Ref:	**NR/L2/ENV/015**
Issue:	9
Date:	05 June 2021
Compliance date:	04 September 2021

Level 2

Business process

Environment and Social Minimum Requirements for Projects – Design and Construction

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User information

This Network Rail standard contains colour-coding according to the following Red–Amber–Green classification.

Red requirements – *no variations permitted*

- Red requirements are to be complied with and achieved at all times.
- Red requirements are presented in a red box.
- Red requirements are monitored for compliance.
- Non-compliances will be investigated and corrective actions enforced.

Amber requirements – *variations permitted subject to approved risk analysis and mitigation*

- Amber requirements are to be complied with unless an approved variation is in place.
- Amber requirements are presented with an amber sidebar.
- Amber requirements are monitored for compliance.
- Variations can only be approved through the national variations process.
- Non-approved variations will be investigated and corrective actions enforced.

Green guidance – *to be used unless alternative solutions are followed*

- Guidance should be followed unless an alternative solution produces a better result.
- Guidance is presented with a dotted green sidebar.
- Guidance is not monitored for compliance.
- Alternative solutions should be documented to demonstrate effective control.

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Date:	05 June 2021
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Compliance

This Network Rail standard/control document is mandatory and shall be complied with by Network Rail Limited and its contractors if applicable from 04 September 2021.

Where it is considered not reasonably practicable to comply with the requirements in this standard/control document, permission to comply with a specified alternative should be sought in accordance with the Network Rail standards and controls process, or with the Railway Group Standards Code if applicable.

If this standard/control document contains requirements that are designed to demonstrate compliance with legislation they shall be complied with irrespective of a project's PACE/GRIP stage. In all other circumstances, projects that have formally completed GRIP Stage 3 (Option Selection) may continue to comply with any relevant Network Rail standards/control documents that were current when GRIP Stage 3 was completed.

NOTE 1: *Legislation includes Technical Specifications for Interoperability (TSIs).*

NOTE 2: *The relationship of this standard/control document with legislation and/or external standards is described in the purpose of this standard.*

Disclaimer

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Issue record

Issue	Date	Comments
1	August 1999	Original Document
2	April 2000	Revised RT/LS/S/015
3	June 2000	Revised to harmonise clauses with MITTE3
4	October 2002	Revised to apply to all works and design contracts,
5	April 2004	Company Reorganisation
6	December 2011	Revised to apply to service contracts
7	June 2018	Revised to include social impacts and other widespread edits. Service contracts removed.
8	March 2019	Revised to apply to GRIP projects only and exclude Route Business Maintenance teams.
9	June 2021	Post Implementation Review

Reference documentation

NR/L1/ENV/100	*Network Rail Environment and Social Performance Policy*
NR/L2/INI/CP0070	*Principal Contractor Licensing Scheme*
NR/L2/MTC/006	*Maintenance and Contents of the National Hazard Directory.*
NR/L2/TRK/5201	*Management of Lineside Vegetation*
NR/L3/MTC/MG0194	*Management of Third Party Complaints*
NR/L3/OPS/045/4.04	*Incidents*
NR/L3/INV/3001	*Reporting and Investigation Manual*
NR/L1/ELP/27000	*Policy Requirements for Electrical Power Assets*
NR/L2/INF/02202	*Records management of health and safety files*
NR/L3/ENV/305	*How to Change Utility Supplies*
NR/L3/OPS/045/5.10	*Management of Environmental Arrangements*
NR/L3/ENV/044	*Used Ballast and Excavation Waste Handling*
NR/L3/OPS/045/5.04	*Management of Station Works*
NR/L2/ENV/121	*Managing Environmental and Social Impacts of Noise and Vibration*
NR/L2/ENV/120	*Waste Management*
NR/L2/ENV/123	*Prevention of Pollution to Land and Water*
NR/L3/OHS/0046	*The Reporting, Investigation and Recording of Safety and Sustainable Development Events and Close Calls within Infrastructure Projects*
NR/L2/MTC/089	*Asset Management Plan Forms*
NR/L2/ENV/122/01	*Management of biodiversity*
NR/L3/TRK/003/TEF3069	*Pesticide application record form*
NR/L2/SCO/306	*Disposal of redundant assets*
R/L2/SIG/11201/Mod A2-23	*Recovery of redundant assets [Issue 1]*
NR/L2/CIV/003/F004	*Architectural and Layout Acceptance form*
NR/L2/OPS/250	*Network Rail National Emergency Plan*
NR/L3/OPS/045/4.14	*Control of Environmental Incident Procedures*
NR/L2/INI/P3M/101	*Governance for Railway Investment Projects (GRIP)*
NR/L2/P3M/201	*Project Acceleration in a Controlled Environment (PACE)*

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Legislation

This standard/control document has been reviewed to confirm it complies with relevant environmental and social legislation at the time of publication. Details of relevant legislation are available on Network Rail's Legal Register.

Compliance with this standard/control document does not, on its own, provide compliance with relevant legislation.

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1 Purpose

This standard sets out Network Rail's minimum requirements for the management of environment and social risks and opportunities during design and/or construction activities.

The implementation of this standard delivers a range of benefits to Network Rail including:

a) improved business cost-efficiency from sustainable practices, such as designing for whole-life energy efficiency, waste minimisation, and capital carbon value engineering;

b) increased social value created by maximising opportunities for inclusive design, considerate construction and socio-economic growth;

c) reduced risk of legal and regulatory non-compliance and negative reputational exposure by delivering good practice standards of environmental and social performance; and

d) alignment with the Network Rail Environmental Sustainability Strategy.

2 Scope

This standard is mandatory for all construction and design works carried out by Network Rail and its contractors as part of a PACE managed project.

This standard applies to but is not limited to:

a) Designers/Contractors contracted to Network Rail for the provision of design and/or construction services;

b) Network Rail business units where they act as a design or contractor entity according to Construction (Design and Management) Regulations definitions, e.g. Network Rail Design Delivery and Works Delivery engaged in construction and design works; and

c) any non-construction works that comply with NR/L2/OHS/0044 – Planning & Managing Construction work.

This standard excludes any works associated with maintenance activities.

The requirements of this standard apply to all land areas impacted by project activities, including the primary development site(s) and, without limitation, any associated temporary work sites, compounds, haul roads, access routes.

Where a joint venture or alliance is established, this standard should be recommended as a minimum when defining contract requirements for those organisations accountable for design or construction within the alliance.

3 Definitions

As low as reasonably practicable (ALARP)

Reasonably practicable involves weighing the risk / benefit against the effort, time and money needed to control it. Any requirements within this standard should be applied to ALARP using a whole-life cost approach for their consideration.

Asset

Any item, entity, or property owned by Network Rail and regarded as having actual or potential value or function to the operation of the rail network, to other Network Rail business activities, or to other stakeholders.

Biodiversity

The variety and variability among all forms of life.

NOTE 1: *This includes terrestrial, marine, and other aquatic ecosystems and the ecological complexes of which they are part.*

Best Practicable Means (BPM)

Measures taken to reduce the impacts of noise and vibration caused by works.

NOTE 2: *BPM is defined in Section 72 of the Control of Pollution Act as 'reasonably practicable for the local conditions and circumstances, using measures including good design, good practice installation, maintenance, manner and periods of operation of plant and machinery, acoustic structures and the financial implications of each.'*

Building Research Establishment Environmental Assessment Method (BREEAM)

An international scheme that provides third-party certification for the assessment of sustainability performance for projects, infrastructure and buildings.

Capital Carbon

Includes all carbon dioxide and other greenhouse gas emissions associated with the creation, construction, refurbishment and end-of- life decommissioning and treatment of an asset.

NOTE 3: *The term capital carbon has emerged because all these activities are typically funded through capital expenditure (CapEx).*

NOTE 4: *The related term 'embodied carbon' is part of capital carbon but only applies to the carbon dioxide and other greenhouse gas emissions during the manufacture of specific materials and products.*

Civil Engineering Environmental Quality Assessment & Awards Scheme (CEEQUAL)

A sustainability assessment for engineering, infrastructure, landscaping and public realm projects.

Circular Economy

A circular economy is a sustainable alternative to the traditional linear economy of make, use and dispose. The aim of a circular economy is to extract fewer virgin resources from the planet and to keep existing resources in use for as long as possible. Resources, products and materials should be re-used, repaired and regenerated in order to extend their useful lifespan and extract their maximum environmental, social and financial value. This approach reduces embodied carbon, water and social impacts and keeps waste to a minimum.

Construction

The carrying out of any building, civil engineering or engineering construction work that includes:

a) the construction, alteration, conversion, fitting out, commissioning, renovation, repair, upkeep, redecoration or other maintenance (including cleaning which involves the 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;

b) the 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;

c) the 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 structure;

d) the 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 structure;

e) the installation, commissioning, maintenance, repair, or removal of mechanical, electrical, gas, compressed air, hydraulic, telecommunication, computer or similar services which are normally fixed within or to a structure,

Construction does not include the exploration for, or extraction of, mineral resources, or preparatory activities carried out at a place where such exploration or extraction is carried out.

Contaminated Land

Land that has legally been defined as 'contaminated land' where substances are causing or has the potential to cause significant harm to people, property or protected species, significant pollution of surface waters (e.g. lakes and rivers) or groundwater, air pollution, and/or harm to people as a result of radioactivity. Land can become contaminated with:

- hazardous and/or non-hazardous materials from human activity (e.g. previous land uses, fuel spillages, fly tipping);
- invasive non-native species;
- naturally occurring hazardous substances like radon gas.

Contractor

Any person or organisation, including a non-domestic client, who carries out, manages or controls works (as defined above).

NOTE 5: *This can include a Network Rail business function that is contracted to complete work on behalf of another Network Rail business function.*

Design

Design includes any production of 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 design.

Designer

Any person or organisation, including a client, contractor or other person, who:

- prepares or modifies a design
- arranges for, or instructs, any person under their control to do so,

relating to a structure, or a product or mechanical or electrical system intended for a particular structure. A person is deemed to prepare a design where a design is prepared by a person under their control.

NOTE 6: *This can include a Network Rail business function that is contracted to complete work on behalf of another Network Rail business function.*

Emergency Works

Works that must be undertaken immediately, without delay and with involvement from emergency services. The event is unexpected and serious, such that it presents a significant risk to human life, health and/or property, or the natural environment, and involves the need for immediate action to manage the risk.

Employer's Representative

Any role within Network Rail responsible for managing and delivering the contracted project or works activity at a given stage in the project/works life-cycle. This could be, without limitation, the Contract Manager, Development Manager, Project Manager, or Asset Manager.

Environmental Product Declaration (EPD)

An independently verified and registered document that communicates transparent and comparable information about the life-cycle environmental impact of products.

NOTE 7: *The International EPD System is a global programme for environmental declarations based on ISO 14025 and EN 15804.*

Forest Products

Any material derived from forestry, including timber, composite timber products, paper, card, etc.

Health & Safety File (HSF)

A file prepared to satisfy regulation 12(5) of the Construction (Design and Management) Regulations. The purpose of the HSF is to confirm that, at the end of a project, the client has information that anyone carrying out subsequent construction work on the same site or structure would need to be aware of in order to plan and carry out work safely and without risk to health.

Indicators

Indications of performance and/ or the likelihood of meeting targets. The most significant of these, for a business, are key performance indicators.

Non-construction works

Works outside the scope of construction works 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, and structures examinations.

Potable Water

Water that is safe to drink.

Preliminary Ecological Appraisal (PEA)

A rapid assessment of the habitats and ecological features, present or potentially present, within a site and within the wider zone of influence of a project or work site. A PEA normally comprises a desktop study and a site walkover survey such as an Extended Phase 1 Habitat Survey. The PEA will determine the need for further Phase 2 surveys. PEAs need to be conducted in accordance with the most current edition of Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines for Preliminary Ecological Appraisal.

Preliminary Risk Assessment (Contaminated Land)

The Preliminary Risk Assessment (Phase 1 desktop study) is the first stage of the contaminated land assessment process. This involves analysing historical and environmental information for the site and within a 250 m radius around the site as detailed in the Environment Agency's Land Contamination Risk Management (LCRM) guidance. A risk assessment report with conceptual site modelling will be undertaken. If this demonstrates no risk from contamination, the planning will be released, subject to local authority agreement.

Safety Central

Safety Central is a Network Rail managed website to promote best practice health, safety and sustainability within the rail industry. Network Rail environment and social guidance notes can be found on this website: https://safety.networkrail.co.uk/.

SKA Rating

SKA rating is an environmental assessment method, benchmark and standard for non-domestic fitouts, led and owned by the Royal Institute of Chartered Surveyors (RICS).

Social Performance

The extent to which Network Rail's operations, activities and decisions impact people- including passengers, employees, suppliers, communities or other groups affected by Network Rail's physical and socio-economic presence.

Social Value

Defined by Social Value UK as "the quantification of the relative importance that people place on the changes they experience in their lives. Some, but not all of this value is captured in market prices." The term 'social value' is used sometimes interchangeably with the term 'social performance.'

Structure

a) Any 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; or similar,

b) Any formwork, falsework, scaffold or other structure designed or used to provide support or means of access during construction work.

Supplier

The term used within Network Rail contracting to refer to a Designer and/or contractor.

Traction Energy

The energy used to move trains.

Urgent Reactive works / Non-emergency unplanned works

Works that were not planned but must be undertaken urgently when a rail asset has failed due to a sudden and unforeseen event, fault or defect. There is not involvement from emergency services, but the work is deemed urgent in order to restore the rail network to a safe operating condition.

Weather Resilience and Climate Change Adaptation

Weather resilience is the ability of assets, networks and systems to anticipate, absorb, adapt to, and/or recover from disruptive weather events.

Climate change adaptation is action taken to improve the resilience of assets, networks and systems to future weather conditions, avoiding, minimising or mitigating the impact of more severe or frequent adverse and extreme weather events and gradual or erratic changes in weather patterns due to climate change.

Whole-life carbon

The sum of greenhouse gas emissions from all stages in the life cycle of an asset, including embodied carbon emissions of materials and products; capital carbon emissions from construction activities, major maintenance/ refurbishment/ replacement and end of life decommissioning and treatment; and operational carbon emissions from utilities consumption, minor servicing and maintenance.

4 Environment and Social Management Processes

4.1 Environment and Social Appraisal (ESA)

The ESA shall be completed at the start of a project and is a mandatory PACE product. The ESA is a live document and shall be updated at each PACE milestone or when significant changes to the project occur.

The ESA shall be reviewed and approved by the Network Rail Project Manager who shall confirm the ESA is complete and accurate.

The Employer's Representative shall confirm the Designer/Contractor has access to the most up-to-date project-specific ESA to understand the environmental and social impacts associated with the project.

NOTE 1: *The ESA is a Network Rail tool owned by the Employer's Representative that enables Network Rail to collate pre-construction information on environmental and social risks and opportunities. Consequently, it is not appropriate for construction Designer/Contractor to complete the ESA. The ESA can be carried out by another competent party (with access to the relevant information sources) on behalf of the Project Manager, as long as the review and acceptance is carried out internally.*

4.2 Environment and Social Management Plans (ESMP)

The Designer/Contractor shall produce an ESMP. The ESMP shall address all risks and opportunities identified by the ESA, applicable to the design or construction of the project, plus any other risks and opportunities identified by the Designer/Contractor.

The Network Rail ESMP template shall be mandatory for all works and shall include the documented requirements of this standard.

NOTE 2: *An ESMP template and guidance is available on the Environment and Sustainable Development page on Safety Central.*

NOTE 3: *Alliance and contracts for repeating design and works (e.g. track and signalling) may develop overarching ESMPs containing generic environmental management processes that comply with this standard. Project specific risks and opportunities shall be addressed in shorter site specific ESMPs.*

The ESMP shall include an environment and social risk assessment. The risk assessment shall identify the operational specific risks and opportunities associated with the project using data from the ESA, populated at the start of the project and updated as required.

Works on site shall not commence until the ESMP has been formally accepted in writing by the Network Rail Employer’s Representative.

For works where the contract mobilisation period is less than 28 days, the Designer/Contractor shall submit the ESMP documentation to the Employer’s Representative 14 days before on-site works commence or at a date agreed with the Employer's Representative.

Design ESMPs shall be submitted at a date agreed with the Employer's Representative.

For all other works, the ESMP shall be submitted in writing to the Employer’s Representative at least 28 days before on-site works commence. If the ESMP is not accepted by the Employer’s Representative, the Designer/Contractor shall resubmit

an updated ESMP within 10 days of receiving comments. The ESMP shall be resubmitted until accepted by the Employer's Representative.

The Project Manager shall complete the EN3 Review and Acceptance form.

NOTE 4: *Formal acceptance of the ESMP is through completion of this form.*

NOTE 5: *EN3 Review and Acceptance form is a PACE product within the PACE Product Index.*

5 General Requirements – all projects/works

5.1 Network Rail policies and strategies

The Designer/Contractor shall comply with all Network Rail policy, strategy and standards.

5.2 Roles and responsibilities

The Network Rail Project Manager shall allocate accountabilities and responsibilities for environment and social performance to named persons within the project team.

The Designer/Contractor shall notify and agree with the Employer's Representative any intended changes in managers with responsibilities for environment and social performance at least 28 days before they occur.

NOTE 1: *Appendix E of the Principal Contractor Licensing Scheme NR/L2/INI/CP0070 identifies environmental resourcing & competency requirements.*

5.3 Competence

A competence framework shall be used to understand and support organisational capability so that all staff have sufficient knowledge, skills, competence and experience to carry out the particular tasks and activities for which they are responsible.

The Designer/Contractor shall have appropriate environmental resources to comply with this Standard.

The Principal Contractor shall have appropriate environmental resources to satisfy the requirements set out in appendix E of NR/L2/INI/CP0070 and provide evidence, if requested, that the criteria have been met by those persons working on the project.

The Designer/Contractor shall follow legislative requirements at every stage of the project delivery.

5.4 Sub-contracting

Compliance with this standard shall be a requirement at tender stage and throughout the procurement and management of any sub-contractors.

Sub-contracting shall not absolve the Designer/Contractor from their accountability to Network Rail to meet the requirements of this standard.

5.5 Permits, Licences and Consents (PLCs)

The Designer/Contractor shall establish and/or maintain a PLCs register. The register shall contain details of:

a) all environment and/or social PLCs required by the design or construction phase of the project, as appropriate, along with conditions; and

b) allocated responsibility and accountability for discharging those conditions.

The Designer/Contractor shall comply with all PLCs as required.

The Designer/Contractor shall maintain a time-bound programme for applying for new or modified PLCs in line with the works programme and provide copies of any new or modified PLCs to the Employer's Representative within 7 days of receipt.

When instructed by the Employer's Representative, the Designer/Contractor shall become holder of any PLCs for the duration of the contract.

When instructed by the Employer's Representative, the Designer/Contractor shall transfer PLCs to Network Rail, or any agreed nominated person(s).

NOTE 2: *Each project develops a Land and Consents Strategy and Land and Consents Commitment Register to identify potential consents requirements. These documents can be made available on request.*

5.6 Objectives, targets and performance indicators

The Designer/Contractor shall progress any environmental and/or social commitments (e.g. target numbers of apprentices, carbon reduction targets) made earlier in the procurement and contracting process associated with the project, including any framework level targets.

If not already agreed prior to contract award the Designer/Contractor shall:

a) agree with the Employer's Representative, within 28 days of contract award, any project-specific environment and/or social objectives and targets and key performance indicators that will apply to the project or works. Targets shall meet the Employer's targets as a minimum where they have been set;

b) incorporate all targets into the ESMP;

NOTE 3: *The full list of national environment and social KPIs is available on the Environment and Sustainable Development page of Safety Central.*

c) collect and monitor the agreed national and local KPIs required by Network Rail and report these in accordance with the timescales outlined in the contract, and using the reporting platform approved by the contracting Network Rail business unit;

d) where specified by Network Rail use a prescribed tool to gather the raw data from which KPIs are derived; and

e) make available, upon request, data sources used to collate and verify reported KPIs.

5.7 Life Cycle Costing (LCC) and Option Selection

Life cycle costing shall be carried out for all works; regardless of size, complexity or type. Project decisions shall be based on the life-cycle of the asset, including environmental and social impacts, to deliver more efficient, more reliable and more sustainable long-term solutions rather than implementing a quicker, lower cost option.

Sponsors shall request for the LCC to be undertaken and for the impact of the project to be understood, at least qualitatively:

a) LCC test shall be carried out by the Sponsor and Project Manager at the strategic development phase.

b) LCC comparison shall be carried out by the PM, RAM, Engineers, CPM and/or Analyst at the project selection phase.

NOTE 4: *LCC analysis may be requested by the Sponsor or PM at the project development phase.*

NOTE 5: *The LCC handbook provides guidance on how life cycle costing is applied within Network Rail available at https://alpcat.hub.networkrail.co.uk/Pages/LCC-User-Guide.aspx*

Alongside Capital Cost (Capex) and Operational Cost (Opex), the Option Selection process shall include considerations in terms of:

a) environmental and social sustainability;

b) design life;

c) constructability;

d) maintenance requirements and maintainability;

e) construction and operations health & safety;

f) accessibility;

g) consents requirements;

h) decommissioning; and

i) end-of-life.

The Designer shall assess the environmental and social risks and opportunities associated with design options and include findings and recommendations in the Option Selection Report.

A workshop/ review shall be undertaken to identify and assess design options, either as a standalone activity or as part of another workshop (e.g. LCC Comparison).

This principle shall also be applied by the Contractor during the delivery phase when selecting Products, Materials and Construction Methodologies.

NOTE 6: *Environmental Life Cycle Appraisal methodologies includes Life Cycle Assessment (LCA), Environmental Product Declaration (EPD) and Best Practicable Environmental Option (BPEO).*

5.8 Communication

5.8.1 Stakeholder Management Plan

The Designer/Contractor shall identify a list of stakeholders and appropriate methods of engagement and communication and document this in the ESMP. The Designer/Contractor shall use the information in the existing Network Rail Stakeholder & Customer Management Plan to complete the ESMP.

NOTE 7: *The list of stakeholders should include, but is not limited to, lineside neighbours, local authorities, parish councils, schools, local businesses and passengers.*

5.8.2 Internal communication

The Designer/Contractor shall communicate the project specific ESMP and associated controls to directly employed and subcontracted personnel.

The Designer/Contractor shall provide additional ongoing briefings and communication of specific environment and social requirements to direct and subcontracted employees, according to their roles and responsibilities.

The Designer/Contractor shall maintain records of all briefings and communication activities.

The Designer/Contractor shall incorporate environment and social risks and opportunities and controls into instructional documents/ operational control procedures and document these within the ESMP.

The Designer/Contractor shall make available to interested parties the Environment and Social Performance Policies and project-specific environment or social performance data.

NOTE 8: *This includes but is not limited to, site inductions, the safe work pack (SWP) process, method statements, toolbox talks and task briefing documents.*

The Designer/Contractor shall nominate a person with responsibility for maintaining internal communication and for communicating any changes in policy, procedure or legislation, including changes to the materials on display.

5.8.3 External communication

The Designer/Contractor shall nominate a person with responsibility for community relations on site for:

a) briefing all staff about acceptable conduct;

b) overseeing the delivery of notification letters; and

c) providing the Network Rail community relations representatives any information they require in relation to the works.

The Designer/Contractor shall inform Network Rail local community relations representative(s) where work is within 200 metres of residential properties, schools, hospitals or business premises and might cause disruption or disturbance and/or impact Network Rail's reputation or may impact passenger or freight services. Communications shall address the potential significant environmental and social impacts on stakeholders as identified within the relevant risk assessments.

For noisier works, this distance will be increased to 500m.

NOTE 9: *Noisier works will be defined as the output of the Noise and Vibration Risk Assessment. Typical works might include but not be limited to piling, demolition works and tamping.*

NOTE 10: *Key stakeholders are identified in the Stakeholder Management Plan*.

NOTE 11: *The standard Communicating with the public - NR/L3/MTC/PL0215 contains information on how far in advance the public should be notified.*

The Designer/Contractor shall maintain a record of discussions held with statutory authorities.

In the event of an unplanned approach from a statutory authority, the Designer/Contractor shall inform the Employer's Representative and supply a record of the discussion.

5.8.4 Communication between Network Rail and suppliers

The Designer/Contractor shall organise a progress meeting with the Employer's Representative every 28 days, or at an interval otherwise agreed. The meeting shall include:

a) updates on risk and opportunities assessment;

b) risk controls and mitigations;

c) delivery of opportunities;

d) ESMPs;

e) Incident Response Plan (IRP) issues;

f) progress against targets;

g) KPI performance; and

h) audit/assurance monitoring findings.

NOTE 12: *This could be included in the Project and Progress Review meetings, or any other meetings where appropriate.*

5.9 Monitoring and assurance

The Network Rail Project Manager shall put in place a schedule of internal environment and social inspections.

The Designer/Contractor shall apply internal monitoring activities, such as inspections or audits, to check compliance with key environment or social controls from the ESMP.

The Designer/Contractor shall develop checklists to guide inspections and/or audits and include a schedule of inspections and audits within the ESMP.

The Designer/Contractor shall provide copies of inspections and audits, findings and action plans to the Employer's Representative within 28 days and at progress meetings.

5.10 Records, documents and knowledge transfer

Where duties transfer from one Designer/Contractor to another during the project life-cycle, the Designer/Contractor who is handing over shall, before completion of their contract, provide the Employer's Representative with an up to date ESMP. The Employer's Representative shall pass this on to the succeeding Designer/Contractor.

For each environment and social heading that the ESA confirmed as being applicable to the project the Designer/Contractor shall, before completion of their contract, provide the Employer's Representative with:

a) final copies of surveys;

b) risk assessments;

c) reports;

d) ESMPs;

e) records - including consents, permissions, licences and monitoring records;

f) best practice controls and mitigation measures;

g) a summary of environmental incidents, responses and lessons learnt; and

h) other relevant information for inclusion in the Health and Safety File/Operation & Maintenance (O&M) manuals.

The Project Manager or a delegated representative shall confirm that any relevant information is submitted in accordance with NR/L2/MTC/089 and complete NR/L2/MTC/089 Asset Management Plan Forms at project hand-over.

NOTE 13: *NR/L2/MTC/089 should be used to detail any ongoing environmental management works that are needed post hand-over. For example, any maintenance or monitoring required as part of biodiversity commitments, any maintenance requirements for habitats that have been created, or requirements contained within any licences, permits or consents.*

Before completion of the contract, the Designer/Contractor shall input environment and/social risks, features or survey data into the Network Rail National Hazard Directory in accordance with NR/L2/MTC/006.

5.11 Environment and Social data sources

5.11.1 General

The Network Rail representative shall interrogate internal and external environmental and social data sources from the start of the project to identify records of environment and/or social risks, features or surveys that might inform and/or constrain the project/works.

NOTE 14: *Readily accessible external data sources can be found in the Desktop study section of the ESA. Other external data sources such as those held by local authorities might need to be accessed.*

NOTE 15: *Internal data sources include GeoRINM Viewer (GRV), and the National Hazard Directory are available on the National Hazards website - http://www.nationalhazards.co.uk.*

NOTE 16: *The National Hazard Directory is a database for hazards on Network Rail's controlled infrastructure which can also record information on environment and social risks and/or features that might impact future works.*

5.11.2 Using data from external records

The Designer/Contractor shall verify the validity of external data sources and previous records used to support risk and/or opportunity identification.

NOTE 17: *The absence of previous environment or social records for the work site(s) does not mean that environment or social risks and constraints are not present.*

5.12 Health and Safety File

Before completion of works, the Designer/Contractor shall submit to the Employer's Representative environmental information that would be needed to manage health and safety risks during future work on the same site or structure into a Health and Safety File (HSF). HSF data management shall be in accordance with NR/L2/INF/02202.

NOTE 18: *Examples of environmental information includes contaminated land, flood risk, and emissions to air.*

5.13 Tax allowances and rebates

The Designer/Contractor shall investigate opportunities for tax allowances, rebates and incentives for sustainable design outcomes. Where tax allowance schemes have been applied, in accordance with HMRC conditions, these shall be documented in the ESMP.

6 Environment Requirements

6.1 Biodiversity

All works shall follow the process outlined in NR/L2/ENV/122/01.

In addition, for any works with a construction value over £20,000 or a footprint greater than 1500m^2 which will impact biodiversity, the Designer/Contractor shall undertake biodiversity metric calculations.

The Designer/Contractor shall use information from the Preliminary Ecological Appraisal (PEA) and other surveys to complete the biodiversity section of the ESMP.

Biodiversity metric calculations, PEA/ survey findings, protected species licences, assents and other ecology consents shall be provided by the Designer/Contractor to Network Rail in the format requested within 7 days of receipt.

6.2 Contaminated land

The Designer/Contractor shall conduct an Initial Hazard Review to determine whether the site could contain contamination associated with the current and previous activities on site and in the local vicinity. The Initial Hazard Review shall determine whether a Preliminary Risk Assessment (PRA) is required.

NOTE 1: *Dependant on the information already known about the site, it may be deemed appropriate to move straight to conducting a PRA.*

NOTE 2: *Further information on how to undertake an Initial Hazard Review and PRA is available in the Contaminated land guidance note available on Safety Central.*

Where the Initial Hazard Review cannot rule out potential contamination, the Designer/Contractor shall conduct a PRA including a conceptual site model and evaluate the risks associated with the pollution linkages. This shall be carried out by a Competent Person ahead of intrusive activities such as ground investigation.

NOTE 3: *The Contaminated land guidance note available on Safety Central has more detailed information on competent persons, including information on the Land Contamination Risk Management guidance which should be followed in all site assessments. (https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm)*

Where the PRA identifies potential unacceptable risks to receptors, the Designer/Contractor shall conduct a Generic Quantitative Risk Assessment (GQRA).

If significant risks have been identified, the Designer/Contractor shall conduct an Options Appraisal and undertake remediation and verification to prevent, minimise, remedy or mitigate the effects of the unacceptable risk.

The Designer/Contractor shall use the information from the relevant assessments to complete the Contaminated Land section of the ESMP. The Designer/Contractor shall collate and provide information on contaminated land management to the Asset Manager on completion of the works and include in the Health & Safety File.

For projects affecting the track bed, the Designer/Contractor shall comply with NR/L3/ENV/044.

6.3 Emissions to air

The Designer/Contractor shall assess potential sources of harmful or nuisance pollutants (including dust) that may arise both during the construction and operation of the asset.

The Designer shall design in opportunities to reduce emissions to air to ALARP during the construction and operational use of the asset.

During construction works, the Contractor shall confirm that emissions to air are reduced to ALARP, taking into account construction plant and Non-Road Mobile Machinery.

The Designer/Contractor shall use the information from the relevant assessment to complete the Emission to Air section of the ESMP.

The Designer/Contractor shall collate and provide information on emissions to air to the Asset Manager on completion of the works and include in the Health & Safety File.

6.4 Energy and carbon

6.4.1 Managing Carbon in Infrastructure (PAS 2080)

The Network Rail Project Manager shall put arrangements in place to achieve collaboration between all value chain participants to investigate and drive carbon reduction opportunities across the asset life-cycle. The collaboration arrangements and carbon reduction proposals shall be documented in the carbon section of the ESMP.

The Designer shall promote well-reasoned proposals to encourage the client / asset owner / manager to adopt low carbon solutions across the asset life-cycle. Low carbon solution decision outcomes shall be documented in the energy and carbon section of the ESMP.

NOTE 4: *Publicly Available Specification (PAS) 2080:2016* Carbon Management in Infrastructure *was commissioned by the Green Construction Board. It establishes a framework for all parties involved in the infrastructure value chain to work collaboratively towards a common carbon reduction goal. Network Rail is undertaking work to align more closely with the guiding principles of PAS 2080.*

6.4.2 Whole life carbon

Throughout the planning, development, design and delivery of projects, decisions shall take into account the consequential impacts on aggregated carbon emissions across the modular stages of the asset life cycle, with the goal of reducing whole life carbon emissions.

NOTE 5: *The principle of whole life carbon management applies to all projects; regardless of size, complexity or type.*

For any works over £1 million comprising civil, mechanical or electrical engineering activities, the Designer/Contractor shall use the Rail Carbon Tool to identify and record opportunities for reduction of whole life carbon emissions.

The Rail Carbon Tool shall be used from project development and option selection through design and delivery, taking into account design options, material use, construction methods and transport/ logistics.

NOTE 6: *Complex componentry asset systems like signalling and telecoms can be excluded but this is limited to the systems. Any associated engineering works are unlikely to be excluded e.g. high volumes of copper, aluminium or concrete.*

The Designer/Contractor shall use the information from the carbon assessment to influence decisions on low carbon design, low carbon materials and carbon efficient construction methods/logistics and complete the whole life carbon section of the ESMP.

During construction activities, the Contractor shall use renewable energy power and energy efficient technologies to reduce emissions where the technology exists. This shall apply to all equipment used on site, including welfare facilities, lighting, and plant equipment (e.g. battery power, solar power, LED technology). Diesel or fossil-fuel use shall be avoided wherever technology equivalent alternatives exist.

NOTE 7: *The Rail Carbon Tool is available on the RSSB website or via the Capital Carbon page of Safety Central. Training on the Rail Carbon Tool is available via Oracle for NR employees or the RSSB website for the supply chain.*

6.4.3 Energy and operational carbon

The Designer/Contractor shall generate estimates for in-use operational energy (regulated and unregulated) and associated carbon emissions, excluding traction energy. This shall be done using an industry approved energy assessment methodology such as the Chartered Institute of Building Services Engineers (CIBSE) TM54.

The Designer shall propose options for energy efficiency and carbon reduction and use the information from the energy estimate to influence design decisions and complete the Energy and Operational Carbon section of the ESMP. Where practicable the design shall make use of any thermal storage, heat recovery, free cooling, renewable energy or natural lighting to minimise utility services.

For leased buildings, the Designer/Contractor shall undertake energy performance certification requirements and meet at least an Energy Performance Certificate (EPC) rating of C for all new buildings and a minimum rating of E for modified buildings using industry approved assessment methods.

The Designer/Contractor shall only make temporary or permanent connections following the connections and disconnections process as stipulated in NR/L3/ENV/305, with prior agreement in writing from the Employer's Representative. Each connection shall be sub-metered.

The Contractor shall establish, agree and track a commissioning assurance plan to verify that new services operate correctly and are within designed energy parameters.

The Contractor shall procure and install fixed services in accordance with the design specification and provide the Employer’s Representative with a commissioning plan to verify that key services are operating within predicted energy performance limits.

The Contractor shall procure and install fixed services in accordance with the design specification and provide the Employer's Representative with a commissioning plan to verify that key services are operating within predicted energy performance limits.

NOTE 8: *Network Rail guidance is published on the Energy and Carbon page of Safety Central.*

6.5 Circular Economy

6.5.1 Circular Economy Principles & Resource Efficiency

The Designer/Contractor shall incorporate the principles of circular economy to extend the service and future re-use of natural resources.

NOTE 9: *This could include designing with core construction materials that contain high proportions of recycled constituents and/or designing structures or features that can themselves be readily re-purposed, re-used or recycled at the end of the asset service life.*

The Designer shall conduct a Resource Efficiency Assessment/Workshop to identify opportunities for promoting resource efficiency, including designing out waste, reducing carbon and water use.

The Resource Efficiency Assessment/Workshop shall be reviewed, documented and refined during design and shall include:

a) optimising material use (including water) through engineering design including low carbon solutions;

b) reuse of materials (waste, water and surplus materials and equipment), including assessing the opportunity to use mechanisms such as, but not limited to:

   1) CL:AIRE 'Definition of Waste: Development Industry' Code of Practice for excavated materials;

   2) WRAP quality protocol for aggregates from inert waste;

   3) Environment Agency, Scottish Environment Protection Agency and/or Natural Resources Wales registered waste exemptions; and

   4) Consideration of opportunities to reuse materials via the Network Rail SurPlus app.

c) specification of reused, recycled and recyclable materials; and

d) assessment of end-of-life options for materials and components to assist with deconstruction to minimise disposal and maximise reuse.

NOTE 10: *The Resource Efficiency Assessment/ workshop could be incorporated into other design reviews, meetings, assessments or workshops such as the safe by design, value engineering, and HAZID. Guidance for undertaking a Resource Efficiency Assessment/ workshop is available on Safety Central.*

NOTE 11: *SurPlus is available to download from the Network Rail App Catalogue.*

NOTE 12: *Circular Economy principles will also be met by following many of the sections of this Standard, including Life Cycle Costing, Managing Carbon in Infrastructure, Whole life carbon, responsible sourcing of materials, timber and concrete/aggregate, Low Environmental Impact products and by implementing the waste hierarchy.*

6.5.2 Materials

6.5.2.1 Responsible sourcing

The Designer/Contractor shall identify opportunities for materials with low environmental and social impact in line with Network Rail's Environmental Sustainability Strategy when designing and procuring materials for works.

NOTE 13: *The Network Rail Environmental Sustainability Strategy is available on Safety Central.*

6.5.2.2 Low environmental impact products

The Designer/Contractor shall assess the range of products and materials proposed for use in the construction and fit-out of the project and identify those with negative environmental or social impacts during production, transport, installation, use, decommissioning and deconstruction.

NOTE 14*: Consideration could be given to harmful constituents such as the content of VOCs in paints, adhesives, resin-bond panel products, or the global warming potential of refrigerants in building heating, ventilation and air conditioning (HVAC) services.*

NOTE 15: *Assessment of products/ materials should also include information available from EPDs or Safety Data Sheets.*

The Designer/Contractor shall use the information from the assessment to influence design decisions, review cost-effective alternatives and incorporate these within the Materials section of the ESMP.

NOTE 16: *A practical example would be the life-cycle assessment of alternative refrigerant products in building HVAC services, and the comparison of alternative HVAC strategies (centralised versus decentralised).*

6.5.2.3 Responsibly sourced timber

All timber and timber derived products sourced by Network Rail and its Suppliers/Contractors shall be from legal and sustainable sources which are credibly certified by a third party and hold full documented chain of custody.

NOTE 17: *This is set out in Network Rail's Responsible Timber Sourcing Policy, which is available on Safety Central. Network Rail undertakes assurance activities on an annual basis to assess compliance against this policy.*

Timber species listed in Appendix I of the Convention on International Trade in Endangered Species (www.cites.org) shall not be specified or supplied. In addition, any species listed as endangered or critically endangered under the IUCN Red List shall not be specified or supplied.

The Designer/Contractor shall complete the Responsibly Sourced Timber section of the ESMP to outline the process for assuring that Network Rail's certification and chain of custody requirements are being met.

NOTE 18: *Chain of custody is demonstrated when delivery notes and invoices clearly state which consignment items are covered by the timber merchant's certification licence code(s).*

The Designer/Contractor shall define a project team member with accountability and authority for forest product procurement performance.

Where required by the Employer's Representative, the Designer/Contractor shall collate and submit itemised timber consignment data.

6.5.2.4 Concrete and aggregates

The Designer/Contractor shall assess the use of responsibly sourced concrete and/or aggregates in line with industry good practice.

A whole-life carbon approach shall be used to select the most sustainable material.

The Designer/Contractor shall use the information to complete the Materials section of the ESMP.

NOTE 19: *Responsibly sourced concrete and/or aggregates include:*

a) Materials able to demonstrate independent responsible sourcing certification under a recognised scheme, such as BES 6001; or

b) Secondary post-consumer recycled materials, with evidence to verify the supplier, product origins and previous use.

NOTE 20: *Network Rail Supply Chain Operations (SCO) sells most common types of recycled aggregate products that comes directly from spent railway ballast. For internal customers this can be ordered via the NROL procurement system. External customers can also order recycled aggregate by making an enquiry via the Network Rail Railway Recycling website (www.railwayrecycling.co.uk) or by directly contacting recycledaggregatesqueries@networkrail.co.uk.*

6.5.2.5 Herbicides

Herbicides shall only be applied in accordance with the product label and shall take into account the requirements of the Herbicide Agreement on Safety Central.

A person with BASIS certification shall:

a) specify the method of application of the chosen herbicide for the type of vegetation to be treated;

b) select the herbicide and dosage rates before work commences.

NOTE 21: *Prior to selecting a chemical application, alternative non-chemical management methods should be considered.*

NOTE 22: *Competency is satisfied by holding NPTC PA1 'Safe use of pesticides' and NPTC PA6 'Handheld Application.'*

The extent of the areas to be sprayed and any restrictions on use shall be provided to the operator in advance of the works.

Consideration shall be given to potential seepage to watercourses.

Complete NR/L3/TRK/003/TEF3069 when applying chemicals.

6.5.3 Waste

6.5.3.1 Waste Management

The Designer/Contractor shall comply with NR/L2/ENV/120.

The Designer/Contractor shall prepare a Site Waste Management Plan (SWMP) within the ESMP.

The design SWMP shall identify how the design can contribute to waste reduction, in order to inform the option selection and detailed design stages.

The construction SWMP shall identify how waste will be avoided and minimised through the construction stage of the project. It shall include forecasts of quantities

and types of waste expected to be reused, recycled, recovered and disposed of. It shall be updated through the project with actual quantities and types of wastes in these categories.

The Designer/Contractor shall apply the waste hierarchy and document within the SWMP the types, quantities and proportions of waste expected to be reduced, reused, recycled, recovered or disposed. A final version shall be provided with the project actual waste data including quantities, types and the chosen waste management option.

The Designer/Contractor shall comply with Network Rail waste targets as set by the Employer's Representative.

The Designer/Contractor shall collate and report waste data in accordance with the Employer's requirements.

For the design of stations, occupied buildings or depots, assess the waste types and estimated quantities expected monthly during the operation.

Buildings shall be designed with space for the safe movement, segregation and storage of operational wastes awaiting removal or re-use. The design shall also provide arrangements for cleaning waste storage areas and incorporate pollution controls.

The Contractor shall leave all work sites clear of waste on completion of the project.

***NOTE 23**: NR/L2/SCO/306 and NR/L2/SIG/11201/Mod A2-23 provide further information on redundant assets.*

***NOTE 24:** NR/L3/ENV/044 provides further information on planning and handling track excavation waste at the pre-works design stage and through delivery stages.*

6.5.3.2 Polychlorinated bi-phenols (PCBs)

The Employer's Representative shall identify potential PCB contaminated equipment and assets. Equipment and assets shall be tested, registered and disposed of in accordance with legal requirements.

***NOTE 25:** Network Rail maintains a PCB register containing details of known E&P assets containing PCBs.*

***NOTE 26:** A PCB checklist is available on Safety Central.*

6.6 Noise and Vibration

The Designer/Contractor shall comply with NR/L2/ENV/121.

The Designer/Contractor shall conduct a Noise and Vibration Risk Assessment (NVRA) and document this within the ESMP.

***NOTE 27:** Further information on the Noise and Vibration process and a NVRA template is available within NR/L2/ENV/121.*

The Designer/Contractor shall design and implement measures to control noise and vibration emissions using BPM to levels ALARP. This shall be documented within the ESMP.

The Contractor shall agree an appropriate noise and vibration monitoring programme with the Employer's Representative and, where appropriate, the relevant local authority.

The Designer/Contractor shall also take into account potential disturbance of sensitive ecological receptors by noise, vibration or light.

The Contractor shall seek Local Authority consent under Section 61 of the Control of Pollution Act before commencing works, unless agreement from the Employer's Representative confirms that construction noise will be managed without need of consent.

Consideration shall be given to where site access compounds are located.

6.7 Dust, odour and lighting

The Designer/Contractor shall design to control dust, intrusive lighting emissions and odour emissions from fixed or temporary plant and site construction activities. These design considerations shall be reduced to levels ALARP and documented within the ESMP.

The Contractor shall take into account the impacts of traffic - this shall be used to inform the Traffic Management Plan.

NOTE 28: *Network Rail guidance is published on the Noise, Nuisance and Disturbance page of Safety Central.*

6.8 Pollution of land / water

The Designer/Contractor shall not rely on temporary or permanent connections to any water supply or drainage infrastructure until agreement has been received from the Employer's Representative.

Where surface water and/or foul discharges are subject to regulatory environmental permits the designed interception/attenuation features shall satisfy the regulator or statutory undertaker's water quality and flow rate permit conditions.

The Designer/Contractor shall assess risks and pollution pathways for harmful materials that will be stored, handled, used during construction or transported, and shall put in place measures to reduce those risks to ALARP. The information from this risk assessment shall be used to influence design decisions and complete the Pollution of Land/ water section of the ESMP.

NOTE 29: *Environmental permits may be required for discharges to local water courses, abstraction or impoundment licenses, or permits to discharge liquid effluent to foul drains.*

NOTE 30: *Network Rail guidance is published on the Pollution of Land/Water page of Safety Central.*

6.9 Sustainable travel

Where the development involves provision of public parking facilities, the Designer/Contractor shall take into account the provision of facilities and infrastructure to support users of alternatively fuelled low-carbon vehicles.

Where the development involves design of new, extended or refurbished occupied buildings, the Designer/Contractor shall include facilities to promote low carbon modes of travel for building occupants.

The Sustainable Travel Hierarchy shall be considered for travel to and from site, and low emission vehicles shall be considered for use on site.

6.10 Water

The Designer/Contractor shall not rely on any permanent connections to existing water supply or drainage infrastructure without agreement in writing from the Employer's Representative and the relevant regulator/statutory undertaker.

The Designer/Contractor shall identify water reduction initiatives and reduce construction and operational water consumption to ALARP, including specifying water efficient plant and equipment.

[England only] The Designer shall comply with HM Government Building Regulations Approved Document G as a minimum for the design of water services in buildings.

The Designer/Contractor shall assess the scope and business case for reducing dependence on potable water for low grade non-potable uses, including any substantial water consuming processes.

NOTE 31: *Consideration should be given to rainwater harvesting and greywater recycling.*

Where the design proposes abstraction of ground water as a supplementary operational water source, the Designer shall assess the impact on any existing abstraction or impoundment licenses or requirements for new licences. The Designer shall coordinate the time, information and resources to successfully complete applications for new or modified abstraction licenses.

The Contractor shall procure and install fixed water/drainage services in accordance with the design specification and provide the Employer's Representative with a commissioning plan to verify that key services are operating within permitted performance limits.

NOTE 32: *Identify opportunities to use harvested water, grey water recycling, abstraction, tanker delivery and mains supply, both for construction activities and welfare use.*

6.11 Weather Resilience and Climate Change Adaptation (WRCCA)

The Designer shall assess the impacts of adverse and extreme weather and future climate change on the project/ works (assets and location) and use the findings to influence design decisions and health and safety plans.

The Designer shall produce a Weather and Climate Change Impact Assessment report which summarises the findings of the following activities:

a) identify the potential for weather events to impact assets and the area surrounding the project including direct/indirect impacts on rail infrastructure, neighbouring communities and/or the local environment;

NOTE 33: *This should include, but not be limited to; flooding (river, coastal, surface and groundwater), high and low temperatures, wind, lightning, adhesion, landslip/subsidence, and precipitation patterns (rain, snow hail). This should also include a high-level review of historic weather event impact occurrences at or adjacent to the location of the project.*

b) identify the potential for the project to change the capability of associated assets (drainage, earthworks, structures etc.) to deal with current and future weather events;

c) assess the impacts of future climate change on the levels of weather risk identified;

d) identify options for avoiding/reducing risk; and

e) use cost benefit and whole-life cost analysis methods to fully account for:

1) the operational, safety and asset degradation impacts of current weather and future climate change; and

2) the benefits of avoided costs realised through resilience intervention when assessing and selecting solutions for detailed design and delivery.

NOTE 34: *Network Rail guidance on how to undertake a climate change impact assessment (NR/GN/ESD11) and which climate change projections to consider (NR/GN/ESD23) is published on the Weather Resilience and Climate Change Adaptation page of Safety Central. The finalised Weather and Climate Change Impact Assessment Report should be reviewed and approved by the Project Manager prior to design approval.*

The Designer shall confirm the design includes resilience measures that could be used to avoid/reduce the weather and climate change impacts identified in the Weather and Climate Change Impact Assessment Report to ALARP over the project design life.

Where any new information becomes available during any project phase or design changes are made that raises the weather and climate change risk profile of the selected option to an unacceptable level, the option shall be reviewed, and the design amended by the Designer to return the risk to ALARP. The new information, any changes to the risk or design and any residual risk shall be recorded in the Weather and Climate Change Impact Assessment Report and managed within the ESMP.

The Designer/Contractor shall provide technical support to the Employer's Representative during engagement with environmental regulators and/or local authorities.

NOTE 35: *This is particularly relevant when considering collaborative opportunities to resolve mutual weather event and climate change risks for railway infrastructure and local communities (e.g. increasing size of culverts to support community flood alleviation projects).*

The Contractor shall assess the risk of flooding and sedimentation from all sources for temporary construction facilities such as warehouses, stockpiles, maintenance depots, site offices etc. and locate them outside flood plains or areas prone to other sources of flooding or sedimentation; or use appropriate protection measures to minimise the risk.

The Contractor shall include adverse and extreme weather risk (e.g. extreme heat, strong winds, lightning, heavy rainfall, flooding and snow) in health and safety risk control procedures.

NOTE 36: *The Network Rail Weather Service (www.nrws.co.uk) can be used to forecast adverse and extreme weather conditions in order to facilitate work planning.*

7 Emergency works and urgent reactive works

During emergency and urgent reactive works, implement measures to minimise environmental and social risks.

NOTE 1*: Following emergency and urgent reactive works, Network Rail standards and legal requirements shall be adhered to.*

8 Social Performance Requirements

8.1 Approach to Social Performance

The Designer/Contractor should consider conducting a workshop to plan their approach to social performance management.

NOTE 1: *As with other workshops as required by this standard, this can be incorporated into other existing workshops/ meetings and does not need to be stand-alone.*

The Designer/Contractor shall integrate their approach to social performance management into their ESMP and shall include:

a) social performance risks and opportunities;

b) objectives and any associated targets;

c) social performance metrics, indicators and any key performance indicators (KPIs) that will be used, how they will be collected and reported, and the frequency of reporting;

d) planning for risk management or mitigation and opportunity optimisation;

e) how workers will be trained and supported to apply the approach.

8.2 Being a caring neighbour

The Designer/Contractor shall manage the project, and their workers, so that risk of disruption and disturbance to passengers, lineside neighbours and local communities is managed or mitigated to ALARP.

The Designer/Contractor shall participate in any stakeholder consultation organised by the Employer's Representative.

The Designer shall assess the social impact of visually prominent structures and agree appropriate design responses.

Where work is taking place within 200 metres of residential properties, business premises or community rail activity (or up to 500m for noisier or more disruptive works as defined in the Noise and Vibration Risk Assessment), the Designer/Contractor shall inform the Network Rail local community relations representative.

NOTE 2: *Further information on the Noise and Vibration process and a NVRA template is available within NR/L2/ENV/121.*

The Designer/Contractor shall comply with Network Rail's requirements for notification, available on Safety Central, and agree the works notification process with the Regional Community Relations team.

The Designer/Contractor shall nominate a person with responsibility for community relations on site for:

a) briefing all staff about acceptable conduct;

b) overseeing the delivery of notification letters;

c) providing the Network Rail community relations representatives with any information they require in relation to the works.

Consideration shall be given to worker behaviour and the Contractor shall participate in any worker behaviour training if requested by the Employer's Representative.

The Designer/Contractor shall resolve enquiries and complaints from the general public on site where possible; direct all other enquiries and complaints to Network Rail's 24-hour helpline service (03457 11 41 41).

The Designer/Contractor shall comply with NR/L3/MTC/MG0194.

If requiring access to third party land, the Designer/Contractor shall contact the Network Rail Property Services team to confirm that either:

a) rights of access already exist to allow legal access to or occupation of third party land; and/or

b) arrange for negotiations to take place with the landowner for access/occupation requirements.

Where access is required to third party land, the Designer/Contractor shall approach Property Services at least 6 weeks prior to requiring use of third party land.

The Designer/Contractor shall not enter into any financial agreements or compensation without first agreeing these arrangements with Network Rail Community Relations.

NOTE 3: *Network Rail guidance is published on the Being a Caring Neighbour page of Safety Central.*

8.3 Connecting communities with the environment

The Designer shall take into account the social impact of any visually prominent structures that will replace trees and/or other vegetation. Agree design responses with the Employer's Representative.

The Designer shall take into account the safety implications of removing lineside vegetation, such as improved access for trespassers. Design responses shall be agreed with the Employer's Representative.

Any changes to design responses shall be included within the Connecting Communities with the Environment section of the ESMP.

NOTE 4: *Network Rail guidance is published on the Connecting Communities with the Environment page of Safety Central.*

8.4 Creating engaged employees and positive industry partnerships

The Designer/Contractor shall read and comply with Network Rail's behaviours and Code of Business Ethics, available on Safety Central.

NOTE 5: *The Code of Business Ethics aims to create a culture of openness, accountability, honesty, integrity and leadership across Network Rail's workforce and supply chain.*

The Designer/Contractor shall report any concerns, suspicions or knowledge of wrongdoing in Network Rail using Speak Out.

NOTE 6: *Speak Out is Network Rail's reporting service for such issues. Contact details and further information can be found on Safety Central.*

The Designer/Contractor shall implement an approach to managing risk of modern slavery that is aligned to Network Rail's anti-slavery and human trafficking policy, available on the Network Rail website.

The Designer/Contractor shall complete training in how to manage or mitigate modern slavery risk if requested by the Employer's Representative.

The Designer/Contractor shall promote workforce equality, diversity and inclusion, and address discrimination, in a manner aligned with Network Rail's "Everyone Matters" diversity and inclusion strategy.

The Designer/Contractor shall complete any equality, diversity and inclusion training if requested by the Employer's Representative.

The Designer/Contractor shall support the physical and mental health and wellbeing of their workers e.g. through fatigue management.

NOTE 7: *Network Rail guidance is published on the Creating Engaged Employees page of Safety Central.*

8.5 Inspiring tomorrow's workforce

The Designer/Contractor shall conduct an Employment and Skills Assessment to identify the opportunities for school engagement, entry-level employment and skills programmes as part of the works. The assessment shall review opportunities for:

a) early engagement (e.g. school visits);

b) work experience;

c) work placements;

d) traineeships;

e) returnships;

f) level 2, 3 and 4 apprenticeships and other entry-level roles;

g) graduate recruitment; and

h) development of skills of current workers.

The Designer/Contractor shall use the information from the Employment and Skills Assessment to complete the Inspiring Tomorrow's Workforce section of the ESMP.

The Designer/Contractor shall comply with any Section 106 requirements set by the planning authority.

NOTE 8: *Network Rail guidance is published on the Inspiring Tomorrow's Workforce page of Safety Central.*

NOTE 9: *An Employment and Skills Assessment template is available on Safety Central.*

8.6 Keeping communities safe

The Designer shall assess the risk of trespass created as a result of railway works.

The Designer shall use the assessment to influence design decisions and complete the Keeping Communities Safe section of the ESMP.

The Contractor shall check that all access points to the operational railway are secured when leaving the site, secure all plant/assets, and remove all redundant and/or unused plant/assets on completion of work.

Before starting work, contact the Suicide Prevention Team to understand if it is an area of concern (SuicidePrevention@raildeliverygroup.com). If it is, staff shall complete the rail industry suicide prevention module and be issued with the Suicide Prevention Handbook and TACTICS card both available as part of the rail industry Learning Tool.

NOTE 10: *To access the Learning Tool videos and suicide prevention materials, register for a free account on the RSP website using an industry email address (www.railsuicideprevention.co.uk). Once registered, a variety of materials are available including signposting to support if needed. Downloading the Save a Life app is also recommended available through the NR app catalogue.*

NOTE 11: *Network Rail guidance is published on the Keeping Communities Safe page of Safety Central.*

8.7 Making rail a great experience

The Designer/Contractor shall identify opportunities to improve the passenger experience as a result of station or lineside enhancement and complete the Making Rail a Great Experience section of the ESMP.

NOTE 12: *Network Rail guidance is published on the Making Rail a Great Experience page of Safety Central.*

NOTE 13*: Network Rail has established an independent Design Advisory Panel (DAP) to review the design impacts of projects on passengers, communities and the environment. The DAP can work with project teams to assure that high quality design is developed, and that projects meet the Network Rail Principles of Good Design. Guidance on the Design Advice Project is available - NR/GN/CIV/100/01.*

8.8 Making travel accessible and inclusive

The Employer's Representative shall complete a Diversity Impact Assessment (DIA) for any project work that has a potential to impact on people (e.g. passengers, employees, or lineside neighbours) throughout the duration of the project.

This shall include temporary works, temporary conditions (e.g. temporary use of car parking facilities at stations), permanent works and any staging works; and any work carried out at Network Rail managed stations or at franchised stations (e.g. lift replacements).

The Designer/Contractor shall collaborate with the Employer's Representative to inform the DIA.

NOTE 14: *DIA templates (including those for temporary works) are available on the Access and Inclusion SharePoint site.*

DIAs shall be reviewed at each PACE milestone.

The Designer/Contractor shall address, in their DIA(s), the impact of design and/or works on all protected characteristics. The Designer/Contractor shall use the DIA to influence design decisions towards achieving accessible and inclusive travel for all and complete the Making Travel Accessible section of the ESMP.

NOTE 15: *Protected characteristics include age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex and sexual orientation.*

The Contractor shall confirm that any alternative routes put in place for construction activities do not negatively impact accessibility or use of the infrastructure for the duration of the work.

The Designer/Contractor shall engage with Network Rail's Built Environment Advisory Panel (BEAP) or any other inclusive design and construction initiative if requested by the Employer's Representative.

The Designer/Contractor shall participate in any equality, diversity and inclusion training if requested by the Employer's Representative.

NOTE 16: *Network Rail guidance is published on the Making Travel Accessible page of Safety Central.*

8.9 Respecting cultural heritage and rail history

The Designer/Contractor shall complete a heritage assessment as part of the Respecting Cultural Heritage and Rail History section of the ESMP, prepared in consultation with local and statutory authorities.

The Contractor shall carry out works so that there is no disturbance to:

a) scheduled monuments;

b) archaeological sites and deposits; and

c) buildings of historical and architectural interest (both statutorily listed buildings and important non-listed above ground features and structural elements).

NOTE 17: *Unauthorised works could result in criminal prosecution of the contractor.*

The Contractor shall allow the local planning authority and any nominated employee and/or archaeologist appointed by the Employer's Representative access to the site to monitor the archaeological evaluation and mitigation work as required.

In the event of unexpected archaeological finds such as remains or artefacts, the Contractor shall immediately suspend work until further instruction and inform the Employer's Representative.

For architecturally significant schemes that require planning consent/ listed building consent or are within a conservation area, the Designer shall request architectural layout acceptance by submitting NR/L2/CIV/003/F004.

NOTE 18: *Further guidance on heritage is available in the Guidance Note Heritage, Care and Development - NR/GN/CIV/100/05, and on the Respecting Cultural Heritage and Rail History page of Safety Central.*

NOTE 19: *Network Rail has established an independent Design Advisory Panel (DAP) to review schemes with a heritage impact. Guidance on the Design Advice Project is available - NR/GN/CIV/100/01.*

8.10 Supporting Britain's economic development

The Designer/Contractor shall utilise procurement processes that enable qualified and experienced suppliers or sub-contractors from these business groups to compete freely and fairly for contracts:

a) Small and Medium Enterprises (SMEs);

b) local businesses; and

NOTE 20: *'Local' in this context means suppliers that will serve contract delivery from an operational base up to 25 miles from the works.*

c) voluntary, community and social enterprises (VCSEs) and mutuals.

Where possible, the Designer/Contractor should provide at least two of the above business groups (SME, local, VCSE, mutuals) with opportunities to compete for any available contracts, throughout the duration of the project and record this in the ESMP.

Where possible, the Designer/Contractor should advertise job opportunities locally (in the same local authority area as the works) for example through Job Centres and local employment support and brokerage services. These should be recorded in the ESMP.

The Designer/Contractor should, where possible, pay workers at least the relevant Real Living Wage (as defined by the Living Wage Foundation) when they are delivering Network Rail contracts and record this in the ESMP.

NOTE 21: *Network Rail is an accredited Living Wage employer.*

NOTE 22: *Network Rail guidance is published on the Supporting Britain's Economic Development page of Safety Central.*

9 Incident management

9.1 Incident response

9.1.1 Incident Response Plan (IRP)

All Contractors shall produce an Incident Response Plan (IRP) within the ESMP, which shall be tested before finalising.

The IRP shall include:

a) operational control procedures to reduce the risk of potential incidents identified in the ESA and ESMP;

b) procedures to be followed in the event of an incident including control and mitigation measures, reporting lines, investigation and closeout;

c) procedures to be followed in the event of unexpected finds such as protected species, invasive species, contaminated land, pests and diseases of trees, or archaeological finds;

d) the responsibilities in the event of an incident;

e) the people to contact in the event of an incident including:

1) the Contractor's nominated responsible person;

2) relevant incident reporting procedure;

3) regulatory bodies including the Environment Agency and/or Scottish Environment Protection Agency, Natural Resources Wales, Natural England, Nature Scot, Marine Management Organisation, Marine Scotland and/or Local Authority;

4) Employer's Representative;

f) the IRP shall provide for a rapid response to any incident arising from the works in accordance with relevant legislation;

g) the IRP shall be briefed, communicated and available to site personnel. It shall also be available to additional personnel and organisations upon request;

***NOTE 1**: Control measures shall be communicated through inductions, the work package plan process/method statements, task briefing sheets, toolbox talks etc.*

h) reporting of environment and social incidents shall be in line with NR/L3/INV/3001, NR/L3/OHS/0046; and NR/L3/OPS/045/4.04;

i) notify the Employer's Representative about Category 1 (major, serious, persistent and/or extensive impact) or Category 2 (significant impact) environment and/or social incidents at the earliest reasonable opportunity after the occurrence, and confirm the report in writing with preliminary findings within 12 hours;

***NOTE 2:** Network Rail guidance on categorisation of environment incidents is published on the Environment page of Safety Central.*

***NOTE 3:** For Category 1 and 2 incidents, earliest opportunity would include contacting the Employer's Representative out of normal working hours.*

j) notify the Employer's Representative about Category 3 (minor or minimal impact) or Category 4 (negligible impact) environment and/or social incidents at the earliest reasonable opportunity after the occurrence, and confirm the report in writing with preliminary findings within 48 hours;

***NOTE 4:** For Category 3 and 4 incidents, earliest reasonable opportunity would be during normal working hours.*

k) complete a Network Rail Preliminary Report and Investigation Form (Level1) [Form NR2072P] for Category 1, 2 and 3 incidents.

***NOTE 5:** The NR2072P will collate basic information about the incident until such time as a more detailed investigation and report has been completed.*

9.1.2 External reporting

Where harm has been caused to the environment, or a situation created that poses a risk of harm to the environment, the incident shall be reported to Environment Agency, Scottish Environment Protection Agency, Natural Resources Wales, Natural England, Nature Scot and/or and Local Authority.

External contractors shall liaise with the Employer's Representative to agree communications with the relevant regulator.

Any incident reference numbers provided by the regulator shall be recorded and notified to the Employer's Representative.

***NOTE 6:** Network Rail guidance on when and how incidents are to be reported is published on Environment page of Safety Central.*

9.2 Incident investigation

The Designer/Contractor shall:

a) investigate environment and social incidents in line with NR/L3/INV/3001 and NR/L3/OHS/0046, to identify root cause(s) and specify actions to prevent recurrence;

b) co-operate with any Network Rail or third-party investigation process and assist in the investigation, giving full access to all materials and information; and

c) support Network Rail in establishing the costs of the incident including, without limitation:

1) direct costs; and

2) indirect costs.

10 External benchmarking

10.1 Benchmarking environmental performance

An environmental performance assessment (design stage pre assessment) shall be undertaken prior to the selection of a single option for new construction and major refurbishment for operational property buildings.

NOTE 1: *BREEAM and CEEQUAL are independent environmental assessment tools recommended by Government for benchmarking environmental performance.*

NOTE 2: *It is anticipated that the expected environmental performance is remitted by sponsors at the outset of a project so opportunities to embed measures to mitigate negative environmental impacts are realised.*

NOTE 3: *Major refurbishments is defined as where the area of the building fabric being refurbished is greater than 50% of the surface of the individual element or 25% of the total building element.*

NOTE 4: *This would not be applicable for CEEQUAL Construction (only) or CEEQUAL Design & Construction if the scope of the assessment does not include single option selection.*

10.2 Operational Property enhancement - Refurbishment and fit-out

The Designer/Contractor shall meet RICS SKA environmental assessment method rating of ‘Silver’ as a minimum, and ‘Gold’ as an aspiration. Alternatively, the BREEAM Refurbishment & Fit-out environmental assessment scheme shall be used. Network Rail schemes shall achieve a ‘Very Good’ rating as a minimum requirement or ‘Excellent’ as an aspiration.

NOTE 5: *The clause applies to refurbishments and fit-outs where the area of the building fabric is greater than 50% of the surface of the individual element or 25% of the total building element.*

NOTE 6: *Design Guidelines can be found in NR/GN/CIV/400/05 – Workplace DNA*

10.3 Operational Property enhancement - new construction

Where the Project Sponsor/Third-party funder has remitted an independently assured environmental certification scheme such as BREEAM, the Designer/Contractor shall aim to achieve a ‘Very Good’ rating (as a minimum requirement unless specified otherwise) and ‘Excellent’ as an aspiration, where achievable in the context of minimising the whole life cost of Network Rail assets.

Where formal independent sustainability assessment is not required (e.g. non-critical line side buildings), the principles of BREEAM or another standard methodology such as Passivhaus shall be applied.

Ref:	**NR/L2/ENV/015**
Issue:	9
Date:	05 June 2021
Compliance date:	04 September 2021

10.4 Considerate Construction Practices

Where requested by the Employer's Representative, the Contractor shall achieve a Considerate Constructors Scheme (CCS) score of at least 35, with an aspiration and resource plan to score above 40.

10.5 External recognition (awards)

Where requested by the Employer's Representative, the Designer/Contractor shall seek recognition for sustainability achievements by entering external awards schemes in collaboration with Network Rail.

NOTE 7: *External award schemes could include Green Apple Awards, CIRIA Big Biodiversity Challenge, UK Rail Industry Awards, Rail Partnership Awards, Construction news Awards, and National Recycling Awards.*

Standard and control document briefing note

Ref: NR/L2/ENV/015	**Issue**: 9
Title: Environment and Social Minimum Requirements for Projects - Design and Construction	
Publication date: 05 June 2021	**Compliance Date:** 04 September 2021
Standard/Control Document Owner: Chief Environment & Sustainability Officer	
Technical lead/contact for briefings: Francesca Stainthorpe, Environmental Management Systems Manager, TA	**Tel:** 07701 069704

Purpose:
This standard sets out Network Rail's minimum requirements for the management of environment and social risks and opportunities during design and/or construction activities.

The implementation of this standard delivers a range of benefits to Network Rail including:

a) improved business cost-efficiency from sustainable practices, such as designing for whole-life energy efficiency, waste minimisation, and capital carbon value engineering;

b) increased social value created by maximising opportunities for inclusive design, considerate construction and socio-economic growth;

c) reduced risk of legal and regulatory non-compliance and negative reputational exposure by delivering good practice standards of environmental and social performance; and

d) alignment with the Network Rail Environmental Sustainability Strategy.

Scope:
This standard is mandatory for all construction and design works carried out by Network Rail and its contractors as part of a PACE managed project.

This standard applies to but is not limited to:

a) Designers/Contractors contracted to Network Rail for the provision of design and/or construction services;

b) Network Rail business units where they act as a design or contractor entity according to Construction (Design and Management) Regulations definitions, e.g. Network Rail Design Delivery and Works Delivery engaged in construction and design works; and

c) any non-construction works that comply with NR/L2/OHS/0044 – Planning & Managing Construction work.

This standard excludes any works associated with maintenance activities.

The requirements of this standard apply to all land areas impacted by project activities, including the primary development site(s) and, without limitation, any associated temporary work sites, compounds, haul roads, access routes.

Where a joint venture or alliance is established, this standard should be recommended as a minimum when defining contract requirements for those organisations accountable for design or construction within the alliance.

Overview of change

This standard has been updated as part of the Post-Implementation Review of the standard. The updates have been made in response to comments from stakeholders received during implementation of the standard. A detailed summary of the changes is available in the document attached to this briefing note.

Detail of change

Section(s)/clause(s)	Summary of changes
Please see attached 'Summary of ESR changes'.	

Reasons for change

In 2019, Environment and Social Minimum Requirements for Projects - Design and Construction [Issue 8]- went through a significant review and update process resulting in a number of new requirements for projects. Compliance with Issue 8 of the standard was by 31 December 2019 and this post-implementation review seeks to provide additional clarification and guidance where needed as raised by stakeholders. This review also seeks to align the standard with existing business process and strategy, and with updated legal requirements.

Affected documents:

Reference	*Impact*
NR/L2/ENV/015 ISSUE 8	Superseded

Briefing requirements:

Will Briefing Management System be used to deliver the briefing to posts listed below? No

Technical briefings are given to those who have specific responsibilities within this standard/control document.

Awareness briefings are given to those who might be affected by the content but have no specific responsibilities within the standard/control document.

Details of the briefing arrangements are included in the associated briefing programme.

All posts identified for briefing must be as described in OrgPlus.

Roles are directly briefed and do not cascade briefings.

Briefing *(A-Awareness/ T-Technical)*	**Post**	**Function**	**Responsible for cascade briefing? Y/N**
T	Environment Manager	Route Services	N
T	Environment Manager (IP)	Regions	N
T	Environmental Manager	Technical Authority	N
T	Environment Specialist	Regions	N
T	Environment Specialist	Route Services	N
T	Principal Environment & Social Value Manager	Regions	N
T	Social Value Manager	Regions	N
T	Consents Manager	Regions	N
T	Ecologist	Regions	N
T	Maintenance Workforce Safety & Environment Coach	Route Services	N
T	Head of Environment & Sustainability	Regions	N
T	Chief Environment & Sustainability Officer	Technical Authority	N
T	Environmental Strategy Manager	Technical Authority	N
T	Environmental Management System Manager [Ops]	Technical Authority	N
T	Social Performance Manager	Technical Authority	N
T	Sustainability Strategy Manager (QHSE)	Technical Authority	N
T	Biodiversity Strategy Manager	Technical Authority	N
T	Climate Change Adaptation Manager	Technical Authority	N
T	Weather Resilience & Climate Change Adaptn Strategy Manager	Technical Authority	N
T	Energy & Carbon Strategy Manager	Technical Authority	N
T	Senior Engineer (QHSE) [Energy & Carbon]	Technical Authority	N
T	Assistant Engineer (QHSE) [Energy] [Energy & Carbon]	Technical Authority	N
T	Senior Analyst (QHSE)	Technical Authority	N
T	Technical Capability Manager	Technical Authority (Sustainability)	N
T	HSEA Specialist	Regions	N
T	Workforce Health, Safety & Environment Advisor	Regions	N
T	Workforce Health, Safety & Environment Advisor (HO)	Regions	N
T	Workforce Health, Safety & Environment Advisor (WD)	Regions	N
T	Infrastructure Maintenance Workforce HSE Advisor	Regions	N
T	Infrastructure Maintenance Workforce HSE Advisor [West]	Regions	N
T	Head of Safety & Sustainable Development	Regions	N
T	Head of Safety & Sustainable Development	Route Services	N
T	Head of Health & Safety	Route Services	N
T	Safety Health & Environment Specialist [Assurance]	Route Services	N
T	Safety Health & Environment Specialist [Environment]	Route Services	N
T	Safety Health & Environment Specialist [Improvement]	Route Services	N
T	Safety Health & Environment Specialist [Risk & Assurance]	Route Services	N
T	Safety Health & Environment Specialist [Risk Improvement]	Route Services	N
T	Head of Safety & Sustainable Development	Property	N
T	Scheme Project Manager	Regions	N
T	Scheme Project Manager	Route Services	N
T	Project Management Assistant	Regions	N

T	Project Management Assistant	Route Services	N
T	Project Manager	Regions	N
T	Project Manager	Route Services	N

Briefing *(A-Awareness/ T-Technical)*	**Role**	**Function**
A	Various* (*to include as a minimum the below roles)	Determined by Regions
A	Programme Manager	Regions
A	Health and Safety Manager - Capital Delivery	Regions
A	Project Planner	Route Services, Regions
A	Project Engineer	Route Services, Regions
A	Project Development Manager	Route Services, Regions
A	Community Relations Manager	Route Services, Regions, Technical Authority
A	Community Relations Executive	Route Services, Regions, Technical Authority
A	Architect	Technical Authority, Regions
A	Commercial Manager	Regions
A	Procurement Manager	Regions
T	Safety Health & Environment Manager	Route Services
T	Head of Sustainability	Route Services, Regions, Technical Authority, Property
T	Sponsor	Regions
T	Regional Engineer [Discipline]	Regions
T	Senior Development Manager	Regions
T	Lead Development Manager	Regions

NOTE: *Contractors are responsible for arranging and undertaking their own Technical and Awareness Briefings in accordance with their own processes and procedures.*

Summary of key changes to NR/L2/ENV/015
Environment and Social Minimum Requirements for Projects – Design and Construction

Purpose of this document:

This document has been prepared to assist stakeholders and users of NR/L2/ENV/015 understand the key changes made to the standard as part of the Post-Implementation Review (June 2021 - Issue 9).

This document summarises the key changes that have been made in simple terms. It is not intended to be read in isolation, and the reader should refer to the standard to understand all of the changes in further detail and within context.

General document information:

- **Amended:** Issue number changed from 8 to 9
- **Amended:** Compliance date amended: 04th September 2021
- **Amended:** Technical lead and approval signatures updated

Reference Documentation:

- **Added:** The following documents have been added to the reference documentation list:
  - NR/L3/ENV/044: Used Ballast and Excavation Waste Handling
  - NR/L2/ENV/121: Managing Environmental and Social Impacts of Noise and Vibration
  - NR/L2/ENV/120: Waste Management
  - NR/L2/ENV/123: Prevention of Pollution to Land and Water
  - NR/L3/OHS/0046: The Reporting, Investigation and Recording of Safety and Sustainable Development Events and Close Calls within Infrastructure Projects
  - NR/L2/MTC/089: Asset Management Plan Forms
  - NR/L2/ENV/122/01: Management of Biodiversity
  - NR/L3/TRK/003/TEF3069: Pesticide application record form
  - NR/L2/SCO/306: Disposal of redundant assets
  - NR/L2/SIG/11201/Mod A2-23: Recovery of redundant assets [Issue 1]
  - NR/L2/CIV/003/F004: Architectural and Layout Acceptance form
  - NR/L2/OPS/250: Network Rail National Emergency Plan
  - NR/L3/OPS/045/4.14: Control of Emergency Incident Procedures
  - NR/L3/MTC/MG0197: Power Supply Outage Management
  - NR/L2/P3M/201: Project Acceleration in a Controlled Environment (PACE)
- **Removed:** Standards that have been withdrawn/ superseeded have been removed (NR/L3/INV3001/RIM101, NR/L3/INV/3001/RIM101, NR/L3/INV/3001/RIM113).

Legislation:

- **Amended:** The wording has changed from listing what legislation the standard complies with to state that the standard 'Complies with relevant environmental and social legislation at the time of publication.'

- **Removed:** The examples of legislation that the standard complies with have been removed
- **Added:** A reference to Network Rail's Legal Register has been added.

Contents:

- **Added:** A new section has been added titled 'Emergency works and urgent reactive works.'

Purpose:

- **Added:** Reference to the Network Rail Environmental Sustainability Strategy.

Scope:

- **Amended:** The scope has been updated to PACE managed projects from GRIP (references to GRIP have been updated throughout the standard to align to PACE).
- **Added:** NR/L2/OHS/0044 - Planning & Managing Construction work has been added as an example when the standard applies.
- **Amended:** Wording amended that the standard excludes 'works associated with maintenance activities' from 'works carried out for/on behalf of Regional maintenance teams.'

Definitions:

- **Amended:** Definitions have been removed that are not referenced in the text (e.g. Controlled Waters), and other definitions have been added that are referenced in the text (e.g. Circular Economy, non-construction works).

Section 4 - Environmental and Social Management Processes

4.1 Environment and Social Appraisal (ESA)

- **Amended:** Text added to state that the ESA shall be completed at the start of the project and is a mandatory PACE product to be updated at each PACE milestone or when significant changes to the project occur.
- **Amended:** Section updated to make reference to PACE from GRIP.
- **Added:** Text to confirm that it is the Project Manager's (PM) responsibility for ensuring the ESA is complete and accurate.
- **Added:** Text added - Employer's Representative to ensure the Designer/Contractor has access to the ESA.
- **Amended:** Note has been updated with further guidance on the use of the ESA.

4.2 Environmental and Social Management Plans (ESMP)

- **Added:** A note has been added to cover over-arching ESMP's for alliance and contractors for repeating works.
- **Added:** Clarification added that environment and social risk assessment shall be populated at the start of the project.
- **Added:** Design ESMPs to be submitted at a date agreed by Employer's Representative.
- **Amended:** Previous note has been updated from a green to an amber requirement that formal acceptance of the ESMP is through the completion of EN3 Review and Acceptance Form completed by the PM.
- **Added:** Note added that EN3 is a PACE product within the PACE Product Index.

Section 5 - General Requirements – all projects/works

- **Amended:** Section re-ordered, and new section added (Network Rail policies and strategies)

5.1 Network Rail policies and strategies

- **Added:** 5.1 is a new section
- **Added:** Requirement added - Designer/Contractor to comply with NR policy, strategy and standards.

5.2 Roles and Responsibilities

- **Added:** Note added to reference Appendix E of the Principal Contractor Licensing Scheme NR/L2/INI/CO0070.

5.3 Competence

- **Added:** Requirement to use a competence framework**.**

5.4 Sub-contracting

- No changes.

5.5 Permits, Licenses and Consents (PLCs)

- **Added:** Note added to reference Land and Consents Strategy and Commitments Register.

5.6 Objectives, targets and performance indicators

- **Added:** Requirement for Designer/Contractor to progress social performance commitments made in the procurement and contracting process.
- **Amended:** Text updated to reference 'national and local' KPIs.

5.7 Life Cycle Costing (LCC) and Option Selection

- **Amended:** Title updated from 'Whole-life cost analysis' to 'Life Cycle Costing (LCC) and Option Selection.'
- **Added:** Further details as to when LCC should be undertaken, and by who. This includes LCC test at strategic development phase and LCC comparison at the project selection phase.
- **Added:** Note added to reference the LCC handbook, and that the sponsor may request LCC analysis at project development phase.
- **Added:** Requirement that the Option Selection process includes environmental and social considerations.
- **Added:** Requirement to undertake a Workshop/ review to identify and assess design options.
- **Added:** Requirement added that contractors should apply these principles during the delivery phase.
- **Amended:** Note updated to provide further information on Environmental Life Cycle Appraisal methodologies.

5.8 Communication

5.8.1 Stakeholder Management Plan

- **Added:** 5.8.1 is a new section.

- **Amended:** Requirement for Designer/Contractor to identify a list of stakeholders and appropriate methods of engagement (previously requirement under 7.1 Being a Caring Neighbour).
- **Added:** A note has been added providing guidance on possible stakeholders.

5.8.2 Internal Communication

- **Amended:** Environment and Social Performance Policies shall be made available to interested parties (this requirement was previously to display on notice boards in fixed and temporary locations)
- **Added:** Requirement for Designer/Contractor to maintain records of all briefings and communication activities.

5.8.3 External Communication

- **Added:** 5.8.3 is a new section
- **Amended:** The previous section 5.7.3 of Issue 8 of ESR 'Communication with Statutory Authorities and Non-Governmental Organisations' has been incorporated into this section.
- **Amended:** The distance that the Designer/Contractor must inform local community relations representative(s) has been updated from 150metres to 200metres. For noisier works, this distance has been updated to 500m.
- **Added:** A note has been added that noisier works will be defined as the output of the Noise and Vibration Risk Assessment.

5.8.4 Communication between Network Rail and Suppliers

- **Amended:** A discussion of Opportunities have been added to progress meetings between the Employer's Representative and the Designer/Contractor.

5.9 Monitoring and Assurance

- **Added:** A requirement has been added that the NR PM shall put in place a schedule of environment and social inspections.
- **Amended:** A timeframe of 28 days has been added to the Designer/Contractor providing copies of inspections and audits to the Employer's Representative.

5.10 Records, documents and knowledge transfer

- **Amended:** The list of what a Designer/Contractor must provide the Employer's Representative with has been updated to include 'Records – including consents, permissions, licences and monitoring records.'
- **Amended:** This list has also been updated to include responses and lessons learnt for environmental incidents.
- **Added:** A requirement for the PM or delegated representative to complete Asset Management Plan Forms at hand-over has been added. A note has been added to support this.
- **Amended:** Content from 'Updating the Hazard Directory Section 5.10.3' in Issue 8 has been moved to this section.

5.11 Environment and Social data Sources

- **Added**: 5.11 is a new section heading that incorporates the information from the 'National Hazard Directory' in Issue 8 of ESR.
- **Added**: 3 notes have been added on guidance for accessing external and internal data sources, and further information on The National Hazard Directory.

5.11.2 Using data from External records

- **Added:** Requirement added that the Designer/Contractor must verify the validity of external data sources.
- **Added:** Note added that the absence of previous environmental or social records does not mean constraints are not present.

5.12 Health and Safety File

- **Added:** Clarification that environmental information shall be submitted to the Employer's Representative.

5.13 Tax allowances and rebates

- **Amended:** Reference to Enhanced Capital Allowance schemes has been removed.

Section 6 Environmental Requirements

6.1 Biodiversity

- **Added:** Requirement that works follow the processes outlined in NR/L2/ENV/122/01- Management of Biodiversity standard.
- **Amended:** Reference to 'Biodiversity Calculator' has been altered to a reference to 'biodiversity metric calculations'.
- **Added:** Requirement for all ecology related outputs to be provided to NR in the format requested within 7 days of receipt (by Designer/Contractor).

6.2 Contaminated Land

- **Added:** Requirement for Designer/Contractor to conduct an Initial Hazard Review to determine whether a Preliminary Risk Assessment is required.
- **Added**: Details of PRA requirements – including conceptual site model and pollution linkages.
- **Added**: A note has been added referring to the Contaminated land guidance note available on Safety Central.
- **Added:** A note has been added to signpost guidance on Land Contamination Risk Management which should be followed in site assessments.
- **Added**: A requirement to conduct a Generic Quantitative Risk Assessment if required.
- **Added:** Requirement for Optional Appraisal and remediation and verification considering significant risks to be undertaken if required.
- **Added**: A requirement to comply with NR/L3/ENV/044 – Used Ballast and Excavation Waste Handling.

6.3 Emissions to Air

- **Added**: Requirement that the contractor shall confirm emissions to air are reduced to ALARP during construction (including a consideration of Non-Road Mobile Machinery).

- **Added**: Requirement for Designer/Contractor to provide information on emissions to air to Asset Manager on completion of the works and include in the Health & Safety File.

6.4 Energy and Carbon

6.4.1 Managing Carbon in Infrastructure (PAS 2080)

- **Amended:** Wording updated for NR PM to achieve collaboration between all value chain participants.

6.4.2 Whole Life Carbon

- **Amended:** Whole life Carbon has been renamed – previously 'Capital Carbon.'
- **Added:** Requirement added for consequential impacts on aggregated carbon emissions on modular stages of asset life cycle (through entire project life span) to be considered to reduce whole life carbon emissions.
- **Added:** Note added to clarify that the principle of whole life carbon management applies to all projects.
- **Amended:** Clarification provided for what works should use the Rail Carbon Tool (to include civil, mechanical or electrical engineering) and what should be considered.
- **Added:** Note added to provide further detail on exceptions for using the Rail Carbon Tool - including complex componentry asset systems (e.g. signalling and telecoms).
- **Added**: Requirement for the contractor to utilise renewable energy power and energy efficient technologies during construction activities.
- **Added:** Note added regarding training on the Rail Carbon Tool.

6.4.3 Energy and operational carbon

- **Added:** Requirement for Designer to propose options for energy efficiency.
- **Added:** Requirement for design to utilise thermal storage, heat recovery, free cooling, renewable energy or natural lighting where practicable.
- **Added:** Requirement for Energy Performance Certificate (EPC) rating of C or above for all new buildings and E for modified buildings for leased buildings.
- **Added:** Reference to the requirements regarding connections and disconnections process as stipulated in NR/L3/ENV/305.
- **Added:** Reference that new connections shall be sub-metered.

6.5 Circular Economy

- **Added**: 6.5 is a new section and includes sub-sections of Materials and Waste.

6.5.1 Circular Economy Principles & Resource Efficiency

- **Added:** 6.5.1 is a new sub-section.
- **Added**: Requirement that the Designer/Contractor shall incorporate the principles of circular economy.
- **Amended:** The previous requirement to conduct a Resource Efficiency Assessment/ Workshop (previously in the waste section) has been moved to this section.
- **Amended:** The scope of the Resource Efficiency Assessment/ Workshop has been widened to also include carbon and water use.

- **Amended:** The requirements of the Resource Efficiency Assessment/ Workshop have been updated to include a review of opportunities to reuse materials.
- **Added**: A note has been added that the Resource Efficiency Assessment/ Workshop could be incorporated into other design reviews, meetings or assessments.
- **Added**: A note that SURPLUS can be downloaded from the NR App Catalogue has been added.
- **Added**: A note has been added that Circular Economy Principles will be met by following other sections of the standard (e.g. Life Cycle Costing).

6.5.2 Materials – responsible sourcing

- **Added:** 6.5.2.1 is a new sub- section.
- **Added:** Requirement for Designer/Contractor to identify opportunities for materials with low environmental and social impact aligned with NR's Environmental Sustainability Strategy; in design and procuring materials for works.
- **Added:** Note referencing NR's Environmental Sustainability Strategy on Safety Central.

6.5.2.2 Low environmental impact products

- **Amended:** Requirement to identify materials with negative environmental or social impacts during production, transport, installation, use, decommissioning, and deconstruction.
- **Added:** Note added for assessment of products/ materials to include information from EPDs or Safety Data Sheets.

6.5.2.3 Responsibly sourced timber

- **Amended:** Requirement for all timber and timber derived products sourced by NR and supply chain to be from legal and sustainable sources which are credibly certified by a third party and hold full documented chain of custody (this updates from the previous requirements for FSC or PEFC certified timber).
- **Added:** Note added referring to NR's Responsible Timber Sourcing Policy on Safety Central.
- **Amended:** Collation and submission of timber consignment data at the request of the Employer's Representative (previously the requirement was to submit timber consignment data quarterly).

6.5.2.4 Concrete and aggregates

- **Amended:** Removal of requirement for works in excess of 50 tonnes to identify the type and quantity of concrete and aggregate to the used.
- **Added:** Requirement for concrete/aggregates to be responsibly sourced.
- **Added:** Requirement to utilise a whole-life carbon approach in material selection.
- **Added:** Note referencing how to procure NR SCO's recycled aggregate products.

6.5.2.5 Herbicides

- **Amended:** Reference to 'Herbicide' Agreement on Safety Central (previously Pesticide Agreement).
- **Added:** Requirement to consider seepage to watercourses.
- **Added:** Requirement for person with BASIS certification to specify treatment methodology.
- **Added:** Note added to consider non-chemical methodologies in first instance.
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- **Added:** Requirement for competent person to select herbicide type and dosage rates prior to work commencing.
- **Added:** Note added as to what constitutes competency: NPTC PA1 and NPTC PA6.
- **Added:** Requirement for advance provision of proposed locations of application to operator
- **Added:** Requirement to complete NR/L3/TRK/003/TEF3069 – Pesticide Application Record Form.

6.5.3.1 Waste Management

- **Added:** A requirement to comply with the waste standard - Waste NR/L2/ENV/120.
- **Amended:** Clarification is provided for design and construction Site Waste Management Plans (SWMPs) and what to include – including a requirement for it to be updated throughout the project.
- **Amended:** The Resource Efficiency Workshop has been moved to the Circular Economy section.
- **Added:** A note has been added to reference the Disposal of Redundant Assets Standards – NR/L2/SCO/306 and NR/L2/SIG/11201/Mod A2-23.
- **Added:** A note has been added to reference NR/L3/ENV/044 – Track Maintenance – Used Ballast and Track Excavation Waste.

6.5.3.2 Polychlorinated bi-phenols (PCBs)

- **Added**: 6.5.3.2 is a new sub-section.
- **Added:** Requirement for the Employer's Representative to identify PCB contaminated equipment and assets.
- **Added:** Requirement for equipment and assets to be tested, registered, and disposed of in accordance with legal requirements.
- **Added:** Note added that NR maintains a PCB register of known E&P assets.
- **Added:** Note added that a PCB Checklist is available on Safety Central.

6.6 Noise & Vibration

- **Added**: Requirement to comply with Managing Environmental & Social Impacts of Noise and Vibration - NR/L2/ENV/121.
- **Added:** Requirement to conduct a Noise and Vibration Risk Assessment as required by NR/L2/ENV/121.
- **Added:** Note that a Noise and Vibration Risk Assessment template is available on Safety Central.
- **Added:** Requirement to consider where site access compounds are located.
- **Amended:** Requirement for Contractor to implement measures to control noise and vibration using BPM to levels ALARP (previously the requirement was to design measures).

6.7 Dust, odour and lighting

- **Added:** 6.9 is a new section. The content has been merged from the previous 'Noise, nuisance, and disturbance' section.
- **Added:** Requirement for design to control intrusive lighting emissions in addition to control of dust and odour emissions from fixed plant or temporary plant and site activities.
- **Added:** Requirement for contractor to consider the impacts of traffic.

6.8 Pollution of land/water

- **Amended:** Text updated to include a requirement for Designer/Contractor to put in place measures to reduce risks/ pollution pathways to ALARP following the risk assessment (the previous requirement was to assess risks and pollution pathways only).

6.9 Sustainable travel

- **Added**: Requirement to consider the Sustainable Travel Hierarchy, and to use low emission vehicles for on-site use.

6.10 Water

- **Amended:** Requirement for Designer/Contractor to identify water reduction initiatives.

6.11 Weather Resilience and Climate Change Adaptation (WRCCA)

- **Amended:** Requirement for Designer to identify the potential for weather events to impact assets and the area surrounding the project defined as 'Weather and Climate Change Impact Assessment.'
- **Amended:** Section re-ordered to include requirements for undertaking a Weather and Climate Change Impact Assessment.
- **Added**: Note added that guidance on how to undertake a Weather and Climate Change Impact Assessment report is available on Safety Central, and that the PM is responsible for approval.

7 Emergency works and urgent reactive works

- **Added:** Section 7 is a new section.
- **Added**: Requirement to implement measures to minimise environmental and social risks during emergency and urgent reactive works.
- **Added**: Note added that following completion of emergency and urgent reactive works - usual Network Rail standards and legal requirements shall be followed.

8. Social Performance Requirements

- **Amended:** The order of section 8 has been updated.

8.1 Approach to Social Performance

- **Added:** Guidance added for Designer/Contractor to conduct a workshop on social performance to plan approach to social performance note (This is a green requirement and considered guidance/best practice).
- **Added:** A note has been added stating the social workshop can be integrated into other existing workshops and does not need to be stand-alone.
- **Added:** Requirement added that approach to social performance integrated into ESMP, and includes a list of requirements (including risks/ opportunities, objectives and targets, KPIs, how risks will be managed, and how workers will be trained).

8.2 Being a caring neighbour

- **Added:** Requirement for Designer/Contractor to manage/ mitigate risk of disturbance to passengers, lineside neighbours and local communities.
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- **Amended:** The distance that the Designer/Contractor must inform local community relations representative(s) has been updated from 150metres to 200metres (for noisier works, this distance has been updated to 500m).
- **Added:** Note added to reference the Noise and Vibration Risk Assessment template.
- **Added:** Requirement for Designer/Contractor to participate in stakeholder consultation organised by the Employer's Representative.
- **Amended:** Requirement for consideration to be given to worker behaviour.

8.3 Connecting communities with the environment

- No changes

8.4 Creating engaged employees and positive industry partnerships

- **Amended:** Wording updated for the Designer/Contractor to implement an approach to manage risk of modern slavery that is aligned to NR's anti-slavery and human trafficking policy.
- **Added:** Requirement for Designer/Contractor to support the physical and mental health and well being of workers (e.g. through fatigue management).

8.5 Inspiring tomorrow's workforce

- **Amended:** Requirements for Employment and Skills assessment to include early engagement (e.g. school visits), Level 2,3 and 4 apprenticeships, and the development of skills of current workers.
- **Added**: Note added referring to Employment and Skills Assessment Template on Safety Central.

8.6 Keeping communities safe

- **Amended:** Requirement to contact the Suicide Prevention Team before starting work to understand if it's an area of concern.
- **Added:** In areas of concern, staff to be issued with the Suicide Prevention Handbook
- **Added:** Note added on how to access suicide prevention materials and learning tool videos.

8.7 Making rail a great experience

- **Added:** Note added stating NR has established an independent Design Advisory Panel to review design impacts of projects on passengers, communities and the environment.
- **Added:** Reference to the Design Advice Project Guidance NR/GN/CIV/100/01 added.

8.8 Making travel accessible and inclusive

- **Amended:** Heading updated to include 'and inclusive.'
- **Amended:** Requirement for a Diversity Impact Assessment (DIA) to be completed by the Employer's Representative now a red, mandatory requirement. Requirement includes a list of what the assessment must include as a minimum.
- **Added:** Requirement for the Designer/Contractor to collaborate with the Employer's Representative to inform the DIA.
- **Added**: Note added stating location of DIA templates on Access and Inclusion SharePoint site.
- **Added:** Requirement for DIA to be reviewed at every PACE milestone.

- **Added:** Note of protected characteristics added.
- **Added:** Requirement for the Designer/Contractor to engage with NR's Built Environment Advisory Panel if requested.

8.9 Respecting cultural heritage and rail history

- **Added:** Requirement for architecturally significant schemes requiring planning consent or listed building consent to request architectural layout acceptance by submitting NR/L2/CIV/003/F004.
- **Added:** Notes have been added providing guidance on the Design Advisory Panel (DAP) and guidance notes on Heritage, Care and Development.

8.10 Supporting Britain's economic development

- **Amended:** Requirement to utilise procurement processes that enable qualified and experienced suppliers or sub-contractors to compete fairly and freely (e.g. SMEs, local businesses, VCSEs).
- **Amended:** Best practice/ voluntary Requirement for Designer/Contractor to provide at least 2 business groups with opportunities for compete for contracts (note this is a green requirement and considered guidance/best practice).
- **Amended:** Best practice/ voluntary requirement for job opportunities to be posted locally e.g. in the same local authority as works.
- **Added:** Best practice/ voluntary requirement for Designer/Contractor to pay workers the Real Living Wage in delivery of NR contracts.

9 Incident Management

9.1 Incident Response

9.1.1. Incident Response Plan (IRP)

- **Amended:** Requirement added that IRP shall include procedures for responding to unexpected finds (e.g. protected species).
- **Amended:** Requirement for reporting of environment and social incidents to be in accordance with NR/L3/OHS/0046.
- **Amended:** Withdrawn standards have been removed from the list.
- **Amended:** Requirement to complete Report and Investigation Form (Level 1) updated for Category 1,2 and 3 incidents (previous no mention of categories).

9.1.2 External Reporting

- **Amended:** Reference to 'Nature Scot' from Scottish Natural Heritage.
- **Added**: Requirement for external contractors to liaise with the Employer's Representative to agree comms with the relevant regulator.

9.2 Incident Investigation

- No changes

10. External benchmarking

- New sections created within this section (detailed below).

10.1 Benchmarking environmental performance

- **Amended:** Requirement to undertake an environmental performance assessment prior to the selection of a single option (for new construction and major refurbishments for operational property buildings).
- **Added:** Notes added providing guidance on the use BREEAM and CEEQUAL and the above would not be applicable for CEEQUAL Construction (only) or CEEQUAL Design & Construction if the scope of the assessment doesn't include single option selection.
- **Added:** Note that expected environmental performance is remitted by sponsors at project outset.

10.2 Operational Property enhancement- Refurbishment and fit-out

- **Added:** 10.2 is a new sub-section.
- **Added:** Requirement that the Designer/Contractor shall meet RICS SKA rating of 'Silver' as a minimum and 'Gold' as an aspiration. Alternatively, where BREEAM is used, a rating of 'Very Good' is required and 'Excellent' is an aspiration.
- **Added**: Note added stating the clause applies to refurb and fit outs where the area of building fabric is >50% of surface of individual element or 25% of total building element.
- **Added**: Note added that design guidelines are available- NR/GN/CIV/400/05- Workplace DNA.

10.3 Operational Property enhancement- new construction

- **Added:** 10.3 is a new sub-section.
- **Added:** Requirement added that where the project sponsor/ third-party funder has remitted a certification scheme such as BREEAM, the Designer/Contractor shall achieve a 'very good' rating as minimum and 'excellent' as an aspiration.
- **Added:** Requirement that where formal sustainability assessments are not required, the principles of BREEAM or a similar methodology (e.g. Passivhaus) are applied.

10.4 Considerate Construction Practices

- **Added:** 10.4 is a new sub-section.
- **Added:** Requirement that where requested by the Employer's Representative, the contractor shall achieve a Considerate Constructors Schemes (CCS) score of at least 35, with aspiration to score above 40.

10.5 External recognition (awards)

- **Added:** 10.5 is a new sub- section.
- **Added:** Requirement for Designer/Contractor to seek recognition for sustainability achievements by entering external awards where requested by the Employer's Representative.
- **Added:** Note added - list of example award schemes e.g. Green Apple Awards.

END