

Bus movement and interchange

Design Principles

1. Development proposals should provide a bus interchange to be located on Becket Street with minimum 15 to maximum 24 stands (3 x 15m) including space for non-designated bus replacement stands. Further discussions will take place with bus and coach operators, Network Rail and County Council to ensure an appropriate design for the bus interchange is achieved and the development potential of the existing Becket Street car park is optimised.
2. A bus interchange could be provided in any preferred configuration option, considering the following key points:
 - Generally, reversing layouts are ill-suited to high frequency services which sometimes experience 'bunching together' of buses on the same route.
 - In a bus station with 'forwards-in/reverse out' bays, bunching could result in buses queuing for a particular bay, creating hazardous tail-backs onto the highway or across the area required for the arrival and manoeuvring of other services.
 - Issues with alighting points on two door vehicles and 'low floor' bus specification where access for wheelchair users is through the centre doors.
 - The orientation of bus bays within the interchange are considered on the basis of left hand drive vehicles. However, right hand drive vehicles can be accommodated. The exact layout of the bus interchange will be subject to further detailed design.
3. It is anticipated that buses could use the Becket Street extension in future as well as or as an alternative to the routing of buses via Osney Lane. Buses routed to the interchange can use Becket Street from Frideswide Square as well as the route from Osney Lane and Becket Street extension.

Bus interchange alternative layout with Islands:

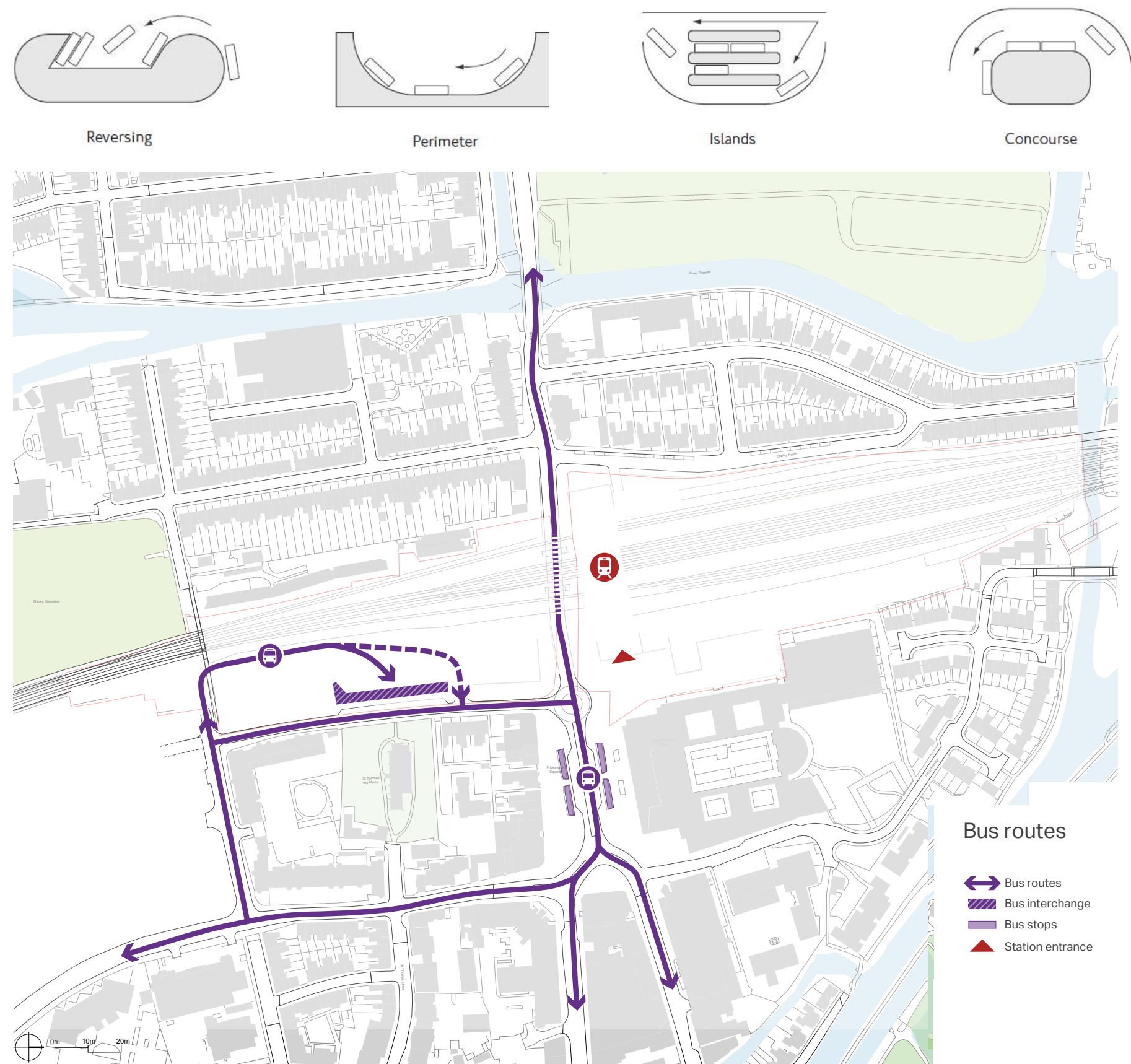
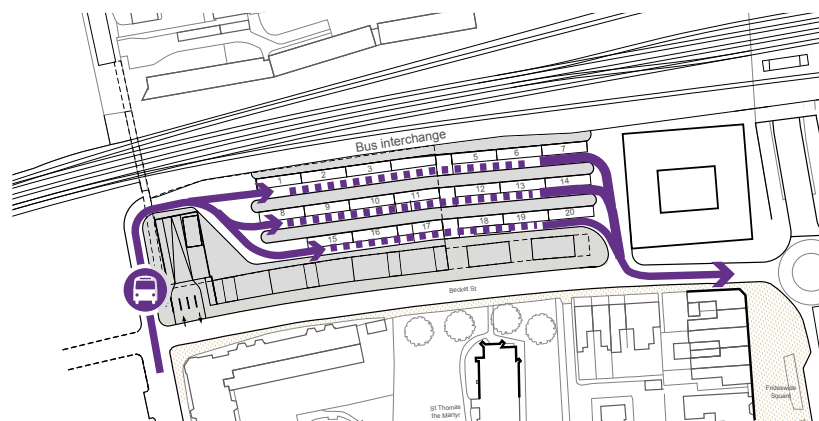


Figure DP8: Bus interchange design principles

(Note: SPD design principles are shown in the context of the illustrative masterplan)

Car movement

Design Principles

1. The car parking provision proposal is to replace the amount of existing parking spaces but not to provide a net increase in spaces. Development proposals should provide for vehicular drop off and pick up with each space as per NR standards.
2. Development should provide maximum car parking provision of:
 - Short Stay Car Parking – 8 accessible/ blue badge bays;
 - Long stay car parking – 480 spaces;
 - Operational car parking – 53 parking spaces including 3 disabled bays.
3. Subject to discussion with Network Rail and train operators there may be opportunities for reduced car parking numbers.
4. Through high quality design, it should seek to ensure any conflicts between multiple users (pedestrians, bicycles, services vehicles, buses and cars) are minimised where possible given the constrained nature of this area. The use of surface treatments, demarcation, signs (located in key locations to ensure minimal street furniture clutter) and controls should be used to ensure the safety of vulnerable users. Areas should be designed with active modes ahead of vehicular borne movements.

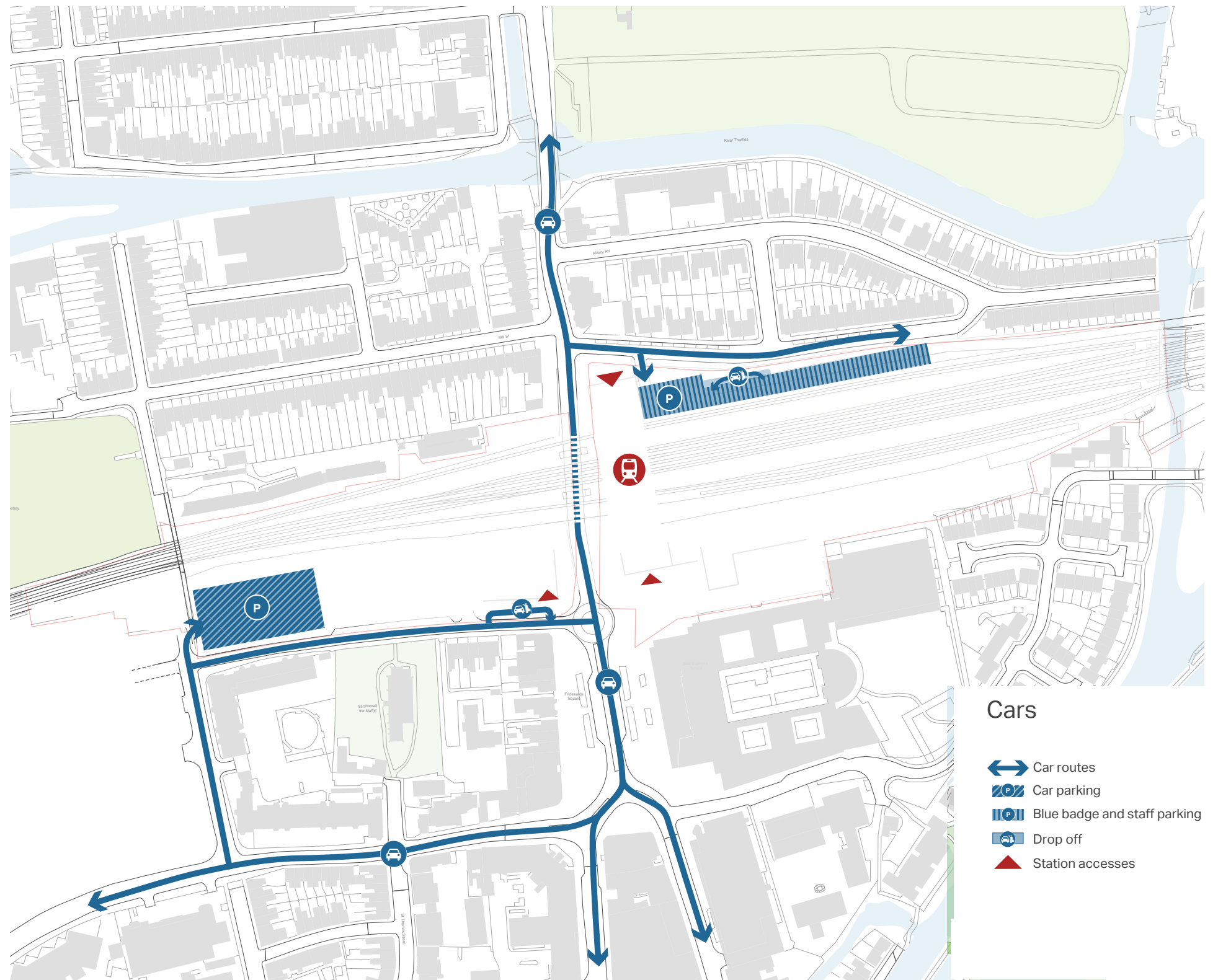


Figure DP8: Car access and parking design principles

(Note: SPD design principles are shown in the context of the illustrative masterplan)

Taxi movement

Design Principles

1. Development proposals should provide space for maximum of taxis 24 spaces, based on the dimensions set out within the local design standards preferably on the northern end of Station Square East.
2. Taxi parking provision and access should avoid causing conflict with pedestrian and cycle access in the station area.
3. The area will be utilised by taxis, retained service access to the Said Business School, servicing for the station related activity (outside of peak periods) as well as cycling and walking.
4. Pedestrian and cycle safety will be ensured through appropriate design. The future design will ensure a hierarchy whereby pedestrian and cyclists are given priority, shared surface treatments, traffic calming and appropriate signs and demarcation will help to ensure taxi movements are conscious of other users and the busy interaction of users in the area.
5. Vehicular movements other than taxis will be restricted and or in the case of service and delivery vehicles restricted to off-peak periods.

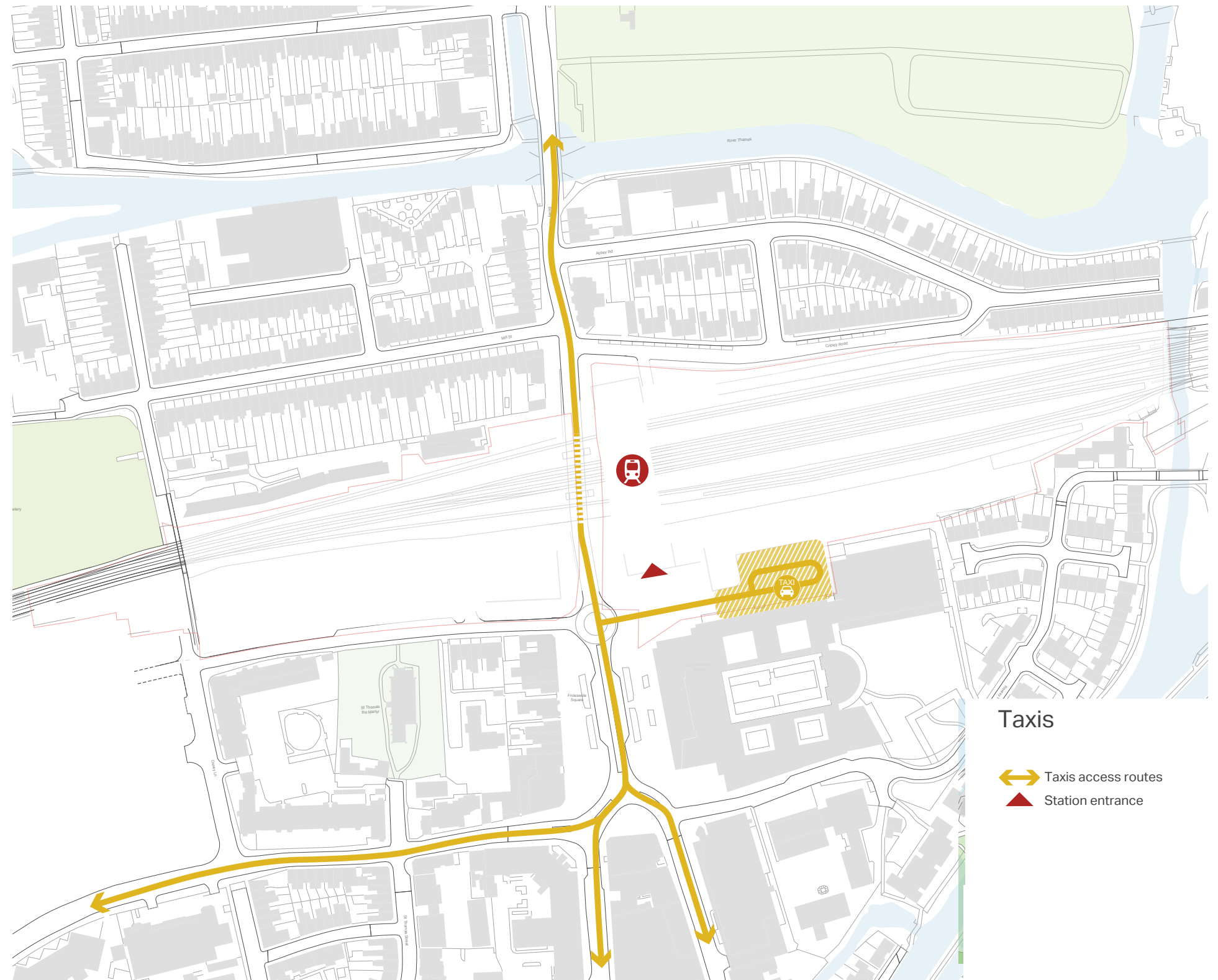


Figure DP10: Taxi access design principles

(Note: SPD design principles are shown in the context of the illustrative masterplan)

Sustainability

New development should respond to the challenge of climate change through the integration of sustainable design principles responding to the policies of the development plan.

Oxford City Council's Suitability Strategy for Oxford 2011-2016 and Oxford Local Plan preferred options document recognise a high quality environment is integral to delivering a high quality of life for local residents and is attractive for business. As a key hub, the environment of this new multi-modal transport interchange will have a direct impact on the quality of life for local residents that use it, and an opportunity to showcase Oxford as a green city to investors for years to come. As such, the development of the station area should embrace the principles of sustainable development not only for a high quality environment today, but in delivering a resilient future in the face of a changing climate.

A Tree Preservation Order has been made on the trees along Cripsey Road and is currently out to public consultation with a view to it being confirmed shortly. The importance of these trees from their amenity value, ecology and as a visual screen has been fully considered as part of this SPD.

Design Principles

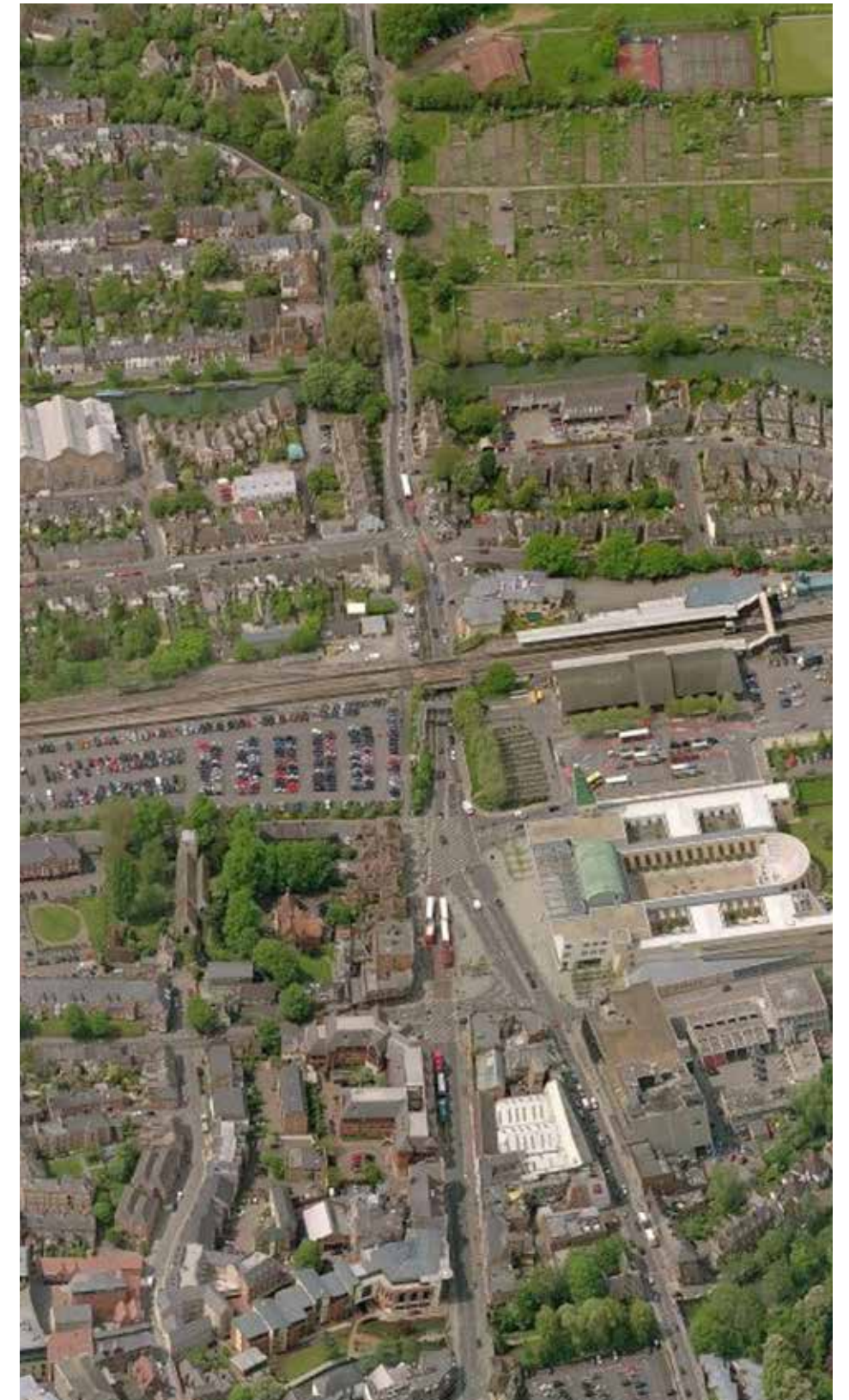
The City Council's Development Plan Policies set out the principles for sustainable development, and specifically the Natural Resources Impact Assessment SPD identifies a range of resource efficient measures for building design and construction. Improvements to the public realm should also reduce environmental impacts and improve urban resilience as set out in the OxLEP Strategic Environment and Economic Investment Strategy.

The design principles here draw on this best practice to create a new station area that:

1. Aims to meet the 'target standard' outlined in the Natural Resource Impact Analysis SPD for development energy efficiency, renewable energy provision, embodied impacts, materials selection and water management. Passive

approaches will be prioritised and there should be an aspiration to meet BREEAM Excellent. The principles of reducing the embodied impacts and materials selection should also apply to the development of the public realm as well as buildings. The station redevelopment has the potential to unlock low carbon energy networks in the West End by providing space for an energy centre for combined heat and power and heat generation plant if the space is available.

2. Demonstrates development will not have an adverse impact on the local climate, taking into consideration future climate projections, impact on wind speeds, urban heat island and flood risk.
3. Development does not result in a net loss in species or ecological value and should aim to provide a net gain in Biodiversity Action Plan priority species through a Green infrastructure strategy that helps adapt to climate change and ecologically enhance the site, providing wider benefits. Any development resulting in a loss of trees and habitat must compensate on-site.
4. Provides a sustainable approach to drainage targeting green-field run off rates, demonstrating consideration of the drainage hierarchy including the potential for surface water reuse, infiltration, discharge to a surface water body, discharge to a water course, discharge to a separated sewer and as a last resort discharge to a combined sewer. Consideration of an appropriate treatment train should be given to ensure that the quality of run-off is improved and does not have a negative impact on the receiving environment.
5. Contributes towards the development of a sustainable approach to waste management by providing space for the appropriate separation and storage of waste in line with the city's waste management arrangements.
6. Supports a shift towards more sustainable modes of transport include provision of appropriate space for walking, cycling and public transport.





Station Approach from north



Development Components | 05

Development Components

Station and Station Square East

The eastern side of the station provides an opportunity to create a prominent and high quality building and public open space that defines the station area as the gateway for Oxford.

Design Principles

1. Station Square East should provide a high quality public realm with priority for pedestrian and cycle access.
2. Taxis and other vehicular access route could be located towards the eastern edge of Station Square.
3. The station building should be appropriately orientated to provide prominence and visibility from all station approach routes.
4. Buildings facing Station Square East should provide active frontages.
5. Access to Said Business School car park ramp as well as future development at the northern end of the site should be provided from the Station Square.
6. Taxi drop-off (24 spaces) should be located within one consolidated zone at the northern end of the square, also providing access to station operations and the Hotel.
7. Service vehicle access should be maintained through the square and be restricted to off peak periods, to reduce impact on pedestrian movement during peak times.
8. Appropriate signs should be provided along key routes to and from the station area.
9. Improved wayfinding should be provided to ensure a clear route toward Gloucester Green Bus Station from both, Station Square East and bus interchange to promote complimentary multi-modal interchange within the City.
10. Cycle hire provision and cycle repair could be provided on Station Square East, with appropriate visibility and signs.
11. Pedestrian and cycle safety will be ensured through appropriate design. Measures to avoid conflict could include appropriate signs to ensure cyclists dismount in this area once off designated cycle routes up to and beyond the station forecourt. Vehicle speed limits of 10mph and pedestrian priority through the design of surface treatments and demarcation can also be included.
12. Public art could be provided in Station Square East.

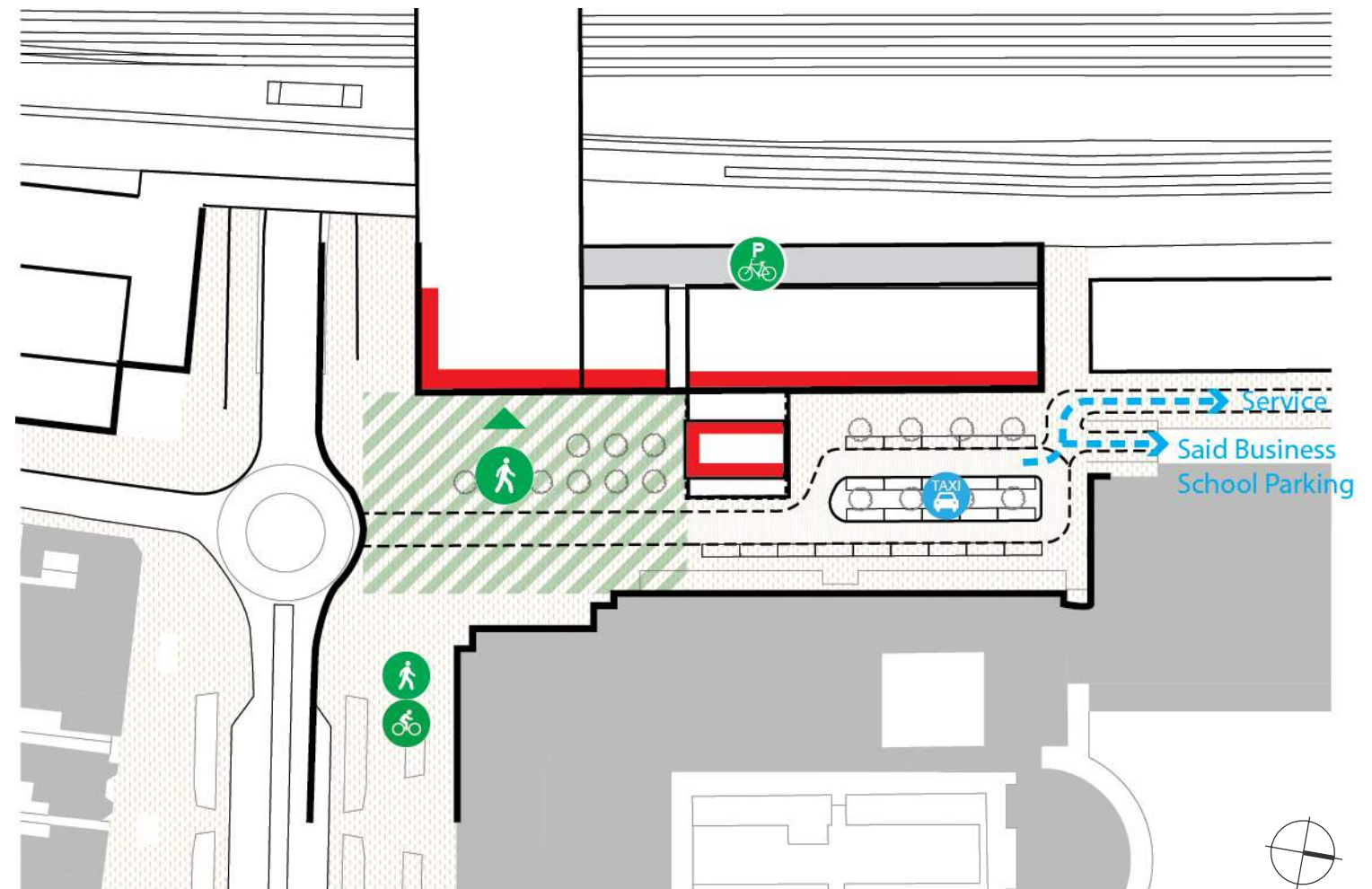


Figure DP11: Station and Station Square East design principles
(Note: This diagram is illustrative of SPD design principles)



Precedent for Station square: Kings Cross arrival square



Precedent for Station square: Proposed Barking Riverside arrival sq.

Corner development and station entrance

The development site on the corner of Becket Street and Botley road is a major opportunity in the station area and should contribute to and enhance the station and its immediate surroundings.

Design Principles

1. Station entrance should be provided from the corner development, providing clear and legible access to station through the pedestrian footbridge over Botley Road.
2. Pedestrian bridge should be designed as a high quality architectural feature complementing the station building and provide a continuous accessible route to the station from Becket Street.
3. Development on this site is anticipated to be the tallest element within the station area, with a height not exceeding 18.2m or ordnance datum 79.3m (whichever is the lowest). Guidance for compliance with the Carfax height restrictions and Oxford View Cones should be duly followed to assess impact of development on this site; to enable viability the site may be able to be developed higher than the Carfax height but only subject to detailed consideration of the impact on local and wider protected views as noted in the previous section.
4. Drop-off area could be provided on Becket Street also providing a servicing facility for the potential commercial use.
5. The building should provide active frontages at the ground level.
6. The building should be sufficiently stepped back on ground level to allow recommended width of pedestrian and cycle access route along Becket Street in both directions.

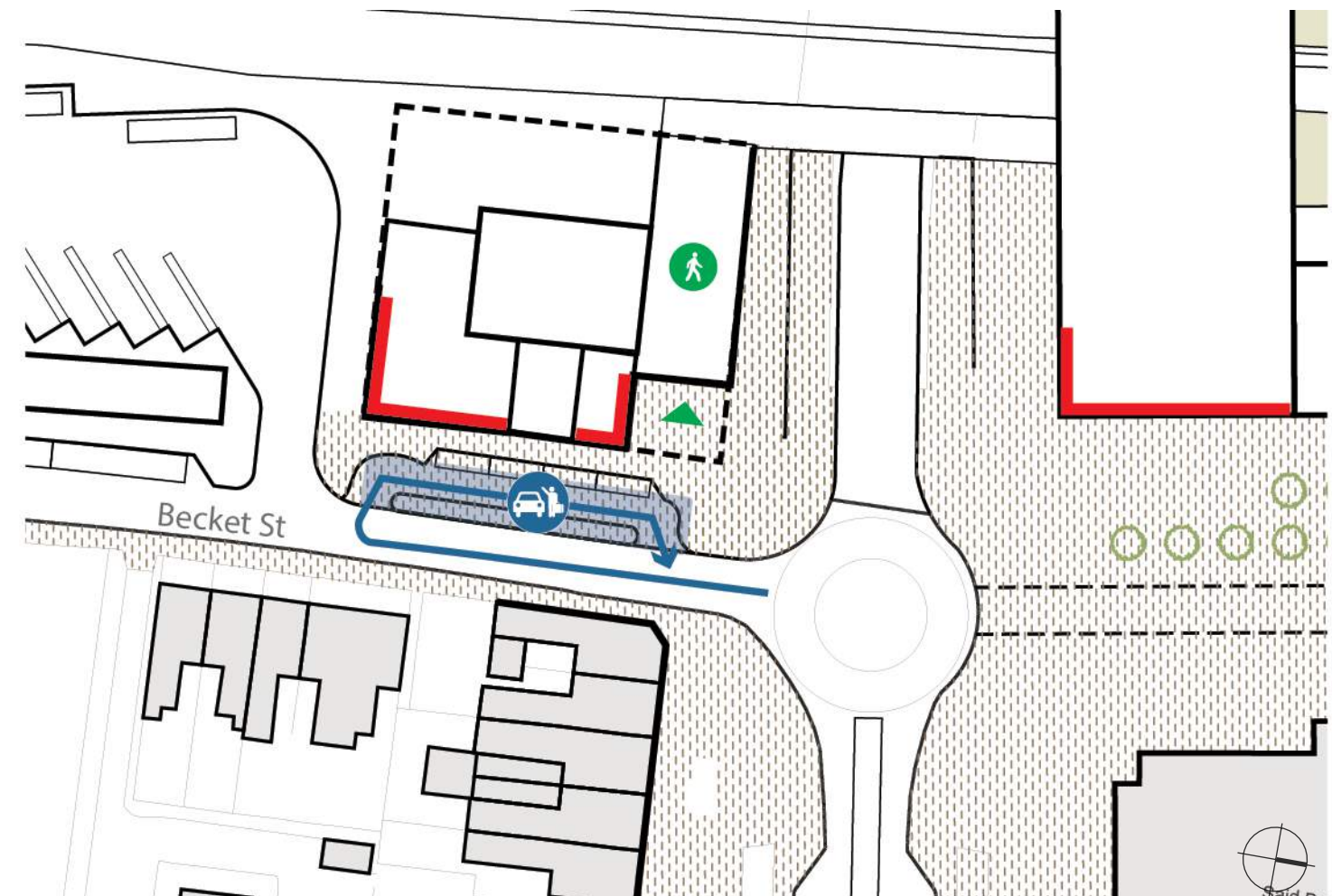


Figure DP12: Corner development and station entrance design principles
(Note: This diagram is illustrative of SPD design principles)



Precedent for corner development



Precedent for station entrance: Proposed Bond Street Crossrail

Western Station entrance and Station Square West

A new station entrance on the western side of the development will create a new gateway to Oxford that relates positively to the surrounding context and provides better access to a transport interchange with connections within and beyond the City.

Design Principles

1. The Station building should be of excellent architectural quality, provide prominence and excellent visibility from all station approach routes from the western side of the City.
2. A high quality public realm should be provided on the western side of the station, complementing the eastern side of the development.
3. Drop-off arrangement should be located close to the western station entrance and should be well integrated with the station public realm, avoiding conflict with pedestrian access and circulation.
4. Servicing of commercial units should be integrated with the drop-off facility and used during off peak station operation hours.
5. Accessible (blue badge) spaces should be provided close to the western station entrance; all other public car parking should be located on Becket Street.
6. Junction of Botley Road with Cripsey Road could be signalised to provide adequate traffic management and flow capacity following the required traffic assessment and approvals from relevant authorities.
7. Station operations car park (54 spaces) should be provided for staff on the western side of the development. Any lower number of spaces for staff would be subject to agreement with train operating companies and Network Rail.
8. Land uses including rail related retail and ticketing facilities at the ground level of the station building should maximise active frontage with Station Square West.
9. Appropriate signs should be provided along all the key routes to and from the station area.
10. Development should be designed sensitively in relation to nearby houses including considering issues of access, scale, landscaping and noise impact. The scale and massing of the proposed operational building should ensure that the bulk is greater towards the new Station building / Botley Road.

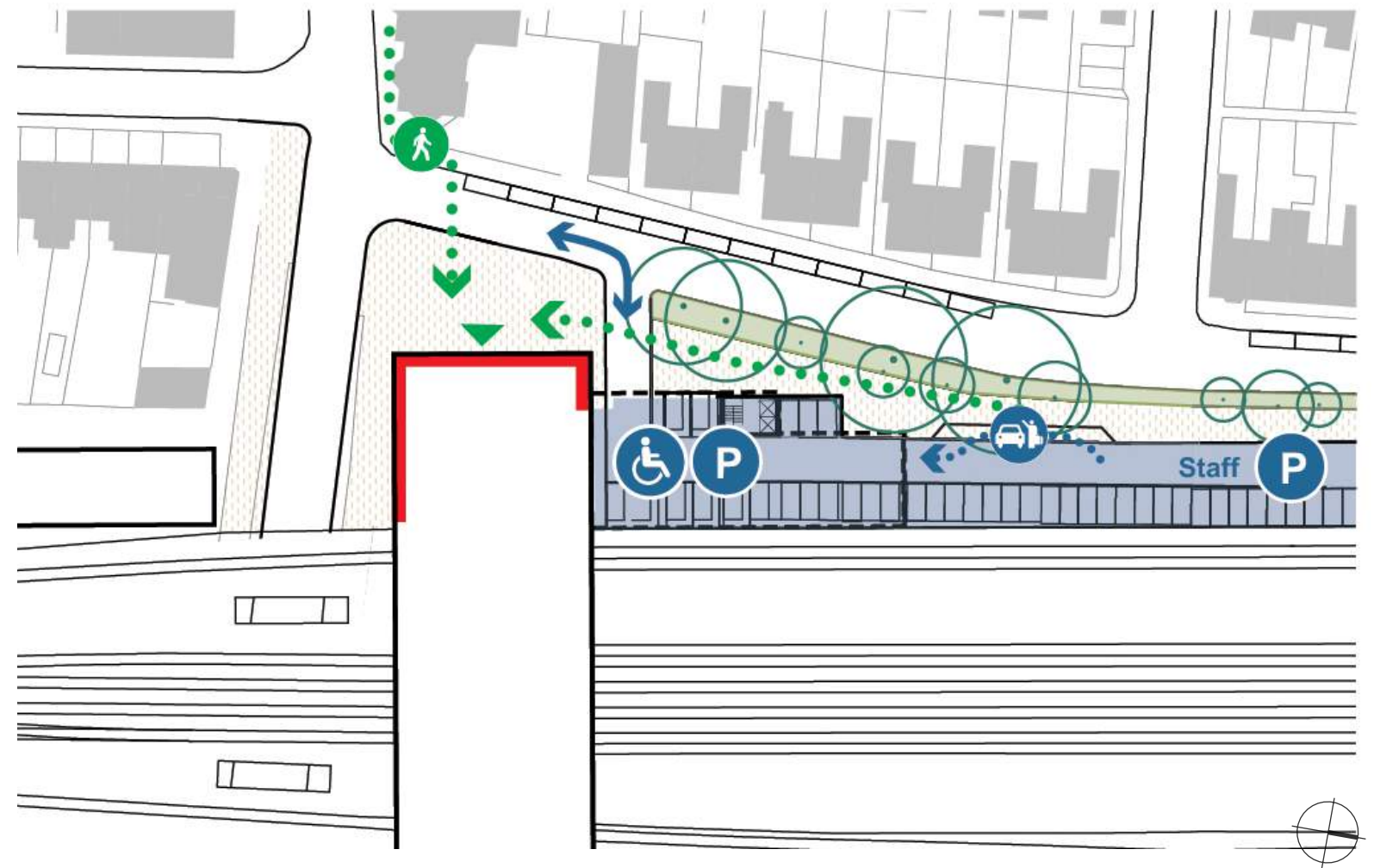


Figure DP12: Western Station and Station Square West design principles
(Note: This diagram is illustrative of SPD design principles)



Precedent for Station Square Northampton station arrival square



Precedent for Station concourse: Proposed HS2 concourse Euston

Bus interchange, multi-storey car parking and cycle parking

It is important for the development of Oxford station to create an integrated transport interchange which provides the maximum range of public transport opportunities to passengers and ensures an efficient transition between transport modes, developed as a coherent and comprehensive development. This section reflects the design principles set out in the previous section.

Design Principles

1. The bus interchange and multi-storey car parking facilities should have a high quality frontage on to Becket Street with potential for the passenger concourse for bus station to be located along the street and be visible from all station approach routes.
2. High quality pedestrian and cycle routes should be provided along Becket Street in both directions and access should be provided for the existing pedestrian footbridge through the development, preferably at the corner of Becket Street and Osney Lane.
3. An efficient layout for bus interchange with appropriate passenger facilities should be provided to accommodate the recommended range of 15 - 24 buses. The design of the bus interchange will need to be agreed with relevant stakeholders including the County Council, Network Rail and bus operators.
4. The access from Becket Street should be designed to ensure flexibility of future bus routing and time tabling and the buses can access both from the north and east (Osney Lane).
5. The multi-storey car park should provide a maximum of 480 spaces and accessed by appropriate entry / exit arrangement, to alleviate the impact of queuing vehicles on Becket Street.
6. The multi-storey car park should be designed to be safe and secure as well as operationally efficient including, for example, providing adequate headroom for vehicles.
7. A long-stay cycle parking facility with approximately 2,500 spaces should be provided. The illustrative masterplan shows this at below-ground (basement) level of the station development with a clearly visible, legible and prominent access to the facility.
8. The passenger concourse for the bus interchange could provide views to the surrounding heritage buildings and green spaces.
9. The use of Variable Message Signing should be considered and upgraded across the City to ensure the parking (both cycle and car) are appropriately advertised before arrive in the station area.

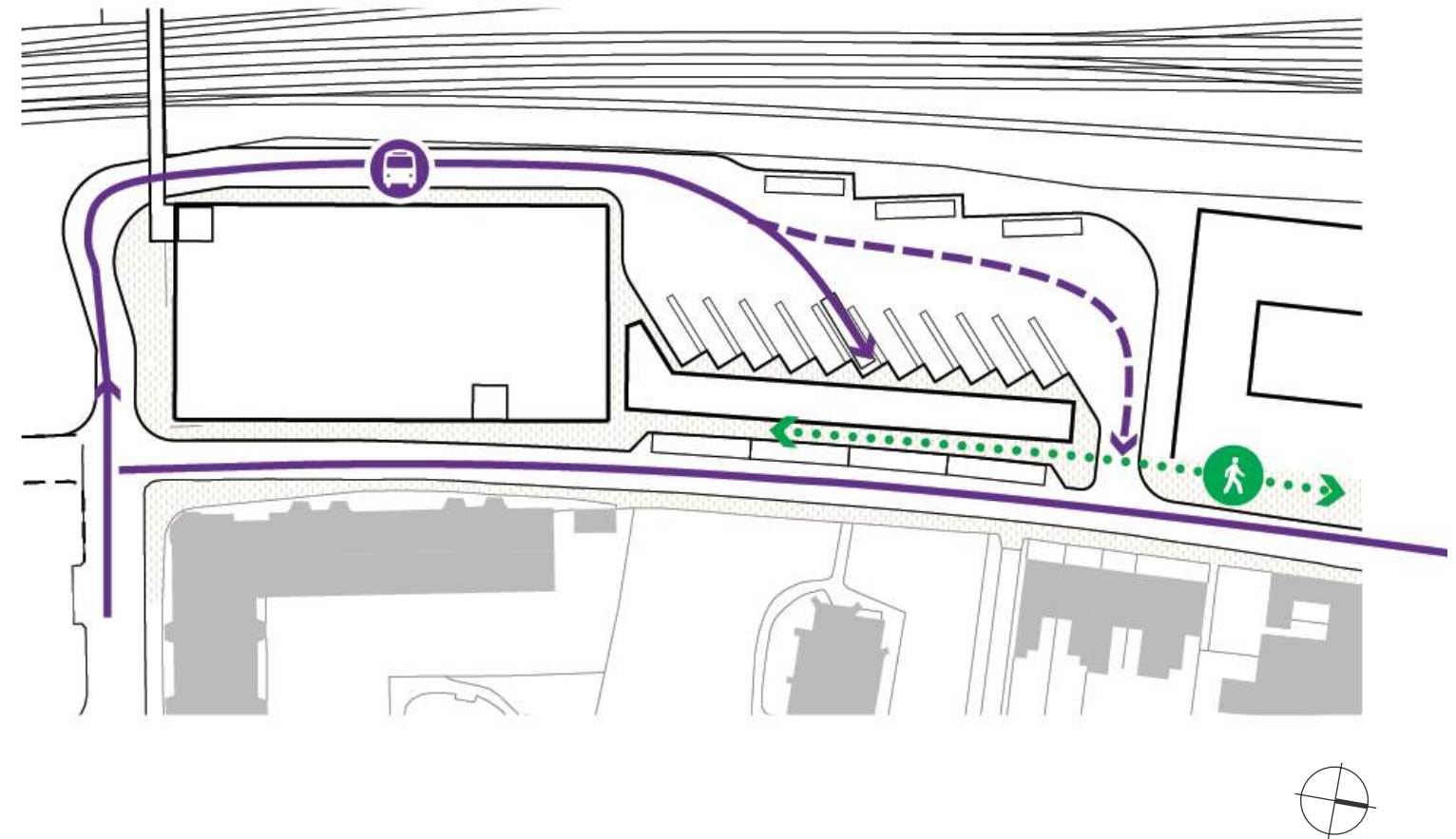


Figure DP14: Bus Interchange design principles

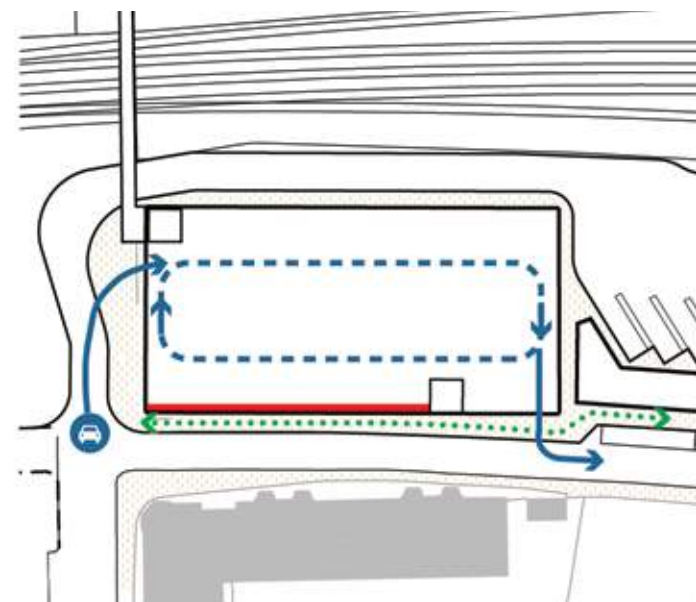


Figure DP15: Multi-storey car parking design principles

(Note: These diagrams are illustrative of SPD design principles)



Figure DP16: Cycle Parking design principles



Station Area - Existing



Illustrative Masterplan | 06

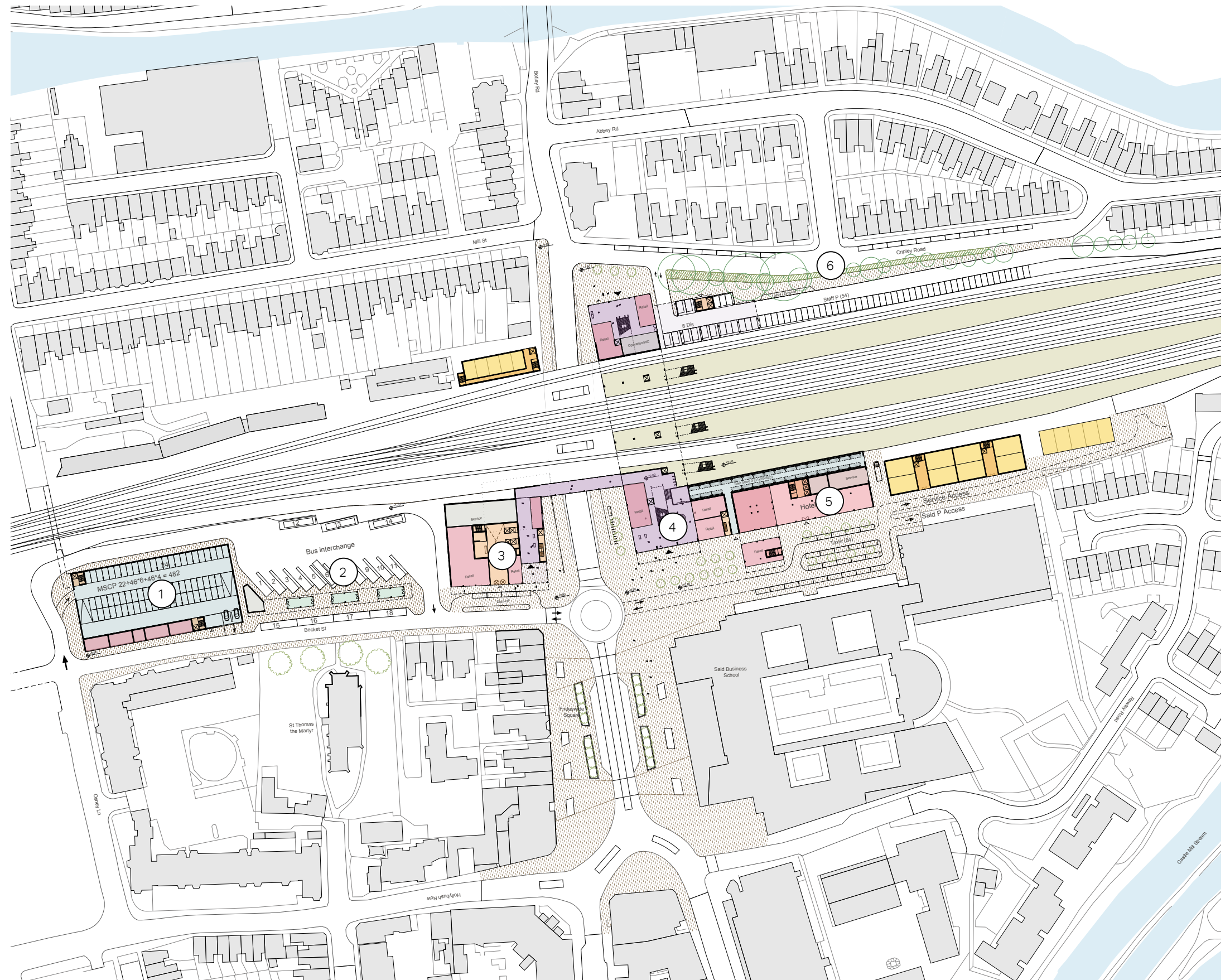
Illustrative Ground Floor Plan

The illustrative masterplan, including the views and section drawings, presents a possible development solution for the station area in line with the design principles.

Illustrative masterplan

The illustrative masterplan is developed from the design principles set out for the overall site and component specific design principles in chapters 04 and 05 of this SPD. The illustrative masterplan, sections and indicative visualisations explore the various spatial organisations firstly as the main illustrative layout and then as possible variants to represent a range of approaches that could be followed in the next stages of the Oxford station area redevelopment. The Council will be flexible in considering alternative solutions that achieve the same or similar design principles to ensure a comprehensive and high quality development.

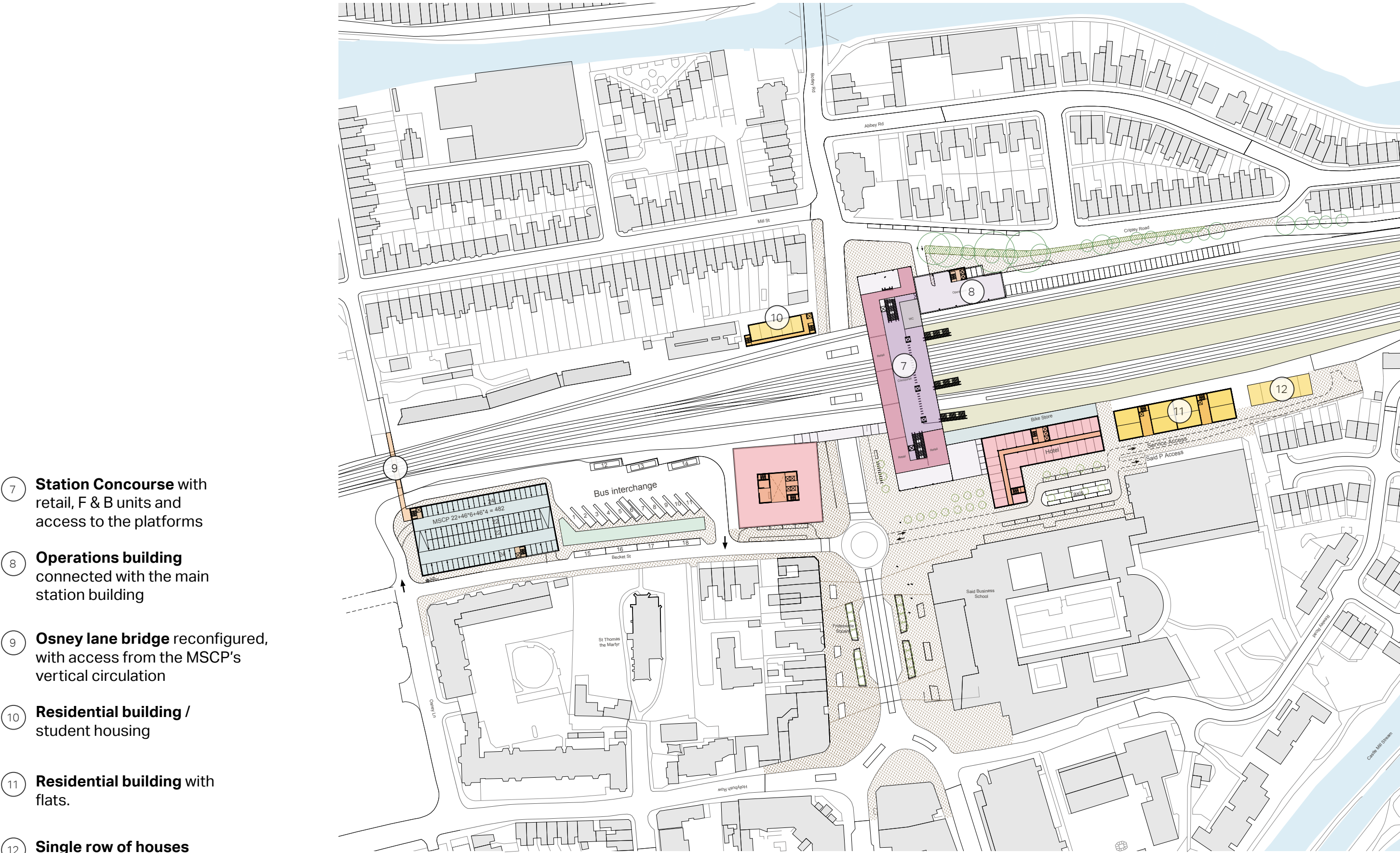
- ① **Multi storey Car Park** with retail units (cycle repair shops / cafés) along Becket Street
- ② **Bus Interchange** with waiting area and capacity for 18 buses
- ③ **Commercial building** with retail units on the ground floor and station entrance through pedestrian bridge; Cycle parking on the lower ground / basement level with potential for repair facility nearby
- ④ **Station building** with ticket hall and retail units on the ground floor
- ⑤ **Hotel** with active frontage along the Station Square East
- ⑥ **Additional access point(s)** between Cripsey Road, car park and Roger Dudman Way if required and subject to detailed highways design



0m 50m 100m



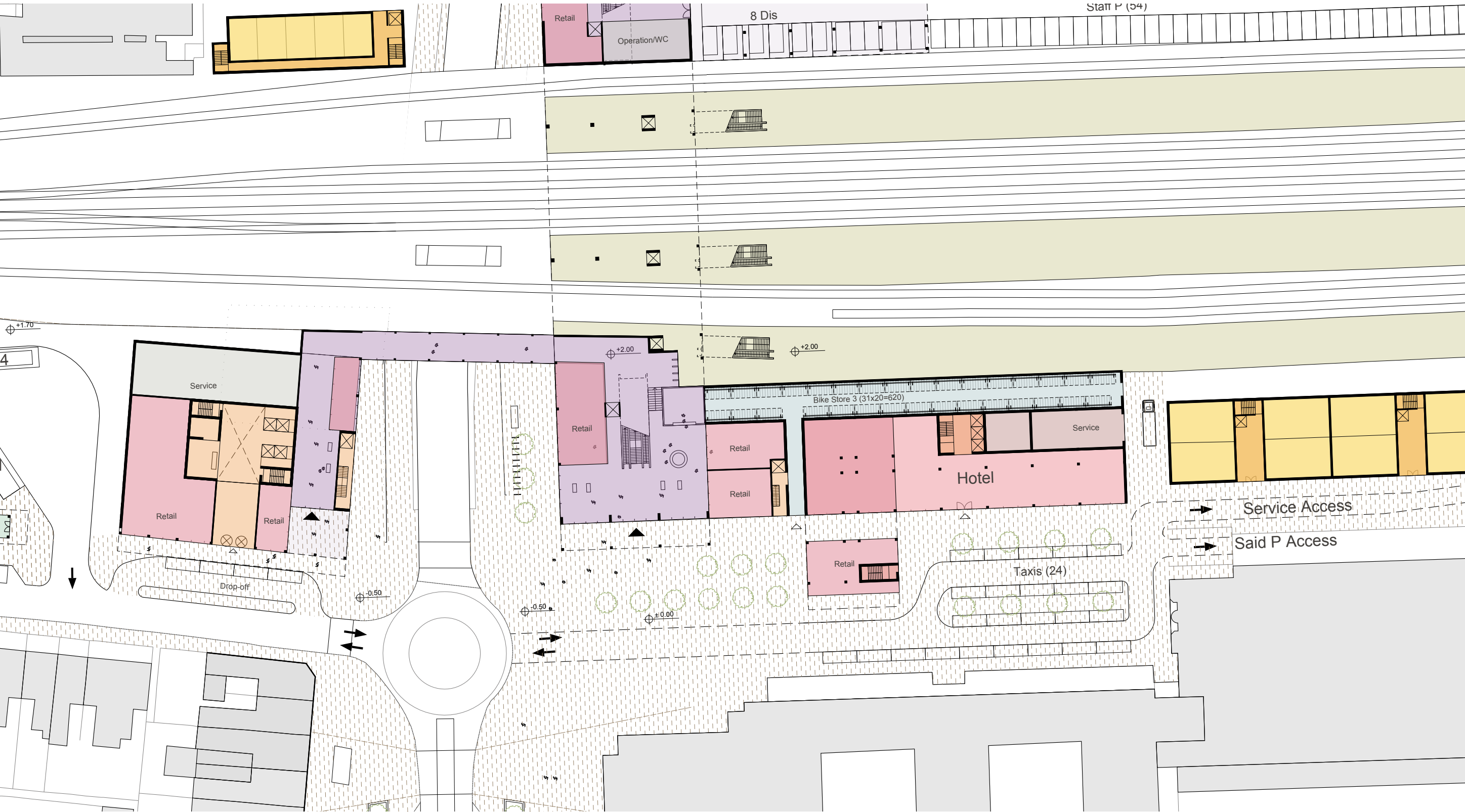
Illustrative Concourse Level Plan



Note: All rail tracks are indicative to show passive provision to meet Network Rail's future requirements



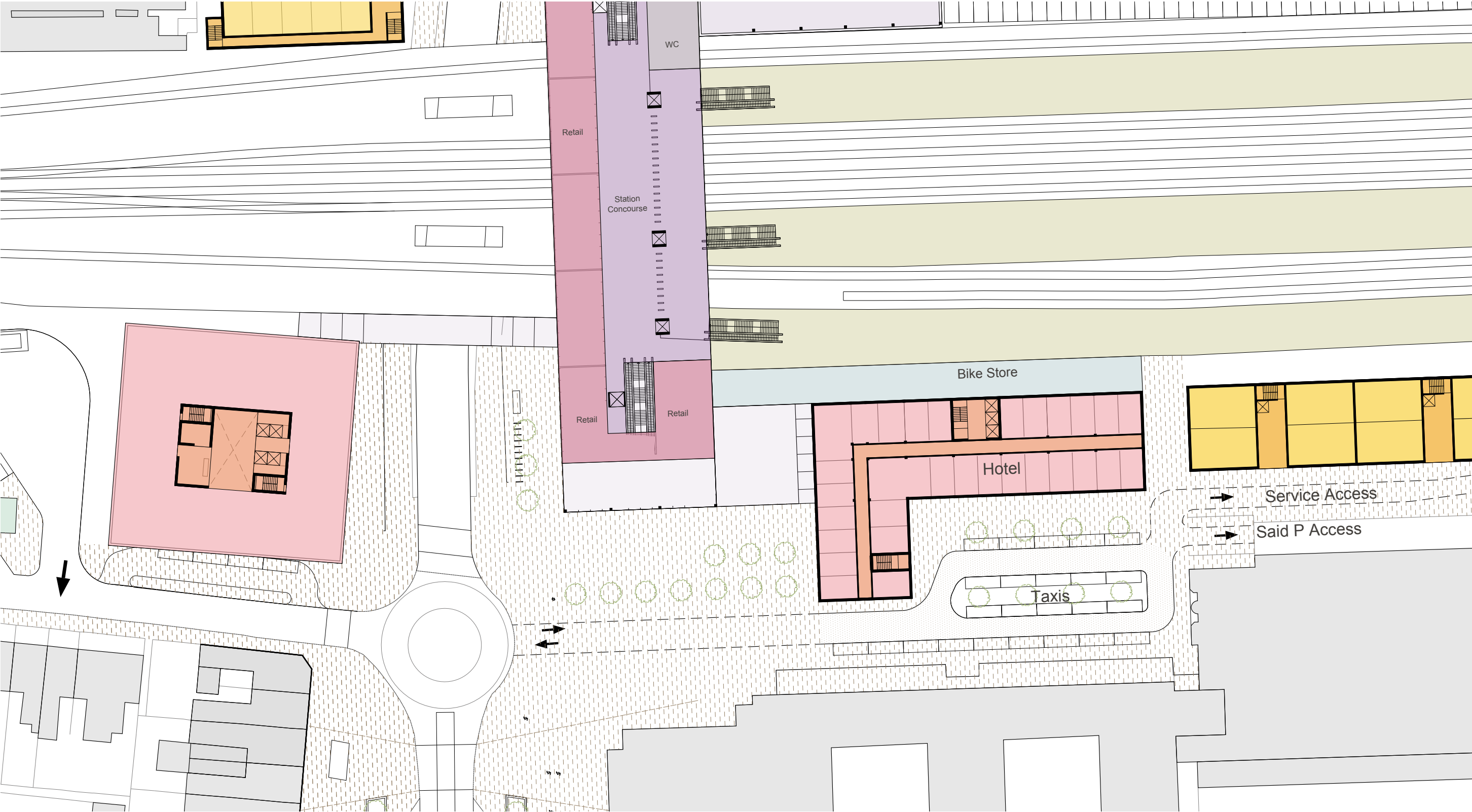
Illustrative Ground Floor Plan - Station Square



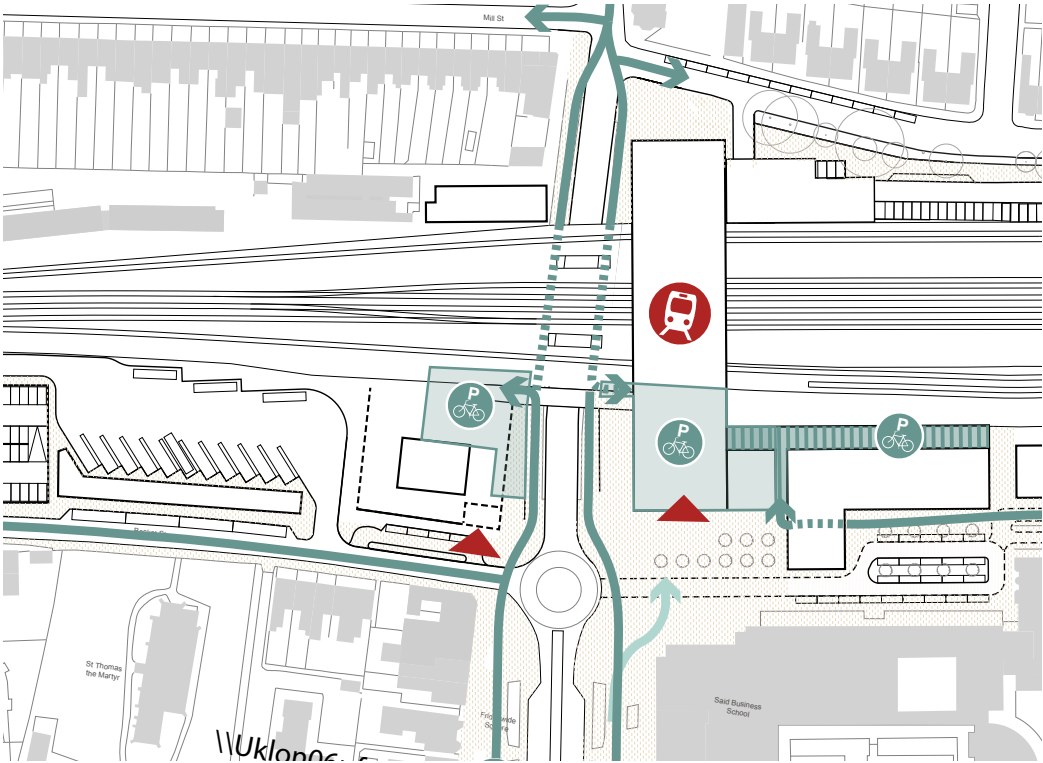
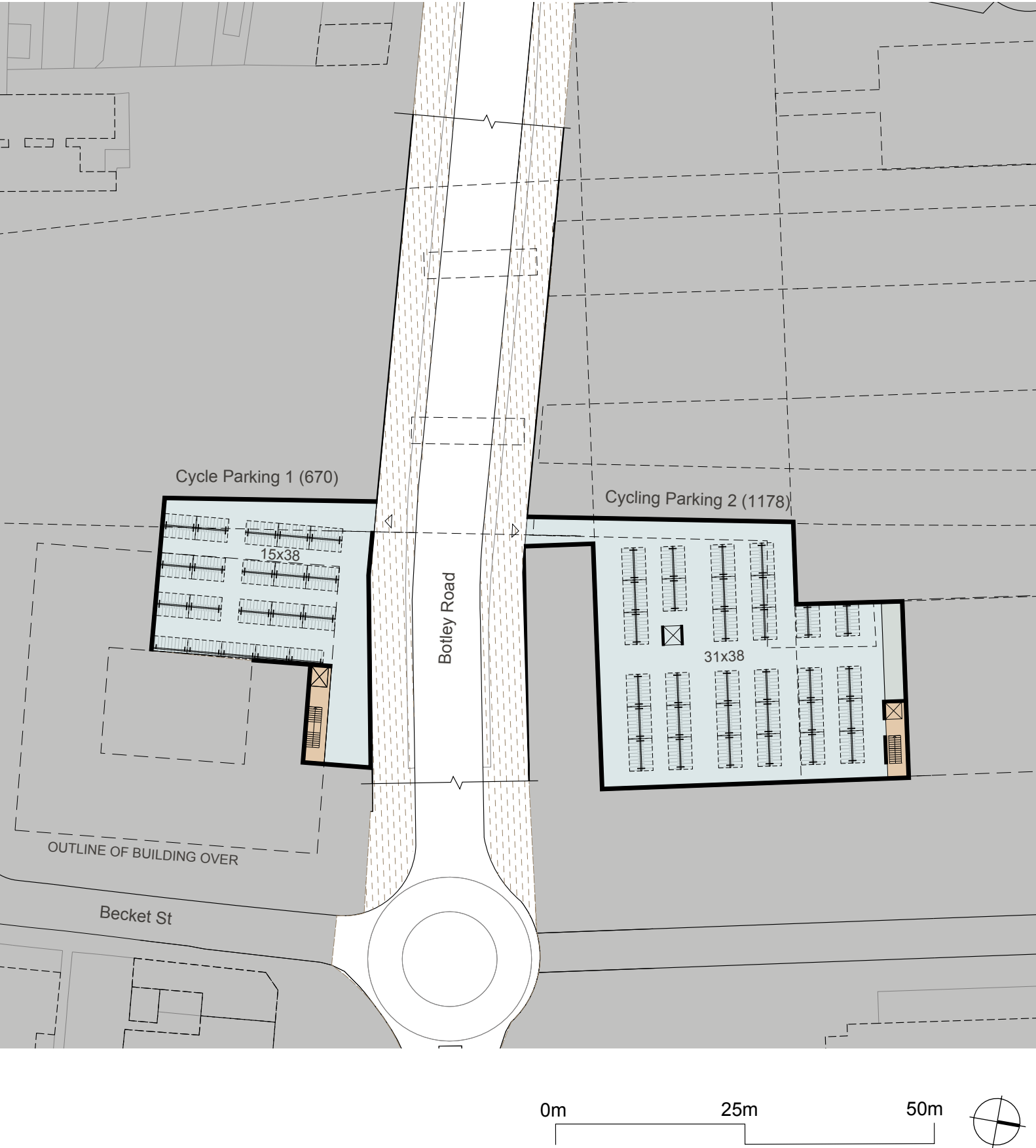
- ▲ Station Entrance
- Retail
- Station internal spaces
- Residential



Illustrative Concourse Level Plan - Station Square

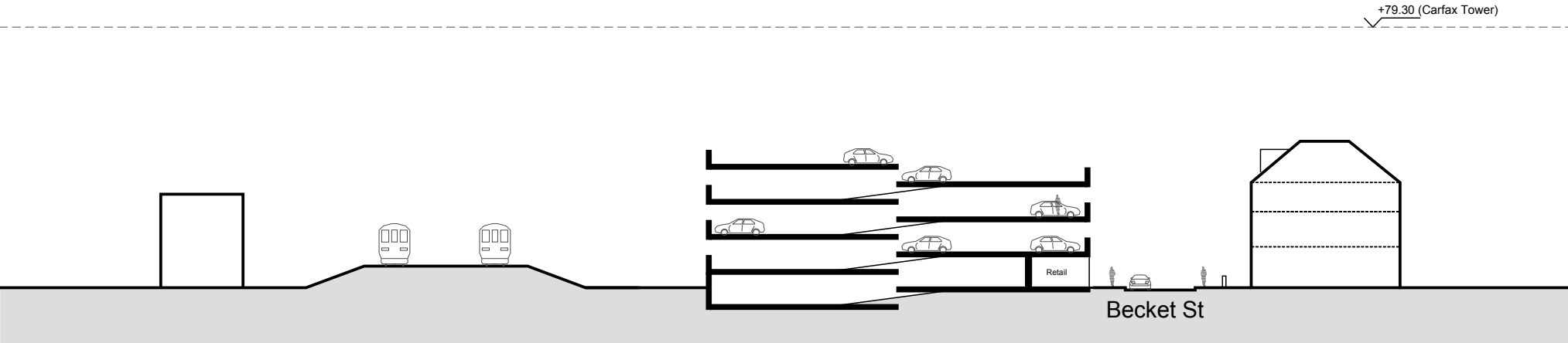
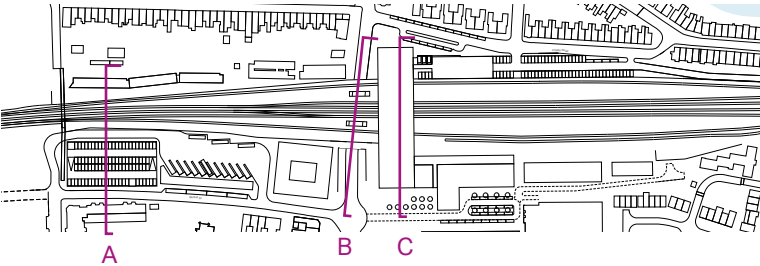


Illustrative below Ground Level Plan



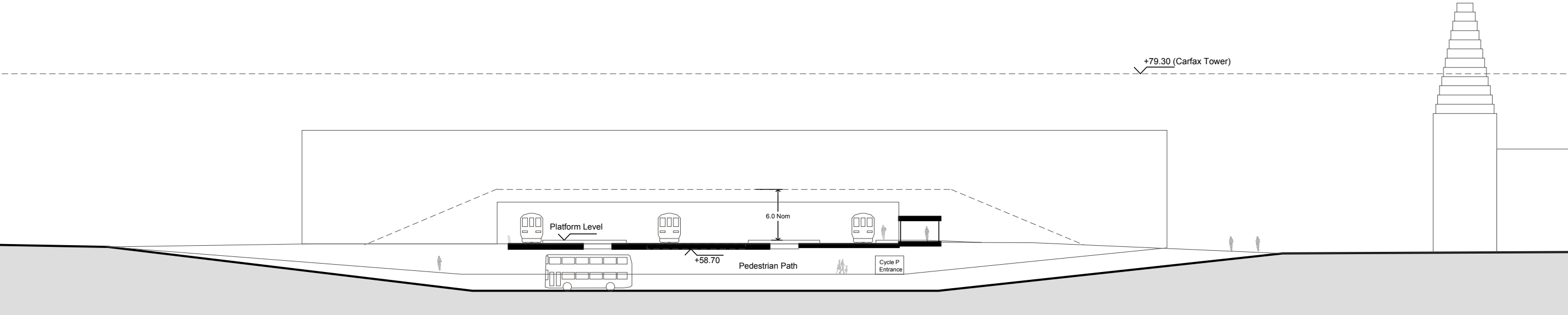
Illustrative cycling movement diagram

Illustrative Cross Sections



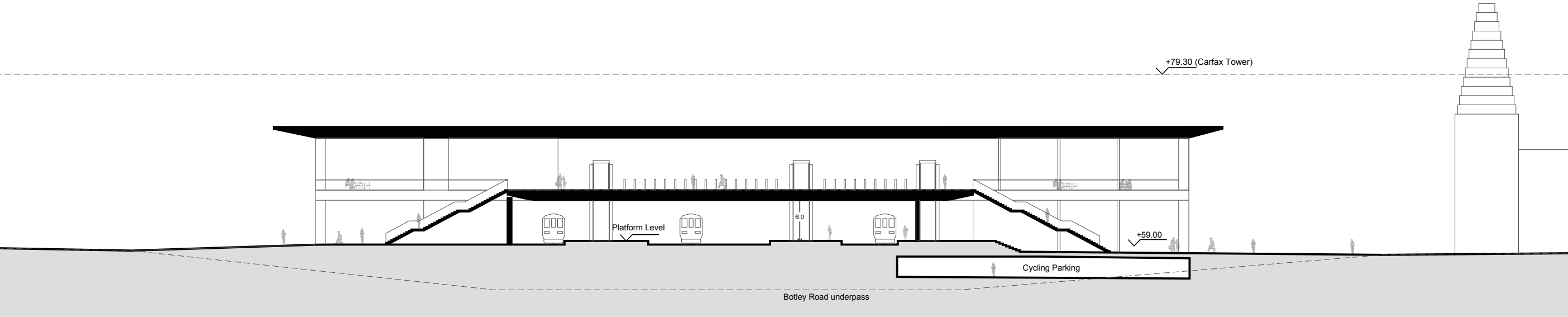
Section A-A

Cross section through multi-storey car park along Becket St (



Section B-B

Section along Botley Road Bridge



Section C-C

Indicative development schedule

Development schedule

The development schedule on this page reflects the illustrative masterplan. The amount of development is flexible providing the design principles set out in the SPD can be achieved. This flexibility is important to ensure opportunities for investment are maximised and a viable development can be delivered.

Land use plan



Area Schedule

Landuse	Floor Area (m2)	Levels	Total GFA	Subtotals	Number of spaces
Station and facilities					
Main building	2,600		2,600		
Operations Building	650	2.0	1,300		
Retail within Station building	1,600	1.0	1,600		
Subtotal				5,500	
Commercial					
Corner Building	1,520	3.0	4,560		
Hotel	1,230	3.0	3,690		
GF Retail	1,160	1.0	1,160		
Subtotal				9,410	
Residential					
NE building 1	830	3.0	2,490		
NE building 2	298	2.0	596		
Botley Rd building	325	3.0	975		
Subtotal				4,061	
Total					
				18,971	
Bus Interchange					18
Multi-Storey Car Park					480
Cycles					2,468
Short stay					43+8D

Parking Schedule

	Existing	Masterplan	SPD
Bus/Coach	6	18	max. 18
Taxi	8-24	24	max. 24
Cycles (approx)	600	1200	min. 2,450
Short Stay P (+ Disabled)	43 (8)	43 (8)	max. 43 (8)*
Staff P	54	54	max. 54
Long Stay P	480	480	max. 480



Illustrative Masterplan



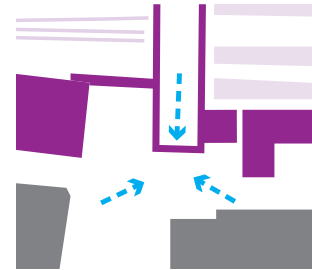
Illustrative views and vistas

The station building and square

The station building and square along with the Frideswide Square, will be the first spaces of the passengers' arrival experience.

The station building will welcome the visitors with a generous space with high ceilings and views to the city centre.

The complex with the square will offer the opportunity to pause and orientate, before starting the journey to the City, as a first step in the passengers' experience arriving in and leaving Oxford.





Illustrative aerial view from the north east

- 1 **Station building**
with retail units on the ground floor and upper concourse
- 2 **Hotel**
with active frontage on the ground floor
- 3 **Corner development**
Commercial building with retail units on the ground floor and entrance to the station through pedestrian bridge
- 4 **Bus interchange**
with waiting areas and capacity for 18 buses.
- 5 **Multi storey Car Park** with retail units along Becket St.
- 6 **Operations Building**
adjacent to the staff parking