

ENGINEERING REPORT 9142

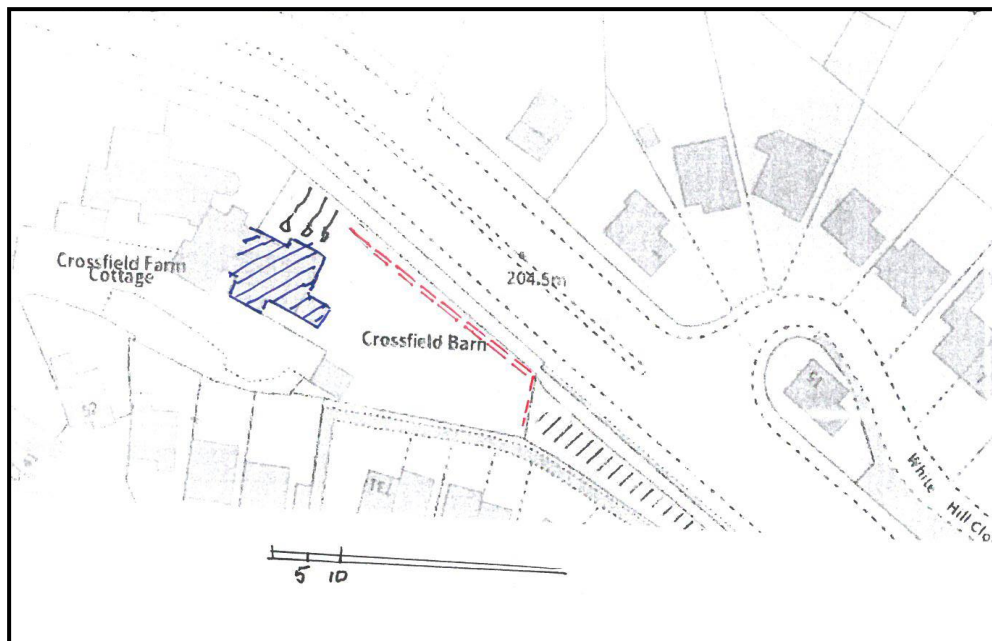
**CROSSFIELD BARN RETAINING WALL
GANDY LANE
WHITWORTH**

**CLIENT: BESPOKE GARDENS
(GORDON HAMILTON)**

25.09.2023 MP/CH



1.0 SITE LOCATION



2.0 RETAINING WALL

- 2.1 The retaining wall is located on the top of an existing North Eastern facing embankment above a 4 – 5 metre high reinforced concrete retaining wall located on the South West side of Whitworth Road, Rochdale. (Photographs 011, 015).



Photograph 011 Whitworth Road, retaining wall and upper slope

- 2.2 From the top of the wall the embankment slopes to the lower wall area of Crossfield Barn at an angle of approximately 29° - 30° incorporating an existing timber boundary fence with mature trees and foliage offset from the corner of Crossfield Barn by a distance in the order of 5 metres. (Photograph 008).



Photograph 008 Close up of new wall and existing foliage

- 2.2 The main wall is aligned on a North West/South East orientation supporting the edge of the lawn to the property, comprising of a 200mm thick concrete base 1200mm wide, founded on firm to stiff sub-strata supporting a composite inner block (on face) 200mm, 50mm – 100mm cavity in nominal reinforcement and an outwards concrete block face 110mm thick, forming an overall wall thickness in the order of 450mm, extending for a height above existing ground level of mainly 1 metre increasing slightly to 1.2 metres towards the South Eastern end. (Photographs 001, 009).

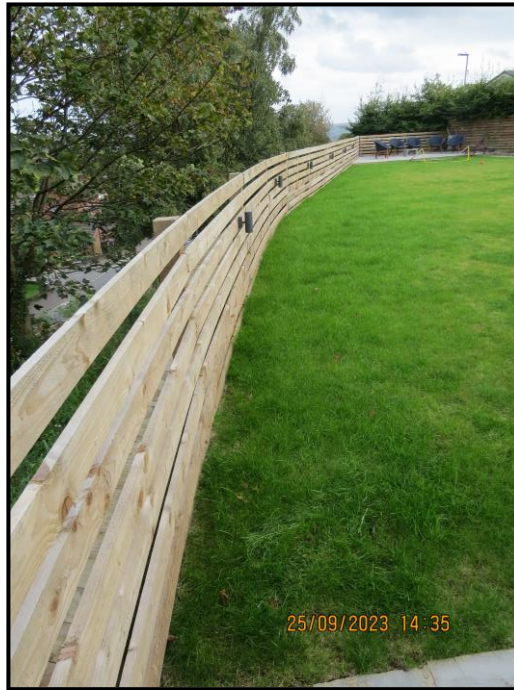


Photograph 002 Courtyard to South East elevation of Crossfield Barn



Photograph 009 Top lawn area

- 2.3 The foundations are between 400mm – 450mm below existing sloping ground level and the lower slope from the base of wall maintains the profile of the original 29° - 30° angle without any visual evidence of surface movement, tension cracking or separation.
- 2.4 The vertical alignment of the outer horizontal boarded batten fence is good and the general curvature of the fence and wall parapet top is undisturbed. (Photographs 002, 003, 005, 006).



Photograph 002 Wall profile looking North West – South East



Photograph 006 Existing garden slope 29° looking South East – North West

- 2.5 Following the wall construction there is no visual evidence of ground movement or tension cracks to the lower slope, nor any change in profile to the re-laid lawn area of the upper garden. (Photographs 003, 007, 008, 009).



Photograph 003 Existing embankment above Whitworth Road looking North West – South East

- 2.6 Following my inspection of the wall and environs there is no anecdotal evidence of inadequacy of construction or structural performance of the retaining walls.

Michael Pooler M. Sc. C. Eng. M.I.C.E. F. Cons. E.

September 2023

PHOTOGRAPH LIST

- 001E Firm to stiff sub-strata
- 002E Inner leaf construction looking North West – South East
- 003E Overall block layout looking South East – North West

- 001 Courtyard to South East elevation of Crossfield Barn
- 002 Wall profile looking North West – South East
- 003 Existing embankment above Whitworth Road looking North West – South East
- 004 Vegetation and foliage
- 005 Return wall South East frontage
- 006 Existing garden slope 29° looking South East – North West
- 007 Gable to house and lower boundary fence
- 008 Close up of new wall and existing foliage
- 009 Top lawn area
- 010 South East courtyard
- 011 Whitworth Road, retaining wall and upper slope
- 012 Close up of upper embankment
- 013 Close up of upper embankment
- 014 Lower timber boundary fence and existing foliage
- 015 Tiered fences and wall looking from Whitworth Road level



001E Firm to stiff sub-strata



002E Inner leaf construction looking North West – South East



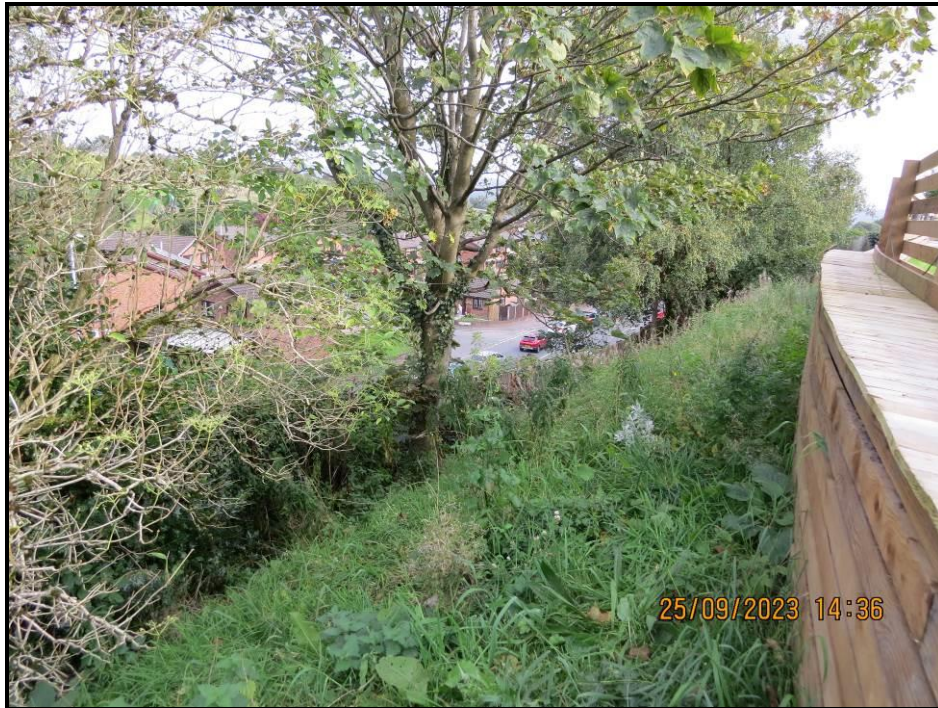
003E Overall block layout looking South East – North West



001 Courtyard to South East elevation of Crossfield Barn



002 Wall profile looking North West – South East



003 Existing embankment above Whitworth Road looking North West – South East



004 Vegetation and foliage



005 Return wall South East frontage



006 Existing garden slope 29° looking South East – North West



007 Gable to house and lower boundary fence



008 Close up of new wall and existing foliage



009 Top lawn area



010 South East courtyard



011 Whitworth Road, retaining wall and upper slope



012 Close up of upper embankment



013 Close up of upper embankment



014 Lower timber boundary fence and existing foliage



015 Tiered fenced and wall looking from Whitworth Road level

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DATE OF INSPECTION: 25th September 2023

REPORT NUMBER: 9142

ENGINEERING REPORT: Crossfield Barn Retaining Wall
Gandy Lane
Whitworth

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