Transpennine Route Upgrade Hillhouse Construction Compound – s73 application

Appendix E: Construction Environmental Management Plan

Document Ref 151667-TSA-00-TRU-REP-W-EN-001962

Network Rail

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1. INTRODUCTION

1.1 Background

1.1.1 Planning Permission was granted for a temporary strategic construction facility with retaining wall, environmental mitigation measures and a temporary railway platform to facilitate the construction works for the section of the Trans-Pennine Route Upgrade (TRU) between Huddersfield and Westtown (Dewsbury) ('the Scheme') at a site off Alder Street, Huddersfield namely the Hillhouse Yard.

1.1.2 This CEMP supports the submission under section 73 of the Town and County Planning Act 1990 made on behalf of Network Rail and seeks to vary details of the development set out under paragraph 1.1.1 and consented under planning reference 2021/94337 dated 30 March 2022.

1.1.3 It should be noted that certain elements of the proposed development fall under NR's Permitted Development privileges. These did not form part of the approved scheme and were supplied for information only; these include provision of the stabling sidings in the Yard for the train operating company, and the provision of a signing-on/mess facility to serve the sidings in question, along with associated internal access and car parking. It should also be noted that the existing GSM-R mast will remain in situ as part of this temporary works application. There is no change to these elements as part of this submission.

2. SCHEME DESCRIPTION

2.1 The Site and Surrounding Area

2.1.1 The Site is located at Hillhouse railway yard , Alder Street, Fartown is located wholly within the administrative authority of Kirklees Council.

2.2 The Proposal

2.2.1 The proposed Development is a construction facility to enable the construction works for the section of the TRU between Huddersfield and Westtown (Dewsbury).

2.2.2 The proposed Scheme will generally be delivered in line with the approved planning permission.

2.3 Phased development

2.3.1 The construction site will be used by the civils and rail systems engineers and will include laydown areas for the receipt and storage of the overhead line equipment (OLE) and trackwork. The laydown area for OLE would be located in the northern part of the compound. A laydown area is also proposed for permanent way works including an area where the trackwork will be fabricated. The Site will also be used for storage of waste and excavated material. Active plant and machinery would be present on site.

2.3.2 Construction and project management activities to service the wider Scheme will also be undertaken from the Site. The Site will make provision for welfare cabins for construction staff.

2.3.3 Works associated with the Proposed Development will be undertaken in two stages, comprising a number of elements within each stage:

- Stage 1:
  - Use of the Site for construction of Advanced Works to the Order;
  - Construction of retaining wall (works complete);
  - Construction of environmental mitigation measures (noise attenuation);
  - Construction of railway sidings (works complete);
  - Provision of welfare for civils and rail systems staff (works complete);
  - Material Storage (works complete);
  - Limited staff parking; and
  - Associated utilities/drainage work (complete).
- Stage 2:
  - Use of the Site as a strategic construction compound to facilitate the TRU works between Huddersfield and Westtown (Dewsbury);
  - Material Storage; and
  - Provision of welfare for civils and rail systems staff.

2.4 Working hours

2.4.1 The Site will be used throughout the construction of the Order Scheme and therefore will be in use for around four to five years (i.e. to mid 2028).

2.4.1 In general, standard working hours will be as follows:

- 08:00 to 18:00 Monday to Friday, with 30 minutes before 08:00 for setting up and 30 minutes after 18:00 for organising/cleaning the Site;
- 08:00 to 13:00 Saturday, with 30 minutes before 08:00 for setting up and 30 minutes after 13:00 for organising/cleaning the Site; and
- No working on Sundays.

2.4.2 These working hours refer to all activities where construction does not interfere with or require a closure of the operating railway. Non-standard working hours will also be utilised in connection to any construction works that would interfere with the operational railway. In this case, the operating railway is closed, and works can progress. Such closures, known as “possessions”, are normally employed at night time, weekends and Bank Holidays.

2.4.3 The majority of construction works will be undertaken during daytime hours, however there will be a limited amount of construction activity that requires night-time working, primarily works being undertaken during core possessions/blockades where 24 hour working is required.

2.4.4 Office staff hours will be more varied; Support and administrative will keep more traditional office hours while delivery staff (engineers and construction managers) will be closer to the operative hours.

2.5 Purpose of this document

2.5.1 The purpose of this CEMP is to implement controls on the Alliance[1] construction team to minimise or avoid potential impacts to the environment and sensitive local receptors resulting from the use of the Site as a construction compound.

2.5.2 This CEMP provides a framework to manage the environmental issues associated with the Site, to ensure compliance with relevant client Environmental Policy Statements, and contractual and legal obligations. It is a bespoke plan designed to minimise the impact on the environment and ensure the best delivery through construction.

2.5.3 All contractors involved with the Development will approve and support this CEMP as the high-level environmental document, demonstrating a planned and systematic approach to implementing environmental policy through an effective environmental management system. The CEMP will be implemented and audited by the project’s Environment Manager.

2.6 Objectives of the CEMP

2.6.1 The overall objectives of the CEMP are to describe the measures that will be taken during the use of the Site as a construction compound, in order to:

- Set out actions required to manage the specified environmental risks, through consideration of design requirements and appropriate method statements (known as Work Package Plans for these works (WPPs) and relevant staff briefings);
- Define roles and responsibilities - for implementing the CEMP;
- Define the requirements for communication of the CEMP to the project team, environmental training and awareness, stakeholder liaison; and
- Define the processes for updating the CEMP - management reviews, incident reporting and investigation, and audit.

[1] Network Rail has commissioned the TRU West Alliance to design and deliver the West of Leeds section of the TRU. The Alliance is made up of the client, principal designer and principal contractor organisations amongst others contributing to the design and delivery of the Scheme.

3. MANAGEMENT FRAMEWORK

3.1 Legislations, Regulation and other Requirements

3.1.1 The Development will comply with all relevant legislation, regulations and additionally, obtain and comply with all necessary consents to ensure legal construction works.

3.1.2 Other requirements and regulations from the Local Authority, Highways Authority or other Statutory Bodies will be reviewed by the contractor and applied where applicable.

3.1.3 All work carried out will be conducted with due cognisance of client standards, obligations and best practice.

3.1.4 A legislation register will be maintained and updated following any changes to applicable legislation. Any applicable changes will be evaluated and communicated to the relevant personnel through Environmental Alerts, Newsletter, staff briefings or toolbox talks. Site-specific procedures will also provide guidance to activity specific legislation.

3.2 Environmental and social policies

3.2.1 The Development will be carried out in accordance with the relevant Network Rail standards and procedures including, but not limited to, the following:

- Network Rail Environmental Policy (NR/L2/ENV/015);
- Procedure ENV01 Ecology and Biodiversity;
- Procedure ENV02 Water Management;
- Procedure ENV03 Oil Storage and Refuelling;
- Procedure ENV04 Waste Management;
- Procedure ENV05 Control of Site Nuisance; and
- Procedure ENV06 Environmental Incident Response Plan.

3.2.2 It will be ensured that these policies, procedures and their requirements are made known to all relevant personnel. This will be undertaken through a number of methods including site inductions, Work Package Plans (otherwise known as method statements) and risk assessment briefings, and toolbox talks.

3.3 Environmental Risk Assessment

3.3.1 An Environmental Risk Assessment (ERA) identifying significant impacts identified for the Development will be produced by the project's Environment Manager and will form part of the internal risk register which will be held on Site.

3.3.2 The register will consider the likely environmental impacts from activities being carried out on Site with respect to the following environmental topics:

- Air Quality;
- Biodiversity;
- Historic Environment including archaeology;
- Land Contamination;
- Noise and Vibration;
- Nuisance;
- Water;

- Material Use/Waste;
- Fuel Storage;
- Energy Use; and
- Indirect impacts.

3.4 Roles and responsibilities

3.4.1 Staff, operatives and subcontractors have the authority and responsibility to protect the environment at all times during execution of the works; the responsibilities outlined in this section will be highlighted during the Site induction. All personnel will be trained in the necessary skills to fulfil their role.

3.4.2 Key personnel for specific job roles are set out in the Table 3-1. The roles outlined may be substituted as required providing that the key environmental responsibilities are clearly and appropriately allocated.

3.4.3 Contact details for all key contractors will be displayed on notice boards in the Site office.

Table 3-1 Roles and responsibilities

Role and Contact Details	Key environmental responsibilities
Project Manager	• Responsible for ensuring the Environmental Management System for the project is implemented. • Ensures that the Network Rail Environmental Policy is drawn to the notice of all employees under his control. • Establishes effective lines of communication with all employees under their control. • Promotes the continuous improvement of environmental performance • Monitors and reviews the implementation of environmental objectives and targets on the project.
Principal Environment Manager – Jim Pearson Network Rail	• Carries overall responsibility for delivery of the design stage of the project and for meeting environmental performance objectives and targets. • Ensures adequately trained and competent resources are provided to implement the CEMP. • Ensures that environmental risks are evaluated and considered during the planning stage of the project. • Interfaces between various design disciplines to ensure that environmental considerations have been taken account of in final design output. • Approves all specific or specialist environmental procedures that are required. • Responsible for setting and meeting project objectives and targets.
Site Environment Manager – Simon Boniface (BAM Nuttall) and Karen Straw (Amey Rail)	• Responsible for providing a focal point for all communications between the construction team and outside environmental bodies • Maintaining and revising the CEMP and all specific or specialist environmental procedures that are required. • All measures in the CEMP are implemented on Site. This includes ensuring that adequate resources are allocated to environmental management on Site. • In conjunction with the Project Manager, setting and meeting project objectives and targets.

Role and Contact Details	Key environmental responsibilities
	• Collecting and collating the project's environmental performance records. • Collating reportable environmental incident and NCR data, establishing cause and implementing actions to prevent reoccurrence • Reviews and approves risk assessments and WPPs (RAMS) for environmental content. • Appointing Environmental Specialists where required. • Implementing project procedures for waste management, waste minimisation, sustainability and emergency preparedness and response. • Ensuring that internal environmental audits are undertaken and reported. • Drawing up measures for emergency preparedness and response procedures. • Environmental issues in risk assessments are communicated effectively on site and that appropriate training is delivered. • Environmental instructions (including any KPIs) from the client are carried out. • Producing monthly environmental reports and forwarding them to the Site Manager.
Site Manager – Steve Reilly BAM Nuttall	• Responsible for management of the construction phase of the Project, and ensuring compliance with all relevant legal requirements, commitments and targets. • Ensures that site-specific training needs are identified, and training programmes are effectively undertaken. • Establishes and implements comprehensive environmental inductions, training awareness and education programmes for all level of site staff and operatives.
Resident liaison officer – Charlotte Hattrell (Network Rail)	• Ensures any enquiries or complaints directed to site staff are submitted to the Network Rail helpline • Is the first point of contact for the Network Rail Community Relations team for enquiries or complaints that have been submitted to the Network Rail helpline. • Role will link directly with the Network Rail Community Relations team
All site staff	• Protect the environment and act sustainably. • Report any environmental concerns to their supervisors. • Comply with specified systems of work. • Promote and communicate newly developed best practice. • Ensure only staff who have the required understanding, qualifications, and where necessary certification, carry out the specialised tasks.

3.5 Training, awareness and competence

3.5.1 All personnel will receive specific and targeted information during site induction in line with the ERA as outlined in Section 3.3.1.

3.5.2 All personnel, whose work may cause an impact on the environment, will receive environmental training specific to their task.

3.5.3 This will be appropriate to their level and role, and will include subcontractors and the wider supply chain, as appropriate.

3.5.4 Environmental training may include but is not limited to the items in Table 3-2.

Table 3-2 Training

Training	Participants
Site Safety Plus - Site Environmental Awareness Training Scheme (Seats)	Delegated Duty Holders (Site-based)
Ecology and Biodiversity	Delegated Duty Holders (Site-based)
Chartered Institute of Wastes Management (CIWM) Waste Management Certificate	Delegated Duty Holders (Site-based)
Pollution Prevention and Emergency Spill Response	Delegated Duty Holders (Site-based)
Toolbox Talks on historic environment, spillage, noise prevention, biodiversity and other issues relevant to the works	Workforce

3.5.5 Records of training will be maintained to monitor the type of training received so that progress against training targets can be measured.

3.5.6 Where additional training or briefings such as Toolbox Talks are conducted by a third-party labour force, they will be responsible for supplying evidence in the form of copies of certification and/or signed attendance sheets.

3.6 Internal Communication

3.6.1 Meetings will be held every month, chaired by the Environment Manager. Attendees will include representatives from project disciplines dictated by the project phase. Items to be included on the agenda comprise:

- CEMP updates;
- Sustainability;
- Progress with consents;
- Updates on risk assessment, risk controls and mitigation;
- Incidents and Incident Response Plan (IRP) issues;
- Interactions with stakeholders, including any complaints raised; and
- Actions arising from site inspections.

3.6.2 Bulletins will be produced and displayed within the Site as required to raise awareness of current issues and reinforce toolbox talks.

3.6.3 The Environment Manager will ensure that meetings and discussions are carried out in a spirit of openness and co-operation to determine lessons learnt from any incident and wherever practicable, to take action to mitigate similar risks. All incidents/near misses will be reported to the Site Manager.

3.6.4 The Environment Manager will be on site on a regular basis to liaise directly with site staff.

3.7 External Communication

3.7.1 It is recognised that good communication, consultation and community liaison are key elements for good project environmental management. Network Rail will conduct a general letter drop in advance of the start of works and then issue targeted update letters where beneficial to do so in advance of specific periods of work, at minimum possession work when the railway is closed.

3.7.2 The Network Rail Helpline will be available 24 hours a day, 7 days a week for members of the

public to contact in relation to any works at Hillhouse. In line with good practice the helpline team will be briefed on the Scheme in advance of works. The Network Rail helpline details are as follows:

- Freephone: 03457 11 41 41
- Web: https://www.networkrail.co.uk/communities/contact-us/

3.7.3 Up to date information will regularly uploaded on the Transpennine Route Upgrade website https://www.theTRUpgrade.co.uk.

3.7.4 The Network Rail Communications Officer will have a direct link to the Environmental Champion on site so that enquiries and complaints directed to the Network Rail helpline can be resolved promptly.

3.7.5 All complaints shall be responded to within 20 working days.

3.8 Records keeping

3.8.1 Records must be kept of any environmental aspects of the Project which should include, but not be limited to:

- Minutes from the review meetings;
- Management of waste in accordance with Waste Management Regulations;
- Environmental incidents such as spills and near misses; and
- Site inspection and audit records.

3.8.2 In addition, the records outlined in Table 3-3 will also be kept.

Table 3-3 Records to be kept

Record / Document	Duration
Waste Transfer Note	2 Years
Hazardous Consignment	3 Years
Herbicide Records	1 Year
Complaints	1 Year
Environmental inspections	5 years
Ecology surveys	5 years
Contaminated land records	5 years

4. SITE SPECIFIC CONTROLS

4.1 Working hours

4.1.1 The Site will be used throughout the enabling works and also during its use as a strategic construction site for the wider Order Scheme and therefore will be in use for around four years.

4.1.2 In general, standard working hours will be as follows:

- 08:00 to 18:00 Monday to Friday, with 30 minutes before 08:00 for setting up and 30 minutes after 18:00 for organising/cleaning the Site;
- 08:00 to 13:00 Saturday, with 30 minutes before 08:00 for setting up and 30 minutes after 13:00 for organising/cleaning the Site; and
- No working on Sundays.

4.1.3 These working hours refer to all activities where construction does not interfere with or require a closure of the operating railway. Non-standard working hours will also be utilised in connection to any construction works that would interfere with the operational railway. In this case, the operating railway is closed, and works can progress. Such closures, known as “possessions”, are normally employed at night time, weekends and Bank Holidays.

4.1.4 The majority of construction works will be undertaken during daytime hours, however there will be a limited amount of construction activity that requires night-time working, primarily works being undertaken during core possessions/blockades where 24 hour working is required.

4.1.5 Office staff hours will be more varied; support and administrative will keep more traditional office hours while delivery staff (engineers and construction managers) will be closer to the operative hours.

4.2 Emissions of dust and dirt

General requirement

4.2.1 Emissions to the atmosphere in terms of gaseous and particulate pollutants from vehicles and plant used on the Site, and dust from construction activities, will be controlled and limited as far as reasonably practicable. Potential sources will be identified, and appropriate control techniques applied.

4.2.2 The nearest Air Quality Management Area (AQMA) to the Site is AQMA 9: Huddersfield Town Centre. AQMA 9 incorporates roads bordering and within the Huddersfield Ring Road. The Site is located approximately 500m north of AQMA 9 at its nearest point. Heavy Duty Vehicles would pass through AQMA 9: Huddersfield Town Centre when accessing and leaving the Site during its use as a construction compound.

Particulate dust from vehicle and plant emissions

4.2.3 The generation of particulate dust by vehicle and plant emissions is not considered significant on this site but in any event will, through good site practice, be minimised so far as reasonably practicable thorough various methods on site that will include the following measures:

- Ensuring that the engines of all vehicles and plant on site are not left running unnecessarily;
- Using low emission vehicles and plant fitted with catalysts, diesel particulate filters or similar devices;

- Requiring that plant will be well maintained, with routine servicing of plant and vehicles to be completed in accordance with the manufacturers recommendations and records maintained for the work undertaken;
- Requiring that all project vehicle, including off-road vehicles, will hold current mot certificates, where required due to the age of the vehicle, (or to be tested to an equivalent standard) and that they will comply with exhaust emission regulations for their class;
- Siting plant away from potential sensitive receptors;
- Maximising energy efficiency (this may include maximising vehicle utilisation by ensuring full loading and efficient routing); and
- All commercial road vehicles used in construction must meet the European emission standards pursuant to the EC directive 98/69/EC of Euro 5 and Euro 6 under the regulation (EC) no 715/2007.

Construction/visible dust

4.2.4 The following measures will be implemented that will ensure visible dust is not generated or can escape the immediate site to affect residents on Alder Road, Abbey Road or Hammond Street:

- Ensure no burning of waste materials takes place on site;
- Ensure an adequate water supply on the site;
- Ensure water suppression is used where appropriate;
- Ensure appropriate disposal of run-off water from dust suppression activities, in accordance with legal requirements;
- Maintain all dust control equipment in good condition and record maintenance activities;
- Keep site fencing, barriers and scaffolding clean;
- Provide easily cleaned hardstanding for vehicles;
- Ensure regular cleaning of hardstanding;
- Clean the public highway using wet sweeping methods when necessary;
- Ensure all vehicles carrying loose or potentially dusty material to or from the site are fully sheeted;
- Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery;
- Mix large quantities of cement, bentonite, grouts and other similar materials in designated areas which will be enclosed or shielded;
- Store materials with the potential to produce dust away from site boundaries where reasonably practicable;
- Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out;
- Minimise the amount of excavated material held on site;
- Sheet, seal or damp down unavoidable stockpiles of excavated material held on site, where required;
- Avoid double handling of material wherever reasonably practicable;
- Ensure that any crushing or grinding plant used on the site, which falls within the definition in Part B of Part 2 of Schedule 1 to the Environmental Permitting (England and Wales) Regulations 2010 SI 675 (as amended), is carried out in accordance with the terms of an issued permit;
- Ensure that any plant identified above is operated in accordance with the conditions set out in the permit and a copy of the permit is held on site;

- Use enclosed rubble chutes and conveyors where reasonably practicable or use water to suppress dust emissions from such equipment;
- Sheet or otherwise enclose loaded bins and skips;
- Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate;
- Use design/prefabrication to reduce the need for grinding, sawing and cutting on site wherever reasonably practicable;
- Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction;
- Carry out site inspections regularly to monitor compliance with dust control procedures set out above and record the results of the inspections, including nil returns, in a site log book;
- Increase the frequency of site inspections when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions;
- Record any exceptional incidents causing dust episodes on or off the site and the action taken to resolve the situation in the site log book;
- Distances from crushing plant to stockpiles will be kept to the minimum practicable to control dust generation associated with the fall of materials; and
- Appropriate speed limits on access roads will be imposed and enforced for safety reasons and for the purposes of suppressing dust emissions.

4.3 Waste and materials

Waste hierarchy

4.3.1 All materials and generated waste will be managed in accordance with the waste hierarchy. The waste hierarchy sets out the options in order of preference (namely prevention, preparing for re-use, recycling, other recovery and disposal as set out in the Waste (England and Wales) Regulations 2011). Every effort will be made to achieve the highest options that are reasonably practicable and compliant with the law.

4.3.2 The most efficient management of materials and waste is usually found in selecting a combination of the following options:

- Efficient resource management to minimise the generation of waste in using selected products;
- Efficient resource management to minimise the generation of excavated wastes and on-site fabrication;
- Re-use of redundant rail infrastructure where possible;
- Re-use and recycle excavated materials and waste in accordance with the Contaminated Land: Applications in Real Environments (CL:AIRE) protocol or some other exemption permit;
- Recycle unusable waste at designated recycling facilities; and
- Dispose of surplus excavated materials and waste at licensed landfill sites.

4.3.3 The requirements of the waste hierarchy will be enforced, and the duty of care placed on all parties to take responsibility for protecting the interests and safety of others from the potential effects of handling, storing, transporting and depositing of excavated materials and wastes. Waste will be managed in accordance with the Site Waste Management Plan Regulations 2008.

Management of waste

4.3.4 Waste management and disposal will be minimised as far as is reasonably practicable. The

overall effort to "design out" waste will continue an ongoing basis in accordance with observing the waste hierarchy.

4.3.5 The "Duty of Care" regulations will be complied with in order to protect the interests and safety of others from the potential effects of handling, storing, transporting and depositing all wastes arising from the Development.

4.3.6 Hazardous waste produced will be disposed of in compliance with the Hazardous Waste (England & Wales) Regulations 2005 (as amended).

4.3.7 There is the potential that various excavation works may expose asbestos. Measures will be adopted to manage the risk from the exposure of asbestos which will be in compliance with the Control of Asbestos at Work Regulations 2002.

On-site management of waste

4.3.8 All waste is to be segregated, stored safely and securely in accordance with arrangements identified to prevent harm to human health and environment.

4.3.9 On-site mitigation measures for managing waste include:

- A target 90% minimum recycling and recovery rate target, which applies to all wastes except soil to be communicated to workers, with a clear understanding of what is expected;
- Deliveries will be organised so materials arrive on-site as they are needed to reduce the possibility of damage and wastage;
- Clearly defined and separated storage and waste areas will be used on-site; and
- Using components that can be prepared off-site to minimise waste generation on-site;
- Training staff to understand how they should sort any waste material and providing regular reminders and updates;
- Recyclable waste will be source segregated. This will be achieved through the provision of clearly marked and/or colour-coded containers to enable easy identification of where waste should be placed during planned/unplanned maintenance;
- Hazardous waste will be source segregated. An area will be set aside for hazardous waste storage which will include appropriate containers, for example Waste Electrical and Electronic Equipment (WEEE) cages; and
- Regular training will be provided, by the site manager, for staff and/or sub-contractors. The training will focus on the practices necessary to minimise waste and to facilitate good practice whilst undertaking litter picking and planned/unplanned maintenance.
- Not over ordering materials and using materials brought to site as efficiently as possible;

4.3.10 Activities will be compliant with Network Rail's NR/L2/ENV/015[2].

Waste streams, storage and management

4.3.11 The waste streams in Table 4-1 are to be segregated for recycling or recovery off-Site.

[2] Network Rail, Environment and Social Minimum Requirements for Projects – Design and Construction. March 2019.

Table 4-1 Waste streams, storage and management

Waste stream	EWC code	Storage option	Management option
Paper and cardboard	20 01 01	Labelled bins	Recycling
Excavation waste	17 05 04	Segregated stockpiles	Reuse off-site
Plastic	20 01 39	Segregated skips / bins	Recycling
Timber	17 02 01	Timber skip	Recycling
Mixed metals	17 04 07	Metal skip	Recycling
Mixed Waste	17 09 04	Enclosed skips	Recycling

4.3.12 Decisions made on each waste stream will be periodically revisited and checked with material and waste receivers and also operating landfills. This will ensure the case for waste management remains robust.

Treatment and disposal

4.3.13 Network Rail Key Performance Indicators (KPIs) aims to achieve a minimum of 90% non-hazardous waste to be reused or recycled by 2023/24.

4.3.14 To achieve this, source segregation of recyclable waste will be undertaken, along with the provision of appropriate recycling facilities. Achieving a high recycling rate will minimise the environmental burden in terms of pollution, energy consumption, the carbon impact and the emission of large quantities of carbon dioxide equivalent associated with the production of products from virgin material.

4.3.15 The Whitemoor material handling depot has a ballast washing facility where the small percentage of contaminated ballast that may be recovered is sent for decontamination and then re-use or recycling. All ballast will be recovered and processed for re-use on the network, potentially within the wider TRU programme of works but at minimum processed through a Network Rail handling depot for re-use or crushed for road aggregate. All ballast will be processed in accordance with the Network Rail standard NR/L3/ENV/44[3].

Transport of Waste

4.3.16 The Site Manager will ensure that waste is carried in a safe and secure manner at all times ensuring that:

- waste materials are not allowed to escape through leaks or be wind-blown;
- skips and lorries are sheeted as appropriate; and
- vehicles used to transport waste are road/rail/water worthy.

4.3.17 On occasion, special arrangements are required for wastes that are known to have particularly hazardous properties and additional requirements are required. In these circumstances, the Site Manager will contact the Environment Manager.

Materials Management

4.3.18 Off-site material imports will be minimised as far as is reasonably practicable, through the reuse of suitable site won material from excavations.

4.3.19 Where material is deemed suitable for reuse, the following process will be undertaken.

4.3.20 Details will be set out in a Materials Management Plan (MMP) prior to works commencing. The

[3] NR/L3/ENV/044 Track Maintenance Renewal or Alteration – Used Ballast and Excavation Waste Handling

MMP (if required), this will be produced in accordance with the Contaminated Land: Applications in Real Environments (CL:AIRE) – Definition of Waste: Development Industry Code of Practice (DoWCoP)[4].

4.3.21 Any required MMP will also be reviewed by a DoWCoP Qualified Person and a declaration submitted to CL:AIRE prior to the relevant works commencing.

4.4 Noise and vibration

General requirements

4.4.1 Noise and vibration levels will be controlled and limited, so far as is reasonably practicable, so that residential properties on Hammond Street, Abbey Road and Alder Street and all other sensitive receptors are protected from excessive noise and vibration levels arising from the construction activities.

4.5 Noise and vibration

4.5.1 Noise and vibration levels will be controlled and limited, so far as is reasonably practicable so that residential properties on Hammond Street, Abbey Road and Alder Street and all other sensitive receptors are protected from excessive noise and vibration levels arising from the construction activities.

4.5.2 This section includes the general processes by which construction will be managed, including general measures for controlling noise and includes:

- Details of consultation with the Local Authority;
- Details of construction noise and vibration thresholds in terms of significance and the criteria for noise insulation or temporary rehousing;
- Details of how noise sensitive receptors (NSR), such as households, will be kept informed of construction works and how they can contact Network Rail; and
- Details of Best Practicable Means (BPM) to reduce noise and vibration during construction.

Measures to reduce potential nuisance noise and vibration impacts (Phases 1 and 2)

4.5.3 With regard to construction noise arising from the works, Best Practicable Means (BPM) will be employed to mitigate against impacts for neighbouring sensitive receptors.

4.5.4 BPM are defined under Section 72, Part III of the Control of Pollution Act (CoPA) 1974 and Section 79 of the Environmental Protection Act 1990 as those measures which are *"reasonably practicable having regard among other things to local conditions and circumstances, to the current state of technical knowledge and to financial implications".*

4.5.5 All work will be conducted in accordance with the BPM and the recommendations of BS5228, "Noise Control on Construction or Open Sites".

4.5.6 There are many general measures than can reduce noise levels at source, and the following are examples of items that are considered under BPM, which will be adopted within the Development:

- Plant and equipment will be shut down when not in use;

[4] DoWCoP provides a framework for to facilitate the reuse of excavated materials without the need for an Environmental Permit or exemption

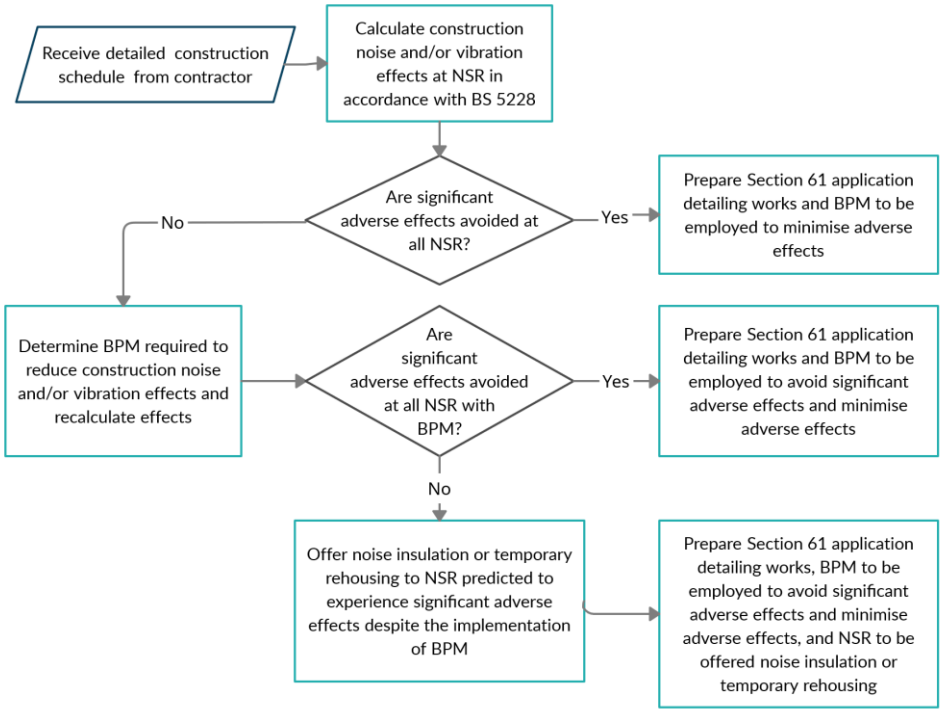
- Modern, silenced and well-maintained plant will be used;
- Unnecessary revving of engines will be avoided; and vehicles and equipment will be switched off when not required;
- Plant shall be sited and operated in a manner which will minimise noise nuisance to those on the respective site and in adjacent occupied buildings and shall be effectively attenuated by means of efficient silencers, mufflers, acoustic linings, shields, enclosures or screens.
- Materials will be handled in a manner that minimises noise;
- All appropriate personnel will be instructed on BPM measures to reduce noise and vibration as part of their induction training and followed up by 'toolbox' talks;
- Internal haul routes will be well maintained and avoid steep gradients, where possible;
- Proposed haul roads would be well maintained and to be free of irregularities;
- Rubber linings will be in, for example chutes and dumpers to reduce impact noise;
- Drop heights will be minimised;
- Engine compartments will be closed when equipment is in use;
- Continuous noisy plant should be housed in acoustic enclosures, where practicable;
- Exhaust silencing and plant muffling equipment should be fitted and maintained in good working order;
- Static plant known to generate significant levels of vibration should be fitted with vibration dampening features;
- Dampening materials will be used where there is clearly discernible resonance of body panels and cover plates;
- Each item of plant used should be selected so as to comply with the noise limits quoted in the relevant European Commission Directive 2000/14/EC/United Kingdom Statutory Instrument (SI) 2001/1701 as implemented by the Noise Emission in the Environment by Equipment for use Outdoors Regulations 2001/1701;
- Equipment will be maintained and where possible will be used in the mode of operation that minimises noise;
- Super-silencing or screening will be used where there is requirement for 24-hour operation of generators and water pumps;
- Burning equipment will be used in preference to cold cutting; and
- Consideration will be given to the recommendations set out in Annex B of BS 5228-1, noise sources, remedies and their effectiveness.

4.5.7 Audible reversing warning systems on mobile plant and vehicles will be of a type which, whilst ensuring that they give proper warning, have a minimum noise impact on persons outside the Site. When reversing, mobile plant and vehicles will travel in a direction away from noise sensitive properties whenever possible. Where practicable, alternative reversing warning systems will be employed to reduce the impact of noise outside the Site.

Specific mitigation measures - Phase 1

4.5.8 Construction works will be managed through Section 61 applications through consultation with the Local Authority. Section 61 of the Control of Pollution Act (COPA) 1974 allows developers to apply for ‘prior consent’ for noise and vibration generating activities during the construction phase of a development provided that BPM are employed to minimise the effects of noise and/or vibration.

4.5.9 Section 61 consent will be formally sought for the development. This will include assessment of noise and vibration impacts considering all works in detail and the application of BPM to reduce noise levels to the lowest possible level.



Insert 4-1 Section 61 construction noise and vibration assessment and mitigation process

4.5.10 The consent will contain:

- Location and nature of short-term activities which will involve construction noise likely to exceed the thresholds and the measures which will be taken to reduce the related noise and its duration;
- Any potentially noise generating activities which may be required outside of the agreed normal working hours for construction and the measures and procedures to be adopted lo limit potential nuisance; and
- Monitoring as appropriate where construction works with higher noise generating potential proceed in proximity to identified sensitive locations.

4.5.11 Discretionary noise insulation and temporary re-housing policy that is based on the detailed construction methodology assessment of works in the near future will be implemented. This will identify if any residential properties will be eligible for an offer of noise insulation or re-housing in advance of specific works.

4.5.12 The Section 61 consent will set out the monitoring regime to be adopted during the works as the mechanism to validate the predictions made in assessing the noise and vibration generated by the construction activity. The monitoring regime will ensure that compliance with BPM and any consented noise levels are adhered to, and these will be audited in collaboration with Kirklees Council.

Phase 2

4.5.13 During Phase 2 works will be managed in line with the wider principles employed on TRU (on other areas this is managed via the Noise and Vibration Management Plan and not via the section 61 consent route. Works under Phase 2 will follow this route and the key elements of the process are outlined below in the paragraphs below.

4.5.14 Staff, operatives and sub-contractors have the authority and responsibility to protect the

environment at all times during execution of the works.

4.5.15 The responsibilities outlined in this section will be highlighted during Site inductions. All personnel will be trained in the necessary skills to fulfil their role. Key personnel for specific job roles are set out in the Table 4-2. The roles outlined may be substituted as required providing that the key environmental responsibilities are clearly and appropriately allocated.

4.5.16 Contact details for all key contractors will be displayed on notice boards in the site offices.

Table 4-2 Roles and responsibilities

Role	Key environmental responsibilities
Project Manager	• Responsible for ensuring the Environmental Management System for the project is implemented. • Ensures that the Network Rail Environmental Policy is drawn to the notice of all employees under his control. • Establishes effective lines of communication with all employees under their control. • Promotes the continuous improvement of environmental performance • Monitors and reviews the implementation of environmental objectives and targets on the project.
Principal Environment Manager	• Carries overall responsibility for delivery of the design stage of the project and for meeting environmental performance objectives and targets. • Ensures adequately trained and competent resources are provided to implement the NVMP. • Ensures that environmental risks are evaluated and considered during the planning stage of the project. • Interfaces between various design disciplines to ensure that environmental considerations have been taken account of in final design output. • Approves all specific or specialist environmental procedures that are required. • Responsible for setting and meeting project objectives and targets.
Site Environment Manager(s)	• Responsible for providing a focal point for all communications between the construction team and outside environmental bodies • Maintaining and revising the NVMP and all specific or specialist environmental procedures that are required. • All measures in the NVMP are implemented on Site. This includes ensuring that adequate resources are allocated to environmental management on Site. • Collecting and collating the project's environmental performance records. • Collating reportable environmental incident and NCR data, establishing cause and implementing actions to prevent reoccurrence • Reviews and approves risk assessments and WPPs (RAMS) for environmental content. • Ensuring that internal environmental audits are undertaken and reported. • Drawing up measures for emergency preparedness and response procedures. • Environmental issues in risk assessments are communicated effectively on site and that appropriate training is delivered. • Producing monthly environmental reports and forwarding them to the Site Manager.

Role	Key environmental responsibilities
Site Manager(s)	• Responsible for management of the construction phase, and ensuring compliance with all relevant legal requirements, commitments and targets. • Ensures that site-specific training needs are identified, and training programmes are effectively undertaken. • Establishes and implements comprehensive environmental inductions, training awareness and education programmes for all level of site staff and operatives.
Resident liaison officer	• Ensures any enquiries or complaints directed to site staff are submitted to the Network Rail helpline • Is the first point of contact for the Network Rail Community Relations team for enquiries or complaints that have been submitted to the Network Rail helpline. • Role will link directly with the Network Rail Community Relations team
All site staff	• Protect the environment and act sustainably. • Report any environmental concerns to their supervisors. • Comply with specified systems of work. • Promote and communicate newly developed best practice. • Ensure only staff who have the required understanding, qualifications, and where necessary certification, carry out the specialised tasks.

4.5.17 All personnel, whose work may result in noise and vibration, will receive environmental training specific to their task. This will be appropriate to their level and role, and will include subcontractors and the wider supply chain, as appropriate.

4.5.18 BPM will be employed to reduce noise impacts from the site. BPM are defined in Section 72 of the Control of Pollution Act 1974 (CoPA) as those measures which are:

> "reasonably practicable having regard among other things to local conditions and circumstances, to the current state of technical knowledge and to financial implications".

4.5.19 British Standard BS 5228:2009+A1:2014 – Code of practice for noise and vibration control on construction and open sites – Part 1: Noise (BS 5228-1) and Part 2: Vibration (BS 5228-2) have Approved Code of Practice status (in England) under the powers conferred by sections 71(1)(b), (2) and (3) of the CoPA, as enacted under The Control of Noise (Code of Practice for Construction and Open Sites) (England) Order 2015. Compliance with the best practice noise and vibration requirements stated therein became a statutory obligation under the Act.

4.5.20 If noisy processes can be avoided, then the amount of noise reaching NSR will be reduced. Alternative ways of reducing noise are to either increase the distance between the construction noise source and NSR or to introduce noise reduction screens, barriers or bunds.

4.5.21 The movement of plant onto and around the site should have regard to the normal operating hours of the site and the location of any noise sensitive premises as far as is reasonably practicable.

4.5.22 The use of conventional audible reversing alarms has caused problems on some sites and alternatives are available. Audible reversing warning systems on mobile plant and vehicles should be of a type which, whilst ensuring that they give proper warning, have a minimum noise impact on persons outside sites. When reversing, mobile plant and vehicles should travel in a direction away from noise sensitive properties whenever possible. Where practicable, alternative reversing warning systems should be employed to reduce the impact of noise outside sites.

4.5.23 The plant and activities to be employed on the site should be reviewed to ensure that they are the quietest available for the required purpose; this is in accordance with BPM. Where reasonably

practicable, noisy plant or activities should be replaced by less noisy alternatives if noise problems are occurring.

4.5.24 With regards to vibration there is a relationship between the energy of the plant (for piling or compaction) and the resulting level of vibration at an NSR. It may therefore be possible to reduce the level of vibration and/or noise by reducing the plant input energy. However, the trade-off is that longer durations may be required to achieve the required outcome. The trade-off will not necessarily be linear owing to other losses in energy in the system. As such the increased duration of works may lead to an increase in the overall impact of works compared to a higher sound or vibration level for a shorter duration..

Noise insulation and temporary rehousing

4.5.25 Households will be eligible for noise insulation or temporary rehousing where significant adverse effects are predicted to occur despite the implementation of BPM to minimise the effects of noise and/or vibration. To be eligible for noise insulation or temporary rehousing:

- the construction noise and/or vibration level (only temporary rehousing for significant vibration effects), despite implementation of BPM, must exceed either:
  - The construction noise SOAEL value at the residential NSR during the relevant period as defined in Table 5-2 below; or
  - A sustained vibration level of at least 1 mm/s at the residential NSR; and
- The duration of noise and/or vibration exceedance must be for a period of:
  - 10 or more days in any 15 consecutive days; or
  - 40 or more days in any 6 consecutive months.

Table 4-3 Construction noise SOAEL values

Day	Time (hours)	Averaging period, T	SOAEL threshold, dB $L_{Aeq,T}$
Mondays to Fridays	0700 – 0800	1 hour	70
	0800 – 1800	10 hours	75
	1800 – 1900	1 hour	70
	1900 – 2200	1 hour	65
	2200 – 0700	1 hour	55
Saturdays	0700 – 0800	1 hour	70
	0800 – 1300	5 hours	75
	1300 – 1400	1 hour	70
	1400 – 2200	1 hour	65
	2200 – 0700	1 hour	55
Sundays and Public Holidays	0700 – 2100	1 hour	65
	2100 – 0700	1 hour	55
[A)] All noise levels are predicted or measured at a point 1m in front of the most exposed of any windows and doors in any façade of any eligible dwelling			

4.5.26 No properties are expected to require noise insulation or temporary rehousing due to the proposed Stage 2 works. However, this would be subject to review during any Section 61 applications, as required.

Noise attenuation measures

4.5.27 A noise barrier has been constructed to the rear of properties to the north of the Hillhouse Compound on Alder Street, Abbey Road and Hammond Street.

4.5.28 This noise attenuation measure will reduce the effects on local NSR during construction, in addition to its main function of addressing operational effects.

4.5.29 Drawing 151667-TSA-31-MVL3-DRG-T-LP-162887 was submitted with the original planning application which provided details of the indicative noise barrier including position, length and height. Further information on the attenuation measures is provided in Document Ref: 151667-TSA-00-TRU-REP-W-EN-001961 (Appendix B to the s73 application).

4.6 Artificial lighting

General

4.6.1 Site lighting and signage will be required for the compound in consideration of winter working hours and non-standard working arrangements when the compound will be used. All lighting will be set up to avoid nuisance as far as is reasonably practicable so will be low-level and directional to avoid glare into residential properties.

4.6.2 Lighting systems will be installed to achieve a uniform and adequate illumination level in all areas to suit the mode of operation and the function of the area being illuminated.

4.6.3 In consideration of the general public and other amenity users affected by the construction of the Development, site lighting may be required to illuminate footpaths adjacent to hoardings.

4.6.4 In the lighting design and the luminaire selection particular emphasis has been placed on reducing the obtrusive upward light, the recommendations of the Institution of Lighting Professionals (ILP) and of the International Dark Sky Association.

External lighting

4.6.5 External lighting will be installed within the Site.

4.6.6 During the enabling phase, LED lights will be installed on the exterior of the site welfare facilities. Solar, towable light towers will be established in strategic areas around site depending on the stage of works (see Insert 4-1) which provides details of the likely lighting system to be employed. Lighting will initially be installed in the vicinity of the site welfare facilities and also in the material storage/processing area, but this will vary throughout construction as they will need to be moved to suit site needs. However, lights will be positioned to face away from both the track and houses to minimise any potential impacts. It is not intended that lighting will be required during summer months.

Insert 4-2 Typical lighting units to be used

4.6.7 During its use as a strategic construction compound (Phase 2), column-mounted luminaires will be used for the roadways (8m standard lighting columns), sidings (4m columns), car parks (6m steel lighting columns) and temporary platform (6m steel lighting columns). Low level bollard lighting will be used for the sidings and walkways.

4.6.8 The 8m standard lighting columns will be accessed via mobile elevated working platform (MEWP) for access and maintenance. Platform lighting to be provided via base hinged lighting columns mounted outside of the platform.

4.6.9 Where any pedestrian crossings are required within the Site, these will be lit in accordance with road lighting standards, which requires increased lighting levels for the columns.

4.6.10 Lighting will include individual presence detectors and photocells and have the ability to be controlled individually and in groups. The lighting shall be configured to be switched on when the daylight-ambient lighting level is below a pre-set threshold. When presence is detected, the lighting shall increase to its full lighting level output. Following a pre-determined time of no detection of presence, the lighting shall dim down to a pre-set, lower 'security' level lighting.

4.6.11 Bollard lighting, used for the sidings and walkways, will be centrally controlled via a timeclock and photocell arrangement. The lighting shall be configured to be switched on when the daylight-ambient lighting level is below a pre-set threshold.

Emergency lighting

4.6.12 Emergency lighting will also be provided within the Site and will be designed and installed in accordance with Emergency lighting design and installation will be in compliance with BS 5266 and BS EN 1838.

4.6.13 Emergency lighting will be provided externally at all entrances and exits to aid the safe evacuation of building occupants and to permit egress to the place of safe assembly.

Internal lighting

4.6.14 Where internal lighting is required, lighting systems will be designed and installed to meet the guidelines and criteria of the Chartered Institute of Building Services Engineers Code for Interior Lighting as well as the requirements of the latest additions of BS EN 12464-1 and BS EN 12464-2.

4.7 Control of invasive non-native plant species and noxious plants

4.7.1 Invasive non-native species in the form of Japanese Knotweed, Wall cotoneaster, Hollyberry Cotoneaster and Rhododendron have been identified within the Site.

4.7.2 A TRU Invasive Species Management Plan (ISMP) primarily aimed at the treatment of Japanese Knotweed has been prepared; However, it also considers the other invasive species that may require treatment.

4.7.3 The Environment Manager will be responsible for implementing and monitoring compliance with the ISMP through regular site meetings. Requirements for records will also be set out in the ISMP.

4.7.4 In addition, the following guidance will also be followed:

- Network Rail Invasive Species Guidance;
- Network Rail Giant Hogweed Guidance; and
- Network Rail Japanese Knotweed Guidance.

5. TRAFFIC MANAGEMENT

5.1 Overview

5.1.1 A number of vehicles will require to access the Site for delivery of plant, equipment and materials, comprising a mix of HGVs and LGVs. Further detail on these deliveries and how they will be managed are outlined in this section.

5.1.2 Deliveries to the Site will generally be made by road, however where possible, deliveries associated with track works and OLE will be made via rail.

5.1.3 It is predicted that HGV construction vehicle trips associated with the use of Site as a construction compound would peak at 30 trips, totalling 60 HGV construction vehicle movements per day (Monday to Saturday). It is anticipated that traffic movements will peak at this level during Phase 1.

5.2 Construction vehicle classification

Heavy Goods Vehicles

5.2.1 HGVs are any vehicle over 7.5 tonnes (t). Delivery vehicles will be no larger than articulated HGVs and of standard weight.

5.2.2 The typical HGV construction vehicle types anticipated to be required during the use of the Site as a construction compound include, but are not limited to, the following:

- 8 wheel Hiab wagons;
- 44t Artic curtain-siders;
- 6-8 wheeler rigid tippers;
- 6-8 wheeler rigid flatbeds;
- 8 wheel concrete mixers; and
- 6/8 wheel rigid curtain-siders.

5.2.3 Insert 5-1 shows a typical 40t HGV likely to be used for import of material e.g. granular fill.

Light Goods Vehicles

5.2.4 LGVs are any vehicle up to 7.5 tonnes excluding cars. They will be used to move small plant and materials around Site, as well as minibuses to move Site operatives (further details are included in Section 6.3 of this CTMP).

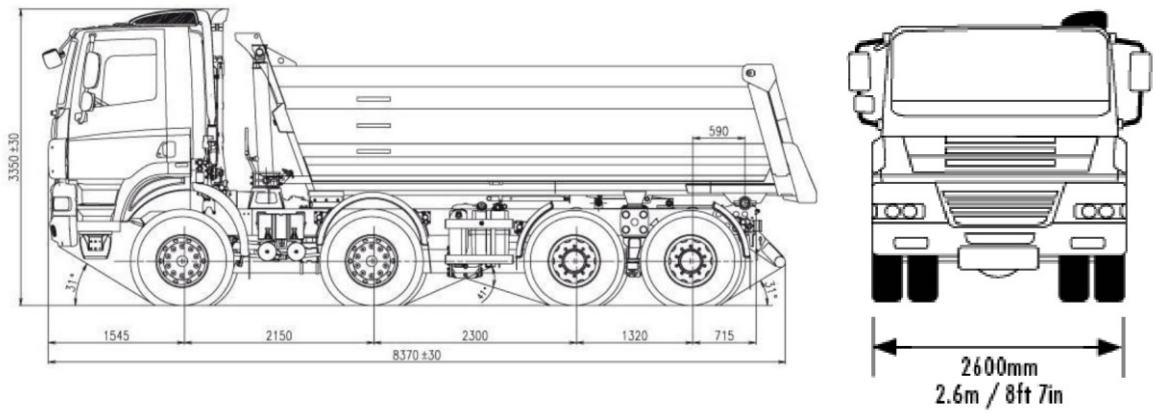
5.2.5 Movements will predominantly be 3.5t and 5t dropside rigid pickups with crew cabs, as shown in Insert 4-2.

5.2.6 The typical LGV construction vehicle types anticipated to be required during the use of the Site as a construction compound include 7T box vans and standard commercial vans.

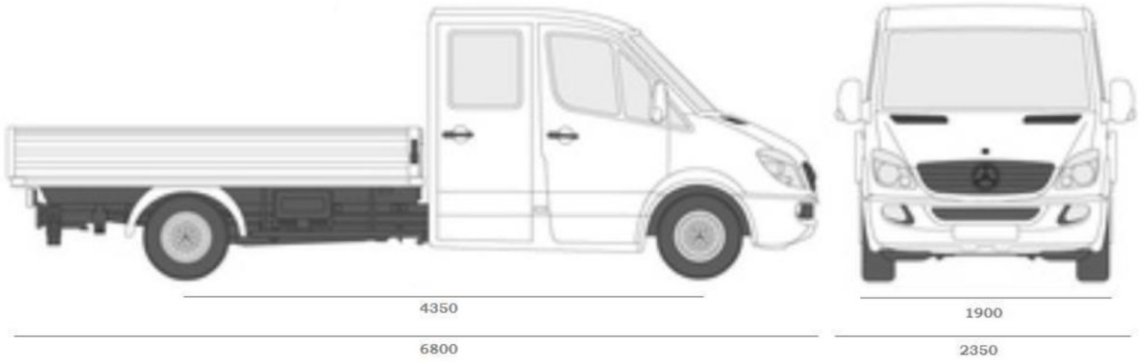
Other vehicle requirements

5.2.7 Where not road legal, construction plant will be brought to Site via low loader. Where road legal construction plant will be driven to the Site. Cabins and stores will be delivered by Hiab wagon. Extendable trailers may be employed for delivering any Pre-Cast Concrete (PCC) elements.

5.2.8 Other vehicles that will be used include mobile cranes which vary in size but are generally suited for most common roads.



Insert 5-1 Details of typical 40t HGV



Insert 5-2 Details of typical 5t LGV - Site Pickup

5.3 Timings

5.3.1 Deliveries for construction works will generally be made by road and will be in standard working hours. Generally, deliveries and collections will be planned to avoid peak hours i.e. 09:00 – 15:00 Monday to Friday, with no restrictions set on weekends.

5.3.2 Deliveries will be staggered and delivered to Site as required.

5.3.3 Bulk materials to be delivered during construction phase shall be based on a 'just in time' basis and incorporated into the permanent works on the same day as delivery.

5.4 Loading and unloading

5.4.1 As far as is practicable within the Site constraints, loading and unloading areas will be in designated places, clear of passing traffic, pedestrians and other people who are not involved in the loading/unloading operations.

5.4.2 All loading/unloading will be undertaken on firm level ground free from potholes and debris.

5.4.3 Delivery drivers will have a safe area to wait with easy and safe access to welfare facilities and shelters in case of bad weather.

5.4.4 All delivery drivers who are permitted to leave their vehicles are required to provide and wear their Personal Protective Equipment (PPE) that meets minimum requirements of coveralls (with high-viz), hard-hat, light eye protection (glasses), safety boots and gloves.

5.4.5 Any delivery driver who arrives at the Site without PPE that meets the Site's minimum PPE requirements may be refused entry to the Site.

5.5 Parking

5.5.1 Parking within the Site is strictly controlled, and requirements and restrictions are included as part of the Site induction

5.5.2 No parking by contractors, visitors or delivery vehicles will be permitted on the local highway network at any time during the use of the Site.

5.5.3 All parking will be as per parking signs and rules and avoid creating any form of safety hazard when parking or parked within the Site

Phase 1

5.5.4 All parking for office staff will be within the Site only. In total, 23 associated parking spaces will be provided adjacent to the welfare cabins for staff, of which four will be accessible parking bays. An additional bay will provide motorcycle parking for four motorcycles. A cycle shelter will be provided for six bicycles adjacent to the accessible bays. Car parking provision is shown on the Site layout drawings in Appendix A.

5.5.5 The site accommodates circa 180 operatives at peak periods. Operatives working at the Site are transported to the Site by minibus from the station. Minibuses will also transport staff utilising public car parking sites in Huddersfield Town Centre. Some staff may travel to Site via public transport, or walk or cycle to work. No parking provision is made for operative staff at the Site.

5.5.6 At no time will any personnel be authorised to park outside the Site boundary. Parking will be restricted to reverse parking, within the marked parking bays in the designated Site car park.

5.5.7 Further efforts will be made to encourage and provide alternative collective methods of transport to staff and operatives from local transport hubs such as nearest train stations wherever practicable. Further details will be contained within the Travel Plan for Construction Staff which will be prepared prior to the commencement of construction.

Phase 2

5.5.8 Staff parking will be provided at the TRU Flint Street site (subject to separate planning approval). From August 2025, no staff parking is proposed at the Hillhouse site.

5.5.9 As there is now no requirement for a temporary platform, there is also no corresponding requirement for temporary traffic regulation orders during this phase.

General

5.5.10 Parking within the Site will be strictly controlled and requirements and restrictions will be included as part of the Site induction.

5.5.11 No parking by contractors, visitors or delivery vehicles will be permitted on the local highway network at any time during the use of the Site.

5.5.12 All parking will be as per parking signs and rules and avoid creating any form of safety hazard when parking or parked within the Site.

5.5.13 Visitors will be advised of the parking arrangements in advance of travelling to the Site.

5.5.14 Regarding deliveries, a site delivery plan is in place and this is issued to all suppliers which

details vehicle routes, limits to delivery times and general site rules. In addition to this it is made clear to all suppliers that there is to be no waiting on the existing road network and vehicles are to enter straight into site.

5.6 Traffic Signage

5.6.1 Any deliveries/vehicles accessing the Site will be made aware of the agreed construction access routes. Appropriate signage is to be utilised to limit disruption of ongoing construction work.

5.6.2 Temporary road signing will be implemented at the junctions of Bradford Road and Flint Street. Signage will also be present along Bradford Road to warn other road users of the potential for wagons turning. The signs will be in place throughout the duration of the works to direct construction traffic to and from the Site and to inform background traffic of the ongoing works at the Site.

5.6.3 Additional road signage will be placed on the local road network to slow the traffic down and to provide advance warning of the Site access and egress points. In addition, a Site safety sign will be provided at the entrance of the Site with contact details for the Site manager should anyone have any queries in regard to the Site.

5.6.4 Traffic signage, including for Site access, will be clearly signed and consistent with that provided on the public highway.

5.6.5 All road signs are to be used with approved stands or erected on posts set into the ground, where permitted by the relevant authority.

5.6.6 All signs are to be placed in the most advantageous position, having regard for the nature of the hazard and the warning being conveyed, to provide the maximum visual impact for approaching drivers.

5.6.7 All signs will be installed in accordance with the relevant chapters of the Traffic Signs Manual[5].

5.6.8 It will be ensured that all signs used are in good condition and are removed at the completion of the work.

5.6.9 Safety signals are required where, despite putting in place all other relevant measures, a significant risk to the health and safety of employees and others remains. All Site related works shall not commence until all signage is in place, to ensure safety all staff, road and footpath users.

5.6.10 Signs will be clear and legible, and used to identify actions that are prohibited (e.g. no access), safeguards that must be followed (e.g. ear protection must be worn), warning of a hazard (e.g. corrosive material) and to direct towards fire exits/equipment or first-aid equipment.

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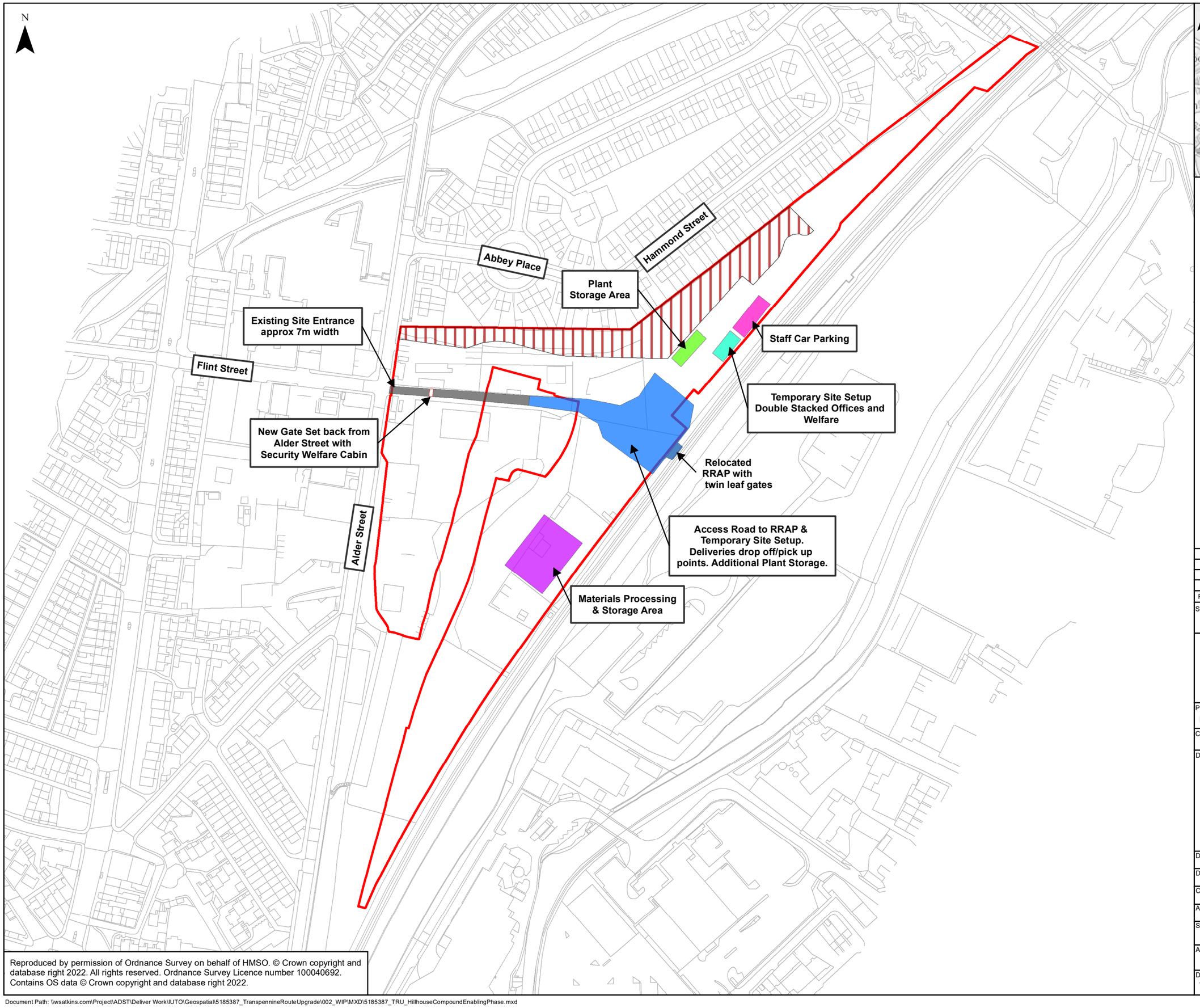
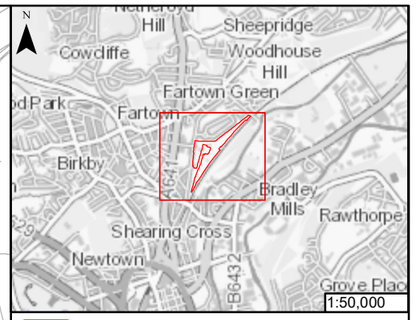
[5] Traffic Signs Manual - Chapter 1 Introduction (publishing.service.gov.uk)

APPENDIX A – ENABLING PHASE SITE LAYOUT





- Application Site Boundary
- Access Road Extension to RRAP & Temporary Site Setup
- Car Parking
- Existing Access Cobble Sets Road
- New Gate
- Material Storage Area
- New RRAP with twin leaf gates
- Plant Storage Area
- Retaining Wall
- Temporary Site Setup Double Stacked Offices & Welfare

0 10 20 40 60 80 100 Metres

SCALE 1:2,500

Rev	Date	Description of Revisions	Drwn	Chkd	Appr
P01	11/04/22	FIRST ISSUE	MMN	NB	NB

Status: SHARED

Suitability:

NetworkRail

Project: HILLHOUSE CONSTRUCTION COMPOUND

Contract No.: 151667

Drawing Title: HILLHOUSE CONSTRUCTION COMPOUND ENABLING PHASE

Designed	M.Mallesha Nayaka	Signed Electronically	Date 11/04/2022
Drawn	M.Mallesha Nayaka	Signed Electronically	Date 11/04/2022
Checked	N.Booth	Signed Electronically	Date 11/04/2022
Approved	N.Booth	Signed Electronically	Date 11/04/2022

Scale(s): 1:2,500

ELR & Project Chainage: ---

Alternative Reference: ---

Sheet: 1 of 1

Drawing Number: 151667-TSA-31-MVL3-DRG-T-LP-162886

Revision: P01

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