The sleek new Visitor Centre, designed by Architype, provides a unique experience and vastly improved facilities for all those visiting the magnificent landscape of Chiltern Hills at Dunstable Downs, north of London, England.

The purpose designed Centre replaces an undistinguished kiosk snack bar with basic visitor facilities, which until now has serviced visitors.

Located at Bedfordshire's highest point – 798 ft above sea level - the new building will provide a rich visitor experience for the 400,000 people who visit each year.

Constructed on an exceptionally windy site, the new Centre features an elegant wing-shaped roof that seems to hover on the hillside. Its form allows it to withstand extremely heavy wind loads, and also to reflect two of the main leisure activities of the area – kite and glider flying.

The building, along with the car parks and landscaped areas, is nestled into the existing contours in order to reduce impact on the immediate surroundings. Despite this, the fully glazed public viewing deck provides panoramic views across the Vale of Aylesbury and along the Chilterns ridge.

The Centre is entered via a paved court directly facing the main entrance, on the other side of the building from the viewing deck. The entrance court provides a meeting point for education groups and visitors, and its sunny south facing position makes it ideal for enjoying refreshments outside.

There was a clear brief for a highly sustainable building, so the Centre includes many ‘green’ technologies including a wood chip boiler, rain water re-cycling, and an intriguing ‘windcatcher’ that captures the air from the hill naturally and delivers it into the building through a 90 m long underground concrete 'earth duct'.

The Centre has been designed to be flexible enough to house a diverse programme of exhibitions and events that will enhance the appreciation of the surrounding landscape. Operated by The National Trust, the Centre will facilitate a wide range of overlapping activities including a café and shop, with the opportunity for educational and orientation sessions, community and civic meetings, along with special events like the annual kite festival.

The building and its associated landscaping scheme embody the following characteristics:

- Educating visitors about the special Landscape: the site is developed to raise public awareness of the local environment; informing visitors of the area’s special landscape character is a key part of the building’s educational aim. Framed views out to the surrounding landscape are important in heightening the visitors’ experience and in providing a context for nature orientation sessions.

- A Gateway to the Chiltern Hills: the entire development - both the building and its landscaping - acts as a vehicle assisting visitors in both viewing and interpreting the landscape.

In this respect the Visitor Centre's role as gateway for the Chiltern Hills will be recognised and appreciated by visitors.

- A welcoming building: the building is both inviting and inclusive in character. The entrance sequence welcomes and orientates visitors in a manner that is both accessible and secure. Ensuring safety and security for all of the building's users is key – accessibility and boundaries need to be carefully balanced.

- Permeability between inside and out: the building enables an easy connection between indoor facilities and outdoor spaces, with covered terraces and courtyard areas being carefully incorporated.

- A multi-use facility: the Centre facilitates a combination of leisure, educational and civic activities in a building that is flexible enough to have its facilities adapt to a varying schedule of opening hours and uses

- Control of Visitor Movement in sensitive areas: the management of visitors' patterns of movement out into the Downs are better controlled through the orientation provided by the Centre, ensuring that sensitive areas are not over-used. Improved facilities in the Centre serving the managing staff will aid in implementing this agenda.

- Sustainable Building: the development of the new Centre is designed with a clear environmental agenda, with great consideration given to reduction in use of fossil fuel energy and to adopting a palette of ecologically sound and non-toxic materials.

- A building at one with its surroundings: the scheme's activities and appearance are reflective – and expressive - of the local physical surroundings and its windy weather conditions. The proposal is embedded in the locality through the careful siting of the building, its integration into

the surrounding ecological habitat and the use of local building materials.

The project is positioned at a key visitor site within the Chiltern Hills Area of Outstanding Natural Beauty (AONB), and great consideration is given to the building's location within its immediate surroundings; to the views of the new development from the neighbouring localities like the Vale of Aylesbury and surrounding villages along with the views from the building out to the landscape. The organisation of the site is clear, so visitors can immediately comprehend its arrangement. The site layout includes a carefully designed sequential approach to the building, which collects visitors arriving by different means and orientates all towards the building entrance. Visitors arriving by coach, bicycle or car will pass across the hills with the downland interpretative gardens.

The entry sequence is clearly read so that visitors follow paths that lead from the car parks, leading to a main path where visitors can enjoy an outstanding panoramic view across the Vale below, before proceeding to the entrance court of the building. This paved court directly faces the main entrance, and provides a muster point for education groups and visitors. Situated on the south side of the building, the entrance court is a sun catch and is ideally situated for visitors who want to sit outside and enjoy some refreshments. Once visitors to the centre are inside the building, long panoramic views of the vale open out directly ahead through the glazed wall which encompasses sliding doors.

In collaboration with environmental and structural engineers Techniker, Architype have

designed a 'wind catcher' that captures the air from the hill naturally and delivers it into the building through a 90 m long underground concrete 'earth pipe'. Although pioneering in the UK, the system has been used for centuries in many hot, dry countries as an environmentally friendly method of cooling buildings. The system is energy efficient since fresh air is drawn into the building naturally instead of using the energy consuming methods used in most commercial buildings, and the temperature of the earth 2 metres below the surface is relatively constant at around 12*C throughout the year. In the winter, this means that the incoming air is naturally pre-warmed. In the summer, the system eliminates the need of energy consuming air conditioning equipment as the warmer air is naturally cooled down as it moves through the earth pipe providing 'free cooling' into the building.

In other words, the environmental benefits of the ‘wind catcher’ are tremendous. From a practical point of view, the wind catcher also brings ventilation to the building at windy times when opening windows would be too impractical, making the centre a pleasant environment for staff and visitors alike.

Dunstable Downs is on the north facing scarp slope of the chalk ridge in the Chilterns AONB. The aim of the Landscape scheme is to evoke the landscape character of the Chilterns and make it obvious that the setting for the building is derived from the landscape. The landscaping is designed to be sustainable, durable, and indigenous to the Chilterns.

The potential for erosion is countered by creating a channel of movement from car and coach park to the centre, café and viewing terrace through the ‘wind’ garden. Edges to car parks with banks and ditches define car movements and pedestrian routes. The car parks are set into the contours of the site. Reclaimed soil and grass are used to form banks as the edge between the car park and the Downs and to prevent egress by cars on to the grassland.

PROJECT TEAM:

Architect: Architype
Landscape Architecture: Coe Design:
Structural Engineer: Techniker
Building Services Engineering: XC02
Cost Consultant: Edmond Shipway
Infrastructure, Civil Engineering, Planning Supervisors and
Project Management: Hannah Reed

ARCHITYPE DESIGN TEAM:
Catherine Harrington, Paul Woodville, Harry Parr, Jeanie Chang, James Todd, Jodie Pipkorn, Mark Parsons, Dan Usiskin.

MAIN CONTRACTOR: *Haymills*

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