

Scout Hut Headquarters



The Brief

We were approached by Mike Gresty, from Anglo Self Build, on behalf of John Bennet from the 35th South West Cheshire (Wistaston) Scout Group to supply a variety of replacement roof trusses for their existing headquarters. Our clients had no previous experience using roof trusses, so our initial discussions involved what would be a feasible truss solution for their bespoke build.

The client's project consisted of replacing the roof of their existing headquarters in two phases. Phase 1 focused on the main roof and Phase 2 focused on the pediment gable and lower roof.

One of the key criteria for the project was to provide a vaulted effect in the main hall. In addition to this, our client had made us aware that there was a tree preservation order in place in the area, so it was critical that the roof did not rise above a certain height.

The Solution

Due to the tree preservation order in the area, it was essential that both the pitch of the roof and the size of the timbers required were taken into account when designing the roof. Taking into consideration the large span of the project, we suggested a scissor truss as opposed to a raised tie truss to achieve their desired vaulted effect.

The clients had originally approved the scheme based on a steel portal frame system. However, a substrata survey (an analysis of the foundations) revealed the point loadings of the frame would have been too considerable for the portal frame system, due to the large spans and vaulted effect required on this project. Our designers were instead able to offer the solution they required using roof trusses, which the customer previously thought wouldn't be viable.

Client: Anglo Self Build

Installation: South Cheshire Scout Hut, Wistaston

Date: 2015

Number of Trusses: Phase 1 – 30 Trusses
Phase 2 – 17 Trusses and Valley Set (4 Frames)



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Our truss solution catered for their large span whilst counteracting the great deal of pressure that the point loadings placed on the walls. We achieved this by recommending that the client use Glide Shoes. Glide Shoes were an invaluable resource in this circumstance as they allowed for a secure fixing and horizontal movement between the scissor trusses and the wallplate, therefore reducing the amount of loading exerted upon the walls. They were used on both ends of the scissor trusses and provided up to 26mm of lateral movement without compromising the resistance to uplift.

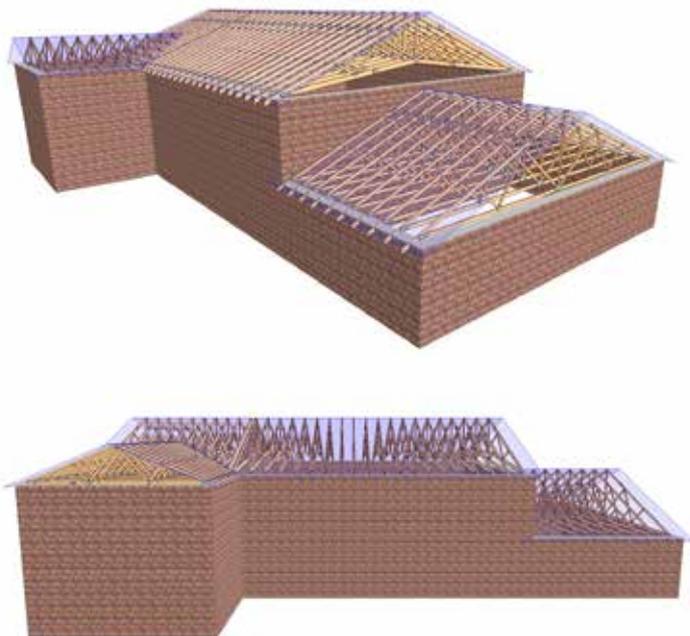
Results

Our Operations Director, Eric Meacock, carried out multiple site visits on request of the client. One of the members of our design team, Rob Meacock, made several revisions to adapt the design to the client's requirements.

The client was able to effectively explore a variety of options that suited the budget allocated to the project, including attic trusses and storage areas. After this period, the client came to a final decision on an option we supplied that would cater for the large span of the trusses at just over 10.7 metres. All plans and approvals were made over the busy Christmas period ready for delivery to be scheduled in the new year.

Conclusion

Minera Roof Trusses were able to adapt to various external factors influencing the project such as the tree preservation order and the results from the substrata survey. We achieved this by using our expertise and knowledge, therefore creating the tailored solution that the project required. Rob Meacock concluded, "I was very pleased to assist John Bennet in achieving his desired design whilst maintaining the functionality to cater for a large span. I have no doubt that it will make a considerable difference for the scouts using this building."



"We are thrilled with the finished product. We are very grateful for the excellent service which Minera have provided; we had a continual dialogue during the manufacture and delivery of the trusses and appreciate the generosity of Minera in honouring their price commitment."

John Bennet – Scout Hut

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