Private Plan Change Request – Hughes Developments Limited Appendix E – Preliminary Site Investigation, Soil Contamination





27 November 2019

Mr Kelvin Back Hughes Developments Ltd 8 Mill Lane Merivale Christchurch 8014

Dear Kelvin

RE: Summary of Environmental Investigations - Faringdon West, Rolleston, Canterbury (Our Reference: 12903.000.000_77)

1 Introduction

ENGEO Ltd was requested by Hughes Developments Ltd to provide a summary of environmental investigations for the property at Faringdon West, Rolleston, Canterbury. The purpose of the letter is to summarise several environmental preliminary site investigation (PSI) and detailed site investigation (DSI) reports previously completed by ENGEO. This document should be considered supplementary to the reports outlined below and the full reports should be consulted for further detail.

2 Site Description

We understand that the Faringdon South East development is the area bordered by Selwyn and Springston Rolleston Roads, south east of the existing Faringdon Development. The approximate site location is shown in Appendix 1 of this report. ENGEO has previously completed the following environmental reports within this site:

- 583 East Maddisons Road dated 1 December 2017.
- 523 East Maddisons Road dated 22 May 2018.
- 533 East Maddisons Road & 870 Goulds Road dated 27 September 2018.
- 503 East Maddisons Road dated 14 December 2018.
- 830 Selwyn Road dated 13 December 2018.
- 479 East Maddisons Road dated 16 May 2019
- 844 Selwyn Road dated 19 July 2019.



3 Environmental Investigation Summary

A summary of the environmental works to date are included in Table 1 below.

Table 1: Summary of Environmental Works

| Address | Phase | Work required |
|----------------------------|--|--|
| 583 East Maddisons Road | PSI completed, no areas of concern. | Asbestos demolition survey of buildings required as constructed prior to 2000. |
| 523 East Maddisons Road | PSI completed, two areas identified - burn pits. | DSI for burn pits. Asbestos demolition survey of buildings required as constructed prior to 2000 – include sampling of PACM material located on concrete pad in southern paddock |
| 503 East Maddisons Road | PSI and DSI completed. Burn pit area above NES human health for residential land use. | Remediation of burn pit, RAP and SVR required. |
| 479 East Maddisons Road | PSI completed, two offal pits and small burn pit identified. | DSI for offal pits and small burn pit required. Asbestos demolition survey of buildings required as constructed prior to 2000. |
| 844 Selwyn Road | PSI completed, one offal pit identified. | DSI for offal pit required. |
| 830 Selwyn Road | PSI completed, no areas identified. | NA |
| 533 East Maddisons Road | PSI completed, no areas identified. | NA |
| 870 Goulds Road | PSI completed, one waste pit identified. | DSI for burn pit required. |

4 Environmental Recommendations

Going forward, it is recommended that detailed site investigations be undertaken at 523 East Maddisons Road, 479 East Maddisons Road, 844 Selwyn Road and 870 Goulds Road for the various areas of concern. Dependent on the findings of the DSI, a remedial action plan or site management plan should be drafted to manage or remediate the soils on-site, followed by a soil validation report (required for these sites as 503 East Maddisons burn pit requires remediation prior to redevelopment). It is also recommended that an additional sample be collected from 503 East Maddisons to assess whether additional potentially contaminated material has been burnt off after sampling in December 2018. These reports outlined above should be undertaken by a suitably qualified environmental practitioner (SQEP).



It is recommended due to the age of the buildings on site that asbestos demolition surveys are undertaken at 583 East Maddisons Road, 523 East Maddisons Road and 479 East Maddisons Road. The Health and Safety at Work (Asbestos) Regulations 2016 state if a building constructed or installed prior to January 2000 requires demolition or refurbishment, a full asbestos survey must be undertaken by a competent person.

5 Limitations

- i. We have prepared this report in accordance with the brief as provided. This report has been prepared for the use of our client, Hughes Developments Ltd, their professional advisers and the relevant Territorial Authorities in relation to the specified project brief described in this report. No liability is accepted for the use of any part of the report for any other purpose or by any other person or entity.
- ii. The recommendations in this report are based on the ground conditions indicated from published sources, site assessments and subsurface investigations described in this report based on accepted normal methods of site investigations. Only a limited amount of information has been collected to meet the specific financial and technical requirements of the Client's brief and this report does not purport to completely describe all the site characteristics and properties. The nature and continuity of the ground between test locations has been inferred using experience and judgement and it should be appreciated that actual conditions could vary from the assumed model.
- iii. Subsurface conditions relevant to construction works should be assessed by contractors who can make their own interpretation of the factual data provided. They should perform any additional tests as necessary for their own purposes.
- iv. This Limitation should be read in conjunction with the Engineering NZ / ACENZ Standard Terms of Engagement.
- ٧. This report is not to be reproduced either wholly or in part without our prior written permission.

We trust that this information meets your current requirements. Please do not hesitate to contact the undersigned on (03) 328 9012 if you require any further information.

Report prepared by

Report reviewed by

Principal Environmental Consultant

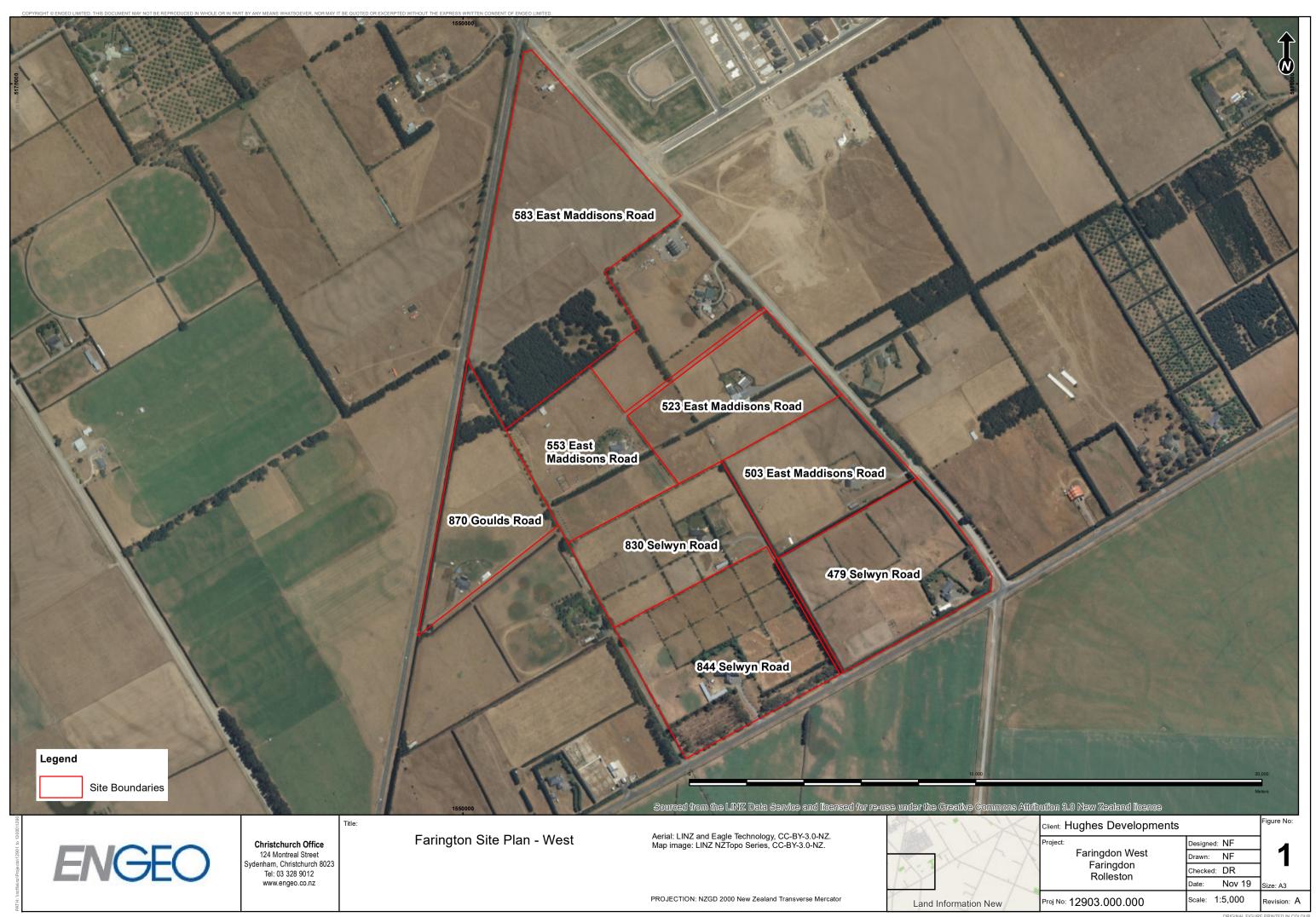
Natalie Flatman

Environmental Scientist

Dave Robotham, CEnvP SC

Attachments: Figure of Sites







27 November 2019

Mr Kelvin Back Hughes Developments Ltd 8 Mill Lane Merivale Christchurch 8014

Dear Kelvin

RE: Summary of Environmental Investigations - Faringdon Southeast, Rolleston,

Canterbury

(Our Reference: 12903.000.000_76)

1 Introduction

ENGEO Ltd was requested by Hughes Developments Ltd to provide a summary of environmental investigations for the properties at Faringdon Southeast, Rolleston, Canterbury. The purpose of the letter is to summarise several environmental preliminary site investigation (PSI) and detailed site investigation (DSI) reports previously completed by ENGEO. This document should be considered supplementary to the reports outlined below and the full reports should be consulted for further detail.

2 Site Description

We understand that the Faringdon Southeast development is the area bordered by Selwyn and Springston Rolleston Roads, southeast of the existing Faringdon Development. The approximate site location is shown in Appendix 1 of this report. ENGEO has previously completed the following environmental reports within this site:

- 417 Springston Rolleston Road dated 13 December 2016.
- 694 Selwyn Road dated 13 December 2016.
- 728 Selwyn Road dated 17 May 2017.
- 700 Selwyn Road dated 1 May 2017.
- 708 & 710 Selwyn Road dated 3 October 2019.



3 Environmental Investigation Summary

A summary of the environmental works undertaken to date are included in Table 1 below.

Table 1: Summary of Environmental Works

| Address | Phase | Work required |
|----------------------------------|---|--|
| 417 Springston Rolleston Road | PSI completed, two areas identified – rubbish pit and burn off area. | DSI for rubbish pit & burn off area. Asbestos demolition survey of buildings required as constructed prior to 2000. |
| 694 Selwyn Road | DSI completed – no exceedances reported against residential criteria. | Asbestos demolition survey of buildings required as constructed prior to 2000. |
| 700 Selwyn Road | PSI completed, burn pit identified. | DSI for burn pit. Asbestos demolition survey of buildings required as constructed prior to 2000. |
| 708 Selwyn Road | DSI completed | One area of land disturbance (potential waste offal pit) required to be excavated. |
| 710 Selwyn Road | DSI completed | No exceedances against the NES. |
| 728 Selwyn Road | PSI completed, no areas of concern. | NA |

4 Environmental Recommendations

Going forward, it is recommended that a detailed site investigations be undertaken at 417 Springston Rolleston Road, 700 Selwyn Road and 708 Selwyn Road of the various areas of potential concern identified in the PSIs. Dependent on the findings of the DSI, a remedial action plan or site management plan should be drafted to manage or remediate the soils on-site, followed by a soil validation report (if applicable). These reports outlined above should be undertaken by a suitably qualified environmental practitioner (SQEP)

It is recommended due to the age of the buildings present that asbestos demolition surveys are undertaken on 417 Springston Rolleston Road, 694 Selwyn Road and 700 Selwyn Road. The Health and Safety at Work (Asbestos) Regulations 2016 state if a building constructed or installed prior to January 2000 requires demolition or refurbishment, a full asbestos survey must be undertaken by a competent person.



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Report prepared by

Natalie Flatman

Environmental Scientist

Report reviewed by

Dave Robotham, CEnvP SC

Principal Environmental Consultant

Attachments:

Figure of Sites



