

LP1329 - PORTICO GP SURGERY, LINSCOTT ROAD

ADDENDUM TO STRUCTURAL REPORT – DEMOLITION AND EXCAVATION

Introduction

KPT Design LTD (Consulting Engineers) prepared a structural report with regards to the works adjacent to the existing Historical Colonnade and Crypt. The report LP1329-PGP-RP-S-002 was issued in August 2022 and is based on the information available from site before the issue. In the report it was explained how the existing structure works and the proposals for the critical areas were outlined. The report demonstrated that the crypt/colonnade does not rely on the soil for lateral restraint and that soil shelf which has been added after the original building can be safely removed. After the report was issued the south wall of the crypt was exposed. This addendum summarizes the proposals in the area after the received additional information and the remedial works applied to the existing crypt locally.

Crypt's South Walls Findings

As part of the agreed sequence the south wall of the crypt was exposed externally, and the foundations depth and type were exposed/confirmed. It was also noted that there is an existing arch which has been previously infilled with masonry internally. The thickness of the infill does not match the thickness of the wall and at the top there are gaps between the masonry arch and the infill wall next to it. Please refer to the photograph below



Photograph 1 – Site findings at the South of the Crypt/Colonnade

The level of the foundations was confirmed to be at 17.480 after carefully exposing the existing footings.



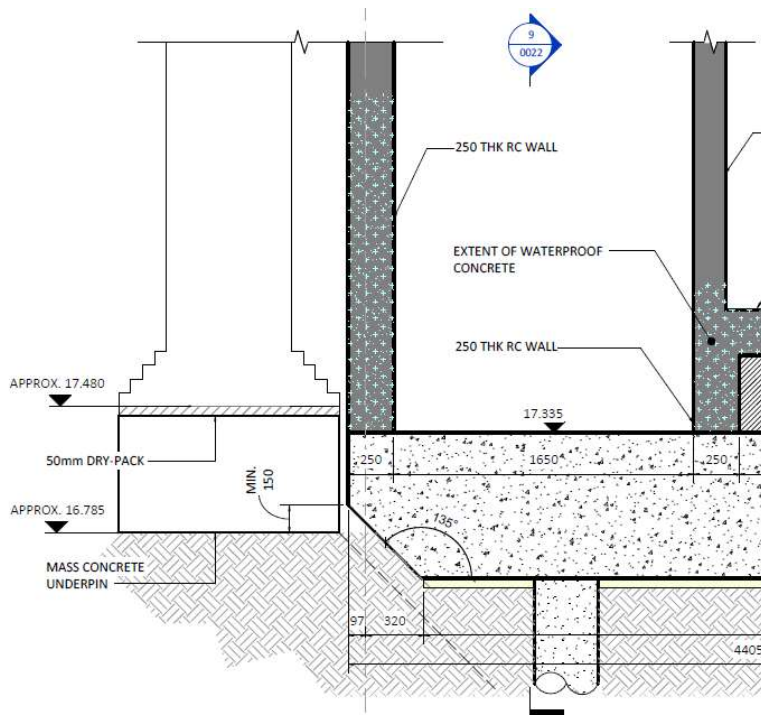
Photograph 2 – Level of the Existing Footing under the South Wall of the Crypt

The site findings confirmed that the footings in the area are above the structural slab level in the area next to the lift of the proposed building which is 17.335 and that underpinning will be required for the area. For the underpinning to be done in safe and effective manner the full width of the wall has to be underpinning. Considering the load paths and the structural integrity we have specified that the exposed arches should be bricked to the full width of the prior to any underpinning. This will ensure that the loads are transferred to the footings and the new underpin without relying on old arch. At the top of the new and the existing masonry infill well rammed drypack should be appropriately installed. Please refer to the photograph below with the work in progress from site.



Photograph 3 – Remedial Works at the South of the Colonade

After the remedial works are installed the masonry walls projecting south of the crypt can be carefully removed and the walls should be underpinned to ensure that they are not undermined. Please refer to the sketch below for the proposed structural solution in the area.



Sketch 1 – Structural proposal next to South Wall of the Crypt

With the suggested detail we consider that the existing structure will be appropriately supported, and the structural integrity is not affected. As the loads to the existing building are not changed, we do not consider that any settlement will appear under the new underpin and we do not expect any damage to the existing structure.