

From: Chris Arnold [chris@ballantinearnold.co.uk]
Sent: 06 April 2018 10:42
To: jon@nestdesignstudio.co.uk
Subject: RE: Modbury Recreation Ground, Calculations and sketches
Attachments: 18106 Condensed structural Calculations and Sketches.pdf; 18106 Complete structural Calculations and Sketches.pdf

Good morning Jon

please find attached calculations and sketches for the extension at Modbury recreation ground.

The main breakthrough at some 7.5m span imposes a significant load at the reactions and as such will need posts at each end in addition to a new pad foundation. The beams are also going to need to be 457 deep to keep deflections within limits. I have in the calculations though given you an option of using an intermediate post to reduce the beams to 254 deep, this option will though still need new pad foundations for the posts.

I have shown a small steel wind frame for the doorway to the new roof entrance as there is no wall width here to accommodate wind load on the cheek walls, this frame should be fully welded and delivered to site as a single piece.

For cutting the exiting gang nailed attic trusses I have on the sketches proposed a simple solution of installing a small steel goalpost arrangement, with the posts going down to the block walls either side of the female changing room. This though does of course leave two posts in the loft space, can a stud wall be added (from the entrance) to hide them? If this is un acceptable I have also in the calculations given you the option of more traditionally tripling up the trusses either side of the cut section. In both options the floor beams of the cut trusses will need to be partnered.

As your drawings I have shown the canopy clear from the existing roof to the elevation, the ridge and eaves beams can cantilever over the truss and posts for the small overhang. With the lengths involved on these beams I have opted for Glulams and have given you an option of Oak or glulam for the elevation frame. On the elevation frame I have added small knee braces both to the tie beam and the eaves beams. Detailing of connections will be all traditional and to be confirmed by the framer. The main posts do require some restraint from Up lift and I have indicated a bracket on SK04 which can be developed / tweaked by the fabricator.

Balustrade restraint is shown on SK06 and comprises an RC capping beam to the parapet with standard galvanised restraint straps each side at 1000mm crs to the block work below as we need to mobilise the underlying blockwork - I have connected the straps at foundation level so we will need a lap in the straps but this could be below ground level so that the straps can be expamet / rendered over

Kind Regards

Chris Arnold

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From: jon@nestdesignstudio.co.uk <jon@nestdesignstudio.co.uk>
Sent: 04 April 2018 07:21
To: Simon Ballantine <simon@ballantinearnold.co.uk>
Cc: Chris Arnold <chris@ballantinearnold.co.uk>
Subject: FW: Modbury Recreation Ground, Modbury - Structural Engineer
Importance: High

Dear Simon

The clients in relation to the above project have confirmed that they would like you to prepare the structural design based on your fee quote dated 08.02.18. Please see the invoice details below. If you require any further information or need to discuss anything, please do not hesitate to contact us.

Kind Regards

Jon Sullivan
of Nest Design

25 Galpin Street
Modbury
Devon
PL21 0QA

01548 830409
07813 127617

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From: Nikki Mitchell [<mailto:nikki@modburydevelopments.co.uk>]
Sent: 30 March 2018 10:56
To: jon@nestdesignstudio.co.uk
Subject: Modbury Recreation Ground, Modbury - Structural Engineer
Importance: High

Hi Jon

Following a meeting of the committee on 20 March 2018, I have been asked to instruct Ballantine Arnold Ltd to produce the structural engineers drawings for the planned extension. Are you still happy to act on our behalf?

If Ballantine Arnold Ltd can arrange for the invoice to be addressed to Modbury Parish Council (MARS) c/o The Old Byre, Brownston Street, Modbury, PL21 0RQ I will arrange for it to be settled by return.

Kind regards and apologies for the delay in coming back to you. Richard is in the process of pricing the extension and it would be great if we could get the structural drawings done in the next few weeks so he can finish the exercise and we can apply for a drawdown of funding.

Hope to hear from you soon and in the meantime enjoy the Easter break.

Kind regards

Nikki

From: jon@nestdesignstudio.co.uk [mailto:jon@nestdesignstudio.co.uk]

Sent: 08 February 2018 16:56

To: 'Nikki Mitchell' <nikki@modburydevelopments.co.uk>

Subject: Modbury Recreation Ground, Modbury

Dear Nikki

Please find attached a copy of the structural engineers quotation to advise and design the structural solution for the project for your consideration, which will be required for Building Regulations approval as well as to obtain accurate costs and construct the project. Please confirm in writing (email will suffice) if you would like us to instruct Ballantine Arnold Ltd on your behalf.

Kind Regards

Jon Sullivan
of Nest Design

28 Galpin Street
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