
Old Trafford Sustainability Statement

Lancashire County Cricket Club

October 2009

Drivers Jonas LLP

Version	Date	Amended by	Principal Changes
Version 1	25 August 2009	Nick Buck	

The logo for Drivers Jonas, featuring the company name in a white serif font inside a dark red square with a white border.

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1. Introduction

Purpose of the Report

- 1.1 This Sustainability Statement sets out how the design, planning, implementation and ongoing operational management of the proposed Old Trafford development responds to and supports the growing business, ethical and regulatory drivers for sustainable development.
- 1.2 The statement accompanies an application for planning permission (part full, part outline) submitted by Lancashire County Cricket Club (LCCC) and Tesco Stores Limited for the full redevelopment of the Old Trafford Cricket Stadium, delivery of a new food superstore, and a pedestrian linkage between the two.

Description of the site

- 1.3 The 2.9 ha food superstore site is irregular in shape and is vacant (previously in use as playing fields, but unused since 1998). It lies between Great Stone Road and Warwick Road on the south-eastern side of the A56 Chester Road, one of the main routes to and from Manchester city centre, which lies approximately three miles to the north-east. Stretford town centre is just over one mile to the south-west, and Chorlton-cum-Hardy is approximately 2 miles to the south.
- 1.4 Old Trafford cricket ground also lies between Great Stone Road and Warwick Road to the south-east of the superstore site, though the two parts of the site are separated by Talbot Road. The proposed pedestrian link between the two crosses Talbot Road and runs alongside Trafford Town Hall.

Description of the proposal

- 1.5 The key components of the planning application proposals are summarised below.

New World Class Cricket Stadium

- 1.6 The existing Old Trafford Cricket Ground will be redeveloped to provide a new world class cricket stadium to host international cricket and other major cultural events, acting as a major destination for sport in the North West, alongside the Old Trafford Football Ground.
- 1.7 Proposals for the Cricket Ground include:
 - n A new Members' facility – primarily accommodated within the existing Pavilion, which will be reconfigured and extended upwards by two storeys.
 - n A state-of-the-art media centre – located in a new pitch-side structure (opposite the Pavilion) which will also comprise facilities for players and officials, accommodation for ground staff/equipment and educational facilities.
 - n Improved general admission spectator facilities – including 2 no. new two-tier grandstands flanking the new media centre.
 - n A Business Centre located within the Pavilion – providing break out space for the hospitality and events venues and other space for dining. This will be contained within the extended Pavilion.
 - n Matchday and non-matchday food offer - it is intended that new kiosks/retail units will be provided under the rake of the grandstands which

- back on to Brian Statham Way, with the potential to provide active frontages and improve the streetscape in this location.
 - n Zone for temporary seating – re-sited from current position next to Cricket Centre to location adjacent to Enabling Phase.
 - n An extended Cricket Centre (ICC) to include additional educational facilities.
 - n Hotel – the existing Old Trafford Lodge will be retained and potentially extended as part of a later phase of development to provide 150 beds and a new brasserie.
 - n New Replay Screens, sightscreens, 6 no. 60m high floodlighting columns and other associated cricket ground equipment.
- 1.8 The redeveloped Ground will have c.15,000 permanent seats, but will be capable of accommodating up to c.10,000 temporary seats, taking the overall capacity to c.25,000.

New Food Superstore

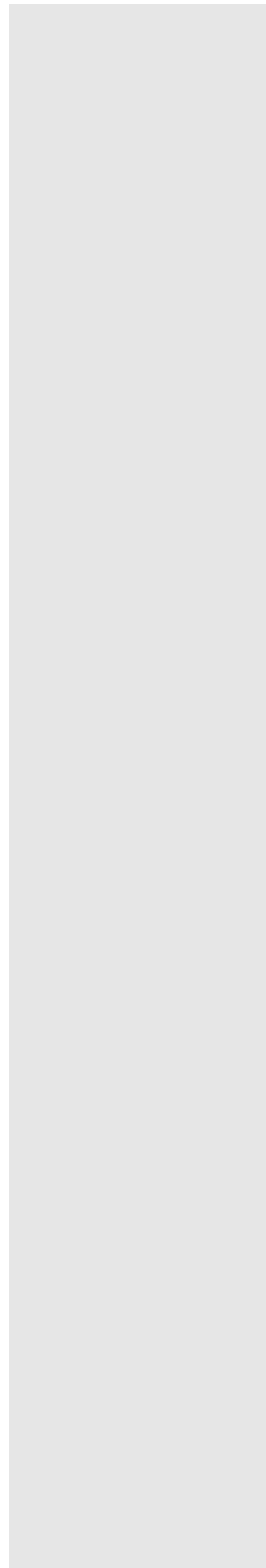
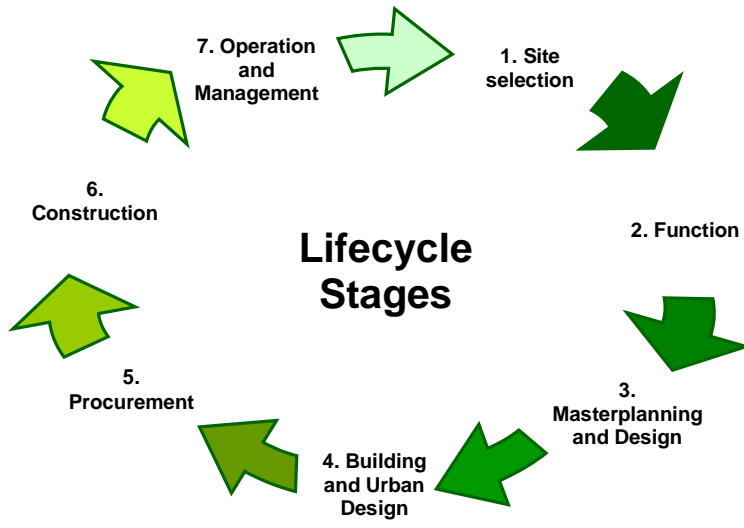
- 1.9 The new superstore is proposed on the land fronting Chester Road, which already has full planning permission for a smaller foodstore with associated car parking, servicing, and access. The new store will have a gross floorspace of c. 15,500 sq m which would provide a net trading area of c. 9,308 sq m.
- 1.10 The superstore will accommodate a retail sales floor at first floor level which is achieved by supporting the structure on pillars. This allows for car parking to be developed at ground floor level beneath the store. The service yard is also proposed at first floor level to the rear of the sales area, whilst appropriate landscaping will be provided on site as part of the proposals.
- 1.11 A petrol filling station will also be provided on the Chester Road frontage.

Pedestrian Linkage

- 1.12 A new pedestrian route will be delivered on land falling within the curtilage of Trafford Town Hall, which will create a physical nexus between the Cricket Ground and the superstore, and enhance permeability within and through the wider masterplan area that is defined in the sports-led Regeneration Framework for Old Trafford.

Report Structure

- 1.13 This report is structured to address the following:
- Sustainable Development Policy***
- 1.14 The following sections of this Sustainability Statement begin with an overview of the European, national, regional and local policy context by way of identifying the broad framework of sustainability challenges and opportunities that are pertinent to the planning and development process in general, and the Proposals specifically.
- Analysis***
- 1.15 The Statement then considers and analyses the response of the Old Trafford proposals in relation to its component lifecycle stages, as shown in the diagram below:



2. Sustainable Development Policy

European Policy

- 2.1 At the European level the *Energy Performance of Buildings Directive (EPBD)* requires minimum standards of energy performance in new buildings (implemented in the UK through Part L of the Building Regulations) and the disclosure of completed buildings' performance through the use of Energy Performance Certificates (EPC's).
- 2.2 From the 1st October 2008 all new buildings in England & Wales must have an EPC which benchmarks their energy efficiency with a grading similar to that seen on white goods (i.e. 'A' signifies high efficiency, while 'G' signifies low efficiency).
- 2.3 From the same date Display Energy Certificates are required to be prominently displayed in all public buildings with a total useful floor area over 1,000m², showing the actual energy usage of the building compared to a reference value.
- 2.4 These measures are intended to increase public awareness of the efficiency of the buildings they use and occupy and thereby stimulate market demand for more efficient buildings.
- 2.5 The EU's 'Renewables Make the Difference' policy was published in 2007. This set a binding target for 20% of energy production across the Union to be from renewable sources by 2020.
- 2.6 The EU has also agreed a goal of reducing both carbon emissions and increasing energy efficiency by 20% by 2020.
- 2.7 Neither of these requirements are site specific in terms of their direct application to the proposals.

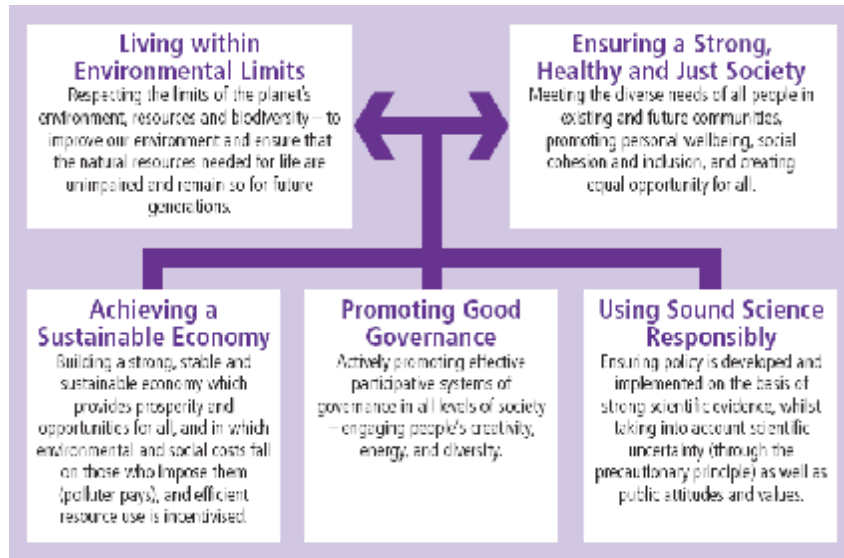
National Policy

- 2.8 Through the Sustainable Communities Plan (ODPM, 2003) and national planning policies, Government wishes to deliver sustainable communities which are defined as:

"places where people want to live and work, now and in the future. They meet the diverse needs of existing and future residents, are sensitive to their environment, and contribute to a high quality of life. They are safe and inclusive, well planned, built and run, and offer equality of opportunity and good services for all".
- 2.9 Meanwhile, Government sets out a core purpose for sustainable development in "*Securing the Future – delivering UK sustainable development strategy*" (HM Government, 2005). In essence, this is to enable all people throughout the world to satisfy their basic needs and enjoy a better quality of life, without compromising the quality of life of future generations.
- 2.10 This should be pursued in an integrated way through a sustainable, innovative and productive economy that delivers high levels of employment, and a just society that promotes social inclusion, sustainable communities and personal well-being. Concurrently, all activities should protect and enhance the physical and natural environment, and use energy and resources as efficiently as possible. This broad purpose encapsulates the

concept of the integrated pursuit of social, economic and environmental objectives.

- 2.11 The core purpose is underpinned by five sustainable development principles, as illustrated by the diagram below, with 'living within environmental limits' and 'ensuring a strong, healthy and just society' positioned as two over-arching goals.



(HM Government, 2005)

- 2.12 In addition, the UK strategy also identifies four priority areas for action:

- (i) **Sustainable consumption and production** – this is about achieving more with less, focusing on the efficient use of resources. From a planning and development perspective this means promoting energy and resource efficiency in the design, construction and use of buildings and infrastructure. It requires consideration of materials, supply chains, construction techniques, and the operation and use of buildings.
- (ii) **Climate change and energy** – this involves minimising greenhouse gas emissions whilst adapting to the consequences of unavoidable climate change resulting from previous emissions. From a planning and development perspective this relates to energy generation, supply and usage, sustainable transport and movement, as well as the embodied energy of materials and construction techniques. Equally, it requires a planning approach which responds positively to flood risk, increasing temperatures, increased storm frequency and severity, all the while ensuring an economically productive built environment that promotes human health and comfort.
- (iii) **Natural resource protection and environmental enhancement** – development should protect and enhance the natural environment by avoiding and minimising adverse effects on biodiversity, landscape character and quality, as well as air, water and soil quality, whilst maximising opportunities for their enhancement. It is also necessary to consider the indirect impacts of development on natural resources relating to the use of energy and resources in the construction and use of developments.

- (iv) **Sustainable communities** – the key aim is to make sure that the principles of sustainable development work at the local level; socially, economically and environmentally. Public engagement, social inclusion and creating places and spaces that foster a sense of pride and community spirit are central to the contribution that planning and development can make to sustainable communities.
- 2.13 By adopting the principles of sustainable development, Government guidance recognises that the planning system can and should make a major contribution to the achievement of these national priorities. Crucially, the Planning and Compulsory Purchase Act 2004 places a statutory obligation on local authorities to deliver sustainable development through the planning system.
- 2.14 **Planning Policy Statement 1: Delivering Sustainable Development (PPS1)** confirms that the core purpose of planning is to deliver sustainable development. It states that planning should facilitate and promote sustainable and inclusive patterns of urban and rural development by:
- n Making suitable land available for development in line with economic, social and environmental objectives to improve people's quality of life;
 - n Contributing to sustainable economic development;
 - n Protecting and enhancing the natural and historic environment, the quality and character of the countryside and existing communities;
 - n Ensuring high quality development through good and inclusive design, and the efficient use of resources; and
 - n Ensuring that development supports existing communities and contributes to the creation of safe, sustainable, liveable and mixed use communities with good access to jobs and key services from all members of the community.
- 2.15 **Planning and Climate Change – Supplement to PPS1** was published in December 2007. The document introduces measures to reduce carbon emissions and promote the efficient use of resources and energy as key planning objectives.
- 2.16 In considering the environmental performance of a proposed development the document requires Planning Authorities to:
- n Expect applicants to use landform, layout, building orientation and landscaping to minimise energy consumption used in cooling and heating. This is achieved through the use of natural ventilation and avoidance of summer solar gain.
 - n Carefully consider the impact of proposed massing, density and mix on energy consumption.
 - n Expect substantial new development to gain a significant proportion of its energy supply from on-site or decentralised renewable/low carbon sources. If renewable/low carbon energy networks are proposed through the core strategy, design should be mindful of the potential for connection to them in the future.
 - n Require the provision of public and private open space as appropriate so that new development offers accessible choice of shade and shelter.
 - n Ensure new development does not create adverse local environmental conditions for people or undermine biodiversity.

- n Secure sustainable urban drainage systems, pay attention to the potential contribution to be gained to water harvesting from impermeable surfaces and encourage layouts that accommodate waste water recycling.
- n Require provision for sustainable waste management.
- n Ensure full consideration is given to creating and securing opportunities for sustainable transport in line with PPG13 including through:
 - § the preparation and submission of travel plans;
 - § providing for safe walking and cycling, including where appropriate secure cycle parking and changing facilities; and
 - § an appropriate approach to the provision and management of car parking.

Planning Policy Statement 22: Renewable Energy (PPS22) was published in 2004. It sets out the Government's policies for renewable energy, which planning authorities should have regard to when preparing local development documents and when taking planning decisions. It incorporates several key principles, some of which are included in the non-exhaustive list below:

- n Renewable energy [should be utilised] where the technology is viable and environmental, economic, and social impacts can be addressed satisfactorily.
- n Regional and local development documents should contain policies designed to promote and encourage, rather than restrict, the development of renewable energy resources.
- n The wider environmental and economic benefits of all proposals for renewable energy projects, whatever their scale, are material considerations that should be given significant weight in determining whether proposals should be granted planning permission.
- n Small-scale projects can provide a limited but valuable contribution to overall outputs of renewable energy and to meeting energy needs both locally and nationally. Planning authorities should not therefore reject planning applications simply because the level of output is small.
- n Development proposals should demonstrate any environmental, economic and social benefits as well as how any environmental and social impacts have been minimised through careful consideration of location, scale, design and other measures.

2.17 **The Planning and Energy Act (2008)** provides enabling powers for Local authorities to specify "reasonable" requirements for developers including:

- n (a) A proportion of energy used in development in their area to be energy from renewable sources in the locality of the development;
- n (b) A proportion of energy used in development in their area to be low carbon energy from sources in the locality of the development;
- n (c) Development in their area to comply with energy efficiency standards that exceed the energy requirements of building regulations.

2.18 **The Planning Act (2008)** is intended to create a more integrated, efficient planning system for major infrastructure, and produce a more transparent process. Within this remit, it sets out that the Secretary of State must exercise their functions with the objective of contributing to the achievement of sustainable development, in particular:

- n Mitigating and adapting to climate change

- n Achieving good design
- 2.19 *The Climate Change Act* was given Royal Assent in November 2008, providing the world's first legally binding framework for tackling climate change. The Act introduces targets to reduce net UK Greenhouse Gas emissions by 80% by 2050 and 34% by 2020, against a 1990 baseline.

Regional Policy

- 2.20 The regional sustainable development framework, planning policy and guidance is provided by 4NW, the regional planning body in the North West.

- 2.21 At the regional level, the final North West RSS to 2021 was published in September 2008. This forms part of the statutory Development Plan and includes the following Regional Development Principles:

- n Promote sustainable communities
- n Make the best use of existing resources and infrastructure
- n Manage travel demand, reduce the need to travel, and increase accessibility
- n Reduce emissions and adapt to climate change
- n Promote environmental quality
- n Integrated enhancement and protection of the region's environmental assets
- n Delivery of wider spatial outcomes incorporating environmental and socio-economic benefits through provision of green infrastructure
- n Promotion of sustainable energy production, rising to 20% by 2020
- n Promotion of good quality design in new development and ensuring that development respects its setting taking into account relevant design requirements, the NW Design Guide and other best practice
- n Maintaining and enhancing the quantity and quality of biodiversity and habitat

- 2.22 Specifically, policy EM17 'Renewable Energy' states that by 2010 at least 10% of electricity supplied within the region should be provided from renewable sources, rising to 15% by 2015 and 20% by 2020. Policy EM18 'Decentralised Energy Supply' also requires the use of decentralised and renewable or low-carbon energy in new development in order to contribute to regional and sub-regional targets:

'In advance of local targets being set, new non residential developments above a threshold of 1,000m² and all residential developments comprising 10 or more units should secure at least 10% of their predicted energy requirements from decentralised and renewable or low-carbon sources, unless it can be demonstrated by the applicant, having regard to the type of development involved and its design, that this is not feasible or viable'

- 2.23 In addition, the North West Regional Assembly has produced a Sustainability Checklist for Developments to complement the North West Best Practice Design Guide. The regional Climate Change Action Plan 2007-2009 also sets out a number of actions necessary to achieve the vision of a low carbon Northwest by 2020.

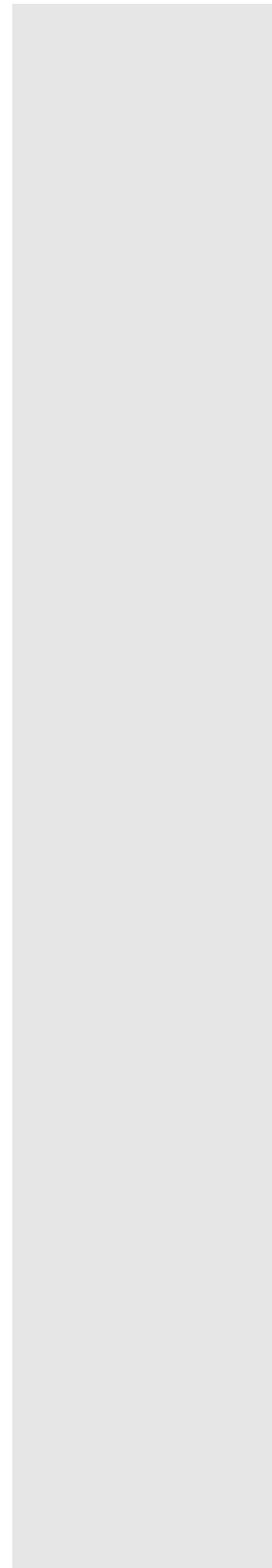
- 2.24 The Regional Sustainable Development Framework, *Action for Sustainability (AfS)*, remains an important tool for determining sustainability objectives and assessing the likely impact of development proposals in relation to regional sustainability issues.
- 2.25 AfS identifies ten key goals and priorities for the North West from a sustainable development perspective, which have informed the preparation of the emerging North West Regional Spatial Strategy. These include:
- (ii) **Sustainable transport and access**, reducing the need to travel and allowing access for all to places, goods and services.
 - (iii) **Sustainable production and consumption**, ensuring that energy and resources are used both efficiently and effectively by all.
 - (iv) **Social equity** that respects, welcomes and celebrates diversity and allows all communities and generations a representative voice.
 - (v) **Biodiversity and landscapes** that are valued in themselves and for their contribution to the region's economy and quality of life.
 - (vi) **Active citizenship** that empowers people and enables them to contribute to issues that affect the wider community.
 - (vii) A culture of **lifelong learning** that allows people to fulfil their duties and potential in a global society by acquiring new skills, knowledge and understanding.
 - (viii) **Cultural distinctiveness**, nurturing and celebrating our diversity to create a vibrant and positive image.
 - (ix) An active approach to reducing our contribution to **climate change** whilst preparing for potential impacts.
 - (x) **Healthy communities** where people enjoy life, work and leisure and take care of themselves and others.
 - (xi) **Enterprise and innovation**, harnessing the region's educational and scientific resources and the creative and entrepreneurial skills of its people to achieve sustainable solutions.

Local Policy Context

- 2.26 The Trafford Council Revised Unitary Development Plan (UDP), adopted in June 2006, promotes the Borough's objective to ensure that sustainable forms of development take place in sustainable locations. The UDP will ultimately be replaced by the Local Development Framework (LDF), which is currently under production. When adopted, this suite of spatial planning documents will provide a vision for the Borough for 2021 and the policies which will aid its delivery. Fundamental to the LDF will be the principle of sustainability and the need to balance the economic, environmental and social needs for buildings and land.
- 2.27 Trafford Council's Revised Sustainable Community Strategy, "Trafford 2021: A Blueprint", approved in March 2008, encapsulates the vision and priorities for Trafford for the period 2008 - 2021 and outlines the method by which this vision will be delivered. The document states that Trafford's commitment to sustainability will be achieved by:

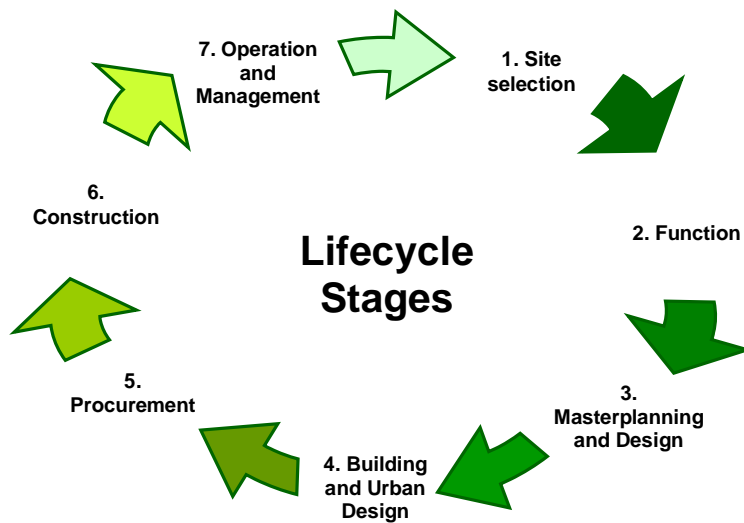


- n improving and protecting the high quality local environment, public open spaces and nature; and
- n addressing the cause of climate change by reducing our emissions of greenhouse gases and improving recycling.



3. Analysis

- 3.1 Issues of sustainability arise from the location, function, design, procurement, construction and management of developments. The proposals for Old Trafford seek to address sustainable development principles and priorities across the full lifecycle of the scheme.
- 3.2 The analysis of key sustainability issues, and the response of the scheme to them, is organised below in relation to the lifecycle stages of the development process:



Site selection

- 3.3 The proposed development sites offer a range of inherent sustainability benefits, which the development proposals seek to capture and maximise. These benefits are listed below.
- (i) **Use of previously developed land** - the redevelopment of the site will be partially on a brownfield site (the cricket ground), thereby contributing to national and local policies to make the best and most efficient use of previously developed land.
 - (ii) **Supporting urban renaissance** - the location of the site provides the opportunity to contribute to urban renaissance by helping to create a compact built environment which maximises the efficient movement of people, goods and services.
 - (iii) **Managing flood risk** - flooding is set to become increasingly frequent and severe in low-lying areas under climate change scenarios. The sites are not within an area defined as being at risk of flooding by the Environment Agency.
 - (iv) **Accessibility by public transport** - there are excellent public transport links locally, providing a genuine and convenient choice of transport modes and helping to reduce reliance on the private car. The Old Trafford Metrolink station is located just beyond the southern boundary of the stadium, providing frequent access to a number of destinations, including Manchester City Centre. In

addition, Chester Road (A56) is located within easy walking distance of the sites and has a number of bus stops providing regular services to and from Manchester City Centre. Information on the local transport services will be made available to occupants of the development.

Proximity and adequacy of local services - once developed, the scheme will form an integral element of the established communities of the area and will contribute to the vitality and viability of existing facilities and services.

- (v) *Ecology* – subject to receipt of full ecology reports, it is not anticipated that the development of the site will adversely affect any statutory or non-statutory designation of nature conservation value, and where appropriate will seek to deliver net biodiversity benefit.

3.4 In addition, however, the site poses a number of challenges from a sustainable development perspective. These are not insurmountable challenges, and the development proposals seek to respond positively to them to ensure that any potential adverse impacts are avoided and reduced, and that any practicable opportunities for mitigation are harnessed. The challenges include:

- (vi) *Urban heat island* - the term urban heat island is used to describe the dome of warm air that frequently builds up over towns and cities. This has significant implications for human health and comfort and is due to a number of factors which will become more pronounced as a result of climate change. The urban location of the site necessitates careful adaptation to future temperature rises through the design and masterplanning of the scheme. Mitigation measures will include reduced lighting loads, more efficient heating and air conditioning, and careful landscaping and planting.
- (vii) *Ensuring accessibility* – although the site enjoys excellent public transport links, it will be important to encourage the use of non-car modes as an alternative to trips by private vehicle. Travel plans will be developed to increase awareness and encourage staff and visitors to use sustainable means of transport, maximising the locational benefits of the development in terms of accessibility by public transport, walking and cycling.

Function

- 3.5 For the LCCC site, the proposals seek to reinforce and improve an established and popular use. As a sports and leisure site, the erection of a hospitality venue and grandstand will not be a departure from the activities currently taking place.
- 3.6 The superstore site will form an important component of the wider regeneration plans for the area. It will serve to improve retail provision for the community within the local area and help to reduce unsustainable vehicle journeys to other superstores in neighbouring out-of-centre locations.
- 3.7 A Combined Heat and Power (CHP) system is proposed within the superstore which offers a low carbon alternative for energy production on the site as it effectively uses waste heat from the electricity generation process to provide useful heat for space and water heating.

Masterplanning and Design

- 3.8 It is important that sustainability is considered from the initial design stages and carried through to completion. This maximises opportunities to integrate sustainable development principles and features into a scheme and reduces the risk of costly retrofitting measures being needed in the future. A wide range of issues have been considered and addressed in the planning and design of the Old Trafford scheme. The most pertinent features of the proposed development are detailed below.

Land uses

- 3.9 Consideration of land uses both within the scheme and in neighbouring areas is essential to ensure that the proposed development makes a positive contribution to existing and future communities. Key land use considerations addressed by the masterplan include:
- n Appropriately scaled commercial and leisure facilities will be provided as part of the new development scheme to serve both existing communities and future residents of Old Trafford. This will not only reduce the need to travel, but will also ensure that the needs of all existing and future residents are met locally and accessibly.
 - n The scheme has been designed sensitively to neighbouring land uses ensuring that no existing properties are directly overlooked, suffer unacceptable loss of light or unacceptable increases in noise or odour. For example, the Player's & Media Building does face neighbouring properties over the Metrolink line, and consequently views out have been carefully controlled to the south elevation.
 - n A bespoke design for the superstore, using new environmental features and building materials that, coupled with extensive landscaping, will also make sure that the store fits in with the surrounding area.
 - n There shall be no demolition of, or detrimental impact on, buildings and features of recognised cultural or historic value.

Movement and Access

- 3.10 The masterplan has been developed to ensure maximum permeability for pedestrians and cyclists without creating unacceptable security risks, whilst also incorporating a range of measures to reduce and manage the use of private cars. Particular features include:
- n Reducing reliance on the private motor car by promoting a genuine choice of travel modes, including efficient, high-quality public transport. Full details are provided within the Framework Travel Plans which form part of the Planning Application submission.
 - n Inclusion of safe, attractive, well-lit and convenient footpaths between and within the sites.
 - n Inclusion of facilities for safe cycle storage.
 - n Consideration of establishing a car sharing scheme for staff at both sites.
 - n Promotional materials for visitors identifying existing pedestrian/cycle routes and public transport timetable information.
 - n Management of servicing to reduce or eliminate deliveries during peak operating times where possible.
 - n Layouts designed to ensure low vehicle speeds and create a pedestrian aware environment.

Building Orientation

- 3.11 The layout of the scheme has been designed to ensure that over-shading of buildings from adjacent properties and landform is avoided wherever possible, thereby maximising opportunities to reduce artificial lighting demand. The design of the buildings also looks to provide solar shading to minimise high angle solar gain, thereby reducing summer cooling loads.

Building, Landscape and Urban Design

- 3.12 The design of the superstore site has been informed by the requirements of BREEAM Retail, and a 'Very Good' rating is anticipated. The predicted BREEAM rating for the LCCC is 'Good', with an aspiration to achieve 'Very Good'.
- 3.13 BREEAM includes minimum requirements for:
- n Commissioning.
 - n High Frequency Lighting.
 - n Microbial Contamination.
 - n Sub-metering of substantial energy uses.
 - n Water consumption.
 - n Water meters.
 - n Mitigating Ecological Impact.
- 3.14 The detailed design of the scheme and its component building and landscape elements aims to create a high-quality and distinctive place which reinforces local identity and context. It has responded to a range of important issues, including synergy with existing local form and vernacular, integration with existing landscape character, and ensuring energy and thermal efficiency.
- 3.15 The design rationale for the proposed development is set out in more detail in the accompanying Design & Access Statement, but there are some notable design features to highlight from a sustainability perspective. These include:
- (i) **Urban design** – A series of meetings over a seven month period involving the Cricket Club's consultant team and the Council's Planning Officers have taken place to discuss the design of the proposed development. The building designs have been addressed as a holistic consideration to ensure a high-quality development character with a coherent hierarchy of spaces and places. A range of established urban design principles have been incorporated to ensure distinctiveness and legibility.
 - (ii) **Landscape and public realm** – public space and landscape has been designed to be robust yet visually stimulating. Native species dominate the planting mix to ensure positive biodiversity benefits.
 - (iii) **Energy efficiency** – Buildings have been designed to achieve high levels of energy efficiency. Demand reduction measures incorporated into the design of buildings include:
 - § Natural ventilation where possible (LCCC and Tesco).

- § High levels of natural daylight in all main occupied functional spaces (LCCC & Tesco).
 - § Louvered solar shading at roof level on elements with a southerly aspect (LCCC Pavilion).
 - § High insulation performance across all buildings using insulants of low global warming potential where possible. U-Values 15% better than part L2 2006 have been achieved on the LCCC hospitality and events building (LCCC Enabling Phase), and it is hoped to match this on the other new LCCC buildings.
 - § Mixed mode ventilation in conjunction with roof mounted wind catchers to enable heating, ventilation and air conditioning to operate at lower energy levels (Tesco).
 - § Heat recovery from exhaust air (LCCC).
 - § Heat recovery to ventilation plant (LCCC).
 - § Inverter drives to air handling plant (LCCC).
 - § Inverter drives to pumps (LCCC).
 - § Higher efficiency motors (LCCC).
 - § Occupancy and PIR sensors (LCCC).
 - § Enhanced metering and diagnostics through the BMS (LCCC).
 - § Lighting control systems (LCCC & Tesco).
 - § Low energy lighting (Tesco)
 - § High frequency ballasts on all fluorescent and CFLs (LCCC & Tesco).
 - § High Efficiency Equipment (Tesco).
 - § Enhanced glazing specification - solar control glazing will be used where necessary on south facing facades (LCCC).
- (iv) **Renewable Energy** – the potential for on-site renewable and low carbon energy generation on the LCCC site will be evaluated, to include consideration of CHP, solar, wind, ground source heat / air source heat, and biomass energy sources. The Tesco site will incorporate micro wind turbines to supplement energy supply, and other measures are specifically detailed in the accompanying Energy Statement prepared by Scott Wilson in accordance with best environmental practice.
- (v) **Water conservation** - Buildings have been designed with water efficiency in mind, and WCs with effective flush volumes of 4.5l will be specified where possible. Further, specific water efficiency and conservation measures to be considered for future incorporation into the design of buildings include:
- § Inclusion of major leak detection system to identify major leaks either within the building(s), the mains supply and between the building(s) and the site boundary.
 - § Installation of water meters on all units.
 - § Inclusion of rainwater harvesting facilities for toilet flushing.

- § Fitting of automatic controls to urinal installations in public toilets.
- § Fitting of automatic shut-off/hand detecting taps in commercial/public areas.
- (vi) **Health and well-being** – the design of buildings and infrastructure has important implications for human health and well-being. Careful consideration has therefore been given to providing natural daylight through intelligent design.
- (vii) **Materials** – the use of materials with low environmental impact has been prioritised throughout the design of buildings and associated infrastructure. Key considerations in the design process have been:
 - § Avoidance of material specifications that require the use of virgin resources, where possible.
 - § Use of off-site modular construction to make the most efficient use of resources and materials, where possible.
 - § Where possible, prioritisation on the use of materials that can be deconstructed and re-used at the end of the building's usable life.

Procurement

- 3.16 The development and property industry is well placed to drive positive social, environmental and economic change through its procurement of goods and services. All of the attention paid to sustainability through the planning and design of new development can be undone if the sustainability credentials of supply chains are not also considered and addressed. With this in mind, the following principles will be adhered to in the specification and procurement of goods and services:
- (i) **Support for innovation** – Where commercially feasible, the proposed scheme will be used to work with suppliers of developmental products that demonstrate energy and resource efficiency savings to enable transition to the market place.
 - (ii) **Supplier performance** – Where possible, suppliers will be required to demonstrate that they have an independently accredited Environmental Management System in place (such as ISO14001 or BS7750).
 - (iii) **Local skills and employment** - Where commercially feasible, development partners and contractors will be contingent to promoting local employment and skills training for employees. Contractors will be required to demonstrate that all employees and sub-contractors are employed legally and paid at least the national minimum wage before commencement of work.
 - (iv) **Sustainable timber** - All timber, whether for structural or finishing purposes, will be reclaimed, reused or certified by the Forest Stewardship Council or similar approved chain of custody scheme such as the Programme for the Endorsement of Forest Certification (PEFC). The species used for any façades will be chosen for its longevity.

- (v) **Fair Trade** – Where possible, all tea, coffee and chocolate supplied for use by site staff and contractors during the construction process will be certified as Fair Trade.
- (vi) **Locally sourced** - Where commercially feasible, all materials will be sourced as locally as possible.

Construction

3.17 Sustainability will be integral to the management of the construction process. There will be a commitment to following best practice on site, with regular, independent audits undertaken under the Considerate Constructors Scheme (CCS). BREEAM requires the constructor to achieve a minimum overall score of 24 under CCS, including minimum scores for each category of the CCS scoring regime. All Tesco G10 contractors achieve 32 CCS points. Specific construction management measures will include:

- (i) **Safe working environment** – civil engineering works will be carried out without undue health, psychological or ergonomic risks to personnel and with high regard being paid to their safety. High standards for the working environment, safety and internal climate of the development will be maintained during the demolition of the old and construction and operation of the new development. Effective safety procedures shall be established to ensure all relevant environmental and safety requirements are met.
- (ii) **Noise and vibration** – civil engineering works shall be performed in such a way as to limit the inconvenience caused to residents and other adjacent land users in areas affected by the works. The planning and design of the development, and the demolition, construction and operation techniques to be used will take into account the impact of noise and vibration. The British Standards recommended limits for noise and vibration from demolition, construction and operational sites will not be exceeded and appropriate measures will be adopted to attenuate noise at source.
- (iii) **Air pollution** – civil engineering works, including transport to and from the construction site shall take place in such a way as to limit air pollution (e.g. the generation and dispersion of dust). Limiting air pollution by using cleaner technology shall be given higher priority than measures for abatement and dilution.
- (iv) **Energy** – An on-site energy management strategy shall be considered to minimise energy consumption during the demolition and construction process, with specific emphasis on controlling heating, lighting and transport.
- (v) **Contamination** – although significant ground contamination has not been identified at the proposed development, precautionary measures will be incorporated into the design, planning and execution of civil engineering works to protect site workers, neighbouring properties, the public, land and groundwater from potentially unforeseen contamination (if present). COSHH Regulations will be strictly enforced, and potential environmental impacts from the construction works will be mitigated through the use of a Construction Environmental Management Plan to ensure that the works are in compliance with environmental regulations

and best practice. If contaminated soil is generated as part of the works, this will be characterised in accordance with regulations and the volume of waste requiring off-site disposal (if required) minimised wherever possible. On completion, the proposed development will ensure that the land is 'suitable for use' in the context of the contaminated land regime.

- (vi) **Surface and groundwater** – precautions shall be taken to protect the existing ground water from any disturbance arising from excavation and storage, including:
 - § Installation of impermeable membrane between soil and stored chemicals and other possible contaminants.
 - § Avoidance of rutting and compaction in working areas of site, with expedient ground repair in unavoidable cases.
- (vii) **Wastewater** – appropriate precautions shall be taken against substances harmful to the sewer system or the receiving treatment plant being added to waste water. Any appointed contractor would need to protect any access points which should include, but not be limited to manholes, gullies, RWP and SVP into the combined sewer network within the vicinity of the construction works to prevent construction waste entering the sewer system.
- (viii) **Waste minimisation** – a Site Waste Management Plan (SWMP) shall be implemented to achieve waste reduction across the site against a business as usual scenario. Waste minimisation has been considered during the pre-design and design phases, and a construction materials logistics process will be implemented to minimise damage and wastage. Where possible, prefabrication will also be utilised to minimise wastage. Any material arising on site shall be considered a resource in the first instance. Only in cases where such materials cannot be used effectively, either as part of the construction process or by other sites and users, will disposal as waste be considered. Responsible disposal will be monitored under the SWMP.
- (ix) **Transport and traffic** – civil engineering works shall be undertaken in such a manner as to limit the inconvenience caused to residents in the areas affected by the works in accordance with the Considerate Constructors Scheme:
 - § Where possible, transport movements to and from and within the site shall be minimised.
 - § The contractor will be encouraged to use clean fuels in construction plant and site transport, including bio-fuels and LPG.
 - § The development will encourage the use of public transport, cycling and car-sharing. Consideration will be given to the use of incentives to encourage the site labour force to use such forms of transport. Details of the existing walking, cycling and public transport facilities will be provided on site including bus and Metrolink timetables.
 - § In order to reduce the need for sub-contractors to bring a vehicle to the site containing their specialist plant, consideration will be given to supplying equipment for

contractor's use as well as supplies of raw material in bulk rather than relying on many more trips by smaller vehicle

- § Predetermined, agreed transport routes will be used for bulk transport to and from the development. In addition, where practicable the timing of deliveries will firstly coincide with requirements of the construction process and secondly avoid congestion and disruption. The process of deliveries will be mitigated by a centrally controlled off-site marshalling area of deliveries.
 - § Construction traffic will access and egress the site via specified roads which will be designated by agreement with the local highways authority.
- (x) **Ecological protection** – all necessary measures shall be taken to ensure that all existing significant ecological features shall be maintained in accordance with relevant British Standards and best practice guidelines.
- (xi) **Public Information** – continuing the principle of consultation which has been an integral part of the planning process to date, the following commitments are made in respect of making information available to the public and stakeholders in a timely, accurate, accessible and comprehensible manner. This will include:
- § A dedicated page on the LCCC website will be created for the scheme which will include key plans, construction timetables against which progress shall be reported, and impact monitoring reports as specified above.
 - § A dedicated public liaison officer shall be employed for the duration of the construction process.
 - § Regular progress and impact monitoring reports will be submitted to the local planning authority so that they can be made available for public viewing.
- (xii) **Visual Impact** – there will be a commitment to control the visual impact of construction activities using all or a combination of the following:
- § Pictorial site hoardings
 - § Building wraps
 - § Banners

Operation and management

- 3.18 The long-term sustainability of the proposed scheme will be determined, in no small part, by the behaviour of occupiers and the inclusion of appropriate measures to maintain an efficient, attractive and functional environment. There are a number of measures which will be incorporated to enable the highest levels of sustainability performance, both environmentally and socially, in the ongoing use of the development.
- (i) **Energy Efficiency** – whilst energy efficiency has been considered in the design of the building envelope to ensure a comfortable environment with minimal need for space heating or cooling, the use of appliances and lighting is traditionally at the behest of occupier behaviour. The following technologies and other

measures will therefore be included to minimise unnecessary energy use.

- § Use of innovative technologies including those specified in paragraph 3.15 (iv) above, lighting controlled by photocells, LED or other efficient lighting, intelligent Building Management Systems(BMS) across all LCCC buildings (with the exception of the Cricket School and GA seating).
- § Incorporation of efficient electrical appliances across all units.
- (ii) **Combined Heat & Power** – Combined heat and power generation will be incorporated into the superstore scheme to enhance the energy efficiency performance.
- (iii) **Water conservation** – ensuring high levels of water efficiency has been an important consideration in the design of the proposed scheme, but a number of additional features will be incorporated to ensure that use of water is minimised through day-to-day activities in the completed development. Subject to detailed design development, these could include:
 - § Automatic shut-off/hand detecting taps in commercial/public areas.
 - § Use of small bore pipes and minimising the distance to the most frequently used fittings, thereby reducing the volume of cold water that has to be drawn off each time a hot water tap is used.
 - § Installation of dual-flush toilets with a flush rate of 4.5l/s.
 - § Public toilets fitted with automatic controls to urinal installations.
 - § Rainwater Harvesting has also been identified as potentially feasible water conservation system and will also be considered further for inclusion within the base Building Services design.
- (iv) **Estate management** – LCCC is currently formulating a Green Policy and Operation Manual which will highlight the measures that will be taken to ensure that the Club achieves the highest possible levels of sustainability in terms of its operations and management. This Green Policy and Operation Manual will be established prior to the point at which the proposed development is brought into use.

Tesco's challenging environmental targets with regard to operations and management are well documented within the 2009 Corporate Responsibility Report. Having invested around £60 million in energy-saving and low-carbon technologies in 2008, Tesco has halved its energy use per square foot in its existing UK stores (against a baseline of 2000). In 2009 Tesco published a press release stating that it now diverts 100% of its waste from landfill.. This is in no small part due to it being the largest recycler of cardboard in the UK, contributing 316,000 tonnes of cardboard and plastic to the 2008 UK total of 400,000 tonnes of material recycled.

Deleted: This showcases Tesco's new format low carbon store design, Manchester, which has a 70% smaller carbon footprint than an equivalent store built in 2006. In addition, h

4. Conclusion

- 4.1 This Sustainability Statement has set out the measures to be incorporated across the lifecycle of the proposed development to ensure high levels of performance and long-term viability.
- 4.2 The proposed Tesco store represents best environmental practice, as demonstrated within the BREEAM Retail Pre-Assessment and Energy Statement submitted with the planning application and goes considerably beyond all applicable environmental sustainability policies for the site.
- 4.3 This Statement demonstrates clearly the commitment of Lancashire County Cricket Club and Tesco Stores Ltd. to the principles of sustainable development and enables the local planning authority to make an informed judgement on the basis of the scheme's sustainability credentials.

