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Hickton provides services to Lincoln museum



When award winning architects Panter Hudspith prepared to build a new museum in Lincoln, they brought in Hickton to ensure the highly complex design was built to the highest standards.

The site, which had previously been used as a car park, was carefully selected through an urban analysis of Lincoln and the development of a masterplan for the Flaxengate Area of the city, both of which were undertaken by the architects. The new museum, known as The Collection, along with its older neighbour the Usher Gallery, set the foundations for the area to develop as a new Cultural Quarter for the city.

The brief from the client, Lincolnshire County Council, was to design a modern building that would express something of the history of the city, but not to dominate or detract from the nearby Lincoln Cathedral.

A major influence on the external design of the building was the massive stone ramparts of the Bishop's Palace of Lincoln Cathedral. The architects selected locally sourced split-faced Lincolnshire limestone for the external walls to create a link with this historic structure.

In an innovative use of form, the architects designed the external wall in four sections each with a slightly different angled plane. This helped the building sit harmoniously with the nearby Tudor structures that have few straight or plumb walls. However, this method of construction presented several technical challenges and the Hickton Clerk of Works was based on site to ensure these did not affect build quality or the schedule.

One of the first technical challenges faced by Hickton was to monitor construction of the exterior outward canting walls, which also had implications for the roof structure. Hickton worked closely with the contractor to ensure an adequate air tight seal between these two elements.

Internally the building was designed using self-levelling, no compaction, smooth, board marked concrete with limestone fillers. Visually, this created an appealing compliment to the fossil-rich limestone used on the external walls as well as creating a link with the stratification of the limestone coursing.

Self-levelling, no compaction concrete can be an effective way of creating high quality site-cast concrete finishes. However, in reality, it is not as straightforward a task as first appears, which is why the architects appreciated the ability of Hickton Clerk of Works to oversee this aspect of the project.



The architects were concerned with achieving the finest finish in the concrete from the smooth planed Redwood boards, along with identifying the best suppliers. Working with the structural engineers and Northfield Construction, the concrete contractors on site, Hickton's Clerk of Work was able to ensure the self compacting concrete had an even colour and that it avoided any blow-holes on the surface. Hickton's Clerk of Works also took samples of the concrete to ensure it was the right specification for the steep, variable pitches and twisted planes of the roof gallery.

The concrete also had to be capable of picking up the detailed grain structure of the Redwood boards. The self compacting concrete gave a beautiful porcelain-like finish to the tongue and grooved board marked walls.

There was an additional reason for choosing concrete for the internal walls as it created a building with a high thermal mass, helping to conserve energy. Structures that have a high thermal mass require less heating and cooling because the concrete acts as a thermal sink, whatever the external conditions.

"Although we were designing a new building it was important that it related to the medieval surroundings and topology of the site," said Simon Hudspith of Panter Hudspith Architects. "Having a Clerk of Works on site ensured that our vision became a reality and with Hickton's careful and meticulous monitoring, ensured that the quality of the details was maintained throughout the building."