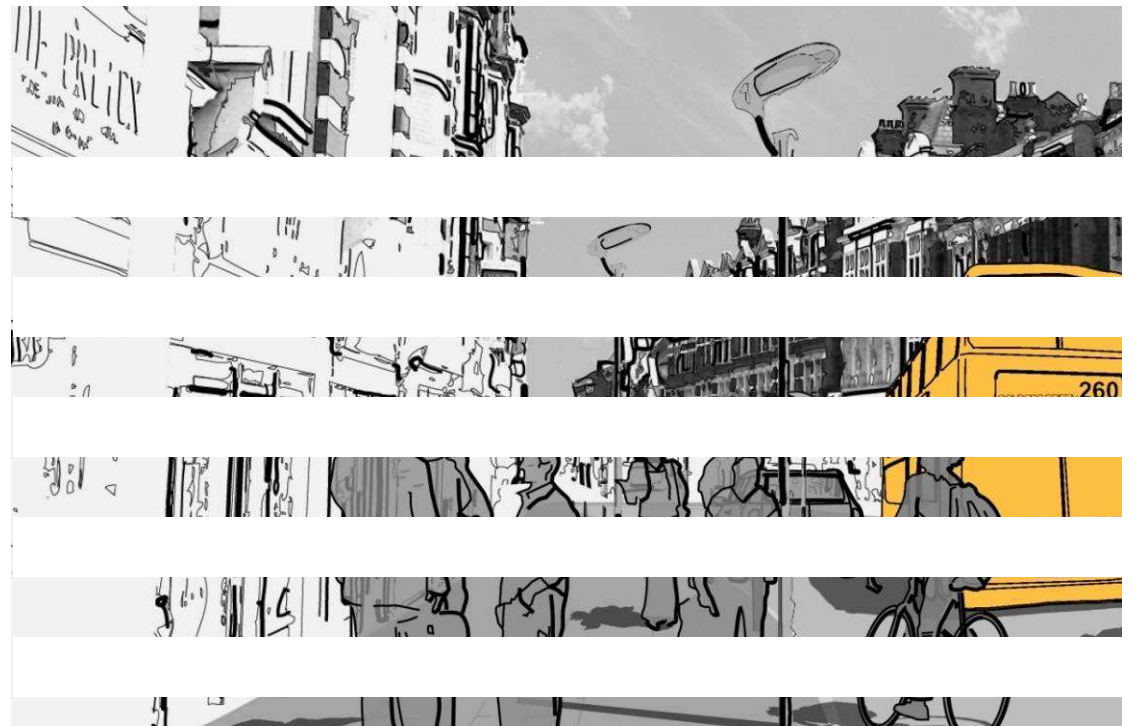
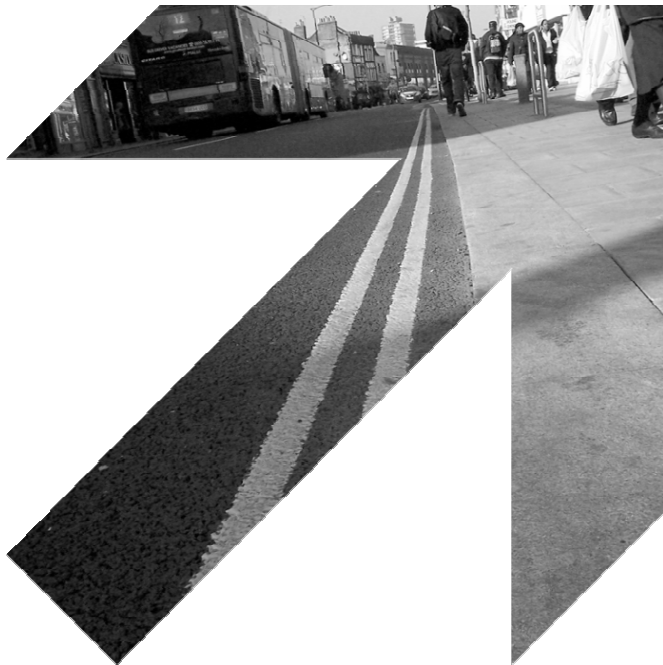


Crown Court Residences Transport Assessment





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Crown Court Residences Transport Assessment

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Introduction

JMP Consultants Ltd (JMP) has been commissioned by the University of Liverpool to prepare a Transport Assessment for a proposed student residential development comprising 1259 units in three accommodation blocks. The development is located at the east side of the University in central campus, to the east of Liverpool City Centre. The development is known as the Crown Court Residences site. A Framework Travel Plan has also been produced for the proposed development in conjunction with this Transport Assessment as part of the overall planning application for the site.

The existing site is currently used as a Veterinary School, surgery and associated veterinary uses (to be relocated as part of a separate planning application). In addition, some existing staff and veterinary car parking is included in the proposed site area. As such, the proposed development will require the removal of approximately 65 existing car park spaces. A location plan is included as **Figure 3.1**. In addition, a plan of the University campus is included at **Appendix A**.

The aim of the development proposals is to provide high quality accommodation due to increasing student numbers and deteriorating accommodation. In line with the 2007 Campus Urban Design Framework and associated 2008 Knowledge Quarter Urban Design Strategy, the University has identified opportunities for improving the situation on its central campus. The residential proposals at Crown Court will continue the substantial programme of investment that includes the 'Apex Project', Vine Court Residences, Central Teaching Laboratories and high quality public realm programme.

As agreed with Liverpool City Council, this Transport Assessment relates to the proposed development in isolation, rather than the University site and masterplan in its entirety.

This Transport Assessment has been produced in line with the latest DfT 'Guidance on Transport Assessment'. Some sections of this Transport Assessment are repeated in the separate Framework Travel Plan to enable each to be read as a stand alone document. Preliminary information regarding the development proposals was received from Lewis and Hickey Architects. JMP also liaised with key staff at the University of Liverpool and Highways Officers at Liverpool City Council throughout the masterplanning process to discuss and agree the main assumptions and methodologies to be used as the basis of this report.

This Transport Assessment is set out in seven sections including this introductory section, as follows:

- Section 2 sets out the relevant national and local policy context;
- Section 3 outlines the existing baseline transport conditions;
- Section 4 details the development proposals;
- Section 5 discusses the development impact;
- Section 6 provides the Minimum Accessibility Standard Assessment; and
- Section 7 provides the conclusions and recommendations.

National Context



The Department of Communities and Local Government [CLG] has issued both Planning Policy Statements [PPS] and Guidance [PPG] Notes which set out the Government's policies in relation to various aspects of planning. These have recently been superseded by the National Planning Policy Framework (NPPF) issued in March 2012.

The National Planning Policy Framework sets out the Government's planning policies for England and how these are expected to be applied. The purpose of the planning system is to contribute to the achievement of sustainable development, and the NPPF indicates that there are three dimensions to sustainable development: economic, social and environmental. Economic growth can secure higher social and environmental standards, and well-designed buildings and places can improve the lives of people and communities.

In addition the NPPF states that pursuing sustainable development involves seeking positive improvements in the quality of the built, natural and historic environment, as well as in people's quality of life, including (but not limited to) making it easier for jobs to be created in cities, towns and villages.

At the heart of the National Planning Policy Framework is a presumption in favour of sustainable development, which should be seen as a golden thread running through both plan-making and decision-taking.

Insofar as transport is concerned, the NPPF says the following:

- Transport policies have an important role to play in facilitating sustainable development but also in contributing to wider sustainability and health objectives.. Encouragement should be given to solutions which support reductions in greenhouse gas emissions and reduce congestion.
- All developments that generate significant amounts of movement should be supported by a Transport Statement or Transport Assessment.
- Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe.
- If setting local parking standards for residential and non-residential development, local planning authorities should take into account the accessibility of the development; the type, mix and use of development; the availability of and opportunities for public transport; local car ownership levels; and an overall need to reduce the use of high-emission vehicles.

Local Context

Merseyside Local Transport Plan 2011 - 2015

The third Local Transport Plan for Merseyside (LTP) provides the statutory framework for the policies and plans that will guide the future provision of transport in Merseyside. The vision for transport on Merseyside is:

“A city region committed to a low carbon future, which has a transport network and mobility culture that positively contributes to a thriving economy and the health and wellbeing of its citizens and where sustainable travel is the option of choice.”

In order to support the city region and achieve the vision the LTP has six key goals:

- Help create the right conditions for sustainable economic growth by supporting the priorities of the Liverpool City Region, Local Enterprise Partnerships and Local Strategic Partnerships.
- Provide and promote a clean, low emission transport system which is resilient to changes to climate and oil availability.
- Ensure the transport system promotes and enables improved health, wellbeing and road safety.
- Ensure equality of travel opportunity for all, through a system that allows people to connect easily with employment, education, healthcare, other essential services and opportunities.
- Ensure the transport network supports the economic success of the city region by the efficient movement of people and goods.
- Maintain our assets to a high standard.

Ensuring a Choice of Travel – Supplementary Planning Document

The Supplementary Planning Document (SPD) has been developed in partnership with the Merseyside Local Authorities and Merseytravel in order to provide consistent guidance to developers on access and transport requirements for new development across the wider Merseyside area. The objectives of the document are outlined below;

- Ensure a reasonable choice of access by all modes of transport to new development;
- Reduce the environmental impact of travel choices, by reducing pollution, and improving the local environment;
- Improving road safety;
- Promote healthier lifestyles by providing opportunities for people to walk or cycle for work or leisure purposes;
- Reduce the level of traffic growth and congestion on the strategic and local road network; and
- Encourage opportunities to improve the quality of development proposals by better use of space through the provision of less car parking spaces where appropriate.

On a specific level for Liverpool, the SPD should also:

- Enable the provision of a balanced transport infrastructure which provides access to employment, leisure, retail and other facilities for all the city’s residents and visitors; and
- Provide a framework for future investment in the City’s strategic road and rail network where new development would create additional travel demand.

Policy Review Conclusions



The proposals for the Crown Court Residences sit well within transport policy when viewed on a national and local level. The development encompasses the main principles objectives and criteria of national and local policy guidance as set out above.

Both the nature of the development and its location in proximity to the public transport network will help reduce car use. The site provides satisfactory links to existing cycle routes. There is quality walking infrastructure surrounding the development with existing links into Liverpool city centre and there are good public transport services available to staff and students. These are all key factors in reducing the need for car dependency by staff, students and visitors to the site.

The proposals therefore meet the requirements of transport policy both nationally and at a local level. The following section of this report will discuss further the public transport and accessibility of the proposed development.

Site Location and Existing Land Uses

Introduction

The general location of the development site is shown in **Figure 3.1**. The proposed Crown Court residences site is located to the east of Liverpool city centre in the central area of the main University campus. It is bounded by Brownlow Hill to the north, Grove Street to the east, the University campus to the south and Peach Street to the west. The land use around the site is a combination of the University campus as well as commercial and residential leading to the city centre to the west and residential areas to the east and south. There are good walking, cycling and bus routes around the site which route westwards towards the city centre and eastwards towards Wavertree and Childwall.

Highway Network

The proposed site for development is located in the central area of the University Campus. The roads located within the campus are unadopted and maintained by the University. Brownlow Hill to the north of the proposed development, Grove Street (A5048) to the east and Crown Street to the north (and within the proposed development area) are outside the University boundary and are maintained by the highway authority. Grove Street is a key route around Liverpool city centre from the south and has a carriageway width of approximately 10 metres.

As part of the Hall Lane highway scheme, the section of Crown Street which routed through to Grove Street to the south of Brownlow Hill has recently been stopped up and a new Grove Street alignment has been constructed with an upgraded junction at Brownlow Hill with controlled pedestrian crossings on all arms. The new alignment on Grove Street has two lanes in each direction.

Brownlow Hill runs in an east – west direction through the centre of the campus and meets Grove Street at the upgraded junction. Brownlow Hill crosses Crown Street (north and south) at a give-way junction.

Car Parking

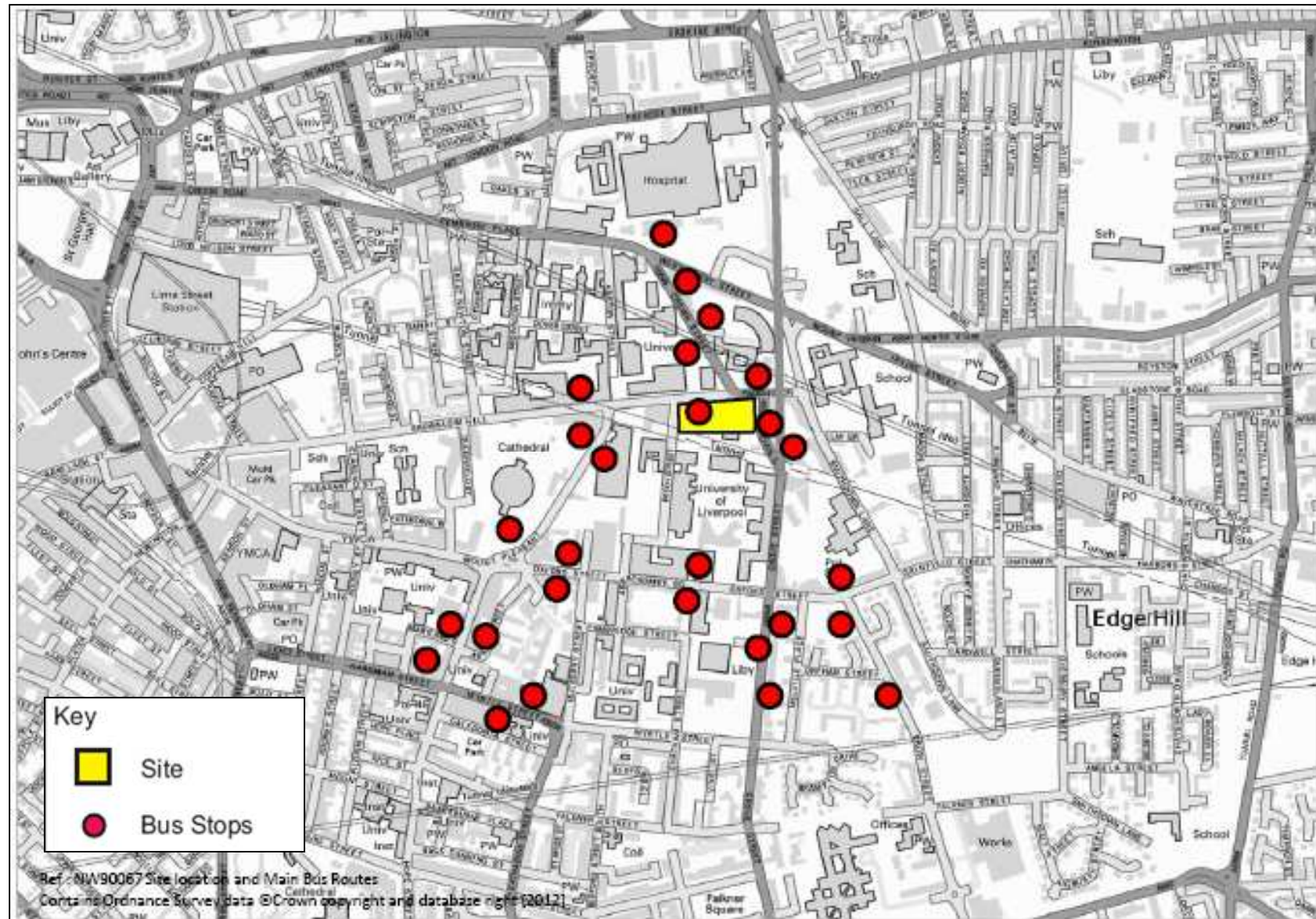
Students are not currently permitted to park on campus. Given the sustainable location of the site the University has a policy to discourage students from owning a car. Staff car parking is currently present at sites located across the University campus. The closest staff car parks to the site are numbers 12, 13, 18 and 19, as evident on the campus plan included at **Appendix A**. The proposed development will impact on a small area of parking associated with the existing veterinary uses in addition to staff car park number 12. Car park access for staff is predominantly barrier controlled. During the site visits the car parks were busy but not full. The quality of surfacing within the car parking areas varies.

Traffic Flows

The existing site is comprised of veterinary teaching and surgery uses, with a minimal amount of car parking for use by visitors for veterinary treatment (dealt with as part of a separate planning application), as such it does not currently generate vehicular transport demand. The proposals will impact on an existing staff car park area, however appropriate mitigation for the loss is proposed as part of the proposals and is discussed later in this report.

3. Existing Conditions

Figure 3.1 Site Location and Bus Stops



Public Transport Provision

Bus Access

PPG13 states that developments should be located at or near public transport networks. The recommended walking distance from a development to a bus stop by IHT in their 'Guidelines for Planning for Public Transport in Development' is 400m. The Crown Court site benefits from bus stops being located within 400m of the site on Crown Street, Grove Street, and Brownlow Hill. In addition, there are bus stops on Oxford Street to the south of the development and West Derby Street to the north, also within 400m of the site. **Figure 3.1** highlights bus stops in the vicinity of the site.

All bus stops on Brownlow Hill, Oxford Street, Crown Street and Grove Street are of high standard and include timetable information (except two stops), are well lit, free from graffiti, sheltered and include seating provision. There was no vandalism noted at the time of the site audit and all stops are well lit.



The bus stops on Crown Street provide services to the City Centre, Halewood, Hunts Cross, Dingle Mount, Toxteth, Albert Dock and Penny Lane.

The bus stops on West Derby Street provide services to the City Centre, Wavertree, Woolton, Halewood, Childwall, Netherley, Runcorn, Widnes and Murdishaw.

The bus stops on Brownlow Hill provide services to the City Centre, Huyton, Wavertree, Roby, Prescott, Page Moss, Childwaal, Whiston and Broadgreen.

The bus stops on Oxford Street provide services to the City Centre, Huyton, Prescott, Toxteth, Aigburth, Old Swan, Broadgreen and Page Moss.

Table 3.1 overleaf shows the timetables for the bus services operating in the vicinity of the site.

Bus Access



Table 3.1 below details the service number and timetable information of buses serving the Crown Court development site.

Table 3.1 Bus Service Provision in the Vicinity of the Crown Court Site

Service	Route	Operator	Frequency		
			Mon – Fri	Saturday	Sunday
Brownlow Hill					
C1	Canada Boulevard – Vauxhall Road – Queen Square – Royal Hospital – The Cathedrals – Albert Dock –Canada Boulevard	Merseytravel	30	30	30
6, 116	City Centre – Edge Lane – Broadgreen – Roby – Huyton - Cronton - Penketh – Warrington	Arriva Merseytravel	30 (Huyton) 60 (Warrington)	30 (Huyton) 60 (Warrington)	-
7	City Centre – Edge Lane – Broadgreen – Page Moss – Huyton	Arriva	30	30	60
7A	City Centre – Edge Lane – Broadgreen – Page Moss – Huyton – Cronton - Penketh – Warrington	Arriva	60 Eve	60 Eve	60
14, 14C	City Centre – Edge Hill –Wavertree – Childwall – Belle Vale – Netherley – Hough Green - Widnes	Halton Transport	15	15	20
61, 161	City Centre – Wavertree – Huyton – Whiston - Prescott – Rainhill – Farnworth – Widness – Runcorn - Murdishaw	Halton Transport Merseytravel	20	20	60
79	City Centre – Brownlow Hill – Wavertree – Childwall – Belle Vale – Netherley	Arriva	5 daytime 30 evening	6 daytime 30 evening	15 daytime 30 evening
79C	City Centre – Wavertree – Childwall – Belle Vale – Netherley – Hough Green - Widnes - Runcorn – Halton Hospital - Murdishaw	Arriva	15 daytime 30 evening	15 daytime 30 evening	30
Oxford Street					
83	City Centre – Womens Hospital – Toxteth – Aigburth	Stagecoach	30	30	-
139	City Centre – Edge Hill – Wavertree Tech Park – Old Swan – Broadgreen Hospital – Page Moss – Dinas Lane – Huyton – Whiston – Whiston Hospital – Prescott	Comfybus	30	30	-
699	(Term time only) Carnatic Hall – Greenbank Rd – Liverpool University – Greenbank Road – Carnatic Hall	Arriva	10 daytime 20 evening	20	20

Bus Access



Table 3.1 Bus Service Provision in the Vicinity of the Crown Court Site continued

Service	Route	Operator	Frequency		
			Mon – Fri	Saturday	Sunday
Grove Street					
76	City Centre – Womens Hospital – Ullet Road – Penny Lane – Menlove Avenue – Woolton – Okell Drive – Halewood	Arriva	30	30	-
76A, 77	City Centre – Womens Hospital –Penny Lane – Menlove Avenue – Woolton – Okell Drive – Halewood – Hunts Cross – Menlove Avenue – Penny Lane – Womens Hospital – City Centre	Arriva	30 Eve	30 Eve	30
201	Speke – Garston – Liverpool South Parkway – Penny Lane – Womens/ Royal Liverpool Hospitals	Merseytravel	3 services only	3 services only	3 services only
801	Royal Liverpool Hospital – Womens Hospital – Penny lane – Liverpool South Parkway – Springwood Cemetery	Merseytravel	-	-	2 services only
C5	Dingle Mount – Toxteth – Womens Hospital – Royal Hospital – Queen Square – James Street Station – Albert Dock – Brunswick Business Park – Dingle Mount	Merseytravel	30	30	30
699	Carnatic Hall – Greenbank Rd –Liverpool University – Greenbank Road – Carnatic Hall	Arriva	10 daytime 20 evening	20	20

Bus Access



Table 3.1 Bus Service Provision in the Vicinity of the Crown Court Site continued

Service	Route	Operator	Frequency		
			Mon – Fri	Saturday	Sunday
Crown Street					
76	City Centre – Womens Hospital – Ullet Road – Penny Lane – Menlove Avenue – Woolton – Okell Drive – Halewood	Arriva	30	30	-
76A, 77	City Centre – Womens Hospital – Penny Lane – Menlove Avenue – Woolton – Okell Drive – Halewood – Hunts Cross – Menlove Avenue – Penny Lane – Womens Hospital – City Centre	Arriva	30 Eve	30 Eve	30
C3	Canada Boulevard – Albert Dock – The Cathedrals – Royal Hospital – Queen Square – Vauxhall Road – Canada Boulevard	Merseytravel	30	30	30
C5	Dingle Mount – Toxteth – Womens Hospital – Royal Hospital – Queen Square – James Street Station – Albert Dock – Brunswick Business Park – Dingle Mount	Merseytravel	30	30	30
West Derby Street					
78	City Centre – London Road – Wavertree – Woolton – Gateacre – Halewood – Ravenscourt Bus Facility – Okell Drive	Arriva	20	30	30
79	City Centre – Brownlow Hill – Wavertree – Childwall – Belle Vale – Netherley	Arriva	5 daytime 30 evening	6 daytime 30 evening	15 daytime 30 evening
79C	City Centre – Wavertree – Childwall – Belle Vale – Netherley – Hough Green - Widnes - Runcorn – Halton Hospital - Murdishaw	Arriva	15 daytime 30 evening	15 daytime 30 evening	30
838	Hunts Cross – Childwall – City Centre – Liverpool Freeport	Merseytravel	1 AM journey	-	-

Rail Access

The closest rail stations to the Crown Court site are Central, Lime Street and Edge Hill stations which are located approximately 1.2km, 1.2km, and 1.3km away, respectively. However, students are most likely to travel to the site via Liverpool Central Station and Liverpool Lime Street Station in the City Centre. The IHT 'Guidelines for Planning Public Transport in Development' recommend a maximum walking distance of 900m from a development site to a train station. The railway stations are therefore just outside the maximum recommended walking distance. Although it is likely that some students and staff will be willing to walk this distance.

Liverpool Central forms the hub of the Merseyrail network being on both the Northern Line and Wirral Line. Liverpool Central Station provides services every 15 minutes during the daytime on each of several branches to stations on the Northern and Wirral Lines. Final destinations include Chester, Hunts Cross, Southport, Ormskirk, Kirkby, West Kirby, New Brighton, and Ellesmere Port, with a comprehensive network of local stations between these and the city centre. The rail services are reduced to a 30 minute frequency on each line on a Sunday and in the evening, except for the Southport line which continues to operate on a 15 minute frequency.

Lime Street Station is on the West Coast Main Line from London Euston and on the Wirral Line and City Line of the Merseyrail network. Liverpool Lime Street Station provides frequent services to Warrington, Manchester, Birmingham, Blackpool, London, Leeds, Nottingham, Scarborough and York.

Edge Hill station is on the City Line and provides a link to the various stations on this line i.e. Liverpool Lime Street, Widnes, Warrington Central, St Helens and Manchester. From Edge Hill Station there is a train on average every 15 minutes to Liverpool Lime Street Monday to Saturday daytime. There are services to Wigan North Western every 30 minutes; and services to Manchester or Warrington on average every 30 minutes. On Sundays no trains stop at Edge Hill station.

Students may choose to use the train for part of their journey for employment or leisure trips outside of the city centre, most likely coupled with walk, cycle or bus. Staff may choose to use the train on their journey to work, coupled with walk, cycle or bus. A Plusbus ticket scheme is currently in operation which facilitates easy interchange onto an appropriate bus service to the Crown Court site.

Rail Access - PLUSBUS

The Plusbus is a discount price 'bus pass' that is purchased with a train ticket. It provides the holder with unlimited bus travel around town, at the start, the finish, or both ends of their train journey. Plusbus tickets are available to purchase with a train ticket at the station or by phone. With a Plusbus ticket you can travel anywhere on Arriva, First, Stagecoach, Halton Borough Transport, Merseytravel, Huyton Travel and Peoplesbus buses around the whole urban area of Liverpool. The cost of a Plusbus ticket is £3 for adults, £1.50 children and £2 for a railcard holder. Season tickets cost £11.50 for 7days; £44 for a month; £122 for three months; and £440 for a year. Childrens season tickets are not available for this area.

Figure 3.2 indicates the Plusbus operating area

Source: <http://www.plusbus.info/>



Figure 3.2

Pedestrian Access

Footways on Crown Street, Grove Street, Brownlow Hill and Oxford Street are wide (at approximately 2m), well-lit, and generally in good condition with no overgrown vegetation. The junction of Brownlow Hill and Grove Street has controlled pedestrian crossings on all arms with dropped kerb, tactile paving, pedestrian refuges and call buttons. The junction of Grove Street and Oxford Street has comprehensive controlled pedestrian crossing facilities with dropped kerbs and tactile paving. Pedestrian refuges are present on Brownlow Hill.

The pedestrian routes within the University campus are in good condition, well signposted and well lit; there is also considerable CCTV coverage. Pedestrian routes through the campus in the vicinity of the Crown Court development site include an east-west path to the southern boundary of the site linking Grove Street and University Square at the junction of Mount Pleasant and Brownlow Hill. There is also a pedestrianised route running southwards from this route linking to Abercromby Square. A further footpath runs parallel to the southbound footpath just to the west of Peach Street and links University Square with Abercromby Square via the sports centre. This is the main pedestrian and cycle route through the campus.



Good signage is present across the University campus and within the vicinity of the proposed development site.

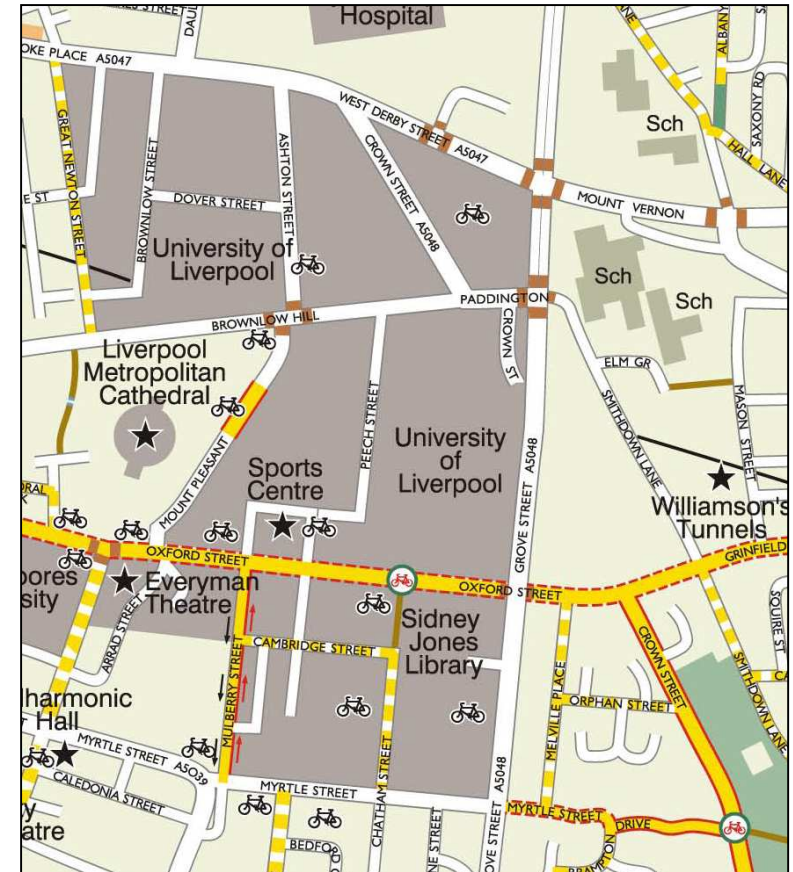
PG13 states that for distances under two kilometres, walking offers the greatest potential to replace the use of the car, "Walking is the most important mode of travel at the local level and offers the greatest potential to replace short car trips, particularly those under 2km" (Paragraph 75 PPG13). Liverpool city centre, with its numerous facilities, including public transport facilities, is located within a reasonable walking distance of the development site.

3. Existing Conditions

Cycle Access

Oxford Street to the south of the site provides an on-road sign posted cycle route linking the city centre with Broad Green and the TransPennine Trail (an off-road National Cycle Route). To the south east, from the junction of Crown Street and Oxford Street, there is a on-road cycle route which leads to cycle routes to the east and south of Liverpool eventually linking with National Cycle Route 56.

The roads around the site are sufficiently wide for cyclists to use and the local cycle routes are clearly marked, signed and in good condition. The local route is illustrated in **Figure 3.3**, taken from the Liverpool Cycle Map produced by TravelWise Merseyside.



Key to map symbols

- On-road cycle route (both sides of road)
- On-road cycle route (one side only)
- Suggested cycle route
- On-road signed cycle route
- Traffic-free cycle route (good surface)
- Advanced stop line

Figure 3.3

Cyclist Access



The University campus is accessible by cycle and there is ample bicycle parking with space to park over 530 bicycles at allocated bicycle parking areas across the campus (as set out in the recent cycling audit included at **Appendix B**), many of these are secure and undercover (note: a minority are council owned provisions)..

The nearest cycle parking provision to the proposed development is located at the Biosciences building to the north of Brownlow Hill. A total of 25 stands are provided in front of the Biosciences building entrance. At the time of the site audit there were 12 cycles secured at the parking facility which is located close to the building entrance. The cycle parking is therefore currently well used at the site.

Other cycle parking provision within close proximity of the site is located next to the Harold Cohen Building, near the Sports Centre, on Mount Pleasant, near the student Service Centre and off Oxford Street.



PPG13 notes that for journeys of less than 5km, cycling offers a potential substitute to car borne trips. Bootle, Everton, Mossley Hill, Wavertree and West Derby are all located within a reasonable cycling distance of the site. As such, the potential will exist to encourage students who need to travel short journeys outside of the city centre to travel by this mode.

Vehicular Access

Vehicular access to the existing development site is via an access point on Crown Street (to the south of Brownlow Hill). This part of Crown Street previously routed through to Grove Street but was closed off as part of the Hall Lane highways improvement scheme. The road now serves only as an access into the University site, providing access to the barrier controlled staff car park number 12 and the few uncontrolled veterinary car park visitor spaces. In addition, this access provides servicing of a number of University science buildings and catering facilities in the vicinity of the development, and access to the existing substation.

The existing car park 12 is for staff use only and a swipe card barrier system is required in order to gain access to the parking areas. The car park was predominantly full on the day of the site audit.



All the streets in the vicinity of the site have 30mph speed restrictions and connect to the City Centre, South Liverpool and Wavertree.

Crown Street/Grove Street, Brownlow Hill and Oxford Street are all single carriageway roads and have 30mph speed restrictions. Peach Street forms part of the University Campus road network and therefore is unadopted, it has a speed restriction of 15mph.

The junction of Crown Street and Brownlow Hill (to the north and south of Brownlow Hill) is a give-way junction. The junction of Grove Street and Brownlow Hill and Grove Street and Oxford Street are both fully signalised junctions with pedestrian crossing facilities on all arms. Access via Peach Street and Oxford Street simply provide University access points onto campus rather than a formal road junction.

Detailed Development Proposals

Development Content

The proposed development consists of a student residential development comprising three accommodation blocks. The development is located on Brownlow Hill at the east side of the University in central campus, to the east of Liverpool City Centre. The development is known as the Crown Court Residence site and will be operational 24 hours a day. A copy of the site plan, ground floor plan and refuse plan for the development is included at **Appendix C**. The proposed development comprises the following content:

- 1259 residential units in three self catering accommodation blocks. One student will be accommodated in each unit.
- 92 *staff* car parking spaces in a basement car park – these are not associated with the student residences and are required, as determined by Liverpool City Council, to replace the loss of 65 existing car park spaces on the proposed development site.
- Dedicated areas for student facilities (common room, meeting room, laundry etc.).
- Non residential accommodation to provide a management suite and staff working areas for site maintenance, security and provision of student services.
- A small amount of retail space, which, if any, will be a direct replacement of current facilities elsewhere on campus and will have a student focus.
- Storage, ancillary and services areas.
- A minimal net increase in staff numbers to provide the necessary staff requirements. However, this is likely to predominantly be a restructure of existing staff.
- At least 10% provision for student cycles i.e. 126 cycle parking bays to be provided in Block 3, fully secure and covered. Access to the facility will be via Crown Street, as illustrated in the Ground Floor Plan.
- The road closure of Crown Street (to the south of Brownlow Hill) to provide a new high quality full pedestrian zone to link to the wider strategic walk and cycle network. All hard landscape areas have been designed to accommodate emergency vehicles if required. *The University are coordinating the stopping up procedure requirements.*
- The creation of a new barrier controlled vehicular access into the staff basement car park area in Block 2 from Brownlow Hill. The car park will also have a shutter system.
- The creation of a new access into the site from Grove Street to provide infrequent access to facilitate deliveries (to science buildings and catering facilities) and maintenance needs for the existing substation.

Detailed Development Proposals

Development Content Continued....

The development involves the location of new and existing students into the new central campus facilities as opposed to University owned and private residences outside of the city centre. This in itself will reduce the need to travel by students and promote sustainability from the outset given that they will reside and study on site and are in close proximity to Liverpool city centre with its numerous facilities. The University has a policy to discourage car ownership by students and hence no car park provision is proposed for students residing at the Crown Court site.

In the summer months, when the residences are vacant, they are likely to be let to summer schools promoting pre-university education to future students. Such events already occur on campus and hence the new development itself will not initiate any new trips on the local network, it will simply provide an additional facility in which to accommodate attendees at such events.

Preliminary information regarding the development proposals was received from Lewis and Hickey Architects. JMP also liaised with key staff at the University of Liverpool and Highways Officers at Liverpool City Council throughout the masterplanning process to discuss and agree the main assumptions and methodologies to be used as the basis of this report.

Access and Servicing Arrangements

Highway Network / Vehicular Access

The proposed development will result in the closure of the existing vehicular access point via Crown Street. It is proposed that the residential site will be accessed by a new main vehicle access on Brownlow Hill. A new reinstated access to the Chemistry building is also proposed via Grove Street. Prior to the Hall Lane improvement scheme, a gated access point into the Chemistry building was provided via Grove Street, although this was closed as part of the improvement scheme. Hence, as part of the Crown Court proposals, a new reinstated access on Grove Street is proposed.

The plans in **Appendix C** show the general layout and access arrangements for the development.

The new vehicular access on Brownlow Hill provides barriered access to the staff basement car park area and therefore simply relocates staff focussed traffic from the nearby existing vehicular access to car park 12 via Crown Street. Existing traffic will therefore slightly reroute the journey to the alternative new access which is less than 100m from the existing (soon to be closed) Crown Street access.

The vehicular access on Grove Street is proposed to provide infrequent access to facilitate deliveries (to science buildings and catering facilities) and maintenance needs for the existing substation.

Pedestrian Access

Pedestrians will be able to access the site via Brownlow Hill or Grove Street or from the high quality internal footway network within the University campus. There will be convenient and easy access on foot between the three residential blocks.

Footways are present as routes throughout the campus. For example, an internal footpath is present via an east-west path to the southern boundary of the site linking Grove Street and University Square at the junction of Mount Pleasant and Brownlow Hill. Footways within the campus and surrounding the site are considered to be of good in terms of width, standard and lighting.

Emergency Access

Emergency vehicles will be able to access the site from controlled use of the new pedestrianised Crown Street, and externally via Brownlow Hill, Peach Street and Grove Street.

Access and Servicing Arrangements

Servicing

Refuse Strategy

The design and location of the refuse stores have been based on the aspiration for students to become fully responsible for waste management up to the recycling centres. All refuse locations have been positioned on primary routes leading from each building core so students can simply deposit refuse when leaving the building. These key locations coincide with being located with direct access from Brownlow Hill as required by Liverpool City Council.

Bins from Blocks 1 and 2 Recycling Bin Holding Areas will be collected by Hall managers on refuse collection days and stored (temporarily) in recess to the side of the main new vehicle entrance (Brownlow Hill), in front of the security barrier. This will allow maintenance vehicles to pull off Brownlow Hill whilst collection takes place. The recycling Bin Holding area to Block 3 is to open directly onto Brownlow Hill for curb-side collection.

A refuse plan is included at **Appendix C**.

Other Servicing

The existing Crown Street access (via Brownlow Hill) provides the primary route for servicing to the science buildings (via a gated access), utility substations and the Graduate Suite canteen and bin stores. This route allows for the safe handling of controlled science-related substances. Goods are stored within the basement of the Chemistry building and then distributed to other buildings. Prior to the Hall Lane improvement scheme, servicing to the gated access point into the Chemistry building was via Grove Street, although this access was closed as part of the improvement scheme. As part of the Crown Court proposals, a new reinstated access on Grove Street is proposed to provide these science-related servicing requirements and to serve the canteen and bin storage area in the existing lecture theatres (Graduate Suite) and existing substation.

Parking Provision

Car Parking

There is to be no student provision for parking vehicles at the Crown Street Student Residences. Students wishing to bring a vehicle with them will be advised to find accommodation elsewhere. In the past, Liverpool City Council expanded the controlled parking zone near to the University campus in order to prevent University students and staff from parking on the local roads. Students who live at the Crown Street residences will have no requirement for a car given the location of the accommodation within both the campus and the city centre. This will help reduce the number of trips made to the University campus. The University has a car park management strategy which outlines measures to reduce the impact of ongoing development on parking within the campus to ensure the effective management of parking on site.

A total of 65 existing staff car parking bays will be lost from the proposed development area (i.e. from car park number 12 and the veterinary school). However, mitigation for these spaces is provided through the provision of a 92 space barrier controlled basement car park area for staff. The new car park will be managed as part of the site-wide car park provision for staff.

Although the mitigation provision is higher than the car park loss as a result of the development, it provides additional space which may be required to mitigate other car park losses as a result of other development at the University. Liverpool City Council has indicated that any loss of existing parking on site must be fully compensated through the provision of car parking at an appropriate scale in a convenient location. The University has a car park management strategy in place which coordinates car park requirements on a site-wide basis. A specific temporary (six-month) measure recently implemented to compensate the loss of car park spaces is an agreement to hire 40 car parking spaces at the Local Solutions Car Park, Hall Lane and 50 car parking spaces at Mount Pleasant Multi-Storey Car Park, Mount Pleasant, which will be offered to staff at a subsidised rate of £30 per month. This initiative is being introduced to support the development of the campus and to help relieve any addition pressures on existing University car parks resulting from the Capital Plan. The provision of 92 as opposed to 65 car parking spaces on the Crown Court site is therefore considered beneficial and necessary to support the University's overall car park management mitigation strategy.

The Travel Plan for the proposed development will encourage the use of sustainable modes of travel by students and the minimal staff numbers at the site.

The proposals therefore support the sustainable ethos of the University. Students wishing to drive to the University must make their own arrangements for parking – the University does not make parking available for able-bodied undergraduates.

Parking Provision



Cycle Parking

The University has a commitment to providing appropriate cycle storage facilities for staff and students and invest year on year in cycle provision in accordance with demand. As such, the University manage cycle parking on a campus-wide rather than building-by-building basis, which could otherwise result in massive underuse of parking in some areas and capacity issues in other areas.

There has been much progress and investment in cycle storage on campus over the past 4 years. In addition, an up to date audit of cycling provision has been undertaken which focused on use levels and capacity. This audit is included at **Appendix B**, and indicates that ample spare capacity is available on site.

The location of the site, on the University campus and within the city centre, means that the majority of trips made by students will be more practical and attractive on foot than by cycle. Hence, the cycle parking requirements will be less than a similar site located off campus and outside the city centre.

In agreement with Liverpool City Council, there has therefore been some flexibility agreed in the application of cycle parking standards to the Crown Court Residences, whereby cycle parking provision for at least 10% of students at the site is considered appropriate. Therefore 126 cycle parking spaces are to be provided in a secure and covered cycle parking facility in Block 3. This provides 10% provision for students plus additional spaces for the minimal staff at the site.

The University will continue to provide parking in line with demand through a campus-wide strategy for future plans at the University. As such, if demand dictates that there is a requirement to increase provision, the University will be committed to do so. This strategy is in preference to providing excessive provision within the site which may remain unused when it would be better located at other sites on campus. After all, well used provision better promotes its use.

The minimal staff and students at the site can make use of the numerous campus-wide cycle parking provisions in addition to the site-specific cycle parking when travelling around campus.

Traffic Generation

The fact that the proposed development will increase student resident numbers on campus and hence reduce the number of students located off campus will act to reduce the need to travel and the need for car ownership by students. The majority of existing student residences are located away from the University site requiring extensive daily commuting to the campus. This new residential development for students at Crown Court will avoid the need for students who take up rooms at this development to travel to campus each day. The more convenient location close to the city centre and public transport points will also simplify and reduce travel needs for the beginning and end of term rush, and will reduce travel distances to city centre leisure and retail opportunities.

The city centre on campus location means that students will have easy access to a full range of services with minimal travel requirements.

There is no student car park provision associated with the development. The proposed basement car park is a necessity to mitigate the loss of existing staff car parking as a result of the proposals and therefore will not impact on traffic routings or levels.

The overwhelming majority of travel associated with the development will thus be associated with sustainable modes of travel (walking, cycling, and public transport) – and previous sections of this report have demonstrated the high level of provision for these modes around the development site.

The implementation of a site-specific Travel Plan provides an ideal opportunity to encourage sustainable travel by staff (minimal numbers) and students as they occupy to the new building.

As result of the above, the proposals will not initiate any change in the traffic generation to the site. As such, the development impact will not cause any negative material impact on the surrounding highway network and it is not considered necessary to examine existing or post-development traffic flows nor undertake operational assessments at key road junctions surrounding the site.

Minimum Accessibility Standard Assessment (MASA)

The Minimum Accessibility Standard Assessment is completed to ensure minimum accessibility standards will be met. Where necessary the assessment can then be used by the local council to seek modifications to the planning application and make recommendations to the local planning authority. The following factors are considered when assessing the accessibility of the development:

- Location
- Development Size
- Walking
- Cycling
- Public Transport
- Vehicle Access

The Crown Court site is considered to be within the location category of 'Urban Centre'. The Crown Court Residences has 1259 units placing it within the class of major developments.

The following table is a summary of the required minimum standard scores and the actual scores for the Crown Court Residences in each area.

Access Mode	Required Minimum (C2 and D1 Residential and Non Residential Institutions – Urban Centre)	Actual Score
Access on Foot	2	4
Access by Cycle	5	5
Access by Public Transport	5	5
Vehicle Access and Parking	3	4

Table 6.1

The table shows that the development meets the minimum requirements for all areas. The completed MASA form is included as **Appendix D**.

Due to the excellent public transport facilities in close proximity to the site there is no requirement for a contribution to bus services or facilities. There are also additional cycle parking facilities across the campus.

Conclusions

Based on the findings of this study the following conclusions can be made:

- The site is well linked to the existing pedestrian and public transport network.
- The development proposals will not increase the trip generation to the site as the facility will simply involve the reinstatement of existing staff parking lost as a result of development proposals.
- The development will avoid the need for students who take up rooms at this development to travel to campus each day and it is a more convenient location to access key services.
- JMP has produced a Travel Plan which will encourage staff and students to choose sustainable modes of transport from the outset. The new site provides an ideal opportunity to encourage an increase in the use of sustainable travel modes.

Recommendations

In light of the above, JMP concludes that the proposed Crown Court Residences would not have a material impact on the operation of the existing highway network and therefore planning permission should not be refused due to the impact on the highway network, or the absence of measures to encourage sustainable travel.

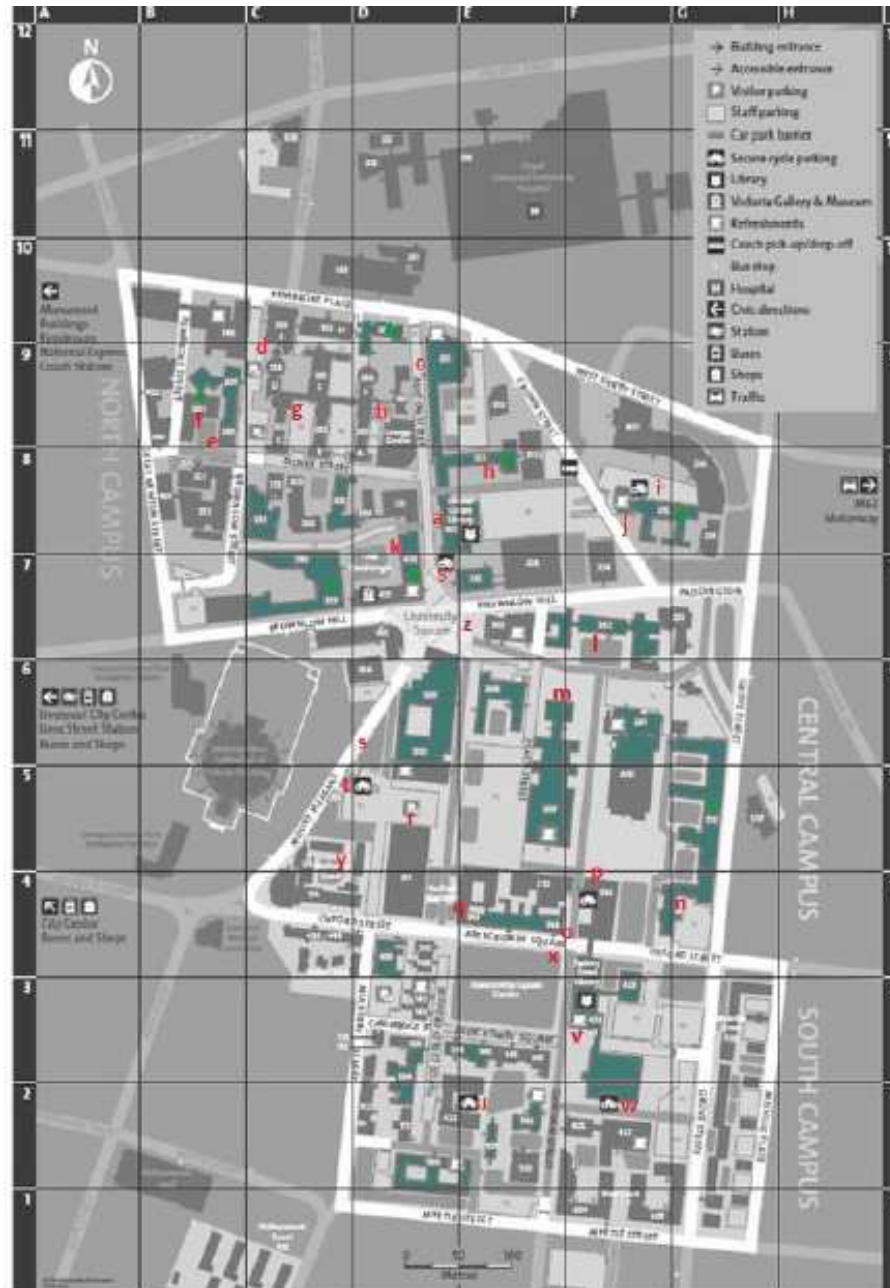


Cycle Facilities Audit

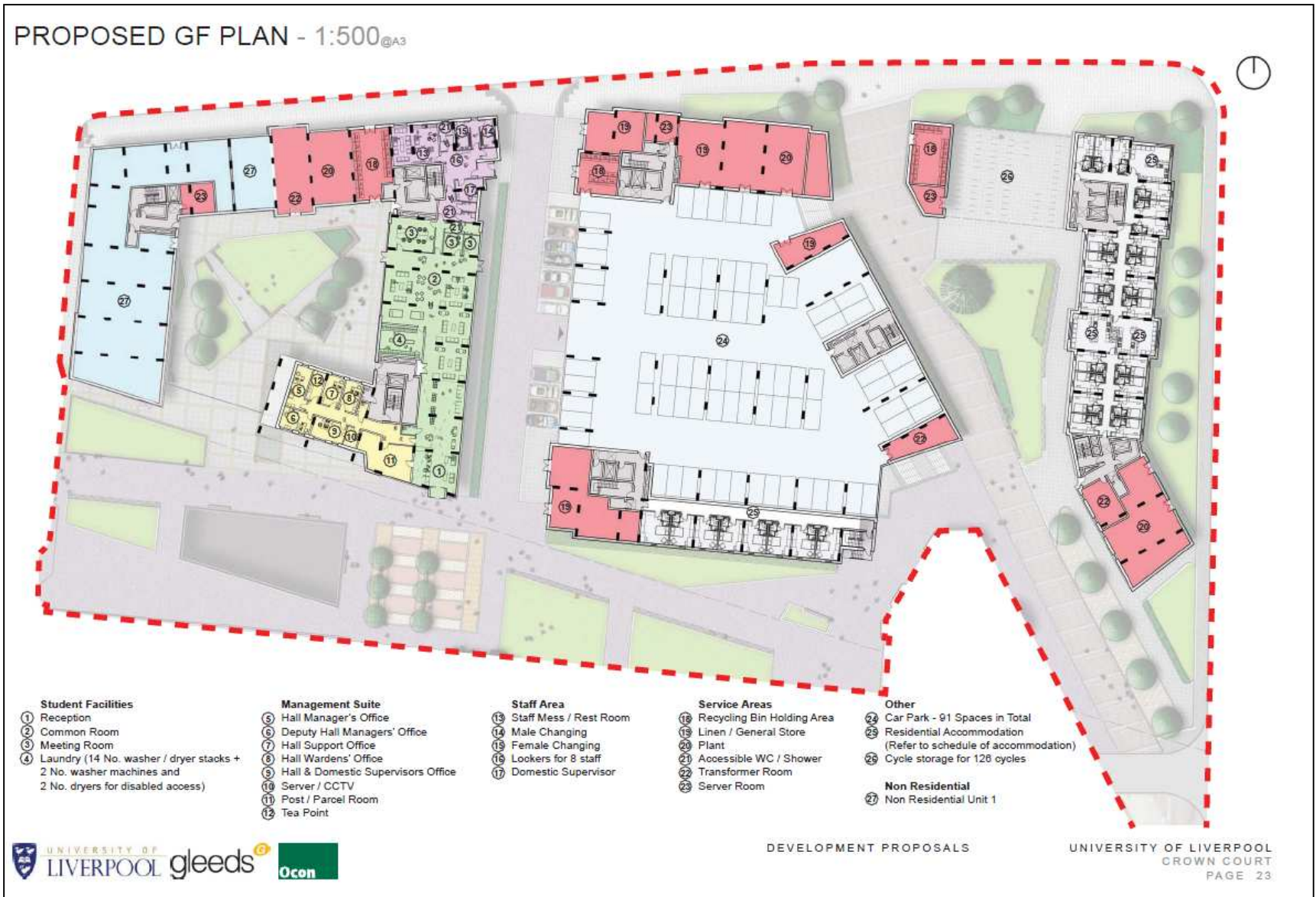
Cycle Parking For Staff and Students					
Site	Type of parking	Number	Number used	Sheltered	Secure
a	sheffield	10	4	no	no
b	sheffield	10	1	no	no
c	sheffield	20	5	no	yes
d	sheffield	4	0	no	yes
e	sheffield	15	7	no	no
f	sheffield	6	0	no	no
f	'wheel bender'	8	0	no	no
g	'wheel bender'	24	2	yes	yes
h	sheffield	8	4	yes	yes
i	sheffield	26	13	yes	yes
j	'wheel bender'	25	4	yes	no
k	sheffield	18	4	no	no
l	sheffield	28	2	no	no
m	sheffield	20	0	no	No
n	sheffield	34	13	yes	yes
o	sheffield	12	0	no	no
p	sheffield	12	0	no	no
q	sheffield	14	7	no	no
r	sheffield	70	16	no	no
s	sheffield	12	0	no	no
t	sheffield	20	3	yes	yes
u	sheffield	38	14	yes	yes
v	sheffield	40	11	no	no
w	sheffield	50	10	25	25
x	sheffield	6	0	no	no
y	sheffield	unknown	unknown	yes	yes
z	sheffield	6	0	yes	yes
\$	sheffield	10	8	no	no

Appendix B: Cycle Facilities Audit

Cycle Facilities Audit

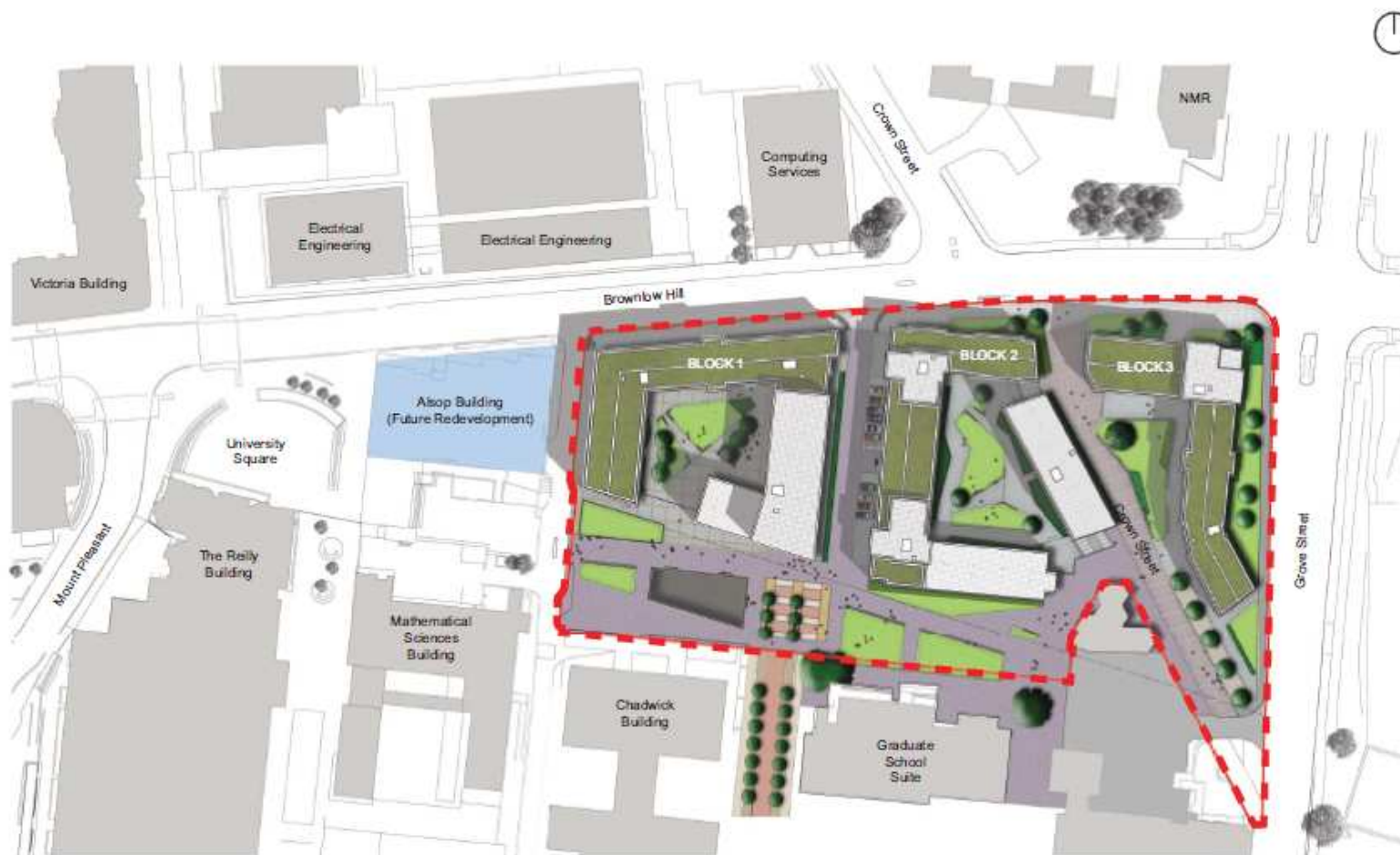


Site Plans – Ground Floor Plan



Site Plans – Site Plan

PROPOSED SITE PLAN - 1:1000 @A3



Site Plans – Refuse Plan



REFUSE COLLECTION STRATEGY



Refuse Strategy

The design and location of the refuse stores have been based on the Employers Requirement document and aspires for the students to become fully responsible for waste management up to the recycling centres during the life span of the building.

All refuse locations have been positioned on primary routes leading from each building core so students can simply deposit refuse when leaving the building. These key locations coincide with being located with direct access from Brownlow Hill as requested.

Bins from Blocks 1 and 2 Recycling Bin Holding Areas will be collected by Hall managers on refuse collection days and stored (temporarily) in recess to the side of the main new vehicle entrance, in front of the security barrier. This will allow maintenance vehicles to pull off Brownlow Hill whilst collection takes place. The recycling Bin Holding Area to Block 3 is to open directly onto Brownlow Hill for curb-side collection.

Uol Standard Waste Streams:

- Mixed Glass Recycling
- Aluminium and HD plastic Recycling
- Paper & Card recycling
- General waste

Overall Collection Capacity/Frequency:

- Liverpool City Council's recommendation is for 1100L bin per 10 bedrooms per week.
- A daily collection is proposed (Mon-Fri). This equates to 1 x 1100 bins per 50 beds per day.
- To cover imbalances in volumes of each recycled waste category, as a general rule this capacity has been increased by 25% split between the recycling facilities in each block.
- In total a provision of 32 x 1100L bins are to be provide for the scheme split accordingly across the 3 blocks.

Minimum Scores

3.11 The minimum standard scores which are detailed have been developed through open and transparent testing by partner authorities and stakeholders on Merseyside. The scores have been tried and tested by transport and development professionals on real life developments.

Table 3.1: Minimum Levels of Accessibility: Minimum Scores for 'Medium' 'Large' and 'Major' Developments

Development Type	Location (see key below)	Development Size	Minimum score for walking	Minimum score for cycling	Minimum score for public transport	Minimum score for vehicle access
A1 Retail D2 Assembly & Leisure	Urban Centre	Major & Large	2	5	5	3
		Medium	2	3	3	2
	Other Urban	Major & Large	4	5	6	2
		Medium	4	3	4	1
A3 Restaurants & Cafes	Urban Centre	All	1	4	4	3
A4 Drinking Establishments A5 Hot Food Takeaway	Other Urban	All	4	5	4	1
A2 Financial and Professional Services	Urban Centre	Major & Large	2	5	5	3
		Medium	2	4	5	2
	Other Urban	Major & Large	4	5	6	1 or 3 ⁽²⁾
		Medium	4	4	4	1
B1 Business (including educational sites)	Urban Centre	Major & Large	2	5	5	3
		Medium	2	4	5	2
	Other Urban	Major & Large	4	5	6	1 or 3 ⁽²⁾
		Medium	4	4	4	1
B2 Industrial Uses	Urban Centre	Major & Large	n/a	n/a	n/a	n/a
		Medium	2	4	4	1
	Other Urban	Major & Large	2	3	5	1 or 3 ⁽²⁾
		Medium	2	2	4	1
B8 Storage and distribution	Urban Centre	Major & Large	n/a	n/a	n/a	n/a
		Medium	2	4	4	1

3 Minimum Accessibility Standard Assessment

Development Type	Location (see key below)	Development Size	Minimum score for walking	Minimum score for cycling	Minimum score for public transport	Minimum score for vehicle access
C1 Hotels	Other Urban	Major & Large	2	3	5	1 or 3 ⁽²⁾
		Medium	2	2	4	1
	Urban Centre	Major & Large	2	5	5	3
		Medium	2	3	5	3
	Other Urban	Major & Large	4	5	5	1
		Medium	4	3	4	1
	Urban Centre	Major & Large	4	4	5	3
		Medium	2	3	5	3
C3 Dwelling Houses (For flats with no 'internal circulation', issues, i.e. no car park, reduce walking and cycling target by 1.)	Other Urban	Major & Large	4	5	5	1
		Medium	4	5	5	1
	Urban Centre	Major & Large	4	4	5	3
		Medium	4	3	5	1
C2 and D1 Residential and non-residential institutions (medical centres, museums and galleries, public halls and meeting places)	Urban Centre	All	2	5	5	3
	Other Urban	All	4	5	6	1

Notes:

(1) Urban Centres = Urban Centres in Liverpool are the City Centre (as defined by the Liverpool Vision City Centre boundary in Appendix F), and District Centres as shown on the UDP/LDF proposals map.

Other Urban = The areas that are not in the City / District Centres.

(2) In locations outside of the main centres, if reduced parking standards can not be applied with on-street parking controls (score 3), then the maximum parking level may be sought (score 1)

Minimum Accessibility Standard Assessment

Minimum Accessibility Standard Assessment

Proposal: University of Liverpool Residential Strategy, Crown Court Residences, Liverpool

3 Minimum Accessibility Standard Assessment

Address: Crown Court Residences, Liverpool					
Completed By: H. Curniskey					
Access Diagram					
Has a diagram been submitted which shows how people move to and through the development and how this links to the surrounding roads, footpaths and sight lines? (This can be included within the Design and Access Statement, see Section 2.25.) If a diagram has not been submitted your application may not be processed.				<input checked="" type="radio"/> Yes / No	
Access on Foot				Points	Score
Safety	Is there safe pedestrian access to and within the site, and for pedestrians passing the site (2m minimum width footpath on both sides of the road)? If no your application must address safe pedestrian access.			<input checked="" type="radio"/> Yes / No	
Location	Housing Development: Is the development within 500m of a district or local centre (see Accessibility Map 1 in Appendix F) Other development: Is the density of existing local housing (i.e. within 800m) more than 50 houses per hectare (see Accessibility Map 4 in Appendix F)	Yes 2 No 0		2	
Internal Layout	Does 'circulation' and access inside the sites reflect direct, safe and easy to use pedestrian routes for all; with priority given to pedestrians when they have to cross roads or cycle routes?	Yes 1 No 0		1	
External Layout	Are there barriers between site and local facilities or housing which restrict pedestrian access? (see Merseyside Code of Practice on Access and Mobility)e.g. <ul style="list-style-type: none"> No dropped kerbs at crossings or on desire lines; Steep gradients; A lack of a formal crossing where there is heavy traffic; Security concerns, e.g. lack of lighting. 	There are barriers -2 There are no barriers 1		1	
Other	The development links to identified recreational walking network (see Accessibility Map 1). If no, please provide reasons why not.			<input checked="" type="radio"/> Yes / No	
Total (B)					
				4	
Summary	Box A: Minimum Standard (from Table 3.1)	2	Comments or action needed to correct any shortfall		
	Box B: Actual Score	4			

Access by Cycle			Points	Score
Safety	Are there safety issues for cyclists either turning into or out of the site or a road junctions within 400m of the site (e.g. dangerous right turns for cyclists due to the level of traffic)? If yes, you must address safety issues in your application.			Yes <u>No</u>
Cycle Parking	Does the development meet cycle parking standards, in a secure location with natural surveillance, or where appropriate contribute to communal cycle parking facilities? If no, you must address cycle parking standards and cycle parking facilities.			Yes <u>No</u>
Location	Housing Development: Is the development within 1 mile of a district or local centre (see Accessibility Map 1) Other Development: Is the density of local housing (e.g. within 1 mile) more than 50 houses per hectare (see Accessibility Map 4 in Appendix F)	Yes	2	2
		No	0	
Internal layout	Does 'circulation' and access inside the site reflect direct and safe cycle routes, with priority given to cyclists where they meet motor vehicles?	Yes	1	1
		No	0	
External Access	The development is within 400m of an existing or proposed cycle route (see Accessibility Map 1 in Appendix F) and / or proposes to create a link to a cycle route, or develop a route? The development is not within 400m of an existing or proposed cycle route (see Accessibility Map 1 in Appendix F)		1	1
			-1	
Other	Development includes shower facilities and lockers for cyclists	Yes	1	1
		No	0	
			Total (B)	5
Summary	Box A: Minimum Standard (From Table 3.1)	5	Comments or action needed to correct any shortfall	

3 Minimum Accessibility Standard Assessment

3 Minimum Accessibility Standard Assessment

Box B: Actual Score	5	Cycle parking – The development provides a student residential facility. Given the fact that the University provide a year on year investment on cycle provision in accordance with demand and the sustainable location of the site, which reduces the need for travel by students, the Cycling Officer has agreed a level of 10% secure cycle provision at the site i.e. 127 spaces. Cyclist shower facilities and lockers – the student residences will provide shower facilities and can safely store equipment in their apartment.		
Access by Public Transport				
Location and access to public transport	Is the site within a 200m safe and convenient walking distance of a bus stop, and/or within 400m of a rail station? (See Accessibility Map 2 in Appendix F).	Yes	2	2
		No	0	
	Are there barriers on direct and safe pedestrian routes to bus stops or rail stations i.e. <ul style="list-style-type: none">A lack of dropped kerbs;Pavements less than 2m wide;A lack of formal crossings where there is heavy traffic; orBus access kerbs.	There are barriers	0	1
		There are no barriers	1	
Frequency	High (four or more bus services or trains an hour)		2	2
	Medium (two or three bus services or trains an hour)		1	
	Low (less than two bus services or trains an hour)		0	
Other	The proposal contributes to bus priority measures serving the site		1	
	The proposal contributes to bus stops, bus interchange or bus or rail stations in the vicinity and/or provides bus stops or bus interchange in the site		1	
	The proposal contributes to an existing or new bus service		1	
Total (B):			5	

Summary	Box A: Minimum Standard (from Table 3.1)	5	Comments or action needed to correct any shortfall
	Box B: Total Score	5	
</			

3 Minimum Accessibility Standard Assessment

3 Minimum Accessibility Standard Assessment

	The off-street parking provided is as advised in Section 4 for that development type	1	Yes / No
	The off-street parking provided is less than 75% of the amount advised in Section 4 for that development type (or shares parking provision with another development)	2	Yes / No
	For development in controlled parking zones:		Yes / No
	Is it a car free development?	1	Yes / No
	Supports the control or removal of on-street parking spaces (inc provision of disabled spaces), or contributes to other identified measures in the local parking strategy (including car clubs)	1	Yes / No
Total (B):		4	
Summary	Box A:		
	Minimum Standard (From Table 3.1)	3	Comments or action needed to correct any shortfall. If conditions are appropriate for the reduced level of parking (see section 4), but this has not been provided, please explain why.
		4	Car Parking: The development does not include any car parking for student residences. Car parking is provided for staff to replace the removal of existing facilities as a result of the development, as requested by Liverpool City Council.