

Infrastructure and Commercial

ST MARY'S CHURCH, SOUTH HYLTON

Trial Holes & Proposed Reconstruction of the Existing
Retaining Wall Report

Site Investigation Brief

1.0 Site location

The site is located at St Mary's Church, Church Street, South Hylton, Sunderland, SR4 0QD. It can be located approximately by the Grid Map Reference 35349, 57010.

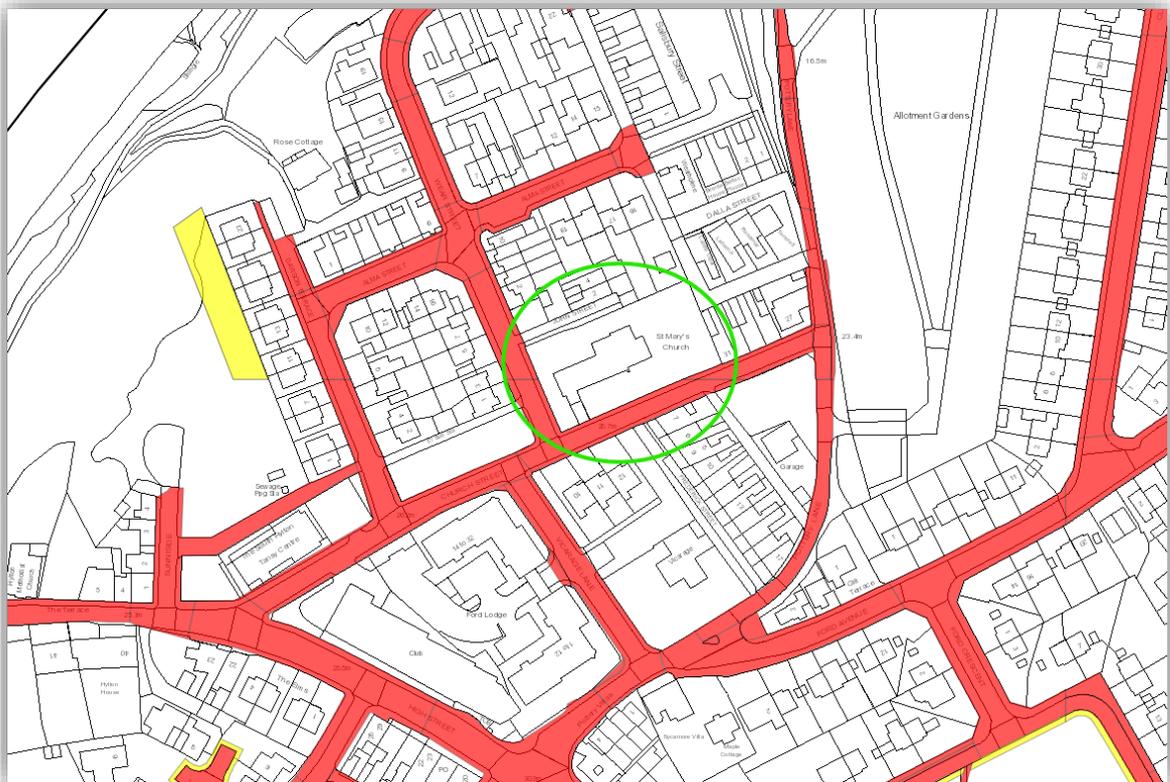


Figure 1: St Mary's Church location with adopted highway.

- 1.1** The site comprises of an old church building with a burial ground to the North and West of the building. The church was built approximately in 1880 and currently closed. Its boundary wall constructed of a stone wall and acting as a structural retaining wall.

- 1.2 The formation level of the churchyard is elevated relative to the adjacent footpath levels along both Wear Street and John Street (a private road), which form the western and northern boundaries of the site. Refer to Figures 2 and 3 below for visual reference.



Figure 2: View of private road and retaining wall to North boundary of graveyard with raking buttress (identified in red).

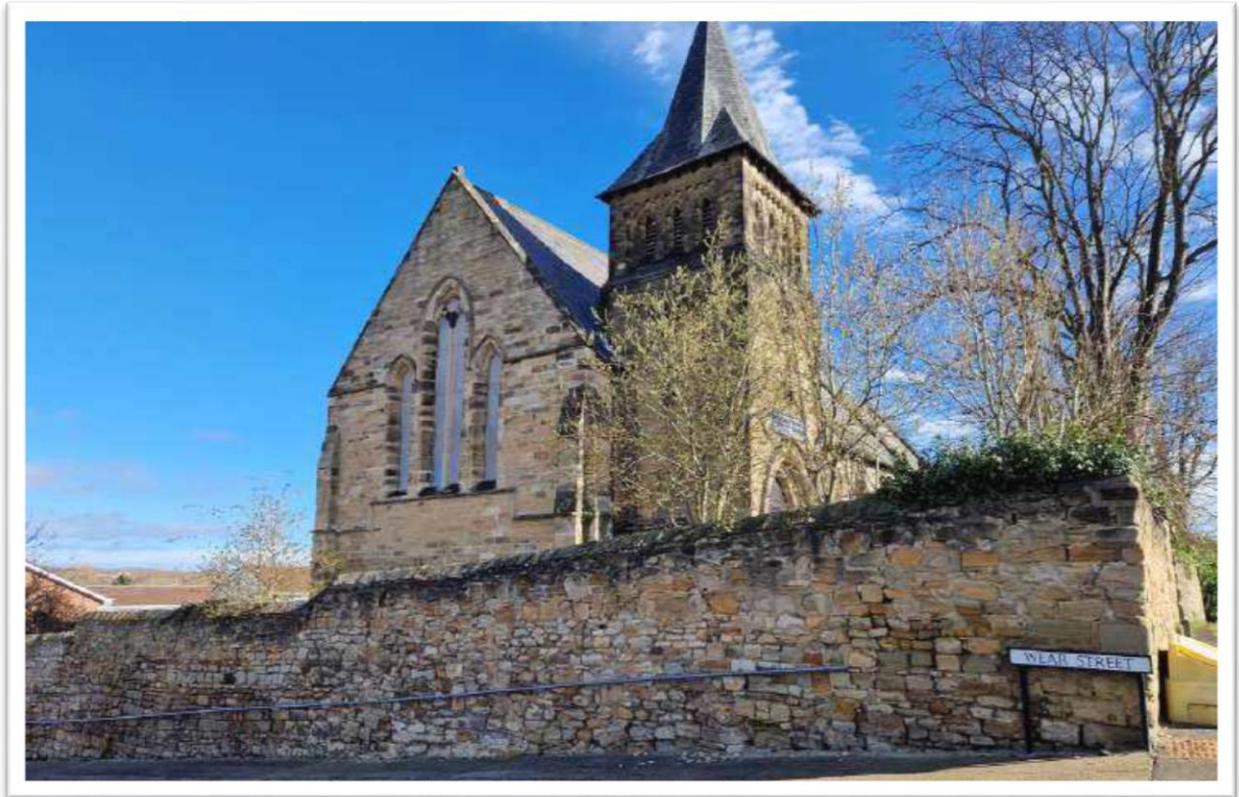
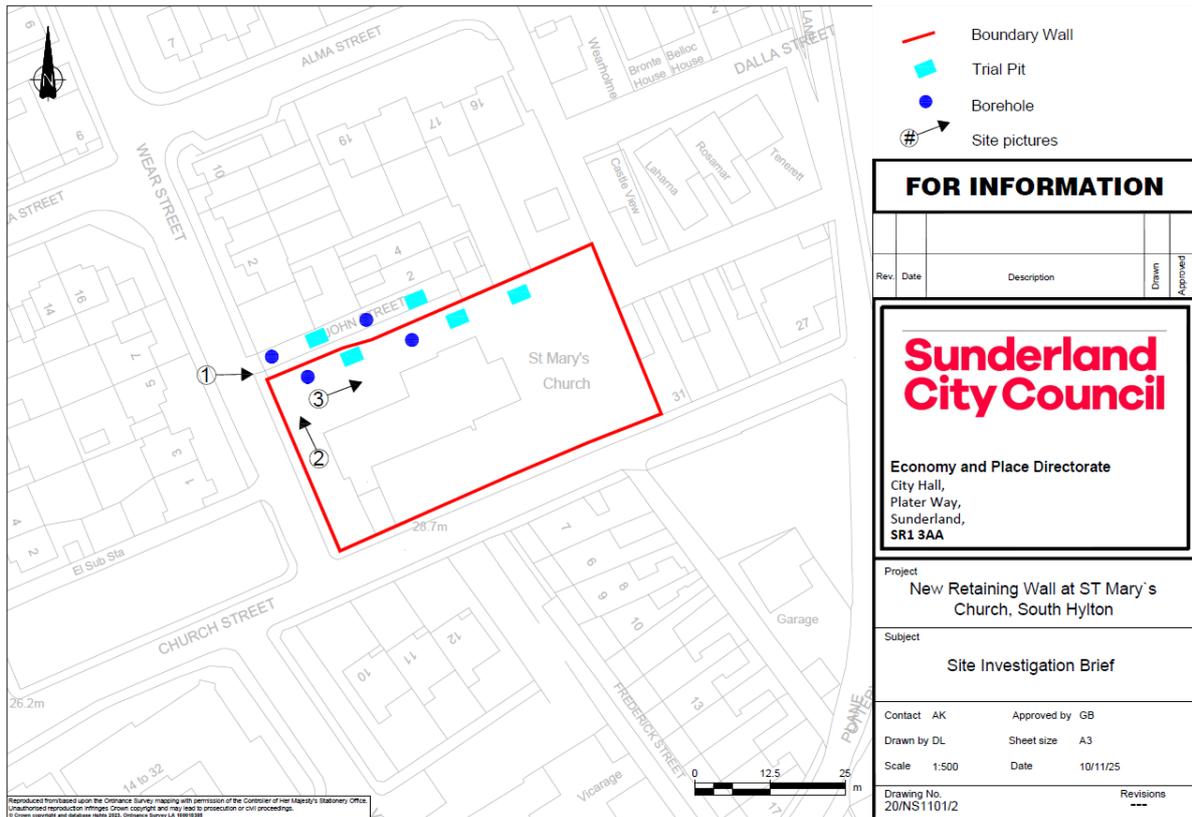


Figure 3: View from Wear Street of the Western gable and tower with the raised graveyards retaining boundary wall.

The Proposed Development

2.1 The attached drawing (St_Marys_Church_251110) illustrates the existing site boundary wall and the proposed Boreholes and Trial pit's locations.



St_Mary's_Church_2
51110-A3.pdf

Drawing No.20/NS1101/2: Proposed Boreholes, Trial pit's locations and the below site pictures

Picture 1



St Mary's north-western property boundary wall and number 2 and 4 John Street
(unadopted private road)



Picture 2 - Location of the second trial pit within the property boundary of St Mary's



Picture 3 - Location of the third trial pit within the property boundary of St Mary's

2.2 It is anticipated that the existing retaining stone wall on the Northwestern side of the building is to be completely rebuilt. With the addition of steel piles and sheet piles to stabilise the existing formation.

3.0 Existing Information

3.1 A desk study/structural survey report has been prepared before this report a copy is attached in **Appendix A**.

4.0 Purpose of Investigation

- 4.1 Determine and identify the existing ground material layers present on the site and confirm Clay and Rockhead levels.
- 4.2 Determine the ground conditions to assess the feasibility of rebuilding the existing stone wall and to inform the design of a new retaining wall using steel or sheet piles. This will include a contamination risk assessment to identify any potential environmental hazards.
- 4.3 Establish the local water table levels.
- 4.4 Identify any archaeological features and remains encountered.
- 4.5 Install standpipes and monitor for landfill gases.
- 4.6 Recover suitable samples and undertake geotechnical properties testing and chemical contamination analysis.
- 4.7 Identify any materials on site considered hazardous to the health and safety of both construction staff and the completed development users and provide recommendations for managing them.
- 4.8 Identify any materials on site, or their associated geotechnical/chemical/engineering properties, considered detrimental to the project and development components (including their structural performance and integrity) and provide recommendations for managing them.
- 4.9 Provide a comprehensive geotechnical site investigation report in both a digital and hard copy format, with recommendations for:
 - Ground Bearing pressure and Rock strength.
 - Drilling of 4 No. boreholes to rock head estimated (10-20m bgl).
 - In situ geotechnical testing (SPTs).
 - Geotechnical testing.
 - Type of foundations.
- 4.10 Measures to address any residual ground gases, contaminants or chemical attack on the new structure and surrounding areas within the development.

5.0 **Investigation Proposal**

- 5.1 The tenderer should assess both the existing site and the development proposals and determine a scope of site investigation measures required to meet the requirements of Section 4.0 above.
- 5.2 An Investigation Schedule of Items is attached in Appendix C for use by the tenderer to select and price appropriate items considered necessary for their

proposed site investigation. Should the tenderer consider that any work item/activity is not covered by the Schedule then this should be raised with the Client's representative as soon as possible and before return of the quotation. The tenderer should ensure that all activities and costs associated with their site investigation proposals are included in their returned Schedule and quotation.

- 5.3** For the quotation pricing purposes, it is proposed that the site investigation comprises of 4 boreholes and 5 trial pits in the locations as shown on Fig 5. An allowance for the installation of 2 standpipes in these trial pits shall be made with regular monitoring of gas readings over a 6-month period.
- 5.4** The final number and locations of boreholes, trial pits, and standpipes shall be determined through discussions between the Client's representative and the appointed contractor. These quantities may vary from the initially assumed figures, either increasing or decreasing as required.
- 5.5** The boreholes requirements:

It is proposed that a total of four boreholes be undertaken as follows:

- Two boreholes at the John Street driveway level, to depths ranging between 5 and 10 metres.
- Two boreholes at the top of the graveyard level, behind the existing stone wall, each to a depth of 10 metres.
- Of these, two boreholes shall be extended by rotary drilling for an additional 5 metres into the underlying rock.
- All boreholes are to be properly grouted upon completion.

- 5.6** All sampling and testing items are to be allowed for to meet the requirements of **Section 4.0** (above).

Note: Public utilities information is available and attached in **Appendix B**. The contractor must consult with the public utilities companies prior to carry out any site investigation work.

APPENDIX A



132-St Mary's Sth
Hylton Tech Note Ac

APPENDIX B

NUAR utility Enquire

St Mary`s Church



Enquiry -
372a1906-4d00-432t

APPENDIX C



SI_Schedule_for_St
Mary`s Church - Ret: