

Darlington Gateway Station – West Side Highway Improvements

Design and Access Statement

Project:	Darlington Station Gateway - West Side, Victoria Road / Park Lane Darlington	Project No:	11789
Subject:	Design and Access Statement		
Prepared by:	Brett Littlewood	Date:	8 June 2021
Checked by:	David Colley	Date:	8 June 2021

1.0 Introduction

1.1 Sanderson Associates (Consulting Engineers) Limited are highway consulting engineers and part of Fairhurst group. We have been appointed by Darlington Borough Council to advise on the traffic and transportation issues in relation to the proposed highway works on the west side of the Darlington Station portico; a Grade 2* Listed building. We are also providing advice on the traffic and transportation issues relating to a new Multi-story Car Park (MSCP) building and station concourse on the eastern side of the existing Darlington station. These works, to both sides of the station, are part of the wider Darlington Station upgrade redevelopment project being promoted by Tees Valley Combined Authority.

1.2 Network Rail through their consultants are preparing a scheme of improvements for the main station area which includes 5 elements:-

- The fit out of the new east side station concourse.
- The new link bridge which joins the new east side station concourse and MSCP building to the existing station structure.
- The central area of the station complex.
- The works to the portico on the west side of the station, which include omitting the parking (circa 21 spaces) from within the portico and glazing (with pedestrian access) to the existing 4 archways two of which are presently used for vehicular access and two for pedestrian access.
- Works on the station approach ramp from Parkgate which currently allows vehicle access under the station canopy in the central area. These works would exclude public access other than for taxis and station staff which would be controlled at the entrance from Parkgate.

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- 1.3 The aspiration of the Combined Authority is to develop Darlington Station into an enhanced rail gateway that can accommodate future demands for national, regional and local passenger rail services. The proposals are being developed to accommodate future use by HS2 and the Northern Powerhouse Rail (NPR) and to create a modern rail hub for the Tees Valley Area.
- 1.4 The overall proposals include for two new platforms on the east side for existing and future Tees Valley local services such that local services can operate independently from the ECML. A further platform is proposed for HS2 and NPR.
- 1.5 Improvements to the existing station buildings with new station facilities adjacent to the MSCP are also proposed together with public transport interchange facilities and improvements to access for pedestrians and cyclists from Parkgate as well as an accessible footbridge linking new and existing platforms.
- 1.6 The proposals also envisage some of the existing car parking associated with Darlington Station being relocated to the MSCP such as that within the station building and passenger parking (accessed via Parkgate) as well as parking at the western station portico. This will assist in the provision of proposed improvements for pedestrian movements around the station and provision of other passenger facilities at the station.
- 1.7 The car parking strategy at the station allows for some retention of parking for rail staff accessed from the Parkgate ramp together with taxi drop-off / pick-up. The layout of the station drop-off / pick-up area integrates with the newly constructed Parkgate foot and cycle bridge that connects with the Central Park redevelopment area to the north of Parkgate / Yarm Road and east of the railway line.
- 1.8 Interchange between bus and rail would be via facilities on Neasham Road. A new bus layby for north bound services is proposed along with the relocation of an existing southbound bus stop. Existing bus stops on Parkgate are to be retained and new bus stop locations on Park Lane / Victoria Road adjacent to the western portico are proposed. These are incorporated within highway improvements at the junction of Park Lane / Victoria Road together with a new access to retained external parking adjacent to the western portico.

Project Scope

- 1.9 Darlington Borough Council are proposing to redevelop the public realm to the west of the existing station portico entrance. The works will involve opening up the space to the front of the station including demolition of some adjacent buildings, realigning the road (Victoria Road / Park Lane) and enhancing the quality of the paving which will extend the work being undertaken by Darlington Borough Council further along Victoria Road between the centre of Darlington and the railway station.

Objectives

- 1.10 The design is an integral part of the station improvement works and in addition the design should enhance the quality of the public realm for local people, including the addition of more green-space/street trees/soft landscaping to support greater biodiversity.
- Ensuring access for all
The scheme designs should prioritise vulnerable road users.
 - Improved performance
The designs should enable more efficient use of the highway network for sustainable modes of transport.
 - Health and Safety Improvements
The proposed highway scheme should provide safer facilities for all users of the highway, in particular vulnerable road users and pedestrians accessing the station.

Proposed Scheme

- 1.11 A copy of the proposed layout (see drawing No 11789-008, Appendix A) for the junction area of Victoria Road, Pensbury Street and Park Lane and in front of the Railway Station portico is attached to this note and these proposals tie into the scheme on Victoria Road being undertaken by Darlington Borough Council to improve Victoria Road between the A167 Feetham roundabout and Pensbury Street a copy of the scheme plan is attached to this note (Appendix B).

Victoria Road Scheme

- 1.12 The Victoria Road proposals currently been constructed include the introduction of a 20mph speed limit, a reduction from the current 30mph, and widening of the northern footway. A signal controlled junction is proposed with Clifton Road/Park Place which would include signalised crossings on all arms. The uncontrolled crossings at the A167 Feetham roundabout and the zebra crossing on Victoria Road are proposed to remain but will be upgraded. An uncontrolled pedestrian crossing is also proposed between Pensbury Street and Hargreave Terrace.
- 1.13 The proposals all seek to improve the environment for pedestrians and cyclists along Victoria Road, the main route to Darlington Station.

Proposed Victoria Road / Park Lane scheme

- 1.14 The approximate extent of the proposals is indicated in Figure 1, below and are shown on drawing 11789-008 – Proposed Scheme Layout.

Figure 1 – Area affected by proposals

[NatGeo]



- 1.15 The proposals comprise the realignment of Park Lane to connect directly to Pensbury Street with Victoria Road forming the minor arm at a simple priority junction. The space between the station building and realigned road allows for the creation of a new public realm area at the entrance to the station building portico.
- 1.16 A new junction is to be formed from Pensbury Street to maintain access to the rear of the properties along Pensbury Street with a new turning head to allow manoeuvre of a refuse collection vehicle, emergency and service vehicles. As a result of the proposal areas of new highway are created and these are shown on drawing ref: 11789-002 – Areas of Highway to be Created
- 1.17 Vehicular access to the existing Portico is to be removed with the area becoming pedestrianised. This results in a loss of 21 car parking spaces however this has been accounted for in the provision of the proposed multi-storey car park proposals on the eastern side of the railway line. A new access is to be formed to the existing car park to the east of Park Lane, which results in the loss of two parking spaces. From traffic count data obtained as part of the Council's Victoria Road scheme over 6 hours (6th December 2018 - periods 0700-1000 & 1600 – 1900) 506 vehicles enter and 496 exit the Portico, with 93 entering Pensbury Street and 100 leaving. The average number of vehicles arriving over the 6 hours is 1.4 vehicles per minute.
- 1.18 Waverley Terrace is to be closed at its junction with Park Lane and a new turning head is to be provided to allow manoeuvre of a refuse collection vehicle.
- 1.19 Access to the back lane (Willow Place) between Victoria Road and Waverley Terrace is provided in the scheme.
- 1.20 New half width laybys are to be provided for bus services along Park Lane and pedestrian facilities are to be improved throughout, including at-grade crossings, tactile paving and widened footways.
- 1.21 The turning head proposed on the back lane to Pensbury Street is provided to assist in refuse collection from the rear of properties along Pensbury Street and is located on land owned by Network Rail and therefore within the immediate curtilage of the Grade 2* Listed station building. With regard to refuse collection a 7.5t vehicle is used and this turns on the 90 degree bend at the junction of Victoria Road / Park Lane and reverses along the back lane. It then exits in a forward gear on to the Victoria Road / Park Lane junction. The vehicle cannot presently manoeuvre from the back lane on to Pensbury Street at its northern end. Pensbury Street is approximately 200m long from its junction with Victoria Road.

- 1.22 Bollards are proposed at various location to restrain vehicles from parking on the wider footways and public realm space.
- 1.23 A landscape scheme has also been prepared which includes trees and planters.
- 1.24 It is understood that pedestrian accesses into the Station Portico will be provided in the 4 existing openings with infill glazing to enclose the internal portico space.
- 1.25 In order to ensure the proposals accommodate the appropriate vehicle movements, swept path analysis has been undertaken. The following drawings are included at Appendix A.
- Drawing 11789-003 – Refuse vehicle accessing the rear of Pensbury Street and utilising the new turning head to manoeuvre and exit in a forward gear.
 - Drawing 11789-004 – Refuse vehicle utilising the new turning head on Waverley Terrace to manoeuvre and exit in a forward gear.
 - Drawing 11789-005 – Bus turning right from Victoria Road to Park Lane
 - Drawing 11789-006 – Large cars utilising the new access to the existing car park to the east of Park Lane.
 - Drawing 11789-007 – Pensbury Street – Fire Tender and 10m Rigid

Pre App response

- 1.26 A Planning Pre-application enquiry (ref: 21/00016/PREAPP) has been submitted to the Local Planning Authority (Darlington Borough Council) and a written response provided.

Compulsory Purchase Order

- 1.27 To facilitate the scheme acquisition of 4 properties were considered necessary together an area of Network Rail land to the north of the Portico adjacent to the Pensbury Street back lane to accommodate the proposed turning head.

Consultation

- 1.28 Consultation with Historic England has also been undertaken on the 20 May 2020 during which they expressed some concerns about the proposals on the west side of the station. These mainly related to the need for the turning head on the back lane to Pensbury Street and the loss of the former Hogans building on the south western corner of the Park Lane / Victoria Road junction. Further information is included in Section 3 of this note.

- 1.29 The British Transport Police have been consulted about the scheme and a written response provided.
- 1.30 Furthermore, separate consultation has been undertaken with the Darlington Association on Disability.
- 1.31 Other consultation has been undertaken regarding counter terrorism requirements. With regard to the scheme, mitigation measures would include:-
- Protecting the portico entrance with vehicle bollards;
 - Entrance covered by CCTV (not part of this scheme); and,
 - Passive measures such as raised planters which protect against vehicles collisions

2.0 Landscape and Urban Design Strategy

- 2.1 The design has been undertaken following a number of site visits and discussions with LPA officers (including Historic England) and has looked to follow current guidance including Historic England 'Streets for All' (2018) and 'Manual for Streets 2' (2010). The key themes strive to balance improving highway safety and accessibility for all, whilst acknowledging the local distinctiveness around the heritage asset setting of the station. Detailed design co-ordination has taken place to make sure the scheme looks to reduce clutter within the new streetscape, looking at opportunities to sustain the heritage setting and enhance access for a wider user needs, where possible.
- 2.2 Local valued features were considered for protection and conservation, plus where appropriate look to reintroduce lost elements to reinforce the local recognised character. Materials and detailing is mindful of the emerging new public realm design palette along Victoria Road, but also look to showcase the station and surrounding environment of value, to help shape the place to cater for the modern 'multi user' transport hub west of the station. The hard landscape includes the retention of the blue stone setts of the 'back lane', where vehicle servicing design has been necessary as part of the highway layout revisions. This highly value historic feature is sensitively integrated within the paving detailing and surface water drainage design. The materiality has been chosen to be functional and attractive in the quality of specification considering also longer term durability. The street furniture and boundary treatments help to sustain the heritage setting and enhance through a simple, elegant design taking reference from the historic building and surround public realm. Transportation planning and management has provided opportunity for highway safety improvements, urban greening, encourage social interaction within a high quality public realm, considering current lighting and CCTV requirements. Inclusion of artwork/ sculpture within the scheme would provide further enhancement within the immediate setting of the station.

2.3 Other environmental improvements include SuDS, new street trees and ornamental shrub planting to reinforce the current streetscape along Victoria Road, where the combination of built form and urban tree planting helps to create a sense of enclosure within the pedestrian environment and frames key vistas towards the station entrance. New bus stop provision and safe crossing points have been designed mindful of improved legibility, signage and travel information (digital) requirements.

2.4 Specific elements within the Landscape Masterplan include the following ;

- Reintroduction of historic boundary to reflect the existing low brick wall, coping and railings. Overall height and design mindful of safety and heritage sensitivities.
- New 'pleached' Hornbeam trees add formal planted streetscape features which help frame the key vista towards the station entrance. The trees also help to define the public realm areas and reinforce the existing streetscape characteristics along Victoria Road.
- Introduction of cube seating helps to sensitively integrate the highway and public realm definition within the new urban plaza. They function to protect the public safety, reinforce traffic management and informal seating opportunity. Retention of historic blue stone cobbles within the back lane and trim detailing within the new public realm.
- Decorative planting to include ornamental shrubs, trees and groundcover to provide year round interest and amenity to the new station frontage.
- Pre grown Hornbeam hedge approx. 1.2m high and decorative planting introduced to assist the visually impaired to orientate themselves between bus stops, crossing points and the new public realm. Lighting and wayfinding strategy will also assist so that the public legibility is clear and well defined.
- Opportunity for Artwork/ Sculpture to be included where locally commissioned interventions can really add value to the place making and high quality public realm.

3.0 Location, Constraints and Context

3.1 The highway network to the west of Darlington Station Gateway comprises primarily of Victoria Road and Park Lane, which meet at a 90 degree bend outside the station building. Victoria Road and Park Lane are part of a bus route and Victoria Road is the main pedestrian route to the centre of Darlington to the west. Presently pedestrians cross the back lane diagonally to the northern portico opening as vehicles use the existing middle two openings. There is also a further pedestrian access in to the portico to the south of the larger central openings. Some existing cycle parking is available in the portico. A subway (northern side of the Portico) within the station building provides access to the station platforms.

3.2 Where Victoria Road and Park Lane meet, a cobbled street takes access to the north. This serves the rear of properties on the western side of Pensbury Street. Both Pensbury Street and the back lane connect to North Eastern Terrace to the north. However, vehicular access is solely from the south as the former vehicular connection to the B6280 Parkgate is no longer available although pedestrian and cycle access is maintained.

3.3 From online data sources there has been one accident at the corner of Park Lane and Victoria Road. A car and pedal cycle were both in the act of turning right when they collided, with the cyclist sustaining slight injuries.

3.4 A heritage statement has been prepared for the proposed scheme.

4.0 Site Options

4.1 Initial discussions prior to a brief being formed centred around enhancing the pedestrian offering on the West side of the station. This primarily involved provision for public transport, pedestrian and cycle access. The drivers for the change being the capital investment opportunity from Central Government and the accompanying scheme for the East side and remainder of the station.

4.2 Options were initially developed using the assumption that two properties could be acquired and the required improvements delivered through a Highway scheme. Previous arrangements drafted by ARUP consultants investigated arrangements for drop off areas associated with the sterilisation of the portico turning facility. All had problems with retaining access to Pensbury Street back lane and required further land to be acquired from Network Rail / LNER. Two of the three options could not accommodate provision for public transport. The third option is arguably an early version of the current proposals however the Darlington Borough Council's (DBC) designs were carried out in isolation from ARUPs involvement. A copy of the 3 Arup options is included in Appendix C.

4.3 DBC's Highway's team were asked to draft further options for internal discussion based on a compact road alignment that slackened the existing 90 degree bend from Victoria Road to Park Lane. A copy of four options is included in Appendix D.

- **Option 1: Align Park Lane to Victoria Road:**

Difficult to locate a controlled or uncontrolled crossing point that links to the inbound bus stop because of the bend in the road.

Outbound busses collecting passengers would block the required visibility of vehicles exiting LNER parking area

Outbound stop requires land acquisition of part of LNER Car Park and will likely decrease existing provision.

Assumed acquisition of 2 properties together with an area of Network Rail land to the north of the Portico to accommodate the proposed turning head and loss of external Station car parking.

- **Option 2: Further iteration of Option 1. Align Park Lane to Victoria Road:**

Provides controlled crossing and drop off area for cars.

Inbound bus stop requires moving away from the controlled area of the crossing. Makes for two stage crossing to access inbound stop.

Drop of facility severs back lane access.

Outbound busses collecting passengers would block the required visibility of vehicles exiting LNER parking area.

Outbound stop requires land acquisition of part of LNER Car Park and will likely decrease existing provision.

Assumed acquisition of 2 properties together with an area of Network Rail land and loss of external Station car parking.

- **Option 3: Iteration of Option 1 but with acquisition of a third property. Align Park Lane to Victoria Road:**

Assume a third property is acquired to provide a frontage for the inbound bus stop.

A further iteration of option 1 with similar issues.

Outbound busses collecting passengers would block the required visibility of vehicles exiting LNER parking area.

Outbound stop requires land acquisition of part of LNER Car Park and will likely decrease existing provision.

- **Option 4: Created to illustrate a different option for a controlled crossing:**

All options for this alignment (Park Lane to Victoria Road) had similar highway flaws based on the slackened 90 degree bend. None of these were considered suitable to progress into more detailed design considerations. Any form of this arrangement was considered too compromised before looking at the more technical aspects involving road category centreline radius, required visibility splays and stopping sight distances.

4.4 The scheme was left in the “optioneering” stage until agreement could be made on how to progress. Finally a decision was made to provide a refreshed option based on the acquisition of another property. The primary objectives were:-

- (a) Creation of a multi-modal interchange with high quality public realm that links and enhances the connection to Town Centre.
- (b) Improved pedestrian and cycling facilities.
- (c) Better bus interchange facilities.
- (d) New drop-off and pick-up facilities.
- (e) Improvement of the link between the town centre and the Station to enhance the environment and experience of all users through hard and soft landscaping changes.

- 4.5 The proposed scheme could arguably deliver all of the above with the exception of the new drop off and pick up facility. However it was felt that the compromise was acceptable considering the enhanced offering (drop off and pick up facility) to the East of the station.
- 4.6 DBC felt that the current option provides a better solution than all previous iterations and has been progressed to a planning application.

Consultations with Historic England

- 4.7 A number of comments were raised by Historic England for consideration the main ones with regard to the Pensbury Street back lane turning head were:-

Could smaller refuse vehicles be used?

- 4.8 A 7.5t refuse vehicle is presently used and represents a balance of constraints on providing a cost effective service and gaining access to the properties to collect refuse. The earlier layout proposals were based on a larger refuse vehicle as many Authorities are seeking to increase refuse vehicle sizes rather than using smaller ones.
- 4.9 The depth of the turning head as been reduced by considering the smaller refuse vehicle currently used and resulted in an increase in the separation from the station building to the rear face of the retaining wall from 1m to 2.5m. See drawing 11789-003 B

Could bin storage be moved to the front properties?

- 4.10 There are circa 48 terrace type properties along the eastern side of Pensbury Street without external access from the front to the rear yard area. Most have a small forecourt on the front between the building and back of footway which accommodates a bay window arrangement. It is unlikely that this would accommodate a 2 bin refuse collection system.

Could the refuse vehicle continue to reverse into the new back lane arrangement from Pensbury Street?

- 4.11 This would require either a reverse movement from Pensbury Street into the back lane or drive in forwards and reverse out on to Pensbury Street. The reversing movements on Pensbury Street would be in an area where there are people crossing Pensbury Street to access the station entrances and the vehicle would have to negotiate a 90 degree bend adjacent to the station building and next to the northern pedestrian entrance.

- 4.12 Whilst the refuse vehicle presently reverses in to the back lane in a straight alignment and where pedestrians and cars are accessing the station, it is not a satisfactory situation in road safety terms. In the proposed layout there is a 90 degree bend which increases the difficulty of the manoeuvre. Over the long term it is considered that this situation and its associated safety risks could be avoided with the introduction of the turning area.

Could the new public realm be used to turn a refuse vehicle and either reverse into the back lane or turn to exit in a forward gear on to Pensbury Street?

- 4.13 In terms of traffic management this scenario would need a system of removable bollards that could be opened to allow manoeuvring of the refuse vehicle on the public realm area and then closed. A concern with this is the management and that these could be inadvertently left open allowing other vehicles to park on the public real space where pedestrians are accessing the station and a potential terrorism threat to the Station.

- 4.14 The turning movements of a large refuse vehicle have been considered and these are shown on the diagram (11789-SK009) at Appendix E. In this situation the vehicle could drive forward on to the pedestrian area where pedestrians would be walking on a desire line to the station entrances and then reverse along the back lane. The alternative is to drive forward in to the back lane and then reverse back on to the public realm in to the desire line of pedestrians. Whilst these movements could be undertaken under supervision they introduce a risk of pedestrian / vehicle conflict over the long term which could be avoided with the introduction of the turning area.

Could the back lane be used as a through route?

- 4.15 This has been considered for a small refuse vehicle (8.145m long) turning from Pensbury Street into the back lane at the northern end (see 11789-SK-005 Appendix F). As can be seen the kerbs would need to be amended at the end of the street for this to be accommodated. The smaller refuse vehicle appears able to negotiate the 90 degree bend at the rear with some clearance. It is noted that the back lane area at the northern end of Pensbury Street and retaining wall falls within the Parkgate Conservation Area.

- 4.16 A significant concern in this scenario is the effect on the existing retaining wall structure of heavier vehicles regularly passing the wall and the safety of this type of vehicle manoeuvring close to the top of the retaining wall with circa 0.5m of clearance. The retaining wall retains circa 4.3m above a footway and currently only has a stone plinth with metal railings. In the past Trief type safety kerbing has been installed adjacent to the pedestrian steps which join from Parkgate to the higher level of Pensbury Street and this together with a vehicle restraint barrier would need to be extended along

the wall. This would reduce the available manoeuvring room for the vehicle next to the wall. It should be noted that this is based on an OS plan base and a topographical survey would be needed to confirm the actual available space for the vehicle to make the turn. It is considered that the proposed turning head offers the better engineering solution for accommodating a refuse vehicle using the back lane because of the constraints of the retaining wall.

- 4.17 In summary a number of comments from Historic England have been considered about the need for the turning head and alternatives to its provision. The associated issues have been explored for the comments made, as noted in the foregoing and from a highway and transportation view point the introduction of a turning head provides a balanced solution to a number of highway matters and safety.