess the suitability of organisations for appointment as Principal Designer and Principal Contractor; or
  - SSIP to identify Principal Designers and Principal Contractors who have been assessed and deemed to have met the required health and safety standards.
- 7.62. Temporary works are required in most projects and can account for up to 50% of the construction costs. Unfortunately, the assessment schemes provide little or no reliable knowledge about an organisation's capability to manage temporary works and the Principal Contractor should not rely on them in that respect.
- 7.63. To supplement PAS 91:2013+A1:2017, the TWf has prepared several questions specific to temporary works along with suggestions for the evidence required and some notes to assessors. Those procuring duty holders should consider using these questions in addition to those set out in PAS 91 (refer to Section 0 for details of PAS 91 and the TWf supplemental questions).

#### **Public Safety**

7.64. In planning and managing the construction work, the Principal Contractor should take into account the risks to all those affected including members of the public and the Client's employees.

#### Interface With the Client's Operations and Work Handover

- 7.65. The Principal Contractor and Client should agree and document in the CPP (refer to Sections 09 and 0) procedures for the following:
  - Taking possession of the Light Rail system assets;
  - Working on and in the vicinity of the track;
  - Light Rail emergencies;



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- Partial handovers of the works to the Client; and
- Final handback of the works to the Client when the construction work is complete.
- 7.66. The Principal Contractor's arrangements for handing over the work to the Client (Light Sail system) should be sufficient to protect anyone (including members of the public) who may be affected by risks arising from any ongoing construction work, such as snagging work.

#### **Temporary Works**

7.67. Principal Contractors should comply with the requirements of BS 5975:2019 in relation to temporary works.

#### Further Information on Principal Contractor Duties

- 7.68. Further information can be obtained from the following publications:
  - Health and Safety Executive: Managing Health and Safety in Construction: Construction (Design and Management) Regulations 2015 – Guidance on Regulations, L153, HSE Books, 2015 (<u>https://www.hse.gov.uk/pubns/priced/l153.pdf</u>); and
  - CITB: CDM 2015 Industry guidance for Principal Contractors, CDM15/5, 2015 (https://www.citb.co.uk/media/5dgbe5ol/cdm-2015-principal-contractorsinteractive.pdf).



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#### 8. Contractor Duties

8.1. This section provides guidance on how to discharge the CDM Contractor duties including advice on planning, managing, monitoring and supervision.

#### **Key Duties**

- 8.2. CDM requires the Contractor to undertake the following:
  - Plan the construction work (refer to Section 0);
  - Manage the construction work (refer to Section 0);
  - Monitor the construction work (refer to Section 0);
  - Supervise their workers (refer to Sections 0);
  - Coordinate, communicate and cooperate (refer to Section 0);
  - Ensure their workers have the necessary skills, knowledge, training, and experience (refer to Section 0);
  - Provide each worker under their control with appropriate supervision, instructions and information (refer to Section 0);
  - Appoint other Contractors and Designers (refer to Section 0);
  - Secure the site (refer to Section 0);
  - Ensure welfare facilities are provided (refer to Section 0);
  - Comply with the Principal Contractor's directions and the CPP (refer to Section 0); and
  - If there is only one Contractor working on the project, the Contractor must prepare a CPP (refer to Section 0).

#### When a Light Rail System is the Sole Contractor

- 8.3. When an Light Rail system decides to undertake the construction work themselves, they take on Contractor duties in addition to any other CDM roles they may have.
- 8.4. When an Light Rail system is the sole Contractor, no Principal Designer or Principal Contractor appointments are required. However, the Contractor is required to prepare the CPP.

#### When an External Contractor is the Sole Contractor

8.5. When there is one Contractor working on the project, no Principal Designer or Principal Contractor appointments are required. However, the Contractor is required to prepare the CPP.

#### Planning, Managing, Monitoring and Coordinating

8.6. Planning, managing, monitoring and coordinating are interrelated, and all contribute to the overall management of risk on a project.



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- 8.7. On projects involving more than one Contractor, this will involve the Contractor coordinating the planning, management and monitoring of their own work with that of the Principal Contractor and other Contractors, and, where appropriate, the Principal Designer.
- 8.8. Such coordination could involve regular progress meetings with other duty holders to ensure that the Contractor's arrangements for planning, managing and monitoring their own work can feed into those of others, and remain consistent with the project-wide arrangements.
- 8.9. For single Contractor projects, the arrangements to plan, manage and monitor the construction phase will typically be simpler.
- 8.10. Each of these duties are considered separately in the following sections.

#### Planning the Construction Work

- 8.11. On projects involving more than one Contractor, each Contractor should plan their own work so that it is consistent with the project-wide arrangements. Contractors should expect help from other duty holders, such as the Client who should provide the PCI.
- 8.12. On single Contractor projects, the Contractor is responsible for planning the construction phase and for drawing up the CPP before setting up the construction site.
- 8.13. Much of the Contractor's planning will be recorded in the Contractor's RAMS.
- 8.14. Whilst significant amounts of planning will be done before construction work begins, there will also be a need to undertake planning whilst the construction work is underway in response to changes and new information. Unexpected issues can arise on site with the need for new plans to be developed to complete the work safely.
- 8.15. The following sections contain information on how the Contractor should plan the construction work.

#### **Risks Likely to Arise During Construction Work**

- 8.16. Each Contractor is responsible under Regulation 3 of the Management of Health and Safety at Work Regulations for assessing the risks arising from the construction work, and it is they who decide what methodology to adopt to control the associated risks.
- 8.17. The Contractor should do this in their RAMS.

#### Measures Needed to Protect Those Affected by Planning

8.18. Each Contractor will choose the plant and equipment to use, what information and instructions need to be passed to their operatives doing the construction work, what training is required of those operatives, and how they are to be supervised on site. The Contractors should document these measures in their RAMS. <u>Resources Needed to Organise and Deliver the Work</u>



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8.19. Each Contractor is responsible for providing the resources to carry out all their tasks. Their RAMS should identify the workers assigned to the construction work and the skills, knowledge, experience and training required of those workers.

#### Principal Contractor to Review and Approve Each Contractor's RAMS

- 8.20. The Principal Contractor should review each Contractor's RAMS. If that review identifies any issues, then the Principal Contractor should inform the Contractor so that they can address those issues.
- 8.21. Once the RAMS have been completed to the Principal Contractor's satisfaction, the Principal Contractor should approve them as being suitable for construction. Typically this would be done on a review form.

#### Managing the Construction Work

8.22. The following sections contain information on how the Contractor should manage the construction work.

#### **Capability**

8.23. The Contractor is responsible for ensuring that all Contractors they appoint are capable of doing the work and should seek assurance that all Contractors are capable of doing the work for which they were appointed (refer to Section 0).

#### Effective Preventative and Protective Measures Put in Place to Control the Risks

8.24. Each Contractor's RAMS should provide information on the effective preventative and protective measures to be put in place to control the risks. These should be implemented on site as described in the RAMS.

The Right Plant, Equipment and Tools Are Provided to Carry Out the Work

8.25. Each Contractor's RAMS should provide information on the plant, equipment and tools to be provided to carry out the construction work. These should be implemented on site as described in the RAMS.

#### Monitoring the Construction Work

8.26. Table 8.1 below contains information on how the Contractor should monitor the construction work.



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### Table 8.1: HSE Requirements for Monitoring the Construction Work

HSE Requirement	Typical Actions
Time and effort (with sufficient resource having been set aside for this at the planning stage)	<ul> <li>Set down the monitoring plan in the CPP if there is only one Contractor</li> <li>The time and effort should be proportionate to the project and the risks involved</li> </ul>
Treating health and safety in the same way as other important aspects of the business	<ul> <li>Include health and safety on the agenda for project meetings and corporate meetings</li> <li>Obtain or produce minutes of those meetings</li> <li>If KPIs are used, then this should include health and safety KPIs</li> </ul>
Taking prompt action where necessary	<ul> <li>If something unsafe is identified on site during monitoring, then this should be addressed, and a written record kept</li> </ul>
Routine checks of site access and work areas and plant and equipment, or health risk management to prevent harm (active)	<ul> <li>Daily walkabouts / inspections by site management and site supervisors</li> <li>Inspections by in-house health and safety teams</li> <li>Specific monitoring of high-risk construction activities</li> <li>Site visits / safety by senior managers</li> <li>In-house health and safety audits</li> <li>External health and safety audits</li> </ul>
Investigating near-miss incidents and injuries as well as monitoring cases of ill health (reactive)	<ul> <li>Undertake investigations following the procedures contained in the organisations SMS</li> </ul>

8.27. The monitoring should be proportionate to the project and risk-based, therefore, higher risk activities (such as lifting) should receive more monitoring than lower risk activities.

#### Supervision

- 8.28. A Contractor who employs workers or manages workers under their control must ensure that appropriate supervision is provided.
- 8.29. The level of supervision provided will depend on the risks to health and safety involved, and the skills, knowledge, experience, and training of the workers concerned. Workers will require closer supervision if they are young, inexperienced, or starting a new work activity.
- 8.30. Workers should always know how to get supervisory help, even when a supervisor is not present.



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- 8.31. Supervisors are a key part of the site team, and their role is likely to include the following:
  - Leading teams undertaking construction work;
  - Briefing and carrying out toolbox talks;
  - Coaching and encouragement of individual workers;
  - Supporting other formal and informal means of engaging with workers; and
  - Troubleshooting.
- 8.32. The Supervisor has a particularly important part to play as a front-line decision maker. They will be required to make decisions or re-plan the work when there are unforeseen issues, changes or emergencies. They may even require work to stop.
- 8.33. Supervisors, particularly newly appointed Supervisors, should be provided with training such as the CITB Site Supervision Safety Training Scheme (SSST).

#### Coordination, Communication and Cooperation

8.34. On projects involving more than one Contractor, as part of the duty to cooperate with other duty holders, the Contractor should provide the Principal Contractor with any relevant information that stems from their own monitoring so the Principal Contractor can monitor the management of health and safety at a project-wide level.

#### Ensure Workers Have the Necessary Skills, Knowledge, Experience and Training

#### Appointing Workers

- 8.35. When a Contractor employs or appoints an individual to work on a construction site, they should make enquiries to make sure the individual has the following:
  - The skills, knowledge, training and experience to carry out the work they will be employed to do; or
  - Is in the process of obtaining them.
- 8.36. Newly trained individuals should be supervised and given the opportunity to gain experience of working in a range of conditions.
- 8.37. When appointing individuals who may be skilled but who do not have any formal qualifications, Contractors may need to assess them in the working environment.

#### Training Workers

- 8.38. To establish whether training is necessary for any worker, a contractor should undertake the following:
  - Assess the existing health and safety skills, knowledge, experience and training of their workers;
  - Compare these existing attributes with the range of skills, knowledge, experience and training they will need for the job; and



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- Identify any shortfall between the above and the difference between the two will highlight necessary training.
- 8.39. Assessing training needs should be an ongoing process throughout the project. Further training may be required in the following circulstances:
  - The risks to which people are exposed alter due to a change in their working tasks;
  - New technology or equipment is introduced; or
  - The system of work changes.
- 8.40. The level of skills can also decline if they are not used regularly.

#### Provide Each Worker Under the Contractor's Control With Appropriate Supervision, Instructions and Information

- 8.41. Contractors should provide their employees and workers under their control with the information and instructions they need to carry out their work without risk to health and safety.
- 8.42. This should include the following:
  - Suitable site induction where this has not been provided by the Principal Contractor;
  - The procedures to be followed in the event of serious and imminent danger to health and safety. These should make clear, that any worker exposed to any such danger should stop work immediately, report it to the contractor and go to a place of safety; and
  - Information on the hazards on site relevant to their work (for example, electricity), the risks associated with those hazards and the control measures put in place (for example, the arrangements for electricity).

#### Appoint Other Contractors and Designers

- 8.43. Contractors may need to appoint other Contractors (as sub-contractors) and Designers (for items such as temporary works). They should inform the Principal Contractor Designer and Principal Designer.
- 8.44. If there is only one Contractor on the project, and they appoint another Contractor, this would trigger the need for the appointment of a Principal Contractor. In such a case, the Client should be informed as they would need to assess and appoint (in writing) the Principal Contractor (refer to Section 4.15).
- 8.45. The Contractor should take reasonable steps to satisfy themselves that other Contractors and Designers they appointed have the skills, knowledge, experience, and, where they are an organisation, the organisational capability to carry out the work in a way that secures health and safety. The Contractor should also check that other Contractors and Designers have enough experience and a good record in managing the risks involved in projects.



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- 8.46. Organisational capability means the policies and systems an organisation has in place to set acceptable health and safety standards which comply with the law, and the resources and people to ensure the standards are delivered.
- 8.47. The Contractor should either use the procedures within their organisation's SMS or should use the following:
  - PAS 91:2013+A1:2017 Construction prequalification questionnaires to assess the suitability of organisations for appointment as Principal Designer and Principal Contractor; or
  - SSIP to identify Principal Designers and Principal Contractors who have been assessed and deemed to have met the required health and safety standards.
- 8.48. Temporary works are required in most projects and can account for up to 50% of the construction costs. Unfortunately, the assessment schemes provide little or no reliable knowledge about an organisation's capability to manage temporary works and the Principal Contractor should not rely on them in that respect.
- 8.49. To supplement PAS 91:2013+A1:2017, the TWf has prepared several questions specific to temporary works along with suggestions for the evidence required and some notes to assessors. Those procuring duty holders should consider using these questions in addition to those set out in PAS 91 (refer to Section 0 for details of PAS 91 and the TWf supplemental questions).

#### Securing the Site and Preventing Unauthorised Access

- 8.50. Contractors should not begin work on a construction site unless reasonable steps have been taken (such as liaising with the Principal Contractor) to prevent unauthorised access to the site.
- 8.51. For projects involving only one Contractor, the Contractor should do whatever is proportionate to prevent unauthorised access before starting work on the site (refer to Sections 0 to 7.50).

#### Welfare Facilities

- 8.52. Contractors are required to provide welfare facilities which meet the minimum requirements set out in Schedule 2 of CDM (as illustrated in Appendix 2 of this guidance document).
- 8.53. On projects involving more than one Contractor, meeting this duty will involve discussing and agreeing with the Principal Contractor who has a similar duty to provide welfare facilities for the site.
- 8.54. For projects involving only one Contractor, the Contractor must ensure that suitable welfare facilities are available. This duty only extends to the provision of welfare facilities for the Contractor's own employees who are working on that construction site and anyone working under the Contractor's control.



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8.55. The Contractor should liaise with the Client (Light Rail system) to ensure appropriate welfare facilities are provided. Such liaison should continue for the duration of the construction phase and take account of any changes in the nature of the site which require, in turn, changes to the provision of welfare facilities.

#### Complying With Directions and the CPP

8.56. Where there is more than one Contractor on a project, the Contractor should comply with any site rules and directions placed on them by the Principal Contractor and parts of the CPP that are relevant to their work.

#### Construction Phase Plan (CPP)

8.57. For single Contractor projects the Contractor must ensure a CPP is prepared as practicable before the construction site is set up (refer to Section 0).

#### **Temporary Works**

8.58. Principal Contractors should comply with the requirements of BS 5975:2019 in relation to temporary works.

#### Further Information on Contractor Duties

- 8.59. Further information can be obtained from the following publications:
  - Health and Safety Executive: Managing Health and Safety in Construction: Construction (Design and Management) Regulations 2015 – Guidance on Regulations, L153, HSE Books, 2015 (https://www.hse.gov.uk/pubns/priced/l153.pdf);
  - CITB: CDM 2015 Industry guidance for Contractors, CDM15/3, 2015 (https://www.citb.co.uk/media/xsycbicc/cdm-2015-contractors-interactive.pdf);
  - BSI: Construction prequalification questionnaires, PAS 91:2013+A1:2017 (https://shop.bsigroup.com/products/construction-prequalificationguestionnaires?pid=00000000030336960); and
  - TWf: PAS 91, Construction prequalification questionnaires Supplementary questions specific to temporary works, TWf Information Sheet No. 13, TW21.081, June 2021 (<u>https://www.twforum.org.uk/viewdocument/twf-information-sheet-no-13-pas-9</u>).



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#### 9. Key Documentation

9.1. This section provides guidance on the suggested contents for the three key sets of documentation that CDM mandates duty holders to produce.

#### **Pre-Construction Information (PCI)**

- 9.2. PCI is defined as information that is already in the Client's possession or which is reasonably obtainable by or on behalf of the Client. The information provided should be in line the following:
  - Relevant to the particular project;
  - Have an appropriate level of detail; and
  - Proportionate to the risks involved.
- 9.3. PCI should be gathered and added to as the design process progresses and reflect new information about the health and safety risks and how they should be managed. Preliminary information gathered at the start of the project is unlikely to be sufficient. Information should be included where the topic is relevant to the work proposed.
- 9.4. The following topics in Table 9.1 should be considered when preparing the PCI:

No.	Торіс
1	Description of Project
1.1	<ul> <li>Project description and programme details including:</li> <li>Key dates (including planned start and finish of the construction phase)</li> <li>The minimum time to be allowed between appointment of the principal contractor and instruction to commence work on site</li> </ul>
1.2	Details of Client, Designers, Principal Designer and other consultants
1.3	Whether or not the structure will be used as a workplace (in which case, the finished design will need to take account of the relevant requirements of the Workplace (Health, Safety and Welfare) Regulations 1992)
1.3	Extent and location of existing records and plans
2	Client's Considerations and Management Requirements
2.1	<ul> <li>Arrangements for:</li> <li>Planning for and managing the construction work, including any health and safety goals for the project</li> <li>Communication and liaison between the Client and others</li> <li>Security of the site</li> </ul>

Table 9.1: Topics for the PCI



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No.	Торіс
	Welfare provision
	• Any specific arrangements when working on or about the Light Rail system
2.2	<ul> <li>Requirements relating to the health and safety of the Client's employees or customers or those involved in the project such as:</li> <li>Site hoarding requirements</li> <li>Site transport arrangements or vehicle movement restrictions</li> <li>Client permit-to-work systems</li> <li>Fire precautions</li> <li>Emergency procedures and means of escape</li> <li>'No-go' areas or other authorisation requirements for those involved in the project</li> <li>Any areas the Client has designated as confined spaces</li> <li>Smoking and parking restrictions</li> <li>Any specific arrangements when working on or about the Light Rail system</li> </ul>
3	Environmental Restrictions and Existing On-Site Risks
3.1	<ul> <li>Safety hazards, including:</li> <li>Boundaries and access, including temporary access – for example narrow streets, lack of parking, turning or storage space</li> <li>Any restrictions on deliveries or waste collection or storage</li> <li>Adjacent land uses – for example schools, Light Rail lines or busy roads</li> <li>Existing storage of hazardous materials</li> <li>Location of existing services particularly those that are concealed – water, electricity, gas, etc.</li> <li>Ground conditions, underground structures or water courses where this might affect the safe use of plant, for example cranes, or the safety of groundworks</li> <li>Information about existing structures – stability, structural form, fragile or hazardous materials, anchorage points for fall arrest systems (particularly where demolition is involved)</li> <li>Previous structural modifications, including weakening or strengthening of the structure (particularly where demolition is involved)</li> <li>Fire damage, ground shrinkage, movement or poor maintenance which may have adversely affected the structure</li> <li>Any difficulties relating to plant and equipment in the premises, such as overhead gantries whose height restricts access</li> <li>Health and safety information contained in earlier design, construction or 'asbuilt' drawings, such as details of pre-stressed or post-tensioned structures</li> <li>Safety hazards associated with working on or about the Light Rail system, including those associated with level crossings</li> </ul>
3.2	Health hazards, including:



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No.	Торіс	
	<ul> <li>Asbestos, including results of surveys (particularly where demolition is involved)</li> <li>Existing storage of hazardous materials</li> <li>Contaminated land, including results of surveys</li> <li>Existing structures containing hazardous materials</li> <li>Health risks resulting from the Client's activities</li> </ul>	
4	Significant Design and Construction Hazards	
4.1	Significant design assumptions and suggested work methods, sequences or other control measures	
4.2	Arrangements for co-ordination of ongoing design work and handling design changes	
4.3	Information on significant risks identified during design	
4.4	Materials requiring particular precautions	
5	Health and Safety File (HSF)	
5.1	Description of its format and any conditions relating to its content	

#### Construction Phase Plan (CPP)

9.5. The following topics in Table 9.2 should be considered when preparing the CPP. The bullet points are provided for those headings where the heading text requires additional clarification:

No.	Торіс
1	Introduction
1.1	Purpose of the Construction Phase Plan
2	Planning for the Construction Phase
2.1	Project specific health and safety goals
2.2	Project description and programme details
2.3	Services and isolation points
2.4	Access restrictions
2.5	Asbestos



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No.	Торіс	
2.6	<ul><li>Any line open (ALO) operations</li><li>Details of any ALO activities including site deliveries should be included</li></ul>	
2.7	<ul> <li>Temporary works</li> <li>The contents of the Temporary Works Register should be provided so that the reader knows what temporary works are proposed</li> <li>Contact details of the Temporary Works Designer, Temporary Works Coordinator and Temporary Works Supervisor(s)</li> </ul>	
2.8	<ul> <li>CPP review</li> <li>Details of the circumstances that determine when the CPP will be reviewed should be included (for example, changes to key personnel; newly identified significant hazards; findings of inspections or audits requiring changes to risk control measures; following the investigation of any health and safety events requiring changes to the risk control measures; or minimum period of time for review)</li> </ul>	
3	Working Together	
3.1	Changes to key personnel	
3.2	<ul> <li>CDM appointments</li> <li>The primary contacts for each of the CDM duty holder organisations should be listed</li> </ul>	
3.3	<ul> <li>Light Rail system project organisation</li> <li>The contact details for the primary LRSSB project team members should be listed</li> </ul>	
3.4	<ul> <li>Principal Contractor's delivery organisation</li> <li>The contact details for the Principal Contractor's primary project team members should be listed</li> </ul>	
3.5	<ul> <li>Communication during the construction phase</li> <li>The organisations that the Principal Contractor needs to communicate and consult with should be listed (both those working on the project and those affected by the project)</li> </ul>	
3.6	<ul> <li>Exchange of design information</li> <li>A description of how design information will be exchanged between relevant organisations should be provided</li> </ul>	
3.7	<ul> <li>Changes to design</li> <li>A description of how design changes will be identified, reviewed, approved and communicated to relevant organisations should be provided</li> </ul>	



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No.	Торіс
4	Hazard Management
4.1	<ul> <li>Work involving particular risks</li> <li>Details of how the specific risks listed in Regulation 12(2) Schedule 3 of CDM should be provided where relevant</li> <li>The specific risks include work: <ul> <li>Which puts workers at risk of burial under earthfalls, engulfment in swampland or falling from a height</li> <li>Which puts workers at risk from chemical or biological substances</li> <li>With ionizing radiation</li> <li>Near high voltage power lines</li> <li>Exposing workers to the risk of drowning</li> <li>On wells, underground earthworks and tunnels</li> <li>Carried out by divers having a system of air supply</li> <li>Carried out by workers in caissons with a compressed air atmosphere</li> <li>Involving the use of explosives</li> <li>Involving the assembly or dismantling of heavy prefabricated components</li> </ul> </li> </ul>
4.2	<ul> <li>Significant construction health and safety risks</li> <li>The Principal Contractor should manage the Hazard Log (or Hazard Record as defined in a Common Safety Method (CSM) for risk evaluation and assessment) during the construction phase of the project</li> <li>The significant construction health and safety risks should be listed along with details of: <ul> <li>What the main risks are</li> <li>When and where each of those risks will be present</li> <li>How each of those risks will be controlled</li> <li>Reference to the relevant RAMS</li> </ul> </li> </ul>
5	Organise
5.1	<ul><li>Brief outline of construction work methodology</li><li>This description should highlight what RAMS will be required</li></ul>
5.2	<ul> <li>Management of RAMS</li> <li>Details of how RAMS should be produced, who they should be submitted to, who should review and approve them should be provided</li> <li>This should include detail of the process for RAMS that are produced once construction work has started on site</li> </ul>
5.3	Schedule for the production of RAMS <ul> <li>This should provide a register to identify:</li> <li>What RAMS are due</li> </ul>



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No.	Торіс
	<ul> <li>When they are due</li> <li>When they have been approved</li> <li>When the work is due to start on site</li> </ul>
5.4.	<ul><li>Site emergency arrangements</li><li>This should cover the likely emergencies</li></ul>
5.4.1	First aid arrangements
5.4.2	Evacuation procedure
5.4.3	<ul> <li>Fire safety</li> <li>Guidance on preparing a site construction fire safety plan should be sought from HSG 168 Fire safety in construction</li> </ul>
5.4.4	<ul> <li>Security</li> <li>Details should be agreed with the Light Rail system and / or British Transport Police (where appropriate)</li> </ul>
5.4.5	<ul> <li>Summoning emergency services</li> <li>This should include specific information on: <ul> <li>Who will summon the emergency services</li> <li>Who will meet the emergency services and where</li> <li>How the emergency services can access the site</li> </ul> </li> </ul>
5.4.6	<ul> <li>Light Rail emergency (vehicles and electrical)</li> <li>This section should include the procedures for managing Light Rail emergencies. Site-specific arrangements should be in place to: <ul> <li>Stop trains in an emergency</li> <li>Isolate the electricity hazards</li> </ul> </li> </ul>
5.4.7	<ul> <li>Asbestos</li> <li>Details should be provided of the site-specific arrangements for responding to the discovery of asbestos containing material (ACM) on site (where relevant)</li> </ul>
5.4.8	<ul> <li>Utilities</li> <li>Details should be provided of the site-specific arrangements for the discovery of utilities not anticipated during the planning stages</li> </ul>
5.4.9	<ul> <li>Other emergency arrangements</li> <li>Details should be provided of the site-specific arrangements for any other likely emergencies not already covered</li> </ul>
5.5	Safety and environmental event reporting and recording



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No.	Торіс
	• Details should be provided of the arrangements (including timescales) for the reporting and recording of safety and environmental related events that occur during construction works
5.6	Site Specific Rules
5.7	<ul> <li>Induction</li> <li>Details should be included of any site-specific induction issues required by Light Rail system</li> </ul>
5.8	<ul> <li>Welfare</li> <li>Details of the welfare facilities available on site should include those provided by Light Rail system and the Principal Contractor</li> </ul>
5.9	<ul> <li>Monitoring arrangements</li> <li>This should include details of the Principal Contractor's monitoring arrangements described in Section 0</li> <li>This should also include any specific monitoring activities that have been set out by Light Rail system to provide assurance to the Client that the arrangements in place for delivering the project are delivering the required levels of health and safety for those undertaking the construction work and those that will be involved with the asset in future</li> </ul>
5.10	<ul> <li>Management reporting arrangements</li> <li>The Principal Contractor and the Client (Light Rail system) should agree the reporting arrangements for the project. This should include but not limited to: <ul> <li>Project start up meeting – to agree arrangements responsibilities, lines of communication and reporting</li> <li>Periodic project progress meetings</li> <li>Readiness reviews – including those associated with the Delivering of Work Within Possessions</li> <li>Design Review meetings</li> <li>Client update meetings</li> <li>Method of calling other meetings, as required for dealing with specific issues relating to the project</li> </ul> </li> </ul>
6	Health and Safety File (HSF)
6.1	<ul> <li>Information for the HSF</li> <li>Details should be provided of the arrangements for providing health and safety information both during and at the end of the construction phase</li> </ul>
А	Appendices
A.1	• Any supporting documents that provide useful information should be included



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#### Health and Safety File (HSF)

- 9.6. The HSF is a file containing relevant health and safety information to be considered during any subsequent project. This file is only required for projects involving more than one Contractor.
- 9.7. CDM requires the HSF to contain information about the current project that is likely to be needed to ensure health and safety during any subsequent work, such as maintenance, cleaning, refurbishment, or demolition etc.
- 9.8. When preparing the HSF, information in Table 9.3 should be considered for inclusion.

Table 9.3: Information for the HSF

No	Торіс	
1	<ul> <li>Brief Description of the Work Carried Out</li> <li>Also include contact details of the primary duty holders</li> </ul>	
2	<ul> <li>2 Residual Hazards</li> <li>Any hazards that have not been eliminated through the design and construction processes, and how they have been addressed (do not include material that a competent Contractor would be aware of, or would obtain as part of planning of the work such as routine information contained in 'as built' drawings)</li> <li>Details of materials which may introduce unusual or significant risk to both 'people and process' – this should be also shown on the 'as built' drawings</li> <li>Details of hazardous or flammable materials used</li> <li>Provide a log of the residual hazards including: <ul> <li>Reference</li> <li>Location</li> <li>Nature of residual hazard</li> <li>Reference to drawing / photograph number</li> </ul> </li> </ul>	
3	<ul> <li>Design Criteria</li> <li>Details of design concepts and loadings considered in the design including:         <ul> <li>Safe working loads for roofs, platforms / walkways, and floors (particularly where these may preclude placing scaffolding or heavy machinery)</li> <li>Any other load criteria which would affect maintenance and access arrangements</li> <li>A summary of the key structural limitations placed upon the structure and any sources of substantial stored energy such as prestressed concrete</li> </ul> </li> </ul>	
4	<ul> <li>Special Arrangements for Decommissioning / Demolition</li> <li>Detail which is not immediately apparent that will assist in the planning as to how the structure and equipment can be safely removed or decommissioned</li> <li>Limitations on dismantling or demolishing structures (such as the specific sequence for dismantling to ensure structural stability)</li> </ul>	



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No	Торіс
	<ul> <li>Items designed to facilitate the removal or dismantling of installed plant and equipment, (such as 'knock out' panels for equipment removal, lifting beams and anchor points)</li> <li>If the removal of an element will cause instability of the remaining structure</li> <li>Methods, sequences or techniques that will assist in the planning of safe demolition or decommissioning of the structure should be highlighted – this detail can often be extracted from the relevant method statements</li> </ul>
5	Special Arrangements for Equipment for Cleaning and Maintenance
	<ul> <li>List any plant, equipment or machinery that requires special arrangements for cleaning or maintenance: <ul> <li>Reference number</li> <li>Location</li> <li>Activity</li> <li>Reference to relevant drawings, documents or photographs and the Operation and Maintenance Manual</li> </ul> </li> <li>Specialist safety equipment that was included in the design should be identified (for example, harness fixing points for window cleaning access with load and testing details)</li> <li>Special or unusual access arrangements should be identified in this section even if included in Operation and Maintenance Manuals such as: <ul> <li>Access for maintenance equipment in lifts</li> <li>Access requiring third party permits or road closures</li> </ul> </li> <li>Special maintenance procedures should be included if not identified within the Operation and Maintenance Manual</li> <li>Light Rail system assets that require arrangements with other Light Rail / rail operators (for example, possession of adjacent track) or statutory authority</li> </ul>
6	<ul> <li>Location of Utilities and Services</li> <li>Sufficient details should be provided to allow for future location, identification</li> </ul>
	and isolation of services supplying the structure and in the vicinity of the structure – this should include those belonging to Light Rail system, statutory undertakings and other service providers
	• Significant services crossing the sites or adjacent to the works should be identified in this section such as:
	<ul> <li>Large diameter gas mains</li> <li>Overhead power lines (rail or utility)</li> <li>Large diameter sewers</li> </ul>
	<ul> <li>Key emergency systems and firefighting</li> <li>Source(s) of information should also be included</li> </ul>
7	As Built Drawings



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No	Торіс
	<ul> <li>A drawing register listing all 'As Built' drawings should be provided indicating their exact storage locations</li> <li>A small number of General Arrangements drawings that provide an overview of</li> </ul>
	the structure described in the HSF (for example, plans of individual levels and cross-sections) should be identified and provided



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# 10. Common Construction Activities Applicable to Contractors on All Construction Sites

- 10.1. This section provides a list of the common construction activities such as security, structural stability, excavations, traffic routes, vehicles, explosions, fire, lighting etc. that are only applicable to Contractors undertaking the construction work on site.
- 10.2. These activities are covered by CDM Regulations 17 to 35 as in Table 10.1 below:

CDM Regulation	Construction Activity
17	Safe places of construction work
18	Good order and site security
19	Stability of structures
20	Demolition or dismantling
21	Explosives
22	Excavations
23	Cofferdams and caissons
24	Reports of inspections
25	Energy distribution installations
26	Prevention of drowning
27	Traffic routes
28	Vehicles
29	Prevention of risk from fire, flooding or asphyxiation
30	Emergency procedures
31	Emergency routes and exits
32	Fire detection and fire-fighting
33	Fresh air
34	Temperature and weather protection
35	Lighting

Table 10.1: CDM Regulations 17 to 35



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- 10.3. The items listed in Table 10.1 are not considered in this document. If such work is undertaken by Light Rail systems, it should be covered by procedures in that organisation's SMS. If such work is undertaken by external Contractors, it should be covered by procedures in the Contractor's SMS.
- 10.4. The key issues for Light Rail systems are to ensure that such procedures are available, and to coordinate with the Contractors where these construction activities may impact on the Light Rail system's premises or assets.



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## **APPENDIX 1: INDICATIVE CHECKLIST OF DUTIES**

The following checklist has been developed from the checklist contained in Network Rail's CDM Plan (NR/L2/OHS/0047/F0052).

Issue		Comment
1	Can the project demonstrate that everyone involved in the project has the required skills, knowledge and experience and/or organisation capability when discharging their duties?	<ul> <li>For external appointments this is likely to form part of the tender process for each organisation</li> <li>External organisations are likely to have been accredited</li> </ul>
1a	Client	<ul> <li>Information contained in the Light Rail system's SMS for both individual and organisational capabilities</li> </ul>
1b	Principal Designer (if more than one Contractor)	<ul> <li>Note the organisation's accreditations</li> </ul>
1c	Designer(s)	Note the organisation's accreditations
1d	Principal Contractor (if more than one Contractor)	<ul> <li>Note the organisation's accreditations</li> </ul>
1e	Contractor(s)	Note the organisation's accreditations
2	Have those undertaking CDM duties on behalf of the Light Rail system read this guidance?	<ul> <li>This guidance provides a suitable overview of what is required by CDM</li> </ul>
3	If there is more than one Client, has a lead Client been identified, and are there arrangements in place, and documented to demonstrate these arrangements?	<ul> <li>This should be signed by all Clients</li> <li>Note that the non-lead Client still retain CDM duties for:         <ul> <li>Providing information</li> <li>Cooperating</li> </ul> </li> </ul>
4	Has the Client made suitable arrangements for managing the project, including the ongoing review?	• A Project Plan should be produced covering the items discussed in Section <b>Error! Reference source not found.</b>
5	How has sufficient time and resources been planned for all stages of the project?	<ul> <li>Potential ways of gaining assurance on this include:</li> <li>Regular reviews of programme milestones</li> <li>Resource checks</li> <li>Timely appointments</li> </ul>



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Issue		Comment
		<ul> <li>Timely issue of PCI</li> <li>Providing sufficient time to organisations to mobilise</li> </ul>
6	If a Principal Contractor and Principal Designer are not required, what assurance processes are in place to demonstrate that any Designer or Contractor complies with their legal duties?	<ul> <li>Potential ways of gaining assurance on this include:</li> <li>Project reviews with Designers and Contractor</li> <li>Information from the assurance activities of internal and external duty holder appointments (such as audits)</li> </ul>
7	If a Principal Designer is required has one been appointed in writing by the Client?	<ul> <li>If not, the appointment will default to the Client</li> <li>Obtain written confirmation of appointment</li> </ul>
8	If a Principal Contractor is required has one been appointed in writing by the Client?	<ul> <li>If not, the appointment will default to the Client</li> <li>Obtain written confirmation of appointment</li> </ul>
9	What assurance processes are in place to demonstrate that the Principal Designer and Principal Contractor comply with their legal duties?	<ul> <li>Potential ways of gaining assurance on this include:</li> <li>Project reviews with Designers and Contractor</li> <li>Information from the assurance activities of internal and external duty holder appointments (such as audits)</li> </ul>
10	Has a Form 10 (F10) been submitted?	<ul> <li>If it is not obvious, check with HSE / ORR as to who is the appropriate Regulator to notify</li> <li>Display the F10 in the site office</li> </ul>
11	What arrangements are in place to identify, eliminate, reduce and record significant construction health and safety risks?	<ul> <li>Potential ways of gaining assurance on this are contained in:</li> <li>HAZID workshops</li> <li>Designer's Risk Assessments</li> <li>Significant and particular construction risks contained within Construction Phase Plan</li> </ul>



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12	Has PCI been completed and provided to the [Principal] Designer and [Principal] Contractor?	<ul> <li>Retain records of issue of the PCI to the relevant duty holders</li> </ul>
13	Have previous health and safety files been requested from the relevant part of the Light Rail system's organisation and provided as part of PCI?	<ul> <li>Retain records of these requests and the responses</li> </ul>
14	Has the [Principal] Contractor submitted a CPP to the Client for acceptance prior to commencement of the works?	<ul> <li>The Client should sign a copy of the CPP to indicate its acceptance by the Client</li> <li>An indicative template for a CPP is contained in Section 0</li> </ul>
15	How does the Client make sure workers are provided with suitable welfare facilities?	<ul> <li>[Principal] Contractor to provide the Client with a completed welfare provision form</li> <li>Details within Construction Phase Plan</li> <li>Client assurance checks on welfare facilities</li> </ul>
16	On completion of the project has an appropriate HSF been handed to the Client (Light Rail system)?	<ul> <li>The Client should sign a copy of the HSF to indicate its acceptance by the Client</li> <li>An indicative template for a HSF is contained in Section 0</li> </ul>



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### APPENDIX 2: MINIMUM WELFARE FACILITIES REQUIRED FOR CONSTRUCTION SITES

CDM contains details on the minimum welfare facilities required for construction sites. These are:

1	Sanitary Conveniences
1.1	Suitable and sufficient sanitary conveniences must be provided or made available at readily accessible places.
1.2	So far as is reasonably practicable, rooms containing sanitary conveniences must be adequately ventilated and lit.
1.3	So far as is reasonably practicable, sanitary conveniences and the rooms containing them must be kept in a clean and orderly condition.
1.4	Separate rooms containing sanitary conveniences must be provided for men and women, except where and so far as each convenience is in a separate room, the door of which is capable of being secured from the inside.
2	Washing Facilities
2.1	Suitable and sufficient washing facilities, including showers if required by the nature of the work or for health reasons, must, so far as is reasonably practicable, be provided or made available at readily accessible places.
2.2	<ul> <li>Washing facilities must be provided:</li> <li>In the immediate vicinity of every sanitary convenience, whether or not also provided elsewhere; and</li> <li>In the vicinity of any changing rooms required by Paragraph 4, whether or not provided elsewhere.</li> </ul>
2.3	<ul> <li>Washing facilities must include:</li> <li>A supply of clean hot and cold, or warm, water (which must be running water so far as is reasonably practicable);</li> <li>Soap or other suitable means of cleaning; and</li> <li>Towels or other suitable means of drying.</li> </ul>
2.4	Rooms containing washing facilities must be sufficiently ventilated and lit.
2.5	Washing facilities and the rooms containing them must be kept in a clean and orderly condition.
2.6	Subject to Paragraph (2.7), separate washing facilities must be provided for men and women, except where they are provided in a room the door of which is capable of being secured from inside and the facilities in each room are intended to be used by only one person at a time.



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2.7	Sub-paragraph (2.6) does not apply to facilities which are provided for washing hands, forearms and the face only.		
3	Drinking Water		
3.1	An adequate supply of wholesome drinking water must be provided or made available at readily accessible and suitable places.		
3.2	Where necessary for reasons of health or safety, every supply of drinking water must be conspicuously marked by an appropriate sign.		
3.3	Where a supply of drinking water is provided, a sufficient number of suitable cups or other drinking vessels must also be provided, unless the supply of drinking water is in a jet from which persons can drink easily.		
4	Changing Rooms and Lockers		
4.1	<ul> <li>Suitable and sufficient changing rooms must be provided or made available at readily accessible places if a worker:</li> <li>Has to wear special clothing for the purposes of construction work; and</li> <li>Cannot, for reasons of health or propriety, be expected to change elsewhere.</li> </ul>		
4.2	Where necessary for reasons of propriety, there must be separate changing rooms for, or separate use of rooms by, men and women.		
4.3	Changing rooms must: Be provided with seating; and Include, where necessary, facilities to enable a person to dry any special clothing and any personal clothing or effects.		
4.4	<ul> <li>Suitable and sufficient facilities must, where necessary, be provided or made available at readily accessible places to enable persons to lock away:</li> <li>Any special clothing which is not taken home;</li> <li>Their own clothing which is not worn during working hours; and</li> <li>Their personal effects.</li> </ul>		
5	Facilities for Rest		
5.1	Suitable and sufficient rest rooms or rest areas must be provided or made available at readily accessible places.		
5.2	<ul> <li>Rest rooms and rest areas must:</li> <li>Be equipped with an adequate number of tables and adequate seating with backs for the number of persons at work likely to use them at any one time;</li> <li>Where necessary, include suitable facilities for any woman at work who is pregnant or who is a nursing mother to rest lying down;</li> <li>Include suitable arrangements to ensure that meals can be prepared and eaten;</li> <li>Include the means for boiling water; and</li> <li>(e) Be maintained at an appropriate temperature.</li> </ul>		



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