WilkinsonEyre

Euston Stations Masterplan

December 2017

Redacted under Regulation 12(5)(e)

REPORT TITLE: Euston Stations Masterplan
JOB NAME: Euston Stations Masterplan
REASON FOR ISSUE: For Acceptance

PREPARED BY: Redacted under Regulation 13

NAME: Redacted under Regulation 13
POSITION:

APPROVED BY: Redacted under Regulation 13

NAME: Redacted under Regulation 13
POSITION:

REVISION NUMBER:	COMMENTS:	DATE:
00	For Information	03/10/2017
P01	For Information	09/10/2017
01	For Information	19/10/2017
P02	For Acceptance	26/10/2017
P03	For Acceptance	16/11/2017
P04	For Acceptance	04/12/2017

JOB NUMBER: 01296
FILE REFERENCE: 1DC03-WSP-AR-REP-SS06_SL09-000016

Contents

Executive Summary

Executive Summary

Introduction

WilkinsonEyre and WSP were appointed in December 2016 to produce a masterplan for an area of Euston measuring over 37 hectares. The site sits within the area of the Euston Area Plan adopted by London Borough of Camden in 2015 and is bordered by Camden to the north, Bloomsbury to the south, Regent's Park Estate to the west and Somers Town and King's Cross to the east. The area is within 10 minutes walk to King's Cross and Regent's Park, 10 minutes walk to Tottenham Court Road and 20 minutes walk to the heart of Camden.

The introduction of High Speed services at Euston provides the opportunity to create a world-class development that delivers for passengers, local residents and taxpayers. Network Rail (NR) are also exploring the transport requirements and development opportunities around the existing Conventional Station. Furthermore, Transport for London have proposed a new Crossrail 2 line, which would stop at Euston-St. Pancras.

The arrival of High Speed Two (HS2) provides a huge opportunity to reconnect and regenerate a large area of central London and create a truly unique and amazing new piece of city alongside an integrated modern station, comprising of 4 stations in one. The masterplan aims to set out a flexible framework to enable this redevelopment to occur over the next 10-50 years.

Landowners and Stakeholders

The Euston Stations Masterplan was commissioned by HS2 Ltd on behalf NR and the Secretary of State for Transport on behalf of the Department for Transport (DfT), as the landowners at Euston. This masterplan seeks to provide a spatial depiction of their vision set out below. Key stakeholders, including London Borough of Camden, Greater London Authority, Department for Communities and Local Government and Transport for London, who alongside the landowners form the members of the Euston Stations Strategic Redevelopment Board, have been engaged throughout the masterplanning process to support the development of the Masterplan and to create a shared design vision for the future of Euston. Together stakeholders agreed a set of 5 key principles to support the development of the masterplan as set out below.

Ensuring that these aspirations are reflected in the masterplan, along with the technical requirements for each stakeholder, requires a level of understanding from all parties; this has been achieved via a series of briefings, workshops and presentations with either a combination of stakeholders or individual stakeholders. This assessment process, agreed with HS2, enabled a cross-flow of information throughout all the masterplan stages. The design team was encouraged that whilst all parties do not always agree, the key focus has always been - and should continue to be - the regeneration of Euston and its enormous potential that should be exploited.

Landowners Vision

- **Euston will be comprehensively redeveloped and transformed into a wonderful place to live and work with a mix of communities, great architecture and open spaces, including high quality affordable housing which also meets the needs of existing communities.**
- **Euston's commercial proposition firing up the local, regional and national economy with a significant development proposition, job creation and economic impacts, seizing the opportunity to enhance Euston's role as a knowledge and creative industry base and to support existing local businesses.**
- **Euston as an integrated world class transport hub with excellent interchange and onward travel connections which integrates with the surrounding streets and provides a high quality gateway to central London.**
- **Euston making a meaningful financial contribution to the delivery of transport infrastructure.**

5 Key Principles

1. **One station comprising of four stations, ensuring resilience for future operations and maintenance**
2. **Efficient interchange between all modes of transport**
3. **Improved legible public and open space for Euston**
4. **New active streets that provide easy, intuitive access as well as providing excellent north-south and east-west permeability**
5. **An optimised development strategy**

Redacted under Regulation 12(5)(e)

Redacted under Regulation 12(5)(e)

The Ambition

The Euston Stations Masterplan seeks to create a flexible framework and vision that creates a new place and identity at Euston, whilst uniting the four Euston stations with a single coherent identity that is both legible and easy to use.

The masterplan has degrees of focus, with a greater degree of detail for aspects related to the HS2 stations and London Underground connections to facilitate the progression of this in progress HS2 station design. Other aspects, such as proposed Crossrail 2, are still at an embryonic stage, thus less focus is provided within the plan. The masterplan considers Euston holistically, as a place and an interchange. In particular, the masterplan considers the HS2 and NR stations and track areas within one plan, rather than as separate places, although the design development of HS2, and the possible redevelopment of the Conventional Station will be led by different parties.

The Challenges

There are a myriad of challenges that the masterplan must overcome to ensure the success of the scheme. Some of the key challenges include:

- Permeability, level changes and legibility across the site.
- Managing interfaces and requirements between the four stations, surface transport development and surrounding neighbourhoods.
- Accommodating the required provision of quality public open space and the aspiration for softscaped areas in particular mature trees.
- Threading development through the existing and proposed transport infrastructure, whilst balancing the development massing appropriately within the London View Management Framework corridors and local townscape and heritage setting.

In order to deal with these challenges, it is essential that the masterplan is as flexible as possible - whereby some areas of the masterplan may need to be fixed earlier than others. This requirement has influenced how the team has approached the design development.

The Opportunities

Euston offers more opportunities than merely being an inter-modal transport hub. Some of the key opportunities identified are:

- Creating a strong identity and destination for Euston with a clear aspiration for land-uses within the surrounding context.
- Integrating the proposed development and interchange in to the existing area and enhancing the surrounding communities.
- Creating a sitewide greening and environmental strategy of quality public space connected by clear, legible linkages across the site.

Various opportunities were identified early in the design process addressing areas such as development, surface strategies and people movement. The exploration of these opportunities allowed a framework to emerge which identifies a series of common working assumptions, agreed by all landowner's and stakeholders. This framework forms the basis of the masterplan documented herein.

Overarching Vision

The redevelopment of Euston offers huge opportunity for the local area, London and the United Kingdom, creating a new place, well connected transport interchange, new jobs and economic activity, and new homes. The redevelopment has the potential to create a new destination that adds significant value by creating good quality public space that is open to all whilst benefiting from clear sight-lines and connections that will improve the legibility of the place and create a permeable new piece of city. This extension of the urban grain should help to integrate communities with the improved transport interchange by building upon the heritage and assets of the current area, creating new inter-related character neighbourhoods that complement the surrounding context.

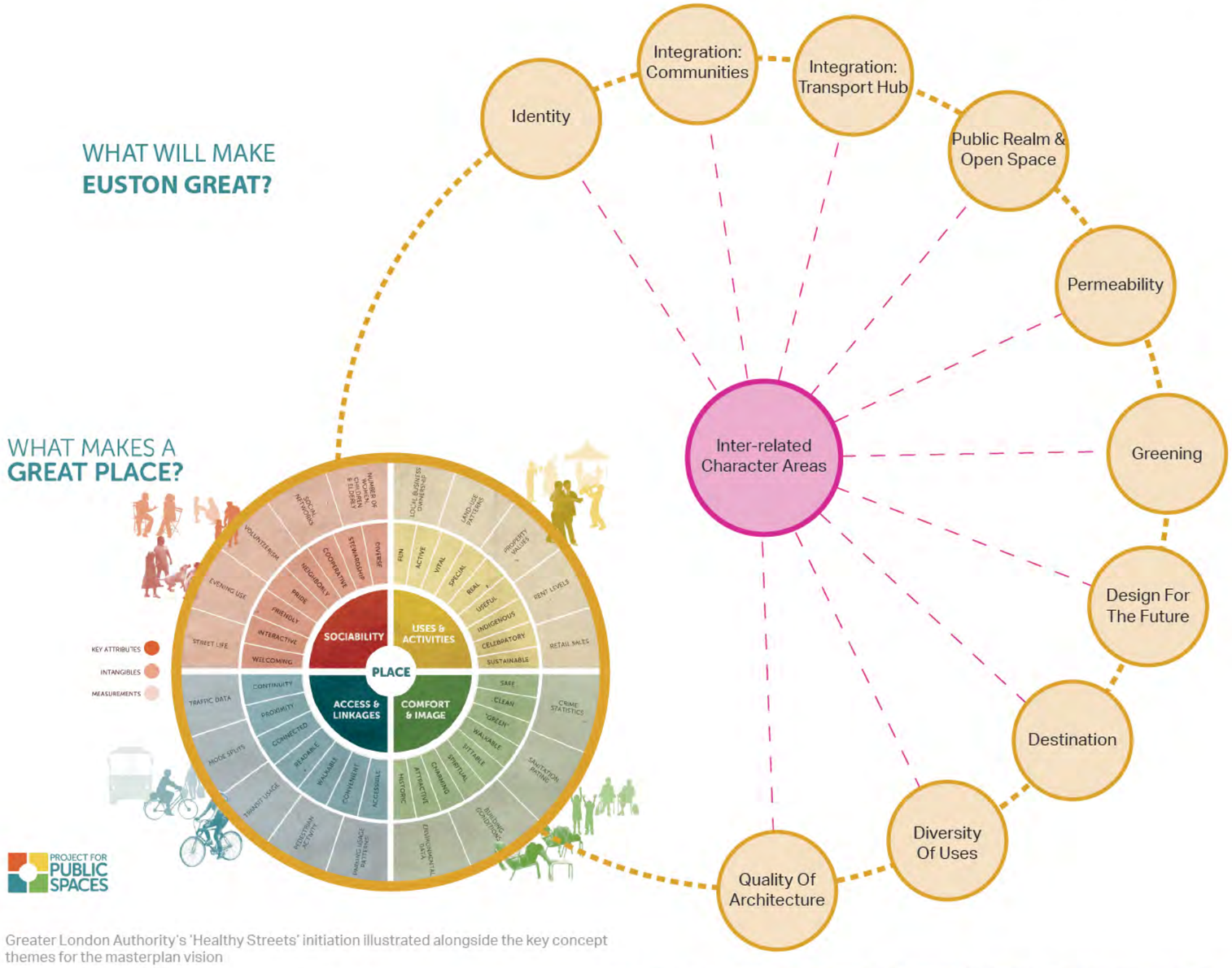
The masterplan shows how these places can be linked together with good pedestrian and cycle routes in order to create a permeable and accessible place on all levels from below ground to above ground. The nature of the place will be shaped through a cohesive and holistic improved environment and development strategy that will bring to Euston and London unrivalled new opportunities into the future.

HS2 Design Vision:

HS2's design vision aim is "to enhance the lives of future generations of people in Britain by designing a transformational rail system that is admired around the world." The vision is based on three core design principles of people, place and time:

- People "Design for everyone to benefit and enjoy"
- Place "Design for a sense of place"
- Time "Design to stand the test of time"

The masterplan seeks to embrace the HS2 design vision by designing in accordance with these 3 principles.



Greater London Authority's 'Healthy Streets' initiation illustrated alongside the key concept themes for the masterplan vision

Concept sketch of a new piece of 'green' city within the Euston area

World Trade Center, New York | Interchange provides a high quality architectural space that draws visitors beyond transport passengers, supported by active retail

Hudson Yards, New York | Inhabitable roofscape built over railway tracks with associated commercial development

High Line, New York | Above ground pedestrian linkages provides green connections

Plan illustrating the inter-related character areas

CIBC Square, Toronto | Landmark architectural solutions above a station

Birrarung Marr, Melbourne | Greenery offers respite from urban conditions

St. Pancras New Church | Local heritage assets

Drummond Street is an existing lively streetscape

University College, Bloomsbury | Surrounding heritage and cultural assets

Regent's Canal, Camden | Surrounding vibrant neighbourhood

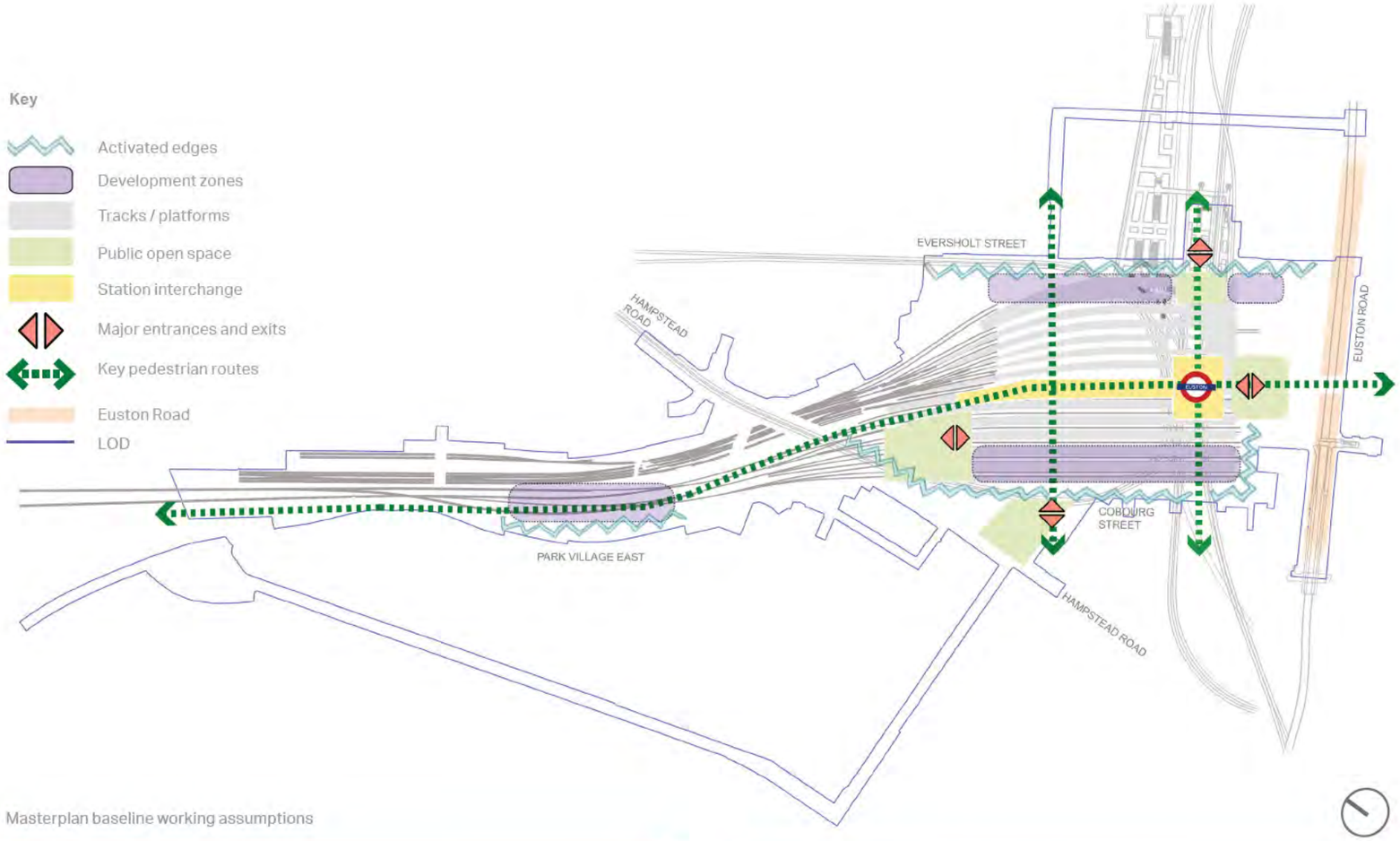
The Framework

Early in the masterplan process a set of common working assumptions to underpin the masterplan were agreed by the landowners and stakeholders, set out here. This framework establishes the baseline for the masterplan, and once delivered will represent a significantly different Euston to that of today, with greater accessibility, connectivity, permeability, economic activity, and a more integrated place and station environment. This framework should now underpin all future feasibility, planning, and design work for Euston station and surrounds.

The Options

As part of the masterplanning process a set of options were developed which built on the framework assumptions. The options explored different levels and locations of development opportunities to optimise the site's development potential. The key aim was to make the best use of the new space above and around the station as well as the approaches and regeneration of the wider area. These options considered the complex constraints of the site, both underground and above ground, including London View Management Framework (LVMF), proposed and existing infrastructure, as well as complex and often conflicting stakeholder aspirations.

Seven options and one sub-option were agreed in July 2017 by the Euston Management Board, which ranged from 'minimal development' to 'maximum development.'



Masterplan baseline working assumptions

- A north-south Link across the stations site
- Two east-west links across the stations site
- Station entrances on all four sides of the station
- Active edges to the eastern and western elevations of the site
- Public realm on all four sides of the station adjacent to entrances
- Perimeter development on the western side of the station along Cobourg Street

- Development over and adjacent to the HS2 station in line with the HS2 OSD Outline Business Case
- Perimeter development on the eastern side of the station along Eversholt Street
- Development in the northern development zone
- Fixed locations for HS2 tracks and platforms
- Efficient transport interchange
- High Speed Rail (London - West Midlands) Act 2017 obligations including in respect to the reprovision of open space, surface transport, London Underground, and Crossrail 2

Redacted under Regulation 12(5)(e)

Redacted under Regulation 12(5)(e)

The Masterplan

Following the option process and the agreed framework, a single masterplan arrangement was selected to be developed and documented in more detail.

The masterplan can be summarised by the following features;

- Activated station edges with perimeter development.
- Improved network of streets throughout the new and existing surrounding neighbourhoods.
- New east-west and north-south links connecting across the station improving site-wide permeability.
- Re-orientated Euston Square Gardens creating legible links.
- Development and parkland bridging across the Camden Cutting.

Redacted under Regulation 12(5)(e)

- Phased delivery over the next 15+ years.

Additional opportunities to enhance the baseline masterplan have been identified which can be explored as the masterplan gets developed in future stages.

Development Strategy

The masterplan development strategy aims to deliver a variety of built form, both in terms of scale and land use, that seek to meaningfully integrate with the existing community as well as create a new series of character areas around the site, each with their own focal points and centres of life.

Primarily, commercial development is focused to the south of the site with the main residential zone located in the north. While this is partly due to land use constraints imposed by the station, this configuration also largely responds to the existing urban fabric of the Euston area and maximises the potential for the development to integrate with the surrounding community.

Diagram illustrates development land-use, areas and number of storeys

Key Facts And Figures

- Circa 19,200 new jobs
- Circa 1,700 new homes
- Over 68,400sqm of public open space
- Over 450,000sqm of Gross Developable Area excluding station accommodation
- 22 new mixed use buildings

Gross External Area (GEA) Summary by Land Use

- Circa 250,000sqm of commercial floor space across 11 plots
- Circa 165,000sqm of residential floor space across 8 plots
- Circa 3,200sqm of retail floor space excluding in station retail
- Circa 22,500sqm of hotel space in 1 plot
- Circa 9,500sqm of community floor space

Redacted under Regulation 12(5)(e)

Public Realm Strategy

The masterplan explores the key opportunities to connect the new development to the surrounding neighbourhoods and communities. The landscape and public realm concept is inspired by the context and the varied character of the existing surrounding open spaces; the interesting transition of character from the city grid and civic qualities of Bloomsbury in the south to the more fluid and informal spaces moving northwards to Camden. Developing northwards over the rail tracks opens a fantastic opportunity to create a new north link in the form of a linear park that can connect to Regents Park and lock in with surrounding streetscapes along its length, providing a key piece of green infrastructure for this part of London.

The masterplan enhances the existing road network by improving streetscapes, upgrades to existing public realm, providing new 'green routes' and activated street edges. New links are designed within the station footprint to stitch into the existing network of streets to create a highly permeable Euston area.

Surface Transport Strategy

The masterplan proposes a number of changes to the surrounding street network, focused on improving pedestrian, cycle, bus and taxi accessibility to and from Euston Station. Euston Station is one of the most accessible locations in central London by public transport, walking and cycling and therefore is an appropriate location for car-free development. Enhancements include:

- Wide, signal controlled shared surface crossings, accommodating pedestrian desire lines and encourage walking and cycling

- Reorientating the bus interchange in the south-east corner to improve the legibility, quality of public realm and pedestrian permeability

Redacted under Regulation 12(5)(e)

- Creating pedestrian and cycle priority thoroughfares, such as Cobourg Street, with restricted vehicle access for taxis and servicing vehicles.

Redacted under Regulation 12(5)(e)

Delivery

The aspiration to deliver the masterplan scheme spans over three complex stages – Stage A 2018-2026, Stage B1 2026-2033 and Stage B2 unphased from 2026 - for three different projects, HS2, NR and the proposed CR2.

The station and enabling works for plots above the HS2 station and approaches are a committed project with a funding plan in place. The phased delivery of the station and OSD enabling works are due to commence in 2018. Stage A will see the delivery of 6 HS2 platforms and the enabling of the western development with phased plot release dates. Stage B1 sees the completion of the HS2 station and release of the remaining western plots for development. The remainder of the masterplan is unfunded and requires work to identify and secure funding for delivery. As such project time-frames are evolving and requires further development with NR and CR2 to ensure the holistic masterplan vision for Euston can be realised.

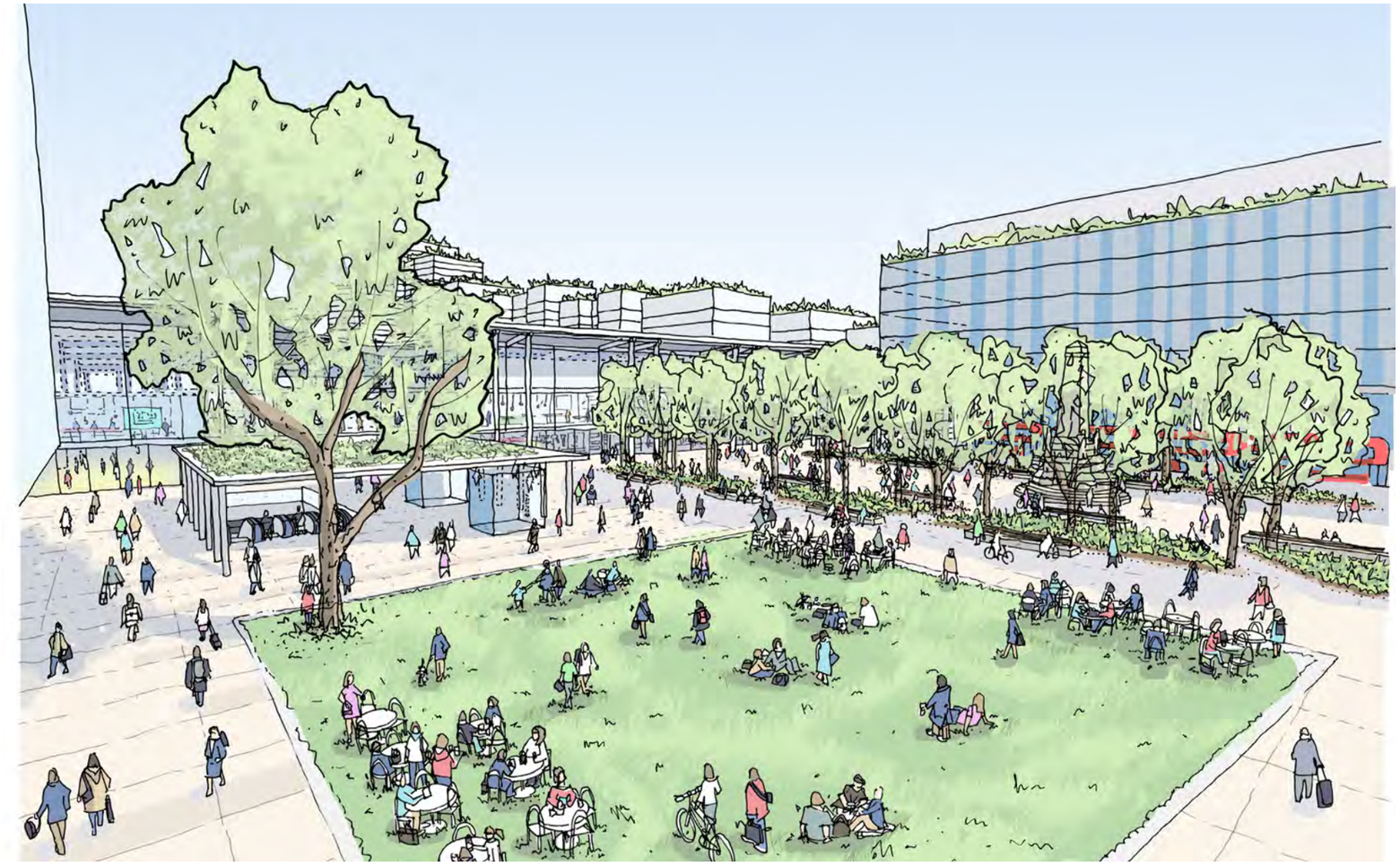
This masterplan is extremely complex with many interested parties and years' worth of consultation and potential compromises to follow. In order to realise this masterplan the risks should be acknowledged and addressed, where possible, early on in the development process. Some of the key risks, relevant in different ways to a number of the landowners and stakeholders should be acknowledged. These have been identified and include the following:

- Key stakeholders losing support for the masterplan and/or not adopting the framework, which may result in a suboptimal development for the Euston area.

- Stakeholder requirements may not be met and compromises may not be accepted by the stakeholders involved.

- Delivery of public open space on such a constrained site; this includes quantum of provision, location and quality of open space, the proposed reconfiguration of Euston Square Gardens and the phasing of delivery of open space.

- Phased delivery and securing funding of the entire masterplan site



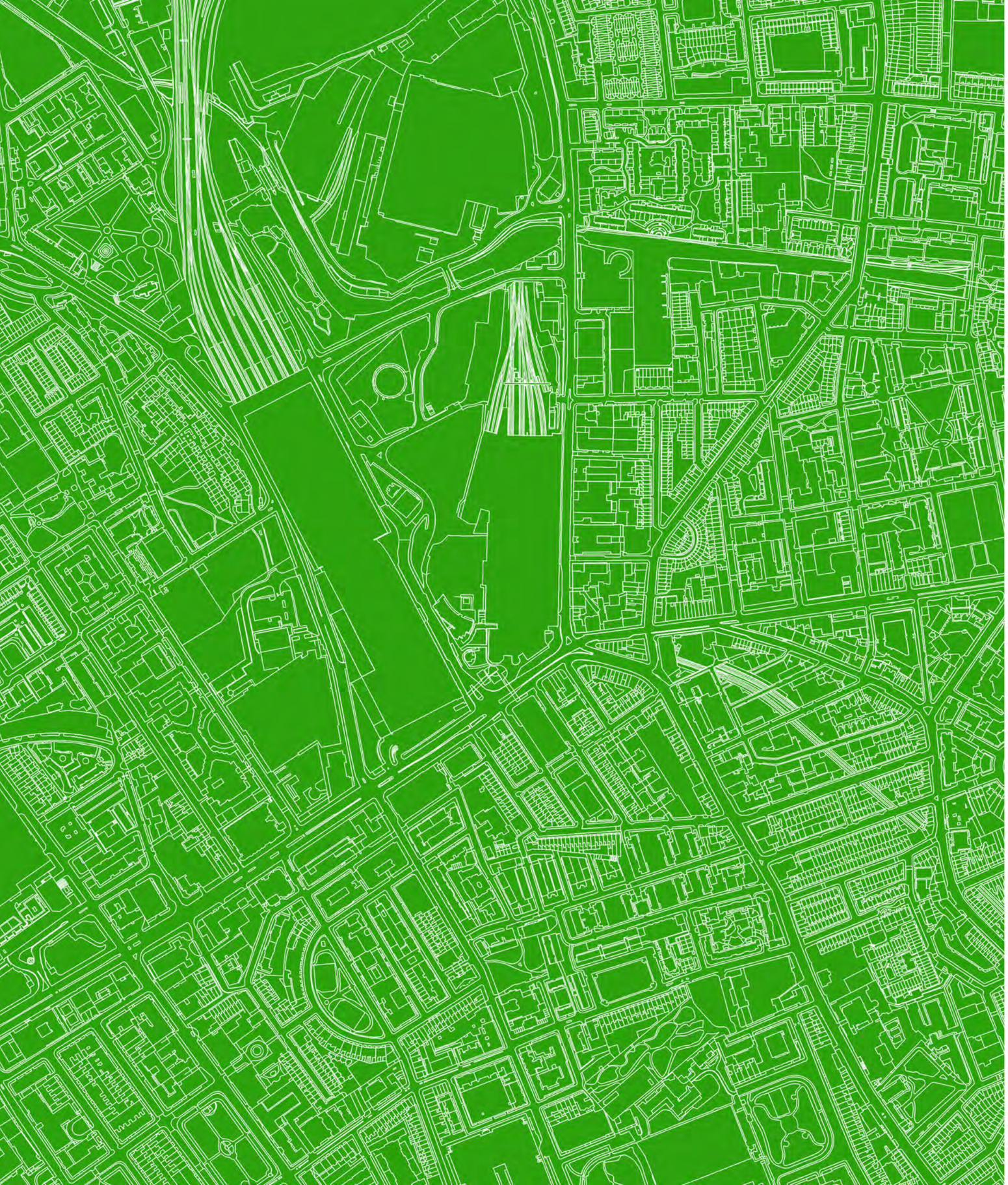
View looking towards Euston Station across the Civic Heart

Recommendations and Conclusions

The Euston Stations Masterplan creates a flexible yet robust framework to guide the development at Euston into the future. To be delivered, key elements need to be incorporated into the feasibility, design development, and planning work of HS2, NR, London Underground, Crossrail 2, the London Borough of Camden and the Master Development Partner.

Alongside, the Euston Station Strategic Redevelopment Board is anticipated to continue to consider the strategic vision for Euston station and wider masterplanning. Strategic and working level coordination between stakeholders is going to be vital to achieving the aspiration of 'One Euston' rather than a series of disconnected places and stations.

As the project moves forward, it will be important to maintain the momentum in 2018, and to start to engage with a broader set of stakeholders and local communities to inform the further development of the masterplan, and various station developments, prior to an Outline Planning Application being developed by the Master Development Partner. This masterplan seeks to provide a firm basis for this work moving forward, in order to create a truly exceptional and unique place and transport interchange, presented as a result of the redevelopment at Euston generated by the arrival of HS2.



Introduction

1 Introduction

Redacted under Regulation 12(5)(e)

1.1 Masterplan Overview

The Euston Stations Masterplan was commissioned by High Speed Two (HS2) Ltd on behalf of Network Rail (NR) and the Secretary of State for Transport, who together will own the land shown within the blue line boundary on the adjacent image. The plan has been developed in collaboration with key stakeholders at Euston: London Borough of Camden, Greater London Authority, Department for Communities and Local Government, and Transport for London, who alongside the landowners, form the Euston Stations Strategic Redevelopment Board. This Board seeks to provide leadership and coordination between stakeholders for the redevelopment at Euston, and champion the creation of much needed new homes, jobs, and opportunities for local people, Londoners, and the UK more widely, whilst simultaneously creating a truly unique and amazing place.

The area is bounded by Euston Road to the South, Eversholt Street to the East, Hampstead Road to the West, and stretches North into Camden. The Masterplan identifies the significant development and regeneration potential presented by the arrival of HS2, the possible redevelopment of the Conventional Station owned and operated by NR, the proposed introduction of Crossrail Two, and the redevelopment of the existing London Underground Station. It considers Euston as one station comprising of four stations and a multimodal interchange, with the potential for development along its perimeter and above the stations and tracks, and sets out proposals for the creation of an exciting new piece of city and an integrated transport hub.

The masterplan process involved analysis of the site, identification of opportunities, development of a vision for Euston, establishing a framework with baseline working assumptions agreed by all stakeholders, configuration of options and the further development of a single option, all set out within this report.

Euston Stations Masterplan programme

1.2 Purpose of Report

This report has been developed during 2017 to create a shared understanding by landowners and stakeholders of the constraints and opportunities presented at Euston, to improve the collaboration between stakeholders at Euston on future development plans, and to identify shared principles underpinning the future vision for Euston. It has informed and will continue to influence the development of the HS2 station design at Euston and the approach to development over the HS2 tracks to the north of the station. It is informing the feasibility work being undertaken by NR in relation to the potential redevelopment of the Conventional Station. It will inform the development of the Euston Planning Brief to be developed by the London Borough of Camden, and the plans for Crossrail 2.

Importantly this report will also provide an incoming Euston Master Development Partner (MDP) - currently being procured by HS2 Ltd on behalf of the landowners - with a baseline plan from which to work and then develop. The MDP will be responsible for taking forward development over and around the station and tracks at Euston on behalf of the landowners.

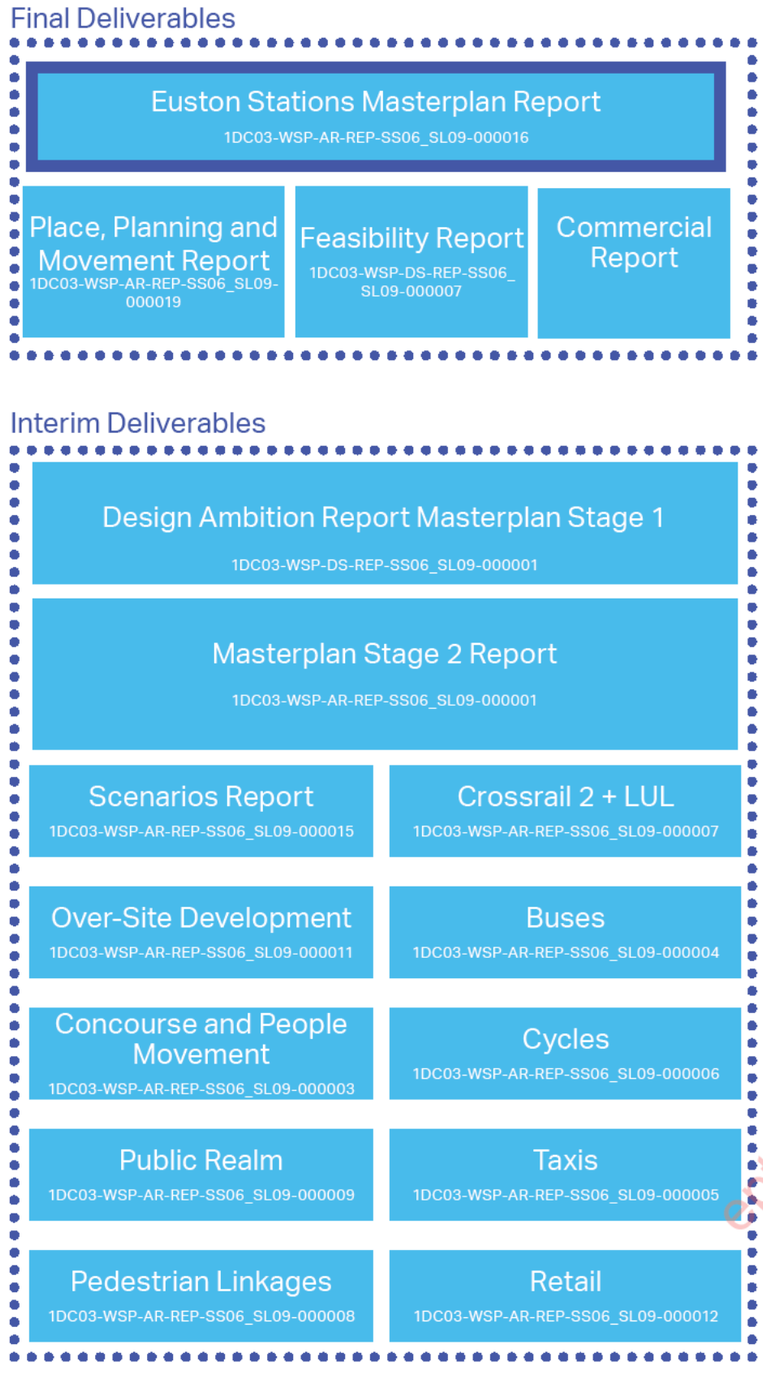
In taking forward the Masterplan further research and analysis shall be needed to capitalise on this once in a lifetime opportunity. The masterplanning to date has been predominantly an exercise with internal and key external stakeholders only. In the MDP's development of the strategies and plans towards submission of an outline planning application the MDP will need to work in conjunction with a far wider set of stakeholders and initiate substantial community engagement. This report can form the baseline document to inform and guide this future work.

The report is divided into several parts which document the masterplanning process and final outcomes. The 'Brief and Context' outlines the aspirations of the landowners and stakeholders which inspired a unified set of key principles to guide the masterplan design development. The 'Masterplan Vision' has been developed to set out clear statements of aspiration about the future of Euston as a place, informed by the numerous and diverse visions that exist for the area. The 'Constraints and Considerations' address the complex challenges for development within the masterplan scope boundary. The 'Masterplan Process' documents the identified opportunities for the site, the development of working assumptions into a framework agreed by all landowners and stakeholders, and the 8 options that were explored and tested against a set of criteria.

The single selected option is explored in 'The Masterplan', with supporting technical information in 'Feasibility' and 'Delivery'. 'Scheme Variables' documents the 'what ifs', should the redevelopment of the Conventional Station not be realised or if proposals for Crossrail 2 do not come to fruition. For opportunities to build further on this masterplan refer to 'Further Opportunities'. The final part of the report provides conclusions and recommendations for consideration in future design work.

The report should be read in conjunction with a suite of supporting documents that cover strategies, opportunities and supporting material in greater detail. References for these documents are set out in the adjacent Final Deliverables' diagram.

A considerable amount of time was spent with the landowners, stakeholders and relevant boards to capture requirements and design considerations to arrive at the masterplan scheme. The Appendices contain a full list of assumptions and requirements which underpin the scheme.



Redacted under Regulation 12(5)(e)

1.3 Definitions

The following terms are used throughout the report to explain certain design processes:

Options:

Options were used to support the process of selecting the masterplan scheme set out in this document. These masterplan arrangement 'options' are primarily focused on the quantum and location of development and public open space, also referred to as the 'core variables' of the masterplan.

Opportunity Studies:

Analysis and development of sixteen opportunities identified as part of the early masterplan design stages, produced in silo, e.g. surface strategies, retail strategy, etc. A list of these studies can be found in Part B.

Framework:

The framework presents the minimum requirements or 'working assumptions' for the masterplan as agreed by all landowners and stakeholders.

Scenarios:

A design tool used to test the masterplan framework by assembling various opportunity study options together which were deemed the most technically feasible by the design team.

Abbreviations

HS2 - HS2 Ltd

FSD - Functional Specification Design for the HS2 Station

NR - Network Rail (The Conventional Station)

OSD - Over-Site Development

LUL - London Underground Limited (department body)

LU - London Underground

CR2 - Crossrail 2

AP03 - High Speed Rail (London-West Midlands) Act 2017

LoD - Limits of Deviation

LBC - London Borough of Camden

EAP - Euston Area Plan

GLA - Greater London Authority

DCLG - Department for Communities and Local Government

TfL - Transport for London

NDZ - Northern Development Zone

SDZ - Southern Development Zone

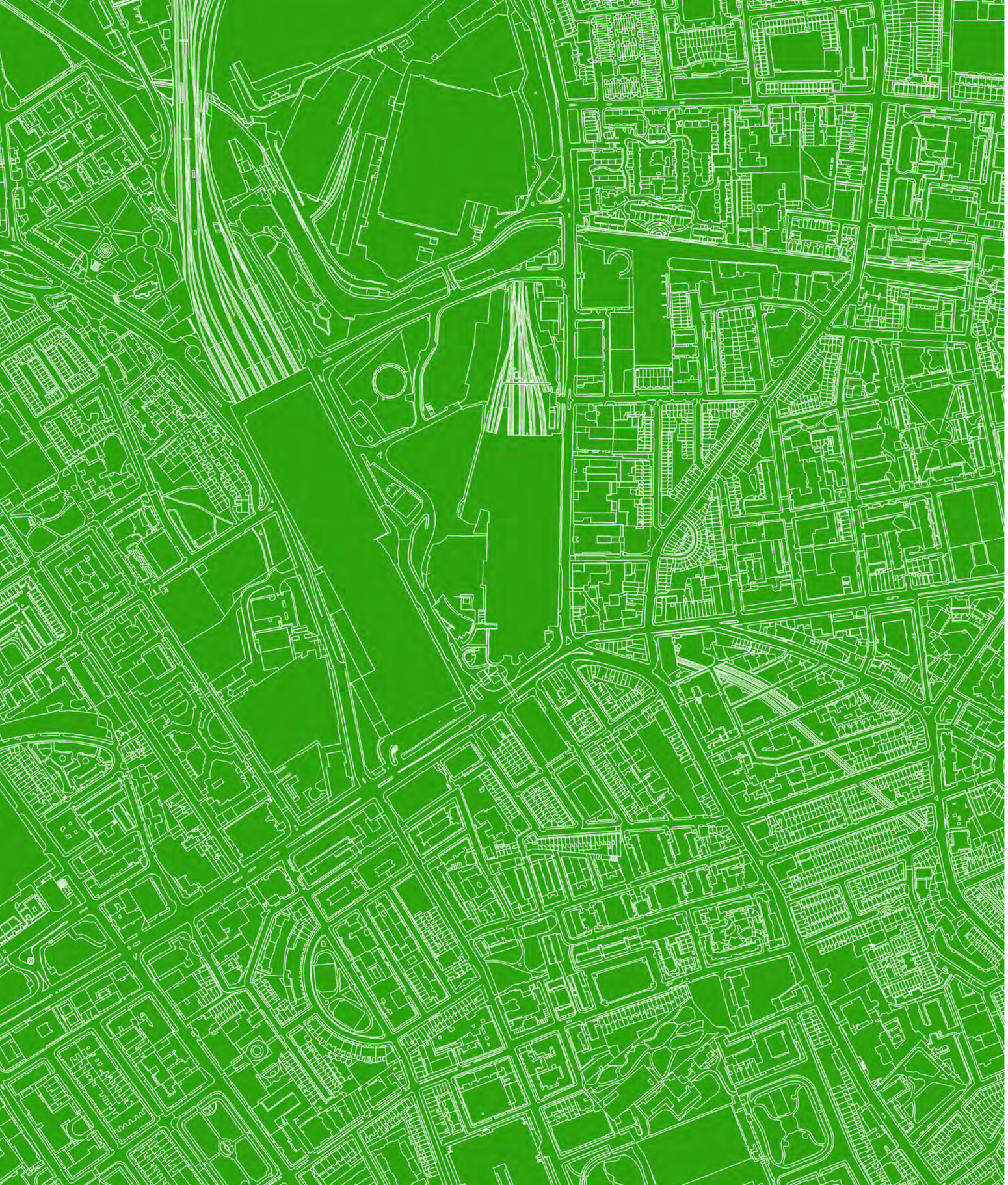
WDZ - Western Development Zone

EDZ - Eastern Development Zone

Redacted under Regulation 12(5)(e)

Photograph of the physical model of the masterplan

Redacted under Regulation 12(5)(e)



Part A
Brief and Context

1 Brief

1.1 Overview

The arrival of HS2 at Euston presents an exciting opportunity and can act as the catalyst for the regeneration of Euston and the surrounding area. There are many complex interfaces and constraints across the site. The challenge was to create a deliverable masterplan that is capable of achieving the vision for Euston and ambitions of HS2 Ltd, NR and the Department for Transport. All whilst seamlessly providing for local communities and aligning with plans and aspirations from the London Borough of Camden, Greater London Authority, Transport for London and Crossrail 2.

1.2 Landowners

The masterplan scope boundary is collectively owned by NR and the Secretary of State for Transport. HS2 Ltd are under contract with the Secretary of State to deliver, manage and operate the high speed Railway. The proposals for the site are at various stages of development with enabling works for HS2 due to commence following the passing of the High Speed Rail (London-West Midlands) Act. The key points illustrated in 'Landowners Vision' represent a unified vision for Euston

1.3 Stakeholder Engagement

A significant stakeholder engagement process has been conducted throughout the masterplan programme. This is reflected within the masterplan framework, the overarching vision for Euston and the emerging masterplan. Regular workshops have been held with landowners and stakeholders including, but not limited to HS2, NR, DfT, GLA, LBC, DCLG and TfL (including CR2).

There are many common aspirations amongst stakeholders. It is paramount to the success of the masterplan that these common aspirations are upheld throughout the ongoing masterplan design process and culminate in their realisation. These common aspirations can be summarised as follows:

- One destination.
- Enabling of OSD and commercialisation.
- Permeability and seamless connections.
- Enhancing the station presence.
- Activation and improved frontages.
- Functionality and operations.
- Cohesive surface strategy for buses, taxis and cycles.
- Placemaking.

It is essential that the masterplan is flexible yet robust enough to accommodate a variety of varying scenarios within the fixed framework. This flexibility will allow stakeholders to develop and test emerging and conflicting requirements and designs moving forward in to subsequent design stages for the next 10-15 years.

The stakeholder engagement process has occurred via a series of briefings, workshops and presentations with either a combination of stakeholders or individual stakeholders. This data gathering, workshopping and iterative assessment process enabled a cross-flow of information throughout all the masterplan stages. The design team was encouraged that whilst all parties do not always agree, the key focus has always been - and should continue to be – the regeneration of Euston and its enormous potential that should be exploited.

Landowners Vision

- **Euston will be comprehensively redeveloped and transformed into a wonderful place to live and work with a mix of communities, great architecture and open spaces, including high quality affordable housing which also meets the needs of existing communities.**
- **Euston's commercial proposition firing up the local, regional and national economy with a significant development proposition, job creation and economic impacts, seizing the opportunity to enhance Euston's role as a knowledge and creative industry base and to support existing local businesses.**
- **Euston as an integrated world class transport hub with excellent interchange and onward travel connections which integrates with the surrounding streets and provides a high quality gateway to central London.**
- **Euston making a meaningful financial contribution to the delivery of transport infrastructure.**

It is recommended that there are a number of key, influential stakeholders that should be invited to engage with in the near future, including, but not limited to Railway Heritage Trust, Bloomsbury Conservation Area Advisory Committee, Historic England, Euston Arch Trust, Regent's Park Conservation Area Advisory Committee and Camden Town Conservation Area Advisory Committee.

1.3.1 Requirements, Aspirations and Design Considerations

For a full list of landowner and stakeholder requirements, aspirations and design considerations that came were discussed or documented during briefing meetings, workshops, presentations and briefing notes refer to Appendix F.

1.3.2 Euston Area Plan (EAP)

The following eleven objectives for the Euston Area Plan, which represent a unified vision for the London Borough of Camden, Mayor of London and Transport for London are set out below. For details on the stakeholder aspirations for Euston, including land-use strategies, spatial concepts and summary of the key issues, refer to the EAP.

Euston Area Plan Objectives

1. **Prioritising local people's needs**
2. **Securing excellent design**
3. **Making the best use of new space above the station and tracks and opportunities for regeneration in the wider area**
4. **New streets above the station and tracks**
5. **Boosting the local, wider London and national economy by reinforcing existing economic assets and businesses**
6. **Creating sustainable development**
7. **Improving the environment along Euston Road**
8. **Promoting sustainable travel**
9. **Enhancing existing public transport**
10. **Planning for future public transport**
11. **Deliver a new world class Euston station and integrated development**

The key points are found in the Euston Area Plan (Jan 2015) and represent a unified vision for London Borough of Camden, Greater London Authority and Department for Local Authorities

1.3.3 Euston Strategic Review

The Euston Strategic Review was a response to the perceived issues of the High Speed Rail (London-West Midlands) Act 2017 and has informed the development of the masterplan.

The Euston Strategic Review was designed to bring together key stakeholders in order to identify shared outcomes, constraints and issues, and aid the development of the brief for the stations masterplan, although NR were unable to support the outcomes, stating that it did not appropriately represent the challenges and constraints of the NR station.

Euston Strategic Review

1. **Spine building is perceived as a barrier dividing the two stations.**
2. **Opportunities to improve open space to rear, bordered with taxi and service routes – need to holistically plan for quality open space.**
3. **Linear bus street at front is a poor setting for OSD, new station and Euston Square gardens – could buses use existing streets?**
4. **Bus turning circle and welfare facilities at Eversholt Street take up valuable development space – potential location for taller buildings.**
5. **OSD layout – need to consider how OSD works across the site as a whole and maximise its potential above the station and tracks to create an integrated new piece of city – basement servicing is a priority to make this possible (not included in current HS2 design for OSD).**
6. **Are there opportunities to reduce impact of cycle parking on open spaces?**
7. **Front of the stations – whole area needs to be read as comprehensive whole.**
8. **Can emergency exits be incorporated into station footprint?**
9. **Taxi provision – sustainability impacts – more discussion would be helpful.**

Extract from Euston Area Plan Briefing Presentation.

1.4 Five Key Principles

In response to the brief, stakeholder and landowner visions and requirements, the design team have accumulated two output elements, namely the Five Key Principles and the masterplan framework. The following key principles draw on the collective vision for the Euston Stations Masterplan.

5 Key Principles

1. **One station comprising of four stations, ensuring resilience for future operations and maintenance**
2. **Efficient interchange between all modes of transport**
3. **Improved legible public and open space for Euston**
4. **New active streets that provide easy, intuitive access as well as providing excellent north-south and east-west permeability**
5. **An optimised development strategy**

1.5 Euston OSD Enabling Works

The Additional Provisions 3 (AP03) scheme for Euston was deposited to Parliament as an amendment to the original Hybrid Bill; the Bill received Royal Assent in February 2017, becoming the High Speed Rail (London - West Midlands) Act 2017. This included design for enabling OSD above the station and approach tracks.

Additional work had been subsequently carried out to consider the change to the scheme within the existing Bill powers including the layout, configuration and height of the proposed OSD blocks to be enabled. This HS2 design development was underway at the start of the masterplan commission. The masterplan team was required to deliver at least the same level of development area over HS2 as within the High Speed Rail Act 2017 approved scheme.

2 Context

2.1 Overview

Euston has a rich history and is bordered by precincts that in turn have their own identities. These have the potential to be carefully stitched together to form an enriched piece of city in the heart of central London. The introduction of a new industry-leading station affords the area a unique opportunity to achieve such an ambitious urban design regeneration.

By analysing the existing site conditions and appreciating the numerous constraints and nuances the unique nature of the Euston area can be understood.

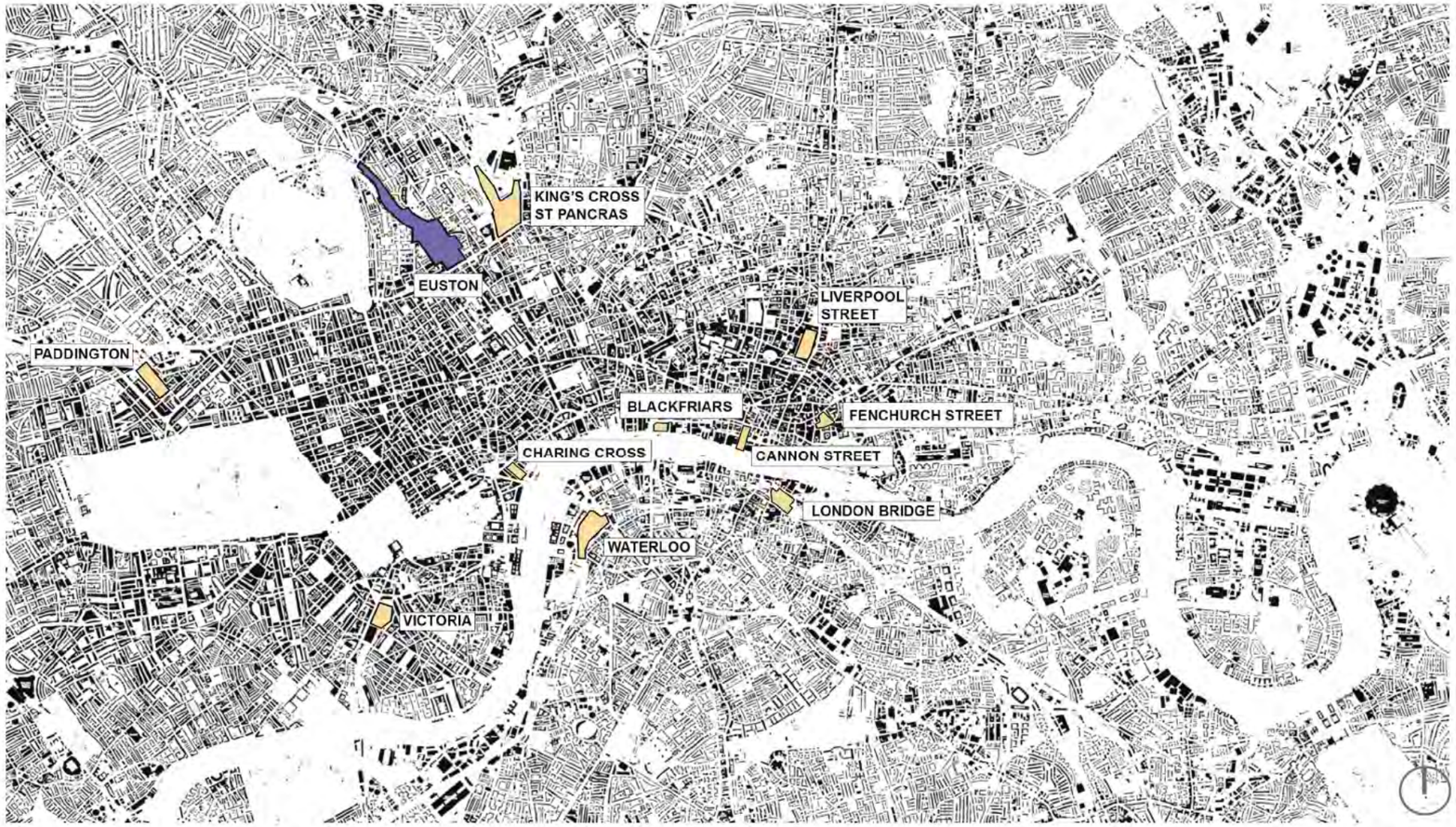
2.2 Site Context

The site for the masterplan is located in central London, with the Conventional Station to the east, the incoming HS2 station to the west, Euston Road to the south and extents into Camden Town in north London. Euston sits in the transition zone between the formal landscaped squares and interrelated grid of streets around Bloomsbury to the south and the more arbitrary layout of residential areas and neighbourhoods to the north.

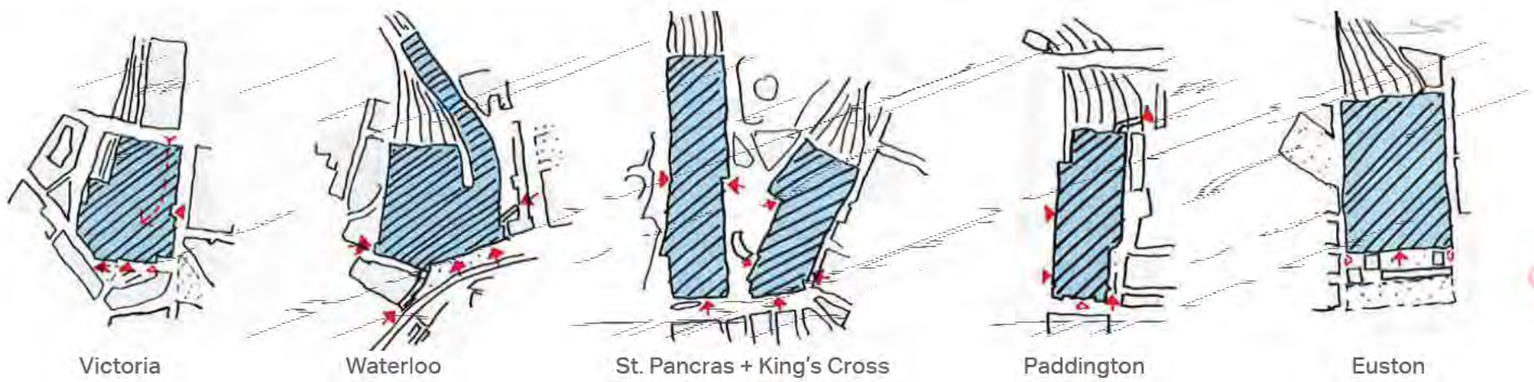
The area around the site is an eclectic mix of uses and character, incorporating the historic townscape of the Bloomsbury area, the institutional uses and architecture that have established themselves in the area over time, including the likes of the Wellcome Trust, the Royal Institute of General Practitioners and University College London, and the more compact and finer grain of Camden Town which gives way to a mix of residential areas, each with its own distinctive identity.

The immediate area has over time been shaped by significant transport infrastructure. The most major surface transport elements are:

- The West Coast Mainline, which terminates at the existing 1960's Euston station and which is the busiest passenger route in Britain;
- Euston Road (A501), which runs from Marylebone Road to King's Cross and forms the western entry into the London Inner Ring Road, which also marks the boundary of the London Congestion Charge zone;
- Hampstead Road (A400), which is one of the main north-south routes linking central London with Camden and North London.



Illustrating key stations in London - extracted from Euston Strategic Review Final Report Version 2.1 25/01/2017



Permeability diagrams comparing London stations

Redacted under Regulation 12(5)(e)

Redacted under Regulation 12(5)(e)

Redacted under Regulation 12(5)(e)

2.2.1 Linkages and Open Space

The existing station significantly hinders physical pedestrian linkages and connections to the surrounding communities by creating an impenetrable boundary. The key roads, Euston Road to the south and Hampstead Road running north-south, dissects the masterplan scope boundary in two.

Euston Road is an eight-lane dual carriageway which represents a significant barrier to pedestrian permeability south from Euston station. This is exacerbated by Euston Bus station, which has access for both entry and exit on Euston Road and Eversholt Street, which results in a low quality pedestrian route and experience.

The public open space offering is generous in the quantum of green space it provides. However, Euston Square Gardens to the south of the Conventional Station, is poorly sited, largely due to its proximity to Euston Road and is deficient in a protected edge of vegetation which most well used garden squares benefit from.

2.2.2 Listed buildings and Conservations Areas

The area is bound by several conservation areas with Bloomsbury Conservation Area to the south, Regent's Park Conservation Area to the West and Camden Town Conservation Area to the north. The site is within close proximity to listed buildings including the Grade I listed University College London and St. Pancras Church.

Any proposed development will have implications for the setting of heritage assets beyond the site boundary and potentially, therefore, their significance. Future planning applications associated with the masterplan, would be required to identify and assess effects on local townscape and heritage assets in more detail. Refer page 39 for further information regarding assets within the masterplan scope .

2.2.3 Urban Block Perimeter Analysis

The urban block perimeter analysis diagram illustrates the time taken for a pedestrian to walk around the perimeter of a city block, with purple / red signifying the shortest times and blue representing the longest times. Smaller blocks create a more permeable urban fabric with stronger connection and more intuitive wayfinding. A key consideration of the masterplan is how these travel times can be vastly improved.

These pieces of transport infrastructure and railway cutting represent barriers and constraints in terms of permeability, access and development at a local level. The existing Euston station occupies a large footprint with tracks which are at-grade and platforms which are end-loaded from the south. This results in a lack of permeability east-west across the site at street level, which is exacerbated by the blank façades of the station along Cardington Street and Eversholt Street.

Redacted under Regulation 12(5)(e)

2.2.4 Euston Station

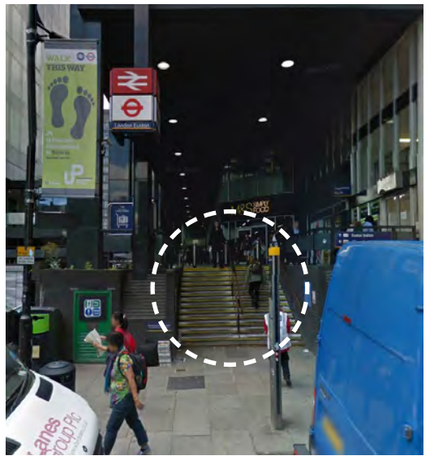
Amongst the myriad of challenges across the site, permeability is one of the primary drivers. Ensuring that the development site as a whole can be accessed and traversed in a variety of ways that tie into the surrounding communities, whilst also creating new and exciting routes, is a core principle of the masterplan. Improving permeability so that the stations can be approached and entered from all sides will allow the dispersal of the anticipated increased number of passengers. This will also help to ensure Euston is both a place and a station; the lines will be blurred between station and street, thus ceasing to be an impediment to local pedestrians who can pass through it. The benefits of a station with accessible and permeable pedestrian routes will contribute to Euston's regeneration and this is one of the key aims of the Euston Area Plan.

Other key challenges include significant level changes, compromised legibility and station unity, which collectively result in a compromised user experience. Some of the key features can be characterised as follows:

- East side of the site is higher than the west
- Crossing over tracks requires level changes
- Lack of accessibility
- Camden Cutting severs communities and creates an impassable barrier
- Lack of clear and convenient routes from the station to Euston Road due to a series of barriers including the bus station
- Restricted way-finding and visual links
- Overall poor impression and experience of the site
- Blank frontages to the east and west creating a poor pedestrian environment
- No northern access

1. 400mm level change between Euston Square Gardens to concourse level

2. 800mm level change from Melton Street to concourse level



3. 2 metre level change from Eversholt Street to concourse level

View along Eversholt Street looking south; the blank façades of the station (right) on the west contrasting the active edge on the east (left)

Bike stores are scattered across the site and, lately, along the platforms.

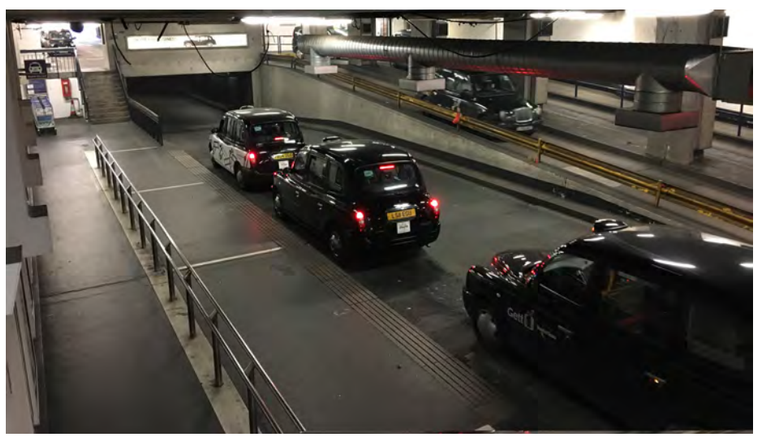
Access to the station from the gardens compromised by the existing bus station.

Existing view towards Euston Station from Euston Road blocked by bus traffic

Current bus stop locations under existing podium building

View looking north along Eversholt Street | Heavy north-south vehicle movement hinders pedestrian movement in the east-west direction. Permeability is made challenging by the existing railings around the Gardens

Taxi facility entrance off Melton Road creates significant barrier to pedestrian movement



Existing taxi facility located underground creates a poor customer environment

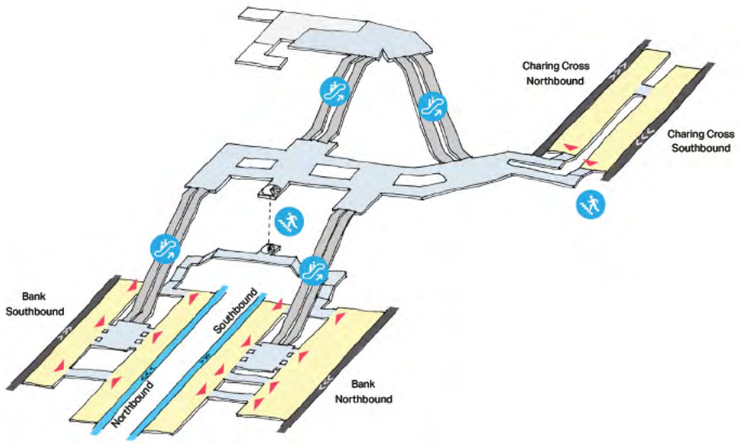
Euston Road crossings are broken by a median strip, slowing the process of crossing from the north to the south of Euston Road

Redacted under Regulation 12(5)(a)

2.2.5 Existing Transport and Surface Strategies

Generally the existing customer environments for taxis, buses and cycle facilities are poor and are no longer fit for purpose. Characteristics are as follows:

- The bus arrangement creates a barrier between Euston Road and the station
- Existing bus services will require additional bus stands and stops to accommodate future passenger forecasts
- Taxis are currently located underground and the vehicle fumes create an unpleasant passenger experience
- Insufficient cycle storage is provided for in the existing station, resulting in ad-hoc storage solutions, such as on the platforms



3D representation of the existing London Underground Network (Not to scale - for diagrammatic purposes only)

Existing plan of Euston Station

Existing weekday peak AM congestion on Euston Station concourse

Existing NR platforms dark and unfriendly


1. St. George's Gardens


2. British Museum


3. Granary Square


4. Drummond Street


5. Robert Street


6. Regent's Park


7. Pancras Square


8. Crick Institute


9. The British Library

10. Camden Town Market


11. Hampstead Road Locks


12. Camden Town

Redacted under Regulation 12(5)(e)


13. St. James' Gardens


14. Regent's Park Estate


15. Maria Fidelis School


16. Ampthill Estate


17. Regent's Park Village


18. Somers Town

2.3 Surrounding Neighbourhoods

The area is bounded by a diverse range of neighbourhoods, and is home to an equally diverse range of communities, land uses, character, density and value. Some of the key areas within the Euston Area Plan can be summarised as follows:

Euston Road forms part of Transport for London Road Network, and provides a strategic east-west traffic connection as well as a key pedestrian and cycle route. Euston road is home to a number of important commercial and institutional buildings of a grand scale.

Camden Cutting encompasses Park Village East and Mornington Terrace / Clarkson Row which look onto the historic railway cutting. These streets are characterised by listed residential properties which sit within conservation areas.

Drummond Street and Hampstead Road have a well preserved grid of historic terraces offering a mix of residential and commercial uses. Drummond Street is recognised for its specialist ethnic shops and restaurants. Hampstead Road provides an important north-south route from Camden Town through to central London.

Regent's Park Estate is a large post-war council estate, primarily residential blocks and maisonettes between 4 and 11 storeys with supporting community facilities, green spaces, shops and market squares. Robert Street, a key east-west link, is lined with shops and community facilities.

Ampthill is a council estate developed in the 1960s and includes a mixture of slab blocks, towers and open spaces.

Mornington Crescent is home to the Grade II listed Underground Station building and marks the beginning of Camden Town.

West Somers Town includes early social housing blocks and the neighbourhood centres of Eversholt Street and Chalton Street.

2.4 History of Euston

Euston is one of the oldest train stations in the country, first opening in 1837 and completely rebuilt in the 1960s. The masterplan site and its surrounds is home to a diverse range of historical assets, listed buildings and protected squares.

Any new development is generally required to have an appropriate relationship to the existing context, considering land use, height and massing and visual appearance, which is enforced through the town planning process.

Listed buildings will often have a significant effect on nearby development. Relocation or siting of historical assets also needs consideration, both in relation to original location and/or the proposed setting. A key example of a significant and contentious historical asset is the Euston Arch, originally designed in 1836 as a grand architectural statement for the new Euston Station, and later demolished in the 1960s.

Euston Square Gardens

Euston Square Gardens, a protected London Square, today includes only the northern part of the original early 19th century Euston Square, the southern part having been developed in the 1920s and 30s. Their significance, as part of the Euston Road Character Area of Camden's Bloomsbury Conservation Area, arises from the aesthetic value of the open space populated by trees and surrounded by railings, the Euston Grove north-south axis through the gardens with associated lodges (Grade II) and war memorial (Grade II*), and the historical relationship with the generally low scale buildings surrounding the square, many of which are also statutorily listed. The significance of the built elements within the space is currently 'harmed' by the bus station use, with buses dominating the axial route through the lodges from Euston Road and stranding the war memorial on a traffic island. The relationship of the gardens to the 1960s station and the later tall office buildings is poor, with an unresolved transition between the green space and the pedestrianised area further north.

Building of Euston Station commenced

1835-1838

Statue of George Stephenson

1857

1860s

Euston Lodges

Statue of Robert Stephenson

1846

Great Hall Added

New station proposal never realised due to 2nd World War

1930s

New Euston Station Complete

1968

1961

Demolition begins

1994

Parts of Euston Arch discovered in the Prescott Channel

British Land wins tender to demolish the 40 year old building

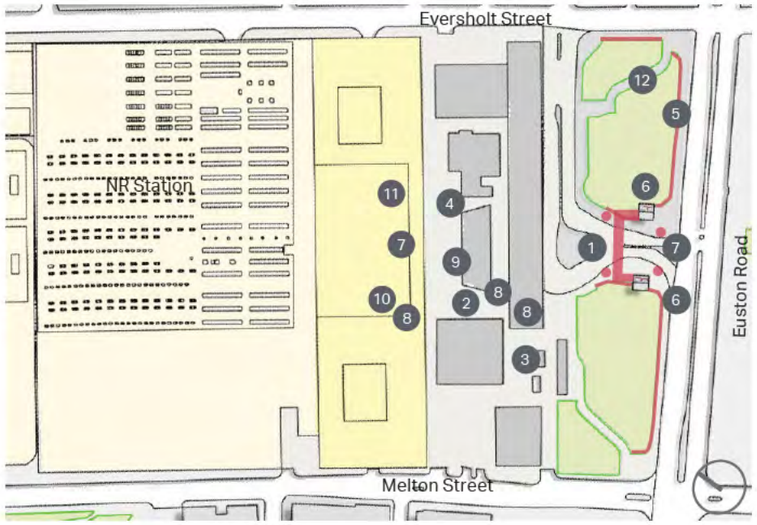
2007

2011

Government launches national consultation, *High speed rail: Investing in Britain's future.*

HS2 achieves Royal Assent for high speed rail into Euston

2017



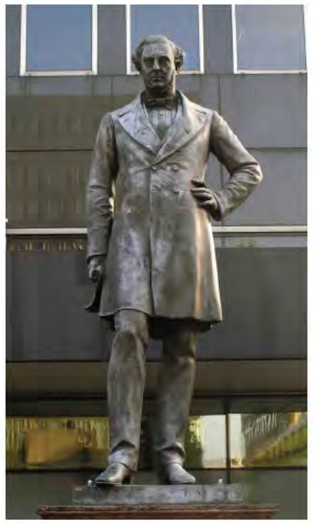
Existing location of historical assets

Heritage Assets	
1	War Memorial
2	Statue of Robert Stephenson
3	'Piscator' sculpture
4	Statue of Captain Flinders
5	Railings around Euston Square Gardens
6	Euston Lodges, walls and underpass
7	Early 20th Century malp posts
8	Silver Jubilee Walkway plaques
9	Four stone 'Time Benches' with stone paving
10	Plaque to Asqish Xavier
11	Plaque to Lance Corporal John Alexander (Jock) Christie VC
12	Plaque to the public and railway workers who lost their lives on the railway

List of heritage assets extracted from 1D037-EDP-EV-ASM-SS06_SL10-000001

1. Great War Memorial and its four surrounding memorial lamp posts.

1. Great War Memorial - Built in 1921 - designed by Reginald Wynn Owen.



2. Statue of Robert Stephenson - outside of Euston Station's main entrance.

3. Paolozzi sculpture - Piscator. The sculpture today acts as a bench away from the main crowds of the station.

4. Statue of Captain Flinders inside Euston Station - Flinders circumnavigated and charted the southern continent

5. Euston Square Gardens railings. Grade II Listed.

Euston Arch - 1952 assumed

Ordnance Survey Map 1870 showing the two hotels encroaching upon views of the Arch and lodges from Euston Grove (Map courtesy of the Euston Arch Trust)

Redesigned Euston Square, creating a ceremonial entrance from Euston Road

6. Part of underpass visible from back of western lodge

9. Four stone 'Time Benches' with stone paving.

2.5 Current Proposals

2.5.1. High Speed Rail (London-West Midlands) Act 2017

The Additional Provisions 3 (AP03) scheme for Euston was deposited to Parliament as an amendment to the original Hybrid Bill; the Bill received Royal Assent in February 2017 becoming the High Speed Rail (London - West Midlands) Act 2017. Additional work had been subsequently carried out to consider the chance to the scheme within the existing Bill powers, which would reduce the impacts of HS2 on the conventional railway at Euston during construction. These studies were collectively call the Euston Mitigation Measures (EMM) and are described in the Euston Mitigation Measures Configuration Notebook.

2.5.2 HS2 Functional Station Design (FSD)

The masterplan has been run concurrently to the FSD design. To ensure the masterplan is robust and facilitates the delivery of a functional HS2 station. There were several milestone feedback points between the two workstreams. The FSD scheme adopted key elements of the emerging masterplan concept design, including the basement location below the triangular site and above track mezzanine, taxi rank locations and OSD arrangements. Similarly, the masterplan has been influenced by the FSD concept design process. The final masterplan scheme presented in Part C of this report reflects the emerging FSD RIBA Stage 2 design from the Key Design Stage 2 (KDS2) single option milestone.

HS2 wants to assure London Borough of Camden (LBC) that the replacement and enhancement of open space is at least equivalent to the open space to be lost in terms of quality and quantity, and in a suitable location, in accordance with paragraph 74 of the National Planning Policy Framework (NPPF 2012). HS2 has committed to upgrading several parks within the area.

Internal view looking south from HS2 northern entrance

External view of the western station entrance from Robert Street

Functional Station Design | External view approaching the station from the south with proposed new links to the underground from the square

Redacted under Regulation 12(5)(a)

2.5.3 NR Conventional Station

Network Rail are currently undertaking a feasibility study looking at a potential redevelopment of the conventional station. NR consultants are currently considering the potential redevelopment plans for the station, in the context of the Euston Stations Masterplan. NR's view is that the Conventional Station will not be able to cope with forecasted passenger demand in the future.

Redacted under Regulation 12(5)(a)

2.5.4 Crossrail 2 and London Underground

Plans for the London Underground station include the addition of a new subway to Euston Square which will provide a new covered link for passengers. Whilst few LU passengers will interchange between Euston Square and Euston Underground station, the link is forecast to be very popular with rail passengers.

The opportunity to significantly alter the existing LU station is limited given the complexities and cost of any infrastructure changes. However, the location of entrances and interchange routes can be considered as part of the masterplan.

The proposed Crossrail 2 scheme will offer significant congestion relief and increase the total number of passengers using the station. The enhancements made to the existing Underground station as part of the HS2 design will enable the forecast growth even if Crossrail 2 is not constructed.

2.5.5 Euston OSD Master Development Partner

HS2 Ltd is procuring a Euston OSD Master Development Partner (MDP) on behalf of the landowners to lead the creation of a new commercial and residential district at Euston – one of the largest regeneration opportunities in central London. The Euston OSD MDP is expected to be appointed in 2018 and shall be responsible for taking forward development over and around the station and tracks at Euston on behalf of the landowners.

Part B
Masterplan Vision

1 Masterplan Vision

1.1 Overview

The masterplan design vision for Euston has been developed to set out clear statements of aspiration about the future of Euston as a place. It has been informed by the Landowners Vision, the Euston Area Plan, HS2's Design Vision of People, Place and Time, and engagement with stakeholders on the masterplan development.

Overarching Vision

The development of Euston offers a huge opportunity for vast improvements to the local area, London and the United Kingdom. The masterplan has been developed to create a new destination that adds significant value by creating good quality public space that is open to all, benefiting from clear sight-lines and connections which will improve the legibility of the place and create a permeable new piece of city.

This extension of the urban grain should help to integrate communities and the improved transport interchange by building upon the heritage and assets of the current area and creating new inter-related character neighbourhoods that complement the surrounding context. Places will be linked together with good pedestrian and cycle routes to create a permeable and accessible place. This should be developed on all levels, from below ground to above ground, and brought together through a cohesive, holistic greening and development strategy that will bring an industry excellent transport interchange and garden gateway to Euston, and London, that embraces flexibility for the future.

What will make Euston Great?

To create a great place, Euston will have a series of interrelated character areas, each distinct from one another but connected by a common set of principles. These principles are outlined on the following pages.

HS2 Design Vision:

HS2's design vision aim is "to enhance the lives of future generations of people in Britain by designing a transformational rail system that is admired around the world." The vision is based on three core design principles of people, place and time:

- **People** "Design for everyone to benefit and enjoy"
- **Place** "Design for a sense of place"
- **Time** "Design to stand the test of time"

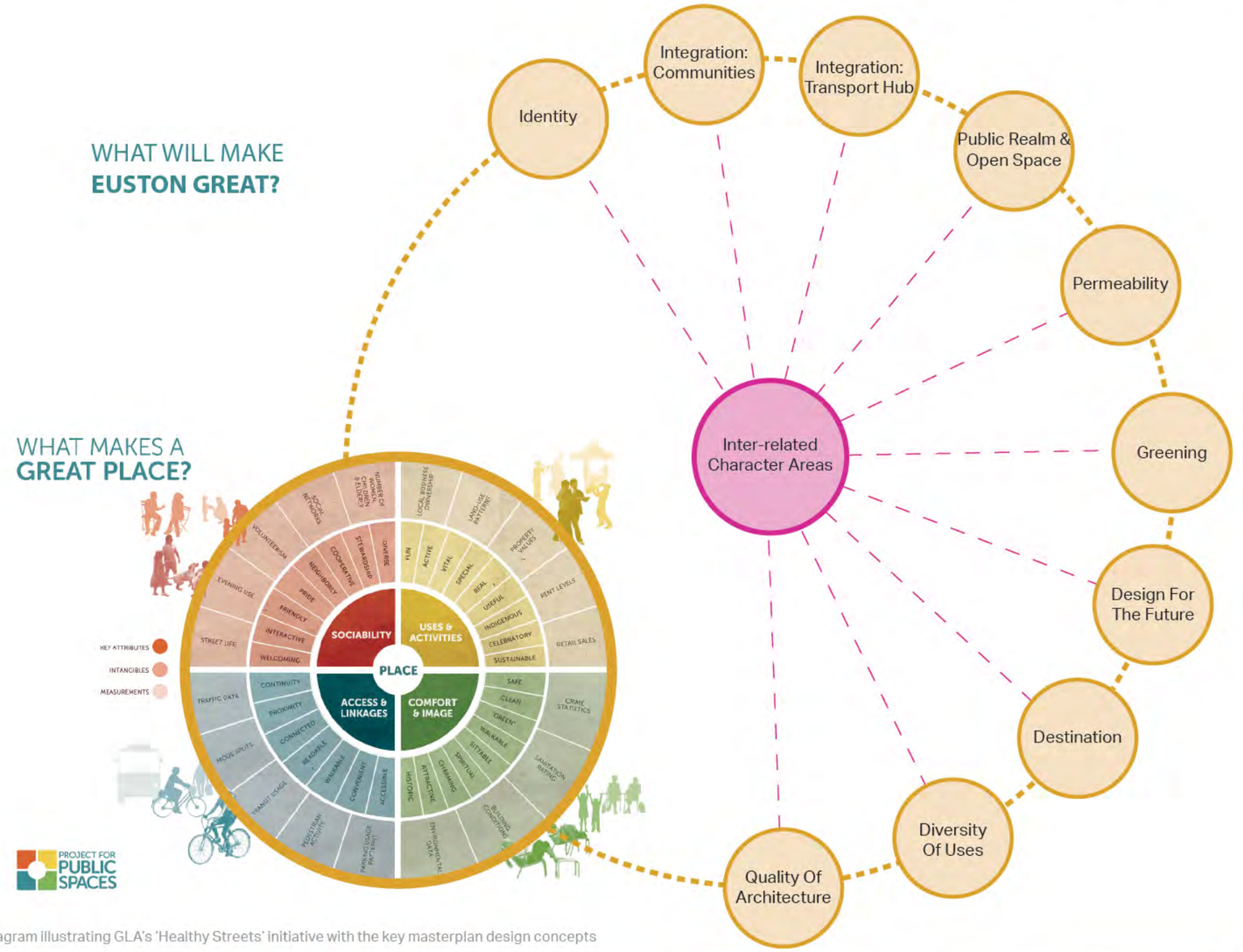


Diagram illustrating GLA's 'Healthy Streets' initiative with the key masterplan design concepts

Elephant Park, London | Mixed use street with highly active frontages, shared streetscape and planting

Birrarung Marr, Melbourne | Greenery offers respite from urban conditions

CIBC Square, Toronto; WilkinsonEyre | Landmark architectural buildings and public park above a train station

A new piece of city

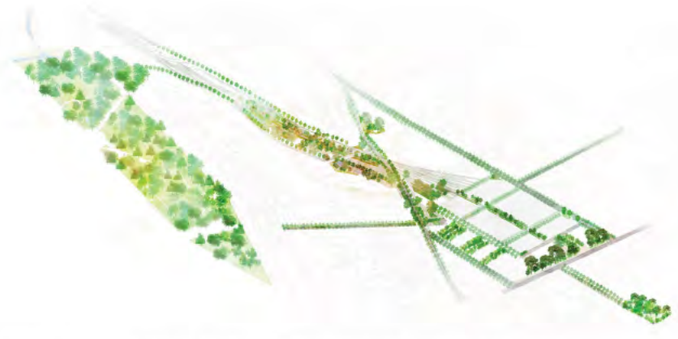
Diagram illustrating the scales of connection in the project and how Euston fits into the regional and national scales

Concept sketch illustrating Euston connecting with the existing Georgian Square alignment

Concept sketch illustrating the greening and connecting of Euston with the existing Georgian Square alignment

Hudson Yards, New York | Habitable roofscape built over railway tracks with associated commercial development

High Line, New York | Above ground pedestrian linkages provides green connections



Landscape concept sketch illustrating connectors from north to south

1.2 Identity

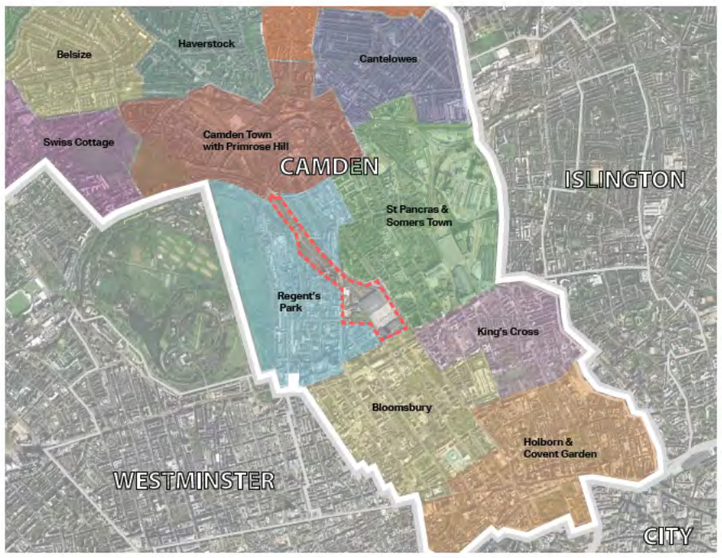
The mention of 'Euston' currently conjures up images of an outdated and congested station, dark and dirty bus stops and impermeable elevations. With the introduction of HS2 at Euston there comes enormous opportunity to create a new Euston. But what is the new Euston, who will use it, what does it offer Camden, London and the UK and what will the experience be once you are there?

To create a vibrant attractive place, that people will wish to visit and enjoy, Euston needs a clear and attractive identity. This should be informed by the past as well as the future.

What is Euston ?

Plan diagram il

Local heritage assets and surrounding communities making up Euston's identity:



Euston within the context of London Borough of Camden

Royal College of General Practitioners |
1-9 Melton Street

St. George's Gardens, Bloomsbury

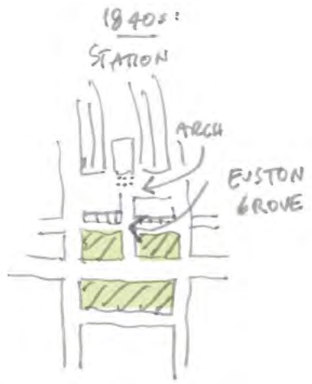
Drummond Street

Euston Fire Station

St. Pancras New Church

Euston Square planned as part of Georgian Bloomsbury

New Road (London's first by-pass) cuts square in half



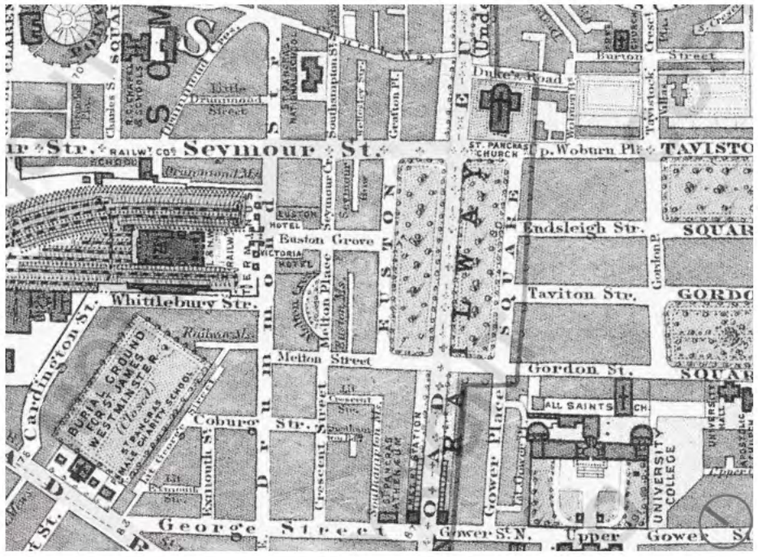
London's first mainline station Euston Grove cut through gardens

New Road (now Euston Road) widened. South half of square built over

Station redeveloped, bus station cuts through gardens and blocks them off from station

HS2 arrives: square re-proportioned to connect station back to city

The original Euston Arch defined the entrance into the ticket hall



Euston historic fabric from 1862 (map date 1908) - extracted from Building Architecture Report

Connecting parts of the city that once were connected.

This plan of Euston in the early 1830s prior to the station shows the strong connections that once existed across the site between Regent's Park and Somers Town.

Of particular note is the strong Drummond Street connection.

To the north of the site green pastures once sat between these two more developed areas.

Aerial view of Euston Station in the 1930s

St. Pancras, London | This station concourse provides a space to create meaning and a meeting place for the city

Gard du Nord, Paris | This station entry responds to the surrounding urban fabric, creating an architectural identity that announces its location within the city

A series of districts with their own focal points

1.3 Diversity of Uses

A strategic development strategy will create a diverse range of land uses across the site and a variety of building typologies. This will, in turn, create a series of diverse places/districts within the site, each with their own character. The types of land use in each zone will respond to the neighbouring areas in order to successfully integrate development with the existing community.

1.4 Inter-related Character Areas

The scope of development around Euston will result in the creation of a series of distinct but inter-related character areas, each with their own scale and sense of character, and a relationship with the surrounding existing neighbourhoods.

The boundaries between these areas should be fluid and relate to the surrounding communities. This masterplan identifies the purpose and aspiration for these neighbourhoods and further analysis of the current strategies can be found in the Appendices of this report.

Urban school, Belgium | Creates an internalised play space

Open space, Melbourne | Promoting a variety of outdoor uses over development

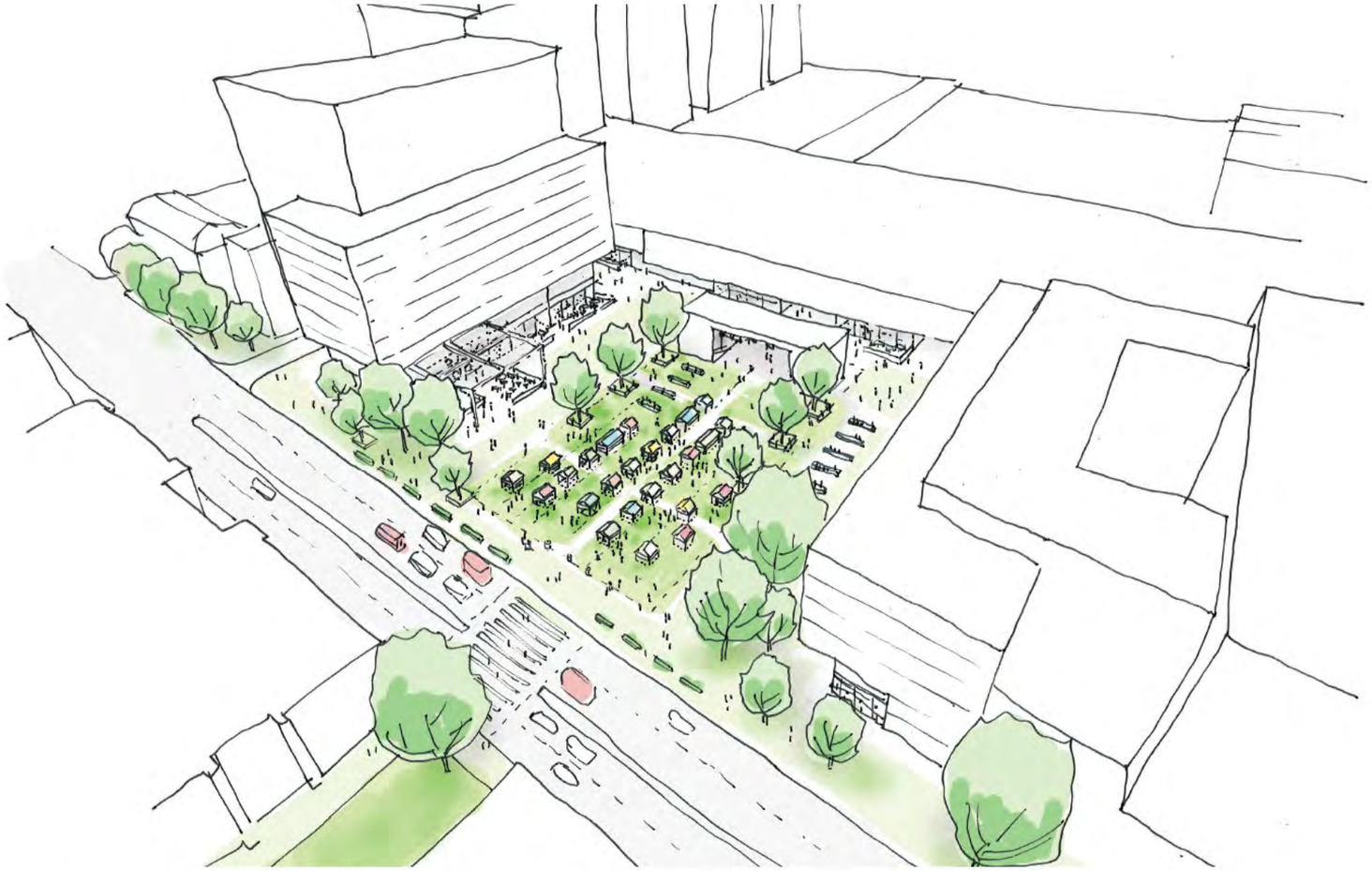
Eastern Anglia University, England | Medical / research facility

Blackfriars, London | High-end commercial

Granary Square, London | Outdoor seated restaurant creating activated edges to public open space

Bullring, Birmingham | Internalised multi-layered retail environment creating visual connections

Victoria Street, London | Mid-rise residential



1.4.1 Civic Heart

The southern area of the Euston site provides a huge opportunity to create a fantastic civic space connecting Euston to Bloomsbury, activated on its edges by commercial development and quality retail. The central space will address a rejuvenated Euston Road.

This space should provide a clear, legible entrance into the station

Redacted under Regulation 12(5)(e)

Euston Square Gardens has the opportunity to provide a large scale public square with a civic character and connection to Bloomsbury, framed by the station and adjacent commercial development with retail activation at ground level. This is one potential representation for what it could look like.

General Gordon Square, London | Mix of hard and soft landscape supports high pedestrian traffic whilst creating a pleasant place to sit

Centraal Station, Amsterdam | Station entrance creates a clearly legible civic gesture

King's Cross Granary Square, London | Civic Spaces with formal trees

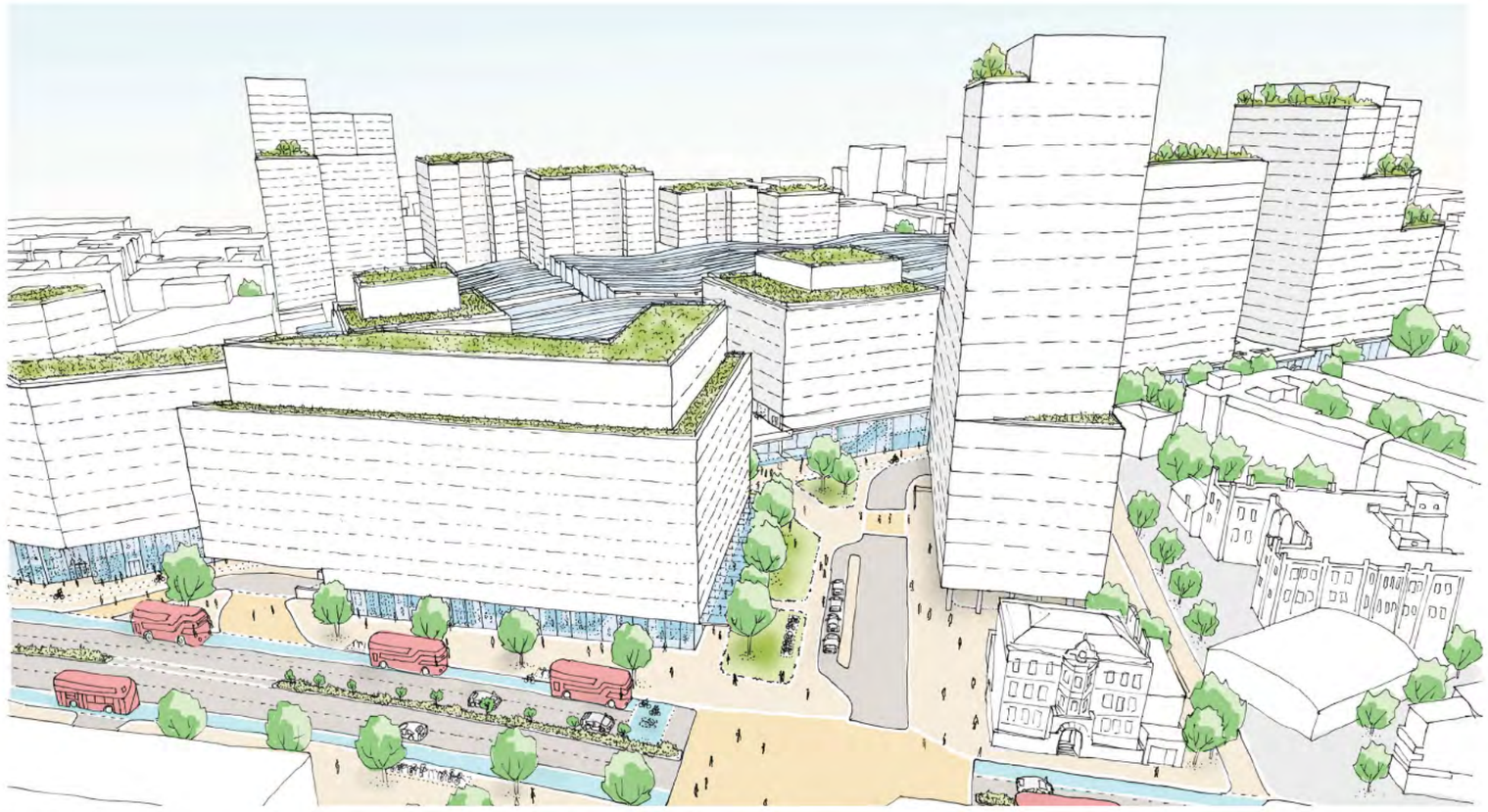
Stranden 1, Oslo | High quality commercial development defines public square with active edges

1.4.2 Western Gateway

The proposed Western Gateway is characterised by a cluster of mid-rise residential, commercial and hotel buildings surrounding a public space, serving as the western entry point to the station. This public space, which provides other facilities such as taxi drop off, builds upon the Robert Street connection to Regent's Park and frames the civic station. This is the primary station pick up and drop off point for all vehicular traffic, including taxis.

This gateway anchors the end of the green link along Robert Street to Regent's Park and frames the civic station entry along this boulevard.

Redacted under Regulation 12(5)(e)



Western Gateway key plan

The western station entrance can offer a clear gateway connection from the western approach via Robert Street

Gare Du Nord, Paris | Civic entry framed by pedestrian boulevard

Park Royal, Singapore | High-end hotel with generous adjacent green open space

Waldorf Astoria, New York | Taxi pick-up at entrance

St. Pancras Hotel, London | Light filled lobby with character features that reference the adjacent station

The internal atrium has the potential to create a highly activated space that provides visual and physical connections on multiple levels

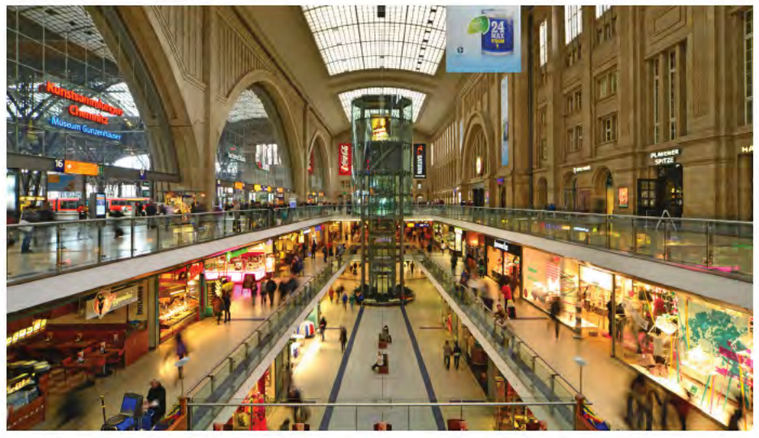
1.4.3 Activated Interchange

Inside the development there is potential for an extended public realm with a large, light filled space providing multi level activation and connections. It is an accessible public space with multiple entrances, good retail offering, access to the four stations, and surface transport, across multiple levels and excellent visual connections across the interchange.

The ambition for the masterplan is to create a cohesive legible experience by combining four stations in one.

Activated interchange key plan

World Trade Center Transport Hub, New York | Architecturally designed world class transport interchange providing an open, light, airy and activated place



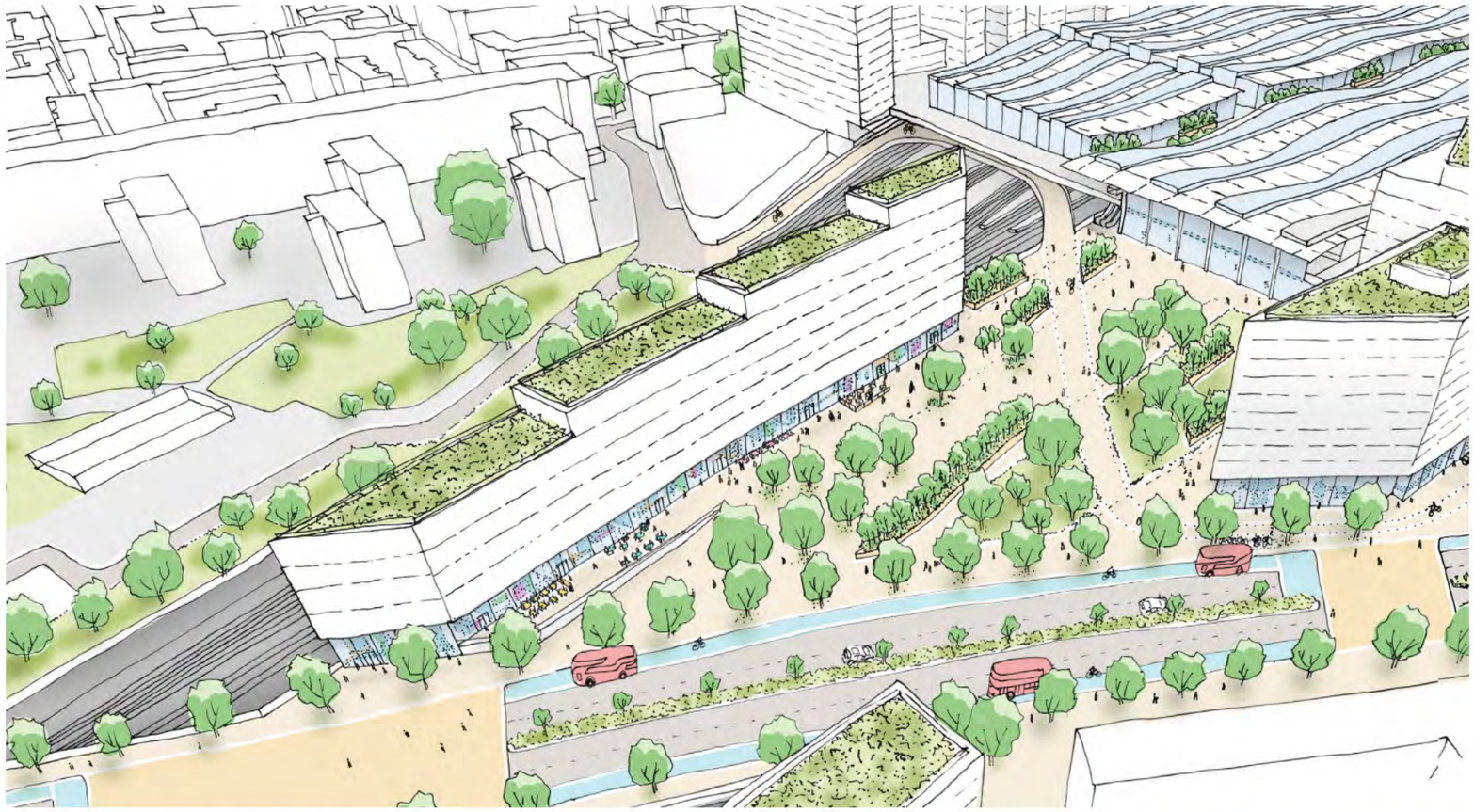
Leipzig Station, Leipzig | Multi-level retail environment within a train station

Parque Toreo, Mexico | Multi-level internal space offering a variety of connections, visual lines and choices of movement, top lit by a geometric roofing system

1.4.4 North City Park

The North City Park has the potential to provide a focal point for the community to the north. The southern side of this area is fronted by a new station entrance hall. By providing a large public space adjacent to the station entry, the link to Camden is strengthened and an area is created for temporary and informal uses, such as pop up markets.

North City Park key plan



Northern station can provide a community focused public space, with area for market stalls and small scale retail pop ups as well as community events

Boxpark Shoreditch, London | Meanwhile use: pop up retail/cafe

Boxpark Croydon, London | Temporary space for community engagement activities

King's Cross Station, London | Station entry provides a civic backdrop to community events

Cannot create high commercial value without high people value

office lobbies

King's Boulevard, London | Shared street with mixed use development

Rambla de Sant Francesc, Vilafranca | Pedestrian priority street with tree lined edge

New Road, Brighton | Shared surfaces blur boundary between pavement and street

1.4.6 New City Street

Eversholt Street to the east is re-activated by building along its blank western edge. Retail will activate the ground floor, where possible, with commercial buildings above, with uses that are particularly associated with the knowledge and med quarter. The street is further activated with new station entrances to the north and south supported with public routes across the station.

New City Street key plan

Eversholt Street looking north illustrating a pedestrian friendly streetscape lined with active frontages and planting with potential links over to CR2 site

Elephant Park, London | Mixed use street with highly active frontages and planting

Lonsdale Street, Dandenong, Melbourne | Introduction of greening and furniture in the streetscape

London Bridge Station | Mixed use perimeter development of station integrates with existing townscape

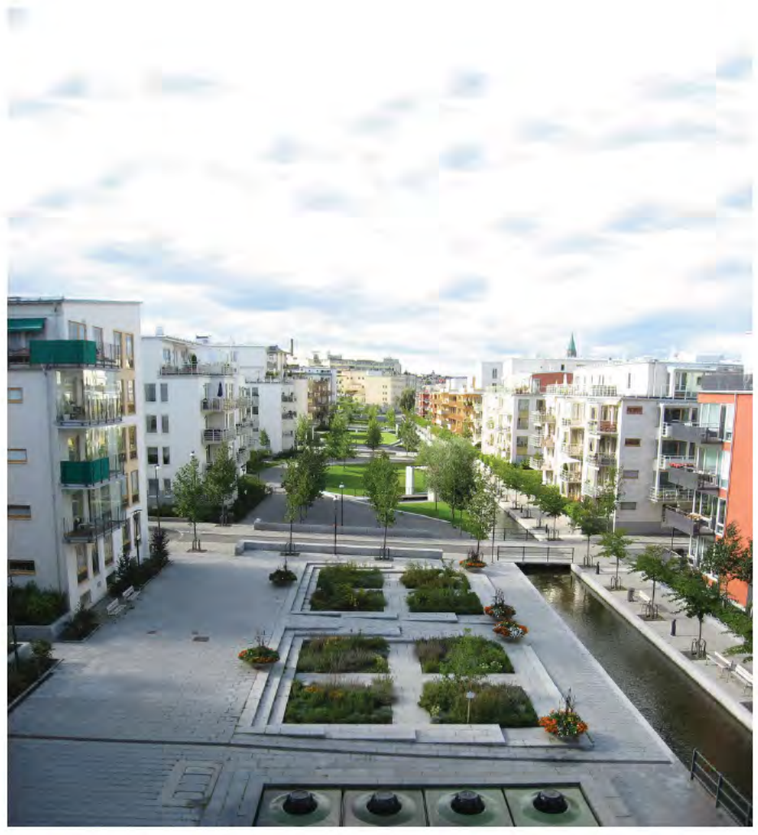
Woolwich Station, London | Station entrance with green space; encouraging passive surveillance

Aspiration for a new public space and dedicated station entrance off Eversholt Street, with improved pedestrian and cycle connections north-south and east-west

1.4.7 Parkland Community

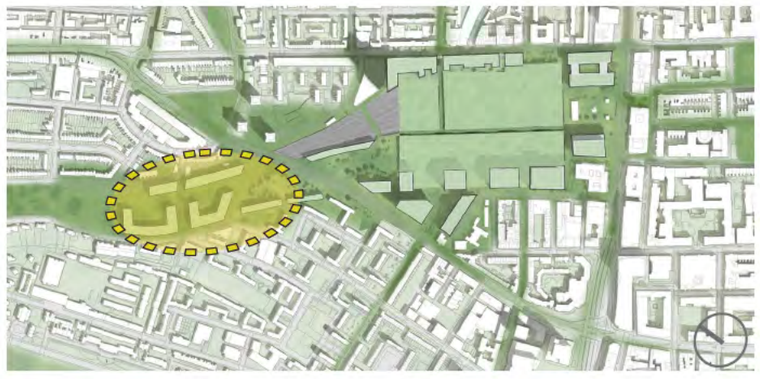
The residential area to the north should provide high quality residential apartments as well as strong green connections, both north, south, east and west. This will help strengthen ties not only between Euston Road and Camden but also stitch together two communities previously separated by railway tracks.

Residential development should have a strong relationship with public open space and sustainable travel networks.



Residential development, Freiburg | Strong relationship with public space bordered by low-rise residential

Visual illustrating the potential public north-south link connecting the station with Camden



Parkland community key plan

Guangdong, China | Porous residential development facilitating cross site connections

Mixed use apartments, Paris | Residential integrated with community use

Ryerson Urban Farm, Toronto | Community productive gardens

South Kilburn Estate, London | Strong relationship between apartments and open space

Redacted under Regulation 12(5)(e)

1.5 Themes

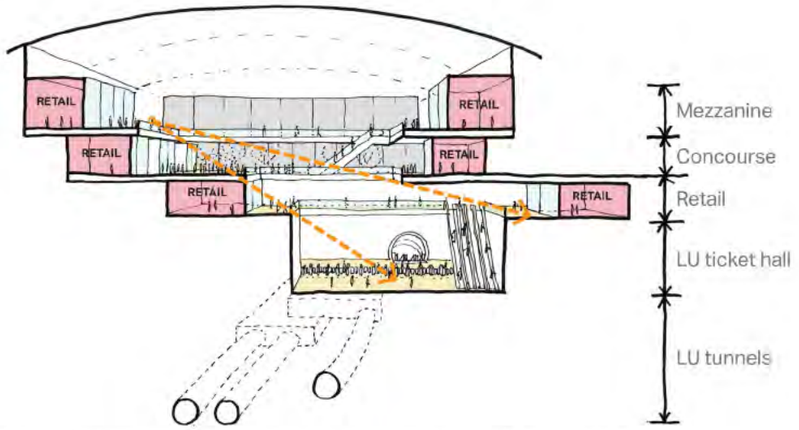
1.5.1 Integration - Transport Hub

One of the five key principles of the Euston Stations Masterplan is to deliver 'One station comprising of four stations, ensuring resilience for future operations and maintenance.' The key driver for the development of Euston is the arrival of HS2 and a need to provide a cohesive design approach, not only to the development of the area, but also to the delivery of an industry-excellent efficient transport interchange that provides:

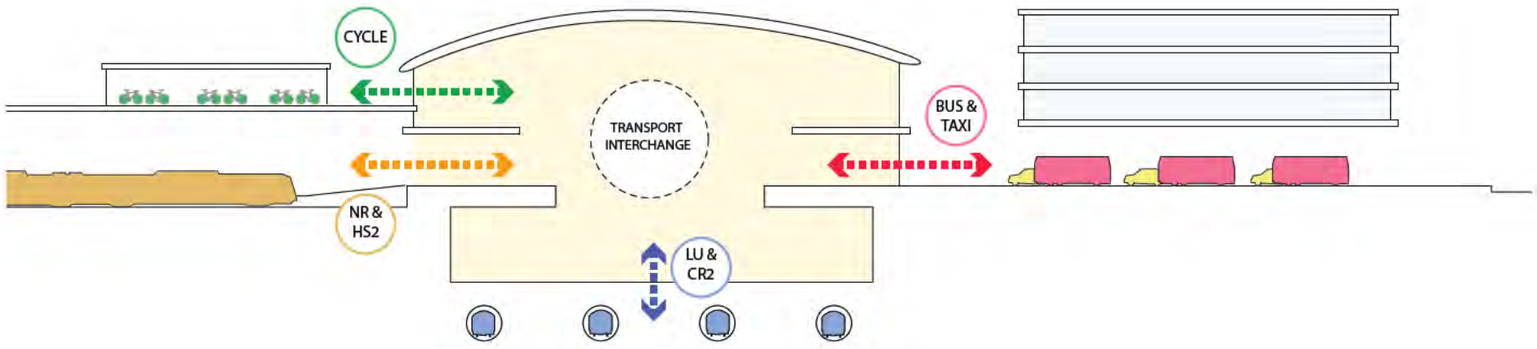
- Seamless onward travel
- Efficient intermodal connection times
- Supports sustainable travel

The key consideration is efficiency and legibility. The station and development must be easy to use and navigate - on all levels - without dependence on complicated wayfinding. This should be achieved through a legible diagram of transport modes with a central interchange point and good visual links and cues across the development. This strategy should be designed to cater for all users and aide the efficiency of the station and the Euston area.

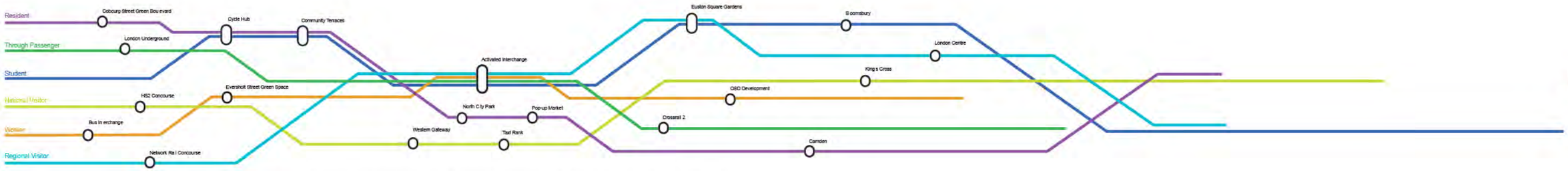
One station comprising of four stations, ensuring resilience for future operations and maintenance



Vertical connections with strong visual connection to aid in intuitive wayfinding



An interchange that facilitates seamless connections between multiple modes of transport



All user experience journeys need to be considered as part of the masterplan | The diagram illustrates a fictional journey through the site

Centraal Station, Rotterdam | Large multi platform train interchange unified with singular roof, bringing ample light into the interior

Hauptbahnhof, Berlin

Bloomsbury Square Gardens | Open space character

High Street, Camden | Colourful, activated surrounding areas

Nørreport Station, Denmark | Underground station's form at surface is broken up into a number of sensitively scaled pavilions housing cycle provisions

Regent's Canal, Camden | Vibrant surrounding communities

Central Station, Graz | Quality covered bus interchange

New Street Station, Birmingham | Interchange can serve as a meeting place for the city with multiple levels and natural light

1.5.2 Integration - Community Areas

The development of Euston provides an opportunity to create significant development in the area that should be integrated with the surrounding communities, but also reconnects neighbourhoods that are currently disconnected.

There is a rich history at Euston and the existing station is bordered by precincts that have their own identities with the potential to be carefully stitched together to form an enriched piece of city in the heart of central London. The adjacent neighbourhoods are varied and vibrant communities with Camden to the north, Regent's Park to the west, King's Cross to the east and Bloomsbury to the south.

The introduction of a new station of national significance grants the area a unique opportunity to achieve such an ambitious urban design regeneration.

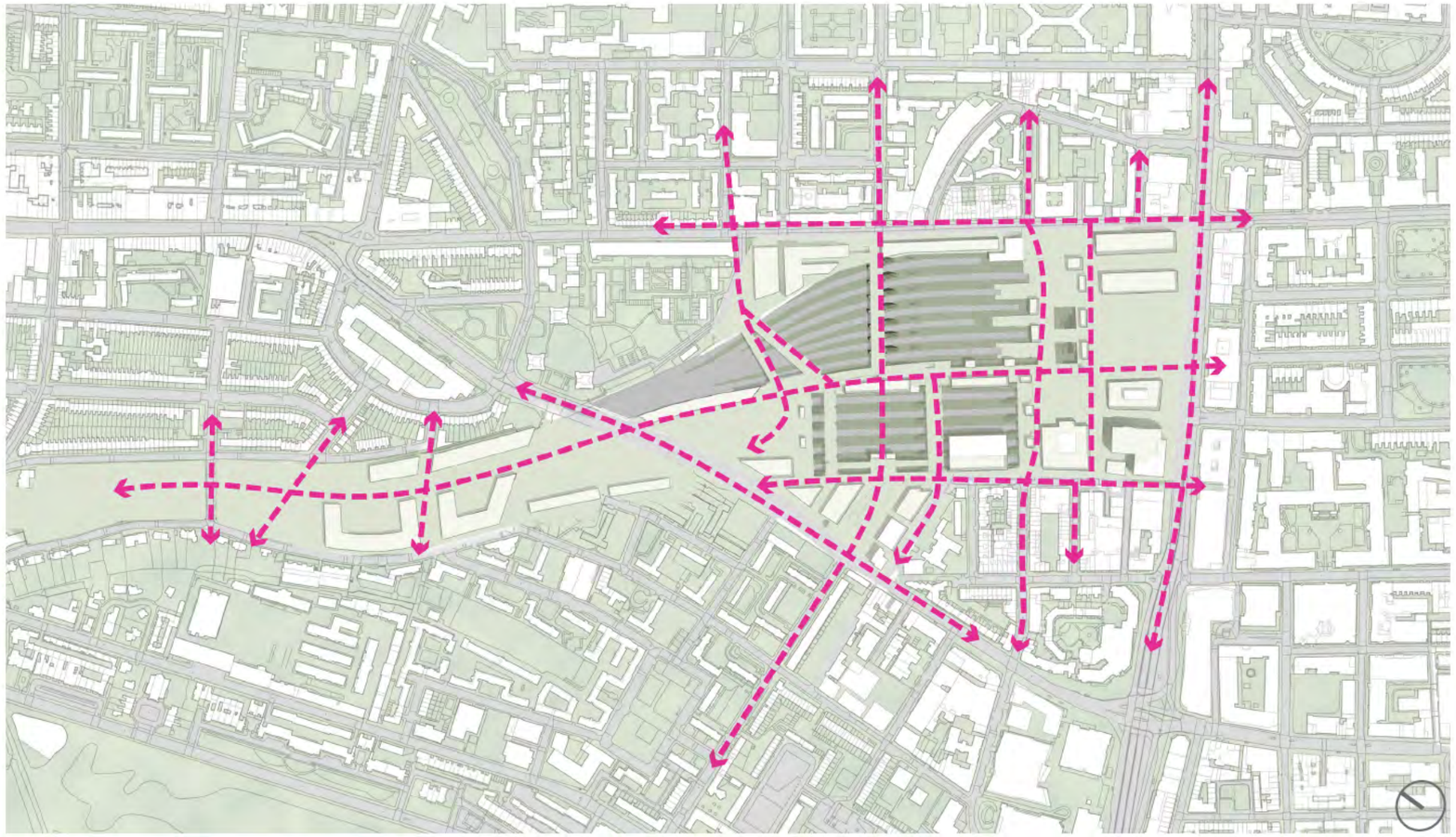
The blurring of stations and streets

1.5.3 Permeability

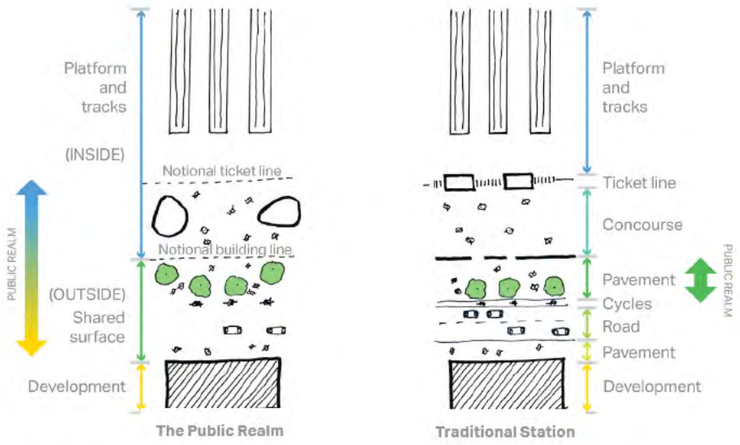
One of the primary issues with the existing Euston station is its impermeability on three sides with no access from the north. Large barriers face the surrounding areas and the vast un-navigatable rail tracks will only be worsened with the arrival of HS2. It is essential that the permeability of the site is improved within the development of this new piece of city. Connections between existing communities, and new ones, will be essential for the success of the masterplan, knitting it in to the existing fabric of the city and ensuring all parts of the new development are accessible.

The level constraints across the site offer a significant opportunity to create linkages, not only at street level, but across a variety of levels – both above tracks and below tracks. Achieving a multi-levelled diagram across the levels that incorporates both unpaid and paid connections, as well as internal and external links that are both legible and accessible, is hugely challenging. However, it also offers huge potential for the creation of a variety of linkages which will promote the dispersal of people by allowing a greater choice of movement. This will be essential given the projected increase in numbers of people in the area.

It should also be noted that the onward connections outside of the masterplan boundary need careful consideration including the aspirations from LBC for surrounding streetscapes such as Drummond Street and Phoenix Road and the TfL 'greening of Euston Road' studies.



Creating a strong grid of ground plane pedestrian linkages strengthens connections and integration with the surrounding communities



Development blurring boundary between station and street - extending the public realm

High Line, New York | Above ground pedestrian linkages provides green connections

Goods Line, Sydney | Pedestrian / cycle connection promotes a range of active uses and introduces greenery above street level

Camden Highline, London | Proposed redevelopment of overground rail creates pedestrian links and green open space in highly developed area; extracted from www.camdenhighline.com

King's Cross, London | High quality design and lighting makes pedestrian underpasses an attractive option for connections

Central Park Station, Taiwan | Escalator in green wall

CIBC Square, Toronto | Public open space above railway

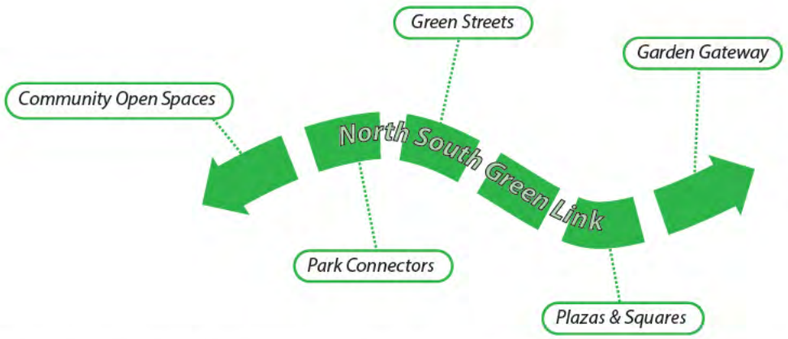
Queen Street Bridge, Toronto; WilkinsonEyre | Pedestrian connection allows unimpeded connection over a busy thoroughfare while providing an architectural statement

Washington Union Station , Washington D.C. | Large open concourse creates strong visual connections and promotes movement

1.5.4 Public Realm & Open Space

One of the keys to success at Euston is to create a series of fantastic new and improved public open spaces, knitted together by a series of lively street connectors, whether that be through the station or existing street network. Euston Square Gardens and St James' Gardens are within the site. The current HS2 scheme provides replacement open space and complimentary upgrades to a variety of public open spaces within the area.

The development of Euston offers a unique opportunity to develop an entire city block in London for 2050. The act of 'greening' a space or series of spaces has significant benefits to the surrounding area and the people who use it. In this instance greening refers to both 'sustainability' and the actual 'greening' or planting of spaces – both of which are as important as one another and are critical to the success of Euston and the masterplan as a whole.



Public open space should be connected seamlessly across the site

Aspirations for a Green Corridor | A continuous link of green spaces connecting the existing parks in Bloomsbury, over and through the station and approaches northwards towards Camden Town

Euston Road entrance has the potential to provide a large public space of civic character with heritage connections. Stairway shown indicatively if above grade connections through the station were proposed

Residential development, Cambridge | Connects public open space to private terraces

Battersea Power Station, London | Redevelopment with associated green space

CIBC Square, Toronto | Public open space above rail tracks

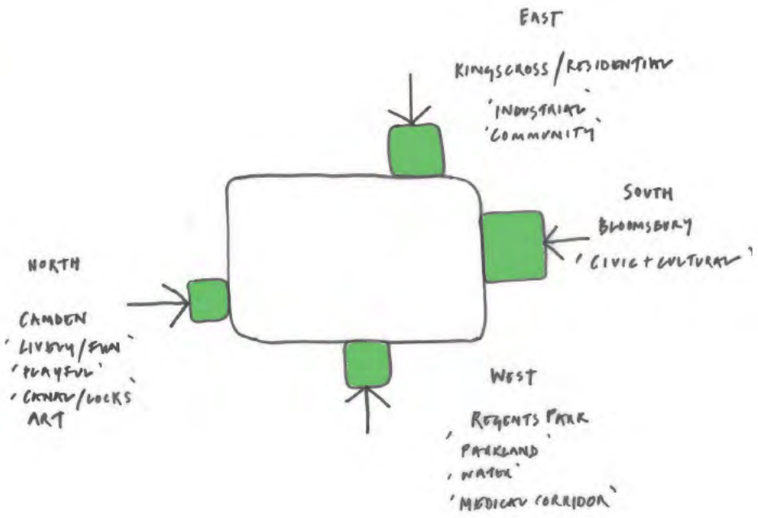


Diagram illustrating public open space to all four station entrances

Skyville, Singapore | Inhabitable roofscape

Shekou, Shenzhen | Urban farm / community garden

Queen Elizabeth Olympic Park, London | Green linear park supporting a range of activities

Federation Square, Melbourne | Open space framed by public buildings

Rhone River Banks, Lyon | Public space

Sustainable Development, Improved Streetscape and Community Benefit

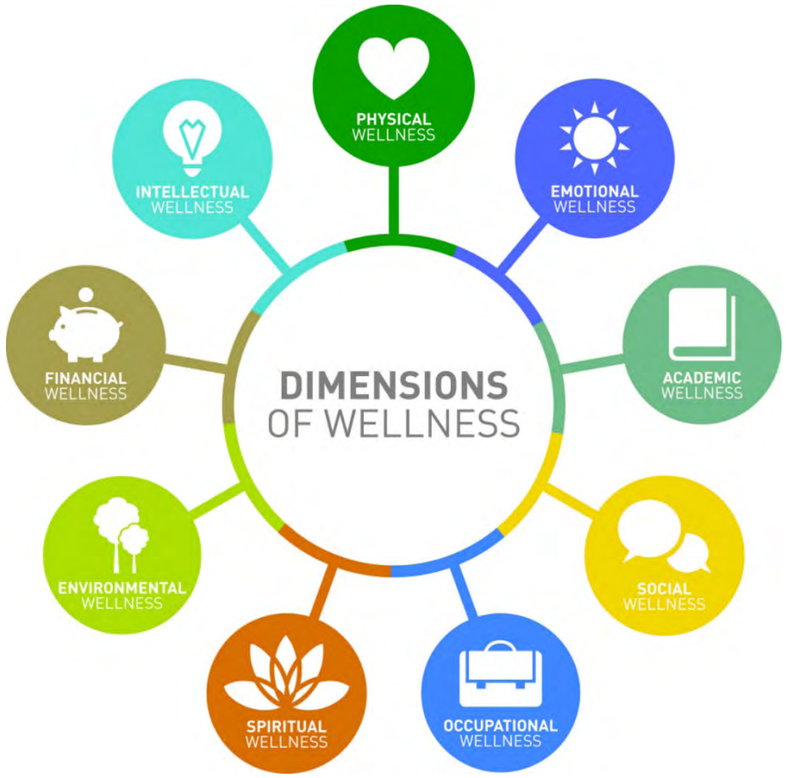
It is well documented that greening and sustainability as a whole offer a vast array of positive benefits not only for the surrounding environment but also for the users. Some of these benefits include:

- Wellness, including transformative effect on the area and how people occupy space
- Creation of micro-climates and improved biodiversity
- Reduced toxicity and improved air quality
- Energy efficiency and reduced outgoing costs
- Alleviation of the heat island effect
- Encourage people to spend time in the area, further aiding regeneration

London and the cities of the world are becoming increasingly dense and urbanised with little green space available for the enjoyment of its residents, workers and visitors. The biodiversity of cities is significantly compromised and the creation of green space within cities will help improve plant and animal life within cities and thus in turn improve the spaces around us. Due to the scale of the development of Euston the aspiration to 'green' the entire area is a key component of the vision – there is a desire to create a cohesively greened part of the city with significant public and open space for the benefit of existing and new residents, workers, passengers and visitors to the area.

Key initiatives that are already underway by a variety of stakeholders – such as the Healthy Streets initiative by Greater London Authority and the Greening of Euston Road by TfL - and the benefits on the masterplan should be explored further.

In addition to the possibility of creating a variety of improved green space, this development has enormous opportunity to adopt new sustainable technologies which are at the forefront of design and future development due to the significantly long time frames of delivery. Therefore both of the aspects of 'greening' are a key driver for the vision of Euston and should be integrated in to design solutions and in conjunction with one another.



Dimensions of Wellness diagram (source: University of Alberta)

Gardens by the Bay, Singapore; WilkinsonEyre | Large scale parkland creates a destination within the city

Granary Square, King's Cross, London | Water feature

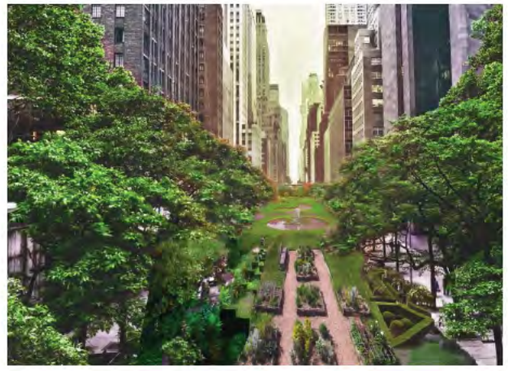
Cultural Corridor Proposal, Mexico City | Healthy streets promote sustainable travel

CIBC Square, Toronto; WilkinsonEyre | Inhabitable roofscape built over railway tracks with associated commercial development

Stratford, London | Wildflower meadows introduces greenery around public building

Penn Station, New York | Advanced facade systems increase natural light penetration

Driverless cars may drastically reduce amount of public space given over to traffic



The Loop, New York | Proposed urban green links on existing traffic routes

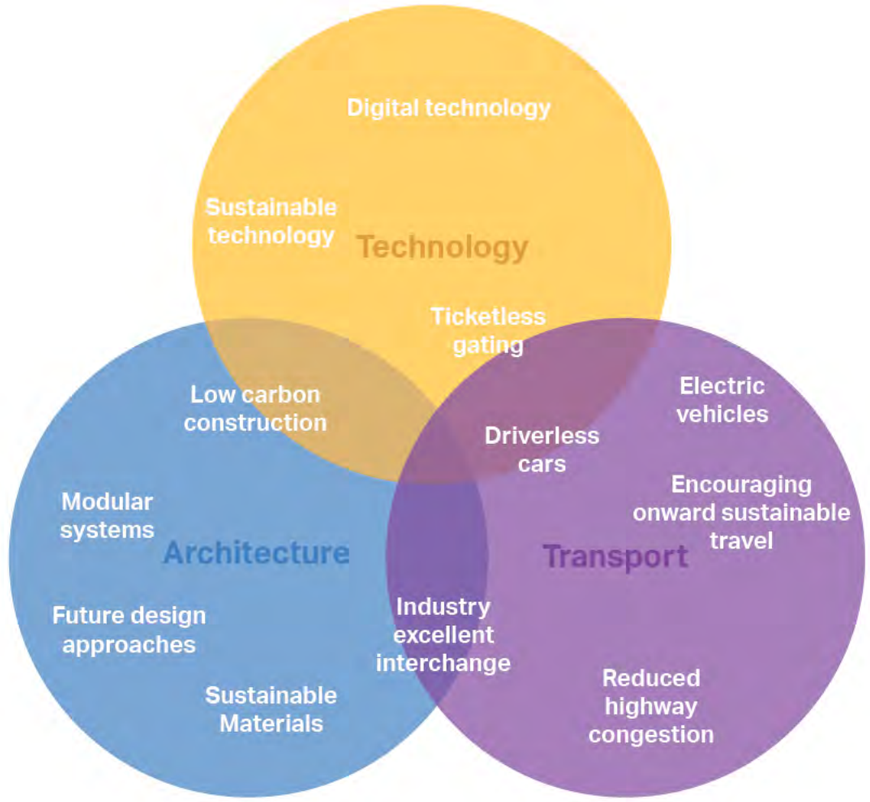


Diagram illustrating sustainable transport principles

How will stations work in the future?

Sustainable development, Freiburg | Sustainable development and transport infrastructure

Commercial development, Portland | Made with structural sustainable timber framework

Biodiversity Tower, Paris | New construction systems promote green facade systems

1.5.5 Design for the Future

The nature of Euston will inevitably change in the future to accommodate evolving needs but its purpose as a transport interchange and destination is likely to remain constant. Its design therefore has to allow flexibility for change, particularly in terms of technology and growth.

It is important to establish a clear framework of functions and connections. The identity and sense of place should be strong, enduring and embedded into the surrounding communities.

Environmental issues are likely to become even more important with an emphasis on green priorities and sustainability. Road pollution will be greatly reduced as electric vehicles take over from carbon based fuels and it is possible to imagine Euston Road as a pleasant thoroughfare. This should contribute positively to the nature of cities as centres for living, working and meeting places, which will be enhanced by the high speed rail links and new underground/overground systems such as Crossrail. The emphasis on the public realm must be considered as fundamental to the long term success of the project.

The scale of the Euston Stations Masterplan requires it to be ambitious and visionary in its proposal. It must pre-empt and embrace future technologies and advancements in architecture, transport, construction and beyond. Since the completion of the masterplan area is not programmed for at least another twenty years – with the surrounding area even further beyond – it is essential that this masterplan can adopt future technologies and techniques but is also flexible enough to be able to embrace future developments as they emerge.

In addition to creating a flexible masterplan that can be adaptable to emerging techniques, the design needs to be cognisant of developments for the transport interchange in particular. The primary reason for the development at Euston is to deliver an industry excellent transport interchange and emerging approaches to station design in particular should be constantly monitored and even be at the forefront of emerging transport design. Developments in approaches to ticketing, digital advancement and electric and driverless vehicles, amongst others, will all change how transport hubs are used in the future.

1.5.6 Destination

With the integration of new and existing rail networks, together with the OSD, Euston will inevitably become a destination, but it requires a strong identity to establish Euston's sense of place. Its high speed rail links to the Midlands and North of England give it a special significance as a destination for the whole country. This masterplan vision therefore seeks to establish some of the essential requirements for such an important destination.

The area of Euston has an enormous opportunity to be transformed in to a place that's much more than just a station. The area is surrounded on all sides by a variety of neighbourhoods that are rich in history and potential. The development of the Euston area not only offers the opportunity to weave these neighbourhoods together but to also create something new and exciting for the whole area, for London and for the United Kingdom.

Benefiting from unparalleled public transport connections, Euston has the benefit of being easily accessible to all and the development opportunities that come with it require careful consideration about their impact on the surrounding community, the greater London area and the country, but why will people go to Euston apart from to catch a train? Who will use it? And what is the draw? Whatever its draw, Euston must enhance the new interchange as well its current context and provide people with other reasons to visit and dwell. The development of this part of London will act as a catalyst for regeneration of the whole area connecting this jigsaw piece back in to the grain of the city and becoming a destination in its own right that is more than just a station.

The Shard, London | A unique architectural form that becomes a destination in its own right and a wayfinding element for the city as a whole.

Cleveland Park, Ohio | Generous public space in an urban environment draws visitors in from the surrounding areas

Opera House, Oslo | Public building promotes inhabitation and engagement with the environment

CIBC Square, Toronto; WilkinsonEyre | High quality design outcomes maximises potential for realising public benefit, such as utilising space over tracks and providing large scale open space

1.5.7 Quality of Architecture

The success of the development of Euston will balance on the necessity to create high quality buildings and spaces. Given the very tight constraints of the site, intelligent solutions will need to be developed for the entire masterplan including smart solutions to achieve an integrated transport interchange within the existing envelope. A holistic approach to landscaping and the creation of high quality public spaces and the design of considered, quality buildings for every plot across the site that challenge construction and design techniques will create a high quality development that not only address the constraints of the site but also maximise the opportunities.

The architecture of the development will have to be sensitive to local townscape issues as well as London View Management Framework (LVMF) views, particularly those affecting St. Paul's Cathedral.

Vieux Port, Marseilles | Architecture can affect how we see and engage with the public realm

8 House, Copenhagen | Large mixed-use development that frames a generous public open space

Part C
Constraints and Considerations

1 Planning Policy and London Plan

1.1 Planning Policy Summary

The Development Plan for the site comprises the London Plan (2016), the Camden Local Plan (2017), the Site Allocation Local Plan (2013) and the Euston Area Plan (January 2015).

The Euston Area Plan (EAP) sets out a vision for the Euston area in 2031 which sees the area rejuvenated as both a local hub of activity and a gateway to London through new high quality comprehensive and transformational development above and around a industry excellent interchange at Euston Station. This includes the following:

- New homes, businesses, shops, community facilities, schools, new and improved public realm and open space will transform the area. In addition, the redeveloped station will help to reconnect the surrounding communities to the north, south, east and west.
- Enhancement of Euston's role as a medical research, knowledge, innovation and creative industry base around the cluster of world class education and research institutions in the area, helping to achieve Camden Council's Knowledge Quarter aspiration for the area which could include medical uses as promoted in the Mayor's "Med City" (source : Request for Mayoral decision - Ref :MD2071, 03/04/17) vision for the Euston Road corridor.
- A network of clear and convenient streets will connect key attractions and green spaces in the area. Critical to this will be new and improved links through, above and around a redeveloped station and an improved greener environment along Euston Road. Euston Road will no longer be a barrier to pedestrian and cycle movement and onward journeys from the station.

The EAP states that the area covered by the document should therefore deliver the following;

- Housing - Between 2,800 and approximately 3,800 additional homes along with appropriate replacement homes maximising the provision of affordable housing and family housing
- Employment - Between 180,000 sqm and approximately 280,000 sqm of new employment/economic floorspace, providing between 7,700 and approximately 14,100 jobs encouraging knowledge based, research and creative uses to strengthen Euston's existing role as a knowledge and research hub
- Retail - In the region of 20,000sqm of retail floorspace focused around the station
- Social infrastructure - Education, health and other community facilities to support new development will be required.
- Meanwhile uses - Flexibility for proposals for appropriate temporary alternative uses if current uses are no longer viable as a result of HS2 and construction works.
- Design - Development should create an integrated, well connected and vibrant place of the highest urban design quality which builds on existing character and provides an attractive and legible environment.
- Transport - Creation of an industry excellent interchange at Euston Station with sustainable and appropriate onward travel options which meet increased passenger demands (including those from HS2) and general development in the area.
- Environment - Growth will be supported by a decentralised energy network, new, replaced and improved open spaces (mitigating lost open space as a result of HS2 where appropriate) and the creation of an Ultra Low Emissions Zone (ULEZ) to address local air quality issues.

Taking into account the above, a number of key principles to guide development in the plan area are identified including the following;

- Euston Station and tracks - A comprehensive station redevelopment to transform Euston's image and potential for between 1,000 and approximately 1,900 new homes and between 7,200 and approximately 13,600 additional jobs depending on station design and footprint, railway constraints and cost of decking. A comprehensive approach to station design based around lowered tracks and platforms is more likely to allow for greater development and a transformational high quality development here. A redevelopment within the existing station footprint would reduce the required demolitions and associated mitigation requirements that would result from proposals on an expanded station footprint.
- Euston Road - Creation of a more pleasant and accessible street environment, seeking enhancements to Euston Square Gardens and improved road crossings.
- Camden Cutting - At least 1,400 new homes, open space, community facilities and improved pedestrian and cycle links above the existing railway tracks to the north of Hampstead Road.
- Drummond Street and Hampstead Road - Protecting existing businesses and enhancing the area's unique specialist role as a centre for ethnic shops and restaurants, along with its built character and heritage. Open space lost at St. James Gardens due to the HS2 project will be re-provided in this area.
- Regent's Park Estate - Opportunities to accommodate new and replacement housing in the estate will be sought, with a priority for replacement housing for homes required by HS2. Encouraging improvements to routes in the area, supporting the redevelopment of Drummond Crescent for school and/or employment and housing uses and minimising potential impacts from the construction of proposed Crossrail 2 in the area.

1.2 High Speed Rail (London – West Midlands) Act 2017

High Speed Rail (London - West Midlands) Act 2017, applicable to HS2 development only, received Royal Assent February 2017, which grants deemed planning permission for construction and maintenance the works specified in the Act. That "deemed planning" permission is granted subject to the conditions set out in a special planning regime in Schedule 17 to the Act. Schedule 17 requires the approval of details from the relevant Local Planning Authority (LPA). Schedule 17 includes a requirement that plans and specifications (i.e. design) for above ground permanent works are approved by the relevant LPA. HS2 will work with London Borough of Camden (LBC) through the design process to gain approval for the works set out in Schedule 1 of the Act. In addition to the requirement for Schedule 17 Plans and Specifications consent for the station and works in the throat, a range of other consents will also be required.

In addition to the above, Environmental Minimum Requirements are a planning constraint that requires consideration for masterplan proposals.

Redacted under Regulation 12(5)(e)

2 Constraints and Considerations

2.1 Overview

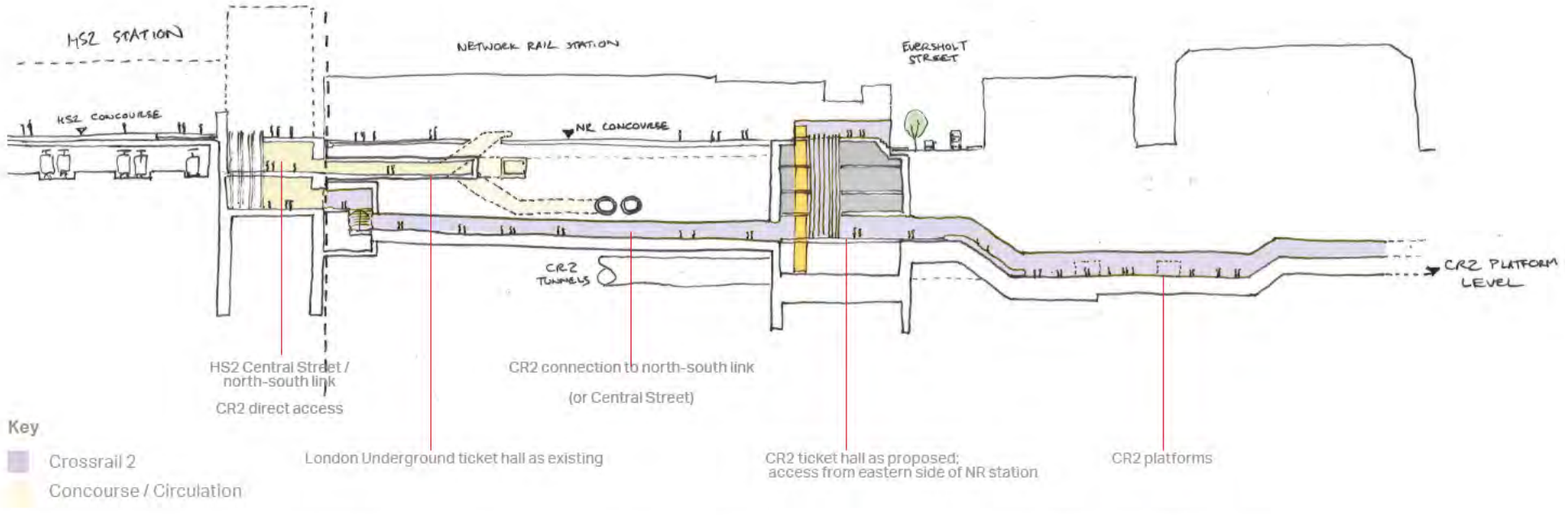
The following section outlines the constraints and considerations for the Euston Stations Masterplan including below ground, above ground, intermodal and surface transport.

2.2 Below Ground Constraints

The below ground constraints and station proposals will limit the height and number of OSD blocks driven by the piling capabilities.

- HS2 tracks and platforms locations are fixed.
- NR's tracks and platform locations (levels and number of platforms) are fixed and understood to be subject to minor realignment.
- NR basement: Existing basement located above underground tunnels will limit the capability of piling for the OSD, ramp location solution challenges.
- London Underground, Northern Line Charing Cross and Bank Branch, Victoria Line, Circle and Metropolitan Line.
- Future Crossrail 2 tunnels and new HS2 tracks.

Any OSD structural solutions and obstruction caused by OSD columns on platforms and escalators must be considered. Moreover, servicing requirements and building replacement and maintenance will be challenging due to the tracks proximity to the street edge.



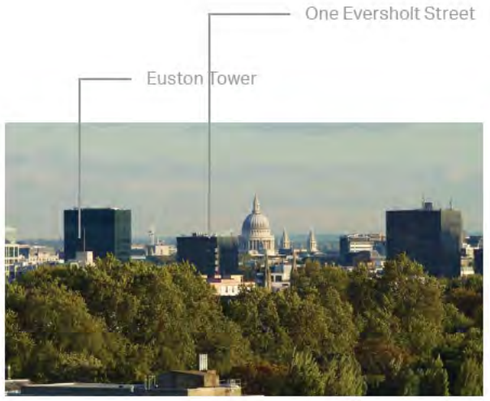
AP03 Hybrid Bill Scheme | Short section through London Underground interchange; with indicative Crossrail 2 (not included in AP03 Hybrid Bill Scheme)

2.3 Above Ground Constraints

The above ground constraints will limit the height and number of the development plots. For consideration:

- The site is in five London View Management Framework (LVMF) vistas, three foreground and two background.
- The Protected Silhouette of the Palace of Westminster World Heritage Site from Lambeth Bridge also needs to be considered
- The civil aviation authority document limits heights to 1000 feet above ordnance datum in this zone.
- Any works that fall outside the Limits of Deviation (LoD) are outside the ancillary works powers in the Act and so would need consent under the Town and Country Planning route.

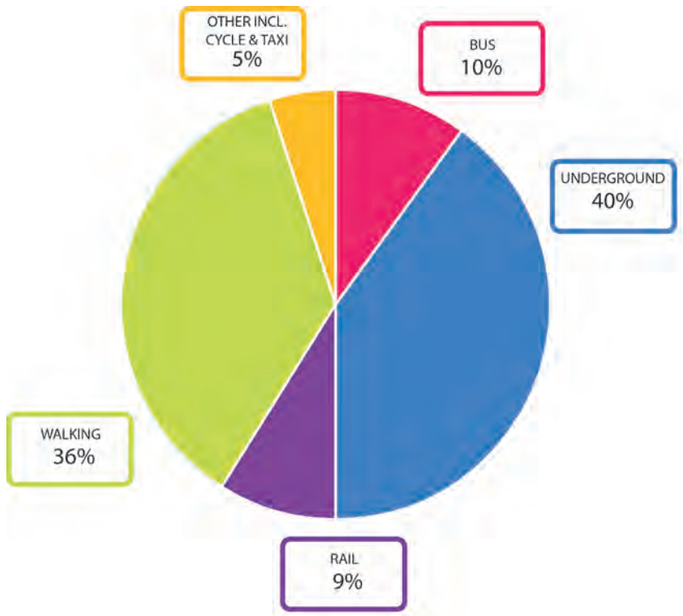
View from Lambeth Road Bridge with world heritage site in foreground



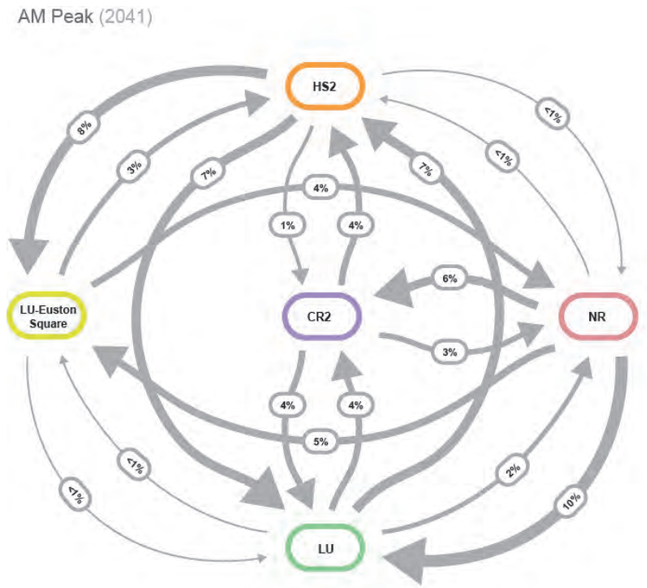
View 4A.1 - Euston Station in front of St. Paul's

View 5A.2 - Euston Station located in the background of this view of St. Paul's

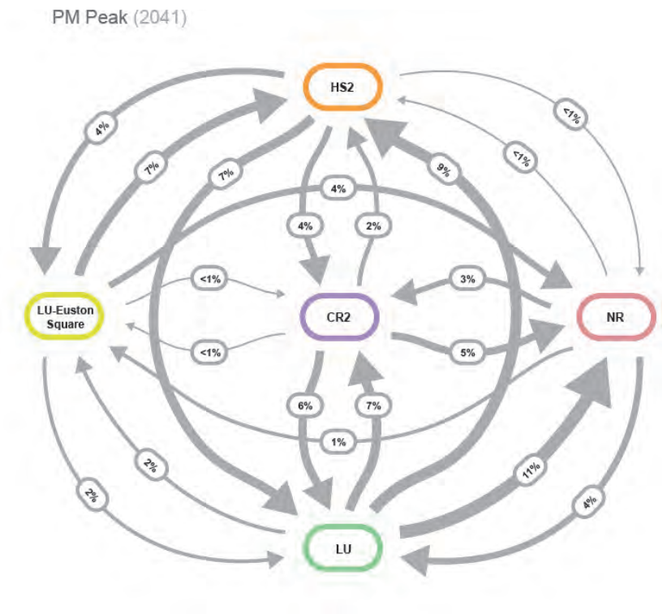
Redacted under Regulation 12(5)(e)



Existing percentage breakdown by travel mode share of arrivals and departures to Euston Station throughout the day (Ltds, 2005/6-2010/11, TfL)



Predicted pedestrian flow origins and destinations - AM peak (2041) station only



Predicted pedestrian flow origins and destinations - PM peak (2041) station only

2.4 Intermodal Considerations

Creating a coherent identity at Euston when there are four operational stations is a challenge, but an efficient interchange supporting intermodal connections at Euston is key to the success of the masterplan. Visible and recognisable station entrances from the city will be paramount and the creation of large, light filled spaces used by thousands of people each day will provide pleasant environments and offer great opportunities, such as increased retail offers.

2.4.1 Intermodal Passenger Movement

The adjacent diagrams illustrate forecasted passenger between transport modes, highlighting the large percentage of passenger movement from and to the London Underground station. (15% of which are from one branch / line of LU to another). Routes to street level (north), cycle parking, taxis and buses are fairly low in comparison to the numbers of people heading to the south, Euston Square, proposed Crossrail 2 and towards the City. This, alongside the desirable routes to London Underground, implies that the centre of gravity for the station is further to the south. This cannot be easily adjusted as the existing fixed infrastructure dictates the location.

For further detail on the NR Conventional Station or HS2 concourses refer to Part A of the report, and for additional commentary refer to the Place, Planning and Movement Report.

2.4.2 Buses

The masterplan strategy for buses needs to consider the existing routes and appropriate location for the bus stops and stands to minimise bus to bus interchange, and intermodal connections whilst ensuring efficiency between stops, stands and driver facilities.

Euston station is currently directly served by 12 bus routes, with another 5 bus routes accessible from Hampstead Road to the west. The current routing of buses services around Euston station are shown on the map to the right. The existing Euston station bus routes can be grouped into 'through' and 'terminating' routes as follows:

Through Routes:

- East-west along Euston Road: 30/73/205/390
- North-south along Upper Woburn Place and Eversholt Street: 168
- South-east along Upper Woburn Place and Euston Road: 10/59/91

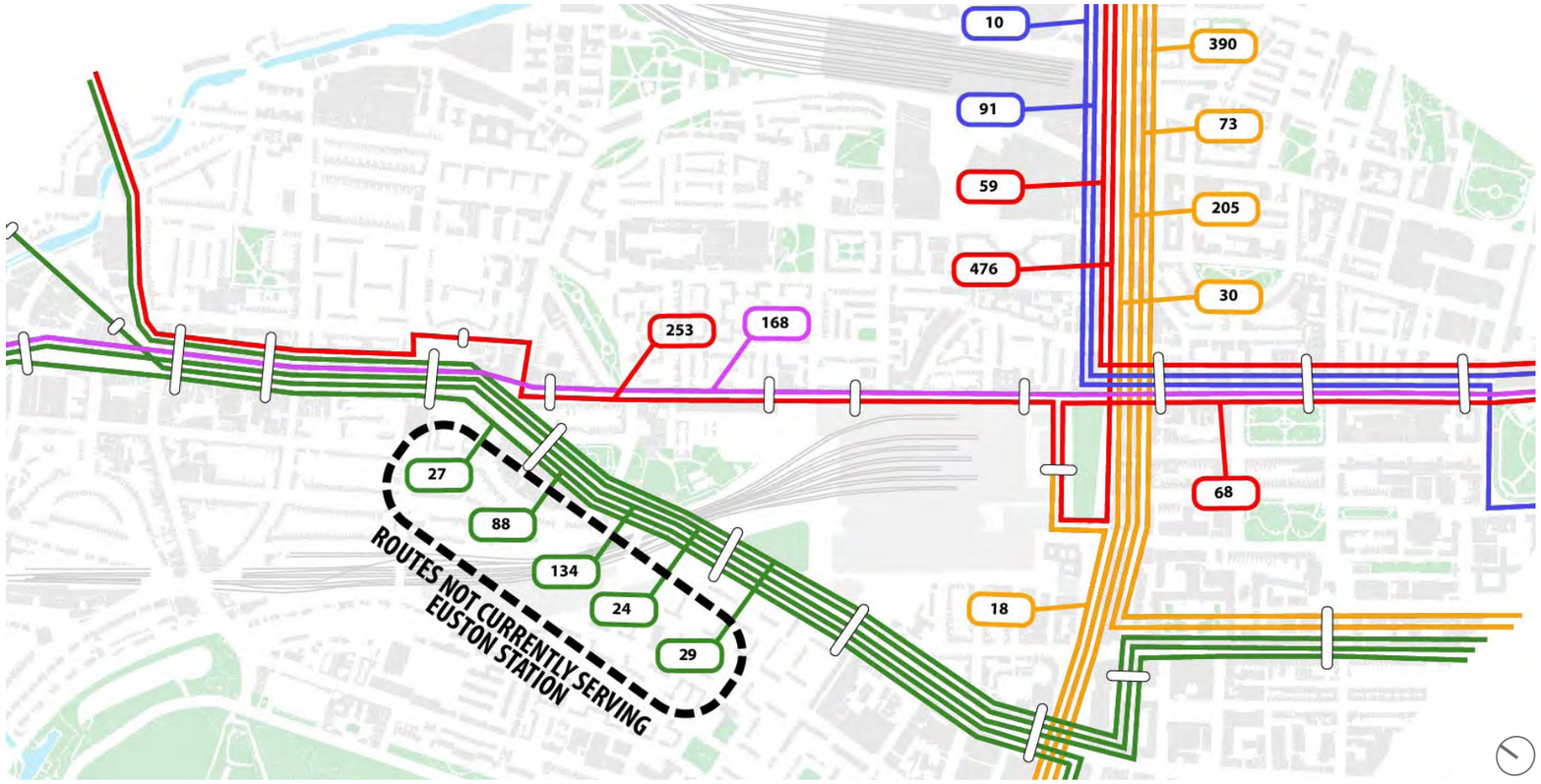
Terminating Routes:

- West along Euston Road: 18
- East along Euston Road: 476
- North along Eversholt Street: 253
- South along Upper Woburn Place: 68

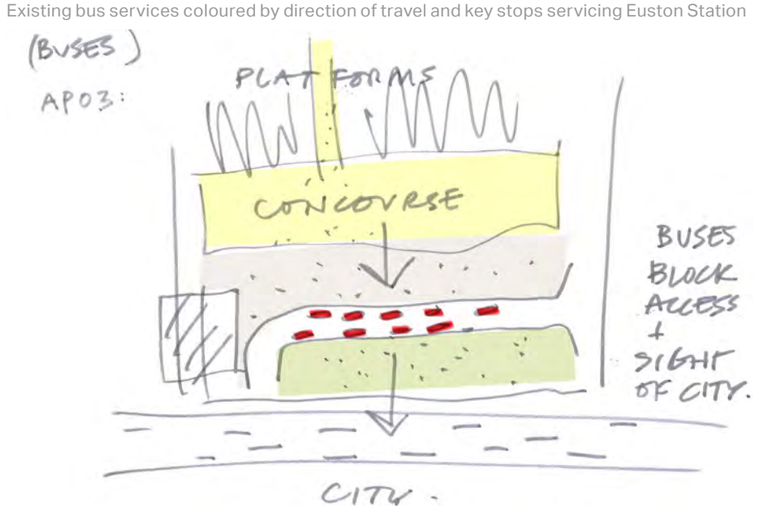
In addition there are, 5 bus routes along Hampstead Road that do not currently servicing the station but may in the future.

The existing bus interchange allows for 10 stops and 10 stands. The proposed bus stand provision requires an increase of 5 stands- totalling 10 stops and 15 stands. This figure takes into account the inclusion of the proposed Crossrail 2 and the increased quantum of development. Should Crossrail 2 not be realised within the time frame set out within this document, additional stops and stands would be required within the interchange.

Moreover, the bus interchange considers the overall placemaking strategy for the masterplan scheme to enhance site-wide legibility and station identity.



Existing bus services coloured by direction of travel and key stops servicing Euston Station



Legibility and placemaking concerns with the AP03 bus arrangement

Key

- Euston bus interchange both directions
- Euston bus interchange eastbound / Euston Road west bound
- Euston bus interchange northbound / Upper Wolburn Place southbound
- Eversholt Street
- Hampstead Road

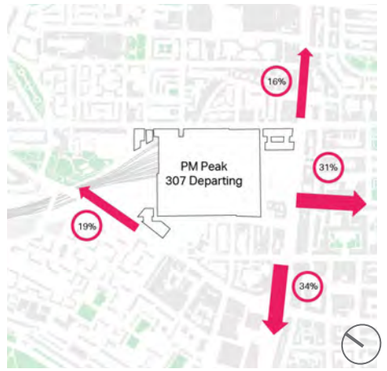
2.4.3 Taxis

Taxi facilities will have to provide a clear and legible system which allows arriving passengers to disembark as near as possible to a primary entrance and continue onto their final destination. Similarly passengers trying to get a taxi should be able to easily find a pick up point near an exit at which they can wait for the next available taxi. Taxi ranks should be located nearby this pick up point to make the process as streamlined as possible.

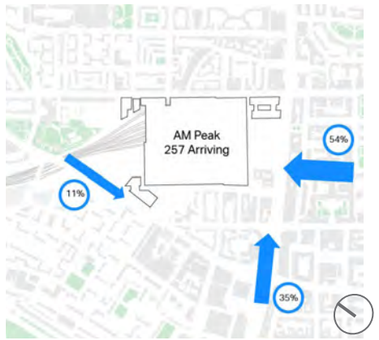
The taxi arrangement within the masterplan considers the intermodal preferences and inbound and outbound direction of travel. The adjacent diagrams illustrate a bias to the west and the south for both directions of travel, suggesting a western rank would minimise additional traffic movements around the site, particularly given Hampstead Road's connection to Tottenham Court Road to the south. The western bias also supports the forecasted intermodal movements between HS2 passengers and use of private hire cars and taxis.

Moreover, the number of ranked spaces and set-down locations requires consideration. Similar to the buses, there are conflicting preferences regarding quantum of taxi rank provision between stakeholders.

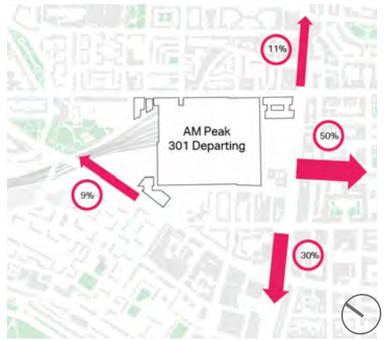
Taxi arrivals PM peak 2016



Taxi departures PM peak 2016



Taxi arrivals AM peak 2016



Taxi departures AM peak 2016

2.4.4 Cycles

Requirements for cycle provisions at Euston Station are twofold; they must provide a means of connection across the site that integrates within broader London cycle networks, as well as providing sufficient storage capacity. For linkages and routing the design must take into account:

- London Network proposals for next 20 years
- Key desire lines locally and in the broader urban context.
- Significant level changes across site
- Aspirations to promote sustainable onward travel, i.e. cycles and walking
- The non-permeable nature of the site
- Potential for subways; Note below ground constraints

Cycle storage locations require a greater level of consideration than most sites due to the challenging constraints of the site (in particular the significant level changes) and limited basement area. There is a significant cycle requirement to be accommodated sitewide for station users, visitors, residents and workers. Given the constraints of a number of the high-density plots located above the station footprint, a creative and dynamic solution for storage is required.

Site Wide Cycle Requirements:	9,854 (assuming 5000 cycles at Stage B2)

End of phase B2 2033. Refer to Place, Planning and Movement Report for a detailed breakdown

Part D
Masterplan Process

1 Opportunities

Redacted under Regulation 12(5)(e)

1.1 Overview

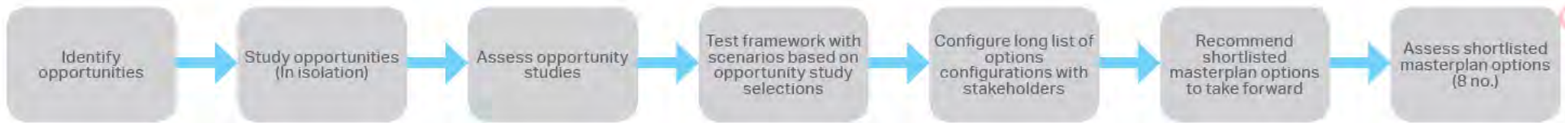
A variety of opportunity studies were undertaken early in the masterplan process for areas such as public realm, pedestrian linkages, development and surface strategies. These opportunity studies informed the development of emerging options for the masterplan. The opportunities and options built upon the baseline working assumptions, outlined in the masterplan framework.

1.2 The Opportunities

Euston offers more opportunities than merely being an intermodal transport hub, and the masterplan vision is to capitalise on these. By creating better public realm and pedestrian connections, providing better legibility, identity and permeability, the masterplan will improve the quality of Euston as a place.

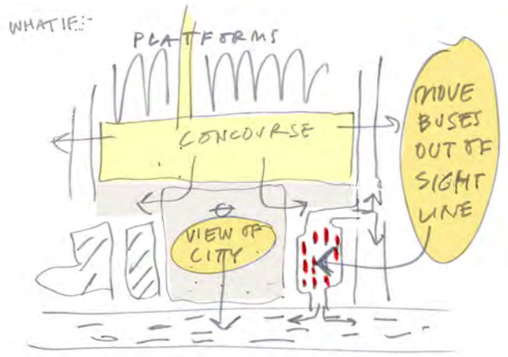
Euston is the station closest to Central London, facing directly across to Bloomsbury, one of the world's great centres of education. However, it is unseen from the south side of Euston Road and appears to be in a different part of the City. Over the past decade, both King's Cross and St. Pancras have been restored and refurbished and, in the process, reinvented as real places with great retail concourses and public space; because of this, King's Cross now commands higher commercial rents than areas of the City. The arrival of HS2 will give Euston the opportunity to reinvent itself in a similar vein.

Although it has the biggest footprint of the six big London stations, Euston currently has the poorest permeability with just a single entrance on its southern side, which is hidden behind a 1960s commercial development and a bus station. By hiding the entrance (and subsequently the station) and having such unfriendly and impermeable edges to the east and west, Euston has become something of a closed world, cut off from the community it should serve; this masterplan study will realise the true potential of the Euston Area.

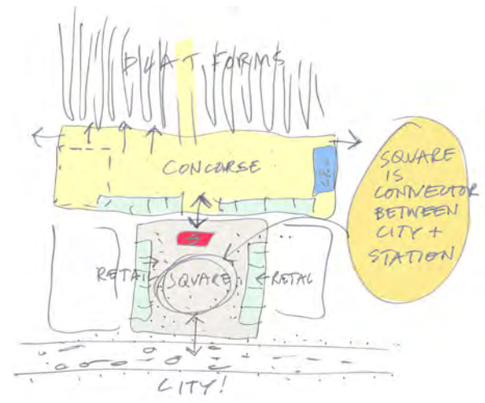


Euston Stations Masterplan programme

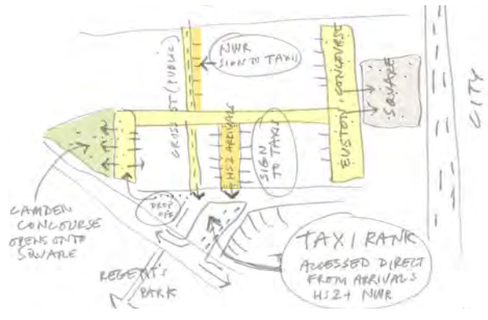
Opportunity Studies, developed in isolation before being reassembled



Public realm and pedestrian permeability improvements with the relocation of the bus interchange



Creating a legible city diagram connecting the station entrance to the city via an activated Civic Heart



Efficient intermodal interchange concept illustrating relocated taxi rank to reconnect pedestrian links to Camden

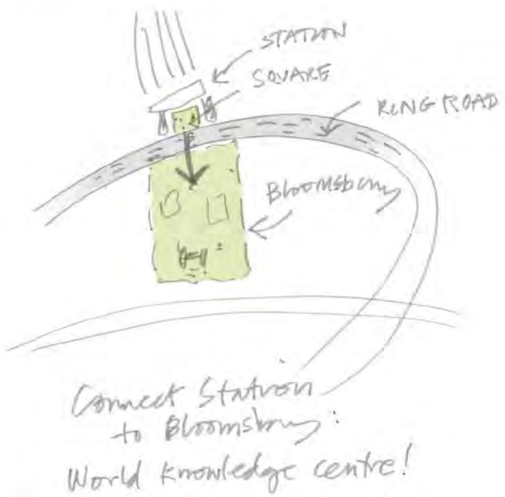
As a result of the analysis completed early in the masterplan process, the team identified sixteen key opportunities that should be studied further. These studies were explored independently and a number of options were identified, including some baselines for benchmarking purposes, which were subsequently assessed in order to discount infeasible options. This process enabled the design team to identify a series of common working assumptions, which resulted in the development of the masterplan framework that now forms the basis of any emerging masterplan for the Euston area. This framework has been agreed by the landowners and key stakeholders and should be considered by all parties moving forward into the next stages of the design.

1.3 Public Realm

The public realm opportunities explored how the design could create a welcoming place for locals, visitors and station users. The studies took into account public realm typologies, activation of street frontages and other elements that contribute towards the success of greener, healthier and more attractive public spaces.

Some of the opportunities include the treatment of Euston Square Gardens and how they could be reinstated or reorientated. Other areas for consideration look at designing a fully activated roof above the station, creating a new piece of city.

Fully activated roof option



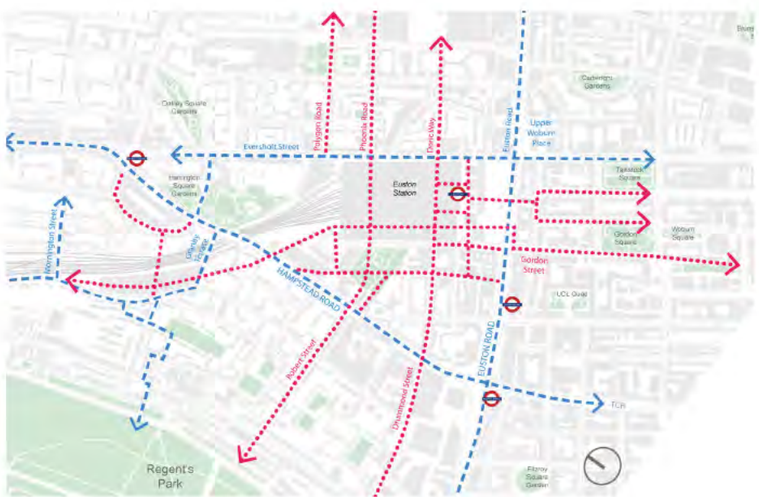
New Civic Heart links Euston to Bloomsbury Knowledge Quarter and beyond

1.4 Linkages and Connections

The existing Euston area has a severe lack of clear and convenient routes through and around the station. With the proposed HS2 development, various opportunities are opened up to form a highly permeable piece of city; potentially at multiple levels to encourage dispersal, and a variety of options for both station users and visitors walking through, connecting it to the surrounding community.

One such opportunity proposed is connecting Cobourg St directly with Euston Road as shown below.

Opportunity to link Cobourg Street directly to Euston road to improve station legibility



Desired sitewide pedestrian movement

Key
- Primary existing pedestrian routes
- Secondary existing pedestrian routes

1.5 Heritage and Culture

The Euston area is home to numerous heritage assets, such as the lodges and cenotaph, and buildings of historical significance. As part of the masterplan proposal, opportunities were explored for suitable siting in order to enhance or complement the surrounds.

Moreover, extensive studies have also been carried out to explore land uses, scale and massing in order to appropriately feed into the surrounding neighbourhood culture.

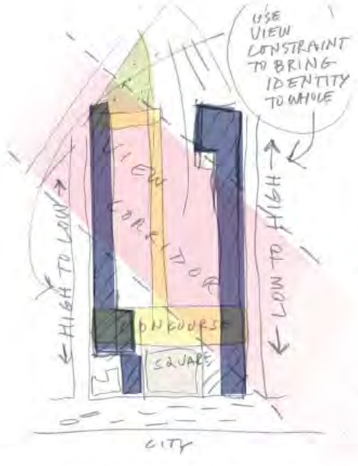
Study exploring options for reinstating the Euston Arch in the Civic Heart

1.6 Development Opportunities

The OSD study explored various development optimisation arrangements and regeneration studies.

The OSD opportunity studies are an integral part of establishing a sense of place for both the station and the wider Euston area. As part of this study the project team have identified several key opportunities, which if adopted, offer excellent design solutions. These fundamental changes include, but are not limited to:

- Bringing Cobourg Street to Euston Road, creating an improved street address for the western development plots
- Re-orientating the Euston Square Gardens to both re-frame the Civic Heart and provide a more fit-for-purpose public open space, and increase the value of the Euston Road developments



OSD strategy heights to allow for LVMF

OSD strategy along perimeter edges of site

1.7 Intermodal Interchange and Surface Strategies

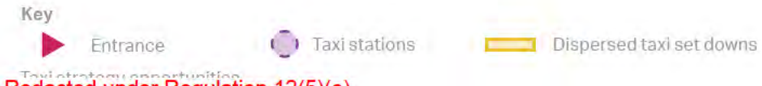
It has been identified that a significant percentage of HS2 and NR passengers start and finish their journeys via the London Underground. As such, one opportunity has been developed in the form of a triple height ticket hall, creating visual connections to London Underground from the surface level enhancing this journey sequence and improving legibility. Passengers can see from the bottom level (LU interchange) up to the first floor level sitting above the NR and HS2 concourses.

The triple height space also makes use of an otherwise 'moth balled' carpark currently in use by NR, a space which has been earmarked for redundancy in the AP03 Act Scheme.

The surface strategy, including taxis, buses, cycles and highways, heralds the opportunity to improve the network of streets and legibility across the entire masterplan as well as enhancing the intermodal connections and travel times. Numerous opportunities were explored for locations to ensure a coherent intermodal interchange was achieved.

Redacted under Regulation 12(5)(e)

Redacted under Regulation 12(5)(e)



Redacted under Regulation 12(5)(e)

Key - Highway Strategy

- Connect Cobourg Street to Euston Road
- Pedestrian / cycle priority street
- Servicing entrance
- Improved streetscape
- Improved Streetscape, including traffic calming
- Staff parking provision
- Opportunities for shared surface pedestrian crossings
- Greening of Euston Road and potential for highways review

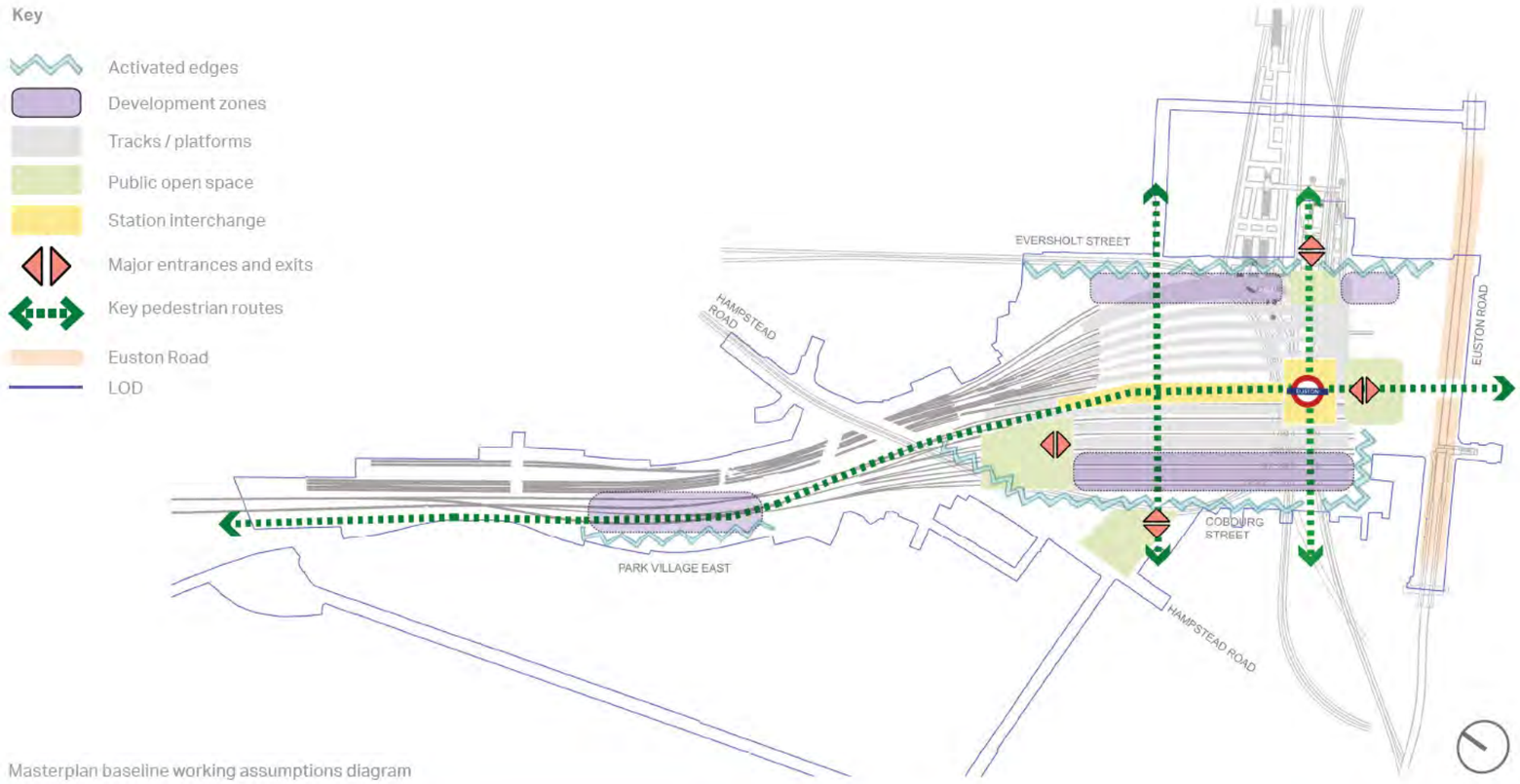
Redacted under Regulation 12(5)(e)

Key - Cycle Strategy

- London cycle grid
- London friendly cycle routes
- Cycle route opportunity
- Entrance
- Cycle parking opportunity
- New cycle hire opportunity
- Existing cycle hire

2 Masterplan Framework

As part of the masterplan development, a masterplan framework was developed which established a core set of minimum working assumptions, upon which all masterplan options should be based. These assumptions are listed in the box below. They align with the landowners vision, Euston Area Plan, and the design principles for the masterplan. They present the minimum requirements for the masterplan and effectively form a minimum 'base case'. This list of assumptions was agreed by the Euston Management Board. Alongside the existing transport infrastructure and street network, the working assumptions provide the framework for the masterplan. The opposite image (not to scale) provides a diagrammatic representation of these assumptions.



Masterplan baseline working assumptions diagram

- A north-south Link across the stations site
- Two east-west links across the stations site
- Station entrances on all four sides of the station
- Active edges to the eastern and western elevations of the site
- Public realm on all four sides of the station adjacent to entrances
- Perimeter development on the western side of the station along Cobourg Street

- Development over and adjacent to the HS2 station in line with the HS2 OSD Outline Business Case
- Perimeter development on the eastern side of the station along Eversholt Street
- Development in the northern development zone
- Fixed locations for HS2 tracks and platforms
- Efficient transport interchange
- High Speed Rail (London - West Midlands) Act 2017 obligations including in respect to the reprovision of open space, surface transport, London Underground, and Crossrail 2

Masterplan baseline working assumptions

3 Assembling the Opportunities

Photograph of the physical model testing the scenarios

Redacted under Regulation 12(5)(e)

As part of the masterplan process all the opportunities identified in the early design stages were assembled into cohesive masterplan arrangements at two milestone stages of the design process.

The milestone was the ‘emerging concept design’ which formed a base to benchmark all additional studies against. Many of the elements, such as concourse arrangement, basement location and OSD strategies informed the FSD design.

The second milestone looked at developing scenarios out of the opportunity studies, building upon the framework.

The scenarios were assembled as a tool for considering appropriate coupling and how the most suitable opportunities could be configured. They were also used as a tool for engagement and discussion purposes. Refer to the Masterplan Scenario Technical Report for further detail.

Redacted under Regulation 12(5)(e)