# BlueRoofDesign Software

Bauder Ltd, 70 Landseer Road, Ipswich, IP3 0DH. T: +44 (0)1473 257671 e: info@bauder.co.uk

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Client:

Project: B235931/1_Bird in Hand

Location: West End Lane, NW6 4NX

Roof Location: Main Roof

## Roof Details:

| | | |
|---|---|---|
| BlueRoof | 160 m² | x 100 % |
| Additional Area | 0 m² | x 100 % |
| Effective Area | 160 m² | |

## Storage Details:

| | |
|---|---|
| Length | 160 m |
| Width | 1 m |
| Depth | 100 mm |
| Porosity | 95 % |
| Slope | none |

## Rainfall Details - FEH Method:

| | |
|---|---|
| Return Period | 100 years |
| Climate Change Factor | 40 % |

Summer Storm Profile

| Duration | Intensity mm | Intensity mm/h | Required storage(m³) |
|---|---|---|---|
| 5 min | 26.0 | 312.0 | 4.1 |
| 10 min | 37.1 | 222.7 | 5.7 |
| 15 min | 45.7 | 182.8 | 7.0 |
| 30 min | 58.8 | 117.6 | 8.7 |
| 45 min | 66.5 | 88.7 | 9.5 |
| 60 min | 71.9 | 71.9 | 9.9 |
| 2 hours | 92.7 | 46.4 | 11.4 |
| 6 hours | 126.9 | 21.2 | 11.8 |
| 24 hours | 154.5 | 6.4 | 6.8 |

## Outflow Details:

| | |
|---|---|
| Attenuation Control | BlueRoof Outlet |
| Control | Twist Std. Position 1 |
| Sump Depth | None |
| Discharge rate | 0.74 l/s |
| Outlet | 1 No |

## Result:

| | |
|---|---|
| Outcome | Pass |
| Critical Storm Duration | 4 hrs |
| Hmax | 79 mm |
| Required Volume | 12.1 m³ |
| Time to half empty | 2.3 hrs |
| Roof Loading | 75.62 Kg/m² |

All results based on input data. Please check that input data has been correctly interpreted.

The Bauder Blue Flat Roof Rainwater Calculation Software will perform calculations in accordance with industry best practice for blue roof design based upon provided data relating to a specific building's dimensions geographical location and the flow rate performance of the selected Bauder rainwater outlet product.

Whilst the information contained herein is to the best of our knowledge true and accurate we specifically exclude any liability for errors omissions or otherwise arising therefrom.

Details practices principles values and calculations should be verified for accuracy and suitability for the required purpose for use.

NOTE: These calculations are valid for a zero fall roof with minimal variation in levels. Any significant variation will affect the volume of water stored and the roofs ability to attenuate extreme rain events. Typically variations in roof level should be less than 0 to +30mm with no back falls. The H-Max is measured from the mean roof level

Overflow discharge requirements based on a CAT1 storm event to BSEN12056-3:2000.

Total overflow discharge rate: 160m2x0.023l/s/m2 = 3.68l/s.

NOTE: Roof loading data shown in the results section is for the blue roof only. For total loading of blue roof and overflows then Hmax + 35mm should be factored in.