The Leeds Railway Station (Southern Entrance) Order

Design and Access Statement
Report 296480RPT09

May 2012
Metro & Network Rail

METRO

Network Rail

Mott MacDonald

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Content

1. Introduction

1.1 Background

In October 2009, a planning application for the Leeds Southern Entrance (LSSE) project (reference: 09/04625/FU) was submitted to Leeds City Council (LCC) and permission was granted in May 2010, subject to a number of planning conditions. In June 2011, the Department for Transport ("DfT") confirmed that in order to authorise the construction and maintenance of the scheme, an application could be submitted for an order under the Transport and Works Act 1992 ("the 1992 Act"). Accordingly, an application has been prepared to be submitted to the Secretary of State for an order under sections 1 and 3 of the 1992 Act.

An order is required under sections 1 and 3 of the 1992 Act to authorise:-

a) the construction and maintenance of a new station entrance at Leeds Railway Station;

b) the carrying out of works in the Aire and Calder Navigation adjacent to the southern boundary of Leeds Railway Station and associated with a) above;

c) the carrying out of other works and the exercise of powers required in connection with or ancillary to the matters set out in items a) and b) above; and

d) the acquisition of land and rights over land required in connection with items a), b) and c) above.

The application is being promoted jointly by Metro and Network Rail Infrastructure Limited. In addition, a request for a direction as to deemed planning permission will also be submitted to the Secretary of State under section 90(2A) of the Town and Country Planning Act 1990. An application for conservation area consent is also being submitted in respect of works proposed to be undertaken at Water Lane, Leeds as part of the overall scheme.

It is intended that an application for an order will be submitted to the Secretary of State in Spring 2012.

A joint Planning, Design and Access Statement was produced by consultant Aecom for the previous planning application in 2009. The design and surroundings have remained relatively unchanged since this planning application; therefore the previous report, where relevant, has formed the basis for this updated Design and Access Statement.

Design and Access Statements are documents which explain the design thinking behind a planning application. CABE's (former Commission for the Built Environment) publication: *Design and Access Statements How to write, read and use them (2007)* has been used to guide this statement. The statement will be a material consideration for the Secretary of State for Transport in determining the TWAO application.

The next chapter deals with the physical, socio-economic and policy context of the proposals. Chapter 3 describes how comments from the public and other stakeholders have been taken into account in the design. Chapters 4 and 5 evaluate design and access considerations in the light of this previous information and the conclusions are contained in Chapter 6.

1.2 Overview of the LSSE Scheme

Leeds City Station is one of Network Rail's seventeen managed stations, serving the City centre of Leeds in West Yorkshire, with local, regional and inter-city rail services. At present, it hosts 100,000 passengers per day. As well as serving the dense network of local railway stations around the hub of Leeds, the station is located on the busy east-west Trans-Pennine rail route and on the Doncaster branch of the East Coast Main Line (ECML), linking Scotland to London Kings Cross.

The LSSE Scheme is situated immediately south of the Leeds City Station railway viaduct which spans the River Aire. The Scheme will improve access to the station from the south and contribute to the on-going regeneration of Leeds. At the same time it will help relive passenger congestion at the main station entrance to the north.

It will include a concourse comprising three levels located over the river within a visually iconic enclosed building. Open link span bridges will provide direct stepped access to the lower concourse level from the east and west banks of the River Aire. The lower concourse also extends back through the span of the station viaduct via stepped and step free access to link with a further footbridge running parallel to Dark Neville Street. Access to upper levels is provided by steps, escalators and lifts. The first level of the concourse provides emergency access to platform 17. The upper level links to the existing western footbridge which is to be widened to accommodate ticketing facilities. The scheme is accompanied by pedestrianisation proposals (except for local access) for Little Neville Street to the east.

The objectives of the LSSE project are as follows:

- To improve access to Leeds Station by sustainable means;
- To maximise growth of the Leeds economy by enhancing its competitive position and facilitating its future employment and population growth;
- To support and facilitate the sustainable growth of Leeds, in particular to the south, recognising the importance of its city centre to the future economy of the Leeds City Region;
- To minimise journey times accessing Leeds Station to/from the south;
- To meet existing and future passenger flow requirements to the south of Leeds Station; and
- To ensure the current passenger flows within the station are maintained or improved.

2. Site and context

2.1 Physical Context

2.1.1 The area

The total site area which will be included within the TWAO application limits is 2.09 hectares (ha). This includes a separate site to the east of 0.45ha that has been reserved for temporary access and storage during construction

The site will form an extension to Leeds City Station, which is located within Leeds City centre in proximity to the main shopping and central business area. The surrounding land is used mostly for residential apartments, businesses and offices. The extensive brick railway viaduct (known locally as the Dark Arches) which straddles the River Aire and on which the station is located, transects much of the City centre in the local vicinity.

The site also lies in close proximity to the Leeds and Liverpool Canal which influences the historic legacy and character of this area. As such, this retains a largely urban character with limited landscaping or planting. In visual terms the surroundings to the site contain a mix of ages and styles of building ranging from low rise 18th and 19th century stone warehouses to higher red brick Victorian edifices to more recent multi storey offices and blocks of flats in brick or clad in a variety of colours. There are also a number of structural features in the area which relate to the canal and river - bridges and locks as well the Dark Arches themselves.

By virtue of its links with the industrial origins of the City and its proximity to the Leeds and Liverpool Canal, the area to the south of the station lies within the Canal Wharf Conservation Area. The proposed LSSE site is therefore located on the northern boundary of this Conservation Area. There are a number of other heritage assets within the locality, these include: the river lock and retaining walls to the River Aire (Grade II* Listed); Canal Wharf (Grade II* Listed); Victoria Bridge (Grade II Listed) and Dark Arches over the River Aire (a locally designated heritage asset). In addition, the barge loading/unloading site to the east is located within the Leeds City Centre Conservation Area.

2.1.2 The site

The River Aire flows rapidly under the Dark Arches in this vicinity and together with the arches is a prominent feature in the setting of the site. The Dark Arches are constructed in red brick and rise three storeys with grey panelled walls to the station above. These are aptly named and form a brooding presence over the river. From the west, the Leeds and Liverpool Canal joins the River Aire via a listed lock structure to the south of the proposed site. Here, the waterway becomes the Aire and Calder Navigation and flows in an easterly direction.

Cutting through the Dark Arches north of the site is Dark Neville Street, which has car parking located to either side of it within the station undercroft. Watermans Place, a modern 15 storey residential block fronting the river is situated to the west of the site and forms part of Granary Wharf (the ISIS development) - a mixed development with shops, hotels and restaurants. This was being in constructed in 2009 when the first LSSE planning application was decided.

The Blue Apartments are located on the eastern bank of the river, to the rear of which is Little Neville Street and the Hilton Hotel. The Blue Apartments, which were complete in 2009, are also a relatively recent 16

storey high residential block, with a ground floor retail use that has been fitted out as a golf shop and virtual driving range. This includes a private deck which cantilevers over the east river wall.

Both sets of residential apartments are within 4m of the river wall and there is no public footpath on the eastern bank. The ground floor deck to the Blue Apartments removes the possibility of a future walkway along the east bank of the River Aire. On the western bank there is a footpath, 1.6m in width, alongside the ground floor retail unit at Watermans Place. This footpath also provides service access to plant rooms and refuse stores.

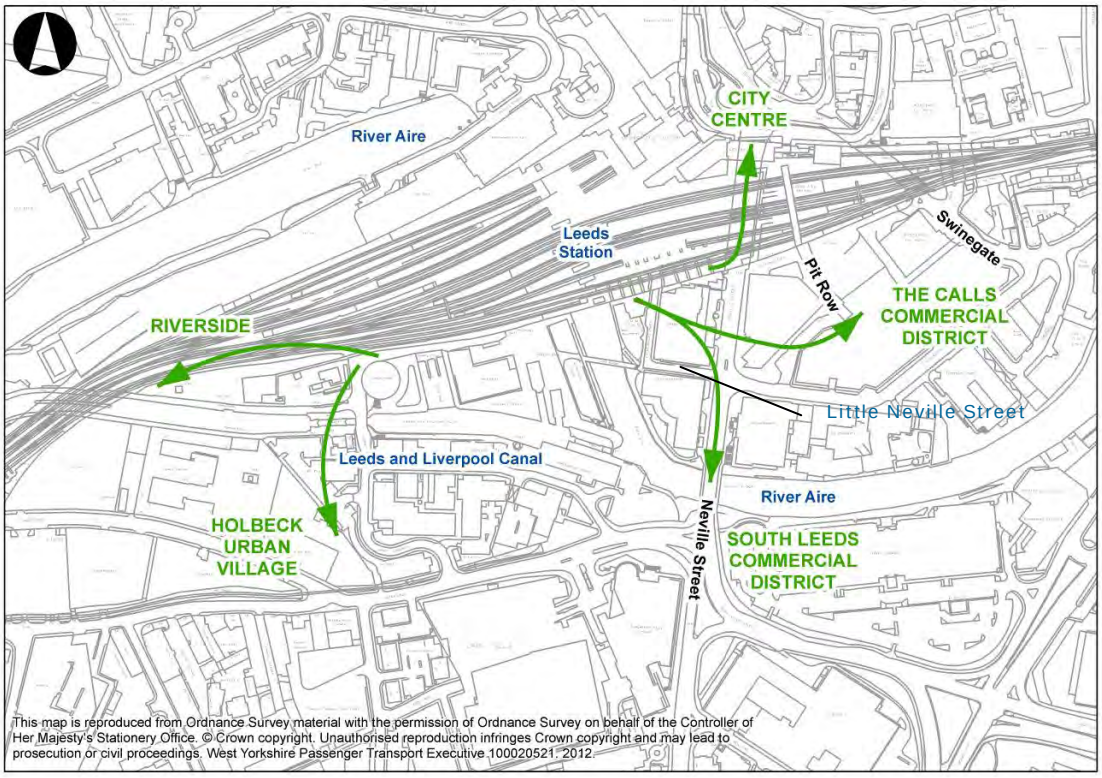
These recent developments have constrained the development potential of the site and, given the lack of space available on both east and west banks of the River Aire in this location, resulted in the choice of a structural solution within the water course.

2.1.3 Pedestrian and vehicular access to the site

The site is not readily accessible from the major road network. Limited road access is provided by Little Neville Street and Dark Neville Street (a private road) which link to Neville Street which is the main north-south route to the east of the site. This runs past the station to the north; to the south it crosses Victoria Bridge to access a wide area in the south of Leeds. There is also a servicing link from Neville Street across the Leeds-Liverpool Canal to Granary Wharf, via Canal Wharf and Wharf Approach to the south west.

Dark Neville Street currently provides an east-west pedestrian link. There is also a footbridge over the river (reconstructed as part of the ISIS development), situated approximately 30 metres (m) downstream of the site of the proposed new entrance and another crossing at the point where canal joins the river.

Figure 2.1: Key Connections from the proposed new station entrance



Source: Mott MacDonald

The LSSE Scheme is primarily intended to serve pedestrians coming from the south of the City. Figure 2.1 illustrates the immediate connection routes available to user of the entrance The routes shown in Figure 2.1 link into a much wider network covering south Leeds. These include:

- routes to the Calls Commercial District to the east of Neville Street;
- routes to the South of Leeds and further commercial areas along Neville Street;
- routes via Canal Wharf towards Holbeck; and
- routes along the Canal towpath to the west of Leeds.

2.1.4 Leeds City Station – circulation and access

Leeds City Station comprises 17 platforms which serve both local and long distance operators. To the northern side of the station, six bay platforms are used mainly by services to/from the Aire & Wharfe Valleys. The bay platforms to the south-west of the station are used mainly for services to/from the Nottingham and Sheffield directions. Through services run by Cross Country serve south-west England, north-east England and Scotland. East Coast runs a frequent service between Leeds and London Kings Cross. These long distance services tend to use the central through platforms, with the southern most through platforms (15 & 16) being almost exclusively used by Trans-Pennine Express between the north-east of England, Hull, Manchester and Liverpool.

Movement between platforms within the station is concentrated on the western footbridge, which spans from platform 16/17 in the south, to platform 8 in the north. Platforms 1 to 7 do not require a bridge to allow passenger movements between them, as they are bay platforms. A smaller footbridge is located at the eastern end of the station which is not DDA compliant. This is not as frequently used by passengers due to the stopping patterns of the trains, which tend to halt towards the western end of the station and therefore closer to the main footbridge and there are no lifts or escalators to this footbridge.

The main exit from the platforms is located to the north of platform 8, which is controlled by automated ticket gates (ATG). After passing through the ATG's, passengers exit either via the main entrance onto New Station Street, or they pass through the North Concourse and exit either to the end of Wellington Street or Princes Square. From New Station Street passengers can head towards City Square to the north, follow New Station Street onto Boar Lane or use the Rotunda steps to access areas south of the station via either Neville Street or Swinegate.

Taxi drop-offs are currently situated at the exits on New Station Street and Princes Square. A taxi rank is located outside the main exit on New Station Street, as well as five bus stops serving a number of services including a service to Leeds Bradford Airport. Vehicle drop off is at the Princes Square entrance which also provides access to the long and short stay car parks. Covered bicycle racks are situated inside the station on Platform 1 and a secure cycle storage facility is provided outside the entrance on New Station Street.

Passengers wanting to access or exit the station from the south of the railway therefore currently have no alternative to the existing indirect route via the main entrance on the north side of the station, the 'Rotunda' steps and through the Neville Street underpass beneath the station.

2.1.5 Navigational links

The Leeds Liverpool Canal and River Aire in this location are navigable by barge. It is intended that the Water Lane site to the east of the main site be reserved in the TWA Order for temporary access for unloading of materials.

2.2 Social and economic context

Much of the area immediately south, southeast and southwest of the station has an industrial and commercial past. The closing of many of these businesses has opened up an opportunity for redevelopment of the area for a variety of new uses. The Leeds City Region Transport Vision (2009) has estimated that jobs in Leeds will increase from 102,000 in 2009 to 118,000 by 2030, with most of these likely to be located in the expanding southern part of the City centre. Currently 11,000 people live within walking distance of the station and this figure is also set to rise.

Several briefs have been produced by the Council to encourage further redevelopment. These include the Leeds Waterfront area to the south (updated July 2006), Holbeck Urban Village to the south west (2006), the South Bank and Sovereign Street areas to the east (both produced in 2011).

A key plank of each of these briefs is the need for good connectivity, including better pedestrian, public transport and cycling links to the City Centre. The LSSE is seen as important project to assist in this regeneration with considerable savings in time for local businesses, commuters and visitors wanting to access the station from the south. Increased footfall in this area will also benefit nearby restaurants and shops.

In providing a shorter step free route to the station from the south, the proposals will therefore satisfy several of the key objectives for the Scheme outlined in Chapter 1, by facilitating future employment and population growth to the South of the City centre and helping to improve the City's competitive position.

The present route from the south is tortuous and even more so for those who cannot manage steps. This therefore addresses the key objectives for the Scheme to improve access to Leeds City Station generally by sustainable means and in particular, to assist those who are elderly or disabled.

At present 100,000 passengers use Leeds station per day and this will increase over the next twenty years. The current access to the station at peak times is congested and it will be of benefit to the comfort and safety of passengers to divert some of these to an alternative entrance. It is estimated that around 22-24% of current Leeds passengers will choose to use a southern entrance and with further development to the south, this figure is set to grow. This therefore also satisfies key objectives for the Scheme to meet existing and future passenger flow requirements to the south of Leeds City Station and ensure that current passenger flows within the station are maintained or improved.

A further benefit is that the structure, which is highly unusual in its form (see section 4), will be an attraction for people walking along the river or visiting nearby facilities.

2.3 Planning Policy Context

Policies included here relate to design and access considerations and are not repeated in the Planning Statement (RPT22 Mott MacDonald, 2012).

2.3.1 National Planning Policy

The National Planning Policy Framework (NPPF) published on 27th March 2012 replaces the majority of Planning Policy Statements (PPS) and Planning Policy Guidelines (PPGs). In terms of good design it states that planning policies and decisions should ensure that developments:

- function well and add to the overall quality of the area, not just for the short term but over the lifetime of the development;
- establish a strong sense of place, using streetscapes and buildings to create attractive and comfortable places to live, work and visit;

- optimise the potential of the site to accommodate development…and support local facilities and transport networks;
- respond to local character and history, and reflect the identity of local surroundings and materials, while not preventing or discouraging appropriate innovation;
- create safe and accessible environments where crime and disorder, and the fear of crime, do not undermine quality of life or community cohesion; and
- are visually attractive as a result of good architecture and appropriate landscaping.

It states that decisions should address the connections between people and places and the integration of development into the natural, historic and built environment. Equally local planning authorities should not refuse permission for buildings or infrastructure which promotes high levels of sustainability because of concerns about incompatibility with existing townscape, if those concern shave been mitigated by good design. It also seeks clear and legible pedestrian routes with high quality public space.

In determining applications local planning authorities should describe the significance of any heritage assets affected including any contribution made by their setting. It states that in weighing up applications that directly or indirectly affect a non designated heritage asset, a balanced judgment will be required having regard to the scale or any harm or loss and the significance of the asset.

In terms of access, the strategy also seeks to give priority to pedestrians and cycle movements and give access to high quality public transport facilities. In this respect it seeks to create secure layouts which minimise the conflict between traffic and cyclists and pedestrians and to consider the needs of needs of people with disabilities.

2.3.2 Regional Planning Policy

The Yorkshire and Humber Plan is the current Regional Spatial Strategy (RSS) for the Yorkshire and Humber Region which encompasses the City of Leeds. The Plan was issued in May 2008 and sets out policies to guide development over the next 15 to 20 years and also embodies the Regional Transport Strategy. The government proposes to abolish RSSs but for the moment this remains a material consideration.

Policy LCR1 relates to the Leeds City Region sub area. This policy emphasises the role of the Leeds City Region in particular in terms of economic development, protecting and enhancing the environment, strategic patterns of development and a shift towards more sustainable transport modes and enhancements to connectivity.

Policy LCR2 is concerned with regionally significant investment priorities for the Leeds City Region. This policy indicates that public and private sector investment in the City Region will be targeted to deliver transformation and change through economic development, housing renewal and growth, and improved green infrastructure, community facilities and accessibility. One such target identified, is to improve public transport, particularly to Leeds city centre, to enhance the ease of movement and improve access to jobs within the City Region particularly for disadvantaged communities.

RSS policy T1 aims to facilitate a reduction in travel demand and a shift to modes with lower environmental impacts by a range of complementary measures – from land-use policies through to measures that discourage inappropriate car use, encourage the use of lower-emission vehicles and promote the highest standards of safety and personal security.

Policy T3 relates to public transport and states that the Region will safeguard, enhance and maximize the provision of public transport facilities. Development should make use of existing public transport services or provide a focus for viable new services. Wherever possible, services should be available as soon as a development commences.

Policy T5: deals with transport and tourism stating that the region will seek opportunities to improve access to all its main tourist destinations. Plans, strategies, investment decisions and programmes should enhance access to all groups in society and encourage tourist destinations and attractions to provide incentives for visitors to arrive by modes other than the private car.

Policy ENV9 seeks to safeguard and enhance the historic environment, and ensure that historical context informs decisions about development and regeneration.

The next chapters of the report will show that these objectives are met by the Scheme.

2.3.3 Local Planning Policy

2.3.3.1 Unitary Development Plan

The following policies are of particular relevance:

- Policy T1 (Transport Investment) which gives priority to improving the quality and provision made for public transport;
- Policy T2 (Transport Provisions for Development): New development should normally: be capable of being adequately served by public transport and taxi services and should ensure that necessary infrastructure for new services is included in the development; and make adequate provision for easy, safe and secure cycle use and parking.
- Policy T5 (Pedestrian & Cycle Provision): Satisfactory safe and secure access and provision for pedestrians and cyclists will be required within highway schemes and new development.
- Policy T6 (Provision for the Disabled): Satisfactory access and provision for disabled people and other people with mobility problems will be required within new development
- Policy T9 (Public Transport Service): An effective public transport service will be encouraged and supported where practicable to give appropriate access to employment, shops, education, health, recreation and other social and community facilities. Public transport initiatives which pursue these aims will generally be supported.
- Policy T10 (Local Rail Network Improvements): The development of the local rail network will be supported so as to maximise its potential contribution to the public transport network.
- Policy SA8 (Access for All) which seeks to ensure that to ensure that all sections of the community, have safe and easy access to social and economic opportunities by maintaining and enhancing the current levels of provision in appropriate locations;
- Policy SA9 (Aspirations for the City Centre) which seeks to promote the development of a city centre which supports the aspiration of Leeds to become one of the principal cities of Europe, maintaining and enhancing the distinctive character which the Centre already possesses;
- Policy N10 (Public Rights of Way & Development): Development will not be permitted which adversely affects a public right of way, unless an alternative is provided which maintains the convenience, safety and visual amenity offered by the original right of way

Policy N12 states that proposals for development should respect the following fundamental priorities for urban design:

- development should create a series of linked and varied spaces that are defined by buildings and landscape elements;
- the best buildings of the past should be retained. New buildings should be of good design in their own right as well as good neighbours;
- new developments should respect the character and scale of buildings and the routes that connect them;
- movement on foot and on bicycle should be encouraged;
- developments should assist people to find their way around with ease;
- developments should, where possible, be adaptable for other future uses;

- design and inclusion of facilities should reflect the needs of elderly people and of people with disabilities and restricted mobility;
- visual interest should be encouraged throughout; and
- development should be designed so as to reduce the risk of crime.

Policy N13 (Design & New Buildings) which states that the design of all new buildings should be of high quality and have regard to the character and appearance of their surroundings. Good contemporary design which is sympathetic or complementary to its setting will be welcomed;.

Policy N19 requires new buildings and extensions within or adjacent to Conservation Areas should preserve or enhance the character or appearance of the area by ensuring that:

- the siting and scale of the building is in harmony with the adjoining buildings and the area as a whole;
- detailed design of the buildings (including the roofscape) is such that the proportions of the parts relate to each other and to adjoining buildings;
- the materials used are appropriate to the area and sympathetic to adjoining buildings; and
- attention is given to the design and quality of boundary and landscape treatment.

Policy BD2 (Design & Siting of New Buildings): The design and siting of new buildings should complement and (where possible) enhance existing vistas, skylines and landmarks.

Policy BD3 (Disabled Access New Buildings): All new buildings open to the public should provide suitable access for disabled people.

Policy BD4 (Plant Equipment & Service Areas): All mechanical plant and associated pipework, lifts and other mechanical equipment and fire escape stairs should normally be contained within the envelope of the building. All service areas should be screened from view as far as possible.

Policy BD5 (Amenity & New Buildings): All new buildings should be designed with consideration given to both their own amenity and that of their surroundings. This should include usable space and satisfactory penetration of daylight and sunlight.

Policy BD6 (Alterations & Extensions**):** All alterations and extensions should respect the scale, form, detailing and materials of the original building.

Policy BD14 (Floodlighting): Carefully designed floodlighting schemes will be encouraged, particularly for distinctive or important buildings.

Policy LD1 (Landscaping Schemes): Any landscape scheme should normally:

- reflect the scale and form of adjacent development and the character of the area;
- complement and avoid detraction from views, skylines and landmarks;
- provide suitable access for people with disabilities;
- provide visual interest at street level and as seen from surrounding buildings;
- protect existing vegetation, including shrubs, hedges and trees; and
- complement existing beneficial landscape, ecological or architectural features and help integrate them as part of the development.

Policy A4 (Safety & Security Provision): Development should be designed to ensure a safe and secure environment, including proper consideration of access arrangements, treatment of public areas, service and maintenance requirements, materials and lighting, including external lighting of prominent buildings and their surroundings.

Policy CC3 (City Centre Character): The identity and distinctive character of the city centre will be maintained by:

- protecting the building fabric and style which make Leeds a unique and attractive city;
- encouraging good innovative designs for new buildings and spaces; and
- upgrading the environment where necessary to complement the needs of activities which are essential to the identity, vitality and function of the city centre.

2.3.3.2 Submission Core Strategy

The proposed Core Strategy was agreed by Members for public consultation in February 2012. It will then go to examination in public later in the year, with the intention of it being adopted in 2013. It is therefore of some materiality to the application and in particular this Design and Access Statement.

The strategy is based on a number of themes which include “a well connected city”. Key issues include getting people to work, connecting to important facilities and diversion of traffic from the City centre by encouraging more people to use public transport, walk or cycle.

Policy TI & MP 1: Transport Investment and Management Priorities. This supports the delivery of an integrated transport strategy for Leeds, comprising a range of infrastructure improvements and other interventions including:

- public transport improvements for the bus and rail networks (including new rail stations where appropriate) to increase radial capacity to the city
- transport improvements to connect to and from development areas;
- expansion of the Strategic Cycle Network to improve connectivity;
- improved facilities for pedestrians to promote safety and accessibility, particularly connectivity between the ‘Rim’ and the City Centre; and
- provision for people with impaired mobility to improve accessibility.

Policy SC8 Design, conservation and landscape. This states that all development will be expected to create excellent design that protects and enhances those elements which contribute to the distinct identity of the City. This includes taking account of landforms and historic features. In determining the form, setting and location of development account should be taken of:

- existing natural site features including ….watercourses;
- character and quality of external spaces and the wider locality;
- prominence, skylines and views;
- desire lines for new routes;
- waste and recycling storage;
- renewable energy measures;
- sustainable construction;
- crime reduction;
- flood risk mitigation; and
- car and cycle provision.

Policy SC9 Disabled Access: This policy expects all development to be accessible to users in accordance with the latest best practice guidance (unless exceptional circumstances such as listed structures are affected).

2.3.4 Additional Planning Policy Documents

In addition to the UDP, there are a number of Supplementary Planning Guidance (SPG) and Supplementary Planning Documents (SPD) as well as Strategies adopted by the City Council, which are

relevant to design and access considerations related to the proposed development. These documents provide a more detailed explanation of how strategic policies of the Unitary Development Plan might be practically implemented. The content of these documents should be given weight in considering development proposals. Those documents relevant to the proposed development are summarised below.

2.3.4.1 Leeds Waterfront Strategy

The Leeds Waterfront Strategy was adopted in 2002 and was the subject of a partial review in 2006. The Strategy encompasses approximately 6.5km of the river and canal corridor running through central Leeds, formed by the Aire & Calder Navigation and the Leeds and Liverpool Canal. The proposed development falls within the study area.

The Waterfront Strategy identifies opportunities for regeneration and enhancement in the study area and seeks to promote good design within the study area. New buildings and features positively address the waterways as the focal point of the development. In particular, buildings should be innovative, sensitive to their particular location and respect the heights, mass and detailing of existing neighbouring buildings. Any development should seek to improve pedestrian and cycle access to/from the waterway corridor and to identify opportunities for environmental improvements to the waterway.

The Waterfront Strategy places an emphasis on promoting the conservation character of the study area. In particular, new development should acknowledge and respects historic buildings and settings through the careful conservation and integration of historic buildings and structures into new development schemes.

The Strategy identifies the view into Dark Arches as an important feature within the river corridor. As such, this view should be retained and enhanced. In addition Granary Wharf (on the southern side of Dark Arches) is identified as a key focal point/space.

2.3.4.2 Building for Tomorrow Today: Sustainable Design and Construction

This SPD was adopted in August 2011 and forms part of the LDF suite of documents. The document provides guidance for design and construction projects within Leeds and seeks to achieve rigorous levels of sustainability.

Leeds City Council encourages developments of 1,000 or more square metres to meet the 'Excellent' standard set by BREEAM[1] by 2013.

The SPD seeks to support developers in realising projects that:

- reduce greenhouse gas emissions;
- successfully adapt to climate change;
- have a minimal impact on overall environmental quality; and
- provide inclusive development to all users.

The document gives guidance to developers on the following topics, based on the categories and environmental issues covered by BREEAM. Those themes that are pertinent to the proposed development are outlined below:

[1] Building Research Establishment Environmental Assessment Method (BREEAM). A BREEAM assessment uses recognised measures of performance, which are set against established benchmarks, to evaluate a building's specification, design, construction and use. The measures used represent a broad range of categories and criteria from energy to ecology. They include aspects related to energy and water use, the internal environment (health and well-being), pollution, transport, materials, waste, ecology and management processes.(www.breeam.org)

- **Site Appraisal:** Any proposed development should consider the wider context of a site and identify the constraints and opportunities for sustainable development. A site appraisal should examine both the site and its surroundings and include an assessment of accessibility particularly public transport, walking and cycling;
- **Design Considerations:** The character of the space around buildings should define a development's quality, creating an attractive setting, relating to the wider townscape or landscape and, where possible, creating habitats;
- **Energy & CO2 Emissions:** Any proposed development should examine low-carbon technologies and include measures which seek to reduce their carbon footprint. In particular, development should promote the use of public transport and walking/cycling and week to reduce reliance on the private car;
- **Materials:** Any proposed development should consider the source of the materials and the energy used in their manufacture and transportation;
- **Surface water run-off:** The impact on the water environment should include impacts on water quality, protecting the flood capacity of watercourses and protecting such features. The site layout should seek to minimise impacts on the water environment by reducing the quantity and improving the quality of surface water run-off; and
- **Ecology:** Any proposed development should consider the enhancement and integration of biodiversity measures into development schemes, where feasible (this latter topic is dealt within the Planning Statement: ref Mott MacDonald RPT08).

The SPD identifies 10 Urban Design Principles which seek to promote sustainable and cohesive communities. These principles are set out below:

1. Investing Effectively – Recognise that good design is good business;
2. Creating Excellent New Places: Take a visionary approach;
3. Working Together: Get the team right;
4. Improving Existing Identity: Analyse and enhance the character;
5. Involving the Community: Make places for (and by) people;
6. Connecting Places: Create visual and physical links;
7. Regenerating throughout Leeds: Close the gap and move forward;
8. Managing the Investment: Look after the place;
9. Delivering Sustainable Environmental Solutions: Provide for future generations; and
10. Reviewing our Work: Improve Continuously.

Of these, Principle 9 (Delivering Sustainable Environmental Solutions) is particularly pertinent to this SPD.

3. Involvement

3.1 Stage 1 consultation - 2009 planning application

A series of consultation exercises were held in relation to the planning application for the LSSE project (reference 09/04625/FU) submitted to LCC in October 2009. These sought to ensure that the widest possible audience was consulted and encouraged to provide feedback on the proposals.

The response to the proposals in 2009 was overwhelmingly favourable with over 96% of respondents being supportive of the proposals. Of these 28% were positive but had some concerns. Positive comments were received regarding the beneficial economic impact of the Scheme, the architectural merits of the proposals, journey time savings and reduced congestion around existing concourses. Main concerns focused on the design and colour of the cladding. However twice as many respondents were positive about the design than were not.

Concerns raised by Members at the subsequent committee were addressed by further explanation of the proposals and by conditions attached to the permission. These allowed for further cycle storage and a contribution towards maintenance of Granary Wharf, in the event that this was found to be needed.

3.2 Stage 2 consultation 2011-12

Metro has produced a Statement of Consultation in accordance with Rule 10(2)(d) of the Transport and Works (Applications and Objections Procedure) (England and Wales) Rules 2006. The principal objectives of consultation with stakeholders were that:

- information to be made readily available and shared with those who might be affected by or interested in proposals;
- members of the general public were given the opportunity to comment;
- other stakeholders were given the opportunity to comment;
- feedback from comments received was considered in final design proposals; and
- an environment was created for continuous engagement.

The consultation has covered a wide area affected by the proposals and has included a consultation hotline, a leaflet and three exhibitions in December 2011. Again comments from the respondents who attended the exhibitions were generally highly favourable. 89% of respondents supported the proposals the main reasons being journey time savings, reduced congestion at existing concourses and a positive impact on businesses and residents in south Leeds. Lack of support (11%) centred on cost, better uses for the money and the architectural design.

Targeted consultation was carried out with the owners and occupants of the Blue Apartments, Watermans Place and Candle House; also the Promoters have attended residents' association meetings. In addition local businesses were contacted. Following consultation Metro and Network Rail are working with local residents and businesses to identify their issues with the construction and operation of the scheme and to identify measures to mitigate their concerns. Chief concerns in this case centred on:

- noise vibration and dust during construction;
- hours of construction;
- overnight working;
- reduction in the quality of residents' lives;
- impact on local businesses;

- increasing footfall in the area and resulting safety implications; and
- concern about being overlooked by the LSSE.

As a result of these comments, the Promoters have reviewed the design to ensure that the Scheme is the minimum size and shape commensurate with its use, that the elevations are “broken up” to reduce visual impact and that there will be no direct overlooking of nearby properties. CCTV surveillance is to be introduced to assist to with safety concerns.

Regarding disruption from construction, the Construction Management Plan (CMP) will seek to reduce impact on residents and local businesses as far as is possible and to keep them informed as to what is happening. The delivery of materials direct to the site by barge from Water Lane, down stream of the site, will be a major benefit in this respect.

In addition to the above regular liaison has taken place with LCC Members, the local MP and with Officers from various departments in the Council. Meetings have been held with statutory consultees, including the Environment Agency, English Heritage and Natural England; and with key interest such as the British Water Waterways Board. As a result, the Scheme has been reviewed to help ensure that all concerns have been addressed. Comments made have also resulted in the proposals for the pedestrianisation of Little Neville Street.

4. Evaluation of the design

4.1 Evolution of the design

As a co-promoter of the scheme, the design progression of LSSE has followed Network Rail's process called "Governance for Railway Investment Projects" (GRIP) (previously known as Guide to Rail Investment Projects). GRIP is a company standard that describes how Network Rail manages and controls projects that enhance or renew the national rail network. There are eight GRIP stages as outlined below:

1. Output definition;
2. Pre-feasibility;
3. Option selection;
4. Single option development;
5. Detailed design;
6. Construction test & commission;
7. Scheme hand back; and
8. Project close out.

The design which was developed up to GRIP 4, formed the basis of the previous planning application submitted to LCC in October 2009 (reference 09/04625/FU) and the current TWAO application. A review and appraisal of the options considered up to GRIP 4 has been undertaken by Mott MacDonald (RPT 18 February 2012). This document provides a consolidated report which presents the evidence, rationale and context for how the preferred scheme location and design were reached. It sets out the basis for the preferred scheme, demonstrating to potential external scrutiny (including at any future hearing or Public Inquiry) that the most appropriate scheme was selected and developed as the basis of the TWAO application.

As discussed in Chapter 3, Metro has undertaken various consultation exercises both for the previous planning application and this TWAO application. This consultation process aimed to help ensure that all those who wished to do so have had the opportunity to express their views on the proposals and every effort has been made to take these comments on board where practical to do so.

This report together with further considerations of constructability and the changing context of the site in terms of neighbouring developments, flood levels and the ability to link to Little Neville Street footbridge have resulted in a set of key design constraints on the form and layout of the structure, which are outlined in more detail below:

- Journey time savings - the financial case for the new entrance is largely based upon reduced pedestrian journey times and is outlined in the Major Scheme Business Case. This established the need to connect as directly as possible to key pedestrian routes and to the key movement routes in the station;
- River Aire and flooding - the Environment Agency has guided the finished ground floor level of the LSSE to address the predicted 1 in 200 year plus climate change fluvial flood level, allowing for the proposed Leeds Flood Alleviation Scheme. In addition structural solutions must have minimum impact on river flow; explicitly not causing an increase in flood levels. Full details of the Flood Risk for the entrance are within the Flood Risk Assessment which accompanies the TWAO application;
- Proximity of neighbouring structures - the Blue Apartments and recently constructed Waterman Place buildings are built very close to the river bank and to the viaduct restricting the opportunities for siting the building to avoid overshadowing and overlooking, as well as the available area on the banks for structural support. In addition this raises issues surrounding water quality in the River Aire as well as the general issues surrounding dust, air quality, noise and vibration during the construction phase.

Consultation with the Environment Agency in relation to these issues will be undertaken as part of the TWAO process and will continue throughout the project until the construction phase is complete. Full details of the environmental mitigation measures to be applied during the construction and operation of LSSE are contained within the Environmental Statement which accompanies the TWAO application; and

- Structural loads on the viaduct - the viaduct and existing station have limited additional load bearing capacity so the new structure must be substantially supported by other means.

4.2 Use

The primary use for the site is to provide a main access point to Leeds Railway station from the south which will serve a growing demand from this direction and increase station capacity. The scheme will provide step free access to the ticketing facilities on the upper level. It also includes provision to store cycles.

As an additional benefit the Scheme also provides another bridging point across the River Aire for the residents living in and around the station. This helps to link the communities providing for a wider, larger community which can share amenities from both developments

4.3 Amount

The quantity of development is not substantial (approximately 862m^2 on three floors, including vertical elements). The building is isolated spanning the River Aire so it is not using up valuable land or space which could be used for other development. The size of the development will cater satisfactorily for the increasing number of rail users expected to use this access.

4.4 Layout

The structure projects into the river supported on piers which extend from the existing arches to help avoid disruption to the flow of the river. Figures 4.1 – 4.3 show plans of each level of the Scheme. At ground level, the main structure and link under the arches to Dark Neville Street is enclosed, with doors to the new footbridge along Dark Neville Street and the two linking bridges just south of the arches.

There is stepped passageway between the Blue Apartments and the Dark Arches providing eastern access/egress to Little Neville Street and a widened urban realm plaza area. A wider passageway with steps is located in a similar position on the west bank linking to Granary Wharf.

Ramps between the arches to the east and west provide step free access. It was intended to provide a level route to the river banks from the ground floor of the LSSE; however the height of this floor has been defined by the Environment Agency's current flood proposals, as outlined in Section 4.1, which have caused it to be raised. This has led to the introduction of further steps and ramps to negotiate the level change.

Within the main concourse also at ground level is an open deck which will allow access for its cleaning and maintenance of the glazed southern façade. A set of stairs and two lifts are located to either side of a twin bank of escalators.

Figure 4.1 Ground level LSSE Scheme

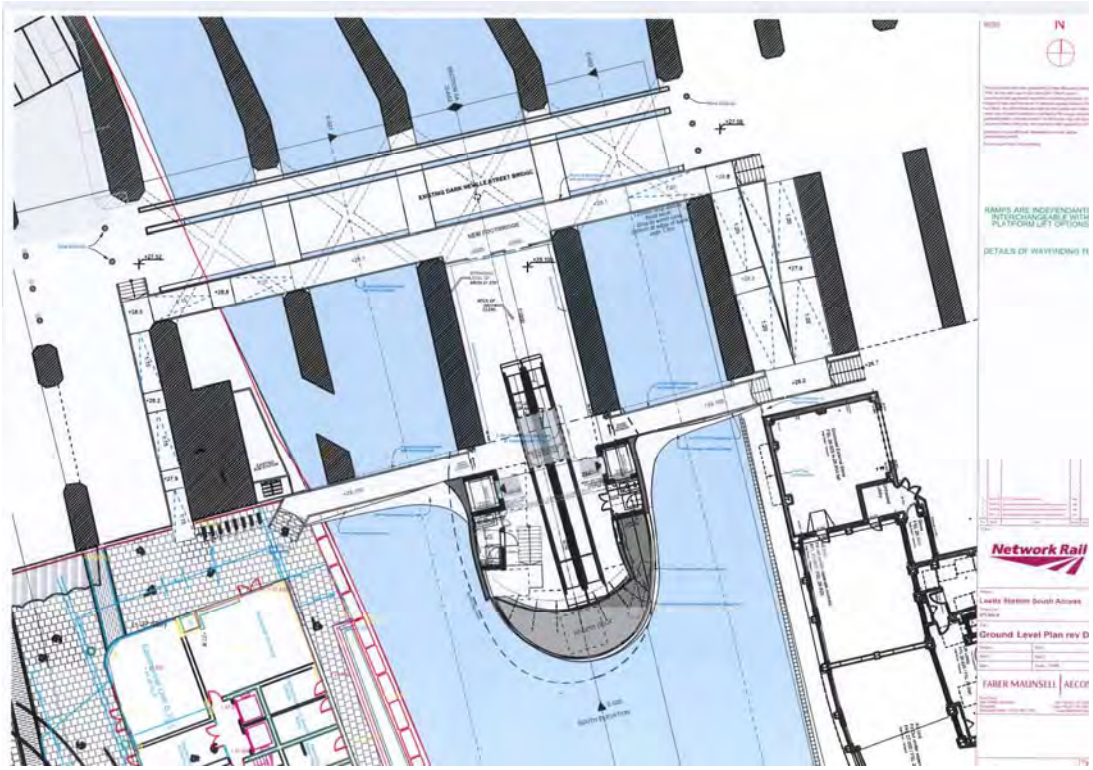


Figure 4.2 First floor LSSE Scheme

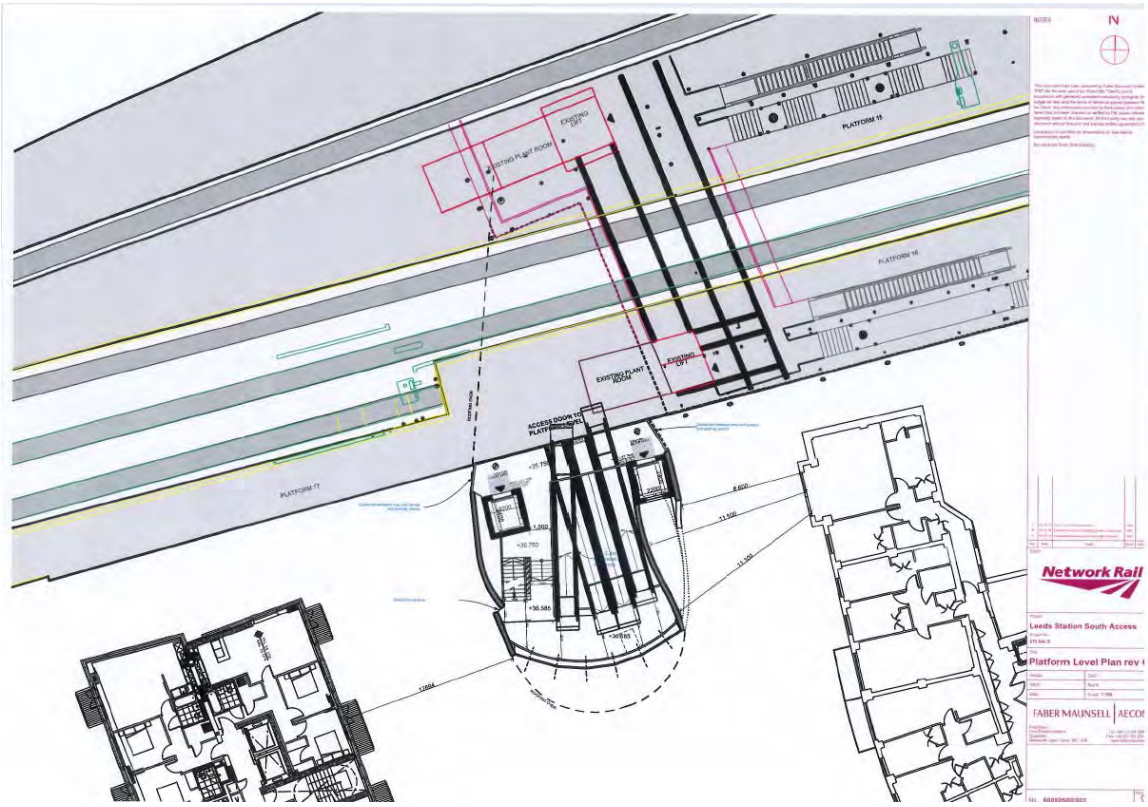
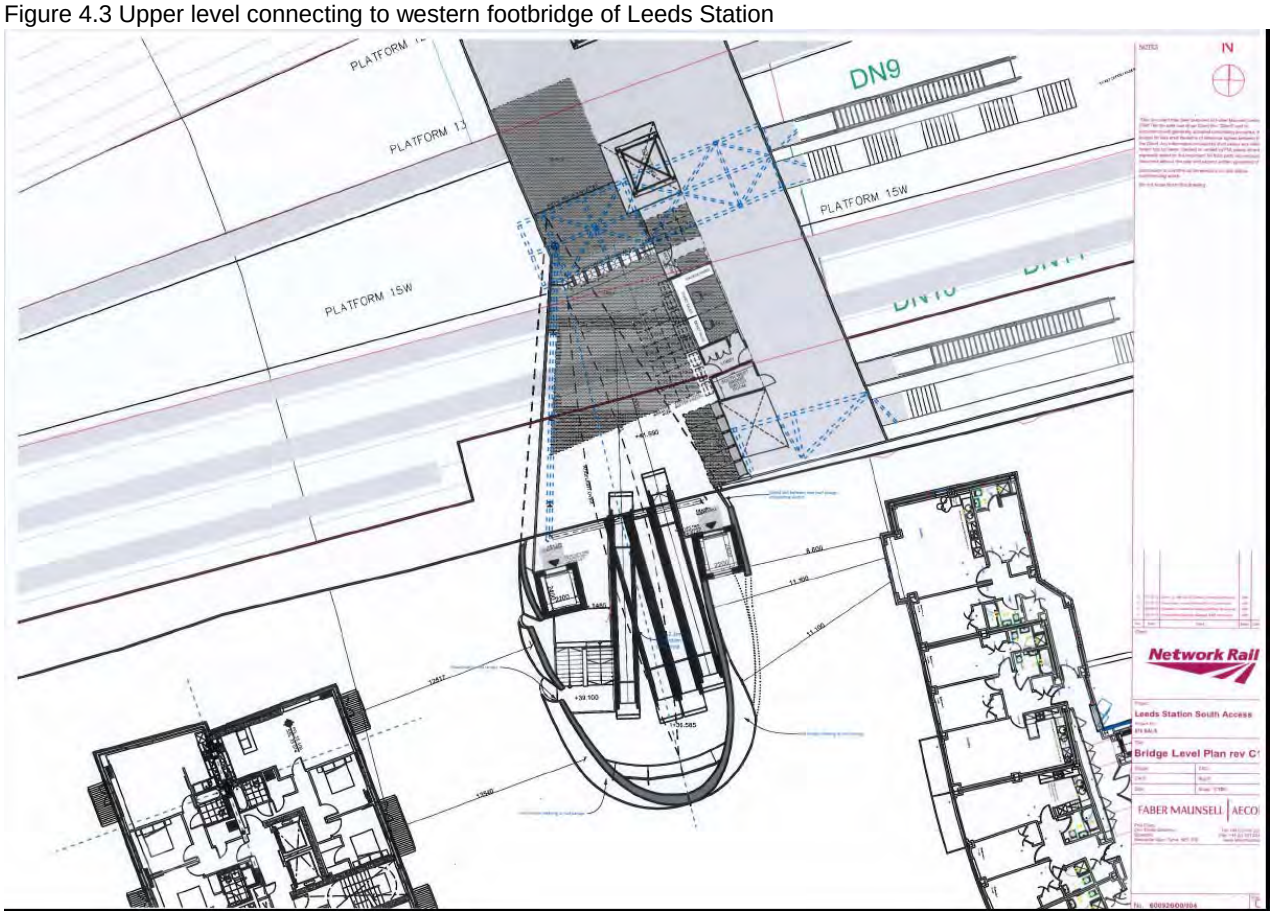


Figure 4.3 Upper level connecting to western footbridge of Leeds Station



Sources: Network Rail

The escalators then turn back towards to station to deliver passengers to the end of the western footbridge, which will be widened to accommodate new ticketing facilities. Elements of the vertical circulation will be clearly visible on approach by foot to the building and from within the station and making the core purpose of the extension clearly legible to passengers. The design has also sought to maximise the experience of passengers arriving and leaving by offering them contrasting views out along the river towards Bridgewater Place and back into the vaults of the Dark Arches.

4.5 Appearance

4.5.1 Form

Figures 4.4 and 4.5 below provide a visual depiction of the structure viewed from the south-east and west respectively. The main enclosure takes the form of an arched hood framing a three storey glazed panel on the south elevation. This rises but also tapers to a point at its northern end, where it joins the existing roof of the station. The form of the roof complements the existing curved canopy to the station as well as the arches and vaults that form the viaduct

In addition to the glazed southern façade, the eastern elevation steps back to allow for a glazed lift shaft facing south. There is a narrower slot facing north on the western façade and glazed slots on either side adjacent to the arches. These and the form of the roof help to separate the structure visually from adjacent structures such that it “reads” as being visually independent of these.

Figure 4.4: Visualisation of the Leeds station Southern Entrance (GRIP 4 design)

Source: Metro

Figure 4.5: Visualisation: showing the new station entrance as an extension of the existing western footbridge

Source: Metro

Separating the structural elements has allowed a clear and elegant structural solution. While stairs, lifts and escalators are supported from what is an extension of the foundation piers, the enclosing canopy is an independent, over-sailing structure that is supported by a new column located on platform 15 which

connects to new foundation piers at river level and the station roof at the back of its peak over the existing western footbridge as shown in Figure 4.6. The extension to the western footbridge is a separately supported structure which will mimic that of the existing as closely as possible, but ultimately transferring its additional loading down through the new piers where possible.

The structure creates an iconic statement flanked by the large residential blocks on the east and west banks of the River Aire buildings and will signal the entrance to the station from some distance to the south. As such it will add to the local character of the site in a positive way and become a focal point for the area.

Figure 4.6: View from Victoria Bridge

Source: Metro

4.5.2 Materials

The entrance building and river deck will be supported by two new piers located in the channel of the River Aire. These will be aligned with the piers of the existing viaduct to minimise restriction on river flows. On the east and west river banks, piled bank-seats will provide end support to the spans. A new column will be located on platform 15 adjacent to the lift motor rooms and the existing roof support column will be strengthened.

The southern end of the extension will be supported by columns which extend down to and are supported by the two new river piers while the upper level of the escalators will be supported by the footbridge extension. Floors are of structural steelwork in-filled within-situ concrete slabs. Vertical elements are in reinforced or pre-cast concrete.

The canopy will be formed by a steel frame; it is proposed to clad the canopy in a gold coloured roofing (material to be agreed) that will patinate, weather well and reflect light without causing glare. The material

will have excellent mechanical abrasion resistance, extremely high corrosion resistance and durability as well as good stability and material rigidity. It will require minimum maintenance.

The southern elevation will be a structural glass system which maximizes views down the river and views into the entrance. This glass wall will be built on an incline in order to reduce overheating and to reflect and capture shimmering light bouncing off the River. Directional privacy and further solar control will be added by an innovative coating, consisting of small dots applied directly to the glazing. This will set up a controlled moiré (interference) pattern that will obscure views from certain directions whilst retaining them from others. This subtle effect can be also be used to display a large station logo on the glass further helping to identify the entrance from a distance.

A glass slot will run down the length of the apex of the hood bringing light into the space. Due to the exposed position of this element of glazing self cleaning glass can be used effectively. The two 'glazed slots' which separate the new structure from the viaduct will allow a continuous view through the structure along the viaduct.

The glazing system to the extension of the western footbridge will match that existing, albeit that the bridge widens out to meet the new structure, following the line of the hood above. Reinforced cast glass will provide the envelope between this glazing and the roof canopy, in keeping with the look of the upstand aluminium cladding used here. The smaller glazed incisions in the west facade of the canopy give glimpses from the staircase back over the station platforms whilst allowing light spill at night across the gold shingle surface of the canopy.

Similarly on the east elevation the front of the lift shaft will be glazed in the same way, also allowing views through the building to the Dark Arches and at the same time making the operation of the lift visible from a distance - further identifying the building's function.

The southern glazing will reveal the lit entrance hall at night without affecting the adjacent apartments and the bronze shingles will reflect and catch light from the adjacent buildings. This will assist in making this entrance to the station a key arrival and departure point for the station.

4.6 Scale and massing

4.6.1 Impact on nearby properties

A series of meetings were held with LCC regarding possible effects of the structure on adjacent properties, notably the Blue Apartments and Watermans Place. As part of the continuing discussions the design has been refined to minimise the impact of the enclosure on its surroundings.

The proposed enclosure is restricted in width to be no wider that the central arch and piers in order to minimise the blockage of both views towards the arches and from Dark Neville Street out down the river. The form reduces the enclosure to the minimum required for the space to function and at the same time minimises the impact of the structure on the Blue Apartments and Watermans Place. By curving the structure in plan and section the design has endeavoured to restrict the amount of overshadowing to a minimum whilst also attempting to reflect as much light as possible into these apartments and reduce the impression of side walls in shadow.

The design of the canopy has been adapted from a simple arched form to enclose the lift shafts (which is the most critical element in terms of both width and height) but it then steps back in plan and section to enclose other less critical elements so minimising the distance to the adjacent apartments. The lift shafts are located as close as possible to the existing viaduct structure allowing for access from the bridge links

and the glazed slot. The southern most wall of the lift shaft and the point beyond which the canopy reduces in width, lines through with the north most edge of the bay window to the Blue Apartments.

It is understood that there are no minimum distance standards by which impact on residential amenity is assessed in the City centre, where the approach has always been to consider each case on its merits. However, the distance looking directly out of this main aspect window towards the structure and south along the window is a minimum of approximately 11m.

The glazed features add interest to the appearance of the structure and help to “break up” the façade to reduce any over-dominant effect. At night they will subtly spill light along the side of the façade making at appear to glow from within while delicately picking out the curvature of its form (Aecom, 2009).

4.6.2 Impact on daylight and sunlight

A daylight and sunlight analysis was undertaken by Faber Maunsell/Aecom in April 2009 to assess the likely impact of LSSE on the existing residential properties to the east of the site. With regard to daylight, 15 test panels were identified to the lower floors of residential properties immediately to the east of the site The 15 test panels correspond to the windows of the Blue apartments located on floors 1 – 5 of the building (the ground floor does not have any windows adjacent to the site). These test panels cover the primary and secondary aspects of the apartment nearest the viaduct and only the secondary aspect of the adjacent apartment.

The analysis revealed that 11 out of 15 test panels would have daylight reduction of less than good practice guidance. The cumulative daylight impact is therefore assessed to be major adverse in accordance with the BRE guidance document ‘Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice’. This however applies to the primary aspect of only 4 apartments within the development to the east of the site and it unlikely that that the majority of test planes identified currently receive good practice daylight levels, due to inherent overshadowing from Waterman’s Apartments. The form of the LSSE Scheme has been reduced to a minimum commensurate with effective operation and the material used is a light colour to minimise the effects of loss of daylight.

Access to direct sunlight is also limited due to overshadowing from the buildings opposite. The analysis indicates the cumulative impact of the proposed development on sunlight access to the residential properties to the east of the site is likely to be minor adverse and only present late in the evening during the summer months. This would only affect the same apartments as for the daylight impacts.

4.6.3 Landscaping

Landscaping of the scheme is minimal due to the footprint of the entrance building, the fact that the site bridges the river and is surrounded by newly built residential blocks to the east and west. There is an obvious lack of street furniture throughout as the spaces are primarily used for passage and not pausing. Users of the station will wait within the confines of the station building. An uncluttered space is a necessity with this style of design and site dimensions.

Surfaces and steps to the linking bridges and footways will be formed from sandstone which will reflect the quality of the whole scheme. Bridges will also have high quality structural glass balustrades. The landscape design has been developed with long term minimal maintenance regime in mind. The materials chosen are hardwearing and will require simple maintenance, for example the sandstone steps could be pressure washed yearly.

4.7 Lighting

4.7.1 General Lighting

Lighting within the new LSSE will be provided by low glare, energy efficient luminaires and high frequency control gear, to comply with the requirements of CIBSE (Chartered Institute of Building Services Engineers) Codes of Interior Lighting. Illumination levels shall be designed and calculated in accordance with CIBSE Codes of Interior Lighting. Luminaires shall be selected to complement the architectural finishes of the building.

The detailed lighting design will be progressed during the detailed design stages of the project. A lighting scheme will be submitted under a Planning Condition that will specify the detailed lighting design. Consideration will be given to the means of lighting control and the use of automatic lighting controls. This in accordance with the requirements of the design and of the end users.

4.7.2 Emergency Lighting

A system of emergency lighting will be provided on escape routes of the building and in other critical areas to permit safe movement and escape from the building and access and egress routes at times of power outages. All luminaires will have integral self contained emergency inverter packs and integral batteries which are capable of providing the required illumination levels for a minimum of 3 hours. It is likely that the emergency lighting installation will consist of a combination of dedicated emergency luminaires, and where practical, luminaires which form part of the general lighting scheme will incorporate an emergency facility.

The emergency lighting system will be designed in accordance with BS5266 and all relevant British Standards and Codes of Practice, to satisfy the general safety of all occupants of the building.

4.7.3 Exterior lighting

The lighting of external spaces will be designed to complement the existing and proposed architectural features. Subtle lighting effects will cast light onto surfaces to make the entrance appear to softly glow at night. Low level downlighting will be used to wash pedestrian walking surfaces (such as the flanking bridges) with light in order to reduce the amount of area lighting requires, whilst meeting the required Lux levels and minimising the amount of light spill from the development. Minimising the impact on bats will also be a necessary consideration in the lighting design, particularly at lower levels.

4.8 Security

The existing CCTV system within the station shall be expanded to incorporate the new CCTV cameras that will be installed within and around the new Southern Entrance development. Sufficient CCTV cameras will be provided for general monitoring of all areas within the Southern Entrance.

The new cameras will be affixed via standard camera brackets clamped to the new / existing structure dependent on location. The method of camera mounting will be subject to a detailed survey. All new camera images on the station shall be transmitted to the station Control room to be backed-up / viewed. The ‘link’ capacity shall be assessed to ensure adequate capacity is available for the additional cameras.

The spaces are all overlooked by either the station users through the glass façade or the residential flats on both sides of the river. This passive security increases the sense of safety for users of the site.

4.9 Sustainable Design and Construction

4.9.1 Materials

Reference should be made to the full Sustainability Appraisal of the Scheme carried out by Mott MacDonald (Mott MacDonald, 2012 Report Ref 07). The development will adopt a principled approach to the specification of sustainable construction products with a view to achieving a balance between embodied energy, recycled content, longevity of product, and low emissions. The adoption and use of materials will be dependent upon factors including performance and longevity, availability, affordability and visual appropriateness.

4.9.2 Heating/Cooling/Lighting

The entrance will be developed to negate the need for any mechanical heating or cooling. The nature of the building use as a railway station, means that heating, even in winter, is not a requirement within the general concourse areas. This is consistent with the rest of the existing station.

Similarly, the remainder of the station is not cooled during the summer. However, the location of the Southern Entrance, with its' south facing glazed facade, will make it more likely to heat up when exposed to direct sunlight. To deal with this heating effect, a passive venting system will be used. A series of open-able glazed vents in the highest section of the ridge over the existing western footbridge will ventilate the space. These operable vents are likely to require regular maintenance; therefore locating them over the existing western footbridge means that they will be readily accessible. This will utilise the 'Stack Effect' to regulate the temperature environment within the LSSE.

The glazed south face of the entrance will provide a heating effect while running water will provide the cooling effect. These effects combined with passive ventilation will maintain a comfortable temperature within the entrance building.

4.9.3 Renewable & Low Carbon Energy

Energy efficient strategies include high efficiency lift motors, presence detection on escalators and lighting linked to daylight sensors. In addition potential renewable energy sources could include water turbines, photovoltaic cells and wind turbines. Further information on renewable energy opportunities is explored in the Energy Demand Assessment (Mott MacDonald, 2012 Report Ref 07).

4.9.4 Drainage

There are no requirements for drainage of the new structure. Rainwater will drain into the river reducing the need for maintenance and avoiding the often weaker traditional junctions between walls and roofs. It is the intention to install a man safe system along the spine of the hood to facilitate any maintenance required.

4.10 Service and Maintenance

The unique location of the LSSE requires that special maintenance arrangements are considered at this stage of the design. The building has been designed to reduce for need for maintenance to a minimum. However when occasionally required, maintenance to the glazed front will be carried out from the ground floor deck either by a cherry picker or a vertical maintenance gantry which will be taken through the building from the linking bridges. Access to the external cladding will be achieved via an existing access way onto the station roof from the Western footbridge and maintenance of the roof will be carried out via a tracked Mansafe system running along the ridge from which it is possible to abseil. Cleaning of other glazing will be carried out by single cradle baskets or a suspended beam and gantry system.

The service and maintenance strategy is to be confirmed with the designer at the detailed design stage and with the appointed CDM co-ordinator.

4.11 Impact on heritage

The proposed LSSE is located within the northern limits of the Canal Wharf Conservation Area, which is made up of a mix of ages and styles of buildings. Although the Dark Arches is designated as a “local heritage asset” the site is flanked by two modern apartment blocks. The grey panels of the station can also be seen above the Dark Arches.

The visual effect on the Dark Arches will be the most notable. The proposed development will obscure part of the Dark Arches and therefore change their setting. Although the appearance of the LSSE will differ from that of the existing structure it will read as an independent structure which contrasts with the severity of the backdrop of Dark Arches. The Heritage Assessment (Mott MacDonald, 2012 Report Ref 13) concludes that in this context it can be said to provide an alternative but nevertheless attractive setting for this local heritage asset and, given the variety of styles in the surrounding area, to preserve the character of the Conservation Area.

It is proposed to dismantle an arch and wall at the site proposed for barge loading/unloading in Water Lane (east); this sits in the Leeds City Centre Conservation Area These are remnants of a building which was similar to adjacent listed buildings. The arch and adjacent wall will be reinstated once the construction is completed and therefore there will no impact on the character of this Conservation Area.

5. Access

5.1 Connections

Pedestrian modelling was previously undertaken in 2006 by consultants Halcrow and reported on in the previous Transport Statement in 2009. The modelling considered generated pedestrian trips from new and proposed development within a 1km catchment area to the south of Leeds City Station. The results of the 2006 modelling should be treated with a degree of caution as development has subsequently taken place at Granary Wharf, Holbeck Urban Village and Bridgewater Place.

Key Issues from the detailed modelling work undertaken to assess the impact of the proposed southern entrance to Leeds City Station, are that:

- Modelling results indicate that between 6,500 to 7,000 pedestrians would consider leaving the station by the southern entrance during the 3hr AM peak period in 2029.
- Modelling results indicate that between 5,800 to 6,300 pedestrians would consider entering the station by the southern entrance during the 3hr PM peak period in 2029.
- Average delay times, total delay times, total distance travelled and total travel times for pedestrians in the AM peak would all decrease.
- Average delay times, total delay times, total distance travelled and total travel times for pedestrians in the PM peak would all decrease. .
- Pedestrian journey times in the AM peak to and from almost all platforms and the southern network would decrease.
- Pedestrian journey times in the PM peak to and from almost all platforms and the southern network would decrease.

It is estimated that around 22-24% of current Leeds passengers will choose to use the southern entrance, once built. With further development planned in this vicinity, this figure is set to grow to 62% by 2028-9. Immediately south of the Dark Arches, the proposed linking bridges will connect to entrances off Little Neville Street and Granary Wharf. The entrance from Granary Wharf is sufficiently wide to accommodate bicycle stands. There is also a parallel connection via Dark Neville Street to Granary Wharf and Neville Street.

There are pedestrian and cycle links via Granary Warf to Riverside to the west and to the Holbeck area the south west, in this case using Water Lane, Canal Approach and Canal Wharf. Most pedestrians and cyclists from the south however, are expected to access the station from the east - either from the Calls Commercial District to the east or the South Leeds Commercial District to the southeast.

LSSE will therefore significantly increase the numbers of pedestrians and cyclists wishing to cross Neville Street, in particular towards Sovereign Street and the ASDA headquarters building. There is already provision for crossing with a pedestrian refuge further south of the junction with Little Neville Street, but it understood that a junction controlled scheme to provide a signal controlled crossing is under development by LCC in this location.

For those using LSSE from further afield, there also bus stops on Neville Street with bus routes connecting to various locations in the south of Leeds (ref Mott MacDonald, 2012 Report Ref Traffic Access and Public Realm).

5.2 Improvements to Little Neville Street

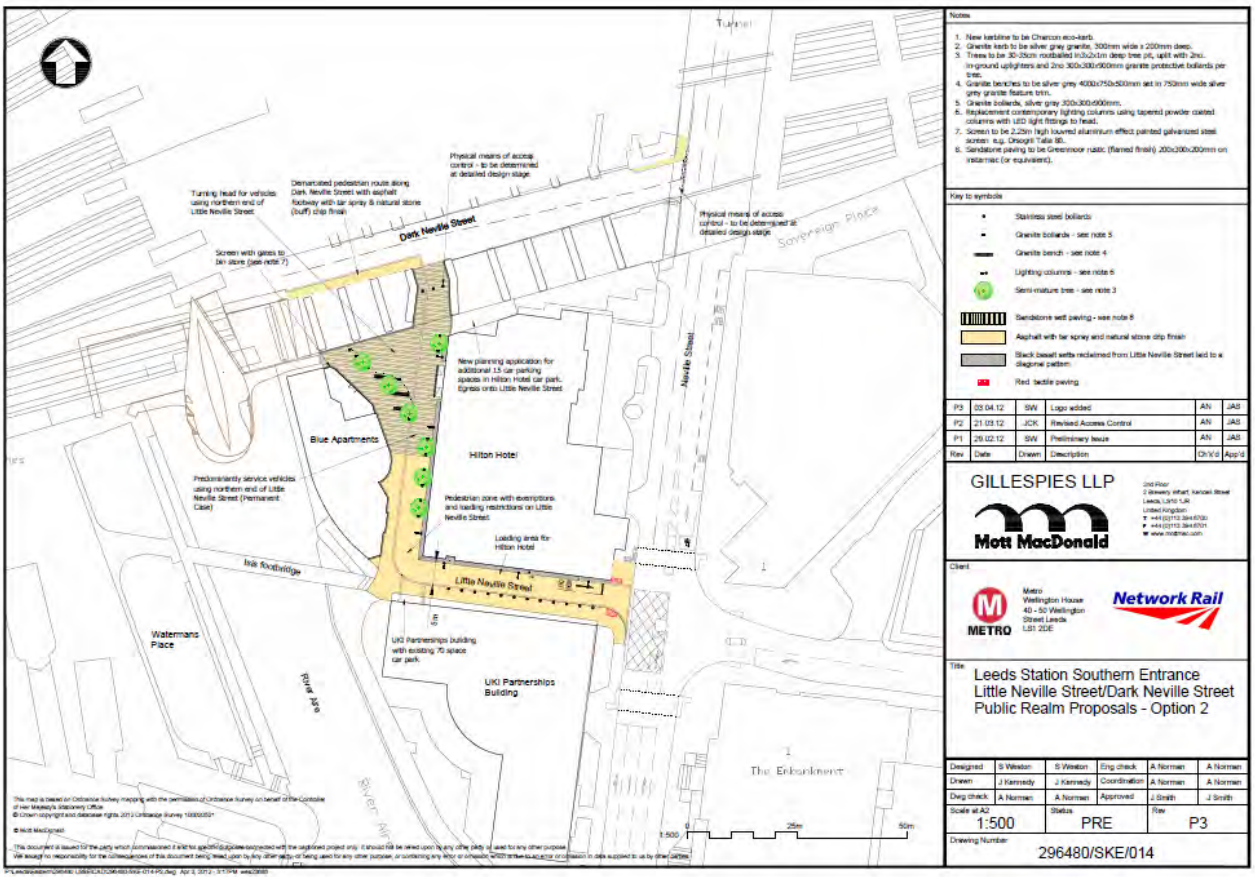
With regard to vehicular traffic, the general approach is to create an entrance aimed primarily at pedestrians and not to encourage a new vehicular drop-off point, which would affect the wider traffic flow in the centre of Leeds. The LSSE location is set away from main access roads and there are no specific measures to provide vehicular access

To this end it is proposed to pedestrianise Little Neville route except for necessary local vehicles, by means of a Traffic Regulation Order (TRO). This will prevent the street being used as a drop off point for the station with attendant problems of turning in this relatively tight space, which would also be intimidating for pedestrians. Moreover queuing vehicles could also block legitimate access for residents and the Hilton hotel.

It should be noted that an alternative drop off point exists on the north side of the station and this is only a few minutes away for vehicles travelling from the south. The attached figure 5.1 shows the proposal for Little Neville Street.

A demarcated 3m wide pedestrian route /safe route is proposed along the south side of Little Neville Street. Although not part of the scheme it is suggested that this route could eventually be extended through the viaduct along the south side of Dark Neville Street to where it joins Neville Street. Further safety measures will include additional lighting, signage, tactile paving for assisting blind and visually impaired users.

Figure 5.1: Improvements to Little Neville Street



Source: Gillespies

It is intended to use a mix of highly quality surfacing including natural stone and to reuse existing basalt setts laid in a diagonal pattern. Existing bollards will be maintained in the southern portion of Little Neville Street to protect cellars. In addition there would be high quality signage, street lighting and street furniture with some planting in the widened area to the north of the street. An at grade crossing is proposed at the exit of the Little Neville Street.

5.3 Inclusive Access

The proposed scheme has been designed to provide inclusive access for all and to be DDA compliant. Ramped access is provided from both sides of the River Aire via the route of the existing footbridge within the Dark Arches.

Internally, 2 lifts are provided to allow access to the footbridge level and to provide some resilience should one lift be out of service. Disabled passengers who require a vehicle to continue their onward journey from the station will continue to be directed to the existing step free exit via the north concourse.

Internal and external signage will be designed to Network Rail standards to provide easy way finding and information for all, including the visually impaired. Audible announcements will be accommodated within the whole of the internal envelope of the new entrance, which will be designed to be clear and easily understood.

Both internal and external furniture, handrails and so on, will be designed to contrast with their background for ease of recognition, as well as being located so as to not impact on pedestrian flows. Help points will be incorporated at appropriate locations within the new entrance.

6. Conclusion

An application is to be made to the DfT for the LSSE Scheme under a TWAO which will build on a similar application agreed by LCC in 2010. The proposed LSSE is to be located over the River Aire immediately south of the Dark Arches, which support Leeds City Station. It will comprise a concourse on three levels, the upper level linking to the western footbridge of the station, which is to be widened to accommodate ticketing facilities. Bridges and the existing Dark Neville Street, under the arches, will provide direct stepped access to the lower concourse level from the east and west banks of the river.

The building is to be covered by a striking gold coloured canopy framing a glazed southern façade; the canopy rising and tapering to a point where it meets the roof of the station. It has been designed to appear visually independent of its surroundings and is complemented by a high quality landscaping scheme.

The present route to the station from the south is tortuous, even more so for those who cannot manage steps. The LSSE Scheme is seen by LCC as important project to assist in the regeneration of the former industrial area to south of the City Centre, with considerable savings in time for local businesses and commuters wanting to access the station from this direction. Moreover a new southern entrance will relieve some of the passenger congestion that presently exists in the main entrance at peak times.

The Scheme has been reviewed in the light of comments both from previous consultation carried out in 2009 and in relation to a recent extensive exercise, to ensure that all concerns, where practicable to do so, are met.

The lack of space in the vicinity of the site has dictated the siting of the structure over the river. Other design constraints are the proximity of neighbouring apartments, loading considerations and EA requirements regarding flood risk and disruption to the flow of water.

It is understood that there are no minimum distance standards by which impact on residential amenity is assessed in the city centre, where the approach has always been to consider each case on its merits. However, in order to protect the privacy of neighbouring apartments, the form of the proposed LSSE has been kept to a minimum commensurate with operational requirements and the facades have been broken up visually, to prevent an overdominant effect. Night time lighting will also assist with this. A substantial number of the lower level apartments in the Blue Buildings are adversely affected by the loss of daylight. However, in the existing baseline conditions the apartments are already overshadowed by Waterman's Place and the railway viaduct.

Materials used will be robust; the building will be passively ventilated and energy efficient measures include high efficiency lift motors, presence detection on escalators and lighting linked to daylight sensors. In addition, the design also has taken into account the need for long term maintenance. The site is overlooked but there is also provision for CCTV.

The Scheme satisfies national, regional and local policies relating to design and access and addresses the overall objectives for the scheme. It lies within a Conservation Area and the Dark Arches are a local heritage asset. However, it is concluded that the proposals will provide an alternative but nevertheless attractive setting for the Dark Arches and, given the variety of styles in the surrounding area, preserve the character of the Conservation Area.

Circulation throughout will be well signposted and clear to users of the LSSE, with step free access. The current proposals take into account a potential LCC junction improvement at the Little Neville Street /

Neville Street Junction which includes amendments to the existing junction layout and provision of a new pedestrian crossing facility across Neville Street. The current LSSE proposals will be acceptable and functional without the LCC scheme, however the two schemes are complementary and the benefits for LSSE will be maximised if the LCC scheme was implemented.

It is therefore it is concluded that the LSSE will provide a functional and high quality Scheme fully satisfying design and access parameters.

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