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CPO Inquiry Presentation

Darlington Station Gateway East

Client: Darlington Borough Council	**201019**
Contractor: Willmott Dixon	**SGMSCP**
Issue	**DRAFT 01**
Issue Date	**13/12/2021**
Checked	**AR**
Produced By	**GD**
Name	**GDB Presentation - With Text**

Proposed Scheme

Project Scope

Darlington Station Gateway

A new station building, with multi-modal connections, to the east of the existing station building;

A new transport interchange and MSCP adjacent to the new station building, serving rail users and potentially, adjacent developments;

Improved transport interchange facilities on the western side of the station.

Operational Rail Improvements

Two new bay platforms on the east side to accommodate existing and future Tees Valley local services;

The track between these platforms and Darlington South Junction designed to ensure the local services can operate independently from the ECML,

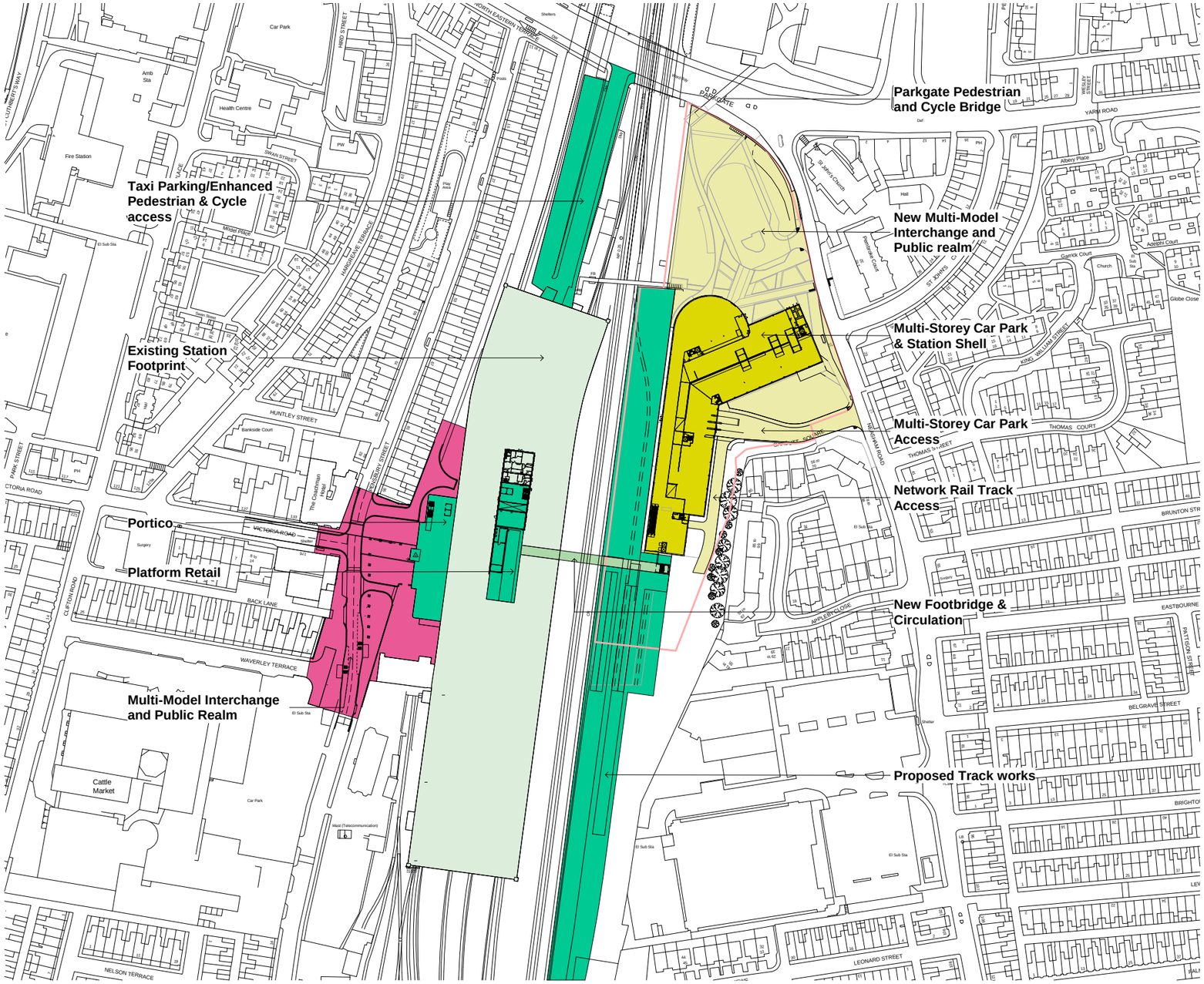
Another new platform adjacent to the Up Goods Line, to be used by southbound long distance high speed services calling at Darlington

Bishop Auckland services to use the current platform 4, operating independently (conflict free) in the future, if desired;

Station Enhancements

A new accessible footbridge linking the new platforms and station building with the remainder of the existing station;

Enhancement to the existing Station Portico



Site analysis

Planning Restrictions

Prior to the initial Willmott Dixon commission there was a previous scheme on the site by a different design team. The previous scheme for a new multi storey car park and station entrance on the site was reviewed by the Darlington Borough Council (DBC) Planning Department. The planning officers had some concerns over the previous scheme, as outlined below:

- *Impact on outlook from the properties*
- *Proximity distance between properties and the car park (overbearingness)*
- *Overlooking concerns*
- *Noise, nuisance and disturbance from activities associated with the car park*
- *Security/antisocial behaviour*
- *To understanding the need for proposed car parking provision*
- *Are there ways to reduce parking provision and encourage other means of transport (buses/taxis/ cycle etc)*
- *To understand rationale for locating the car park in close proximity to the residential properties. Can the building be located elsewhere within the site?*
- *Impact on heritage assets*
- *Scale and footprint of the proposed building*
- *Design of the building and impact on visual appearance of a main road*

Site Analysis

There is a fall across the site from approximately 49.6m AOD at the northernmost point of the site to approximately 48.0m AOD at the south

The western elevation will connect with the existing railway station.

The northern elevation fronts on to the new public square and will have a high quality treatment that sign posts the new station redevelopment.

Neasham Road offers direct access/egress to the MSCP site, with existing links established via Garbutt Square

Access is restricted from the west by the railway line, and from the north by the existing highway retaining wall.

There is an existing footbridge to the west of the site which connects pedestrians to the North Ramp of Darlington Station.

The building's location will need to consider proximity to the existing heritage assets: the grade II*-listed station and the grade II-listed St. John's Church.

Site Constraints

To link to the new station platforms and bridge (by others) to the new MSCP.

To maintain a 33m space separation from the adjacent residential properties.

A 22m offset from the existing tracks is required to allow for any future through tracks, no structure allowed in this zone. Access only for building maintenance.

Provide an acoustic buffer between the properties on Garbutt Square and any access road.

Unobstructed sight lines to St Johns Curch to be maintained (no structures to be built in this zone).

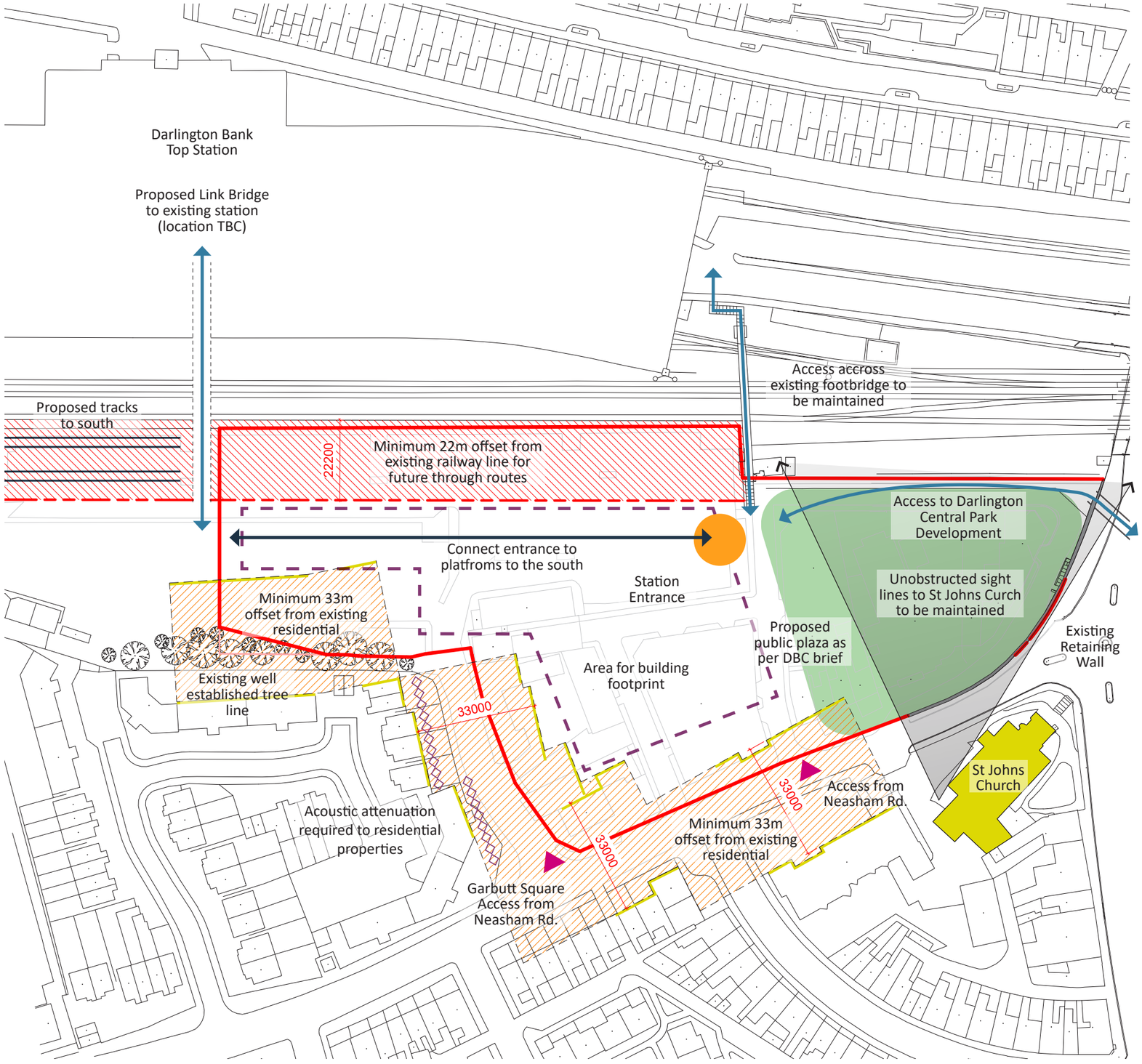
Access to existing footbridge to be maintained.

To provide access to / egress from Neasham Road, no access possible to north due to existing retaining wall.

To provide an efficient parking layout which minimises mass and height.

Building footprint to address the irregular shape of the site and constraits caused by neighbouring properties, St Johns Church and railway tracks.

Link entrance to platforms to the south



Site Photos

Existing Garbutt Square surface car par

Grade II listed St Johns Church

View of Garbutt Square car park entrance

View of commercial properties on St Johns Place

View of commercial properties on Garbutt Square junction

Bank Top Station Significance

The grade II* listed Bank Top Station was originally opened in 1842 and designed by Architect John Green.

The station was subsequently replaced in 1861 by a new station designed by Thomas Proser, in which large parts of the North, South and Central Ranges still remain.

In 1887 Architect William Bell greatly expanded the existing station with extended platforms and added the prominent Portico and Clock Tower.

Our proposed site is located directly opposite the eastern elevation of Bank Top Station. The 320m elevation forms what would have been the back of the original station which has no public access and has less decorative features than the western side of the station.

Bell's station incorporates a large section of Prosser's 1861 train shed east wall, distinguished from the 1887 part by its lack of ventilation openings.

Entrance Portico

Northern Gable of Engine Sheds from North Ramp

Existing Garbutt Square surface car park and existing station eastern elevation

Historic Significance

The Railway Corridor East Side

The east side is dominated today by the station's carpark. it is laid out on the site of the station's main area of sidings, shunting lines and turntable which grew considerably from the 1850 map to its height shown on the 1939 OS map.

Neasham Road Area

Neasham Road is a Historic route into Darlington, much of the area is made up of early 20th Century housing to support the expanding railway industry. The area directly affected by the development is predominantly made up of garages and light industrial structures.

St John's Area

The area around the Church of St John the Evangelist contains some of the oldest streets and buildings in the station vicinity. The historic street pattern remains around Garbutt Square, Adelaide Street, St John's Place, Princes Street and Victoria Street. However the houses of Adelaide Street were demolished in the mid-20th century.

The grade II listed St Johns Church was built in 1849 by John Middleton, then extended in 1900 by W S Hicks.

Diagram taken from Page 6 from North of England Civic Trust - Statement of Significance

Parkgate Cutting

The Parkgate road was lowered beneath the railway line which is supported on riveted metal girder bridges.

Between two of the bridges is the location of the Northern Ramp entrance into the station.

Brick and stone retaining walls form the Parkgate, the retaining walls are mostly 19th and 20th century, whilst some have been rebuilt.

A new pedestrian bridge has been built beside the railway bridges which connects the northern end of our site to the new Central Park business area.

The north of our site is defined by the retaining wall between St Johns Place and Neasham Road. Within the wall has an access stair from Parkgate up to St Johns Place.

The parkgate crossings heritage significance is rated as ‘Exceptional’.

Existing Retaining Wall

Parkgate Cutting Bridge

Parkgate Cutting Bridge

New Parkgate Pedestrian Bridge towards Central Park

Historic Significance

As can be seen the area of the existing surface level car park (highlighted in green) is deemed as having ‘Some’ significance. The proposal to reinstatement new railway lines and facilities to this area should reinforce it’s historic connection to the railway industry.

The majority of the buildings and structures in and around the Neasham Road and St Johns area are of marginal significance. The proposal to demolish and replace these buildings will have limited impact of the heritage of the area.

The St Johns Church is seen as having an exceptional significance to the area. As such the design of our proposed scheme is situated away from the church to not detract from the Churches standing in its locality. The church will help to frame the new public square.

The historic street layout to the north of our site is deemed as having a considerable significance to the understanding of the site. Unfortunately the existing layout is not compatible with the proposed change of use to a new transport interchange. The removal of the streets and buildings will however improve the views of the listed station and St Johns Church and is to be replaced with new high quality public realm.

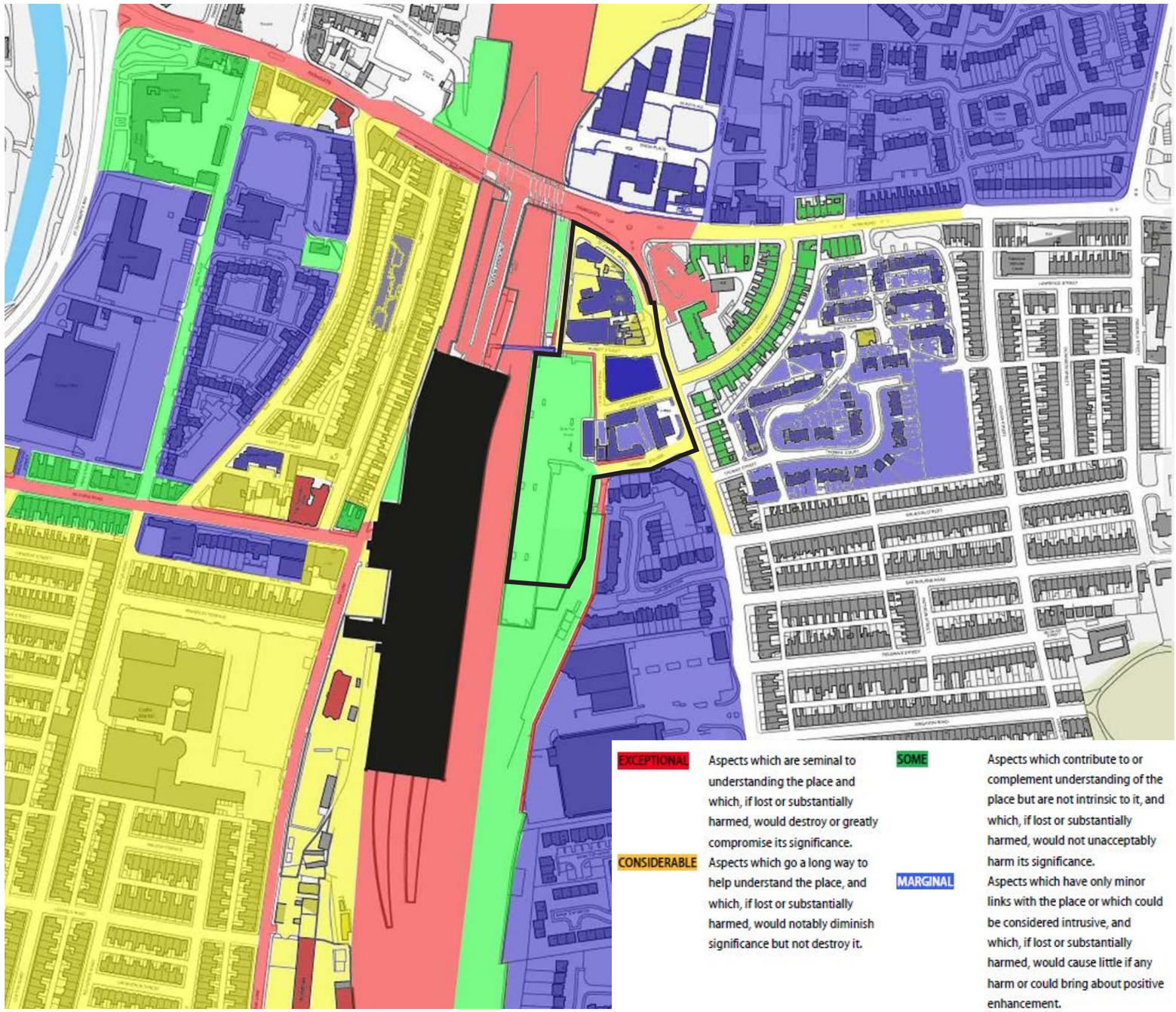


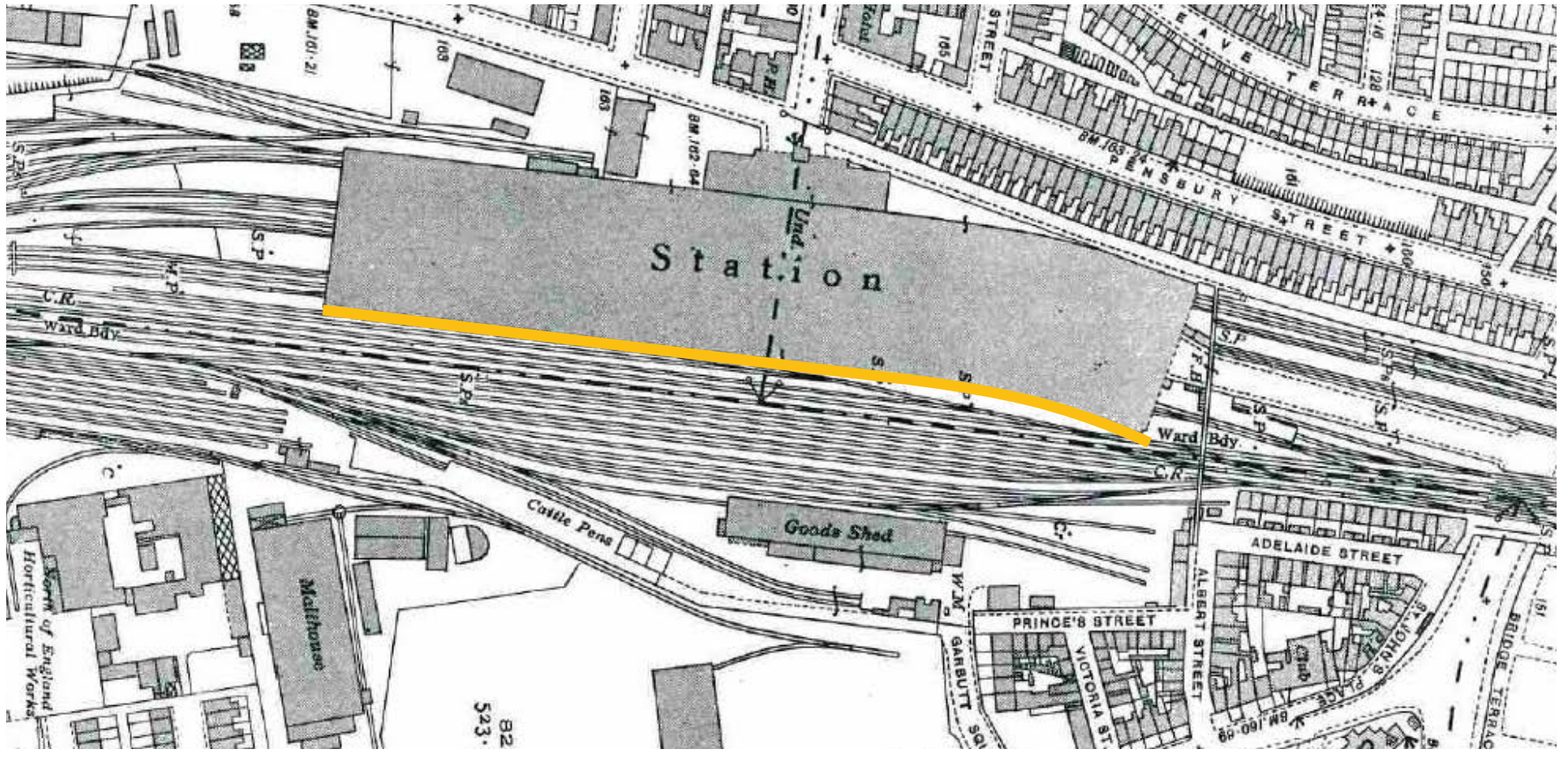
Diagram Pg 38, North of England Civic Trust - Statement of Significance

Eastern Elevation

Our proposed site is located directly opposite the 320m eastern elevation of Bank Top Station.

The elevation has a language of brick piers with a projecting runner course between the brick piers with masonry infill and vented panels.

Above the train shed east wall is the curved cast iron vaulted roof to the train sheds. The vaulted roofs are glazed at the top to maximised natural light into the platforms, whilst the lower parts have a Welsh slate covering.



EXTRACT FROM THE 1939 REVISION OS MAP

Railway Architecture

The Central Park area was previously part of the operational railway area developed by GNER. The land had a mix of railway sidings, workshops, cranes and engine sheds.

The railway roundhouse was developed as a unique solution for the problem of turning railway engines in small areas. These structures were developed around an engine turning circle at its centre. A series of bays splayed off the central turning circle for the engines to park.

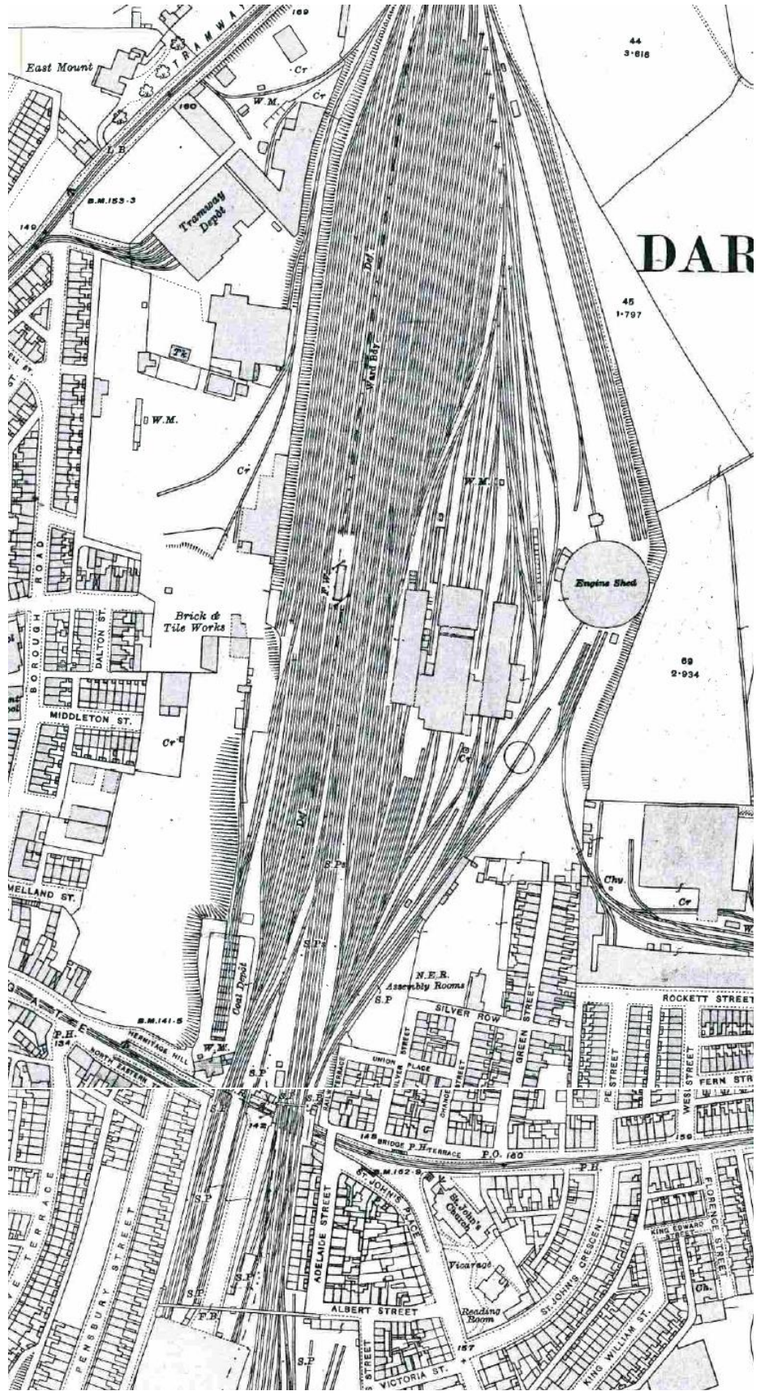
The central park area included a large roundhouse, which was used for the ongoing maintenance of the rolling stock.

The roundhouse had an entrance track which connecting to turning circle, internally over a dozen engines could be rotated into their bays. Each bay included crawl space below the tracks for maintenance of the engines and chimneys for the black smith to work at. The circular building had three windows per bay in the brick envelope, with a central conical roof.

image courtesy of the Armstrong Railway Photographic Trust

image courtesy of the Neville Wellings

image courtesy of the Armstrong Railway Photographic Trust

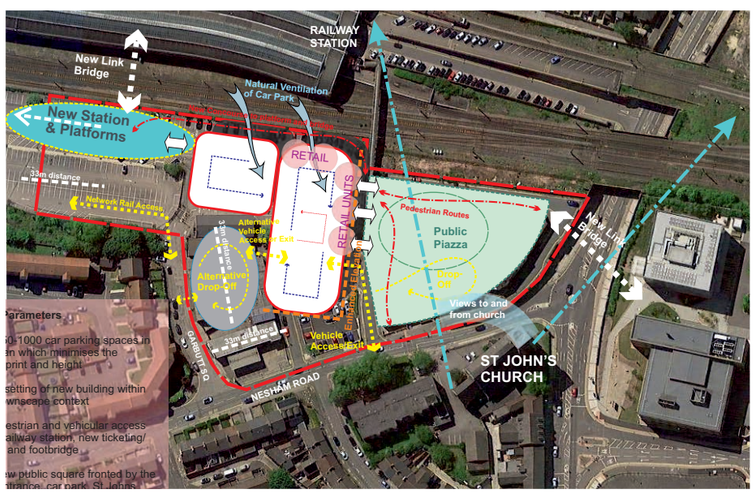


Extracts From The 3rd Edition Os Maps 1915, taken from Page 24 North of England Civic Trust - Statement of Significance

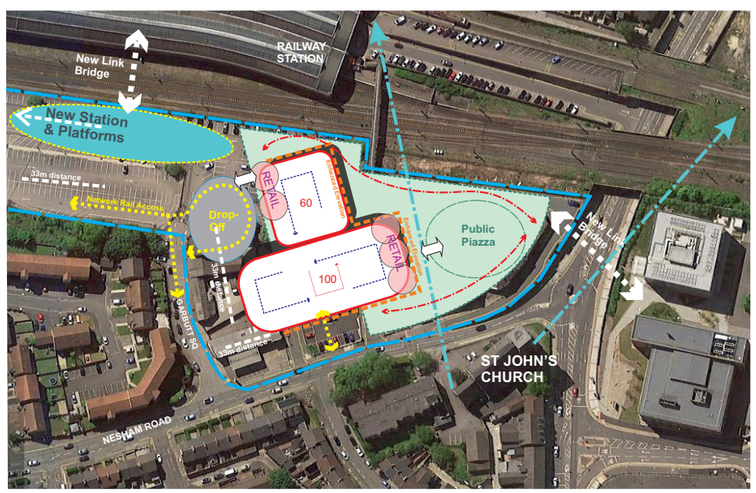
Scheme Development

Initial Site Options

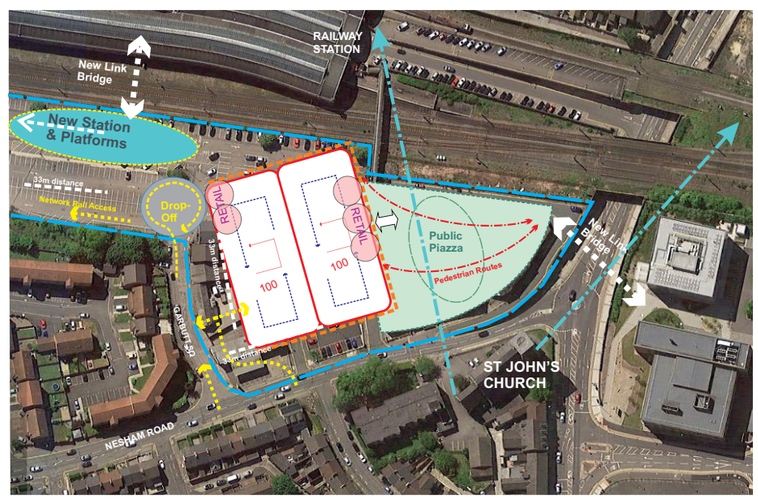
Option 1 : L Shape (preferred)



Option 2: Inverted T shape



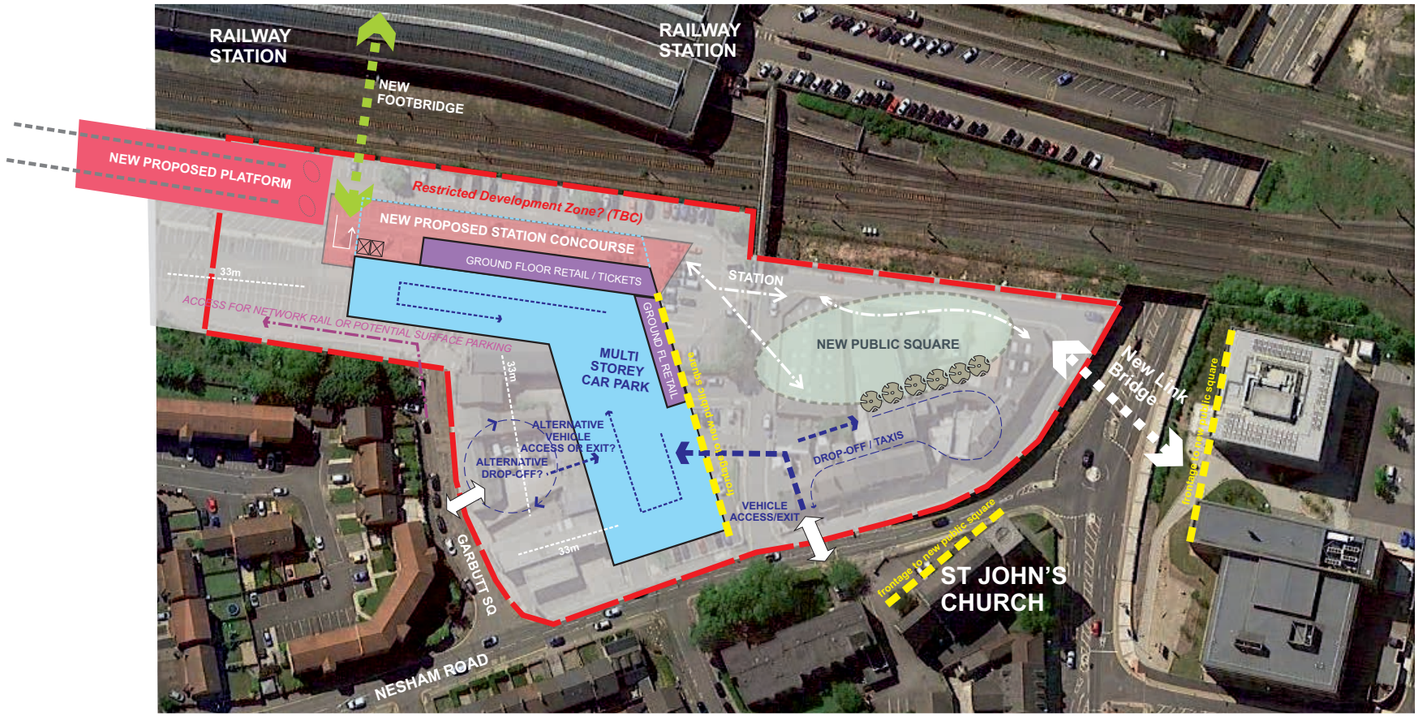
Option 3: Rectangular shape



Developed Site Layouts

The north-south siting of the building has been set in response to constraints posed by both the grade II-listed assets to the north and residential properties to the south, allowing for the creation of a new public square to the north with direct links via the existing pedestrian bridge to the wider Central Park development.

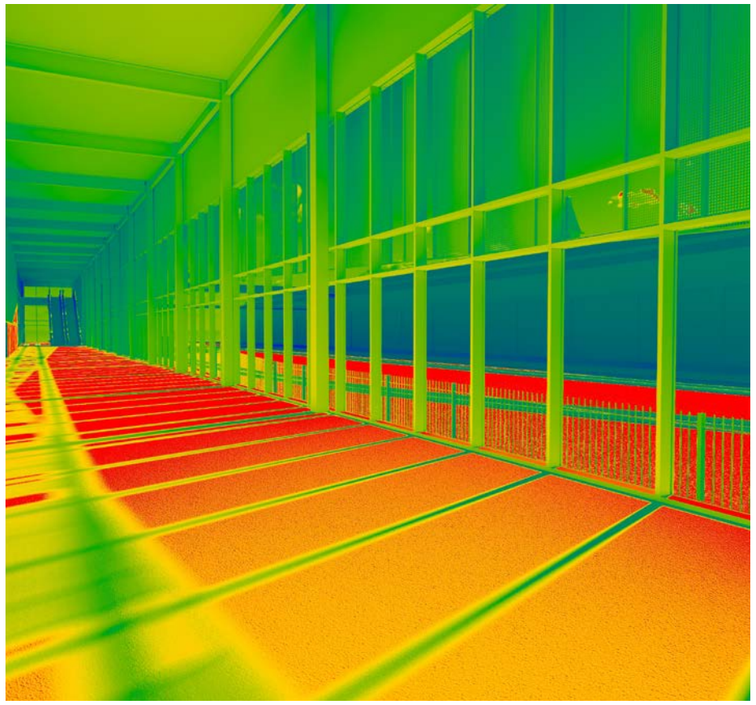
The L shaped plan has been developed further with the angle between the two wings amended. This ‘chevron’ plan provides greater distance between the building and the residential properties to the south and addresses Neasham Road in a more suitable manner.



Concourse Development

The initial design options used full height curtain walling with solar shading to the western elevations to create a light airy interior. Following environmental analysis it was found that the fully glazed options would over heat on a sunny day. So the cladding was redesigned to reduce the amount of glazing.

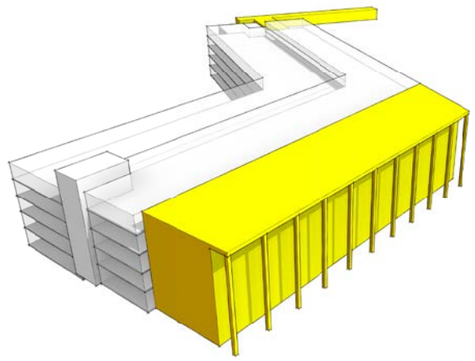
The updated elevational treatment combined masonry cladding with punched windows and recessed masonry panels to reduce the amount of glazing. The design of the cladding is meant to invoke the design of the existing station with projecting masonry piers and brick runner course.



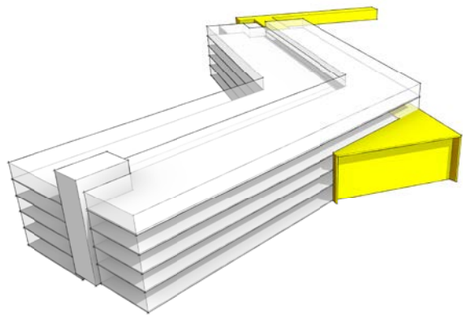
Entrance Design Options

The design of the concourse entrance developed throughout the design process. Multiple different massing options were used to explore the scale, location and design of the entrance.

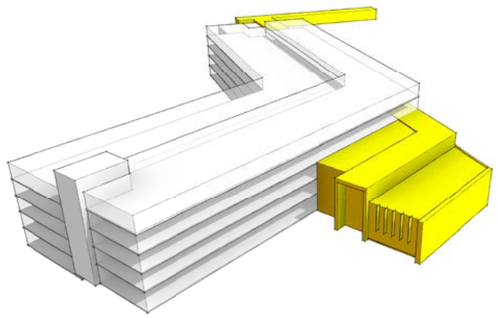
Full Length Entrance



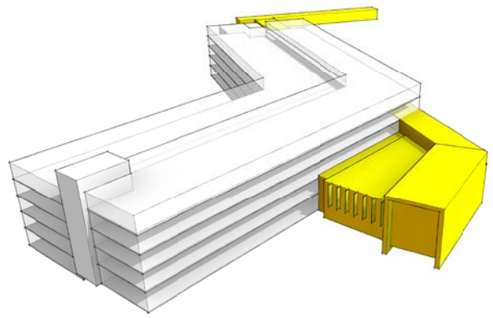
Reduced Entrance



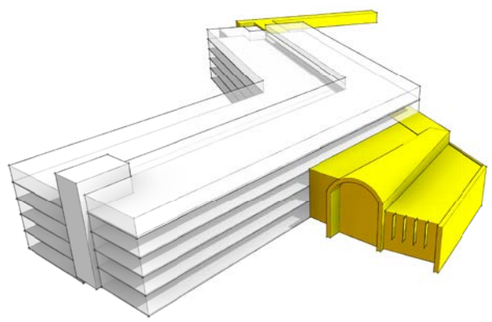
Angular Entrance



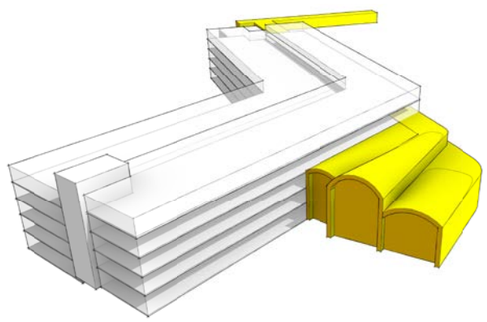
Corner Entrance



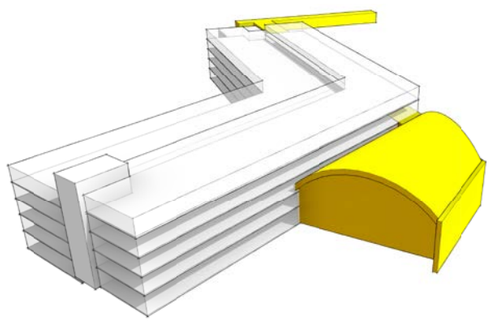
Vaulted Entrance



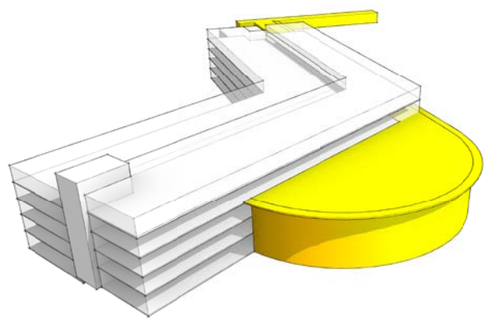
Triple Barrel Entrance



Full Arch Entrance



Rotunda Entrance



Developed Options

Angular Entrance

Vaulted Entrance

Preferred Option

Roundhouse Entrance

Concourse design

Station Concourse Amount

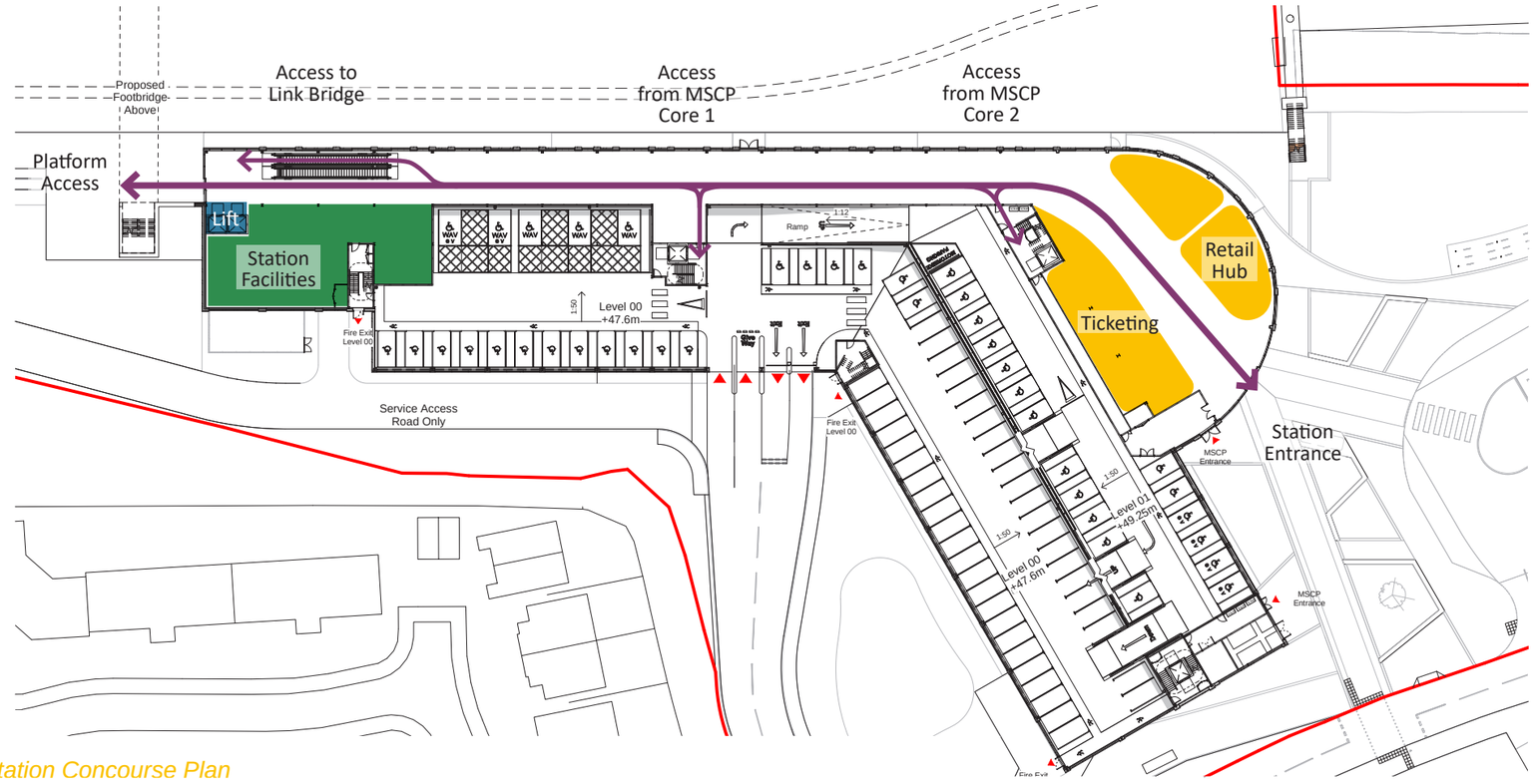
The total Gross Internal Area of the concourse is 2,260m2 split over the concourse level and the link bridge level. The total lettable internal area is 1035m2 which is split between the Ticketing Area, Retail Hub, Station Facilities and the Operational Facilities.

The entrance connects the new short stay car park, drop off and public realm to the north of the site to the proposed platforms to the south.

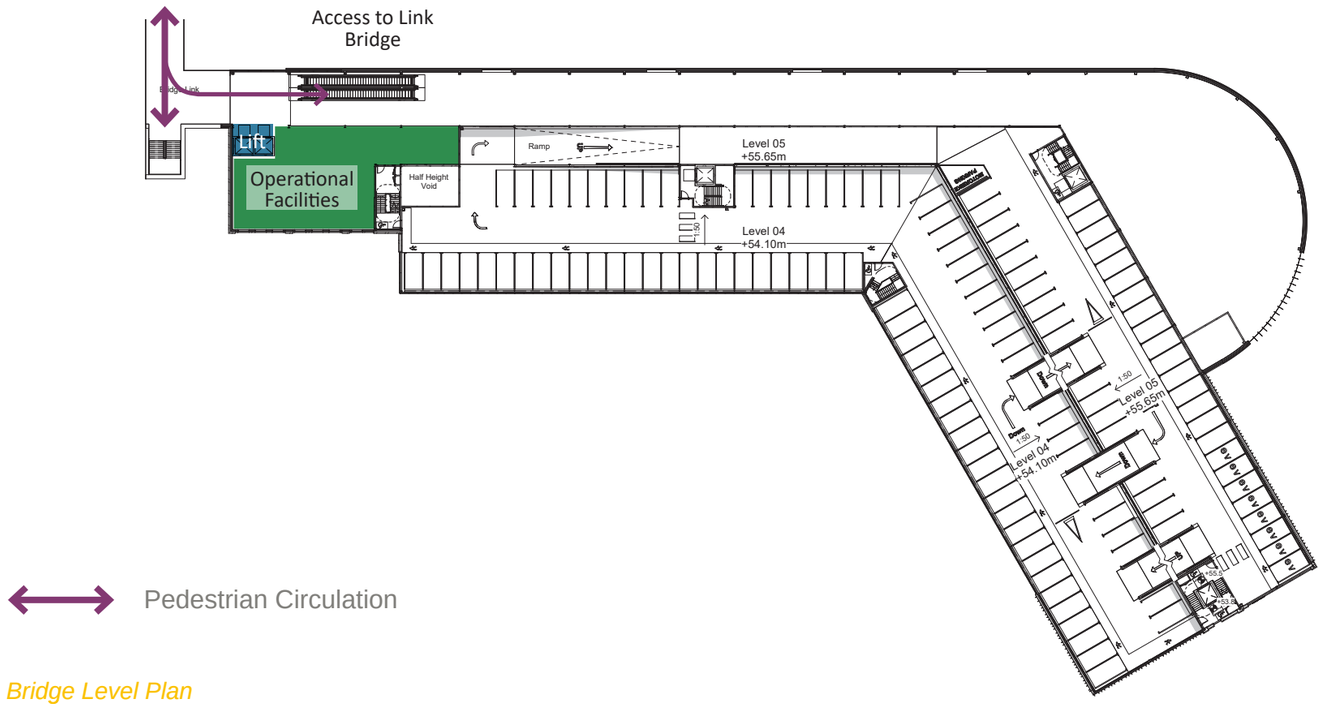
The concourse will also be connected by a new pedestrian link bridge over the railway lines to the existing station.

The MSCP will have direct access into the concourse via two circulation cores. The cores will provide access into the station from all parking levels.

The accessible parking and WAV parking have been located at the Level 00-01.



Station Concourse Plan



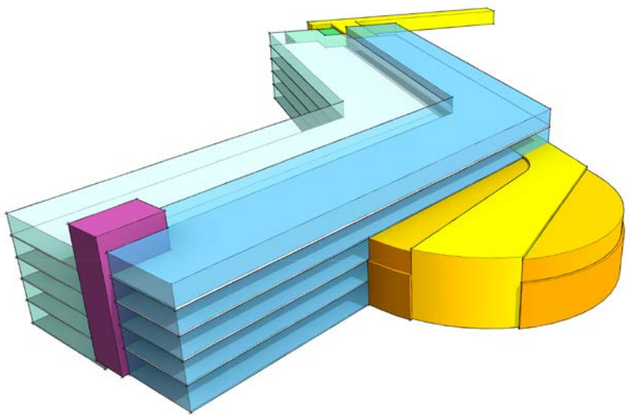
Pedestrian Circulation

Bridge Level Plan

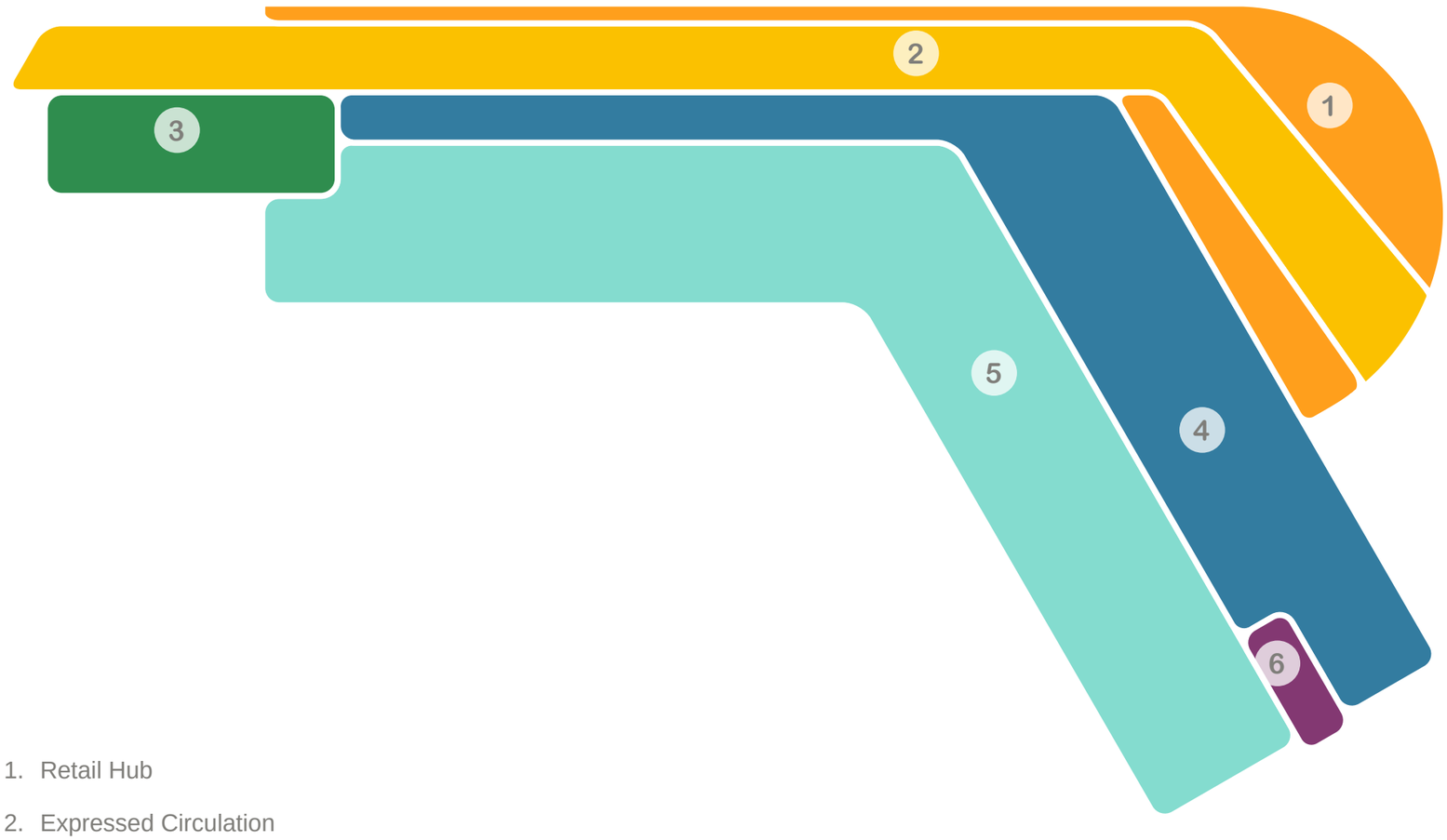
Station Design

We have developed a design language of different blocks which wrap over, under and around one another with varying levels of transparency and openness.

The separation of layers is designed to articulate the circulation across the site as well as create a dynamic form generating a sense of movement across the building mass.



Overlapping Forms



1. Retail Hub
2. Expressed Circulation
3. Operational Hub
4. MSCP Upper Deck
5. MSCP Lower Deck
6. Car Park Circulation

Station Design

Multi-Storey Car Park

Veil Wrap

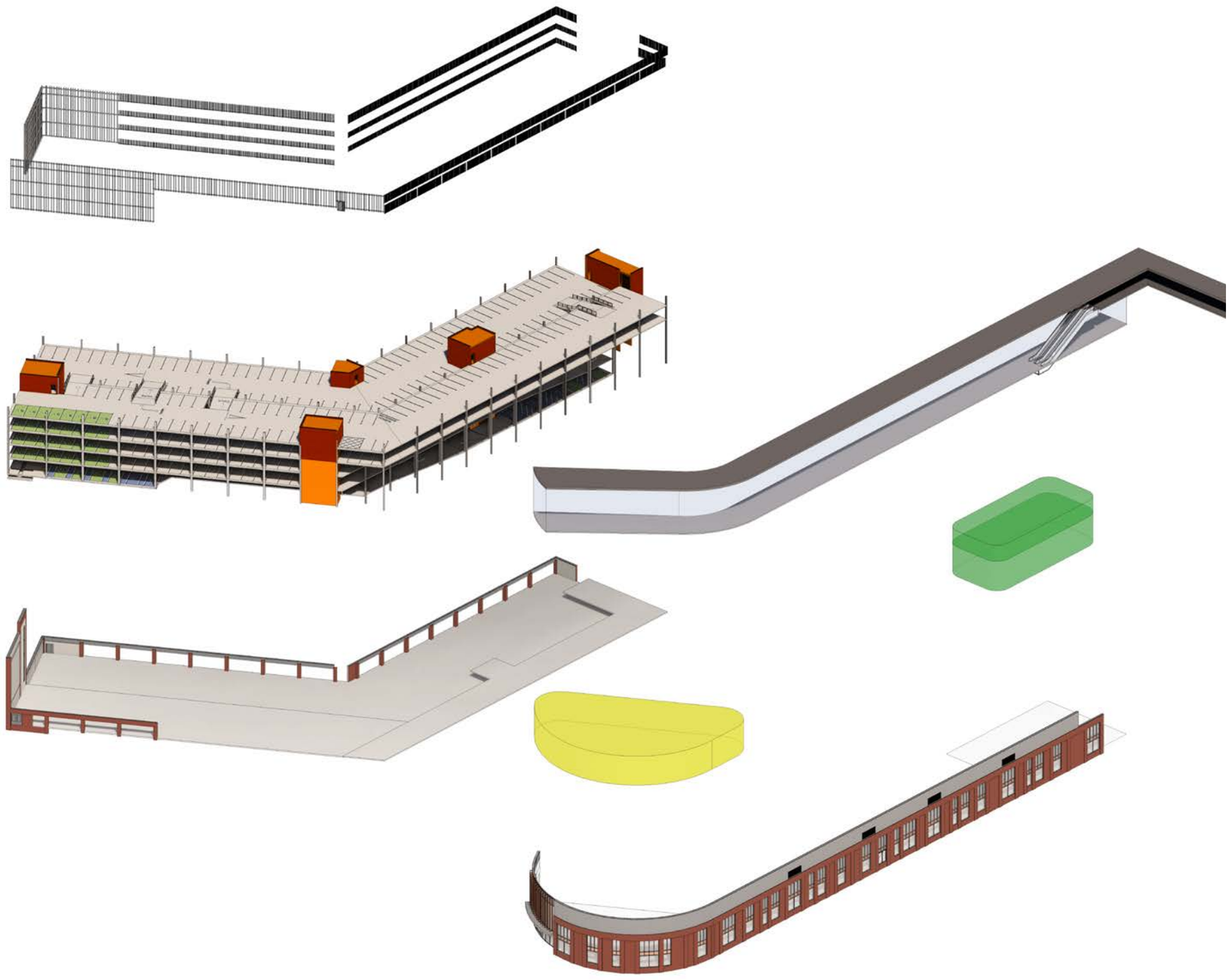
The MSCP is to be wrapped in vertical fins with varying spacings to create movement across the elevation. The fins have a semi open feel to the MSCP which changes from different angles

MSCP Frame

The frame is independent from the cladding and is designed to maximise the amount of parking whilst providing efficient circulation

Heritage Base

The base level of the MSCP has masonry clad columns and a projecting runner course with inset brick and mesh cladding panels. The base is designed to reflect the masonry cladding to the existing station



Station

Expressed Circulation

The full height glazed to the north articulates the entrance, to the south full height glazing again highlights the end of the circulation. The concourse which connects the two efficiently moves passengers from entrance to platforms

Operational Hub

Including waiting rooms, WCs, passenger facilities and offices at bridge level for railway staff

Retail Hub

Including the ticketing hall as well as shops and cafés. The hub acts as the destination part of the scheme

Historic Reflection

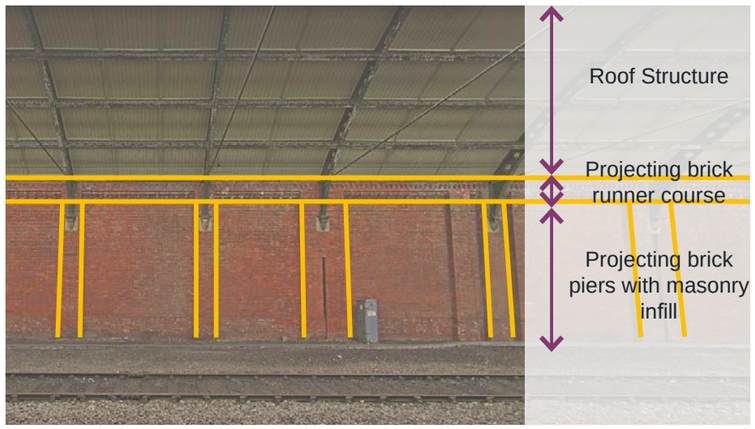
Is a contemporary take on the eastern elevation of Darlington Station with projecting brick piers and runner course over the top. Recessed windows and masonry panels puncture the elevation.

Concourse Cladding

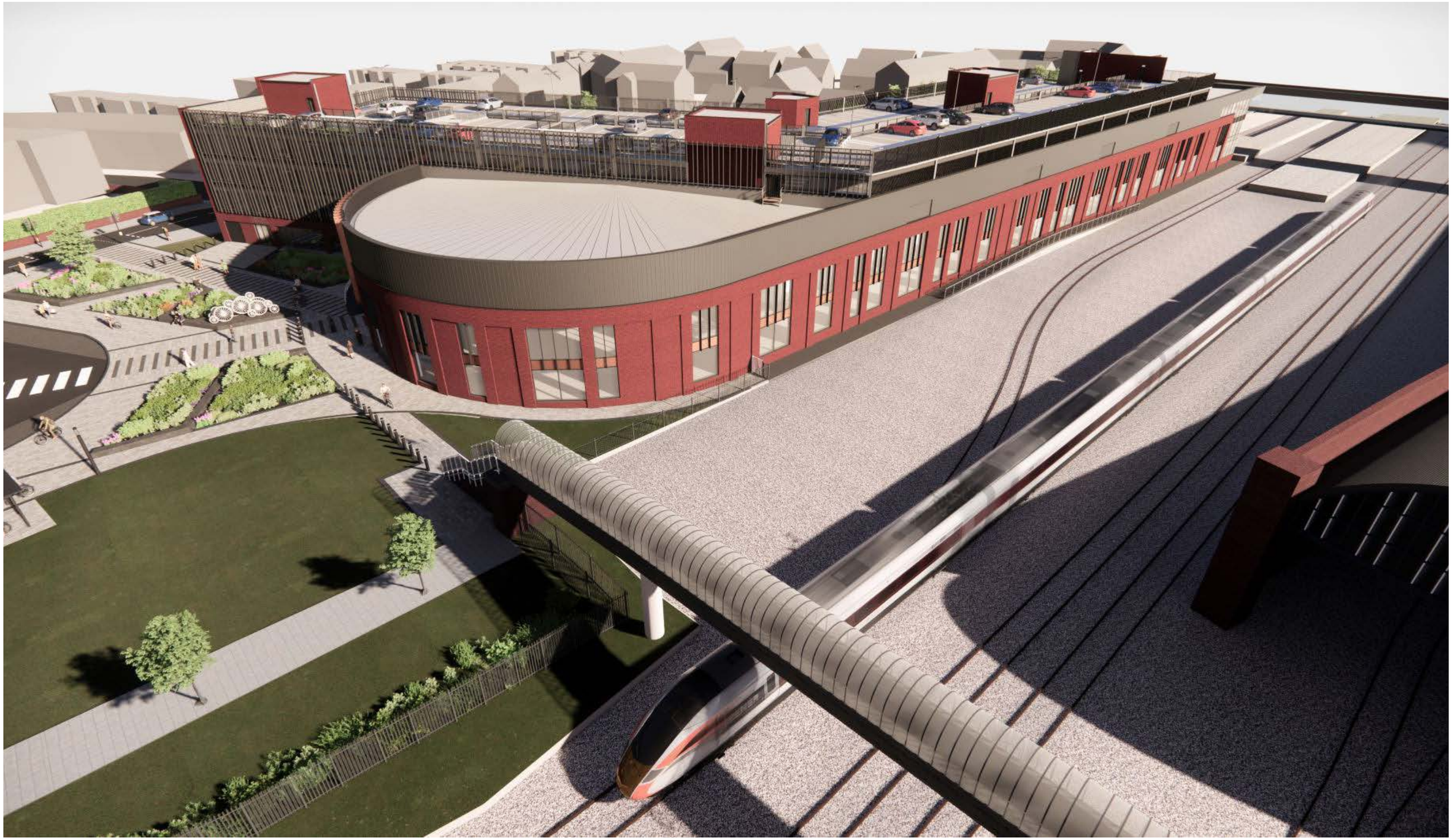
The design of the concourse elevation holds up a contemporary mirror to the eastern elevation of the existing station.

The concourse cladding has includes the projecting piers and runner course of, however varies the spacing of the piers to create a more dynamic elevation. The cladding is punctuated with recessed brick panels and double height curtain walling to bring light into the concourse. The red brick has been chosen to match the brick of the existing station.

The metal cladding above the runner course expresses the different layers of the scheme which overlap one another. The colour is chosen to reflect the slate tiles to the vaulted roof of the existing station.



Concourse Western Elevation



Rotunda Entrance

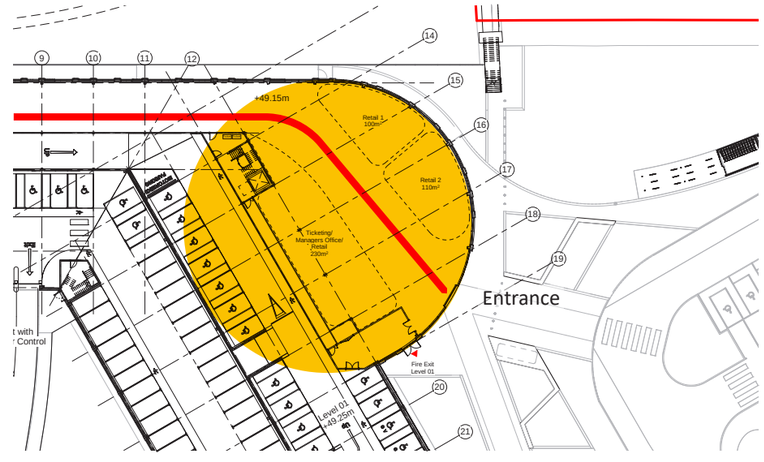
Railway Architecture

The new station entrance is inspired by the roundhouse typology unique to railway architecture. The semi-circular rotunda entrance is a modern reinterpretation of the roundhouse vernacular, such as the now demolished roundhouse north of Parkgate.

The rotunda is clad in brickwork which gently sweeps around the curved form of the entrance. The brickwork is punctuated with windows and recessed brickwork as per the original roundhouse.

The entrance is articulated with full height glazing following the same curve of the rotunda. The glazing draws passengers in from different directions and breaks up the masonry cladding.

image courtesy of the Armstrong Railway Photographic Trust



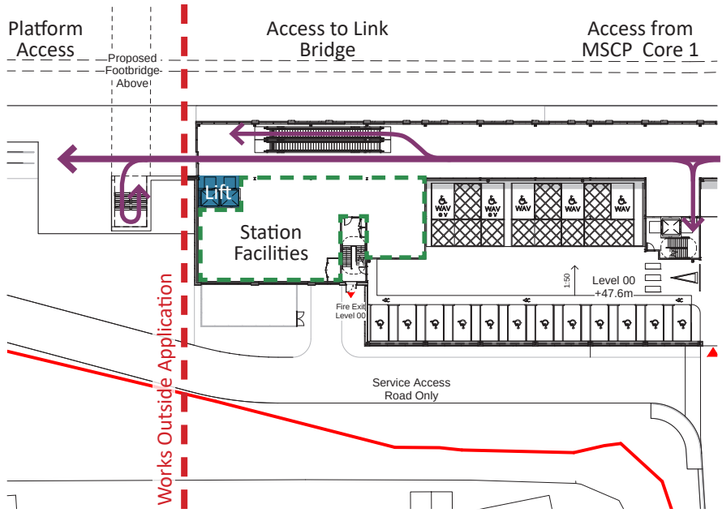
Rotunda Entrance

4.12 Link Bridge

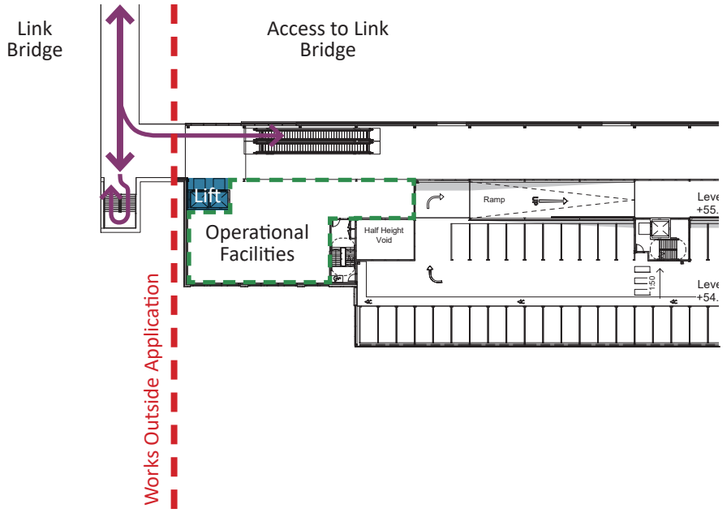
The station concourse is connected to the existing station via a new pedestrian link bridge to the south of the concourse. The 75m long link bridge will include lifts, stairs and escalator access to the new platforms to the south.

The link bridge will connect to the southern end of the concourse at Level 05, via a small connecting bridge which will lead on to the primary bridge. To the end of the link bridge will an access/ escape stair.

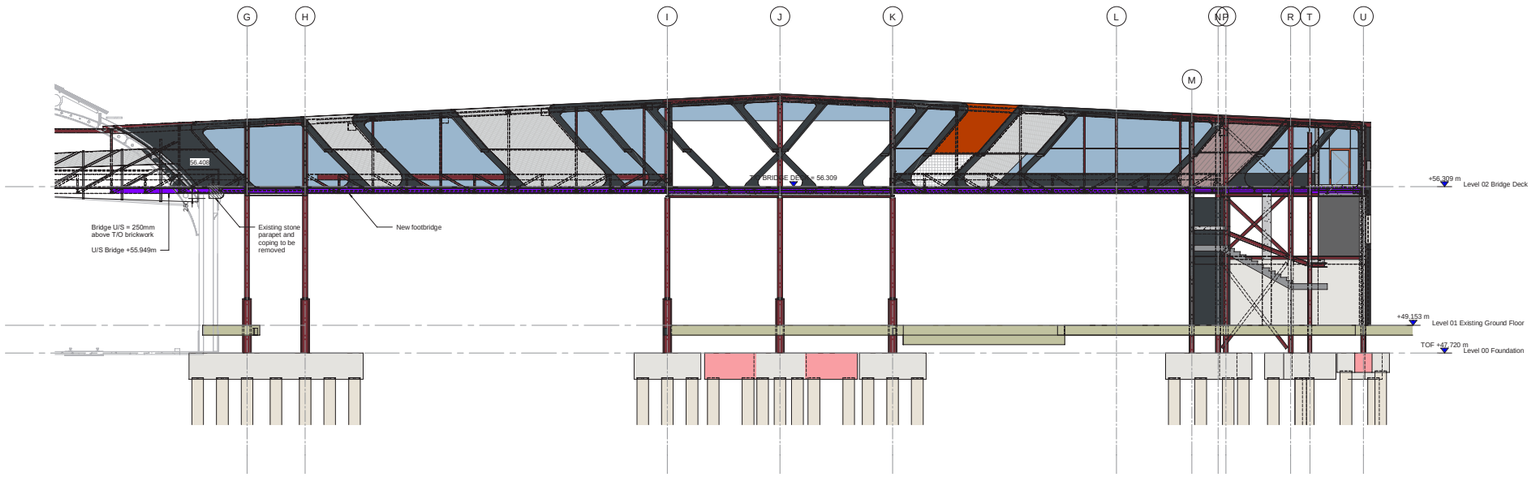
The design of the link bridge and access stairs are outside the scope of this project. The link bridge will be developed by a separate design team.



Station Concourse Plan



Bridge Level Plan



Multi-storey car park

Multi Storey Car Park Brief

Provide a high-quality parking environment with easy vehicular access and sufficient manoeuvring space.

Locate access and egress from the car park to the highway to minimise impact of traffic on surrounding properties.

Provide an efficient circulation plan to help keep the scale, mass and height of the building to a minimum.

Consider the visual impact on the local urban character, and the grade II*-listed station and St. John's Church.

Response

The proposed MSCP provides a total 672 spaces accommodated over five floors (including ground floor) or ten split levels.SYSTRA have carried out a parking demand study. The MSCP will be replacing the majority of existing surface level car parks around the station.

Systra identifies that by 2040 it is expected that there will be a capacity demand for 631 parking spaces. That demand is expected to increase to 700 spaces by 2045 and 778 spaces by 2050. It is expected that the MSCP along with the retained surface level parking will meet demand capacity until 2047.

MSCP Layout

Layout

The split-level design has one 6m lane of circulation on each level with 4.8m deep parking provided on either side.

The levels are connected by a series of ramps which are designed to maximise the travel distance of the vehicles travelling up the building.

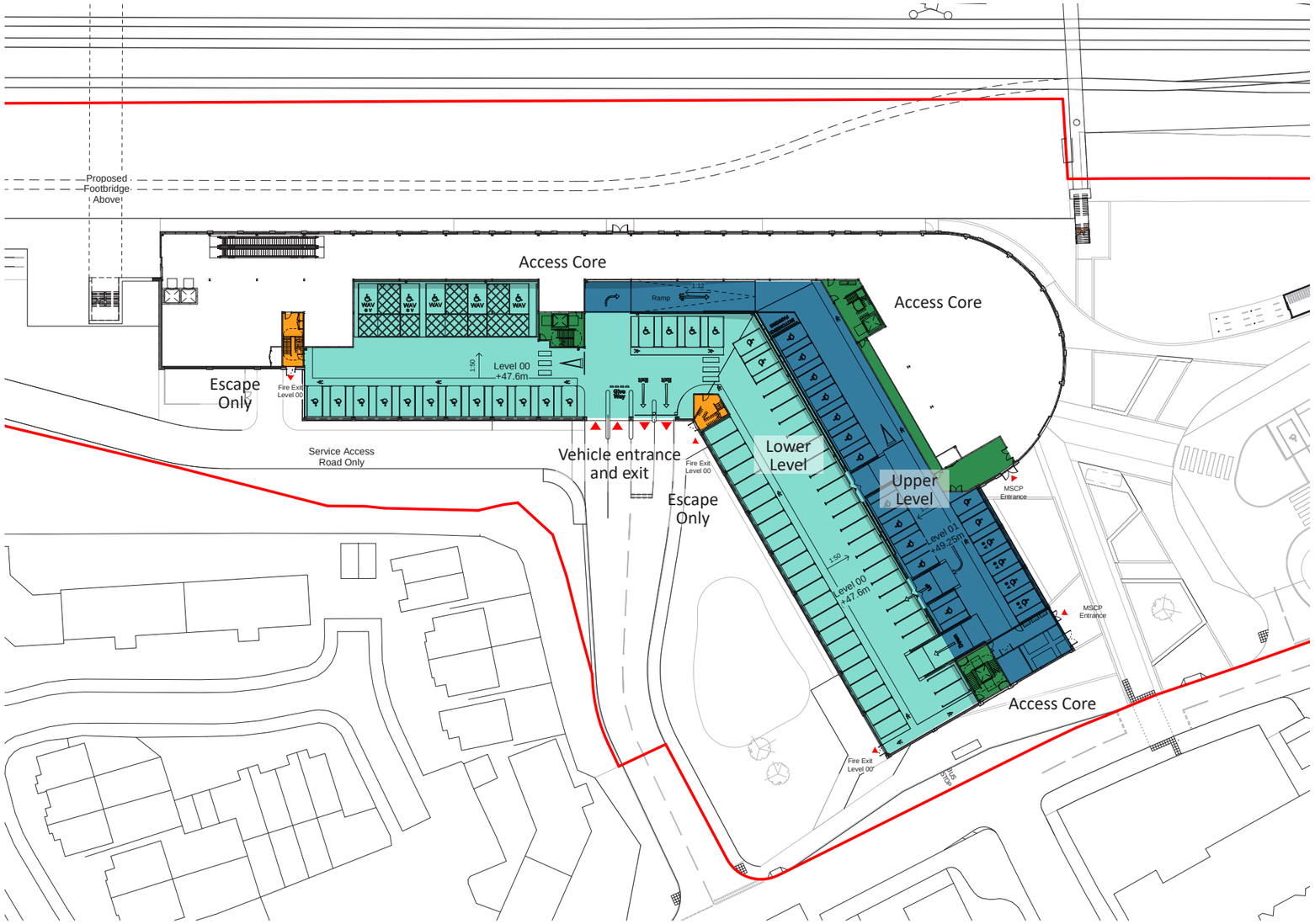
The down ramps are situated closer together to minimise the travel distance of vehicles exiting the car park in a safe manner.

The vehicle entrance/exit is located off a realigned Garbutt Square. The car park entrance is located at Level 00 (47.7m AOD) to take advantage of the natural slope accross the site.

Vehicular and pedestrian access is kept separate for the safety of the customers entering and exiting the car park by foot.

The two central cores provide direct access to the station concourse.

Along the west side of the building a two and a half-height space is left over for incorporation of the new station concourse.



Level 00-01 Plan

MSCP Scale

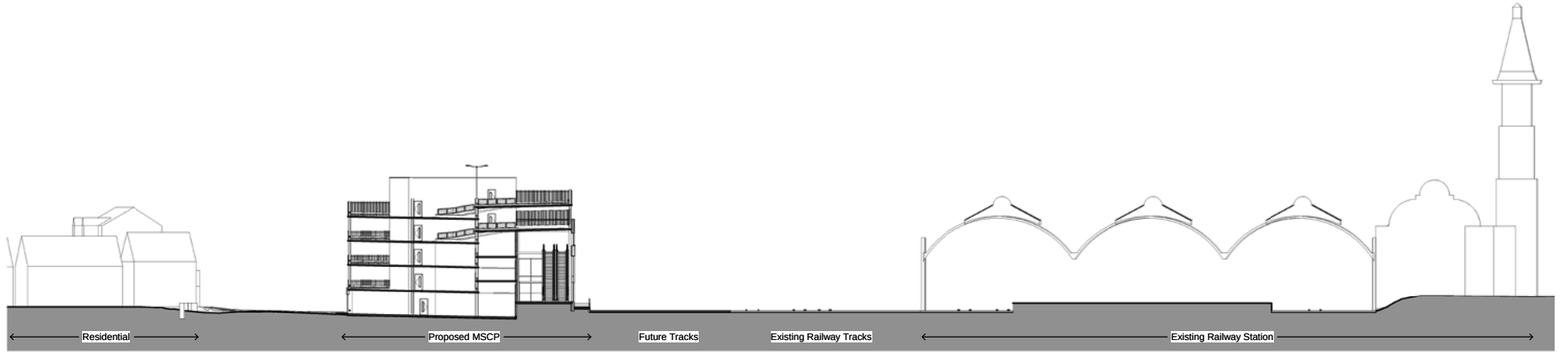
The scale of the proposed building at four storeys high minimises any impact on the nearby heritage assets and does not negatively impact on the existing station.

Site sections show the relationship between the new building and the existing station; the height of the top-level is a similar height to the apex of the station roof.

The building is located to minimise impact on the surrounding residential properties; a minimum separation distance of 33 metres has been established.

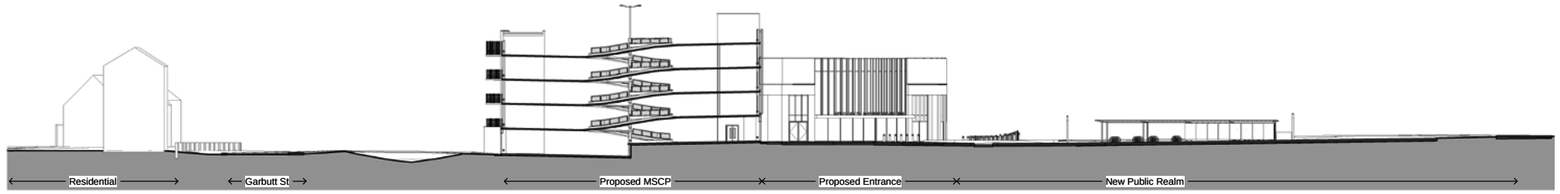
At four storeys high the level of the top deck of the building is at the approximate level of the ridge of the nearby four storey apartments.

MSCP massing has been developed to the largest acceptable height without impacting on the heritage asset.



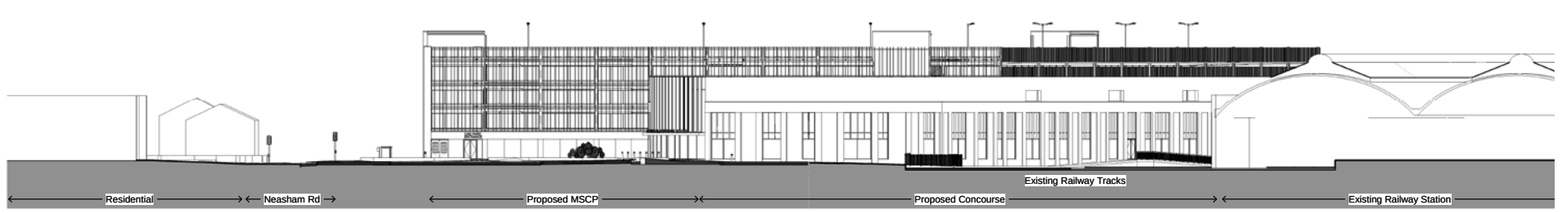
Site Section AA

1 : 250



Site Section BB

1 : 250



Site Section CC

1 : 250

Massing Sections

MSCP Appearance

The façade treatments to MSCP have been designed flexibly and largely independent of the internal layout to allow for different cladding options to be considered.

The design of the MSCP cladding features masonry to the ground floor. At ground floor there are inset architectural mesh infill panels or inset masonry panels. The masonry plinth is designed to invoke the same language of masonry piers with a brick header course as per the western elevation of the existing station.

At the upper levels powder coated aluminium vertical fins wrap around the car park structure. Variation and rhythm are created by fluctuating the vertical spacing of the fins. The fin design allows for plenty of natural variation, whilst the design reflects the contemporary aesthetic required of the brief.

Please note that building cladding and landscaping materials are in draft format only and are only shown for illustrative purposes

MSCP Cladding

Vertical aluminium louvre 200mm deep, @ 600-400mm centres

Structural column

Structural edge protection

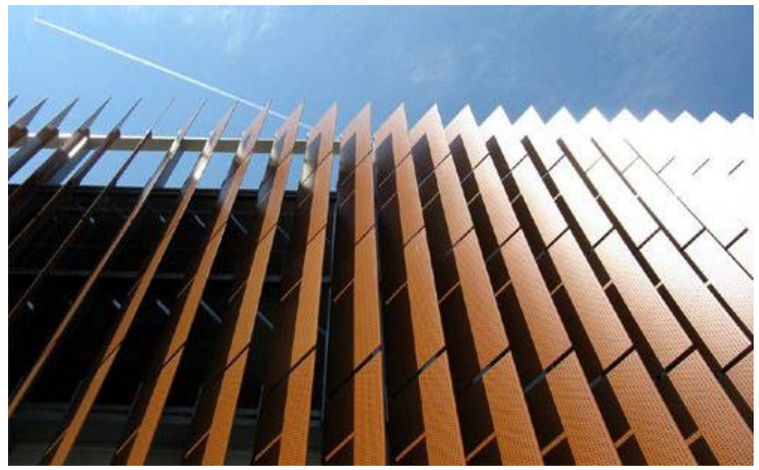
Continuous linear bracket to support louvres

Parking Decks

Masonry plinth and projecting runner course to ground floor

Infill architectural mesh panel

Hard landscaping



MSCP vehicular approach

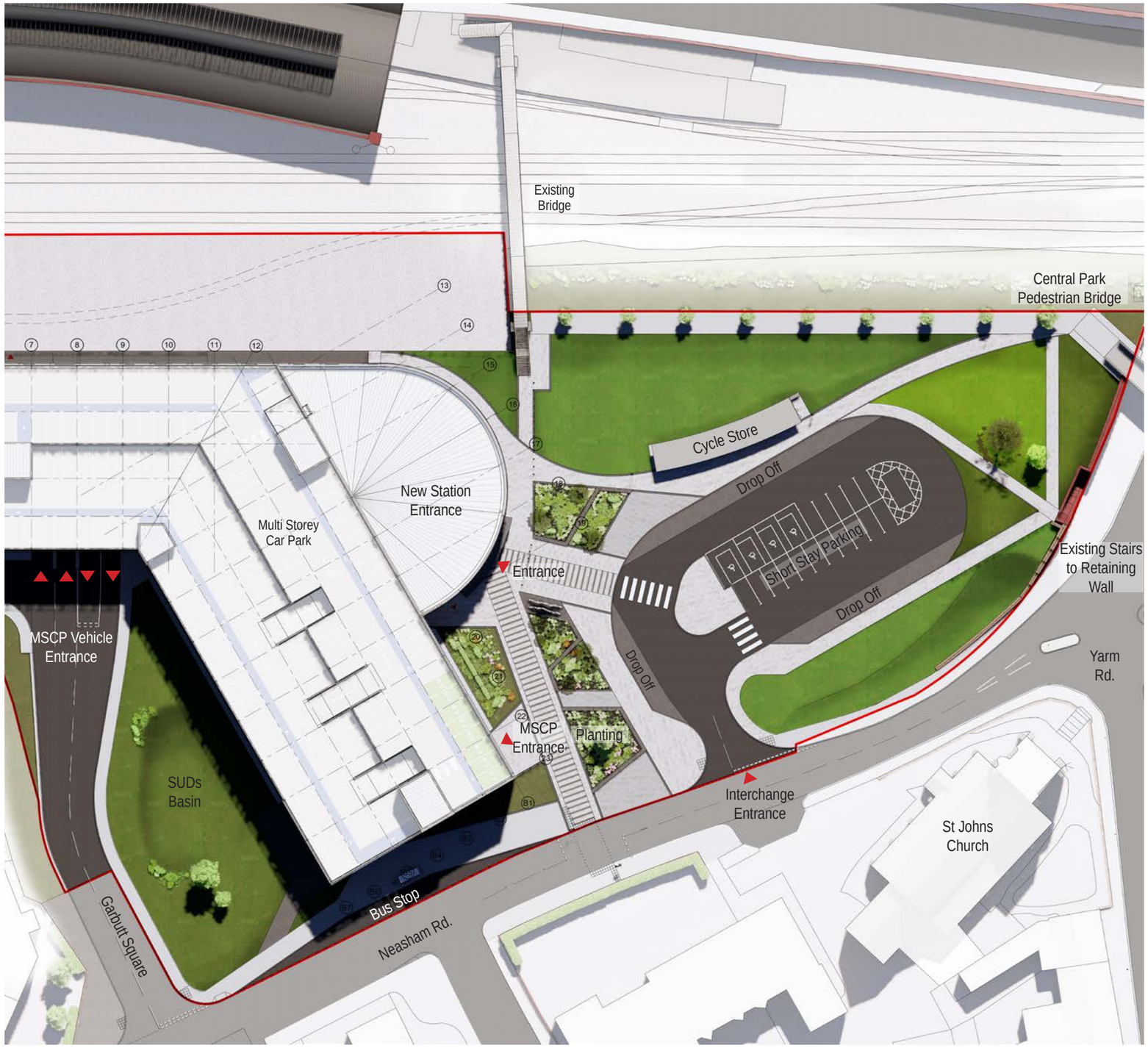
Transport interchange

Public Realm Design

The creation of a new transport interchange for the station. The transport hub will be linked by a new bus stop on Neasham Road and additional cycle storage. To the north of the station entrance will be a new drop off area for passengers and a short stay car park.

Access to the MSCP is provided by a realigned Garbutt Square. The entrance into the car park is widened to allow two cars in and two cars out at once.

The proposal will also includes a high quality public square to the front of the station, including seating areas and raised planters to create a new location for people to congregate in Darlington.



Site Plan

Transport Interchange Vehicle Access

Vehicular access into the site is only possible via Neasham Road to the East. There are two main vehicle access points into the site:

Garbutt Square:

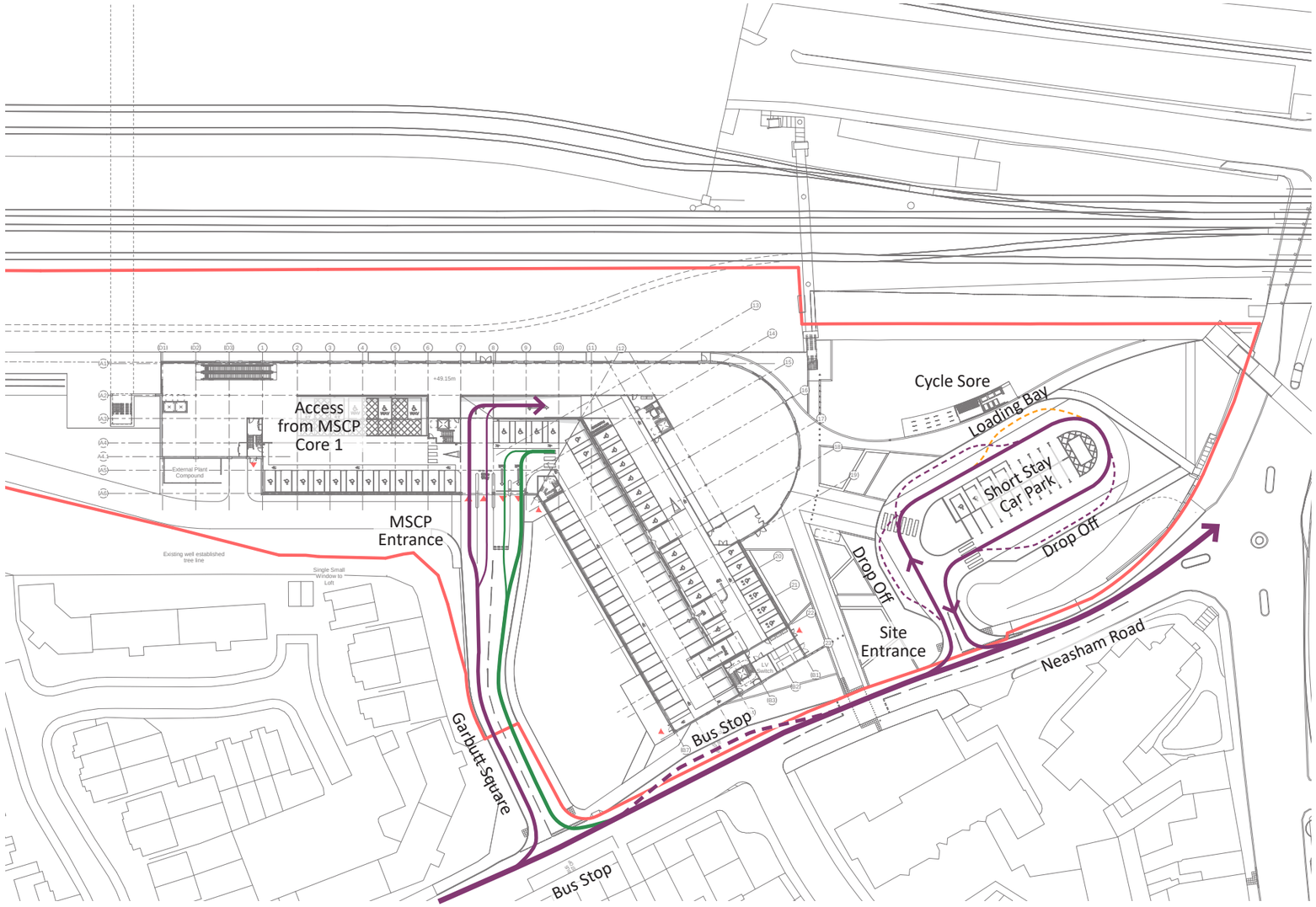
The MSCP vehicle access is via a realigned Garbutt Square to the south of Neasham Road. The road has been realigned to move it away from the existing residential properties as a way of mitigating any noise issues.

Short Stay:

A new entrance into the site is being introduced for the short stay car park and drop off. The location of the junction has been designed such that there is space between the two access points for a bus stop and a toucan crossing. As a result of the location of the access point we are proposing to demolish circa 15m of the retaining wall.

The short stay parking area has been designed for 20 vehicles including 4 accessible spaces. To the outside of the parking is a drop off lay by.

The drop off area has also been designed such that rail replacement buses can turn within the turning circle.



Vehicle Routes within Site

Pedestrian Circulation

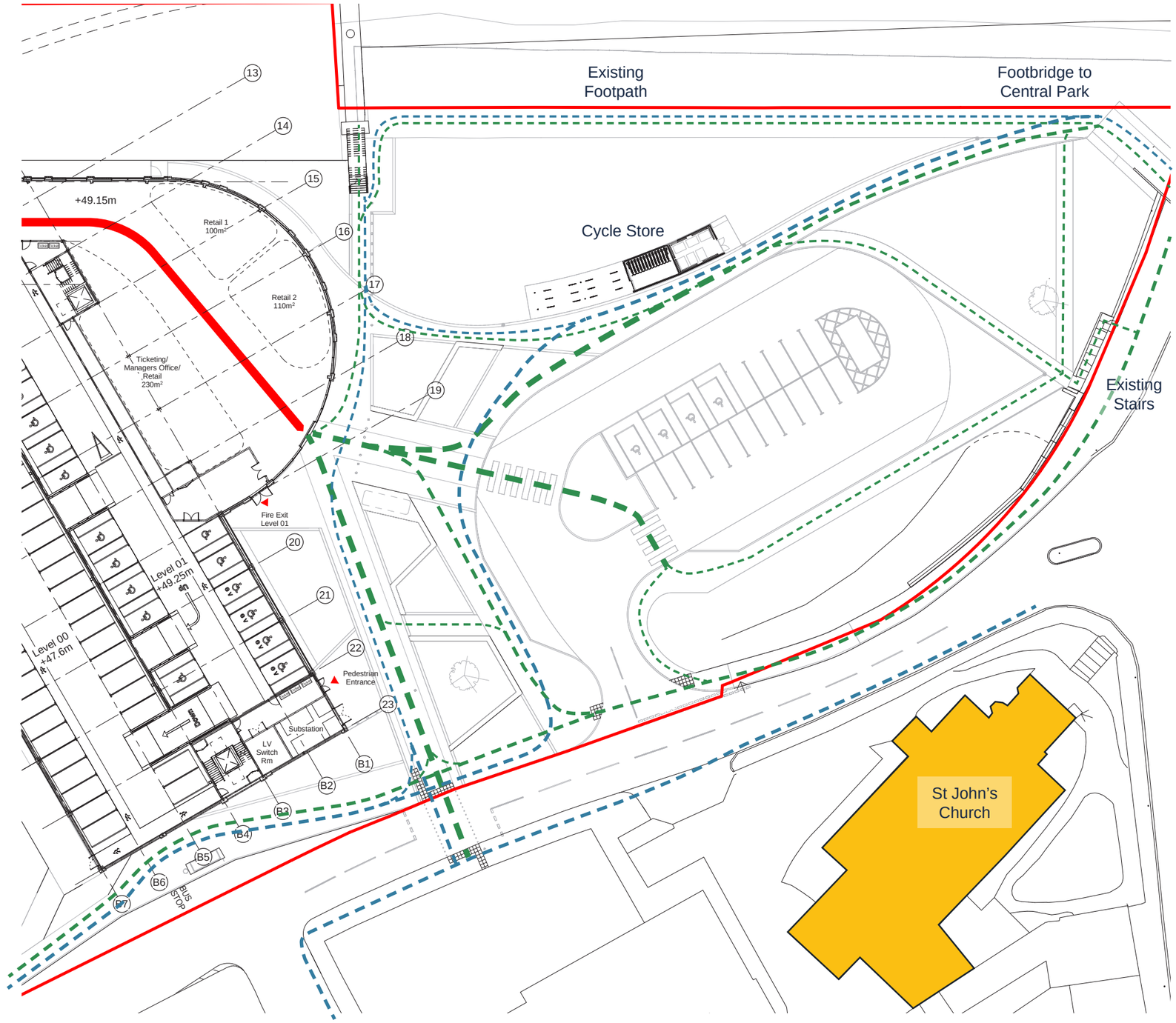
Safe pedestrian and cycle access into the site is imperative to encourage sustainable transport methods.

For safe access into the site from the Neasham Road southbound carriageway we are widening the pavement in front of Pembrooke House to 3m to create a shared pedestrian and cycle way. From this widened pavement we are proposing a toucan crossing for safe access for pedestrians and cyclists into the site in line with the station entrance.

For access into the site from the north bound carriageway we have a 3m - 4m wide pavement beside the bus stop for a shared cycle and pedestrian path.

Cycle and pedestrian access is also provided by the new pedestrian bridge over Parkgate which connects the site to the Central Park development.

Within the site we have a mixture of dedicated paths and a shared surface public square. It is expected that pedestrians and cyclists will filter through the shared surfaces.



Pedestrian Access

Cycle Access

Aerial

Station Exit

Central Park

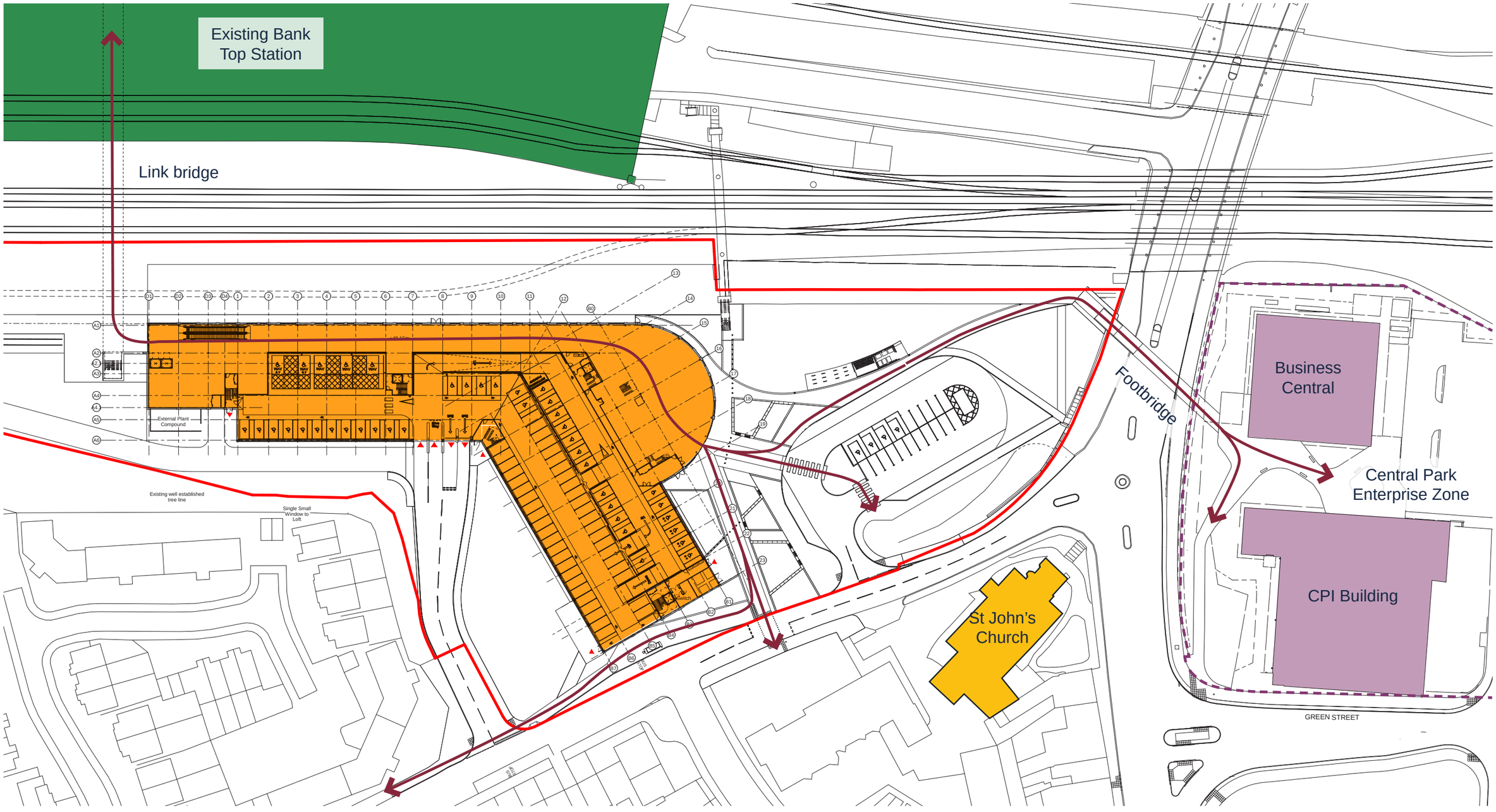
The new station entrance has also been located to increase the connectivity between the Station and the Central Park Enterprise Zone. Central Park is a strategically important development within Darlington, regenerating the site of disused railway sidings.

The public square provides an important townscape link between the new station entrance and Central Park. It also enhances the setting of the grade II-listed St. John's church which fronts the eastern side.

As passengers exit the building the will also get a prominent view of St Johns Church. With the existing run down buildings demolished there will be uninterrupted views of the Grade II listed church.

View of Interchange Exiting the Station

Wider Connectivity



Transport Interchange Retaining Wall

To the north of the site is an existing retaining wall which dates back to when Parkgate Road was lowered below the railway line. The retaining wall separates St Johns Place from Yarm Road to the north and tapers down on the eastern boundary to Neasham road. At its highest point the height difference retained by the wall is over 5 meters.

We are proposing circa 43m of retaining wall demolished and then stepped back to the existing stair access into the site. This option improves the visibity of the station entrance for pedestrians and vehicles approaching the site, as well as views of the existing listed Bank Top station. The removal of the retaining wall also allows us to create a new 3m wide footpath to access the station site.

To mitigate against the loss of the historic retaining wall, we are proposing to build a new circa 18m dwarf wall along side the widened footpath to show the rough location of the original wall. The dwarf wall will be built from the same stone and copings as the demolished retaining wall as an echo of the original structure.

Existing Retaining Wall

Existing Retaining Wall

Visualisations

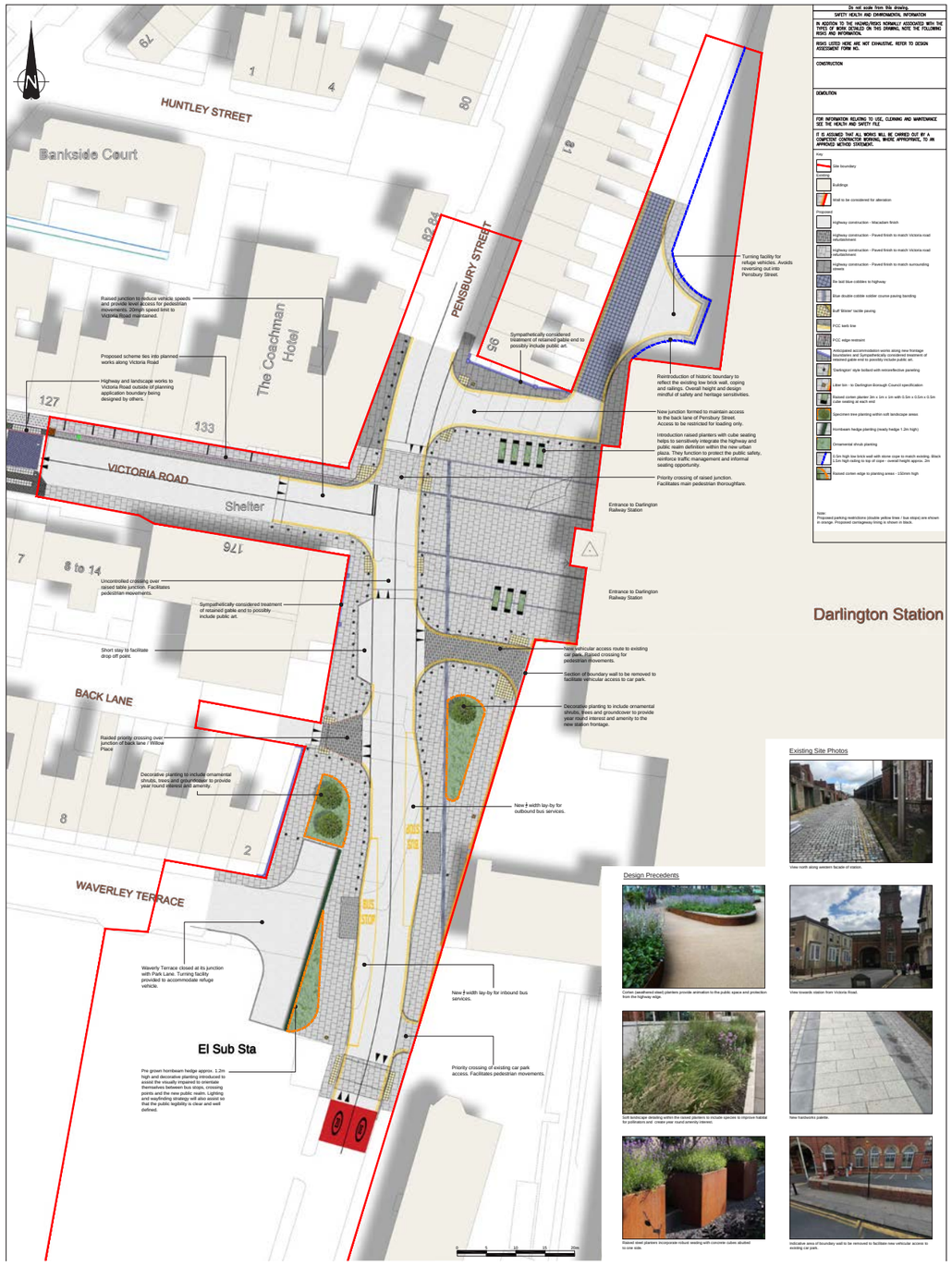
Proposed View of Retaining Wall

Proposed Aerial View of Retaining Wall

Gateway West

Gateway West

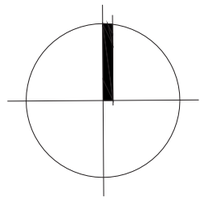
- Demolition of Hogan's Public House, 97 Pensbury Street, 137 – 139 Victoria Road, 1 Waverley Terrace, and 1 – 4 Park Lane and engineering operations in the form of highway and associated infrastructure works to the west of the station to connect Pensbury Street to Park Lane, the creation of bus stops and lay-bys;
- A new highway access and turning facility to the rear of Pensbury Street;
- A new vehicular access route to the existing car park off Park Lane, including the partial demolition of the existing boundary wall to facilitate this access and creation of a new turning facility to Waverley Terrace; and
- Associated public realm landscaping works.



Gateway West

Gateway West

CPO Site Boundaries



North

- Land to be acquired
- Under Acquiring Aurthority Control or Network Rail Land
- Not under Acquiring Authority Control but not objecting and negotiations progressing
- Not under Acquiring Authority Control and objecting to the CPO

Aerial

Aerial

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