

PROPOSED
NEW DWELLING
AT
89 WENALLT ROAD
TONNA
SA11 3QH

SUPPLEMENTARY
SITE INVESTIGATION
REPORT

OCTOBER 2024

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PROPOSED NEW DWELLING AT 89 WENALLT ROAD TONNA

SUPPLEMENTARY SITE INVESTIGATION REPORT SEPTEMBER 2024

SEPTEMBER 2024

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Proposed New Dwelling at 89 Wenallt – Supplementary Report

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1.0 Brief

1.1 General

To undertake a supplementary site investigation study on the land at 89 Wenallt Road SA11 3QH following demolition of the original existing dwelling , with the scope of works and report to be as follows ,and in accordance with the Condition 1 of the NPT Planning Consent Approval Notice ref P2021/0416

1.2 Outline Scope of study to Satisfy Planning Condition 1

- A] Inspection of exposed formations following building demolition and clearance
- B] Sampling of materials form formation under former building and testing
- C] Inspection of formations for any asbestos containing materials [ACM]particularly within the footprint of the former existing building
- D] Review of results in relation to the Integral Geotechnique SI report ref 12800/RAH/21/SI that was submitted as part of the planning consent
- E] Review and update of Conceptual Exposure Model and risk assessment for site development
- F] Submission of results and document together with application to discharge Condition

2.0 Basis of Study and Report

- 2.1** Review of 2021 Site Investigation report by Integral Geotchnique followed by Site investigation study including inspection of the site and sampling and testing of materials undertaken by Gareth M George MSc DIC MICE consulting engineer in August 2024 , with material testing by Apex Laboratories Pyle

- 2.2** Review of results and preparation of report

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3.0 Site Investigations and Sampling

- 3.1 A initial site inspection was undertaken pre demolition works in June 2024 and followed by a further inspection on 20th June 2024 following demolition of the existing buildings ,with the ground and formation under which the former dwelling and hardstandings once stood inspected – No abnormalities or unusual features were noted in the area , where the former building and the old foundations and slabs had been broken out, site ,cleared and rubble /building material taken away , with the ground now relatively level exposed at a level some 150-300mm below former dwelling level.
- 3.2 The ground and formation present on inspection was seen to be very similar to the surrounding ground [as recorded in 2021] being a thin generally granular hardcore layer of inert crushed brick/concrete remnants[as result of demolition process]mixed with natural gravels and stones and subsoils over the natural clays and silty clays on the plot area , with the glacial drift/clays becoming firm with depth. No water was detected in the shallow trial pits
- 3.3 .Two samples were taken as shown on Fig 1 with TP/1 taken where the former kitchen/entrance area of the old dwelling was once located and TP/2 in the area under where the body of former dwelling stood.
- 3.4 With regards investigations into potential presence of asbestos type materials a walk over survey was undertaken over the whole site and no suspect type material found
- 3.5 In addition to check on potential residual asbestos risk a discussion was held with the site owners regarding the form of construction of the old now demolished dwelling and it was understood that there were no asbestos type materials or artex type coatings present in the v old dwelling which pre dated use of asbestos products and had not been modernized , but that there had been in the kitchen are a small area of tiles which had at onset of demolition generally carefully lifted and taken away as they appeared asbestos based,. We were also informed that an overall precautionary inspection had been undertaken and due to age of the old dwelling pre demolition works and no other areas of potential asbestos based material present noted .
- 3.6 The Samples were as stated above taken from the now exposed ground formations as shown on the figure 1 below, with one sample taken from the former kitchen area . the position of trial pits , For cross reference the sample locations from the 2021 Site investigation are also shown on the fig 1.
- 3.7The samples were then taken to the laboratory and analyzed

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4.0 Results of Testing 2024

4.1 General

- 4.1.1 The results of the testing undertaken are reproduced in appendix A below, and were reviewed against current threshold levels [as defined in the Integral report], Comparison against these threshold levels is given in Appendix C. With reference to Appendices A and C the following is noted ,
- 4.1.2 The results compare well to the initial Site investigation results given in the Integral report of 2021 [appendix B of this report] ,with the 2024 determinant levels similar to the 2021 results across all samples results ,
- 4.1.3 Generally as can be seen the results of the test on the two samples taken in 2024 were similar to the results given in the IG report for samples taken in 2021 as can be seen in Appendix C , where the sets of results from both site investigations are collated together. With reference to Appendix C it can be seen there is good correlation between the 2021 and 2024 results , which both sets of similar magnitude across all determinants tested for . This shows the ground under the former building as being similar to the remaining site area.
- 4.1.4 The results of the current analysis on the samples taken on the area where the former dwelling once stood again show that most of the analyzed chemical elements and compounds were again only present in concentrations below the appropriate threshold levels , with the exception of arsenic which was recorded at 66.1 mg/kg in T/P 1 and 48.4 mg/kg in TP/2 , being slightly over the S4UL guideline of 37 mg/kg . The slightly high related to threshold level of arsenic was again recorded in the 2021 study and discussed and accepted there
- 4.1.5 With regards to Asbestos the initial screening on both samples showed that TP/2 was clear but some fiber material were noted in TP/1.
Therefore a further detailed laboratory quantification analysis was undertaken in August 2024 on the sample from TP/1 , with the results showing that the small amount fibers detected were of a white [chrysotile] asbestos ,With regards to TP/1 sample location it is concluded in all probability the source of this v small amount being the former dwelling kitchen floor tiles . The levels detected were v low at less 0.001% and thus within screening criteria values

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- 4.1.6 With regards to quantum the amount present of white asbestos fibers was very low being recorded at less than 0.001% as can be seen in the analysis report and at normal screening limits, in this one isolated area, as no asbestos based material has been detected elsewhere.

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4.0 Review and Update of Conceptual Exposure Model

Following appraisal of the results of the 2024 testing the site Conceptual Exposure Model as given in Section 8 of the IG Report [reproduced in appendix B] was revisited and updated accordingly and the following conclusions drawn

4.2.1 Material Source – Topsoil/made ground

The Model results of 2021 remain valid – The slightly elevated arsenic levels recorded were similar to the 2021 report levels and can be thus risk assessed accordingly as per the 2021 report [clause 10.3.2] with no specific remediation measures considered necessary

4.2.2 Material Source – Building material /fabric

The former dwelling has been demolished and the material and building rubble generally taken off site .and residual risk thus taken away/removed . In TP/1 very small amount of white asbestos fibers were noted [0.001%, [probably a residual amount following local removal of the kitchen floor tiles] , Whilst minimal and not above normal screening criteria it is recommended that the 2021 Report risk assessment and method of working for foundations needs to be revised slightly in this instance , with this area of site carefully inspected at onset of groundworks and if suspect material if found material carefully taken up in accordance with good practice, double bagged and taken to a suitable tip , with close inspection maintained during foundation excavation operations and casting of new foundations and ground slabs over a suitable dpc /dpm membrane .

4.2.3 Material source -made ground of unknown origin

No abnormal material or unusual made ground was observed and the conclusions of the 2021 risk model remain valid

4.2.4 Source -Ground Gas – organic producing materials

No such material was observed following the demolition and clearance works and no evidence or smell of any gases noted- the results of the 2021 model thus remain valid, with basic Radon protection required as stated in the IG report

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5.0 Conclusions and Recommendations

5.1 General Conclusions

5.1.1 Following the demolition works a site investigation study and inspection of the exposed formations has been undertaken as required by condition 1 of NPT Planning Consent document P2021/0416

5.1.2 Sampling of material from these exposed formations was undertaken and testing carried out – The test results showed that the nature of the material present was very similar to the material found elsewhere on site during the 2021 study and no further concerns identified, with the conclusions and general recommendations of the 2021 report remaining valid

5.1.3 A review into the form of construction of the former dwelling and materials present undertaken and it was concluded that there were no asbestos type material used/present with exception of some tiles in the kitchen area of which were lifted and taken away pre demolition. The exposed formations were also inspected for asbestos based material but none found with the exception of some fibres in TP/1 which was located in area where there were tiles lifted from the former dwelling. The asbestos type was found on further testing to be white asbestos and of a very low level < 0.001%

5.1.4. With regards to asbestos material risks it is thus concluded the site is generally clear but residual fibres of white asbestos could be present in the area of the former dwelling kitchen and as a result the risk assessment and method of working in this area should be modified slightly as noted on section 4 of this report to mitigate against potential risks until foundations and ground slab built.

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5.2 Recommendations

5.2.1 It is recommended that the 2021 Integral Geotechnique Investigation Report for redevelopment of the site and its related Conceptual Exposure model be adopted for the proposed works subject to the Conceptual Exposure model and risk assessments in relation to asbestos material being amended as follows ,

5.2.2- Conceptual model table 8 -buildings materials/fabric-
Resultant risk now determined as result of 2024 study and considered very low ,but with fibres detected in TP/1 then risk to be assessed and specific method of working procedures adopted to mitigate

5.2.3-Human Health Risk Assessment section 10.3
Whilst residual risk considered very low Site formations and excavations to be closely inspected during construction in former kitchen area of dwelling and any suspect material identified taken up safely bagged and taken off site

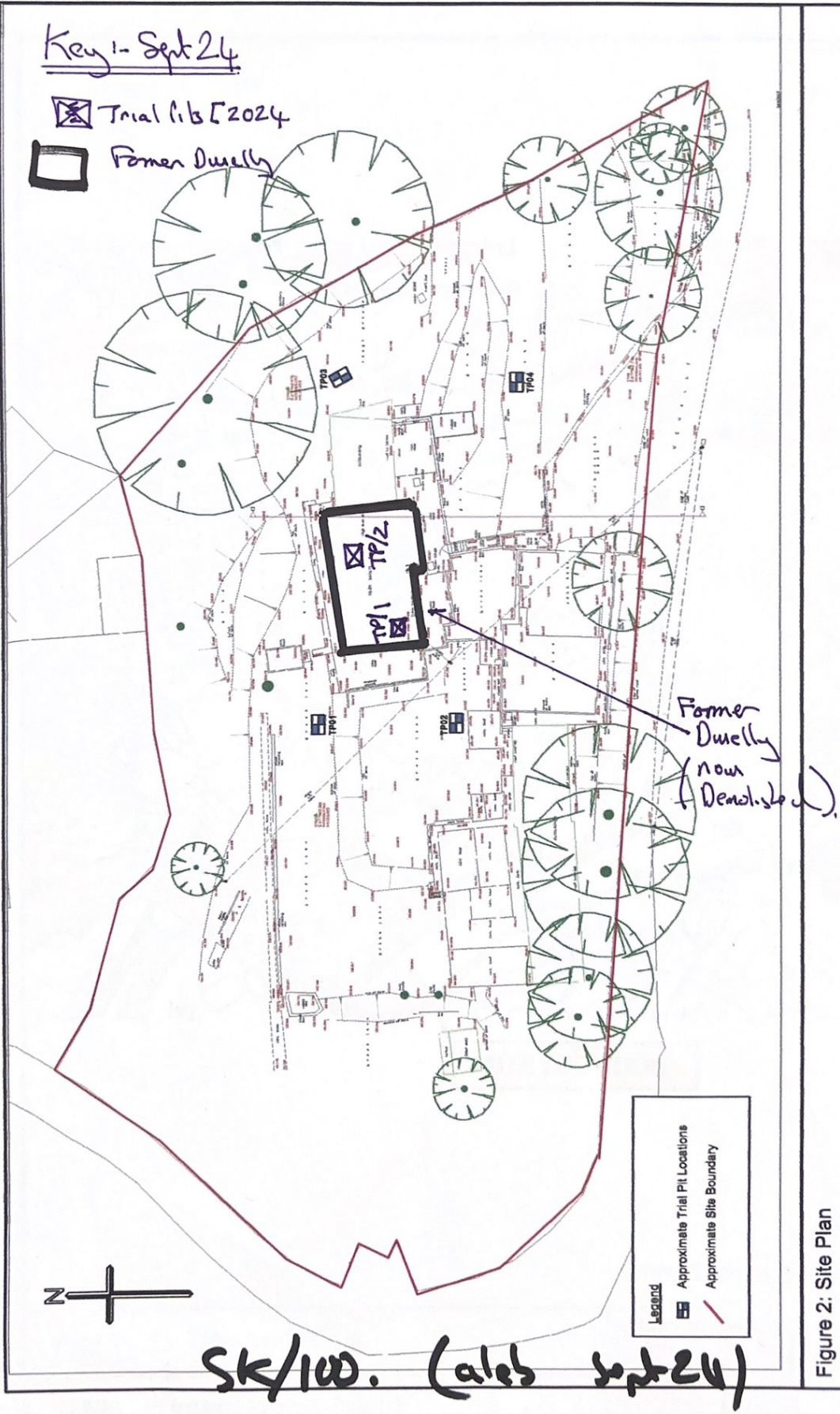


Figure 2: Site Plan

Project: Wenallt Road, Tonna

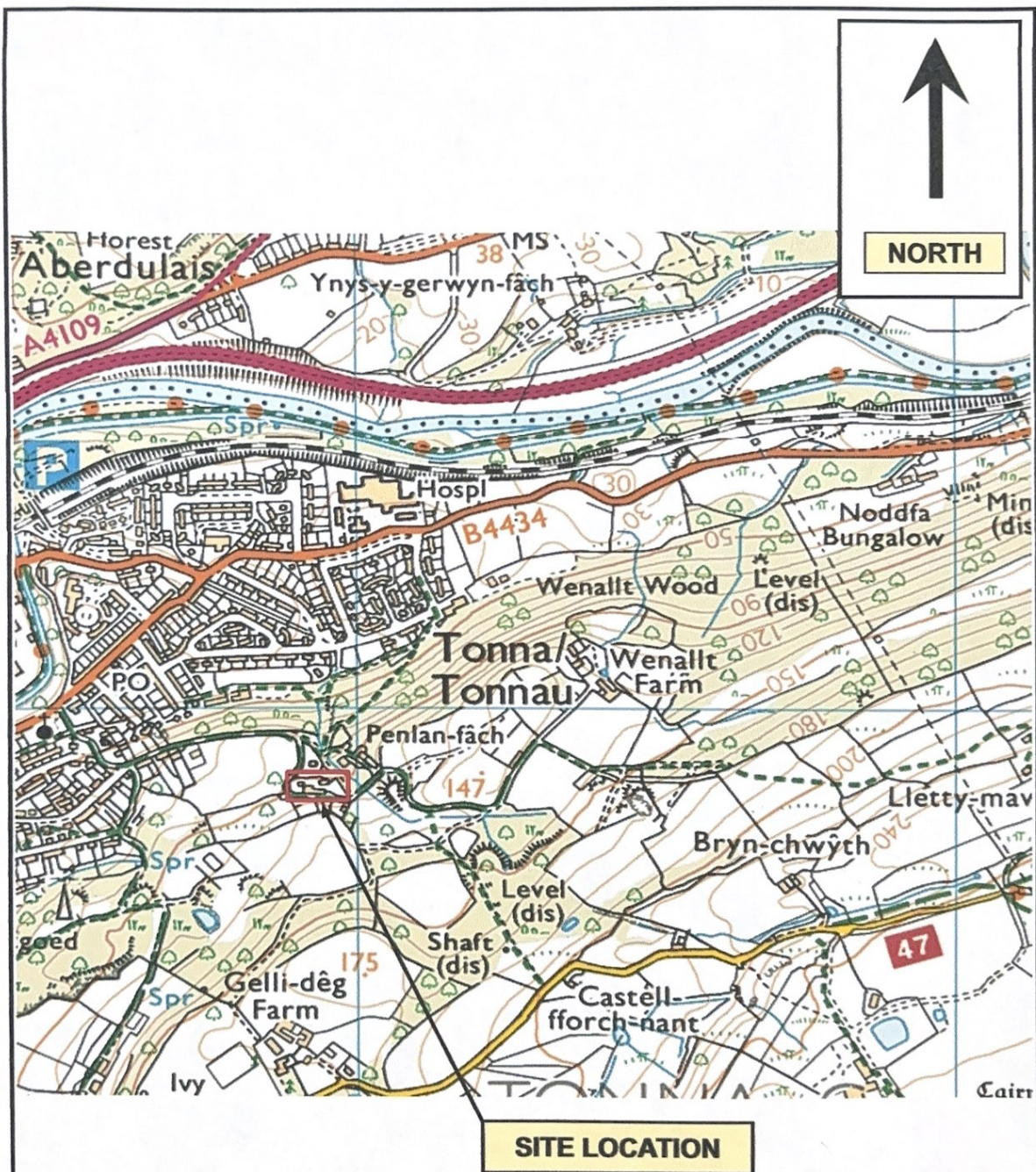
Client: Hannah and Matthew Rees

Job No.: 12800

Scale: NTS

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Géotechnique

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Figure 1 - Site Location

12800 - Wenallt Road Tonna

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