
VISIT TO THE CHURCH OF ST NICHOLAS, MAVESYN RIDWARE
17th AUGUST 2023

Purpose of visit:

Church Electrical Installation

1. The Committee was represented by Brough Skingley who was welcomed by Lesley Marriott, PCC Secretary and Paul Marriott.
2. The church was built in 1140 and extended during the medieval period until it was partly demolished and rebuilt in 1782. Before 1782 the church consisted of a tower, north aisle, south aisle, nave, chancel and porch. The north aisle was built in the 13th century of ashlar sandstone and has a number of original lancet windows. The tower at the west end of the church was built of sandstone in the 15th century in a perpendicular gothic style with gargoyles projecting from the corners. In 1782 the medieval nave, chancel, porch and south aisle were demolished. The remaining west tower and north aisle were added to with a red brick wide square nave and polygonal chancel that ends in an apse. The new part of the church was built higher than the older part with steps leading down to the medieval north aisle. See pictures below:



3. The church has recently had its 5 yearly electrical test and inspection and was concerned by the results. The key issue was the size of the main isolator and meter tail cables. The electrical supply is an overhead one with the church having its own earth rod. It was common for this type of supply to have a smaller than usual size of fuse in the supply, commonly 100 amp but in cases like St Nicholas, often smaller at 80 amps. It is not possible to determine the size of fuse with out removing it and inspecting. Thus it is probable that the electrician presumed that the installation had a 100 amp fuse in its cut out. But, as is more probable as the original installation would not have had a test certificate on completion, it is more likely that the cut out only has a 80 amp fuse. See picture below. If this is the case, which can easily be proved by

removing the fuse, then most of the comments in the Test and Inspection report are not valid.



Electrical supply and fuse board

4. However there are several other issues that ought to be resolved.
5. There is a socket outlet over the sink in the kitchen. This must be protected by a 32mA RCD in the fuse board.
6. The MICC in the North Chapel has external corrosion and has very low impedance readings. This may cause problems in the near future, not least nuisance tripping of the main RCD. Therefore the parish ought to consider replacing this cable as soon as possible.
7. The socket outlet adjacent to the organ ought to be at low level.
8. The socket outlet ring circuit should be extended from adjacent to the organ across the chancel step to new socket outlets adjacent to the pulpit. Note that the pulpit light is supply via a 2 amp socket which does not have a fuse, this ought to be replaced by a 13 amp socket outlet and the plug top have a 2 amp fuse fitted for the light.

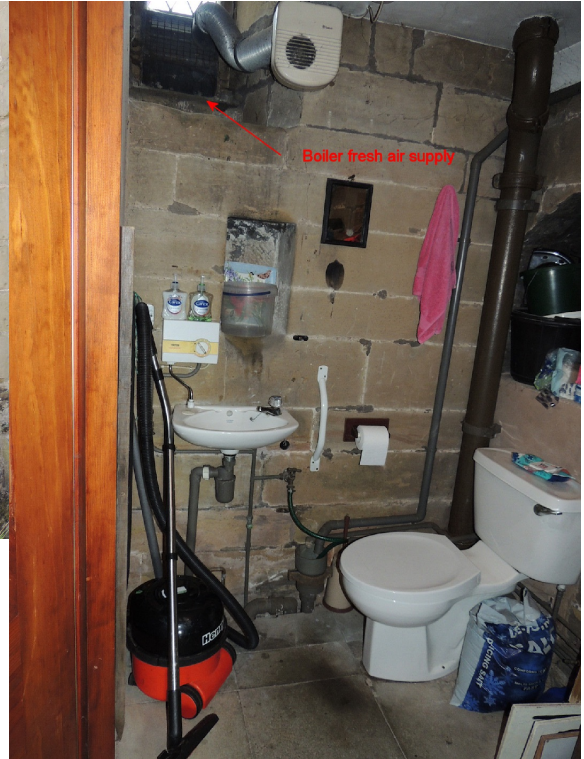


Socket outlet adjacent to the organ



2 amp socket outlet by pulpit

9. The existing fuse board has cartridge fuses, which the parish has no spares. It is also too high for emergency access. Therefore it would be most convenient if the fuse board was replaced with a modern MCB distribution board. The board should have sufficient ways so that each final circuit has its own MCB. The socket outlet circuit should have combined RCD/MCBs for earth fault protection. But to prevent large earth faults tripping both the final circuit RCD and the main supply RCD, the main RCD should have a short, 100 milli-second, delay. The parish should also considered moving the distribution board to a more convenient height.
10. While there it was noted that the toilet is in the same room as the oil fired boiler. The toilet extract discharges onto the boiler fresh air supply grill, see pictures below.



11. The simplest answer is probably to remove the extract fan.

Brough Skingley

DAC Electrical Advisor

4th September 2023