

Network Rail

**170248 Headbolt Lane New
Station GRIP 4**

**Environmental Statement Volume
III: Technical Appendices**

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This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

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Appendix 1A

Screening and Scoping Report

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Introduction

Background

Merseytravel is looking to extend the current Merseyrail network east of Kirkby station to a new station at Headbolt Lane. It is proposed that Headbolt Lane will become the new interchange between Merseyrail and Northern services.

Headbolt Lane will be a new three platform station and car park and is located approximately 900 m north-east of Kirkby station using the existing railway alignment. To serve the new station, the railway line east of Kirkby will be upgraded from a single track to a twin track.

Purpose of this Report

Due to project timescales it has been agreed with Knowsley Council as the Local Planning Authority (LPA) that a combined Screening and Scoping Report will be submitted to support the planning application for the development of the new Headbolt Lane Station and associated works.

The purpose of this report is to provide information that will enable Knowsley Council to screen the new Headbolt Lane Station and associated works to determine whether it constitutes an Environmental Impact Assessment (EIA) development. Should Knowsley Council determine that an EIA is required, this report sets out the proposed scope and methodology that an EIA would follow.

Structure of this Report

This report is structured in two parts comprising the following sections:

- Part 1 EIA Screening
 - Location and description of the proposed scheme;
 - Potentially significant impacts; and
 - Characteristics of impacts.
- Part 2 EIA Scoping
 - Environmental topics scoped in and assessment methodology;
 - Environmental topics scoped out and reasoning; and
 - Proposed structure of the Environmental Statement (ES).

Part 1 – EIA Screening

1 EIA Screening

Ove Arup & Partners Ltd ('Arup') has been commissioned by Network Rail ('the Applicant') to prepare a report to support a request for an EIA Screening Opinion ('EIA Screening Report'), in respect of the proposed Headbolt Lane Station, car park and railway line upgrade (hereafter referred to as the 'Proposed Scheme').

This is a formal request for a screening opinion from the LPA under Part 2 of the Town and Country (EIA) Regulations 2017 ('the EIA Regulations') in terms of the requirement for an EIA, prior to submission of a planning application for the Proposed Scheme.

A planning application will be submitted for the proposed railway station and car park under the Town and Country Planning Act 1990. Depending on the outcome of the LPA Screening Opinion, the proposed upgrade to the railway line may be included in the planning application or could be done under Network Rail's Permitted Development Rights.

1.1 EIA Directive

Directive 2014/52/EU¹, amending Directive 2011/92/EU 'on the assessment of the effects of certain public and private projects on the environment' (the 'Environmental Impact Assessment (EIA) Directive') requires that EIA is undertaken for those plans or projects listed under either Annex I (where mandatory EIA is required) or Annex II, where a project listed, because of its size, nature or location, is likely to have significant effects on the environment.

1.2 EIA Regulations

The process of EIA in the context of town and country planning in England is governed by the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (the '2017 Regulations'). These regulations apply to development which is given planning permission under the Town and Country Planning Act 1990.

These regulations apply the amended EU directive (2014/52/EU) "*on the assessment of the effects of certain public and private projects on the environment*" to the planning system in England.

The EIA Regulations divide developments into two categories:

- Schedule 1 includes larger scale projects and EIA is compulsory; and
- Schedule 2 includes smaller projects that may require EIA depending on the sensitivity of the area and the potential to give rise to significant environmental effects.

¹ Whilst the UK has left the EU, this legislation still applies until the UK Government undertake a review and create UK specific legislation.

The Proposed Scheme does not fall under Schedule 1 of the EIA Regulations. However, the scheme should be considered against the following Schedule 2 development thresholds:

- Part 10(b)(i) ‘Urban development projects’ where the overall area of the development exceeds 1 hectares (ha); and
- Part 10(b)(iii) the overall area of the development exceeds 5 hectares.

The Proposed Scheme is over the threshold for both overall area (approximately 8.1 ha) and for urban development projects (approximately 4.4 ha for the station and car park).

As the Proposed Scheme falls within the list of development types in Schedule 2 and is over the screening thresholds based on area, the EIA Regulations requires an assessment of whether the Proposed Scheme is likely to have significant effects on the environment. However, guidance stresses that it should not be presumed that developments above the indicative thresholds should always be subject to EIA and that each development should be considered on its own merits².

The purpose of this report is to identify whether the Proposed Scheme is likely to result in significant effects on the environment by virtue of its scale, nature or location. Therefore, this report provides the relevant information for the consenting authority to come to a decision.

² Ministry of Housing, Communities & Local Government (2019) Environment Impact Assessment Guidance

2 Location and Description of the Proposed Scheme

This section describes the Proposed Scheme's location, the surrounding land use and summarises the environmental sensitivity of the surrounding area and describes the Scheme.

2.1 Location

2.1.1 Proposed Station and Car Park Site

The Proposed Scheme site (the 'Site') is situated in an area of green space adjacent to the A506 to the west and Headbolt Lane to the north (Grid Ref: SJ 41308 99815). The Site lies approximately 900 m north east of the centre of Kirkby (shown in Figure 1).

2.1.2 Rail Corridor Upgrades

The railway upgrade element of the Proposed Scheme is on the existing Liverpool-Wigan rail corridor between the existing Merseyrail Kirkby station to the proposed Headbolt Lane station. The alignment of the rail corridor is roughly south-west to north-east. For the majority of its length the existing rail corridor is bounded by residential properties to the north and south (shown in Figure 1).



Figure 1 Site location plan showing the existing Kirkby Station, rail corridor works and the proposed station and car park site

2.2 Existing Environmental Sensitives

The following environmental information is presented in Figure 2 where applicable.

2.2.1 Air Quality

Notable air quality receptors in the area include residential receptors. There are large housing estates to the north of Headbolt Lane, adjacent to the Site and to the south, adjacent to the existing railway line. There are also residential receptors located directly adjacent to the existing Kirkby Station and to the south and north of the railway line between the existing Kirkby Station and the proposed station at Headbolt Lane.

2.2.2 Traffic and Transport

The proposed station and car park site is bound to the north by Headbolt Lane. Headbolt Lane links to the A506 which is located adjacent to the west of the site.

There is a railway line, operated by Northern Rail, located to the south of the Site running in a south west to north east alignment.

2.2.3 Cultural Heritage

There are 18 designated heritage assets within 1 km of the Proposed Scheme, the closest of which are:

- Carter Arms Public House Waverley House (Kirkby Conservative Club) and 1 and 3 Mill Lane (Grade II Listed Buildings) are located adjacent to the existing Kirkby railway station; and
- Six Listed Buildings associated with St Chad's Church and grounds and St Chads Park, notably Church of St Chad (Grade II* Listed Building) located approximately 750 m to the south west of the proposed station and car park site.

2.2.4 Landscape and Visual

The Site lies within National Character Area (NCA) 58, Merseyside Conurbation. This NCA is a predominantly urban and suburban landscape, based around the settlements of Liverpool, Birkenhead, Bootle, Kirkby, Maghull, Huyton, Bebington and Wallasey. The NCA sits on a low-lying but gently rolling platform punctuated by low sandstone ridges and bisected by the lower estuary of the River Mersey.

The Proposed Scheme is not located within 5 km of any Area of Outstanding Natural Beauty (AONB), National Park or Green Belt.

2.2.5 Ecology

There are no statutory designated ecological sites within 2 km of the site. The nearest designated sites, Sefton Coast (SAC/ SSSI) and Ribble and Alt Estuaries (SPA/ Ramsar) are both situated approximately 10.4 km to the west. There are two non-statutory designated sites within 2 km, Kirkby Brook/Mill Brook Local Wildlife Site (LWS) which is located adjacent to Simonswood Brook situated below the existing elevated railway line and runs through the proposed station and car park site and Northwood Forest Hills LWS which is located approximately 640 m to the east.

The habitats recorded on site are relatively common and widespread and support commonly occurring botanical species comprising semi-improved neutral grassland, tall ruderal, scrub, amenity grassland, bare ground and running water.

The Preliminary Ecological Appraisal (PEA) produced by NLG Ecology in 2020 (Appendix A) confirmed the presence or potential for habitats to support the following species: nesting birds, bats, reptiles, riparian mammals, hedgehog and common amphibian species on site and also confirmed the presence of a small and localised stand of Japanese knotweed *Reynoutria japonica*, on site.

2.2.6 Noise and Vibration

Notable noise receptors in the area include residential receptors. There are large housing estates to the north of Headbolt Lane, adjacent to the Proposed Scheme and to the south, adjacent to the existing railway line.

2.2.7 Water Resources

Kirkby Brook runs through the site and is designated as an Environment Agency main river.

Simonswood Brook is a designated Water Framework Directive (WFD) waterbody (GB112069060630), has a classification of Moderate (Ecological score of Moderate and Chemical score of Fail) and flows under the existing railway bridge over the A502. Kirkby Brook feeds directly into Simonswood Brook.

There are areas of Flood Risk Zones 2 (between a 1 in 100 and 1 in 1,000 annual probability of river flooding) and 3 (1 in 100 or greater annual probability of river flooding) within the proposed station and car park site and are found in land immediately adjacent to Kirkby Brook. The rail corridor is situated within Flood Zone 1.

2.2.8 Population and Human Health

There are large housing estates to the north of Headbolt Lane and to the south, adjacent to the existing railway line. Headbolt Lane lies approximately 900 m north east of the centre of Kirkby. The rail corridor between Kirkby Station and the proposed new station is bordered by residential areas to the south and north.

The proposed station and car park site is an area of Urban Greenspace / Education Land, called Mercers Dell, as allocated by Knowsley Council's Local Plan. A designated Public Right of Way (PRoW) is located within the north-eastern corner of the area running southwards from Headbolt Lane, via a non-designated footpath, before heading south-east along the banks of Kirby Brook. The non-designated footpath bisects Mercers Dell connecting Headbolt Lane in the north east to the A506 County Road in the southwest. A series of existing bridges along the non-designated footpath provide crossings over Kirby Brook.

2.2.9 Waste and Natural Resources

There are no authorised landfill sites or other waste facilities within 1 km of the Proposed Scheme. The nearest authorised landfill site is Marl Road/ Ward Road Inert Landfill located approximately 1.5 km to the south east of Headbolt Lane.

2.2.10 Ground Conditions

There are two historic landfills within 1 km of the Proposed Scheme; Bank Lane site, located adjacent to the A506 (Bank Lane) approximately 600 m to the north and Stopgate Lane site located at Simonswood Industrial Estate approximately 1 km to the east of the proposed station and car park site.

A Ground Investigation Report (GIR) produced by Arup in 2020 (Appendix B) outlined that the earliest historic mapping reviewed, dating from 1850, showed that the Site was occupied by agricultural land with a sandstone quarry identified within the centre of the Site, however historic mapping dating from 1902 showed that the quarry was no longer present and is assumed to have been infilled.

Based on the British Geological Survey (BGS) 1:50,000 scale solid geological map, the bedrock present beneath the Proposed Scheme comprises the Wilmslow Sandstone of the Sherwood Sandstone Group. The Proposed Scheme does not lie within a Coal Authority Coal Mining Reporting Area.

The Environment Agency classifies the land beneath the Proposed Scheme as a Principal Bedrock Aquifer, an aquifer which can provide a high level of water storage and may provide water supply and/or base river flow on a strategic scale. The site is located within a groundwater Source Protection Zone (SPZ) 3, with several abstractions located to the north and south. The nearest groundwater abstractions are located approximately 2 km to the north of the rail alignment of the Proposed Scheme.

2.3 Environmental Sensitivity of the Site and Surrounding Area

For the purposes of defining whether the development falls within Schedule 2, the EIA Regulations define sensitive areas as including:

- a) Site of Special Scientific Interest (SSSI);
- b) a National Park;

- c) the Broads;
- d) properties appearing on the World Heritage List;
- e) Scheduled monuments;
- f) Areas of Outstanding Natural Beauty (AONB); and
- g) European sites for conservation.

The Proposed Scheme is not within 2 km of a National Park, the Broads or an AONB, nor is it near any properties appearing on the World Heritage List or Scheduled Monuments.

There are no internationally or European designated sites for conservation or statutory designated nature conservation sites within 2 km of the Proposed Scheme.

Further details regarding the sensitivity of the location are provided in Section 2.2 above.

2.4 Description of the Proposed Scheme

The Proposed Scheme comprises of the following features:

- railway line upgrade to a twin track and associated infrastructure (third line electrification, signalling etc);
- supply bulk point and substation to accommodate electrification of rail corridor upgrades and for the new station;
- a new station located on land at Headbolt Lane;
- a new car park and associated structures (signage, waiting shelters and car park lighting) and to service the new station;
- new vehicular and pedestrian access including two footbridges over Kirkby Brook and a road bridge to access each section of the car park;
- associated landscaping; and
- decommissioning works to the existing Kirkby Station.

Further scheme details are provided in below.

2.4.1 Existing Kirkby Station works

The existing Northern Rail platform at Kirkby will be decommissioned, made safe from public access and partially removed. The Kirkby station will remain as per the existing arrangement, and the walkway that currently connects to the Northern Rail platform will be removed. The eastern end of the Merseyrail platform will be fenced off to stop public accessing the operational railway.

2.4.2 Rail Corridor Works

The existing rail corridor comprises a single line. The Merseyrail network will be extended east from the existing terminating station at Kirkby by removing the existing buffer stops and connecting these with new trackwork. A new railway switch will split the tracks from a single alignment into a new twin-track arrangement. As part of these works the existing earthwork will be widened and strengthening and / or renewal works will be required to the existing Underbridges 55 and 56. The existing Northern Rail network will be shortened as a result. To facilitate the new twin-track arrangement, vegetation removal will be required along the existing railway corridor.

The existing 3rd rail from Merseyrail will be extended to Headbolt Lane. To facilitate this 3rd rail extension, a new sub-station is required that will be located at Headbolt Lane in the vicinity of the proposed station and car park development. The total distance of the major rail corridor works will be approximately 1.25 km.

2.4.3 Proposed Station

A proposed station interchange will be provided at Headbolt Lane. This proposed station will comprise three platforms, with two platform faces serving Merseyrail and a single platform face serving Northern Rail. Buffer stops will be provided to Merseyrail and Northern Rail to indicate the two Train Operating Companies. The platforms will be connected by a cross station access arrangement, replicating the operational functionality at the existing Kirkby station.

A single station building will be provided, with mess facilities for station staff and train crew. The station building will be staffed and will have facilities for customers to purchase tickets. Ticket vending machines will be available for customers who approach the station on foot from the housing estates to the south and the east. The proposed station building will have a height of 8 m (Figures 3 and 4) and total area of approximately 190 m² (see Figure 5).

2.4.4 Proposed Station Car Park

The approximate area for the station and car park is 4.4 hectares (ha) (see Figure 6) and comprises approximately 300 spaces with passive provision for another 200 to allow future expansion to 500 if required. Thirty of the spaces will be disabled access bays, comprising 15 blue badge spaces and 15 enlarged bays. Three staff spaces and two Network Rail maintenance bays are to be provided, along with a parking area for five motorcycles. Provision of electric charging points will inline with Knowsley Council policy. A short stay pick-up / drop-off area is also proposed outside the station building, with space for four vehicles. Parking facilities for 100 cycles will be provided with passive provision for a further 200 spaces.

2.4.5 Access

The creation of a new junction to provide access from Headbolt Lane to the Proposed Scheme will be required.

Public transport interchange facilities will be provided at the proposed station comprising bus stops and a taxi rank. To enable highway access to Headbolt Lane a new bridge is required over the existing brook.

Pedestrian footways are to be provided within the site on key desire lines. A series of zebra crossings are included within the design to facilitate safe and convenient pedestrian movements through the site.

Two footbridges will be provided over Kirkby Brook to allow improved connectivity to the proposed station building from the car park and for customers walking through the site.

2.4.6 Drainage

The proposed surface water drainage strategy for the Proposed Scheme is to comprise of the following key elements:

- surface SuDS, such as permeable paving and bioretention systems will be incorporated into the drainage designs where appropriate;
- attenuation systems to be incorporated into the car park areas; and
- an unrestricted discharge from the network will be provided to the adjacent watercourse (Kirkby Brook).

2.4.7 Landscaping

Design is ongoing and details of landscaping, planting and screening is not known at this stage, however landscaping will be incorporated into the design of the proposed station and car park as part of the planning application.

2.4.8 Lighting and Security

Details of lighting and security are ongoing, however any new lighting within exterior car parks is covered under the guidance of British Standards BS EN 12464 and BS 5489: 2013 and will be designed in adherence to these standards offering consistent and safe lighting. Design of the lighting and security is anticipated to be subject to a risk assessment based on the anticipated vehicle, pedestrian, crime and type of use to determine the appropriate lighting and security used for the site.

2.4.9 Construction

Construction Programme and Hours

It is anticipated that the construction of the Proposed Scheme will commence in Q4 2021 and take approximately 1.5 years to complete.

Construction activities would include the following phases:

- preliminary works and site establishment;

- earthworks;
- civil engineering work;
- rail systems works within the railway corridor; and
- buildings and substation construction.

It is anticipated that normal construction working hours would be followed (Monday to Friday 08:00 to 18:00 and Saturday 08:00 to 13:00 with no working on Sundays or bank holidays). Should construction works need to be conducted outside these normal construction working hours they would be agreed in advance with Knowsley Council and would comply with any restrictions imposed by the planning consent, and in particular regarding control of noise and traffic.

Construction Methods and Equipment

Due to underground rock being shallow at the site it is not anticipated that piling will be required for any proposed structures.

At this stage, the exact plant to be use on site is not currently known. It is, however, likely to comprise:

- HGV for transportation of construction material and plant to site;
- HGV for removal of construction material off site;
- Heavy plant machinery (excavators, dump trucks, vibratory rollers); and
- Rail plant (for works within railway corridor).

Storage areas for flammable/ toxic/ corrosive materials will be located in a separate locked fenced off area. Material data sheets will be available for all these materials and the Control of Substances Hazardous to Health (COSHH) assessments kept within the relevant Risk Assessment for the task being undertaken.

Construction Traffic and Access

Access to the site during construction will be via Headbolt Lane. Access details will be provided and consulted upon with the Knowsley Council's highways department and other highways consultees to ensure that the design accords with Knowsley Council's design guide and the impact of additional vehicular traffic can be mitigated effectively.

Construction Waste and Materials

The design of the Proposed Scheme will seek to 'design out waste' through following the waste principles outlined in the waste hierarchy.

3 Aspects of the Environment with the Potential to be Significantly Affected by the Development

This section presents a description of the aspects of the environment with the potential to be significantly affected by the Proposed Scheme and describes those environmental aspects which are not likely to be significant.

3.1 Air Quality

3.1.1 Baseline

The nearest Air Quality Management Area (AQMA) is Liverpool City AQMA and is located approximately 1.5 km to the south west.

Existing or baseline ambient air quality refers to the concentration of relevant substances that are already present in the environment. These exist from various sources, such as industrial processes, commercial and domestic activities, road traffic and natural sources.

Baseline, or existing, background air quality at the Site and surrounding area will be determined using data from nearby representative automatic monitoring stations, supplemented with available Local Authority diffusion tube sampling and Defra background air quality maps, where appropriate.

3.1.2 Construction Impacts

The construction of the Proposed Scheme may impact on air quality in the local area due to potential fugitive emissions of dust from demolition and construction works, and emissions from plant equipment.

Emissions from construction traffic may cause a potential issue. The number of HGV movements is not currently known. When this information is available the data will be screened into a standalone Air Quality Assessment to support the planning application to assess the impacts and outline if further work or assessment will be required.

Construction methods will use best practice measures with reference to the Institute of Air Quality Management's Guidance on the assessment of dust from demolition and construction, which is widely applied throughout the UK, plus any relevant local authority guidance to minimise the potential for air emissions, including measures for dust management, measures to minimise track out of material onto highways, materials management to prevent dust blow and measures to minimise plant emissions, such as avoidance of engine idling. These measures will be implemented through a CEMP that will be developed and implemented by the construction contractor. With the appropriate good practice mitigation measures in place there are likely to be no significant effects from dust emissions during construction.

3.1.3 Operational Impacts

Once operational, the Proposed Scheme is expected to be a source of localised emissions through train movements and vehicle movements through commuters using the station. Traffic movements are expected to increase significantly above what is already experienced in the area and therefore may lead to the Proposed Scheme having significant effects within the area where air quality is concerned.

There is potential for a beneficial effect on air quality during operation as the Proposed Scheme will introduce electrification and reduce diesel operated trains.

There will be an Air Quality Assessment submitted as part of the planning application documents which will assess the impact of changes in air quality in the area. Following the assessment of operational air quality impacts, the need, nature and extent of any mitigation measures will be considered and fed into the design process to reduce exposure of future users and neighbours to air pollutants.

3.2 Traffic and Transport

The nearest accessible road to the Proposed Scheme is Headbolt Lane which will be used for the construction and operation of the Proposed Scheme. Construction traffic is anticipated to travel to site either via the M57, M58 or the A580 and then travel on the A5208 and the A506 to reach Headbolt Lane and site access.

3.2.1 Construction Impacts

Details of the amount of construction traffic on the local road network is not known at this early stage in scheme design. It is likely that construction will require the use of an excavator and dump trucks for site clearance and enabling works and then the use of HGVs and heavy plant machinery for the construction of the station, associated structures and works on the railway. It is proposed that the site is accessed from the existing Headbolt Lane.

To limit potential short-term effects, a Construction Traffic Management Plan will be prepared by the contractor detailing how traffic will be managed. This will include mitigation measures necessary to minimise the effects on the local road network. It is expected that this will include confirmed details of construction vehicle numbers (including deliveries and staff), construction delivery and staff parking and management, official construction traffic access routing and how this will be controlled, and additional measures as necessary.

Given the short term and temporary nature of any impacts during construction and with the implementation of a CEMP which will include standard mitigation measures, there is not expected to be a significant effect on the surrounding highway network from the construction traffic associated with the Proposed Scheme.

3.2.2 Operational Impacts

During operation it is expected that vehicle movements associated with the Proposed Scheme will come from the following sources:

- commuters using the station through park and ride;
- vehicles dropping commuters through pick up drop off facilities;
- staff members; and
- maintenance services and deliveries.

The preliminary Transport Assessment (TA) has identified that the morning peak hour occurs between 08:00 and 09:00, with 257 and 44 passengers arriving and departing the proposed station respectively, and the evening peak occurs between 17:00 and 18:00, with 72 and 273 arrivals and departures. The TA also quantified this in terms of vehicle trips, which are anticipated to generate 132 two-way vehicle trips in the weekday morning peak, and 171 two-way trips in the weekday evening peak. 48% of these vehicles are predicted to use the A506 to travel to and from the Proposed Scheme.

Trip generation has been calculated in the TA and can be seen below in Table 1.

Table 1 Trip generation by mode during weekday AM peak and weekday PM peak.

Mode	Weekday AM Peak (08:00-09:00)			Weekday PM Peak (17:00-18:00)		
	Arrivals	Departures	Two-way	Arrivals	Departures	Two-way
Walk	129	22	151	36	137	173
Park & Ride	53	9	62	15	57	72
Bus	40	7	47	11	42	53
Pick-up	0	5	5	0	30	30
Drop-off	28	0	28	8	0	8
Bicycle	4	1	5	1	5	6
Taxi	2	0	2	1	3	4
Motorcycle	1	0	1	0	1	1
Total	257	44	301	72	274	346

The data shows that although there will be a number of vehicles visiting the site to either pick up, drop off or park and ride, the majority of trips will be made by walking. The Transport Assessment will be produced and submitted to support the planning application and will outline measures to measure operational traffic and to provide mitigation measures if appropriate.

3.3 Noise and Vibration

3.3.1 Baseline

There are no Noise Action Planning Important Areas (NIA) identified within 250 m of the Proposed Scheme. The nearest NIA (ID; 7003) is located on Hall Lane at the junction of the A506 and A5208 approximately 800 m to the south. The A506 is likely to be the route taken by construction traffic to the Proposed Scheme.

The Site is situated in an urban environment where the ambient noise climate at the site is currently influenced by traffic noise from the A506 and by noise from the Northern Rail railway line. Impacts are likely to be confined to sensitive receptors, primarily residential areas, located close to the boundary of the Proposed Scheme.

3.3.2 Construction Impacts

There are large housing estates to the north of Headbolt Lane, adjacent to the north of the Proposed Scheme. Headbolt Lane will be used by HGVs and other vehicles throughout construction. As a result, short term adverse noise impacts are likely to be experienced by these residential receptors. Construction works on the railway line will also lead to short term adverse noise impacts experienced by residential receptors that are adjacent to the railway line to the south.

A Noise and Vibration Assessment will be submitted as part of the planning application to assess the potential impacts of construction noise in the area, which will outline mitigation measures to inform the CEMP. The CEMP, using findings of the Noise Assessment will outline any measures to minimise noise impacts during construction, including control of vehicular movements, reducing the number of journeys where possible and good practice in construction methods such as no night-time working. Therefore, with the implementation of the CEMP significant effects are not anticipated as a result of the Proposed Scheme.

3.3.3 Operational Impacts

During operation the higher volumes of traffic along Headbolt Lane associated with vehicles accessing the car park, as well as vehicles using the car park, has potential to increase noise at nearby residential receptors. The new platform is close to residential properties to the south of the railway line and there is potential for noise disturbance (for example, from The Public Announcement (PA) system). Mitigation measures such as reducing announcements outside of peak operating hours, or lowered volumes of announcements outside of peak hours has the potential to decrease any adverse operational noise impacts experienced by these nearby residential receptors. There will be a Noise Assessment submitted as part of the planning application documents which will assess the impact of operational noise in the area and will recommend mitigation measures where appropriate.

3.4 Water Resources, Drainage and Flood Risk

3.4.1 Baseline

Kirkby Brook is identified as an Environment Agency main river. There are areas of Flood Risk Zones 2 (between a 1 in 100 and 1 in 1,000 annual probability of river flooding) and 3 (1 in 100 or greater annual probability of river flooding) within the proposed station and car park site and are found in land immediately adjacent to Kirkby Brook. The rail corridor is situated within Flood Risk Zone 1. The whole of the Proposed Scheme is located within a groundwater SPZ.

The area in which the Proposed Scheme is located does not currently flood, the Flood Risk Assessment (FRA) produced by Arup in 2020 indicated that the only instance of historic flooding was a surface water flood event on the A506 adjacent to Headbolt Lane.

As Kirkby Brook feeds into a WFD Watercourse (Simonsbrook) a WFD Assessment will be submitted to support the planning application which will assess the potential for impacts on Simonsbrook and will outline mitigation measures for both construction and operational activities.

3.4.2 Construction Impacts

During construction of the Proposed Scheme activities such as site clearance and preparation will be required as part of enabling works and as a result soil disturbance may occur. Areas of exposed soil are highly susceptible to erosion during rainfall events, partly due to loosening of soil and potentially due to increased runoff rates. Surface runoff from such areas can be heavily laden with sediment, which risks being transported to surface watercourses such as Kirkby Brook that runs through the Proposed Scheme, and Simonswood Brook (WFD designated) that is located approximately 330 m to the west of the Proposed Scheme and which Kirkby Brook flows into. In addition, contamination of surface waters, groundwater and soil could result from accidental spillage of fuels, oils, waste and chemicals, which can impact on water quality and aquatic fauna and flora. However, mitigation against such pollution and contamination events will be covered in and implemented as part of the CEMP including careful soil management and silt/spillage prevention and containment measures.

The CEMP will also include emergency flood prevention and flood event response management plans to ensure there is no significant effect of flooding from and to the Proposed Scheme.

3.4.3 Operational Impacts

The Proposed Scheme, once operational has the potential to increase the amount of impermeable areas in the area, particularly as a result of the proposed car park, however the car park is located within Flood Zone 1 and with no historical flood events recorded on site it is expected the introduction of impermeable areas will not raise the risk of surface or ground water flooding. Further to this, the FRA outlined that normal greenfield run off rates are still anticipated and therefore there is expected to be no increased risk of run off to both Kirkby Brook and to groundwater.

New impermeable areas around the station and car park will be positively drained, with run-off water stored via attenuation tanks and discharged to the Kirkby Brook at an appropriate discharge rate. It is expected that with detailed drainage design and mitigation measures applied as part of the design of the Proposed Scheme, that there will not be a significant impact on the local water environment as a result of the Proposed Scheme.

3.5 Ecology and Biodiversity

3.5.1 Baseline

There are no statutory or non-statutory designated ecological sites within 2 km of the Proposed Scheme. Two non-statutory designated sites were identified within 2 km: Kirkby Brook/Mill Brook LWS and Northwood Forest Hills LWS. The surrounding land is predominantly urban in nature. Areas of dense scrub are located adjacent to the existing railway line and the proposed station car park. The Proposed Scheme is solely located on an area of amenity grassland. Other habitats recorded within the site include semi-improved neutral grassland, tall ruderal and running water.

3.5.2 Construction Impacts

There are no statutory designated sites within 2 km of the Proposed Scheme, therefore no likely impacts are anticipated during construction.

Two non-statutory designated sites are located within 2 km of the Proposed Scheme. During construction, there are potentially pollution pathways from the use of fuels for heavy plant and machinery that may run off to Kirkby Brook LWS and have the potential to affect water quality and aquatic flora and fauna in the short to medium term. However, pollution prevention measures that will be implemented as part of the CEMP will ensure the risk of contamination is managed and no significant effects on habitats and species associated with Kirkby Brook LWS are anticipated. No pollution pathways e.g. watercourses, were identified between the Proposed Scheme and Northwood Forest Hills LWS. Consequently, no likely impacts are anticipated on this site.

During construction of the Proposed Scheme, activities such as site clearance and preparation will be required as part of enabling works and as a result, habitat removal and fragmentation may occur, along with the disturbance of and habitat loss for species that may be present.

Any trees should be retained and incorporated into the landscaping design if possible; any necessary vegetation removal should be undertaken in accordance with the advice given for nesting birds, common amphibian species and small mammals. It is generally recommended that the amount of vegetation removal is restricted to the minimum required to facilitate the proposals and that any bounding vegetation or habitats remain protected and unaffected by the construction of the Proposed Scheme.

The PEA identified ecological considerations and mitigation measures required for pre-commencement and during construction of the Proposed Scheme regarding species in the area; these are outlined below.

Nesting Birds

The PEA advises that all vegetation removal works are undertaken outside the main nesting bird season (March to August inclusive) and maintained occasionally to deter any uptake prior to the commencement of works. If this

timing is not possible and suitable nesting habitat needs to be removed during the main nesting bird season, checks of the affected areas will need to be undertaken by an ecologist no more than 48 hours prior to removal/ management. If any active nests are identified, a buffer of at least 5m in all directions would be required, to protect the nest from disturbance until any chicks have fledged.

Bats

If trees holding a moderate bat roosting potential are to be impacted, roost locations should be assessed via aerial inspection and/or with an endoscope by a suitably qualified ecologist to confirm the assessment of bat roost potential and to check for bat occupation. If bat roost potential is confirmed to be moderate or higher, further surveys in the form of bat emergence/re-entry surveys³ would be required to determine if the roosting features are being utilised by bats, in-line with best practice guidelines. Should bats be confirmed to be present at this stage, a Natural England mitigation licence would be required for any trees with confirmed bat roosts, to be removed to facilitate the works.

Trees holding a low bat roosting potential can be removed adhering to the ecological precautionary working method statement in regards to roosting bats, which is outlined in the PEA submitted with this report.

Reptiles

The site is considered suitable for common reptile species. It is recommended that during vegetation removal works, should a suspected reptile be observed on site that works cease and that a 10 m exclusion zone be demarcated around the reptile and that the reptile be left to disperse on its own accord. A competent ecologist should also be notified immediately. The ecologist will then attend site, assess the situation and establish any required mitigation measures.

Common Amphibian Species

To avoid any potential impacts on common amphibian species vegetation removal works should be completed ideally to avoid nesting bird season but also to avoid amphibian hibernation season (November to February).

The PEA will be submitted to support the planning application and outlines the mitigation measures required to ensure no significant effects occur. If these measures are followed there is not anticipated to be any significant effect on ecology and biodiversity.

3.5.3 Operational Impacts

During operation there is predicted to be noise, vibration, dust and emissions produced from daily operations, however these are not anticipated to exceed what

³ bat emergence/re-entry surveys have the following requirements: trees with moderate bat roost suitability require two surveys; one dusk emergence and one dawn re-entry survey. Trees with high bat roost suitability require three surveys; one dusk emergence, one dawn re-entry and one dusk or dawn.

is already experienced in the area due to the urban surroundings and therefore there is likely to be no impact from disturbance on the local biodiversity.

3.6 Landscape and Visual

3.6.1 Baseline

The Proposed Scheme lies within an area of amenity grassland surrounding by housing estates and commercial properties.

3.6.2 Construction Impacts

Although the surrounding area is urban in nature, the nearest residential receptors lies directly adjacent to the Proposed Scheme, both to the north and the south. During construction these receptors are likely to experience visual impacts due to the movement of HGV's and other construction traffic travelling to and from site and through the construction of the new station in an area that was previously greenfield. However, it is expected that the CEMP will aim to reduce vehicular movements where possible by limiting material brought on and away from site, which will reduce the visual impact experienced by these receptors during construction. Any adverse effects will be temporary and short-medium term therefore not significant.

3.6.3 Operational Impacts

The Proposed Scheme will consist of a new station building up to 8 m high, three operational platforms and a walkway between platforms, which, due to little existing natural visual screens raises the potential for significant visual effects to be experienced by the visual receptors. Screening in the form of tree and hedgerow planting will be implemented as part of the landscape design to mitigate any adverse visual effects from nearby receptors. The design of the Proposed Scheme will aim to design out any potential significant effects. A Landscape Visual Impact Assessment will be submitted with the planning application to assess the impact of the Proposed Scheme on visual receptors in the area and will proposed mitigation measures to reduce any potential significant affects.

3.7 Cultural Heritage

3.7.1 Baseline

There are eight designated heritage assets within 1 km of the Proposed Scheme. Merseyside HER indicate that there have been three archaeological finds in the area with these finds being dated between 1700 and 1800.

3.7.2 Construction Impacts

During construction, there is anticipated to be additional traffic along the A506 including HGV's, however there are only a few listed buildings adjacent to the

A506 and the traffic movements associated with the construction of the Proposed Scheme are not anticipated to increase baseline noise and disturbance to the assets above what is already experienced from traffic using the A506 and may be avoided completely dependent on the route construction traffic travels on. None of the listed buildings within 1 km are expected to experience adverse setting impacts as the surrounding land is predominantly urban in nature and any construction is expected to be shielded by surrounding buildings.

A Heritage Desk Based Assessment (DBA) will be undertaken to assess all heritage assets in the area, including the potential for unknown archaeological assets, although the archaeological potential in the area is predicted to be low.

Following the implementation of mitigation measures it is not anticipated any significant effects on archaeology or historic assets will arise as a result of the Proposed Scheme.

3.7.3 Operational Impacts

The DBA will assess the potential for setting effects and will inform the design of planting that will be implemented as part of the landscape design to mitigate any adverse effects, sufficient areas for the inclusion of which will need to be confirmed and refined at later design stages. With the implementation of appropriate mitigation (if required) there is not considered to be potential for significant effects on the setting of designated heritage assets during operation of the Proposed Scheme.

3.8 Population and Human Health

3.8.1 Baseline

Health profiles produced by Public Health England (PHE) provide baseline data on the health of people within the local area, compared with average values for all areas of England.

The health of people in Knowsley is worse than the England average. Knowsley is one of the 20% most deprived districts/unitary authorities in England and about 25% (7,460) children live in low-income families. Table 2 below shows the average life expectancy for people living within Knowsley compared with the region and national average. In Knowsley, life expectancy for both male's and female's is significantly worse than both the North-West region and England.

Table 1: Average life expectancy for Knowsley, the North West and England

Location	Population	Female average (years)	Male average (years)
England*	55,977,178	83.4	79.8
North-West*	7,292,093	82.1	78.4
Knowsley*	156, 571	80.5	76.8

* Office for National Statistics (ONS) mid-2018 population estimates

Various factors contribute to mortality and indices are reported for eight factors, which can be used to determine health inequalities of a local area when compared to the national average and neighbouring authorities.

The health outcomes for people, when compared against the England average, show that Knowsley is worse than the national average for child and adult obesity, the rates of violent crime, under 75 mortality rate from cardiovascular diseases, under 75 mortality rate from cancer and the percentage of the population employment aged between 16 years old and 64 years old are worse than the England average. Knowsley, however, was better than the national average for statutory homelessness.

3.8.2 Construction Impacts

The Proposed Scheme would generate a small number of jobs during construction; however, this would be short term and temporary.

During construction there will be a permanent loss of Urban Greenspace / Education Land, associated with Mercers Dell, however, this is not likely to be significant as there are multiple other areas allocated as Urban Greenspace / Education Land within the local area such as Mill Dam and Tower Hill both of which are within a 10-minute walk of the Proposed Scheme and are larger in size, offering more opportunities to the local population for recreation.

It is anticipated that during construction users of the non-designated footpath will be diverted along the existing segregated walkway on the northern side of Headbolt Lane. This diversion route already connects Headbolt Lane to the A506 County Road and therefore access would be maintained. The potential increase in journey time is likely to be negligible and non-significant. It is anticipated that access to the designated PRow will be maintained during construction along its existing alignment and it would remain in-situ until completion of the works, at which point the new connection to the partially re-aligned footpath will be instated. As such a severance of access will not occur whereby the potential impact to the PRow will be minor and non-significant due to associated disturbance and loss of amenity during construction.

Possible effects on human health that may result from the Proposed Scheme include disturbance from noise and construction dust and stress during construction. However well-established methods of best practice, impact avoidance and mitigation measures in order to protect human health during construction are expected to be utilised and have been explored further in sections 3.1 and 3.3 above. Following the implementation of these measures there is expected to be no significant effect on population and human health during construction.

3.8.3 Operational Impacts

The operation of the proposed Scheme is unlikely to generate a significant number of jobs as staff are expected to be moved to the new station from the existing Kirkby Station once decommissioned.

During operation, the non-designated footpath is expected to be partially re-aligned to the north of its current location for the section between the proposed car park and Headbolt Lane. Access to the A506 County Road will remain unchanged whereby any impacts are likely to be negligible and non-significant. It is assumed that the designated PRow which connects to the non-designated path will be reconnected accordingly to maintain access for users wishing to utilise the provision along Kirkby Brook whereby any impacts are likely to be negligible and non-significant.

The proposed Scheme is considered to have a beneficial effect on the local population, by providing new transport infrastructure which will enable greater connectivity for the local population. In turn, this could enable an increase in access to a wider variety of services, employment and community facilities for the local population which would have a beneficial impact upon population and human health receptors although this is unlikely to be significant.

3.9 Waste and Natural Resources

3.9.1 Baseline

There are no authorised landfill sites or other waste facilities within 1 km of the Proposed Scheme.

3.9.2 Construction Impacts

Any waste materials produced as a result of site clearance works will be re-used where possible in uses such as back fill or landscape planting, or if this is not possible, material will be disposed at a local licenced landfill facility in accordance with applicable waste management legislation. All construction materials which can be recycled will be separated, processed and removed from site for recycling on a regular basis to avoid a build-up of material no longer required and to reduce the risk of runoff into Kirkby Brook.

A Site Waste Management Plan (SWMP) will be prepared by the contractor prior to the work commencing to help manage site wastes more effectively, reducing potential harm to the environment and human health.

3.9.3 Operational Impacts

During operation of the Proposed Scheme sources of waste are predicted to arise from maintenance operations and waste from commuters/staff. However it is predicted that the waste hierarchy will be followed and measures such as segregated recycling bins/skips will be used in both public and staff areas. Both Northern Rail and Merseyrail are expected to have operational management measures in place to appropriately deal with operational waste arising from the proposed Scheme.

Although there have been no impacts identified, general best practice in terms of design will be employed and the circular economy principles will also be implemented, which may lead to reductions in operational waste. Operational

waste produced by the Proposed Scheme is not expected to cause any significant effects.

3.10 Ground Conditions

3.10.1 Baseline

The two historic landfills within 1 km of the Proposed Scheme are not likely to be a cause for concern due to the distance from the Proposed Scheme. The Proposed Scheme located within a groundwater SPZ and overlies a Principal Bedrock Aquifer.

3.10.2 Construction Impacts

During the enabling works it is likely that excavators and dump trucks will be used to move and process material. The use of this plant is likely to require the storage of fuel, which if an accident occurs, could be spilled and effect the underlying Principal Bedrock aquifer, resulting in a short-term impact.

During construction there is risk for contaminated surface material and surface runoff. Exposed soils or stockpiles generate dust, and precipitation could result in run-off into nearby watercourses including Kirkby Brook, affecting water quality, which would have a short-term moderate impact.

A CEMP will be prepared and implemented which would include pollution prevention control measures and measures to deal with any land contamination encountered during demolition and construction activities. These measures would include the following:

- should any potentially contaminated ground be encountered during construction works, the contractor will be required to investigate the area and then assess whether there is a need for containment or disposal of the material. The contractor will also be required to assess whether any additional health and safety measures are required. Any such investigations will be required to be undertaken in consultation with the Environment Agency. To further minimise the risks of contaminants being mobilised and contaminating other soils/ water during the development of the Proposed Scheme, workers will be briefed as to the possibility of the presence of such materials;
- in the event that contamination is identified during site works, appropriate remediation measures will be undertaken to protect workers, future site users, water resources, structures and services;
- the contractor will be required to place arisings and temporary stockpiles away from watercourses and drainage systems and surface water will be directed away from stockpiles to prevent erosion;
- the risk to surface water and groundwater from run-off from any contaminated stockpiles during construction works will be further reduced by implementing suitable measures including sealing stockpiles to prevent rainwater infiltration. Alternatively, bunding and/ or temporary drainage systems will be put in

place, designed in line with current good practice, following appropriate guidelines and obtaining all relevant licences including discharge consents;

- any fuels or chemicals used during the construction phase will be stored in bunded areas, with an impermeable base, in accordance with Environment Agency guidelines, thereby limiting the potential for migration of contaminants into groundwater following leaks/ spillages; and
- the contractor will implement a dust suppression/ management system, in order to control the potential risk from airborne contamination migrating off site to adjacent sites. Site specific method statements will be produced for different locations and activities. Best practice and widely accepted environmental management practices implemented by the contractor will effectively mitigate any associated risks. As such, there is not considered to be potential for significant effects on ground conditions or human health to occur.

Foundations and services will be designed and constructed to prevent the creation of pathways for the migration of contaminants and will be constructed of materials that are suitable for the ground conditions and designated use.

Site specific method statements will be produced for different locations and activities. Standard environmental management practises implemented by the contractor will effectively mitigate any associated risks. As such, there is not considered to be potential for significant effects in relation to ground conditions or human health to occur.

3.10.3 Operational Impacts

The Proposed Scheme is not anticipated to generate significant amounts of contaminated materials or waste during its operation. Operational activities including maintenance and cleaning should aim to use industry standard best practices to ensure there is no contamination risk to groundwater or surface water. Operational use of the rail corridor also has the potential for contamination to occur however it is expected that industry standard measures will be used to mitigate this. No significant effects are therefore likely arising from operation.

3.11 Major Accidents and Disasters

3.11.1 Baseline

Existing sources of risk assessment are typically taken as informing the baseline of any major accident and disaster assessment. The National Risk Register (NRR) of Civil Emergencies and the Health and Safety (HSE) Control of Major Accident Hazards (COMAH) site registers have been used to inform the baseline.

According to the HSE COMAH site register the nearest registered sites are located at W H Bowker Ltd, Knowsley Industrial Park Charleywood Road and Syntor Fine Chemicals Limited, Acornfield Road, Knowlsey Industrial Park which are located approximately 2.5 km to the south east and 2.5km to the east of the Proposed Scheme respectively.

The NRR is based on information from the National Risk Assessment, which is a classified assessment of risks that could happen in the UK. The risk register classifies risks into categories such as natural hazards, accidents, diseases, societal risks and malicious attacks (e.g. conducted by terrorists).

The NRR states that for risks that are most relevant to a local area, a review of the relevant Community Risk Register (CRR) should be undertaken. Within the Merseyside CRR the top risks have been identified as:

- Pandemic flu
- Severe Weather
- Surface Water Flooding
- Loss of Critical National Infrastructure
- Cyber Attack

The Proposed Scheme is not likely to fall under any category of risk identified by the CRR.

3.11.2 Construction Impacts

The construction of the Proposed Scheme must comply with legal requirements, codes and standards, such as:

- Health and Safety at Work Act, 1974;
- The Management of Health and Safety at Work Regulations (1999);
- CDM 2015 Regulations; and
- The Workplace (Health, Safety and Welfare) Regulations 1992.

The construction of the proposed Scheme will be carried out under the Construction (Design and Management) Regulations 2015. The risks of accidents will be minimised through adherence to the contractor's Health and Safety procedures. It is therefore not considered likely that significant environmental impacts during construction would arise as a result of major accidents and disasters.

3.11.3 Operational Impacts

The operation of the Proposed Scheme must also comply with the requirements codes and standards outline above in 3.11.2. The risks of accidents will be minimised through adherence to the Applicant's Health and Safety operational procedures. It is therefore not considered likely that significant environmental impacts during operation would arise as a result of major accidents and disasters.

3.12 Climate Change

Per capita emissions average 4.5 tonnes per annum across the Liverpool City Region area; lower than the England or North West average, although there is considerable variation between the six local authority areas. Knowsley has the second lowest emissions per capita of the six local authorities in LCR with approximately 750 kilotonnes of Carbon Dioxide emissions.

3.12.1 Construction Impacts

The construction of the Proposed Scheme would result in a number of HGVs which has the potential to increase the contribution of Greenhouse Gas (GHG) emissions from vehicles. However, it is anticipated that any additional emissions from construction activities will be short-lived and will be managed to reduce unnecessary vehicle movements and plant movement and will therefore not generate significant GHG emissions.

3.12.2 Operational Impacts

Once operational, the Proposed Scheme has the potential to increase the contribution of localised GHG emissions from vehicles and train movements as operational traffic movements associated with the Proposed Scheme are predicted to be significantly higher than that already experienced in the area. Increased parking provision as part of the Proposed Scheme will also encourage greater use of the proposed station and therefore also has the potential to contribute to GHG emissions through increased use of the local road network during operation. However reductions in the usage of the local road network around the existing Kirkby Station are anticipated as travellers use the proposed station at Heabolt Lane instead of Kirkby Station.

3.13 Cumulative

3.13.1 Construction and Operational Impacts

A search of Knowsley planning portal has been undertaken to identify any other developments within the surrounding area which have the potential for cumulative impacts with the Proposed Scheme. There are no other known planned or permitted developments within the surrounding area that are considered to have the potential to generate a significant cumulative impact during construction or operation with the Proposed Scheme.

4 Characteristics of the Potential Impacts

4.1 Extent of Impact (Geographical Area and Size of Affected Population)

The total footprint of the Proposed Scheme extends to approximately 8.1 ha. This comprises the proposed station and car park at approximately 4.4 ha and the rail works at approximately 3.7 ha.

4.2 Transfrontier Nature of Impact

Due to the scale and location of the Proposed Scheme, there is no potential for transboundary environmental effects to occur.

4.3 Magnitude and Complexity of Impact

Impacts are not anticipated to be complex in nature, whilst combined effects are not considered to be significant.

4.4 Probability of Impact

Given the characteristics and scale of the construction works for the Proposed Scheme, significant environmental effects are not anticipated. The CEMP will provide guidance on appropriate methods of working and will outline suitable impact avoidance measures and mitigation strategies.

4.5 Duration, Frequency and Reversibility of Impact

Any impacts occurring as a result of the construction of the Proposed Scheme would be short term, temporary and reversible. The design of the Proposed Scheme will incorporate measures aimed at avoiding and minimising environmental impacts, whilst construction activities will be undertaken in a manner that aims to management and minimise environmental impacts and nuisance. It is estimated that the construction timescales will be approximately 1.5 years.

5 Screening Summary

The Applicant seeks the Screening Opinion of Knowsley Council to confirm whether the Proposed Scheme of Headbolt Lane Station and associated works would constitute EIA Development. The Scheme has been identified as a 'Schedule 2' Development under Part 3(a) of the Town and Country Planning (EIA) Regulations 2017, exceeding the screening threshold of 0.5 ha in development area.

This EIA Screening Report considers the likely environmental effects of the Proposed Scheme. Potential environmental impacts across a range of environmental topics have been considered, taking into account the possible effects upon identified sensitive receptors.

Standalone assessments will be produced and submitted as part of the planning application which will assess the potential for impacts and propose mitigation to reduce any significant effects as far as possible.

Knowsley Council, as local planning authority, is invited to review the details as presented herein and provide an EIA screening opinion in accordance with the EIA Regulations.

Part 2 – EIA Scoping Report

6 Scoping

6.1 Introduction

Should the LPA determine that an EIA will be required for the Proposed Scheme, scoping forms the next key stage of the EIA process. It provides a framework for identifying the likely significant environmental impacts arising from the Proposed Scheme and distinguishes the priority issues to be addressed at the assessment stage. By doing so, the scoping phase assists in focussing attention on key environmental impacts for inclusion within the assessment. A Scoping Report also identifies those matters which do not need to be assessed in detail. In addition, scoping provides key stakeholders with an early opportunity to comment on the proposed structure, methodology and content of the EIA.

This section of the report outlines:

- proposed scope of the EIA;
- environmental topics that are being taken forward for assessment (scoped in) including potential impacts and assessment methodologies;
- environmental topics that are being discounted for assessment (scoped out) including reasoning for decision; and
- structure of the Environmental Statement (ES).

6.2 Objectives for Scoping

The objectives of the EIA scoping process are to:

- identify the nature of the Proposed Scheme, including (where known) its purpose, physical characteristics, land use requirements and alternatives;
- identify and describe the key environmental issues that the EIA must consider;
- identify any environmental issues that may not be relevant to the EIA (i.e. that may be scoped out of the full EIA, to ensure the EIA remains focussed on potentially significant effects);
- define the extent to which environmental issues need to be investigated, and the methodology for assessment; and
- facilitate preliminary consultation with stakeholders.

In accordance with Regulation 15(1) of the Town and Country (EIA) Regulations 2017, this Scoping Report, together with a request for a formal written Scoping Opinion, has been submitted to Knowsley Council. The EIA Regulations state that a request for a Scoping Opinion shall be accompanied by:

“2(a) (i) a plan sufficient to identify the land;

(ii) a brief description of the nature and purpose of the development, including its location and technical capacity;

(iii) an explanation of the likely significant effects of the development on the environment; and

(iv) such other information or representations as the person making the request may wish to provide or make;”

These information requirements are met by this EIA Scoping Report, which describes the Proposed Scheme (within Section 2 of the Screening Report above), its environmental context and potential environmental effects and how the EIA reported in the ES will assess and report the potential environmental effects of the Proposed Scheme.

7 Potentially Significant EIA Issues

Based on a preliminary assessment of the site and the Proposed Scheme, the following sections identify the potential environmental impacts associated with the Proposed Scheme for inclusion in the EIA. For each topic the baseline conditions have been outlined in Section 3 of the Screening Report above. Topics that have been identified as having the potential for significant effects and that are being scoped in are outlined further below. The proposed methodology and assessment criteria, which will be used to assess the potential significance of the identified impacts are described, and potential mitigation measures for implementation following assessment are outlined below.

7.1 Air Quality

7.1.1 Potential Impacts

To inform early design works, an initial appraisal has been undertaken and has considered the impacts of:

- emissions from the Proposed Scheme primarily arising from internal plant operations and idling of trains;
- emissions from road traffic attributed to the construction (including emissions from bus replacement provisions during construction) and operation of the Proposed Scheme;
- emissions generated by construction plant on site; and
- dust generation during construction works.

7.1.2 Assessment Methodology

The assessment of construction effects will involve a review of the proposed construction works and construction traffic data during the various phases of the development to identify any potentially adverse effects at nearby sensitive receptors. Potential impacts and nuisance from site clearance, construction dust and mobile plant exhaust emissions generated during the construction phase of the Proposed Scheme. When construction traffic data is available this information will be screened in the EIA to identify whether a detailed modelling assessment is required. Where necessary, mitigation measures will be recommended for the control of dust and site plant emissions during demolition or construction works to minimise or remove the potential impacts which will then be reflected in the CEMP.

The approach to the assessment of effects during the operation of the Proposed Scheme will consider the changes in traffic flows on local roads and will examine the associated effects on any of the nearby sensitive receptors and will include screening the traffic data against the screening criteria to identify if a detailed assessment is required/this is screened in. The extent of the assessment of the traffic related air quality effects will be determined by the extent of the Transport

Assessment as agreed with the relevant bodies. It is anticipated that this will cover the local road network and any roads predicted to experience changes (as a result of the Proposed Scheme) that meet the criteria detailed in the Design Manual for Roads and Bridges (DMRB).

The assessment of operational effects will be undertaken for the key pollutants of concern in the area using an appropriate air dispersion model. It will establish whether there are other process related pollutants to be included in the detailed assessment. The model will be set up for the baseline year which will be confirmed when traffic data are collated and verified with reference to local air quality monitoring data. The modelling assessment will compare the 'Do-Minimum' (i.e. without the Proposed Scheme) with the 'Do-Something' situation. The model will be used to derive the appropriate parameters for comparison with relevant air quality objectives and limit values in the baseline year and for the proposed year of opening of the Proposed Scheme.

The significance of effects will be assessed using the approach outlined in National Society for Clean Air (now known as UK Environment Protection) guidance.

The air quality assessment will be in accordance with all relevant guidance from the Defra and Local Air Quality Management (LAQM) Technical Guidance (TG16), IAQM construction dust guidance, and IAQM/ EPUK land use and planning guidance.

7.2 Traffic and Transport

7.2.1 Potential Impacts

Transport related effects could arise from an increased travel demand which would be identified through the TA process. The following traffic and transport effects identified for inclusion within the assessment include:

- Net change in vehicular traffic patterns;
- AM and PM peak hour vehicle movements;
- Local footway provision; and
- Local cycle facility provision.

7.2.2 Assessment Methodology

The Transport chapter of the ES will comprise an assessment of the effects of the Proposed Scheme on the existing transport infrastructure, including both construction and operation traffic. It will also take into consideration the cumulative effect of the traffic levels during the operational phase of the Proposed Scheme and screen against any committed developments in the area and the operational traffic arising from such developments. The assessment will address the impact of truck and private car movements, and pedestrian and cycle movements. A standalone TA and Traffic Plan will also be produced to support the ES.

The scope of the TA will be agreed with the Transportation Officers at Knowsley Council, though it is proposed to comprise:

- establishment of baseline conditions for all modes of transport including movement flows for road traffic based on available data and recent surveys;
- an outline of the context of the Proposed Scheme including consideration of accessibility by all main transport modes;
- a review of highway safety issues including examination of personal injury accident data;
- establishment of construction traffic flows;
- assessment of the transport implications of the Proposed Development in combination with consented development and highway schemes;
- an assessment of the travel demands expected to arise from the Proposed Scheme;
- consideration of the sweep required by abnormal loads during the construction phase;
- a forecast of the likely distribution of trips across the catchment area;
- projections of the modal splits anticipated;
- consideration of bus and rail provision, capacity and access issues;
- a review of walking and cycling issues including those related to the highways surrounding the Proposed Scheme;
- a description of the parking and servicing proposals;
- a framework of measures to be included in development travel plans; and
- a summary of the significant residual and cumulative effects and consideration of mitigation measures where appropriate to reduce adverse effects of changes in trip generation and distribution.

7.3 Noise and Vibration

7.3.1 Potential Impacts

The following potential impacts are likely to be associated with the Proposed Scheme:

- construction noise and vibration impacts (including construction traffic on public roads);
- operational noise impacts from the new station operations (messing facilities, deliveries, PA system); and
- operational noise impacts from road traffic (staff, commuter and services movements) on public roads.

7.3.2 Assessment Methodology

The noise and vibration assessment will examine the potential noise and vibration impacts arising from construction and operation of the Proposed Scheme. A baseline noise survey will be undertaken to detail the prevailing acoustic environment including ambient noise sources such as the rail and road traffic noise. Baseline measurements will be recorded at secure locations identified around the Proposed Scheme for comparison and assessment against current guidelines for constructional noise and vibration

The proposed scope of the noise and vibration assessment comprises:

- the identification of nearest noise and vibration sensitive receptors;
- liaison with Knowsley Council Environmental Health Officer(s) to agree scope and methodology of the noise assessment, including baseline noise monitoring locations, if additional monitoring is required, and measurement protocol;
- establishment of baseline noise levels in the surrounding area; and
- assessment of the impact of predicted noise levels at the nearest noise sensitive receptors from the construction and operation of the Proposed Scheme which will include construction noise and vibration (including construction traffic on public roads) and operational noise and vibration (including delivery vehicles on public roads).

A site preparation and construction phase impact assessment will be undertaken based on construction activity and traffic movement information. From the results of the construction noise impact assessment, construction noise control measures will be developed in accordance with BS5228 Part 1: Noise. Significance criteria for construction noise will be selected by reference to existing ambient noise levels and the 'ABC' method which is described in Annex E of BS5228.

Due to the nature of the Proposed Scheme consideration will be given to construction traffic on the wider road network.

7.4 Ecology and Biodiversity

7.4.1 Potential Impacts

Potential impacts on ecology arising from the Proposed Scheme are, but aren't limited to:

- Construction activities have the potential to result in habitat severance or fragmentation (e.g. through physical damage or loss);
- construction activities have the potential to result in entrapment, killing or injury of species present in the area;
- potential opportunity to deliver net benefit for ecology through habitat creation and improvement; and

- Potential for loss of habitats/increased levels of external lighting and disturbance through operational activities.

7.4.2 Assessment Methodology

A qualitative ecological assessment will be undertaken in accordance with the EIA guidance produced by the Institute of Ecology and Environmental Management (IEEM). Where possible, context will be given to the significance of impacts by reference to UK and local biodiversity targets. The assessment will inform the need for any mitigation, whilst highlighting opportunities to incorporate ecological enhancements within and outside of the scheme.

The assessment will apply qualitative scheme specific criteria taking into consideration the following:

- size, value and sensitivity of the ecological resource;
- severity and direction of potential impacts (positive or negative);
- ability of the ecological resource to recover from temporary effects;
- potential for effective mitigation;
- consideration of duration – short, medium or long-term; and
- consideration of whether effects will be reversible.

7.5 Landscape and Visual

7.5.1 Potential Impacts

Potential landscape and visual impacts that may arise from the Proposed Scheme are:

- Changes in visual amenity throughout construction through the presence of construction compounds, plant and vehicles, clearance (including vegetation clearance) and earthworks and construction of internal road infrastructure;
- Changes in visual amenity from constructed components of the Proposed Scheme such as the new station building, substation and other associated components.

7.5.2 Assessment Methodology

Data will be gathered for the Proposed Scheme and surrounding area through site survey and desk-based baseline data gathering. The visual envelope for the Proposed Scheme is defined as the area over which the physical components or changes caused by its introduction could affect peoples' views of the landscape within the wider area surrounding the Proposed Scheme.

Baseline conditions will be established through the following:

- a factual description of the existing landscape (topography, land use, patterns, scale, settlement, transport routes etc);

- identifying sensitive elements or groups of elements in the landscape (landscape resource);
- preparing a landscape character assessment to classify the landscape into distinct character areas which display common features and characteristics. Any special values that apply to the landscape will be noted. These are generally identified by statutory and non-statutory designations and are influenced by prepared documentation relating to landscape character. Cultural associations may also be noted where they influence the sensitivity of the landscape resource rather than that of the cultural resource. Each landscape character area is evaluated in terms of sensitivity to change, i.e. the capacity of the landscape to accept change of the type and scale proposed; and
- reviewing the condition of the landscape, including reference to the maintenance and condition of individual elements (buildings, hedgerows, woodlands etc) and an assessment of the potential for landscape enhancement.

The visual assessment will examine the main views of the Proposed Scheme from the neighbouring environment, and a desk study and field survey will identify and describe potential visual receptors (residential areas, recreation sites, pedestrian routes). A 'Zone of Theoretical Visibility Map' will be produced to establish the extent to which the Proposed Scheme may have an effect over the wider landscape, and this will be used as a basis for both the landscape and visual assessments.

The LPA will be consulted on the scope of view locations to be assessed, and this will form part of the assessment process.

The methodology for landscape and visual impact assessment generally follows the Guidelines for Landscape and Visual Impact Assessment.

The potential effects arising from the Proposed Scheme will be identified, evaluated and assessed as to whether they are considered to be significant. The magnitude i.e. the likely nature and scale of changes to individual landscape elements and characteristics will be described together with consequential effects on landscape character. For visual effects, potential visual receptors will be identified, and their sensitivity judged. This will depend on a number of factors including location of viewpoint, importance of view and the expectations of the receptor (i.e. residents, users of recreational facilities, motorists passing through). The type of view will also be taken into account, for example whether it is a wide panorama, glimpsed or partial view. The immediate effect of the proposals on the surrounding area will be assessed as well as any residual effects after any proposed mitigation has matured.

Determination of the significance of an effect requires the application of professional judgement to weigh the findings of sensitivity of the receptor and the magnitude of an effect. Significant effects may be judged to be adverse or, where the effect results in an enhancement of the existing situation, beneficial. As part of the assessment, mitigation measures and design recommendations will be identified to address any significant adverse effects, together with an assessment of the likely effectiveness of such mitigation.

Figures illustrating the assessment will be provided, including a Zone of Theoretical Visibility Map.

8 Topics Proposed to be Scoped Out

8.1 Cultural Heritage

Traffic movements associated with the construction of the Proposed Scheme are not anticipated to increase disturbance to designated heritage assets above what is already experienced from traffic movements in the area. None of the designated heritage assets within 1 km are expected to experience adverse setting impacts as the surrounding land is predominantly urban in nature and any construction is expected to be shielded by surrounding buildings.

A Heritage Desk Based Assessment (DBA) is required by the LPA and will therefore be undertaken to assess all heritage assets in the area, including the potential for unknown archaeological assets and submitted to support the planning application. The DBA will also assess the potential for setting effects and if required, will outline mitigation measures to be implemented. If these measures are followed then it is anticipated that there will be no significant effects on cultural heritage as a result of the Proposed Scheme.

With the implementation of appropriate mitigation (if required) there is not considered to be potential for significant effects on local Cultural Heritage and therefore it is proposed that Cultural Heritage is scoped out of the EIA.

8.2 Water Resources and Flood Risk

A FRA was prepared by Arup in 2020 to understand the flood risk aspects associated with the development of the Proposed Scheme

Any risks regarding water resources and flood risk at the site during construction are anticipated to be managed through standard mitigation measures and methods of best practice and will adhere to water management during construction guidelines from both Knowsley Council and Network Rail. Through the implementation of these measures there is anticipated to be no significant effect arising from the development of the Proposed Scheme where water resources and flood risk are concerned.

Historic records and flood modelling data indicates that the site is at very low risk of flooding from all sources, with the only historic record of flooding was a surface water flood event on the A506 adjacent to Headbolt Lane.

The FRA recommended that measures to manage any residual flood risk are incorporated into the final design. These include:

- site master planning, including strategies to manage flow paths during exceedance events and protect ‘non water compatible’ assets from flooding.
- a complete surface Water drainage strategy in line with Knowsley Council technical drainage guidance.

The residual flood risk from all sources, if these measures are put in place is considered to be very low. Fluvial risk to the development is negligible, and any potential increases in flood risk off site will be mitigated through effective surface water management.

Potential future blockages beneath the bridge structures over Kirkby Brook are to be mitigated by providing clear spans over the watercourse and applying adequate space from the underside of the structures to above the maximum flood levels to account for debris. The likelihood of large items of debris occurring is however extremely low, given the throttling effect of the upstream culvert under the existing railway.

The FRA also outlined that should the drainage infrastructure of the Proposed Scheme fail, exceedance routes would channel flows away from buildings and critical infrastructure and into the adjacent Kirkby Brook.

As there are no significant effects on Water Resources and Flood Risk arising from the Proposed Scheme it is therefore proposed that Water Resources and Flood Risk is scoped out of the EIA.

8.3 Population and Human Health

Possible effects on human health that may result from the Proposed Scheme include noise disturbance and stress during construction. Impact avoidance and mitigation measures to protect the population and their human health are those presented in the air quality, noise and traffic and transport technical chapters of the ES.

No additional impact avoidance or mitigation measures are considered necessary to ensure that effects on human health and the local population are not significant. Significant adverse effects on population and human health receptors are not envisaged at a local population scale as a result of the Proposed Scheme.

The Proposed Scheme is considered to have a beneficial effect on the local population, by providing new transport infrastructure which will enable greater connectivity for the local population. In turn, this could enable an increase in access to a wider variety of services, employment and community facilities for the local population which would have a beneficial impact upon population and human health receptors although this is unlikely to be significant.

As there are no significant effects on Population and Human Health arising from the Proposed Scheme it is therefore proposed that Population and Human Health is scoped out of the EIA.

8.4 Waste and Resources

The Proposed Scheme is located in an area of amenity grassland. As such, the existing site does not currently generate any waste. There is potential for the Proposed Scheme to generate hazardous and non-hazardous waste during the construction phase, however, with the implementation of a Site Waste

Management Plan (SWMP) there is not considered to be potential for significant environmental effects resulting from waste and materials.

Contamination present in the area has been addressed within a standalone Ground Investigation Report. The Proposed Scheme would be designed to follow principles of the waste hierarchy and would use best practices for storage and disposal of waste. As such, there is not considered to be potential for significant environmental effects resulting from waste and materials during operation. It is therefore proposed that waste and materials is scoped out of the EIA.

8.5 Ground Conditions

A GIR was produced by Arup in January 2021. Limited groundwater was encountered during the ground investigation and no significant contamination which could be considered to pose a risk to groundwater was recorded within the made ground soils beneath the site. The GIR reported that the existing ground conditions within the rail corridor were typical of rail corridors; a layer of ballast underlain by granular track bed material. The ballast was reported as being either 'dirty or very dirty ballast' which raises the potential for contamination to occur from works in situ to the rail corridor or in the removal of old material off site. However exploratory bore holes also found no ground water, leading to the conclusion that the main groundwater body lies at a considerable depth below ground level meaning that the risk from contamination associated with the rail corridor works are low.

The proposed station and car park development will predominantly comprise buildings and hardstanding which will minimise infiltration particularly compared to the current situation.

It is understood that new buildings and structures will be constructed using shallow foundations and currently no piled foundations are proposed. Consequently, the risks to controlled waters from the proposed development are considered to be very low and not significant.

Grossly contaminated materials are not expected to be encountered at the site. However, on any brownfield site there is the possibility that unforeseen contaminated material may be encountered during excavation works. Care should be taken during ground works and excavations should be supervised to ensure any previously unforeseen contamination is appropriately managed through a CEMP.

It is therefore proposed that Ground Conditions is scoped out of the EIA.

8.6 Major Accidents and Disasters

Following a high-level screening exercise, it has been determined that the Proposed Scheme does not meet any of the following criteria:

- the Proposed Scheme is not considered to be a source of a hazard itself that could result in a major accident;
- the Proposed Scheme does not interact with external sources of hazard. For instance, the nearest COMAH sites are located approximately 3.5km south

east and 3.5km east of the Proposed Scheme. It is not considered that the presence of the Proposed Scheme increases the risk of a hazard occurring at this external hazardous site, such as impeding emergency response; and

- if an external disaster occurred, it is not considered that the presence of the Proposed Scheme would increase risk of serious damage to any nearby sensitive receptors.

Further to this, the following key risks will be considered within the technical chapters of the ES:

- the volume and type of traffic using the Proposed Scheme is likely to alter the traffic flows of the surrounding area, the traffic assessment will consider the overall impact of the Proposed Scheme on road safety;
- the FRA and drainage design will consider the potential for changes in weather patterns resulting from climate change to increase flooding on or off site: and
- accidental spillage of contaminants such as hydrocarbons and their subsequent release into the drainage system will be controlled via implementation of a CEMP and the drainage strategy.

Although there is always the potential for a wide range of major accidents and disasters to occur, the probability, likelihood and frequency is very low in the instance of the Proposed Scheme and the environmental effects that could arise as a result of a major accident or disaster are considered to be already considered within the ES, or managed under established legislative requirements or the design process. It is therefore proposed that major accidents and natural disasters is scoped out of the EIA.

8.7 Climate Change

The construction of the Proposed Scheme would result in a number of HGVs and other goods vehicles visiting the Site, which has the potential to increase the contribution of GHG emissions from vehicles. However, it is anticipated that any additional emissions from construction activities will only occur throughout limited daily working hours and only for the course of 1.5 years. Further to this it is expected that any localised impacts of GHG emissions arising from the construction and operation of the Proposed Scheme will be considered in the Traffic and Transport and Air Quality chapters of the ES.

Through operation, the Proposed Scheme will encourage greater use of public transport by making public transport accessible to more people in the Knowsley area which will aim to reduce the numbers of daily trips undertaken by commuters via cars in the Liverpool City Region and further afield, this has the potential for beneficial contribution to reducing contributions to climate change on a larger scale.

It is therefore proposed that Climate Change is scoped out of the EIA.

9 Environmental Impact Assessment Scope and Process

9.1 Proposed Scope of the EIA

Based on an evaluation of the baseline environmental information that exists for the site and surrounding area and the potential environmental effects of the Proposed Scheme, it is proposed that the EIA will include the following technical disciplines:

- Air Quality;
- Traffic and Transport;
- Noise and Vibration;
- Ecology and Biodiversity;
- Landscape and Visual; and
- Cumulative.

As outlined in Section 8, a number of assessments are not considered relevant to the EIA for the Proposed Scheme as no significant environmental effects are anticipated to occur. The term 'significant' is an important distinction because a development may cause minor impacts to occur which do not have significant environmental effects. As such, the following topics are proposed to be scoped out of the EIA:

- Water Resources and Flood Risk;
- Population and Human Health;
- Waste and Resources;
- Ground Conditions;
- Cultural Heritage;
- Major Accidents and Disasters; and
- Climate Change.

9.2 EIA Method and Reporting

The ES will set out the process followed during the preparing of the EIA including the methods used for the collection of data and for the identification and assessment of impacts. Any assumptions made will be clearly identified. The EIA is based on a number of related activities, as follows:

- establishing baseline conditions;
- consultation with statutory and non-statutory consultees;

- consideration of local, regional and national planning policies, guidelines and legislation relevant to EIA;
- consideration of technical standards for the development of significant criteria;
- review of secondary information, previous environmental studies and publicly available information and databases;
- physical surveys and monitoring;
- desk-top studies;
- computer modelling;
- reference to current legislation and guidance; and
- expert opinion.

Impacts will be considered on the basis of their magnitude, duration and reversibility. Cumulative and combined effects will also be considered where appropriate. Significance will be evaluated on the basis of the scale of impact and the importance or sensitivity of the receptors, in accordance with standard assessment methodologies (major, moderate, minor and negligible).

Where likely significant environmental effects are identified in the assessment process, measures to mitigate these effects will be put forward in the form of recommendations to be undertaken as part of the project development.

9.2.1 Alternatives

In accordance with Schedule 4(2) of the Town and Country Planning EIA Regulations, the ES will provide a description of the reasonable alternatives studied by the Applicant and an indication of the main reasons for selecting the Proposed Scheme, including a comparison of the environmental effects.

9.2.2 Consultation

Consultation is an important part of the EIA process and this scoping report represents an early stage in the formal consultation process. Consultation with relevant stakeholders will continue throughout the planning process, and following submission of the application, where appropriate. Consultation will be undertaken with statutory and non-statutory stakeholders throughout the process in a variety of methods including meetings, telephone calls and email. In the lead up to the submission of the planning application and throughout the design process, a programme of consultation will continue to be undertaken with statutory and non-statutory consultees.

Comments on the proposed approach are invited from all relevant consultees. Once received, the environmental specialists appointed will undertake assessments to identify and understand any likely significant environmental effects. Where identified, such effects will be designed out of the Proposed Scheme or reduced through mitigation. The results of this process will be set out in a full ES, which will accompany the planning application.

9.3 Proposed Structure of the Environmental Statement

The ES will comprise the following set of documents:

- Volume I: Main Report: This will contain the full ES text of the EIA with the proposed chapter headings as follows:
 - Chapter 1: Introduction
 - Chapter 2: EIA Assessment Method
 - Chapter 3: The Proposed Scheme;
 - Chapter 4: Traffic and Transport;
 - Chapter 5: Air Quality;
 - Chapter 6: Noise and Vibration
 - Chapter 7: Ecology and Biodiversity;
 - Chapter 8: Landscape and Visual;
 - Chapter 9: Cumulative and Combined Effects; and
 - Chapter 10: Summary of Significant Effects, Mitigation and Monitoring.
- Volume II: Figures: This will provide supporting figures of the environmental studies conducted during the EIA.
- Volume III: Technical Appendices: These will provide supplementary details of the environmental studies conducted during the EIA including relevant data tables, figures and photographs.
- Volume IV: Non-technical Summary (NTS): This document will provide a summary of the key issues and findings of the EIA in non-technical language.

9.4 Structure of Technical Chapters

Each environmental topic ‘scoped in’ to EIA (see Section 8) will be addressed in a separate technical chapter of the ES. Chapters 4 – 9 will be structured based on the following sub-headings:

9.4.1 Introduction

The introduction will provide a brief summary of what is considered, and the format of, in the chapter and will state the author and/or relevant technical contributor.

9.4.2 Assessment Method and Significance Criteria

The assessment method will provide an explanation of methods used in undertaking the technical assessment and the prediction of effects. Reference will be made to any published standards (e.g. British Standards, Building Research Establishment), guidelines (e.g. Design Manual for Roads and Bridges (DMRB) and Institute of Environmental Management and Assessment (IEMA) guidelines) and relevant significance criteria.

The significance of effects before and after mitigation will be evaluated with reference to definitive standards, accepted criteria and legislation where available. Where it is not possible to quantify impacts, qualitative assessments will be carried out, based on available knowledge and professional judgement. Where uncertainty exists, this will be noted in the relevant technical assessment chapter.

Specific criteria for each technical assessment will be developed, giving due regards to the following:

- Extent and magnitude of the impact;
- Impact duration (short, medium or long term);
- Impact nature;
- Whether the impact occurs in isolation, is cumulative or interactive;
- Performance against environmental quality standards where relevant;
- Sensitivity of the receptor; and
- Compatibility with environmental policies and standards.

For issues where definitive quality standards do not exist, significance will be based on:

- Local, district, regional or national scale or value of the resource effected;
- Number of receptors affected;
- Sensitivity of these receptors; and
- Duration of the impact.

In order to provide a consistent approach to expressing the outcomes of the various studies undertaken as part of the EIA, and thereby enable comparison between effects upon different environmental components, the following terminology will be used throughout the ES to define effects:

- Adverse – detrimental or negative effects to an environmental resource or receptor; or
- Beneficial – advantageous or positive effect to an environmental resource or receptor; and
- Negligible – imperceptible effect to an environmental resource or receptor; or
- Minor – slight, very short or localised effect of no significant consequence;

- Moderate – more than a slight, very short or localised effect (by extent, duration or magnitude) which may be considered significant; or
- Major – considerable effect (by extent, duration or magnitude) of more than local significance or in breach of recognised acceptability, legislation, policy or standards.

As indicated above, for the purpose of this EIA, moderate and major effects will be deemed ‘significant’. Where possible mitigation measures will be identified to reduce the residual effects to ‘not significant’.

Each of the technical chapters will provide the criteria, including sources and justifications, for quantifying the different levels of residual effect. Where possible, this has been based upon quantitative and accepted criteria, together with the use of value judgement and expert interpretation to establish the scale of an effect.

9.4.3 Baseline Conditions

In order to assess the potential impacts and effects of the Proposed Scheme, it is necessary to determine the environmental conditions that currently exist on site and in the surrounding area, for comparison. These are known as the existing baseline conditions. Baseline conditions are determined using the results of site surveys and investigations or desk-based data searches, or a combination of these, as appropriate.

In order to compare future operation against the baseline that is likely to occur at the time of full operation, for most technical disciplines it will be necessary to establish future baseline conditions taking account of any planned or likely changes.

9.4.4 Development Design and Impact Avoidance

Measures that have been integrated into the Proposed Scheme in order to avoid or reduce adverse environmental effects will be described. Such measures may include refinement of the design and layout of the Proposed Scheme to avoid such impacts on sensitive receptors, implementation of Construction and Operational Environmental Management Plans, the adherence of relevant legislation, guidance and best practice. The assessment of impacts and effects in the next section takes account of these measures already in place.

9.4.5 Assessment of Potential Impacts and Effects

This section will identify the likely impacts resulting from the Proposed Scheme. The magnitude of impacts are defined with reference to the relevant baseline conditions (existing or future, as appropriate), and effects are determined in accordance with the identified methodology. This section will summarise the mitigation measures proposed to avoid, reduced or otherwise offset or compensate for any significant adverse environmental effects to enhance the beneficial effects of the Proposed Scheme. The potential method by which the proposed measures will be implemented will be specified.

9.4.6 Mitigation and Enhancement Measures

The Mitigation and Enhancement Measures section will describe the measures that will be implemented by the Applicant to reduce any significant adverse effects identified by the assessment and enhance beneficial effects during construction and operation of the Proposed Scheme.

9.4.7 Residual Effects and Conclusions

Effects of the Proposed Scheme remaining following the implementation of available mitigation measures are known as 'residual effects'. These will be discussed for each of the potential effects, and their significance level identified.

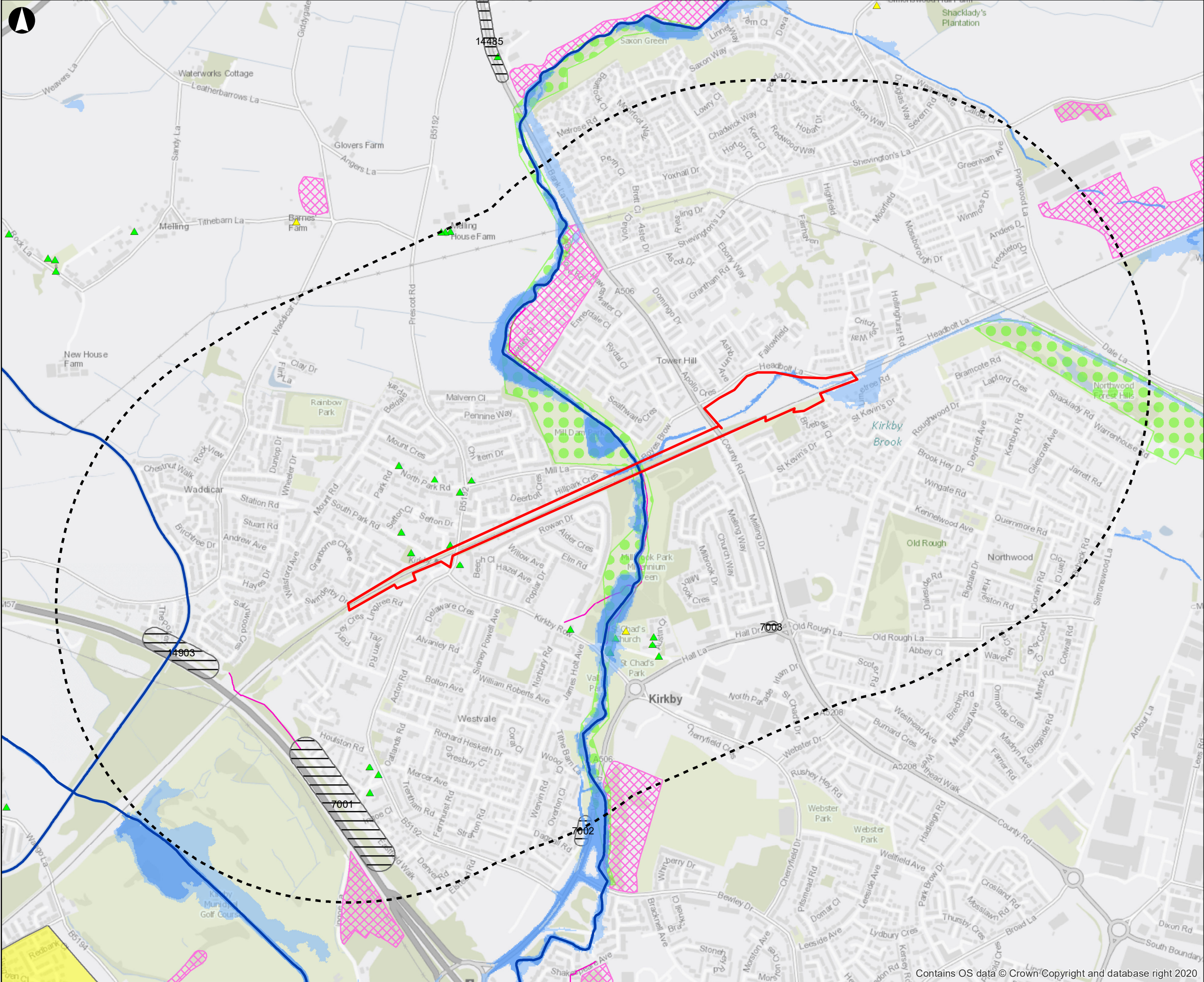
10 Summary

This EIA Scoping Report had identified the potential for significant effects to arise from the construction and operation of the Proposed Scheme. The following technical specialist assessments are proposed:

- Traffic and Transport;
- Air Quality;
- Noise and Vibration;
- Ecology and Biodiversity; and
- Landscape and Visual Impact.

The detailed assessments for each of these topics will be undertaken in accordance with standard guidance and best practice reported in the ES. Where significant effects are identified, mitigation measures will be described where possible to reduce the residual effects. This EIA Scoping Report is submitted to Knowsley Council with a formal request for a Scoping Opinion in accordance with Part 4 of the Town and Country Planning (EIA) Regulations 2017.

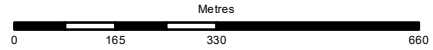
Figure 2
Environmental
Constraints Plan



- Legend**
- Indicative Red Line Boundary
 - 1km Study Area
 - WFD Watercourse
 - Flood Zone 2
 - Flood Zone 3
 - Air Quality Management Area
 - Noise Action Planning Important Area
 - Local Nature Reserve
 - Local Wildlife Site
 - Public Right of Way
 - Grade I Listed Building
 - Grade II* Listed Building
 - Grade II Listed Building
 - Scheduled Monument
 - Historic Landfill
 - Authorised Landfill Site

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P1	29-01-21	SM	EB	EC
Issue	Date	By	Chkd	Appd



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Client

Network Rail

Job Title

170248 Headbolt Lane New Station
GRIP 4

Figure 2
Environmental Constraints Plan

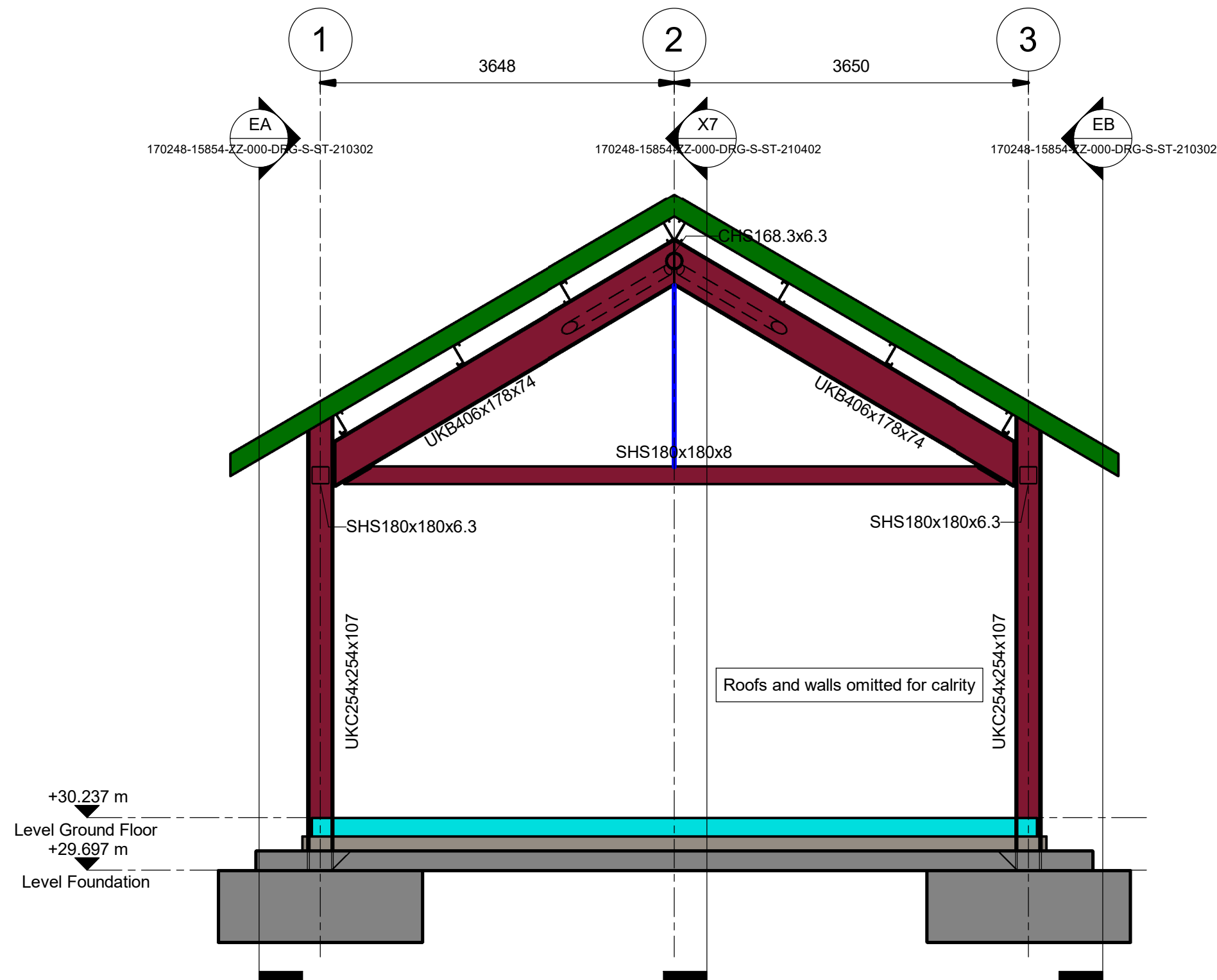
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Job No 276736-00	Drawing Status Issue
Drawing No 2	Issue P1

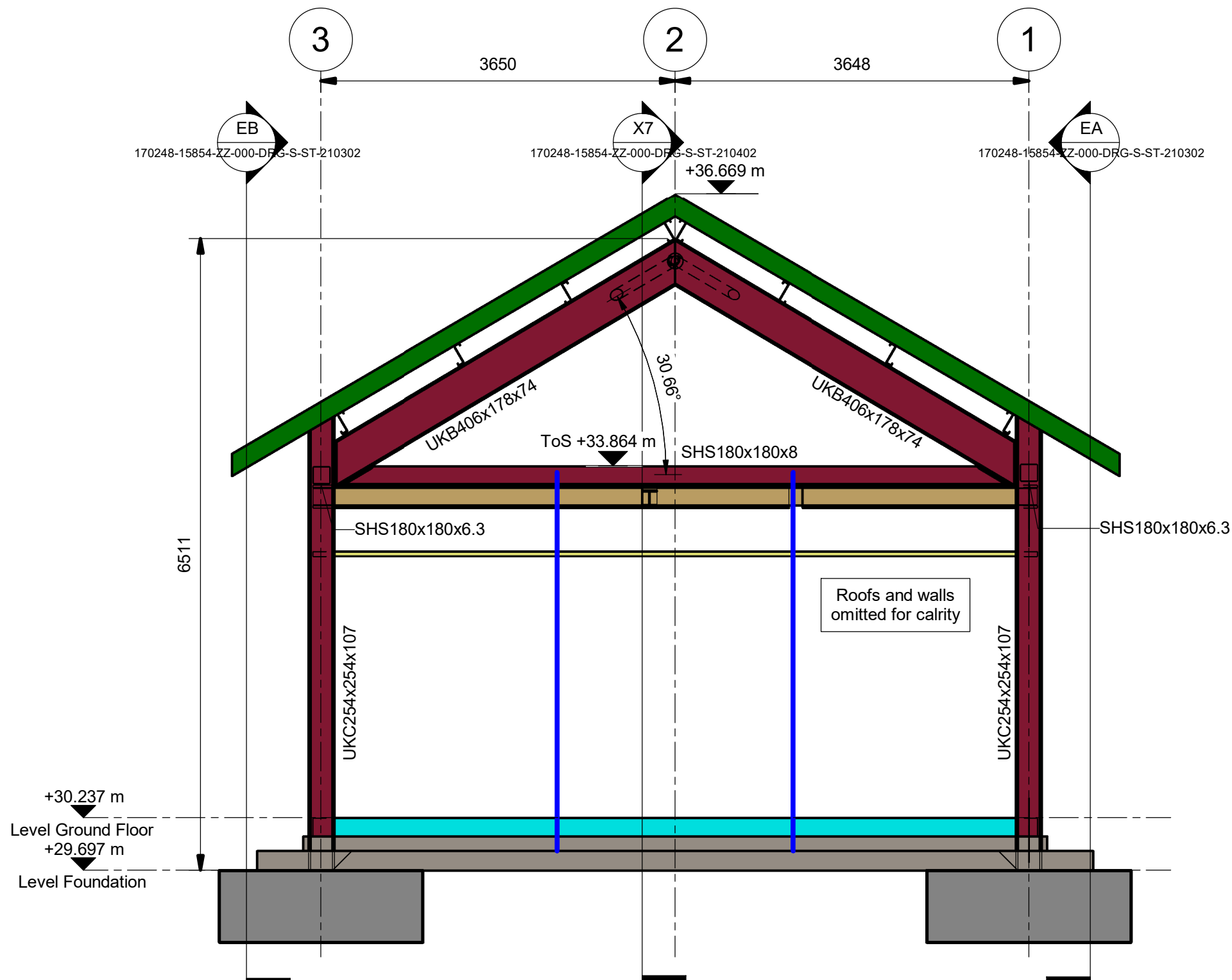
Contains OS data © Crown Copyright and database right 2020

Figure 3
Structural
Elevations 1



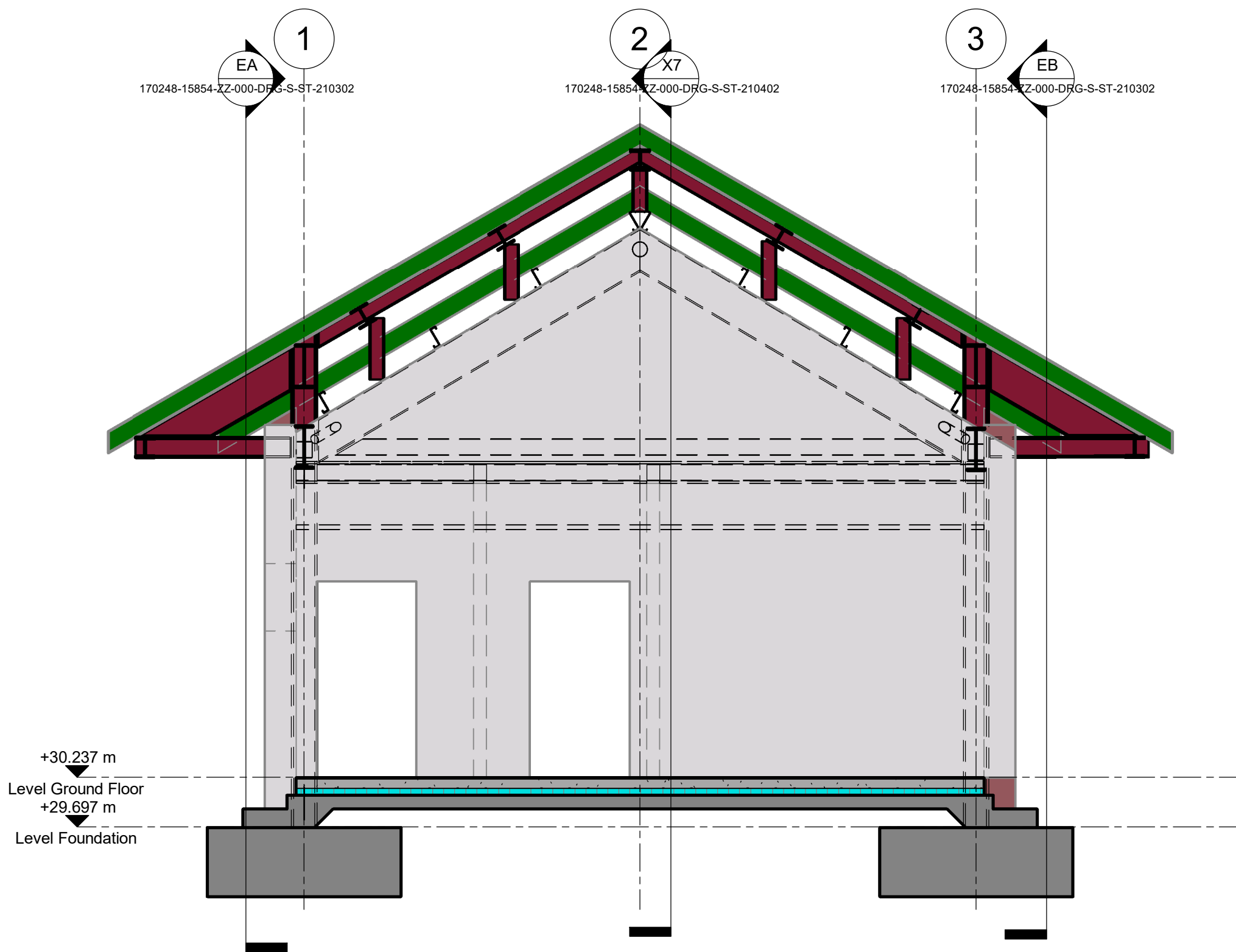
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Scale 1 : 50



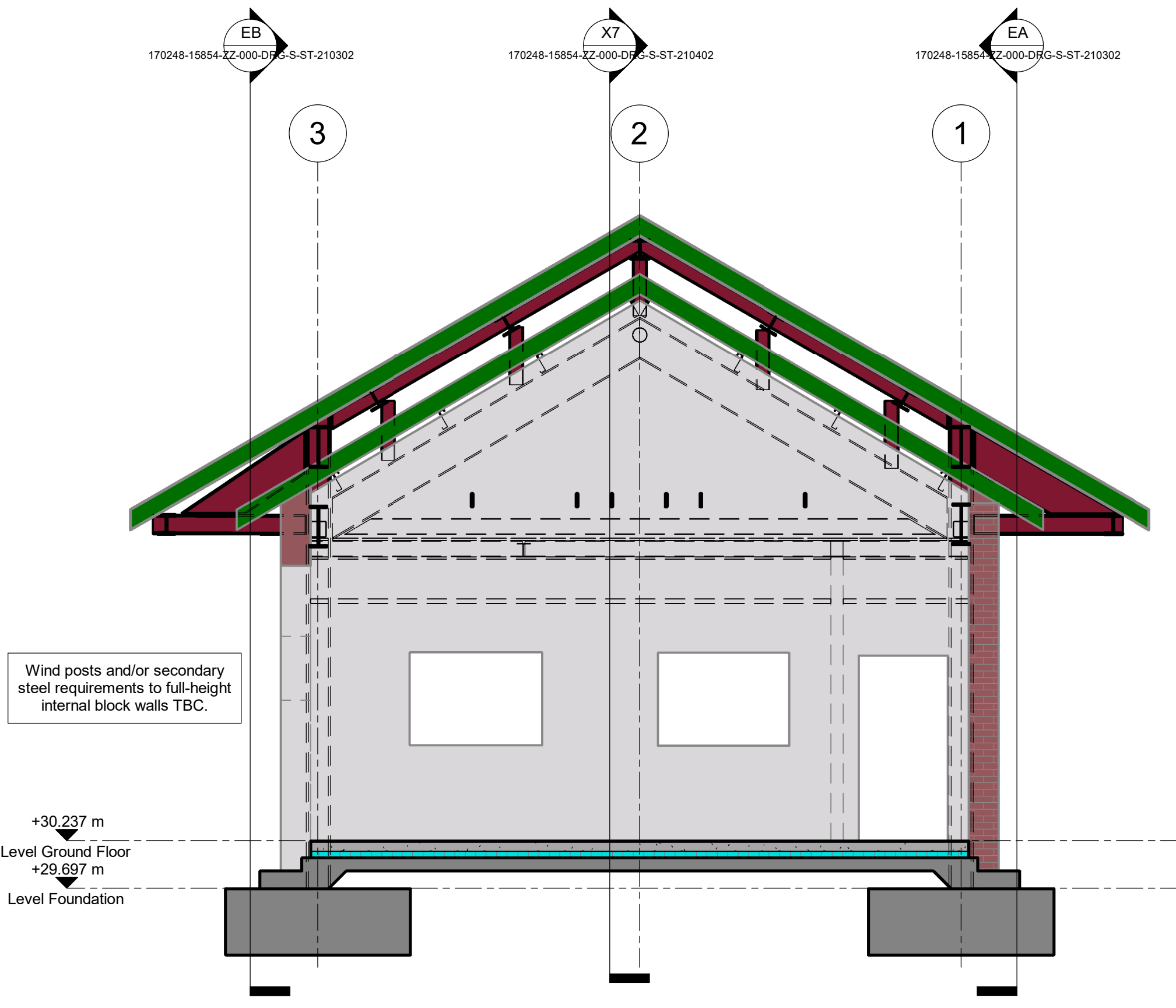
Elevation on Grid Line 6

Scale 1 : 50



Internal Elevation on Grid Line E

Scale 1 : 50



Internal Elevation on Grid Line D

Scale 1 : 50

Legend/Notes

1. All dimensions are in millimeters unless stated otherwise. All levels are given in metres and are structural levels relative to Ordnance Survey Datum unless noted otherwise.
2. Do not scale from these drawings, if in doubt ask.
3. This drawing is to be read in conjunction with the 'General Notes' Drawing 170248-15854-ZZ-000-DRG-S-ST-210101.
4. For survey grid information refer to P-Way Drawings.
5. Windpost locations to external envelope TBC. Allow for Ancon WP3 115x65x8 or similar to all locations shown.
6. Windposts and/or secondary steel requirements to internal blockwork walls TBC at next GRIP stage. Lintel requirements for all masonry openings TBC at next GRIP stage. Contractor to make appropriate allowance for such items include head restraints to full height walls.

Indicative windpost locations

P02	13/01/21	Second Revision	EA	DA	CDR
P01	01/12/20	First Issue	EA	DA	CDR
Rev	Date	Description of Revisions	Drawn	Chkd	Appr
Status	Suitability				S1



Authorised		Signed		Date	
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Contractor(s)

Ove Arup & Partners

Location/Level		No Specific Location	
Type	CAD Drawing	Sub-type	
Role	Structural	Discipline Structures	
Volume/System		No Specific Volume or System	
Phasing	Proposed	Grip Stage	4

Headbolt Lane

Contract no.
170248

Contract Title
Headbolt Lane

Drawing Title
Structural Elevations
Sheet 1

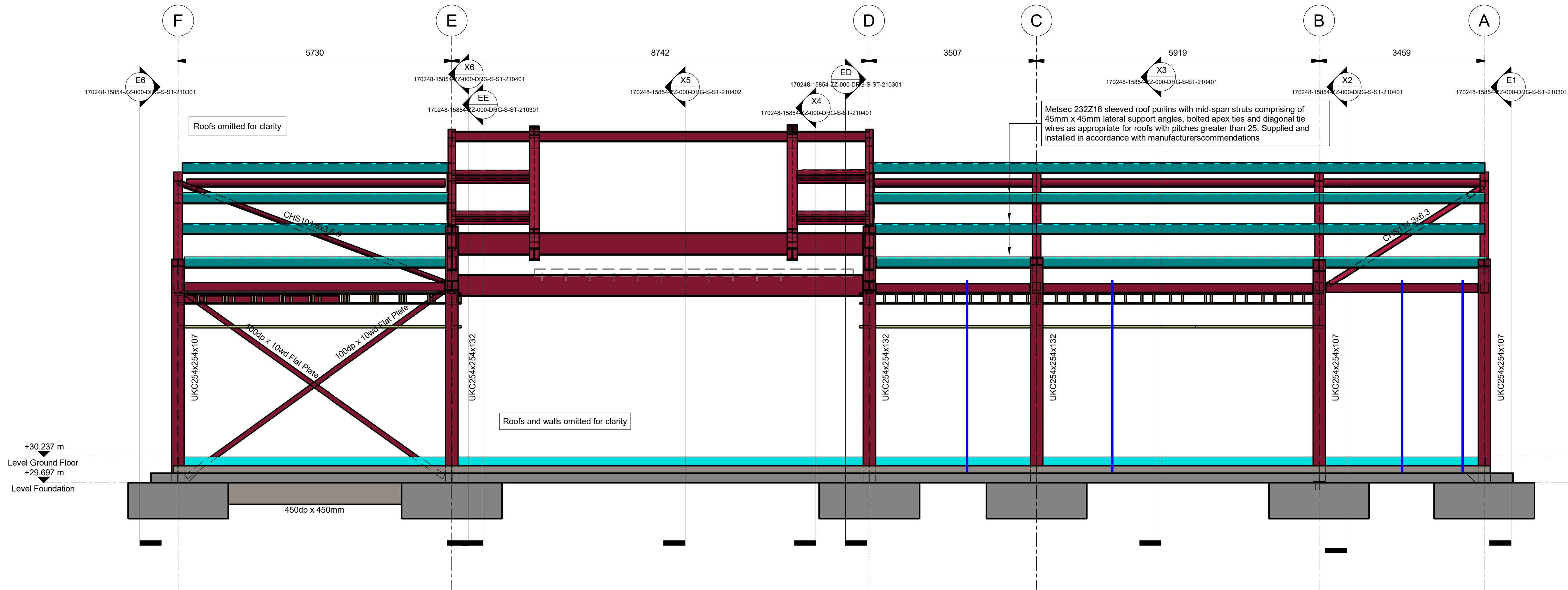
Designed	D. Almond	Signed		Date	01/12/20
Drawn	E. Allcock	Signed		Date	01/12/20
Checked	D. Almond	Signed		Date	01/12/20
Approved		Signed		Date	01/12/20

Scale(s)	ELR & Mileage				
As indicated	WLK2	28.1232	to	29.0913	

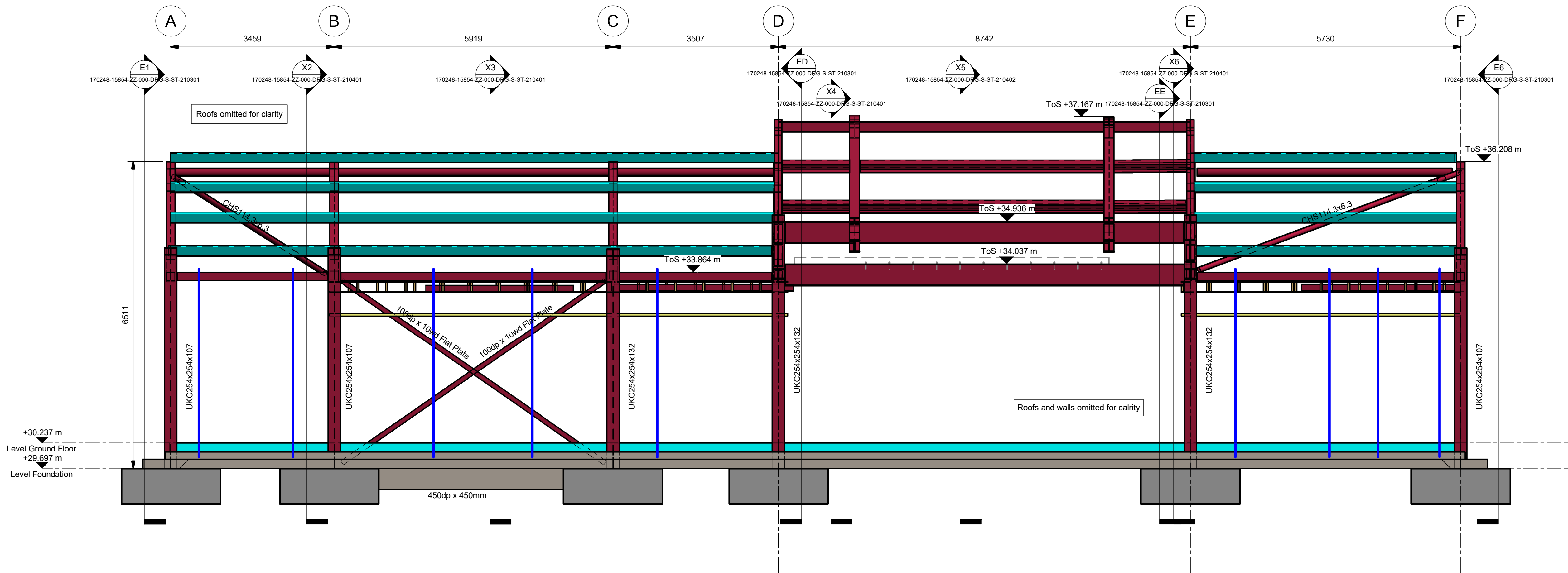
Alternative Reference	170248-ARU-DRG-EST-000004				Sheet
170248-ARU-DRG-EST-000004					1 of 2

Drawing Number	170248-15854-ZZ-000-DRG-S-ST-210301				Revision
170248-15854-ZZ-000-DRG-S-ST-210301					P02

Figure 4
Structural
Elevations 2



Elevation on Grid Line A
Scale 1 : 50



Elevation on Grid Line B
Scale 1 : 50

Legend/Notes

1. All dimensions are in millimeters unless stated otherwise. All levels are given in metres and are structural levels relative to Ordnance Survey Datum unless noted otherwise.
2. Do not scale from these drawings, if in doubt ask.
3. This drawing is to be read in conjunction with the 'General Notes' Drawing 170248-15854-ZZ-000-DRG-S-ST-210101.
4. For survey grid information refer to P-Way Drawings.
5. Windpost locations to external envelope TBC. Allow for Ancon WP3 115x65x8 or similar to all locations shown.
6. Windposts and/or secondary steel requirements to internal blockwork walls TBC at next GRIP stage. Contractor to make appropriate allowance for such items include head restraints to full height walls.

Indicative windpost locations

P02	13/01/21	Second Revision	EA	DA	CDR
P01	01/12/20	First Issue	EA	DA	CDR
Rev	Date	Description of Revisions	Drawn	Chkd	Appr
Status	Suitable for Coordination				S1



Authorised _____ Signed _____ Date _____

Contractor(s) _____

Ove Arup & Partners

Location/Level	No Specific Location			
Type	CAD Drawing	Sub-type		
Role	Structural	Discipline	Structures	
Volume/System	No Specific Volume or System			
Phasing	Proposed	Grip Stage	4	
Project				

Headbolt Lane

Contract no.
170248

Contract Title
Headbolt Lane

Drawing Title
Structural Elevations
Sheet 2

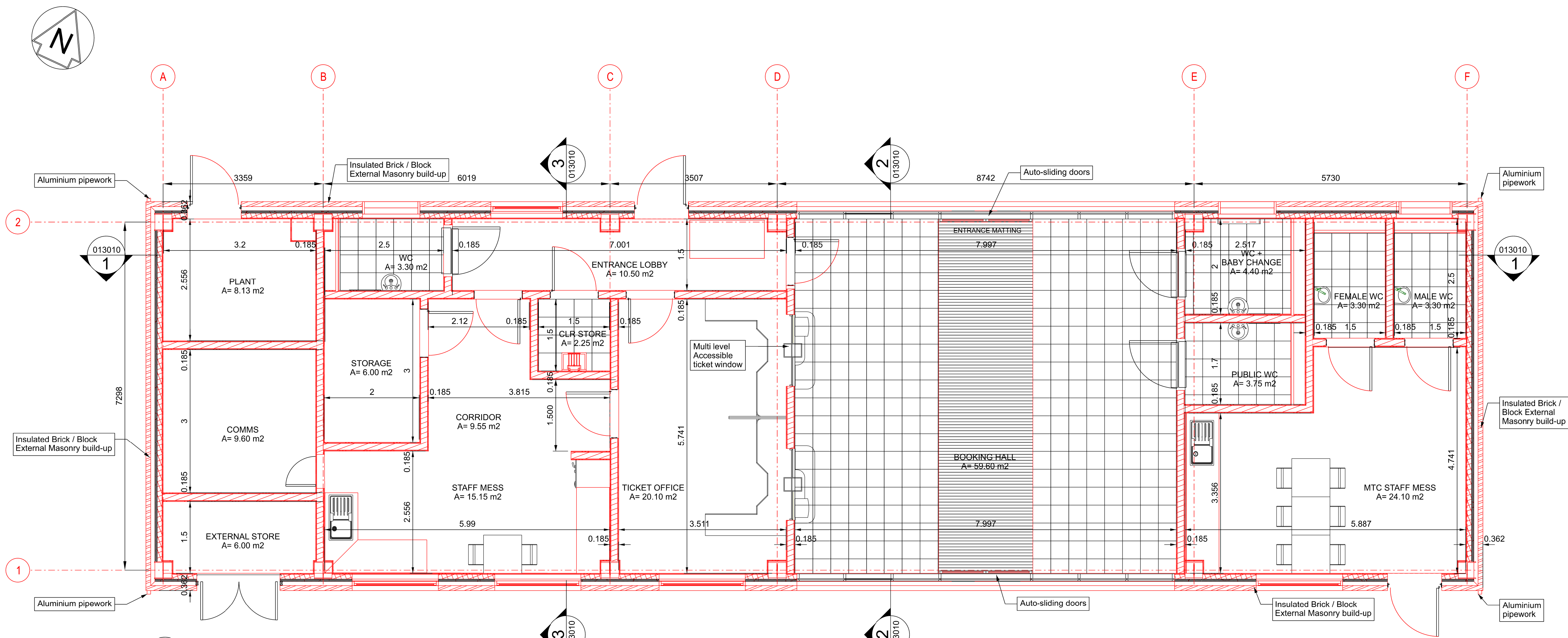
Designed	D.Almond	Signed	Date
Drawn	E.Allcock	Signed	Date
Checked	D.Almond	Signed	Date
Approved		Signed	Date

Scale(s)
As indicated

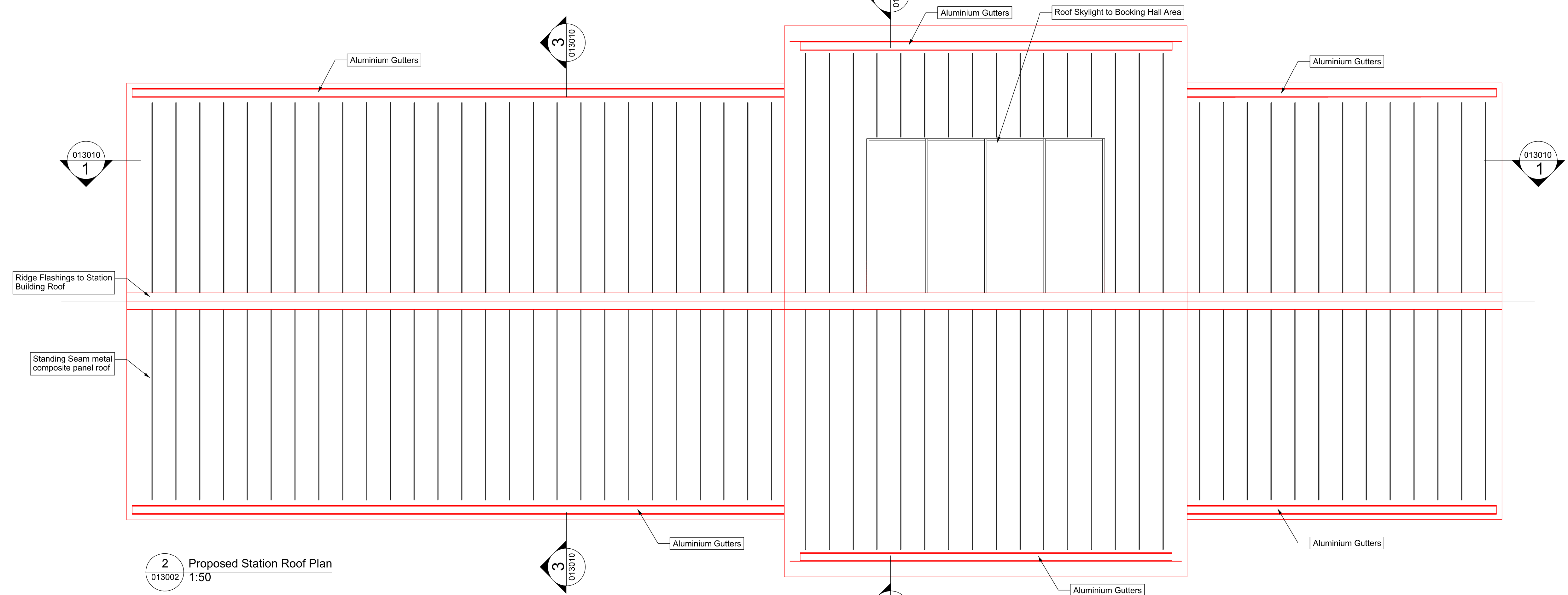
Alternative Reference
170248-ARU-DRG-EST-000005

Drawing Number
170248-15854-ZZ-000-DRG-S-ST-210302

Figure 5
Proposed Station Level
GA Floor Plan and
Roof Plan



1 Proposed Station Level GA Floor Plan
1:50



2 Proposed Station Roof Plan
1:50

Legend/Notes

Rev	Date	Description of Revisions	Drawn	Chkd	Appr
P01	23/11/20	First Revision	GF	GS	---
P02	11/12/20	Second Revision	GF	GS	---
P03	13/01/21	Issue for IDC	GF	GS	---

Status	Suitability
Suitable for Co-ordination	S1



Authorised ---		Signed ---		Date
Contractor(s) Ove Arup & Partners Scotland Ltd				
Location/Level No Specific Location				
Type CAD Drawing	Sub-type Plan			
Role Architect	Discipline Architecture			
Volume/System No Specific Volume or System				
Phasing Proposed	Grip Stage 4			
Project Headbolt Lane				
Contract No. 170248				
Contract Title Headbolt Lane				
Drawing Title Proposed Station Level GA Floor and Roof Plan				
Designed ---		Signed ---		Date 29/10/20
Drawn G.FERREIRA		Signed GF		Date 13/01/21
Checked G.SEED		Signed GS		Date 13/01/21
Approved --		Signed ---		Date 29
Scale(s) 1:50		ELR & Mileage WKL2 28.1232 to 29.0913		
Alternative Reference 170248-ARU-DRG-EAR-000001				Sheet 1 of 1
Drawing Number 170248-15854-ZZ-ZZZ-DRG-A-AR-013002				Revision P03

Figure 6
Car Park and Access
Proposed Layout