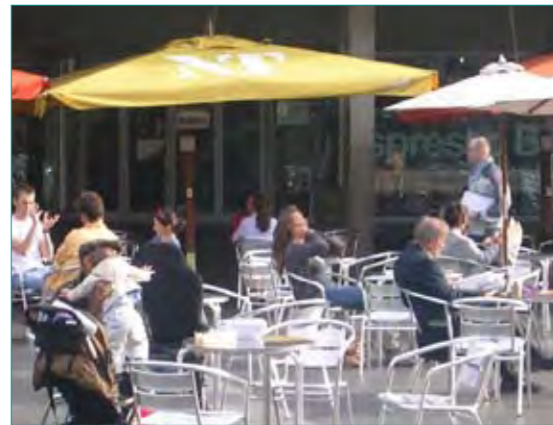


THE STATION PLAZA

4.4.3 The Station Plaza will provide a formal meeting space and transitional area in front of the new station ticket hall. It will include raised planters with edge seating as well as additional space for outdoor cafe seating. The plaza will be paved with high quality materials and include an integrated lighting scheme. A new sign for the station will also be located within the plaza, fronting London Road in order to improve legibility through and towards the site.



The new cafe provides an attractive amenity whilst encouraging people to linger in the new public space.



A range of seating areas will be provided throughout the plaza, as shown in the sketch above.



Raised planters with seating edge.



Figure 4.17
Landscaping Masterplan (detail) NTS



THE RIVERSIDE SQUARE

4.4.4 The Riverside Square will provide a more informal area of shared surface, that includes interchange facilities, space for crowds on event days, areas of seating and an area in which children can play.

CHILDRENS PLAY SPACE

- 4.4.5 Two informal landscape play areas are proposed at lower ground level: a 'maze' garden, with open grass areas, seats, hedges, and ornamental planting, and an informal stepping stone garden, which will provide attractive doorstep play spaces within the proposed development.
- 4.4.6 In combination with the above, a new riverside walk adjacent to the existing woodland, with a series of nature interpretation panels and bird nest boxes, will provide access to the existing 'green corridor' with its valuable recreation amenity whilst creating a new link with Moormead Park. This approach is consistent with the play space typology described in the Mayor of London SPG 'Providing for Children and Young People's Play and Informal Recreation'.
- 4.4.7 The existing play facilities in Moormead Park, which include a grass sports pitch, tennis courts and children's play equipment, are located approximately 400m from the proposed development. In accordance with the SPG these existing off-site facilities are suitable to meet the needs of children aged 5 and above.



Robust seats set beneath a row of trees will encourage passers-by to linger



Stepping stones in a bound gravel surface



Timber play 'sculpture'



View of Riverside Square looking east, showing the 'shared space' treatment with pedestrian areas clearly marked by low kerbs.



LIGHTING

- 4.4.8 The Station Plaza will include a series of column lights that assist in defining the station entrance and are representative of the more formal nature of the space. In ground lighting will also be provided directly outside the ticket hall in order to further define the entrance to the station.
- 4.4.9 The stairs leading to the Lower Plaza will include recessed lighting in order to make this a prominent visual feature. A series of bollard lights will be provided alongside the River Crane boundary, which will be representative of the natural environment in this area.



recessed step lighting



Strip lighting highlighting the station entrance







Column lights providing security lighting at podium level



Sculpture with lighting

Figure 4.19
Lighting Strategy (NTS)




-  Column light
-  Recessed lighting
-  Bollard lighting - spaced at 8m centres along pedestrian path
-  In-ground LED feature lighting

BIODIVERSE ROOFS

4.4.10 The roofs to the proposed buildings (refer to Figure 4.20) will be covered with biodiverse roofs, which consists of a layer of crushed recycled brick, potentially from on site demolitions, sown with a mix of native plants. This will create a biodiversely-rich habitat suitable to its urban location.



Figure 4.20
Biodiverse roof proposals

 Indicative extent of Biodiverse Roof

4.5 APPEARANCE

BLOCK A

- 4.5.1 Block A will step up towards the south, and the station entrance. The Block will be read as four vertical elements which rise in height, and be clad predominantly in a light coloured brick. Projecting and recessed balconies along all elevations will provide a high degree of articulation.
- 4.5.2 In order to visually define the ground floor commercial uses, these elevations will be clad in a dark metal and brick, with large floor to ceiling shop fronts.
- 4.5.3 The upper floors of the Block will be set back and clad in dark metal/brick in order to provide more visual interest to its elevations. In addition, a series of louvres will be provided to some south facing windows and balconies, adjacent to the Station Plaza in order to control heat gain into these apartments. These louvres also have the benefit of providing visual interest given their location on a prominent corner within the development.

BLOCK B

- 4.5.4 Block B contains the entrance to the station ticket hall. Above the station entrance will be a series of louvres and balconies, predominantly clad in metal which will form a defined focus for the elevation and reinforce the location of the entrance below. In order to further define the entrance, elevations either side of this are to be clad in light brick. This brick will also run along the southern elevation of the Block, and link with the existing wall that runs along Mary's Terrace.
- 4.5.5 Projecting corner balconies will be located on the south west corner (and the highest point of the Block) will assist in defining this prominent corner. Again, upper floors will generally be set back and clad in a dark metal in order to provide some visual interest, particularly further north, towards Block C.

BLOCK C

- 4.5.6 The appearance of Block C has been carefully designed to reflect the more domestic scale of the residential areas to the north and has a considerably more traditional appearance. The northern elevation to the Block will read as a series of Georgian townhouses, with private garden space at ground floor level, sash windows and a series of steel balcony railings. The top floor will be set back in order to reduce its presence and include areas of roof terraces.
- 4.5.7 The majority of the Block will be clad in a light brick colour in order to reflect surrounding buildings. The top floor will be clad in a light metal, which will articulate the elevation and provide a visual separation between floors.
- 4.5.8 The apartments furthest to the east of the Block will be visually separated from the remainder of the Block and expressed as a 'book end' element to complete the development. The visual separation of this part of the Block will assist in providing vertical segregation and reinforce it being read as a series of townhouses.

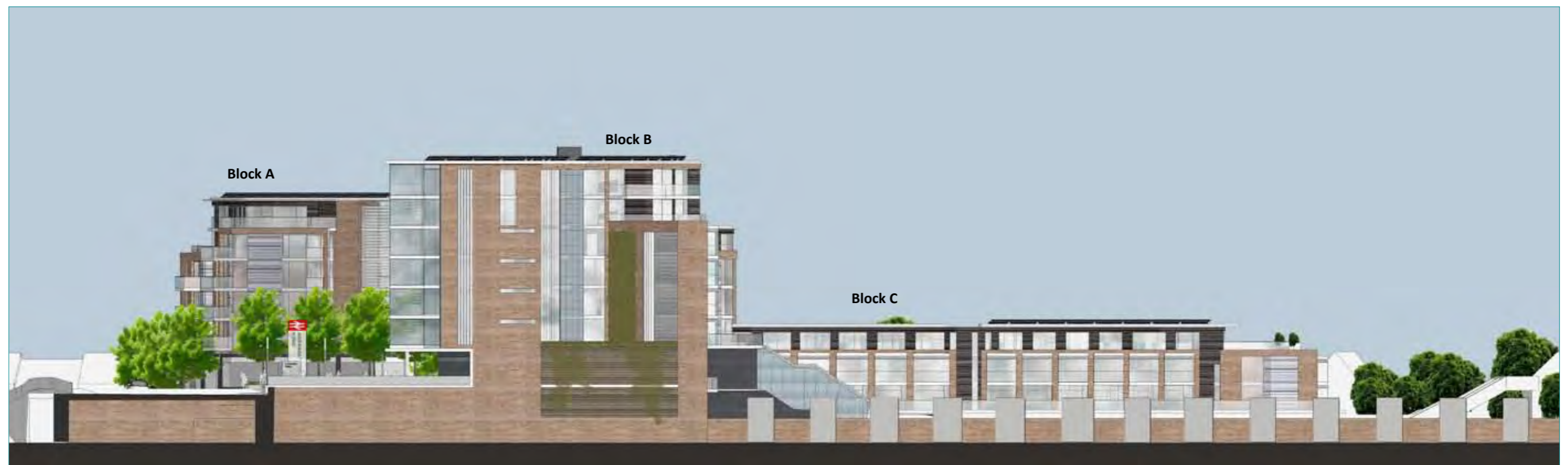


Figure 4.21
Southern Elevation



Figure 4.22
Northern Elevation



Figure 4.23
Cole Park Road Elevation (Block C)



BUILDING MATERIALS (BLOCKS A AND B)

- 01 Slim metal roof overhang
- 02 Dark metal panels
- 03 Glass & stainless steel balustrades
- 04 Light brick panels
- 05 Set back balconies
- 06 Light metal cladding
- 07 Windows and dark metal frames
- 08 Sliding glass doors

Figure 4.24
Building elevations - detail



Figure 4.25
Building elevations - detail

THE STATION

4.5.10 The new station ticket hall will be finished with high quality, durable materials. These finishes are indicated on figure 4.26.

4.5.11 Details of the finishes indicated in figure 4.26 is provided below:

- 01 Ticket vending machine
- 02 Customer information posters
- 03 Walls: glass wall cladding
- 04 Plasterboard ceiling an wall lining
- 05 Mosaic ceramic column lining
- 06 16 person lift
- 07 Slip resistant floor tile
- 08 Standard ticket gates
- 09 Ceiling: open custom metal baffle ceiling with custom colour insets
- 10 Stainless steel ticket window and counter units
- 11 Custom profile steel frame curtain wall glazing
- 12 Raised metal signage and national rail symbol
- 13 Glazed automatic sliding doors
- 14 Customer information screens

4.5.12 In addition to the new ticket hall, the appearance of the platforms and staircases will be significantly enhanced through the following measures:

- new stairs and glazed stair enclosure to platforms;
- remodelling of platform canopies for new stair installation; and
- some refurbishment of platform level accommodation.

PLATFORM 2

4.5.13 Platform 2 will be retained. The platform is predominantly disused apart from on event days at the stadium when a train is parked in the station for safety reasons. This platform will be retained as this will allow for the possible future introduction by Network Rail of Air Track, or for increased capacity of the rail network.



Figure 4.26
Station interior images

4.6 ACCESS

PEDESTRIAN ACCESS

4.6.1 Pedestrian accessibility across the site will be significantly enhanced. A direct route from the river level and interchange and car parking facilities will be provided to the station ticket hall, via a set of stairs that link the station plaza with the riverside walk. This represents a significant improvement over existing pedestrian access arrangements. Access for rail passengers will also be enhanced through the provision of direct and high quality links through the ticket hall to platform level, which includes lifts for the mobility impaired.

Match day pedestrian flows

4.6.2 The scheme has been designed to take into account the changes to pedestrian flows that occur on match days at Twickenham Stadium. Figure 4.28 indicates the pedestrian flows (before and after) on match days. Additional, high quality space will be provided that provides improved access to the station platforms, prevents overcrowding and will assist in dispersing crowds quickly.

Riverside walk

4.6.3 The proposed development includes the provision of a pedestrian route alongside the River Crane. This will provide a direct link between London Road and Moormead Park.

BUS SERVICES

4.6.4 The station will continue to be served by bus services. The existing bus stops adjacent to the ticket hall will be moved to a position alongside the new station plaza and will provide a convenient interchange with rail services.

Figure 4.27
Proposed pedestrian flows



- Pedestrian routes
- Bus stops
- Taxi rank
- Poor pedestrian links*
- Average pedestrian links*
- Good pedestrian links*

*see Fig 31 of Transport Statement

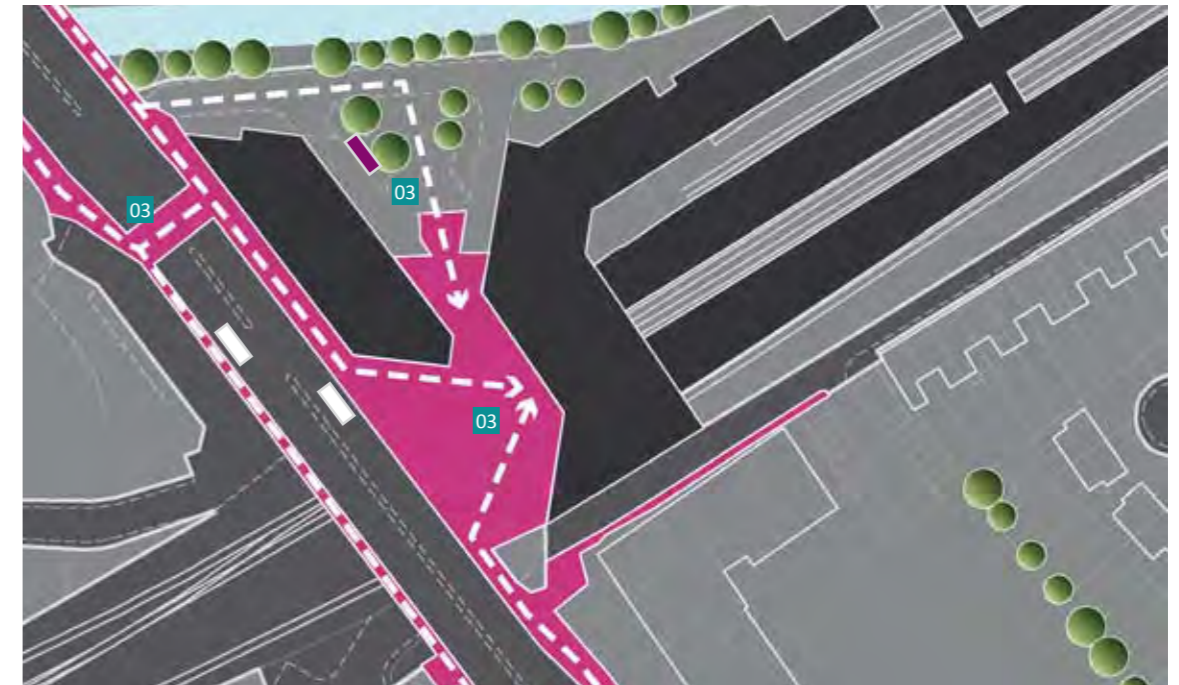


Figure 4.28
Proposed event day pedestrian flows



- Eastbound (London) queuing route
- Westbound queuing route
- Entrances to station



VEHICULAR ACCESS AND CAR PARKING

- 4.6.5 Access into the site will be from the existing access point from London Road. The Kiss and Ride facility will be located within the area of shared open space, and will be able to accommodate up to 3 cars. The car park will provide 41 car parking spaces, including 3 disabled residents spaces, 3 car club spaces and 35 spaces for the TOC (including 3 disabled spaces).
- 4.6.6 The taxi rank will be relocated at the car park level, and space will be provided for 3 taxis. A time controlled taxi pick-up area is proposed on the forecourt fronting London Road for late night use.

CYCLE PARKING

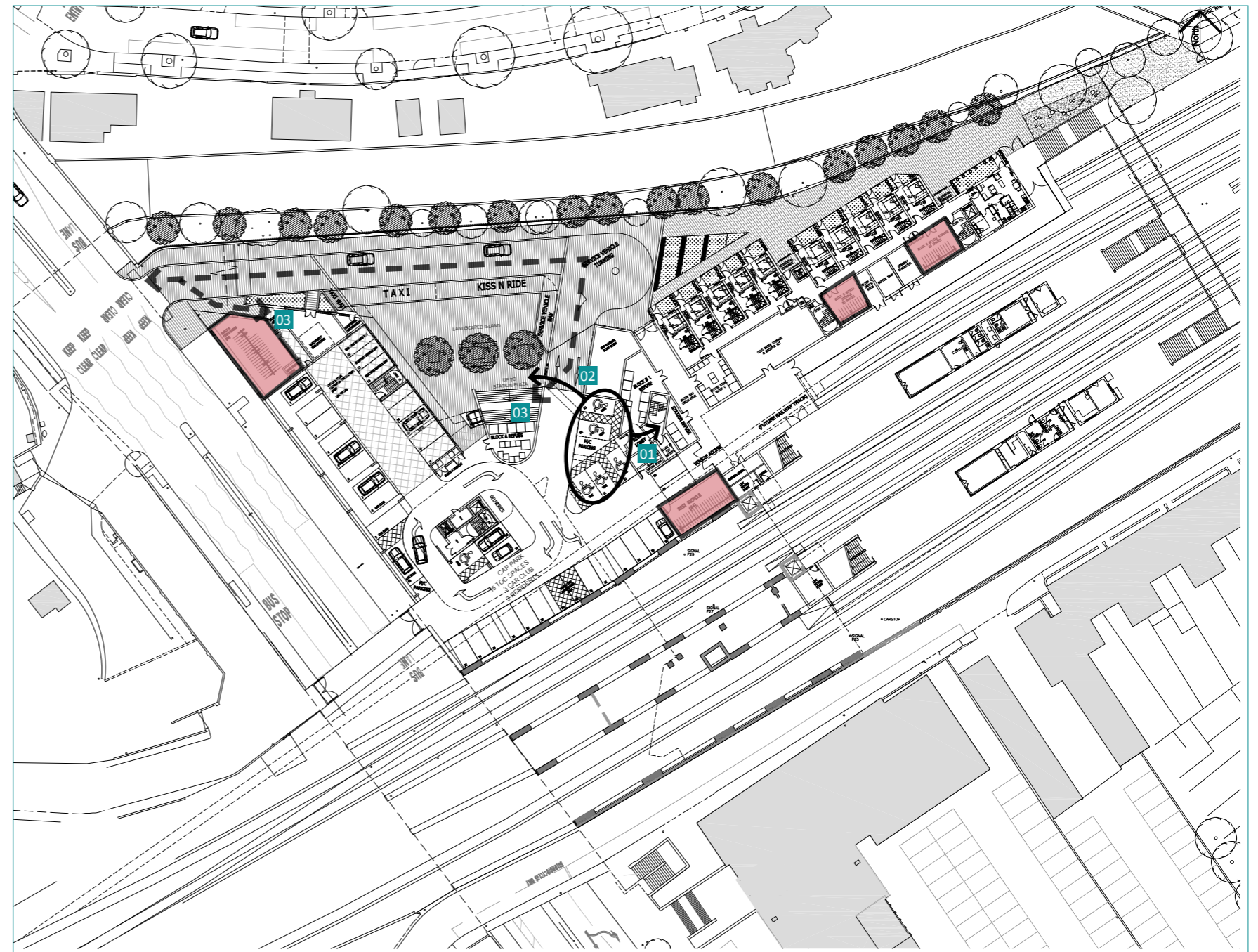
- 4.6.7 A total of 160 secure and covered residential cycle spaces located in the following locations :
 - 50 spaces underneath Block A, accessed from the car park.
 - 40 spaces underneath Block B, accessed from the car park.
 - 40 spaces at bridge level of Block B.
 - 30 river level of Block C, accessed from its central core.
- 4.6.8 A total of 250 cycle parking spaces will be provided for station passengers and visitors at mezzanine level of the car park. Access will be provided directly from London Road.
- 4.6.9 In all cases, access for cyclists into the site, will be shared with vehicles from London Road. Given the topography of the site, it is not possible for cyclists to directly transfer from bridge level to river level, without using the access road from London Road (as currently occurs).

DISABLED ACCESS

- 4.6.10 Disabled car parking is located close to the residential core of Block B as possible (wheelchair accessible flats are located within Block B). The location of an additional three disabled car parking spaces also provides direct access to the Lower Plaza via a public lift to Station Plaza level.

WHEELCHAIR ACCESSIBLE FLATS

- 4.6.11 All wheelchair accessible flats will be located within Blocks A and B, the residential core for which links directly with the disabled car parking space at river level. Wheelchair access into Blocks A and B can also be obtained from bridge level.



- 01 Step free access for disabled users to Block B
- 02 Step free access to Lower Plaza and links to Station Plaza
- 03 entrance to station users cycle parking (mezzanine level)

Figure 4.29
Accessibility plan

- Cycle route
- Residents cycle parking



SERVICING AND REFUSE

Servicing

4.6.12 The kiss and ride layby within the Lower Plaza will also accommodate delivery and servicing vehicles (with restricted hours of operation). Servicing for the site will take place beneath the station, for which a service vehicle turning area will be provided. In addition, a delivery bay will be located adjacent to the entrance to Block B within the car park.

Refuse

4.6.13 Each block will include a dedicated and secure refuse area at either river level or station level (block B2 only). These areas are accessed from the cores of each block in order to provide easy, step free access into these for residents. Each refuse area will have external doors that are to be used only when collection vehicles enter the site.

EMERGENCY SERVICES

4.6.14 The proposed development has been designed for access with emergency service vehicles in mind. Access to the tracks for emergency services will be available from the lower plaza level, underneath Block C.

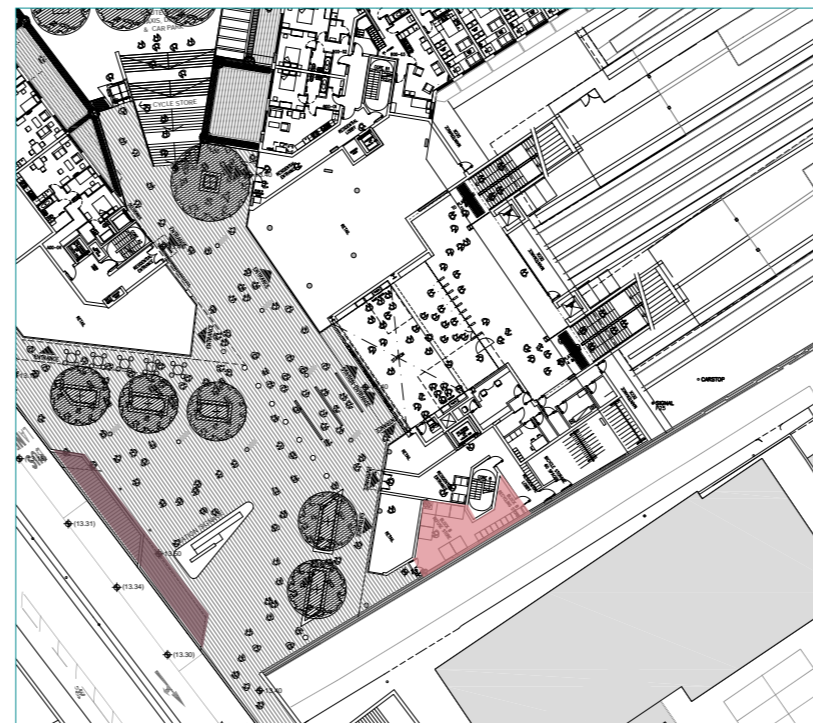
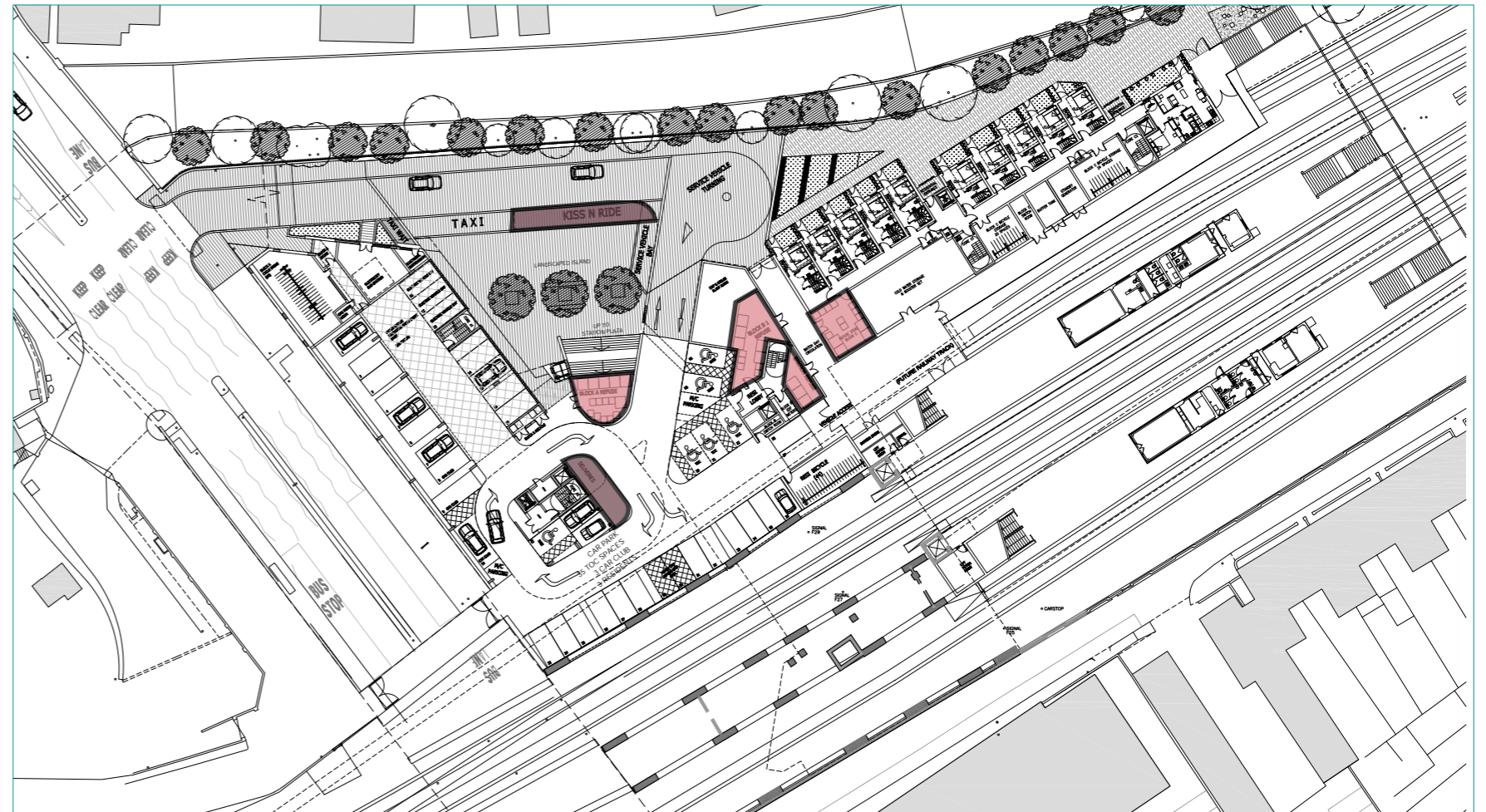


Figure 4.30
Refuse plan



- Refuse store
- Delivery/servicing area (Station Plaza level is outside of peak hours only)

4.7 SUSTAINABILITY

LIFETIME HOME STANDARDS

4.7.1 The table below indicates how the proposed development conforms with the 16 design criteria contained within the lifetime home standards (revised July 2010).

Design Criteria	Response
Parking (width or widening capability)	No parking is provided, given the car-free nature of the development. 3 disabled car parking spaces are provided at river level.
Approach to dwelling from parking (distance, gradients and widths)	Disabled parking spaces are located 2 m from the entrance to Blocks A and B. Level access is provided into the building.
Approach to all entrances	The approach to all entrances of the buildings will be level.
Entrances	All entrances will be illuminated, will have level access, will have opening widths and nibs that conform with the LH Standards, will be enclosed (thereby offering weather protection) and will include level external landings where required.
Communal Stairs and Lifts	All communal stairs and lifts will conform the required specifications.
Internal doorways and hallways	All internal doorways and hallways will conform the required specifications.
Circulation Space	Turning space for wheelchairs in dining areas and living rooms will be provided. Basic circulation space will be provided for wheelchair users elsewhere.
Entrance level living space	Living space will be provided at entrance level of every unit (except Block C).
Potential for entrance level bed-space	All flats have the potential for entrance level bed space.
Entrance level WC and shower drainage	All flats in Blocks A and B will include this.
WC and bathroom walls	All bathrooms and WC compartments will conform the required specifications.
Stairs and potential through-lift in dwelling	Block C duplex units to include stairs through dwelling.
Potential for fitting of hoists and bedroom / bathroom	All main bedroom and bathroom ceilings will conform the required specifications.
Bathrooms	All bathrooms will conform the required specifications.
Glazing and window handle heights	All windows within the main living spaces will conform the required specifications.
Location of service controls	The location of service controls will conform to the required specifications.

SUSTAINABILITY SUMMARY

4.7.2 The accompanying Sustainability Statement (prepared by Maddox & Associates) provides full details associated with the sustainability aspects of the proposal. These are summarised as follows:

- The development will provide a Code for Sustainable Homes Level of 4.
- The proposed commercial elements of the development will be BREEAM Excellent.
- Energy efficiency measures include improvements in the thermal performance of the building fabric to achieve U-values of 20 - 48%, and air permeability of 50%.
- There will be an improvement over the minimum 2006 Building Regulations requirements along with improved detailing to reduce thermal bridging, energy efficient lighting and whole house ventilation including heat recovery.
- A site-wide heat distribution network and gas-fired Combined Heat and Power (CHP) is proposed which will allow connection with a future district heating network if such a scheme develops within the Twickenham area.
- Roof top photo voltaic cells are proposed which will reduce CO2 emissions by 3%.
- Where possible, materials used in the development shall be sourced locally.
- The majority of timber products shall be obtained from sustainable sources.
- Water saving devices are to be installed throughout the development including: low flush toilets; aerated shower heads and spray taps.
- Where lighting is needed to meet health and safety requirements, impacts will be overcome by using low column lights, angling the lights downwards and placing shields over them so that the light is directed downwards. Where areas of habitat that are of value to bats require lighting (i.e. the riverside footpath), low level bollard lighting will be used. Artificial lighting will not directly illuminate any mature trees or the River Crane. Furthermore, additional trees will be planted along the River Crane to provide screening and reduce light spillage and a fence line will be installed to define the footpath that will prevent pedestrians straying into adjacent habitats.