highways england

M621 Motorway Junctions 1 to 7 Improvements

Planning Statement accompanying the Made Orders

2019

Table of Contents

Tables

Figures

1 Introduction

Purpose of the Document

1.1 This Planning Statement (this "Statement") has been produced to demonstrate the need and case for the M621 Motorway Junctions 1 to 7 Improvements (the "Scheme") assessed against national, regional and local planning and transport policy.

1.2 The Scheme will be delivered under the Highways Act 1980 and has been classified as an "alteration" due to the proposed closure of M621 Junction 2a. The development area (excluding the existing carriageway) does not exceed the threshold of 15ha defined under the Planning Act 2008 (the "2008 Act") for a scheme of this type. The Scheme is therefore not a Nationally Significant Infrastructure Project (NSIP) and does not trigger the requirement for a Development Consent Order (DCO). Further details are provided below.

1.3 The remainder of Chapter 1 provides background to the Scheme, as well as details of the consenting strategy and non-statutory consultation carried out between 4th September to 17th October 2017:

- Chapter 2 sets out the need for and details of the Scheme;
- Chapter 3 provides details of the economic case for the Scheme;
- Chapter 4 describes the planning and transport policy in the context of the Scheme and demonstrates how the Scheme is also aligned with the wider growth agenda for the Leeds City Region and Leeds City Centre, as well as goals to enhance environmental quality and human health in Leeds City Centre; and
- Chapter 5 provides a summary and conclusions on the benefits and impacts of the Scheme, including its alignment with the Scheme objectives as well as relevant planning and transport policy.

Background to the Scheme

1.4 In 2013, the then Highways Agency undertook the Leeds Infrastructure Study, which considered the highway network's ability to accommodate plans for the redevelopment of Leeds City Centre by Leeds City Council (LCC). The M621 was found to experience significant congestion, which the Scheme aims to alleviate, whilst improving journey time reliability and supporting such redevelopment.

1.5 Highways England's Delivery Plan indicates that construction of the Scheme will start within the current Road Investment Strategy (RIS) period (2015 – 2020), improving connection to Leeds and road safety along the M621.

1.6 In 2014, the Highways Agency prepared a preliminary design for the improvement of Junctions 1 to 4 and Junction 7 of the M621 and undertook a further feasibility study for technology options along the M621 corridor. This work was developed further in July 2015, when Highways England undertook an appraisal of the work undertaken to date, with a view to developing an integrated Scheme. This Scheme looked to combine the improvements of Junctions 1 to 4, Junction 7 and technology improvements into one Scheme. Several options were identified to improve the M621 and were presented to the public for consultation in September 2017 as part of the design development. Following the consultation events and further design/assessment, it was decided that Option A would be selected for development and it was announced as the Preferred Route in March 2018. The Scheme presented below evolved from Option A, as detailed below. Further details of the options process is provided in Chapter 2 of this Statement.

1.7 A full description of the Scheme is provided in Chapter 2 of this Statement. This describes the improvements proposed to Junctions 2, 2a and 3, including the closure of Junction 2a.

1.8 Highways England, as a competent authority, has screened the Scheme using the Directive's Annex III criteria in order to determine whether the Scheme requires an Environmental Impact Assessment (EIA). The screening process concluded that the potential effects on the environment are not considered to be significant in the context of formal EIA and therefore one will not be required. The non-statutory Environmental Assessment Report (EAR) is however required to ensure that the final design, and any mitigation measures, address any concerns regarding environmental impact.

1.9 An EAR is a requirement for projects which are being progressed under the Highways Act 1980 to demonstrate that the Scheme:

- Meets the requirements within the Highways England Licence (Department for Transport, April 2015);
- Will identify how the objectives set out in the RIS (Department for Transport, March 2015) will be met; and
- Demonstrates compliance with the relevant policy requirements e.g. the National Planning Policy Framework (NPPF) (Ministry of Housing, Communities and Local Government, 2018).

1.10 The significant impacts created by the Scheme are deemed to be localised or temporary in nature.

'*Predicted significant adverse effects on the access to private residential dwellings due to the closure of Junction 2a westbound are considered to be localised and small scale in the context of the wider study area, which comprises approx.43,675 households, most of which will experience slight beneficial effects to access. Any adverse effects on access will be offset by significant beneficial impacts by reduced through-traffic in this area which will improve amenity, reduce severance and improve conditions for the local community, supporting a key objective of the Holbeck Neighbourhood Plan (2018). In addition, there will be significant beneficial health effects as reduced traffic will make the streets safer for the local community, particularly children and older people who are more susceptible to change.*

Predicted significant visual effects for residents in properties on Euston Grove will be short term and localised and can be reduced to slight beneficial through sensitive design and embedded mitigation measures in the medium term'. (M621 Junction 1-7 EIA Screening Determination)

1.11 A temporary compound has been identified adjacent to Junction 7 which will be required to support works across the whole of the Scheme. A new access into the plot of land is also required to improve safety as access requirements into this site will be increased over the construction period. Additional details regarding the compound are also included in Chapter 2 of this Statement. The Junction 7 temporary compound has been considered within the environmental assessment for the Scheme, as reported within the EAR (https://highwaysengland.co.uk/projects/m621-junctions-1-to-7/).

1.12 The layout of the Junction 7 temporary construction compound will be established during detailed design and the determination period of the Side Roads Order (SRO) for the Scheme, within the area identified on plan ref: HE551464-ATK-HAC-DR-CH-000007 (see Appendix A of this Statement). The proposed works to establish the compound can be undertaken using Highways England's permitted development rights, apart from access into the compound. The construction of an access road is therefore being sought in the SRO.

1.13 Improvement works at Junction 7 were identified for early delivery during the Option Selection stage for the Scheme. These improvement works comprise widening of the eastbound off-slip, and an additional lane on the north eastern side of the roundabout. These works have been taken forward as a separate scheme and are therefore not included and assessed within this Statement. However, the Junction 7 improvements are listed as a 'committed development' within EAR Chapter 14: Assessment of Cumulative Effects.

Highways England

1.14 Highways England is the developer of the Scheme. It is responsible for operating, maintaining and improving England's motorways and major A roads, which includes the M621 motorway. Formerly the Highways Agency, it became Highways England in April 2015.

Consenting Strategy

1.15 The Scheme is a highway alteration, which will be consented under the Highways Act 1980 (Part I, Section 4; Part II, Section 18 and Part V) for the following reasons:

- The closure of Junction 2a will require a Side Roads Order (Section 18 of the Highways Act 1980);
- The identified development area is 3.87ha (see Appendix D: Development Area Calculations of this Statement), excluding works within the existing highway boundary. The development area is therefore well below the 15ha for an NSIP;
- Associated improvements are required to the surrounding local road network, managed by LCC, in relation to the Scheme. A Section 4 Agreement (under the Highways Act 1980) will be required between Highways England and LCC to allow Highways England to carry out the works on the local road network;
- Improvements to Highways England's network will be carried out pursuant to Part V of the Highways Act 1980 (Improvement of Highways); and
- The works do not require express planning permission. They are either excluded from the definition of 'development' for these purposes or, as they are being delivered pursuant to the Highways Act 1980, they are permitted development pursuant to Part 9 of Schedule 2 to the Town and Country Planning (General Permitted Development) (England) Order 2015 (the GDPO).

1.16 Improvements to the Junction between Cemetery Road and Elland Road are proposed as part of the Scheme. The works will be progressed through an agreement with LCC pursuant to Section 4 of the Highways Act 1980, in order to provide legal permission for Highways England to undertake work on the local authority highway. The Section 4 agreement with LCC will be in place following completion of the detailed design in 2020.

1.17 A design for mitigation works to the local highway has been agreed by both Highways England and LCC, demonstrating support for the completion of the Section 4 works proposed and commitment to their delivery. The works are intended to mitigate impacts on the capacity of the local highway network following the closure of Junction 2a, which will require local traffic travelling to the area to travel to Junction 2, before travelling east along Elland Road to the junction with Cemetery Road. Works included in the Section 4 agreement are listed below:

- Improvements and alterations to the Junction between Cemetery Road and Elland Road, including the addition of a controlled pedestrian crossing at Elland Road; and widening and signalising the Junction to enhance capacity. Journey time reliability and road safety will also be enhanced following the closure of the M621 Junction 2a, resulting in more westbound traffic travelling east on Elland Road from Junction 2 to the Junction with Cemetery Road;
- Realignment of the Brown Lane footpath on the north eastern side of Junction 2, following its removal to allow the provision of the free-flow lane from M621 eastbound to the A643 northbound;
- Widening Junction 2 circulatory roundabout from 2 to 3 lanes on the north and widening from two to four lanes to the south; and
- Improvements and alterations to the A643 north and south of the M621 as a result of the proposed works at Junction 2.

1.18 The following Orders will be sought through the Highways Act 1980:

- A Side Roads Order (SRO), under Section 18 of the Highways Act 1980, provides consent for Highways England to 'stop up, divert, improve, lower or otherwise alter a highway that crosses or enters the route of the special road, or is, or will be otherwise affected by the construction or improvement of the special road'.

- The SRO will allow:
    - Stopping-up of the M621 Junction 2a westbound off-slip road, associated improvements to its junction with Cemetery Road and the creation of a new private means of access for Highways England's maintenance of the M621; and
    - Improvements to the A61 (Wakefield Road), stopping-up of a private means of access from A61 (Wakefield Road) and the creation of a new private means of access into the proposed site compound area, at Junction 7, from the A61 (Wakefield Road).
- A Compulsory Purchase Order (CPO) is required to acquire land necessary for the improvements and alterations described above in the SRO and works at Junction 2, which will be undertaken using Highways England's permitted development rights.

1.19 The CPO for the Scheme is made under various Sections of the Highways Act 1980. A summary of the powers in the Highways Act 1980 relating to the Scheme is provided below:

- Under Section 239, Highways England as the strategic highways company, may acquire land required for the construction and improvement of the M621. Highways England, as a highway authority, may acquire land required for the construction of a highway, which is to become maintainable at the public expense. It may also acquire land which is required for the carrying out of works authorised by an order relating to the M621 under Section 18 (i.e. the SRO) or for the provision of facilities used in connection with the construction or maintenance of a trunk road. Highways England may also acquire any land required for the improvement of a highway, which it is authorised by the Highways Act to carry out;
- Under Section 240, Highways England, as highway authority, may acquire land required for use in connection with the construction or improvement of a highway, or with the carrying out of works authorised by an order relating to a trunk road under Section 18 (i.e. the SRO) and the carrying out of a diversion or other works to watercourses;
- Section 250 allows Highways England, as the highway authority, to acquire rights over land, both by acquisition of those rights already in existence, and by the creation of new rights; and
- Section 260 allows Highways England, as highway authority, to override restrictive covenants and third-party rights where land already acquired by agreement is included in a compulsory purchase order.

1.20 A Land Exchange Exemption Certificate application will also be progressed in relation to a small amount of proposed land take at the Former Matthew Murray Site on the north eastern side of Junction 2. The land is designated as an urban green corridor and a protected Playing Pitch, as shown on the Leeds Policies Map 2018. The land is therefore defined as open space and special category land. Normally exchange land would be required if such land were to be developed, however as the land is required for highway widening it is possible to apply for an exemption. Highways England is applying for such an exemption to the Secretary of State for Housing, Communities and Local Government. This is expected to be granted as the land is required for highway widening and it is not considered necessary to replace the land as it does not currently fulfil a formal, recreational purpose and Sport England do not object to these proposals. Further detail is provided in the Statement of Reasons which can be found at (https://highwaysengland.co.uk/projects/m621-junctions-1-to-7/).

1.21 The acquisition of this small area of Special Category Land is being sought via agreement with LCC, however the land will be included in the CPO for the Scheme should this not be possible within the required timescales.

1.22 Secondary consents will be sought in addition to the SRO, CPO and Section 4 Agreement including permanent and temporary Traffic Regulation Orders (TRO) which will be required for the Scheme. These will consist of:

- Temporary TRO for diversions of traffic during the construction phase of the Scheme, in line with the Traffic Management. See Appendix B: Proposed Diversions and Traffic Management Measures of this Statement and Appendix G: Traffic Management Plan;

- A temporary TRO for the suspension of the bus lane on the A61 at Junction 7 (adjacent to the proposed temporary site compound); and

- A permanent TRO is also likely to be sought for the closure of the footway running around the western edge of the Junction 2 roundabout.

1.23 Express planning permission is not required to deliver the Scheme. Section 57 of the Town and Country Planning Act 1990 sets out that, subject to the provisions of that section, planning permission is required for any acts of 'development'. Section 55(1) of that Act provides the definition of development and Section 55(2)(b) excepts certain operations from being categorised as development, including 'the carrying out on land within the boundaries of a road by a highway authority of any works required for the maintenance or improvement of the road but, in the case of any such works which are not exclusively for the maintenance of the road, not including any works which may have significant adverse effects on the environment'.

1.24 Section 57 of the 1990 Act also provides for planning permission to be granted by a development order. The GPDO sets out, in its Schedules 1 and 2, the developments to which planning permission is granted, known as permitted development rights (PDRs).

1.25 The following PDRs (identified within the GPDO, Schedule 2, Part 9) are considered applicable to the Scheme:

> *"Class A – The carrying out by a highway authority*
>
> *on land within the boundaries of a road, of any works required for the maintenance or improvement of the road, where such works involve development by virtue of section 55(2)(b)(g) of the Act; or*
>
> *on land outside but adjoining the boundary of an existing highway of works required for or incidental to the maintenance or improvement of the highway."*
>
> *Class B - The carrying out by the Secretary of State or a strategic highways company of works in exercise of the functions of the Secretary of State or the company under the Highways Act 1980(2), or works in connection with, or incidental to, the exercise of those functions."*

1.26 These PDRs are applicable to the entirety of the Scheme, as all works are either within the highway boundary of the M621 or immediately adjacent and are functions of Highways England under the Highways Act 1980. This includes works within the existing motorway boundary and at Junction 2.

1.27 As previously detailed, the PDRs also apply to the establishment of the temporary construction compound as this will be located immediately adjacent to the existing highway boundary at Junction 7 of the M621. The creation of a new permanent access to serve the site compound location at Junction 7 is included in the SRO for the Scheme.

Non-Statutory Consultation Undertaken

1.28 Consultation has been undertaken with the public, LCC, local councillors and environmental bodies as part of the design process for the Scheme. In order to understand the related impacts, engagement has also commenced with statutory undertakers (utility companies) to gain an understanding of those affected and the associated costs for any public utility diversions that may be required as a result of the Scheme.

Public Consultation

1.29 A non-statutory public consultation was undertaken between 4th September and 18th October 2017 allowing a total of 42 days for responses. Consultation events took place at Hillside Enterprise Centre, Beeston Road, Leeds (Friday 8th September and Saturday 9 September 2017) and St Matthew's Community Centre, St Matthew's Street, Leeds (Saturday 16th September 2017).

1.30 Members of the public were presented with three options (A, B and C) to seek their feedback and preferences. A summary of the options is provided below:

Option A

- The introduction of a free-flowing connection between the M621 and the A643 at Junction 2;
- Provision of an additional lane to the roundabout at Junction 2;
- Providing two lanes through the M621 Junction 3 westbound (anticlockwise), instead of one lane at present;
- Changing Junction 3 westbound (anticlockwise) to give priority to the main M621 traffic and reducing the on-slip to one lane, creating a junction where traffic merges from the on-slip road on the right-hand side of the carriageway;
- Provisions of a third lane between Junction 2 and 3 westbound (anticlockwise) by converting the existing hard shoulder into a running lane;
- Closure of Junction 2a westbound (anticlockwise) to enable the improvements at Junction 3; and
- Providing improved motorway technology along the M621 corridor.

Option B

1.31 Option B includes all the improvements of Option A, plus the addition of a third lane in each direction between Junctions 1 and 2 by converting the hard shoulder into a lane for traffic.

Option C

1.32 Option C includes all the improvements of Options A and B, plus the addition of a third lane between Junctions 2 and 4 eastbound (clockwise) by converting the existing hard shoulder into a lane for traffic. This will include changing Junction 2a on-slip and Junction 3 off-slip to a standard junction, to enable the existing auxiliary lane to form part of the additional third lane.

1.33 Further details of each of the three options (A, B and C), including a map/plan of each option, can be found in the consultation brochure (See Appendix E Public Consultation Brochure of this Statement).

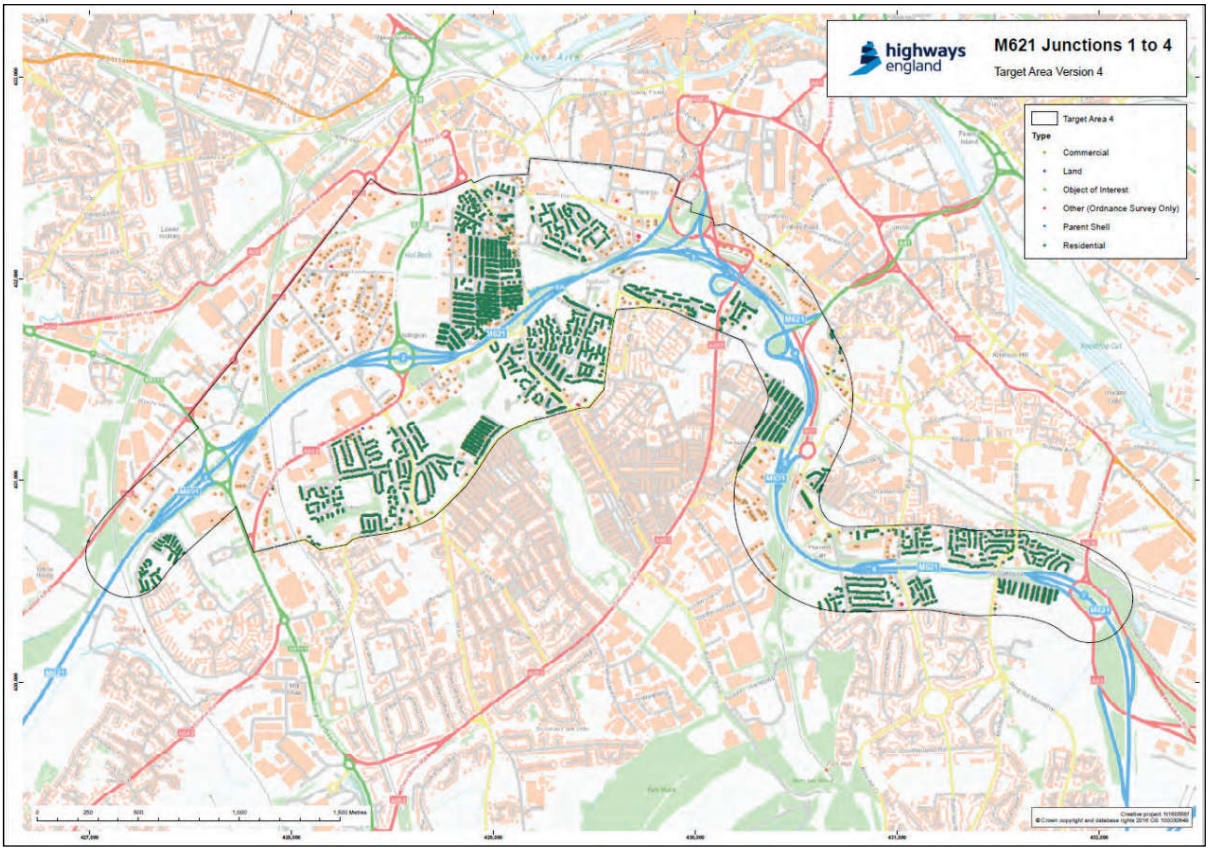
1.34 The questionnaire and Scheme information were also made available on the Highways England Scheme website (https://highwaysengland.co.uk/projects/m621-junctions-1-to-7/) for those unable to attend the consultation events. A total of 105 completed questionnaires were received to the non-statutory consultation, a further 18 responses were received by letter or email.

1.35 The questionnaire asked respondents their opinions on the consultation process, as well as their thoughts on the options proposed. Over half of questionnaire responses (54%) which consists of the following wards:

- Morley North;
- Farnley & Wortley;
- Beeston & Holbeck;
- Hunslet & Riverside; and
- Middleton Park.

1.36 Scheme information, including a questionnaire, was distributed to 7,500 households living in proximity to the Scheme (see Figure 1.1 below).

Figure 1.1 Consultation Brochure Distribution Area



1.37 The following key themes from the non statutory consultation were identified:

- Four in five respondents believed that something should be done to improve reliability and reduce congestion on the M621, demonstrating a strong recognition of the issues identified by Highways England;
- Option C was the most popular of the three options displayed; preferred by almost one half of respondents (46%); and
- Over half (53%) of respondents from the Local Area and the wider area (53%) agreed with the closure of Junction 2a. Some local residents did however raise some concerns about the closure of Junction 2a, including the potential for congestion across the wider road network. They were concerned that the closure could restrict emergency service vehicle access and that the proposed works would lead to safety issues.

1.38 The findings from the consultation published in the Public Consultation Report (March 2018) were utilised in the assessment of the options at Options Selection stage and have been used to determine the selection of a preferred route to take forward the preliminary design. Further details relating to the assessment of development options are provided in Chapter 2 of this Statement.

1.39 The preferred route announcement was made in March 2018, after carefully assessing how well each option met the Scheme objectives and taking into account feedback from members of the public and other stakeholders. Option A was selected as the most suitable.

1.40 As explained in the Preferred Route Announcement (https://highwaysengland.co.uk/projects/m621-junctions-1-to-7), and the EAR for the Scheme, Option C was identified as the most popular public option, following analysis of the consultation feedback, however Option A was expected to provide the best value for money overall, whilst meeting the Scheme objectives. Option A also supported improvements to the wider transport network across the City of Leeds and is expected to have the least environmental impact.

1.41 Since Option A was announced as the preferred route, further development has been undertaken on the Scheme as part of the preliminary design. The associated changes are identified in Table 1.1. and include changes to speed limits on the M621, landscaping at the stopped up Junction 2a and improvements to the local highway network.

1.42 Option A is expected to:

- Meet all of the Scheme objectives, as set out in Chapter 2;
- Deliver the required benefits by improving journey times, safety and providing better information to drivers;
- Is likely to be delivered within the available funding set out in the RIS, subject to continuing value for money; and
- Supports LCC's transport proposals and economic growth.

1.43 A Public Information Event (PIE) was held on the 30th September 2019 to provide the public with an opportunity to view the final Scheme before submission.

Preliminary Design Stage

1.44 Non-statutory consultations with Statutory Environmental Bodies for the purposes of the environmental assessment, undertaken during the Preliminary Design stage, have included:

- Natural England – in relation to limitations of the bat survey methodology, refer to EAR Chapter 7 for further details;
- LCC including:
  - Environmental Health – meetings held to agree assumptions to include in traffic modelling and to verify results from air quality modelling, refer to EAR Chapter 5: Air Quality;
  - Senior Nature Conservation Officer – in relation to limitations of the bat survey methodology, refer to EAR Chapter 7 for further details; and
  - Principal Landscape Architect – to discuss approach to mitigation for landscape e.g. ratio of replanting.
- West Yorkshire Archaeology Advisory Service (WYAAS) – in relation to the need for a cultural heritage assessment. Refer to EAR Chapter 4.

1.45 West Yorkshire Police commented on the Scheme on 10th May 2019 (Appendix C), to express their support for the development proposals in terms of road safety, subject to the incorporation of enhanced signage, which is to be provided through new electronic message boards at gantries.

1.46 West Yorkshire Combined Authority (WYCA) commented on the Scheme on 12th March 2019, to highlight that Leeds City Council are working on the delivery of a Flood Risk Management (FRM) scheme at Farnley Wood Beck near Cottingley. This FRM scheme does not fall within the area of coverage of the Scheme so no specific proposals are included. Furthermore, the Scheme is not expected to have any significant water related impacts (see Chapter 9 of the EAR), and a drainage scheme will be produced at the detailed design phase to ensure that the Scheme does not lead to an increase in surface water runoff or flood risk within the Scheme area or the surrounding area.

1.47 A number of potential amendments to the Scheme were considered during the preliminary design phase, as a result of the non-statutory consultation undertaken. The amendments which have been considered are summarised in Table 1.1:

Table 1.1 Comments at Non-Statutory Consultation and associated design development

Issues Raised	Design Development
Provision for walking, cycling and horse riding (WCH).	Additional signage will be considered as part of the detailed design process.
Improvements to the Junction between Elland Road and Cemetery Road.	Improvements to signalise the Junction are included in the Scheme and will be secured via a Section 4 Agreement. This Junction lies within the local road network, however a need to provide additional highway capacity for the locality following the closure of Junction 2a was highlighted in consultation responses as well as traffic modelling.
Provision of additional landscaping at Junction 2a following the closure of the off-slip.	A landscaping scheme for the area of land at Junction 2a forms part of the Preliminary Design proposals.
Reducing the speed limit on the M621.	Variable speed limit to be incorporated, to manage the speed at which vehicles travel along the M621.

Statutory Undertakers

1.48 Following a review of information provided by the statutory undertakers, it has been identified that there are eleven potential interfaces with statutory undertaker's equipment.

1.49 Requests for preliminary budget estimates were issued to those affected statutory undertakers, in August 2018 for the Junction 2 and Junction 3 works, and in May 2019 specifically for the Elland Road/Cemetery Road improvements. A summary of responses is provided in Table 1.2.

Table 1.2 Preliminary Budget Estimate Responses

Statutory undertaker	Location of Diversion	Date of Response
Northern Powergrid (Yorkshire) plc	Junction 3 (Mainline)	26/11/2018
	Junction 2	26/11/2018
Yorkshire Water Services Ltd (Waste Water)	Junction 2	09/09/2018
BT Telecommunications plc (Openreach)	Junction 2	02/10/2018
Yorkshire Water Services Ltd (Waste Water)	Elland Road/Cemetery Road	23/05/2019
Yorkshire Water Services Ltd (Clean Water)	Elland Road/Cemetery Road	TBC
Northern Powergrid (Yorkshire) plc	Elland Road/Cemetery Road	TBC
BT Telecommunications plc (Openreach)	Elland Road/Cemetery Road	31/05/2019
Northern Gas Networks Ltd	Elland Road/Cemetery Road	TBC
Colt Technology Services	Elland Road/Cemetery Road	TBC
City Fibre	Elland Road/Cemetery Road	TBC

1.50 As is standard practice, additional detailed estimates will be requested from the statutory undertakers during detailed designs for the Scheme.

1.51 Statutory undertaker utility diversions are required at Junction 2 to facilitate the proposed carriageway widening, however, the above information does not take into consideration any of the potential interface with highway assets such as drainage, motorway communications / technology or street lighting. The possible diversion and or replacement of these assets will be established at detailed design. Table 1.2 indicates those statutory undertakers affected where Highways England will continue to have ongoing dialogue, through to construction.

2 The Scheme

Need for the Scheme

2.1 The background to the Scheme is also described in Chapter 1 of this Statement. In 2013, the Highways Agency undertook the Leeds Infrastructure Study, which considered the infrastructure required on the surrounding highway network to accommodate the plans for the redevelopment of Leeds City Centre by LCC. The M621 was found to experience significant congestion, and therefore improvements are required both to address existing demand and accommodate LCC's development plans.

2.2 The M621 is congested during the peak am and pm periods, resulting in poor journey time reliability. It is expected that such congestion will increase across the M621 corridor over time, due to planned and committed developments in the area, further exacerbating the congestion issues. Traffic modelling has indicated that the two-way Annual Average Daily Traffic (AADT) between Junction 3 and Junction 4 is expected to increase from 54,000 to approximately 62,000 vehicles per day in 2036, equivalent to a 13% increase from the base year (2015). Similarly, expected traffic growth between Junction 1 and Junction 3 is anticipated to increase by 8% across the links over the same time period, further contributing towards current congested conditions.

2.3 Without intervention, vehicle delays during peak hours are expected to rise on the M621 due to increased traffic demand from planned and committed developments, including a substantial amount of development planned within Leeds City Centre and the Aire Valley Leeds Area Action Plan (AVLAAP) area of coverage (see Chapter 4 – Policy Context of this Statement and Chapter 14 – Assessment of Cumulative Effects of the EAR). The M621 westbound movements between Junction 3 and Junction 4 are likely to experience high delay increases, with delays in 2036 expected to nearly double compared to those in 2015. The majority of the links along the M621 are forecasting increased delays as a result of the traffic growth, further reducing journey time reliability and hindering future economic growth.

2.4 The Scheme falls within LCC's aspiration to construct 10,200 new dwellings and create 57,500 new jobs in Leeds City Centre by 2031 (Leeds Core Strategy 2014, policy CC1 – City Centre Development), as well as ambitious plans for economic development within the area of coverage of the Aire Valley Leeds Area Action Plan 2017, which is identified as a key strategic location for job growth in the adopted Leeds Core Strategy 2014 (Spatial Policy 1 – Location of Development).Such plans would be constrained without improvement of the existing M621. The existing congestion experienced on the M621 would justify the need for improvement irrespective of LCC's proposals.

2.5 The two-way AADT across the M621 is expected to increase from 36,200 per day in 2015 to approximately 41,700 vehicles per day in 2036 with the Scheme in place, equivalent to a 15% increase from the base year (2015). Between 2015 and 2036, the M621 westbound movements between Junction 2 and Junction 4 are likely to experience high delay increases under the 'do nothing' scenario (without the Scheme), with delays expected to increase by up to 79% in the PM peak. Despite the 15% increase in traffic in the westbound direction, journey times in 2036 will stay the same as those recorded in 2015 under the Scheme proposals, demonstrating the benefits of the increased capacity in the westbound direction. Traffic modelling indicates that delays in the pm peak in 2036 between the 'do nothing' scenario and the scenario with the Scheme implemented will be improved by 17% (252 seconds vs 216 seconds).

2.6 In safety terms, the motorway performs relatively poorly in terms of slight personal injury collisions (PICs) compared with the national average. This poor performance is associated with peak hour congestion and sub-standard distances between junctions in several locations, resulting in short weaving lengths. One of the main objectives of the Scheme is to improve safety for road users. The removal of the off-slip road at Junction 2a together with reduced level of congestion, improved driver information and smoother traffic flows is likely to have an improvement on road safety. A risk analysis undertaken as part of the traffic modelling exercise has indicated that the Scheme is forecast to achieve a 10% reduction in the rate of the severity and frequency of road accidents. This assessment also considers the impacts upon different road users and the measures included in the Scheme to improve road safety.

2.7 Improvement of the M621 is therefore required to alleviate existing congestion, facilitate the short-term city centre improvements, improve safety and to support longer term economic growth in the area.

Scheme objectives

2.8 The objectives of the Scheme include:

- Increasing capacity and improving journey time reliability;
- Improving the safety of the Scheme corridor for road users;
- Providing better and real-time information to road users;
- Avoiding and mitigating potential environmental impacts of the Scheme and enhance, where possible, the built and natural environment; and
- Supporting LCC's development plans including updates to the Leeds transport network, where possible.

2.9 Further details of the Scheme are set out within the remainder of this section, and Table 2.1 below provides a summary of how the Scheme addresses the above objectives:

Table 2.1 How the Scheme meets its objectives

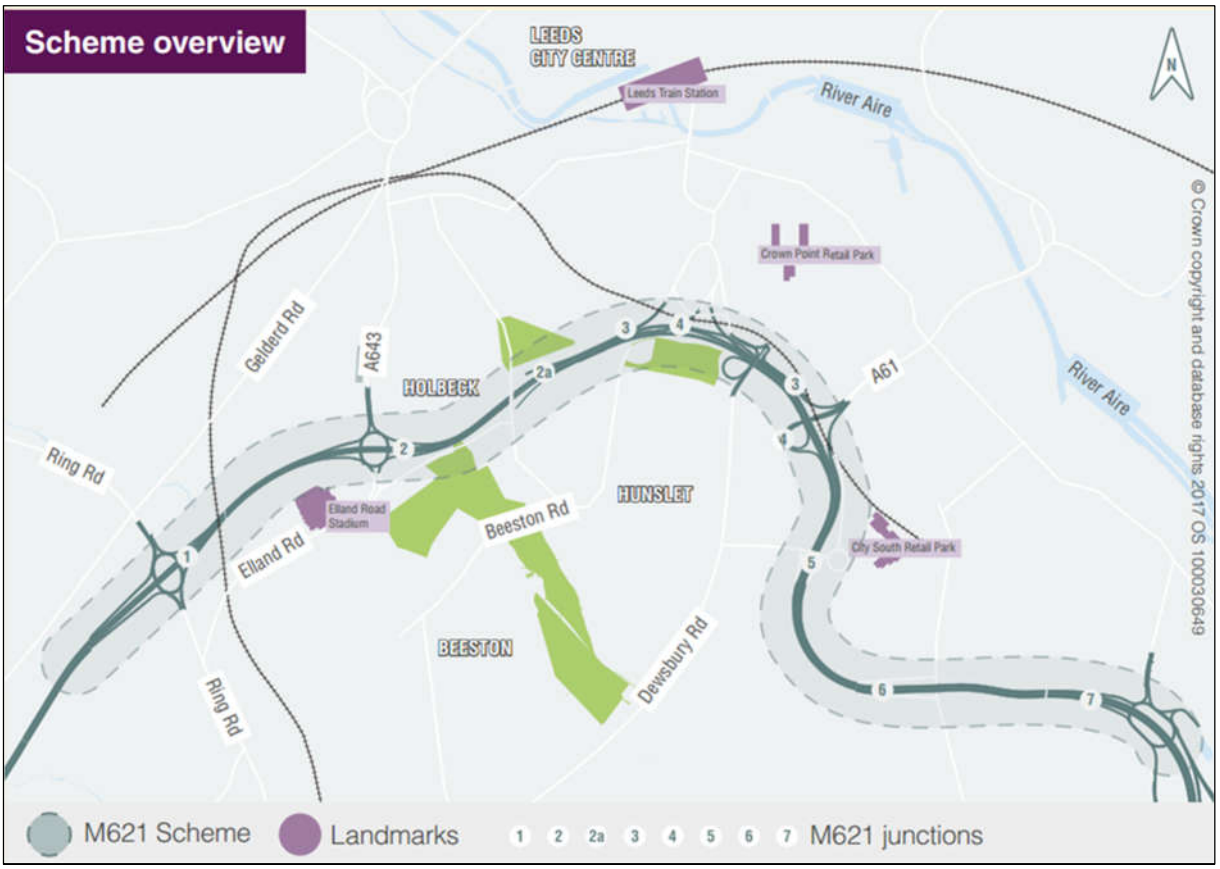
Objective	How the Scheme meets its objectives
Increase capacity and improve journey time reliability.	Better utilisation of space on the existing motorway, through the use of the hard shoulder. Enhancements to the connections between the strategic and local road networks. Increased capacity at Junction 2, enhancing the flow of traffic in the process. Incorporation of technology to provide live updates on journey times.
Improve the safety of the Scheme corridor for road users.	Given that the distance between the Junction 3 westbound on-slip and the Junction 2a westbound off-slip is relatively short, drivers are currently required to manoeuvre between lanes quickly, which is detrimental to road safety. The stopping-up of the westbound off-slip at Junction 2a removes this road safety hazard. Enhancements to the capacity and flow of traffic at Junctions 2 and 3 and the addition of technology to increase driver awareness of hazards are also considered to be safety enhancements.
Provide better real time information to road users.	Enhanced real time driver information signage, enhancing journey time reliability. CCTV cameras will be installed to monitor traffic conditions. This information will be distributed to the regional control centre, West Yorkshire Police and the Traffic Officer service to support their rapid incident response and the distribution of relevant information to drivers.
Avoid and mitigate potential environmental impacts of the Scheme and enhance, where possible, the built and natural environment	Mitigation measures have been incorporated within the design process, which include a landscaping scheme to replace trees and vegetation adjacent to the M621. The proposed works will lead to an overall enhancement to the appearance of the area. The Scheme has also been designed in consideration of future land uses, such as a football training facility or residential units.
Supporting LCC's development plans including updates to the Leeds transport network.	The Scheme will enhance the capacity and flow of traffic on the M621 motorway, and at key junctions with the local road network, aligning with LCC's plans to reconfigure the local transport network. Through enabling the reconfiguration of the local transport network under LCC's and supporting the Aire Valley Leeds Area Action Plan development strategy at Junction 7, the Scheme will support the development of key employment and housing sites, whilst helping to achieve LCC's goals to enhance air quality in the City Centre as well as the urban environment.

Main features of the Scheme

Location

2.10 The M621 runs through Leeds from Junction 27 of the M62, in the west, to Junction 43 of the M1, in the east, and serves Leeds City Centre and the surrounding area. The total length of the M621, as described above, is approximately 13.5 kilometres (km). Junctions 1 to 7 of the M621 are located within a seven km length of the 13.5 km route, with the focus of the Scheme being on the sections between Junctions 1 and 4; located to the south and south-east of Leeds City Centre respectively.

Figure 2.1 M621 Scheme Extent



2.11 Figure 2.2 below, provides an overview of the full extent of the M621 between Junctions 1 and 7, and its location. Location plans for the key elements of the Scheme (Junctions 2, 2a and 7) are included at Appendix A of this Statement.

Local Area

2.12 The M62 approaching Leeds from the west serves major cities located south west of Leeds including Manchester and Liverpool. Junctions 3 and 4 of the M621 provide direct access to Leeds City Centre. The M621 terminates at Junction 7 where it interchanges with the M1, connecting Leeds to the south and north of England.

2.13 From the M62 Junction 27, the M621 is fringed to its northwest by predominantly agricultural land with areas of broadleaved woodland bordering the route corridor; isolated farm buildings and commercial premises are located throughout the farmland. This characteristic range of land uses continues for approximately two kilometres before encountering an out of town industrial estate at Beeston Royds.

2.14 Residential areas of mixed building style, size and period are located at New Brighton, Churwell and Cottingley, to the southeast of the route corridor. These areas are generally screened from the motorway by landform and vegetation, however views across open space and farmland are possible from the westbound carriageway south of Cottingley.

2.15 From Cottingley, land uses immediately to the east of Junction 1 of the M621 comprise mixed residential and commercial development; and the Leeds United Football Club (LUFC) sport stadium at Elland Road. The built-up areas between Junctions 2 and 7 incorporate mixed residential/commercial areas and urban open spaces, including cemeteries, playing fields and parks.

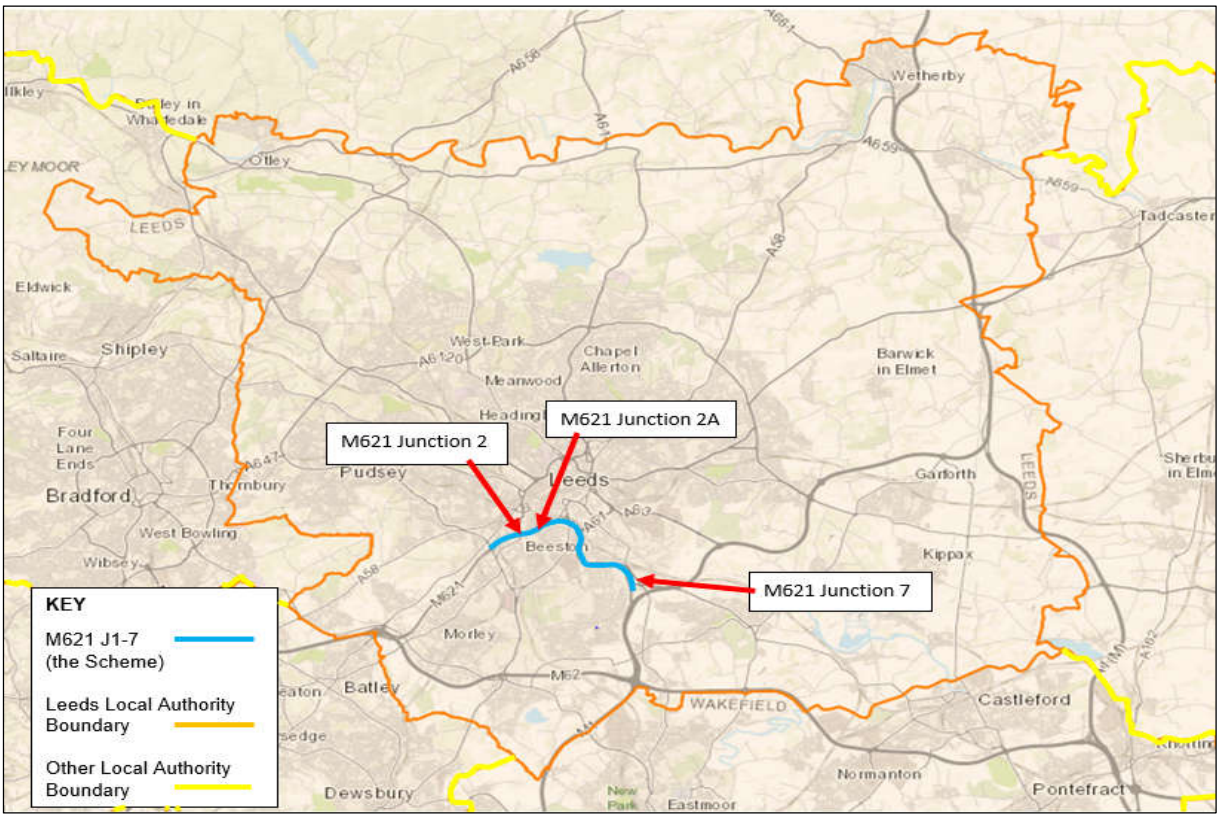
2.16 Junctions 3 and 4 provide direct access to Leeds City Centre and incorporate mixed tree and scrub planting within the highway boundary.

2.17 The Environmental Constraints Plan (see Chapter 17 of the EAR) sets out the important environmental features within the vicinity of the Scheme and also overlays the Scheme area.

2.18 The Scheme is located within the local authority area of Leeds City Council (see) and includes the following wards:

- Morley North;
- Farnley & Wortley;
- Beeston & Holbeck;
- Hunslet & Riverside; and
- Middleton Park.

Figure 2.2 Leeds City Council Local Authority Area Boundary



Scheme Description

2.19 The route identified and published as the preferred Scheme was Option A. This was developed as an option that was affordable and represented best value for money, whilst meeting the Scheme objectives. Details of the assessment of development options are provided at Chapter 2 of this Statement and in Chapter 3: Assessment of Alternatives of the EAR, and details of the selection of the preferred option are provided within EAR paragraphs 3.1.10 to 3.1.12.

2.20 The Scheme comprises the following:

Junction 2

- Widening the circulatory roundabout from 2 to 3 lanes on the north and widening from 2 to 4 lanes to the south;
- A new free-flow link will be provided between the M621 eastbound off-slip and A643 northbound with associated widening of the verge at this location to enhance highway visibility and sight lines;
- The A643 southbound approach to the Junction 2 roundabout will be widened from 2 to 3 lanes and the M621 eastbound on-slip would be widened from 1 to 2 lanes;
- Widening of the Junction 2 westbound off-slip from 2 to 3 lanes, and widening of the Junction 2 westbound on-slip from 1 to 2 lanes for the first circa one third of the length of the slip road starting from the point where the slip road joins the circulatory carriageway at Junction 2;
- Revised signage;
- The re-alignment of the Brown Lane footpath on the north eastern side of the Junction to make way for the free-flow lane from M621 eastbound to the A643 northbound; and
- Improvements and alterations to the A643 north and south of the M621 to tie in to the roundabout alterations.

Junctions 3 and 2a

- Junction 3 westbound on-slip and merge layout will be changed, to provide two lanes through the Junction on the M621 westbound carriageway with a reduction to a single offside lane gain from the westbound on-slip road (which is currently 2 lanes). The Junction 3 improvements require the full closure of the Junction 2a westbound off-slip to Cemetery Road.

Main Carriageway

- A third lane will be added between Junctions 2 and 3 westbound by converting the existing hard shoulder to provide an additional running lane.

2.21 The above highway improvements will also be accompanied by increased technology provision, based on adherence to the latest standards from the Design Manual for Roads and Bridges (DMRB) and associated Interim Advice Notes. Where adherence cannot be attained, due to the existing sub-standard layout of the M621 and existing constraints, departures from DMRB will be progressed. The proposals include increased technology provision to improve driver information and actively manage the flow of traffic, including at the section of hard shoulder conversion westbound between Junctions 2 and 3. Some of the existing motorway gantries will be repaired, where possible, or replaced, and additional gantries will be installed to support the new technology. Details of the technology improvements are provided in the EAR Chapter 2: The Project.

2.22 Proposals for the use of Junction 2a post-closure, to be progressed at the detailed design stage, include:

- retaining the existing carriageway for maintenance access to the new technology enhancements (signs and CCTV); and
- additional landscape infill planting and habitat creation along the old carriageway once closed.

2.23 The Engineering and General Arrangement Plans of the Scheme are included within the EAR Chapter 17.

2.24 The Junction 2a westbound off-slip road will be physically closed off from the M621 with new works constructed adjacent to the M621 main line including a safety barrier to match those existing along the M621 and motorway communication equipment (See Appendix A. Location Plan). The remaining slip road carriageway will be reduced to a single-width maintenance track as a private access for the purposes of maintaining lighting, motorway communications and drainage infrastructure. The retained area will be fenced off, on the western side at Cemetery Road, from the local highway network to prevent unauthorised access. Additional landscaping will be completed in this area, further details of the landscaping scheme and general arrangement drawings are located within EAR Chapter 6. Alterations to the existing T-Junction between Junction 2a westbound off-slip and Cemetery Road are also required to create a new private means of access to enable future maintenance of the M621.

2.25 A traffic assessment known as a microsimulation traffic model has been prepared to assess the changes on the Local Road Network (LRN). The model indicates, as a result of the closure of Junction 2a, that there is likely to be congestion at the Junction of Cemetery Road / Elland Road, which lies approximately 30 metres to the south of the point at which Junction 2a meets Cemetery Road.

2.26 To mitigate the predicted congestion and delays, it is proposed the Junction is signal controlled including the provision of a controlled pedestrian crossing. Without mitigation in place at the Junction of Elland Road / Cemetery Road to signal control the Junction, delays are predicted to average 114 seconds per vehicle on Elland Road in the morning peak. Delays are predicted to reduce by 60% to an average of 44 seconds per vehicle in the morning peak with signalisation in place at Elland Road / Cemetery Road. In the evening peak, delays are predicted to reduce from 63 seconds to 29 seconds. It should be noted that with signalisation in place at the Junction of Elland Road / Cemetery Road, drivers on Cemetery Road will experience some delay, due to the introduction of traffic lights, but traffic modelling shows that the delays will be within acceptable levels.

2.27 Local diversion routes will be planned to re-direct traffic during the construction of the Scheme to minimise congestion and delays. Diversion routes will also be in place following the stopping up of Junction 2a to support the redirection of traffic that would have used the Junction to access the LRN. Construction of the Scheme is expected to be approximately 18 months commencing in (March 2020). The provision of technology will extend beyond this period with a reduced site set-up for an additional six months. The total Scheme programme will therefore be approximately two years.

2.28 The outline temporary traffic management measures are proposed as follows (further details are provided in the Traffic Management Plan (TMP) at Appendix G):

- Reducing the use of the M621, by providing signing on the M62 and M1 advising of other potential routes to access Leeds City Centre and the LRN;
- Narrow lanes within the three lane sections of the M621;
- Weekend lane closures; and
- Limited night time closures.

2.29 To support the construction of the Scheme, a temporary construction compound is proposed to be located adjacent to Junction 7 (see Appendix A. Location Plan of this Statement). The existing access to this plot of land, from the A61 at the northern corner of the plot of land via a narrow track, is currently in an unsafe location and is to be stopped up permanently. A new access will be created onto the A61 to serve the compound and provide a safe access to this plot of land for future uses. The establishment of the compound can be carried out under Highways England's PDRs. Consent for the access is sought via the SRO for the Scheme.

2.30 The enabling works to the land for the temporary construction compound will involve stripping of the topsoil, erection of the compound, as well as the creation of a new access from the A61 to serve the site. The compound will accommodate a storage area, site office and car park. The land required for the temporary construction compound will accommodate a storage area, site office and car park, as shown in the location plan contained in Appendix A of this Statement.

Technology

2.31 Technology will be introduced along the M621 to manage and monitor vehicle speeds along this section of the motorway, including the introduction of variable speeds during busy periods and real time information on delays caused by congestion. These enhancements will help to improve road safety and reduce driver stress. The technological improvements will be used to control traffic conditions, communicate driver hazards and support Highways England and the West Yorkshire Police to improve the management and response to incidents.

Vegetation Clearance and Landscaping

2.32 The proposed works will require the clearance of all vegetation within a four metre wide corridor from the back of the carriageway throughout the extents of the Scheme. Where gantries are proposed, vegetation clearance could extend back to the highway boundary. Information on vegetation clearance can be found in Chapter 2 of the EAR.

2.33 Landscaping will be undertaken throughout the extent of the Scheme. Specifically at Junction 2, proposed deciduous woodland, scattered trees and shrubs will be planted to the north of Junction 2 eastbound offslip to replace loss and contribute to the screening of views from the non-definitive footpath at Brown Lane and Maple business park further to the north. Amenity grass and ornamental planting is also proposed at this location in response to the removal of vegetation, to make way for the free-flow link from the M621 eastbound to the A643 northbound.

2.34 Mixed woodland is proposed on the eastern side of the A643 southbound approach to Junction 2 to replace vegetation removed. The existing earth bund at this location is to be reprofiled similar to its current height. At the southern end of the bund, a close boarded fence and larger plant stock are proposed to mitigate bat collisions and the impact of loss of bat commuting/foraging habitat.

2.35 At the proposed stopped up Junction 2a westbound off-slip, additional deciduous woodland and shrub planting is proposed.

2.36 At the Junction 7 temporary site compound, deciduous woodland is proposed on the south western and eastern sides of the site compound area. This will replace existing woodland removed for temporary site compound access during construction phase. Species rich grassland is also proposed across the extent of the temporary site compound area, once works are complete and an area of deciduous woodland is proposed on the southern side of the Junction 7 roundabout and bat and bird boxes are proposed to be installed on the north eastern side of the roundabout.

2.37 The landscaping proposals are shown in the environmental mitigation plans at Appendix H of this report.

Proposed Land Take

2.38 There are four areas of permanent and temporary land take required for the Scheme, consisting of:

- Two areas to the northeast and northwest of the Junction 2 roundabout, adjacent to the A643;
- One area at the existing Junction 2a slip road, which is to be stopped up; and
- One area at Junction 7, to enable the provision of a temporary construction compound.

2.39 The four areas above are described in further detail in the accompanying Statement of Reasons to the Compulsory Purchase Order (CPO). which sets out the justification for the use of compulsory purchase powers and CPO and is available to view at https://highwaysengland.co.uk/projects/m621-junctions-1-to-7/.

2.40 The temporary land take for the Scheme is 3.30 ha and the permanent is 0.56 ha. With the addition of land where rights are to be acquired of 0.01 ha the total land take area is 3.87 ha.

2.41 The environmental impact of permanent and temporary land take required has been assessed in Chapters 12: Material Assets and Waste and Chapter 13: Climate of the EAR.

Junction 2a

2.42 Land to be acquired at Junction 2a is included within the CPO. When this road is stopped up the land would revert to the original owners as it is no longer required to be used as a dedicated highway. It is not possible for Highways England to alter the function of the existing slip road to a maintenance road only (i.e. non-highway designation) and retain control over it without the use of compulsory purchase powers or securing the land by agreement. The CPO is therefore required to retain Highways England's ownership of the land and in the event it is not possible to acquire by agreement which will allow the slip road to be used as a maintenance road.

Junction 2

2.43 The land on the north eastern side of Junction 2 is currently allocated as protected playing pitch and urban green corridor within the Leeds Unitary Development Plan Policies Map update 2018. The land on the north western side forms a grass verge with screening planting between the existing carriageway and the business park to the north west of the Junction. The areas of permanent land take are required for a proposed new free-flow link, from the M621 eastbound off-slip road to the A643 northbound, on the western corner and widening of the A643 southbound approach to Junction 2 from two to three lanes on the eastern corner.

2.44 The design for Junction 2 minimises the amount of land take on the north eastern side of the Junction at the Former Matthew Murray Site to avoid impacting upon the use of the area designated as an urban green corridor and a playing pitch (designated as Special Category Land), whilst allowing sufficient space to provide landscaping to replace that removed as part of the Scheme.

2.45 The acquisition of this small area of Special Category Land is being sought via agreement with LCC, however the land will be included in the CPO for the Scheme should this not be possible within the required timescales. An Exchange Land Exemption Certificate application is to be submitted to the Secretary of State for Housing, Communities and Local Government, to demonstrate that the land is required for the widening of an existing highway and that the giving in exchange of other land is unnecessary.

Junction 7

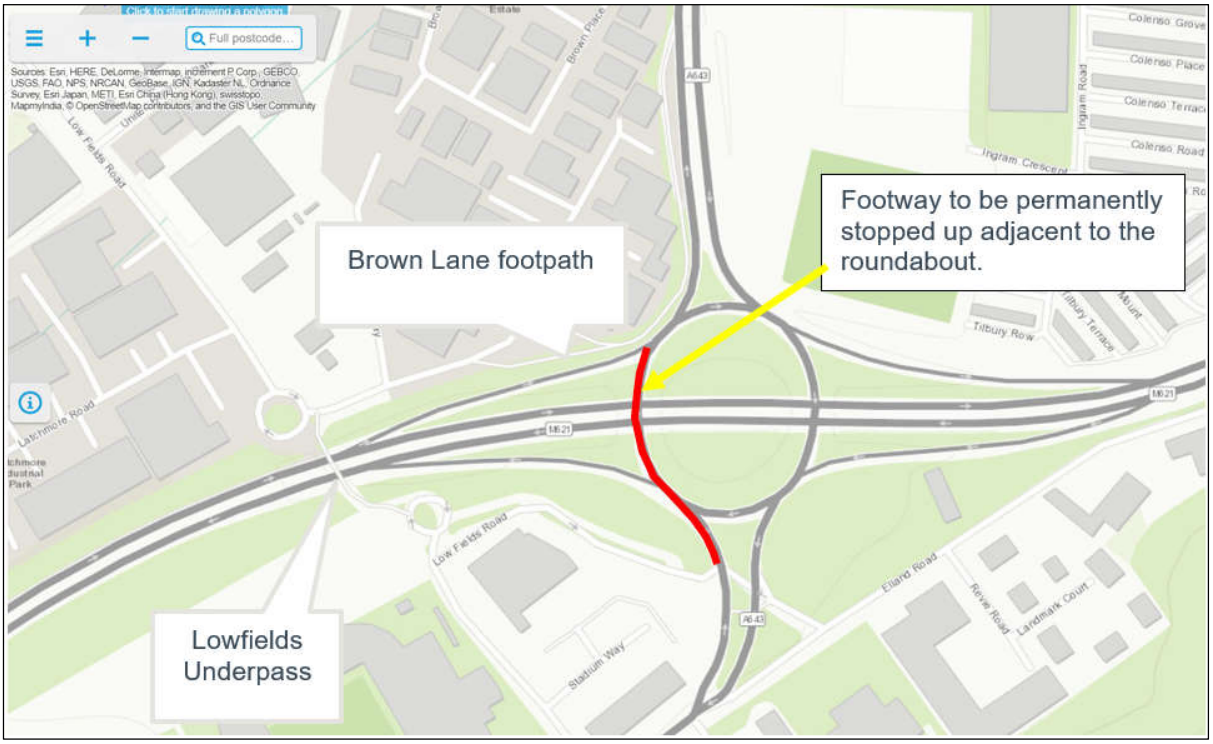
2.46 Land adjacent to Junction 7 is included in the CPO, to be acquired on a temporary basis for a site compound to support the construction of the Scheme. A new access into the plot of land is also required to improve safety as access requirements to and from this site will be increased over the construction period.

2.47 The location of the plot of land in shown at Appendix A Location Plans of this Statement, as is the location of the new access and an indication of the layout of the compound. The existing access is taken from the northern end of the site, from the A61, via a narrow track.

Walkers, Horse Rider and Cyclist Alterations

2.48 The improvements at Junction 2 will involve the closure of the footway adjacent to the west of Junction 2 roundabout, to allow slip road widening. A TRO to prohibit pedestrian use will be sought to support this closure. The location of the footway is shown in Figure 2.3 below.

Figure 2.3 Junction 2 Footway Location Plan



Source: Atkins Go

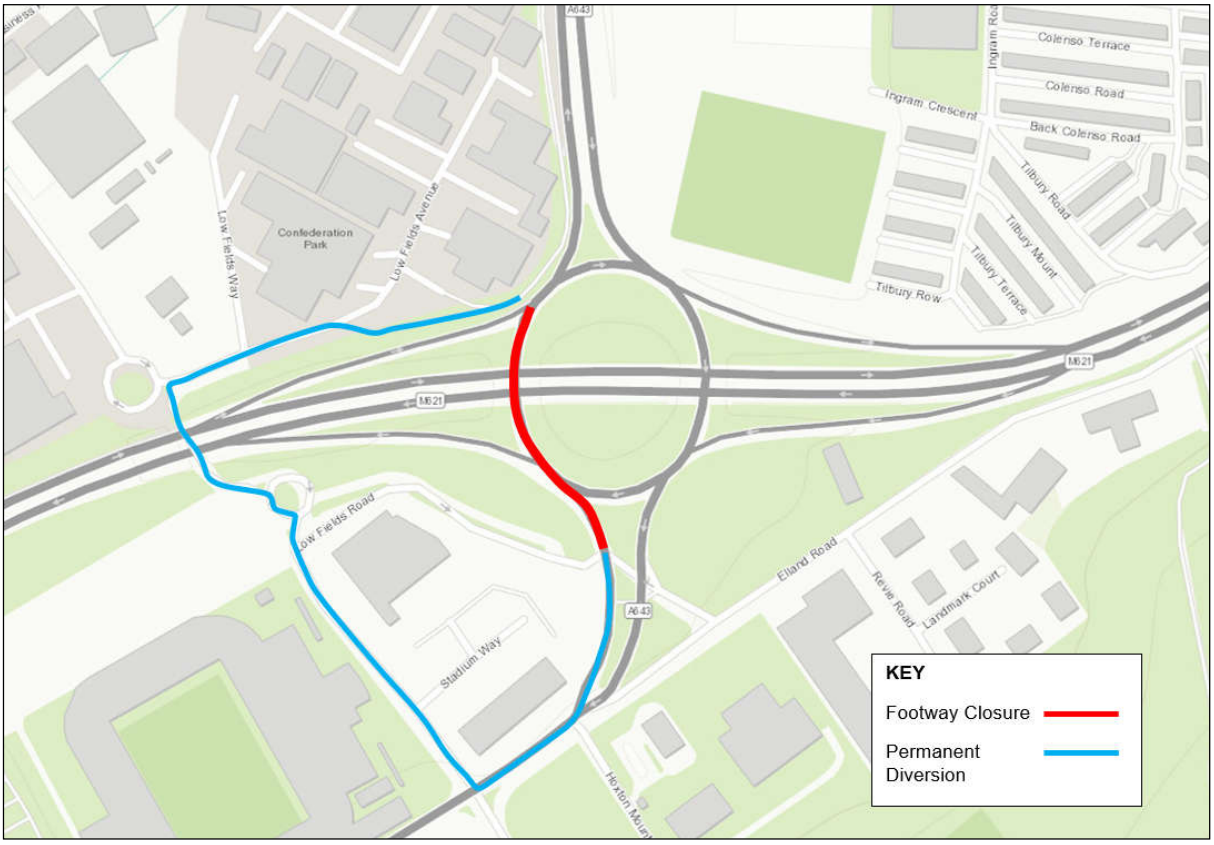
2.49 An assessment of the Footway's use and potential diversion routes was completed in November 2017, with day long surveys completed on a typical day and also on a match day at LUFC. A typical day is defined as a weekday in a neutral month, absent of holiday periods, school holidays and other abnormal traffic periods. The roundabout crossing was undertaken 457 times (230 times northern direction and 227 southerly) on a match day. As expected, the level of match day use was much greater than a typical day, with typical day movements at 6% of those recorded on match days. Typical day movements at the roundabout were recorded at 27 (14 crossings northbound and 13 southbound).

2.50 On both a match day and typical day the underpass between Lowfields Road and Lowfields Avenue was used a substantial number of times. On match days movements totalled 13,536 (including journeys in both directions) and typical days 478 (both directions). There are no proposals for this underpass included in the Scheme and the underpass will not be affected during the construction phase. Brown Lane footpath was used 1,287 times on match day (including both east and western movements) and 30 movements were recorded on a non match day (15 in each direction).

2.51 The permanent closure of the footway adjacent to the Junction 2 roundabout is expected to have a limited impact on local footpath users. The closure of this route is likely to improve road safety as following the completion of the works it would become challenging for pedestrians and cyclists to cross the road using a non signalised crossing in this area (which would now include expanded sections of highway at the free flow link between the M621 eastbound, A643 northbound and the M621 westbound off-slip).

2.52 The closest alternative route for pedestrians (and other footway users) following the closure of this path is identified in Figure 2.4, The route uses the underpass (Lowfields Road), with an additional alternative route using the footbridge (Elland – Tilbury) to cross the M621. The route takes an additional 10 minutes to walk and is increased by a distance of 0.5 miles. This footbridge to the east of Junction 2 between Elland Road and Tilbury Road is well used, with movements totalling 4,638 (both directions) on match days and 385 on typical days. This suggests that people already prefer the alternative crossing points to the current un-signalled roundabout crossing at Junction 2 roundabout, which is proposed for closure. The raw footpath survey results are provided in Appendix F of this Statement.

Figure 2.4 Alternative following the closure of the Junction 2 Footway

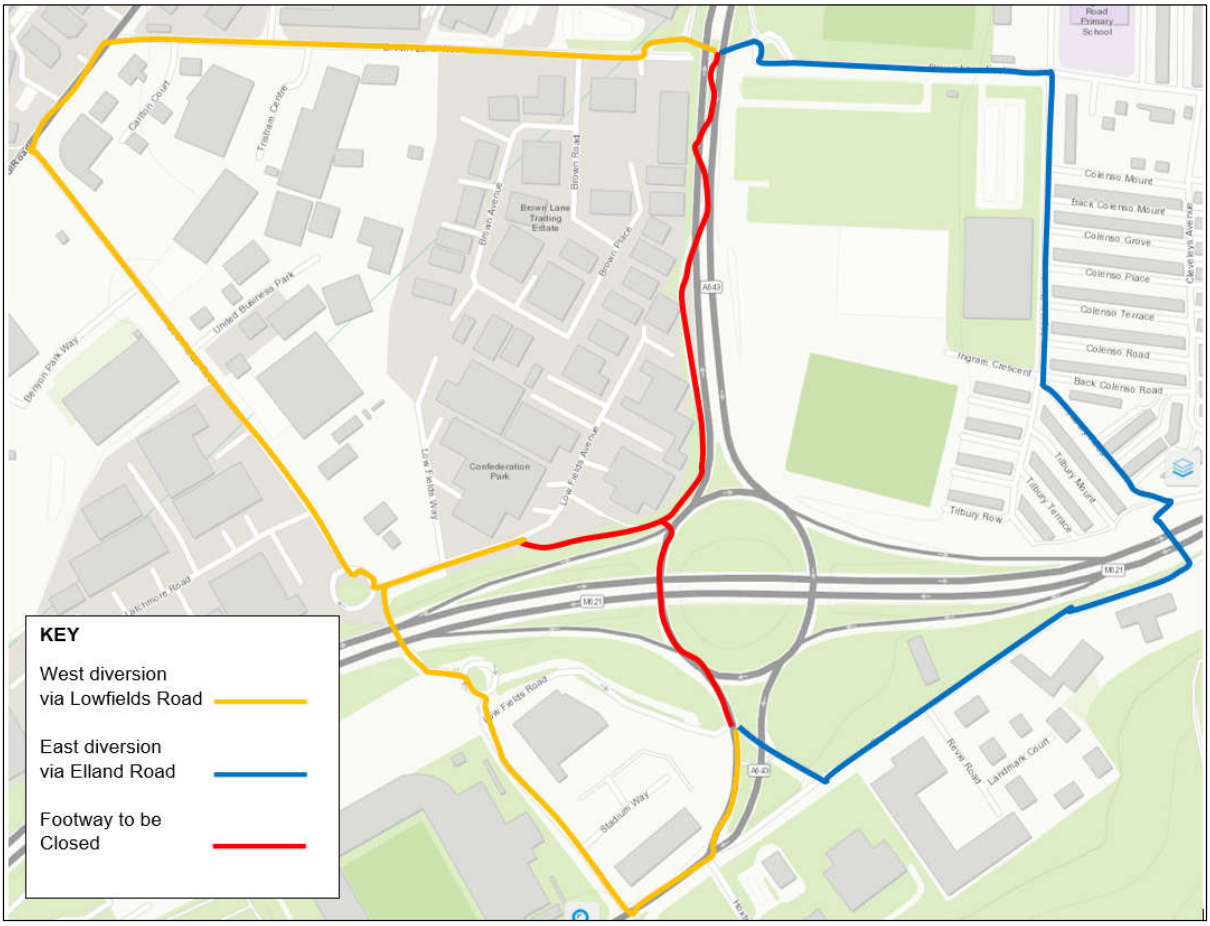


Source: Atkins Go

2.53 Temporary footway diversions will be put in place during construction of the Scheme. This will include Brown Lane footpath, which will be temporarily closed and then reopened following the completion of construction activities in this area. Temporary diversions will be provided to provide a safe route for pedestrians and to avoid a substantial diversion in terms of walking distance during this period. The temporary diversions are shown in Figure 2.5 with the west diversion via Lowfield Road underpass (coloured yellow) and the eastern diversion via Elland Road – Tilbury Grove footbridge (coloured blue). The red line demarks the footway which will be closed.

2.54 TROs will be sought for the permanent and temporary footpath closures at the Junction 2 roundabout and Brown Lane respectively before commencing construction in this area.

Figure 2.5 Temporary diversion due to the temporary closure of Brown Lane during construction



Source: Atkins Go

Existing land use and character

2.55 The M621 at the junction with the M62 is fringed by commercial development located at Gildersome and New Brighton. Approximately 0.5 km north of the M62 Junction 27 the land use adjacent to the eastbound carriageway of the M621 becomes agricultural in nature, with rough pasture supporting predominantly horse grazing. Land use fringing the westbound carriageway comprises mixed commercial and residential development up to the point where Asquith Avenue overbridge crosses the M621 corridor, approximately one third of the way from M62 Junction 27 to M621 Junction 1. Land use immediately adjacent to Asquith Avenue and the eastbound M621 carriageway includes an extensive caravan storage park associated with Deanacres Farm.

2.56 North of the Asquith Avenue overbridge the land adjacent to both carriageways of the motorway comprises woodland or roadside tree planting with occasional open grassed areas. The tree planting forms a buffer between the motorway and residential development on the south-eastern side of the M621, with farmland dominating the landscape to the north-west of the route.

2.57 At Junction 1 of the M621, land uses become more urban, with commercial development being the dominant land use to the north of the Junction with mixed residential/commercial development at Cottingley to the south, including Cottingley Hall Crematorium.

2.58 Land use between Junction 1 and Junction 2, adjacent to the eastbound carriageway, is largely commercial, with land fringing the westbound carriageway being occupied by LUFC Elland Road Sports Stadium and related commercial uses.

2.59 At Junction 2, commercial development lies on the north western and southern sides of the Junction, with residential estates beyond. On the north eastern side of the Junction lies an area designated as an urban green corridor and a playing pitch (as shown on the Leeds Unitary Development Plan Review Policies map 2018), which formed part of the now demolished Matthew Murray High School.

2.60 East of Junction 2a tree planting and open spaces are interspersed with areas of housing, some of which include recently built properties. Residential development abuts the eastbound carriageway boundary at The Tilburys/ Ingram Road and/Elland Road.

2.61 Residential properties are located to the south of the westbound carriageway between Junction 2a and Junction 3. Small areas of amenity space, play areas and sports facilities fringe the route, while Beeston Hill Saint Luke's Church of England Primary School, City and Holbeck Children's Centre and Lane End Primary School are all located within 500 m of the existing M621, with Lane End School being situated approximately 50 m from the M621 boundary.

2.62 Junctions 3 and 4 provide direct access to Leeds City Centre and incorporate mixed tree and scrub planting within the highway boundary. A large sports field and amenity area is located to the east of Lane End Primary School adjacent to the westbound carriageway, extending to the off-slip road at Junction 3 and A653 overbridge. Land fringing the eastbound carriageway and Junction 3 largely comprises commercial development with associated planting or scrub vegetation. The Leeds to Castleford railway line also passes through the slip road network associated with Junction 3, running broadly parallel with the M621 corridor until reaching Junction 4 where the rail line diverges to the east.

2.63 Land use immediately adjacent to the M621 boundary between Junctions 3 and 4 westbound comprises mixed residential development with associated amenity spaces. Land use fringing the eastbound carriageway comprises commercial development and the Leeds to Castleford railway line.

2.64 From Junction 5 to Junction 7 the land uses in the area comprise mixed residential, commercial and amenity spaces, with Hunslet Cemetery and a large allotment garden being situated adjacent to the westbound carriageway approximately 400 m west of Junction 7.

2.65 Adjacent to the eastbound carriageway at Junction 7 the land use is dominated by commercial development, including Leeds Freight Centre and related semi-industrial or logistics facilities associated with Royal Mail and Arla Foods. Leeds Valley Park (East & West) is located adjacent to the eastbound carriageway, to the south of the A639.

2.66 Land use to the west of Junction 7, adjacent to the westbound carriageway, is comprised of low quality, grazed, agricultural land plus roadside tree and scrub planting between the carriageway and A61 approach road to the roundabout.

Environmental Overview and Constraints

2.67 Overall, only localised or temporary significant effects upon the environmental receptors are expected as a result of the Scheme. A detailed assessment of the potential environmental impacts can be found in the EAR.

2.68 The population and human health assessment (Chapter 10 of the EAR), completed as part of the EAR's development, has demonstrated that there are localised, significant effects to local residents created by permanent road diversions, due to the closure of Junction 2a and the resultant increase in journey times for local residents. A traffic modelling assessment was completed, which indicated that it could take up to an additional circa 90 seconds for the residents primarily affected (i.e. those living near Junction 2a itself) to get home from the westbound M621, which is considered to be a localised, significant impact.

2.69 Additionally, temporary moderate adverse (significant) visual effects are anticipated on residential receptors at Euston Grove in the first year of opening due to the removal of trees and reprofiling of the existing bund. However, these effects would be mitigated through the provision of replacement of woodland planting and would not be considered significant in the medium to long term.

2.70 There are two Local Nature Reserves (LNRs) within one km of the Scheme, Middleton Woods LNR, located 500 metres south of westbound carriageway at Junction 6 around 800 metres south of Junction 6, and Oakwell Park LNR located 1 km west of the M621/M62 merge. The LNRs are not adversely affected by the Scheme.

2.71 Four Leeds Nature Areas (LNA) and one Local Wildlife Site (LWS) are located immediately adjacent to or within 100 m of the Scheme: (Clubbed Oaks and Dean Wood (LNA and LWS), Noster Hill (LNA), Hunslet Moor (LNA) and Hunslet Old Cemetery (LNA). These sites are not adversely affected by the Scheme.

2.72 There is a Registered Park and Garden (RPG), Hunslet Cemetery, located around 95 metres south of the M621 just west of Junction 7, again not adversely affected by the Scheme.

2.73 The following areas of designated Ancient Woodland are located within one km of the Scheme, and are not adversely affected:

- Dean Wood (Ancient Replanted Woodland) located 30 m north-west, between Junction 27 of the M62 and Junction 1;
- Birkby Brow Wood (Ancient Replanted Woodland) located 540 m south of Junction 27 of the M62; and
- Middleton Wood (Ancient & Semi-Natural woodland) located 940 m south of Junction 6.

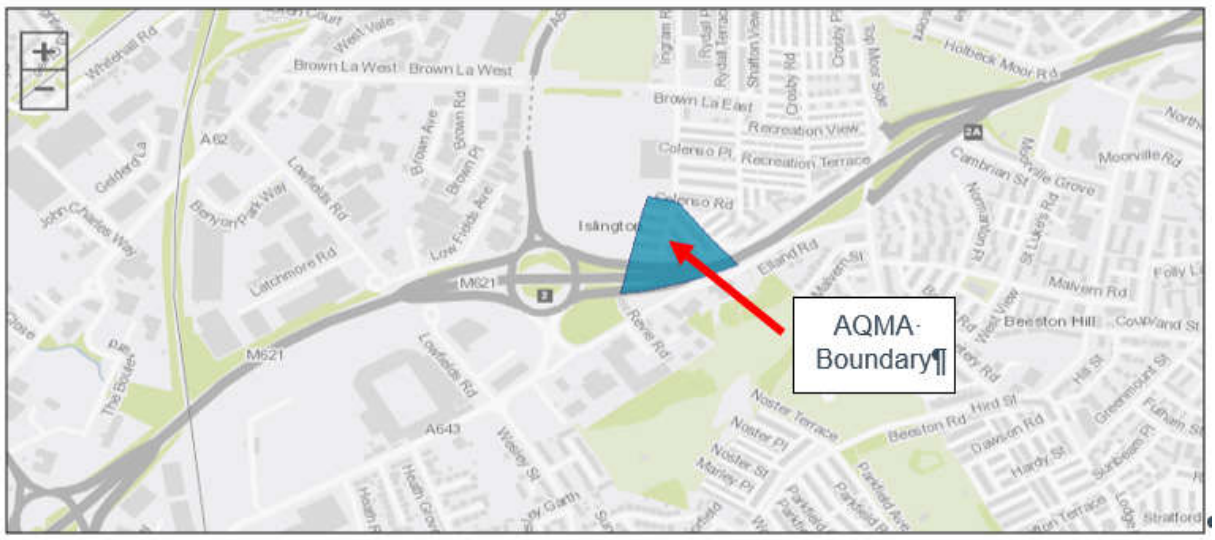
2.74 There are six watercourses (not adversely affected) within 500 m of the Scheme:

- Low/Wortley/Pudsey Beck, culverted under the Scheme. North-east of Junction 1;
- Unnamed Watercourse, culverted under the Scheme at Junction 7;
- Farney Wood Beck, culverted under the Scheme near Junction 1;
- Clark Spring, located approximately 30 m south-east, near Junction 1. Joins Farnley Wood Beck;
- Dean Beck, flows adjacent to the Scheme, near Junction 1. At the closest point is located approximately 90 m north-west; and
- Haigh Beck located approximately 475 m east of Junction 43 of the M1.

2.75 Within 100 metres of the Scheme alignment, there is one groundwater abstraction located north of the east bound approach to Junction 1, which is not adversely affected by the Scheme. There are no Groundwater Source Protection Zones.

2.76 There are six Air Quality Management Areas (AQMAs) currently declared in the area and administered by LCC due to exceedances of the annual mean NO2 Air Quality Standard (AQS) objective. None of the AQMAs are adversely affected, with just the Tilbury's AQMA within the Scheme extent as detailed below in Figure 2.6. The area of coverage of Tilbury's AQMA is shown in Figure 2.6 below and includes an area encompassing a number of properties adjacent to the eastbound slip road of Junction 2 of the M621 and A653 Ingram Road Distributor and extending south across the M621 on the eastern side of Junction 2 with the southern boundary drawn adjacent to the M621 on the southern side. The Scheme is not projected to have a significant impact upon air quality within this area, as set out in Chapter 5 of the EAR, and will deliver air quality benefits through improving the flow of traffic and reducing congestion.

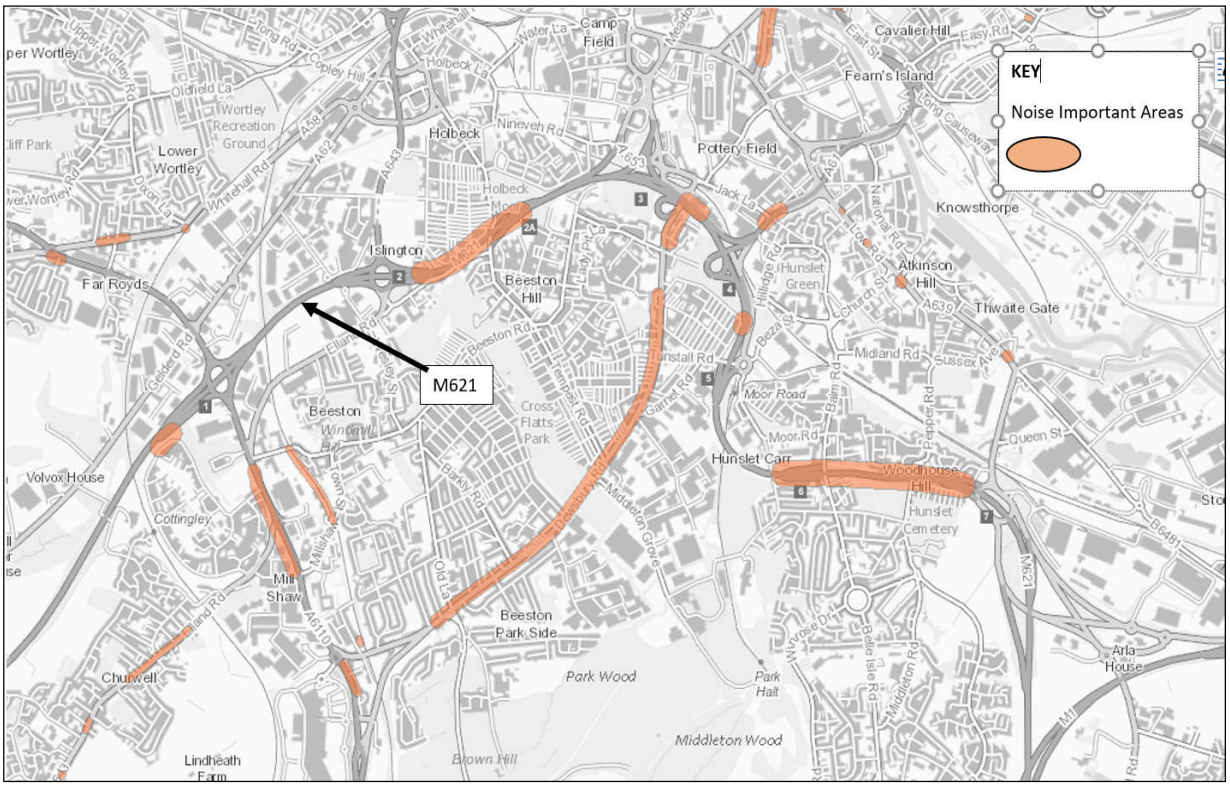
Figure 2.6: Area of Coverage of The Tilbury's AQMA



(Source: DEFRA Air Information Resource/Atkins Go)

2.77 There are nine Noise Important Areas (NIAs) adjacent to the M621, five of which are immediately adjacent to the Scheme. There are an additional 25 NIAs located on other nearby local roads which are within 1km of the Scheme. The NIAs are not adversely affected by the Scheme.

Figure 2.7: Noise Important Areas in proximity to the Scheme



Source: Accessed on 17/10/19
https://environment.data.gov.uk/DefraDataDownload/?mapService=DEFRA/NoiseActionPlanningImportantAreasRound3&Mode=spatial

2.78 The Environmental Constraints Plan (see Chapter 17 of the EAR) sets out the important environmental features within the vicinity of the Scheme and also overlays the Scheme area.

Alternative Options Assessed

2.79 Details of the alternative development options assessed and the methodology which has been used to arrive at the preferred option are set out in the EAR (see EAR Chapter 3: Assessment of Alternatives) and are also included below.

Assessment Methodology

2.80 Several options for the Scheme have been considered since 2013. The assessment of alternatives has been considered in accordance with the guidance in DMRB Volume 11 Section 2, Part 5, HA 205/08. The level of investigation and assessment of each of the options considered has been directly proportionate to the feasibility of that option and benefits that it could provide.

2.81 A number of high-level strategic solutions were developed which were assessed in terms of technical feasibility, safety, engineering, value for money and environmental considerations. The aim of exploring alternatives is to ensure consideration of a range of possible solutions in order to identify the option that offers the best outcomes across the full range of objectives set for the Scheme.

2.82 Throughout this process, the following types of alternatives were considered, but have been since discounted as they did not satisfy the Scheme objectives:

- Online improvements – relating to various improvements to Junctions 2, 2a, 3, 4 and 7;
- Offline improvements – upgrading the A62, realignment of the M621;
- Public transport - improving public transport and restricting Junction 2a to public transport use only; and
- Policy - Charging for road use and closing City Centre car parks.

Reasonable Alternatives Studied

2.83 During the Strategy, Shaping and Prioritisation Stage an options workshop was held. The workshop generated options that would address the Scheme objectives - based on knowledge of existing and future traffic flows, identified constraints and work previously undertaken. The workshop identified a total of 20 options for initial assessment. In accordance with Highways England guidance on developing a transport business case, the 20 options were subjected to analysis using the 'Early Assessment and Sifting Tool' (EAST).

2.84 The majority of these options comprised on-line improvements, due to existing constraints that would prohibit widening and/or off-line improvements. Alternatives to highway improvements were also considered, such as improving public transport, introducing a congestion charge or closing some City Centre car parks. The latter two were discounted due to concerns over access to services for vulnerable road users, and the first was not taken forward as it would not achieve the desired benefits within the timescale of the RIS 1 period. Off-line options were generally considered to provide insufficient additional benefits to justify the resulting environmental and cost impacts.

Option Identification

2.85 The design development undertaken in the Option Identification Stage considered the key benefits and issues associated with each of the Strategy, Shaping and Prioritisation Stage options. This then informed the development of four rationalised options (Options A to D, see Table 2.2 for assessment in the Option Identification Stage. There was also an additional remit at this stage to develop an option that could be delivered within the RIS budget of £55 million.

Table 2.2 Assessment Summary for options considered during the Options Identification Stage

Option	Description	Assessment Summary
Option A	This option includes: • Junction 2 improvements, which comprise the free-flow links between the M621 eastbound and A643 to the north of Junction 2. Improvements to the circulatory carriageway to facilitate the forecast increase in traffic flows. • changes to the Junction 3 westbound merge layout to provide two lanes through the Junction from the M621 westbound mainline with an offside lane gain from the slip-road • closure of the Junction 2a westbound diverge • conversion of the hard shoulder into a running lane between Junction 3 and Junction 2 westbound • improved technology provision, which meets the minimum criteria prescribed by standards	Provides the key junction improvements that deliver the most journey time saving benefits and aligns with the objectives set out in both the RIS and LCC's Strategic Case. Costs calculated at the Option Identification stage were within the allocated RIS budget of £55 million, environmental impacts were very similar across the options however, Option A is seen to have marginally lower impacts than Options B, C and D. Option A satisfies the Scheme objectives. Economic assessment indicates high value for money.
Option B	This option: • comprises all the improvements identified for Option A • involves adding a third lane in each direction between Junctions 1 and 2 by converting the hard shoulder into a lane for traffic	Provides additional benefits over Option A through the conversion of the existing hard shoulder between Junctions 1 and 2 in both directions. This would provide additional road capacity, reduced congestion and better journey time reliability. Cost calculated at the Option Identification stage were within the allocated RIS budget of £55 million, environmental impacts are marginally higher than Option A. Option B satisfies the Scheme objectives. Economic assessment indicated high value for money.
Option C	This option includes: • all the improvements of Options A and B • adding a third lane between Junctions 2 and 4 eastbound (clockwise) by converting the existing hard shoulder into a lane for traffic. This would include changing Junction 2a on-slip and Junction 3 off-slip to a standard Junction, to enable the existing auxiliary lane to form part of the additional third lane	Provision of three lanes between Junction 2 and Junction 4 eastbound increases the main carriageway capacity and the Scheme is aligned with LCC's ambition to promote the use of Junctions 2 and 4. Costs calculated at the Option Identification stage were slightly over the allocated RIS budget of £55 m, environmental impacts marginally higher than those of Option B. Option C satisfies the Scheme objectives. Economic assessment indicated high value for money.

Option	Description	Assessment Summary
Option D	This option includes: • all the improvements of Option C • incorporates the proposal to restrict Junction 2a eastbound to public transport only	Could have a negative impact on those currently using the slip-road to join the M621, it would promote the use of the Elland Road Park and Ride facility and could reduce the risks of queues forming on the merge due to limited merging opportunities. Costs calculated at the Option Identification Stage were slightly over the allocated RIS budget of £55 m, environmental impacts very similar to Option C and the option satisfies the Scheme objectives. Economic assessment indicated medium value for money.

2.86 Option D was assessed in the Option Identification Stage, but it was deemed to offer poorer value for money compared to the other options and was therefore not taken forward into the Option Selection Stage.

Option Selection

2.87 During the Option Selection Stage, Options A, B and C were all considered to be deliverable and therefore were assessed with regard to their economic, environmental and construction cost impacts.

2.88 The benefits, constraints and key issues for Options A, B and C were considered as part of a Value Management (VM) exercise held in January 2018. The VM Workshop was part of the Options Selection assessment process and aimed to identify a preferred option which meets the RIS commitment and ensure all stakeholders understood the benefits and impacts of the Scheme. It was agreed that all three options met the RIS requirements and Scheme objectives; however, Option C was the most expensive against the available budget and was the most likely to result in significant environmental effects due to the inclusion of the most technology. The workshop therefore concluded that Option C should be discounted although it was presented at non-statutory consultation and was subsequently the preferred option by respondents.

2.89 When Options A and B were compared against the Options Selection Stage assessment criteria, although closely matched, Option B offered more economic operational benefits over Option A, but was outside the allocated budget. However, Option B results in marginally more environmental effects than Option A, due to increased disturbance associated with converting the hard shoulder to provide three lanes.

Justification for Chosen Option

2.90 As a result of the Option Selection assessments and non-statutory consultation, Option A was announced as the Preferred Route in March 2018. The Option Selection EAR concluded that all options were similar in terms of environmental issues. However, Option A was predominantly the most favourable option as it involves the least amount of technology and therefore the least amount of disturbance and change. The Option Selection EAR mostly reported no significant effects for each discipline, however the following chapters recommended further assessment of some potential impacts once the preliminary design fix was known, as they were identified as potentially giving rise to significant effects:

- Landscape and visual with regards to visual receptors at Parnaby Terrace and Woodhouse Hill Road;
- Geology and soils with regards to the disturbance of unknown old mine workings; and

- Population and human health with regards to loss of land during construction at the former Matthew Murray High School, cumulative impacts on Lane End Primary School and potential impacts on human health receptors.

2.91 Largely, it was concluded that these effects would be able to be reduced by mitigation measures including a collaborative design process to avoid impacts. Potential impacts on the environment as a result of Options B and C were considered to be more probable and more difficult to mitigate.

2.92 Option A met the Scheme objectives, had the least environmental impact, was within the budget, and was therefore overall the better performing option.

Rationalisation of Preferred Option (February 2019)

2.93 During the Preliminary Design stage, assessments were undertaken to rationalise the level of technology provision within the Scheme whilst still retaining the high-level strategic objectives for the Scheme.

2.94 The review identified that, for the current conditions from recent traffic information, Junctions 2 to 5 in both directions are the most problematic for congestion levels. Based on this, a provision of technology from Junction 2 to 5 in both directions (and extended to Junction 1 westbound) would be beneficial noting that the greater the extent the more benefit there would be for the road user.

2.95 Based on recent collisions data, Junction 2 to 5 (and up to Junction 6 westbound) seems appropriate for the installation of technology to help with collision reduction. In addition, congestion levels on the lead up to Junction 1 westbound would benefit from the introduction of technology. Given that Junction 5 westbound sees a high number of collisions, technology prior to this would help inform road users and likely prevent collisions.

2.96 The review therefore concluded that it would seem reasonable to retain technology from Junction 1 to Junction 6 eastbound and as much as possible westbound. It was therefore proposed that technology, plus emergency slip signals and CCTV that currently sit outside these sections (in the Option A design) be removed along with the communications used to power these.

2.97 The design of the Scheme was therefore updated to reduce the extent of technology proposed prior to Junction 1 and beyond Junction 6. It was also considered that the revised Scheme continued to meet the high-level strategic objectives.

3 Economic Case Overview

Economic assessment and methodology

3.1 This chapter outlines the economic assessment of the Scheme. It presents the expected benefits and dis-benefits associated with the Scheme and the Scheme's overall value for money.

3.2 The economic case of the Scheme has been based on a 60-year appraisal period in accordance with the Department for Transport (DfT) online Transport Appraisal Guidance (TAG).

3.3 The assessment considers the calculation of impacts, both positive and negative, that are typically expressed in monetary terms. This includes the capital cost of the Scheme and indirect tax revenues generated by it. The appraisal compares the costs against benefits such as travel time and accident savings.

3.4 Costs and benefits occur throughout the duration of the assessment period with construction costs occurring before the Scheme becomes operational. Benefits are primarily achieved in the operational phase. Costs and benefits are discounted to present values i.e. benefits accrued today are considered to be of greater value than those accrued further into the future. As such the stream of costs and benefits are discounted to 2010 using the DfT standard discount rate, to provide a common basis of comparison with other schemes.

3.5 Scheme costs and monetised impacts (costs and benefits) are summed to produce a Benefit Cost Ratio (BCR); the amount of benefit being bought for every £1.00 cost to the public purse.

3.6 Once impacts that can be expressed in monetary terms have been calculated the assessment captures the remaining impacts that cannot be monetised within an Appraisal Summary Table (AST). The AST is a summary for decision makers containing key economic, environmental and other information drawn from existing documents such as cost benefit analysis and the EAR. The monetised impacts can then be used to determine the value for money for the Scheme.

3.7 A scheme's value for money is categorised based on the BCR as follows:

- Poor Value for Money if the BCR is less than 1.0;
- Low Value for Money if the BCR is between 1.0 and 1.5;
- Medium Value for Money if the BCR is between 1.5 and 2.0;
- High Value for Money if the BCR is between 2.0 and 4.0; and
- Very High Value for Money if the BCR is greater than 4.0.

Monetised Benefits

3.8 An assessment and monetisation of the expected economic, environmental and social benefits associated with the Scheme has been undertaken in accordance with DfT guidance. The initial BCR contains all costs and benefits that are routinely quantified within economic assessments of transport schemes. The adjusted BCR for the Scheme includes benefits associated with journey time reliability a well as those defined as wider economic benefits.

3.9 Table 3.1 below provides a summary of the monetised economic, environmental and social benefits of the Scheme. The resulting BCR values are presented in the section on Value for Money, below.

Table 3.1: Summary of Monetised Benefits

Benefits			Initial Present Value of Benefits (exc. Reliability and Wider Impacts) (£m)	Adjusted Present Value of Benefits (inc. Reliability and Wider Impacts) (£m)
Economic Benefits	Business User Benefits	Travel Time	*51.006*	*51.006*
		Vehicle Operating Costs	*-0.360*	*-0.360*
		Delays during Construction and Maintenance	*-1.524*	*-1.524*
		User Charges	*0*	*0*
		Net Business User Benefits	**49.122**	**49.122**
	Private Sector User Benefits	Revenue	0	0
	Journey Time Reliability benefits		Exc.	3.482
	Wider Economic Impacts		Exc.	34.797
Environmental Benefits	Greenhouse Gas Emissions (TAG)		-1.222	-1.222
	Noise		0.160	0.160
	Air Quality		0.154	0.154
Social Benefits	Non-business commuting	Travel Time	*29.568*	*29.568*
		Vehicle Operating Costs	*2.924*	*2.924*
		Delays during Construction and Maintenance	*- 0.477*	*- 0.477*
		User Charges	*0*	*0*
		Net Non-Business Benefits: commuting	**32.015**	**32.015**
	Non-business other	Travel Time	*23.254*	*23.254*
		Vehicle Operating Costs	*-1.770*	*-1.770*
		Delays during Construction and Maintenance	*- 0.763*	*- 0.763*
		User Charges	*0*	*0*
		Net Non-Business Benefits: Other	**20.72**	**20.72**
	Accident Benefits		10.361	10.361
Public Accounts	Wider Public Finances (Indirect Tax Revenues)		2.492	2.492
TOTAL			**113.803**	**152.082**

3.10 It should be noted that the regeneration benefits only consider the effect of a scheme on regeneration areas. There is no single definition of regeneration areas, but these areas will have been designated for specific policy purposes related to economic development under the UK government's or European Union's regeneration programmes. The Scheme does not have an effect on the regeneration areas in which it is located.

Economic Benefits

3.11 The Scheme would increase capacity along the M621. The additional capacity will contribute towards reduced congestion and reduced delays in the vicinity of the Scheme, leading to a decrease in lost productive time and subsequent increase in business user and transport service provider benefits. In particular the Scheme will:

- Increase capacity on the westbound M621 through Junction 3;
- Reduce weaving conflicts westbound to the west of Junction 3;
- Increase capacity (for all movements) at M621 Junction 2; and
- Improve driver information and the monitoring and control of traffic, with a consequent reduction in accidents through the Scheme extent.

3.12 Business users and transport service providers would therefore significantly benefit from the Scheme through:

- Reduced travel times; and
- Improved access for suppliers and customers.

3.13 After accounting for impacts associated with delays during construction and maintenance, the combined monetised value of these benefits for business users is forecast to be £49.110 million. This excludes the journey time reliability benefits and wider economic impacts which are not included in the initial BCR.

Environmental Benefits

3.14 Detailed assessment and appraisal have been undertaken to consider the full environmental impacts associated with the Scheme. Full details can be found in the EAR. The following is a summary of the topics found to provide environmental benefits.

3.15 Noise impacts have been assessed and appraised in the EAR. The attraction of traffic from local roads to the M621 would result in some marginal decrease in noise but negligible improvement in noise for most receptors. There are no predicted noise levels above 80dBLAeq.16h during the day or night and no properties are eligible for noise insulation. The monetised value of the impact on noise is forecast to be a benefit of £0.160 million.

3.16 Detailed assessment and appraisal have been undertaken to consider the local air quality impacts of the Scheme. Overall there is a positive impact on local air quality in monetary terms with the Scheme. This can be attributed to attraction of traffic from local roads to the M621. The monetised value of the predicted change in local air quality is forecast to be a benefit of £0.154million.

3.17 These benefits are off-set by marginally increased greenhouse gas emissions, valued at a cost of £1.2m (as a cost it is represented as a negative figure in Table 3.1) over 60 years. This is due to more and/or faster moving traffic over the area as a whole, although the effect is almost negligible compared to the total amount of emissions over the assessment area.

3.18 In economic terms, the environmental impact of the Scheme is essentially neutral.

Social Benefits

3.19 The social economic benefits attributable to the Scheme are dominated by journey time savings for non-business users. After accounting for impacts associated with delays during construction and maintenance the combined monetised value of the non-business user benefits is forecast to be £52.7 million.

3.20 Additional social benefits come from accident savings, derived using the DfT's COBALT (Cost-Benefit Appraisal – Light Touch) software according to guidance. The Scheme includes much technology, which will provide better driver information and facilitate better monitoring and control of traffic flows and speeds, reducing the risk and severity of accidents.

3.21 A risk analysis undertaken as part of the traffic modelling exercise has indicated that the Scheme is forecast to achieve a 10% reduction in the rate of road accidents on the improved links. This assessment also considers the impacts upon different road users and the measures included in the Scheme to improve road safety. Some of this saving on scheme links is eroded by the presence of more forecast traffic, but as this traffic is typically drawn from other, usually less safe local roads, the overall accident saving is significant.

3.22 The Scheme is forecast to reduce the value of accidents by £10.4m over the 60 year appraisal period.

Summary of non-monetised benefits

3.23 An assessment of anticipated environmental and social non-monetised benefits associated with the Scheme has been undertaken and is outline in Table 3.2 below.

Table 3.2: Non Monetised Benefits

Specialism	Potential Benefit
Biodiversity	Taking into account the agreed mitigation, the Scheme is considered to have neutral impact on designated sites (statutory or non-statutory) or protected species. The proposed mitigation planting provides an overall biodiversity net gain and proposed enhancement measures increase opportunities for roosting bats, nesting birds, common species of reptiles and small mammals.
Journey quality	Improvements in journey quality for the high volume of users on the M621 through the increased public information provided by the enhanced overhead gantry signs and the time benefits generated by the Scheme.
Severance	Pedestrian crossings should not be affected except the removal of access around Junction 2, for which there is an alternative underpass to cross the Junction and hence severance should not be affected. Severance will be improved at Junction 2a as the closure of the slip road will support pedestrian movement in this area.

Value for Money

3.24 The assessment and monetisation of anticipated economic, environmental and social benefits associated with the Scheme has been undertaken in accordance with DfT guidance. The results of the TUBA assessment have been combined with the results of the accident analysis, the user impacts during construction and maintenance, the DMRB greenhouse gas and local air quality analysis and DMRB noise analysis to provide a combined Initial and Adjusted Present Value of Benefits (PVB) as shown in Table 3.1 above.

3.25 The PVB is then taken forward to be compared with the Present Value of Costs (PVC) to create a BCR in the Analysis of Monetised Costs and Benefits (ACMB) Table. The results are shown in Table 3.3 below which demonstrates an Adjusted BCR of 4.31

Table 3.3: Analysis of Monetised Costs and Benefits

Description	Benefits/Costs	Total (£m) (taken from Economic Appraisal Package Table 12-1 Core Scenario as 180619 Core Scenario
Initial BCR	Present Value of Benefits (PVB)	113.803
	Present Value of Costs (PVC)	35.258
	Net Present Value (NPV)	78.545
	Initial Benefit Cost Ratio (BCR) (PVB/PVC)	**3.23**
Adjusted BCR (Including Reliability Benefits and Wider Economic Impacts)	Reliability Benefits (RB)	*3.482*
	Wider Economic Impacts (WEI)	*34.797*
	Adjusted PVB (including RB and WEI)	152.082
	Adjusted BCR **(PVB/PVC)**	**4.31**

Note: All values are calculated in 2010 market prices for each year over a 60yrs appraisal period, and then discounted back to 2010 present value year as per DfT guidance.

3.26 Note that the Adjusted BCR for the Scheme includes the benefits associated with journey reliability, as well as those defined as wider economic benefits.

3.27 As detailed in Table 3.3 the Scheme demonstrates High Value for Money.

4 Policy Context

4.1 This Chapter sets out the relevant local, regional and national planning and transport policies, and assesses the Scheme's alignment with the policy context within these documents.

National and Regional Transport Policy

Road Investment Strategy (RIS) for the 2015/16 – 2019/20 Road Period (2015)

4.2 The RIS published in December 2014 and last updated in November 2016 the Government set out its plan for long term investment in the road networks, and in particular the strategic road network (SRN).

4.3 Part 2 of the Investment Plan of the RIS lists key investments on the SRN: A total of £15.2 billion is committed by the Government to the enhancement and long-term maintenance of the network between 2015/16 and 2020/21 which includes 127 major enhancements. The Scheme is recognised in the RIS as being a key investment on the SRN and the Government has committed the full anticipated funding providing that any necessary statutory approvals are granted and the Scheme continues to demonstrate value for public money.

Draft Strategic Transport Plan, Transport for the North (TfN) (April 2018)

4.4 The initial Major Roads Report Strategic Transport Plan Evidence Base, Transport for the North (TfN) (2017) indicates the potential for economic development in the North of England and that investment in a major road network is important to releasing this potential.

4.5 The vision for the Strategic Transport Plan (STP) is as follows:

"A thriving North of England, where modern transport connections drive economic growth and support an excellent quality of life".

4.6 Under 'challenges and opportunities' for the northern transport network, the importance of the interface between the key strategic roads and other roads is highlighted to the success of local economies and the overall pan-Northern economy. It is also stated that "*transport has a significant role to play in meeting commitments to reduce greenhouse gas emissions, to improve air quality, and to support and protect biodiversity".*

4.7 The Major Roads Report 2017 identifies two major schemes in the Leeds area:

- Central Trans Pennine Corridor Connectivity, which describes the demand for phased improvements to the major road network between Liverpool City Region, Central and East Lancashire, Greater Manchester and Yorkshire. The aim of which is to "*provide enhanced and more resilient M6-M1/A1(M) links, encompassing M65/A59 and M62 corridors, with potential for strengthened onward links to international connectivity assets such as Port of Liverpool, Leeds Bradford Airport and the Port of Hull*"; and

- Leeds City Region NW Quadrant – "*A new or enhanced connection between the A1 (M), Leeds Bradford Airport, the Central Trans-Pennine Corridor and the M62 / M606 to the east of Bradford. Facilitates improved connectivity and network resilience across the MRN in multiple LEP regions and employment growth aspirations in West Yorkshire, in particular, around Leeds Bradford Airport*."

4.8 The Scheme will improve linkages between the local and strategic transport networks, including the M62 and the Trans Pennine Corridor, as a result of increased capacity on the M621. The Scheme will achieve this through:

- the incorporation of a free flow link from the M621 eastbound to the A643 northbound, travelling into the City Centre;

- the expansion of the A643 southbound approach to Junction 2 from 2 to 3 lanes;

- expansion of the on-slip to the M621 westbound from 1 to 2 lanes;
- expansion of the circulatory carriageway at Junction 2 from 2 to 3 lanes;
- Conversion of the hard shoulder to a running lane between Junction 2 and 3; and
- Provision of technology

4.9 The above improvements will increase capacity on the M621 and improve the flow of traffic travelling between the Inner Ring Road and the M621. This will also help to accommodate increased traffic levels as a result of the quantity of development proposed in Leeds City Centre, and the proposals of LCC's Local Implementation Plan. The Scheme will support LCC's Local Implementation Plan by removing traffic from the City Centre through the re-direction of traffic to the Inner Ring Road and the M621. In addition, through the provision of technology, new variable advisory speed limits and live updates on traffic levels and incidents will be provided which will help to improve the flow of traffic, decreasing journey times and improving highway capacity in the process.

Leeds City Region Local Economic Partnership (LEP), Growth Deal Submission, 2016

4.10 The growth deal submission is based around the new challenges and opportunities that have been identified in the revised Strategic Economic Plan for the Leeds City Region.

4.11 The submission focuses upon three strands of activity:

- Accelerating development and embedding resilience;
- Ensuring funds are spatially targeted, the closest spatial priority area to the proposed development is the Aire Valley; and
- Supporting growth, manufacturing and inward investment.

4.12 The Scheme forms an important element in plans to accelerate development and embed resilience within Leeds. As set out in LCC's Local Implementation Plan, to achieve LCC's development plans for the City Centre, further traffic needs to be accommodated on the M621, as well as the Outer and Inner Ring Roads. This will support the Council's plans to accommodate a high degree of development within the City Centre, and improve the urban environment, through strategies such as the South Bank Supplementary Planning Document (SPD) which aims to double the economic impact of Leeds City Centre by transforming and developing the South Bank area which lies adjacent to the M621.

4.13 The improvements to the capacity and flow of traffic on the M621 will also support other development sites, such as those within the area of coverage of the Aire Valley Leeds Area Action Plan which is considered one of the largest regeneration and growth opportunities in the Leeds City region. In addition, the Scheme will reduce journey times and increase journey time reliability for the wider region given that the M621 forms part of the SRN.

West Yorkshire Combined Authority (WYCA) Transport Strategy 2040

4.14 The purpose of the Transport Strategy is to "deliver a modern, high class, integrated transport system that supports the Leeds City Region Enterprise Partnership's Strategic Economic Plan for sustained, healthy and inclusive growth".

4.15 The Transport Strategy vision is as follows:

> *"We will enhance business success and people's lives by providing modern, world-class, well-connected transport that makes travel around West Yorkshire easy and reliable."*

4.16 The objectives of the strategy are set out below:

- Economy - Create a more reliable, less congested, better connected transport network;
- Environment - Have a positive impact on our built and natural environment; and

- People and Place - Put people first to create a strong sense of place.

4.17 The Scheme is referenced in the Strategy as follows: "*The improvements will increase the capacity of the M621, and the integration between the strategic and local transport networks, enabling a less congested and better connected transport network. The proposed improvements to key junctions, and enhancements to the operation of the highway, including technological enhancements, will improve journey time reliability and road safety".*

4.18 The 'Environment' and 'People and Place' objectives will be supported through enhancing road safety as a result of the closure of the footpath across the Junction 2 roundabout, the closure of the Junction 2a off-slip, and the addition of a signalised crossing between Elland Road and Cemetery Road.

Leeds City Region Strategic Economic Plan (SEP)

4.19 The Leeds City Region Strategic Economic Plan (SEP) promotes economic development across the Leeds City Region and was prepared by the Local Enterprise Partnership (LEP). The SEP will form the basis of the 'Local Growth Deal' agreed with Government in July 2014. The focus of the SEP is based upon four strategic pillars:

- Supporting growth in businesses;
- Develop a skilled and flexible work force;
- Building a resources smart city region; and
- Delivering infrastructure for growth.

4.20 The SEP also includes an overarching priority to create an additional £5.2 billion of economic output and an extra 62,000 jobs, in the Leeds City Region by 2021. Within this economic context, LCC is a key driver of the regional economy, with the City Centre and Aire Valley Leeds Area Action Plan (incorporating the Leeds City Region Enterprise Zone located at Junction 45 of the M1 with access via the M621) identified as the key strategic location for job growth and infrastructure investment.

4.21 The Scheme will help to meet the goals of the SEP to deliver infrastructure for growth, serving key strategic locations for job growth (Leeds City Centre and the area of coverage of the Aire Valley Leeds Area Action Plan).

4.22 The Scheme will help to deliver infrastructure for growth by providing additional highway capacity to meet travel demand from new developments including those for employment uses, increasing journey time reliability, and enhancing the integration between the strategic and local road networks at Junctions 2 and 3.

4.23 Strategic locations for job growth within Leeds City Centre will be served by the Scheme through providing additional capacity on the M621. The additional capacity will also help aid the Council's Local Implementation Plan proposals to direct more traffic on the Inner Ring Road and M621 to enable development sites to come forward. The Scheme proposals will also support the development proposals for Junction 7, which will enable the development of a new Park and Ride facility promoted by LCC to encourage the use of buses to access the City Centre.

4.24 The Aire Valley Leeds Area Action Plan locations for job growth will be supported by the increases in capacity and journey time reliability along the M621 carriageway. The additional capacity on the M621 will help to meet the demands of additional traffic from employment uses within the Aire Valley Leeds area.

Transport Policy Summary

4.25 National and regional transport policy demonstrates the role of transport infrastructure as a driver of economic growth and quality of life. The RIS is referenced in Transport for the North's STP, which seeks to drive economic growth and quality of life in the north of England, and the Scheme is identified as 'committed' within the RIS.

4.26 Regional policy also emphasises the importance of the Scheme. The WYCA Transport Strategy references the Scheme under the delivery of the Strategy's objectives, and the SEP highlights Leeds as a key driver of the regional economy, with the City Centre and Aire Valley Leeds Area Action Plan identified as key priorities for job growth and infrastructure investment.

4.27 The Scheme will support these objectives as follows:

- Providing increased highway capacity on the M621 carriageway through the conversion of the hard shoulder to a running lane between Junctions 2 and 3;
- Improving the flow of traffic on the main carriageway through technology provision including variable advisory speed limits and live updates on highway congestion and incidents;
- Enhancing the integration between the local and strategic transport networks at Junctions 2 and 3, helping to decrease journey times and reduce congestion for traffic travelling to and from the City Centre; and
- Improving road safety through enhancements to Junction 2, the carriageway layout, pedestrian routes, highway technology and signage, and through the closure of Junction 2a.

4.28 By increasing integration between the M621 and the Inner Ring Road the Scheme will enable the redirection of traffic away from Leeds City Centre, allowing development sites to come forward whilst improving journey times along the M621.

National Planning Policy and Legislation

National Planning Policy Framework (February 2019)

4.29 The National Planning Policy Framework (NPPF) was first published by the Department of Communities and Local Government in March 2012 and was most recently updated by the Ministry for Housing, Communities and Local Government in February 2019. The NPPF sets out the Government's economic, environmental and social planning policies for England. These policies set out a national strategy for sustainable development. The Government intends that this vision should be interpreted and applied locally to meet aspirations. Table 4.1 below contains a list of key policies and objectives from the NPPF which are relevant to the Scheme.

Table 4.1 NPPF Policies

Policy	Key Extract from Relevant Objectives
Policy 6: Building a strong, competitive economy	Paragraph 80 – Supporting businesses and economic growth Paragraph 81 – Enabling economic growth Paragraph 82 – Specific locational requirements for businesses Relevance: The Scheme will provide highway capacity to support economic growth and improve journey times and reliability to support business productivity in strategic employment areas within Leeds including the City Centre and the Aire Valley area.

Policy	Key Extract from Relevant Objectives
Policy 8: Promoting healthy communities	Paragraph 91 – Planning policies and decisions should aim to achieve healthy, inclusive and safe places Paragraph 97- Existing open space, sports and recreational buildings and land, including playing fields, should be replaced and enhanced unless a justification can be made that the facility is surplus to requirements or the development is for alternative provision which will provide greater benefits. Paragraph 98 – Public rights of way and access should be protected and enhanced. Relevance: The closure of Junction 2a will help to enhance road safety and decrease segregation and help to reduce delays on the local road network in the proximity of the Junction as a result. The Scheme will encroach upon an area of land designated as a Protected Playing Pitch at the former Matthew Murray School adjacent to Junction 2, however the playing pitch is surplus to requirements as the school has now been demolished, and through the design of the Scheme the amount of land required in this area has been minimised and will not impact upon any future function as a playing pitch. The Scheme will close an unsafe footpath at the Junction 2 roundabout, provide a new footpath at Brown which needs to be closed to accommodate the free flow lane at Junction 2 and will provide a new signalised pedestrian crossing at the Junction between Cemetery Road and Elland Road.
Policy 9: Promoting sustainable transport	Paragraph 104 – Supports the creation of sustainable development patterns. Paragraph 108 – Promotes sustainable transport and road safety. Paragraph 109 – Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe. Paragraph 110 – Providing safe and secure access for all. Relevance: The Scheme will help to enable LCC's development plans for the City Centre, make the M621 and junctions safer through the implementation of technology and the closure of Junction 2a, support LCC's proposal for park and ride facility at Junction 7 to promote sustainable transport and will enhance pedestrian safety and accessibility.
Policy 12: Achieving well designed places	Paragraph 127 – Sets out design standards, including that developments should be visually attractive as a result of appropriate and effective landscaping. Paragraph 128 – Places emphasis on early and ongoing engagement. Paragraph 130 – Design quality should not be diminished between approval and implementation. Relevance: A landscaping scheme is included as part of the Scheme to safeguard visual amenity and landscape screening, and consultation and engagement has been ongoing with the public and stakeholders during the design development process.

Policy	Key Extract from Relevant Objectives
Policy 14: Meeting the challenge of climate change, flooding and coastal change	Paragraph 148 – The Planning system should support the transition to a low carbon future in a changing climate. Relevance: The Scheme will help to enable LCC's development plans to deliver a mix of uses including residential and commercial, within Leeds City Centre. It will also provide greater integration between the M621 and Inner Ring Road to encourage less trips through Leeds City Centre in support of LCC's future aspirations. The Scheme will support a transition towards a more sustainable development pattern, which reduces the need to travel by car, and increases the attraction and convenience of public transport through the provision of additional capacity to support of LCC's proposals for a park and ride facility at Junction 7 as well as the existing park and ride facility in place at Elland Road.
Policy 15: Conserving and enhancing the natural environment	Paragraph 170 – Contributing to and enhancing the natural environment. Paragraph 178 – A site should be suitable for the proposed use, taking account of ground conditions, land stability and any contamination. Paragraph 180 – New development should be appropriate to its location, and adverse impacts to surrounding uses, including impacts to human health, should be mitigated. Paragraph 181 – Air quality should be actively sustained and enhanced. Paragraph 182 – Existing businesses and facilities should not have unreasonable restrictions placed upon them by new development. Relevance: The Scheme lies within an urban area, and a landscaping scheme has been included to manage and mitigate the impacts from the Scheme on surrounding land uses. Air quality assessment has found that the Scheme will have a neutral impact upon vulnerable groups in terms of air quality (see Chapter 5: Air Quality of the EAR).

Planning Practice Guidance (PPG) 2016

4.30 The national PPG is a web-based resource, which provides planning guidance on how to interpret the policies of the National Planning Policy Framework (NPPF). Paragraph 004, the Natural Environment section of the PPG includes the stipulation that development should achieve net gains for nature, in line with the NPPF. A chapter is included within the PPG on open space, which sets out the roles and function of different types of open space. The guidance includes that local planning authorities should consult Sport England for developments which impact upon open space in certain cases, such as those which impact upon Playing Pitches. Consultation has been undertaken with Sport England on the proposal to acquire land from the former Matthew Murray playing fields, which are designated as a green space (see Appendix C. Responses from Consultees of the Statement).

4.31 The guidance in this chapter includes Public Rights of Way, stating that "*public rights of way form an important component of sustainable transport links and should be protected or enhanced".* The Scheme will seek to enhance facilities by providing a controlled pedestrian crossing at Elland Road and Cemetery Road, closure of an unsafe footpath across Junction 2 and the provision of a new footpath at Brown Lane lost as a result of the new free flow lane at Junction 2.

4.32 An EAR has been produced for the Scheme, which promotes environmentally sound and sustainable design through the identification of appropriate mitigation and enhancement opportunities, to avoid and minimise potential effects and where possible improve the local environment.

4.33 A landscaping scheme will also be provided as part of the Scheme, which will include the replanting of the highway verge at Junction 2 and at Junction 2a, providing opportunities for additional screening and biodiversity (see Appendix H of this Statement). As set out in Chapter 7: Biodiversity of the EAR, the proposed re-creation of plantation broadleaved woodland, plantation mixed woodland, scrub, species-rich grassland, highways verge grassland, scattered trees and amenity grassland will mitigate the loss of vegetation and enhance the current habitats onsite, resulting in a biodiversity net gain for the proposed Scheme.

4.34 The Air Quality chapter of the PPG seeks to manage and improve air quality. Paragraph 005 of the PPG sets out that consideration of the acceptability of a development proposal should include new sources of air pollution, and the exposure of neighbouring uses and biodiversity to existing sources of air pollution.

4.35 As set out in Chapter 5: Air Quality of the EAR, the Scheme is expected to have a positive impact upon air quality and the improved flow of traffic along the M621 carriageway, as a result of the Scheme and the associated reduction in congestion.

4.36 Paragraph 001 of the Health and Wellbeing chapter of the PPG, stipulates that '*local planning authorities should ensure that health and wellbeing are considered in planning decision making*'. An assessment of the impacts from the Scheme on the local population and human health has been completed and reported in the EAR Chapter 10. The removal of the Junction 2a westbound link and reduction in traffic will improve the amenity of Holbeck residents and improve accessibility to surrounding neighbourhoods and the City Centre. This will help to make Holbeck a more attractive and healthier place.

National Policy Statement for National Networks 2014

4.37 The National Networks National Policy Statement (NN NPS) sets out the need for, and Government's policies to deliver development of nationally significant infrastructure projects on the national road and rail network in England. Whilst this is not an NSIP the NN NPS may also be a material consideration in decision making on planning applications, albeit whether it does and to what extent is judged on a case by case basis.

4.38 Section 3 of the NN NPS sets out that road developments should also conform with other relevant national planning policy documents (such as the NPPF and NPPG), and states that "*in delivering new schemes, the Government expects applicants to avoid and mitigate environmental and social impacts in line with the principles set out in the NPPF and the Government's planning guidance" (paragraph 3.3).*

4.39 Section 4 provides assessment principles, and sets out the following overview:

> *"In considering any proposed development, and in particular, when weighing its adverse impacts against its benefits, the Examining Authority and the Secretary of State should take into account:*
>
> - *its potential benefits, including the facilitation of economic development, including job creation, housing and environmental improvement, and any long-term or wider benefits; and*
> - *its potential adverse impacts, including any longer-term and cumulative adverse impacts, as well as any measures to avoid, reduce or compensate for any adverse impacts".*

4.40 The Scheme will provide increased highway capacity and improve the flow of traffic, increase journey reliability and reduce delays, which will help to facilitate economic development in support of LCC's Local Development Plan to double the size of Leeds City Centre as well as supporting the development of the Aire Valley area.

4.41 To mitigate the environmental impacts of the Scheme a landscaping scheme will be incorporated to replace all trees and vegetation to be removed as part of the Scheme.

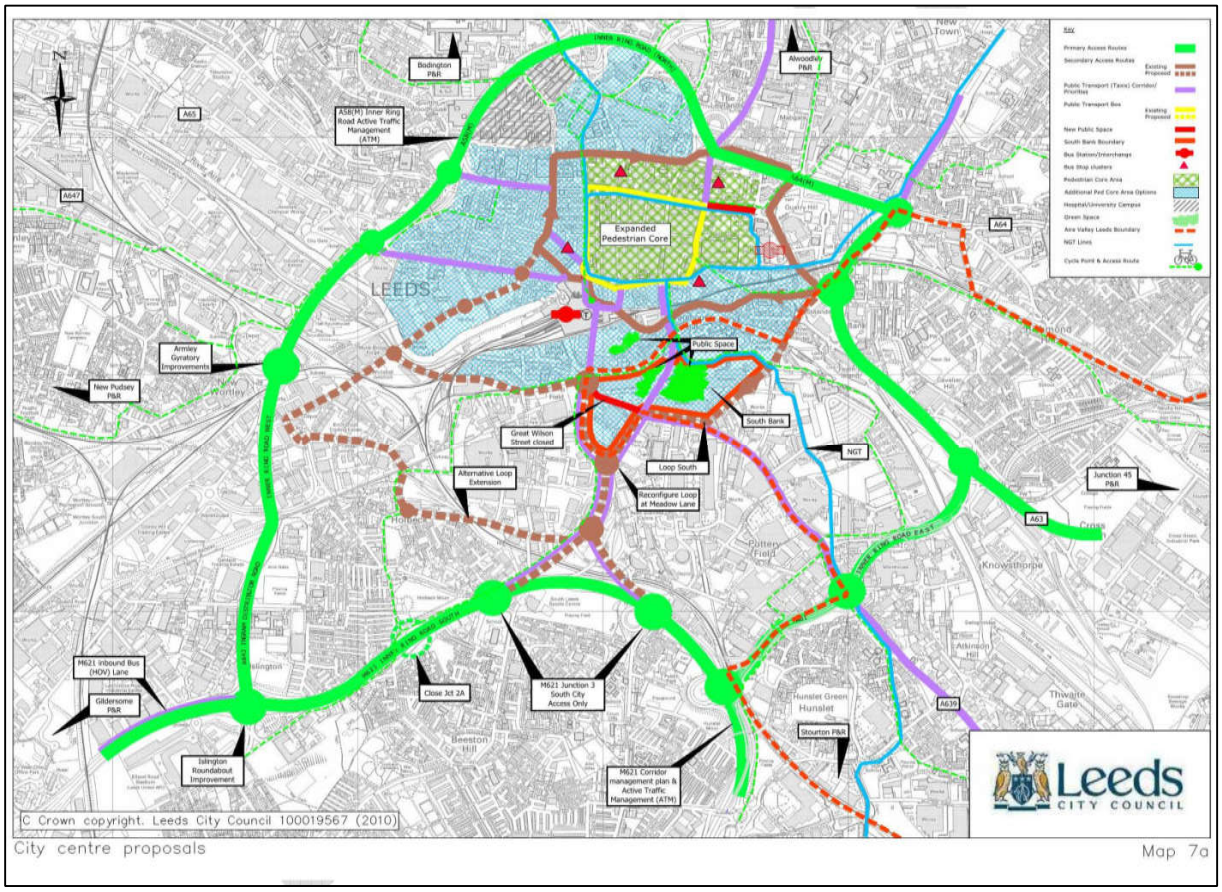
Sub-Regional and Local Transport Policies

Leeds Local Implementation Plan and Transport Strategy (2011-26)

4.42 The Leeds Local Implementation Plan and Transport Strategy demonstrates a plan to cater for expected economic and population growth in the Leeds City Region up to 2026. The Plan highlights that improvements will be required to the outer and inner ring roads to increase highway capacity, reduce traffic levels in the City Centre and enable motorists to avoid the more congested parts of the network.

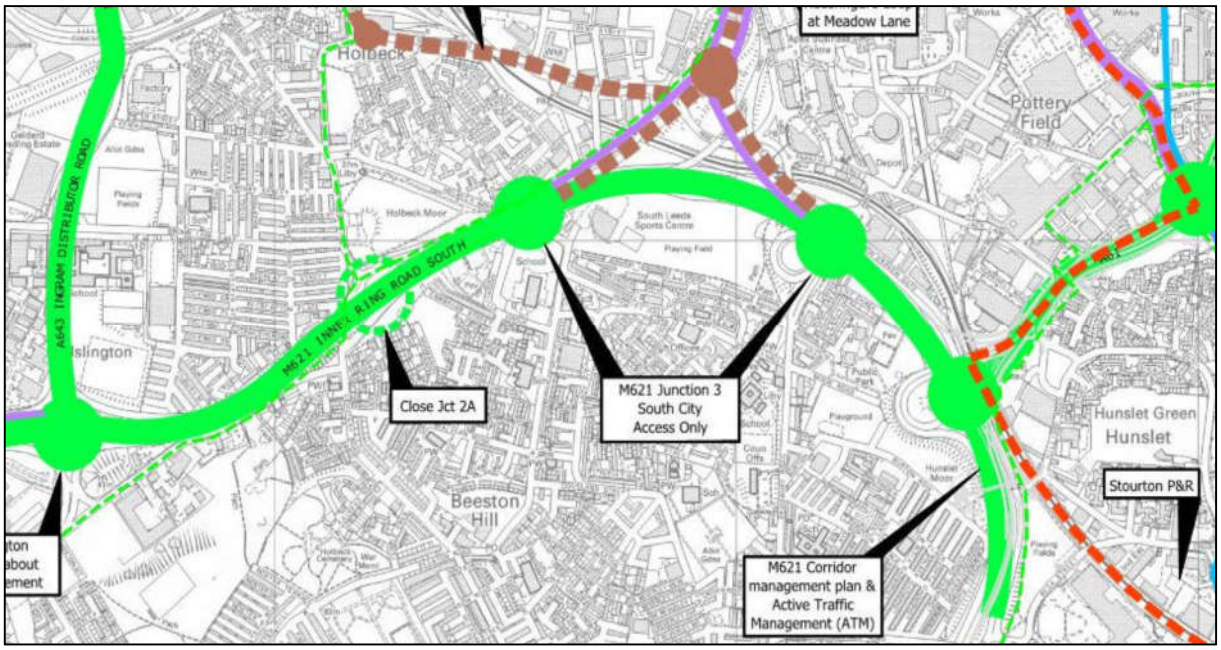
4.43 A new strategy for the City Centre will aim to improve the street environment and quality of life, decreasing car use within the Area. Figure 4.1 and Figure 4.2 are extracted from the Strategy and demonstrates proposals for improvements to the road infrastructure in the City Centre and how the M621 supports such activity.

Figure 4.1 Overview of Transport Interventions for Leeds City Centre 2011-2026



Source: Leeds Local Implementation Plan and Transport Strategy 2011-2026, p8

Figure 4.2 Extract from Figure 2 Overview of Transport Interventions for Leeds City Centre 2011-2026



(Source: Leeds Local Implementation Plan and Transport Strategy 2011-2026, p8)

4.44 The Strategy refers to the introduction of signalling at Junction 2 of the M621 roundabout to improve safety and congestion, plus the closure of Junction 2a. The Aire Valley Transport Strategy is also mentioned within this overarching Strategy and the development of a bus based park and ride facility, which would be accessed from Junction 7 of the M621, is currently under consideration.

Leeds Interim Transport Strategy 2016

4.45 The main objective of the interim transport strategy is for a system which enables:

- "Prosperous Leeds - A transport system for Leeds that facilitates a prosperous, sustainable economy for the City, the City Region, the North, strengthening our long term economic competitiveness both nationally and internationally.

- Liveable Leeds - The improvements to the City Centre and district centres will make them more people friendly. People will have access to a wider labour market. The significant programme of projects will support new opportunities for skills development and new and better local jobs. People of all abilities will have more opportunities to connect to the rail network.

- Healthy Leeds - A transport system that has a positive effect on people's health and wellbeing and raises health and environmental standards across the city through the promotion of walking and cycling and the reduction of air pollution, noise and carbon emissions".

4.46 The Scheme will help to achieve these objectives by enhancing connectivity between different parts of Leeds particularly between the M621 and Inner Ring Road to discourage the use of trips through the City Centre and as a result help to create a healthier City Centre environment. The Scheme will support the achievement of these goals and the Local Implementation Plan through providing additional capacity on the M621, improving the integration between the M621 and local road network, and enhancing safety for pedestrians and motorists.

Sub Regional and Local Planning Policy

4.47 The Scheme falls within the administrative area of the City of Leeds Council. Consequently, the "statutory development plan" currently comprises:

- Leeds City Council Adopted Core Strategy (November 2014);

- Saved Unitary Development Plan Review policies (July 2006);
- Aire Valley Leeds Area Action Plan (November 2017); and
- Natural Resources and Waste Local Plan (January 2013).

4.48 In addition, the area on the north eastern side of Junction 2, lies within the designated area of the adopted Holbeck Neighbourhood Plan 2017 – 28. The Neighbourhood Plan forms part of the development plan for this area.

4.49 The Aire Valley Leeds Area Action Plan, which provides the future planning framework to guide the regeneration of an area of the lower Aire Valley between Leeds City Centre and the M1 motorway, includes the M621 at Junction 7. The Scheme would convert the hard shoulder into an extra running lane between Junctions 2 and 3, and to incorporate variable advisory speed limits and live updates on traffic levels and incidents which will help to enhance capacity, journey times, reduce delays and improve safety. This also will provide additional capacity on the M621 making the area more easily accessible and attractive to developers and occupiers within the Aire Valley, therefore facilitating greater productivity and supporting economic growth.

Leeds City Council Adopted Core Strategy (November 2014)

4.50 The Leeds City Core Strategy was adopted in November 2014. It sets out the overall vision and strategic policies to guide the delivery of development and investment decision, and the overall future for the City, up to 2028. The Table 4.2 below identifies any relevant policy extracts for the Scheme.

Table 4.2 Leeds City Council Adopted Core Strategy Policies

Policy	Key Extract from Relevant Objectives
Spatial Policy 1: Location of Development	The distribution and scale of development will be in accordance with several principles, including: To recognise the key role of new and existing infrastructure (including green, social and physical) in delivering future development to support communities and economic activity. Relevance: The Scheme will provide additional capacity to meet demand from new developments, and arising from Leeds City Council's Local Implementation Plan, by better integrating the M621 with the Inner Ring Road, which seeks to minimise traffic using the City Centre to support a sustainable development pattern.
Spatial Policy 4: Regeneration Priority Programme Areas	South Leeds and the Aire Valley are identified as two of four Regeneration Priority Programme Areas, which will be given priority for regeneration funding and resources. It is considered to have significant development potential due its strategic location, as a key gateway to the City and direct access to the motorway network, i.e. M621. Relevance: The Scheme will increase capacity, reduce delays, improve safety and provide better journey time reliability on the M621, helping to accommodate additional traffic from these areas, therefore making development sites within them more attractive to developers and occupiers.
Spatial Policy 11: Transport Infrastructure Investment Priorities	The delivery of an integrated transport strategy for Leeds will be supported, which includes a range of infrastructure improvements and other interventions in accordance with the objectives of West Yorkshire Local Transport Plan 3 and the Leeds City Region Transport Strategy (2009). Spatial priorities for this policy include: targeted highway schemes to alleviate congestion and assist improved connectivity for local and strategic orbital movements, and the strategic road network; and measures to deliver safer roads. Relevance: The Scheme will help to alleviate congestion, improve journey time reliability and enhance road safety, improving the integration with the local road network and in particular the Inner Ring Road.

Policy	Key Extract from Relevant Objectives
Policy CC1: City Centre Development	Sets out that Leeds City Centre will be planned to accommodate at least: 655,000 sq. m of office floorspace; 31,000 sq. m of net additional retail space; 10,200 dwellings; and support services, public spaces and improvements to the public realm. Infrastructure and highway development will be required to support such levels of development. Relevance: The Scheme will increase capacity on the M621 to address additional traffic, and to meet increased demand on the M621 arising from Leeds City Council's plans to accommodate further traffic on the M621 and Inner Ring Road, to support the City Centre development proposals.
Policy P12: Landscape	The character, quality and biodiversity of Leeds' townscapes and landscapes, including their historical and cultural significance, will be conserved and enhanced to protect their distinctiveness through stewardship and the planning process. Relevance: The Scheme will incorporate a landscaping scheme, to mitigate the impact on the environment, replacing trees and vegetation to be cleared across the Scheme area, and to provide replacement visual screening for adjacent businesses to address the regrading of an earth bund on the eastern side of the A643 southbound approach to Junction 2.
Policy G1: Enhancing and Extending Green Infrastructure	Where a development is considered to be acceptable within or adjoining areas defined as green infrastructure, development proposals should ensure that the green infrastructure/corridor function of the land is retained and improved. Relevance: Any green infrastructure removed will be replaced as part of the Scheme.
Policy G6: Protection and Redevelopment of Existing Green Space	Green space (including open space in the City Centre) will be protected from development unless there is an adequate supply of accessible green space/open space within the analysis area and the development site offers no potential for use as an alternative deficient open space type, as illustrated in the Leeds Open Space, Sport and Recreation Assessment; or the green space/open space is replaced by an area of at least equal size, accessibility and quality in the same locality; or where supported by evidence and in the delivery of wider planning benefits, redevelopment proposals demonstrate a clear relationship to improvements of existing green space quality in the same locality. Relevance: The Scheme will encroach upon an area designated as a Protected Playing Pitch at the site of the former Matthew Murray School, however due to the design of the Scheme this has been minimised and will be minor in terms of area, not affecting any future function of the playing pitch, which is not currently in use. Consultation has been undertaken with LCC and Sport England during the design development process, who have raised no objection (see the response from Sport England at Appendix C of this Statement), and an application for an Exchange Land Exemption Certificate has been submitted to the Secretary of State for Housing, Communities and Local Government.

Policy	Key Extract from Relevant Objectives
Policy G9: Biodiversity Improvements	Development will be required to demonstrate that there will be an overall net gain for biodiversity; the design of new development, enhances existing wildlife habitats; and that there is no significant adverse impact on the integrity and connectivity of the Leeds Habitat Network. Relevance: As set out in Chapter 7 of the EAR; Biodiversity, the replacement of vegetation at Junction 2 and 2a will include: plantation broadleaved woodland, plantation mixed woodland, scrub, species-rich grassland, highways verge grassland, scattered trees and amenity grassland will mitigate the loss of vegetation and enhance the current habitats onsite. The proposed enhancements (reptile hibernacula, log piles, installation of bird and box boxes) will provide numerous opportunities for wildlife. The EAR determines that the Scheme will provide a biodiversity net gain.

Leeds City Council Adopted Site Allocations Plan 2019

4.51 LCC's Site Allocations Plan (SAP) was adopted on 10th July 2019. The SAP identifies sites for housing, employment, retail and greenspace to ensure that enough land is available in suitable locations to meet the growth targets of the adopted Core Strategy 2014 and identifies the phasing strategy for the delivery of development on those sites.

4.52 Table 4.3 below sets out the relevant policies from the SAP, and how they relate to the Scheme.

Table 4.3 Site Allocation Plan Policies

Policy	Key Extract from Relevant Objectives
GS1	Designation/protection of green space the Site Allocations Plan designates sites in a green space use in accordance with policy G6 of the Core Strategy. These are shown on the policies map.
Site Ref. G719	The Former Matthew Murray Site is designated as Green Space.
	Relevance: The Scheme will have a very limited impact upon the designated area, due to the relatively small area of land acquired. Ongoing engagement with Leeds City Council (the owners of the site) and Leeds United has supported the design process to ensure that the Scheme will not interfere with the training facility proposals.

Saved Unitary Development Plan Review policies (July 2006)

4.53 Until all the documents of the Leeds Local Development Framework (LLDF) are in place, some parts of the Unitary Development Plan (UDP) have been "saved" to ensure comprehensive policy coverage and to determine planning applications. The Table 4.4 below identifies any relevant policy extracts.

Table 4.4 Saved Unitary Development Plan Review Policies

Policy	Key Extract from Relevant Objectives
GP5	Development proposals should resolve detailed planning considerations (including access, drainage, contamination, stability, landscaping and design). Proposals should seek to avoid problems of environmental intrusion, loss of amenity, pollution, danger to health or life, and highway congestion, to maximise highway safety, and to promote energy conservation and the prevention of crime. Proposals should have regard to the guidance contained in any framework or planning brief prepared for the site or area. Relevance: The Scheme will help to reduce congestion, improve safety, improve journey time reliability and reduce delays. An EAR has been produced to assess the environmental impacts from the Scheme and inform the proposed mitigation measures.

Policy	Key Extract from Relevant Objectives
N8	The strategic network of urban green corridors links the main urban area with the countryside. These corridors provide or have the potential to provide for informal recreation and also contribute to visual amenity and nature conservation. Within these corridors, development proposals should ensure that any existing corridor function of the land is retained, enhanced or replace and where there is potential to create a link between existing greenspaces, provision is made for one or more corridor function. Relevance: The Scheme lies within a designated urban green corridor designation. A landscaping scheme will be developed to replace all trees and vegetation removed as part of the proposals. In addition, enhancement measures will be provided. These measures will include specimen tree planting and species rich grassland seeding, to contribute to an improvement in the amenity value of the M621 corridor and adjacent areas. The enhancement measures are shown in the environmental mitigation plans at Appendix H of this Statement.
N9	All development proposals should respect and where possible enhance the intrinsic value of land in fulfilling a corridor function in terms of access, recreation, nature conservation and visual amenity. Relevance: The Scheme will replace all trees and vegetation removed as part of the development process and enhancement measures will be provided, as detailed in Appendix H of this Statement.
LD2	Proposals for new and altered roads should normally: • Follow the latest government guidance concerning environmental appraisal and design; • Minimise disturbance to existing natural features; • Minimise intrusion into prominent views; • Minimise the creation of new landform; • Minimise the demolition of existing property; • Minimise the destruction or disruption of sites of nature or historic importance; • Provide appropriate treatment to protect the amenity of nearby property; and • Provide substantial landscaping including appropriate earth grading, planting and hard and soft surface treatment. Relevance: The latest government guidance has been followed in producing the EAR for the Scheme. The Scheme includes minimal land take and will be predominantly within the existing highway boundary. No existing properties will be demolished as a result of the Scheme and a landscaping scheme will be incorporated to replace trees and vegetation. The Scheme has no impact on sites of nature or historic importance.

Natural Resources and Waste Local Plan (January 2013)

4.54 The Natural Resources and Waste Development Plan Document is part of the Local Development Framework (LDF). The document sets out where land is needed to enable LCC to manage resources such as minerals, energy, waste and water over the next 15 years. Policy Minerals 13 identifies that rail siding at Pontefract Road, Stourton, adjacent to Junction 7 of the M621, should be protected from development that would prejudice their long term availability for rail or canal freight. This is not affected by the Scheme.

Aire Valley Leeds Area Action Plan

4.55 The Aire Valley Leeds Area Action Plan provides the future planning framework to guide the regeneration of an area of the Lower Aire Valley between Leeds City Centre and the M1 motorway and includes the M621 around J7.

4.56 A summary of the key relevant policies are set out below in Table 4.5.

Table 4.5 Aire Valley Leeds Area Action Plan Policies

Policy	Key Extract Relevant Objectives
AVL2	Identifies sites which have existing or recently expired planning permission, or were previously allocated for uses including general employment, as identified general employment sites. Relevance: Land at Valley Farm Road, Stourton is allocated for employment uses, and lies adjacent to Junction 7. The Scheme does not encroach upon this allocated area and will provide increased capacity to cater for additional traffic from this development site as well as supporting LCC's proposal for a Park and Ride facility at Junction 7.
AVL12	Improvements to junction layouts at M621 J7 to increase highway capacity and improve traffic flow onto and from the motorway during peak periods. Where appropriate and directly related to the development, proposals on identified sites, allocations and other sites will be required to provide or contribute towards provision of these improvements. Relevance: The temporary site compound at Junction 7 will not interfere with the proposals to upgrade Junction 7, and the Scheme proposals will provide additional capacity and improve journey time reliability enhance accessibility to the development sites within the Aire Valley area.
CAV1	Site AV82 at Stourton is safeguarded for a bus based park and ride facility. Other non-transport infrastructure uses, including housing and/or general employment will only be acceptable on any part of the site if it can be demonstrated that it is no longer required to deliver the strategic transport infrastructure needs of the district. Relevance: Site AV82 lies adjacent to M621 Junction 7. The Scheme will not encroach upon the safeguarded area, nor will the area at Junction 7 to be used for a site compound on a temporary basis. The Scheme will provide additional capacity at Junction 7 which will support LCC's aspirations for a park and ride facility at this location.
CAV3	The green infrastructure network shown on the area map will be maintained and enhanced through the following range of measures. Where appropriate and directly related to the development, proposals on identified sites, allocations and other sites will be required to provide or contribute towards provision of improvements or sought through the delivery of other initiatives led by the Council and other partners. Relevance: The Scheme passes through several areas designated as green infrastructure in the Aire Valley, but will incorporate a landscaping scheme to replace all trees and vegetation to be removed as part of the development to mitigate against the environmental impacts of the Scheme.

South Bank Leeds Regeneration Framework Supplementary Planning Document (SPD)

4.57 The South Bank Leeds Regeneration Framework Supplementary Planning Document SPD provides guidance for the development of the South Bank area of Leeds and establishes principles to drive the growth of the area. The South Bank area extends to land adjacent to M621 Junctions 3 and 4. The SPD sets out an ambitious vision to provide 35,000 jobs and 8,000 homes, along with public realm enhancements including new public spaces.

4.58 The Scheme will provide additional capacity, improve the flow of traffic and journey time reliability, and enhance the integration between the strategic and local road network at Junctions 2 and 3, which will help to accommodate LCC's development proposals. In addition, the Scheme will support improvements to Junction 7, which will enable the addition of a Park and Ride facility, providing further public transport into the City Centre to minimise traffic using the City Centre.

Holbeck Neighbourhood Plan 2018

4.59 Policies in the Holbeck Neighbourhood Plan are complementary to, and in general conformity with national and local guidance set out in the NPPF, as well as LCC's Core Strategy and Site Allocations Plan. Relevant policies have been included in Table 4.6 below:

Table 4.6 Holbeck Neighbourhood Plan Policies

Policy	Key Extract Relevant Objectives and Requirements
Policy C3: Improving Health and Wellbeing	Development proposals should, where possible, make a positive contribution to health and wellbeing. Relevance: The Scheme lies near to residential estates, however as set out in Chapter 5 of the EAR (Air Quality) the Scheme will not have any significant adverse impacts upon air quality, will enhance the flow of traffic which will have air quality benefits, and will incorporate a landscaping scheme to replace all trees and vegetation to be removed in order to retain screening between the M621 and nearby residential estates.
Policy H3: Matthew Murray Site	The development of the Matthew Murray Site primarily for a mix of housing, including affordable housing and shared ownership housing, in a green infrastructure setting will be supported in principle, together with other uses compatible with its residential location. Any development will: • include at least 40% of the site area as publicly accessible green space, and; • be subject to a development brief submitted with the application showing how the Scheme will retain and improve the green infrastructure of Holbeck and provide suitable connectivity with the rest of Holbeck. Relevance: This Matthew Murray site lies on the north-eastern side of Junction 2 of the M621. LUFC have emerging plans to develop the site for a training ground, however the allocation reflects the current disused nature of this area of open space. During the design development process, engagement has been undertaken with LCC (as owners of the Site) to acquire a small section of land by agreement as well as LUFC to ensure that the development proposals for the Scheme do not conflict with those of LUFC.
Policy G1: Strategic Green Infrastructure and Local Green Corridors	Development of land which lies within or alongside the strategic green infrastructure (identified on the Policies Maps 4 and 9) and/or includes or lies alongside the proposed local green corridors in the following locations (also identified on the Policies Maps 4 and 9) should include the provision of green space and/or planting appropriate to the scale of development, including street trees, safe cycling routes and footpaths where possible: • SG3 - Matthew Murray Site: The configuration of the proposed green space to be provided in any development of the Matthew Murray Site should ensure that there is a continuous and substantial strip to link the western corridor there. The Scheme will not affect this area. • SG4 -Tilbury Road: This is a wide road which would benefit from street trees and already includes garden trees. It links from the Matthew Murray Site to Beeston Park across the motorway (see also Beeston Neighbourhood Plan) via the footbridge, which could become a "green bridge" (this is understood to be at the conceptual stage, with no specific delivery plan developed to date for the green bridge). Temporary construction works are proposed in the vicinity of Tilbury Road.

Policy	Key Extract Relevant Objectives and Requirements
	• LGC1 - Elland Road: There is a substantial verge along part of Elland Road alongside the motorway barrier and there may be ways of extending this by narrowing the carriageway where there is no verge. The verge could be more substantially landscaped than at present and not only would this enhance the quality of the overall environment there but would also create a continuous green corridor ring around this part of Holbeck. Although the Scheme will reduce the width of the verge in the area described the landscaping should be enhanced. Relevance: The strategic green infrastructure locations above lie across and/or adjacent to the Scheme. A landscaping scheme will be incorporated to replace all trees and vegetation to be removed as part of the proposed development.
Policy HC3: Holbeck Housing Heritage Area	The Scheme lies alongside the Holbeck Housing Heritage Area, which seeks to safeguard the character of the area. Relevance: Trees and vegetation to be removed as part of the Scheme will be replaced in order to retain existing levels of screening and safeguard the visual character of the area.
Policy T1: Increasing opportunities for walking and cycling	New development and changes of use should, where appropriate, give priority to and improve the attractiveness, safety and accessibility of pedestrian routes and cycleways, including 'safe routes to schools', both within the Neighbourhood Area and connecting with the City Centre and adjoining neighbourhoods, particularly along the routes identified on the Policies Maps 4 and 12. Relevance: The Scheme will close an unsafe footpath across the M621 Junction 2 roundabout, provide enhanced signage to improve direction to the Lowfields Road/Avenue underpass, and will include a new signalised pedestrian crossing at the Junction between Elland Road and Cemetery Road.
Policy T2: Reducing air pollution and congestion	Wherever possible, development should include measures to reduce air pollution, including a reduction in vehicle traffic generation and through traffic, and any other measures to minimise health impacts on local people, particularly in the Holbeck Local Centre. Relevance: As set out in Chapter 5: Air Quality of the EAR, the Scheme will not have a significant adverse impact upon air quality, and the improved flow of traffic along the M621 carriageway as a result of the Scheme will have air quality benefits through reducing congestion.

Scheme Alignment with Planning Policy

Transport

4.60 The NN NPS requires that the economic, social and environmental impacts of highway developments are considered. The Scheme will help to enable economic growth through providing further capacity on the strategic road network to support additional demand from planned and committed development sites, including housing sites. A landscaping scheme will be provided to replace trees and vegetation removed as part of the development.

4.61 The NPPF promotes road safety and taking opportunities to utilise changing transport technology. The introduction of technology (specifically Motorway Incident Detection and Automatically Signalling also known as MIDAS) throughout the Scheme will enable drivers to be better informed and receive advance warning of incidents or congestion, with the objective of reducing the rate of collisions by at least 10%. The Scheme will provide additional capacity on the M621 carriageway and at Junction 2, which will aid the Council's plans to accommodate more traffic on the M621 and Leeds Inner Ring Road.

4.62 Local planning policy objectives support infrastructure development that serves local communities, supports economic activity (Core Strategy Spatial Policy 1) and an integrated transport network (Core Strategy Spatial Policy 11). The Scheme will provide an infrastructure enhancement to an area of high population, as well as economic activity in Leeds.

4.63 The saved policies of the UDP Review 2006 (saved policies GP5 and LD2) set out a series of principles for development, including highways. The Scheme has been refined to minimise environmental impacts and harm to amenity, as set out in the EAR for the Scheme. Mitigation measures have been incorporated in the Scheme to address impacts, such as landscape proposals.

Economy

4.64 National, regional and local planning policy fully supports transport schemes which enable sustainable economic growth and economic resilience. The NPPF includes policy priorities to support and enable economic growth, while the Leeds City Region SEP includes a priority of delivering infrastructure for growth and emphasises the importance role which Leeds City Centre plays in the regional and national economy.

4.65 In line with this policy context, the Scheme will help to enable the achievement of the economic objectives for Leeds and the wider region. Upgrading the M621 and its integration with the surrounding network will help to increase the capacity and efficiency of the City's network, enhancing the attractiveness of the area to investors and providing further infrastructure capacity to accommodate growth.

4.66 At the local level, Core Strategy 2014 Spatial Policy 1 focuses on supporting a successful local economy, while Policies CC1 and CC2 set out goals to accommodate a substantial amount of additional development in the City Centre as well as new public spaces.

4.67 The Scheme is a catalyst for Leeds City Council's transport strategy as it will provide additional highway capacity to accommodate additional trip generation (see Section 2), which in turn will support the City and surrounding area's wider growth and regeneration objectives (see Section 4). The reduction of congestion and associated travel times has been demonstrated to be beneficial to businesses with wider economic impacts of the Scheme calculated to be approximately £35 million (Chapter Three).

Open Space and Playing Pitch Designations

4.68 Paragraph 97 of the NPPF stipulates that existing open space and playing pitches should not be built on unless, inter alia, alternative provision is made elsewhere, or the development would be for an alternative sports and recreation facilities, the benefits of which outweigh the loss of the existing open space.

4.69 The former Matthew Murray Site, on the north eastern side of M621 Junction 2 is designated as an urban green corridor and a playing pitch in the Leeds UDPR Policies Map 2017. UDPR saved policy N6, and Core Strategy policy G6 require that there be no net loss to open space and playing pitch provision in terms of quantity or quality. Sport England has responded as a consultee to confirm that it has no objections to the Scheme (Appendix C. Responses from Consultees).

4.70 The Holbeck Neighbourhood Plan includes an allocation for residential development under policy H3 at the Former Matthew Murray Site, albeit any development is to incorporate 40% of the Site as open space. The inclusion of this playing pitch and area of open space as a housing site in the Neighbourhood Plan is illustrative of the fact that the Site has not been in use for some time as a playing pitch and is not currently suitable for such a formal function.

4.71 LUFC has forthcoming plans to develop this site as a training facility but has yet to submit a planning application. The Scheme has been developed in alignment with LUFC's proposals for the Matthew Murray Site and the selected option represents the minimum requirement for permanent land take at Junction 2 to deliver the Scheme. The existing landscape screening at the border between Junction 2 and the Matthew Murray Site will be reconfigured as part of the M621 Scheme. As such, it is considered that the Scheme fully aligns with the requirements of the NPPF and Local Plan policy.

5 Summary

5.1 This Statement demonstrates that that there is a clear case for the Scheme, which is grounded in local, regional and national planning policy. The Scheme is essential to the effectiveness of the local and strategic road networks and supports LCC's aspirations to enhance the economy, environment and quality of life in Leeds City Centre. The Scheme would bring benefits to those travelling through the region as well as the communities surrounding the route.

5.2 The content of this Statement can be summarised as follows:

- The Scheme comprises the online improvement of the M621 from Junctions 1 to 7, including alterations and improvements to key junctions, technological enhancements to the highway and associated improvements to sections of the local road network at the interface between the local and strategic road networks;
- The Scheme will enhance the capacity of the M621 and the flow of traffic whilst reducing delays, improving road safety and journey time reliability;
- The Scheme meets the initial objectives of the Scheme to decrease congestion, increase capacity and improve journey reliability, whilst minimising environmental impact and incorporating environmental mitigation measures;
- The consenting strategy for the Scheme requires a Section 4 Agreement and SRO as well as a CPO;
- National, regional and local transport policy support the delivery of the Scheme, which will help to enable economic growth and enhancements to quality of life, whilst creating high quality environments;
- The Scheme will play a crucial role in supporting LCC's plans to better integrate traffic between the M621 and Inner Ring Road to help to enable their development plans to reduce traffic through the City Centre;
- Option A was chosen as it was determined to have the least impact, (compared to the alternatives examined) with regard to land take and associated environmental impacts; and
- A landscaping scheme is embedded within the wider Scheme design to mitigate and enhance the appearance of the M621. Plans for the Scheme ensure that the loss of trees and vegetation is reduced as much as possible, with replacement and additional planting provided as Appendix H.

5.3 The EAR concluded that the potential significant, adverse effects of the Scheme are either temporary or localised. Overall the Scheme is not expected to result in significant environmental effects and is forecast to facilitate environmental and economic benefits.

5.4 Sport England has responded to the consultation to confirm that it has no objection to the Scheme, specifically the works at Junction 2 where land classed as a Protected Playing Pitch is required. The consultation process included LCC (as the landowner) and LUFC as a stakeholder, currently looking to develop the Matthew Murray Site for a training facility.

5.5 It is considered that the benefits of the Scheme clearly outweigh the potential negative impacts; there is a strong public interest in favour of the development.

Appendices

Appendix A. Location Plans

Location Plan of M621 Junction 2	Drawing: HE551464-ATK-HAC-J2-DR-CH-000005
Location Plan of M621 Junction 2a	Drawing: HE551464-ATK-HAC-J2A-DR-CH-000006
Location Plan of M621 Junction 7	Drawing: HE551464-ATK-HAC-J7-DR-CH-000007

DO NOT SCALE

Millimetres 0 10 100

HOLBECK

WITHIN THE OF PARISH OF BEESTON & HOLBECK AND THE METROPOLITAN DISTRICT OF LEEDS

MATTHEW MURRAY SCHOOL (former site of)

CONFEDERATION PARK

MAPLE PARK

LATCHMORE PARK INDUSTRIAL ESTATE

ELLAND ROAD STADIUM (Leeds United FC)

Holbeck Community Centre

JUNCTION 2

M621

M 62

M 1

A643 INGRAM DISTRIBUTER

A643

A643 ELLAND ROAD

BROWN AVENUE

BROWN PLACE

LOW FIELDS AVENUE

LOW FIELDS ROAD

LOW FIELDS WAY

LATCHMORE ROAD

LOWFIELDS ROAD

HOXTON MOUNT

ELLAND ROAD

MALVERN STREET

REVIE ROAD

LANDMARK COURT

CLEVELEYS AVENUE

CROSBY ROAD

CLEVELEYS ROAD

RECREATION VIEW

RECREATION TERRACE

RECREATION PLACE

RECREATION ROW

RECREATION CRESCENT

COLENSO GROVE

COLENSO PLACE

COLENSO TERRACE

COLENSO ROAD

BACK COLENSO ROAD

INGRAM CRESCENT

INGRAM ROAD

EUSTON GROVE

EUSTON MOUNT

EUSTON TERRACE

TILBURY ROAD

TILBURY MOUNT

TILBURY TERRACE

TILBURY ROW

LOW FIELDS ROAD / AVENUE UNDERPASS

PEDESTRIAN OVERBRIDGE

Scale 1:1250

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NOTES:

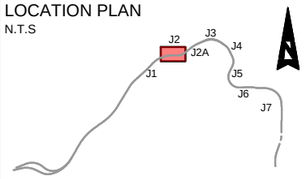
1. DRAWING NOT TO BE SCALED
2. FOR JUNCTION 2 REFER TO HE551464-ATK-HAC-J2-DR–CH-000005,
   FOR JUNCTION 2A REFER TO HE551464-ATK-HAC-J2A-DR–CH-000006, &
   FOR JUNCTION 7 REFER TO HE551464-ATK-HAC-J7-DR–CH-000007

KEY:

- PERMANENT LAND TAKE
- TEMPORARY LAND TAKE
- PROPOSED RED LINE BOUNDARY (AREA OF DEVELOPMENT)
- HIGHWAY BOUNDARY (HIGHWAYS ENGLAND)

LOCATION PLAN

N.T.S



SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

In addition to the hazards/risks normally associated with the types of work detailed on this drawing, note the following significant residual risks (Reference shall also be made to the design hazard log).

Construction
None

Maintenance / Cleaning
None

Use
None

Decommissioning / Demolition
None

Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
FIRST ISSUE	A1	C01	AD	WS	KD	AP	07/08/19
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Status: A1

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Client: Working on behalf of highways england

Project Title: M621 J1-7

Drawing Title: JUNCTION 2 LOCATION PLAN

Drawing Number: Project HE551464 - Originator ATK - Volume HAC - J2 - Type DR - Role CH - Number 000005

Original Size: A1 | Scale: 1:1250 | Project Ref. No: 5155828 | Sheet: 1 of 1 | Rev: C02

This Drawing is saved on ProjectWise. Date: 2019/10/17 Plotted by: pott7053

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Millimetres 0 10 100

HOLBECK

HOLBECK MOOR

JUNCTION 2A

HIGHWAY TO BE STOPPED UP

NEW FENCE LINE AND GATE INSTALLED FOR MAINTENANCE ACCESS

WITHIN THE OF PARISH OF BEESTON & HOLBECK AND THE METROPOLITAN DISTRICT OF LEEDS

Ingram Road Primary School

Holbeck Community Centre

Lane End Primary School

BOWLS CLUB

Skatepark

Play Area

INGRAM ROAD
INGRAM CRESCENT
CROSBY STREET
CROSBY ROAD
CROSBY TERRACE
CROSBY PLACE
CROSBY VIEW
CROSBY AVENUE
SHAFTON PLACE
SHAFTON STREET
SHAFTON VIEW
RYDALL PLACE
RYDALL TERRACE
RYDALL STREET
BERTRAND STREET
TOP MOOR SIDE
RUNSWICK AVENUE
RUNSWICK STREET
RUNSWICK PLACE
BROWN LANE EAST
RECREATION GROVE
RECREATION MOUNT
RECREATION STREET
RECREATION VIEW
RECREATION TERRACE
RECREATION PLACE
RECREATION ROW
RECREATION CRESCENT
COLENSO MOUNT
BACK COLENSO MOUNT
COLENSO GROVE
COLENSO PLACE
COLENSO TERRACE
COLENSO ROAD
CLEVELEYS AVENUE
CLEVELEYS ROAD
BACK COLENSO ROAD
EUSTON GROVE
EUSTON MOUNT
EUSTON TERRACE
TILBURY ROAD
TILBURY MOUNT
TILBURY TERRACE
TILBURY ROW
ELLAND ROAD
CEMETERY ROAD
HOLBECK MOOR ROAD
MOOR VIEW
M1
M621
M 62
EASTBOUND ON-SLIP
WESTBOUND OFF-SLIP
LANE END PLACE
BEESTON ROAD
HUNSLET HALL ROAD
MOORVILLE ROAD
MOORVILLE GROVE
CAMBRIAN STREET
CAMBRIAN TERRACE
NORMANTON PLACE
NORMANTON GROVE
NORMANTON STREET
ST. LUKE'S ROAD
ST. LUKE'S CRESCENT
MAITLAND PLACE
LADY PIT LANE
COUPLAND PLACE
MALVERN STREET
MALVERN VIEW
MALVERN ROAD
BUCKTON MOUNT
BARTON PLACE
BARTON VIEW
BARTON TERRACE
BARTON GROVE

NOTES:

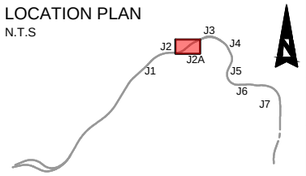
1. DRAWING NOT TO BE SCALED
2. FOR JUNCTION 2 REFER TO HE551464-ATK-HAC-J2-DR–CH-000005,
   FOR JUNCTION 2A REFER TO HE551464-ATK-HAC-J2A-DR–CH-000006, &
   FOR JUNCTION 7 REFER TO HE551464-ATK-HAC-J7-DR–CH-000007

KEY:

- HIGHWAY TO BE STOPPED UP
- PROPOSED RED LINE BOUNDARY (AREA OF DEVELOPMENT)
- HIGHWAY BOUNDARY (HIGHWAYS ENGLAND)

LOCATION PLAN

N.T.S



SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

In addition to the hazards/risks normally associated with the types of work detailed on this drawing, note the following significant residual risks (Reference shall also be made to the design hazard log).

Construction
None

Maintenance / Cleaning
None

Use
None

Decommissioning / Demolition
None

Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
FIRST ISSUE	A1	C01	AD	WS	KD	AP	07/08/19
UPDATED FOR ORDERS PUBLICATION	A1	C02	MT	AP	KD	AP	17/10/19

Drawing Suitability: APPROVED - PUBLISHED
Status: A1

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Project Title: M621 J1-7

Drawing Title: JUNCTION 2A

LOCATION PLAN

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Drawing Number: HE551464 - ATK - HAC - -J2A - DR - CH - 000006

Project | Originator | Volume | Location | Type | Role | Number

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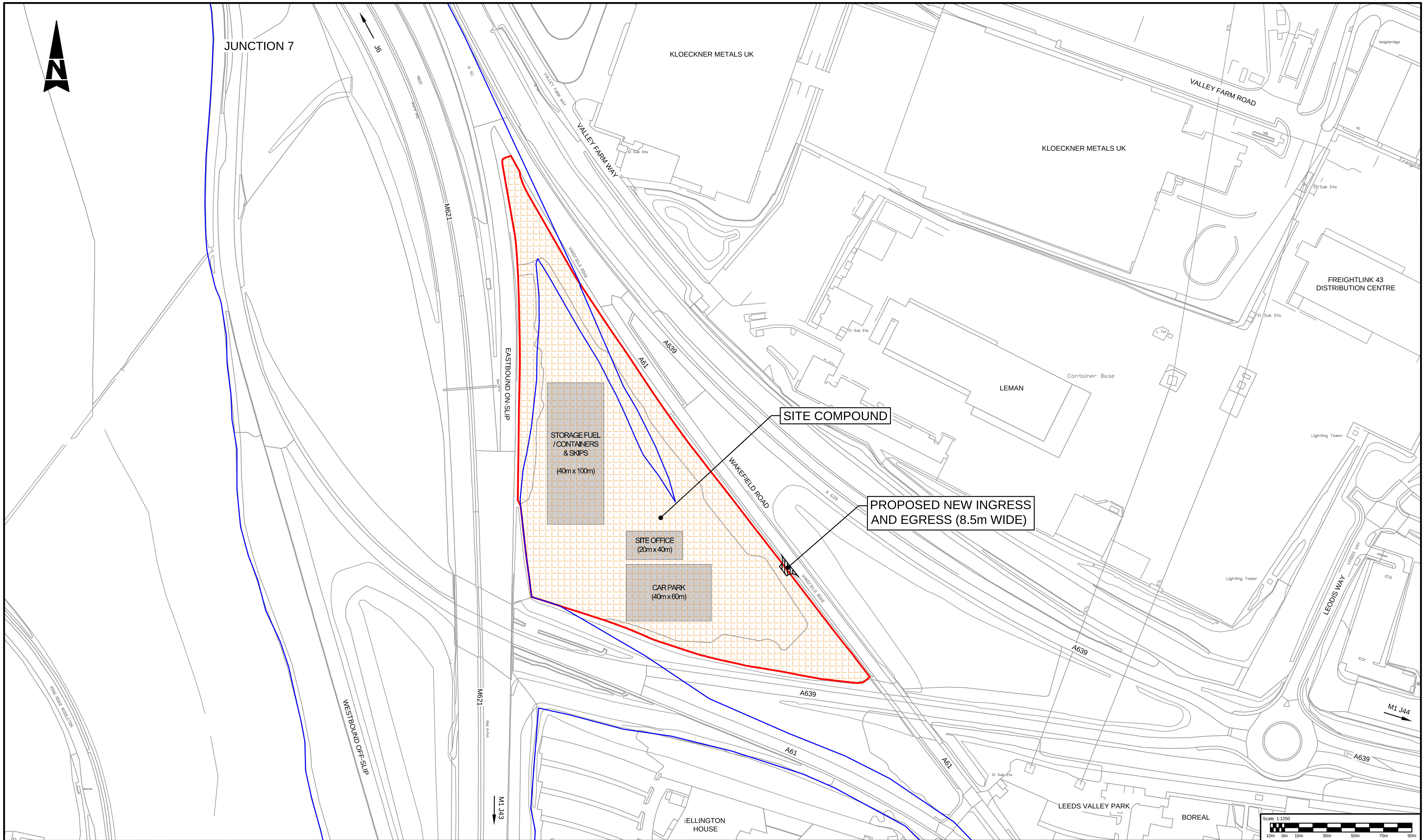


NOTES:

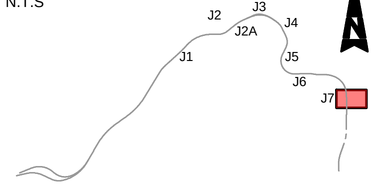
1. DRAWING NOT TO BE SCALED
2. FOR JUNCTION 2 REFER TO HE551464-ATK-HAC-J2-DR-CH-000005,
   FOR JUNCTION 2A REFER TO HE551464-ATK-HAC-J2A-DR-CH-000006, &
   FOR JUNCTION 7 REFER TO HE551464-ATK-HAC-J7-DR-CH-000007

KEY:

- AREA OF SITE COMPOUND
- BOUNDARY OF SITE COMPOUND
- SITE ACCESS POINT
- LAND OWNERSHIP BOUNDARY OF HIGHWAYS ENGLAND

LOCATION PLAN

N.T.S



SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

In addition to the hazards/risks normally associated with the type of work detailed on this drawing, note the following significant residual risks (Reference shall also be made to the design hazard log).

Construction
None

Maintenance / Cleaning
None

Use
None

Decommissioning / Demolition
None

Description						
Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
Description: For Comment						
A1	C01	AD	DNJ	KD	AP	07/08/19
Description: UPDATED FOR ORDERS PUBLICATION						
A1	C02	MT	AP	KD	AP	17/10/19

Drawing Suitability: APPROVED - PUBLISHED — Status: A1

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Client: Working on behalf of highways england

Project Title: M621 J1-7

Drawing Title:

JUNCTION 7 SITE COMPOUND LOCATION PLAN, NEW ENTRANCE AND INDICATIVE LAYOUT

Drawing Number: HE551464 - ATK - HAC - J7 - DR - CH - 000007

Original Size: A1 | Scale: 1:1250 | Project Ref. No: 5155828 | Sheet: 1 of 1 | Rev: C02

This Drawing is saved on ProjectWise. Date: 2019/10/17 Plotted by: pott7053

Appendix B. Proposed Diversions and Traffic Management Measures

The following text is an extract from the M621 Junctions 1 to 7 Improvement Scheme Stage 3 Construction Phasing and Buildability Review

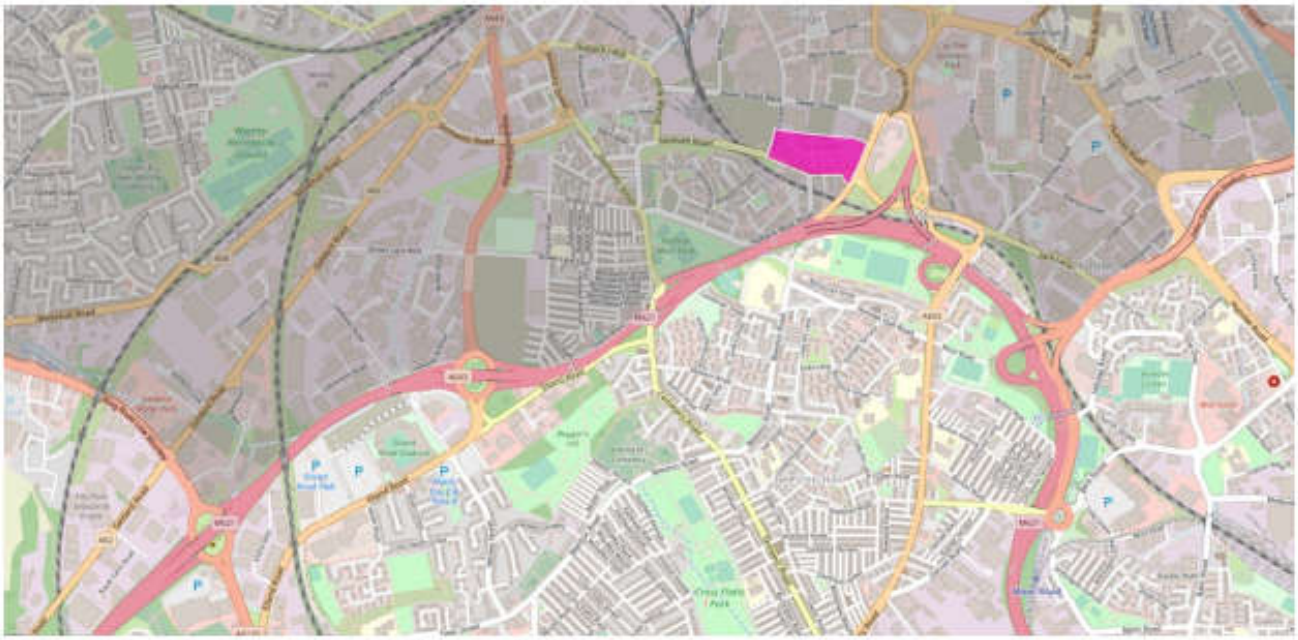
(Document: HE551464 – NMCN-TTM-XX-RP-WM-001) (Rev 3.0, control date 07/06/2019)

4. Traffic Management Strategy

Overview

4.1 The M621 corridor is a very constrained urban motorway with closely spaced junctions and narrow hard shoulders, the section between junctions 1 and 2A, and within J3, being a dual 2 lane motorway. This means that undertaking any major highway construction works will be challenging; the most significant are:

- Use of two narrow lanes in the two-lane areas will not provide sufficient working space for many of the required activities.
- Working areas are further constrained by the narrow hard shoulder and, between junctions 2 and 2A, large retaining walls are in very close proximity.
- There are no agreed off network / emergency diversion routes in place.
- Closely spaced junctions mean that standard traffic management layouts will be difficult to implement.
- Diversion routes would take motorway traffic through urban areas.
- A significant area of Leeds, north of the M621, is to be a Clean Air Zone (CAZ) from 06/01/2020 – the extents of the CAZ near the M621 are shown below.



4.2 The traffic management strategy is broken down into the following three areas:

- M621 corridor works.
- Junction 2 improvements.

- Elland Road / Cemetery Road improvement.

M621 Corridor: High Level Traffic Management Options

4.3 Whichever option is selected for traffic management a 40mph temporary speed limit is likely to be required due to the existing sub-standard carriageway which includes short weaving lengths, non-standard junctions and low radius curves. There may be opportunity to increase the proposed 40mph temporary speed limit on the 70mph speed limit sections pending more detailed planning.

4.4 A number of high-level options for traffic management have been reviewed for undertaking the works on the M621 corridor.

a. Reducing Through Journeys

4.5 Reducing through traffic on the M621 for the duration of the scheme, especially when lane closures or diversions are in place, would minimise the impact of the works on road users, and would therefore minimise the amount of traffic using diversion routes.

4.6 The reduction of through journeys on the M621 can be achieved through good quality and focussed publicity, advising drivers to use the M62 to access the opposite end of the M621. For example, targeted publicity can be made to businesses and logistics companies in the Stourton area to advise using the M621 south at J7, M1 to J42 and then M62 to reach the M62 to Manchester, rather than using the M621 through the centre of Leeds. A further example is that a VMS strategy will be agreed with Highways England RCC to set messages at strategic locations to advise against using the M621 J 1 to 7 during the weekend.

b. Verge Works: Hard Shoulder Working with Standard Width Lanes

4.7 The existing hard shoulders are narrow and when safety clearances are taken into account there is insufficient working space for many of the type of works required. This is further exacerbated by the presence of retaining walls and narrow verges. For these reasons this option is not feasible for most activities but may be considered for specific items. In any event, much of the hard shoulder is likely to be closed throughout the works.

c. Narrow Lanes: 2 Lane Sections

4.8 As noted above the existing hard shoulders are narrow and using narrow lanes on the 2 lane sections will not create the required working space. Hence this option is not feasible.

d. Narrow Lanes: 3 Lane Sections

4.9 Use of narrow lanes on the 3 lane sections would be likely to create sufficient working width for works in the verges which, for the 3 lane sections, consists of ducting, technology and gantry / signage installation. However, installation of narrow lanes will in itself be disruptive and can affect the pavement condition. Further, this solution could only be used between junctions 4 and 6 which is a relatively short section of the overall scheme. It is likely that the preferred option for the 2 lane section is used for the 3 lane section and narrow lanes are not used. However, this option is feasible and hence can be used as a fall back for the 3 lane section if required.

e. Contraflow

4.10 Due to the close spacing of junctions the start and end points of a contraflow would be difficult to implement and would mean that drivers in contraflow on the opposite carriageway would likely miss several exits which is likely to result in low usage of the contraflow and

could result in operational difficulties. In the two-lane sections due to the narrow hard shoulder there is likely to be insufficient width to install a contraflow.

4.11 Due to the problems and issues raised this option has been discounted.

f. Weekday Lane Closures

4.12 Due to the flows on the M621 during the working week this option is discounted as it would likely result in significant congestion and disruption.

g. Night Time Lane Closures

4.13 A significant amount of the scheme could be undertaken using night time lane closures (potentially with some localised junction closures). However, it would be difficult to construct significant sections for items such as kerb realignment, drainage and full depth pavement. Further, the available window for undertaking works at night is small as installing and removing the traffic management can take significant time.

4.14 Finally, there may be roadworker health and safety dis-benefits due to the potential increased risk of incursion given the scheme duration and large number of night time lane closures required for this option.

h. Weekend Lane Closures

4.15 Weekend single lane closures (i.e. running 1 lane on the 2 lane sections, or 2 lanes on the 3 lane sections) would allow 5 consecutive shifts of works to take place in one weekend period. It is recognised that this may cause congestion on the M621 and hence the necessary publicity to minimise the number of through journeys as discussed in section (a) above. However, this strategy would mean that as much traffic as possible is kept on the M621 rather than having full closures with diversions in place through Leeds.

4.16 There may be an increased risk of incursion using weekend lane closures but this would be significantly less than having night time lane closures throughout as there will be more daytime working and less night time working.

4.17 Weekend lane closures will not take place when Leeds United are playing at home games, nor when any other major events are taking place in Leeds.

4.18 During the week the affected section of hardshoulder would remain closed and temporary barrier provided on any sections where there would be risks to road users from hazards such as open excavations or incomplete safety barrier.

i. Night Time Closures for all Works

4.19 All the works could be undertaken using night time closures of the M621. However, due to the short lengths of time available in any given night and the type of work required (e.g. between J2A and J2 the kerb is to be realigned and full depth pavement construction is needed to both nearside and offside) then the number of night closures is likely to be very large i.e. well over a year of night closures is likely to be necessary.

4.20 Diverting traffic through the Leeds urban area every night for such a long period is likely to give rise to significant concerns from local residents and initial feedback from Leeds City Council has been that this option is not acceptable.

j. Limited Night Time Closures

4.21 It is inevitable that some work, such as surfacing, loop cutting, markings and gantry installations, will require the M621 to be closed. By undertaking as much work as possible using the weekend lane closures, the number of night time closures can be limited. The closures would be for the affected section of the M621 rather than scheme wide. This is analysed in more detail below.

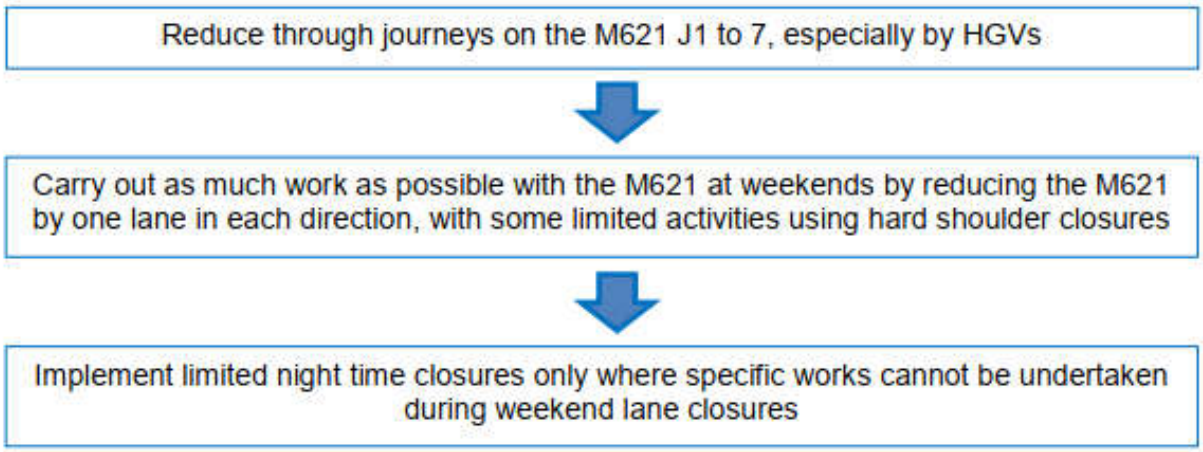
Summary

4.22 The above is summarised as follows:

Option		Location	Technically feasible	Impacts on drivers and stakeholders	Progress with option?
a	Reducing through journeys	Scheme wide	Yes	Low	Yes
b	Contraflow	Any location	No	-	No
c	Verge works: hard shoulder working with standard lane widths	Any location	Yes	-	Yes
d	Narrow lanes: 2 lane sections	J1-J4	No	-	No
e	Narrow lanes: 3 lane sections	J4-J6	Yes	Low	Possibly
f	Weekday lane closures	Any location	Yes	High	No
g	Night time lane closures	Scheme wide	No	-	No
h	Weekend lane closures	Any location	Yes	Medium	Yes
i	Night time closures for all works	Scheme wide	Yes	High	No
j	Limited night time closures	As necessary for specific location	Yes	Medium	Yes

M621 Corridor: Traffic Management Strategy

4.23 The following strategy is therefore proposed:



M621 Corridor: Closures and Diversion Routes

4.24 As noted above there are no easy diversion routes due to the urbanised nature of the M621. To understand the number of closures that are proposed and associated diversion routes, each section of the scheme has been analysed and the following table sets out the envisaged number of closures for each affected link of the M621, along with a proposed diversion route.

4.25 The number of closures given is an initial estimate at this stage as the scheme is subject to ongoing design and development. This analysis will be refined as the design develops in due course and will be further reviewed at PCF Stage 5. Diversion routes through Leeds are shown in **Appendix D** (note route maps have not been provided where the diversion is along the M621 to the next or previous junction, or is a simple diversion using diverge and merge slip roads at the same junction).

Section of M621 closed		Closure period	Est. No. of closures	Proposed diversion (See Appendix D for routes)	Appendix D diversion route
From	To				
Eastbound					
J1	J3	10pm to 6am	5	A6110 & A653	1
J2 diverge slip road		10pm to 6am	10	M621 EB to J3 and return to J2	
J2 diverge	J2 merge	10pm to 6am	2	Via slip roads within J2	
J2 merge slip road		10pm to 6am	10	M621 WB to J1 and return to J2	
J2A merge slip road		10pm to 6am	5	Via local roads e.g. Holbeck Moor Road to J3	6
J3 diverge	J3 merge	10pm to 6am	6	Via A653 gyratory at J3	3
J4 diverge slip road		Friday 10pm to Monday 5am	4	M621 EB to J7 & A639 or return via M621 to J4	
J4	J7	10pm to 6am	4	A61 & A639	5
Westbound					
J7	J4	10pm to 6am	4	A639 & A61	5
J4	J3	10pm to 6am	4	Jack Lane and A653 gyratory at J3	4.1
J3 merge slip road		10pm to 6am	14	A653 & A6110	1
J3 diverge	J3 merge	10pm to 6am	6	Via A653 gyratory at J3	4
J3	J1	10pm to 6am	9	A653 & A6110	1
J2A	J2	10pm to 6am	17	A653 & A6110 (i.e. J3 to J1) **Or*** Local diversion via Elland Road (J2A to J2)	1 **or** 2
J2 diverge slip road		10pm to 6am	20	M621 WB to J1 and return to J2**	
J2 merge slip road		10pm to 6am	30	M621 EB to J3 and return to J2	
J1 diverge	J1 merge	10pm to 6am	3	Via slip roads within J1	

Section of M621 closed		Closure period	Est. No. of closures	Proposed diversion (See Appendix D for routes)	Appendix D diversion route
From	To				
* Consultation is ongoing with Leeds City Council regarding these options ** Some of these closures may be undertaken concurrently with the closure of J2A to J2 westbound					

4.26 The following table summarises the use of diversion routes through Leeds (not including those that wholly use the M621 and/or its immediate junctions).

Diversion Route (Appendix D)	Diversion route (in use either direction unless stated) – see route map in Appendix D	Estimated No. of night time closures
1	A6110 & A653 (M621 J1 and J3) with Elland Road in use for J2A to J2 WB	28
2	Elland Road (if used), J2A to J2 WB only	17
1	A6110 & A653 (M621 J1 and J3) without Elland Road in use for J2A to J2 WB	45
3, 4 & 4.1	A653 gyratory at J3	16 (4 no. include Jack Lane)
5	A639 & A61 (M621 J4 and J7)	8
6	Via local roads e.g. Holbeck Moor Road to J3	5

4.27 The above diversion routes through Leeds are shown at **Appendix D**.

M621 Junction 2 / A643 Roundabout Improvements

4.28 The works to this junction consist primarily of widening the slip road entries and exits, widening the A643 approach, providing a segregated left turn lane from the M621 EB to A643 NB, widening the circulatory carriageway and upgrading the traffic signals. Closures of the slip roads are covered in the analysis for the M621 corridor above.

4.29 A significant amount of work is behind existing carriageway and in these areas as much work as possible will be carried out behind the existing carriageway with negligible disruption to traffic. More disruptive works will be required for activities such as surfacing works, loop cutting, markings and duct crossings. For these works the roundabout will be reduced at night time to single lane running (every night for an estimated 12 weeks). Closures will, however, still be required and an estimated 6 partial closures will be needed.

4.30 As a result of the permanent scheme the pedestrian route though the junction is to be removed and diverted, and it is likely that this would be implemented early on during construction to remove pedestrians from the works area.

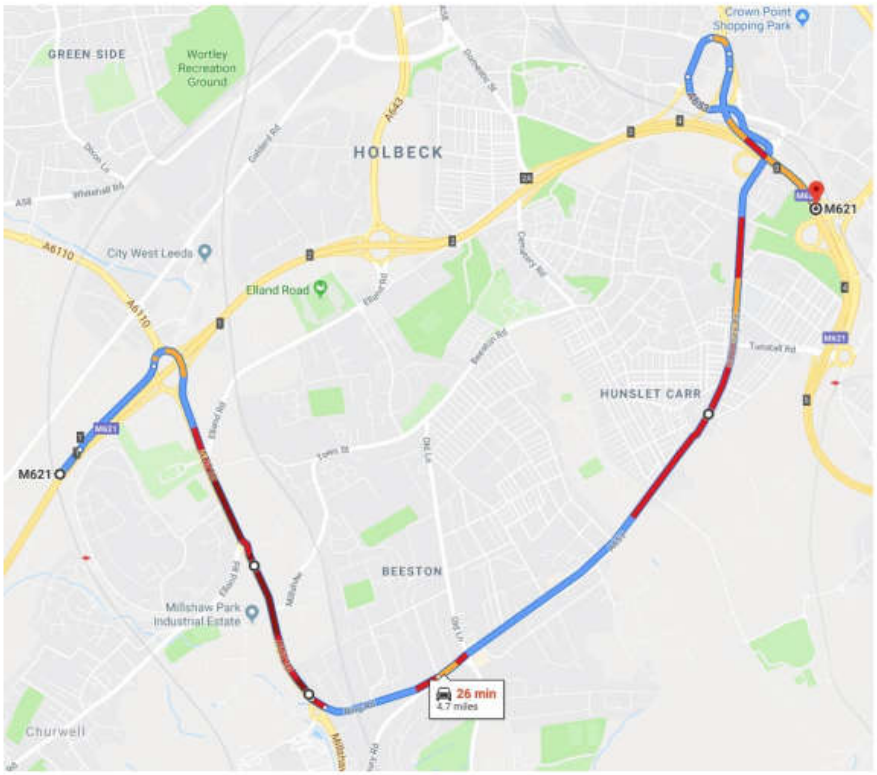
Elland Road / Cemetery Road Improvements

4.31 The works to this junction consist primarily of widening Elland Road, provision of a signal junction between it and Cemetery Road, and closure of the J2A slip road.

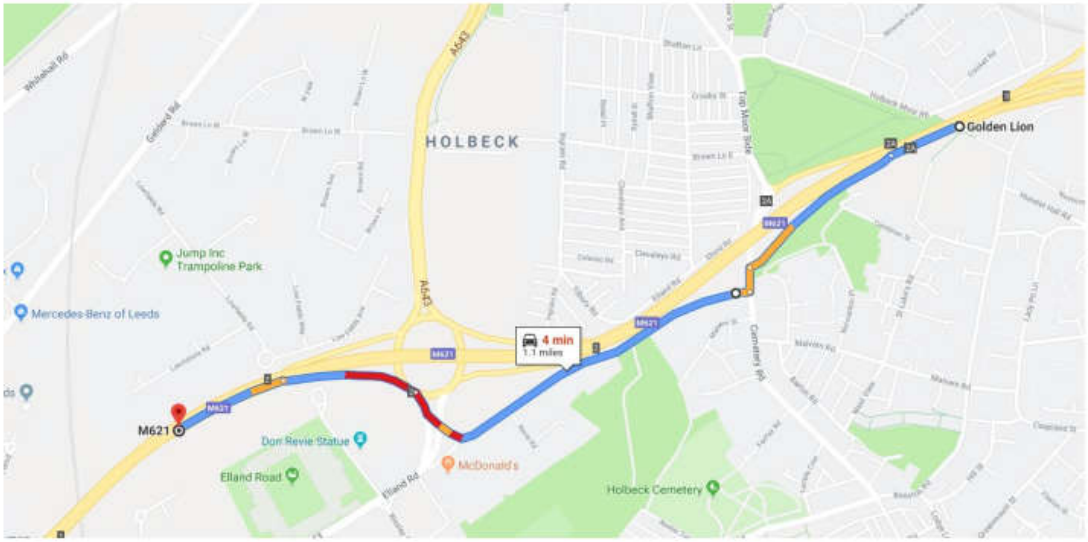
4.32 The works are required as a result of changes to traffic flows following the permanent closure of the J2A westbound slip road from the M621.

4.33 The widening works would be undertaken during normal working hours with closures of footways as required. Surfacing works, loop cutting, markings, duct crossings and island construction would require 3 way temporary lights in place outside of peak hours. For some of these works a closure of the J2A slip road would be required.

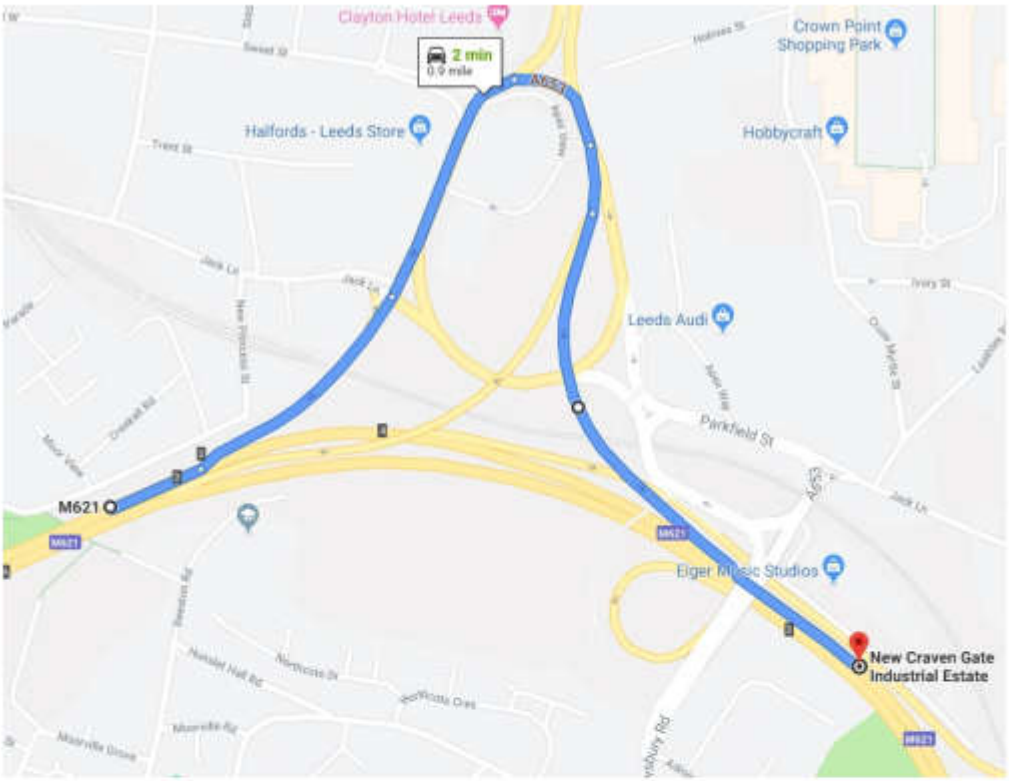
1. A6110 & A653 (M621 J1 and J3) – Eastbound and Westbound



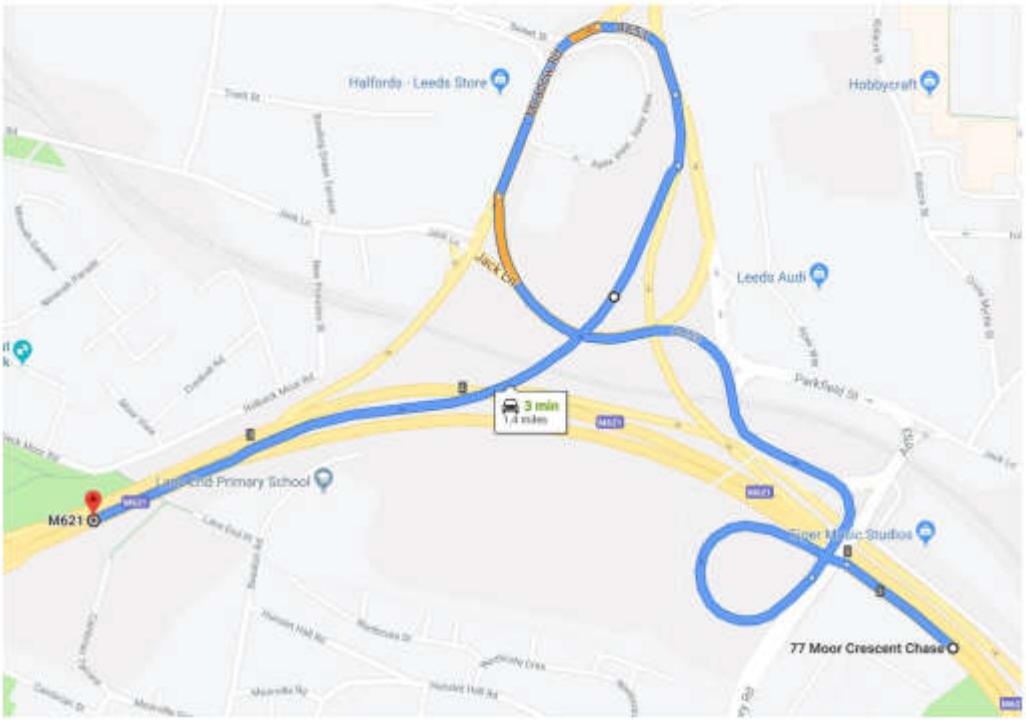
2. Elland Road J2A to J2 – Westbound



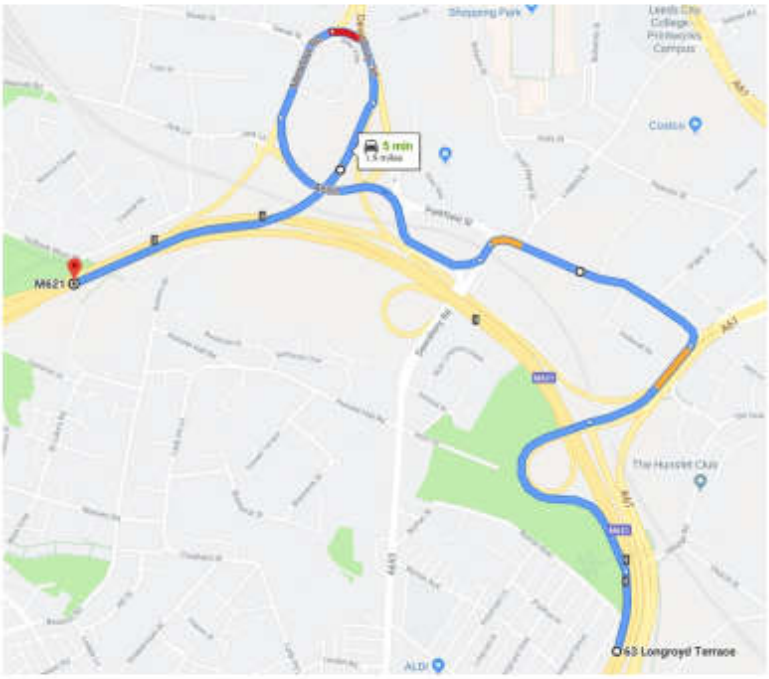
3. A653 Gyratory at J3 (not including Jack Lane) – Eastbound



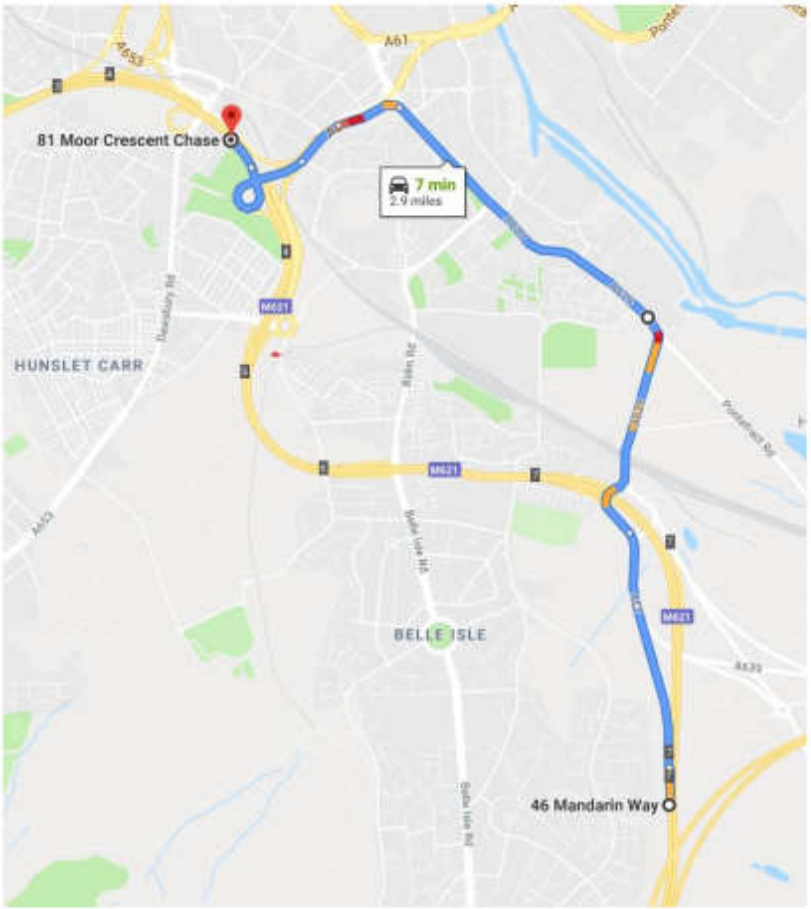
4. A653 Gyratory at J3 (not including Jack Lane) – Westbound



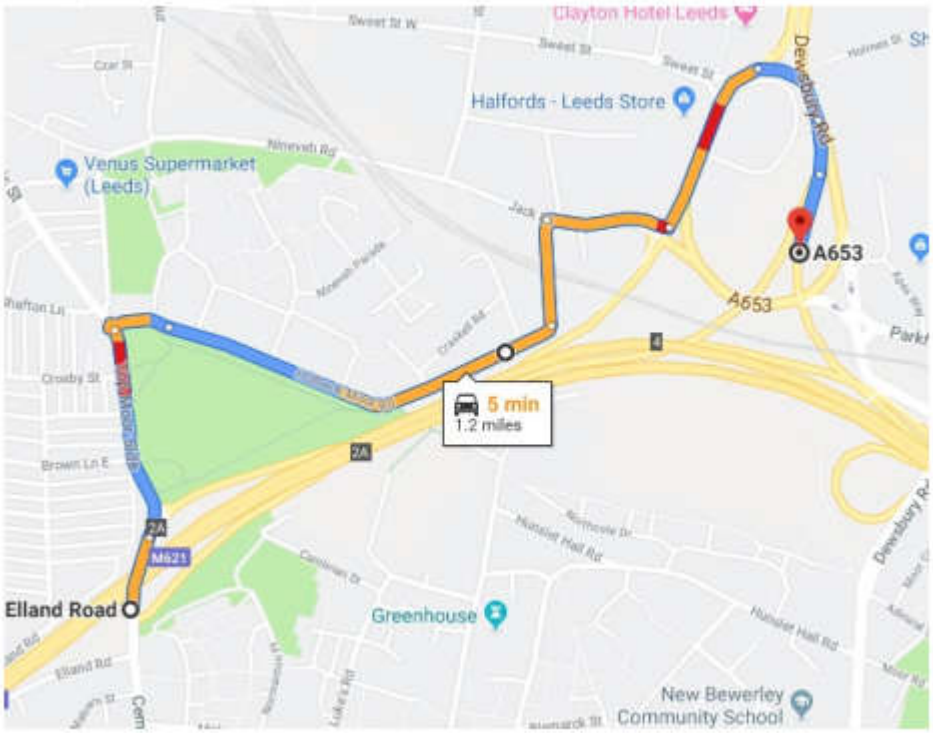
4.1 A653 Gyratory at J3 (including Jack Lane from J4) – Westbound



5. A639 & A61 (M621 J4 and J7) – Eastbound and Westbound



6. Via local roads e.g. Holbeck Moor Road to J3



Source of the above diversion maps: Copyright Google Maps 2019.

Source of data: nmcn Construction Phasing and Buildability Report Appendix D

Appendix C. Responses from Consultees

1) Response from Sport England (01/02/2019)

Dear XXXXXXX,

Thank you for consulting Sport England on the above proposal.

Sport England –Statutory Role and Policy

It is understood that the site forms part of, or constitutes land last used as playing field as defined in The Town and Country Planning (Development Management Procedure) (England) Order 2015 (Statutory Instrument 2015 No. 595).

However, as the playing field has not been used for at least five years, any planning consultation with Sport England would not be a statutory requirement.

Sport England' applies its policy to any land in use as playing field or last used as playing field and which remains undeveloped, irrespective of whether that use ceased more than five years ago. Lack of use should not be seen as necessarily indicating an absence of need for playing fields in the locality. Such land can retain the potential to provide playing pitches to meet current or future needs.

Sport England considers proposals affecting playing fields in light of the National Planning Policy Framework (NPPF) (in particular Paragraph 97) and against its own playing fields policy, which states:

'Sport England will oppose the granting of planning permission for any development which would lead to the loss of, or would prejudice the use of:

• all or any part of a playing field, or
• land which has been used as a playing field and remains undeveloped, or
• land allocated for use as a playing field

unless, in the judgement of Sport England, the development as a whole meets with one or more of five specific exceptions.'

Sport England Policy Exceptions	
E1	A robust and up to date assessment has demonstrated, to the satisfaction of Sport England, that there is an excess of playing field provision in the catchment, which will remain the case should the development be permitted, and the site has no special significance to the interests of sport.
E2	The proposed development is for ancillary facilities supporting the principal use of the site as a playing field, and does not affect the quantity or quality of playing pitches or otherwise adversely affect their use.

Sport England Policy Exceptions	
E3	The proposed development affects only land incapable of forming part of a playing pitch and does not: ▪ reduce the size of any playing pitch; ▪ result in the inability to use any playing pitch (including the maintenance of adequate safety margins and run-off areas); ▪ reduce the sporting capacity of the playing field to accommodate playing pitches or the capability to rotate or reposition playing pitches to maintain their quality; ▪ result in the loss of other sporting provision or ancillary facilities on the site; or ▪ prejudice the use of any remaining areas of playing field on the site.
E4	The area of playing field to be lost as a result of the proposed development will be replaced, prior to the commencement of development, by a new area of playing field: ▪ of equivalent or better quality, and ▪ of equivalent or greater quantity, and ▪ in a suitable location, and ▪ subject to equivalent or better accessibility and management arrangements.
E5	The proposed development is for an indoor or outdoor facility for sport, the provision of which would be of sufficient benefit to the development of sport as to outweigh the detriment caused by the loss, or prejudice to the use, of the area of playing field.

Sport England's Playing Fields Policy and Guidance document can be viewed via the below link:
www.sportengland.org/playingfieldspolicy

Assessment against Sport England Policy

Most of the works proposed will take place on the embankments and areas of existing landscaping. There will be a small encroachment onto the playing field along the west and south boundary. The encroachment along the south boundary will occupy a narrow strip of land between the existing embankment and the 'redgra' pitch.

Consequently, Sport England are of the view that the proposal broadly meets exception E3 of our playing fields policy, in that:

'The proposed development affects only land incapable of forming part of a playing pitch and does not:

- reduce the size of any playing pitch;
- result in the inability to use any playing pitch (including the maintenance of adequate safety margins and run-off areas);
- reduce the sporting capacity of the playing field to accommodate playing pitches or the capability to rotate or reposition playing pitches to maintain their quality;
- result in the loss of other sporting provision or ancillary facilities on the site; or
- prejudice the use of any remaining areas of playing field on the site.'

In light of the above, Sport England would have **no objection** to the proposal.

Sport England reserves the right to object to any subsequent planning application if we do not consider that it accords with our playing fields policy or paragraph 97 of NPPF.

If you require any further information please do not hesitate to contact the undersigned.
Yours sincerely,

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

2) Response from West Yorkshire Police (10/05/2019)

[redacted],

[redacted].

My position has not really changed since I sent the initial response. Overall I am supportive of the redesign and believe that the changes around Junction 3 in particular will bring significant benefits to the traffic flow on the M621. I agree that in order to safely construct that change then the closure of the Junction 2A exit slip is required but the disruption caused by regular users of this exit slip is mitigated somewhat by the improvements made at Junction 2.

There is an element of increased risk to road users stranded between Junction 2A and Junction 2 but if your research states that this risk is within the acceptable limits of tolerance for Highways England then I am content with that research and the Highways England decision being presented to a Coroner in the event of a Fatal Road Traffic Collision. I would personally like to see some form of advice for pedestrians and / or pedestrian activated warning system on the wall area that would alert the NERCC or possibly even the SMART motorway technology to alert on-coming vehicles and mitigate the delay of having to phone 999 and establishing the correct location of the issue (I'm thinking of the 'panic strips' that we have in Police Stations which when pressed trigger an alarm for immediate assistance). I am, however, mindful of the limitations of technology and costs of the projects and so understand the difficulties of such a proposal.

In summary I have no objections – just the observation about the increased risk between Junction 2A & Junction 2 and again reminding you that Red X compliance [a Red X sign is used to identify when a lane is closed and indicates that drivers should move into an open lane to continue their journeys]. is still very poor at this current time.

[redacted].

Kind regards,

[redacted]

3) Response from West Yorkshire Combined Authority (12/03/2019)

From: XXXXXXXXXXXXXXXXXXXXXXXXXXXXX
Sent: 12 March 2019 12:32
To: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
Subject: RE: M621 Junction 1 to 7 Improvement Scheme

Hi XXXXXX

Further to your email below, we just have the one point to raise

Leeds City Council are currently working on the delivery of a Flood Risk Management (FRM) scheme at Farnley Wood Beck near Cottingley. This watercourse crosses the M621 at Gildersome Cemetery (SE269301) and may be affected by the proposed improvement work to the M621 motorway. I have also attached a Flood Map of the area for your information. I am raising this with you to ensure you are aware of the work in this area.

At this stage the scheme is likely to consist of some storage upstream of the M621 with a flood wall close to at-risk properties. The scheme is currently at feasibility stage proposed to start construction in 2022.
Please note that this scheme was also identified (along with a related proposal – listed below) as a scheme for Highways England Designated Funds (RIS 2).

Grateful if any opportunities to align these projects as part of the M621 work could be considered.

If you require further information on the detail of the FRM scheme please contact XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

Many thanks,

XXXXXX

Appendix D: Development Area Calculations

Development Area – Junction 2		
Compulsory Purchase Order Plot Reference	Size (square metres)	Additional Notes (required for)
Sheet 1 – Plot 1/1	338	Essential Licence
1/1a	110	Title
1/1b	32	Title
1/1c	313	Title
1/1d	135	Title
1/1e	78	Essential Licence
1/1f	16	Essential Licence
1/1g	244	Essential Licence
1/1h	101	Title
1/1i	260	Title
1/2	261	Essential Licence
1/2a	86	Title
1/2b	72	Title
1/3	48	Title
1/3a	6	Title
1/4	684	Title
1/4a	111	Rights only
1/4b	1,160	Essential Licence
TOTAL A (m2)	**4,055**	**Junction 2**

Development Area – Junction 2a		
Compulsory Purchase Order Plot Reference	Size (square metres)	Additional Notes (required for)
Sheet 2 – Plot 2/5	7	Title
2/5a	53	Title
2/5b	16	Title (PMA)
2/5c	69	Title
2/5d	18	Title
2/5e	71	Title
2/5f	2	Title
2/5g	18	Title (PMA)
2/5h	2	Title (PMA)
2/6	7	Title
2/6a	19	Title (PMA)
2/6b	1	Title
2/7	256	Title
2/7a	50	Title (PMA)
2/7b	585	Title
2/7c	278	Title (PMA)
2/8	5	Title
2/9	743	Title
2/9a	342	Title
2/9b	221	Title (PMA)
2/10	46	Title
2/10a	208	Title (PMA)
2/10b	100	Title
2/10c	408	Title
2/11	30	Title (PMA)
2/11a	27	Title
2/12	193	Title
TOTAL B (m2)	**3,775**	**Junction 2a**

Development Area – Junction 7		
Compulsory Purchase Order Plot Reference	Size (square metres)	Additional Notes (required for)
Sheet 3 – Plot 3/13	26,877	Essential Licence
3/13a	3,989	Essential Licence
TOTAL C (m2)	**30,866**	**Junction 7**

Development Area – Full Scheme		
Compulsory Purchase Order Plot Reference	Size (square metres)	Additional Notes
Sub Total A	4,055	Junction 2
Sub Total B	3,775	Junction 2a
Sub Total C	30,866	Junction 7
TOTAL (m2)	**38,696**	
TOTAL (ha)	**3.87**	To two decimal places.

Appendix E: Public Consultation Brochures

M621 Junctions 1 to 7 Improvement Scheme (Autumn 2017)

https://highwaysengland.citizenspace.com/he/m621-junctions-1-to-7/supporting_documents/N170017_M621%20Booklet_Digital.pdf

M621 Improvements – information leaflet (Autumn 2019)

http://assets.highwaysengland.co.uk/roads/road-projects/M621+junctions+1+to+7/M621+Improvement+Leaflet.pdf

M621 Junctions 1 to 7 Improvement Scheme (Autumn 2017)

https://highwaysengland.citizenspace.com/he/m621-junctions-1-to-7/supporting_documents/N170017_M621%20Booklet_Digital.pdf

highways england

M621
Junctions 1 to 7
Improvement scheme

Share your views

Investing in your roads

Every road user wants less congested roads to enable swift, safe, comfortable and informed travel. On behalf of the government, Highways England is responsible for delivering the largest investment in a generation throughout England's motorways and major A roads.

In 2014, the government announced proposals to improve M621 junctions 1-7 as part of their Road Investment Strategy.

The M621 is a vital link between Leeds city centre and the surrounding road network. It's already very congested, especially at peak times. This congestion will only get worse with economic growth expected in the region. That's why investment is needed to provide more reliable journeys for people using the route.

Share your views

We're holding the first public consultation on our proposals. We'd like to hear what you think about some of these proposals, so please share any concerns or local knowledge that you may have.

The consultation will run for six weeks, from **4 September to 15 October 2017** and there are lots of ways you can tell us what you think. **Why not come along to one of our public exhibitions?**
Or you can write to us by post or email. Details of how you can respond are listed below.

Your comments will help us to make sure that we've fully understood any potential impacts on the community. We'll listen to everyone's feedback and consider these before we select a preferred option.

In this brochure we explain our proposed improvements for the M621 junctions 1 to 7 improvement scheme. We also give details of how you can give us your feedback during our public consultation.

How to respond

Please respond to our consultation using one of the following methods by 15 October 2017.

Freepost: Complete the questionnaire in this brochure and return it to us using the freepost provided.

Online: Complete the questionnaire online at: www.highways.gov.uk/m621j1-7

Email your response to: M621J1to7@highwaysengland.co.uk

You can write to us at:
M621 Junction 1-7 Project Team, 3rd Floor South, Highways England, Lateral, 8 City Walk, Leeds, LS11 9AT

Public exhibitions

One of the best ways to have your say is to come to one of our public exhibitions. Here you'll be able to find out more about the scheme and speak to members of the project team who will be happy to answer any questions you may have.

Hillside Enterprise Centre		St Matthew's Community Centre	
Friday 8 September	**1pm – 8pm**	**Saturday 16 September**	**10am – 4pm**
Saturday 9 September	**10am – 4pm**	St Matthew's Community Centre, St Matthew's Street, Leeds, LS11 9NR	
Hillside Enterprise Centre, Beeston Road, Leeds, LS11 8ND			

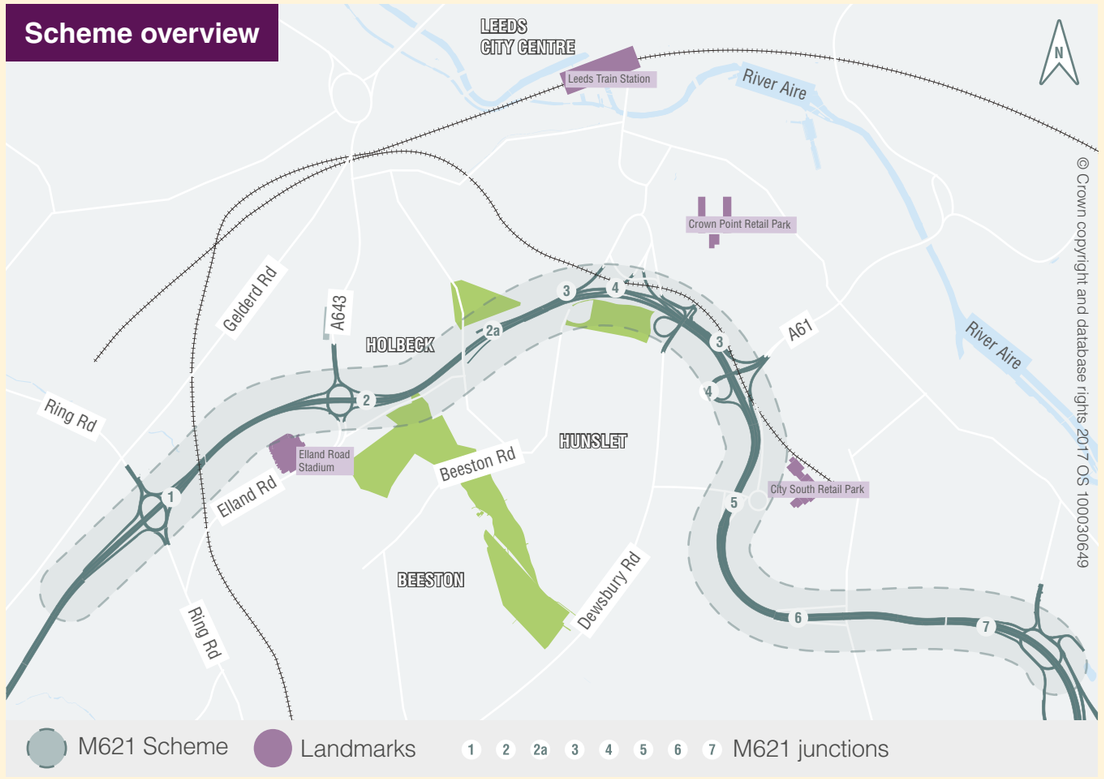
The proposed options

We have looked at lots of ways we could improve the M621 and assessed each of our options, taking the following into consideration:

- Whether or not they meet the scheme's objectives
- Value for money
- Potential impact on the environment
- How the local community could be affected

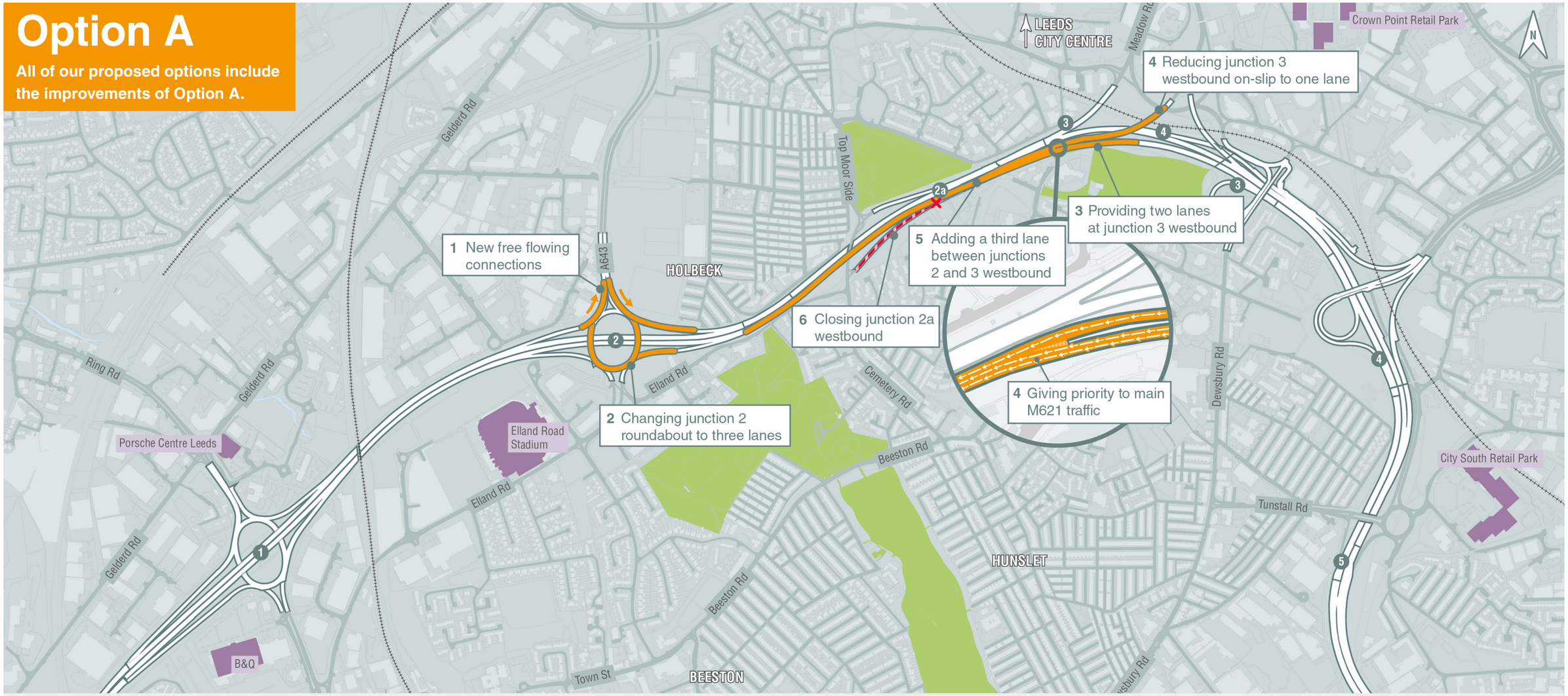
We have now shortlisted three options which all meet the scheme's objectives. These are Options A, B and C. This section of the booklet provides more detail on our proposals and includes a number of proposed improvements which are essential to addressing the cause of the peak time congestion. These are presented in Option A, with Options B and C providing further improvements and benefits.

Scheme overview



Option A

All of our proposed options include the improvements of Option A.

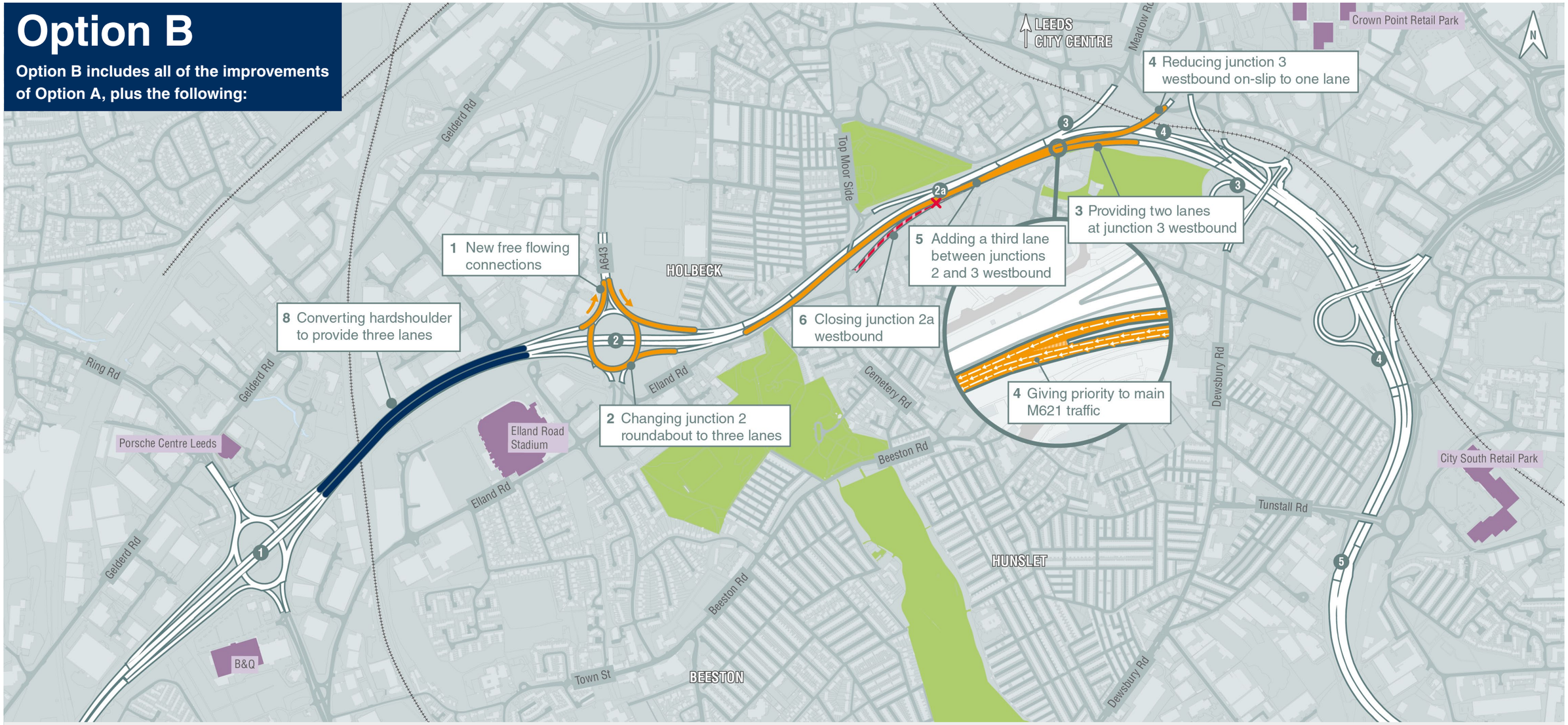


M621 Scheme | **Option A** improvements | Landmarks | 1 2 2a 3 4 5 6 7 Junctions

Our Improvement		Benefit to you
1	The introduction of free flowing connections between the M621 and the A643 at junction 2.	These will improve the connection between the M621 and the A643 for eastbound traffic, so these vehicles won't need to stop at the junction.
2	Adding an additional lane to the roundabout at junction 2.	This will increase capacity, allowing more vehicles to use the junction.
3	Providing two lanes through junction 3 westbound, instead of the one lane at present.	This will increase the capacity of the junction and ease congestion.
4	Changing junction 3 westbound to give priority to the main M621 traffic and reducing the on-slip to one lane. This creates a junction where traffic merges from the on-slip road on the right-hand side of the carriageway.	Presently, the westbound on-slip road at junction 3 has priority over the main M621 traffic. We will change the priority to allow main M621 traffic to flow more freely.
5	Adding a third lane between junction 2 and 3 westbound by converting the existing hard shoulder and auxiliary lanes.	This will create more capacity and smooth the flow of traffic.
6	Closure of junction 2a westbound to enable the improvements at junction 3.	This closure reduces the risk of collisions resulting from the short distance between junction 3 and 2a. This is explained in more detail later in this brochure.
7	Providing improved motorway technology between junctions 1 and 7.	This helps safely manage traffic in the event of incidents and to keep drivers better informed. This is explained in more detail later in this brochure.

Option B

Option B includes all of the improvements of Option A, plus the following:

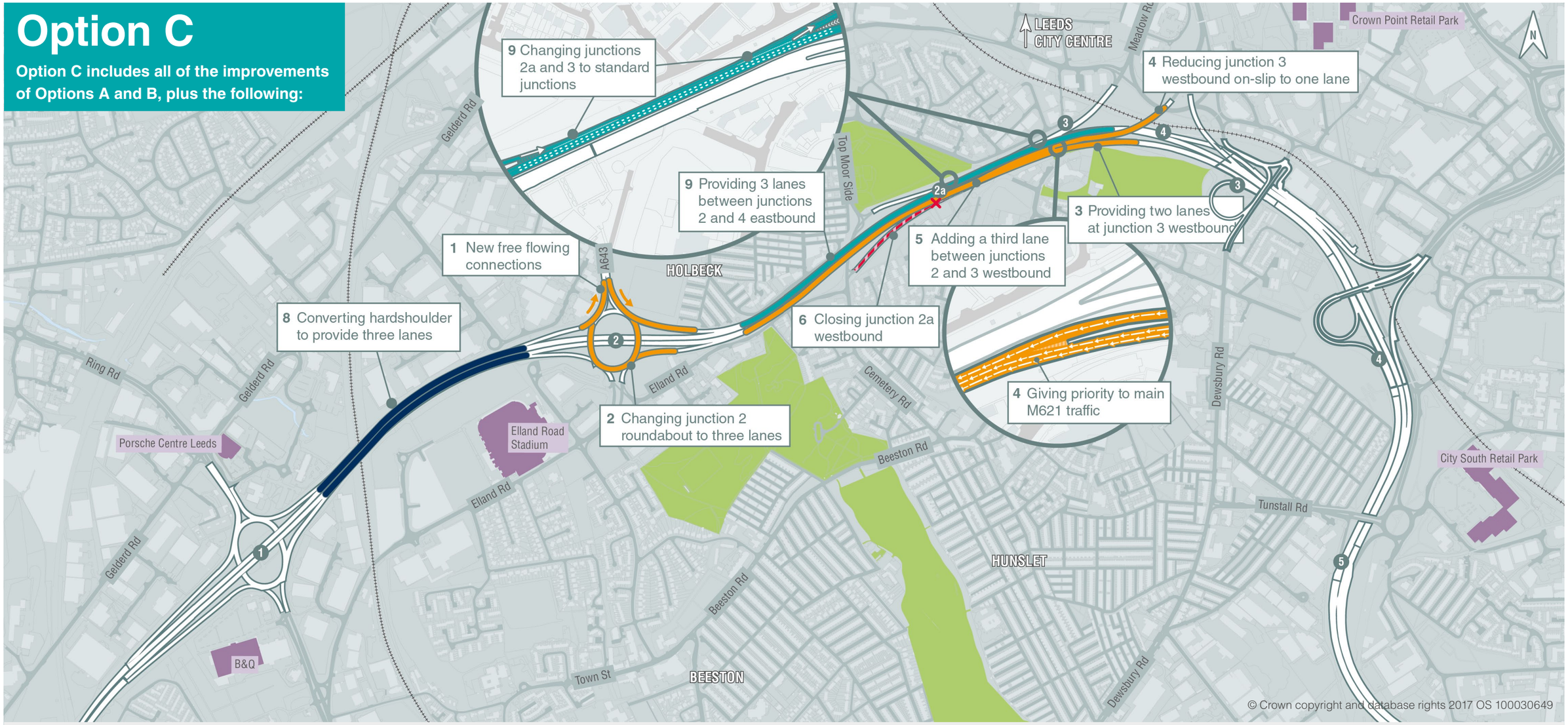


Our Improvement	
8	Adding a third lane in each direction between junctions 1 and 2 by converting the hard shoulder into a lane for traffic.

Benefit to you
This will provide additional road capacity, reduced congestion and better journey time reliability.

Option C

Option C includes all of the improvements of Options A and B, plus the following:



M621 Scheme | **Option A** improvements | **Option B** improvements | **Option C** improvements | Landmarks | 1 2 2a 3 4 5 6 7 M621 junctions

Our Improvement	
9	Adding a third lane between junctions 2 and 4 eastbound by converting the existing hard shoulder into a lane for traffic. This will include changing junction 2a on-slip and junction 3 off-slip to a standard junction, to enable the existing auxiliary lane to form part of the additional third lane.

Benefit to you

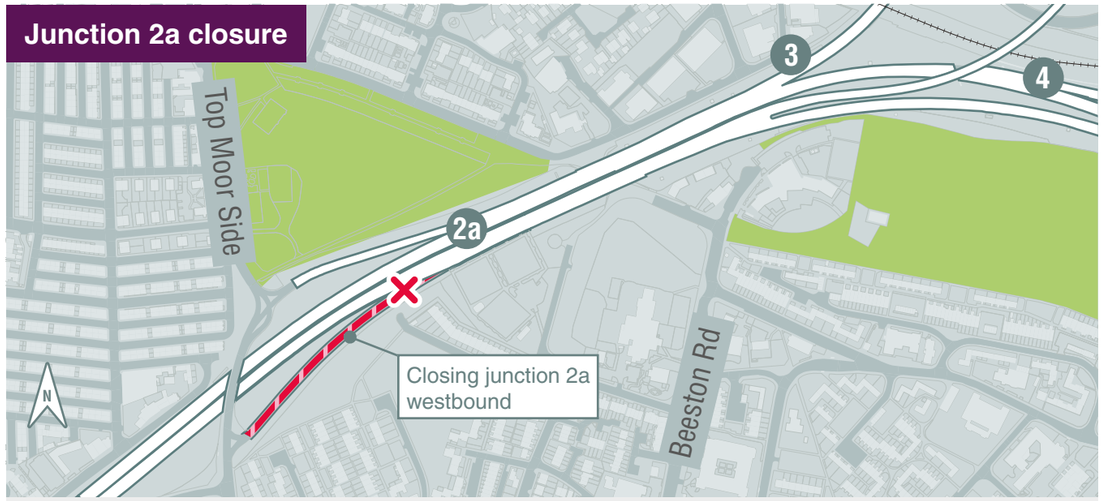
This will provide additional road capacity, reduced congestion and better journey time reliability.

Proposed closure of junction 2a

A key aim of the M621 improvement scheme is to improve journey time reliability by addressing the causes of existing congestion on the M621.

Alongside this we aim to maintain the highest possible level of safety for those using the M621. All three options include an alteration to the westbound junction 3 on-slip and the closure of the junction 2a off-slip road.

Currently, the westbound on-slip road at junction 3 is two lanes wide with the main M621 traffic being reduced to one lane. This causes significant congestion during peak periods. To help improve the operation of this junction we propose to reduce the on-slip road to one lane and widen the main M621 to two lanes. This will mean westbound traffic joining the M621 from junction 3 will join in the outside lane.



Traffic wishing to join at junction 3 and leave at junction 2a would need to cross two lanes of traffic in a very short distance. This manoeuvre is potentially unsafe and therefore junction 2a is proposed to be closed. We propose to increase the capacity of junction 2 to enable additional traffic to use this junction instead of junction 2a.

The closure of the junction 2a leads to:

- A safer road environment for traffic leaving Leeds city centre and entering the M621 at junction 3
- A safer environment for traffic on the mainline of the M621
- Smoother traffic flow through the section leading to less congestion and more reliable journey times

Pedestrians, cyclists and horse riders

All three options would result in little impact to footpaths and cycle routes. At junction 2, however, there would need to be some changes. The current junction 2 eastbound exit has a signalised pedestrian crossing which would need to be removed.

We will consider making improvements to other existing pedestrian routes, for example the underpass at Lowfields Road, to mitigate the impact of this change.

New motorway technology

The scheme involves installing new technology between junctions 1-7 of the M621. This technology will be used to smooth the flow of traffic, helping us better detect and monitor incidents and improve the information we provide to drivers.

New signs will be installed either above each lane of the carriageway or on the verges next to the road. The signs will be used to display advisory speed limits when traffic volumes increase. Sensors in the road will detect changes in traffic volumes and will activate lower speeds to be displayed on the signs.

Reducing speed during peak demand decreases stop – start conditions and allows traffic to move smoothly.

Along some sections of the M621 we plan to use the hard shoulder as a permanent extra traffic lane. Signs will tell drivers when lanes are closed.

Environmental impact

The scheme is being designed to minimise the effect on the environment. We have undertaken a range of environmental assessments to evaluate the impact our proposals may have on the environment and to influence our designs.

Our work so far has shown that there are no significant differences in the environmental impacts between any of our three options. Further assessments will be undertaken to identify any effects the scheme may have along the route and once we have identified these we will consider how we can reduce our impact on the environment, where possible.

All future findings will be published on our webpage however, in the meantime, the following covers a wide range of environmental themes that we take into consideration:

Noise and vibration

Construction is likely to generate noise that may disturb local areas, such as houses and community facilities. We will make every effort to make sure the noise impact on local properties is kept to a minimum.

Nature conservation

No significant effects have been identified to date however we will consider the effects on ecologically important sites, protected species and other sensitive species including bats and newts.

Landscape and visual amenity

The technology improvements are unlikely to have an impact due to the existing urban nature of the M621. However, we will continue to look at the effects on the local landscape and the quality of views.

Geology and soils

We will carry out ground investigation surveys to identify the potential impacts on soils and geology and to understand the mining history of the area.

Waste and materials

We will identify opportunities where possible to reduce, reuse or recycle waste.

Road drainage and the water environment

It is unlikely that there will be any significant changes to the current drainage or water environment although we will work with the Environment Agency and continue to assess the effects on surface water, groundwater and flood risk.

Air quality

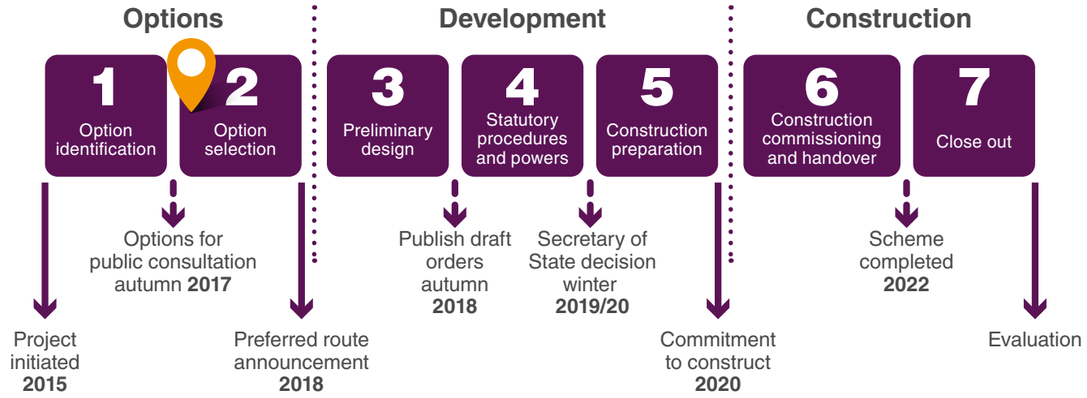
Assessment work so far indicates all options are unlikely to have a significant effect on air quality. We will consider emissions that may arise from the project both during construction and once it is open to traffic.

People and communities

All options include the loss of a small allocated area of protected playing pitch and the potential removal of a footpath at junction 2. However, the overall impacts to local communities are predicted to be neutral or beneficial.

Next steps

The timeline below shows what will happen at each stage of the scheme.
We are currently at Stage 2 - option selection.



Once this consultation is closed we will analyse all the responses and write a consultation report which summarises the feedback. We will then use the findings of this report and further assessment work to refine the option designs and select our preferred option, known as Preferred Route Announcement. We expect to announce a preferred route in spring 2018.

Once our preferred route has been identified we will move to the next stage. In this stage we will develop our preliminary design and carry out surveys. This is also when the next stages of environmental assessments are completed and we look at mitigations to reduce any negative environmental impacts.

We will then publish our proposals under the Highways Act 1980, this is known as publishing our draft orders. This is the start of the statutory planning process and another public consultation will be held after our draft orders are published. Our proposals will be assessed by an independent inspector who will make a recommendation to the Secretary of State for Transport for a final decision to be made.

Subject to successfully completing all of the necessary statutory processes and the scheme remaining value for money, we expect construction work to start in 2020. As we are in the very early stages of designing our proposals we are still developing our construction plan but we expect construction to be completed by 2022.

Find out more

For more information about the scheme and for the latest updates you can visit our website **www.highways.gov.uk/m621j1-7**. Here you can sign up for email alerts whenever the page is updated

If you have questions at any time about this project or require this brochure in a different format you can contact the project team:
M621J1to7@highwaysengland.co.uk

M621 Junction 1-7 Project Team, 3rd floor south, Highways England, Lateral, 8 City Walk, Leeds, LS11 9AT

If you need help accessing this or any other Highways England information, please call **0300 123 5000** and we will help you.

This document is also available on our website at **www.gov.uk/highways**

If you have any enquiries about this publication email **info@highwaysengland.co.uk**
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M621 Improvements – information leaflet (Autumn 2019)

http://assets.highwaysengland.co.uk/roads/road-projects/M621+junctions+1+to+7/M621+Improvement+Leaflet.pdf

highways england

M621 improvements 2019–2020

We're improving the M621 through Leeds – making journeys smoother and safer and tackling noise issues. We'll carry out several schemes over the following year and this leaflet gives details of our main projects. This includes a major scheme to reduce congestion and improve safety which we'll carry out in two phases:

- Phase 1 – junction 7 widening
- Phase 2 – junction 1 to junction 7 improvements

While we carry out our work there will be short-term disruption as sometimes we'll need to close the M621 overnight. We will also affect other nearby roads. Our construction work can be noisy and we will be using additional lighting.

Public information events

30 September 2019 – 3pm to 8pm
Hillside Enterprise Centre, Beeston Road, Leeds, LS11 8ND.
This event will focus on ground investigations and phase 2 work.

SEPTEMBER 30 2019

30 October 2019 – 2pm to 7pm
West Grange Church, West Grange Garth, Leeds, LS10 3AX.
This event will focus on junction 7 widening and the noise barrier.

OCTOBER 30 2019

Ground investigations

What are we doing?

This autumn we'll carry out ground investigation surveys between junction 1 and just east of junction 6. This work will help us to understand the condition of the ground, drainage, and road surface and locate underground pipes and cables. The information we gather will help us plan our phase 2 work, including the locations for new overhead signs and signals. We'll publish the exact date for our work on our website, but expect that it will be mid-September. For road closure details visit **trafficengland.com**.

What will the impact be?

We'll work during the daytime and at night and some of the work will be noisy as we'll be using large machinery. We'll also be using additional lights, but these will shine on our working area only.

When we work at night we'll close the M621 from approximately 8pm until 6am and diversion routes will be in place. We'll also affect the roundabout at junction 2 of the M621 as well as Cemetery Road and Elland Road where we'll close road lanes and use temporary traffic lights.

Junction 7 widening (major scheme phase 1)

What are we doing?

In autumn 2019 we'll start work at junction 7 where we'll make improvements to reduce congestion. First we'll carry out ground investigations followed by the main construction work in winter.

The main construction work will involve widening the slip road which takes vehicles that are travelling eastbound (clockwise) onto the roundabout – creating an extra lane for traffic. We'll also widen the northern part of the roundabout – increasing the number of roundabout lanes from two to four.

What will the impact be?

While we're widening the roundabout there will be some short-term congestion and noise. Come along to our October event to find out more, or look out for updates on our website and Twitter.

Noise barrier and vehicle restraint system

What are we doing?

We plan to build a series of combined noise and vehicle restraint barriers between junctions 6 and 7. These reduce the impact of vehicle noise on local properties and, in certain verge locations, will also act as a safety barrier. The barriers will be either two or three metres tall depending on exact location.

The position and height of the barrier has been determined by specialists who reviewed traffic volumes and speed, topography and prevailing winds to provide the best customer benefits.

When will it be built?

We're still planning this work and we've recently carried out ground investigations to gather information to help us with our plans. We aim to start construction work in March 2020.

Junction 1 – junction 7 improvements (major scheme phase 2)

What are we doing?

In autumn 2020 we'll start work on phase 2 - the remainder of our major scheme to reduce congestion and improve safety.

We'll add additional lanes for vehicles to use at the junction 2 roundabout and junction 3 westbound, as well as between junctions 2 and 3 where we'll convert the existing hard shoulder into an additional lane for traffic.

Vehicles will no longer have to stop at the junction 2 exit sliproad and will instead be able to move freely between the M621 and A643. We'll also change junction 3 westbound to give priority to the main M621 traffic, allowing it to flow more freely. Permanently closing junction 2a will reduce the risk of collisions between junctions 3 and 2a because the current distance between the junctions is very short.

We'll install new technology, including overhead signs and signals which detect incidents and helps us respond quicker and get traffic flowing sooner. This will reduce the likelihood of congestion and further collisions.

What's happened since the public consultation?

We carried out a public consultation in autumn 2017 and since then we've been working on the detailed design of our major scheme.

We're now preparing to publish our made orders. These are the legal orders that we need to be able to carry out parts of the major improvement scheme. If you'd like to view the orders you'll find them on our website from 31 October 2019 or contact us for a copy.

If you need help accessing this or any other Highways England information, please call **0300 123 5000** and we will help you.

Find out more

www.highwaysengland.co.uk/M621-improvements

info@highwaysengland.co.uk

0300 123 5000

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This document is also available on our website at **www.highwaysengland.co.uk**

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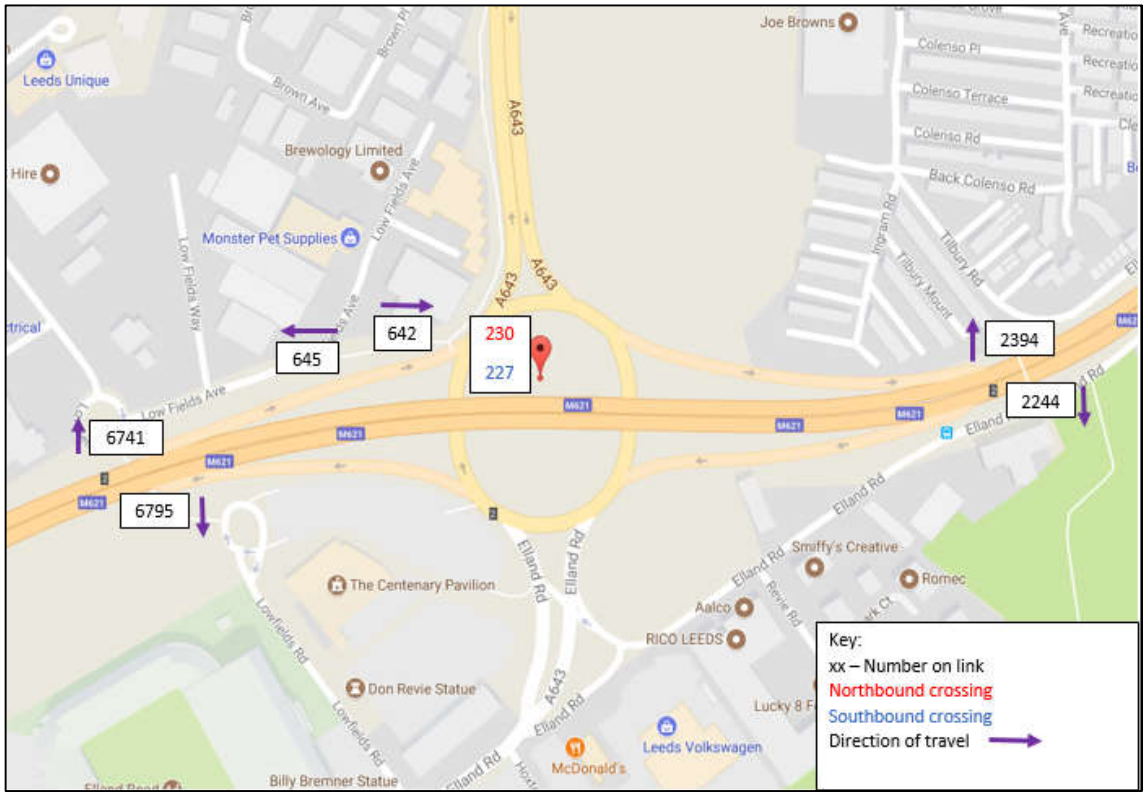
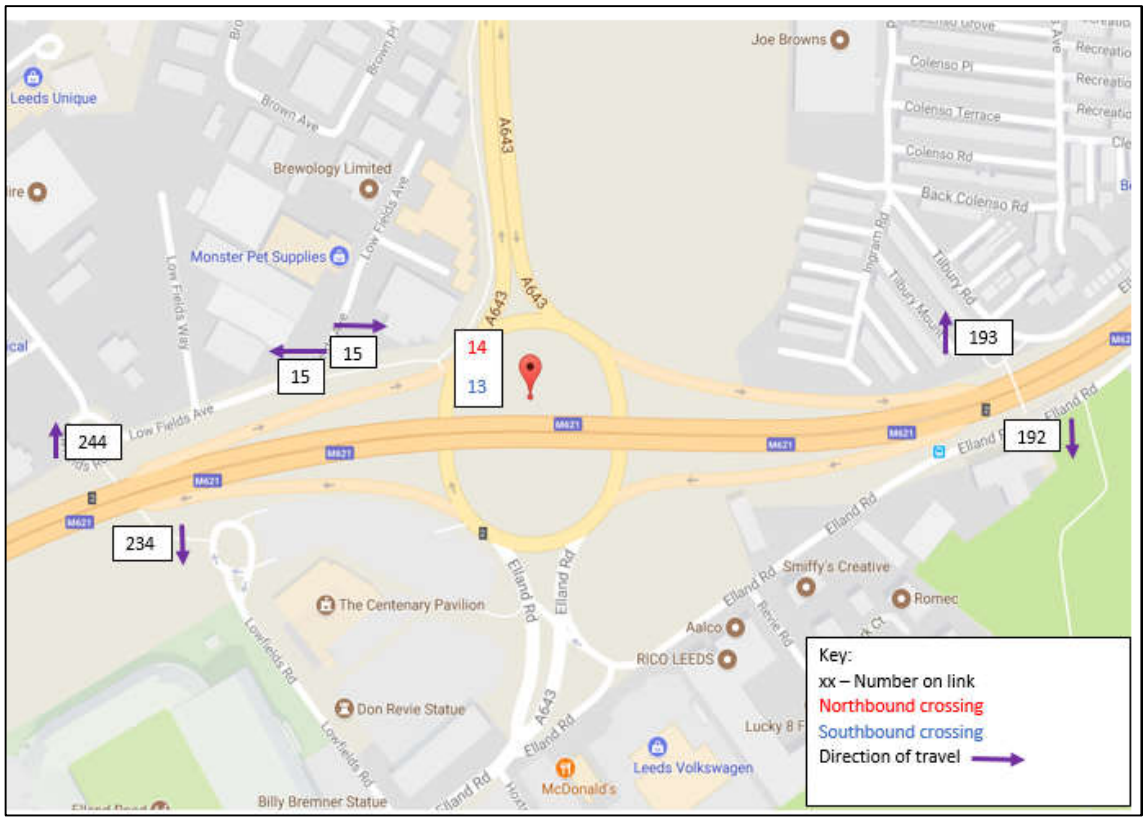
Appendix F: Footpath Survey results

Pedestrian usage at Junction 2 on a match day



(copyright: Google Maps 2019)

Pedestrian usage at Junction 2 on a typical day



(copyright: Google Maps 2019)

Appendix G: Traffic Management Plan

The following text is an extract from the 'M621 Traffic Management Plan', 'Proposed traffic management measures' section (Document: HE551464-ATK-HGN-XX-RP-CW-000001, revision C02)

Speed Limits:

The majority of the M621 has a speed limit of 50mph. A 40mph temporary speed limit is likely to be required due to the existing sub-standard carriageway which includes short weaving lengths, non-standard junctions and low radius curves. There may be opportunity to increase the proposed 40mph temporary speed limit on the 70mph speed limit sections pending more detailed TM planning.

The following text is an extract from the 'M621 Traffic Management Plan', 'Executive Summary' section (Document: HE551464-ATK-HGN-XX-RP-CW-000001, revision C02)

Executive Summary

The M621 runs from Junction 27 of the M62 to Junction 43 of the M1 and serves the centre of Leeds and the surrounding area. The total length of the M621 is approximately 13.5km

The Scheme comprises of mainly online improvements with some land take required around Junction 2. Additional work is proposed between Junction 2 and 3 westbound, which includes conversion of the existing hard shoulder into a running lane and various junction improvements. The scheme will also include the implementation of technology improvements along the length of the M621. The following constraints affecting traffic management (TM) have been identified:

- **High traffic flows on mainline:** Traffic flows during peak periods require two lanes in each direction to be maintained on the mainline.
- **Discontinuous hard shoulder:** The hard shoulder through the section is discontinuous or narrow removing the opportunity for temporary hard shoulder running.
- **High number of junctions:** The high number of off and on slips make hard shoulder running or contraflow difficult to safely operate.
- **Elland Road:** The M621 gives access to Elland Road Stadium which hosts both Football and Rugby League events; this makes certain weekend events and mid-week evening games into peak hours on the M621.
- **Highways England (HE):** In addition to Bank Holidays, Highways England have an embargo over Black Friday/Cyber Monday, covering 8pm on Monday through to 6am on the Friday.
- **Construction sequence:** The traffic management for the proposed works at each junction may lead to increased traffic flows at the other junctions. In particular, the works on junction 2 and 3 will restrict the slip roads during peak hours, this could cause increased traffic using junctions 1 and 4.

- **Clean Air Zone:** A significant area of Leeds, north of the M621 (known as the Armouries), is to be a Clean Air Zone (CAZ) from January 2020 (which is now likely to be delayed) – the CAZ will introduce a charge to motorists which will prohibit the choice of diversion routes during scheme construction.

Key to the successful delivery of the project is a traffic management proposal which finds the balance between minimising impact on the travelling public, minimising impact on local roads and residents, a safe working environment and an economical solution.

Advice has been sort by Highways England's chosen Delivery Integration Partner, NMCN, who are responsible for construction.

Assessment and design of the project is at a preliminary stage but NMCN has estimated the overall construction duration to be 18 months, with technology commissioning extending beyond this period, with a reduced site set-up in place during this time. The outline temporary traffic management measures are proposed as follows:

- Reducing the through journeys, by providing signing on the M62 and M1 advising other potential routes;
- Narrow lanes within the 3 lane sections;
- Weekend lane closures; and
- Limited night time closures.

It is considered that weekend lane closures provide the best opportunity to undertake the works on the mainline. This allows traffic to utilise the mainline and allows the contractor to undertake longitudinal tasks such as drainage, kerb realignment and pavement. The dates of the closures will not be undertaken during match days.

The M621 is very constrained due to the narrow cross-sections, closely spaced junctions, narrow verge, congested traffic conditions and close proximity of residential properties. All these factors combine to make the project challenging to deliver and will need careful planning and close coordination with Leeds City Council as well as a robust communications strategy.

The outline TM proposal put forward in this report aims to strike a balance between these factors and is considered to provide a feasible solution of how to deliver the improvement works on site. The TM proposal has been presented to Leeds City Council's Traffic Management team on 15th May 2019 at NMCN's offices in Leeds, and initial feedback has been positive but a formal response is awaited.

Appendix H: Environmental Mitigation Plans

Note: Although the plan is named the 'Environmental Mitigation Plan', this does not meet the legal definition of mitigation for the purposes of compulsory purchase of land for that purpose as defined under the Highways Act 1980, Section 246. Therefore, mitigation planting identified at Junctions 2 and 2a instead falls within the definition of replacement planting.

Sheet 1 of 15	Drawing: HE551464-ATK-ELS-XX_ML-DR-LL-000001
Sheet 2 of 15	Drawing: HE551464-ATK-ELS-XX_ML-DR-LL-000002
Sheet 3 of 15	Drawing: HE551464-ATK-ELS-XX_ML-DR-LL-000003
Sheet 4 of 15	Drawing: HE551464-ATK-ELS-XX_ML-DR-LL-000004
Sheet 5 of 15	Drawing: HE551464-ATK-ELS-XX_ML-DR-LL-000005
Sheet 6 of 15	Drawing: HE551464-ATK-ELS-XX_ML-DR-LL-000006
Sheet 7 of 15	Drawing: HE551464-ATK-ELS-XX_ML-DR-LL-000007
Sheet 8 of 15	Drawing: HE551464-ATK-ELS-XX_ML-DR-LL-000008
Sheet 9 of 15	Drawing: HE551464-ATK-ELS-XX_ML-DR-LL-000009
Sheet 10 of 15	Drawing: HE551464-ATK-ELS-XX_ML-DR-LL-000010
Sheet 11 of 15	Drawing: HE551464-ATK-ELS-XX_ML-DR-LL-000011
Sheet 12 of 15	Drawing: HE551464-ATK-ELS-XX_ML-DR-LL-000012
Sheet 13 of 15	Drawing: HE551464-ATK-ELS-XX_ML-DR-LL-000013
Sheet 14 of 15	Drawing: HE551464-ATK-ELS-XX_ML-DR-LL-000014
Sheet 15 of 15	Drawing: HE551464-ATK-ELS-XX_ML-DR-LL-000015
Planting Schedule	Drawing: HE551464-ATK-ELS-XX_ML-DR-LL-000016

Millimetres 0 10 100

DO NOT SCALE

Ch. 350 eastbound and westbound: proposed deciduous woodland to replace loss and integrate with adjacent woodland

WAKEFIELD ROAD

GELDERD ROAD

M621

M62

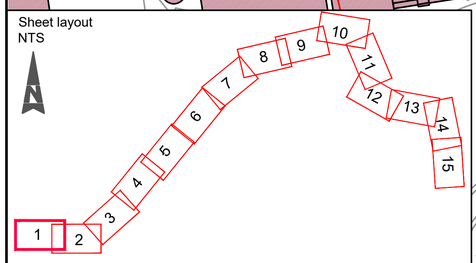
M62 J27

0+000.000

0+500.000

Refer to Sheet 2

Sheet layout
NTS



Key

Existing

- Planning Application Boundary
- Existing Buildings
- Existing Woodland Retained Within Red Line Boundary
- Existing Woodland Retained Outside Red Line Boundary
- Existing Individual Tree Retained
- Existing Noise Barrier Retained

Proposed

- Proposed Scheme
- LE1.1i Proposed Grass Verge Mix
- LE1.1ii Proposed Amenity Grass Seed Mix
- LE1.3 Proposed Species Rich Grassland
- LE2.1i Proposed Deciduous Woodland
- LE2.1ii Proposed Mixed Woodland
- LE2.7 Proposed Scattered Trees
- LE3.2 Proposed Ornamental Shrub Planting
- LE 4.3 Proposed Native Species Hedgerow
- Bird Box (50no. total)
- Bat Box (50no. total)
- Invertebrate Rubble Pile (10no. total)
- E1.2 Potential Location of Noise Barrier (to be agreed at the next stage)
- E3.2 Retaining Wall (for details refer to engineering drawings)

Notes:

1. Planting proposals are draft only. Final areas and proposals are subject to completion of highways design.
2. For further details of mitigation planting refer to Planting Schedules; drawing number HE551464-ATK-ELS-XX-ML-DR-LL-000016
3. To be read in conjunction with Engineering drawing package.
4. For details of tree removal/ retention and Tree Protection Fencing, refer to Arboricultural drawings.
5. All woodland planting plots and individual tree plots are to be grass seeded prior to planting
6. All topsoiled areas including disturbed/ reinstated areas are to be grass seeded as shown.
7. Any areas of vegetation removal, within temporary clearance areas, in addition to those shown on the drawings are to be reinstated as existing following completion.

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

In addition to the hazards/risks normally associated with the types of work detailed on this drawing, note the following significant residual risks (Reference shall also be made to the design hazard log).

Construction
None

Maintenance / Cleaning
None

Use
None

Decommissioning / Demolition
None

Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
Updated for Issue	A1	C01	JG	DW	KRH	AP	26/07/19
Updated with chainage	A1	C02	DW	SP	KD	AP	22/10/19

Drawing Suitability: APPROVED - PUBLISHED
Status: A1

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Project Title: M621 J1-7

Drawing Title: Figure 6-5 Environmental Mitigation Proposals Sheet 1 of 15

Drawing Number
Project: HE551464 - Originator: ATK - Volume: ELS -
XX_ML - Type: DR - Role: LL - Number: 000001

Location

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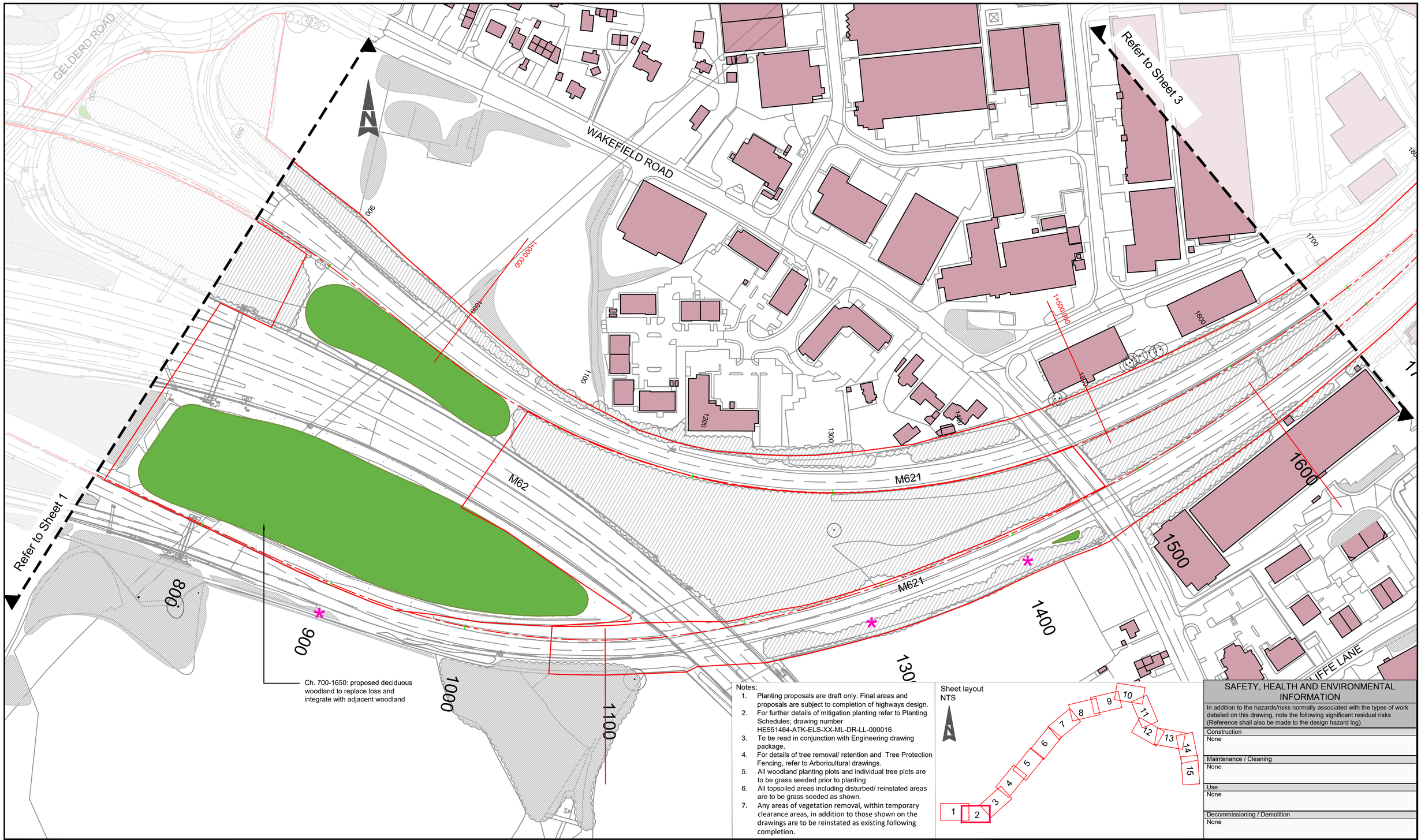

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Description: Updated for Issue	A1	C01	JG	DW	KRH	AP	26/07/19
Description: Updated with chainage	A1	C02	DW	SP	KD	AP	22/10/19

Drawing Suitability: APPROVED - PUBLISHED
Status: A1

Project Title: M621 J1-7

Drawing Title: Figure 6-5 Environmental Mitigation Proposals Sheet 2 of 15

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Location: XX_ML - Type: DR - Role: LL - Number: 000002

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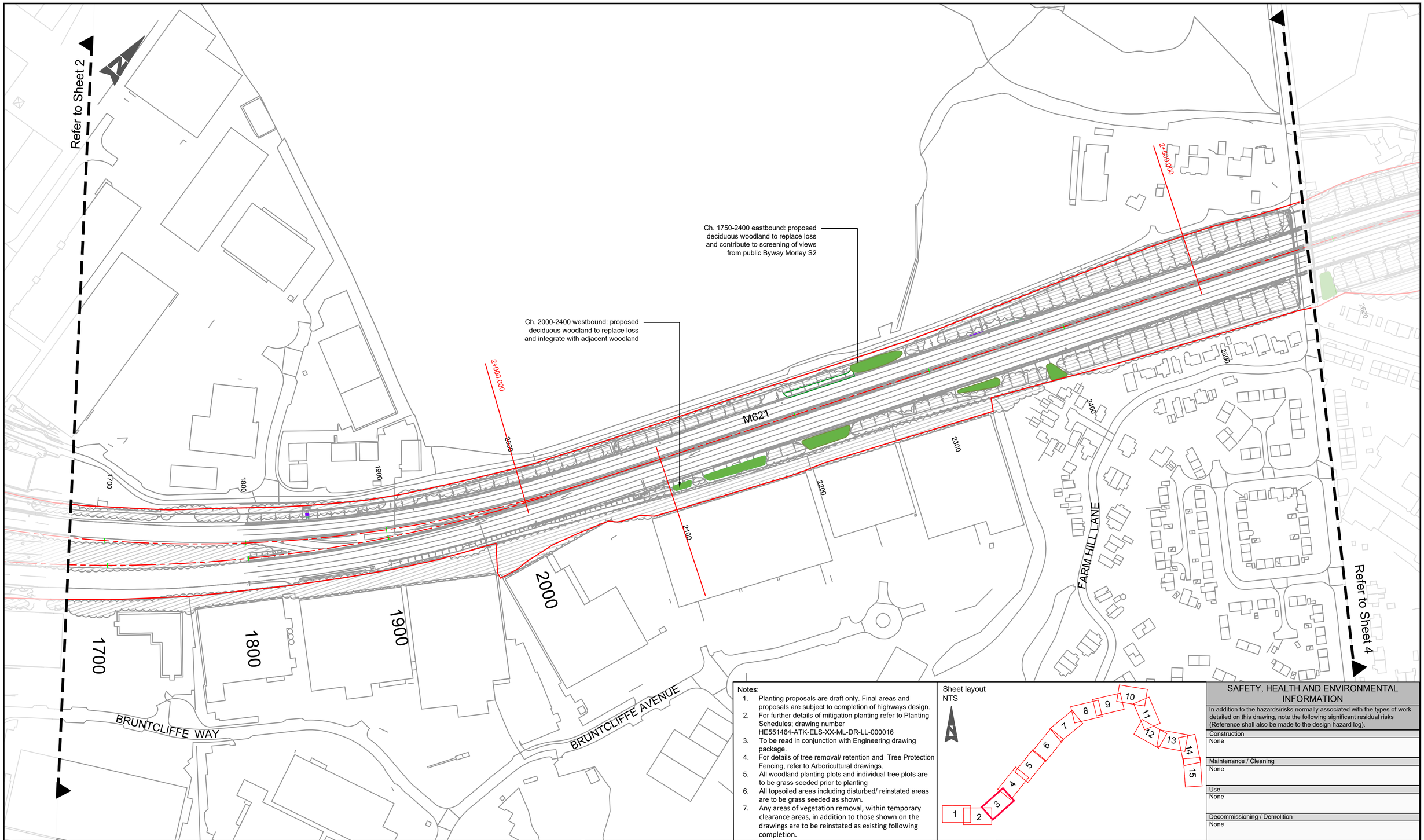

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DO NOT SCALE

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Sheet layout
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None

Maintenance / Cleaning
None

Use
None

Decommissioning / Demolition
None

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Updated for Issue	A1	C01	JG	DW	KRH	AP	26/07/19
Updated with chainage	A1	C02	DW	SP	KD	AP	22/10/19

Drawing Suitability: APPROVED - PUBLISHED
Status: A1

Project Title: M621 J1-7

Drawing Title: Figure 6-5 Environmental Mitigation Proposals Sheet 3 of 15

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Original Size: A3 | Scale: 1:2500 | Project Ref. No.: 5155828 | Sheet: 3 of 15 | Rev: C02

Millimetres 100 0 10

DO NOT SCALE

Refer to Sheet 3

Ch. 2500-3400 eastbound and westbound: proposed deciduous woodland to replace loss and mitigate effect on views from public Byway Morely 146.

10no. bat boxes to be fitted on trees within the woodland block. Exact locations to be confirmed on site by Ecologist.

10no. bird boxes to be fitted on trees within the woodland block. Exact locations to be confirmed on site by Ecologist.

M621

2600 2700 2800 2900 3000 3100 3200 3300 3400 3500

ROOMS LANE

HORSFALL STREET

INGLE AVENUE

WOODLANDS DRIVE

SPRINGFIELD ROAD

CROMPTON DRIVE

HARGREAVE CLOSE

IBBETSON CROFT

5no. bird boxes to be fitted on trees within the woodland block. Exact locations to be confirmed on site by Ecologist.

5no. bat boxes to be fitted on trees within the woodland block. Exact locations to be confirmed on site by Ecologist.

Refer to Sheet 5

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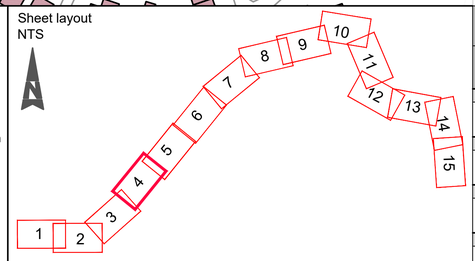

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Construction
None

Maintenance / Cleaning
None

Use
None

Decommissioning / Demolition
None

Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
Description						
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Description						
Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
Description						
Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
Description						
Updated for Issue						
A1	C01	JG	DW	KRH	AP	26/07/19
Description						
Updated with chainage						
A1	C02	DW	SP	KD	AP	22/10/19

Drawing Suitability: APPROVED - PUBLISHED
Status: A1

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Project Title: M621 J1-7

Drawing Title: Figure 6-5 Environmental Mitigation Proposals Sheet 4 of 15

Drawing Number
Project | Originator | Volume
HE551464 - ATK - ELS -
XX_ML - DR - LL - 000004
Location | Type | Role | Number

Original Size: A3 | Scale: 1:2500 | Project Ref. No: 5155828 | Sheet: 4 of 15 | Rev: C02

Millimetres 100 0 10

DO NOT SCALE

Refer to Sheet 4

Refer to Sheet 6

ROOMS LANE

IBBETSON OVAL

M621

3+500.000

4+000.000

3600

3700

3800

3900

4000

4100

4200

4300

4400

Ch. 3600-3900 eastbound proposed deciduous woodland and scattered trees to replace loss and integrate with existing woodland

Ch. 3500-4100 eastbound: proposed deciduous woodland and scattered trees to contribute to screening of views from public footpaths Morley 27, 29 and 30 and non-definitive byway Morely Smools Lane, without compromising view north east of Leeds Skyline

10no. bat boxes to be fitted on trees within the woodland block. Exact locations to be confirmed on site by Ecologist.

10no. bird boxes to be fitted on trees within the woodland block. Exact locations to be confirmed on site by Ecologist.

5no. bat boxes to be fitted on trees within the woodland block. Exact locations to be confirmed on site by Ecologist.

5no. bird boxes to be fitted on trees within the woodland block. Exact locations to be confirmed on site by Ecologist.

Notes:

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2. For further details of mitigation planting refer to Planting Schedules; drawing number HE551464-ATK-ELS-XX-ML-DR-LL-000016
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4. For details of tree removal/ retention and Tree Protection Fencing, refer to Arboricultural drawings.
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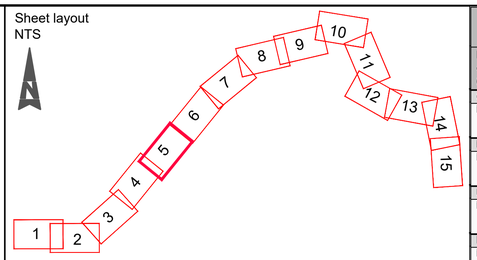
7. Any areas of vegetation removal, within temporary clearance areas, in addition to those shown on the drawings are to be reinstated as existing following completion.

Sheet layout
NTS



SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

In addition to the hazards/risks normally associated with the types of work detailed on this drawing, note the following significant residual risks (Reference shall also be made to the design hazard log).

Construction
None

Maintenance / Cleaning
None

Use
None

Decommissioning / Demolition
None

Key

Existing

- Planning Application Boundary
- Existing Buildings
- Existing Woodland Retained Within Red Line Boundary
- Existing Woodland Retained Outside Red Line Boundary
- Existing Individual Tree Retained
- Existing Noise Barrier Retained

Proposed

- Proposed Scheme
- LE1.1i Proposed Grass Verge Mix
- LE1.1ii Proposed Amenity Grass Seed Mix
- LE1.3 Proposed Species Rich Grassland
- LE2.1i Proposed Deciduous Woodland
- LE2.1ii Proposed Mixed Woodland
- LE2.7 Proposed Scattered Trees
- LE3.2 Proposed Ornamental Shrub Planting
- LE 4.3 Proposed Native Species Hedgerow
- Bird Box (50no. total)
- Bat Box (50no. total)
- Invertebrate Rubble Pile (10no. total)
- E1.2 Potential Location of Noise Barrier (to be agreed at the next stage)
- E3.2 Retaining Wall (for details refer to engineering drawings)

Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
Updated for Issue	A1	C01	JG	DW	KRH	AP	26/07/19
Updated with chainage	A1	C02	DW	SP	KD	AP	22/10/19

Drawing Suitability: APPROVED - PUBLISHED

Status: A1

Project Title: M621 J1-7

Drawing Title: Figure 6-5 Environmental Mitigation Proposals Sheet 5 of 15

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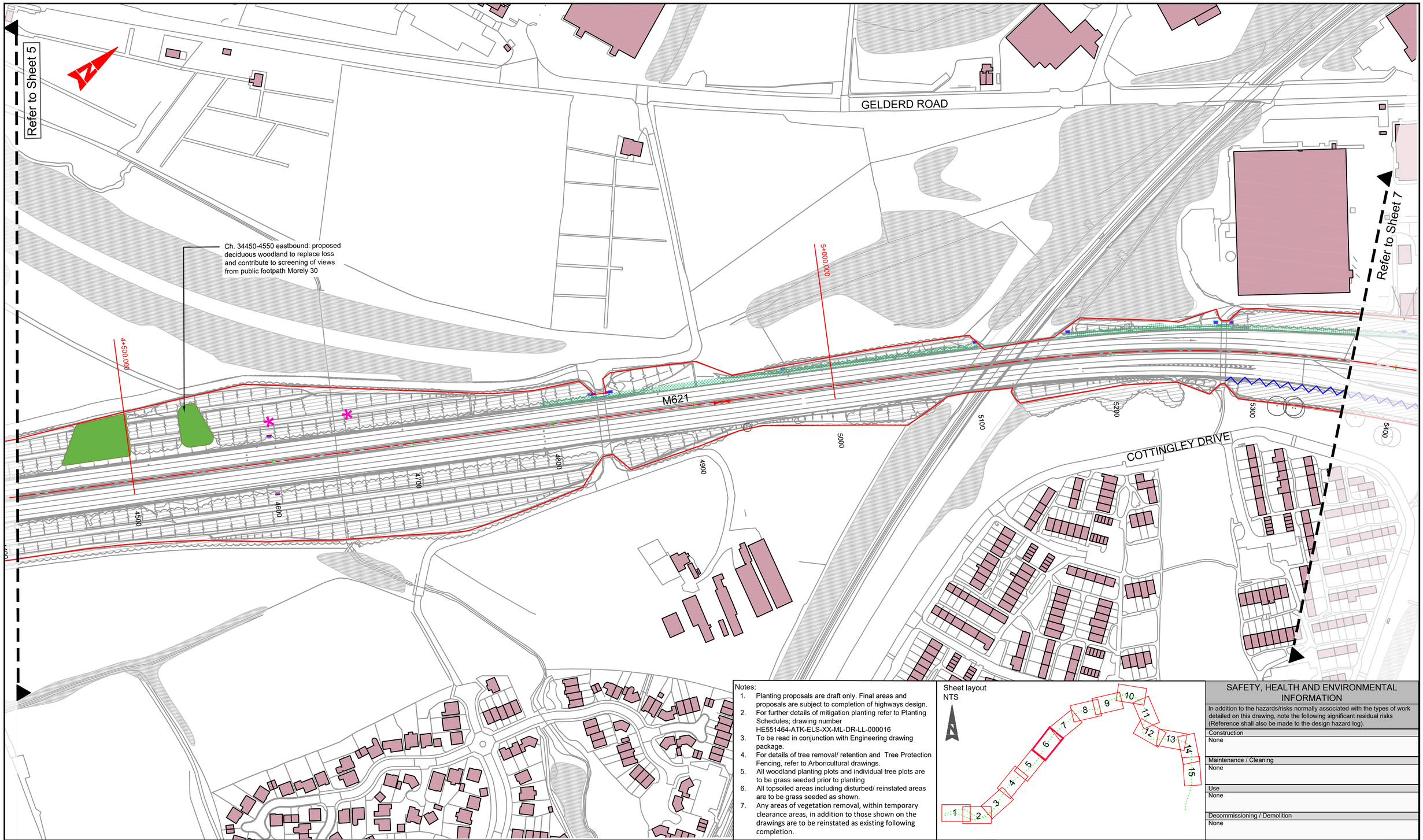
Client: Working on behalf of highways england

Drawing Number: Project HE551464 - Originator ATK - Volume ELS - Location XX_ML - Type DR - Role LL - Number 000005

Original Size: A3 | Scale: 1:2500 | Project Ref. No.: 5155828 | Sheet: 5 of 15 | Rev: C02



Millimetres 100 0 10

DO NOT SCALE

Key

Existing

- Planning Application Boundary
- Existing Buildings
- Existing Woodland Retained Within Red Line Boundary
- Existing Woodland Retained Outside Red Line Boundary
- Existing Individual Tree Retained
- Existing Noise Barrier Retained

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- E3.2 Retaining Wall (for details refer to engineering drawings)

Notes:

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Sheet layout
NTS

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

In addition to the hazards/risks normally associated with the types of work detailed on this drawing, note the following significant residual risks (Reference shall also be made to the design hazard log).

Construction
None

Maintenance / Cleaning
None

Use
None

Decommissioning / Demolition
None

Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
Updated for Issue	A1	C01	JG	DW	KRH	AP	29/07/19
Updated with chainage	A1	C02	DW	SP	KD	AP	22/10/19

Drawing Suitability: APPROVED - PUBLISHED
Status: A1

Project Title: M621 J1-7

Drawing Title: Figure 6-5 Environmental Mitigation Proposals Sheet 6 of 15

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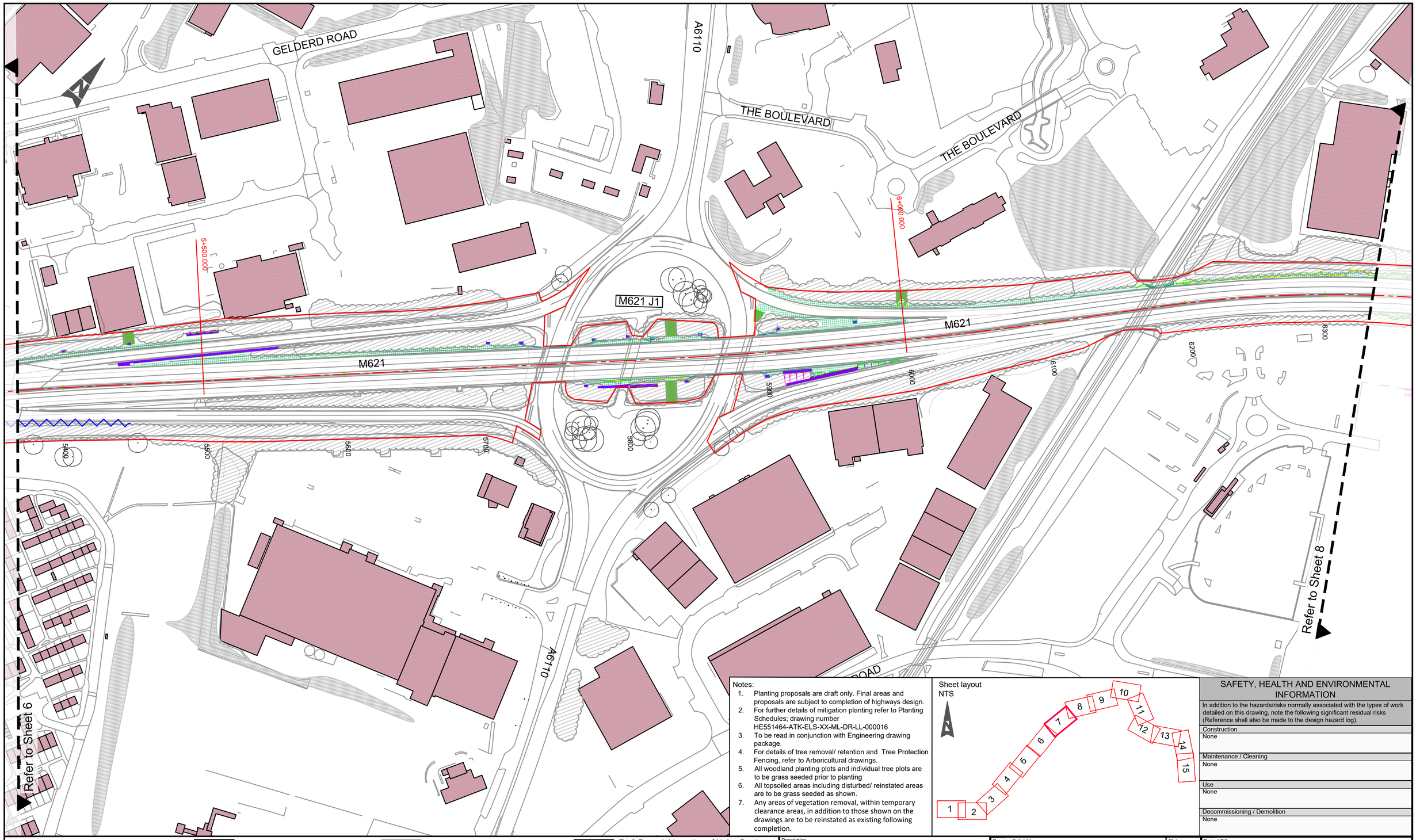
Client: Working on behalf of highways england

Drawing Number
Project: HE551464 - Originator: ATK - Volume: ELS -
Location: XX_ML - Type: DR - Role: LL - Number: 000006

Original Size: A3 | Scale: 1:2500 | Project Ref. No.: 5155828 | Sheet: 6 of 15 | Rev: C02



Notes:

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Sheet layout
NTS

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Existing

- Planning Application Boundary
- Existing Buildings
- Existing Woodland Retained Within Red Line Boundary
- Existing Woodland Retained Outside Red Line Boundary
- Existing Individual Tree Retained
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- E3.2 Retaining Wall (for details refer to engineering drawings)

Description

Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date

Description

Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date

Description

Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date

Description
Updated for Issue

Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
A1	C01	JG	DW	KRH	AP	26/07/19

Description
Updated with chainage

Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
A1	P03	DW	SP	KD	AP	22/10/19

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

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Construction
None

Maintenance / Cleaning
None

Use
None

Decommissioning / Demolition
None

Drawing Suitability: APPROVED - PUBLISHED
Status: A1

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Client: Working on behalf of highways england

Project Title: M621 J1-7

Drawing Title: Figure 6-5 Environmental Mitigation Proposals Sheet 7 of 15

Drawing Number
Project: HE551464 - Originator: ATK - Volume: ELS -
Location: XX_ML - Type: DR - Role: LL - Number: 000007

Original Size: A3 | Scale: 1:2500 | Project Ref. No.: 5155828 | Sheet: 7 of 15 | Rev: P03

Millimetres 0 10 100

DO NOT SCALE

Proposed amenity grass and ornamental planting. Exact proposals in this area to be confirmed following consultation with landowner

Ch. 6700-6900 eastbound (sliproad): proposed deciduous woodland to replace loss vegetation

Proposed mixed woodland to replace loss and contribute to screening of views from Euston Grove

Height of existing earth bund to be maintained as far as practicable

Proposed 2m high timber close boarded fence and larger plant stock (refer to Planting Schedule HE551464-ATK-ELS-XX_ML-DR-LL-000016) to mitigate bat collisions. Proposals also mitigate impact on loss of commuting/foraging habitat long term. Exact location of fence to be confrimed.

Refer to Sheet 7

Refer to Sheet 9

LOWFIELDS ROAD

LOWFIELDS WAY

BROWN PLACE

LATCHMORE ROAD

LOWFIELDS AVENUE

M621

M621 J2

EUSTON GROVE

EUSTON TERRACE

INGRAM ROAD

ELLAND ROAD STADIUM

LOWFIELDS ROAD

ELLAND ROAD

REVIE ROAD

ELLAND ROAD

6+600.000

7+000.000

Key

Existing

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- E3.2 Retaining Wall (for details refer to engineering drawings)

Notes:

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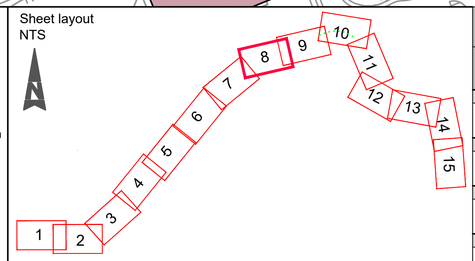
Sheet layout
NTS



SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

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Construction
None

Maintenance / Cleaning
None

Use
None

Decommissioning / Demolition
None

Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
Updated for Issue	A1	C01	JG	DW	KRH	AP	26/07/19
Update to J2 to accomodate visibility splays	A1	C02	DW	SP	KD	AP	22/10/19

Drawing Suitability: APPROVED - PUBLISHED
Status: A1

Project Title: M621 J1-7

Drawing Title: Figure 6-5 Environmental Mitigation Proposals Sheet 8 of 15

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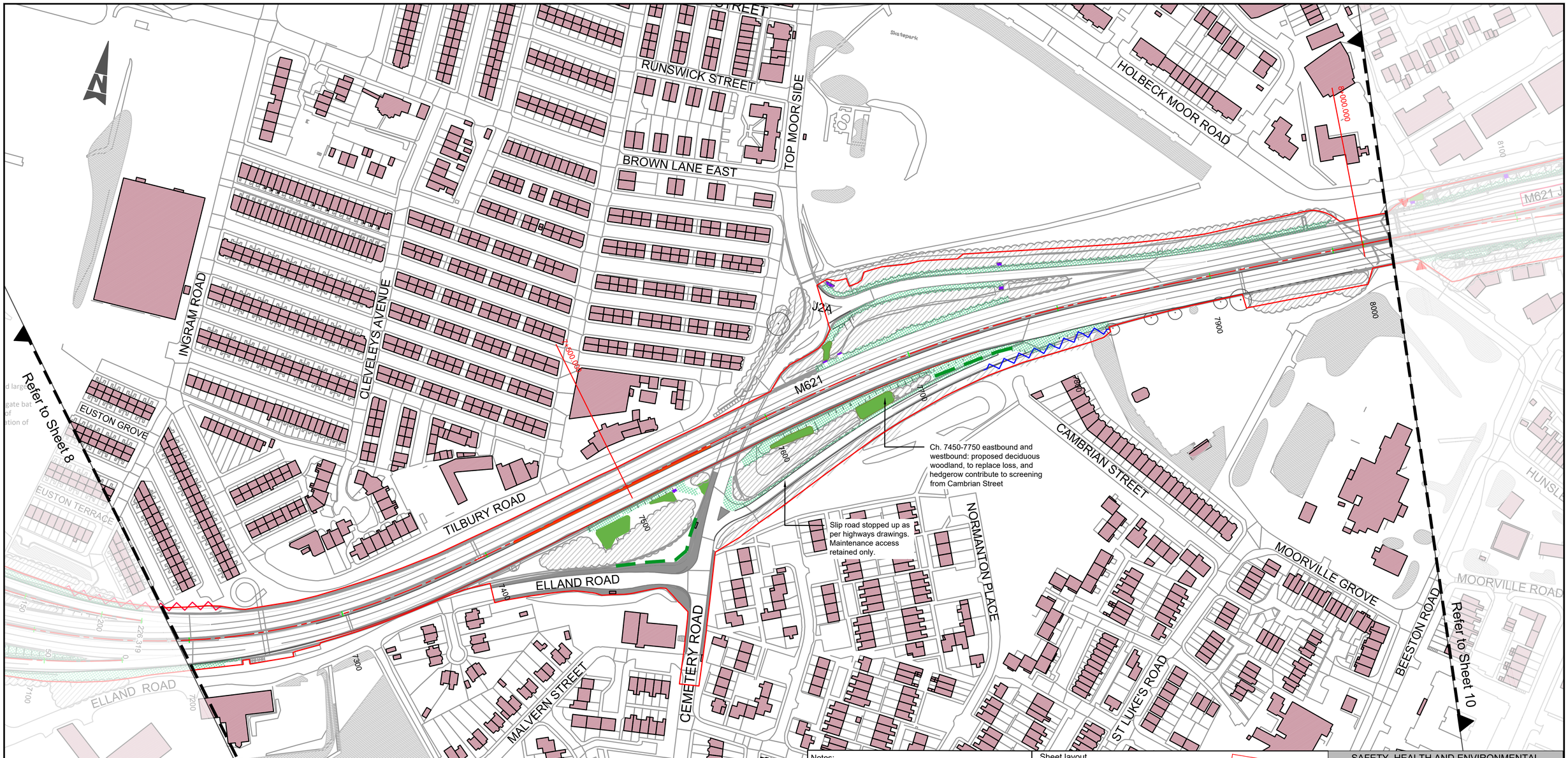
Client: Working on behalf of highways england

Drawing Number
Project: HE551464 - Originator: ATK - Volume: ELS -
Location: XX_ML - Type: DR - Role: LL - Number: 000008

Original Size: A3 | Scale: 1:2500 | Project Ref. No.: 5155828 | Sheet: 8 of 15 | Rev: C02

Millimetres 100 10 0

DO NOT SCALE



Key

Existing

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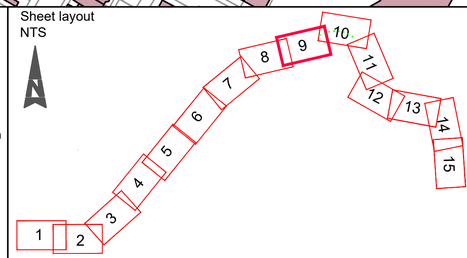
Sheet layout
NTS



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Maintenance / Cleaning
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Use
None

Decommissioning / Demolition
None

Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
Updated for Issue	A1	C01	JG	DW	KRH	AP	26/07/19
Updated for issue	S3	P02	JG	DW	KRH	---	29/07/19
Updated for Issue	A1	C02	JG	DW	KRH	AP	29/07/19
Updated with chainage	A1	C03	DW	SP	KD	AP	22/10/19

Drawing Suitability: APPROVED - PUBLISHED
Status: A1

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Project Title: M621 J1-7

Drawing Title: Figure 6-5 Environmental Mitigation Proposals Sheet 9 of 15

Drawing Number: Project HE551464 - Originator ATK - Volume ELS - Location XX_ML - Type DR - Role LL - Number 000009

Original Size: A3 | Scale: 1:2500 | Project Ref. No: 5155828 | Sheet: 9 of 15 | Rev: C03

Millimetres 100 10 0

DO NOT SCALE

Notes:

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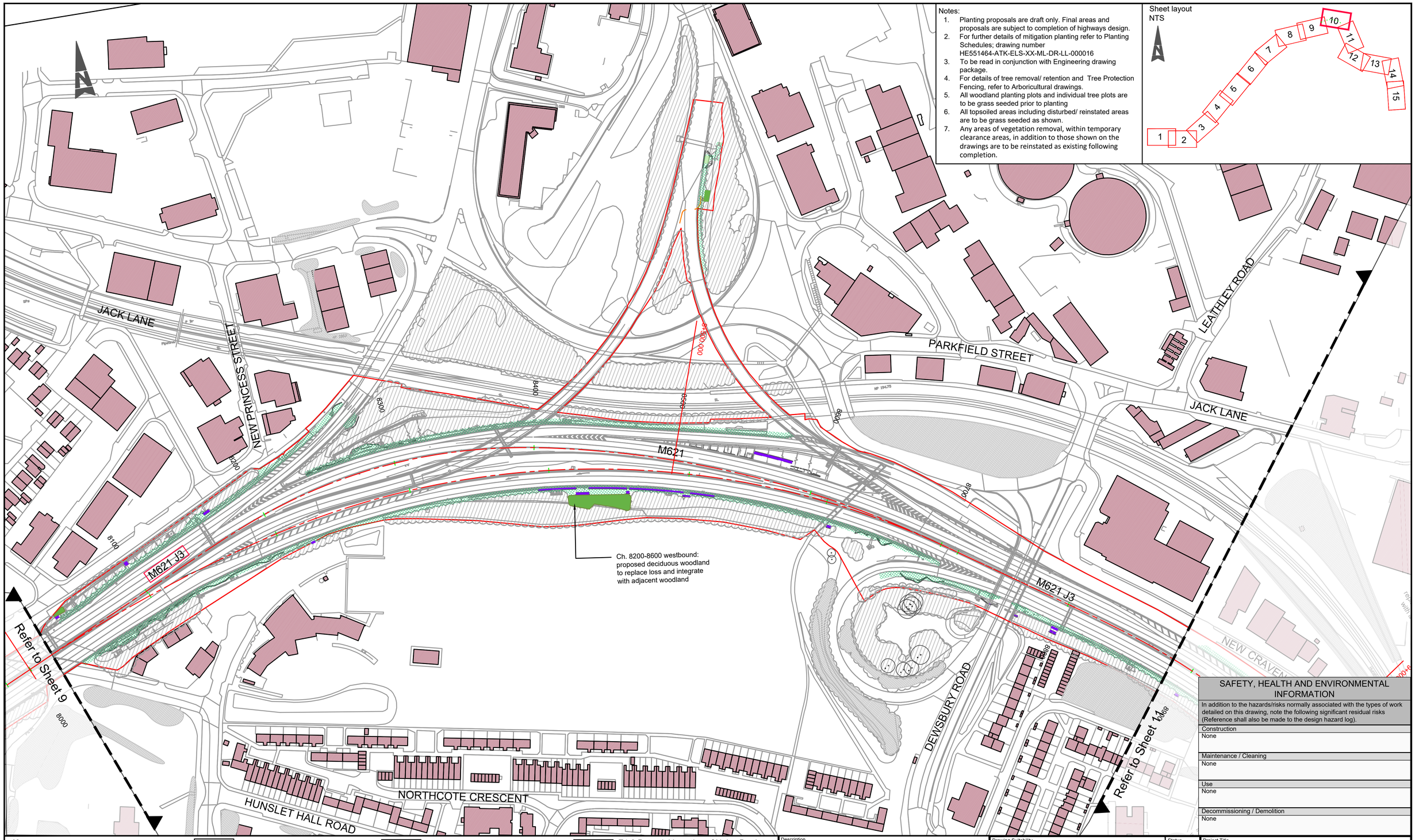
Sheet layout
NTS



Key

Existing

- Planning Application Boundary
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- E3.2 Retaining Wall (for details refer to engineering drawings)

Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
Updated for Issue	A1	C01	JG	DW	KRH	AP	26/07/19
Updated with chainage	A1	C02	DW	SP	KD	AP	22/10/19

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

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Construction
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Maintenance / Cleaning
None

Use
None

Decommissioning / Demolition
None

Drawing Suitability: APPROVED - PUBLISHED
Status: A1

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Client: Working on behalf of highways england

Project Title: M621 J1-7

Drawing Title: Figure 6-5 Environmental Mitigation Proposals Sheet 10 of 15

Drawing Number
Project: HE551464 - Originator: ATK - Volume: ELS -
Location: XX_ML - Type: DR - Role: LL - Number: 000010

Original Size: A3 | Scale: 1:2500 | Project Ref. No: 5155828 | Sheet: 10 of 15 | Rev: C02

Millimetres 100 10 0

DO NOT SCALE

Notes:
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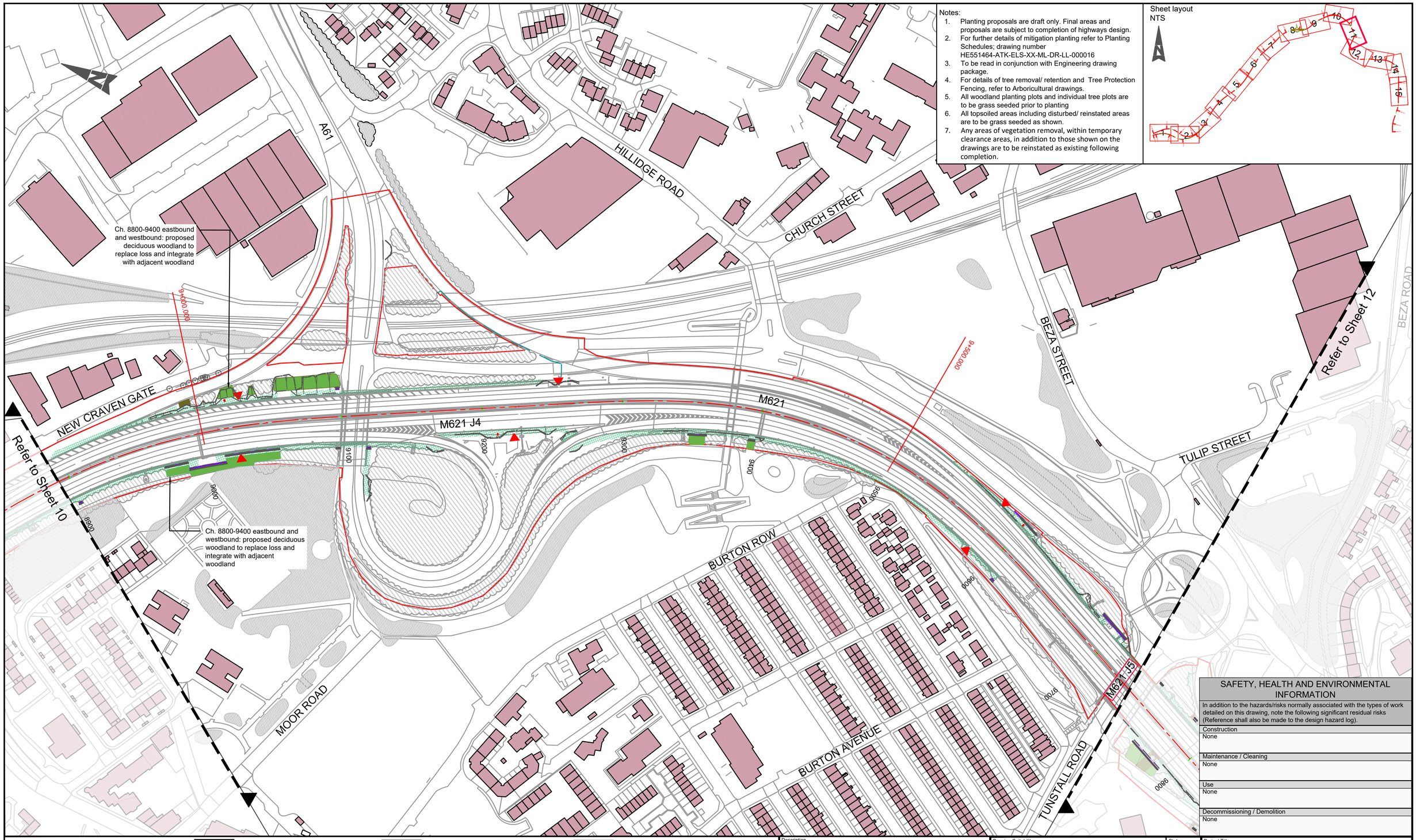
Sheet layout
NTS



Key

Existing
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Updated for Issue	A1	C01	JG	DW	KRH	AP	26/07/19
Updated with chainage	A1	C02	DW	SP	KD	AP	22/10/19

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

In addition to the hazards/risks normally associated with the types of work detailed on this drawing, note the following significant residual risks (Reference shall also be made to the design hazard log).

Construction
None

Maintenance / Cleaning
None

Use
None

Decommissioning / Demolition
None

Drawing Suitability: APPROVED - PUBLISHED
Status: A1

Project Title: M621 J1-7

Drawing Title: Figure 6-5 Environmental Mitigation Proposals Sheet 11 of 15

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Client: Working on behalf of highways england

Drawing Number: Project HE551464 - Originator ATK - Volume ELS - XX_ML - Type DR - Role LL - Number 000011

Location

Original Size: A3 | Scale: 1:2500 | Project Ref. No: 5155828 | Sheet: 11 of 15 | Rev: C02

Millimetres 0 10 100

DO NOT SCALE

Refer to Sheet 11

Refer to Sheet 13

TUNSTALL ROAD

M621 J5

PLAYFAIR ROAD

ROYAL DRIVE

WOODHOUSE HILL ROAD

BLAM ROAD

SANDON PLACE

ARTHINGTON AVENUE

MOOR ROAD

MOOR ROAD

OLD RUN ROAD

BELLE ISLE ROAD

M621 J6

BLAKENEY GROVE

BLAKENEY ROAD

OLD RUN ROAD

M621

Ch. 9750-10750 eastbound and westbound: proposed deciduous woodland to replace loss and integrate with adjacent woodland

10+500.000

10+000.000

9700

9800

9900

10000

10100

10200

10300

10400

10500

10600

10700

Notes:

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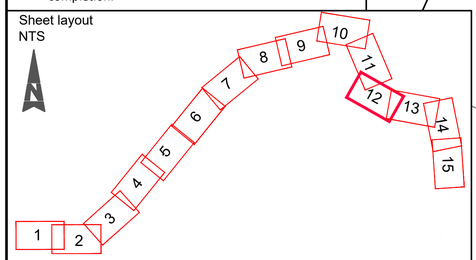
Sheet layout
NTS



Key

Existing

- Planning Application Boundary
- Existing Buildings
- Existing Woodland Retained Within Red Line Boundary
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- Existing Individual Tree Retained
- Existing Noise Barrier Retained

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- LE1.1ii Proposed Amenity Grass Seed Mix
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- E3.2 Retaining Wall (for details refer to engineering drawings)

Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
Updated for Issue	A1	C01	JG	DW	KRH	AP	26/07/19
Updated with chainage	A1	C02	DW	SP	KD	AP	22/10/19

Drawing Suitability: APPROVED - PUBLISHED

Status: A1

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

In addition to the hazards/risks normally associated with the types of work detailed on this drawing, note the following significant residual risks (Reference shall also be made to the design hazard log).

Construction: None

Maintenance / Cleaning: None

Use: None

Decommissioning / Demolition: None

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Client: Working on behalf of highways england

Project Title: M621 J1-7

Drawing Title: Figure 6-5 Environmental Mitigation Proposals Sheet 12 of 15

Drawing Number: Project HE551464 - Originator ATK - Volume ELS - Location XX_ML - Type DR - Role LL - Number 000012

Original Size: A3 | Scale: 1:2500 | Project Ref. No: 5155828 | Sheet: 12 of 15 | Rev: C02

Notes:

1. Planting proposals are draft only. Final areas and proposals are subject to completion of highways design.
2. For further details of mitigation planting refer to Planting Schedules; drawing number HE551464-ATK-ELS-XX-ML-DR-LL-000016
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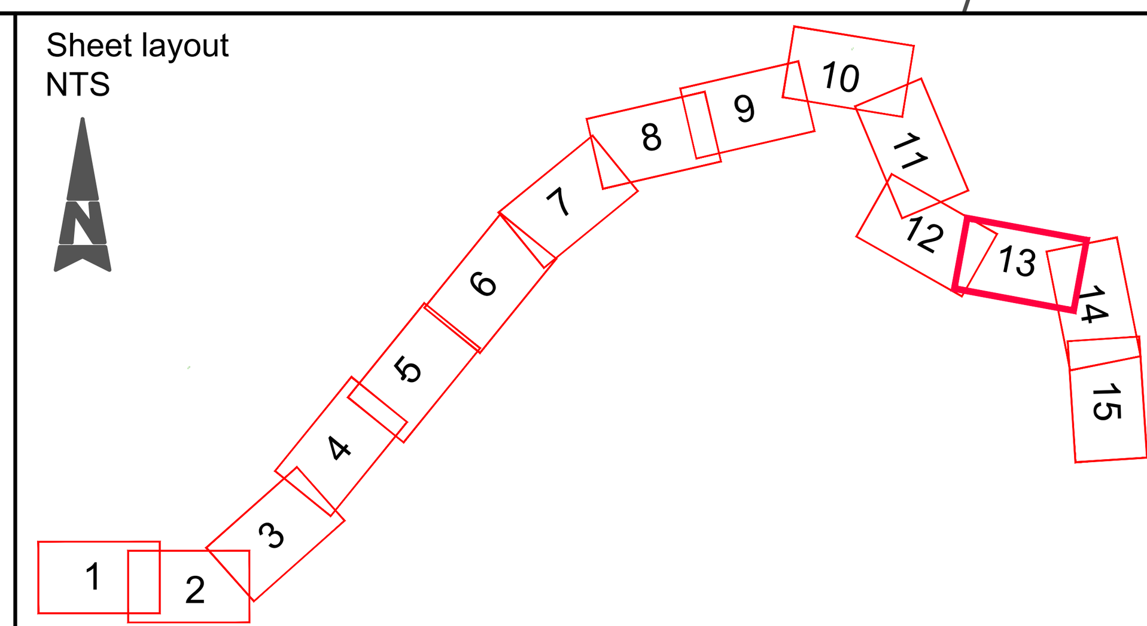

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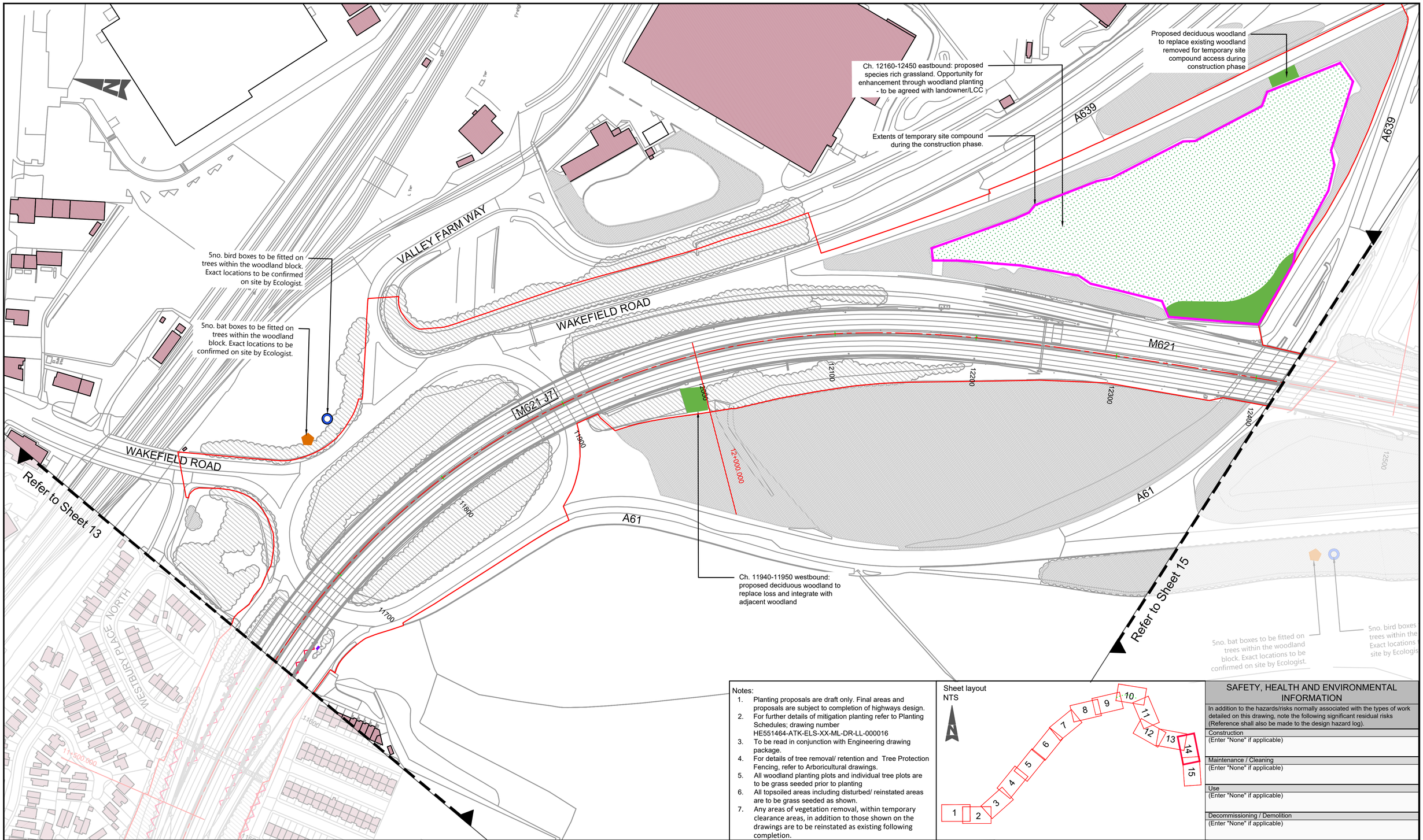
Project Title: M621 J1-7

Drawing Title:
Figure 6-5
Environmental Mitigation Proposals
Sheet 13 of 15

Drawing Number
Project: HE551464 - Originator: ATK - Volume: ELS - Location: XX_ML - Type: DR - Role: LL - Number: 000013

Original Size: A3 | Scale: 1:2500 | Project Ref. No: 5155828 | Sheet: 13 of 15 | Rev: C02



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DO NOT SCALE

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Updated with chainage	A1	C02	DW	SP	KD	AP	22/10/19

Drawing Suitability: APPROVED - PUBLISHED
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Project Title: M621 J1-7

Drawing Title: Figure 6-5 Environmental Mitigation Proposals Sheet 14 of 15

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Drawing Number: Project HE551464 - Originator ATK - Volume ELS - XX_ML - Type DR - Role LL - Number 000014

Original Size: A3 | Scale: 1:2500 | Project Ref. No: 5155828 | Sheet: 14 of 15 | Rev: C02

Millimetres 0 10 100

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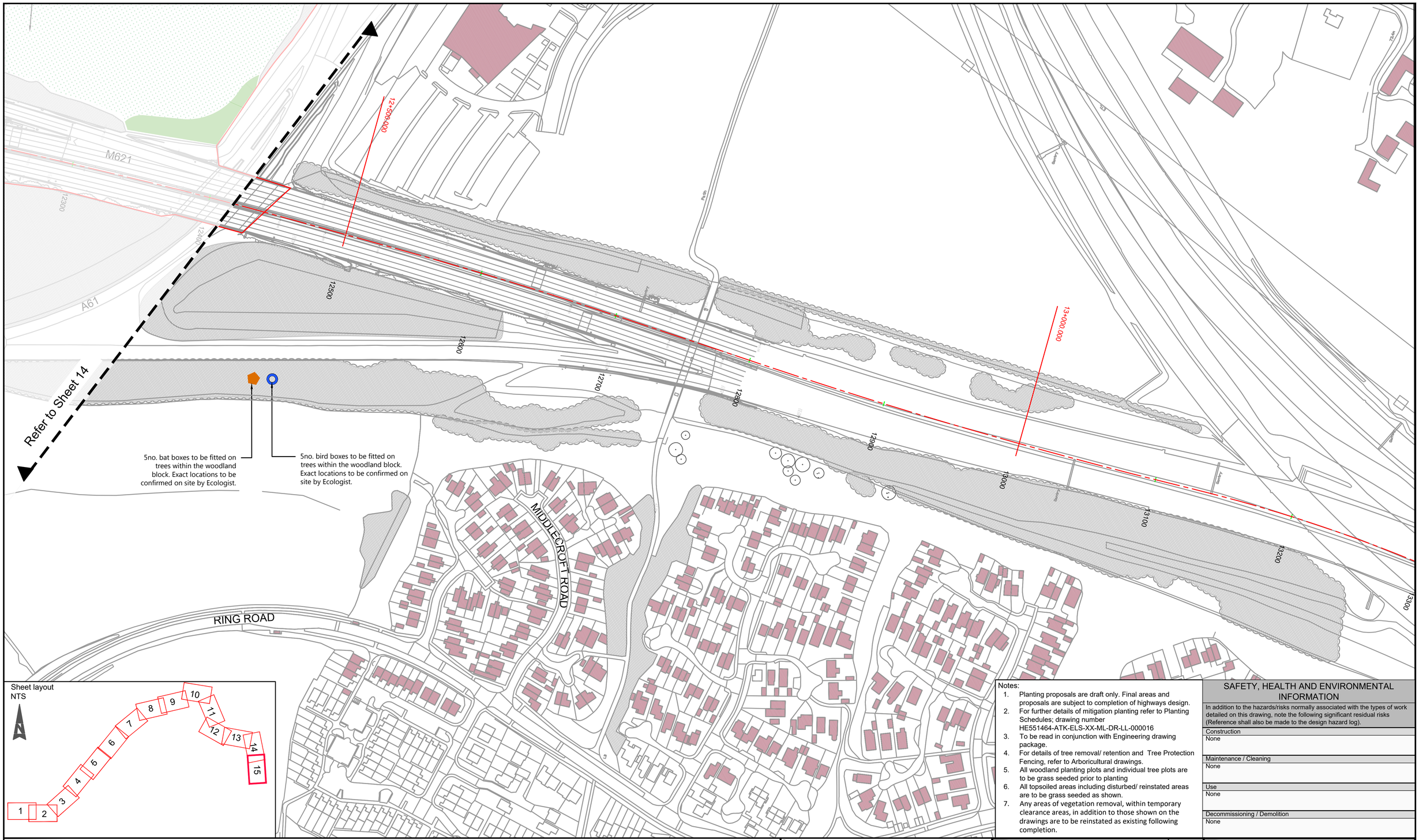

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Use
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Updated for Issue	A1	C01	JG	DW	KRH	AP	29/07/19
FOR INFORMATION	A1	C02	DW	SP	KD	AP	22/10/19

Drawing Suitability: APPROVED - PUBLISHED
Status: A1

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Project Title: M621 J1-7

Drawing Title: Figure 6-5
Environmental Mitigation Proposals
Sheet 15 of 15

Drawing Number
Project: HE551464 - Originator: ATK - Volume: ELS -
Location: XX_ML - Type: DR - Role: LL - Number: 000015

Original Size: A3 | Scale: 1:2500 | Project Ref. No.: 5155828 | Sheet: 15 of 1 | Rev: C02

PLANTING SCHEDULES:

Deciduous Woodland

Botanical Name	Common Name	Spacing/ centres in metres	% Mix	Form/Habit	Age / Condition or Number of Times Transplanted	Overall Minimum Height in cm	Root Condition: B=Bagged/Bare Root; RB=Rootball; C=Container in litres	Planting groups
TREES								
Acer campestre	Field Maple	3m	2.5%	Feathered	2x	175-200	B	3-10
Alnus glutinosa	Alder	3m	5%	Transplant	1+1	40-60	B	3-25
Betula pendula	Silver Birch	3m	5%	Feathered	2x	200-250	B	3-10
Malus sylvestris	Crab Apple	3m	2.5%	Feathered	2x	125-150	B	3-10
Prunus avium	Cherry	3m	5%	Transplant	1+1	40-60	B	3-10
Quercus robur	Oak	3m	5%	Transplant	1u1	80-100	B	3-10
Sorbus aucuparia	Mountain Ash	3m	5%	Feathered	2x	125-150	B	3-25
SHRUBS								
Cornus alba	Dogwood	1.5m	5%	Transplant	1+1	40-60	B	5-15
Corylus avellana	Hazel	1.5m	5%	Transplant	1+1	40-60	B	5-10
Crataegus monogyna	Hawthorn	1.5m	40%	Transplant	1+1	40-60	B	5-10
Prunus spinosa	Blackthorn	1.5m	10%	Transplant	1+1	40-60	B	5-25
Salix caprea	Goat willow	1.5m	10%	Transplant	1+1	40-60	B	5-10
			100%					

Mixed Woodland

Botanical Name	Common Name	Spacing/ centres in metres	% Mix	Form/Habit	Age / Condition or Number of Times Transplanted	Overall Minimum Height in cm	Root Condition: B=Bagged/Bare Root; RB=Rootball; C=Container in litres	Planting groups
TREES								
Betula pendula	Birch	3m	5%	Feathered	1+1	175-200	B	3-25
Pinus sylvestris	Scots Pine	3m	5%	Leader / laterals		175-200	RB	3-25
Prunus avium	Bird Cherry	3m	5%	Feathered	2x	200-250	B	3-25
Quercus robur	Oak	3m	5%	Feathered	2x	175-200	B	3-25
Sorbus aucuparia	Mountain Ash	3m	5%	Feathered	2x	175-200	B	3-25
SHRUBS								
Cornus alba	Dogwood	1.5m	5%	Transplant	1+1	40-60	B	5-15
Corylus avellana	Hazel	1.5m	10%	Transplant	1+1	40-60	B	5-15
Crataegus monogyna	Hawthorn	1.5m	40%	Feathered	2x	125-150	B	5-25
Prunus spinosa	Blackthorn	1.5m	10%	Transplant	1+1	40-60	B	5-25
Salix caprea	Goat willow	1.5m	10%	Branched, 2 breaks	1+1	40-60	B	5-15
Sambucus nigra	Elder	1.5m	5%	Transplant	1+0	40-60	B	5-15
			100%					

Scattered Trees

Botanical Name	Common Name	Spacing/ centres in metres	Form/Habit	Age / Condition or Number of Times Transplanted	Overall Minimum Height in cm	Root Condition: B=Bagged/Bare Root; RB=Rootball; C=Container in litres
Acer platanoides	Norway Maple	As shown	Feathered	2X	125-150	B
Alnus glutinosa	Alder	As shown	Feathered	2X	175-200	B
Betula pendula	Silver Birch	As shown	Feathered	2x	175-200	B
Fagus sylvatica	Beech	As shown	Feathered	2X	175-200	B
Larix decidua	Larch	As shown	Leader / laterals		60-80	C 3L
Malus sylvestris	Crab Apple	As shown	Feathered	2x	125-150	B
Pinus sylvestris	Scots Pine	As shown	Leader / laterals		40-60	C 3L
Prunus avium	Bird Cherry	As shown	Feathered	2X	200-250	B
Quercus robur	Oak	As shown	Feathered	2X	200-250	B
Sorbus aucuparia	Rowan	As shown	Feathered	2X	125-150	B
Tilia cordata	Small Leafed Lime	As shown	Feathered	2X	125-150	B

Native Species Hedgerow

Botanical Name	Common Name	Spacing (Plants per Linear Metre)	% Mix	Form/Habit	Age /Condition or Number of Times Trans- planted	Overall Minimum Height in cm	Root Condition: B=Bagged/Bare Root; RB=Rootball; C= Container in litres;Ce=Cell Grown	Planting groups
Carpinus betulus	Hornbeam	5	15%	Transplant	1+1	60-80	B	3-15
Crataegus monogyna	Hawthorn	5	60%	Transplant	1+1	60-80	B	5-15
Fagus sylvatica	Beech	5	15%	Transplant	1+2	60-80	B	3-15
Ilex aquifolium	Holly	5	5%	Leader and laterals		60-80	C3L	3-5
Prunus spinosa	Blackthorn	5	5%	Branched	1+1	60-80	B	3-15

Grass Mix to Verges and Embankments
'A18 Road Verge and Embanments' by Germinal Seeds

Botanical Name	Common Name	% Mix	Sowing Rate
Trifolium repens	ABERACE (SMALL) W CLOVER	2.5%	
Lolium perenne	CADIX PERENNIAL RYEGRASS	15.0%	
Festuca rubra rubra	CORAIL STRONG CREEPING RED FESCUE	40.0%	
Poa pratensis	EVORA SMOOTH STALKED MEADOW GRASS	12.5%	35 g/m2
Agrostis castellana	HIGHLAND BROWNTOP BENTGRASS	10.0%	
Festuca Rubra Commutata	JOANNA CHEWINGS	10.0%	
Lolium perenne	ZURICH PERENNIAL RYEGRASS	10.0%	
		100%	

Amenity Grass Seed Mix
'A3 Embankment and Drought' Mix by Germinal Seeds

Botanical Name	Common Name	% Mix	Sowing Rate
Festuca rubra rubra	CORAIL STRONG CREEPING RED FESCUE	30%	
Agrostis castellana	HIGHLAND BROWNTOP BENTGRASS	5%	
Festuca rubra commutata	JOANNA CHEWINGS FESCUE	10%	35g/m2
Festuca arundinacea	MUSTANG 4 TALL FESCUE	25%	
Lolium Perenne	ZURICH PERENNIAL RYEGRASS	30%	
		100%	

Species Rich Grassland

Botanical Name	Common Name	% Mix	Grams (per m2)	Sowing Rate
Agrostis capillaris	Common bent	5.71%	0.24	
Cynosurus cristatus	Crested dogs-tail	11.43%	0.48	
Festuca ovina	Sheep's fescue	22.86%	0.96	
Festuca rubra	Red fescue	11.43%	0.48	
Poa pratensis	Smooth meadow grass	5.71%	0.24	
Achillea millefolium	Common yarrow	1.43%	0.06	
Hypericum perfoatum	Perforate St John's-wort	0.71%	0.03	
Leucanthemum vulgare	Ox-eye daisy	2.14%	0.09	
Lotus corniculatus	Bird's-foot trefoil	1.43%	0.06	
Plantago lanceolata	Ribwort plantain	1.43%	0.06	
Prumula veris	Cowslip	1.43%	0.06	4.2g/ m2
Ranunculus acris	Meadow Buttercup	1.43%	0.06	
Rhinanthus minor	Yellow rattle,	1.43%	0.06	
Silene dioica	Red campion	1.43%	0.06	
Vicia sativa	Common vetch	1.43%	0.06	
Anthemis arvensis	Corn chamomile	1.19%	0.05	
Glebionis segetum	Corn marigold	1.19%	0.05	
Agrostemma githago	Corn cockle	1.19%	0.05	
Centaurea cyanus	Cornflower	1.19%	0.05	
Lolium perenne	Perennial rye grass	23.81%	1	
	Total	100.00%	4.2	

Ornamental Shrub Planting

Code	Botanical Name	Common Name	Spacing/ centres in m2	Form/Habit	Overall Minimum Height in cm	Root Condition: B=Bagged/ Bare Root; RB=Rootball; C= Container in litres
Ct	Choisya ternata	Mexican orange blossom	4	Bushy	30-40	C3L
CaSi	Cornus alba 'Sibirica'	Dogwood	4	Branched / 2 breaks	40-60	C2L
CaS	Cornus alba 'Spaethii'	Dogwood	4	Branched / 2 breaks	40-60	C2L
ErCS	Escallonia rubra 'Crimson Spire'	Escallonia	5	Bushy	40-60	C3L
Gl	Grisilinea littoralis	New Zealand Broadleaf	5 per linear m	Bushy	40-60	C3L
HpS	Hebe pinguifolia 'Sutherlandii'	Hebe	5	Bushy	20-30(D)	C3L
HcGF	Hedera colchica 'Gold Flame'	Ivy	4	Several Shoots	60-80	C3L
HaA	Hydrangea arborescens 'Annabelle'	Hydrangea	4	Branched	40-60	C3L
LaH	Lavandula angustifolia 'Hidcote'	Lavender	6	Bushy / 5 breaks	20-30 (D)	C3L
LnM	Lonicera nitida 'Maygreen'	Shrub Honeysuckle	6	Bushy	30-40 (D)	C3L

Millimetres 100 10 0

DO NOT SCALE

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Project Title: M621 J1-7

Drawing Title: Planting Schedules

Drawing Number
Project: HE551464 - Originator: ATK - Volume: ELS - XX_ML - Type: DR - Role: LL - Number: 000016

Original Size: A3 | Scale: NTS | Project Ref. No: 5155828 | Sheet: 1 of 1 | Rev: C01

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