

NetworkRail



CDM NOTE 002

Principal Designer Appointment

*Internal Guidance
Version 1 / March 2015*

CDM Note 002: Principal Designer Appointment



Introduction

The part of Network Rail discharging the Client duties, will have to take a key decision when and who to appoint as the Principal Designer, for a change to the infrastructure. This note provides information to help inform that decision taking and activity.

This note does not provide detail of the role of the Principal Designer and what their duties are, as these are detailed in the following documents;

- [CDM Regulations 2015](#),
- [CITB Principal Designers Guidance](#)
- [HSE L153 Guidance on the Construction \(Design and Management\) Regulations 2015](#).

This note and other Network Rail internal guidance is available from:

- [Safety Central – CDM 2015](#)

Contents

Introduction.....	1
1.0 Who appoints the Principal Designer?.....	2
1.1 Typical Examples:	2
1.2 How to appoint a Principal Designer?.....	2
1.3 Considerations for appointing organisations as PD.....	2
1.4 Principal Designer’s Representative	3
1.5 Who can be appointed as the Principal Designer?.....	3
Example A: “Turn-Key Design and Build”.....	4
Example B: Group Strategy – Pre and early GRIP Stages	5
Example C: Renewals projects	6
1.6 Time changes all	7
Example D: Change from one model to another.....	7
1.6 Internal or external appointment?	8
1.7 Transitional arrangements	9
1.7.1 For projects ending before 6 October 2015	9
1.7.2 For projects ending after 6 October 2015.....	9
Appendix A - Principal Designer’s Representative Assessment Template and Guidance.....	11
Appendix B – Organisational Capability Assessment Guide.....	13
Appendix C – Project profiler template	15

CDM Note 002: Principal Designer Appointment



1.0 Who appoints the Principal Designer?

Only the Client can appoint the Principal Designer. If Network Rail does not appoint in writing a Principal Designer, then Network Rail will retain the Principal Designer duties. Depending on the type of infrastructure change that is happening, then the business unit with accountability for the appointment of the Principal Designer will change. The Principal Designer is required where it is foreseeable that there will be more than one contractor for a project. For the vast majority of our works, there will be more than one contractor.

1.1 Typical Examples:

Enhancement Projects

Early Stages (Pre-Grip to GRIP 3)	Grip 3 onwards
Group Strategy is accountable as the Client	Route is accountable as the Client
Group Strategy to appoint / undertake Principal Designer duties	Route to appoint / undertake Principal Designer duties

Renewal Projects

Early Stages (Pre-Grip to GRIP 3)	Grip 3 onwards
Route is accountable as the Client	Route remains accountable as the Client
Route to appoint / undertake Principal Designer duties	Route to appoint / undertake Principal Designer duties

1.2 How to appoint a Principal Designer?

Each part of the business should document their procedures for how they appoint a Principal Designer, as suited to their business as usual activities. The Principal Designer appointment should be recorded in the following places:

1. The contract where it is an external appointment.
2. The project remit where it is an internal Network Rail appointment
3. The CDM Plan (NR/L2/OHS/0047/F0052) for both internal and external appointments.

1.3 Considerations for appointing organisations as PD

Where Network Rail as the Client appoints an organisation (internal or external), the part of the business accountable as the Client, will have to assure that who they appoint have the required "organisational capability". At the present time, there is not a Principal Designers Licence scheme or criteria in RISQS (formally Achilles Linkup), so a specific assessment will need to be undertaken for each appointment. Appendix B of this note provides a template for the organisational assessment, which has been completed for a fictional company as an example. This can be used as a guide – it does not set a criteria - the evidence collected will be organisation specific. The specific assessment will be required for each appointment,

CDM Note 002: Principal Designer Appointment



even where it is the same company, however much of the evidence will carry over from one assessment to another. The key differences will be the individual staff appointed to work on the project. The completed assessment should be subjected to document control, and be available for audit and review. An option might be to include the form in Appendix B in a pre-qualification tender package for the supplier to complete initially, and then followed-up with more detailed investigation closer to appointment. The form in Appendix B can also be used to assess an internal part of Network Rail that you wish to appoint as the Principal Designer.

1.4 Principal Designer's Representative

Where a part of Network Rail has been appointed as the Principal Designer, our standard will require the appointment of a "Principal Designer's Representative". The representative role is a key point of contact for the discharging of the Principal Designer's duties for that part of the business. The accountability and responsibility to appoint the Principal Designer's Representative should be defined by each part of business in their management arrangements – an accountability of the director for that part of Network Rail.

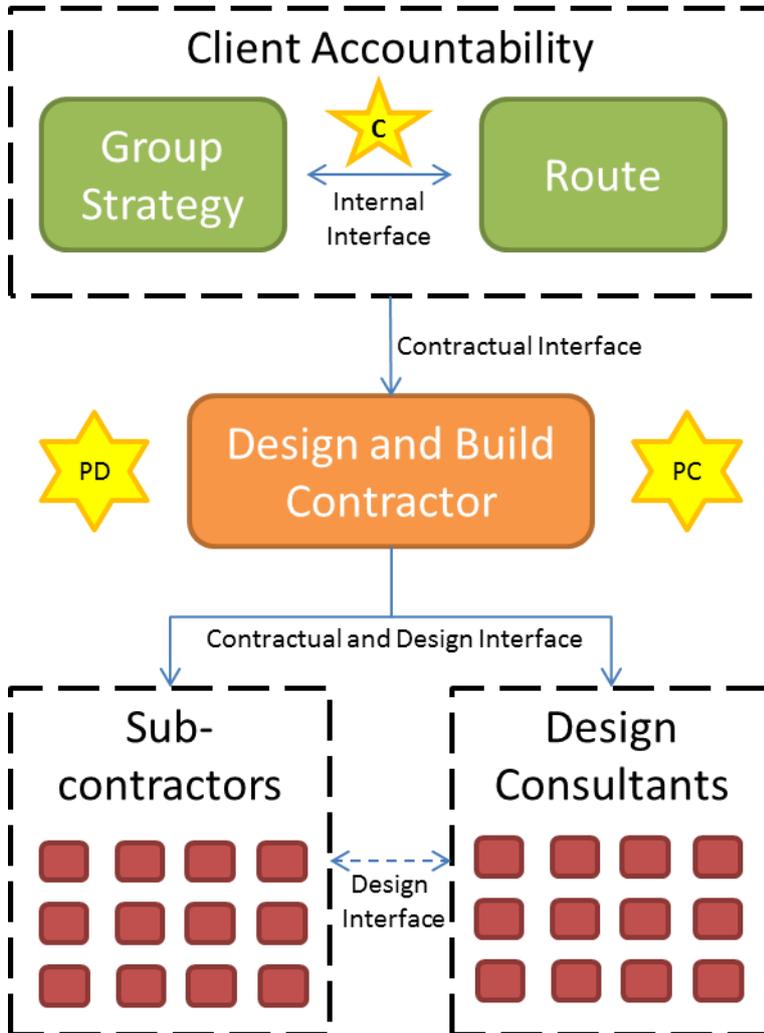
A RACI chart is a good way to show the key tasks and who is responsible for completing them. Appendix A of this note provides a template and guidance on the competency requirements for the Principal Designer's Representative. In many cases our existing CDM-C Representative should be able to fulfil this role, but may need additional support from a wider team in performing the design management duties.

1.5 Who can be appointed as the Principal Designer?

For each project, the relationships and scope of each appointment will need to be mapped out. This mapping exercise will help determine who would be best placed to fulfil the Principal Designer role to plan, manage and monitor the pre-construction phase. A selection of simplified examples is provided below to illustrate some of the possible contractual strategies; there are a near limitless number of variations possible.

CDM Note 002: Principal Designer Appointment

Example A: “Turn-Key Design and Build”



In this example, we can see that the Client accountability is shared or transferred between Group Strategy and the Route where the change is physically happening.

The Route in this example has appointed a Design and Build Contractor (D&B) to perform all design and construction works.

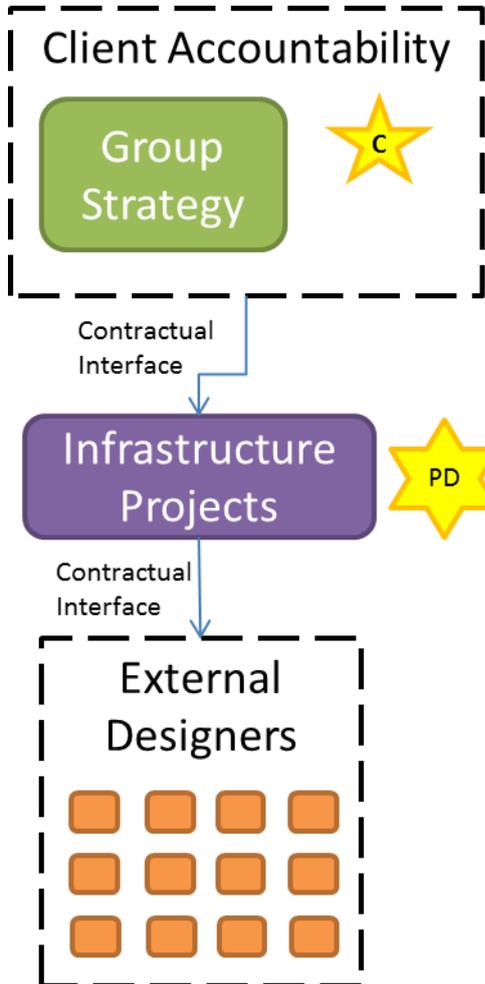
In this case it would be sensible for the Route to also contractually appoint the D&B as the Principal Designer and Principal Contractor.

The Route has no contractual means to plan, manage and monitor the D&B's Sub-contractors or Design Consultants, so is not best placed to be the PD or PC.

A variation on this arrangement could be where the Route would “appoint” Infrastructure Projects as the Principal Designer between the Route and the D&B.

CDM Note 002: Principal Designer Appointment

Example B: Group Strategy – Pre and early GRIP Stages



Group Strategy for Enhancement projects and interventions prepare the business case for the change and may take the project up to GRIP 3. Group Strategy will hold the Client accountability.

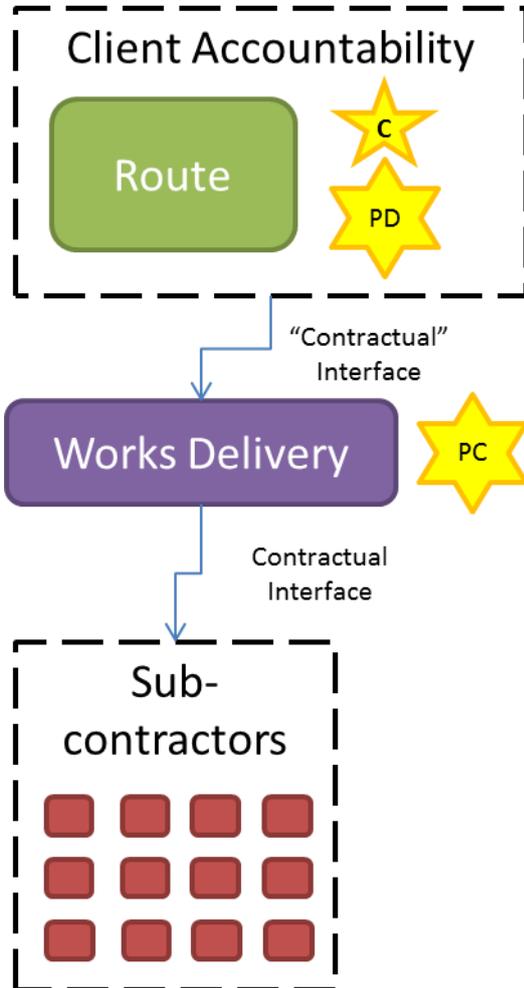
Group Strategy will need to decide who to appoint as the Principal Designer, or if they want to retain the role. This will depend on what is being designed and to what level of detail.

In this example, Group Strategy has appointed Infrastructure Projects to undertake design work and who have contracted out to external organisations. It would be sensible for Infrastructure Projects in this example to be the Principal Designer, as they are best placed to be a single point of accountability for planning, managing and monitoring the design works.

A variation on this would be for Group Strategy to contract directly with an external organisation, and either retain the PD role, or appoint a lead designer as PD.

CDM Note 002: Principal Designer Appointment

Example C: Renewals projects



For renewals projects, the route will hold the Client accountability.

The Route in this example has appointed their internal Works Delivery Unit to physically perform the renewals, who have then appointed sub-contractors; for example a plant-hire company with a machine operator. In this scenario it would be appropriate for the Works Delivery Unit to be the Principal Contractor as they have control of the physical works.

The Route in the example has retained the Principal Designer role, where there is no design works being undertaken by the Works Delivery Unit. This decision will have to be taken what design work is required for the project, and who is delivering it. For example, where a standard design is being used, then the organisation modifying to the specific locations will be a designer, and likely to be best placed to be the PD. Where a standard design or product is being implemented, then Technical Services (formally asset management) would be the designer as the owner of the standard design.

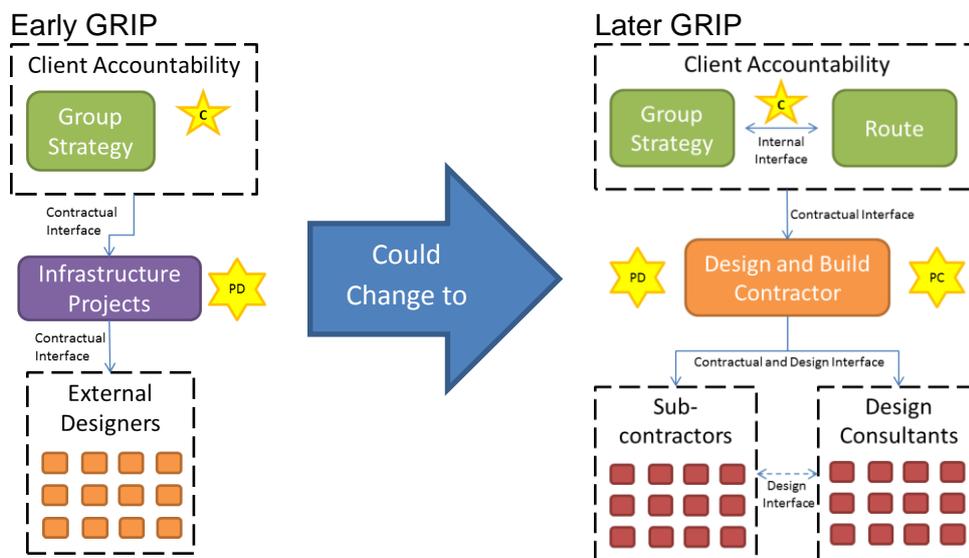
A variation on this example would be for Infrastructure Projects to be substituted for the Works Delivery Unit.

CDM Note 002: Principal Designer Appointment

1.6 Time changes all

As a project moves through the project life-cycle those involved will change, and accountabilities might transfer. The transfer of the accountabilities will need to be documented and the map of the relationships updated as the changes occur. The change in accountabilities and the organisations appointed should be recorded in the CDM Plan (NR/L2/OHS/0047/F0052).

Example D: Change from one model to another



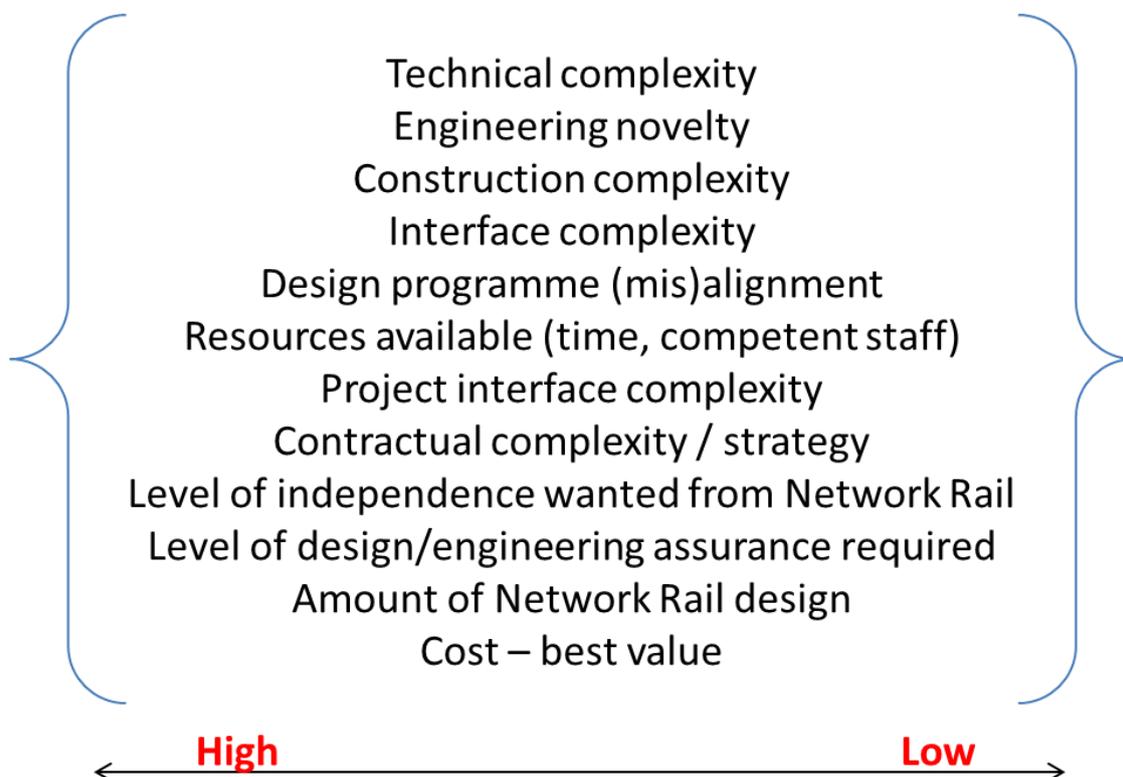
CDM Note 002: Principal Designer Appointment



1.6 Internal or external appointment?

Fundamentally Network Rail is responsible for the safety of our infrastructure, under other European railway safety legislation. The “emergency or backstop” position will always be that Network Rail will discharge the role of the Principal Designer – probably by appointing our Infrastructure Projects function. That however does not mean Network Rail is the most appropriate organisation to be the Principal Designer in all or most cases. The two largest factors will be the contracting strategy that defines the contract and information relationships between the involved organisations – as indicated in section 1.5 – and the level of engineering safety risk involved in the design.

The following factors could be used by the Client when deciding who to appoint. The decision will be based around who is in a better position to plan, manage and coordinate the design to minimise the health and safety performance in these areas:



Against each factor, you might want assess the profile for your project or infrastructure change, and then write who is best placed between Network Rail and the other choices to see which one is written the most. The one written the most, is probably the best placed to deal with all the overall collection of risks. A simple template is provided in Appendix C. Other factors for consideration are listed in section 1.7.2.

CDM Note 002: Principal Designer Appointment



1.7 Transitional arrangements

The CDM Regulations 2015 define a transitional period of 6 months, from 6 April 2015 to 6 October 2015 - for projects to terminate their existing CDM co-ordinator appointment and transition to a Principal Designer appointment. Each project will need to determine their transitional plan to suit their local conditions, including the commercial arrangements in place. The plan should be documented and available for internal and external review and audit.

1.7.1 For projects ending before 6 October 2015

Where Network Rail is the CDM co-ordinator and the project has started before 6 April 2015, then the minimum amount of disruption would be the continue to apply Issue 5 of our current CDM standard (NR/L2/OHS/0047). The CDM Co-ordinator's Representative appointment will need to support the Network Rail project team to implement the requirements of Schedule 4 (5) of the CDM Regulations 2015.

Where Network Rail is not appointed the CDM co-ordinator – an external organisation is – for a project that has started before 6 April 2015, then the minimum disruption would be the continue with the external appointment. The project team would need to confirm with the external organisation that they wish to continue in this role and confirm if there are any additional costs associated with this. There should not be as Schedule 4 (5) of the CDM Regulations 2015 does not include any additional duties from CDM Regulation 2007. A key issue will be if the external organisation will still have the resources to continue to provide this service until the 5 October 2015.

1.7.2 For projects ending after 6 October 2015

For project starting before 6 April 2015, regardless if Network Rail is the CDM co-ordinator or an external organisation is appointed, there are only two choices;

- A. One of the existing project design organisations (the Lead Design Organisation for example) is appointed as the Principal Designer, or
- B. Network Rail increases the project team size and resources to become the Principal Designer. A Principal Designer Representative is appointed to act as the focal point to implement the changes.

Where no decision is made or action taken, then as outlined in section 1.0, Network Rail will automatically become the Principal Designer on 6 October 2015.

Some of the factors to consider when choosing between options A and B above;

1. Is there an appetite from a designer to take on the Principal Designer role?
2. What are the commercial implications of appointing the Principal Designer externally to Network Rail for your project?
 - a. What is the cost of the quote? Can we do it for better value internally?
 - b. Does this need to be a competitive tender? Does it need to be published in the OJEU?
3. What are the contractual and information relationships on the project?
 - a. What are the project insurance implications and design liability implications?

CDM Note 002: Principal Designer Appointment



4. Will the appointed PD really be in a contractual position to plan, manage and monitor all the other designers on the project – including the Principal Contractor and Network Rail?
5. Does Network Rail have the resources available to support the project?
6. Does the interested designer have the resources to deliver the role?
7. Does the interested designer have the skills, knowledge, experience and organisational capability to deliver the role?
8. How does this project fit into a wider programme of projects that will need complex design interface management across contractual boundaries?
9. Will the Principal Designer appointment need to change between GRIP 4 to 5 for example?

The Network Rail project manager / director will need to ensure that there is handover and briefing from the outgoing CDM co-ordinator to the incoming Principal Designer. They will be performing this action on behalf of the part of the business which is discharging the Client's duties. This is to avoid keys hazards, information or tasks being forgotten about, or missed – a major risk during this change over period.

An appropriate method to achieve this would be:

- A formal (recorded) transfer of information between the parties,
- Give the Principal Designer an opportunity to review the information,
- Principal Designer to submit a list of queries
- Followed up by a face to face “handover” between the parties.

The project should document that the above occurred, including the attendance at the face to face meeting.

CDM Note 002: Principal Designer Appointment



Appendix A - Principal Designer's Representative Assessment Template and Guidance

CDM Note 002: Principal Designer Appointment



CDM Note 002: Principal Designer Appointment



Appendix B – Organisational Capability Assessment Guide

CDM Note 002: Principal Designer Appointment



CDM Note 002: Principal Designer Appointment



Appendix C – Project profiler template

Factors (examples given below – add your own for your specific project / works)	High / Low	Who's best place to plan, manage, monitor and co-ordinate this risk?
Technical complexity		
Engineering novelty		
Construction complexity		
Interface complexity		
Design programme (mis)alignment		
Resources available (time, competent staff)		
Project interface complexity		
Contractual complexity / strategy		
Level of independence wanted from Network Rail		
Level of design/engineering assurance required		
Amount of Network Rail design		
Cost - best value		