



The University of Liverpool

URBAN DESIGN FRAMEWORK



URBED (Urbanism Environment Design)

10 Little Lever Street
Manchester
M1 1HR

t. 0161 200 5500
f. 0161 237 3994
e. info@urbed.coop
w. www.urbed.coop

with...

WSP Integrated Transport

www.wspgroup.com



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The Mathematics Building by Bryan Westwood, 1959



The former Royal Infirmary by Alfred Waterhouse in 1890



The new Bio-science building completed in 2004



1:1 - Introduction

The aim of this study is to assist development of an estate strategy for the University of Liverpool that can guide future investment decisions and better integrate the University with its surrounding context.



The University Sports Centre, one of the best modern University buildings - designed in 1963 by Sir Denny Lasdun

In recent years Liverpool, along with the other core English cities, has embarked on a dynamic period of investment and resurgence, often characterised as the 'urban renaissance'. This has been driven in no small part by the major educational and learning institutions, that have allowed these cities to attract students, staff and significant investment. Universities have become major economic generators spinning off businesses and attracting investment for research and development. They have also added to the vitality and cultural diversity of cities making them much more interesting and exciting places.

In turn the big metropolitan universities have benefited from the transformed image and new found pulling power of their host cities. Students

want to study in exciting cities and universities in the big cities have found it easier to attract students and also to retain them after graduation.

With its location at the very heart of Merseyside's metropolitan city-region, the University of Liverpool's campus should be perfectly positioned to both benefit from and contribute to this renewed civic energy.

Unfortunately, with some notable exceptions, the buildings and spaces of the campus do not at present rise to this challenge. They neither provide a fitting setting for the University's world-class academic status nor do they integrate the life of the University with the life of the city. This, we believe, is because of a confusion in the approach to the planning of the University in

the past, that has alternated between trying to create a 'campus' environment and seeking to developing an 'Urban' University and done neither very well.

The Estates Strategy being undertaken by the University to direct a multi-million pound transformation of the campus is a good opportunity to address these issues. The University has commissioned URBED (Urbanism, Environment, Design) to develop a new masterplan for the University. This document is the result of this commission and includes a detailed analysis of the physical fabric of the University and its property requirements. This is developed into a three dimensional vision for the University and a phased programme of works to achieve this.

1:2 - The University Challenge

Universities operate in an ever changing world. Staff and students are becoming more demanding, space requirements are changing and the environment in which they operate is becoming more competitive. The masterplan must respond to these challenges.



The University's needs are changing and the way it operates today is very different from the situation in the 1940s when the last major masterplan for the campus was undertaken by Lord Holford. The new masterplan must respond to these changing needs:

- The knowledge economy is now central to the economic success of cities so that universities need to be embedded in the economy of the city.
- Student numbers have increased from less than 5% of young people in the 1940s to a current target of 50%. The size of courses and the number of students on campus has increased hugely since the 1980s although this has now levelled off.
- Overseas students are crucial to the academic life and finances of the University and the campus needs to be attractive to them.
- There are far more universities than there used to be. Students are attracted to the bright lights of cities like Liverpool but parents remain concerned about safety and crime. The campus therefore needs to provide a safe environment.
- Course types are evolving with the expansion of vocational courses and an increasing diversity of learning and teaching formats including full and part-time courses, distance learning and use of on-line delivery.
- University finance depends on research ratings and this depends on attracting the best academics. The campus must therefore be a good place to work.
- There is increasing concern about the environment and universities are expected to take the lead in carbon reduction strategies. Initiatives like Harvard's Green Campus show how this can project a positive image.
- Universities rely on conferences and other activities to generate revenue. This requires modern conference venues as well as accommodation, catering and parking provision.
- Technology is changing rapidly; in the last decade universities installed rooms full of computers for students. However, with the

availability of affordable, portable computing students are increasing flexible in where and how they can work.

- Tuition fees are helping to fund improved accommodation but have also changed the relationship between students and universities with the former acting more like customers and the latter increasingly eager to impress.

All of this means that universities need to make sure that their buildings and the environments on their campus are memorable and welcoming. People's expectations of their university are becoming more aspirational. Estates strategies are no longer just pragmatic, functional programmes to house the University's activities but are now crucial to the success of their institution.

These issues are also being addressed by American Universities. As part of this the not-for-profit organisation 'Project for Public Spaces' (who worked with URBED in the 1980s) have set out six objectives that a good university campus should aspire to achieve. These provide a good foundation for the Liverpool University Masterplan:

1. Bring people and ideas together

The boundaries between disciplines are breaking down. In today's institution, the management school, for example needs to interact with the teaching hospital, the linguists with the scientists. Students also need to interact with each other and in turn the entire University needs to interact with the broader city and community.

Such encounters help generate new ideas, the very currency of the knowledge economy. The campus needs to be designed to create space for these interactions. For all of the importance of virtual worlds, face-to-face communication remains vital and the campus needs to include lively inviting public spaces to encourage interaction.



2. Create places, not just facilities

People naturally want to study, live and work in a place that is pleasant, stimulating, attractive and safe. A campus needs to be greater than the sum of its parts, not merely a collection of departmental buildings but a cohesive, identifiable university, which generates a sense of belonging and pride.

Some elements of the University's campus have a very strong sense of place - notably around the Guild, Victoria Building and Abercromby Square, which have a lively but distinctly academic atmosphere. We would like the entire campus to be of such a high standard.

3. Balance flexibility with control

Security is vital to a sense of personal well-being and also to protect institutional investments, but it is not achieved where spaces are entirely devoid of activity for long periods.

At present, Liverpool's campus is lively and safe during term time week days, but inert in the evenings, at weekends and throughout the vacation months.

It would benefit both the University and the city, for the campus to be more active more of the time, as well as creating a clearer distinction between public and private spaces.

4. Relations between town and gown

A Civic University like Liverpool is able to play an enormously influential role in the future direction of the city.

This can happen in myriad ways. The University's influence is bound to be enhanced if its campus and buildings are viewed with affection and a sense of ownership by local institutions and the city population.

Widening usage, opening access and improving environmental quality are key to this.

5. Actively promote sustainability

Its city centre location makes Liverpool's campus inherently positive in sustainability terms as compared to 'out of town' campuses distant from public transport and other facilities.

Major investment is taking place across the Campus in a new Combined Heat and Power system that will maximise efficient energy use and minimise the University's carbon footprint.

Economic sustainability is also important - conferences and other activities generate revenue for the University as well as a greater sense of vitality.

6. Prioritise people over parking

Good access by car is an advantage for the University, situated only ten minutes drive from the M62 and M53.

However, large areas of land are at present given over to surface car parking, which deadens much of the campus environment.

Reallocation to sensitively designed and located multi-storey provision would improve the entire visual aspect and free up land for more productive and lively uses.

PART 2:

The University in Context





2:1 - Location

The University occupies a strategic site on the edge of the city centre and in a location at the heart of the city region.

Alongside its leading academic reputation, the location in a spacious campus on the edge of the city centre is one of the University's primary competitive advantages. The campus is unambiguously part of the city centre, with both cathedrals, the Royal Hospital and Lime Street Station just a stone's throw away.

The University lies at the heart of the Liverpool city-region, which is home to 1.3 million people. The University's 'travel to work' area stretches even further than this – south/west into Cheshire and Wales and north/east as far as Preston and Warrington.

The location plan shows Liverpool's metropolitan core - the area broadly within the Queens Drive intermediate ring road. The blue circle covers the city centre and its immediate context, with the Campus boundary outlined in red.

On a city centre scale (see plan opposite) it becomes clear that the Campus is actually distinct from the core retail, commercial, civic and cultural uses that lie further 'down the hill', sitting equally close to the established residential neighbourhoods of Liverpool's inner-city.

This 'edge of centre' position means the Campus enjoys the access advantages that come with centrality, but without the intense pressures on space and environmental quality associated with the very heart of the city.

Its generous 25 hectare site and favoured topographical situation on the ridge overlooking the Mersey give the campus its own discrete identity within Liverpool's urban structure.

This offers the potential to establish the University Campus as a 'bridge' between the many different roles and functions of the city, an idea which reconnects with the original essence of a 'Civic University'.

The Campus is the largest element in Liverpool's strategic Knowledge Quarter, a unique collection of learning and cultural assets that account for some 15% of the city's annual GVA. This has been subject to a separate study (also by URBED) which sits the University masterplan within the wider context of Knowledge Quarter together with the plans of Liverpool John Moores University and the development plans of the Royal Liverpool University Hospital.



A Figure Ground Plan of Liverpool showing the University Campus well within a 1km radius of the city centre.

2:2 - Socio-economic Context



The University is surrounded by some of the most deprived neighbourhoods in the country and has an important role in reconnecting these communities to each other and the city centre.

The University Campus and the Royal Hospital are surrounded by established inner city residential communities:

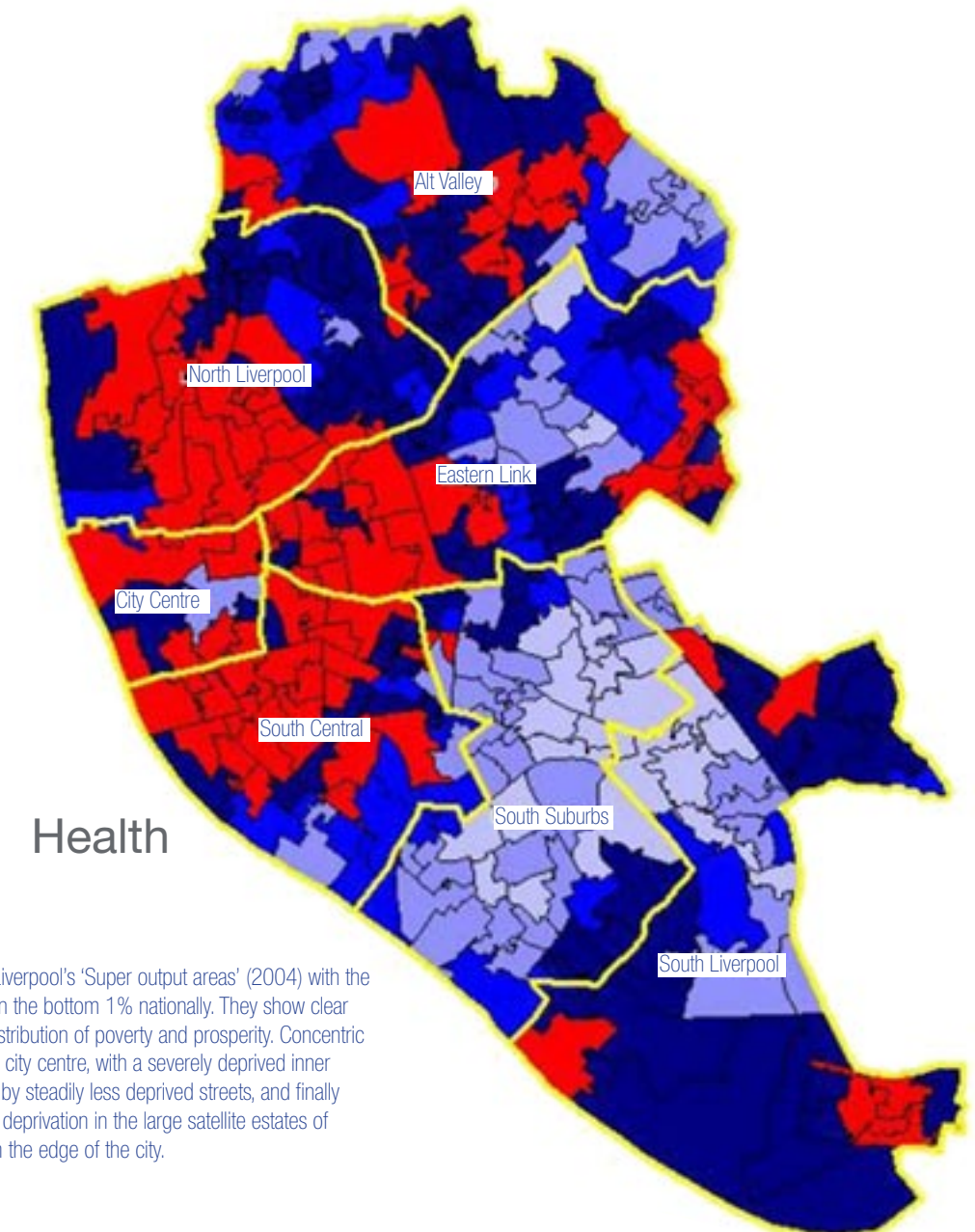
- To the north, across the inner ring road lie low-density 1980s estates of mainly social housing, stretching along the ridge to Everton.
- To the east lie the historic communities of Kensington and Edge Hill, which are housed in a mix of sturdy late 19th century by-law terraces, 20th century social housing, and their low density 1980s replacements. The terraces of Kensington Fields are to be designated as a conservation area, while those of Edge Hill may be demolished under the Housing Market Renewal programme.
- South of the campus is Toxteth's historic Canning area of Georgian streets and squares, lined with townhouses built for the city's wealthy 19th century merchant class. There are also pockets of later infill on blitz and clearance sites. The tenure of this area is highly mixed, with high value owner occupation increasing alongside established social and private rented properties.

- On the west side of the campus is a compact neighbourhood of established social housing. St. Andrews Gardens 1930's 'bullring' tenement block itself has now been converted to student residences.

The Government's Index of Multiple Deprivation 2004 (IMD) shows all of the neighbourhoods around the campus to be subject to deep and multi-dimensional problems of poverty.

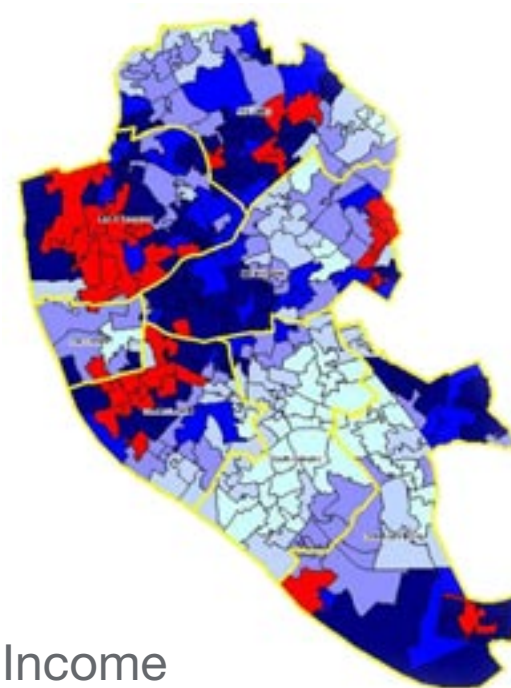
Poor health is particularly acute, as is unemployment and low income. The campus and city centre are ringed by places in the most severe 1% of multiple deprivation nationwide. As the maps on these two pages show, there are clear spatial patterns across the city, with strong clustering effects delineated by sharp cut-off's.

The University has an important role to play in linking and providing opportunities to the residents of these communities. There has sometimes been a tendency to see these areas as threats and potential sources of crime on campus. This however must not undermine the University's role as a bridge rather than a barrier between these impoverished communities and the city centre.

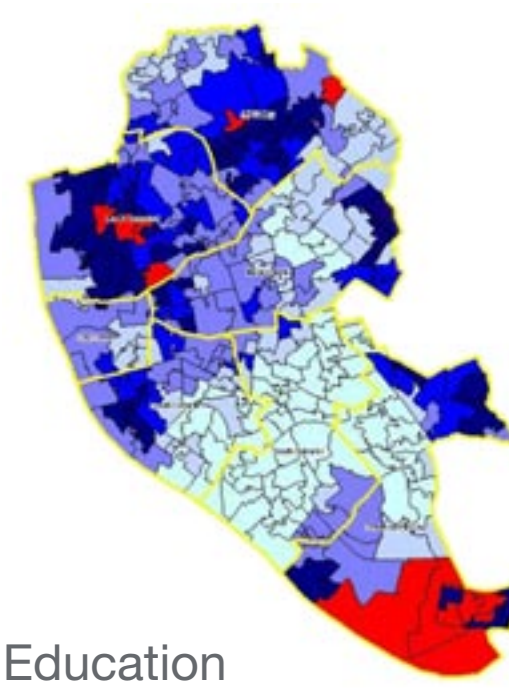


Health

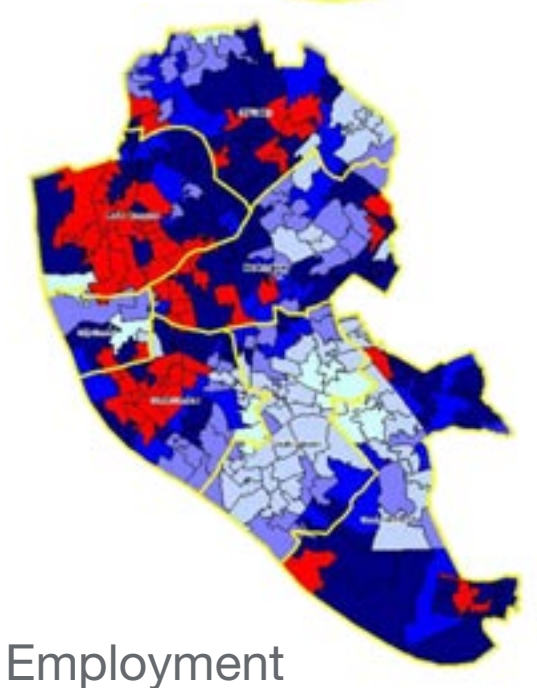
Spatial plans of Liverpool's 'Super output areas' (2004) with the red areas being in the bottom 1% nationally. They show clear patterns in the distribution of poverty and prosperity. Concentric rings encircle the city centre, with a severely deprived inner core surrounded by steadily less deprived streets, and finally pockets of acute deprivation in the large satellite estates of social housing on the edge of the city.



Income



Education



Employment

2:3 - Historic Context



The University straddles the boundary between the Georgian Canning district, a planned extension to the city in the early 19th century, and the Victorian streets around Brownlow Hill.

The University stands on an area once known as Mosslake Fields, which occupied a shelf of land between the rapidly growing port of Liverpool and the village of Edge Hill. In the 19th century this area was selected for a major planned extension to the city. The Corporation Surveyor, John Foster, laid out planned neighbourhoods of well proportioned streets and squares (such as Abercromby Square and Falkner Square) to the east of the city. This area became an affluent residential neighbourhood for the city's elite.

To the north, however, the Georgian housing gave way to a teeming working class district with a mix of townhouses and smaller terraces interspersed with places of worship, pubs, small factories, schools and shops. Parts of the area were stained black from the thick black smoke billowing from the open railway cuttings. The area became a location for some of the city's main institutions, including the vast and fearsome city workhouse that at one time was home to

five thousand unfortunate souls. A more positive contribution was made by the Royal Infirmary opened in 1890 and a few years earlier in 1881 by the University College on Brownlow Hill.

The University in the iconic Victoria building was the very essence of the 'red brick' seat of learning. Over the 20th century the two linked institutions of hospital and University expanded and consolidated, gradually coming to define this part of the city.

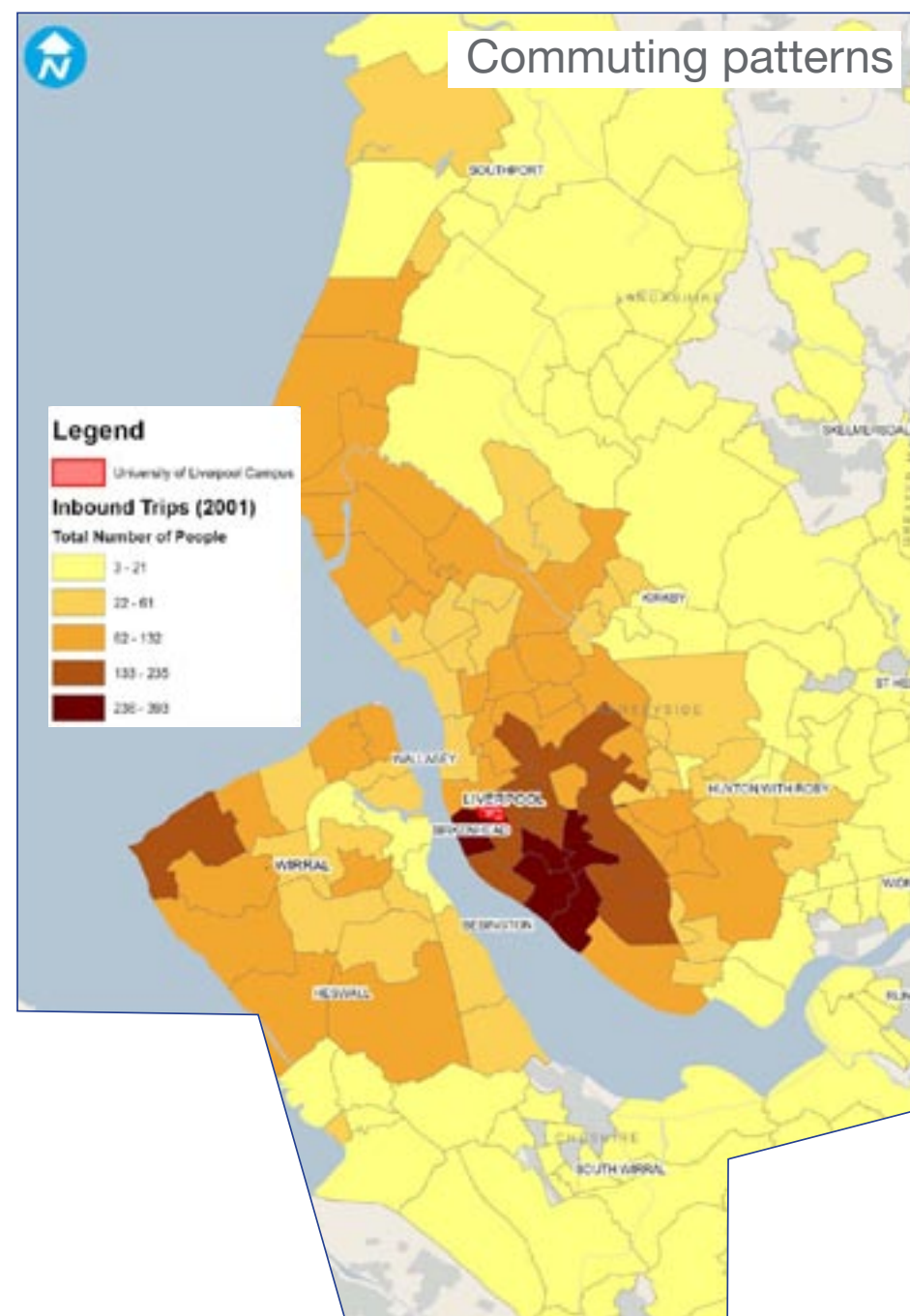
The creation of a formal campus was agreed after the second world war, when much of the city was in need of rebuilding following the blitz. The architect and professor Lord Holford was responsible for the masterplan that eventually emerged, and for the design of the Royal Liverpool University Hospital. Holford's plan was bold and ambitious, but dismantled the strong 19th century grid and the diverse uses it contained, with profound impacts on movement, townscape and activity.



A mid 19th century aerial view of Liverpool from the south. Abercromby Square is in the centre on the far right.

2:4 - Transport Context

Liverpool University lies at the heart of a network of public transport routes. Yet more than half of people working in the campus travel by car and only a small proportion arrive by foot and cycle.



Travel to work

We have assessed the travel to work patterns to the University from the Travel to Work in the 2001 Census. This shows that the majority of trips to the campus (52%) were by car although this is significantly lower than the national average (61%). This is due to the University's relatively high accessibility by other modes of transport. The proportion of people who arrive by public transport (23% by bus and 9% by rail) is more than twice the national average.

However, the mode share for walking and cycling is disappointing given the campus' location within easy reach of a residential areas. Just 6% of people walk to work (compared to the national average of 11%) whilst only 2% of people cycle (national average 3%). This is likely to reflect the campus' relatively poor pedestrian and cycle links with surrounding areas.

Origin of trips - The plan on the left highlights that many of the staff live relatively close to the campus. This includes the city centre and the relatively affluent suburbs to the southeast of the campus, such as Aigburth, Sefton Park and Wavertree. However, high concentrations of commuters are also found in the much less



affluent areas close to the campus including Kensington, Everton and Toxteth as well as in the affluent areas. To the north this includes areas such as Formby and Crosby, and to the west, the Wirral, notably West Kirkby.

The low proportion of cycling and walking trips is surprising given the proportion of staff living near the University. This suggests that physical and perceptual barriers are a problem.

Public Transport

Bus links: The most frequent bus services run to the popular south-eastern suburbs. These are frequent and direct so that a high proportion of people from these areas travel by public transport. The bus links to the more distant commuting locations is very poor and a much higher proportion of staff from the Wirral and the coastal areas to the north drive to work.

Coach Links: The National Express Coach station is located approximately 800m to the west of the centre of the campus on Norton Street. This provides services to much of the country. A number of services also pick up on West Derby Street on their route out to the M62.



Tram: Lines 1 and 2 of the proposed Merseytram light rail network would have passed close to the University Campus. Whilst the scheme remains in the Merseyside Local Transport Plan for 2006-2011 the likelihood of it going ahead is uncertain following Merseytravel's decision not to appeal the Government decision not to fund the scheme.

Trains: Liverpool Lime Street Station is located within a 10 minute walk of the University with services to all major destinations. The Merseyrail underground network also provides links to the other stations within Liverpool City Centre: Central, Moorfields and James St. There have been discussions about opening new Merseyrail lines in the Waterloo and Wapping Tunnels, which run under the campus, this, however, appears to be a long term prospect.



The City Centre Movement Strategy

The Liverpool City Centre Movement Strategy (CCMS), part of the Merseyside Local Transport Plan and the City Centre Regeneration Framework, sets out the vision for the current improvements being seen in the highway environment within Liverpool City Centre. The CCMS is a £73m programme of works proposed by Liverpool City Council, Liverpool Vision and Merseytravel to improve the roads, streets and public spaces in Liverpool city centre. It defines the following objectives:

- Improve accessibility to the city centre to aid economic regeneration and to provide access for all;
- Create a people friendly city centre that is safe, clean and attractive for work, shopping, business, tourism and leisure;
- Make best use of the city centre's key transport assets – the Merseyrail stations, bus facilities, ferries and major car parks;
- Support the improvement of the city centre's architecture and townscape; and
- Ensure that measures can be funded and implemented.

Significant schemes are underway around the University including improvements to Renshaw Street and Lime Street as well as major road building at Edge Lane and Hall Lane to the east.



A key part of the strategy is the creation of 'pedestrian priority areas' which will develop an integrated approach to the planning and design of both transport and public realm works. It is anticipated that such areas would not amount to complete pedestrianisation, but would aim to improve pedestrian conditions through measures such as wider footways and improved crossing points. This approach is advocated in an area that includes the core of the city and extends out to include the University Campus.

Of the three areas in the strategy the eastern area is most relevant to the University. The City Centre Movement Strategy East Scheme Identification and Implementation Report, produced in July 2004 includes a street hierarchy including; Strategic Streets; City Streets and Pedestrian Lanes. This is being applied to a number of schemes within the University area:

- Brownlow Hill
- Moss Street/Daulby Street corridor
- Mount Pleasant/Hope Street junction
- West Derby Street
- Crown Street

These schemes, together with the principles of urban design set out in the CCMS and the Public Realm Implementation Framework need to be embraced by the University masterplan. The initial discussions have focused on key pedestrian crossing points such as University Square.

