



JF/P748

Mr I. Walker
c/o Penshurst Planning Ltd.
Town Planning & Development Consultants
163 Brompton Farm Road
ROCHESTER
ME2 3RH

2nd October 2023

Dear Mr Walker

**RE: STRUCTURAL APPRAISAL OF BUILDINGS AT DANES LANE, HARTLIP,
SITTINGBOURNE, KENT ME9 7TE**

1.0 INTRODUCTION

- 1.1 Alan Baxter Partnership were engaged to prepare a structural report on a timber barn and related buildings at the above property, to be used as part of the planning application. Following our initial survey, carried out on Thursday 7th March 2019, trial holes were subsequently excavated by UK Site Investigations Ltd on 21st February 2022 to identify the nature of the existing foundations. A separate report dated 8th June 2022 has been prepared which refers to the main barn. This report refers to the other ancillary buildings and structures within the site. We herewith report our findings and recommendations.
- 1.2 As Structural Engineers, we are not qualified to comment on damp, timber decay or insect infestation. We are unable to comment on any structure that was covered or inaccessible at the time of our inspection is free from defects.
- 1.3 The barn at the above property was found to be a detached single-storey timber framed barn with a full-length lean-to structure to one side and was most recently part of a farm, we understand. The barn and plot which includes several other agricultural buildings, is off Dane Lane and is surrounded on 3 sides by orchards with mature mixed hedging to the west (road side) boundary.
- 1.4 No significant mature trees were noted in proximity to the barn plot. There is a concrete apron extending from inside the access gate to just beyond the barn. The remainder of the ground of the plot being rough grass or scrub, where undergrowth has recently been removed.

Cont'd

- 1.5 The other structures on the plot we also inspected include a machinery store adjacent to the entrance gate, measuring 5.5 x 2.5m and 2.1m high to the ridge. This is a timber-framed post and beam structure with knee braces and galvanised steel cladding to the sides and roof.
- 1.6 Next to this, to the north side, is a galvanised steel tank. This appears to have been used for the storage of water. The tank measured 1.53 x 3.04m x 1.22m high and was supported by 3 No. brickwork piers measuring 1.22 x 0.34m and 1.95m high.
- 1.7 To the north side of the barn a circular water storage tank was found. This measured approx. 6.4m diameter and 2.35m high and was constructed of galvanised steel sheeting, bolted together, the sheets running radially. The tank was lined with a Ruberoid membrane that lapped down the outside of the tank. The tank is supported by a circular concrete base and was open to the top and empty when inspected.
- 1.8 East of the barn a further storage shed/double garage was seen. This measured 5.9 x 4.6m and 2.3m to the ridge and was found to be timber-framed with concrete block infill and galvanised steel sheeting to the roof and south and west elevations.
- 1.9 The Ordnance Survey grid reference for the barn is TQ 8363 6446. BGS geological map sheet 273, indicates the property to be underlain by Thanet Beds which is a deposit of sands with Upper Chalk noted beneath.

2.0 OBSERVATIONS

- 2.1 No drainage or manholes were found in or around the barn. The barn has no gutters at the eaves, with the roof draining on to the ground.
- 2.2 The machinery store adjacent to the entrance gate is of similar construction to the barn, being a timber structure on a brick plinth, built off a concrete slab. The structure is in fair to poor condition with a lean of 40mm towards the road. Timber knee braces appear to have been added to stiffen the frames. Timber purlins run the length of the building supported by the cross-frame rafters. The galvanised corrugated roof sheeting fixed to the purlins has surface corrosion and loss of the zinc coating generally but does not appear to be holed. There are hinges to the front corner posts but the doors have been removed or decayed.
- 2.3 The adjacent water tank itself would seem to be in good condition with good lines and little indication of any damage or leaking. The brick piers have been covered extensively with ivy which has been recently removed. The brickwork is in good condition, with no particular leaning or defects noted.
- 2.4 To the north side of the barn, the circular water tank appears to be in fair to good condition with vertical sides and little indication of movement or failure of the walls. There is corrosion to the sheet fixing bolts to the north and west sides of the tank with complete loss of galvanising and 10-15% loss to the nut and bolt shank in place. The south and east sides of the tank have fared better and still show galvanising and consequently very little rust staining to the sheeting. As mentioned, the interior is lined with a membrane and therefore we were not able to make an inspection of the sheeting from that side.

Cont'd

- 2.5 To the east side of the barn, the double garage/storage shed was found to be in poor condition. The timber frame has decayed in parts and the blockwork infill damaged either by movement or impact. There is a concrete slab within the building with a central dividing wall in timber/blockwork. The south and west sides are clad with galvanised corrugated steel sheeting as was the roof. This appear to have been used elsewhere previously and was found to be corroded and holed in places with probably 30% of roof sheets failed, leaving it open to the elements. The timber roof members were found to be decayed in places, particularly where the roof sheets were missing or leaking.

3.0 CONCLUSIONS & RECOMMENDATIONS

- 3.1 The two storage sheds will require expensive repairs or rebuilding to allow them to be used for residential purposes or as garages. The elevated water tank would at this stage appear to be of little use for a residential development, but the large circular tank is a useful sized structure suitable for conversion and inclusion with the proposed development of the barn.
- 3.2 The existing galvanised steel sheeting to the tank's perimeter may be retained. Alternatively, wood or a similar type of cladding that is more aesthetically please may be attached to its exterior.
- 3.3 The trial hole dug next to the circular water tank revealed a concrete slab base. The existing foundations are considered suitable to support a load-bearing timber or blockwork wall built inside of the existing sides or a steel post arrangement.

If you have any queries or require further information, please do not hesitate to contact us.

Yours sincerely

A solid black rectangular box used to redact the signature of James Folley.

**JAMES FOLLEY
FOR ALAN BAXTER PARTNERSHIP**