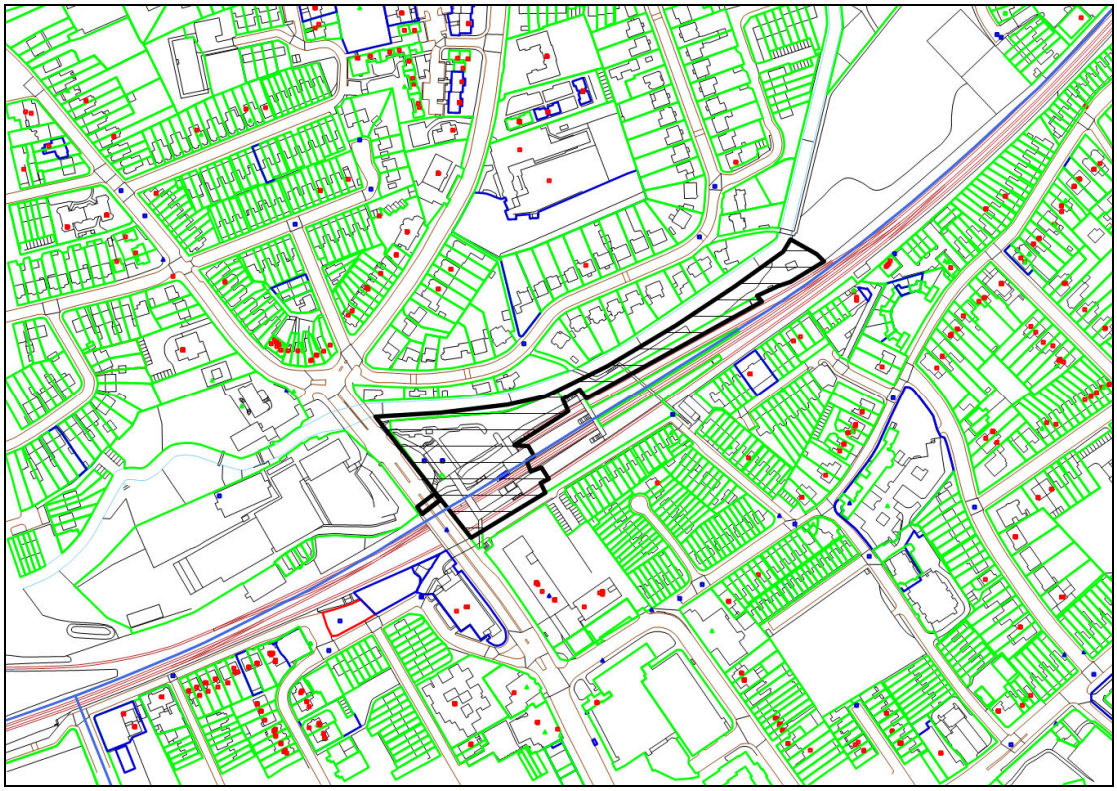
11/1443/FUL
TWICKENHAM RAILWAY STATION
LONDON ROAD
TWICKENHAM
TW1 1BD

NORTH TWICKENHAM
& ST MAGARETS WARD
Contact Officer:
B. Staff & C.Tankard



Proposal: Phased redevelopment of Twickenham Railway Station to provide:

Phase 1. Removal of existing footbridge structures and access gantries to the platforms. Provision of temporary replacement access gantries, including relocation of the out of hours access ridge, adjustment of existing platform canopies and rebuilding of a section of the London Road wall. Erection of a concrete raft over the railway lines.

Phase 2. Demolition of existing station building and temporary provision of ticket office during construction period. A new station concourse with stair and lifts to platform level; three buildings ranging in height between 7 storeys and 2 storeys (where measured from London Road Bridge) comprising 115 residential units, 734 sq.m of flexible Use Class A1 (Retail) A2 (Financial and Professional Services) and A3 (restaurant and cafe) , plant space, a combined heat and power plant, and green roofs; sustainable transport facilities to include a taxi rank, kiss and ride and car club spaces, 27 commuter car parking spaces (including 3 disabled spaces), 7 residents disabled spaces, delivery and servicing spaces, 3 electric car charging points, 250 covered cycle spaces for commuters and 208 covered cycle spaces for residents; provision of a new station plaza, river walkway including children's play space, soft and hard landscaping; and off site highway works to include the relocation of the existing bus stop.

Applicant: Maddox and Associates for Solum Regeneration.

Application received: 6 May 2011.

Main Development Plan Policies:

UDP Proposal Site T17

Local Development Framework:

Core Strategy – CP1, CP2, CP3, CP4, CP5, CP6, CP7, CP8, CP9, CP10, CP12, CP14, CP15, CP16, CP17, CP18, CP19 and CP20.

DMDPD – SD1, SD2, SD4, SD5, SD6, SD7, SD9, SD10, OS1, OS2, OS5, OS7, TC1, TC5, HD1, HD2, HD3, HD4, HD7, HO2, HO4, HO6, TP1, TP2, TP3, TP4, TP5, TP6, TP7, TP8, DC1, DC2, DC3, DC4, DC5, DC6.

Emerging Twickenham Area Action Plan

Regional Policy:

London Plan (July 2011) – 2.1, 2.4, 2.7, 2.8, 2.15, 3.2, 3.3, 3.4, 3.5, 3.6, 3.8, 3.9, 3.11, 3.12, 3.13, 3.17, 4.1, 4.7, 4.9, 5.2, 5.3, 5.6, 5.7, 5.9, 5.10, 5.11, 5.12, 5.13, 5.14, 5.15, 5.17, 5.18, 5.19, 5.21, 6.2, 6.3, 6.4, 6.9, 6.10, 6.11, 6.13, 6.14, 7.1, 7.3, 7.4, 7.5, 7.6, 7.7, 7.8, 7.12, 7.14, 7.15, 7.17, 7.19, 7.21, 7.24, 7.27, 7.28, 7.30, 8.2.

Supplementary Planning Documents/Guidelines:

Affordable Housing SPG
Revised Draft Affordable Housing SPD (emerging)
Car Club Strategy SPD
Contaminated Land SPG
Crane Valley SPG
Design for Maximum Access SPG
Design Quality SPD
Nature Conservation and Development SPG
Planning Obligation Strategy SPD
Recycling SPG
Residential Development Standards SPD
Security by Design SPG
Sustainable Construction Checklist SPD
Twickenham Station and Surroundings Design Standards SPD
Emerging Twickenham Area Action Plan

Amyand Park Road Conservation Area Statements and Studies
Queens Road Conservation Area Statements and Studies

Mayor of London's SPG:

Providing for Children and Young People's Play and Informal Recreation.
Revised London View Management Framework SPG.
Mayor's Energy Strategy.
Mayor's Water Strategy.
The London Climate Change Adaptation Strategy (draft 2008).

Planning and Access for disabled people – a good practice guide.
Accessible London: Achieving an Inclusive Environment SPG.
Mayor's Transport Strategy.
Ambient Noise Strategy.

Use: Railway Station with associated ticket office and forecourt, platform access bridges, retail units (newsagent and café either side of the ticket office at bridge level and a café on platform 2/3), car park comprising 44 car spaces (3 of which are for disabled users) and 6 motorcycle spaces, areas for taxi parking and bicycle storage shelters for approximately 80 bicycles.

SUMMARY

The proposed development provides an opportunity to redevelop the area of Twickenham Railway Station providing some key improvements to the station itself benefitting residents, employees of the borough, visitors and rugby/concert crowds, these being:

- **A modern new station entrance and ticket hall sited closer to the town centre**
- **Lifts from the ticket hall to all platforms**
- **Significant improvements to the platform environment including improved facilities and a new secondary over bridge (subject to Outer London Bid).**

Insofar as improvements to the immediate area surrounding the station, the following are secured through this development:

- **Improved public transport interchange facilities with lifts to a new taxi rank, car park and drop off area.**
- **An increase in and improved commuter cycle facilities.**
- **A riverside walk linking the site and the town centre to Moormead Park.**
- **A public plaza in front of the station entrance bordered by a new bus stop on London Road and complimentary shops and cafes.**
- **Ecology improvements to the river Crane environment both on and off site.**

It is considered that the redevelopment of the station and its immediate environment would provide a catalyst for the regeneration of the northern approach into the town centre benefitting Twickenham as a whole particularly as a gateway to the town and to Twickenham Stadium.

The design and architectural approach is considered acceptable providing a modern and sustainable building to the frontage of London Road with a traditional design fronting the River Crane and Cole Park Road. The heights of the buildings exceed the requirements set out in local policy however they are considered to provide a suitable transition between the height of Regal House and the recently erected hotel and the two storey houses in Cole Park Road with a mass that is broken into three blocks where the articulation and geometry is such that the scale and mass is considered to be suitable in the context of a town centre location and providing a gateway into Twickenham.

A key component of the development is the erection of a raft over the railway tracks which would allow the provision of the station entrance direct and closer to the platforms, closer to the town centre and would provide a public plaza in front of it.

The cost of the erection of the raft is in part informed by the need for the closure of the station and the railway lines to allow engineering works to take place in limited time periods (possessions) which in themselves drive up costs.

The applicant has demonstrated with a financial viability study that has been independently verified that subject to the build costs being as predicted (including the raft) the level of enabling development needs to be as proposed (115 residential units and 734sqm of retail space). Whilst the building heights exceed those set out in Policy DM DC3 and the relevant SPD and no affordable housing is provided the securing of substantial rail investment and improvements as described above are considered by officers to be of greater planning benefit to the revitalisation of Twickenham town centre in accordance with Core Strategy Policy CP9 and the UDP Proposal Site (T17).

The financial contributions to negate the impact on infrastructure and community facilities is limited to a significant contribution towards education and ecological improvements to the River Crane.

A phased development of the raft and temporary facilities and then the enabling development would allow the Council to assess actual costs, sales and profit against those predicted in the viability statement to enable the claw back of contributions towards infrastructure and community facilities, most notably affordable housing. This will be secured as part of the S106 legal agreement.

The development would be car capped with on-site parking limited to residents with mobility impairments and commuters. Given the sustainable location of the development and its residential units, restriction on parking permits within the Community Parking Zone and initiatives such as the on-site car club spaces, significant on-site cycle storage facilities and Travel Plan measures it is not considered that the proposal would prejudice the free flow and safety of traffic on the local highway network. Parking surveys of the development would be secured with the aim of identifying parking stress with mitigation in the form of extending CPZ times later into the evenings to prevent non permit holder parking.

As the development is car capped and the retail facilities limited no adverse impact on the local highway network is anticipated.

No adverse impact on the skyline of Twickenham and its surrounds, the protected view from Richmond Hill, local climatic conditions (wind, noise, air and solar glare) or neighbour amenity is envisaged.

RECOMMENDATION: PERMISSION subject to the completion of a Section 106 Agreement and no adverse direction from the GLA.

Site Description

Application Site:

The application site comprises Twickenham Railway Station, a station that is operated by South West Trains and owned by Network Rail. The station buildings are located to the north of London Road Bridge which crosses the railway tracks. These building comprise a ticket office and news agents, cafes, a commuter can park and cycle facilities. The ticket office is connected to the platforms by access gantries and stairs.

These access gantries serve platforms 3-5 on a normal day on an east-west axis providing direct rail services to London Waterloo, Reading and Windsor and Eton Riverside.

Platform 1 to the north is redundant and platform 2 is used occasionally on match/event days with both terminating at this station.

During the ticket office opening hours (Monday-Saturday 6.40am – 8.20pm and 7.40am – 7.10pm on Sunday) ingress and egress is on this route.

To the south east of the site a gantry links the aforementioned bridge to London Road providing out of hours access when the ticket office is closed. Adjacent to this is a stairwell linking the bridge to Mary's Terrace below.

Network Rail also own a parcel of land to the south of the tracks accessed off of Station Yard (identified as Proposal Site T23 in the Development Plan) that is currently used as a car park for commuters however this is not included in the planning unit.

To the south of the site and Mary's Terrace lies Regal House (10 storeys) and the attached Travelodge hotel that is being built and this is positioned opposite Bridge House (comprising 5 storeys). Given the low scale of the station buildings a void exists between the suburban streets to the north and the strong built edge of Regal House and Bridge House which signals the town centre beyond.

To the east of London Road Bridge and opposite the station lies the now vacant post office sorting site which comprises two and three storey warehouse buildings and a large forecourt and parking area.

To the north, beyond the River Crane, lies Cole Park Road which predominantly comprises single family housing. Further to the north lies the A316 (Chertsey Road). Richmond upon Thames College, the Stoop Memorial Ground (Harlequins) and Twickenham Stadium (RFU) lie to the north east. Richmond Adult Community College lies to the south west.

Moormead and Bandy Recreational Grounds (also known locally as Moormead Park) lie to the north east of the site and hereafter referred to in the report as Moormead.

London Road Bridge is the only vehicular access linking north Twickenham to the town centre over the railway lines. The nearest other points of vehicular access over these are in St Margarets to the east and the A316 or Whitton High Street to the west. The closest bridge which only serves pedestrians is to the east of the site which links Beauchamp Road to the south with Cole Park Road (via a bridge of the River Crane) to the north.

A gated underpass exists to the west of the termination point of platforms 3 and 4 and whilst there is no access from the platforms to this tunnel (and thus not in use) it does effectively link the site to Brewery Lane to the west of London Bridge and south east of the former post office sorting site. Due to the Royal Mail Group lease on the underpass which expires in 2025 (where letters and parcels from the trains used to be transported via this tunnel to the sorting office) no part of this development can secure works to and access through it.

To the west of the ticket office building lies the forecourt, art sculpture, information boards, a number of bicycle stands and a bus stop with a pelican crossing further to the north. The forecourt is used as a servicing area.

The commuter car park (cars, motorbikes and bicycles) lies to the north of the station with a roundabout and space for taxis. There is also access to a bridge to the east of the site that serves all platforms and this is used out of hours and for event day traffic. Access to the car park from the station's ticket office and forecourt is via a set of stairs. As a transport

interchange the links to public transport are thus considered unsuitable particularly for those with mobility impairments.

Twickenham is classified a District Town Centre in the DMDPD and due to its residential and employee population passenger ingress and egress is similar during the morning and afternoon rush hours with the addition of students arriving to/from the college. Inevitably there is some conflict with incoming and outgoing passenger movements both within the station (ticket hall and bridge) and on the forecourt and footpath on London Road Bridge in particular.

The majority of pedestrian traffic leaving the station travel either south to the town centre along the London Road Bridge or to the north across the pelican crossing towards the tertiary college on Egerton Road and surrounding suburbs.

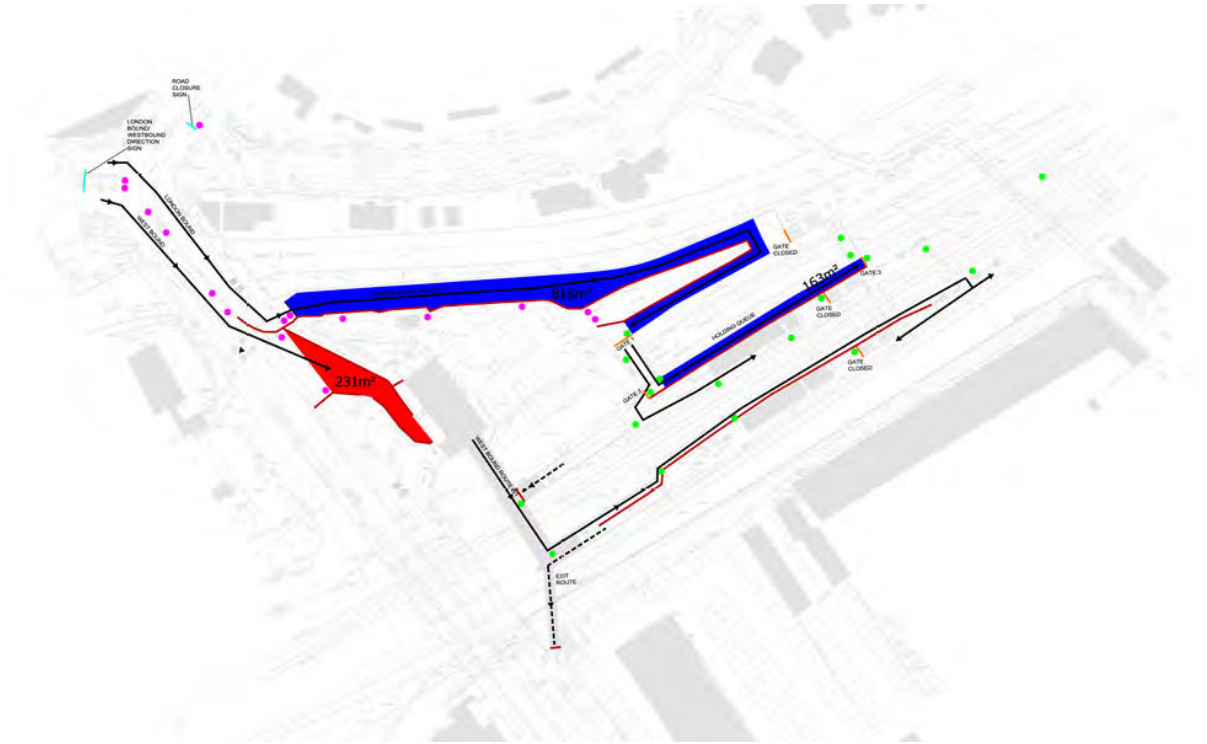
Access to the east and west (particularly the suburbs and Richmond Adult Community College) is either down the aforementioned stairs to Marys Terrace or via Arragon Road and Station Yard respectively. Links to the aforementioned areas are in the main directional with little in the way of landmarks (other than the higher town centre buildings to the south) to direct passengers to intended destinations.

Twickenham Stadium hosts a number of international rugby games annually and in the main these comprise the home games of England in the 6 nations tournament (held in February/March) and the autumn internationals (approximately 3 games annually). England is also due to host the Rugby World Cup in 2015 where many games including the final, semi finals, a quarter final and pool games would be hosted at Twickenham Stadium. It is anticipated that many spectators would travel via rail and Twickenham Station to the world cup games.

Other than the above Twickenham Stadium hosts a number of other rugby competitions from European club games, international sevens tournament, Barbarians games and other events although not limited to music concerts and the annual Watchtower gathering.

On event days, egress from the station (from platforms 3 and 5) is via the bridge and then onto the aforementioned diagonal gantry onto London Road or through the ticket hall whereas or via the bridge to the east of the station and onto London Road via the car park to the north (where commuter parking is suspended). Those arriving at platform 2 also egress via the car park. Platform 4 is suspended at these times.

Access to the station after an event has been held at the RFU is via the ticket office for west bound passengers with queuing out onto the forecourt and back into Whitton Road. The advantage of the station is that a large number of east bound passengers are able to be held in the north car park and separated from those west bound passengers with queuing back onto the Whitton Road. Separation of east/west bound passengers in managed at the Whitton Road/London Road roundabout by the police. The diagonal gantry is open only for passengers who would be leaving the station.



Event Day Ingress

Event Day Egress

In terms of function, with approximately 5million passengers per annum and as many incoming and outgoing passengers during both rush hour periods there are areas in and around the station which result in crowding, congestion and passenger conflict in the ticket hall, ticket machines and when crossing the access gantry.

Access is particularly poor for those with mobility impairment who rely solely on a chair lift to platforms 4/5. Furthermore this requires advance notice of use. Platform 3 requires access through the car park with station staff assistance. There are no facilities in this respect to aid passengers with prams/buggies/heavy luggage/bicycles etc.

Out of hours access is not particularly attractive with options restricted to the caged gantry or via the gates to the north of platform 2 into the car park. The car park access has very limited surveillance.

On event days (in the main concerts/rugby games at the RFU) the station is crowded and road closures are frequently necessary on London and Whitton Roads to ease traffic movement.

Access to the station and numbers after such events depends on the occasion, day and the times such events finish. In the main the west bound holding area is limited compared to that of the east bound traffic and the resulting queue backs up Whitton Road. Inevitably delay in cleaning operations and reopening the highway to vehicular traffic is caused.

Planning designations

On site:

The site is an identified Proposal Site (T17) in the Unitary Development Plan: First Review and adopted Core Strategy and within the designated Town Centre Boundary of Twickenham.

The site lies within Twickenham Town Centre and the Central Twickenham Community Parking Zone (CPZ) which operates from 8.30am-6.30pm Monday to Saturday. The Cole Park CPZ lies to the north (Monday-Friday 8.30am – 6.30pm), Heatham CPZ to the north west (Monday-Saturday 9am-6.30pm) and to the east, St Margarets South (Monday-Friday 10am-4.30pm).

The only trees within the application site are located on the southern bank of the River Crane but these are not subject to Tree Preservation Orders.

The area to the north of the railway tracks is designated as an Archaeological Priority Zone.

Surroundings:

The terraced cottages on Mary's Terrace are designated Buildings of Townscape Merit as are a number of properties on the southern side of Cole Park Road (no. 2, 4, 6, 8, 10 and 12). Heatham House, which is sited to the west of the London Road/Whitton Road roundabout, is a grade II listed building.

The River Crane to the north, land between it and platform one and Moormead to the north east are designated as an 'Other site of Nature Importance' with the river and Moormead also designated as Metropolitan Open Land. The area to the north and east of the site comprising the River Crane is designated the River Crane Area of Opportunity and the railway line to the west of London Road is designated a 'Green Corridor'.

Amyand Park Road Conservation Area lies approximately 200m to the south east and Queens Road Conservation Area, approximately 150m to the south west.

The view from Richmond Hill (between Friar Stile Road and Nightingale Road) and Richmond Park (King Henry's Mound) are designated in the Proposals Map with the former protected under the Richmond, Petersham and Ham Open Spaces Act 1902.

The adjacent former sorting office site is identified as Proposal Site T3.

Mary's Terrace forms part of the Richmond cycle route no. 37.

Planning history related to the application site:

Planning permission was granted in 1984 (under ref. 81/1531) for the demolition of the station building and erection of a 6 storey building with three basement floors to provide offices with 38 car parking spaces, new British Rail Station and kiosk and commuter car park for 98 cars. The construction of a public transport interchange between British Rail and London Transport buses, a riverside walk and the provision of a long term car park for 45 cars in Station Yard.

No objection was raised to the extension of the station platforms (to the east) under ref. 10/1629/CON (delegated decision) given that this was considered to constitute permitted development. The project comprises the increase to length of platform 2/3 19m and platform 4/5 by 45m which will enable them to handle 10 car trains (as opposed to 8 car at present). The proposed implementation of the 10 car railway on the Wessex route from Waterloo to Windsor is due to be completed by December 2011.

Planning Permission has been granted recently for the change of use of one of the vacant offices within the ticket office to a café/sandwich bar under ref. 10/2324/COU. This would fall into Use Class Category A1.

A planning application (ref. 10/1972/FUL) for the removal of the existing footbridge structures, adjustment of existing platform canopies and rebuilding of a section of the London Road wall and erection of a concrete raft over the railway lines, to incorporate a green wall and decorative screening panels, and a new bridge structure providing access from the existing station building to the station platforms with the relocation of out of hours access bridge was deferred by the Planning committee in December 2010 to allow officers to obtain an improved elevation treatment to the raft edging and the provision of an out of hurs access bridge. This application has now been withdrawn.

An EIA application (ref. 10/3465/FUL) for the following is pending consideration:

Demolition of the existing station building and access gantries to the platforms and redevelopment to provide; a podium across the existing railway lines; a new station concourse with stair and lifts to platform level; three buildings ranging in height between 8 storeys and 3 storeys comprising 165 residential units, 734 sqm of flexible Use Class A1 (shops), A2 (financial and professional services), A3 (restaurant and café) and D2 (leisure) floor space, plant space including a combined heat and power plant, and green roofs; sustainable transport facilities to include a taxi rank, kiss and ride and car club spaces, 35 commuter car parking spaces (including disabled spaces), residents disabled spaces, delivery and servicing spaces, electric car charging points, 250 cycle spaces for commuters and 208 cycle spaces for residents; provision of a new station plaza, river walkway including children's play space, soft and hard landscaping; and off site highway works to include the relocation of the existing bus stop.

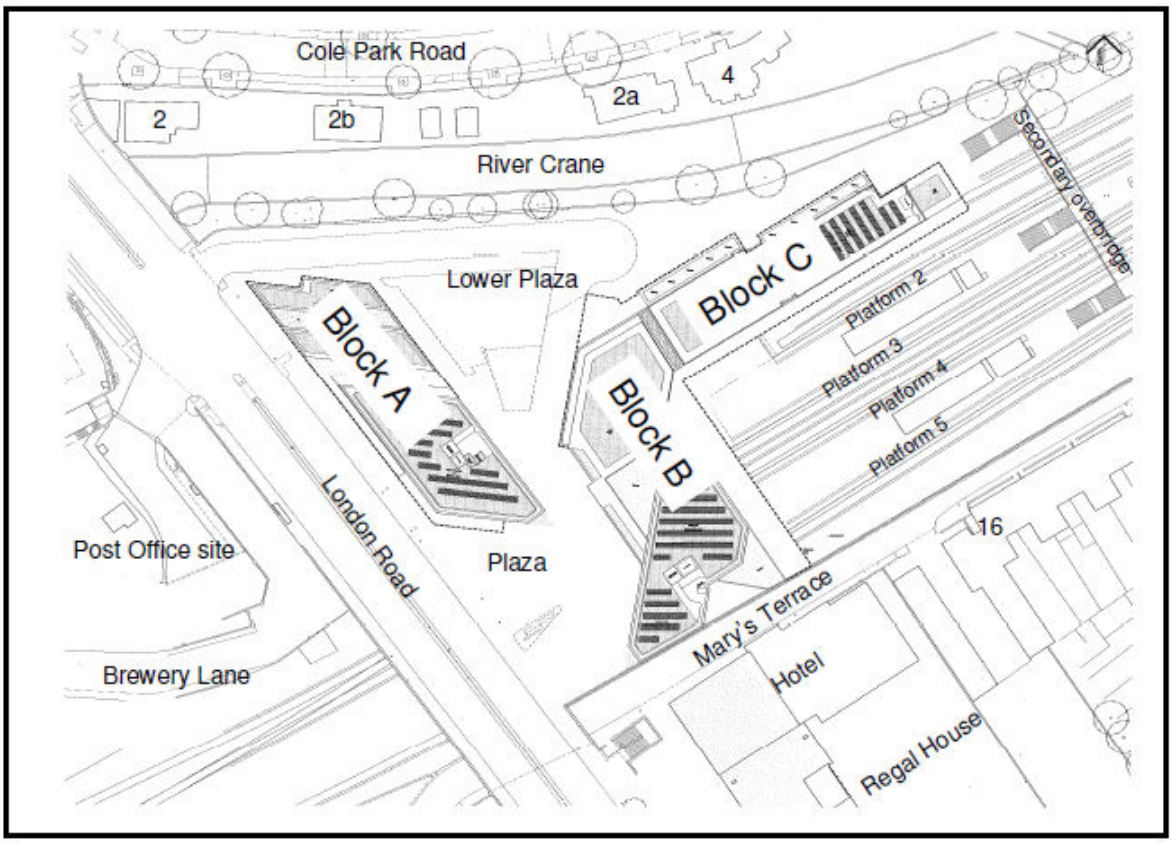
Relevant planning history on adjacent sites -

The Travelodge Hotel attached to Regal House and adjacent to Marys Terrace, allowed on appeal under council ref 08/3063/FUL is nearing completion at the time of writing with a hand over on 16 December and opening on 19 December 2011. This application also secured a financial contribution of just under £50,000 for improvements to the Mary's Terrace/London Road stairwell which is payable to Network Rail (the owner of the bridge) on completion of such work. These monies are currently held by the Council.

A proposal for outline permission for a mixed use development comprising post office sorting office (1500sqm), retail (A1) floor space (1000sqm) and residential (C3) floor space (30,000sqm) was withdrawn under ref. 04/1079/OUT.

A planning application (ref. 11/0549/FUL) for the erection of a two storey detached dwelling house between no. 2b and 2a Cole Park Road is currently under consideration.

Proposal



The proposal will be a phased development which provides a new ticket office with new stairs and elevators onto the platforms and improvements to the platform environment (the latter of which would be secured through a S106 agreement). In addition to the new station, a public plaza and links to other transport modes (new bus stop, taxi rank and drop off area) greater number and secure cycle shelters and a riverside walk to the south of the River Crane linking the site and indeed the south of Twickenham to Moormead Park is proposed.

To enable such works and allow access from the ticket office directly onto the platform stairs, a raft is proposed on which the ticket hall and office will be sited. To fund the cost of the raft, the new station facilities, plaza and riverside walk a mixed use (residential and retail) development is proposed within 3 main blocks the detail of which is set out below.

Phase I: The Raft

The proposal is for the removal of the existing footbridge structures and the out of hours gantry and the erection of concrete raft over the railway lines with new temporary access gantries linking the existing station building to the station platforms. The raft would be

supported by piers piled adjacent to the railway tracks with a new boundary wall to Mary's Terrace directly beneath the structure.

The raft would be a pre cast concrete construction and roughly rectangular in shape (28m x 48m) with an area of 1225sqm linking the existing platforms to London Road. Its width would cover the existing railway tracks.

The current access gantries from the ticket office to the platforms (which runs parallel to London Road with stairs at right angles to this) would be removed and a new temporary bridge structure created which would run alongside the northern and eastern edge of the raft before descending to the platforms. The proposal would also include a gantry for use when the ticket office is closed. This out of hours gantry would link the main temporary gantry with London Road.

In addition to the construction of the raft, Network Rail have committed to undertake improvements to the station's platform and surrounding environment. This investment whilst not funded by the development is triggered by the implementation of phase I of this development and legally secured by the S106 agreement accompanying any planning permission granted. These improvements which were not initially proposed as part of this application will include:

- Extensive remodelling of existing platform buildings to provide maximum toilet capacity.
- External high quality panelling with replaced doors and windows and consolidation of posters and signage.
- Metal lining to underside of the canopies, redecoration of steel work and new light and communication fittings.
- Platform resurfacing.
- High quality panel finish to the secondary over bridge.
- New canopy roof lights.
- Subject to securing funding from the Outer London Bid Process, the erection of a replacement secondary overbridge, canopies with roof lights to the extended platform and improvements to the pedestrian route linking Cole Park Road with Beauchamp Road over the railway tracks.
- In relation to the Outer London Fund this bid invites the Mayor to contribute through the Outer London Fund to provide improvements to the station that are not being enabled by the planning application or Network Rail works, these being the renewal of the footbridge that provides a link between the platforms, the extension of canopies and roof lights over the longer platforms and the refurbishment of the public footpath bridge that spans the railway and River Crane. Whilst not enabled by it, the aforementioned works would be an obligation of the planning application and secured in the legal agreement.

  The bid sets outs series of proposals on three aspects of the town centre including the station which is envisaged to stimulate new growth and provide world class infrastructure which require support from the Mayor to deliver these improvements particularly in time for the 2015 Rugby World Cup.

Phase II: The Main Development

In time the ticket office, cycle stands and forecourt to the station will be replaced with a temporary ticket office on the podium providing access across it initially to the temporary access bridge and then onto the platforms. The temporary provision of cycle stands is the subject of a condition.

Further to these temporary buildings, phase II in the main would comprise the erection of three buildings, two of which would be partially built on the podium secured under the first phase of development and includes a new ticket office, station plaza, residential (115 units) and commercial accommodation (734sqm) along with a river walkway, parking spaces (35 commuter, 3 residents disabled spaces and 3 car club spaces), 250 bicycle spaces, taxi rank, kiss and ride area, plant room, play space and landscaping.

The temporary ticket office would be removed once Block A and B are completed with the provision of the new ticket office within Block B.

Block A:

This building would front and run parallel with London Road, rhomboid in shape and ranging in height from 2-6 storeys when measured from London Road and lying to the north of the plaza comprising ground floor commercial floor space along with refuse storage and residential lobbies and upper residential floor space.

Block B:

The building would be positioned behind Block A ranging in height from 2-7 storeys (when measured from London Road) comprising the new station entrance, ticket hall with stairs and elevators to all platforms, ground floor commercial floor space along with refuse storage and residential lobbies with upper floor residential accommodation.

Block C:

This building would be attached and positioned at right angles with Block B at its western end running parallel with the railway track having a height of 4 storeys with the exception of a 3 storey element to the east wing of this building (where measured from the current car park level/track level). The building would comprise a ground floor with part residential and part plant room facilities with the upper floors set aside for residential accommodation.

	Block A	**Block B**	**Block C**
Total residential floor space	3307sqm	4880sqm	2410sqm
Number of 1- bedroom flats	9	8	7
Number of 2 bedroom flats	29	33	17
Number of 3 bedroom flats	2	10	-
Retail units	3	3	-

Public and private open space at track level:

Below block A and B and to the north of the rails tracks, a basement car parking area (commuter, disabled and car club spaces) and residential cycle parking is proposed

alongside refuse storage, an electricity sub station and circulation space. A mezzanine level is proposed below block A providing 250 commuter cycle spaces.

To the north of the car park area the existing access road is to be reconfigured providing access to the car park, a kiss and ride area, taxi rank, service bay with a servicing turning head. Access from the taxi rank and kiss and ride area to the station plaza would be via a small landscaped area and staircase/elevator.

At this level Block B and C are separated by a 3.5m wide match day access route from the access road leading onto the relevant platforms. To the north of Block C soft landscaping and children's play facilities are proposed and to the northeast of the site, a river walk is proposed linking the site and London Road to Moormead Park.

The access road and part of the lower plaza leading to the match day access route would be used as the holding area for event day ingress for London bound passengers.

Public and private open space at bridge level:

As mentioned above Block A is recessed to the western end of the podium to allow direct access from the ticket office to the platforms whereas Block B would be set to the north of the site creating a roughly open triangular shaped area known as the plaza allowing access to the lobbies of the flats and the commercial units therein and would comprise soft landscaping, hard landscaping in the form of benches and lighting and an areas for 'al fresco' dining to one of the commercial units. The plaza 'extends' to the north between Blocks A and B providing access to the flats, the kiss and ride area etc and a link to the river side walk towards Moormead Park. The plaza would also serve as a holding area for event crowds entering the station on Windsor/Reading bound trains.

Materials:

The development (particularly Blocks A and B) would have a mixed palette of materials predominantly comprising a light brick with light and dark metal cladding and a significant amount of glazing (full height windows and balconies).

Block C's materials (particularly the north facing elevation) reflect the traditional approach adopted for this building with materials comprising a light brick with sash windows, painted black balustrades and a zinc roof.

The open space (plaza and access road) would comprise a mixture of natural aggregate pc pavers in grey to identify shared space.

<u>Environmental Impact Assessment</u>

Prior to the submission of the Environment Statement the applicant requested that the Council give a screening opinion to determine whether an EIA was required to be submitted with any planning application. On the basis that it was considered a requirement, a scoping report was submitted and a formal opinion sent setting out what information should be covered by the EIA.

It was held that the proposed redevelopment would potentially have significant effects on the environment and as such the scale and massing of the new buildings, their cumulative impact with surrounding development and the impact on rail and bus services, in particular during the construction phase, will be the major factors which need to be evaluated.

The application has thus been submitted with an Environmental Impact Assessment as the proposal falls within the definition of a Schedule 2 Project, under the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999.

The Environmental Statement (ES), which draws together in a systematic way an assessment of the proposal's likely environmental impact on the surrounding area. This document aids consideration of the possible consequences of the development and how any materially harmful affects can be properly dealt with and mitigated.

A series of reports, with detailed appendices, on different aspects of the proposal have been included in the ES including alternative design and design evolution; a full description of the proposal; the planning policy context; construction details; socio economic issues; transportation issues; air quality; noise and vibration; ecology; water resources, soils and contamination, wind analysis; day/sunlighting assessment, electronic interference/TV reception and cumulative/residual impact.

The legally required "non technical" summary of the EIA submitted with the application is included as Appendix A to this report which highlights the main issues for consideration.

Application of potential strategic importance:

The application is categorised within The Town and Country Planning (Mayor of London) Order 2008 as one of Potential Strategic Importance (PSI) and as such is required to be referred to the Greater London Authority (GLA). The GLA have provided a first stage response and this is set out in the public and other representations section below.

Public and Other Representations

Greater London Authority (GLA) – The Council has been advised by the GLA that this application is considered to represent a PSI application, a planning application of potential strategic importance, which the Mayor has both the power to refuse planning permission on strategic grounds, or to take the application over for his own determination. On referral the GLA are firstly required to issue a statement of compliance with the London Plan policies (Stage 1). This stage has been completed and the GLA's statement of compliance is summarised below:

1. World city role/mix of uses - the delivery of an improved station prior to the 2015 Rugby World Cup is supported and the mix of uses acceptable and compliant with the London Plan
2. Housing – does not comply with the London Plan as no affordable housing is proposed although given the competing priority of ensuring the upgrade of the station facilities, on balance the non provision of such is appropriate in this case.
3. Density – is compliant with the London Plan.
4. Tall buildings/views – complies with the London Plan.
5. Urban Design – complies with the London Plan.
6. Access – not compliant with the London Plan insofar as Lifetime Homes provision although the constraints of the site have informed layout and orientation of these dwellings and considered to be an acceptable compromise.
7. Transport/parking – compliant with the London Plan and car free development is supported. The S106 is required to improve the underpass or a financial contribution towards it and provision of access.
8. Climate change – generally compliant with the London Plan although energy efficiency measures should be modelled and exceed 2010 building regulations compliance through such alone. The size of the CHP is required.
9. Ambient noise – complies with the London Plan.

10. Blue Ribbon Network/flood risk – complies with the London Plan although consultation response required from the Environment Agency.

The GLA have stated that where not complaint with the London Plan the following changes may remedy the above mentioned deficiencies:

1. Transport – a contribution to improve the underpass under London Road.
2. Climate Change – the modelling of additional energy efficiency measures and commit to exceeding 2010 Building Regulations compliance though energy efficiency alone and confirmation of the size of the CHP plant.
3. Flood Risk – confirmation from the Environment Agency with regard to flood risk.

The assessment and compliance with the above three measures are set out in the body of the report below.

Environment Agency – has no objection on flood risk subject to conditions and with regard to ecology of the River Crane in particular recognise that improvements would be better suited to offsite locations of the River Crane (Kneller Gardens and Pevensey Road).

English Heritage - have no objection subject to a condition that secures the implementation of a programme of staged archaeological work with assessment work submitted at an early stage.

Natural England - has no substantive comments to make on the planning proposal but request that the Local Planning Authority consider the following:

1. Local wildlife sites.
2. Protected species.
3. Biodiversity enhancements

Thames Water – no objection in relation to waste and water infrastructure. Thames Water recommend that with regard to surface water drainage, it is the responsibility of the developer to make proper provision for drainage to ground, water or a suitable sewer. Thames Water recommend petrol/oil interceptors in the car park and the installation of fat traps on catering establishments.

Transport for London – subject to the transport mitigation and other measures identified being secured through the S106 or conditions (contribution towards necessary works within the underpass, restriction on parking permits, car parking management plan, details of the relocation of the bus stop, details of the Construction Logistics Plan) the application is in general accordance with the relevant London Plan Polices and supported in strategic transport terms.

It is their view that the proposal would have little impact on the surrounding highways and bus network and support the improvements to the station interchange in the form of step free access, relocation of the southbound but stop and several pedestrian access improvements including the station concourse.

Primary Care Trust/NHS – agree with the Environment Statement's findings that there would be an adverse impact on GP surgeries in the area.

Metropolitan Police – no comments received.

British Transport Police – no comments on the function of the station as this is a role performed by South West Trains. Concern expressed regarding the cycle stores and the possibility of theft and anti-social behaviour in these areas.

London Buses – no comments received.

Crime Prevention Officer – no formal comments received although dialogue between the applicant and CPO has revealed some concern with regard to the bollard lighting proposed. Comments on the car park, cycle stores, access control systems for the blocks, lighting and physical security requirements were submitted as part of the 10/3465/FUL application.

London Fire Brigade – no objection raised.

London Ambulance Service – no comment received.

South West Trains – fully support the proposal stating:

- That the station is large and busy, built a long time ago to cater for very different levels of demand that is experienced on a day to day basis or during major local events at Twickenham Stadium.
- The proposal improves the street level facilities at the station providing the main gateway for supporters during the Rugby World Cup in 2015.
- As there is no option B available for the street level parts of the station improvements SWT fully supports the SOLUM scheme, as it self-funds desperately needed improvements which will be a significant improvement to the passenger experience.
- SWT strongly believes that without the SOLUM scheme, the outlook for significant improvements at the station will be very limited in the next five years.
- SWT therefore back the scheme as being the only practical scheme that can ensure improvements for passengers at Twickenham station in the near future.

Network Rail - support the proposal on the basis that it will improve the area around the station providing new homes, a small number of station related shops, restaurants and a new public plaza for Twickenham alongside a modern, first class station with step free access and more ticket windows, gates and ticket machines providing easier transition for customers and better and safer interchange facilities to taxis and buses with a 200% increase in secure cycle parking. The proposed scheme will create £45 million of investment in the area bringing new jobs and homes which in turn increase investment in the local economy.

Rugby Football Union – have submitted a petition with 3600 signatures (supporting significant improvements to Twickenham Railway Station) and the following comments supporting the application:

- They are concerned that for some time Twickenham Station, the primary transport hub for the stadium struggles to cope with the demands upon it when major events take place.
- The appearance, layout and construction of the station is not fit for purpose.
- Its environment is daunting for many users late at night.
- The stadium is one of Britain's premier sporting venues attracting over 1m visitors per annum and 40% of these arriving via Twickenham Station, which is promoted in their Green Travel Plan. In the lead up to 2015 the RFU aim to increase the number of people coming to the stadium via public transport and thus transport infrastructure needs to be safe, efficient, clean, peasant and a welcoming gateway to Twickenham.

- This application is the only viable option which will see much needed investment and are of the opinion that there is no alternative proposal that can be delivered in time for 2015.
- Concern is raised that the scheme does not do enough to upgrade the appearance, safety and amenity for the station platforms.

Twickenham Advisory Panel – no comments received at the time of writing.

Local Residents and Amenity Groups

Cole Park Residents Association objects on the following grounds:

- Do not meet the Council's SPD criteria.
- No attempt to show a lower storey development on the £3m deck
- Minimal station improvements and disproportionate for a public usage benefit compared to developer profit and long term negative effect on residents.
- Inappropriate high rise development within a suburban and local townscape.

Marys Terrace Residents Group object on the following grounds:

- Gross overdevelopment causing permanent visual harm to the local environment in which BTMs exist.
- Damage to amenity of Marys Terrace resident due to scale, height and bulk.
- Sense of enclosure and narrow dark tunnel created due to the cliff like 9 storey high wall along Marys Terrace.
- Cumulative impact of the hotel and all blocks should be considered and this would create a continuous high rise wall of development unacceptable in a suburban location that features modest 2-storey homes and the River Crane.
- Poor design quality with flats overlooking each other and those in Block C overlooking the bedrooms of Marys Terrace homes.
- Not an attractive landmark that enhances Twickenham.
- Extreme wind impact would be caused due to the development and hotel and a desk based wind study is inadequate. Assumptions that this is a typical urban site and at ground level and applying mean factors are invalid.
- Increased shadowing in months between the autumn and spring equinox and analysis limited to only one day a year.
- No details of environmental improvements to the River Crane, the introduction of the path is likely to cause damage to the natural environment and nature, personal safety, litter and maintenance.

Friends of the River Crane (FORCE) –

In principle FORCE welcomes the proposed new public access to Moormeads Park along the Crane corridor on the provision that the route is carefully designed with a commitment to manage and maintain the route in the long term, the implementation of environmental improvements and that the development is not provided at the expense of the environmental value of the corridor. Key comments within their letter are set out below:

- Ecological mitigations proposed are of a minor benefit to the corridor.
- Planting schemes should be mindful of the wider environmental aspirations of the corridor.
- No commitment from the developer to include the enhancements identified within the Twickenham Station and Surroundings SPD such as the incorporation of natural or

semi natural banks and the creation of a riverside walk which incorporate ecological enhancements.

- Development should include the movement of the concrete channel wall back 1 meter to allow in-stream planting.
- Expect the longer term management of Japanese knotweed to be included in any land management arrangements.
- Safe access for maintenance of river and its bank required from the south and an agreement to the responsibility for the removal of litter and general maintenance.
- Measured policy to tree retention, removal and planting to improve overall quality of environment.
- Development proposals would have an adverse impact upon the views along the river and no commitment to implement any improvements to local views along the river.
- Concerns regarding shading of the river and its bank an the environmental impact requires evaluation, requirement to allow daylight to penetrate this area and minimise the introduction of artificial light.
- No assessment of any impact of additional light into the corridor on its value for bats.
- Public access should include significant environmental improvements, respect privacy of Cole Park Road properties, consider environmental impact, safety, management of anti social behaviour, levels of lighting, provision of visual links, incorporate bins and signage, allow for both pedestrians and cyclists.
- Monitoring and management of impacts required along corridor, avoid tarmac surfaces, design of fencing to be considerate, wider areas to be incorporated for public use.
- A direct link between the post office site and the station is not set out in the application.
- No consideration of archaeology.

Richmond AID (Advice and Information on Disability) raise the following points:

1. The London Road layby set aside for evening taxis should be able to be used for disabled travellers as a pick up/drop off point to aid access/egress to the station.
2. The bus stop needs to be further south as it is too close to the cafe entrance and planters.
3. The pedestrian crossing on London Road should be moved further south.
4. The residents' disabled bays should have a dual use with the kiss and ride for disabled travellers to allow more time for assistance.
5. Concern that only one lift is proposed to the kiss and ride area and another required in the event of a break down.
6. Concern that there would not be 10% fully disability accessible units and that 75% would be disability adaptable thereby leaving wheelchair users with the cost of adaption.
7. Ticket office should be accessible for disability groups and surfaces on sections of the plaza smooth to allow for wheelchair accessibility.
8. Seating by the kiss and ride area and hand rails on the stairs required and planters should not obstruct access.
9. No indication of disabled toilet facilities other than on the platforms.

Metropolis Planning Design on behalf of Twickenham Residents Action Group (TRAG) –

Objections on the following grounds:

1. Contrary to planning policy and the considerations with regard to time constraints (2015 word cup) and viability are fundamentally flawed.
2. Misrepresentation and ignored views of the community set out in the Statement of community Involvement.
3. Flawed views analysis with cropped/condensed photographs.
4. Presents a solid/unrelenting wall of development, with little transition and poor design quality.
5. Lack of articulation in the massing
6. Scale, height and bulk will have an unacceptable and overbearing impact on the character and appearance of the townscape in local views and distant cumulative views in particular Richmond Hill.
7. Unacceptable impact on the amenity of residential occupiers of Cole Park Road and Marys Terrace and disagreement to the categories of impact envisaged.
8. Failure to respond to townscape context and surrounding residential character and adverse impact on character, setting and outlook of the BTMs on Marys Terrace.
9. Reduction in unit numbers not reflected by reduction in volume of the scheme and this coincides with the number of affordable housing units removed from the scheme.
10. Number of habitable rooms in the scheme has not changed significantly and thus should not be less valuable than the first scheme.
11. High density when factoring in the retail units.
12. Previous comments by CABE.
13. Poor quality accommodation: crowded, overdeveloped, cramped, claustrophobic, prone to noise, limited separation distances, reduced levels of day/sunlight and overshadowing. A third of flats in Blocks A and B are single aspect with many looking directly over platforms reducing amenity.
14. Poor location and quality of residential entrances.
15. Requirement to view the viability assessment to effectively comment on the loss of and value of the affordable housing.
16. Use of RFU money/other revenue to fund station improvements.
17. No alternative solution presented in the ES regarding a situation with no or a limited podium.
18. As the cost of the podium is justified to build on top of it (a self fulfilling prophecy) the development profit should be lowered as they are voluntarily incurring the expense of the podium in order to achieve greater returns.

A further letter from Metropolis PD has been submitted clarifying the reasons for raising the issue of consideration for alternative proposals. This is set out below:

1. The applicants have not assessed if a policy compliant alternative scheme would be viable. As viability is a material consideration there is no evidence that alternative schemes are unviable or unrealistic.
2. As such no weight can be afforded to the applicant's viability argument as being material.

Odyssey consulting engineers on behalf of TRAG:

With regard to the submission of the transport assessment and EIA have the following statements:

1. No significant objections to the implications of the proposal on a typical day.
2. Recognise current constraints on events days (platform length, train length and station size).
3. No assessment in the Transport Assessment of the increased train capacity and natural growth on the station and surrounding roads.

4. Limited increase in the eastbound queuing area and with growth a 'nil detriment' would not be achieved.
5. Potential queuing arrangements not set out in the existing drawing of ingress for east bound passengers on match days and this space would be lost as a result of development (although the objection recognises that Network Rail and the Police may have valid reasons for not utilising this space.

York House Society objects on the following grounds:

1. traffic and parking – exacerbate parking problems and congestion, cut the existing provision of parking at the station and make no provision for passenger interchange between buses and the railway.
2. Pedestrian safety – due to the proximity of the blocks and narrowness of the pavement on London Road.
3. Urban Design – overlarge, out of keeping, forbidding and fortress like in the conservation area and threatening. Cheap materials lacking dignity and elegance. The station entrance is grandiose and unnecessary. Block C has no relationship with the river environment. Further eyesore from Richmond Park.
4. Massing and density – Regal house is a prime example of the worst kind of development for Twickenham and should not be used to make comparisons. The scheme is contrary to the adopted SPD. Contrary to existing density patterns creating pressure on schools, medical and transport facilities and infrastructure. Harm from drawing footfall away from the town centre.
5. Lack of affordable housing, artificial time constraint and rush to push it through for the 2015 rugby world cup.
6. YHS support a simple redevelopment with lower height, better design and in keeping with the needs of the town and community.

Letters from 505 households received supporting the application on the following grounds:

1. Regeneration/benefits:

    - Station needs replacing and the area regenerating (poor and depressing point of entry to the town) and this will have a trickle down effect to the rest of the town.
    - Regeneration only achieved through cross subsidy from residential provision.
    - Improves safety of the station and the additional homes will improve surveillance.
    - Lack of action will result in further decline and decay
    - Benefit and enhancement to the town (shops and restaurants) and visitors, particularly crowds using Twickenham Stadium.
    - Investment and additional housing to support local retail is required.
    - Benefit to first time buyers and provides a housing need.
    - It would provide much needed employment.
    - Integration with the town centre welcomed.

2. Design:

    - Aesthetically pleasing and environmentally friendly.
    - Proportionate, tasteful and balanced redevelopment and a great addition to Twickenham without affecting the existing sky line.
    - Impact of height acceptable given that it sits next to and no taller/in scale with and softens Regal House.

- The hotel development is adding to the skyline so unfair that this development cannot.
- Twickenham town centre needs a focal point.

3. Transport:

    - Will reduce crowding and congestion around the station with better pick up/drop off points.
    - Provision of an efficient transport hub.
    - Increase in the capacity of the station.
    - Benefit of lifts and disabled access.

4. The public realm:

    - Benefit of access to Moormead Park.

5. Other matters:

    - Some letters cite the requirement for adequate school places and other necessary infrastructure as well as affordable housing if this were to be approved.
    - Some concerns have been raised with regard to the architecture to Block C.
    - The entrance to the station has been cited as being bland and sustainability standards are not ambitious enough.
    - A request for lifts and walk ways between platforms and escalators from the platforms to ground level.
    - Concern raised of 'NIMBY-ism'

6. Non material:

    - Matters not related to this application (drawing similarities with the stalled Twickenham Riverside development).

Letters from 805 households received objecting to the application on the following grounds:

1. Design/scale/mass:

    - Exceeds the height set out in SPD and dwarfs the adjacent hotel building.
    - Creation of a utilitarian/unimaginative/imposing/barricade/overbearing/cliff like entrance into the town with no sense of arrival and lacking in inspiration.
    - Scale and proportion with the rest of the town inappropriate/incongruous and with the period property that gives Twickenham its unique quality.
    - Does not reflect the riverside nature or village feel of Twickenham.
    - Brutal, ugly and alienating tower blocks with no architectural merit.
    - Ultra modern construction looks cheap with metal and glass design clashing with other predominantly brick faced buildings in the area.
    - No assessment on the impact on Heatham House.
    - Dubious/drab/austere/pastiche neo Georgian style housing which does not suit the area.
    - No objections to a low rise development.
    - Regal House should not be used as a precedent.
    - Comparisons with Croydon and Manhattan.
    - Would clone the town and lose identity.

- The construction of the podium will allow more floors to be added in time.
- Improvements required to the routing of trains, i.e. platform 2 and 3 for east bound trains and 4 and 5 for west bound trains.
- Impact on the views to and from Richmond Hill and view from Star & Garter House and clutter in the landscape.
- Adverse impact on conservation areas.

2. Neighbour amenity:

    - Overshadowing and loss of sun/daylight.
    - Loss of privacy.
    - Anti social behaviour on the plaza and its furniture and river walk.
    - Noise and disturbance and increase in population near Cole Park Road

3. Environmental concerns:

    - Creation of a wind tunnel on London Road and other freak weather phenomenon.
    - Adverse impact on schools.
    - Adverse impact on healthcare facilities.
    - Pollution of the River Crane.
    - Train noise echo.
    - Impact on nesting birds, in particular kingfishers.

4. Transport/train station matters:

    - Platforms not enlarged and limited/minimal station improvements and ticket office and number of doors do not reflect an improvement to the station.
    - Unrealistic parking provision and adverse impact on surrounding streets.
    - Traffic congestion.
    - Nothing wrong with the station and only a minimal amount of work required to bring it into a suitable state.
    - Proximity of the station does not mitigate against car ownership.
    - Concerns that the restriction of parking permits through a S106 may be modified or removed by the Council.
    - 25% improvement in queuing space unacceptable given the increase in population and rail traffic, does not deal with the handling of 80 000 rugby fans and appears to have reduced the amount of space available for crowds and perpetuates the channelling of match day crowds up Whitton Road..
    - Potential holding areas for crowds lost due to the high density residential development.
    - Amount of cycle spaces discriminates against those unable or unwilling to cycle.
    - Does not enhance accessibility and does not provide adequate disabled access or for those with buggies.
    - No indication that the trains will be able to accommodate the additional residents from the development.
    - No pedestrian link to the rugby ground as referred to in the UDP.
    - Transport interchange is a revamp of the current inadequate system.
    - Escalators and more exits for event traffic needed.
    - No mention of rerouting the rail tracks to avoid the current illogical and inconvenient platform arrangement and that the development prejudices the future expansion of the station with more lines.

- Riverside walk an empty public relations gesture, not necessary, unattractive and damaging to the river and will lead to vandalism, increased litter, danger to women, a 'no go' area, increased noise and burglaries.
- The Rugby World Cup in 2015 should not be a planning consideration.

5. Housing/density:

- No key worker or affordable housing.
- S106 money should not be seen as a substitute for affordable housing.
- 4 bedroom houses needed not starter flats.
- Too many small flats to be used as rental/low income properties and will not encourage 'young blood' to settle in the area and add to the community.
- Overpopulation and crowding leading to 'slums'.
- Lacks open space and play spaces for children.
- Poor standard of accommodation and lack of sunlight to some flats.

6. General concerns/other matters:

- Scant regard to previous objections raised on the initial scheme.
- Limited time of the rugby world cup compared with irreversible damage of the scheme.
- Only improvements required are for improved access, more ticket machines, improved toilet facilities and better access to platforms on event days.
- Limited details on construction.
- Flawed community consultation procedure and misleading information.
- River walk misleading presented as it will be in shade for the majority of the day.
- No Council perusal of alternative funding as suggested by Vince Cable or funding by the RFU as a beneficiary and Plan B development should be considered.
- Station improvements (£2m) is small compared to £40m development investment.
- Investment of station improvements should come out of Network Rail budgets.
- Setting a precedent for similar development on the post office sorting site.
- Only providing an absolute minimum in sustainability.
- No proper attempt to look at alternatives.
- Financial contribution towards education vague and wont contribute to new classrooms and teachers
- No public space in front of the station.
- The visualisations and elevations under represent the mass of the development.
- Increased anti social behaviour under the bridge and around the Marys Terrace stairwell.
- Archaeology concerns – missed opportunities to excavate the site.

7. Land use proposals:

- No need for more restaurants/food outlets or justification behind this.
- No demand for flats or commercial development.
- More importance attached to the housing, plaza and shops than the station improvements.

- Impact on retail core of Twickenham and not in keeping with the rejuvenation of the centre.
- Provision of nursery and primary school on site required.
- Public leisure facilities required.

8. Non planning matters:

    - Should be smaller to minimise construction disturbance.
    - Developer greed.
    - Retail competition.
    - Financial incentive for the council.
    - Concerns with Solums' development in Epsom replicated.
    - Process objections – the Council's planning web page has a default setting on the comments section set as 'support'.

A standard letter received with 849 signatures objecting on the following grounds:

- Too tall and creation of an oppressive wall of development.
- Poor quality design not befitting this site.
- Amount of development not required where the station improvements cost £2m compared to the deck which costs £3m.
- Contrary to SPD for the site and being pushed through despite this.

It should be noted that many of the signatories have also made representation reported above.

Letters received from 12 households with the following general observations:

1. Transport/station:

    - Questions regarding capacity of trains with the increased population above the station.
    - Support for improvements to the station.
    - Lack of parking (car and cycle).
    - Concern regarding the management of increased traffic flow from residents and guests of the adjacent hotel.
    - No account for future planning and space for difference transport such as trams, more cycle spaces etc.

2. Environment:

    - Questions regarding provision of school places.
    - Questions regarding provision of health care for the additional population.

3. Land Use:

    - Regretful that affordable housing has been removed.

4. Design/mass/scale:

    - Objection to the height and proximity to the pavement.
    - Lack of comprehensive development with the Royal Mail site.

- A contemporary piece of architecture commensurate with the site and surroundings would be welcome although it is too high.
- Massing should step back in tiers from London Road.
- Proposal illustrated on the Save Our Skyline flyer appears inappropriate to the site.

5. General matters:

    - Contradiction between the Core Strategy and Twickenham Station and surroundings SPD.
    - Does not meet the Council's planning guidelines.
    - Unfortunate that this scheme does not provide basic station facilities such as toilets, escalators, and disabled facilities in light of the impending world cup.

6. Non planning matters:

    - Questions regarding the restriction on buy to let investors.
    - Procedural matters (the consideration of representations prior to consultation, the website indicates a delegated decision would be made and the consultation dates and the likely decision date do not tally).

A petition with 3381 signatures received stating that the following will be supported on the Twickenham Station and Post Office Site:

1. Well planned, appropriate, low rise station development.
2. A mixture of uses on these sites.
3. The Council's SPG where a maximum of 5 storeys will be permitted.

And the following objected to:

1. High rise tower blocks.
2. No additional school places provided.
3. No on site car parking
4. Twickenham becoming the next Croydon.

The petition allows for a rating of uses deemed important. In many cases this has not been filled in but where it has the common uses that have been ticked are 'new school', 'river walkway linking the station to Richmond College and the stadium'.

Heads of Terms

- Station platform improvements prior to the commencement of phase II
- Additional station platform improvements to include a new bridge, canopies to the extended platforms and improvements to the bridge connecting Cole Park Road with Beauchamp Road (subject to Council funding via the Outer London Bid Process).
- A contribution of £293,000 towards the necessary education provision
- A contribution of £32,000 towards River Crane ecology enhancement work.
- Subject to overage being achieved a clause within the legal agreement secures an initial financial contribution of £300,000 towards education, health provision, the public realm and monitoring, a second payment of £1m towards affordable housing and a final amount (capped at £4,909,010) to recover contributions towards the rest of affordable housing and transport.
- The provision of a riverside walkway and public open space prior to the occupation of the residential units with subsequent permissive access rights and the

implementation of a landscape management plan to secure the maintenance of the riverside walkway and associated public open space.

- Measures to improve security, lighting and general upgrade to the stairwell connecting Mary's Terrace and London Road.
- An exemption of residents and commercial occupiers at the development from applying for car parking permits within the Controlled Parking Zone, council controlled car parks and car parks controlled by Network Rail and/or South West Trains.
- The provision and retention of 3 car club spaces and coordinate membership to the local car club scheme.
- The applicant to commission parking surveys of surrounding roads prior to and following occupation to assess changes in the level of parking and in the event that such parking has increased and overage has been achieved a financial contribution towards the cost of undertaking a consultation exercise and implementation with local residents regarding the variations of hours/days to the nearby CPZs.
- The securing of highway works to London Road (this will also be secured by a S178 agreement).
- Funding of alterations to traffic management orders for local controlled parking zone alterations and road closures.
- Provision of 15 temporary parking spaces for use by local residents of Mary's Terrace within Network Rail's car park (off Station Yard) or funding for the provision of alternative parking arrangements for parking displaced on Marys Terrace during construction.
- Quarterly meetings with local residents to provide updates on the construction programme and to secure the resolution of problems raised by local residents relating to construction works.
- Works to station platforms and other areas in the event of part implementation i.e. the provision of a permanent bridge between the ticket office and platforms in the event that the 2nd phase of development is not forthcoming, the removal and replacement of the Marys Terrace wall underneath the podium with trellis, planting and irrigation system and the station platform improvements in the event that the 2nd phase of development is not forthcoming.
- Local employment utilised during construction.
- The provision of TV reception mitigation measures if required.
- Provision of unrestricted public access to and through the underpass and the necessary infrastructure therein to allow such to take place. (subject to agreement of all parties – The Council, Network Rail, Solum and Royal Mail Group)
- Legal costs

Amendments

- Increase in bedrooms (identified on plan as studies) and subsequent revision of the Planning Obligation Strategy requiring an increased financial contribution towards infrastructure.
- CHP flues introduced on the roof of the 5th floor of Block B.
- Increase to the number of disabled residential parking spaces.
- Minor revisions to the layout of the basement car park.

Re-consultation

Not considered necessary

PROFESSIONAL COMMENTS

Planning Considerations

In considering the application, account has to be taken of all environmental information, including the environmental statement, the statutory, local, regional and national policy framework, the documentation accompanying the planning application and all material representations including those of statutory and non-statutory consultees.

The main issues which need to be addressed and considered on the application for planning permission include:-

a) Whether the proposed development complies with the objectives and principles of the adopted Core Strategy, Development Management Plan: DPD, London Plan and Supplementary Planning Guidance/Documents. This initial section also includes a review of the scheme's compliance with the strategic objectives of the UDP Proposal Site T17, and other site specific policy. This will mainly include an assessment of transport interchange and town centre benefits, connectivity and affordable housing provision.

b) Whether the impact of the proposed development on the appearance and character of Twickenham Town Centre and surrounding land would be adverse. The section on the regeneration of Twickenham and Design and siting addresses these issues.

c) Whether the proposed development would be detrimental to the residential amenities of the occupiers of existing residential properties in the surrounding area to an unacceptable extent. The impact on guests within the adjacent hotel also require consideration. This is addressed in the sections on neighbour amenity (section C).

d) Whether the traffic impact which would be likely to arise from the new station development would be likely to have a harmful effect on the functioning of public transport and the local and strategic road network. This is set out in section D of the report.

e) Whether the proposed residential units offer future occupants an acceptable standard of living accommodation and whether suitable access and provision of wheelchair housing is achieved.

f) Whether the proposed development would place an unsustainable pressure on education and other local facilities in the area. Impact on education, the public realm and the health service are considered within the socio and economic chapters and furthermore within the planning obligation strategy and viability and overage chapters.

g) Whether the proposed development would have an adverse environmental impact once completed. The chapters on wind, electronic interference, sustainability, water resources and solar glare and shading, air quality, ecology and flood risk consider such matters.

h) Whilst there is no planning policy related to construction, this is considered in the Environment Statement and thus addressed in this report as to whether the proposed development would have an adverse environmental impact during construction. The construction chapter considers the impact of such on water resources, the ecology of the River Crane and ground conditions. This section also considers the impact of construction on neighbour amenity, electronic interference and the transport and traffic implications including the function of the railway station on event days at Twickenham Stadium.

i) This section deals with other matters such as the alternatives, Statement of Community Engagement and partial implementation safeguards.

UDP Proposal Site, site specific policy context and SPD framework

Proposal Site:
Twickenham Railway Station was first designated as a Proposal Site (T6) in the Richmond Local Plan of 1985 and taken forward as a proposal site in subsequent local plans. The current designation is proposal site (T17) which is set out in the now otherwise superseded UDP First Review 2005. This is now intended to be incorporated within the Twickenham Area Action Plan, as a proposal for town centre mixed use, interchange improvements, booking hall and riverside walk.

The justification for T17 is set out below:

To improve interchange facilities and provide a mix of town centre uses to take advantage of the high level of public transport accessibility and to maximise benefits to the town centre. It is recognised that there is potential for both immediate and long-term interchange improvements in association with redevelopment of the site including improved pedestrian (including bus interchange opportunities) and cycle access including cycle parking, bus interchange information systems and environmental improvements to the forecourt. To improve information systems and access for people with disabilities. The site has potential for a mix of town centre uses including business, leisure and residential. Forty per cent of any residential element should be affordable housing; the remainder should be small units with no on-site parking. The site is not appropriate for significant retail uses which would draw trade from designated frontages and lead to the unacceptable elongation of the centre. Any proposal must allow for the provision of a riverside walk as part of the River Crane Walk, the reinstatement of Platform 1 and a link to the proposed pedestrian walkway to the rugby stadia. Car parking for commuters should be reduced. Proposals should take a comprehensive approach taking into account related town centre sites, particularly the Post Office Sorting Office (T3) and the Station Yard (T23), and the contribution of the proposal toward the enhancement of the area as a whole.

With regard to the requirements of the Proposal Site, the report will set out in detail how the above improvements are secured and criteria met. However, in summary, the application to redevelop Twickenham Railway Station is required to be a proposal comprising the following key elements:

- a mixed use development with interchange improvements
- a new booking hall and
- a riverside walk.

The mix of town centre uses sought are commercial and residential with 40% of any residential being affordable housing and the remainder small units. The commercial uses are not prescribed but could include business and leisure with the proviso that A1 retail provision is not of a significant size. The redevelopment proposal does not include on-site affordable housing and a justification principally based on the scheme's viability is explained in the following section of the report. A percentage of small units is proposed and considered appropriate for this site.

The new booking hall and other interchange facilities should be of a design that improves cycle and pedestrian access including those with impaired mobility and to provide improved information systems and forecourt. Commuter car parking on site should be reduced and the existing subway under London Road secured for public use as a link to the rugby stadia. The development fails to guarantee the provision of this subway link but in all other respects,

the layout and design of the buildings is considered a scheme which is compliant with the Proposal Site.

A riverside walk is secured by the development linking the station site with Moormead Park.

Core Strategy
The adopted Core Strategy provides a strategic planning framework for the borough setting out the requirements for a sustainable future, protection of local character and meeting people's needs. Of particular relevance is the Twickenham Town Centre policy CP9.

Policy CP9 envisages the revitalisation of Twickenham town centre to achieve a high quality district centre serving local residents, workers and visitors, founded on the principles of sustainability. With regard to the objectives of this policy, the proposal to redevelop Twickenham Railway Station is compliant in the following respects:

1. provides a high quality, sustainable and accessible design through redevelopment,
2. promotes the town centre insofar as an employment and district retail centre, provides improved visitor and tourist facilities, a gateway to the town's sports, leisure, art and cultural activities and adding to the night time economy,
3. provides a higher density, tall building, car free residential development albeit with no affordable housing,
4. improves public transport and interchange facilities and cycle storage
5. provides decentralised energy.
6. provides a riverside walk.

With regard to policy CP9.D (encouragement of tall buildings in the town centre) this is subject to maintaining and improving the local environment as set out in policy CP7. This latter policy recognises that taller buildings may be suitable in Twickenham Town Centre close to the station subject to having no adverse impact on the townscape and this was informed in part by the Turley Study (a Borough-wide Sustainable Urban Development Study (2008) by Turley Associates).

Supplementary Planning Document (SPD):Twickenham Station and Surroundings Design Standards
Since the adoption of the Core Strategy, the Supplementary Planning Document (SPD) :Twickenham Station and Surroundings Design Standards was adopted in October 2010, to ensure a comprehensive approach is taken to the sites in the town centre to ensure the best overall development for the town in terms of layout and design.

The SPD was produced in accordance with Part 5 of the TCP (Local Development) (England) Regulations 2004 and is considered by the Council to comply with saved policies T3, T17 and T23 and Core Policy CP7 constituting specific design guidance in relation to new development in this area. As such it is capable of being taken into account as a material consideration in any decisions the Local Planning Authority may make in relation to applications for such development at this site.

With regard to the Twickenham Railway site, the Twickenham and Surroundings SPD (5.1) provides better detail and clarity to the principles established under the UDP Proposal Site T17 and Core Strategy Policy CP7 and 9 and includes the following additional guidance for redevelopment proposals:

- Better connections with the station and town centre, more active frontage and presence and the possibility for locating the station building over the railway tracks.
- Clear variation and modulation in height and gaps between existing and proposed buildings with a wall of development across the site not being appropriate. The

height should not exceed 4/5 storeys and taller buildings will need a full design justification based upon a townscape appraisal and significant community support without adversely overshadowing buildings, amenity space or the river.
- Full disabled access should be provided.
- Provision for RFU and student crowd movements.
- A taxi and bus drop off area and public plaza should be provided.
- Ground level activity and natural surveillance from small retail units possible if these don't compete with town centre retail.
- Creation of a riverside walk with ecological enhancements.
- 2/3 storey houses orientated towards the river to minimise impact on Cole Park Road properties.
- Prominence to the station and entrance required.
- Tallest elements to be sited towards Regal House with a reduction towards Marys Terrace.

Development Management Plan
Whilst the application was submitted at a time when the saved policies in the Unitary Development Plan: First Review 2005 constituted the Council's Development Plan combined with the Core Strategy and London Plan, the Development Management Plan (DMP) has now been adopted on 1 November 2011 replacing the UDP: First Review. For the purposes of this report, the application has been considered against the DMP polices.

Of specific relevance to the application site and building on the text in the SPD, DMP policy DM DC3 (Taller Buildings) sets out the following additional objectives for development within 2 areas of Twickenham and Richmond focused on their railway stations:

- be well designed and to make a positive contribution towards the skyline and the surrounding area
- respect, preserve and enhance the borough's heritage assets
- respect the amenity and privacy of nearby residential areas, including microclimate and overshadowing
- demonstrate a high level commitment to sustainable design and construction
- include safe, attractive, comfortable and accessible amenity/open spaces designed to support social interaction and engender a sense of place
- Any buildings or features taller than the heights set out in the SPD will only be acceptable subject to a full design justification based on a comprehensive townscape appraisal and there being significant local community support for the public benefits of the overall scheme.

In relation to Twickenham Station site alone, DM DC3 provides a policy background to the building height restrictions contained within the SPD.

Future LDF Plans
Members should also note that as part of the LDF process, the Council is currently preparing an Area Action Plan for Twickenham Town Centre which sets out an overall strategy for the future of Twickenham town centre. The plan will cover the period up to 2027 and will be vital to the promotion of a prosperous local economy and investment. The Twickenham Area Action Plan (TAAP) will form part of the Local Development Framework (LDF) and has emerged from the results of the Council's Barefoot Consultation, Twickenham Conference, All In One Householder Survey and All In One Business Survey this year.

The TAAP is currently an emerging development plan document and while a material consideration, such documents attract more weight the nearer they are to adoption. The TAAP has not yet progressed as far as public consultation but has now been approved at a

Cabinet meeting and therefore shows the Council's future intentions for Twickenham in a Development Plan context and is pertinent to this application. Nonetheless, its adoption date is not expected to be before 2013 and the Committee are advised that they can attribute little weight to it when reaching a decision on the current case due to its very early stage of progress.

The TAAP as drafted sets out a comprehensive approach to the revival of Twickenham and to achieving a future vision of a high quality town centre, recognising the Station site's redevelopment as integral to this process and securing to the strategic aim for that part of the Town centre designated the 'northern approach opportunity area'. (this also includes the Royal Mail sorting office, Heatham House and Regal House and the Station Yard) set out below.

- The creation of an attractive entrance into the town centre with a new station, enhanced public realm and comprehensive mixed use development of key opportunity sites.

In essence, the Plan adopts for the Station site the same land use and design principles as identified for the site in the Core Strategy, the Development Management Plan and SPD – Twickenham Station and Surrounding Sites with only one exception relating to DMP policy DM DC 3. In this regard, the TAAP proposes to vary the last sentence as follows:-

"Any buildings or features taller than the above may be acceptable on site TW1 if there is a design justification based on a comprehensive townscape appraisal, if there is significant community support for the public benefits of the overall scheme and if there is very significant capital investment in the railway station."

Crane Valley Planning Guidelines:
Other planning guidance relevant to the application site is the Crane Valley planning guidelines (SPD adopted March 2005) which set out that developments in and adjacent to the River Crane Corridor will be expected to contribute to improving the environment and access, including the provision of a river walk and associated pedestrian/cycle linkages, taking account of the river corridor ecology

Also relevant to the application is the addendum to LB Richmond's second round application to the Outer London Fund. The bid sets outs a series of proposals on three aspects of the town centre including the station which is envisaged to stimulate new growth and provide new infrastructure which require financial support from the Mayor to deliver in time for the 2015 Rugby World Cup.

The bid invites the Mayor to contribute through the Outer London Fund to provide improvements to the station that are not being enabled by the planning application or other, independent works by Network Rail, these being the renewal of the footbridge that provides a link between the platforms, the extension of canopies and roof lights over the longer platforms and the refurbishment of the public footpath bridge that spans the railway and River Crane. Whilst not directly enabled by the Solum redevelopment proposals, the aforementioned works would be an obligation of the planning application and their implementation secured by the accompanying legal agreement

A. The Proposal Site and Compliance with Strategic Objectives

Twickenham Station is a destination for most people whether arriving or departing the Town. Twickenham town centre has long been held to lack a local identity and focus and the need and delivery of a more vibrant and diverse town centre is one of the key aims identified in local planning polices in the adopted Core Strategy (CP9), Development

Management Plan (DM DC 5), proposal site T17 and in the objectives of the emerging Twickenham Action Area Plan.

A further consideration as regards the need for redevelopment is that Twickenham will be staging the world's third largest sporting event in 2015. The Rugby World Cup will bring 720,000 visitors to Twickenham, of which 40% will arrive by train. The impact on local and national economies will be significant and the need for Twickenham's station to be fit to act as the entrance to Twickenham and its international sporting venue while providing a positive legacy for Twickenham to achieve its growth potential is recognised by the Council and the Greater London Authority as a key goal of any redevelopment proposal for the site

The vision of the station becoming a gateway is considered to be fulfilled by the proposed development which allows this transport node to be better integrated with the town centre through a mixed use development with public realm improvements rather than its current peripheral and isolated location which is exacerbated by the existing break with the rest of the town in both visual and active frontage terms.

This gateway should not only be seen as one that provides a landmark building and opens up and invites one to the town centre but has important roles in direction, identification and function for residents and visitors, including the crowds arriving for events at Twickenham's rugby stadia. The station can thus be seen as bridging the gap between the suburban element and stadia to the west and north and the town centre to the south rather than have the physical separation that is seen with the railway tracks.

It is considered therefore that the proposed development would be a catalyst for regeneration not only to the northern approach but to the town centre as a whole.

The existing station:
As set out earlier in the report the existing station is poor in many respects. The everyday commuter experience is not pleasant or functional and this is evidently a shared view from the representations received on this application and the results of the applicant's own consultation process (as set out in the Statement of Community Engagement). The main weaknesses of the station can be summarised as follows:

1. The platform and stair access is in a state of disrepair with clutter.
2. The station's ticket office is particularly small (evident during rush hour or event days at the RFU) with few ticket barriers and waiting areas.
3. Out of hours access is limited to the uninviting caged gantry onto London Road or the access gates from the north car park which is unsafe area with little direct surveillance.
4. The toilets on the platforms are poor in quality and uninviting with no female facilities on platform 4/5.
5. Disabled access is limited to a stair lift to platforms 4 and 5 only that requires 24 hour notice to use it and not operational when the station is unstaffed (06.15am -22.45pm Monday-Saturday and 8am-8pm on Sunday). Disabled access to platform 3 is via the car park and requires station staff assistance.
6. Cycle storage is inadequate and covered storage limited to a handful of shelters that are often at capacity. During the course of the application new covered and secure cycle facilities have been provided in the car park and an improvement to the facilities for cyclists however with the imminent removal of cycle locking facilities along the railings in front of Regal House on London Road, it is likely that these shelters will be soon at capacity.
7. Parking for taxis is restricted to the access road leading to the car park and not readily identified or freely accessible for persons with limited mobility.

The Proposal site is requiring any mixed-use redevelopment of the site to secure transport interchange improvements, town centre benefits (both environmental and economic) and improved connections to the station. These are now considered.

Station and transport interchange improvements:

For daily commuters into and out of Twickenham Station the proposal would represent a significant improvement to the travel experience and in the following ways:

1. A larger modern ticket hall with more ticket barriers and a more direct route to the platforms with a waiting area between the barriers and stairs.
2. A larger station concourse in the form of a public plaza with a larger range of complimentary facilities aiding ingress and egress as opposed to the current bottle neck with conflict between arriving and departing commuters with those waiting around the bus stop.
3. Step free accessibility and DDA compliant lifts to all platforms.
4. Better transport interchange facilities with improvements to the taxi rank and a 'kiss and ride' facility and increase of (and better) sheltered cycle facilities.
5. A proposal to move the south bound bus stop nearer the station entrance
6. A commitment to provide Legible London signage.

In addition to the above, Network Rail has now committed to further rail investment at the station which will be triggered by the implementation of this development. This investment will take the form of a range of improvements to the platform environment such as remodelling WCs on platform 3 and 4, improvements to the exterior of platform buildings and canopies, platform resurfacing and new lining to the secondary over bridge to be secured through the legal agreement.

Further improvement works at the station are also linked to the development by the legal agreement but these are conditional on Council funding which is itself dependent upon a successful outcome to the Council's bid application to the Mayor's Outer London Bid Process. This bid could raise further monies of upto £1.5 m and would allow the provision of a new foot bridge linking the platforms (rather than solely the refurbishment works currently agreed), additional platform canopies to the east of the secondary over bridge and upgrade works to the Beauchamp Road-Cole Park Road pedestrian bridge. This investment is required to be undertaken as part of the phase I works hence utilising the track possessions that would be secured by Solum for the piling and erection of the raft thereby minimising the cost of track possession time. Furthermore, the legal agreement requires these investment works to be undertaken as part of phase I even in the unlikely event that Solum are unable to fully implement the approved scheme. This requirement is considered reasonable because this rail investment is not enabled directly by the main development ie no cross-funding.

Ticket Hall Design:
With regard to the design of the transport interchange, this has been reviewed by TfL and the Councils transportation section. It is noted that the applicants have applied TfL's Interchange Best Practice Guidance (2009) in designing the station access and as such maximised the interchange opportunities at the station with other modes.

Taxi rank:
The proposal would provide a taxi rank for up to 3 taxis to wait and located off of the access road to the car park. Whilst in a similar position to the current rank, the area will be well lit and have CCTV and passive surveillance with a waiting area and importantly lift access to the plaza and station for those with mobility impairment, luggage, children in buggies etc

negating the current need to travel up the access road and onto the London Road footpath (if avoiding the stairs). In the evening and after 8pm taxis would be able to park in the bay in front of the station to pick up passengers, thereby providing a safer, easily accessible and identifiable area later into the evenings when activity around the lower plaza and riverside walk would have subsided (given the locking of the riverside walk gates in the evenings).

Kiss and Ride:
A dedicated 'kiss and ride' facility is also proposed adjacent to the taxi rank thereby also benefitting from the lighting and CCTV provided for the taxi rank and the lift access onto the plaza.

The bay in front of the station will be able to be used between and after peak hours for disabled passenger drop off as this would provide a closer and more direct route to the station's ticket office. It is also envisaged that those drivers dropping off disabled commuters requiring help to the station would be able to benefit from the disabled spaces in the car park if not already is use thereby performing a dual function.

As the aforementioned bay is located off of the current highway and with the Council requiring the adoption of the strip of land between the existing footpath and the building line of Block A running down to the south-western corner of the plaza (where it meets with the London Road pavement) the control of this bay would be within the Council's remit. As such servicing from this bay would be restricted and limited to those areas set aside within the station complex.

Bus Stop Location:
The bus stop would be brought closer to the town centre and in front of the station entrance providing an improved interchange for commuters using the buses. Given the control of this by the Council/TfL and London Buses, the location shown on the drawings is indicative.

There is a minor shortcoming and that relates to the interchange with north bound buses. Currently the pelican crossing is located in close proximity to the station forecourt with the bus stop approximately 27m further south. With the station now located further south passengers needing to access the north bound bus routes would be required to walk approximately 45m more than at present to the crossing. Whilst the movement of the pelican crossing further south is one option, the pavement on the west side of the bridge is narrow particularly near the bus stop and would result in considerable congestion if this were the only crossing point in the vicinity. A further crossing can be made at the junction of London Road with Whitton Road although this requires two crossings and may deter pedestrians.

Sheltered Cycle Facilities:
Provision for 250 cycle spaces for commuters within a secure, lit and CCTV linked area would be provided in the station and located within a mezzanine level of the car park under the northern section of Block A and accessed either from the London Road footway of the mid level of the stairs linking the taxi rank/kiss and ride area to the station. This represents a significant improvement to the current situation and whilst there is no passive surveillance from passers by, the frequency of use and security is likely to deter criminal activity in this area. Further details would be secured via condition.

In the event that commuter cycle storage is required to be expanded, drawings have been submitted demonstrating that a further 100 spaces could be secured through an extension of the mezzanine level under Block A.

Signage:
Existing legible London signage would be relocated to the plaza as part of the development as required by condition. Station lighting and signage, one tall totem sign of around 7m height, will also reinforce the design of the plaza.

Event Day Management:
Existing arrangements
The arrival of passengers on event days at Twickenham Stadium is, on the whole, well-managed and this is in part due to the staggered nature of arrivals for such events with spectators often choosing to spend time at the town centre's cafes, restaurants and public houses prior to such events.

To egress the station, crowds are presently managed so that the majority (5.5 carriages) of passengers from Platform 5 use the footbridge to the east of the station, with a minority (the first 2.5 carriages) using the station forecourt or diagonal gantry to exit the station. For Platforms 2/3, the majority of passengers use the gate from platform 2 to the car park, which then flows into the passengers from platform 5, with a minority of passengers using the station forecourt to exit the station

Once an event has finished at the stadium, the impact on the station is more dramatic with most people wishing to make their way home, although depending on the day, time and type of event, some again take advantage of Twickenham's facilities before heading to the station.

The majority of the crowd from Twickenham Stadium make their way down Whitton Road and at the junction with London Road are split into 2 queues on different sides of these roads. One queue is for London bound passengers (east bound) and the other queue is for west bound passengers.

At the Station, those going towards London are channelled into the north car park which is closed to vehicles thereby providing a substantial holding area from where they can then access platforms 1 and 3 to board their trains. West bound passengers are held on the station forecourt before being directed through the ticket office to their departing trains on platform 5. This westbound queue frequently backs up Whitton Road due to the more limited holding area on the existing station forecourt. The platforms are also delineated with railings which, together with the event staff, direct passengers to the appropriate exit/entry points at the station.

Those passengers arriving at the station on trains and wishing to depart the platforms at these times have to egress the station via the diagonal 'out of hours' gantry to avoid conflict with the rugby/concert crowds

Proposed arrangements:
Holding Areas
Given that this is a system that has been in occurrence for many years with the event day passengers frequently being a returning rugby/concert goer and hence familiar with the methods used for routing of the crowds, the proposed ingress and egress of passengers on these event days is largely unaltered by the proposed development with the exception that the public plaza would provide a significantly larger holding area and be located further south of the London Road/Whitton Road junction and thereby moving part of the crowd away from Whitton Road and the east bound queue.

Despite the building of Blocks A and C being partially set within the existing car park the holding area for east bound passengers is marginally improved.

The table below gives the current and the proposed size of the holding areas used by passengers exiting/entering the station on event days setting out the area for event crowds leaving the station (egress route) and entering the station after an event has been held (ingress route).

Holding Area	Existing Area	Proposed Area	Increase	% Increase
Egress route	593sqm	1159sqm	566sqm	95%
TOTAL Egress	**593sqm**	**1159sqm**	**566sqm**	**95%**
Ingress Route				
East bound route	818sqm	820sqm	2sqm	0.2%
West Bound route	231sqm	565sqm	334sqm	145%
TOTAL Ingress	**1049sqm**	**1385sqm**	**336sqm**	**32%**

Queuing Arrangements:
The proposed queuing arrangements/crowd management procedures resulting from the development will be that west bound passengers are directed down London Road where they are split into 'two platoons' on the public plaza after passing a gate within the barriers in a series of snaking queues. These are then held at another set of gates before being released one at a time into another platoon in front of the ticket office hall. This platoon is then released through the ticket hall and onto platform 5 to board the train. This series of platoons would allow station staff and stewards to manage the crowds in sections and avoiding surges down the platform stairs and onto the platform and railway tracks.

In addition the crowd management allows for passengers egress from the station…. access to the ticket hall without the conflict of outbound passengers where a segregated passage through the ticket hall and onto the plaza is proposed. Access up the stairs/elevators and through the ticket hall would take place between the release of the 'passenger platoons' allowing sufficient time for passengers to leave the platform and station.

With regard to the queuing arrangements/crowd management for passengers boarding the east bound trains, these passengers would also be queued in a snaking formation in the car park and access the platform via a tunnel through the southern part of Block C. Whilst this is relatively narrow considering the number of people being held at 3.2m wide it would not be a bottle neck as the width of the crowd in the queue is controlled before reaching this tunnel. As with the westbound passengers, crowds would be released in platoons to avoid crowd surge and crushing particularly on and near the platform.

Other Event Day Considerations:
Pedestrian access and egress of future residents from the three blocks on event days has also been given due consideration by the applicants. Access and egress from the flats can be gained by either travelling along Marys Terrace, crossing the footbridge linking Beauchamp Road with Cole Park Road and entering the eastern end of the site via the river walk and then into Block C and beyond. Whilst access to the doorstop play area to the north of Block C will be restricted by event crowds, access to this area would be via a locked gate

(in the evenings) to the riverside walk and residents would have a key/access code to enter/exit.

An opportunity would also exist for residents to access their properties via the plaza by travelling through the break in the platoons between the snaking queues and those entering the ticket office as the area between the stairs to the taxi rank and the ticket hall would be cordoned off. This arrangement is considered acceptable in allowing for residents movement without affecting the queuing system proposed.

A comprehensive information strategy will be also be implemented as part of the Residents Travel Plan, which will include information for residents on when events are taking place, and at what times the station will be busy.

2015 Rugby World Cup:
An added dimension and further planning consideration of relevance to this application is London's role as a world city (with regard to London Plan (policy 4.6 in particular)) and Twickenham Station's strategic role in providing transport for visitors to Twickenham Stadium, the second largest in England after Wembley Stadium. A significant percentage of visitors to the stadium arrive by train and the majority of these come through Twickenham Railway Station.

The station improvements are strongly welcomed by the GLA and RFU given the forthcoming Rugby World Cup in 2015, the world's third largest sporting event which is expected to attract three million visitors to the UK and according to the RFU 600,000 fans in Twickenham throughout the tournament where the experience of passengers using the station should therefore be world class and a gateway to the stadium and beyond.

The improvements to the station are not however proposed solely for the 2015 Rugby World Cup but this event provides a stimulus for the development of this area which would thereby result in a positive legacy for Twickenham town centre as discussed below. This legacy not only benefits those attending post 2015 rugby events and competitions at Twickenham Stadium but those other event day passengers and visitors to the Borough's attractions and indeed the residents and employees of the town and beyond.

Conclusion:
The existing station is considered inadequate functionally and aesthetically, struggling to cope with current usage peaks on event days and presents a visual harm on Twickenham's townscape. It is outdated, undersized, poorly built and inefficient and adds little to the public realm or desirability of the area. Most of the structures are of poor quality, condition and appearance, doing little to provide a sense of welcome or promote Twickenham's stature and as a location for an international sporting venue.

More than 6,000 people use the station everyday (up to 12,000 journeys) a figure that swells to approximately 11,000 spectators arriving per hour on rugby or concert days. The current station does not deal well with the high amount of users, particularly on match days, due to poor access / egress. The connectivity and access between and to the station concourse and the platforms is very poor, in particular for passengers with impaired mobility.

The application provides an opportunity to secure a high quality, modern station for Twickenham and one that is better able to cope with the demands of large events with its larger holding areas and qualitative improvements to the station and platform environment. The station and ticket hall is considered to be welcoming to all users, providing appropriate access for all and will in particular achieve the following community benefits

- be efficient, providing ease of access and interchange.

- provide a more aesthetically appealing environment for rail passengers and be more welcoming for residents, visitors and tourists alike.
- improved siting closer to Twickenham town centre
- better connectivity through the establishment of new links to St Margarets and making available for future use the underpass (to be discussed later in this section)

Town Centre Benefits

Central Government advice contained in Planning Policy Statement 4: *Planning for Sustainable Economic Growth* advises Local planning authorities that they should adopt a positive and constructive approach towards planning applications for economic development and … that planning applications that secure sustainable economic growth should be treated favourably.

Core Strategy policy CP9 recognises a specific need to revitalise Twickenham town centre requiring new development to be of a high quality sustainable and accessible design which promotes the town centre as a:

- Employment location, particularly for new offices
- District Retail Centre
- Visitor and tourist destination
- Centre for sports, leisure, arts and cultural activities
- Place with a more diverse evening economy attractive to all age groups

With regard to the regeneration of Twickenham town centre, policy 9.F confirms the importance of improving public transport facilities, particularly Twickenham Station and bus stops. The current application is considered to represent a proposal that if approved will be the first significant phase of the redevelopment process thus giving an injection and momentum to further change in the area.

Twickenham Railway Station and the Sorting Office sites are seen in the Twickenham Station and Surroundings Design Standards: SPD and the emerging TAAP as having the potential to form part of a northern gateway to the town centre. The establishment of such a gateway is envisaged through a comprehensive approach to development/public realm steered by these documents with higher densities located towards the London Road frontage of both sites (it should be noted that the emerging TAAP requires well designed buildings on key corners to echo the existing architectural patterns of Twickenham and assist in way finding with areas along the River Crane having a lower density and including a pedestrian link along the River Crane connecting up the inaccessible gaps along the walk way.

Other site specific requirements set out in the SPD in relation to town centre benefits, comprise:

- Connecting the station closer to the town centre by giving it a more active frontage and better presence with the street
- A new public plaza in front of a new station
- Full disabled access to all
- Ground level activity and natural surveillance in the form of small retail units that do not compete with town centre retailing

In terms of town centre benefits, the proposed development is considered to broadly comply with the aims and objectives set out in the Proposal Site, Core Strategy, SPD, DM DPD policy and the emerging TAAP by providing a modern station ticket office closer to the town centre. The design of the station would have a better street presence enhanced by its use of

materials, signage and illumination. A new step free public plaza would significantly upgrade the public realm on site while elevators would ensure that all new public space on site is fully accessible by the less mobile. The ground floor commercial uses would be a mixture of retail, office and restaurants and are considered to compliment rather than compete with the existing retail provision in the town centre by providing a corridor of activity leading to it in addition to the provision of an active frontage onto the public square. These conclusion are expanded upon below.

Land use/retailing provision:
The proposed mix of uses is considered appropriate and in accordance with the Proposal Site Policy, SPD and TAAP. As a development which is considered transitional (sited between the predominantly residential to the north and commercial to the south), the scheme provides a mix of uses appropriate to the site's context on the edge of the town centre and being a railway station. In addition to the new station facilities, the development is residential led which provides a viable financial base for redevelopment with commercial uses allied to the station environment and continuation of the town centre frontage over the railway bridge.

The commercial floor space is modest and limited to 734sq.m with the largest unit being 244sq.m and a number being under 35sq.m. The proposed uses are flexible and available for A1, A2, A3 or D2 use with the exception of the southern unit in Block A which would be a cafe (A3) to provide an active frontage onto the plaza and this to be secured through the legal agreement. It is envisaged that the largest unit would be occupied by a retailer but not of a size considered to pull trade away from the core of the Town Centre with a number of small units typical of a station environment (newsagent kiosks, florists etc).

The objections to retail are noted and aside from being set out in policy and a catalyst for regeneration and investment, it is considered that these would provide activity and interest around the station environment and thus avoid stagnant, isolated areas feared by many objectors and only filled by commuters or the movement of residents within the development.

Whilst commercial floor space is provided in the form of retail, no employment floor space is proposed in the form of office space (B1). With the aim of providing an active frontage along London Road and the plaza and the viability of the scheme, the provision of such floor space has not been put forward. This however does not preclude the ability for a change of use occurring in the future.

Local and Evening Economy:
In furtherance of Core Strategy policy CP9, policy DM DC5 of the DMP encourages the inclusion of uses that support the evening economy and Twickenham Town Centre is recognised as an area that requires a diversification in this respect.

The development would provide 115 new homes on site raising the residential population in the town centre (the ES predicts 199 people will live at the development based on the unit mix and size and English Housing Survey (DCLG) data) and hence trade supportive of the local and evening economies. While one should be guarded when quantifying the impact on the total volume of economic activity in local economies, it is clearly likely to be moderately beneficial for the town centre and existing businesses. The ES while making some general assumptions such as that all units are be occupied, household expenditure to mirror the national average, leak of spending to surrounding areas, index taxation, turnover per employee etc, has estimated the total household expenditure (before indirect taxation and discounting any leakage) from occupants of the 115 dwellings would be £2.8 million per annum at 2008 prices (gross).

The ES sets out that Twickenham town centre suffers from a perceived lack of accessibility, accentuated by the peripheral location of Twickenham Station. There is a potential concern amongst business owners that the upgrade of the station, and provision of shops at the station site, will accentuate the spatial divide between the Station and the Town Centre as individuals will be able to access some retail and leisure services at the Station. Conversely, it is recognised that an aesthetic upgrade to the station is a significant positive part of the development and is likely to attract more customers and raise the profile of the area. In addition, if the redevelopment also improves visitor flows during match days and concerts, businesses would possibly benefit from a more manageable and consistent footfall.

While supermarkets in proximity to the Station (Waitrose) are likely to welcome the new development due to an increase in residents, the provision of retail stores (one of small supermarket size) within the development would represent competition. Competition is however not a material planning consideration unlike factors such as the impact of the development on the attractiveness and vitality of the town centre for shoppers. In this regard, Richmond Retail Study Update (GVA Grimley, 2009) notes that Twickenham has negative convenience goods floor space until after 2021 which suggests there is a requirement for additional space.

It is considered that scheme complies with the Core Strategy vision for local businesses identifying the following features which are included within the proposal

1. provision of small units (under 250 m2) with an LDF target for 75% of all employment floorspace completions to be below 250m2 – the Twickenham Station development includes six commercial units, all of which are under 250m2.
2. supporting a strong sustainable economy through sufficient well□located employment land, i.e. near the station and in the town centre
3. provision of a range of employment opportunities including those which do not require considerable travel.

Facilities such as a tourist information point and improved signage to local attractions are included to raise the profile and visitor numbers of the areas attractions.

Employment:
The ES envisages the retail units to provide 45 direct jobs which is identified as moderately beneficial with a gross value added in relation to employment of £1.8m.

The construction of the station development would also have a positive economic impact with the ES predicting that the number of construction workers used during the 33 month build out period equating to 297 person years which using the normal rule of thumb of 10 person years in employment being the same as one permanent job, the development's construction provides 30 permanent jobs. A local job agreement clause is inserted into the legal agreement to require the developer's to use best endeavours to secure local construction workers.

<u>Interconnectivity and linkages</u> –

The development of the station would provide improved connectivity with its wider surrounds and compliant with policy DM TP3 (which expects new developments to create or improve links with the local and wider transport networks, including links to the cycle and pedestrian networks), DM TP4 (developments will be expected to improve the quality and connectivity of transport interchanges of any scale) and DM TP6 (protect, maintain and improve the pedestrian environment) from the following provisions

- Relocating the railway station closer to the town centre

- Creating a riverside walk linking the site to Moormead Park along the River Crane
- Improvements to the Mary's Terrace-London Road stairwell
- Securing of the future use of the underpass linking the site to the west under London Road Bridge subject to lease surrender or expiry or other such agreement of interested parties.

Relocation of Station

Some criticism has been levelled at the scheme for not delivering specific improvements to the linkages from the station to the rest of the town centre, the rugby stadia and other nearby sites (by the relocation of the bus stops, design and orientation).

It is noted that the station building is recessed into the site and this is to enable a closer link between the ticket office and the platforms (visually and physically). As such it would not be visible from the northern or southern approach.

Clearly pushing the station towards London Road would reduce the size of the public plaza. Whilst set back, various signage on the plaza and forward of the southern building line would provide a visual reference point and in accordance with Legible London signage. In terms of visual links to the town centre the station would be closer to the centre and the reference to it, i.e. taller buildings and active frontages. Upon egress from the ticket office both adjacent buildings splay outwards opening up the plaza to pedestrians. Beyond the splay of Block B and given the use of a permeable barrier between the southern edge of the plaza and Marys Terrace would enable views down London Road towards the town centre.

The splay of Block A would invite pedestrians to the north and whilst the stadia of Twickenham are not clearly visible from this area, directional signage would assist in this regard.

Finally the TAAP recognises that development over the tracks should step down towards the River Crane and Cole Park Road and this is the case with the frontage heights lowering from 7 storeys above the London Road Bridge level to 2 to the north of the site and adjacent to the access road into the site.

A significant benefit of the scheme and in accordance with the Proposal site, is the proposal for a riverside walk linking the site (where the second platform bridge is located) to the Cole Park Road-Beauchamp Road bridge and eastwards to Moormead Park. Describe nature conservation areas

Whilst improvements to the public realm, including a new plaza and the provision of children's play areas and facilities are included on site, the river walk would also allow residents of the development and indeed the general public to access this part of the river and the children's playground and other facilities at Moormead Park. Whilst access between Twickenham and Moormead Park can be obtained via Cole Park Road, this walk would provide a more aesthetic and pleasant route whilst opening up views of a part of the river that is rarely seen in this area.

With regard to the ecological enhancements to this area see section G.

The Stairwell

A unilateral undertaking was submitted before the appeal relating to the Travel Lodge Hotel which agreed to fund, in part improvements to the stairwell linking London Road to Marys Terrace. These funds have been received by the Council

The stairwell is in the ownership of Network Rail and the hotel development's legal agreement could only provide funding for such improvements rather than securing implementation. It was envisaged that any redevelopment of Twickenham Station would include the undertaking of the work required.

The applicant has agreed as a goodwill gesture to undertake the work which includes the provision of an anti slip surface, CCTV, lighting and appropriate signage. This was initially estimated to cost £66,000 with the hotel development contributing 75% of this, i.e. £49,500. The full amount is broken down as follows:

Anti slip surfacing: £8000
CCTV: £20,000
Lighting: £35,000
Signage: £3000

The legal agreement for this application will require the stairwell works to be undertaken as part of this development and once receipts from Network Rail/Solum have been received by the Council to demonstrate that work including the above has been completed totalling not less than £66,000, the Council will release the £49,500 secured from the hotel development. The legal agreement would also secure prior details of the aforementioned improvements.

The improvements of the stairwell represent a significant improvement to the public realm. As set out in the report, the current environment for pedestrians and cyclists is not particularly pleasant, more so in the evenings and whilst the hotel rooms, parts of the residential units in Block B and the southern section of the plaza would allow for passive surveillance, the inclusion of lighting and CCTV in this area would improve the safety and visual appearance for pedestrians and cyclists, deter anti-social behaviour and create an improved link between Marys Terrace and London Road. This is a recognised benefit of the scheme.

<u>The Underpass:</u>
A long-standing planning requirement of the site's redevelopment has been the securing for public use a redundant subway under London Road Bridge to the north of the railway tracks linking the proposed station car park and the Royal Mail (RM) site on the west of London Road.

The subway is in form of a tunnel and was constructed at the expense of the Post Office at the time the London Road Bridge was rebuilt some 40 years ago and gave a direct route from the sorting office on the western side of London Road to the station platforms. This allowed bulk mail to be taken by trolley for carriage by rail, a practice which ceased nationally a number of years ago. The Post Office (now Royal Mail Group) was granted a lease of the subway by the Council and British Rail expiring in 2035 at a nominal rent and with maintenance of the tunnel being with the Post Office. This lease has presented a significant complicating factor in the proposed public utilisation of the subway as RMG has exclusive possession of it and is entitled to gate it which prevents the applicants from offering public access (legal advise that the lessor, Network Rail, cannot remove the gates which have been erected pursuant to a right granted in the lease, as this would be a derogation from grant and as such the RMG are presently considered to have exclusive rights to use this subway). The Sorting Office site is no longer occupied by the RMG and the subway has clearly not been used as a link to the station for the purposes of mail delivery for many years. Furthermore, RMG land ownership interests in the Sorting Office site are due to cease in December. An approach has not yet been made to RMG regarding a possible surrender of its interests.

The benefits of public access to the subway are primarily

- town centre benefits from a reduced need to close London Road/Whitton Road on event days at the RFU as well as providing more direct access to the Harlequins on match days
- reduced traffic congestion
- improved connectivity to the station site

With regard to connectivity, the improvements to the riverside walkway would be enhanced by this linkage as pedestrians/cyclists could use the tunnel to access the new towpath without needing to go up to London Road and cross into the station car park. The pedestrian/cycle link could also be used by residents, college students and possibly in the future on event days to access the station thereby reducing crowds building up on London Road and Whitton Road. Further improvements to link the tunnel with the RFU and Harlequins will be secured when the Royal Mail Sorting Office site comes forward for redevelopment.
While it is anticipated that the legal agreement will be able to safeguard through this application the subway's future use as a pedestrian link subject to agreement by the relevant parties, this cannot at this stage be guaranteed.
It should be noted that this is an issue of concern to both the GLA and TfL.

Affordable housing
Core Strategy policy CP15 sets an affordable housing target for the borough over the LDF period (2009 - 2024) of 50% of all new residential units constructed. This affordable housing is required to have a tenure mix of 80% social rent and 20% intermediate housing. At sites capable of accommodating 10 or more units, this contribution should be at least 50% on-site provision.

With the adoption in November 2011 of DMP policy DM HO 6, the emphasis of Council policy when negotiating affordable housing provision has been altered so that there is now a specific requirement for individual site circumstances to be taken into account as well as the strategic borough wide target set out in CP15 above.

As the UDP site proposals have not been expressly adopted as part of the LDF (these would be set out in the future Area Action Plan/Site Allocations Document) the affordable housing requirement would be that set out in the Core Strategy, i.e. 50%.

The expansion text to DM HO 6 continues to recognise that the Council's preference is to secure on-site provision but as set out in Core Strategy, Section 7.2 Costs and Viability, when considering proposals and the level of financial contribution offered, the Council will have regard to:

- economic viability
- individual site costs
- the availability of public subsidy and
- the overall mix of uses and other planning benefits

The Core Strategy stipulates that an on-site affordable housing provision of 50% is required and this equates to 58 units.

The current application proposes no affordable housing on site but proposes an off-site financial contribution to fund provision on alternative sites in the borough should the scheme achieve overage when built out. The Council's Housing and Planning Policy teams have calculated the required financial contribution towards affordable housing as £5,780,537 and

the applicants have submitted a financial viability study of the development economics to demonstrate the level of contribution possible. This is a material planning consideration.

Economic Viability
It is recognised by the Council that there may be circumstances where affordable housing and contributions to other planning obligations (see section on Infrastructure Provision) may make a particular scheme unviable for a developer. This might be due to additional costs linked to construction which appears to be a key factor in this scheme. While policies allow for exceptions to be made should this be the case, this will need to have been demonstrated by the applicants through the submission of a viability appraisal which is then verified by an independent financial viability assessment conducted by an assessor appointed by and reporting directly to the Council.

The applicant's viability appraisal submitted with an application is required by para 7.2.7 of the Core Strategy to demonstrate the maximum value of the completed development compared to total construction costs to demonstrate the amount a developer could contribute to affordable housing, either through on-site provision or off-site financial contribution, whilst allowing the developer sufficient profit to justify the risk of development. The methodology to be used is that set out in the GLA's Three Dragons or such similar models. In this case, the applicants have submitted a HCA Economic toolkit (EAT) to support their case. This is a form of appraisal considered acceptable by this Council.

While the EAT contains commercially sensitive information and is not publicly available, an Affordable Housing Viability Executive Summary was submitted for release in the public domain.

The EAT has been independently reviewed by DVS, a valuation consultant appointed by the Council whose findings on construction costs, developer's profit and final valuation of the development are set out below.

Construction Costs:
The Raft (Phase 1)
The applicant's viability consultant has explained that the raft and superstructure design has been influenced by a number of factors, primarily the span of the deck over the tracks, the constraints of the site and the minimum requirements of Network Rail's own standards and Eurocodes. The deck construction, supporting walls and piled foundations are not actually governed by the building's above the raft nor their heights. DVS have confirmed that, in their view, the piling and span of the raft is not considered to be 'over engineered'. The depth and width of the supporting columns are not exaggerated (which would have incurred additional cost) to support a much larger development than that proposed by this application.

A considerable cost to the development clearly derives from the act of constructing a raft over and near the railway tracks. This is due to a number of factors:
Piling and erecting the raft's supporting columns in close proximity to the railway tracks
The craning of materials over the tracks
The positioning and construction of the raft itself

During these stages of construction, the station needs to be closed to all passing and stopping trains (principally due to health and safety). Such construction times are known as track possession periods.

There is much uncertainty with regard to the cost element. This is mainly because the number and length of possession periods available are unknown at this stage not least because the applicant has yet to have a final tender for the work. The duration of the possession periods has a significant influence on the efficiency and progress of the build

programme and hence the cost of construction the raft, some of the main reasons are set out below:

- long possession periods (56 - 72 hours) allow operatives uninterrupted periods of work

- short possession periods lead to non-economic use of plant given the frequency of site and plant assembly and decommissioning/dismantling – the construction of the raft will involve specialist equipment and personnel

- short possession periods cause more frequent delivery of materials, higher transportation, labour and general construction costs, including piling

It is noted that the construction of the raft is unlikely to now coincide with the works to lengthen the station platforms at Twickenham and nearby stations (being built at the time of writing) i.e. 'piggy backing' on the possession periods already agreed and thereby limiting the amount of times the station would be required to be closed, the compensation to the train operating companies and inconvenience to commuters.

Network Rail have also advised that assurances of long possession periods cannot be given at this stage to the applicant, or the Council, and that the work may need to be carried out in shorter and more frequent timeframes as accounted for in the EAT construction costs section. The reasons for this are set out below:

1. Shorter but more frequent possession periods - Due to the short notice that the developer will be able to give to Network Rail and the Rail Regulator the possession periods that are likely are limited in terms of time span with many allocated between the last train on Sunday evening/Monday early morning and the first train on Monday morning i.e. 3.5-4.5 hours. Therefore the number of possession periods required would increase given the limited period of work on site.

2. Other line closures - The platform lengthening works currently taking place at Twickenham Station will be rolled out to all stations on the South West branch. Many of these are planned for 2013 and when these are taking place on the Hounslow loop the Mortlake to Whitton loop will not be able to close down as this would effectively stop all trains between London Waterloo and Reading/Windsor. Other line works planned for 2012-14 include major enhancements to Reading Station.

3. Bus replacement services - Further to the above point, bus replacement services whilst acceptable when transporting commuters along a line between two points are not feasible when commuters are required to transfer from one bus to another on a single journey.

4. Summer interruption - South West Trains prefer not to see interrupted services in the weekend summer months (Easter/May to the first week of September) as this has a significant impact on services to tourist locations such as Windsor (castle, park and Legoland) and Staines (Thorpe Park) and indeed conflict with events at Twickenham Stadium (summer concerts and other sports events aside from those mentioned below).

5. Other interruptions - Possession periods are furthered hindered due to events at Twickenham Stadium in winter/spring due to the 6 nations rugby tournament and the international rugby games in Autumn and two weeks during 2012 the London Olympic Games where the cycle race route includes Twickenham and St Marys

University College which is a training venue for many countries during the Olympic games including China and South Africa.

6. Reduction in possession periods - The Office for Rail Regulator is seeking to reduce possession periods by 39% in Control Period 4 which translates to 2012/2013 period.

7. Cancelled/delayed services - South West Trains advise that a possession on the station during summer months would result in delays and withdrawals of other services and frequency of services to other stations with bus replacement services incurring delays of up to 30 minutes.

Taking account of all of these considerations, the EAT has allocated a conservative construction cost of £4million to the raft. The Council's independent assessor accepts that while these costs are not broken down and appear to contain a high element of contingency, the risks in this construction process are high and that this cost can be accepted at this stage of the design process subject to a full audit/review of the construction cost of this element on its completion.

Other Construction Costs (Phase II)
The majority of the costs set out in the EAT, with the exception of the raft, were considered by DVS to be within acceptable tolerances for this stage of the design process.

Profit margins
The EAT shows that the developer has adopted a 17.5% return based on the value of the completed development. DVS consider this to be a reasonable rate to expect a developer to require in the current economic climate given the scale of investment to complete a large development of this type with a complicated construction programme .

Value of Completed Development (Gross Development Value)
The residential element of the development has been valued in the EAT taking into account the achieved sales prices throughout 2010. The sales values in terms of a price per square metre are lower in this application (compared to application 10/3465/FUL) and this is due to the very large nature of some of the units. Concern is raised that the larger units mean that the development value is not being maximised as a large number of units, at more standard sizes, could result in a higher overall value. Nonetheless, the units' sizes and shapes are in part due to an overriding planning requirement set by the Council to reduce building heights and the total number of units on site. This has thus resulted in many units being larger than the minimum room size requirements because of the position of stairwells, lift shafts and supporting walls and it is accepted by DVS that the reconfiguration and reduction in size of units (to produce a higher number of standard size units and thus increased GDV) was not pragmatic.

It was identified during the planning assessment that a number of the one bedroom units contain studies/offices and whilst this is not unacceptable (Lifetime Homes require such space within developments), those rooms with access to outlook, light and ventilation and above 7sq.m (the minimum size for a single bedroom) are capable of use as a bedroom and could be marketed as 2-bedroom units. DVS have hence undertaken a revised analysis of the re-designated units which has shown

DVS do not dispute the EAT's average sales values noting that whilst there is limited relevant new stock to provide figures, the values used are 5-15% higher than those marketed in the location however these tend to be 'second hand space'. Consideration has been given to other new development currently marketed for purchases off plan at 122 Heath Road, Beaumont House, The sale prices at this development seem to be slightly higher for 2 bed units and slightly lower for 1 bed units compared with the values adopted in

the toolkit on the station scheme. Whilst the amenity around Beaumont House is possibly better (albeit still fronting a main road) the transport links are clearly much poorer (albeit in close proximity to bus services).

Commercial rentals
The rentals set out in the EAT are considered by DVS to be a little conservative for a station with over 5 million passengers passing through it per year.

The independent assessment found that the GDV based on current market conditions in the borough is marginally higher than that set out in the EAT but the overall impact on the viability of the scheme would be limited to a figure within the range of £20, 000 and £120, 000 (based on the new raised education contribution of £293,000 and ecology contribution of £32,000).

Viability Conclusion
Whilst it is the view of the Council's assessor that the proposed development could currently provide a small increase in the Section 106 contributions and remain viable, it cannot support any Affordable Housing on-site and that the required scale of financial contribution to the Council's Affordable Housing Fund can only be secured through overage payments

It is also noted that Solum, the applicant, is not in control of any other land in the borough to allow the provision of affordable housing at a linked off-site location borough in accordance with para 16 of the SPG on Affordable Housing It should be noted that the current SPG is due to be superseded by a revised draft SPD early next year which adopts a neutral stance on linked sites as an alternative to on-site provision or financial contribution to the Council's Affordable Housing Fund.

Individual Site Costs
The cost of constructing the raft has been identified as the main element in the cost plan that is not priced accurately for the reasons given above and could significant affect the proposal's development economics.

Local objections are noted that cost of the podium drives the requirement for residential development above it, i.e. the enabling development and thus becomes a 'self fulfilling prophecy'. Without a podium across the tracks, the site is unable to optimise development and the other disadvantages have been highlighted earlier in the report. Indeed one of the two options put forward by TRAG includes development over the railway tracks, which can only be achieved by creating a platform above them.

It is hence considered necessary to ensure that the actual cost of construction is audited as a separate item. The overage mechanism is hence recommended to require an appraisal to be conducted at the conclusion of this phase of construction, to be termed phase I and any cost savings which lead to the cost of the raft falling below the £4million estimate in the EAT, being passed directly to the Council.

The Council's Housing section has confirmed that houses are the preferred unit type for the delivery of larger family homes (3 bed and above). The South West London Housing Partnership Investment Framework identifies Richmond's preferred unit mix for 3 bedroom homes as being 80% houses and 20% flats. Where units are provided as flats, private amenity space (usually in the form of a balcony) and access to shared amenity space (e.g. a communal garden) is preferred.

Other Planning Benefit
The creation of the new station, station plaza, river walk, river crane enhancement work, playground and other external works linked directly to the proposed development offer a very

significant planning benefit for the local community and the public realm. It is noted that neither the cost or value of these elements have been separately highlighted in the EAT appraisal.

Investment by Network Rail into other station improvements (platforms, footbridges etc) at the station are also triggered by this development's legal agreement, this investment will be within the range of £1.2m to

Finally whilst it is regrettable/unfortunate that no such housing can be provided and aside from the financial reasons for doing so this has to be balanced against a number of factors, these being:

1. The importance of the station to provide an adequate facility to serve the stadium specifically for the Rugby World Cup and other world class events in London.
2. The strategic importance of a new station to provide a catalyst for regeneration and a gateway to the town centre
3. The improved environment and accessibility for residents, the business centre of Twickenham, visitors and tourism.
4. The reduction in massing and height due to the removal of such units albeit not limited to just affordable housing.

Given the conclusion of the independent financial viability assessment of this particular proposal, the potential cost of constructing the raft, the lack of public subsidy to secure on-site affordable housing and the competing planning priorities, on balance, a scheme providing the upgraded station facilities and other planning benefits listed above is considered to outweigh on-site affordable housing provision. This is however subject to the applicant agreeing to an overage clause as part of any S106 agreement tied to the planning permission.

Overage Clause:
The reason for a clear phasing of development is critical to the overage clause mechanism and the staging/timing of future financial viability assessments submitted by the applicant and reviewed by the Council's assessors.

In view of the lack of clarity regarding the construction costs attributable to the raft in the submitted EAT, albeit understandable given site circumstances, it is considered important that the first appraisal submitted to the Council is submitted once this work is undertaken and the actual build costs linked to the raft (phase I) are known. This approach allows for those financial contributions, to affordable housing and other planning obligations, which are currently deficient to be secured at that stage.

The second part of the overage clause will allow the Council to assess the gross development value of the site once a significant portion of the residential units have been sold. This will allow actual sales values to be assessed and considered against the base value (i.e. GDV – build costs) and along with the costs of the raft to establish the improved profit. If this is higher than the developer's return established in the EAT, and on which the developer has committed to the project, the revenue will be split with the developer (to provide an incentive to make efficiency savings and optimise sales values) and to achieve the required financial contributions towards affordable housing and infrastructure. This figure is capped at a maximum sum in accordance with the relevant government circular. This appraisal to establish overage is required to be undertaken on completion of development or by a longstop date set at 3 years from the start of development.

As explained in the Planning Obligation Strategy section below, if cost savings are made during the construction of the raft or from overage in phase II, an initial payment of £300,000

(not split with the developer) would be secured towards essential infrastructure improvements (the additional education contribution, public realm and monitoring contribution) whereas the next £1m (subject to an additional profit split of 50/50 with the developer) would be prioritised for affordable housing with any additional funds set aside with a priority on affordable housing.

With regard to payment, the legal agreement will allow the council to take receipt of the cost savings from phase I although this may be given back to the applicant to aid cash flow if adequate justification is provided by the developer. The savings would thus be provided to the Council (to offset the shortfall in infrastructure contributions and lack of affordable housing) rather than forming a contingency payment for the applicant if phase 2 costs and sales were not similar to those in the financial appraisal.

Small units

32% of the development would comprise small units (i.e. 37 x 1-bedroom flats) with the 57% comprising 2-bedroom units (66 units). Since the drafting of the Proposal Site, policy DM HO4 has been adopted which seeks an increased emphasis on providing family sized housing, although it continues to recognise that within town centres a higher proportions of small units would be appropriate, as set out in Core Strategy Policy CP14. The proposal for larger units, including some duplex units and some with private gardens is considered appropriate to this location and will thus provide a choice of housing types.

It is set out below that the number of 1-bedroom units could be reduced by 14 units and thus represents a lesser ratio of 20% if their studies are used as bedrooms and whilst this has been considered below with respect to values and increased financial contributions towards education in particular, the provision of an office may be attractive to certain purchasers and not necessarily used as a second bedroom.

The GLA consider that the number of three bedroom units which would provide family accommodation to be acceptable given the site's location and context.

B. Impact on the appearance of Twickenham


Twickenham Station
Twickenham Station

PPS1 encourages local planning authorities to identify suitable locations where tall buildings area, and are not, appropriate. In furtherance of this advice, this Council has adopted In its DMP document DM DC 3 which identifies Twickenham Station and those surrounding sites referred to in the SPD as being appropriate locations.

This policy does not define rigorously what is to be regarded as a tall building, however the current proposal which is set within a context that comprises, in part, 2-storey residential houses is clearly one that will be perceived as tall by those neighbours affected. Further to this policy the following design criteria (summarised) need to be met by this development

- be well designed and to make a positive contribution towards the skyline and the surrounding area
- respect, preserve and enhance the borough's heritage assets
- respect the local context and character
- respect the amenity and privacy of nearby residential areas, including microclimate and overshadowing (discussed in later section)
- demonstrate a high level commitment to sustainable design and construction (discussed in later section)
- include a mix of uses, including functions that are accessible to the public, particularly at ground floor level (such as restaurants), in order to ensure successful integration into the surrounding area (discussed in prior section)
- Include safe, attractive, comfortable and accessible amenity/open spaces designed to support social interaction and engender a sense of place.
- buildings will require a full design justification including a townscape appraisal and historic area assessment

The detailed design guidance on building heights included in the SPD - Twickenham Station and its Surroundings is also referenced.

Skyline and surrounding area

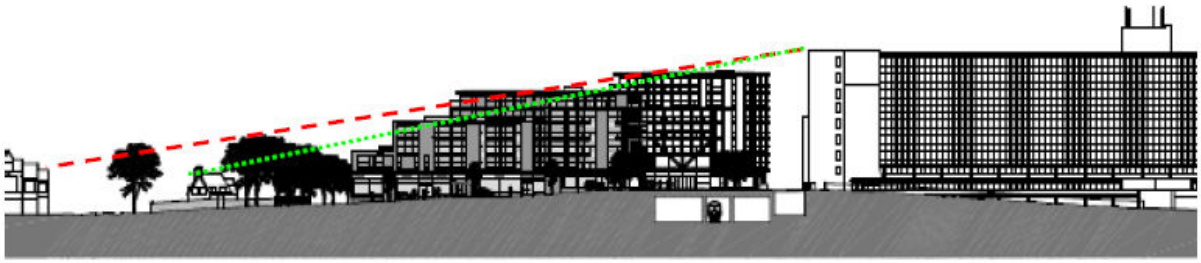
The urban pattern of development along London Road as the application site is approached from the south is one where building heights and mass get progressively larger culminating in an uneasy and immediate drop off from Regal House and the recently erected hotel to the east and Bridge House to the west onto the application site and railway lines respectively. This leaves a hard boundary to the north of the town centre in direct contrast to the softer boundary to the north of the application site with the River Crane corridor.

As held by the Planning Inspector, 'the northern elevation of the hotel would be a great improvement over the existing Regal House façade' and whilst this creates a bookend to Regal House the transition between the building and station site towards Cole Park Road is still immediate and not gradual.

Given the low height and scale of the Royal Mail sorting Office buildings, the open nature of the railway station site and its surroundings and the domestic scale of the properties to the east and west of the London Road frontage buildings, the application site is exposed and a void save for the ticket office and platform bridges where any significant form of development would be visible in the townscape.

With regard to transition, Block B the furthest building south would have a height of 7 storeys above the plaza and London Road Bridge stepping down to 4 storeys where it 'converges'

with the 6 storey building of Block A which in turn falls down to 4 and two storeys as it nears the northern boundary of the application site.



Above: London Road Elevation

In the immediate context the site is viewed in two forms, an elevated view being that on London Road and a lower elevation where the would be seen atop of London Road Bridge, i.e. Mary's Terrace, the area to the west of the site near the Albany Public House for example and Cole Park Road.

As seen in the long west elevation it is considered that the height provides a suitable transition from the south to the north with sufficient gaps between it and the hotel and Cole Park Road properties which is not considered to appear cramped or contrived. The proposed development would have a height and form that would not break or puncture' the skyline or appear incongruous in this respect from London Road.

In terms of the lower views of the development the view from the west (taking the area around the Albany Public House as a point of reference) is mitigated by the distance and the foreground development of Bridge House and London Road Bridge. The development would not have a flat façade due to the proposed geometry with Block A being a transition block between the hotel and Cole Park Road, indeed the higher element of the scheme (Block B) would be set back from Block A and the height shown in the 2 dimensional drawing does not reflect perspective where Block B would appear lower with the heights not appearing higher than Bridge House. As such it is considered the skyline in this respect would not be adversely affected by the development.

With regard to Cole Park Road the upper floor sections of Block A and B are recessed to the south of the site with the closer elements staggered to a lower height. Furthermore these elements are not particularly deep and seen with the backdrop of Regal House's southern 'wing' and the intervening trees on the River Crane corridor it is not considered that the skyline would be affected to an adverse degree.

The impact on skyline when viewed from Mary's Terrace would be seen in the context of Regal House and the recently erected hotel. It is important to note that the whilst the 5th and 6th floor of Block B are set further west than the upper floors of Regal House and the hotel, these would be 5m lower than the hotel and again this elevation is not a flat façade with the southern section chamfering away to the east and the south western section of Block B appearing recessed in this context. The 4th floor of Block B would align with the 6th storey of the hotel which projects marginally further east than Block B and the 3 storey section of the hotel then projects further east than the lower floor of Block B.

As such the skyline when viewed from Mary's Terrace and the east of the application site is considered to be acceptable.

Further afield and as demonstrated in the applicants Townscape & Visual Impact Assessment views of the proposed development (from Moormead Park, the Craneford Way

playing grounds and elevated positions such as the pedestrian bridges over the railway lines to the east off of Amyand Park Road and the west off of Marsh Farm Road) where not obscured by existing built form or vegetation reveal that there is sufficient separation that enable the height and form sit comfortably with the surroundings without the skyline being interrupted to an unacceptable degree.

The impact on views from Richmond Hill is covered in the section below.

With regard to the design the objectives of the Proposal Site and Core Strategy are met insofar as the provision of a new station which announces itself onto a public plaza and thereafter London Road, allows for public access through the development onto a riverside walk with a clear variation and modulation in height with suitable gaps retained between the existing and proposed buildings.

It is therefore considered that the development is well designed with particular reference to the approach of providing an innovative element (southern element of Blocks A and B), an interpretation element to provide a more domestic articulation of the light contemporary southern section (northern element of Blocks A and B) and a replication approach to Block C with a traditional skin.

The Borough's heritage assets:

As set out in the site description the site itself has no 'urban design' designations although within the surrounding townscape there are two conservation areas a number of BTMS and within the immediate context a Grade II listed building.

Listed building impact:

Heatham House, a Grade II listed building is sited to the north west of the site and to the west of the Whitton Road-London Road junction. Given the set back of Heatham House into its gardens, simultaneous views of the building and the proposed station buildings would be limited particularly by the amount of mature trees within the site on the southern boundary with the River Crane.

Impact on adjacent conservation areas:

The site does not lie within or immediately adjacent to a conservation area although Queens Road and Amyand Park Road Conservation Areas lie to the south west and south east respectively. Both are predominantly residential in character and comprise Victorian and Edwardian housing.

The proposed development would be seen from sections of the Conservation Areas however there would be many parts of these areas where it would not be seen at all.
Where views of the proposed development would be seen it would be in the context of Regal House and other buildings fronting London Road with a mass more so than that of the surrounding residential development. As such the proposed development would have no discernible impact on the setting of the Conservation Areas and there would be no conflict with the statutory requirement on the desirability of new development outside Conservation Areas preserving or enhancing their character or appearance.

Impact on Buildings of Townscape Merit (BTM):

As previously mentioned the row of Victorian style terraces to the south of the station on Marys Terrace are designated as Buildings of Townscape Merit.

The relationship of these properties (particularly those to the west end of the road) is onto a 2m high wall which is interspersed with a 'tombstone' style wall approximately 4m in height (initially erected for the purpose of housing advertising within the station) which separates Marys Terrace from the station and the tracks that run parallel to it. Beyond this there are glimpses of the platform canopies in addition to the platform bridges to the east and west. Further to the east the Beauchamp-Cole Park Road footbridge is visible.

Whilst the cottage terraces on Marys Terrace have an attractive appearance and character, the section of public highway between them and under London Road is not of visual value being sandwiched between the car park to Regal House and the boundary wall to the railway which has numerous sections painted with graffiti. Other than the stairwell from Marys Terrace to London Road (which is not a particularly pedestrian friendly environment) this section of Marys Terrace has limited function save for the cycle route, access for emergency vehicles from Railway Approach and permit holding parking spaces.

The proposed development would be set 28m and 33m from the nearest BTM to the east. It is noted that the hotel development extends a lot closer to these properties at both 6 and 3 storey heights and given the degree of separation between the terraced row and development it is not considered to be seen as unduly harmful to the setting of these cottages.

The cottages are also seen from the vantage point of the railway platform crossing however given the context of the foreground (the station and its tracks) and the background (Regal House, the erected hotel and part of Bridge House) it is not considered that the proposal is harmful in this respect. Indeed the Planning Inspector noted on the appeal for the hotel development that given the scale of Regal House, the development would not provide a background so much more dominant as to fail to preserve the setting of these houses when seen from most of the surrounding area. Whilst it is appreciated that the proposal would be wider than the hotel development there is nothing remarkable about this area with views of the boundary wall, access bridges and gantries being prominent in the context of the open background (from road level there are limited views of the very top of the trees within Heatham House). The development would fill in much of this area however having regard to a 4/5 storey development in this area and the difference between the sky seen above the roof of the proposal and the open skyline to the north it is not considered that the proposal would have a long term detrimental impact.

As stated by the Planning Inspector with regard to the hotel, the juxtaposition of the cottages with larger buildings is not uncommon on the fringes of town centres

Given the distance between the development and these buildings and taking into consideration the existing dilapidated structures on the station site, it is not considered that the proposal would detract from the setting of these buildings.

With regard to the BTMs in Cole Park Road particularly no. 2 and 4 there would be a suitable separation between the development and its mass as it scales down to the north so that its setting it not unduly compromised. It is considered that no. 4 and those further west are significantly separated from the development.

Richmond Hill views and the skyline:

Whilst the location is not visible from any of the defined view locations set out within the London View Management Framework it would be from Richmond Hill which is the only view in England that is specifically protected by an Act of Parliament.

As demonstrated and witnessed from Richmond Hill, the proposal would not break the skyline and sits just below the horizon. Whilst Regal House is visible in this view, this is also true of a number of other buildings both in the foreground and background and are in part due to its colour as well as its footprint, mass and height.

With regard to the impact on the skyline and views from Richmond Hill, the SPD states that any proposed building should not create a similar townscape impact experienced by Regal House and that a clear variation and modulation in height and gaps between the existing and proposed buildings is required with a wall of development not considered appropriate facing London Road.

The colours of the proposed materials are muted with a balance struck between being too light and obvious in the landscape such as Regal House (where the Planning Inspector held that "the light coloured finish to the building (Regal House) makes it stand out in an area where properties are generally built out of darker materials") or too dark and heavy.

Further to the section above that deals with massing and the objections received which require a cluster of buildings, it is considered that the view from Richmond Hill is too far away to register gaps between buildings even if they were proposed. Furthermore the angle viewed would present side elevations that would appear to gel the buildings together although such variations in height and separation of buildings would be appreciated in closer views as set out above.

Local context and character -

It is evident that the urban grain fronting the northern approach of the town centre (London Road) is defined by property/buildings with particularly large footplates (the railway station, Regal House, Premier House, Bridge House, the former Post Office Sorting Site) within single ownership and having a tighter urban grain predominantly comprising two storey residential properties surrounding this.

The Design Quality SPD sets out that London Road is fronted by continuous rows of Victorian and twentieth century mixed use parades where towards the south east the areas contrasts with a more village character.

In terms of heights, scale and massing the majority of the built form fronting London Road, particularly close to the site are significantly higher, occupy a larger footplate and have wider frontages to the frontage buildings further south and towards King Street. Regal House, Premier House, Bridge House and Chatsworth House comprise 10, 5, 5 and 4 storeys respectively whereas the London Road properties further south are predominantly 2-3 storeys with a few exceptions. This is recognised by policy DM DC3 where an area including Twickenham Station (albeit excluding Premier and Chatsworth House) is identified where the policy on taller buildings applies (4-5 storeys).

In streetscape terms the built form from the junction of King Street with London Road progressively increases in height, mass and scale towards the application site where it is immediately brought to a stop adjacent to the railway lines.

Whilst it is clear that the proposal would not comply with the policy DM DC3 and the preceding SPD on Twickenham Station and its Surrounds insofar as heights (9 storeys above Mary's Terrace where 4-5 storeys is the requirement) the policy states that where heights would be above this, the above will only be acceptable subject to a full design justification based on a comprehensive townscape appraisal and there being significant local community support for the public benefits of the overall scheme.

The Twickenham Area Action Plan is a working document and sets out the future aspirations of the town. The section of this Plan referring to the northern approach has been amended to state that such development would be acceptable subject to significant transport investment and support.

The applicants have produced a Townscape and Visual Impact Assessment (set out in the section below) and it is clear from the public representation received that there is support for the proposal. With regard to the Twickenham Area Action Plan it is also clear as set out in the preceding sections of the report that investment would be secured not only to the transport interchange but to the platform environment as well (and secured through the legal agreement).

With regard to heights it is noted that Bridge House complies with the aforementioned policy and SPD albeit that the floor heights are higher than those seen on the proposed development. Indeed the height of the 5 storey high Bridge House is the same height as the 6 storeys to Block A. It should be noted that the top two storeys of Block A are set back from the main façade of the building and whilst it is noted that the SPD requires roofs to be considered as a storey, in streetscape views the set back of these storeys, predominant use of lighter materials such as glazing would soften this impact and allow a degree of balance between this block and Bridge House.

The proposal in this respect is considered to comply with the seven objectives set out in the Design Quality SPD which seeks to promote:

- Character – this is achieved in the response to distinctive pattern of development and urban grain set out above with the development responding to the softer River Crane corridor landscape.
- Street frontage continuity and enclosure of space – the provision of retail on the London Road frontage aids the continuity of the town centre and defines the public spaces (plaza) within the site. The more intimate scale of Block C and landscaping around it defines this area as being semi private.
- The public realm – discussed below with effective public places and routes and opening up of the River Crane.
- Ease of movement - the site would be accessible to public transport without detriment to the pedestrian environment and aids permeability and ‘wayfinding’.
- Legibility – the development would be a landmark building with a clear emphasis on the station entrance, the role of the plaza and the environment surrounding it (minor retail and links to the riverside walk).
- Adaptability - a degree of flexibility is incorporated into the design with the retail units and residential elements (compliant with Lifetime Homes except Block C) whilst meeting sustainable criteria.
- Diversity and choice – the development is inclusive and allows for a range of mixed uses and sizes.

Insofar as materials the streetscape is varied with a red brick dominating the Waitrose building, Bridge House, Chatsworth House, Allied House and the police station. Regal House has a light blue render finish with horizontal glazing strips.

As set out in the description of development, the proposed building blocks comprise a mixed palette of materials. With regard to Block A and B these reflect the modern nature of the building with light brickwork, metal cladding and glazing adding interest and variation with particular emphasis on certain elements such as the station’s entrance.

The materials on the larger buildings in the vicinity of the station typically reflect the period in which they were built with an emphasis on brickwork, flat roofs and horizontal in form.

As the proposal would be a building of its time it is important for the materials to reflect and compliment the design and its geometric form and the materials are considered to be of a high quality finish in this respect and details of these would be secured by condition.

The colours of the proposed materials are muted with a balance struck between being too light and obvious in the landscape such as Regal House (where the Planning Inspector held that "the light coloured finish to the building (Regal House) makes it stand out in an area where properties are generally built out of darker materials") or too dark and heavy. Whilst the materials are not commonplace in the streetscape the Design Quality SPD recognises that in an environment such as this (the northern approach) where there is not a strong sense of character through the use of materials, that an 'elegant contrast' to the solid massing of Regal and Bridge House can be achieved.

Given the sensitive nature of the northern part of this site and its relationship with the River Crane and the domestic scale of the built form on Cole Park Road, the northern elevation of Block C has adopted a traditional design and the materials proposed on this façade attempt to reflect this, that being a predominant brick, sash windows, zinc roof and traditional proportions. The brickwork would be the same colour and texture used on the larger blocks and this helps to marry the development successfully without Block C appearing at odds with the rest of the scheme.

With regard to residential density, the density equates to 119 units per hectare. Removing the non residential units, the site area is reduced to 0.88ha and the site density over this equates to 130u/ha. With the riverside walk section removed the density would equate to 160u/ha.

The proposal would accord with the London Plan's density matrix where the optimal density range for the site is between 70-260 u/ha.

The area of site coverage by buildings is approximately 29% of the site area and when excluding the riverside walk area, 40%. This clearly indicates that there is a suitable amount of open space between the main blocks of A and B and around the site in general, mainly in the form of the public plaza, but also the open areas to the north fronting the River Crane.

With regard to mass and scale, whilst it is considered that the horizontal nature of Regal House is followed through with this design there are sufficient variances in height within and between the 3 development blocks, separation of these blocks and articulation through the angles of the buildings and mixed palette of materials to prevent the concern raised by objections that this would appear as an unrelenting and monotonous mass of wall along the London Road frontage.

As such it is considered that the scheme complies with the aims and objectives of SPD in that the proposal does not compete with Regal House in terms of scale and immediately begins to make the transition between this high point and the residential area to the north. Whilst lower than Regal House, it retains a scale that announces the station's presence and would be clearly visible from the main shopping and commercial area.

The set back of Block B from the highway and from the hotel given the width of Marys Terrace and separation with Block A would ensure that this would not be seen as an extension of Regal House. Indeed this is seen as an upgrade to that seen in the form of Regal House and the extension of it in the form of the hotel. The objections are noted from

the public regarding the shortcomings of Regal House however it is worth noting that the Planning Inspector held that 'it is an interesting building and one typical of its period'.

With the exception of the southern section of Block B onto the plaza and Marys Terrace the buildings do not drop off from roof height to ground level in one plane either towards the plaza and London Road or towards the River Crane and Cole Park Road and as such references to the development being 'cliff like' are not completely representative of the design.

Block C's treatment is one that provides a traditional elevation towards Cole Park Road and the River Crane corridor whilst maintaining a contemporary skin to the south elevation. Through the use of similar materials this block and wing to Block B marry successfully allowing a more domestic scale to the Cole Park Road properties and riverside walk.

Block A would be set back from the kerb with London Road by 4.8m. In terms of building lines, the aforementioned block would be further forward of the Regal House and hotel development (12m) albeit it separated by 40m. To avoid a continual line of development it is important to break this by having a different set of building lines, heights and form.

Whilst views of the building would project in front of the building line on London Road these are not considered intrusive.

Whilst set back further than the existing development Block A would appear to have a comparable scale with Bridge house whereas Block B provides a visual link and transition between Block A and Regal House/hotel buildings.

Given the size of Regal House and its southern wing views from the south and south east are limited and restricted in part to gaps between buildings and then these are at some considerable distance.

It is considered that the development relates to the town centre frontage along London Road whereas the rear elements of the scheme (Block C and the northern section of Block A) seek to respond to the softer rear boundary off the River Crane and the domestic scale of properties on Cole Park Road.

In this respect the development staggers down to two storeys on the corner of Block A and the access road into the station and thereby allowing the development to act as a gateway for the town centre. Block C would be 4 storeys in height and set back suitably from the Cole Park Road properties with a traditional frontage thereby enabling an easier transition between these two elements, notwithstanding the lack of Georgian properties along this section of Cole Park Road.

The development would be visible from Cole Park Road particularly between the gaps in houses however further views north are restricted in part due to the extensive street tree coverage.

Further to the section above that deals with massing and the objections received which require a cluster of buildings, it is considered that extended views in the borough including those from Richmond Hill and Richmond Park are too far away to register gaps between buildings even if they were proposed. Furthermore the angle viewed would present side elevations that would appear to gel the buildings together although such variations in height and separation of buildings would be appreciated in closer views as set out above.

Public realm design

The construction of the raft would provide a significant area in front of the station entrance allowing the identification of the station entrance in the streetscape (London Road), a public plaza befitting of a gateway location and not uncommon at such transport interchanges for waiting, socialising and relaxing and a holding area on event days at Twickenham Stadium. The development as set out in the description of development also comprises two other public open spaces, these being the lower plaza and approach to the station where the taxi rank and kiss and ride area is proposed and the amenity space to the north of Block C with the riverside walk to the east of this.

Save for the majority of the riverside walk (where this is framed by the River Crane and railway line), all these public spaces are well designed having a large degree of passive surveillance from the overlooking residential units whereas the main public plaza would benefit from an active frontage with shops and a café fronting in addition to the station entrance bordering it.

The large plaza between the south facing elevation of Block A and the west facing elevation of Block B allows a clear view and focus of the double height entrance to the station's ticket office and platforms beyond. Given the size and open aspect of the plaza, it is not considered that the height of the adjacent buildings would render this an inhospitable environment. The offshoot of the plaza towards the taxi rank, kiss and ride area and river walk is a lot narrower however this allows views to be channelled towards these areas.

In line with the Design Quality SPD the upper plaza would be relatively simple with limited clutter save for the main totem sign for the station, the bollards and lighting columns. Planters and restaurant furniture would be limited to the periphery. In addition to this the plaza would enable the movement of the art sculpture that is currently positioned in front of the station.

Soft landscaping is proposed with trees in the plaza, the link to the taxi rank and London Road frontage. This would soften the environment allowing the function of the plaza to be reinforced. The design provides clear delineations between public and private space which is essential in ensuring that crowd control and access would be effective.

The plaza and open aspect onto Mary Terrace with the use of railings/glass balustrades will allow surveillance of the Marys Terrace stairwell and route under London Road Bridge thereby deterring anti social behaviour and an improvement to the pedestrian environment in this area.

The creation of a riverside walk from the play area to the north of Block C and accords with the London Plan's requirement to enable public use of the Blue Ribbon Network - a spatial policy element of the Plan covering London's waterways and water spaces, including land alongside them.

Access to the riverside walk is provided by a pedestrian path from London Road running parallel to the access road and indentified by the landscaping along the river Crane and that within the amenity area adjacent to Block C. Access to the riverside walk from the upper and lower plaza would require crossing the access road however it is not envisaged that this would see a lot of traffic given that the predominate parking is for commuters and the access road and pedestrian path would be designed with a unified 'shared space' treatment, with pedestrian areas clearly indicated by low kerbs and light grey paving slabs in contrast to the road treatment.

The site is not within an area defined in the Proposals Map as deficient in public open space and as such the provision of additional public space is welcomed particularly where this would provide links to wider network of open spaces such as Moormead Park and therefore compliant with DM DC1 and DM OS6 and the criteria set out in the Public Space Design Guide.

Security:

The majority of all public areas within the development save for the eastern section of the riverside walk (which in any event would be closed in the evenings) would be overlooked by the balconies and windows of the apartments with the ground floor commercial uses in Blocks A and B providing an active frontage to assist natural surveillance across London Road and the Station Plaza.

Surveillance would also take place from Blocks B and C of the station platforms although clearly not the case from those units that upon down on the platform canopies.

The cycle store for station users would be managed in order to reduce the risk of theft (installation of CCTV and suitable lighting) whilst the residential cycle stores will be secure to reduce the risk of theft.

A lighting strategy has been submitted setting out a series of interesting and modern lighting columns within the plaza and 'in-ground' LED lighting leading to the station entrance. The stairs leading to the lower plaza would have a recessed lighting and bollard lighting would line the pedestrian path from London Road towards the riverside walk. Other than two bollards, no lighting is proposed within the riverside walk area as this would be closed to the public in the evenings to preserve amenity, nocturnal wildlife activity and security. .

Townscape appraisal

The applicants have submitted a Townscape Visual Impact Assessment and this has been assessed against the English Heritage criteria set out in the Guidance on tall buildings (2007).

Whilst the proposal exceeds the heights set out in the SPD, it is not considered that the development responds to the townscape in an adverse manner where particular regard should recognise the benefits that come about from regeneration from such larger scale developments.

C. Residential amenity

Policy DM DC 5 states that in considering proposals for development the Council will seek to protect adjoining properties from unreasonable loss of privacy, pollution, visual intrusion, noise and disturbance and that the Council will ensure that the design and layout of buildings enables sufficient sunlight and daylight to penetrate into and between buildings, and that adjoining land or properties are protected from overshadowing.

In recognistion of surrounding residential properties, the development has a scale, height and mass that is staggered from the south to the north in respect of Cole Park Road whereas the depth of the majority of the development (being in part constrained by the position of the platforms) does not extend up to or beyond the Mary's Terrace properties with the exception of Block C which has a more intimate scale (compared with the other elements of the scheme) and is sufficiently recessed from these properties.

The sections below deal with the impact in more detail insofar as privacy/overlooking, outlook, overshadowing, daylight and sunlight levels and noise, air and light pollution.

Privacy:

It is generally acknowledged and set out in policy DM DC5 that a separation distance of at least 20m is required between upper storey windows. Whilst not set out in policy it is generally recognised that with a gain in height above first floor windows an increase in separation distance should occur between windows.

The first floor windows in Block C and those in Block A and B would be set at least 20m from the rear elevations of the Cole Park Road properties (no. 2, 2b, 2a and 4). The upper storeys of these blocks (including their terraces) recess towards the south a suitable distance from the aforementioned properties and given the existing and proposed tree screen along the south bank of the River Crane it is not considered that the proposal would give rise to unacceptable levels of overlooking.

The windows on the south elevation of Block B would be set 8m from the north elevation of the Travelodge hotel and those directly opposite the hotel would have fixed louvers to channel views away from the hotel.

There are no windows on the flank elevation of no. 16 Mary's Terrace and a 45 degree line taken from no. 16's closest north facing windows reveals that the rear windows/winter gardens of block B would be sited in excess of 48m. The southern most windows of block B would be sited closer (35m) however this would be at an acute angle that would not allow views into the Mary's Terrace windows.

The closest windows in Block B would be sited 35m from the garden on no. 16 Marys Terrace and where such views may be obtained, these would be at acute angles and where the garden of no. 16 is partially obscured by the garage block to the garden's west.

The south facing windows to Block C would be sited in excess of 45m from the north facing windows of the Mary's Terrace cottages and considered acceptable.

Consideration should also be given to the fact that views into the north facing windows of the Mary's Terrace properties are permitted from the secondary overbridge and the gardens overlooked by the offices and rooms of Regal House and the hotel respectively.

Block A would be separated from the eastern boundary of the post office sorting site by 26m (including balconies) and thus not considered to have an adverse impact on the future occupants of any forthcoming residential development on this site.

Outlook:
No.s 2, 2b, 2a and 4 Cole Park Road are sited particularly close to the northern bank of the River Crane and as such their gardens are sited to the sides of the properties. The garden to no. 2 and 4 are to the east with a healthy screen of trees, which along with the existing and proposed trees to the south of the river considered to provide a suitable screen against the development. The majority of the windows to no. 2 and 4 are to the flank elevations and as such the direct outlook from them is not onto the railway site.

No. 2a and 2b are relatively new in the streetscape and their gardens are to the west and east respectively with a number of windows on the south facing elevation. Whilst there is some degree of planting along the river this is not as dense as it is further east and there are views of Regal House and Bridge House indicating that the development would be visible

from these properties and the streetscape and indeed those on the north side of Cole Park Road.

As set out in the previous section of the report, the height and massing of the development is scaled down towards the River Crane with those sections of the development nearest the Cole Park Road properties ranging in height from 2 storeys (Block A) and 4 storeys (Block C) with the highest section set further south. It is acknowledged that the development would result in some impact on outlook from these properties however the existing context requires consideration. The current outlook is onto a car park and railway station and whilst of little consolation these buildings would provide an acoustic buffer to the railway tracks. It should also be acknowledged that these properties are on the periphery of the designated town centre where it is not uncommon to find such relationships between typical suburban properties and higher density town centre developments and the benefits that these particular developments bring.

Overshadowing:
With regard to overshadowing the Environment Statement is based upon the BRE Guidance available at the time of submission which advises that for gardens and open spaces to appear to be adequately sunlit throughout the year, no more than 40% (two-fifths) and preferably no more than 25% (one quarter) of any such space should be in shadow as a result of development.

The initial tests reveal that the amenity areas tested would not suffer any practical adverse effect. The moving shadows during March 21st will be cast over parts of the green/amenity areas adjacent to the station and over the gardens of Cole Park Road and the River Crane in the early hours and as these rapidly recede towards midday there would be no permanent shadow which signifies that the scheme will meet the standards set out in the BRE guidelines. The ES sets out that at no point during March 21st will the proposal cast permanent shadow onto the selected green areas and as such is considered to have a negligible impact on all adjacent amenity areas in overshadowing terms.

During the assessment of the ES and planning application the BRE guidelines were been updated and now require at least half a garden area or the centre to receive at least 2 hours of sunlight on March 21st or a reduction that is no less than 0.8 times its former value. The submitted overshadowing tests reveal that the centre point of the gardens to the Cole Park Road properties would continue to receive more than 2 hours of sunlight recommended by the BRE and are thereby compliant with these revised guidelines.

With respect to the objections received, the BRE guidance requires tests on sunlight and shadowing to be undertaken on March 21st and not during winter months.

As Mary's Terrace lies to the south east the overshadowing from the development would only occur into the late afternoons/evenings and therefore considered to be compliant with the BRE.

Daylight:
The recognised desktop tool for assessing daylight impact is set out in the Building Research Establishment Guide (BRE) and has been used is intended for building designers and their clients, consultants and planning officials

With regard to levels of daylight, the BRE guidelines advise that a window may be adversely affected if the vertical sky component (VSC) measured at the centre of the window is less than 27% or less than 0.8 times its former value.

The ES recognises that many of the surrounding properties receive good levels of light considering their town centre location.

The BRE tests reveal that the western properties on Mary's Terrace (11-16) would not experience an unreasonable loss of light and thus the development is considered by the ES to have a negligible impact on these properties.

Of the 38 windows tested at no. 2b, 2a and 4 Cole Park Road 8 were found to have a reduction between 20-20.9% in light and thus identified as having a minor adverse impact in the ES. Those windows tested at no. 2 were not found to result in more than a 20% loss of light and thus considered negligible in terms of impact.

As a means of checking the results set out in the ES, a VSC exercise has been undertaken by the Council on the ground floor window of no. 2 a and 2b and found to have a VSC measurement of 28.5% and 28.75% respectively as a result of the development and thereby not considered to result in an unreasonable loss of light.

The Council has undertaken a VSC exercise on the front windows of the Mary's Terrace properties in relation to Block C and this has revealed that no unreasonable loss of light is envisaged (i.e. the development would not impinge on a 25 degree line taken from the centre point of the Mary's Terrace ground floor windows).

A site visit to no. 4 Cole Park Road reveals that the assumptions on the internal layout in the ES are broadly correct and those south facing windows on the ground floor benefit from a secondary means of light.

A second means of testing light as set out in the BRE is the 'No-Sky Line' which divides those areas of the working plane, which can receive direct skylight, from those that cannot and provides an indication of how good the daylight distribution is within a room.

The ES sets out that the windows tested at 2, 2a, 2b and 4 Cole Park road and 11-16 Mary's Terrace would comply with the target values in the BRE 'No Sky contour' or 'Daylight Distribution' test and the development in this respect is considered to have a negligible impact.

Sunlight:
With regard to levels of sunlight, the ES sets out that the south facing living room windows tested on the aforementioned Cole Park Road properties would not experience an unreasonable loss of sunlight and thus the development is considered to have a negligible impact in this respect.

Impact of light on the hotel development:
The BRE guidance states that non domestic buildings such as hotels (where occupants should expect a reasonable amount of daylight) daylight should be safeguarded and whist Policy DM DC5 does not specify hotel rooms requiring such protection, it does state that the Council will be guided in general terms by the standards set out in Site Layout, Planning for Sunlight and Daylight, and in Sun on Ground Indicators (BRE 1991).

The BRE also recognises that a well designed building will stand a reasonable distance back from the boundaries so as to enable future development to enjoy similar access to daylight and by doing so it will also keep its own natural light when the adjoining land is developed.

A further measure of assessing daylight impact is consideration of the Average Daylight Factor (ADF). A room may be adversely affected if the ADF is less than 1% for a bedroom, 1.5% for a living room or 2% for a kitchen. For offices a minimum figure of 2% is required.

The addendum to the daylight section considers the erected hotel and the windows on the north elevation. The addendum sets out that taking into account the VSC, of the 88 windows to the north elevation of the hotel, 23 would not result in an unreasonable loss of light although those on the lower levels would experience an unreasonable loss with 5 receiving a 20-29.9% reduction in light, 4 receiving a 30-39.9% loss and 56 receiving a 40% or greater loss and thereby equated as minor adverse, moderate adverse and major adverse respectively.

Taking into account the average Daylight Factor (which is a measure of interior daylight and can be used to establish whether a room will have a predominantly daylit appearance and if not, it can provide levels below which a room should not fall even if supplementary electric lighting is provided), the ES sets out that 17 rooms would experience a minor adverse impact, 19 a moderate adverse impact and 15 a major adverse impact with the Daylight Distribution tests revealing that 4 rooms would experience a minor adverse, 11 a moderate adverse and 36 a major adverse impact.

Whilst the BRE advises the consideration of hotel windows in tests on the levels of light likely to be affected, the ES sets out that these should not be considered habitable rooms in that occupants would only be using them for a temporary period and that the requirement for light is less than for bedrooms to residential properties. it also goes onto state that the installation of windows on the north elevation of the hotel and of a size that do not take into account a reduction in sky visibility caused by future neighbouring development is considered to be a 'bad neighbour'.

It is generally recognised that windows on flank elevations should not stifle adjacent development and if not established over a long period of time are considered to be poorly planned. Whilst it is accepted that the depth of the hotel could not be lit naturally from only the east and west it is possible that a 4-5 storey development in this locality would also result in a number of windows receiving limited levels of daylight and as set out in the ES, the occupants would be transient and therefore the loss of light to the hotel is not considered to be a material reason for withholding permission.

Noise, air and light pollution:

Appendix A of PPS23 sets out a series of matters for consideration in determining planning applications.

The Core Strategy (para 4.1.28) sets out that the whole of the Borough is designated as an Air Quality Management Area with primary pollutants being nitrogen oxide (NO2) and particulates (PM10) caused largely by road traffic with conditions worse along main road corridors. It sets out further that most of the Borough suffers from noise from aircraft landing/departing from Heathrow Airport.

DMDC5 requires development proposals to protect neighbouring development from noise and disturbance and pollution.

In terms of noise generation, the lack of car parking on site due to the car capped nature of development and the minimal requirements for servicing are not considered to result in an unreasonable generation of noise and therefore categorised as negligible in the ES.

Some degree of noise may be audible from the use of the riverside walk and the play areas adjacent to the River Crane however against the backdrop of London Road traffic and the railway station and that such noise is not uncommon in residential developments it is not considered that this would be an un-neighbourly element of the scheme.

An updated noise model has been undertaken using recognised software with traffic flow and railway timetable data used to populate the model along with GIS building and road data.

Preliminary predictions of the existing situation and with the completed proposed development indicate that noise levels at Marys Terrace would be unchanged and slightly reduced at Cole Park Rd by about 1dB(A).

A final model will include outputs at ground floor 1.5m, first floor 4.5m, and on the vertical façade of the proposed units and will include further receptor detail and details will (if available) be reported to the Planning Committee.

The commercial element of the scheme is located on the London Road frontage and within the plaza fronting London Road and away from the neighbouring residential properties to minimise noise from the activities associated with such properties.

Again, as the development is 'car capped' and the number of commuter parking spaces would be reduced it is not envisaged that vehicular movements would result in an unreasonable impact on air quality. Appendix A of PPS23 recognises the environmental benefits that a development might bring through the result of reductions in the need to travel and accompanying improvements to transport infrastructure.

Policy DM SD2(c) states that local opportunities to contribute towards decentralised energy supply from renewable and low-carbon technologies will be encouraged where there is no over-riding adverse local impact. There would be an emission of NO^2 from the CHP however the level of such emissions would be controlled via a condition to meet with European Legislation standards.

Light pollution and spillage from vehicular movements would be negligible given the existing position and use of the commuter car park with further mitigation where possible through soft landscape planting and the boundary treatment adjacent to the access road. Green roofs are proposed on much of the flat roofs of the development and DM SD5 sets out that living roofs can achieve a reduction in noise and air pollution.

The north elevation of Block C and to a lesser extent Blocks A and B would introduce a bank of windows facing the north and these would be particularly evident in the evening however given the distances from these elements to the Cole Park Road properties and the intervening tree line along the River Crane it is not considered that the internal light spill from these windows would have a harmful impact on amenity levels.

The existing car park has a number of light columns and it is not considered that the proposed lighting strategy would result in an unacceptable increase over and above this.

D. Transport impacts

Car Parking (residents, visitors and commercial):

Policy DM TP8 requires developments to demonstrate that provision for an appropriate level of off street parking to avoid an unacceptable impact on on-street parking conditions and local traffic conditions.

On site car parking for residents of the development is limited to 7 spaces which have been designed for wheelchair/disabled access and thus occupants of 108 flats will not be able to park on site. The maximum car parking standards set out in the DM DPD require 127

spaces. With 7 provided this represents a shortfall of 120 spaces. Two areas are set aside for motor cycle parking.

Given the siting of these residential units above a train station and in close proximity to the proposed bus stop on London Road and that existing on the west side of the bridge with two bus services (routes 281 and 267) and within 500m from an additional 5 services, the properties would be well served by public transport (it has an existing Public Transport Access Rating of 5 where 1a is categorised as very poor and 6b as excellent) the development lends itself to being one that could be successful as being 'car capped'.

Policy DM TP8 states that in higher PTAL areas (5-6), such as Richmond and Twickenham town centres, parking provision at a level lower than the standard or a car free development, perhaps with a car club, may be appropriate in exceptional circumstances.

Whilst the accessibility to such transport choices wont necessary negate residents from owning a vehicle, it would certainly be a major factor for those future occupants considering them given that the surrounding area is controlled by the Central Twickenham Community Parking Zone (CPZ) and eligibility for permits would be removed through the legal agreement. This CPZ is in operation from 8.30am to 6.30pm from Monday to Saturday (inclusive) and as such any occupant who owns and parks a vehicle in the CPZ outside of the above mentioned hours would be required to remove them on a daily basis or find a parking meter which already limit the number of hours of parking and the hours of return. The bordering CPZs operate as follows: Cole Park to the north (Monday-Friday 8.30am-6.30pm), Heatham to the north west (Monday-Saturday 9am-6.30pm) and to the east St Margarets South (Monday-Friday 10am-4.40pm).

Access to season tickets to Council controlled car parks will also be restricted and secured through the legal agreement. These car parks being Holly Road, Church Lane and Aragon Road. There are no privately controlled public car parks in central Twickenham. Whilst daily parking in these car parks will not be able to be controlled the cost of doing so is significantly higher than season tickets and there is a limit on the hours of parking within Church Lane, Holly Road and York House (no season tickets available for York House car park). Furthermore the Aragon Road car park is closed in the evening (midnight Monday to Saturday and 6pm on Sundays).

Access to the station car park after hours would be available given that this is not controlled by a boom gate however the same principle would apply to those parking in the surrounding CPZ, i.e. the vehicle would be required to vacate during tariff times with a daily parking rate a deterrent to continual parking alongside the relative shortage of parking. Season tickets to this car park and those others in Network Rail/South West Trains ownership such as the one off of Station Yard would be restricted and secured through the legal agreement.

The applicants have submitted a Transport Assessment (TA) which includes parking surveys (undertaken by the widely recognised Lambeth Methodology) on surrounding roads within a 200m radius of the site (a 2 minute walking distance) which include ….. this survey provides information on the current resident parking stress on the roads. Overall, there was 61% parking stress on the roads surveyed, on the Thursday Survey, 55% with permits, 6% without permits. For the Friday Survey there was a 62% parking stress, 57% with permits, and 5% of cars without permits.

Having taken into account the stress on the bays within the surveyed roads (as opposed to including single yellow lines) the average parking stress on the Thursday and Friday surveys was 75 and 74% respectively. It is clear from the surveys that many of these roads already experience a parking stress (above 90% capacity). These levels and not considered unreasonable given their siting in or bordering a town centre location. It is considered that

the road where a perception of parking stress is most likely to be caused by the development and felt by residents would be on Cole Park Road and within its CPZ where parking stress is relatively low at 20-30% and given the number of available bays on this surveyed section of the road (119) an unacceptable parking stress of 90% would only come about with an overspill of approximately 80-85 vehicles from the development.

Given the aforementioned constraints to car ownership for occupants and the benefits such as the car club bays and the transport infrastructure it is envisaged that some future occupants would not be owners of vehicles. However in the event those occupants of the proposed development park in the surrounding streets outside of the CPZ enforcement times, the above surveys indicate that there is space to absorb some overspill from this development without unreasonable convenience to neighbours.

Should the application be granted and in light of the above, future parking surveys (prior to development and after the occupation of the 100th unit of the development) will be secured through the legal agreement to assess whether the development is causing unacceptable overspill parking in the evenings and weekends (to be undertaken by the developer with a contractor agreed by the Council). If an unacceptable and heavy overspill is evident, funding will be secured through this legal agreement to consult and if necessary extend the times of the CPZ. It should however be noted that such funding would only be secured through the overage clause. The range of the future surveys and consultation would be wider than those undertaken given the uncertainty over the extent of any overspill, and as set out above the survey area would be agreed with the Local Planning Authority.

The above measures i.e. a signage schedule, parking charges for commuter parking, a regular car park monitoring surveys to measure rail commuter usage, marketing packs for residents and the parking survey of surrounding roads are set out in the Car Parking Management Plan within the submitted Transport Statement.

Whilst there are no visitor parking standards set out in the DM DPD, those visitors to the development will have to make use of the pay and display facilities within the station and surrounds (if available) or use local car parks to park during CPZ operating times.

As mentioned above, a benefit of the scheme and incentive for occupants to not owning a vehicle is the provision on site of 3 car club spaces with all residential units eligible for membership of the car club (secured through the legal agreement) and thereby allowing successive residents to become members at reduced cost and have use of a car, removing the need to own a vehicle.

On site parking is not provided for employees and customers of the commercial units, nor the station staff and whilst the proposed commuter spaces could be used by customers (in addition to other parking facilities in the area) the employees and station staff would not be eligible to park in these spaces and this would be secured through the legal agreement.

The application includes framework travel plans for the residential units as well as the station and commercial unit staff and these would be secured via condition. As part of the residential travel plan information on travelling by train and bus will be provided to residents, in addition to the membership of a car club. A detailed station car park management plan will be submitted through a condition to ensure that the parking spaces on site are not used by residents of the development.

Car parking (commuters):
The existing station provides 45 car parking spaces for monthly ticket holders and daily ticket (pay and display) purposes. In addition commuters are also able to park in the car park off of Station yard which is owned by Network Rail.

Whilst it has been found that many commuters parking in these spaces are often from outside of the borough the provision of such parking is not a priority in the consideration of this application. Indeed the Proposal Site Policy states that car parking for commuters should be reduced. However 27 spaces would be provided in the station car park for the Train Operating Company which are rented to commuters. Three of these spaces will be for disabled commuters and 3 spaces will provide active electric vehicle (EV) charging points with a further 4 spaces with passive EV charging points.

The shortfall of commuter spaces which cannot be provided within the proposed car park would be relocated to the Station Yard car park owned by Network Rail. This does not form part of the application site and as it is being used as a car park no application is required for such.

Cycle spaces:
In accordance with DM TP7 (cycling) separate cycle storage would be provided for the residential units in various areas under Blocks A and B and within the ground floor of Block C for 208 cycle spaces with secure access. This would exceed the minimum requirement of one cycle space per unit.

The exiting cycle shelters, including those recently installed in the car park would be required as part of a condition to be removed and reused elsewhere in the borough.

In the event that the Airtrack or a further line is extended west from the termination point of the northern most line accessed off of platform 1, a drawing has been submitted demonstrating that those 44 cycle spaces under Block B would be relocated to the commuter parking spaces and secured by condition in such an event.

Buses:

The transport statement indicates that there would be approximately 27AM peak (7am-9am) and 28PM peak (4pm-6pm) bus trips from this site. Given the existing frequency of local bus services, the GLA and TfL consider the development would have a limited impact on bus capacity.

The relocation of the bus stop from its present position to one further south on London Road and is supported by TfL in that it would increase the stop's effective capacity to meet with the additional demand from the development and the station conforming with London Plan Policy 6.7 – Better streets and surface transport.

Traffic congestion:

Given the lack of on site parking for residents and indeed the reduction in commuter parking and notwithstanding the servicing of the development (residential and commercial) it is envisaged that there will no vehicle generation from residents on site and little to no movements off site and in the context of this busy highway is thus considered that no unreasonable congestion will be associated with residents at this development.

Servicing:

Policy DM TP2 requires the impact of servicing to be considered on the local and wider highway network.

Servicing bays are proposed within the development site, that is on the access road and within the car parking area and 'swept path diagrams' have been submitted demonstrating

that the scheme can adequately cater for a 7.5 ton box van, a medium refuse vehicle and single deck bus (or any other vehicle with a length of 12m). Deliveries off of London Road would be prohibited and times of delivery on site restricted to protect neighbour amenity and secured within the Service Management Plan.

The refuse and recycling stores are predominantly set out in the basement of the buildings and the ground floor of Block C and accessible to refuse vehicles from the dedicated service bay with the only exception being the southern element of Block B which is stored at ground (plaza) level. It is envisaged that servicing will be required from London Road in this case.

Given the servicing on site (and not off the public highway) and volume of traffic on London Road, it is not considered that this would result in an adverse impact on the free flow and safety of highway traffic.

E. Residential Standards

Internal:
The Council's SPD on Residential Development Standards requires a net area of 45sqm, 60sqm and 70sqm for 1, 2 and 3-bedroom flats respectively. It is noted that all of the proposed units exceed this requirement with single and double bedrooms meeting the required size of 7 and 12.5sqm respectively. Indeed all but one unit exceed the London Plan's guidance on unit sizes which are more stringent than the Council's.

It is appreciated that some flats would have a single aspect which is inevitable with a corridor that runs through the spine of the building blocks however these rooms served by a single aspect window are not significantly deep that daylight would not penetrate the secondary rooms, in many cases these are kitchens.

It is also noted that some of these units would have a single aspect onto the railway station's platforms and tracks. Whilst not an ideal outlook for these units, particularly the immediate environment from the lower units (which would not command views towards the east) the wider outlook would be more attractive i.e. views toward Richmond, the River Crane Corridor etc. Furthermore it could be argued that the outlook would not be too dissimilar to those properties fronting A-roads.

Concern has also been expressed regarding those east facing units in Block A that are shown to have fixed louvers to angle to line of sight away from the Block B units to mitigate the loss of privacy as the distance between them would only be 9-12m. The louvers would only be fixed to the units in the south east corner of Block A and in the main fixed to bedrooms, studies and to a secondary living room window. The living room would have a large main window facing south east onto a balcony and whilst not ideal to have fixed louvers to a bedroom, it is considered that this would be acceptable given its function and that outlook is restricted not completely removed.

As such it is considered that all units are afforded suitable access to light, outlook and ventilation with rooms of an adequate size to allow for storage.

Children's Play space:

Play area – not to scale

The ES sets out that there would be a child yield of 17 in accordance with the London Plan methodology (using Wandsworth's child occupation data). Whilst the Wandsworth methodology is not incorrect, it is only applicable to London boroughs who have not adopted their own standards. The ES and GLA state that as the development provides approximately 500sqm of play space incorporated within the landscape, with provision for under 5's on site and doorstep play space, in their view there would not be an under provision of play space on site.

Policy DM OS 7 advises that for the purpose of local planning policy 'new developments must assess the needs arising from the new development by following the benchmark standards outlined in the Mayor's Supplementary Planning Guidance on Providing for Children and Young People's Play and Informal Recreation.

All developments with an estimated child occupancy of ten children or more should seek to make appropriate play provision to meet the needs arising from the development. Where this provision cannot be met on-site or for developments yielding less than 10 children, the Council will seek an equivalent financial contribution to fund off-site provision.'

The DMP advises (para 4.1.25) that the child occupancy multiplier to be adopted for the calculation of play space provision is specific to this Borough and derived from the child yields set out in the POS SPD. The child yield for this development for the purposes of the Council's assessment of childspace provision is hence based on a child multiplier of 54 with an age breakdown of 19 (ages 0-5), 21 (ages 5 -11) and 19 (ages 12 and above). The Council assessment therefore diverges from that conducted by the GLA.

The Mayor's SPG: Providing for Children and Young People's Play and Informal Recreation requires that 10sqm of useable child play space is provided per child with under 5 child play space provided on site. If not provide on-site, a financial contribution is required for most new developments generating more than 10 children. In quantitative terms, the appropriate play provision required for this development amounts to 540sqm, the proposed provision which is considered to be genuinely playable is 450sqm and meets the three ' frees': free of charge, places where children are free to come and go, and spaces where children and young people are free to choose their activities. In terms of the type of playspace provided, this should be considered in the context of the age ranges to be catered for and accessibility to existing facilities. The Mayors SPD requires developments of this scale to provide a local

playable area for under 12s which has a minimum size of 300sqm and accepts that off-site provision for children aged 12 and above can be off-site if within 800m.

The applicant's play strategy shows the local playable area as comprising a landscaped maze with seating, a 'stepping stone' play space and doorstep playspace at the front of Block C, facilities focused at the under 12s. Whilst the doorstep space is not detailed with play equipment it is considered to be usable space (particularly for bike/scooter riding and ball play for under 5's) and in this regard, it is important to note that the Mayor's SPG does embody the multi-functional concept of 'playable space', rather than play spaces, with a clear focus on safety, convenience and accessibility. In this case, the play space is appropriately located benefitting from good passive surveillance from Block C, has an attractive location next to the river and riverside walk and would compliment the other parks and playspace in the locality.

With regard to facilities for the older children at the development, as part of this proposal access to the children's playground and facilities for older children at Moormead Park will be brought within 400m following the creation of the river walkway, a benefit for all local children. Otherwise, the playground at Holly Road Garden of Rest is within 400m of this site as well as a number of other areas of open space (eg Crane ford Way Playing Fields) and playgrounds within 800m thereby providing adequate access to play space for older children.

A further nearby facility for teenagers at this development are the Council's youth service facilities at Heatham House.

The scheme provides good facilities for the under 5s and improved access to the existing range of facilities at Moormead Park for older children. The scheme's weakness is in terms of the type of play equipment included for children in the 6-12 age range and the limited size of the playable area. A financial contribution has hence been secured to mitigate this impact through the legal agreement although this is only obtained should the scheme achieve overage (this is set out in the section on impact on infrastructure a financial contribution (public realm) towards improving the facilities).

Access and wheelchair housing:

Core Strategy Policy CP14 requires 10% of all new housing to be to wheelchair standards and all new homes should be built to Lifetime Homes Standards.

The planning statement states that the units have been designed to meet the Lifetime Homes requirements where possible with 10% of the development comprising wheelchair adaptable units and these have been identified on plan for their proximity to lift access and parking spaces within both block A and B.

The plans have been revised to demonstrate that wheelchair turning circles and ellipses are achieved without being impeded with indicative furniture or fittings.

These units would be secured through a condition and the units required to be added to the Accessible Property Register.

The level of disabled parking spaces for such residents is set out in the transport section of the report.

The Lifetime Homes requirements that may not be fully addressed are within Block C where living space is not provided at entrance level of every unit, or an entrance level WC and shower drainage given that the majority of these units comprise duplexes. Whilst this would result in a Lifetime Homes achievement of 82% across the site, it is recognised that these

units would be attractive to some occupiers for other reasons. A condition is attached requiring Lifetime Homes compliance within Block A and B and save for two of the 18 criterion Block C.

External impact (Noise and vibration):

Given the site's proximity to the railway station and lines, London Road and the flight path, the proposal is likely to result in harm to the amenity of future occupants and as such (and required by PPG24) the ES sets out that ambient noise at the site and the need to provide an adequate internal noise environment within the proposed development were key considerations through the design process.

The ambient noise level at locations around the site was established through daytime and night time monitoring with noise measurements also taken during a major event at Twickenham Stadium (The Guinness Premiership Rugby Final) when activity at the station was at a peak.

In addition further noise monitoring requested during the consideration of the application and under Regulation 19 of the Town and Country (Environmental Impact Assessment) including the Public Address systems has been submitted as an addendum to the ES.

The assessment concluded that ambient noise levels, particularly from traffic on London Road, were such that any habitable rooms on the northern, eastern or western facades of the proposed development would require acoustic double or secondary glazing plus acoustic ventilation (as an alternative to opening windows for cooling ventilation) to maintain internal noise levels within the World Health Organisation standards. The use of trickle vents and higher standards of insulation would also reduce externally generated noise within all other units to ensure that conditions within the residential units are suitable for future occupants.

With regard to airborne noise from the railway, standard thermal double glazing will provide adequate attenuation to permit a noise level within bedrooms of less than 30 dB(A) L(A)eq in addition to the resistance of noise from the podium that spans the tracks. It is further recommended that the bedrooms in the south side of the proposed residences overlooking the railway should include acoustic ventilation with an attenuation of not less than 30 dB(A) at the appropriate frequencies, to provide an alternative to opening windows.

With mitigation in place the ambient noise levels are considered by the ES to be negligible.

Whilst vibration from passing trains will occasionally be perceptible in those parts of the proposed development closest to the railway lines, it is anticipated that there will be negligible vibration impact on the proposed building or occupants.

There is a possible risk that, if the dynamic frequency of the proposed tall building is within the range of vibration frequencies produced by the passing trains, vibration could be amplified with height.

The vibration frequencies produced by the trains as measured at the site were found to be of a low frequency for the dynamic response of a building and would suggest a lack of stiffness, with long, minimally braced spans, wide thin slabs and large deflections under load. However, the structural engineers have designed a stiff building structure, with large damping mass.

Ambient vibration levels are considered by the ES to be negligible.

Noise between the commercial (including station ticket office) is likely and to mitigate such noise transfer a condition requiring details of such attenuation will be required prior to occupation.

The location and nature of any proposed kitchen ventilation is not yet established and a condition will require details to suppress odour and within this control of noise and vibration from such suppression.

Control of internally generated noise between units is covered by Building Regulations however it is noted that the development has been designed where possible to allow a vertical alignment of similar rooms within the units, i.e. living rooms above living rooms as required by the Residential Development Standards SPD.

As identified in the neighbour amenity section, the generation of noise from vehicles within the site given the ambient levels on London Road, the lack of car parking on site and minimal requirements for servicing are not considered to result in an unreasonable generation of noise and pollution on future occupants or indeed those within the doorstep play space areas.

The GLA have considered the above measures and with regard to ambient noise confirm that the proposal complies with the London Paln.

Air quality:

The site lies within an Air Quality Management Area which was designated due to current and predicted future air pollutant levels.

The results of the monitoring show that the front (west) of the site, which is closest to the London Road highway has NO2 concentrations close to or exceeding the Air Quality Objective for annual average NO2 concentrations (as would be anticipated at this location). However, the locations within the site more distant from the highway, although close to the railway, enjoy better air quality. As such those affected units would be provided with controlled ventilations systems incorporating filtration on the inlet to reduce the concentration of nitrogen dioxide within the living spaces.

The operational effects on air quality are anticipated to be negligible and conditions at the proposed development are considered to be acceptable. The development is 'car-capped' and changes to the traffic flow are confined to low volumes of delivery and servicing vehicles for the proposed commercial units. The proposed scheme will incorporate modern plant and building services with low emissions and a condition requiring the output of NO2 to not exceed the government annual average limit of 40ug/m3.

DM DC2 requires in the design and layout of mixed use schemes the minimising of conflict between uses to ensure that noisy or polluting activities or features such as plant are positioned away from sensitive areas to avoid environmental health, neighbourliness or amenity issues. As set out above, conditions on output from commercial units (particularly cafes and restaurants) will control the emissions that could otherwise affect air quality in addition to information and mitigation to suppress noise and vibration.

F. Pressure on local infrastructure

Education:
The Council's Planning Obligation Strategy SPD estimates child yield and pupil take up and calculates that the development would house of 54 children with an age breakdown of 19

(ages 0-5), 21 (ages 5 -11) and 19 (ages 12 and above) with a child take up of 16 for primary school places and 6 for secondary school places.

With regard to childcare there are three public sector providers of such childcare within 1.5km of the Twickenham Station site with capacity for 140 children between the ages of three and four.

Within 1.5km of the development there are 14 pre-school nurseries and 7 full day care nurseries as well as one crèche providing childcare and according to the Council's Education, Children's and Cultural Services the typical occupancy of these services is around 70%.

Whilst within 1.5km of the Twickenham Station development there is currently no capacity within the three primary school providers of state nursery provision these relate only to state nursery provision (ages 3 to 4) available through schools; private sector providers also provide state nursery education for three and four year olds. Given the figure above that pre-school and fully day care provision is at around 70% occupancy there is space to absorb additional demand. Similarly, according to Richmond's *Childcare Sufficiency Assessment* there is sufficient supply within all childcare (covering ages 0-16) within the area.

The impact of the Twickenham Station development on childcare is therefore identified as negligible with a cumulative impact with the development to the north of the RFU and the development of the Post Office sorting Site considered as minor adverse.

With regard to primary education, there are 34 primary schools within a two-mile radius of the Twickenham Station site, including one community special school and of these, 23 are in Richmond, seven of which are within one mile of the site.

According to the 2010 statistics Richmond schools and all those within a 2 mile present provision are not sufficient for the level of demand in the local area with a likely increase in the trend of reception space shortfall with demand particularly high in St Margarets/east Twickenham.

Additional form entry's at reception level were created across the borough for the 2011/12 enrolment creating 330 places, 90 of which are in St Margarets. Despite these increases to primary school places, it is envisaged that rising birth rates will continue to compound difficulties to match pupils to places in coming years, even with additional provision.

Whilst the child take up at primary level is only 16 and only a small proportion envisaged at reception level and notwithstanding the Council's Primary Expansion Strategy this will exacerbate the current lack of capacity to accommodate reception age pupils. The ES identifies this impact and the aforementioned cumulative impact as being moderate adverse.

There are 20 secondary schools within a three mile radius of the Twickenham Station site, including two community special schools, of these 8 are in Richmond and combined they are at 84% capacity.

Of the eight secondary schools within Richmond, there are five community schools and three academies. All of the community schools are over□subscribed in Year 7 and four are also oversubscribed in every year. This includes Orleans Park School and Waldegrave School for Girls which are the closest to Twickenham Station. The three academies have spare capacity in every year group but it is anticipated that, due to rising birth rates and improvements in standards, this capacity will be depleted by September 2015. Two new schools subject to funding are proposed.

With a take up of 6 secondary school places and the provision of two additional secondary schools is already being considered by the Council to meet growing demand in the Borough the impact of this development and cumulatively is considered by the ES to be minor adverse.

There are two further education colleges (Richmond upon Thames College and Richmond Adult and Community College) and one higher education institution (St Mary's University College) within 1.5km of Twickenham station.

Given the above impact on primary and secondary school places the applicant had agreed to increase the initial financial contribution as a mitigation measure from £210,000 to the full amount required in the Planning Obligation Strategy, that being £293,000. The potential however to use the one bedroom flat's studies as additional bedrooms has been considered and as this would be likely to increase child yield (to 54) and take up accordingly, the education contribution would increase to £345,000. The legal agreement would secure the £293,000 with the additional payment of £52,000 secured through the first overage instalment.

Given the low level of secondary school places, the ES sets out that demand for further education is likely to be low and considering the existing three colleges within 1.5km of Twickenham Station, the sixth form provision planned to be delivered within the Borough's secondary school from September 2013 that is likely to be able to accommodate any demand arising from the development, the impact of the Twickenham Station development on further education provision is identified as negligible.

Health:
There are eight GP surgeries/health centres (comprising around 34 individual GPs) within 1.5km of the Twickenham Station site, six of which are in Richmond. According to the ES and there is no existing capacity within the GP surgeries and health centres in proximity to Twickenham Station.

Current provision within 1.5km of Twickenham Station covers around 41,000 residents. Whilst GP lists are unlikely to be closed to new residents (as this reduces funding available for them) capacity of GP surgeries is evaluated by comparing the gross internal area o the surgery with the GP's list size. With this evaluation in mind, the total GIA is 33% below target of those surgeries within 1.5km of the development.

The ES reports that the Primary Care Trust (PCT) consider that the additional 199 residents could not be easily accommodated within existing provision and thus equate the development to have a moderate adverse impact both individually and cumulatively.

The Council's Planning Obligation Strategy has identified a financial contribution of £28,000 to offset the impact of such a development however the surveys undertaken for the ES identified that the cost of dealing with the backlog of maintenance and future maintenance issues for the six surgeries totalled an estimated £270,000.

The nearest hospital to Twickenham Station is the West Middlesex University Hospital which is around two miles away. Twickenham Station is also in the catchment of Teddington Memorial Hospital which is two miles to the South.

The ES states that (it is understood) there will be sufficient capacity to cater for an additional 199 residents within existing provision given that this is a small number of residents compared with the catchment area of the hospitals. The largest area of impact may be on

the walk in centre in Teddington and as such the impact is considered to be minor adverse both individually and cumulatively.

There are four NHS dentist surgeries (comprising around 15 individual dentists) within 1.5km of Twickenham Station. The applicant's consultation with the PCT indicated that dentists in the local area have capacity but some will face increasing pressure to meet local demand as their funding is decreased as a result of having not met delivery targets. Furthermore their consultation with NHS Richmond identified that dental provision will not be as problematic as GP provision.

Given that the development will require the addition of one additional dentist (based on 1300-1500 patients per dentist) the impact is thus categorised as negligible both individually and cumulatively.

Public Open Space:
All locations within Twickenham are within 3.2km of Richmond Park and there are a number of parks and open spaces (including playgrounds) within proximity of Twickenham Station which include Grimwood Road Open Space, Moormead and Bandy Recreational Grounds and Playground, Holly Road Garden of Rest and Playground, Jubilee Gardens and Craneford Way Recreation Ground and Playground.

The ES recognises that the additional residents of the Twickenham Station development may place additional pressure on children's play areas but otherwise, due to the relatively open capacity of parks and open spaces, and whilst the Twickenham Station development will not have a direct impact on the capacity of such facilities the additional levels of use as a result of the development may result in the need to upgrade provision to allow for wear and tear. Improvements to Holly Road, Grimwood and Garfield Road have been identified although with the link created to Moormead Park it is envisaged that additional use due to improved connectivity from the public in addition to the residents would create additional demand on this park.

Notwithstanding the proposed riverside walk and public open spaces within the development with the permissive access rights, the impact on parks and open space is categorised as moderate adverse both as an individual and cumulative impact.

The catchment area of the site (1.2km radius) has a number of sports facilities including ten football pitches, several rugby pitches, sports halls, two gymnasiums, three cricket pitches and three squash courts. In addition, the catchment area also includes contains three rowing and/or sailing clubs and 2 floodlit MUGAs.

Despite the fact that there appears to be adequate sports provision in quantitative terms, there are several quality improvements which can be made.

When it comes to leisure facilities, sports halls and fitness centres the ES sets out that there seems to be unmet demand in the east of the borough particularly golf courses in the catchment area and a swimming pool.

An analysis of leisure, sports and outdoor facilities and the practicalities of such provision or area of requirement concludes that the proposal would have a negligible impact in the borough in this respect.

Planning Obligation Strategy:

Core Strategy Policies CP16 (contribution towards infrastructure and community needs), CP18 (contribution towards the provision of primary and secondary school places) set the basis for the creation of sustainable communities.

Commensurate with the scale of development and as mitigation set out in the applicant's Environmental Statement, a financial contribution is required for the provision of improvements towards Education, Health, the Public Realm/Open Space/The River Thames and Transport. These contributions total £721,574 and the breakdown is shown below.

Transport: £183,868
Public realm: £130,158
Health: £28,137
Education: £345,049
5% compliance monitoring: £34,360

These contributions are based on a number of the proposed one bedroom flats being re-classed as two bedroom units once the study/office rooms within them had been calculated to be larger than 7sq.m (the minimum space standards for a single bedroom) and have suitable access to outlook and ventilation

The applicant's viability assessment has demonstrated that the scheme's viability is unlikely to allow for the full POS contribution to be paid but in recognition of the mitigation measures set out as required in the ES, the applicant has agreed to fund the majority of the amount towards education i.e. £293,000 and agreed that the remaining amount could be secured in the S106 subject to overage being established.

The first overage instalment of £300,000 would secure the additional education contribution, the public realm contribution, (if required) the consultation for and implementation of extensions to the CPZs, the health contribution and the required monitoring fee linked to this agreement The applicant has agreed that this amount would not be subject of a profit split in recognition of the priority of mitigating the impact on education, the public realm, health facilities and the potential parking impact.

Thereafter the next £1m of any overage would be split 50/50 with the developer to prioritise the provision of an off site financial contribution towards affordable housing. The remaining overage would then continue to be split 50/50 with the developer for the provision of contributions towards the remaining affordable housing and transport contributions

The Council's independent assessor considers the value of the completed development based on current construction costs could result in an amount up to an additional £150,000 to be realised.
Given the improvements to the station and the transport interchange with limited additional pressure from vehicles on the public highway (no parking provided for residents and a decrease in commuter spaces) it is considered that the transport contribution does not form as high a priority compared with education, the public realm and affordable housing.

Further to the above contribution towards school places, a financial contribution has also been secured towards ecological benefits along the River Crane, albeit offsite, and in this Borough. This is further explained in the following ecology section.

G. Other Environmental Impacts

<u>Ecology, Trees and the River Crane:</u>

The ES has included an Ecological Impact Assessment which sets a 'zone of influence' to the development of the application site and all surrounding land within 30m (defined by Institute of Ecology and Environmental Management Guidelines for Ecological Impact Assessment). This has been agreed by the Council's ecologist as appropriate.

Within this zone, the Council's Proposals Map identifies only the River Crane corridor to the north of the site, as a feature of ecological value and included within the site for the purpose of providing a river walk is designated, an Other Site of Nature Importance (OSNI) and within the River Crane Area of Opportunity. While many railway tracks in the Borough are designated Green Corridors/Chains, it is noted that the immediate area of Twickenham Station is excluded from such a designation.

Core Strategy policy CP4 requires biodiversity to be enhanced particularly at new development alongside wildlife corridors such as the River Crane and within OSNIs, Policy CP12 in relation to the River Crane Corridor provides added clarification and emphasis stating that the Council will expect development in and adjacent to the River Crane Corridor to contribute to improving the environment and access, in line with planning guidance (Crane Valley Planning Guidelines). While theses guidelines relate primarily to those sites west of London Road Bridge to Twickenham Stoop, at all locations along the Crane improvements to the river banks and the provision of a through pedestrian/cycle route are targeted objectives (for comments on the latter objective please refer to Proposal Site Section).

DMP Policy DM OS 5 requires all new development to
a) preserve and where possible enhance existing habitats including river corridors and biodiversity features, including trees, and
b) incorporate new biodiversity features and habitats into the design of buildings themselves as well as their accompanying landscaping schemes in order to attract wildlife and promote biodiversity.
c) give consideration to the use of native species in new landscaping schemes
d) make a positive contribution to and should be integrated and linked to the wider green and blue infrastructure network

The ES assessment has focused on the biodiversity impacts attributable to the proposed development and the use of the riverside walk on the ecology and habitats of the river crane and its immediate environment and in particular protected species and their habitats (which include wild birds, bats, otter, water vole, stag beetles, reptiles and the great crested newt). The harmful impacts identified can be categorised as those resulting from wind, shading, light pollution and human disturbance.

The construction impacts on the ecology of the site and its surroundings, including trees, are addressed under the construction section of the report.

Existing Habitats, Biodiversity and Trees:

As part of the ES, a desk top study and phase I habitat survey (involving an ecological walkover of the site) were undertaken by the applicant's ecology consultants. Surveys to detect bat presence and a full arboricultural survey (informing a tree constraints plan) were also completed in combination with investigation of ecological databases (for example the Greenspace Information for Greater London and consultation with the London Bat Group) . The survey work has concluded as follows:

- that the hard standing and site buildings have limited ecological value or potential and are not considered a constraint to the redevelopment of the site

- a number of unprotected semi mature and mature trees (non-TPOs) within the northern part of the site are recognised to collectively have a high amenity value providing a visual and acoustic screen to the station and London Road Bridge and to a degree defining the River Crane Corridor and the boundary of the Town Centre with the northern suburbs. The mature trees are not category A trees when evaluated individually but have an important conservational value for foraging and roosting bats, nesting and foraging birds and invertebrates

- Japanese knotweed is present on site

- Field studies have identified several species of birds and the site and adjacent river corridor are considered important for breeding birds

- Bat activity was recorded along the River Crane (commuting and foraging) this was limited

- No bat roosts or foraging was identified on the application site - this is likely to be due to the illuminated nature, cars and human activity near the station. The station buildings are considered to provide low bat roosting potential and the railway line unsuitable for foraging.

- Few amphibian and reptile species were recorded within and near to the site – this is due to a lack of suitable aquatic habitat/vegetation along this section of the River Crane due to its shallow water, concrete sides and tree shading

- Few records of invertebrates were found (one stag beetle recorded just outside the site along the River Crane) – nonetheless, the level of deadwood on site would provide a suitable habitats for stag beetles which in association with the other habitats on the River Crane is suitable for a number of invertebrates.

- The application site and the adjacent river crane environment is not considered likely to support otters and water voles although they may migrate from the west past the site in search for other suitable habitats

- No records of common doormice or badger activity within 900m of the site.

- The site has limited floral diversity

Impact on existing habitats, the river corridor and trees:

The above section has identified the trees next to the River Crane, the riverside walk area and the adjacent river corridor itself as having a nature conservation value as a habitat and commuting/foraging corridor for bats, birds, invertebrates and some small mammals and planting. The development impacts focus on these elements:

Shading:
Given that the River Crane is subject to natural shading from adjacent trees and there is a lack of in-channel and bank side vegetation it is not considered that the partial shading of the river associated with the development and the additional tree planting (where is this proposed) would result in any significant change to the quantity or quality of river channel vegetation. With regard to the trees as these would be in partial shade, this is unlikely to adversely affect their longevity and thus the ES concludes that impact on the existing habitats and biodiversity from shading in negligible.

Light Pollution:
The river is subject to an existing level of light spill from the site, street lights and adjacent residential properties. The proximity and in particular the height of the proposed development is likely to increase light pollution on the River Crane and its associated trees. A Lighting Strategy has been requested by the Council and submitted which confirms the applicant's intention to mitigate levels of artificial lighting on site by using low level bollard lighting pressure sodium lights directed away from the river towards the access road and lower plaza. No artificial lighting will be provided along the proposed river crane walkway as this will be closed after dusk. While details are required to fix the precise levels of light spillage, the Council's ecologist considers that the strategy should be able to secure minimal levels of light spill towards the River Crane subject to satisfactory design details secured by condition preventing light spill up into the sky or onto the trees or river.

Wind:
Wind associated with development could have an impact on ecology as species are unlikely to thrive where conditions are poor. The potential impact of wind on the River Crane corridor and its associated habitats are considered by the ES to have a negligible impact with conditions categorised as suitable for standing and sitting in winter and summer months respectively and thereby implying that no impact would be envisaged on wildlife as a result. The predominance of trees in this area in addition to those proposed is significant as these even in winter months (if deciduous) are considered to negate the impact of wind.

Human Disturbance:
Development beside the river crane area is limited to new fencing to the site's northern boundary, new play areas in front of Block C and the creation of a river walkway. The new fence line would restrict pedestrian movement close to the river corridor and railway tracks.

River corridor:
As habitats adjacent to the river are to be retained (i.e. no development takes place in the immediate environment of the river bank) in the unlikely event that there were present it is not considered that the development would have an adverse impact on amphibians or reptiles.

Trees:
No riverside trees are proposed to be removed and the proposed timber screen and metal fencing would be located to avoid the root protection areas of trees. As such the compaction of ground, access and movement for machinery etc would be avoided with impact not considered significant from the site wide development. Given that no trees are to be felled and impact on those retained considered insignificant, it is not anticipated that habitats of value to breeding birds or for roosting and foraging bats would be lost of adversely affected.

An updated arboriculture report is recommended in the proximity of the river walk prior to use to assess if any trees or their limbs are required to be removed in the interest of public safety.

Proposed ecological enhancements:

Bats and Birds:
The applicant sets out in the ES that bat monitoring surveys should be undertaken post development to assess the impact of development and success of mitigation measures and comparison of existing activity levels in order to provide the opportunity for additional remediation works, if required. This will be the subject of condition. The Council's ecologist notes that should construction works not take place until after 1st September 2012, a new bat survey will need to be undertaken to ensure that bat activity status is current. This is also secured by condition.

A number of general purpose bat and bird boxes would be required to be installed within the development site, numbers, locations and other details to be secured by condition to mitigate against the loss of grassland and some minor change in light levels in the river corridor.

The Council's ecologist advises that the application is weak in relation to impacts on existing bird habitat and new bird habitat creation. Nonetheless, there is sufficient room to create some specific habitat for song thrushes (a LBRuT SAP species) within the Riverside Landscape Corridor and this is required by condition as mitigation to the loss of some scrub and tree removal.

Invertebrates:
The site is considered by the ES to have nature conservation value for invertebrates possessing a level of deadwood on site which provides suitable habitats for stag beetles with the other habitats associated with the River Crane suitable for a number of invertebrates.. The ES does not anticipate that any habitats of value to notable invertebrates would be lost or adversely affected as a result of the development. The Council's ecologist agrees with this assessment subject to standing deadwood (where safe) being left on site and as part of the riverwalk, the provision of loggeries and artificial breeding boxes for stag beetles. This would be secured by condition.

Small Mammals and Aquatic Plants:
Ecological advice from the Environment Agency and the Council's ecologist considers that the development would not have an adverse impact on the rivers capacity to function as a wildlife corridor for otters and water voles. Furthermore, the potential for ecological improvement to the banks of the River Crane to the north of the development site itself is limited, particularly on the concrete wall section of the river. A naturalisation project to the southern river bank, as initially suggested by the Environment agency and FORCE, to enable in-channel benefits has been discounted in preference to securing funding for ecological enhancements elsewhere along the river corridor which represent better value. (- and the limited area to the east of the site where the river bank is particularly close to the access road and London Road Bridge) The two projects identified, both on Council-owned land, comprise:

- Kneller Gardens Bank Naturalisation: the River Crane through the park currently has an artificial bank of vertical wooden toe-boarding and no in-channel aquatic marginal plants. Removing the toe-boarding on the left bank and planting in the margins would significantly improve the ecology of the river here (particularly aquatic invertebrates, fish and water vole).

- Pevensey Road Habitat Enhancement: the selected removal, coppicing and pollarding of trees along the Crane Mill Stream and River Crane is required to allow more light to the river channel and allow the growth of aquatic plants and improve the habitat for invertebrates, fish and in particular water voles.

The financial contributions to allow these projects to take place and including the management fees would cost £32,000 (£12,000 and £20,000 for Kneller Gardens and Pevensey Road respectively) and will be secured in full through the legal agreement.

Invasive Species:
As the development within this area has the potential to cause the spread of Japanese Knotweed, particularly downstream (and it is an offence to allow the spread of it) mitigation is set out in the ES. Areas of Japanese knotweed would be removed during the construction phase and those areas where it is present outside of the site would not be disturbed during the operational phase of development. With regard to the removal there are a number of

options available and details of such would be secured by condition alongside a Strategy for Knotweed Management and Control in accordance with the Environment Agency guidelines.

The walkway has been located to avoid the need to remove trees and disturbance of Japanese knotweed and as far as practicable from the river Crane itself and thereby avoiding disturbance to it and it associated habitats. It would lie upon the disused hard standing to platform edge with a section of approximately 70m passing through an area of cleared bramble.

The EA state that the management and eradication of Japanese Knotweed on the top of the river bank, while be beneficial for habitats and biodiversity in the river corridor.

Living Roof/Walls and Trees:
The development incorporates green roofs and walls and new tree planting which will add to the site's ecological value.

Climate change and sustainability:

In furtherance of Council policy DM SD 2 and London Plan policy, the development has been designed to reduce total carbon dioxide emissions by following a hierarchy that first focuses on an energy efficient design that minimises the amount of energy used. In this respect a range of measures are proposed and include solar shading, reduced glazing on north facing walls, reduced thermal bridging and air permeability, good U values for the building fabric and mechanical ventilation with heat recovery at 85% efficiency. The Council's consultant has advised that these measures can be commended.

Policy DM SD 1 requires new homes to meet or exceed the requirements of the Code for Sustainable Homes Level 3. The proposal would achieve level 4 of the pre assessment of the Code for Sustainable Homes and thereby exceeding the current regional and local policy to meet level 3.

The non residential units would achieve a pre assessment rating of 'BREEAM excellent' and is thus complaint with policy in this regard.

Policy DM SD 1 also requires a minimum 44% reduction in carbon dioxide emissions over Building Regulations (2006) in line with Best Practice between 2010 and 2013 after which the percentage reduction will be raised. Apart from energy efficiency measures, Policy DM SD 2 (b) requires this reduction to be achieved through the use of low carbon technologies and finally, where feasible, a contribution from renewable technologies.

A gas fired CHP system (Combined heat and power) providing low carbon heat and power is proposed and this would meet a base load of approximately 67% of the total site heat demand and sized to run 24 hours a day in order to achieve this. The initial concerns regarding the CHP (clarification on calculations of the CHP emissions reductions, details and justification behind the CHP sizing and expected electricity generation from the CHP per year**)** have been submitted demonstrating that the system is sized appropriately and thereby not leading to an oversupply and will perform well in terms of financial feasibility.

Core Strategy policy CP2 and the Council's Sustainable Construction Checklist require a further offset of carbon dioxide emissions (by 20%) through the provision of on-site renewable technology. Photovoltaic panels are proposed and arranged on trays on the flat roofs of Blocks A, B and C.

Given the restriction on the roof and south facing walls to provide more panels (solar and PV), the limited area to provide ground source heat pumps (and cost with these being

installed vertically), the impracticalities of wind turbines the use of PV cells is considered the best renewable energy technology to incorporate on the site. The Council's sustainability consultant has stated that in this respect, the array is well sized and positioned and save for the north part of Block B and the west section of Block C (which would not be optimal for such panels due to shading) all suitable roof space has been utilised.

Whilst the percentage of CO2 offset by the use of PV cells is only 3% (due to the small amount of roof space compared with the number of units) the Council's sustainability consultant considers that given the reduction in emissions through the installation of the CHP and energy efficiency measures, that the renewable energy proposal is acceptable.

Given the reduction in emissions through energy efficiency and CHP and the limitations set out above, the reduction of CO2 through renewable technology is considered acceptable.

An overall reduction of 42% of total regulated CO2 emissions would be achieved compared with the 2006 Target Emission Rate (TER). This was considered by the Council's consultant at the time to be a good achievement for the development considering that it was submitted prior to the adoption of the 2011 London Plan and the Council's Development Management Plan which requires a 44% reduction target on 2006 building regulations for major developments Furthermore, the applicants have agreed for a planning condition to be imposed requiring the applicants to submit to the Council further details prior to works starting on site which demonstrate further improvements to the development's energy efficiency will be secured to ensure full compliance with policy DM SD 1

The development is also considered to accord with policy DM SD 5 having incorporated where feasible a considerable area of green/living roofs.on the flat roofs of the three blocks. which are set aside for a mixture of PV panels and or green roofs. With regard to the latter this is encouraged and welcomed as part of the scheme in reducing impermeable areas and surface water risks of flooding and indeed where overlooked improving the visual appearance of the development.

In addition the applicant has submitted and complied with the Council's sustainability construction checklist (as required by policy DM SD 2) at the time of submission and provided an updated checklist during the processing of the application.

Other sustainable measures:
Pursuant to policy CP5 of the Core Strategy, the scheme is considered to support the reduction and management of car travel and promote sustainable means of travel through encouraging the use of low emission vehicles by providing electric charge points for electric cars, car club bays and lifetime membership for all units, car sharing and other Travel Plan measures, provision of suitable cycle storage space and facilities for commuters, employees and residents and reinforced by being car free and a reduced parking provision for rail commuters.

Solar dazzle/glare:

London Plan Policy 7.7 requires the consideration of reflected glare in terms of affect on surroundings and given the erection of such a building on the application site and its proximity to London Road and the railway line the Scoping Report identified that an assessment of solar glare and the impact of such (dazzle) are required. As set out in the ES, Solar glare principally occurs when the sun is low in the sky and dazzles the eye either directly or indirectly via a reflected surface. It is a highly localised and temporary effect dependent on the direction of the viewer is looking, the position of the sun relative to the viewer and reflecting surface, plus localised weather conditions.

To assess the impact of Solar Glare, the reflected image of the sun on the glass façade of the Development was analysed at specific locations within the ES and chosen on the basis that they are most likely to be significantly affected by any development generated glare (along London Road and on the platforms).

The technical analysis within the ES sets out that for the majority of the year there would be negligible impact from solar glare and that at worse this would be a highly localised minor adverse impact lasting only a few hours at any one time.

As such the ES categorises the impact as having a negligible/minor adverse impact from daytime solar glare but this is not considered to be detrimental to the safe movement around the roads and pavements surrounding the development.

Upon request from the Council an additional number of positions were tested for solar glare (including the railway line to ascertain harm to train drivers) and the addendum to this chapter of the ES found that whilst all ten additional positions will experience instances of glare they will be for limited periods and the overall effect is considered to range from negligible to minor adverse if mitigation measures such as the use of Solar Absorbent glass at key locations within the development.

The Solar Glare analysis demonstrates that there can be continued safe passage and movement for pedestrians, road users, rail drivers and neighbouring occupants surrounding the completed Twickenham Station development with few tests points having a negligible to minor adverse impact within the development itself and a part of the hotel.

The solar glare section of the ES and including the addendum has been assessed independently where the methodology of calculating solar glare was not disputed although a full evaluation cannot be undertaken without the knowledge of the final materials proposed. Other than the test points commented on below the other and their impacts are considered to be appropriate.

The impact on train driver approaching from the west has been described in the ES as negligible although the assessor considers this to be more serious and some form of mitigation required to allow drivers' full vision of the signal near Sherland Road at all times.

The impact on drivers approaching the development from further down London Road (Test Point 7) at the junction with Aragon Road in the afternoons of December should be classed as minor adverse (as opposed to negligible) although the assessor recognises that this is at a time of day when people would be expecting glare to occur if the sun was shining.

At test point 8 the main reflection will be from the west elevation of Block A in winter and even though it would occur for a relatively short period of time, the glare created would be more properly lased as minor adverse (as opposed to negligible) although it is at a time of day when the sun itself would also be a source of glare for drivers travelling in this direction.

An assessment of negligible or minor adverse on test point 14 is considered more appropriate as the elevation tested has relatively little glazing and less than the 60% stated in the addendum report particularly as the hotel room are unlikely to be occupied in the early afternoon when most reflection occurs.

The assessor does not consider the applicant's conclusions that solar glare would be a highly localised minor adverse impact or that the mitigation proposed (solar absorbent glass) is appropriate as some examples of such glass have a higher visible reflectance than clear glass.

As such the assessor states that it should be possible to control solar dazzle appropriately using suitable mitigation measures which could include the use of low reflectance glass, screens or moving or shielding railway signals and as such these could be made the subject of a condition which could require an additional study, such as a disability glare study, to show that the proposed mitigation measures were effective in controlling the risk of dazzle.

Wind microclimate analysis:
As required by policy DM DC 3 and London Plan Policy 7.6 and 7.7, the potential impacts of the proposed development on the wind microclimate within and surrounding the development has been assessed as part of the EIA process and this has in turn been assessed by an independent expert (on behalf of the Council) at the Building Research Establishment.

The assessment is based on a recognised comparison of the predicted wind microclimate with the desired pedestrian use of an area and use of the Lawson Comfort Scale to quantify that comparison.

The Lawson comfort scale is a twelve-point scale which represents equal increments of annoyance or reaction to wind and these were then used to set threshold values for particular pedestrian activities. The criteria account for the fact that the wind conditions perceived as tolerable by pedestrians depend on the activity they are engaged in. For example, wind conditions in an area designated for sitting need to be calmer than a location that people merely walk past.

The ES has identified the following areas and features of the development as being most prone to wind impacts:

- the entrances to the rear of Block A
- the amenity space on the north west corner of the site
- the area between Block A and B
- the balconies

The ES sets out that that the existing conditions on an idealised open site are likely to be suitable for standing/entrance use or better during the windiest season (i.e. winter) and that generally, development may lead to increased wind speeds on adjacent properties for some wind directions but increased shelter for other directions.

In respect of impact on the development itself, the entrances to the rear of Block A (cafe and residential entrance) are classified as having a minor adverse impact (i.e. one category winder than desired) given the channelling of wind from prevalent winds between Blocks A and B whereas the impact of wind to the other entrances around the site are classified as being negligible.

With regard to the amenity space on the north west corner of the site and based on summer use, the wind impact is categorised as negligible to minor beneficial although if there were areas between blocks A and B set aside for long term sitting, the impact would be minor adverse.

With regard to the area between Block A and B as this is a thoroughfare its impact on ‘leisure walking’ is classed as negligible with other areas considered minor to moderate beneficial.

Whilst private, the balconies to the residential units have been assessed and are expected on calm days (when the balconies are more likely to be used) with wind classed as having a

negligible impact on their use. Clarification of the impact on the balconies during winter months has also been provided – this assumes that achieving a sitting classification in summer months would mean that a standing condition would be achieved in winter months.

In terms of mitigation, planting and other landscape enhancements would increase shelter compared with the assessment on areas described above particularly in summer and spring moths when trees are in full leaf. Recession and screening of entrances to improve the wind microclimate is also set out as mitigation measures along with such screens/partitions on the balconies.

Consideration has also been given to the cumulative impact of Regal House (although in the initial ES this was limited to the application site) recognising that the changes to Regal House are expected to push the wind microclimate of the southern plaza area and entrance to Block B from standing/entrance use into the leisure walking classification and thus having a minor adverse impact.

The future development of the post office sorting site is also noted as providing additional shelter for the station site particularly from westerly to west-north-westerly wind.

The ES has also reviewed the study area around the station to include an assessment of the impact of wind along Mary's Terrace and in the vicinity of the River Crane.

With regard to the impact on Mary's Terrace the impact is expected during the windiest season to be suitable for leisure walking, between the existing high-rise office block and the Development, to standing/entrance conditions along the majority of the road, to the east of the office block. With no entrances to the hotel being located from Marys Terrace this represents a negligible to minor beneficial impact along Marys Terrace where the wind would be suitable for pedestrian use or one category calmer than required.

In terms of the River Crane the addendum to the ES states that the wind microclimate during the worst-case season along the River Crane is expected to be suitable for standing along the entire length and on either river bank with conditions likely to improve during the summer months by one category and become suitable for sitting because of the lighter winds that occur in the summer and more leaf coverage on vegetation. This is classed as having minor beneficial to moderate beneficial impact, assuming that the river banks are classified as public thoroughfares.

The independent assessor has stated in his report that Mary's Terrace is sufficiently far away from the proposed buildings that the impact of the proposal is likely to be negligible and therefore agrees with the assessment that the wind impact of the proposed scheme at Mary's Terrace is likely to be negligible or minor beneficial.

It is also agreed that the wind conditions along the River Crane are likely to be minor beneficial to moderate beneficial.

Regarding the balcony assessment, he agrees that the arguments made therein are generally justifiable, and they support the overall assessment that the wind impact on the balconies is likely to be negligible.

With regard to the amenity space, the assessor states that although wind conditions at many locations are likely to suitable for amenity usage, other locations are not likely to be suitable and that if the Council and applicant agree that amenity space wind conditions are 'standing in the summer months', then there would be an agreement with the statements made in the ES regarding amenity space.

The assessor accepts that some areas of the plaza are likely to be suitable for sitting in summer although some areas may not be suitable for this activity in summer months. Having stated this, the assessor goes on to state that in the Plaza area any differences between his concerns and the ES chapter assessment are relatively minor (one classification level). In this circumstance, the provision of screens and/or barriers near to any locally wind areas would be likely to produce the desired wind conditions and as such suggests that planning permission could be granted, subject to the provision of the incorporation of such devices should the wind conditions prove them necessary.

The assessor has some disagreement with the assessment of the wind conditions around both the existing site and the proposed development and that the wind conditions are likely to be more onerous than those predicted. In this regard the assessor believes that the background windiness of the site is suitable for leisure walking whereas the applicant believes this to be more suitable to standing and both are based upon the respective experience on similar development sites.

The assessor does go on to agree with the mitigation measures set out in the ES although in light of the above paragraph and as set out with respect to the impact of wind on the plaza further wind mitigation measures would be necessary.

Electronic interference:

The impact of buildings on television and radio reception is a material planning consideration however there are no specific planning polices to ….

With the introduction of new structures with significant height and bulk into an environment, the Environment Statement is required to assess the potential impacts of the proposed development on terrestrial (both analogue and digital) and satellite television and radio reception.

There are approximately 90 dwellings that are predicted to experience a reduction in TV signal and within the 'shadow' cast by the development and assuming that they rely on terrestrial signals the ES sets out that suitable mitigation measures may be required (upgrade of aerials or satellite services) and on this basis assumes a negligible residual impact is expected.

No adverse effect to satellite TV reception is envisaged given the orientation of dishes.

The impact on electronic interference has been independently assessed wherein the conclusions in the ES are agreed and the following stated:

- Due to the location of the proposed developments, the angle of the incoming satellite signals and the locations of local satellite television viewers, the proposed development cannot impact digital satellite television services such as Freesat and Sky.

- Due to the current good coverage provided by DTT transmissions, the more significant influences of the several existing taller buildings near the proposed development and the minimal predicted impacts of the proposed development, the proposed development is not expected to have any effect upon the reception of DTT (Digital Terrestrial Television) services such as Freeview.

- During Digital Switchover in 2012, transmit powers also increase, ensuring better service coverage within cluttered urban areas. By the time building work

commences, the use of analogue receiving equipment will have ceased due to the forthcoming Digital Television Switchover in 2012. Consequently, interference to analogue services would not be possible after that point.

- Overall, due to these factors, it is expected that the proposed development will have a neutral effect upon the reception of television broadcast services. No interference is expected for any television broadcast platform. No pre or post-construction mitigation measures are required.

Soil and Water Contamination:
The applicants have undertaken a ground conditions assessment, desk study and Generic Quantitative Environmental Risk Assessment (GQRA) in order to establish the likely site contamination risks that could be posed to construction workers, rail commuters/passengers using the transport interchange, future occupants and residents of the proposed development as well as the River Crane. This has been assessed by the Council's Scientific Officer.

It is noted that the site comprises railway land dating back to the late 1800's while the current Twickenham Station itself was developed in the 1960s.

The site near-surface geology comprises 3 layers. Nearest the surface and to a depth of approximately 2m is a layer of made ground (comprising a sandy gravel of flint with fragments of brick, stone and concrete), this is then underlain by the Kempton Park Gravels and finally London Clay. Localised contamination has been identified in the made ground.

The assessment concludes that upon completion of the proposed development the risk of contamination to future occupants, controlled waters and the wider environment would be negligible for the following reasons:

- contaminated material would have been removed from the site during the construction period
- the site contains limited soft landscaping and gardens, therefore there are limited areas where contact with any residual contamination is possible
- the development includes no land uses that would be likely to give rise to significant contamination of soil or groundwater
- contamination of the River Crane is impeded by its concrete riverbank walls
- fuel spillages within the car park areas will be diverted through the use of petrol interceptors into the surface water drainage system, a Thames Water requirement, thereby protecting underlying soil

The Council's Scientific Officer considers the GQRA and desk study represent a rigorous study of contamination on-site. He highlights the need for further work at a later stage to confirm levels of carbon dioxide, pesticides and naphthalene in the soils on-site but otherwise raises no objection to the ground investigation reports submitted which confirmed that no significant contamination had been identified at the site. A condition is imposed requiring further assessment during the construction phase.

Flooding and drainage:
The application site lies within Flood Zone 1, an area where fluvial and sea flooding is limited to 1 in 1000 annual probability. The site is therefore identified as having a very low risk of flooding from the River Crane and Duke of Northumberland's River. North of the site is the River Crane which is designated as falling within Flood Zones 2 (Medium probability) and 3 (High probability) with these zones contained within its artificial banks.

PPS25 advises that in Flood Zone 1, development proposals are required to be accompanied by a Flood Risk Assessment (FRA) on sites comprising one hectare or above to check its vulnerability to flooding from other sources as well as from river and sea flooding, and the potential to increase flood risk elsewhere through the addition of hard surfaces and the effect of the new development on surface water run-off. In this zone, developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area and beyond through the layout and form of the development, and the appropriate application of sustainable drainage techniques.

The applicants have submitted, in addition to the assessment contained within the ES chapter on water resources, a FRA in accordance with PPS25.

The risk of flooding is most effectively addressed through *avoidance*, which in effect equates to guiding future development (and regeneration) away from areas at risk and thereby secure development that is sustainable for future generations. With regard to the construction of development comprising uses (e.g residential) which are 'more vulnerable' to flooding than the existing land use, PPS25 recommends the adoption of a sequential test which steer urban development away from areas that are susceptible to flooding (e.g. Flood Zones 2 and 3) and towards those areas of lowest flood risk (Flood Zone 1) such as the application site. The application site has been sequentially tested and found to be acceptable. No exception test is required.

With regard to flooding from groundwater, it is noted that the existing site is predominantly hard paved and will remain so. As a result no changes to hydrology or adverse impacts on watercourses or groundwater are anticipated. Groundwater has been recorded at 4.5m AOD, a minimum of 1.5m below the made ground. The development does not include a basement or other large scale excavation and hence, impacts on this typwe of flooding are considered to be minimal..

There is however a potential for the site to accumulate surface water and be susceptible to localised flooding. Surface water flooding happens at times of intense rainfall when water becomes unable to soak into the ground, be absorbed by rivers or when the man-made drainage systems have insufficient capacity to deal with the volume of rainfall .

To reduce the risk of surface water flooding, Policy DM SD 7 requires development proposals to follow the London Plan drainage hierarchy when disposing of surface water and to utilise Sustainable Drainage Systems wherever practical. The hierarchy recommends that developments should be designed to include living roofs, stores of rainwater for later use and use infiltration techniques, such as porous surfaces in non-clay areas. The discharge of rainwater to a combined sewer is seen as the least desirable alternative.

In terms of surface water drainage, the applicant sets out in the FRA that surface water (other than that 'captured' by the green roofs) would discharge to the public sewer in Beauchamp Road using the existing on-site drainage connection. The rate of discharge would be controlled at the current level of 70l/s with on-site storage being provided to accommodate the volume of water experienced on storms of upto a 1:100 year intensity including a 30% increase to account for the predicted effects of future climate change. This and other detailed design features to be incorporated within a sustainable urban drainage system (SUDS) such as voided sub bases, oversized pipes and below ground storage tanks or a combination thereof are required by condition to be submitted to the Council for prior approval.

Significant green roofs and small areas of soft landscaping opposite block C are proposed. Other hardsurfaces will be required by condition to be finished with a porous material ensuring that the access road and lower plaza (adjacent to the taxi rank and kiss and ride area) and other areas of hard standing at ground level (as opposed to the main plaza) can drain naturally. The Council's scientific officer has confirmed that on-site contaminants are not mobile and that SUDS are appropriate at this location.

Policy DM SD 8 requires the effectiveness, stability and integrity of the flood defences, river banks and other infrastructure with in the borough to be retained and provision for maintenance and upgrading ensured….by setting back developments…. In this regard, the development now retains an 8m set back from the southern bank of the River Crane thereby securing the buffer zone between development and the river required by the Environment Agency although the riverside walk is included within this area.

The Environment Agency have not raised an objection to the application on flood grounds although a request for conditions to assess and detail the impact on the stability and integrity of the River Cranes bank and flood defence with adequate means of access for inspection, maintenance and upgrading purposes has been requested.

Archaeology:
Policy DM HD 4 recommends that the Council will seek to protect, enhance and promote its archaeological heritage (both above and below ground), and will encourage its interpretation and presentation to the public. It will take the necessary measures required to safeguard the archaeological remains found, and refuse planning permission where proposals would adversely affect archaeological remains or their setting.

The ES appended a desktop archaeological assessment undertaken by the applicants which has been reviewed by an English Heritage archaeology advisor. The appraisal confirmed that the site does not contain any Scheduled Ancient Monuments but lies within an 'Archaeological Priority Area' as defined by English Heritage. This priority area follows the historic flood plain of the River Crane.

The appraisal notes the impact of previous and existing buildings across the site can be considered to have had a cumulative negative impact on any archaeological deposits likely to be present. Nevertheless, the initial assessment has concluded that the site has a low to medium potential for the prehistoric and Roman periods with a low potential for the Saxon, mediaeval and post mediaeval periods.

On the basis of the low potential for archaeological deposits and the previous development of the site, further archaeological assessment was not submitted in the ES although the applicant has stated that necessary fieldwork, in the form of a targeted evaluation exercise (i.e. trial trenches) could be undertaken through the construction phase in order to establish the presence or absence of archaeological deposits, and subsequent mitigation measures may then be recommended should such remains be found.

English Heritage concur with this evaluation and consider that the archaeological interests at the site can be suitably safeguarded by the attachment of a condition requiring no development to take place until the applicant has secured the implementation of a programme of archaeological work in accordance with a written scheme for investigation which has been submitted by the applicant and approved by the Local Planning Authority. This condition is recommended to be imposed.

H. Construction and environmental Impacts

The previous sections in this report have comprised an assessment of environmental impacts related to the development once constructed. However, as part of any application for EIA development, the impacts of the actual construction process require review and where necessary, methods of mitigation explained. Developments comprising urban infrastructure projects are commonly constructed in close proximity to many of the so-called 'sensitive receptors', in this case these are identified as local residents in Marys Terrace, Beauchamp Road and Cole Park Road, the River Crane corridor and the local highway network. Furthermore in this particular case, the impact of the construction process on the operation of the rail interchange and local bus routes has also been assessed.

It is firstly noted that no tender has, at the time of report writing, been secured for this project and that this places an unavoidable limitation to the assessment of some of the more detailed construction impacts linked with building techniques and the required construction plant for instance. In these regards, the report recommends the imposition of safeguarding conditions which apart from requiring the provision of the necessary details once known also sets ranges/thresholds which these details shall have to accord with and be monitored against. Other matters which had the potential to cause serious adverse impacts have been identified and strategies for resolution agreed as part of the current planning application process. In this last regard, it is considered that there is sufficient information within the framework Demolition and Construction Method Statement (DCMS) and Environmental Statement to enable the significant environmental impacts likely to be associated with construction to be identified and their significance assessed, with and without mitigation.

The main construction impacts identified are:

1. Disruption to Public Transport
2. Traffic and Pedestrian Movement
3. Noise and vibration
4. Dust and air quality
5. Ground Contanimation
6. Waste
7. Pollution of Water Courses
8. Ecology
9. Sustainability
10. Public Safety

General
The construction works are anticipated to take approximately 33 months and will comprise the implementation of two key phases as set out earlier in the report.

Phase I comprising mobilisation, site clearance, foundations, podium slab, temporary access from the station to the platform, station platform improvements, the replacement of a new platform bridge to the east (subject to the secure of funding), temporary road widening

Phase 2 comprising the temporary ticket office, superstructure to podium, new station, superstructure to the residential and commercial units, fitting out, external works, services and drains, landscaping and riverside walk and the handover.

While no contractor has yet been agreed for this project, an overarching requirement of any future DCMS is that in line with best practice, Solum Regeneration will require contractors to sign a Considerate Contractors Agreement and to produce an Environmental Management Plan (EMP) to sit along side the DCMS. These documents will be required to include a commitment to establish procedures to ensure effective communication is maintained with

the local community and that provisions allowing for affected parties (local residents, train and bus users etc) to register initial complaints for resolution with the applicant and the main contractor. Updates on site progress and major activities will be communicated by means of project notice boards, newsletters and letter drops.

The core working hours for site preparation and construction are expected to be as follows:
08:00 – 18:00 hours Weekdays;
08:00 – 13:00 hours Saturday; and
Working on Sunday will be subject to reasonable notice for works required "out of hours"

During the scheduled track possessions operations will be carried out on a 24 hour basis. Night time working is otherwise not to be normally undertaken, except in relation to certain material deliveries.

All work outside these hours, with the exception of material deliveries, will be required by the DCMS to have gained the prior agreement, and/or give reasonable notice to London Borough of Richmond upon Thames who may impose certain restrictions.

As a final general point, the construction of the Travel Lodge hotel is due to be complete for handover before Christmas and cumulative construction impacts are not expected with this development.

Public Transport Impacts
The minimisation of disruption to public transport services for Twickenham during the construction period of each phase is one of the key impacts requiring mitigation.

During construction, the intended changes to the bus and rail facilities near Twickenham Train Station will be as follows:
a) The station car park will be subject to full closure during construction to avoid potential conflict between construction vehicles and users of this part of the station.

b) It is intended that the level of existing cycle parking provision will be maintained during the construction period. The exact location of the cycle parking will need to vary during the construction process and the details of how this will be managed will be dealt with through the construction management statement.

c) The current footbridge accesses to the platforms will be replaced with temporary gantries that provide access to the platforms while avoiding the area where the podium will be erected. These gantries provide the same if not slightly increase areas for passenger queuing on event days. Platform 4/5 will still have the chair lift for disabled access and platform 2/3 will continue with disabled access from the car park as currently.

d) The existing 'out of hours' gantry will be dismantled and alternative provision made

e) During phase 2, the existing ticket office is to be demolished and replaced by a temporary office situated on the new raft

f) Night time bus lane closures on London Road are to take place from 8pm-6am throughout the construction period

g) The bus stop opposite the station is to be suspended throughout the construction period

Event Days
From the outset it was clear that the development's construction would coincide with events attracting large crowds to Twickenham Stadium (namely the annual 6 nations tournament, autumn rugby internationals, club competitions at Twickenham Stadium and to a lesser extent summer concerts). Crowd management, queuing and safety issues at the station on RFU event days was recognised by the Council as a significant concern and following discussions with the applicants, a condition is recommended to be imposed preventing all construction work and vehicle access to the site on such days. This condition will also limit the amount of construction vehicles on the A316 and local roads which are at capacity prior to and after events (both in terms of vehicle tailback due to road closures and stoppages and to allow for spectator ingress and egress on Whitton Road and, in part, London Road).

While actual construction works will be limited to non-event days, special site management procedures on event days will still be required due to the changes to the stations facilities and the siting of the construction compound in the commuter car park. These procedures cannot be rigorously set out at present and hence need to be a requirement of the DCMS needing future approval by the Local Planning Authority. While these management measures will need to be bespoke and dependent upon the stage of the construction project at the time of the particular event, certain measures and principles included in the construction plan are agreed as follows;

(i) Advising on the Transport and Stadium web sites and other information sites that construction work is taking place and there may be some delays.
(ii) Advising visitors of the alternative arrangements that would be available on a temporary basis in order to slightly manage down the numbers
(iii) Providing clear legible routes between the platforms and the outside area.
(iv) Details of the event queuing in the north car park owing to the fact that the area available will vary dependent upon the size of the compound areas, areas set aside for construction vehicles and plant, etc.

Traffic and Pedestrian Movement
Mary Terrace - Road Closures/CPZ Bay Suspensions
Construction of the raft (Phase I) involves partial closure of Mary's Terrace during construction to allow access to the tracks and for crane placement. A pedestrian route and a 3.7m corridor for emergency access will be provided from Station Yard/Railway Approach during this period, except during track possessions times. Outside of these times, emergency vehicles will be able to enter via Beauchamp Road, a planning condition requiring the demolition of a section of the existing wall and its replacement with a temporary wall boundary. These works are required to enable ambulances, fire tenders etc to manoeuvre around this narrow 90 degree bend. During rail possessions Mary's Terrace resident parking will be provided in Station Yard free of charge.

During Phase 2, the full pedestrian closure of Mary's Terrace would be no longer required although there will be continued relocation of resident parking if a crane is in place. Emergency access will be as for the Phase I construction.

London Road - Closures
Night time bus lane closures on London Road are to take place from 8pm-6am. Partial footway closures would coincide with the bus lane closures in the evening but are also proposed to continue throughout the day and have yet to be agreed by the Council as local highway authority. These closures are required to allow materials to be supplied to site for the raft works during evening/night time periods, using bus lane closures off London Road. The reinforced concrete foundations will be constructed using traditional techniques behind the site hoardings. The lane closures will be agreed with the Highways Authority and will include necessary pedestrian management measures. Full details of this will be included in

the Traffic and Pedestrian Management Plan produced in agreement with the Local Highway Authority in due course.

All construction vehicles will access the site via London Road or Whitton Road from the A316. Operatives will be encouraged to travel to the site by public transport as there will be little if any on site car parking for them, otherwise they would be subject to the same pay and display or car park charges as other visitors to the area.

In general more detail on construction including vehicle numbers and sizing, routes and traffic management will be submitted after grant of permission through conditions.

Personnel travelling to site will be encouraged to use public transport. No on site parking will be provided for operatives. Any local traffic management measures for site access will be agreed with the relevant authorities.

A Construction Logistics Plan (CLP) will identify the duration of the phases and will also identify methods and routes for delivery of construction materials and removal of waste materials. The CLP will be prepared in accordance with the Tfl CLP guidance document – 'Building a Better Future for Freight: Construction Logistics Plans'

Noise and vibration

Reasonable assumptions regarding the construction methods, periods of operation and the type of mechanical plant and their consequent impacts on noise and vibration are considered by the Council's Environmental Health Officer to be included in the Environment Statement. Nightime working is to be limited to track possessions or when essential work is required to the operational train station. The main impacts in need of mitigation originate from:

- vehicles and plant e.g. from the use of air compressors and diamond cutters on-site
- piling techniques, likely to be augured piles and for the podium works "reduced height" rigs will be used,
- demolition work using an excavator mounted hydraulic breaker, a tracked loader and a lorry fitted with grab for removal of the demolition waste.
- recycling of waste - broken hardsurfacing and building waste if crushed on site for re-use within the proposed development.

The proposed works are likely without mitigation to have a major impact on the nearby residential properties in Cole Park Road and Mary's Terrace. This judgement takes into account existing background noise levels,

The following mitigation measures are proposed and these would be secured though the DCMS condition:

1. Surround the site with an impermeable hoarding (to a height of at least 2 m during the demolition, site clearance and construction phase.
2. Work on the upper floors should, as far as is practicable, be carried out inside an enclosure – this can be a plastic sheet shroud around the scaffolding (also required for dust control) and working inside the part completed building envelope.
3. Confine the activities to normal work hours (no Sunday work without prior notification). However, some of the work, notably the construction of the lower part of

the building bridging the railway will have to be carried out during railway possessions – typically 24 hour working through the night and/or at weekends.
4. Use of only quiet types of plant and fitting where practicable of silencers.
5. Monitoring of noise and notification in advance of works requiring rail possessions.
6. Pre condition surveys when significant vibration is envisaged.

The CMS shall mirror the details required under section 60/61 of the Control of Pollution Act 1974 and follow the Best Practice detailed within BS5288: 2009 Code of Practice for noise and Vibration Control on construction and open sites.

This will include:
1. Noise/Vibration prediction and maximum day, evening and night levels based upon BS5288 requirements.
2. Real time noise and vibration monitoring which will be web enabled allowing real time access by both h the Local Authority and residents
3. Site to be fully hoarded and construction of buildings to be encapsulated.
4. Best Practice as per BS5288 including working practices and equipment to be implemented throughout demolition and construction phase
5. Dust control to comply the guidance found in The control of dust and emissions from construction and demolition Best Practice produced by the Greater London Authority (GLA)

Dust and Air quality

The process of demolition, construction (cutting and grinding of materials) and removal/recycling of waste will require the use of HGVs and the operation of diesel powered plant producing fumes as well as providing opportunities for wind blown dust that need mitigation.

To limit the emission and spread of dust, the DCMS will include the erection of solid barriers/hoardings around the site, use of protective sheeting, the use of water particularly on dry days, vehicle movements on hard surfacing, loads entering/leaving the site to be covered, covering stockpiles and monitoring.

In relation to fumes, only minor increases in NO2 and particulates are predicted at the nearest residential houses in Cole Park Road. These increases are unlikely to have any apparent effect on the nearest residents as they are well within presently occurring variations due to natural climatic changes. – has John agreed this.

Ground Contamination

The majority of the soil from piling, minor excavations and foundations would require removal from site. Due to the site's use as railway land, and given the results of the initial ground investigation work, a small amount of material excavated from the site and requiring off-site disposal is likely to be classified as hazardous waste. Such waste material would be disposed of at a licensed landfill site with prior consent from the EA. The material would require transporting and disposal in accordance with the Environmental Protection (Duty of Care) Regulations, 1991 and would be tested to determine its classification and to identify an appropriate disposal facility. This process is secured by condition DV29C.

Subject to adherence with other legislative provisions for site workers and the site compound and construction areas to be surrounded by hoarding and made secure, the risk posed to construction site workers and the general public is adequately addressed.

Any contamination present within the site is already considered to have migrated into the aquifer below. Piling on site is therefore unlikely to create additional pollution pathways into the Kempton Park Gravel aquifer.

The impact of material or fuel spillages during construction will be mitigated by the location of storage areas on impermeable bases and sited away from surface water drains. Plant and machinery wil be required to have drip trays and an emergency spillage action plan will be required by the DCMS demonstrating that on site planning and provisions to contain serious spill or leak through the use of booms, bunds and absorbent material are in place. These measures are considered sufficient to safeguard the constructions impact on soils as negligible.

Waste

A Site Waste Management Plan will also be produced and agreed prior to any works commencing and this will set out the steps to be taken to avoid waste production, reduce waste removal and to re-cycle waste.

The DCMS will also require asbestos contained within buildings will be demolished and identified will be removed in accordance with the Control of Asbestos Regulations 2006

Pollution of Water Courses
The main construction impacts identified for the River Crane as a water body are from

- Contamination and Fuel spillage
- Increases to sediment loadings affecting storm water run off

The concrete lining to the River Crane will prevent mobilised ground contamination or fuel spillage during construction from migrating into the river (EA view?). No works are proposed that should affect these riverbanks.

Regular cleaning of site access points and the provision of properly contained wheel wash facilities for construction vehicles will be required in the DCMS to prevent the build-up of dust and mud.

To avoid the impact of alkalinity of water being affected by the use of concrete and cement products, mitigation in the form of pre mixed delivery, specific designations of wet concrete handling and cleaning associated with concrete and cementing processes is proposed.

Measures will be secured through the DCMS to minimise the potential for uncontrolled release of sediment into active drainage systems and should potentially result in a minimal impact on the drainage system and surface waters and therefore be of negligible significance.

It is noted that there are no public sewers crossing the site.

Ecology and Trees
Other than the construction of the riverside walk and the associated fencing, no development per se is being undertaken within 8m of the River Crane, the Environment Agency buffer zone requirement. The riverside walk has been located to avoid significant impact on existing trees and associated wildlife with only a short section of bramble scrub to be removed (70m).

Protection of the river habitat adjacent to the main construction site will be primarily secured by an impermeable barrier along the northern boundary of the site to avoid impact from noise, light and dust migration from the site during construction. Further ecological safeguards will be set out in a Environmental Management Plan (EMP) and will include details of the control, direction and positioning of construction site lighting to prevent light spilling up to the sky and over the trees and adjacent river corridor. Such lighting if not suitably controlled has been identified as potentially harmful to this river corridor, particularly for bats.

Planning conditions require the removal of Japanese knotweed from the site during construction in accordance with a management strategy that will include require the agreement of measures aimed at preventing the knotweed being transferred to other sites along the crane corridor.

The Council's arboriculture officer has assessed the Environmental Statement and the Arboricultural Method Statement and raises no objection to the construction impacts linked to this development subject to conditions requiring

- the prior erection of tree protection fencing to trees along the river corridor and
- the prior agreement of construction methods for structures within root protection zones of such trees

The successful implementation of replacement soft landscaping/tree planting

Sustainability

A number of commitments to sustainable construction methods will be encouraged though the EMS including:

1. Materials to be recycled and re-used on-site or provided for re-use and recycling off-site in line with policy CP6 which seeks to support sustainable waste management
2. Raw materials to be from renewable sources

The use of railway for construction material movements has been considered but discounted by the applicants due to the multiple use of the railway line by passenger, freight and engineering trains leaving few guarantees to the unimpeded use of the track for the delivery of materials.

Public Safety:

All site work areas will be enclosed where possible to ensure site security without prejudicing the functioning of the railway station.

Site personnel will be subject to a site specific induction.

Emergency procedures for the project will be agreed with the Client, Network Rail, the Train Operating Company, local authority and emergency services prior to works commencing. An Emergency Procedures Plan (EPP) will be produced setting out the required response steps in an emergency situation. All personnel will be briefed on the EEP measures as part of the site induction process.

In conclusion, it is considered that the ES has undertaken a thorough assessment of the likely construction impacts and subject to the imposition of safeguarding conditions as recommended in this report, adverse impacts are short-term and, as far as possible, mitigated.

I. Other Matters

Alternative Development

The Council's Scoping opinion in relation to the Environment Statement stated that (alternative) 'versions with lower key massing than the current proposal and/or alternative massing arrangements should be illustrated and discussed as part of the EIA process.' Whilst the applicant has not responded to the Council's scoping opinion in this respect, the ES has set out alternatives that derived from their initial concepts for this site and the 'no development' scenario. As set out within Part II of Schedule 4 of the Town and Country Planning (Environmental Impact Assessment) Regulations, the ES needs only to incorporate an outline of the main alternatives studied by the applicant or appellant and an indication of the main reasons for their choice, taking into account the environmental effects. In light of this legislation an objection on Environmental Impact Assessment grounds cannot be raised.

Local residents are aware of and have commented upon alternative development proposals being circulated in the community but that are not formally submitted to the Council in the form of a planning application. These proposals hence have not been the subject of detailed scrutiny by Council planning officers. In this respect Members should note that any alternative proposal is required by the SPD (Twickenham Station and Surroundings) to optimise benefits to the town centre and the public transport interchange. Furthermore the SPD recognises that building across the tracks is a possible option, subject to consideration against other planning policy which includes in Proposal Site T17 and Core Strategy Policy CP9.

Statement of community engagement

The Council has an adopted Statement of Community Involvement (June 2006) which places great emphasis on early consultation in order to reach consensus on key issues at an early stage. This consultation encourages pre-application discussions and community involvement from the outset. Seeking community views on the acceptability of proposals, especially before an application is finalised is considered to strengthen the Council's and the local community's ability to exert influence on the design process and provides an opportunity to identify and resolve deficiencies with a scheme.

All applicants are encouraged to explain their proposals informally to neighbours and to anyone else who might be affected, either before or at the time of making their application. This requirement is in addition to the Council's own consultation of neighbours and residents groups. The consultation process also includes notifications to other interested parties including statutory and non-statutory consultees,

This planning application includes a Statement of Community Engagement. This document explains the mechanisms used by the developer to consult with the local community which began at the stage of the preparation of the initial and larger redevelopment scheme for 165 dwellings (ref. 10/3465/FUL). This involved:

- Appointing a communications agency to manage consultation with the local community
- 4500 Newsletters mailed to houses
- 1000 Newsletters circulated at the station and at other locations within the town centre (2 editions)
- Public exhibitions on 16 and 17 July 2010
- Project web site with online response form
- Meetings with local mps, councillors and council officers

The findings of the SCE were summarised as follows:

- 335 responses received to newsletter or website (response rate of) two thirds of respondents support the proposals to redevelop the station
- 60% however have been reported as finding the heights a concern.
- the other main concerns raised during consultation related to the lack of parking, impact on schools and traffic impact.

A Council led consultation exercise with local residents, the 'barefoot consultation', regarding the future of Twickenham coincided with the applicant's consultation exercise. This was commissioned by the Council to enable local residents to record their views of the future of the town and considered a number of important development sites in the town, including the station, and involved an exhibition and survey undertaken between 22-24 July 2010. A representative from Solum also contributed as part of a panel discussion at the Council's Twickenham Conference on the 30 October 2010. The results of this exercise have been included in the applicants Statement of Community Engagement.

The feedback from both the 'barefoot consultation' and developer's consultation exercise is summarised in the SCE and acknowledged to have identified community concerns which have led to the submission of the revised 115 unit application. However, whilst the documents sets out that dialogue continues with residents, it is noted that no public exhibition with this scheme has been held and the images within the submitted SCE do not contain any of the scheme under consideration.

The project website was however updated and it is known to the Council that further newsletters were sent to local residents in July 2011 and flyers distributed at the railway station. The feedback sent to the developer and forwarded to the Council include

- 433 support cards from the leaflets circulated to households in Twickenham
- 150 online support pledges
- 73 signatory petition from local residents supporting the redevelopment of Twickenham station
- 59 names of Twickenham business representatives on a petition supporting redevelopment

In conclusion, it is considered that the pre-application consultation that has taken place on the current application is satisfactory however the consultation process on the revised scheme submitted would have benefitted from a further series of public exhibitions and a full summary of the findings to the responses to the July 2011 newsletter. In particular, members should note that support for a new station and improved facilities is not accepted by officers to be a direct translation of support for the submitted scheme. It is hence concluded that dialogue with the community could have been improved and the findings have not been reported or influenced the final design.

<u>Partial implementation safeguards</u>
In the event that the construction of phase I of the development is completed but building works linked to phase II cease for a period of over 1 year, the legal agreement has a number of safeguarding clauses that require further detailing to the raft and the provision of a

permanent access bridge to the platforms to be constructed within 6 months. The raft details will comprise:

- a sedum roof across the exposed surface at bridge level
- a trellis and 'green wall' beneath the raft facing Mary's Terrace
- decorative fascia panelling on the south and east facing edges of the raft

Furthermore, the proposed investment into platform improvement works at Twickenham station which is funded directly by Network Rail, independent of an approved development, will be still secured should there be a cessation to the works approved under the planning application. The timing of the platform works is for construction to have been completed prior to phase II should the development be fully implemented or in the event of works ceasing on phase I or II for over a year, six months from that date.

Conclusion

The proposed development provides an opportunity to redevelop the area of Twickenham Railway Station providing some key improvements to the station itself benefitting residents, employees of the borough, visitors and rugby/concert crowds, these being:

- A modern new station entrance and ticket hall sited closer to the town centre
- Lifts from the ticket hall to all platforms
- Significant improvements to the platform environment including improved facilities and a new secondary over bridge (subject to Outer London Bid).

Insofar as improvements to the immediate area surrounding the station, the following are secured through this development:

- Improved public transport interchange facilities with lifts to a new taxi rank, car park and drop off area.
- An increase in and improved commuter cycle facilities.
- A riverside walk linking the site and the town centre to Moormead Park.
- A public plaza in front of the station entrance bordered by a new bus stop on London Road and complimentary shops and cafes.
- Ecology improvements to the river Crane environment both on and off site.

It is considered that the redevelopment of the station and its immediate environment would provide a catalyst for the regeneration of the northern approach into the town centre benefitting Twickenham as a whole particularly as a gateway to the town and to Twickenham Stadium.

The design and architectural approach is considered acceptable providing a modern and sustainable building to the frontage of London Road with a traditional design fronting the River Crane and Cole Park Road. The heights of the buildings exceed the requirements set out in local policy however they are considered to provide a suitable transition between the height of Regal House and the recently erected hotel and the two storey houses in Cole Park Road with a mass that is broken into three blocks where the articulation and geometry is such that the scale and mass is considered to be suitable in the context of a town centre location and providing a gateway into Twickenham.

A key component of the development is the erection of a raft over the railway tracks which would allow the provision of the station entrance direct and closer to the platforms, closer to the town centre and would provide a public plaza in front of it.

The cost of the erection of the raft is in part informed by the need for the closure of the station and the railway lines to allow engineering works to take place in limited time periods (possessions) which in themselves drive up costs.

The applicant has demonstrated with a financial viability study that has been independently verified that subject to the build costs being as predicted (including the raft) the level of enabling development needs to be as proposed (115 residential units and 734sqm of retail space). Whilst the building heights exceed those set out in Policy DM DC3 and the relevant SPD and no affordable housing is provided the securing of substantial rail investment and improvements as described above are considered by officers to be of greater planning benefit to the revitalisation of Twickenham town centre in accordance with Core Strategy Policy CP9 and the UDP Proposal Site (T17).

The financial contributions to negate the impact on infrastructure and community facilities is limited to a significant contribution towards education and ecological improvements to the River Crane.

A phased development of the raft and temporary facilities and then the enabling development would allow the Council to assess actual costs, sales and profit against those predicted in the viability statement to enable the claw back of contributions towards infrastructure and community facilities, most notably affordable housing. This will be secured as part of the S106 legal agreement.

The development would be car capped with on-site parking limited to residents with mobility impairments and commuters. Given the sustainable location of the development and its residential units, restriction on parking permits within the Community Parking Zone and initiatives such as the on-site car club spaces, significant on-site cycle storage facilities and Travel Plan measures it is not considered that the proposal would prejudice the free flow and safety of traffic on the local highway network. Parking surveys of the development would be secured with the aim of identifying parking stress with mitigation in the form of extending CPZ times later into the evenings to prevent non permit holder parking.

As the development is car capped and the retail facilities limited no adverse impact on the local highway network is anticipated.

No adverse impact on the skyline of Twickenham and its surrounds, the protected view from Richmond Hill, local climatic conditions (wind, noise, air and solar glare) or neighbour amenity is envisaged.

I therefore recommend the **PERMISSION** is granted subject to the **completion of a S106 agreement** to secure those matters identified above and **no adverse direction from the GLA** and the following conditions and informatives:

Standard Conditions:

AT01A	Statutory time limit
BD12	Materials
BD11	Sample Panel
CP05	Strict accord plans-Height/site – Insert - T(20)E01C, T(20)E02 D, T(20) E04E, T(20)E05C, T(20)E06D, T(20)S02D, T(20)S03C, T(20)S04C and received on 17 June 2011.
DS03	Parking - People with disabilities – insert 7
DV15	Window obscure glazed-No openable~~ insert ‘lobbies on floors 1-6 (inclusive)’ and ‘south elevation of the building Block B’
DV17A	Dustbin enclosure required

DV27A	Recycling - Details required
DV30	Refuse Storage
DV29C	Potentially Contaminated Sites.
DV42	Details of foundations – piling
LT03	Protect Trees (Shown on Plan) (Fencing)
LT15	Site Supervision
PK03A	Load/ unload/turn facilities
RD10	Gradients of Ramps
ST02A	Highway sight lines be provided – Insert T(20)P-1 Revision E
ST03A	Highway sight lines – Pedestrian

Non Standard Conditions:

NS01 -Approved Drawings - (phasing)

The development hereby permitted shall be carried out in accordance with the following approved plans and documents, where applicable. The development shall be constructed in 2 phases as identified in principle in the description of development; the first phase shall relate solely to that part of the site hatched brown on the plan attached to this decision notice and to those demolition and construction works as shown on drawings nos:

4674/Z5(10)E01 Rev. B, 4674/T5(10)S01 Rev. B, 4674/T5(10)P00 Rev. B received on 5 August 2010, 4674/T5 (20) P00 P1 Rev. A, 4674/T5 (10) LP00 Rev. E received 13 December 2010, T5(20)P00 Revision K received on 22 June 2011, 4674/T5(20)E01 Revision J, 4674/T5(20)D01 Revision E, 4674/T5 (20) E02 Revision F and 4674/T5(20) S01 Revision E received on 17 June 2011. SRG–Twickenham –Tracks.1 Rev A received on 20 September 2010.

Phase 2 relates to the following drawing numbers:

T(10)S01 revision A, T(10)LP00 revision B, T(10) P00 revision A and T(10) E01 revision A, T(20)E01 revision C, T(20)E05 revision C, T(20) P roof revision A, T(20)S04 revision C, T(20) P-1M revision B, T(20) P01 revision C, T(20) P02 revision C, T(20) P03 revision C, T(20) P04 revision C, T(20) P0M revision D, T(20) P06 revision C, T(20) P07 revision C, received on 9 May 2011.

T_A(70)P00a revision A, T_A(70) P00b revision A and T_B(70)P00a revision A received on 8 June 2011.

T(20)E02 revision D, T(20)E03 revision D, T(20)E04 revision E, T(20)E06 revision D, T(20)S01 revision D, T(20)S02 revision D, T(20)S03 revision C, T(20) P00 revision D, T(20)CP01 revision A, T(20)BP01 revision A, T(20)AP01 revision A received on 17 June 2011.

T(20) P05 revision D received on 14 September 2011

T(SK)E04 revision A, T(SK) P05 revision A received on 21 September 2011

T(20)P-100 revision A received on 26 September 2011

T(20)P102 revision B received on 17 October 2011

T(20)P-1 revision E received on 27 October 2011

REASON: To accord with the terms of the application, for the avoidance of doubt and in the interests of proper planning.

NS02 – Fixed louvres

The fixed louvres shown on 4674/T(20)P01 Rev C, 4674/T(20)P02 Rev C, 4674/T(20)P03 Rev C, 4674/T(20)P04 Rev C, 4674/T(20)P05 Rev C, 4674/T(20)P06 Rev C to Block A and B shall be installed prior to occupation.
REASON – To ensure that the privacy of units within the development and the rooms to the adjacent hotel are protected.

NS03 – permeable hardsurfacing

That all new hardsurfacing, with the exception of the access road and car parking areas shall be porous and constructed and laid out in accordance with details to be submitted to and agreed in writing by the Local Planning Authority.
Reason: In the interest of sustainable construction and to avoid excessive surface water run-off.

NS04 – sustainable/renewable technology

The combined heat and power system and solar photovoltaic panels shall be constructed in accordance with details to be submitted to and approved in writing by the local planning authority. The details shall include the design, technical specification and external finishes thereof.
REASON: In the interests of promoting sustainable forms of developments

NS05 – CHP

The details to be submitted and approved in writing to the local planning authority shall demonstrate that the combined heat and power system and the associated buffer vessels/thermal store have been sized sufficiently to meet at least 67% of the site-wide heating demands. The combined heat and power system shall at no time operate for less than 24 hours a day except for periods of maintenance.
REASON: In the interests of promoting sustainable forms of developments

NS06 – Green Lease

None of the commercial units hereby approved shall be fitted out and occupied other than in accordance with a Green Lease Agreement and/or Green Building Guide as required by the BREEAM Retail 2008 Pre-Assessment prepared by CHBS dated 28/04/2011 and which shall have been submitted to the Local Planning Authority and BREEAM for prior approval.
REASON: In the interests of promoting sustainable forms of developments

NS07 - Noise Protection – Residential Development

Prior to the commencement of work on site, a scheme, including glazing schedule, providing for the insulation & associated ventilation of the proposed development against the transmission of externally generated road, rail and aircraft noise shall be submitted to and approved by the Council. The scheme shall demonstrate compliance with the “good” criteria detailed in 7.6.1 of BS8233: 1999. Any works which form part of the scheme shall be completed in accordance with the approved details before the dwellings are occupied"

BS8233:1999: Guidance on suitable internal noise levels can be found in BS8233:1999: Sound insulation and noise reduction for buildings. Section 7.6.1 of BS8233: 1999 suggests

indoor ambient noise criterion for reasonable resting and sleeping conditions in bedrooms and living rooms. In respect of residential dwellings the following criterion is presented:

Table1 – BS8233 Internal Target Noise Criteria

Criterion	Typical Situations	Design Range $L_{Aeq,T}$dB	
		Good	Reasonable
Reasonable resting/ sleeping conditions	Bedrooms	30	35
	Living Rooms	30	40
	Utility Rooms Kitchen/Bathrooms	NA	45

BS8233 also recommends that *"for a reasonable standard in bedrooms at night, individual noise events (measured with F time-weighting should not normally exceed 45dB L_{Amax}"*

Any acoustic ventilators proposed, which can be passive ventilators, shall meet the minimum background ventilation requirements of the Building Regulations 2000 Approved Document F "Ventilation".

Reason: To ensure that proposed residential accommodation is suitably protected from railway associated noise

NS08 - Protect from railway noise

No occupation of the development on phase 2 shall take place until a scheme for the acoustic insulation of the windows on the rear elevations of Blocks B and C facing the railway, and acoustic insulation of any internal refuse and recycling store, have been submitted to and approved in writing by the local planning authority. The scheme shall be implemented in accordance with the approved details before the dwelling units are occupied and shall be permanently retained thereafter.

Reason: To ensure the residential accommodation is suitably protected from railway noise and are of a suitable standard to meet modern day living requirements.

NS09 - Protect from Commercial Noise Transmission

Prior to the commencement of development of phase 2, a scheme for the sound insulation of the floor/ceiling/walls to the proposed development to reduce the transmission of noise from commercial A1, A2 and A3 units to residential units within the proposed development shall be submitted to and agreed in writing by the Local Planning Authority.
The scheme approved by the local planning authority shall be fully implemented in accordance with the approved details before the use, hereby permitted, commences and demonstrate compliance with the design criteria below.

The works and scheme shall thereafter be retained in accordance with the approved details. No alteration to the structure, roof, doors, windows or external facades shall be undertaken without the grant of further specific consent of the local planning authority.

Design Criteria

Mixed Use Commercial (A1, A2 and A3) / Residential Units - performance standards for separating walls, separating floors, and stairs that have a separating function.

In order that the sound

	Airborne sound insulation *D*n*T*,w + *C*tr dB (Minimum values)
Purpose built Mixed Use Development Walls Floors and stairs	**53-55**

to show above insulation requirements have been satisfied post- completion testing should be undertaken in accordance with the guidance set out in Approved Document E: Resistance to the passage of sound, Building Regulations 2000 or the provision of Robust Drawings which meet the robust details guidance *www.**robustdetails**.com*
Reason: To ensure that existing and proposed residential accommodation is suitably protected from noise transmission linked with the commercial premises hereby approved.

NS10 - Mechanical Services Noise and Vibration Control

Before any mechanical services plant including, air handling, combined heat & power system and the kitchen extraction system etc, to which the application refers are used at the development, a scheme shall be submitted to and approved in writing by the local planning authority which demonstrates that the following noise criteria can be complied with and shall thereafter be retained as approved

The cumulative measured or calculated rating level of noise emitted from the mechanical services plant including, air handling, combined heat & power system, and the kitchen extraction system etc, to which the application refers, shall be lower than the existing background noise level by 5dB(A) or 10dB(A) below if there is a particular tonal or discrete component to the noise, at all times that the mechanical systems etc operate. The measured or calculated noise levels shall be determined at the boundary of the nearest ground floor noise sensitive premises or 1 meter form the facade of the nearest first floor (or higher) noise sensitive premises, and in accordance to the latest British Standard 4142; An alternative position for assessment/measurement may be used to allow ease of access, this must be shown on a map and noise propagation calculations detailed to show how the design criteria is achieved.

In addition the noise from the kitchen extraction system must achieve the “good standard” for internal noise levels detailed in Section 7.6.1 of BS8233: 1999 which suggests indoor ambient noise criterion for reasonable resting and sleeping conditions in bedrooms and living rooms.

BS8233 Internal Target Noise Criteria

Criterion	Typical Situations	Design Range $L_{Aeq,T}$dB	
		Good	Reasonable
	Bedrooms	30	35

Reasonable resting/ sleeping conditions			
	Living Rooms	30	40
	Utility Rooms Kitchen/Bathrooms	NA	45

The plant shall be supported on adequate proprietary anti-vibration mounts as necessary to prevent the structural transmission of vibration and regenerated noise within adjacent or adjoining premises, and these shall be so maintained thereafter.
Reason: To ensure that existing and proposed residential accommodation is suitably protected from noise and vibration linked to the operation of plant at the development.

NS11 - Protect from A3 Odour – Extraction System

Prior to the commencement of development of phase 2, details of a scheme for the extraction and treatment of fumes and odours generated from cooking or any other activity undertaken on the A3 premises shall be submitted to and approved in writing by the local planning authority. Any equipment, plant or process approved pursuant to such details shall be installed prior to the first use of the premises and shall be operated and retained in accordance with the approved details and operated in accordance with manufacturers' instructions.

The scheme must demonstrate compliance with the Guidance produced by DEFRA: Control of Odour and Noise from Commercial Kitchen Systems 2004.see attached summary for further details. The document can be downloaded from the DEFRA website.
http://www.defra.gov.uk/environment/noise/research/kitchenexhaust/pdf/kitchenreport.pdf
Reason: To ensure that existing and proposed residential accommodation is suitably protected from fumes and odours linked with the commercial premises.

NS12 – CHP emission levels

Prior to the commencement of development of phase 2, details of the siting and design of the extract flues to the CHP installation shall be submitted to and approved in writing by the Local Planning Authority, the termination point of the flues shall not be lower than 1m above the roof surface and be so arranged as to avoid emissions giving rise to excessive nitrogen dioxide levels at the adjacent residential receptor premises within the site (B.04-41, B.05-47, A.05-37) and off the site (2a and 4 Cole Park Road). The standard to be achieved is the Government annual average limit of 40ug/m3.
Reason: To safeguard the health and amenity of occupiers of proposed and existing residential properties in the locality and the appearance of the development in general

NS13- Air inlets details

Prior to the commencement of development of phase 2, details of air inlets shall be submitted to and be approved in writing by the Local Planning Authority: these details shall be suitably located to avoid intake of the CHP emissions. Evidence must be presented to demonstrate how the residential and air intake receptors will be protected from emissions above the limits.
Reason: To safeguard the health and amenity of occupiers of proposed and existing residential properties in the locality

NS14 – Plaza

Prior to the occupation of Block B, the Public Sculpture and Legible London Sign in the forecourt of the existing station shall be repositioned within the Public Plaza hereby approved in accordance with details to be approved and submitted in writing with the Local Planning Authority.
REASON: In the interests of the visual amenities of the wider locality.

NS15 - Solar Glare

Prior to the commencement of development of phase 2, a disability glare study shall be submitted to and approved in writing by the Local Planning Authority identifying areas of glazing to be fitted with solar absorbent glass and other mitigation measures; details/samples of such glass and other facing materials, including the metal louvres, shall be submitted to the Local Planning Authority pursuant to condition BD12 attached to this decision notice and include details of their specular reflectances and thereafter implemented in accordance with the approved details.
Reason: To safeguard train and car drivers from solar dazzle and other solar effects from the approved development in the interests of highway and rail safety.

NS16 - Details of disabled facilities

The external disabled lift shall not be constructed otherwise than in accordance with details to be submitted to and approved in writing by the Local Planning Authority, such details to specify the design and external finishes thereof. The agreed lift shall be implemented before the development hereby permitted is brought into use
REASON: To ensure the provision of a satisfactory and convenient form of development for people with disabilities.

NS17 - Podium – Joint Detail

Details of the joint detail between the podium and London Road Bridge shall be submitted to and approved in writing by the Local Planning Authority prior to the commencement of phase 1 and the construction works thereafter implemented in accordance with these details.
Reason: To ensure step-free access between the plaza and the public footway to the London Road bridge and thereby the provision of a satisfactory and convenient form of development for people with disabilities.

NS18 - Travel Plan – Residential

Travel surveys of residents of the development, and their visitors, shall be undertaken in accordance with a survey methodology to be submitted to and approved by the Local Planning Authority prior to phase 2 of the development being carried out. Within 12 months of the occupation, a new travel plan based on the results of the survey shall be submitted with clear objectives, targets, actions and timeframes to manage the transport needs of staff and customer / visitors to the development, to minimise car usage and to achieve a shift to alternative transport modes.

Following approval by the Local Planning Authority, the applicant shall then implement these actions to secure the objectives and targets within the approved plan. The travel plan (including surveys) shall be annually revised and a written review of the travel plan submitted and approved by Council by the anniversary of its first approval and yearly thereafter. At the third anniversary, the travel plan (including surveys) shall be re-written, and resubmitted for further approval by the Council. This review and re-write cycle shall take place three years

after substantial completion of the development and any approved revision shall be implemented within three months of the date of approval. .

REASON: In order to comply with the objectives of national and local Planning Policies which promote sustainable development with particular regard to transport.

NS19 - Travel Plan – Commercial and Station

Staff and customer/visitor travel surveys shall be undertaken in accordance with a survey methodology to be submitted to and approved by the Local Planning Authority prior to phase 2 of the development being carried out. Within 12 months of the occupation, a new travel plan based on the results of the survey shall be submitted with clear objectives, targets, actions and timeframes to manage the transport needs of staff and customer / visitors to the development, to minimise car usage and to achieve a shift to alternative transport modes.

Following approval by the Local Planning Authority, the applicant shall then implement these actions to secure the objectives and targets within the approved plan. The travel plan (including surveys) shall be annually revised and a written review of the travel plan submitted and approved by Council by the anniversary of its first approval and yearly thereafter. At the third anniversary, the travel plan (including surveys) shall be re-written, and resubmitted for further approval by the Council. This review and re-write cycle shall take place three years after substantial completion of the development and any approved revision shall be implemented within three months of the date of approval.

REASON: In order to comply with the objectives of national and local Planning Policies which promote sustainable development with particular regard to transport.

NS20 - Delivery and Servicing Plan

Prior to the occupation/use of the development hereby approved, a delivery and servicing strategy for the site on event days and non-event days shall be submitted to and agreed in writing by the Local Planning Authority. The scheme approved by the local planning authority shall be implemented at all times in accordance with the approved details unless otherwise agreed in writing by the Local Planning Authority.
Reason: To ensure a safe and convenient form of development with limited impact on local roads and to safeguard the amenities of nearby occupiers and the area generally.

NS21 - Cycling – lockers and showers

Access to showers, lockers and changing room facilities shall at all times be possible for railway/train station staff, retail staff and restaurant staff unless otherwise agreed in writing by the Local Planning Authority.
Reason: To accord with the Council's policy to encourage the use of alternative forms of transport to the car wherever possible.

NS22 - Buses – TFL

Prior to the occupation of the development of phase 2 (excluding the station and Block C), details of the relocation of the bus stop and shelter shall be submitted to and approved in writing by the Local Planning Authority. The scheme approved by the local planning authority shall be fully implemented in accordance with the approved details prior to the occupation of not more than 50% of the residential units.
Reason: To safeguard a convenient interchange between the bus and rail transportation systems.

NS23 - Service management plan

A Service management plan for the development on event days and non-event days shall be submitted to and approved in writing by the Local Planning Authority prior to the commencement of development at site. The scheme approved by the local planning authority shall be implemented at all times during the construction period in accordance with the approved details (unless otherwise agreed in writing by the Local Planning Authority).
REASON: To ensure a safe and convenient form of development with limited impact on local roads and to safeguard the amenities of nearby occupiers and the area generally.

NS24 - Car park management plan

A car park management plan on event days and non-event days shall be submitted to and approved in writing by the Local Planning Authority prior to the commencement of development at site. The scheme approved by the local planning authority shall be implemented at all times during the construction period in accordance with the approved details (unless otherwise agreed in writing by the Local Planning Authority).
REASON: To ensure a safe and convenient form of development and to safeguard the amenities of the area generally.

NS25 - Taxi Parking Management

A taxi parking management plan on event days and non-event days shall be submitted to and approved in writing by the Local Planning Authority prior to the commencement of development at site. The scheme approved by the local planning authority shall be implemented at all times during the in accordance with the approved details (unless otherwise agreed in writing by the Local Planning Authority).
REASON: To ensure a safe and convenient form of development and to safeguard the amenities of the area generally.

NS26 - Emergency procedure plan

An emergency procedure plan for the development on event days and non-event days shall be submitted to and approved in writing by the Local Planning Authority prior to the commencement of development at site. The scheme approved by the local planning authority shall be implemented at all times during the construction period in accordance with the approved details (unless otherwise agreed in writing by the Local Planning Authority).
REASON: To ensure a safe and convenient form of development and to safeguard the amenities of the area generally.

NS27 - Traffic and pedestrian management plan

A traffic and pedestrian management plan, including passenger queuing measures and secure access/egress arrangements for future residential occupants, for the development on event days and non-event days shall be submitted to and approved in writing by the Local Planning Authority prior to the commencement of development at site. The scheme approved by the local planning authority shall be implemented at all times during the construction period in accordance with the approved details (unless otherwise agreed in writing by the Local Planning Authority).
REASON: To ensure a safe and convenient form of development and to safeguard the amenities of the area generally.

NS28 - Site Waste Management Plan

A site waste management plan for the development on event days and non-event days shall be submitted to and approved in writing by the Local Planning Authority prior to the commencement of development at site. The scheme approved by the local planning authority shall be implemented at all times during the construction period in accordance with the approved details (unless otherwise agreed in writing by the Local Planning Authority).
REASON: To ensure a safe and convenient form of development and to safeguard the amenities of the area generally.

NS29 - Pavement width

A minimum pavement width of 2m (excluding tree planters and bus shelter) shall be provided to London Road.
REASON: To ensure a safe and convenient form of development and to safeguard pedestrian safety.

NS30 - Integrity of Flood Defence

Prior to the commencement of the relevant phase of development, detailed drawings and structural calculations shall be submitted to and agreed in writing by the Local Planning Authority to demonstrate that the new development will not place any additional or horizontal or vertical load upon the river wall, either temporarily or permanently. Drawings submitted shall show the position of any new piles, deposition, concrete slabs in relation to the flood defences and their effects.
REASON: To maintain the integrity and stability of the flood defences.

NS31 - Riverbank Steps

As part of development hereby approved, new access steps to the river bank shall be provided in accordance with details to be submitted to and agreed in writing by the Local Planning Authority.
REASON: To allow access for maintenance.

NS32 – Surface water drainage (EA consent)

No infiltration of surface water drainage into the ground is permitted other than with the express written consent of the Local Planning Authority, which may be given for those parts of the site where it has been demonstrated that there is no resultant unacceptable risk to controlled waters. The development shall be carried out in accordance with the approval details.
Reason: To ensure protection of controlled waters.

NS33 – Sustainable Urban Drainage Systems

The development hereby permitted shall not commence until such time as a scheme to dispose of surface water has been submitted to and approved in writing by the Local Planning Authority. The scheme shall be implemented as approved.
REASON: In the interest of sustainable construction, to avoid excessive surface water run-off and to ensure that the surface water drainage system does not pollute the ground water below the site.

NS34– Archaeology

No development shall take place until the applicant has secured the implementation of a programme of archaeological work in accordance with a written scheme for investigation which has been submitted by the applicant and approved by the Local Planning Authority. The scheme should make provision for:

a) Evaluation to assess the presence and significance of archaeology

b) Excavation to record any significant archaeological features, that cannot be conserved

c) Historic building recording prior to demolition/alteration as shown necessary by a site appraisal

d) The assessment of the results, and proposals for their publication

e) The publication of the results

f) The deposition of the site archive

The archaeological works shall be carried out by a suitably qualified investigating body acceptable to the Local Planning Authority in accordance with English Heritage standards & guidelines

REASON: To safeguard archaeological interests at the site and its surroundings

NS35 - Enabling Development

No more than 50% of the residential accommodation hereby approved shall be occupied until the new station building, public plaza, and riverside walkway indicated on Drawing No. T(20)P00 revision D has been substantially completed and made available for occupation or public use, to the Local Planning Authority's satisfaction.
REASON: The development would not otherwise comply with the Local Planning Authority's policies.

NS36 - River Crane – Protection during construction

No construction equipment (including cranes and hoists), construction cabins or materials shall be stored within 4m of the southern bank of the River Crane.

No works of construction or demolition shall commence on site until acoustic screens have been installed in accordance with details to be submitted and approved by the Local Planning Authority. REASON: To safeguard the nature conservation value of the adjacent River Crane and the residential amenities of neighbouring properties.
Reason: To safeguard the nature conservation interests of the site and to protect the integrity of the river bank and provide a suitable ecological buffer between the compound and the river.

NS37 – Biodiversity enhancements

That as part of development hereby approved bat and bird boxes, loggeries and other ecological enhancements shall be installed in accordance with details to be submitted to and approved in writing by the Local Planning Authority; such details to show the number, type and location of the boxes. These boxes shall be installed prior to the occupation of the flats hereby approved.
REASON: To preserve and enhance nature conservation interests in the area.

NS38 - Lighting Strategy

Prior to the commencement of development of phase 2, details of the lighting of footpaths, play areas, parking areas and internal access roads including light spillage diagrams shall be

submitted to and agreed in writing by the Local Planning Authority and thereafter constructed in accordance with these details.
Reason: To safeguard the ecology of the site and neighbour amenity and ensure a safe and convenient form of development.

NS39 - Japanese Knotweed

Prior to the commencement of development, a proposed method statement for the removal of the Japanese Knotweed on site, including a time line for its eradication, shall be submitted to and agreed in writing with the Local Planning Authority; the approved scheme shall be implemented as part of the development hereby approved.
REASON: To safeguard and enhance the nature conservation value of the site and the adjacent River Crane.

NS40 - Protect River Crane

No equipment, machinery or materials are to be brought on the site for the purpose of the development until the southern bank to the River Crane has been protected by Heras fencing or other suitable means of enclosure in accordance with details to be submitted to and approved in writing by the Local Planning Authority.
REASON: To safeguard the nature conservation value of the site and the adjacent River Crane.

NS41 - Riverside Landscape Corridor plan

Prior to the commencement of development of phase 2, other than foundations and ground works full landscaping details of the riverside corridor shall be submitted to and approved in writing by the Local Planning Authority. These details shall include the proposed finished levels or contours; fencing, footway materials (gravel based finish); minor artifacts and structures (e.g. benches, refuse bins, signage, lighting that ensures a dark corridor along the river and its banks to preserve the bat migration route etc.), sycamore trees to be removed, trees to be planted, access gate for maintenance of river bank/litter collection etc and position of habitats creation as specified below:

- Song thrush
- Herpetofauna for stag beetles, invertebrates and small mammals.
- Stag beetle habitat including loggeries
- Deadwood (where safe) to be left on site

REASON: To safeguard and enhance the nature conservation value of the site and the adjacent River Crane.

NS42 - Bat Survey

In the event that construction works do not take place on site until after 1st June 2013, a new bat survey shall be submitted to and agreed in writing by the Local Planning Authority prior to the commencement of any future building works.
REASON: To ensure that the bat activity status is current.

NS43 - No amalgamation of retail units

No alterations shall be made to the retail units/building(s) hereby approved nor shall they be occupied in any way which would result in a reduction in the number of retail units within the development.

REASON: To retain an active frontage within the development that comprises units of a variety of sizes and types.

NS44 - A3 Unit Only

The premises shown as 'unit A3 C' on approved drawing no T(20) P00 revision D and 'Retail C' T_A(70)P00b revision A shall be used only for purposes falling within Use Class A3 as specified in the schedule to the Town and Country Planning (Use Classes) Order 1987, or in any provision revoking or re-enacting that order.
REASON:To safeguard the amenities of nearby occupiers and the area generally and to secure an active frontage top the plaza.

NS45 - No Take-Away/delivery service

No take-away delivery service shall be provided at a unit used for A3 Use class purposes.
REASON: To safeguard the amenities of nearby occupiers and to prevent uses prejudicial to highway safety

NS46 - Secure By Design

Prior to occupation of phase 2 of the development, details of the security measures to form part of this development shall be submitted to and approved in writing by the Local Planning Authority. These measures are to accord with by the principles of Secure By Design and will, in particular, incorporate internal lighting and surveillance measures within the basement car park and commuter cycle store and video access control systems at the entrances to each residential block from the plaza and other public areas including the basement car park.
REASON: To ensure that a safe and convenient form of development.

NS47 – Details of temporary bridge and stairs

The external surfaces of the bridges and stairways hereby approved shall not be constructed other than in materials details/samples which shall be submitted to and approved in writing by the Local Planning Authority prior to the commencement of development for a) a temporary bridge structure and b) a permanent bridge structure in the event that phase 2 is not completed. REASON: To ensure that the proposed development does not prejudice the appearance of the locality.

NS48 – Details of disabled access during construction

Prior to the commencement of development, a scheme indicating the provision to be made for disabled people to gain access to and from the temporary ticket office and existing platforms during construction shall have been submitted to and approved in writing by the Local Planning Authority; such scheme to include details for both the temporary bridge structure and the permanent bridge structure. The agreed scheme shall be implemented before the development hereby permitted is brought into use. REASON: To ensure the provision of a satisfactory and convenient form of development for people with disabilities.

NS49 - Demolition and Construction Method Statement

No material start shall take place in relation to the relevant phase or block, until a Construction Method Statement has been submitted to and approved in writing by the Local Planning Authority. It shall not include works of demolition; works of site clearance; ground investigations; site survey works; laying of services and service media; construction of temporary accesses; archaeological investigation; landscaping works off the public highway;

and noise attenuation works. The approved Statement shall include information set out by Tfl as a requirement for a Construction Logistics Plan. The approved Statement shall be implemented and adhered to throughout the Construction Period. The Statement shall provide for;

Section 1 - Details of How Traffic, Pedestrians and Cyclists will be managed during the Construction period on a non event day

i. Management of Existing Station Services and Deliveries
ii. Management of Existing Traffic and Pedestrian Movements including signage
iii. Details of Disabled Access
iv. Cycle Parking Proposals
v. Proposals regarding existing bus services
vi. Temporary Taxi Arrangements

Section 2 - Details of How Traffic and Pedestrians will be managed during the Construction period on an event day

i. Management of Existing Station Services and Deliveries
ii. Management of Event Day Crowds
iii. Details of Disabled Access
iv. turning areas for refuse and emergency vehicles (during track possessions) on Marys Terrace
v. the storage and details of plant (including crane positions and hoist) and materials used in construction of the development

Section 3 - Details of On Site Management Proposals

i. Emergency Procedures
ii. Details of Site Access for Visitors and Procedures
iii. Loading of Plant and Materials
iv. Siting of Construction Compound
v. Control Measures for Noise and Vibration
vi. Dust Management Strategy which demonstrates compliance with the guidance found in 'The control of dust and emissions from construction and demolition Best Practice' produced by the Greater London Authority (GLA) http://static.london.gov.uk/mayor/environment/air quality/docs/construction-dust-bpg.pdf
vii. Storage of Plant
viii. Erection of Security Hoarding
ix. Provision of Wheel Washing Facilities
x. Waste Recycling Proposals
xi. Details of Hours of Construction
xii. Details of Sustainable measures during construction
xiii. Lighting Proposals including construction compound and baffling if necessary
xiv. Sequence and Method of Demolition
xv. Mitigation of Construction Impacts on the River Crane
xvi. construction site management (access for members of the public, external contractors, emergency evacuation procedures, location of toilet facilities for operatives)
xvii. the loading and unloading of plant and materials
xviii. details of alternative access and waiting areas for visitors to the RFU via the station during event days
xix. a traffic management plan and agreement from London buses prior to construction commencing

xx. construction traffic and methodology plan including details of routes and access of all construction traffic and swept path diagrams to Railway Approach from London Road
xxi. size and routing of construction vehicles and holding areas for these on/off site
xxii. sequence and method of demolition

Section 4 - Deliveries and Contractor Travel Plan Proposals

i. Parking for Site Operatives and Visitors
ii. Construction Staff Travel Plan
iii. Construction Routes
iv. Details of Access Points
v. Proposed Delivery Times and Vehicle Types
vi. Details of Turning Areas on Mary's Terrace
vii. No later than 28 days before any possession period, notice shall be given to the Council and local residents of future possession periods and the times and dates of crane rigging and de-rigging on Mary's Terrace and storage thereof. No construction crane shall be brought to the site more than one day in advance of the first day of a possession period, and all such structures shall be removed from the site within one day of the possession period elapsing.
viii. No heavy commercial vehicles associated with the setting up or dismantling of the construction crane shall enter or leave Mary's Terrace between 21:00 and 07:30 or such other times which have gained the prior written approval of the Local Planning Authority.

Section 5 - Provision of Information

i. Web Based Information System - details of the web based system to be introduced allowing access for the council and members of the public for monitoring of site works – see informative NI05 point 5
ii.
iii. Provision of Information regarding possessions and details of replacement bus services
iv. Details of liaison officer

Section 6 - Summary of Contractor Requirements During the Construction process

i. Commitments to use Operators who are members of Tfl Freight Operator Recognition Scheme
ii. Environmental Management Plan
iii. Details of Temporary Finishes to Stairs
iv. How Hazardous Materials will be disposed
v. Commitment to No Bonfires
vi. Commitment to Repair Footway Damage within 24 hours at developers cost
vii. Commitment re use of Mary's Terrace
viii. To partake in a considerate contractors scheme
ix. Commitments to local sourcing of materials

REASON: To protect the amenities of local residents and road users and the nature conservation interests of adjacent sites

NS50 - Construction Logistics Plan

Prior to the commencement of development, a construction logistics plan in line with London Freight Plan 2008 shall be submitted to and approved in writing by the Local Planning Authority. The Plan shall include phased drawings showing construction routes for plant and

vehicles, traffic management layout and signage, analysis of access points to accommodate the swept paths of construction vehicles and utilise selected operators that are committed to best practice and are a member of Transport for London's Freight Operator Recognition Scheme (FORS). REASON: To ensure that the scheme accords with TfL guidance 'Building a better future for freight: Construction Logistics Plans' and policy 6.14 Freight.of the London Plan (2011) by improving the safety and reliability of deliveries to the site, reducing road congestion for buses and general traffic and minimising the environmental impact during construction.

NS51 - No Work - RFU Event Days

No construction work shall take place on any event day held at Twickenham Stadium. REASON – To minimise disruption to commuters, to ensure public safety is not prejudiced and to allow the provision of adequate holding/queuing areas for crowds within the station site.

NS52 - Existing Cycle Facilities Relocated

Any cycle parking spaces on the site removed during construction shall be safely stored during the construction period and replaced on site, or such other location as agreed by the Local Planning Authority, upon the completion of development hereby approved. REASON - To ensure adequate cycling facilities are retained at the station

NS53 - Diagonal Gantry – Making Good

Prior to the demolition of the out of hours diagonal gantry access route, details of the temporary access/egress bridge shown on drawing no. T5(20)E01 revision J, T5(20)E02 revision F and T5(20) P00 revision K shall be submitted to and approved in writing by the Local Planning Authority and thereafter implemented in accordance with such details and made available when the ticket office is closed. REASON – To secure an alternative and safe means of access/egress to the station following the removal of the diagonal gantry.

NS54 - Platform Widths

Notwithstanding the approved drawings, a 2.5m wide section of platform should be retained at all times between the edges of the existing platforms and the approved stair structure linking the platforms to the bridge. REASON: To secure safe access and egress to and from trains to the platforms and beyond.

NS55 - Mary's Terrace Road Wall Removed
Prior to commencement of development; a section of the wall separating the highway to Mary's Terrace shall be removed and a temporary road surface constructed in accordance with the approved plan SRG–Twickenham –Tracks.1 Rev A.
REASON: To safeguard satisfactory emergency vehicle access to neighbouring residential properties and the development site during the construction period.

NS56 - Wheelchair housing

That 10% of the units hereby approved and the associated parking must be specifically designed for, or be capable of easy adaptation to, the Council's standards for "Wheelchair Housing" as set out in the Development Management Plan: DPD 2010 and on availability such units shall be marketed with appropriate agencies including the Accessible Property Register.

REASON: To ensure that the proposed housing contributes to the needs of people with disabilities.

NS57 – Residents Parking - People with disabilities

Provision of 10 parking spaces for people with disabilities shall be made in accordance with detailed drawings to be submitted to and approved in writing by the Local Planning Authority, such drawings to show size, position, surface treatment and method of delineation and signing of such spaces. These spaces shall at no time be used other than by occupiers of the flats identified for wheelchair housing in details approved pursuant to condition DS02 attached to this decision notice.
REASON: To ensure the provision of as satisfactory and convenient form of development for people with disabilities.

NS58 - Restricted Roof Terrace Areas

The roof of the building shall not be used for any purpose other than as a means of escape in emergency or for maintenance of the building unless otherwise indicated as a roof terrace on approved drawings nos: 4674/T(20)P01 Rev C, 4674/T(20)P02 Rev C, 4674/T(20)P03 Rev C, 4674/T(20)P04 Rev C, 4674/T(20)P05 Rev C, 4674/T(20)P06 Rev C and 4674/T(20)P07 Rev C.
REASON: To safeguard the amenities of the adjoining premises and the area generally.

NS59 – Lifetime Homes (Block A and B)

The dwellings hereby approved in Blocks A and B shall not be constructed/adapted other than to Lifetime Homes standards as shown on the approved plans and/or as described in the Design & Access Statement & shall thereafter be maintained to those standards.
Reason: To ensure adaptable homes to meet diverse and changing needs.

NS60 – Lifetime Homes (Block C)

The dwellings hereby approved in Blocks C shall not be constructed/adapted other than to Lifetime Homes standards criteria 8 and 10 as shown on the approved plans and/or as described in the Design & Access Statement & shall thereafter be maintained to those standards.
Reason: To ensure adaptable homes to meet diverse and changing needs.

NS61 - Soil Compaction –

No work shall take place until details of measures to be taken to prevent compaction of the ground over the roots of the trees subject of retention have been submitted to and approved in writing by the local planning authority and such measures as are approved shall be carried out during construction and demolition on development-site

(B) If any of the root protection areas or areas set aside for tree/plant /shrub planting on or adjacent to the development site become compacted through direct or indirect development activity, they must be de compacted by hand operated tools only i.e. an Air spade or hand fork to minimum depth of 500mm below the existing ground level'

REASON: To ensure that the tree(s) are not damaged or otherwise adversely affected by building operations and soil compaction

NS64 - Hand Excavation Only
Any excavation/vegetation clearance within the root protection area of any retained tree(s) on/off site shall be carried out using non-mechanised hand tools only.
REASON: To ensure that the tree(s) are not damaged or otherwise adversely affected by building operations

NS62 - Levels of thresholds
The proposed finished floor levels of all buildings, the finished ground levels of the site, including the internal footpaths, plazas, parking spaces and roads, and in relation to existing site levels of surrounding land shall not be other than in accordance with details to be submitted to and approved in writing by the Local Planning Authority.
REASON: To ensure that the work is carried out at suitable levels in relation to the highway and adjoining land having regard to drainage, gradient of access and future highway improvement, amenities of adjoining properties, and appearance of the development.

NS63 - Restrict hrs/notice-All week
Customers shall not be present on the A1/A3/D2 premises, nor shall there be preparation, sale or delivery of food for consumption off the premises during the following times:
A. Mon-Sat inclusive - before 7am and after 12pm;
B. Sunday - before 9am and after 11pm
A notice to this effect shall be displayed at all times on the premises so as to be visible from outside.
REASON: To ensure that the proposed development does not prejudice the amenities of nearby occupiers, or the area generally.

NS64 - Staff Leaving Premises
Staff shall not be present on the A1/A3/D2 premises after a period of 60 minutes has elapsed following the approved closing times.
REASON: To protect the amenities of nearby residential properties

NS 65 (SH04) – Details of Shopfront

No work to any part of any shopfronts shall be carried out until detailed plans showing the design and external appearance of the shopfronts including fascia has been submitted to and approved in writing by the Local Planning Authority.
REASON: In the interests of visual amenity.

NS66 (SH05A) – Door design - Disabled access
Any external door shall have a minimum opening clearance of 830mm and a level approach from the public highway.
REASON: To safeguard access for the disabled.

NS67 – Carbon Dioxide emissions

Prior to the commencement of development of phase 1, details shall be submitted to and approved in writing by the Local Planning Authority that demonstrate the development hereby approved shall incorporate energy efficiency measures which secure a Building Carbon Emissions Rate that shall not exceed the development's 2010 Building Regulations Target Emission Rate. These details shall provide the predicted output of the development's carbon emissions by a modelling process that utilises 2010 Building Regulations compliance software. The development shall be constructed in accordance with the measures and assumptions (e.g. U-values, air tightness, etc) incorporated within these details.
REASON: In the interests of promoting sustainable development and tackling climate change in accordance with local and regional planning policy.

NS68 – fencing

Prior to the commencement of development and notwithstanding the details set out in the landscape masterplan and in the Design and Access Statement, details of the fencing/railings along the riverside walk and to the north of the access road and adjacent to the River Crane and between the gardens to Block C shall be submitted to and approved in writing by the Local Planning Authority. Such details shall comprise positions, design, materials and type of boundary treatment and shall thereafter be implemented in accordance with such details.
REASON: To safeguard the amenities of the adjoining occupiers and the area generally.

NS69 – play space details

Prior to the commencement of development, details/samples of the children's play space facilities, including the riverside walk and nature interpretation trail, riverside walk gates, surface treatment and furniture shall be submitted to and approved in writing by the Local Planning Authority and thereafter implemented in accordance with such details.
REASON: To ensure a suitable play space environment with sufficient facilities for the occupants and visitors to the site.

NS70 - Miscellaneous details –

Prior to the element of the construction the work to which the condition relates within phase 2 of the development hereby approved, such details to specify the design and external finishes of the green roof and walling, balconies, screens, balustrade, security gates to station, gates to riverside towpath (to be lockable), rainwater goods, entrance glazing to train station, louvre shutters, entrance signage, car parking, taxi and kiss and ride signage, entrances to flats, dormers, glazing and windows (including colour), doorways, fascias and soffits, shop fronts, platform lifts and railings and the infilling of the London Road parapet where the diagonal gantry is removed shall be submitted to and approved in writing by the Local Planning Authority.

REASON: To ensure that the proposed development is in keeping with the existing building(s) and does not prejudice the appearance of the locality.

NS71 – Access for disabled people – Station and Commercial Units

Prior to the commencement of the relevant element of the development hereby permitted a scheme indicating the provision to be made for disabled people to gain access to the ticket office, station platforms, commercial units (A1/A3 Use Classes) submitted to and approved in writing by the Local Planning Authority. The agreed scheme shall be implemented before the development hereby permitted is brought into use.

REASON: To ensure the provision of a satisfactory and convenient form of development for people with disabilities.

NS72 - External Illumination
Any external illumination of the premises shall not be carried out except in accordance with details giving the method and intensity of any such external illumination which shall be submitted to and approved in writing by the Local Planning Authority prior to the occupation of the relevant part of the buildings.

REASON: To protect/safeguard the amenities of the locality.

NS73 - BREEAM Ratings for Non-Housing Devt

The commercial units (A to F) hereby approved shall achieve BREEAM Rating Excellent in accordance with the requirements of the BREEAM Guide (or such national measure of

sustainability for design that replaces that scheme). No part of the commercial units shall be occupied until a Post Construction Review Certificate has been issued for that part certifying that the Rating Level stated above has been achieved and has been submitted to the Local Planning Authority.

REASON: In the interests of promoting sustainable forms of developments and to meet the terms of the application.

NS74 - Code for Sustainable Homes - New Build
The dwelling(s) hereby approved shall achieve a Code Level 4 in accordance with the requirements of the Code for Sustainable Homes: Technical Guide (or such national measure of sustainability for house design that replaces that scheme). No dwelling shall be occupied until a Final Code Certificate has been issued for that dwelling certifying that the Code Level stated above has been achieved and which has been submitted to the Local Planning Authority for approval.

REASON: in the interests of promoting sustainable forms of developments and to meet the terms of the application.

NS75 - Tree Protection Plan/Arboricultural Method Statement
No works or development shall take place on the element of the relevant phase of this development until a scheme for the protection of the retained trees (section 7 of the current British Standard 5837: 2005 Trees in Relation to Construction - the Tree Protection Plan) has been submitted to and approved in writing by the local planning authority. This scheme shall include the following plans and particulars:

(A) A plan to a recognised scale and level of accuracy appropriate to the proposal that shows the position of every tree on site with a stem diameter over the bark measured at 1.5 metres above ground level of at least 75 millimetres. In addition any tree on neighbouring or nearby ground to the site that is likely to have an effect upon or be affected by the proposal (e.g. by shade, overhang from the boundary, intrusion of the Root Protection Area ('RPA') (para. 5.2.2 of BS 5837:2005) or general landscape factors must be shown. The positions of all trees to be removed shall be indicated on this plan.

(B) The details of each retained tree as required at paragraph. 4.2.6 of BS 5837:2005 in a separate schedule.

(C) A schedule of tree works for all the retained trees in paragraphs A and B above, specifying pruning and other remedial or preventative work, whether for physiological, hazard abatement, aesthetic or operational reasons. All tree works shall be carried out in accordance with BS 3998:1989, Recommendations for tree work.

(D) Written proof of the credentials of the arboricultural contractor authorised to carry out the scheduled tree works.

(E) The details and positions (shown on the plan at paragraph A above) of the Ground Protection Zones (section 9.3 of the BS 5837:2005).

(F) The details and positions (shown on the plan at paragraph A above) of the Tree Protection Barriers (section 9.2 of the BS 5837:2005), identified separately where required for different phases of construction work (e.g. demolition, construction, hard landscaping). The Tree Protection Barriers must be erected prior to each construction phase commencing and remain in place, and undamaged for the duration of that phase. No works shall take place on the next phase until the Tree Protection Barriers are repositioned for that phase.

(G) The details and positions (shown on the plan at paragraph (a) above) of the Construction Exclusion Zones (section 9 of BS 5837:2005).

(H) The details and positions (shown on the plan at paragraph (a) above) of the underground service runs (section11.7 of BS 5837:2005).

(I) The details of any changes in levels or the position of any proposed excavations within 5 metres of the RPA (para. 5.2.2 of BS 5837:2005) of any retained tree, including those on neighbouring or nearby ground.

(J) The details of any special engineering required to prevent damage to structures by retained trees (section11 of BS 5837:2005), (e.g. in connection with foundations, bridging, water features, surfacing)

(K) The details of the working methods to be employed with the demolition of buildings, structures and surfacing within or adjacent to the RPA's of retained trees.

(L) The details of the working methods to be employed for the installation of drives and paths within the RPA's of retained trees in accordance with the principles of 'No-Dig' construction.

(M) The details of the working methods to be employed with regard to the access for and use of heavy, large, difficult to manoeuvre plant (including cranes and their loads, dredging machinery, concrete pumps, piling rigs, etc) on site.

(N) The details of the working methods to be employed with regard to site logistics and storage, including an allowance for slopes, water courses and enclosures, with particular regard to ground compaction and phytotoxicity.

(O) The details of the method to be employed for the stationing, use and removal of site cabins within any RPA (para. 9.2.3 of BS 5837:2005).

(P) The details of tree protection measures for the hard/soft landscaping phase (sections 13 and 14 of BS 5837:2005).

(Q) The timing of the various phases of the works or development in the context of the tree protection measures.

R) Details of a representative from the Local Authority to be invited to attend the pre start meeting with the Applicant's Arboricultural Consultant.

S) Details of induction and personnel awareness of onsite arboricultural matters.

T) Identification of individual responsibilities of those carrying out the development and key personnel.

(U) Procedures for dealing with variations and incidents.

V) Details of how copies of site inspection records are to be supplied to the local authority's Arboricultural team to help monitor tree protection measures.

W) Arrangements for tree protection on match-days can be altered and adapted as required by all appropriate stakeholders.

The development shall thereafter proceed in all respects in accordance with the approved scheme and the following requirements:

i. No equipment, machinery or materials are to be brought on the site for the purpose of the development until all the trees to be retained have been protected by fences or other suitable means of enclosure to the distance of the outermost limit of the branch spread or as per recommendations given in Figure 2 - Protective Barrier, of the current British Standard 5837: 2005 Trees in Relation to Construction - Recommendations" whichever is the further from the tree and with regard to this proposal the protective fencing shall be at least 2.4m high, comprising a scaffolding framework, as in 8.2.2. of BS5837 (2005), supporting a minimum of 20mm exterior grade ply or other approved robust man-made boards as shown in BS5837 (2005), Figure 5, within which no activities associated with building operations shall take place, such areas also being free of the storage of materials or temporary structures.

ii. No fire shall be lit within 10m from the outside of the crown spread of the trees to be retained.

iii. The ground levels within the protected areas shall not be altered, nor shall any excavation be made, without the written consent of the local planning authority.

iv. All means of protection shall be in situ for the duration of the development and distances of such protection should be specified by a person suitably experienced in arboriculture.

v. No equipment, signage, fencing, tree protection barriers, materials, components, vehicles or structures to be attached to or supported by a retained tree.

vi. No mixing of cement or use of other materials or substances to take place within a Root Protection Area ('RPA'), or close enough to a RPA that seepage or displacement of those materials or substances could enter a RPA

vii. No alterations or variations to the approved works or tree protection schemes shall be carried out without the prior written approval of the local planning authority.

viii. No work shall take place until details of measures to be taken to prevent compaction of the ground over the roots of the trees subject of retention have been submitted to and approved in writing by the local planning authority and such measures as are approved shall be carried out during construction and demolition on development-site

ix. If any of the root protection areas or areas set aside for tree/plant /shrub planting on or adjacent to the development site become compacted through direct or indirect development activity, they must be de compacted by hand operated tools only i.e. an Air spade or hand fork to minimum depth of 500mm below the existing ground level

x. Any excavation/vegetation clearance within the root protection area of any retained tree(s) on/off site shall be carried out using non-mechanised hand tools only.

REASON: To ensure that the tree (s) are not damaged or otherwise adversely affected by building operations and soil compaction and to safeguard the appearance of the locality.

NS76 - Tree Planting Scheme –

(A) No building works shall commence on the relevant phase of this development until a specification of all proposed tree planting has been submitted to and approved in writing by the local planning authority such specification to include details of the quantity, size, species, position and the proposed time of planting of all trees to be planted, together with an indication of how they integrate with the proposal in the long term with regard to their mature size and anticipated routine maintenance. All tree planting included within the approved specification shall be carried out in accordance with that specification and in accordance with BS 3936:1986 (parts 1, 1992, Nursery Stock, Specification for trees and shrubs, and 4, 1984, Specification for forest trees); BS 4043: 1989, Transplanting root-balled trees; and BS 4428:1989, Code of practice for general landscape operations (excluding hard surfaces).

(B) If within a period of 5 years from the date of planting of any tree that tree, or any tree planted in replacement for it, is removed, uprooted, destroyed or dies, (or becomes in the opinion of the local planning authority seriously damaged or defective), another tree of the same species and size originally planted shall be planted at the same place in the next planting season/within one year of the original tree's demise unless the local planning authority gives its written consent to any variations.

(C) All tree planting shall be integrated into the next planting season and carried out in accordance with the details so approved and in any event prior to occupation of any part of the development

REASON: To safeguard the appearance of the locality.

NS77 - Hard and Soft Landscaping Required

(A) No building works shall commence on prior to the element of the relevant phase of this development until full details of both hard and soft landscaping works have been submitted to and approved in writing by the local planning authority These details shall include proposed finished levels or contours; means of enclosure; car parking layouts; other vehicle and pedestrian access and circulation areas; hard surfacing materials; external seating besides the taxi rank/kiss and ride, hand rails to taxi rank stairs, planters, minor artifacts and other structures (e.g. street furniture, external seating, bollards, play equipment, refuse or other storage units, signs, lighting etc.); proposed and existing utility services above and below ground (e.g. drainage, power, communications cables, pipelines etc, indicating lines, manholes, supports etc); retained historic landscape features and proposals for restoration, where relevant; a program or timetable of the proposed works

(B) Soft landscape works shall include planting plans; written specifications (including cultivation and other operations associated with plant and grass establishment); detailing the quantity, density, size, species, position and the proposed time or programme of planting of all shrubs, hedges, grasses etc, together with an indication of how they integrate with the proposal in the long term with regard to their mature size and anticipated routine maintenance. All tree, shrub and hedge planting included within that specification shall be carried out in accordance with BS 3936:1986 (parts 1, 1992, Nursery Stock, Specification for trees and shrubs, and 4, 1984, Specification for forest trees); BS 4043: 1989, Transplanting root-balled trees; and BS 4428:1989, Code of practice for general landscape operations (excluding hard surfaces).

(C) All hard and soft landscape works shall be carried out in accordance with the approved details and in any event prior to the occupation of the relevant phase of the development.

REASON: To ensure that the proposed development does not prejudice the appearance of the locality and to preserve and enhance nature conservation interests

NS78 - Parking/unloading/loading/turning –

No building/dwelling/part of phase 2 of the development, excluding the station and Block C, shall be occupied until the access road, taxi rank, kiss and ride area, servicing bays and car park and associated turning and movements areas indicated on Drawing No. T(20)P-1 Revision E has been constructed to the satisfaction of the Local Planning Authority and shall at no time be used other than by occupiers/callers to the premises and for no other purpose.

REASON: To ensure that the proposed development does not prejudice the free flow of traffic, the conditions of general safety along the neighbouring highway or the amenities of the area.

NS79 - Cycle parking –

No building/dwelling/part of the development shall be occupied, excluding the station, until cycle parking facilities related to the station, other relevant element or blocks A, B or C have been provided in accordance with detailed drawings to be submitted to and approved in writing by the Local Planning Authority, such drawings to show the position, design, materials and finishes thereof.

REASON: To accord with this Council's policy to discourage the use of the car wherever possible.

NS80 - Details required - New junction and Access Road – s278

Detailed drawings to show method of construction of the new junction and internal access road, levels in relation to adjacent land and surface treatment of the junction of the new access and the existing highway and internal access road shall be submitted to and approved in writing by the Local Planning Authority; such drawings to show kerb alignment, levels and surface treatment. The works of construction of the junction shall be carried out in

accordance with the drawings so approved and prior to the occupation of phase 2 of the development excluding the station and Block C.

REASON: To ensure that the proposed development does not prejudice highway safety and to safeguard the appearance of the locality.

Standard Informatives
IE05A - Noise control – building sites.
IH06B - Damage to public highway.
IL10A - Building regulations required.

IL16 - UDP Proposal Site T17

Local Development Framework:

Core Strategy – CP1, CP2, CP3, CP4, CP5, CP6, CP7, CP8, CP9, CP10, CP12, CP14, CP15, CP16, CP17, CP18, CP19 and CP20.

DMDPD – SD1, SD2, SD4, SD5, SD6, SD7, SD9, SD10, OS1, OS2, OS5, OS7, TC1, TC5, HD1, HD2, HD3, HD4, HD7, HO2, HO4, HO6, TP1, TP2, TP3, TP4, TP5, TP6, TP7, TP8, DC1, DC2, DC3, DC4, DC5, DC6.

Emerging Twickenham Area Action Plan

Regional Policy:

London Plan (July 2011) – 2.1, 2.4, 2.7, 2.8, 2.15, 3.2, 3.3, 3.4, 3.5, 3.6, 3.8, 3.9, 3.11, 3.12, 3.13, 3.17, 4.1, 4.7, 4.9, 5.2, 5.3, 5.6, 5.7, 5.9, 5.10, 5.11, 5.12, 5.13, 5.14, 5.15, 5.17, 5.18, 5.19, 5.21, 6.2, 6.3, 6.4, 6.9, 6.10, 6.11, 6.13, 6.14, 7.1, 7.3, 7.4, 7.5, 7.6, 7.7, 7.8, 7.12, 7.14, 7.15, 7.17, 7.19, 7.21, 7.24, 7.27, 7.28, 7.30, 8.2.

Supplementary Planning Documents/Guidelines:

Affordable Housing SPG
Revised Draft Affordable Housing SPD (emerging)
Car Club Strategy SPD
Contaminated Land SPG
Crane Valley SPG
Design for Maximum Access SPG
Design Quality SPD
Nature Conservation and Development SPG
Planning Obligation Strategy SPD
Recycling SPG
Residential Development Standards SPD
Security by Design SPG
Sustainable Construction Checklist SPD
Twickenham Station and Surroundings Design Standards SPD
Emerging Twickenham Area Action Plan

Amyand Park Road Conservation Area Statements and Studies
Queens Road Conservation Area Statements and Studies

Mayor of London's SPG:

Providing for Children and Young People's Play and Informal Recreation.

Revised London View Management Framework SPG.
Mayor's Energy Strategy.
Mayor's Water Strategy.
The London Climate Change Adaptation Strategy (draft 2008).
Planning and Access for disabled people – a good practice guide.
Accessible London: Achieving an Inclusive Environment SPG.
Mayor's Transport Strategy.
Ambient Noise Strategy.

Phase 1 Informatives

IE05A Noise Control - Building Sites
IE06 Piling – consult EHO
IH02A Refuse Storage and Collection
IH06C Damage To Public Highway
IH08A Transport Plan
IL10A Building Regulations Required
IL13 Section 106
IL16F Relevant policies and proposals – # UDP First Review – IMP 2, STG5, 6, ENV 7, 35, BLT 2, 4, 11, 12, 13, 14, 15, 16, 17, 27, 31, HSG 1, 5, 6, 7, 8, 11, 12, 18, 19, TRN 1, 2, 4, 8, EMP 4, 7, CCE24, Core Strategy – CP1, CP2, CP3, CP5, CP7, CP8, CP14, CP15, CP16 and CP18. London Plan – : 3A.1, 3A.3, 3C.1, 3C.21, 3C.22, 3D.10, 3D.15, 4A.12, 4A.14, 4B.1, 4B.2 and 6A.5., Sustainable Construction Checklist SPD, Design Quality SPD, Small and Medium Housing Sites SPD, Planning Obligations Strategy SPG, Residential Design Standards: Draft SPD#
IL19 Summary of Grant of Plg Permission #as conclusion#
IM07 Soil Contamination
IM11 Use Of Hardwoods
IX01 Car Parking - Drainage
IX03 Soil And Surface Water Drainage
IX04 Surface Flooding
IX11 Fire brigade access

Non standard informatives:

NI01 - Joint Detail with London Road Bridge

The applicant is advised that there cannot be a joint between the new deck precast edge beam and the bridge as there will be no access for maintenance or inspection without closing the railway line. Therefore, a gap of 50mm shall be left between the two structures to ensure no connectivity. The final details will need to be agreed with Network Rail in the Form B. No deep holes shall be drilled into the bridge's existing wall or damage the existing wall face in any way

NI02 - A3 Unit

The applicant is requested to provide a customer toilet within the A3 unit required under condition NS44.

NI03 - Surface Water Drainage

The applicant is advised with regard to surface water drainage that it is the responsibility of a developer to make proper provision for drainage to ground, water courses or a suitable sewer. In respect of surface water it is recommended that the applicant should ensure that storm flows are attenuated or regulated into the receiving public network through on or off

site storage. When it is proposed to connect to a combined public sewer, the site drainage should be separate and combined at the final manhole nearest the boundary. Connections are not permitted for the removal of Ground Water. Where the developer proposes to discharge to a public sewer, prior approval from Thames Water Developer Services will be required. They can be contacted on 0845 850 2777. Reason - to ensure that the surface water discharge from the site shall not be detrimental to the existing sewerage system.

NI04 – Petrol/Oil Interceptors

The applicant is advised that Thames Water recommends that petrol / oil interceptors be fitted in all car parking/washing/repair facilities. Failure to enforce the effective use of petrol / oil interceptors could result in oil-polluted discharges entering local watercourses.

NI05 – Fat Trap to Restaurants/Take Aways

The applicant is advised that Thames Water recommends the installation of a properly maintained fat trap on all catering establishments. We further recommend, in line with best practice for the disposal of Fats, Oils and Grease, the collection of waste oil by a contractor, particularly to recycle for the production of bio diesel. Failure to implement these recommendations may result in this and other properties suffering blocked drains, sewage flooding and pollution to local watercourses. Further information on the above is available in a leaflet, 'Best Management Practices for Catering Establishments' which can be requested by telephoning 01923 898 188

NI06 – Buffer Zone - River Crane

Under the terms of the Water Resources Act 1991, and the Thames Region Land Drainage Byelaws 1981, the prior written consent of the Environment Agency is required for any proposed works or structures, in, under, over or within 8 metres of the top of the bank of the River Crane, designated a 'main river'.

NI07 - Archaeology

The applicants are advised that a staged approach (all potential stages) to the evaluation of heritage assets on the site, including archaeology, will need to be adequately programmed into the overall project timetable by the applicants & their contractors. It is therefore necessary for the applicant to commission the assessment work (desk-based & evaluation) at an early stage so we can advise further as soon as possible on the mitigation required. Details of Registered Archaeological Organisations can be found on www.archaeologists.net.

NI08 - Solar Glare

The applicant is advised to alert Network Rail to the conclusions of the Council's lighting consultant set out in the report ' Review of Potential Solar Glare Effects From New Development (REF 11/1443/FUL), Twickenham Station' by Paul J Littlefair dated 4 October 2011. In particular, it is noted that train drivers are likely to experience a level of solar reflection/disability glare from the development which could lead to drivers failing to see the illuminated signals at the western approach to Twickenham Station (opposite the north end of Sherland Road).

NI09 - Ambulance/Fire Brigade

The applicant is requested to provide defibrillators and Brigade access shall be maintained at all times

NI10 – Construction traffic

Details, routes and access of all construction traffic are to be agreed with the Transport Planning Group prior to commencement of development. The applicants are advised to contact Nunzia D'Apolito in Transport Planning for further information.

NI11 – Bats

The applicant is advised that bats are European Protected Species under the Wildlife and Countryside Act 1991 (as amended) and the Natural Habitats Regulations 1994 and therefore any works effecting roosts, habitats and foraging areas will need to first be approved by DEFRA.

NI12 – Ground contamination

The possibility of ground contamination should always be considered, regardless of past land uses and the applicant is advised to follow guidance set out in Planning Policy Statement 23.

NI13 - The CMS should mirror the details required under section 61 of the Control of Pollution Act 1974 and follow the Best Practice detailed within BS5288: 2009 Code of Practice for noise and Vibration Control on construction and open sites. The commercial environmental health department has produced draft guidance relating to this.

NI14 - The submitted Waterman document setting out preliminary information related to piling received on 10 September 2010 is not an approved document and as part of any application submitted for development above the podium a robust report is required detailing loading information and depth of piling required in addition to costs associated with such for a) the podium as a standalone structure, b) a development that complies with the Twickenham Station and Surroundings SPD and c) the submitted application 10/3465/FUL.

Should the piling, anticipated loads and associated costs be exaggerated to accommodate a scheme that does not secure planning permission, such costs must not offset a relaxation of S106 financial contributions or justify a limited height and number of affordable housing units.

NI15 – CMS - Dust Strategy

The applicants is advised that details pursuant to the Dust Management Strategy (Condition NS08 (viii)) must include a risk assessment of dust generation for each phase of the demolition and construction. The assessment and identified controls must include the principles of prevention, suppression and containment and follow the format detailed in the guidance above. Consideration of the cumulative effect of the other developments shall also be included within the DMS. The outcome of the assessment must be fully implemented for the duration of the construction and demolition phase of the proposed development.

NI16 – CMS – Noise and Vibration Advice

The applicant is advised that pursuant to condition NS08 (Constructino Method Statement), the measures included within the submitted Construction Management Statement should mirror the details required under section 61 of the Control of Pollution Act 1974 and follow the Best Practice detailed within BS5288: 2009 Code of Practice for noise and Vibration Control on construction and open sites. The commercial environmental health department

has produced draft guidance relating to this. As this is a large-scale construction project which could have significant impact upon local residents and businesses this information must, wherever possible, be made available at the planning application stage.

The CMS should include an acoustic report undertaken by a suitably qualified and experienced consultant and include all the information below;

NI17 - Baseline Noise Assessment – undertaken for a least 7days under typical conditions. The survey should avoid times when rail track or station works are due to be undertaken. (section 4.4 of LBRuT guidance)

NI18 - Piling-

A low vibration method must be utilised wherever possible. Predictions for vibrations levels at sensitive receptors must be included and demonstrate that target levels detailed in BS5288 can be achieved.(Annex B BS5288 2009 Part 2).

NI19 - Vibration Monitoring –

All Piling activities undertaken near sensitive receptors must include continuous vibration monitoring and must include audible and visual alarms.

NI20 - Noise Predictions-

Predictions must include all demolition, construction activities and the effect of vehicle movements. The significance effect must be included as part of the prediction and assessment (Annex E BS5288 2009 Part 1). Where predictions indicate that the significance effect will be triggered, mitigation in the form of sound insulation grants or equivalent must be indicated.

All predictions for the Podium & Twickenham Station development must also consider the cumulative effect of the other developments

NI21 - Noise Monitoring –

Continuous monitoring must be undertaken for the duration of the demolition and construction phase. In order to reduce the resource burden on the local authority and provide it and residents with measurement data, a web enabled system such as the B&K Sentinel System or equivalent must be employed. The location, number of monitoring stations and the measurement data must be agreed with the Local Planning Authority prior to the start of construction.

NI06 (Acoustic Report – IEMA Guidance) For the avoidance of doubt and pursuant to condition NS09, the applicants is advised that the Council will refer to Table 8 “Semantic Noise Impact Assessment” from the Guidelines for Noise Impact Assessment” from the Institute of Environmental Management and Assessment (IEMA) as set out below:

Sound Level Change dB(A)	Subjective Impression	Impact description
0.0	No Change	None
0.1 to 2.9	Imperceptible changes in loudness	Slight
2.9 to 4.9	Perceptible changes in loudness	Moderate
5.0 to 9.9	Up to doubling or halving of loudness	Substantial
10.0 or more	More than doubling or halving of loudness	Severe

NI22 - (Construction Logistics Plan – TfL Guidance)
In relation to condition NS56 the applicant is advised that the Construction Logistics Plan should aim for load consolidation and avoid peak rush hour to work delivery times. Further information in this regard can be found at http://www.tfl.gov.uk/businessandpartners/freight/11422.aspx.

NI23 –
For the purposes of the definition of event day in condition NS57, event day shall being interpreted as meaning a day on which an event is scheduled to be held at Twickenham Stadium and which would have an anticipated audience of greater than 35000 people as agreed by the Local Planning Authority

NI24 - Platform PA System – Noise

The public address system shall be used in accordance with the Manual of Good Practice for Public Address Noise Management produced by London Underground (2007) at all times other than for RFU Rugby Match's or Concert events or in emergency situations to ensure that existing and proposed residential accommodation is suitably protected from railway associated noise.

Background documents

Planning application forms
Plans and illustrative drawings
Emails and letters of representation including a report on Highways and Transport Issues (October 2011) by Odyssey Consulting Engineers

Objection Petitions from Twickenham Residents Action Group,

Support Petitions from Rugby Football Union

Environmental Statement (April 2011) by Maddoxs and Associates (ES)
Environmental Statement: non technical summary by Maddoxs and Associates (April 2011)
Design and Access Statement (May 2011) by Maddoxs and Associates (DAS)

Planning Statement (03/05/2011) by Maddoxs and Associates
Statement of Community Engagement (SCE) (May 2011) by Solum Regeneration
Sustainability Statement (April 2011) by Maddoxs and Associates (April 2011)
Energy Statement (28/04/2011) by Church House Building Sustainability (Revision B)
The Code for Sustainable Homes – Pre-assessment (28/04/2011) by Church House Building Sustainability (Revision C)
BREEAM retail 2008 - Pre-assessment (28/04/2011) by Church House Building Sustainability (Revision B)
Preliminary construction management statement (November 2010) (CMS)
Section 106 Heads of Terms by Maddoxs and Associates
Affordable housing toolkit (May 2011) by HEDC including development costs by Roger Wren Partnership Ltd and property sales values by PPS
Affordable housing viability submission: Executive summary (May 2011) by HEDC
Track Possessions – Comments by Network Rail
Viability report – Second application (2 November 2011) by C. Kench (DVS)
Wind microclimate review (03/10/2011) by G Breeze (BRE Ltd)
Subsequent responses from RWDI dated 11 October 2011 and e-mails from G Breeze dated 14 October 2011.
EMF report dated June 2011
Solar glare report (04/10/2011) by P Littlefair (BRE Ltd)
Noise Modelling of Twickenham Station and Vicinity Preliminary Report

Previous applications, drawings, reports, decision notices refs: 81/1531, 10/1629/CON, 10/20324/COU, 10/1972/FUL
Current applications, drawings, environmental statements, viability assessments refs: 10/3465/FUL