

Cheshire Oaks

Biggest greenest M&S, built using innovations to reduce the impact on our planet

PlanA **DOING THE RIGHT THING**



Marks & Spencer Cheshire Oaks, Ellesmere Port:

- Launch date August 2012
- Premier store carrying the full product catalogue, M&S's second largest store in the world
- Site area 525,192 sq ft, 209,068 sq ft Gross Internal Area, 148,865 sq ft net sales area
- Sustainable learning store, BREEAM Excellent rated and M&S' most carbon efficient
- Designed to be more resilient to climate change through its materials, landscaping and water strategy
- First retailer to use Hemclad® panels in the external walls and to use 100% FSC glulam timber in its roof structure



Location:

M&S Cheshire Oaks, Longlooms Road, Cheshire Oaks, Ellesmere Port, The Wirral, CH65 9JN.

- Waste
- Travel & access
- Water
- Carbon
- Biodiversity
- Materials
- Supporting communities



- 1 Hemclad® wall panels
- 2 Glulam timber roof & timber 1st floor structure
- 3 100% recycled reflective roof



- 4 Electric car charging points
- 5 Cycle lane and 100 covered cycle stands



- 6 Biomass boiler
- 7 Displacement ventilation
- 8 HFC free air handling units
- 9 Natural insulation – earth mound
- 10 Brise Soleil
- 11 Hydrocarbon refrigeration system
- 12 North lights & energy efficient lighting to retail floor
- 13 LED lighting to car park and external areas



- 14 Green walls
- 15 Swift boxes
- 16 228 new trees



- 17 80,000 ltr rainwater harvesting tank
- 18 Permeable paving
- 19 Re-landscaped swale

Only at
YOUR M&S

Cheshire Oaks

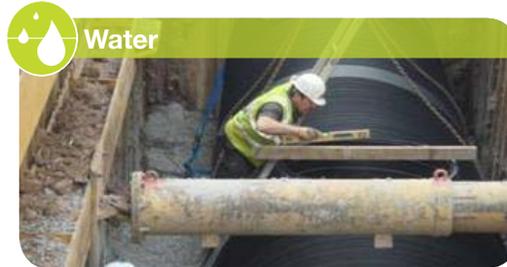
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Operational energy is predicted to be 30% lower and carbon 35% lower than a peer store

- Maximised natural light via North lights and clerestory glazing with fully dimmable lighting to salesfloor and with integrated daylight control
- Improved insulation and thermal mass by partially sinking the building in the ground with earth mounding around the perimeter
- Free cool air handling via earth ducts and displacement ventilation
- A biomass boiler and heat reclaim is predicted to deliver 70% of heating demand
- 100% of electricity supplied from green tariff



Water efficiency measures include:

- Rainwater harvesting is predicted to displace 25% of the store's mains water demand
- An 80,000 litre underground tank will collect water from the roof of the store to serve the green wall and all toilets
- Waterless urinals, dual flush W.Cs, sensor taps
- Water meters and leak detection measures
- Sustainable Urban Drainage strategy includes permeable paving and a swale
- Use of excavation water during construction for wheel washing and damping down



The landscape plan has ensured Cheshire Oaks is a more biodiverse site with a wider number of species of plant than in the original landscape.

- 228 new trees and added 12,000 square metres of landscape planting
- Relandscaped swale to complement the local sustainable urban drainage system
- ANS Living Wall System™ and MMA Jakob Greenwall system
- 9 swift boxes on the building and a further 6 bird boxes in perimeter hedgerows and trees
- Gabion walls, insect boxes and log piles



Building fabric has been carefully selected to reduce energy consumption and environmental impact:

- 1,400m³ of 100% FSC-certified glulam timber is used in the roof and first floor structural decking
- Timber used has sequestered approx 2000T of CO₂ carbon dioxide or 100kgCO₂/m² of floor area
- FSC project certification with 99.5% of the timber provided from FSC-certified sources (TT-PRO-003615)
- 2600m² of Hemclad® panels have been used in the external walls to give a U-value of 0.12W/m².K and saving around 360T of CO₂ emissions
- 100% recycled aluminium roof, fermacell dry lining board and 40% recycled floor tile



100% of waste has been diverted from landfill with 87.5% of all waste segregated on site

- 54,000 tonnes of quality soils and clay from the initial bulk excavation works was used in projects such as capping a contaminated quarry and developing a local Moto-X park
- Resource sharing of left over materials and packaging through community initiatives
- Lime stabilising ground below the building and car park helped reduce the quantity of concrete required in the foundations by 25%



How customers travel to and from our stores is an important part of the sustainable construction programme. To encourage this we have installed:

- Electric car charging points
- Travel information point
- Cycle lane
- Staff showers
- 100 covered cycle stands
- Contributed £100k per annum over 10 years towards improvements to the existing bus services



Community engagement was integral to the build process

- A £5m highways scheme — improving junctions, crossings, cycle ways and footpaths
- A town centre remodelling improvement fund of £1m
- 50% of the value of the project construction spend was in the North West and 12.5% in the local area
- Educational site visits by Buildoffsite, Salford & Chester University, West Cheshire College
- Website, social media and newsletters
- Considerate Constructors score of 38/40

Project Team:

Developer/Contractor: Simons Group Ltd

Architect: Aukett Fitzroy Robinson

Building Services: Sustainable Design Solutions Ltd (SDS)

Refrigeration consultants: Oaksmere
Structural Civil Engineering: AECOM

Project Manager: David Evans
Project Services Ltd.

Quantity Surveyor: Gleeds

BREEAM Assessor: AECOM
Sustainable Dev. Group