Christ Church, Oxford Heritage appraisal of a proposed photovoltaic panel array on Bachelor's Row, Tom Quad



Figure 1: Loggan's 1675 view of Christ Church from the west, showing the west front of Tom Quad complete except for Wren's upper stages of the central tower. These were built 6-7 years later.

1 INTRODUCTION

Oxford City Council granted listed building consent (ref 23/00297/LBC) on 14 April 2023 for various alterations to and refurbishment of Bachelor's Row. This occupies the upper floors of the northern half of Tom Quad's west range, over the Porter's Lodge and Junior Common Room which occupy the ground floor (south and north halves respectively). The consented works are "alterations and refurbishment to Batchelor's Row including: shower accommodation; thermal upgrades; framed single glazed windows; roof structure and coverings; lighting protection; trace heating; leak detection; man-safe system of Tom Quad Stairs 5, 6 and 7. Removal and infill of the high level windows".

Following pre-application consultation on the above proposals, an option to mount a photovoltaic (PV) solar energy array on the roof was omitted from the scheme. Further consultation with Oxford City Council during 2022-23 received a more encouraging response. The Conservation Officer noted that "the proposed works may be acceptable in heritage terms, if they are unlikely to be visible from publicly accessible viewing points (as well as from other parts of college and its environs). Your [ie Christ Church/Sidley's] information has suggested that the photovoltaic panels may not be visible or would be hardly so, thus they would probably not affect the setting of heritage assets and probably would preserve or enhance the character or appearance of the conservation area. Your information has also shown that the roof is modern and in itself has little heritage significance. The roof is also hidden by a parapet, for the most part".¹

¹ Email from Katharine Owen, 9 June 2023.

The proposals have therefore been progressed to an application for listed building consent. This Heritage report assesses the PV proposal's potential impact on the Grade I listed Tom Quad, as well as other nearby designated heritage assets. The author has been Christ Church's Foundation Archaeologist since 2007, with responsibility for all archaeological and heritage issues, advice and fieldwork to the Foundation during that time.

2 BRIEF DESCRIPTION

Tom Quad is very much the public face of Christ Church. Its western frontage faces confidently onto St Aldates and, with Wren's central Tom Tower, provides one of the city's most notable and iconic views. Its symmetrical façade is a result of two distinct building campaigns. Cardinal Wolsey started the work in the 1520s, with the southern half largely his. He also built the lower part of Tom Tower and began the north half of the range, but these were completed by no earlier than 1668 for the north range, and 1681-2 for the centrepiece Tom Tower.² The north half of the range contains the Porter's Lodge and Junior Common Room (JCR) on the ground floor, with graduate common rooms, staff and student accommodation on the floors above. This upper part, known as Bachelors Row, was rebuilt in the 1960s. Work comprised the replacement of the structure and fabric at second floor level with only the external walls retained. The roof was entirely rebuilt. The surviving fabric appears to be wholly modern with few or no features of historic interest other than the historic elements of the walls. Figure 2 is a drawing by Playne and Lacey, architects for the scheme, showing cross-sections of the roof. The work does not appear to have been the subject of any archaeological record.

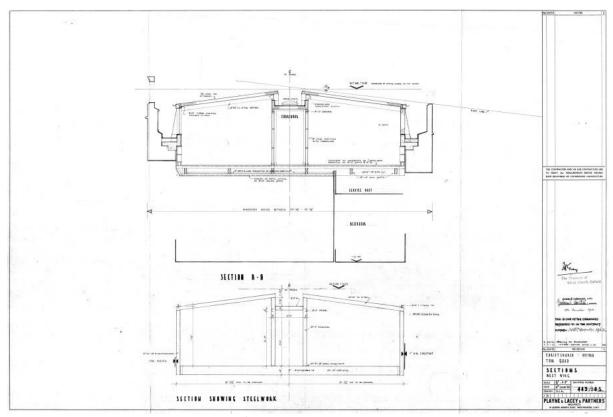


Figure 2: Playne and Lacey drawing 433/105, dated 6 June 1962, showing cross-sections of the new roof structure and associated steelwork in Bachelor's Row.

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² Pevsner, 110-12.

Tom Quad is a Grade I listed building, and also lies within the Grade I registered gardens/parkland at Christ Church.³ The listing for the Quad is reproduced below.

CHRIST CHURCH The Great (or Tom) Quadrangle

Listed Building Grade: I. List Entry Number: 1198760. Date first listed: 12-Jan-1954 Statutory Address 1: The Great Quadrangle, Christchurch, Statutory Address 2: The Tom Quadrangle, Christchurch

- 12.1.54. I Collegiate: (a) west; and south sides, 1526 (John Lubbyns and Henry Redmayne, masons); the north range circa 1668 (refaced C19). Includes Tom Tower, lower part 1526 (since refaced in Taynton stone), upper part 1681-82 by Wren with Christopher Kempster and the Oxford Robinsons, masons; top storey above clock refaced and much of west front restored by W.D Caröe, 1909-12, in Clipsham stone; terrace and steps, 1842 by Sir Francis Chantrey.
- (b) East side, circa 1546, mainly refaced. (c) North side, late C17, refaced in C19. Altered 1962-63 and 1971. (d) Kill Canon Gate, late C17, raised by one storey 1876-78. (e) Staircase and tower in south range. Early C19 stone staircase (Wyatt, 1805) with Gothic fan-vault built between 1630 and 1640; top belfrey stage of staircase tower, 1879 by G F Bodley. Anteroom between tower and hall mainly early C16.
- (g) Hall on first floor, 1529, with modern (1878) parapet and pinnacles; rooms beneath remodelled and roof of hall (originally made probably by Humphrey Coke) restored in 1720.

There are eleven wrought-iron lamp-brackets with round lanterns in the Quadrangle. The raised footpath round the Quadrangle, the remains of the Cloisters, is included in the listing. The wrought iron lantern in the Main Gate is included in the listing.

Listing NGR: SP5141406032

The RCHME Inventory of Oxford includes an extensive description of the Great Quadrangle, or Tom Quad (1939, 30-3). There is a brief description of the interiors of the Quad's ranges. This notes (on p. 32) that

The rooms N. of the gatehouse have been extensively altered, but there is an original staircase immediately N. of the gatehouse; the adjoining part retains its moulded ceilingbeams and there are two original fireplaces with moulded jambs and four-centred heads; a fireplace further N. has an early 17th-century overmantel of two arched bays, divided and flanked by enriched pilasters; two original oak doorways also survive. A certain amount of 16th and 17th-century panelling remains in the upper rooms. The original range terminated about half-way between the gatehouse and the N.W. tower and high up in the cross-wall is an original window now only visible from the N.; it was formerly of two four-centred lights. The 17th-century range to the N. contains the Junior Common Rooms on the ground floor; the staircase is partly of this date and on the first floor are two fireplaces with moulded jambs and four-centred heads; one of these is carved with the fleur-de-lis, portcullis, rose and thistle; this was formerly in No. 2 Brewer Street.

The original RCHMS surveyors' notes are held at the Historic England Archive in Swindon. The author has accessed these on several occasions, as they are an important resource for studying the site (the archive contains far more information than could ever have been published in the Inventory). The

³ Christchurch, The Great Quadrangle (or Tom Quadrangle), Non Civil Parish - 1198760 | Historic England; CHRIST CHURCH, Non Civil Parish - 1000441 | Historic England

northern half of Tom Quad's west range is described in two pages of text (incorporating various sketched details) with one full-page plan (Figure 3). The upper floors generally receive limited attention, and even in the 1930s many of the extant features were described as 'modern' (at the time this probably meant later 19th century, or perhaps the early 20th).

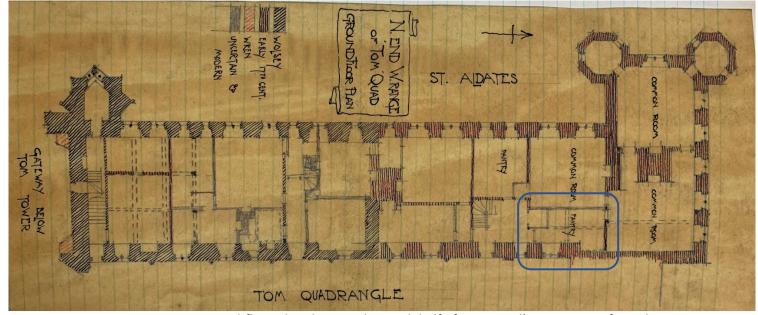


Figure 3: Late 1930s ground-floor plan showing the north half of Tom Quad's west range, from the RCHME surveyors' archive file at the Historic England Archive. The 17th-century partition walls in what is now the JCR lounge were removed in the later 20th century (presumably the 1960s). Extant partition walls broadly correspond to those shown here as 'modern' between the Common Room and the Pantry to its east (identified by the blue rectangle).

The *Buildings of England* entry for Christ Church has very little to say regarding interiors of the Tom Quad range (Sherwood and Pevsner 1974, 112). It simply notes that "of features inside the ranges the RCHME mentions a good many, but none outstanding, eg the ceiling beams in the Deanery, the king-post roof exposed on the first floor in the E range, and some fireplaces". The 1960s work in the west range may or may not have been known to Pevsner, but it would have been all but irrelevant to the purposes of the *Buildings of England*.

3 DESIGNATED HERITAGE ASSETS IN THE VICINITY OF TOM QUAD

Christ Church is well protected through statutory heritage designations. Most of its buildings are listed, many of them at Grade I (including Tom Quad, as already noted). These are shown in yellow on Figure 4a, with Grade II* buildings in blue and Grade II ones in red. The entire site is also a Grade I registered park/garden, while also lying within Oxford's Central (University and City) Conservation Area. It is part of Character Zone 4 (College Architecture – sub-zone 1, colleges within the medieval walled city).

Unsurprisingly Oxford city centre contains a large number of listed buildings beyond the walls of Christ Church. Many of the buildings along St Aldate's and Pembroke Street are Grade II* or Grade II, while colleges to the north and east such as Corpus Christi, Merton and Oriel are like Christ Church in having a high proportion of Grade I buildings (as well as others at lower grades). Selected/relevant examples of these nearby heritage assets are considered in the impact assessment below.

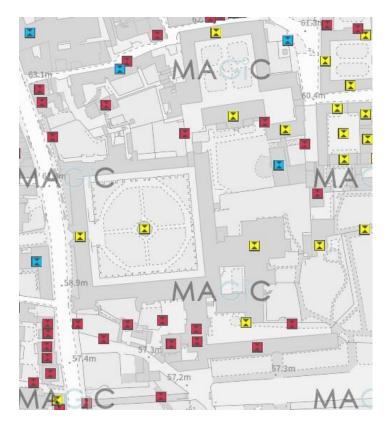
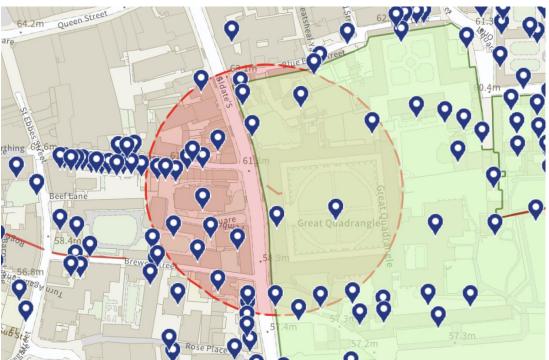


Figure 4a (left): Listed buildings at Christ Church, colour-coded to show the distinction between Grades I (yellow), II* (blue) and II (red). All pre-1948 buildings are likely to be curtilage listed as well.

Figure 4b (below): listed buildings within 100m of Bachelor's Row (the radius is taken from the building's approximate centre). The light green shade denotes the registered park / garden area at Christ Church.



4 BATCHELORS ROW PV ARRAY: HERITAGE IMPACT APPRAISAL

Sidleys have prepared a proposal for the PV array on Bachelor's Row in conjunction with the House Surveyor. This has been submitted to Oxford City Council for listed building consent and planning permission (if applicable). The array is illustrated on Sidley's drawing 9-0786 39-P1. This shows both the arrangement of the PV cells, and the positions of their fixings onto the roof. The array is entirely confined to the western half of the roof, with none on the inward slope towards Tom Quad itself.

The goal to achieve a net zero carbon target is widely recognised as essential in tackling the global climate crisis. This has been fully recognised by the Church of England, and a route map for achieving the aim within the Church has been published - Net zero carbon routemap | The Church of England. Christ Church also takes its responsibilities very seriously in this respect, and the Cathedral received an Eco Church Bronze Award in recognition of its work towards net zero - Christ Church Cathedral receives Eco Church Award | Christ Church, Oxford University. Several Anglican cathedrals have already installed PV arrays on their primary buildings, for example at Gloucester and Salisbury (see Figure 5 - the author is Cathedral Archaeologist for the latter as well as Christ Church).



Figure 5: The PV array over the south cloister walk at Salisbury Cathedral. As at Tom Quad, the roof here has a very shallow pitch and features a parapet on its long sides. The PV cells therefore have minimal to no visible 'footprint' from any external vantage point – including the Grade I Bishop's Palace to the east (visible here just to the right of centre) and other listed buildings beyond it along Exeter Street.

The proposals have been examined for potential impacts on the built fabric and its archaeological resource. They will have no impact on historic fabric, given that the roof here dates to the 1960s.

As already noted, the proposed photovoltaic array will be confined to the western slope of the roof over Bachelor's Row, on the St Aldate's side of Tom Quad. The array will consist of slimline units like those in Figure 5. They would be largely or fully hidden by the parapet on the St Aldate's (west) side and would not be seen from ground level; they would also sit at about ridge height on the upslope. The array would have no visibility from within Christ Church itself, whether to the north, east or south of Bachelor's Row. The proposal will have no impact on the setting of Christ Church's many listed buildings or the registered parkland/gardens.

Figure 6a is a view taken from the first-floor level of Fell Tower looking west (in August 2023): the roof ridge over Bachelor's Row is barely visible. The PV array would not be seen from within Tom Quad. Figure 6b is a similar view from the north-east corner of Peckwater Quad in January 2018. Again, the roofs of Tom Quad's west range are barely visible and the PV array would not be seen from here (or any similar locations).





Figure 6a and 6b – views across Christ Church towards Tom Tower and the west range of the Quad.

As Figure 4b shows, there are several Grade II* and II listed buildings along St Aldate's to the west of Christ Church, and along Pembroke Street as well. The latter properties would be unaffected by the PV array: all buildings along this road face across it, with nothing more than very slight oblique views eastwards towards St Aldate's and Christ Church. Views from the rear of the properties are similarly restricted. Even were the PV array to be openly, obviously visible it would have no impact on the settings of any of the listed buildings along Pembroke Street (or indeed beyond it). As for St Aldate's, the church of the same name (Grade II*) is opposite Tom Tower while there are a few Grade II buildings to the north-west (Nos 98 and 107) and south-west (91 and 92). The Master's Lodge of Pembroke College (II*) is just behind the street frontage as well. With the exception of the church, all these properties would have very limited, oblique views of/towards the Bachelor's Row. As noted already, the PV array will be largely or entirely hidden by existing features such as the parapets (and gables/Tom Tower in longer oblique views). Theoretically there might be a small impact on the view from the Church of St Aldates, but only from the tower where high-level windows or other openings are not a major feature and are not publicly accessible. It is suggested that any impact on the setting of the church would be negligible and that no harm would be caused. The same applies to the city centre and university Conservation Area - visual effects would be minimal and would not impact on the CA or its setting. This would be preserved (arguably enhanced) by the proposal and the net carbon zero aim which is at its heart.



Figure 7: View looking east from the roof of the Debtor's Tower, Oxford Castle, with Tom Tower just to the right of centre. The Church of St Aldates is immediately to its right, with the Cathedral tower to its left. The Westgate Centre intervenes in this longer view, but even without it the low-pitched roofscape of Tom Quad would clearly not be a dominant feature in views across the city.

5 CONCLUSION

The proposed photovoltaic array over the western roof of Bachelors Row at Christ Church would have no impact on the historic fabric of Tom Quad's west range. It would rest wholly on the modern roof. The array would be hidden from view by the wall parapets, roof ridge and other features such as Tom Tower. There would be no impact on the fabric, significance or setting of Christ Church, or on other nearby listed buildings. There would also be minimal to no negative impact on the city's central Conservation Area. The wider aim of the PV array – net carbon zero – will be beneficial for the CA, and will therefore not only preserve but also enhance it. The proposals deserve full support.

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