

East Reading Mass Rapid Transit Scheme

Sustainability Statement

On behalf of [Reading Borough Council](#), Highways and Transport Department



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1 Introduction

1.1 Project Background

- 1.1.1 This Sustainability Statement has been prepared by Peter Brett Associates LLP, now part of Stantec (PBA), in respect of a new planning application (referred to hereafter as the '2018 Planning Application' for a new mass rapid transit (MRT) scheme to the east of Reading, Berkshire (referred to as the 'Proposed Development')). The purpose of the East MRT scheme is to provide a fast track public transport, cycle and pedestrian route into the town centre. It is designed to improve accessibility and support continued sustainable growth in Reading and Wokingham Boroughs and the wider area.
- 1.1.2 A full planning application, with an ES, was submitted in 2017 for an earlier iteration of the MRT scheme. Reading Borough Council (RBC) was minded to grant the Proposed Development consent at the Planning Committee held on 30th May 2018, however, the application was refused by WBC in June 2018 on the grounds that the scheme would be '*harmful to the landscape character*'. A new full planning application is therefore being submitted that responds to the reasons for refusal and comments received from consultees.
- 1.1.3 The Proposed Development straddles the two Local Planning Authority areas of RBC and WBC. The planning application will therefore be submitted to both RBC and WBC for determination.
- 1.1.4 The project is being promoted by RBC, working with WBC, and Thames Valley Berkshire Local Enterprise Partnership (TVB LEP). The applicant is RBC Highways Department, which is independent from the Highways Authority. The public-sector led project has been allocated funding by TVB LEP from the Local Growth Fund.

1.2 Purpose of this Report

- 1.2.1 RBC requires applicants for all major developments to submit a Sustainability Statement with the formal planning application, which considers all aspects of development form that can contribute to securing high standards of development.
- 1.2.2 Furthermore, WBC expects all major developments to demonstrate the sustainability principles of the proposed development, including the positive environmental, social and economic considerations. This should be demonstrated within a Sustainability Statement / Appraisal submitted for planning.
- 1.2.3 The purpose of this Sustainability Statement is to address both these requirements, and demonstrate how the proposed development meets local sustainable development objectives and policies.

1.3 Site Location

- 1.3.1 The site location can be summarised as follows:

"Land between Thames Valley Business Park and Napier Road, Reading, to the south of the River Thames and north of the Great Western Main Line Railway."

1.3.2 An indicative Application Site location plan is provided at **Figure 1.1**. The Application Site Boundary is provided in **Appendix A**.

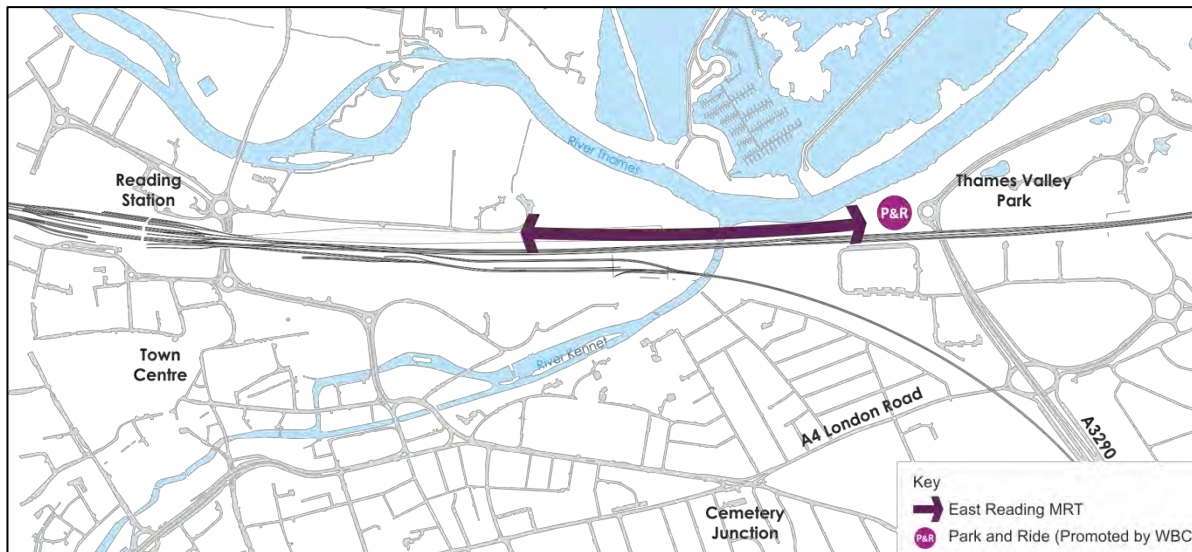


Figure 1.1: Site Location Plan (showing indicative route)

1.4 Project Description

1.4.1 The proposed development comprises:

- Creation of a new route for public transport only, including cycle path and footway between Napier Road and the A3290 at Thames Valley Park proposed Thames Valley Park and Ride;
- The erection of a new bridge over the River Kennet;
- Formation of a new T-junction with Napier Road;
- Connection to the proposed Thames Valley Park Park & Ride (TVP P&R);
- Development of new and improved footpath links to Tesco and the towpath; and
- Associated infrastructure and landscaping.

1.4.2 The route of the East MRT scheme itself is proposed to link the A3290 at Thames Valley Park, from a proposed new TVP P&R, to Napier Road, Reading town centre and the railway station.

1.4.3 The Proposed Site Layout Plan is presented in **Appendix A**. Plans illustrating the Proposed Development are also included in **Appendix A**.

2 Policy Context

2.1 Introduction

- 2.1.1 The policies that apply to the proposed development in relation to sustainable development are multi-layered and complex. This is particularly the case given that the application site falls across the boundary between RBC and WBC.
- 2.1.2 The following sections present a summary of the main policies related to defining a sustainable development in this location, and present the Sustainability Appraisal Framework used to appraise the scheme within this Sustainability Statement.

2.2 National Planning Policy Framework 2018

- 2.2.1 The new National Planning Policy Framework (NPPF) was published in July 2018. The NPPF supports the role of the local plan process and that plans and decisions should apply a presumption in favour of sustainable development. It sets out the three mutually dependent roles that the planning system needs to consider to deliver sustainable development. These are:
- An economic role – to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure;
 - A social role – to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering a well-designed and safe built environment, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being; and
 - An environmental role – to contribute to protecting and enhancing our natural, built and historic environment; including making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.
- 2.2.2 The NPPF encourages development and states that where development proposals accord with an up-to-date development plan they should be approved without delay.

2.3 Reading Borough Council's Planning Policies

Core Strategy

- 2.3.1 RBC's Local Plan Core Strategy (altered January 2015) sets out the strategic policies for the borough and broad principles for development. The document has 'development plan' status, which means that it will be one of the main considerations in deciding planning applications in the borough. Some of the key policies related to sustainable development are outlined below:
- *Policy CS1: Sustainable Construction and Design* specifies that the layout and design of developments should use energy, water, minerals, materials and other natural resources appropriately, efficiently and with care;
 - *Policy CS2: Waste Minimisation* states that developments should demonstrate measures to reduce construction and operational waste, including considering space and facilities for

waste on site, and designing developments that provide adequate space to facilitate waste storage, reuse, recycling and composting;

- *Policy CS35: Flooding* states that site locations should consider flooding, including the capacity of the floodplain and the flow of floodwater. Planning permission will not be granted in a high risk flood area;
- *Policy CS20: Implementation of The Reading Transport Strategy* indicates that planning permission will not be granted unless the development contributes to the provision of a balanced transport network, including promotion of alternative transport modes; and
- *Policy CS23: Sustainable Travel and Travel Plans* states that planning permission will not be granted for major development proposals unless there is a commitment to implement measures to promote and improve sustainable transport facilities, such as through provision to encourage walking, cycling and the use of public transport; safe routes to schools, safe routes to parks and similar measures.

Sustainable Design and Construction SPD

- 2.3.2 RBC has a Supplementary Planning Document (SPD) on sustainable design and construction, which was adopted in July 2011. It promotes sustainable development and provides detail on how to conform with RBC's Local Plan Core Strategy outlined above.
- 2.3.3 Appendix 5 of the SPD presents two Sustainable Design and Construction Checklists. These have their requirements based on the now withdrawn Code for Sustainable Homes (Code) and BREEAM, but are not a complete repetition of these requirements. They are intended to help provide points as to the type of considerations that development should be taking into account in order to comply with Policy CS1 of the Core Strategy.
- 2.3.4 These checklists have been used to help inform the Sustainability Appraisal Framework adopted in this Sustainability Statement. However, as the Code and BREEAM are not fully applicable to infrastructure developments such as this, the Civil Engineering Environmental Quality Assessment and Award Scheme (CEEQUAL) approach has also been considered (see **Section 2.5** for further detail).

2.4 Wokingham Borough Council's Planning Policies

Core Strategy

- 2.4.1 WBC's Core Strategy was adopted in January 2010 and sets the key strategic policies for the district. The Core Strategy includes a number of policies related to sustainable development, including the following:
- 2.4.2 *CP1 – Sustainable Development* states that planning permission will be granted for development proposals that:
- Maintain or enhance the high quality of the environment;
 - Minimise the emission of pollutants into the wider environment;
 - Limit any adverse effects on water quality (including ground water);
 - Minimise the consumption and use of resources and provide for recycling;
 - Avoid increasing risks of or from all forms of flooding (including from groundwater); and

- Provide attractive, functional, accessible, safe, secure and adaptable schemes.

2.4.3 CP3 – *General Principles for Development* states that planning permission will be granted for development proposals that:

- Have no detrimental impact upon important ecological, heritage, landscape (including river valleys) or geological features or water courses; and
- Contribute to a sense of place in the buildings and spaces themselves and in the way they integrate with their surroundings (especially existing dwellings) including the use of appropriate landscaping.

WBC Managing Development Delivery Local Plan

2.4.4 The purpose of WBC's Managing Development Delivery is to take forward objectives laid down in the Core Strategy, to allocate sites for other uses, including commercial development, provide site boundaries on the Policies Map, and provide additional detailed policies to use when considering development proposals. Two policies mention sustainable development/construction:

Policy CC01: Presumption in Favour of Sustainable Development: Planning applications that *accord with the policies in the Development Plan for WBC will be approved without delay, unless material considerations indicate otherwise.*

Policy CC04: Sustainable Design and Construction: Planning permission will only be granted for proposals that seek to deliver high quality sustainably designed and constructed developments by: Achieving the necessary mandatory Building Research

Sustainable Design and Construction SPD

2.4.5 This SPD was adopted by WBC in May 2010 and promotes the use of sustainable techniques (including renewable energy technologies) and materials in the construction of buildings and structures. The SPD provides guidance to help improve the sustainability performance of buildings and spaces through their design and subsequent use.

2.5 Emerging Local Policy

Reading Emerging Local Plan

2.5.1 RBC are currently preparing a new Local Plan which will replace the current development and will guide development up to 2036. The Submission Draft Local Plan was submitted to the Secretary of State for examination on Thursday 29th March 2018. The inquiry has now ended and publication of the Inspector's report is awaited. The emerging Local Plan includes a number of policies relating to sustainable development such as:

- CC1: Presumption in Favour of Sustainable Development;
- CC2: Sustainable Design and Construction;
- CC3: Adaptation to Climate Change; and
- CC5: Waste Minimisation and Storage.

Wokingham Emerging Local Plan

- 2.5.2 WBC is also currently working on a new Local Plan, which will guide development in the Borough for the next 20 years. The Preferred Options Consultation took place this summer (2018). The detailed programme for the development of the new Local Plan will be set out in a new Local Development Scheme in the coming months. The emerging policy is still at the very early stages of preparation and therefore, in accordance with the NPPF, very little/no weight can be assigned to it.

2.6 Sustainability Appraisal Framework

- 2.6.1 RBC's and WBC's guidance for Sustainability Statements relates primarily to design standards and assessment methodologies for new buildings (such as the now withdrawn Code and BREEAM standards). Though many of these criteria are important for all types of development (e.g. sustainable use of materials, good project management and avoidance of flood risk), some of the criteria are not necessarily applicable to infrastructure projects.
- 2.6.2 In the absence of a locally-defined appraisal framework for infrastructure projects, CEEQUAL presents an alternative framework to appraise the proposed development.
- 2.6.3 CEEQUAL is an evidence-based sustainability assessment, rating and awards scheme for civil engineering, infrastructure, landscape and the public realm, which celebrates the achievement of high environmental and social performance.
- 2.6.4 It should be noted that CEEQUAL is currently transitioning across to a new BREEAM Infrastructure standard. Currently BREEAM Infrastructure is only available on a Pilot Scheme basis, with the BRE currently running CEEQUAL as a primary route for the sustainability appraisal of a civil engineering project.
- 2.6.5 CEEQUAL assessment methodology covers all of the main areas of core policy for sustainability-related aspects of new development, and encapsulates the broad range of policies and guidance identified in **Sections 2.2 to 2.4** above.
- 2.6.6 Therefore, the assessment which follows is structured around the CEEQUAL "manual sections" as follows:
- Project Management;
 - People and Communities;
 - Land Use and Landscape;
 - The Historic Environment;
 - Ecology and Biodiversity;
 - Water Environment;
 - Physical Resource Use and Management; and
 - Transport.

3 Project Management

3.1 Introduction

- 3.1.1 This section discusses how environmental and sustainability issues are being incorporated into the overall management of the project. This is covered in relation to the design, construction and operational management of the project.

3.2 Design

- 3.2.1 The creation of a safe environment is important to consider during the design of the development. The proposed development aims to conform to the relevant Secured by Design principles focusing on crime reduction and promoting people's safety. Certain measures will be incorporated, including:

- Good lighting along the length of the East MRT walk and cycle route, secure barriers and fencing on bridges;
- Segregation of users (pedestrians, cyclists and the East MRT route); and
- Clear lines of vision to limit crime.

- 3.2.2 The **Lighting Assessment (October 2018)** provides more information on lighting, in particular the use of LED lighting to provide a safe and secure route for users.

3.3 Construction

- 3.3.1 As discussed in more detail in **Section 9**, principles will be adhered to in the specification and procurement of goods and services. The sustainability credentials of supply chains will be considered throughout the procurement process. A Site Waste Management Plan (SWMP) will be implemented to achieve waste reduction and the management of construction waste will be phased in alignment with the construction works.

- 3.3.2 The construction and implementation will take approximately 18 months from commencement to completion (dependent upon the contractor's construction methodology) and is split into four phases: commencement of on-site construction, installation of bridge beams, completion of bridge and viaduct structures, and project completion. This is discussed in more detail in the **Environmental Statement – Chapter 4 (October 2018)**.

3.4 Management

- 3.4.1 Proposed management measures include:

- CCTV to control entry and exit to the East MRT route, as well as bus lane enforcement cameras;
- Rapid response in emergencies;
- Regular inspection and maintenance; and
- Special training for staff to deal with conflict and emergencies.

- 3.4.2 Further design principles in relation to transport, drainage, ecology and landscaping are discussed in the following sections.

4 People and Communities

4.1 Introduction

- 4.1.1 In this section, the focus is on discussing people and communities affected by the project, and the impacts the project has on them. This includes reducing construction and operation-related nuisances, considering employment, and community consultation and engagement. Aesthetics of the project are discussed in the Land Use and Landscape Section (**Section 5**).

4.2 Employment

- 4.2.1 The socio-economics assessment presented in **Chapter 7** of the **Environmental Statement** (October 2018) estimates that 78 net additional temporary construction local jobs will be provided within a 60-minute drive time of East MRT during the construction phase. A further 6,794 net additional temporary construction local jobs are estimated to be provided within a 60-minute drive time which is related to the scale of planned housing that can be directly linked to the capacity released through road network improvements.
- 4.2.2 In addition, the East MRT route will provide an improved link to central Reading, a major hub for employment.

4.3 Community Engagement

- 4.3.1 The proposed development has a significant planning history, and this has included considerable engagement with both key stakeholders and the public. For example, in support of the 2017 planning application, a public exhibition was held to inform interested parties and gain feedback in relation to the proposed development.
- 4.3.2 Pre-application meetings were also held with planning officers from RBC and WBC in May 2016, June 2016, November 2016 and May 2017. The final proposed plans/designs for the 2017 application were presented to the Design South-East Panel (independent group of architects) on Tuesday 6th June 2017.
- 4.3.3 More recently, a public exhibition was held on the 12th September 2018 to allow individuals as well as community groups to provide representations on the planning application and sought views on the design options to help further reduce the impact of the scheme on the riverside setting. The feedback received was used to inform the design of the proposed development.
- 4.3.4 The technical teams have also had ongoing dialogue with technical officers at RBC, WBC and the Environment Agency (EA) since mid-2016 to help inform the design.

4.4 Reducing Disturbance

- 4.4.1 To fully address any potential air, noise and light pollution issues during the construction process, and thereby reduce the effects on the local community, the principle contractor will sign up to the Considerate Constructors Scheme. This means they will adopt best practice policies in respect of air (dust) pollution arising from site activities, such as working during daylight hours (where possible) to limit light pollution.

5 Land Use and Landscape

5.1 Introduction

- 5.1.1 This section covers issues such as flood risk, proposed land use, land contamination and remediation. It also considers the key landscape and visual aspects to mitigate against the development.

5.2 Flood Risk

- 5.2.1 The EA's Flood Zone map indicates that the land on the west side of the confluence of the River Kennet lies within Flood Zone 2 'Medium Probability' (between a 1 in 100 (1%) and 1 in 1,000 (0.1%) annual probability of river flooding).
- 5.2.2 On the east side of Kennetmouth, the route lies in Flood Zone 3 'High Probability', until it reaches the TVP P&R in Flood Zone 1 'Low Probability' (less than 1 in 1,000 (0.1%) annual probability of river or sea flooding).
- 5.2.3 A **Flood Risk Assessment (FRA) (October 2018)** has been submitted with the planning application. In considering the proposals, the following key aspects have been addressed: vulnerability to flooding from all sources and no increased flood risk to third parties as a result of the development. The proposed flood risk mitigation and drainage strategy is discussed further in **Section 8.2**.

5.3 Land Contamination

- 5.3.1 A **Phase 1 Ground Condition Assessment (June 2017)** has been submitted with the planning application, demonstrating that land contamination and the potential need for remediation has been considered.
- 5.3.2 The western part of the site had an industrial history with a number of industrial uses including a historical landfill, railway land, railway sheds and large fuel tanks. By the 1990s the majority of this part of the site was redeveloped as part of the Tesco Superstore development.
- 5.3.3 It is expected that the land within Tesco ownership was remediated or treated as part of the enabling works for the Tesco Superstore development to a certain degree. Therefore, the potential for significant contamination to be present in the western part of the site associated with its industrial history is considered to be Moderate.
- 5.3.4 The lower part of the site is principally undeveloped land with the exception of former boat houses. The land in the eastern part of the site comprises limited historical use including historical gravel pits and allotment gardens, and a small disused highway depot. Based on the known history of the site, it is considered that the potential for significant site-wide contamination to be present in the eastern part is Very Low, with the exception of the former depot and the infilled gravel pits where the potential is assessed as Low.

5.4 Landscape

- 5.4.1 The **Landscape and Visual Assessment** presented in **Chapter 13 of the Environmental Statement** (October 2018) considers the key landscape and visual aspects to mitigate against the development. The proposals include:
- Retention of existing trees and vegetation where practicable;

- Re-routing of services and utilities to the south of the proposed East MRT to enable replacement tree planting to take place to the north of the MRT;
- Height of the proposed bridge element to correspond to that of the listed railway and accommodation bridge;
- Low-level parapet lighting which removes the need for lighting columns;
- Selective management and re-planting of the Coal Woodland;
- Retaining, enhancing and extending the existing area of acid grassland at the western end of the East MRT route, with scattered new tree planting to create a glade with dappled shade;
- Mooring enhancement with associated new marginal shelf and riverside planting in front of the existing concrete retaining wall at the edge of the River Thames (east of Kennet Mouth);
- Relocation and repair of the existing mosaic, provision of new seating and storyboards; and
- A variety of ecological and landscape enhancements including: creation of grassland between the East MRT and the River Thames; the integration of a riparian habitat along the River Thames to the east of the River Kennet alongside selected areas of engineered banks; and Ivy planting to be installed in a planting trough at the northern edge of the elevated viaduct, and trained to grow downwards in order to green the structure.

6 The Historic Environment

6.1 Introduction

- 6.1.1 This section covers the historic environment of the site in relation to historic features, archaeology and heritage, and considers the anticipated impacts on these features from the proposed development. It draws on the **Heritage Desk Based Assessment (June 2017)**, which was undertaken by Orion Heritage and is submitted as part of this planning application.

6.2 Historic Features

- 6.2.1 The Heritage Desk Based Assessment states that no evidence has been encountered that suggests that remains of national importance are likely to be present on the site and thus that its development would be unacceptable or severely constrained.

6.3 Archaeology

- 6.3.1 According to the Heritage Desk Based Assessment, it is considered that the site has moderate/low archaeological potential for settlement or other evidence from the prehistoric, Roman and Medieval periods. This is primarily associated with the site being located within the River Kennet floodplain, where archaeological evidence could be sealed within alluvial deposits at depth. A low potential is identified for the Post-Medieval and Modern periods.

6.4 Heritage

- 6.4.1 The Heritage Desk Based Assessment states that the only Listed Building which has the theoretical potential to be impacted upon by the development proposals is the Grade II Listed railway bridge and attached accommodation bridge that lie immediately to the south of the site. However, views to and from the bridges will be screened by woodland which runs along the River Kennet. Although glimpsed views of the bridges from the site may be possible, these are considered to be limited.
- 6.4.2 Given the industrialised nature of the surrounding area, it is considered that there will be no additional impact on the setting and significance of the bridge and accommodation bridge from the development proposals.

7 Ecology and Biodiversity

7.1 Introduction

- 7.1.1 This section covers the baseline ecological value of the site; the mitigation measures incorporated within the scheme to prevent, reduce or offset any adverse effects; and any likely residual effects after these measures have been employed.
- 7.1.2 It draws upon **Environmental Statement – Chapter 13 Ecology** (October 2018), which considers both the East MRT site and the ‘combined site’ of East MRT and the permitted TVP P&R. The assessment has been informed by a combination of baseline ecological desk study and survey data.

7.2 Current Site Features

- 7.2.1 The habitats within the East MRT site and combined site are generally of low intrinsic ecological value; with broadleaved semi-natural woodland, running water and marginal vegetation (namely associated with the on-site Local Wildlife Site (LWS) and adjacent water courses) the only habitat types of importance in the local context or greater.
- 7.2.2 With the exception of slow worm and grass snake populations, and roosting, foraging and commuting bats; protected or otherwise notable species recorded within and adjacent to the East MRT site and / or combined site are not considered to be of importance within the local context or greater and, as such, have not been considered within the current assessments.
- 7.2.3 There are a number of designated areas of nature conservation importance within the wider area, including The Coal, Kennetmouth and Kings Meadow East LWS and Henley Road Gravel Pits LWS.

7.3 Species Protection and Habitat Enhancement

- 7.3.1 The ecological assessment includes for a number of measures relating to species protection and habitat enhancement. These measures relate to the approach to works affecting The Coal, Kennetmouth and Kings Meadow East LWS; habitats suitable for reptiles and bats; the timing of clearance of vegetation that may be used by nesting birds; the approach to general welfare measures during construction; and ecological input relating to the habitats to be retained and provided as part of the proposed East MRT development and combined development. A draft reptile mitigations strategy has been provided within **Chapter 13** of the **Environmental Statement** (October 2018) and outlines measures to help retain a viable population of reptiles within the application site.
- 7.3.2 Although the construction phase of the proposed East MRT / combined development will result in residual adverse effects on a small number of important ecological features at the local level; once operational, the development provides enhancement opportunities for protected and notable species namely through the enhancement and appropriate management of the King’s Meadow and Hills Meadow LWS. This, in the long-term, will provide overall net gain for biodiversity through on-site and off-site measures.

8 Water Environment

8.1 Introduction

- 8.1.1 Here, control of the project's impact on and protection of the water environment, and enhancement of the water environment, is discussed in relation to the drainage strategy for the site.

8.2 Drainage Strategy

Mitigating Flood Risk

- 8.2.1 The **FRA (June 2017)** shows that flood risk will be appropriately mitigated through measures including a flood compensation scheme to mitigate impacts on floodplain storage capacity and incorporation of surface water drainage arrangements to avoid detrimental impacts on surface water and avoid increasing flood risk elsewhere.
- 8.2.2 It also demonstrates that the proposed development will not have a detrimental impact on floodplain storage capacity or flow routes over the proposed route, up to the modelled 1 in 100 (1%) annual probability plus appropriate climate change flood level.
- 8.2.3 As such, the FRA confirms that the development is safe, it does not increase flood risk and does not detrimentally affect third parties, in accordance with the objectives of the NPPF.

Surface Water and Sustainable Drainage

- 8.2.4 The surface water drainage strategy has been developed by PBA. The key considerations of this, including use of Sustainable Drainage Systems (SuDS), are summarised below:

Land East of Kennetmouth (and river crossing)

- 8.2.5 Due to the need to keep the viaduct as slender as possible, it is proposed to use a combined kerb drainage system. This will collect the surface water runoff to the low point (adjacent to the TVP P&R). This will then be picked up by a carrier drain, into an oil interceptor and then into a storage attenuation system prior to discharging into the Thames.
- 8.2.6 The surface water attenuation measures will be designed to accommodate a 1 in 100-year storm plus allowance for climate change and, as such, if flooding occurs the storage will still be functional.

Land West of Kennetmouth

- 8.2.7 The strategy here is to use a channel system which will run both sides of the cambered carriageway as these systems provide an element of attenuation. The surface water will then be picked up by a carrier drain to a point roughly adjacent to the Thames Path, into an oil interceptor and then, due to level constraints, a pumping station will be used pump the water to an outfall into the Thames at a controlled greenfield rate via a flapped outfall.

Tesco Car Park

- 8.2.8 In liaison with Tesco, localised amendments to the existing surface water drainage network (repositioning of gullies, etc) within the Tesco car park will be provided. A new section of car parking is to be provided, although the proposed impermeable area will not exceed that lost through realignment works. It is therefore envisaged that there will be no negative impact to the overall impermeable surface draining into the existing Tesco car park surface water drainage

system. The final drainage design will be subject to detailed design and any necessary consent from the appropriate authorities (e.g. EA).

8.3 Waste and Foul Water

- 8.3.1 Due to the nature of the development as a East MRT route with associated pedestrian and cycle routes, there is not expected to be any waste or foul water created from the development.

9 Physical Resource Use & Management

9.1 Introduction

- 9.1.1 This section covers the impacts of using the wide range of physical resources needed for civil engineering infrastructure projects. This includes consideration of material use, responsible sourcing of materials, management of construction and demolition waste. This section also discusses energy efficiency and reducing water consumption.

9.2 Construction and Demolition Waste

- 9.2.1 The construction of the East MRT route and associated footway and cycleway will utilise locally sourced and recycled materials, where possible, to minimise the environmental impact of the development.
- 9.2.2 During the construction and demolition phases, the waste strategy should follow the principles of the waste hierarchy (eliminate, reduce, reuse and recycling) to reduce waste sent to landfill and help to avoid the environmental, social and economic risks associated with waste and, where possible, turn these into opportunities.
- 9.2.3 During the construction phase, a SWMP and a Construction Environmental Management Plan (CEMP) will be implemented to reduce the waste, recycling more and dispose of any materials in an efficient and environmentally considerate manner.

9.3 Operational Waste

- 9.3.1 The development is not expected to produce any additional operational waste. However, where appropriate, refuse bins may be positioned along the East MRT route to allow end users to dispose of rubbish or recyclables. There is also expected to be waste bins at either end of the route, at the TVP P&R and at Napier Road.
- 9.3.2 Provisions for managing operational waste will be confirmed at the detailed design stage. Further details on operational waste will be guided by the respective local authorities.

9.4 Materials

- 9.4.1 The embodied carbon of the proposed development will be reduced by the use of materials with low environmental impacts over their life-cycles. As much as reasonably achievable, materials used will be responsibly and sustainably sourced by the principal contractor (for example, by using schemes compliant with BES 6001).
- 9.4.2 Where appropriate and financially viable, locally sourced materials will be favoured to reduce the environmental impact of transporting materials.

9.5 Energy and Water Efficiency

Energy Efficiency

- 9.5.1 It is proposed that all lighting specified for the proposed development will use LED fittings. These are more energy-efficient than traditional high pressure sodium bulbs. Furthermore, the East MRT bus route aspect of the proposed development is not going to be lit, which will limit light intrusion into the surrounding areas, reduce impact on the sensitive ecological areas and save energy.

- 9.5.2 The development will also deliver energy savings in indirect ways, for example by encouraging people to travel by lower carbon, sustainable transport modes and reducing their reliance on the private car. This is discussed in further detail in **Section 10**.

Water Efficiency

- 9.5.3 The accompanying TVP P&R will have a ticketing building which will have toilet facilities. The planning application for the TVP P&R has already been approved and the Sustainability Statement prepared by WSP includes details on water efficiency. It is expected that potable water consumption will be effectively managed and reduced by the end operator of this facility.

10 Transport

10.1 Introduction

- 10.1.1 With the proposed development being a transport infrastructure scheme, there are a number of benefits to the local area in terms of promoting sustainable travel. A **Transport Statement (October 2018)** and **Environmental Statement – Chapter 9 Transport and Access (October 2018)** have been prepared to assess the transport impacts associated with the construction of the scheme and the benefits it will bring once fully operation (in conjunction with the already permitted P&R adjacent to the site).

10.2 Construction Traffic

- 10.2.1 Generation of construction traffic has been determined on the basis of the number of operatives and management staff required on the site and the material quantities to be imported through the duration of the works. A number of measures will be employed to reduce the impact of construction traffic on the local highway network, including:
- Deliveries will be limited to off-peak periods to avoid disruption in peak periods, 09:30 – 16:30;
 - Space will be provided within the site to accommodate delivery vehicles so that they are not waiting on the public highway;
 - There will be various points for unloading and storing materials on the site;
 - Adequate on-site parking will be provided for all operatives and staff; and
 - Vehicle sharing and use of public transport amongst operatives and site management is anticipated and will be encouraged.

10.3 Key Benefits of the Proposed Development

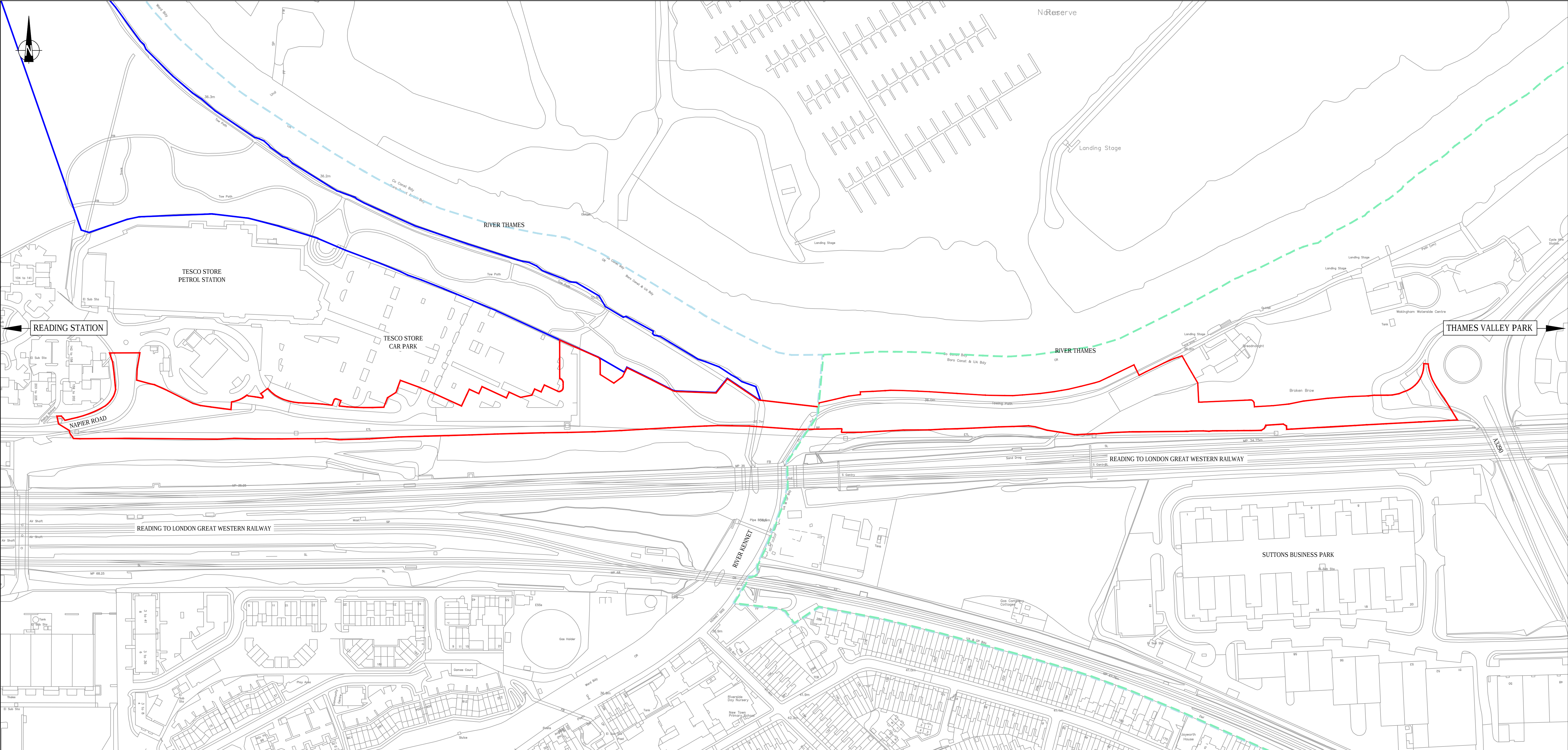
- 10.3.1 The purpose of the proposed development is to improve the attractiveness of travelling more sustainably, therefore reducing private car trips, easing forecast congestion and improving air quality along the existing highway network, particularly the A4 corridor.
- 10.3.2 The scheme will seek to achieve the following key aims:
- Provide a sustainable alternative solution to accommodate future travel demand on the London Road corridor;
 - Increase capacity for movement of people thereby reducing journey times and forecast congestion, as well as improving reliability of journeys along the corridor;
 - Support economic development in Reading Town Centre, east Reading, Wokingham and within the Thames Valley;
 - Develop a high quality, sustainable system which provides a sustainable alternative to the private car;
 - Facilitate a future MRT network for Reading and the Thames Valley; and
 - Allow access for mobility impaired and pushchairs.

- 10.3.3 It will also connect TVP with Reading Town Centre and station including the Ready Bike Cycle Hire scheme located in both locations. This will provide further opportunities for people to cycle into Reading Town Centre.
- 10.3.4 The results of the route assessment comparison undertaken in the Transport Statement submitted with this application show that the East MRT Route provides benefit to pedestrians and cyclists travelling from A4 London Road to the town centre and therefore promotes healthy living, well-being and active lifestyles by providing enhanced opportunities for walking and cycling. The scheme will also improve pedestrian and cyclist safety through the provision of a fast track, lit and dedicated cycle and pedestrian route directly to the centre of Reading.
- 10.3.5 The Transport Statement also compared current journey times by bus from locations in East Reading to Reading Town Centre, with expected journey times following the proposed East MRT route. The modelling undertaken indicated that the East MRT route will provide significant journey time savings.

11 Summary and Conclusions

- 11.1.1 RBC, Highways and Transport Department is submitting a planning application for the East Reading MRT scheme; a segregated fast track public transport, pedestrian and cycle route that will support enhanced accessibility and continued sustainable growth in Reading.
- 11.1.2 This Sustainability Statement accompanies the planning application and shows how the proposed development meets the Core Strategy policies for both RBC and WBC. Sustainable development is considered through application of the CEEQUAL methodology, which is used as a Sustainability Appraisal Framework to evaluate different aspects of the project.
- 11.1.3 The purpose of the East MRT scheme is to improve access to and from Reading eastwards for buses, pedestrians and cyclists. Key sustainability considerations for the Proposed Development include:
- Good project management through consideration of environmental and sustainability issues in project design, construction and management whilst operational;
 - Appropriate community consultation and engagement to inform the design proposals, and adoption of best practice procedures to reduce disturbance to the local community during construction;
 - Supporting economic development in Reading town centre, east Reading, Wokingham and within the Thames Valley;
 - Mitigating flood risk and incorporating surface water drainage arrangements to avoid detrimental impacts on surface water and avoid increasing flood risk elsewhere;
 - Careful design of landscape and visual aspects to mitigate against the development from an aesthetic perspective;
 - Considering, and where possible avoiding, potential risks to the historic environment;
 - Once operational, providing ecological enhancement opportunities for protected and notable species, namely through the enhancement and appropriate management of King's Meadow and Hills Meadow LWS;
 - Managing demolition, construction and any operational waste in accordance with the waste hierarchy (eliminate, reduce, reuse and recycle);
 - Use of sustainable materials with low environmental impact over their life-cycles, sourced from the local supply chain where possible; and
 - Energy efficient lighting design.
- 11.1.4 This report also presents some indicative information which could be included for a CEEQUAL assessment (if required), but is not intended to illustrate the full information required should the project aim to achieve a CEEQUAL award.

Appendix A Site Plans



NOTES:

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KEY:

- PLANNING APPLICATION RED LINE BOUNDARY
- OTHER LAND IN APPLICANTS CONTROL
- READING BOROUGH COUNCIL BOUNDARY
- WOKINGHAM BOROUGH COUNCIL BOUNDARY

C	RED LINE BOUNDARY AMENDED	04.10.18	LC	LC	SM
B	RED LINE BOUNDARY AMENDED	28.05.18	LC	LC	SM
A	COUNCIL BOUNDARIES ADDED	30.06.17	SF	SE	SE
Mark	Revision	Date	Drawn	Chkd	Appd

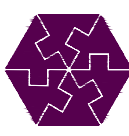
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Drawing Issue Status
FOR PLANNING

EAST READING MASS RAPID TRANSIT

SITE LOCATION PLAN

Client

**Reading**
Borough Council
Working better with you

Date of 1st Issue
22.06.2017

Designed
LC

Drawn
SF

A1 Scale
1:1500

Checked
SE

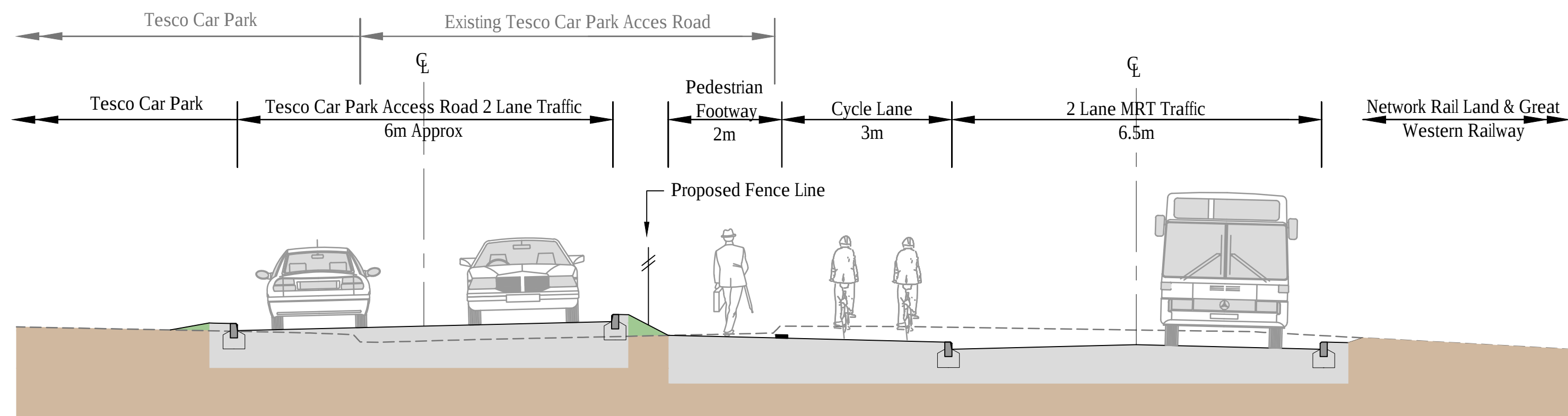
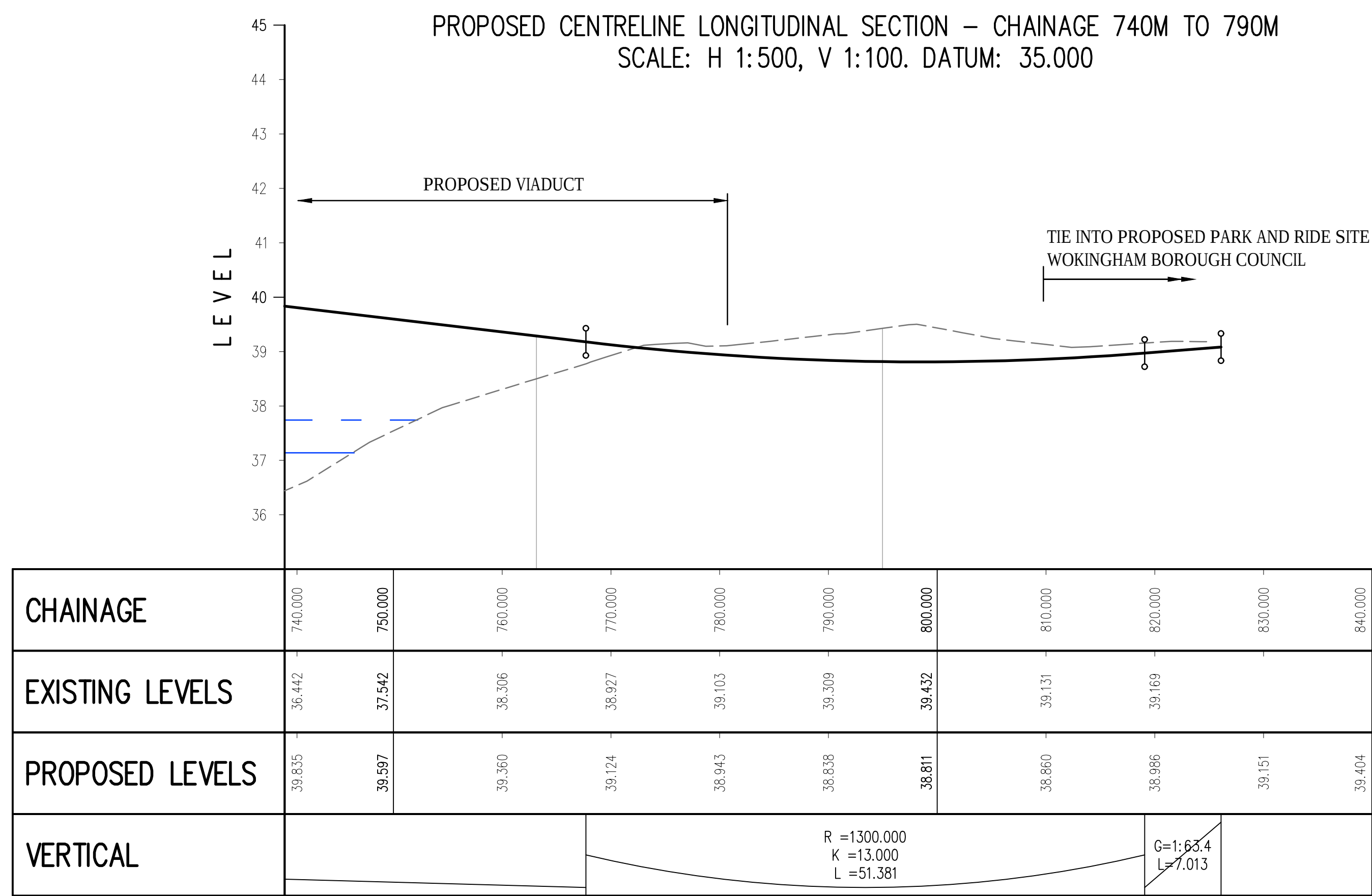
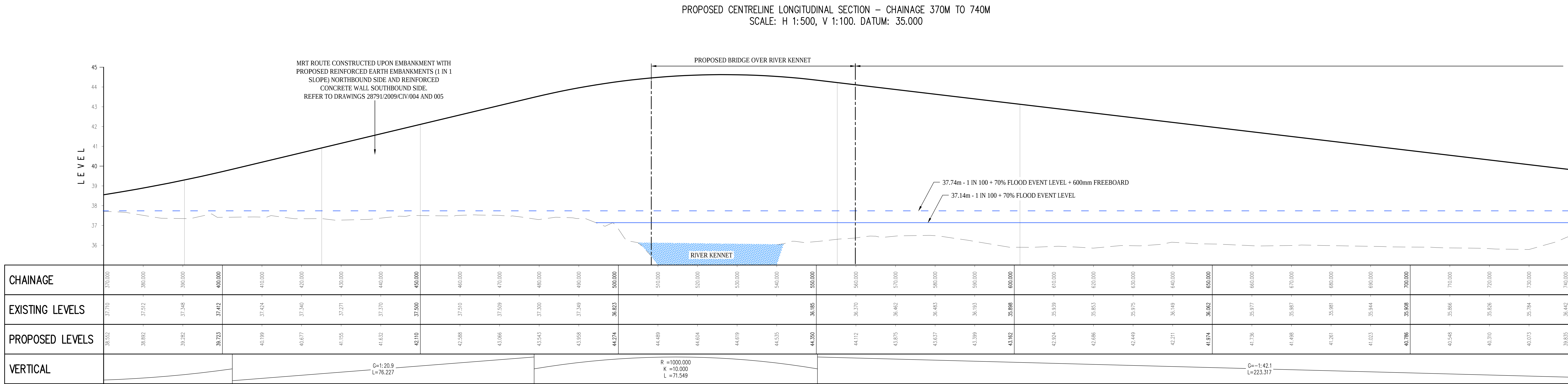
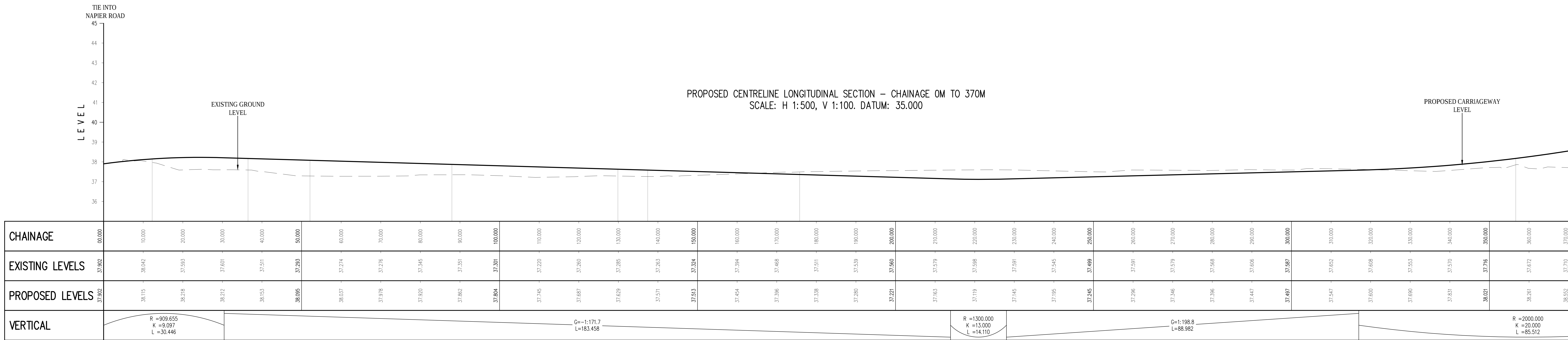
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TYPICAL CROSS SECTION (ADJACENT TO TESCO)
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NOTE: FOR CROSS SECTIONS THROUGHOUT THE SCHEME EXTENTS, REFER TO
DRAWING NUMBERS 28791/2009/CIV/013 AND 014.

B	LONG SECTION UPDATED	04.10.18	NK	LC	SM
A	REVISED LAYOUT (TESCOS AND PINCH POINT)	07.03.18	NK	LC	SM
Mark	Revision	Date	Drawn	Chkd	Appd

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FOR PLANNING

EAST READING MASS RAPID TRANSIT PROPOSED HIGHWAY LAYOUT LONGITUDINAL SECTION AND TYPICAL CROSS SECTION

Client



Reading
Borough Council
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Date of 1st Issue
03.05.2016

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MJP

Drawn
LC

A1 Scale
SCALE AS SHOWN

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SE

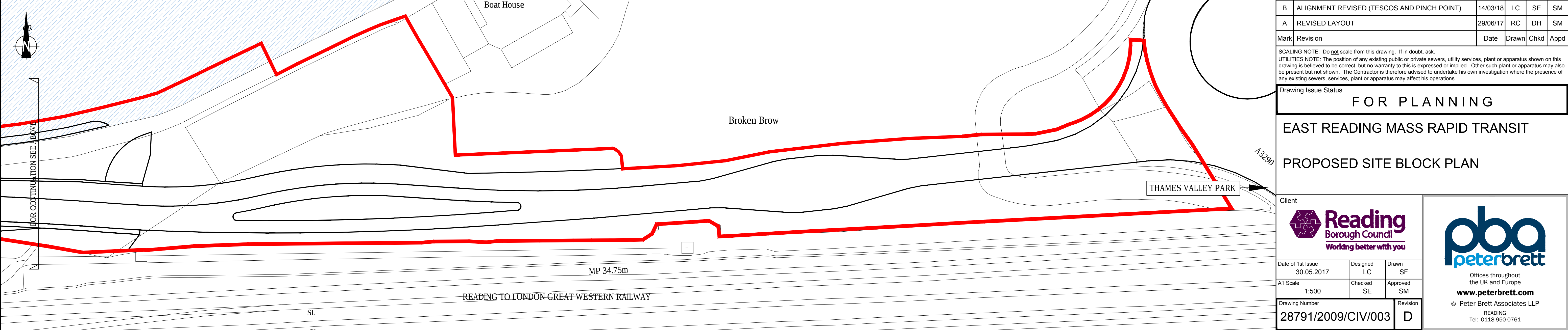
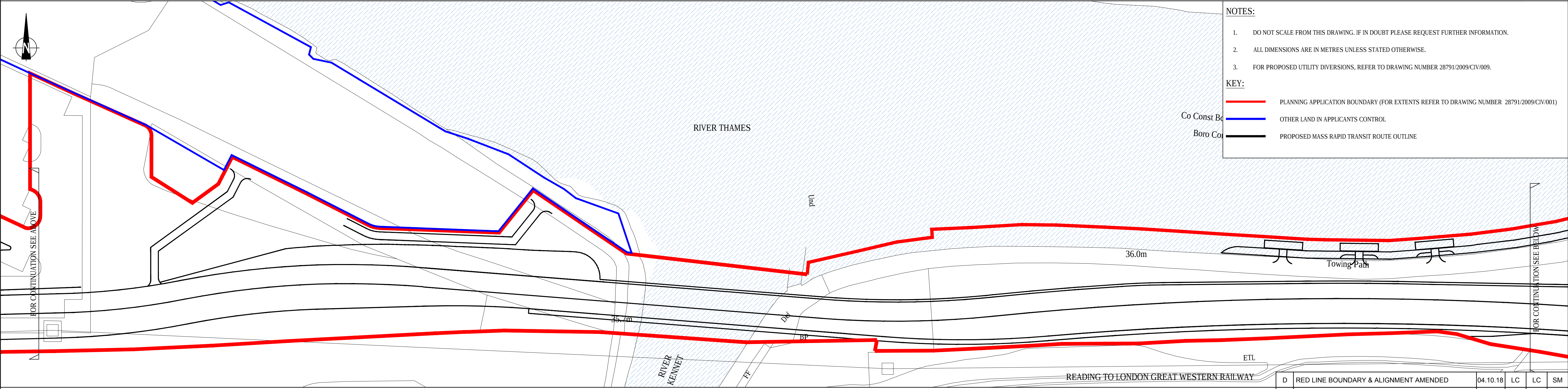
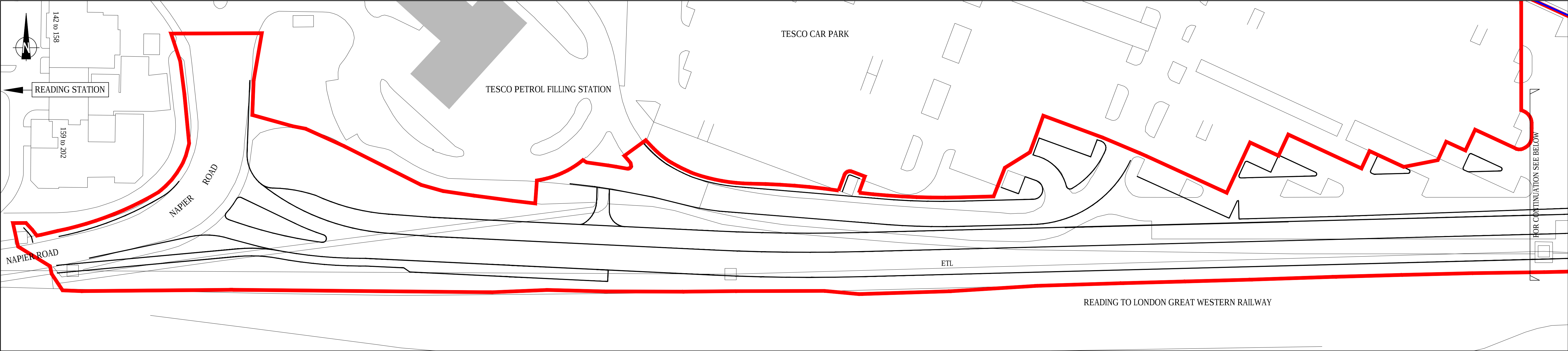
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KEY:

- PLANNING APPLICATION BOUNDARY (FOR EXTENTS REFER TO DRAWING NUMBER 28791/2009/CIV/001)
- OTHER LAND IN APPLICANTS CONTROL
- PROPOSED MASS RAPID TRANSIT ROUTE OUTLINE

D	RED LINE BOUNDARY & ALIGNMENT AMENDED	04.10.18	LC	LC	SM
C	RED LINE BOUNDARY AMENDED	28.05.18	LC	LC	SM
B	ALIGNMENT REVISED (TESCOS AND PINCH POINT)	14/03/18	LC	SE	SM
A	REVISED LAYOUT	29/06/17	RC	DH	SM
Mark	Revision	Date	Drawn	Chkd	Appd

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FOR PLANNING

EAST READING MASS RAPID TRANSIT

PROPOSED SITE BLOCK PLAN

Client

Reading Borough Council
Working better with you

Date of 1st Issue
30.05.2017

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LC

Drawn
SF

A1 Scale
1:500

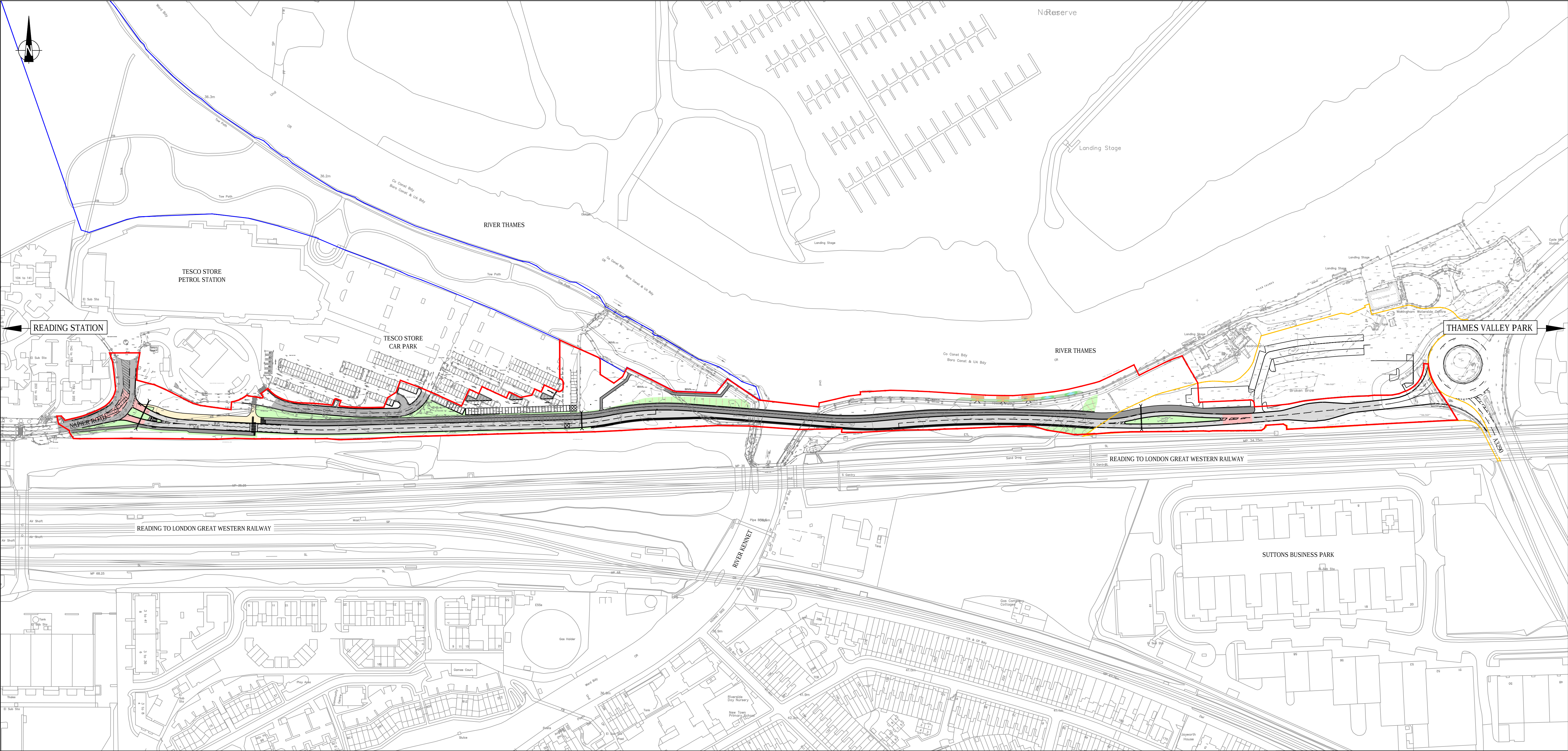
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KEY:

- PLANNING APPLICATION RED LINE BOUNDARY
- OTHER LAND IN APPLICANTS CONTROL
- PLANNING APPLICATION BOUNDARY (WOKINGHAM BOROUGH COUNCIL PROPOSED PARK AND RIDE DEVELOPMENT)

C	RED LINE AND ALIGNMENT AMENDED	04.10.18	LC	LC	SM
B	RED INE BOUNDARY AMENDED	28.05.18	LC	LC	SM
A	REVISED LAYOUT (TESCOS AND PINCHPOINT)	15.03.18	LC	SE	SM
Mark	Revision	Date	Drawn	Chkd	Appd

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Drawing Issue Status
FOR PLANNING

EAST READING MASS RAPID TRANSIT
PROPOSED SITE CONTEXT INCLUDING
PROPOSED PARK AND RIDE DEVELOPMENT

Client

**Reading**
Borough Council
Working better with you

Date of 1st Issue
29.06.2017

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Appendix B CEEQUAL Methodology

B.1 Methodology

- B.1.1 CEEQUAL is governed by an overarching methodology that all assessment questions are based on. Currently, both the Projects and Team Schemes are available under Version 5 and are assessed under the nine question sections.

B.2 Projects

- B.2.1 Currently, CEEQUAL Assessments for Projects (both UK & Ireland, or Internationally-based) are available under Version 5 of the overarching methodology. Version 5 completed the transition of CEEQUAL as an environmental assessment and awards scheme (Version 4) to a sustainability assessment and awards scheme. Due to the vast difference between Version 4 to Version 5, CEEQUAL is offering two types of Assessments for project teams to achieve a CEEQUAL Award:

B.3 Section 1: Project Strategy (OPTIONAL)

- B.3.1 Project Strategy covers how the project team has related their project to the wider sustainability agenda surrounding civil engineering and infrastructure projects, and their contribution to 'sustainable development'. It prompts project teams to ask themselves such questions as 'Is there evidence that the client and designer have actively adopted the principles of sustainable development in the planning and design of the project?' and to undertake studies of the project and its likely impacts to a wider remit than just the interests of the project's promoter.
- B.3.2 The aim is that the results might then lead to improvements, and to a judgement by the project team on whether their project is assisting the communities it serves to move on the pathway to more-sustainable living.
- B.3.3 This section is optional due to the significant extension of scope that it presents and the transition of CEEQUAL from an environmental assessment and awards scheme (Version 4) to a sustainability assessment and awards scheme. Therefore, choosing to undertake this section will define what type of CEEQUAL Assessment you use to obtain your Award.

B.4 Section 1: Contract Strategy (OPTIONAL)

- B.4.1 Client Contract Strategy (which is not optional for Whole Team Awards) assesses how the client has related their contract to the wider sustainability agenda surrounding civil engineering and infrastructure assets, and how their maintenance and refurbishment contributes to 'sustainable development'. It prompts clients to ask themselves whether the maintenance strategy for the assets within the contract enables those assets to continue to operate in a way that helps the communities which they serve to live more sustainably. However, it does not assess the judgement of the client in setting the scope and objectives of the contract, for example whether it is seeking to enhance the asset's functionality, merely maintain it at present levels or manage it down prior to closure and replacement.
- B.4.2 These Strategy Assessments are subject to adjudication by a CEEQUAL Panel whose members are independent of the team undertaking the works.

B.5 Section 2: Project Management

- B.5.1 This Section covers how environmental and sustainability issues are being incorporated into the overall management of the project. It covers a number of issues ranging from environmental

management practices and training through to how the procurement processes consider environmental performance. CEEQUAL assesses what is being built and how it is built, so references to sustainability and social issues throughout the Manual refer to the social issues that arise from developing, designing and constructing the project, rather than the broader issues of social acceptability of the project.

B.6 Section 3: People & Communities

- B.6.1 In this Section, a wide range of positive and adverse impacts are assessed, on people affected by the project and/or on the wider communities served by or affected by the project. It covers minimising operation- and construction-related nuisances, legal requirements, community consultation, community relations programmes and their effectiveness, engagement with relevant local groups, and human environment, aesthetics and employment.

B.7 Section 4: Land Use (above & below water) & Landscape

- B.7.1 Here, the Methodology covers issues such as design for optimum land-take, legal requirements, flood risk, previous use of the site, land contamination and remediation measures, and applies to conventional land use, and to use of the bed of the sea, estuaries, rivers and lakes. This section also covers consideration of landscape issues in design, amenity features, local character, loss and compensation or mitigation of landscape features, implementation and management, and completion and aftercare.

B.8 Section 5: The Historic Environment

- B.8.1 The Historic Environment Section covers baseline studies and surveys, conservation and enhancement measures to be taken if features are found, and information and public access. New to this section are how to address issues of historic assets under water, which could include shipwrecks, old Roman jetties, old sea or river walls.

B.9 Section 6: Ecology & Biodiversity

- B.9.1 Section 6 covers impacts on sites of high ecological value, protected species, surveys conservation & enhancement, habitat creation measures, monitoring and maintenance.

B.10 Section 7: Water Environment (Fresh & Marine)

- B.10.1 Here, we cover control of a project's impacts on and protection of, the water environment, legal requirements, and enhancement of the water environment – both fresh and marine – wherever practical.

B.11 Section 8: Physical Resources Use & Management

- B.11.1 This significant Section covers the impacts of using the very wide range of physical resources needed for civil engineering projects. The questions include coverage of: life-cycle analysis, energy and carbon emissions in use, energy and carbon performance on site, minimising material use and waste, responsible sourcing of materials including selection of timber, using re-used and/or recycled materials, minimising use and impacts of hazardous materials, durability and maintenance, and future de-construction or disassembly, design for waste minimisation, legal requirements, waste from site preparation, minimising water consumption and embodied water, policies and targets for resource efficiency, and on-site waste management.

B.12 Section 9: Transport

- B.12.1 Finally, the Transport Section covers location of a project in relation to transport infrastructure, minimising traffic impacts of a project, construction transport, and minimising workforce travel. A new approach in this section for Version 5 is relating the assessment to whether the project is part of the transport network, a destination that places extra demands on transport networks, or other projects with more-limited impact on transport infrastructure. So questions cover the project's relationship to transport infrastructure, access for pedestrian and cyclists, need for additional transport infrastructure arising from the project, resilience of the network, and performance for non-motorised users.