

## STOKE BUS STATION KALZIP LIMITED



Kalzip's aluminium standing seam system was specified for the impressive new Stoke-on-Trent City Centre Bus Station by architect, Grimshaw. VINCI Construction UK was the main contractor and experienced Teamkal contractor, Lakesmere Ltd installed the Kalzip roofing system which included all the revolutionary double curvature XT profiled sheets and a bespoke Kalzip rainscreen specially designed for use on the bus drivers' accommodation block.

Located near the heart of the city, the new bus station with its 22 departure bays makes extremely efficient use of its site for the movement of buses and people. The main building is elliptical on plan with a complex outer facing roof canopy that sweeps and curves both on plan and in elevation - this is where the double curvature Kalzip XT profiled sheets are installed.

An additional element of complexity was accommodated in the roof's design as the Kalzip XT sheets were required to have non-planar seams for practical and aesthetic purposes. This aspect is particularly apparent where the wave-like eaves of the canopy rise and fall to indicate the location of entrances and passenger facilities. A shadow gap has been cleverly employed at ridge level where the double curved roof butts up to the mono pitched inner facing canopy which comprises a combination of straight and tapered Kalzip sheets.

Richard Blackwell, Associate at Grimshaw in charge of the Stoke-on-Trent City Centre Bus Station project said, "We held a number of preliminary design meetings with Kalzip and Lakesmere which led to the development of a 3D surface model. Kalzip proved to us at an early stage that their system was able to accommodate the complex geometry required to achieve the smooth, double curvature roof desired for this landmark building."

The flexibility of Kalzip XT profiled sheets combined with the company's extensive design experience and state-of-the-art roll-forming technology makes it possible to produce technically perfect, free-flowing, weathertight envelopes using a standing seam system - thereby enabling complex computer generated 3D designs to be transformed into building reality as exemplified by this iconic structure.

As well as supplying over 3,300 square metres of Kalzip standing seam roofing complete with all the liner and decking sheets used on the project, the company's Fabrications Department designed and manufactured the bespoke Kalzip rainscreen used to clad the existing drivers' accommodation block. This bespoke rainscreen cladding was specially devised to maintain aesthetic continuity throughout the project, visually linking the refurbished old block in with the appearance of the new bus station.

Kalzip's Fabrications Department also manufactured a range of complex bespoke items produced from order details that were supplied in three dimensional CAD form. These complex fabricated items included faceted flashings to the eaves, tapered closures for the shadow gap detail at the ridge, faceted fascia soffits and the bonded panels that sit between the fascia soffits and the bus station's vertical glazing and walls.



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