

GroundSolve Ltd

Consulting Geotechnical, Engineering Geology and Environmental Engineers.

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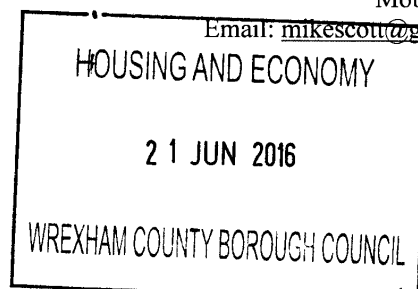
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Angela Guy
Public Protection Service
Wrexham County Borough Council
Ruthin Road
Wrexham LL13 7TU



20th June 2016

Dear Angela,

RE: TOTAL FITNESS, STANSTY ROAD, WREXHAM

Thank you for your letter of the 1st June 2016, Reference P/2015/0812. In reply to your queries we have the following response.

1. We have revisited the desk study and site investigation and have no evidence, either from the historical plans or the ground conditions encountered that the railway line extended onto site.
2. As mentioned in our report, it is not possible to investigate the tank position, as it is in the middle of the access to Total Fitness. WS 04 recorded 0.75m of made ground, which comprised the capping layer for the car park construction, which was constructed immediately on top of the clay. However, as requested the work recommended in the report is presented in the attached Remediation Strategy.
3. Agreed.
4. It is intended to use imported topsoil only due to the lack of topsoil on site, see attached remediation strategy.

We trust this is satisfactory, should you have any queries please call Mike Scott on 01244 661361.

Yours sincerely

M J Scott

Enc.

CC Mike Forgrave Gower Homes

TOTAL FITNESS – REMEDIATION STRATEGY

1. Groundsolve Ltd (GSL). has been instructed to provide details relating to the remediation strategy for the above referenced contract. Phase I & Phase II Geo-environmental Reports were carried out by Ian Farmer Associates for the Total Fitness Site. Subsequent to these reports GSL have submitted a Geo-environmental report for the section of site that is to be developed, with Total Fitness staying in operation to the south of the development site.
2. The development on site will comprise a mix of conventional housing, with associated garden areas.

Background

3. The GSL report failed to reveal any contaminative land use at the site; however, it did reveal the presence of an old fuel tank in the southern section of the site.
4. A nearby borehole (WS 04) revealed that the ground conditions in this area comprised granular capping and car park construction, resting directly on top of the underlying glacial till.
5. The report concluded that it would not be possible to investigate the tank location, as it would block access to Total Fitness. Investigation of this area will therefore have to wait until the contractor mobilises to site and is able to divert traffic away for the Total Fitness access. The tank location is beneath the proposed access road for the new development.
6. A remediation strategy is therefore required to address the risks from soil contamination.
7. Remediation measures will require verification and validation.

Tank Validation

8. During development of the site it will be necessary to divert the existing access road for Total Fitness. It will also be necessary to construct service trenches through this area. These trenches can then be used as investigation points and the trenches inspected by engineers from GSL and samples taken for the same testing suite used during the investigations, such as TPHCWG, PAH, Phenol, heavy metals, non-metals etc. samples will be taken from both the underlying glacial till and any made ground encountered.
9. The Local Authority Contaminated Land officer will also be invited to inspect this excavation.
10. Following receipt of the test results a risk assessment will be carried out and submitted to the Local Authority, along with recommendations.

Remediation Strategy: Soil

11. Remediation is not proposed in areas where buildings and hardstanding will be constructed.

12. Garden and landscaped areas shall be covered with clean imported topsoil some 200mm thick. The existing topsoil on site is not considered suitable for the garden areas and will be taken off site to a suitable licensed landfill site.
13. The suitability of the imported topsoil should be verified as follows:
- (i) All imported material must be obtained from a reputable source and the supplier should provide a certificate of analysis confirming the chemical and physical nature of the material.
 - (ii) Independent analysis should be undertaken on the material after it has been imported to the site in order to confirm its chemical composition. Samples must be analysed in an accredited laboratory and results compared against the guideline criteria specified in the previous reports.
 - (iii) Testing should be carried out on at least one sample per discrete garden area. These samples should be obtained from the material after importation to site. If the material can be demonstrated to be from a “greenfield source” then consideration may be given to reducing the required number of samples. The sampling and analysis regime will be agreed in advance with the contaminated land officer of WCBC and be in line with current Welsh Government guidance.
14. The depth of topsoil placed should be verified as follows:
- (i) In-situ testing of depth of cover (hand dug excavation). Hand dug excavation for confirmation of depth may be combined with obtaining samples for analysis.
15. A watching brief should be carried out during the development to manage any potential unforeseen areas of contamination. These may be identifiable by material type, colour or smell. The remediation of unforeseen areas of contamination should be determined depending on type and extent of contamination.

Validation: Soil

16. The remediation strategy should be supported by a Validation Report, which is to be produced following completion of the works.
17. The report should include details of material removed and imported to the site, results of chemical testing on imported soil, site plans and photographs.
18. Validation of soil remediation will be required as follows:
- (i) Suitability of material;
 - i. Evidence of source of material including transport dockets,
 - ii. Suppliers certificates of chemical and physical analysis of material,

- iii. Certificates of independent analysis of material sampled from site,
 - iv. Confirmation that the imported material is suitable for use.
- (ii) Adequate thickness of cover
- i. Scaled photographs of hand dug excavations in sufficient detail to show depth,
 - ii. Trial pit log of material types and depths,
 - iii. Original ground level and formation level survey data if available.

19. The following additional material should also be incorporated into the validation report:

- (i) As built site layout clearly showing areas of buildings, hard cover and imported landscaping materials.
- (ii) Confirmation that no previously unforeseen, significant sources of contamination have been encountered.

All works shall be agreed in advance with the regulating Local Authority and all documentation submitted to them in respect of any relevant outstanding planning conditions.