



Refurbishment Demolition Asbestos Survey



Client: Oxygen Environmental
Merrywell Ind. Est.
Ballymount
Dublin 22

Contact: Brian Moylan

Site Address: Derryarkin
Co. Offaly

Date: 14th December 2020

Surveyor: Neal Christopher

Survey No.: 2011031

Report Issue: Final

Contents Page

Cover Page	1
Contents Page	2
1. Executive Summary	3
2. Introduction	4
3. Survey Type	5
4. Survey Methodology	6
5. Sample Analysis	6
6. Asbestos Containing Materials in Buildings	7-8
7. Material Assessment Algorithms	9
8. Asbestos data sheets	10-14
9. Laboratory Analysis Results	15
10. Asbestos Register	16
11. Specific Exclusions and Caveats	17
12. Legislation and Code of Practice	17
13. Conclusions and Recommendations	17
14. Drawings	18

1. Executive Summary

A Refurbishment Demolition Asbestos Survey has been undertaken to farm buildings @ Derryarkin, Co. Offaly by Asbestos Safe. The survey was intrusive and was limited to accessible areas.

The survey was carried out by Neal Christopher and completed on 23rd November 2020.

During the survey the following Asbestos Containing Materials (ACMs) were identified:

Sample No.	Relevant Report Section	Location – Description	Result	Material Assessment Algorithm
2011031-01	8	Main shed roof – Asbestos Cement sheeting	Chrysotile	4
2011031-02	8	Main shed roof – Asbestos Cement ridge cappings	Chrysotile	4
	8	Main shed – Asbestos Cement debris	Strongly Presumed Asbestos	8
2011031-03	8	Shed 2 roof – Asbestos Cement sheeting	Chrysotile	4

No other Asbestos Containing Materials (ACMs) were detected during the survey.

This report cannot be used for contractual or engineering purposes unless this sheet is signed where indicated by the surveyor. The report must also be designated 'final' on the cover sheet.

Please note that Asbestos Safe cannot be held responsible for the way in which a client interprets or acts upon the results.

This report must be read in its entirety including any appendices. Asbestos Safe accepts no responsibility for sub-division of this report.

This report is for the sole use of Oxigen Environmental and can be assigned to any third party, with the expressed written consent of Asbestos Safe.

Signed:



Date: 14th December 2020

2. Introduction

Asbestos Safe have carried out a refurbishment demolition asbestos survey to farm buildings @ Derryarkin, Co. Offaly on the 23rd November 2020.

Asbestos Safe have been requested to provide the following services:

- To provide an experienced asbestos survey team to site to carry out a refurbishment demolition asbestos survey, as outlined in HSG 264 Asbestos: The Survey Guide.
- To take representative samples of any materials suspected of containing asbestos and to analyse these in accordance with HSE document HSG 248 – ‘Asbestos: The analysts’ guide for sampling, analysis and clearance procedures’.
- To prepare a detailed written report showing the location, extent and condition of all identified asbestos installations along with any remedial recommendations necessary.
- The data from the reports will also be used to assist in the customer’s duty to manage asbestos and to provide suitable & sufficient risk assessments for staff & contractors.

NOTE: Material risk assessment scores have been included in this report to assist the customer in future management plans.

This document was written by Neal Christopher on 14th December 2020.

This survey report must be read in conjunction with any other associated asbestos survey reports, and also read in conjunction with Section 1 Executive Summary, 8 Asbestos Data Sheets, 9 Laboratory Analysis Results, 10 Asbestos Register, 11 Specific Exclusions and Caveats, and 13 Conclusions and Recommendations.

3. Survey Type

Management Survey

A management survey is the standard survey. Its purpose is to locate, as far as reasonably practicable, the presence and extent of any suspect ACMs in the building which could be damaged or disturbed during normal occupancy, including foreseeable maintenance and installation, and to assess their condition.

Management surveys will often involve minor intrusive work and some disturbance. The extent of intrusion will vary between premises and depend on what is reasonably practicable for individual properties, ie it will depend on factors such as the type of building, the nature of construction, accessibility etc. A management survey should include an assessment of the condition of the various ACMs and their ability to release fibres into the air if they are disturbed in some way. This 'material assessment' will give a good initial guide to the priority for managing ACMs as it will identify the materials which will most readily release airborne fibres if they are disturbed.

The survey will usually involve sampling and analysis to confirm the presence or absence of ACMs. However, a management survey can also involve presuming the presence or absence of asbestos. A management survey can be completed using a combination of sampling ACMs and presuming ACMs or, indeed, just presuming. Any materials presumed to contain asbestos must also have their condition assessed (ie a material assessment).

Refurbishment & Demolition Survey

A refurbishment and demolition survey is needed before any refurbishment or demolition work is carried out. This type of survey is used to locate and describe, as far as reasonably practicable, all ACMs in the area where the refurbishment work will take place or in the whole building if demolition is planned. The survey will be fully intrusive and involve destructive inspection, as necessary, to gain access to all areas, including those that may be difficult to reach. A refurbishment and demolition survey may also be required in other circumstances, eg when more intrusive maintenance and repair work will be carried out or for plant removal or dismantling.

In this type of survey, the asbestos is identified so it can be removed (rather than managed). This survey does not normally assess the condition of the asbestos, other than to indicate areas of damage or where additional asbestos debris may be present. Where the materials sampled are found to contain asbestos, other similar materials or components have been presumed to contain asbestos. As part of the Refurbishment & Demolition Survey the current condition of any proven or presumed ACMs will be recorded. Any urgent remedial works required to reduce the risk of exposure to airborne asbestos fibres will be highlighted. Any areas which need further investigation will also be highlighted.

4. Survey Methodology

The external and internal areas were inspected to visually locate those materials suspected of containing asbestos. Where required, representative samples of materials suspected of containing asbestos were taken in a safe and controlled manner as per guidelines set out in HSG 264. Materials of a similar type were representatively sampled on the assumption that surfaces identical to a sampled location were of a similar composition.

5. Sample Analysis

Bulk samples of suspected Asbestos Containing Materials were taken to determine the nature and extent of the material, and the results of the laboratory analysis can be found in section 8. Laboratory Analysis Results. The bulk sampling was carried out in accordance HSG 248 Asbestos: The analysts' guide for sampling, analysis and clearance procedures. Samples were taken in grip seal bags and the sample location has been safely sealed to reduce the risk of airborne asbestos fibre release.

Sample analysis was carried out by UKAS accredited laboratory G&L Consultancy Ltd. The analysis of the bulk samples is conducted using polarised light microscopy.

Photographs were taken of all sample locations unless otherwise stated. Materials of a similar type were only occasionally sampled, as it was assumed that other similar materials visually inspected were of a similar composition.

6. Asbestos Containing Materials in Buildings (ACMs)

Sprayed coatings applied in Ireland were typically a mixture of hydrated asbestos cement containing up to 85% asbestos, mainly amosite but crocidolite and mixtures have been used. Primarily used for anti-condensation and acoustic control and fire protection to structural steelwork. It is a friable material but if in a good condition and unlikely to be disturbed presents no immediate danger, however it is likely to release fibres, if disturbed especially during repair and maintenance work. As it ages the binding medium of sprayed asbestos may degrade with the consequent release of more fibres.

Thermal insulation to boilers, vessels, pipe work, valves, pumps etc also known as hand applied lagging. Lagging may have a protective covering of cloth, tape, paper, metal or a surface coating of cement. All types of asbestos may be found in lagging and the content can vary between 15 and 85% asbestos with the protective papers being up to 100% chrysotile. The likelihood of fibre release depends upon its composition, friability and state of repair, but it is particularly susceptible to damage and disturbance through maintenance work or the action of water leaks.

Asbestos insulating boards usually contain between 16 to 40% amosite, although boards may be found to contain other types of asbestos and in other quantities. Insulating boards were developed in the 1950s to provide an economical, lightweight, fire resisting insulating material. As insulation board is semi-compressed it is more likely to release fibres as a result of damage or abrasion. Work on asbestos insulation board can give rise to high levels of asbestos fibre.

Asbestos cement products as in roofing slates, wall cladding, permanent shuttering, flue, rain water and vent pipes generally contain 10 to 15% of asbestos fibre bounded in Portland cement, some flexible boards contain a small proportion of cellulose. All three types of asbestos have been used in the manufacture of asbestos cement. The asbestos fibres in asbestos cement are usually firmly bound in the cement matrix and will be released only if the material is mechanically damaged or as it deteriorates with age.

Ropes seals and yarns are usually high in asbestos content, approaching 100% and all three types of asbestos have been used in their manufacture. They were used as in the pipe lagging process and in pipe jointing and also for packing materials as in heat/fire resistant boiler, oven and flue sealing or anywhere thermal or fire protection was required. The risk of fibre release depends upon the structure of the material; bonded gasket material is unlikely to release asbestos but an unbonded woven material may give rise to high fibre release especially if when damaged or frayed.

Cloth, thermal insulation and lagging including fire resistant blankets, mattresses and protective curtains, gloves, aprons, overalls etc. All types of asbestos have been used in the manufacture but since the mid 60's the majority has been chrysotile, the content of which can be up to 100 %.

Millboard, paper and CAF gaskets usually have an asbestos content approaching 100% with all three types of asbestos being used in their manufacture. They were used for insulation of electrical equipment and for thermal insulation. Asbestos paper has been used as a laminate for fireproofing to various fibre panels. These materials are on some occasions not well bonded and will release asbestos fibres if subject to abrasion and wear.

Bitumen felts, coatings and sink pads may contain asbestos either bound in the bitumen matrix or as an asbestos paper liner. These materials are not likely to present a hazard during normal installation or use but, should be removed and disposed of in compliance with any regulation applicable.

Thermoplastic floor tiles can contain up to 25% asbestos usually chrysotile, PVC vinyl floor tiles and unbacked PVC flooring normally 7-10% chrysotile and asbestos paper backed PVC flooring the paper backing may contain up to 100% chrysotile. Fibre release is not normally an issue but may occur when the material is cut or subjected to abrasion.

Textured coatings or decorative coatings on walls and ceilings usually contain 3-5% chrysotile. Fibre release may occur when subjected to abrasion.

Mastics, sealants, putties and floor tile adhesives may contain small amounts of asbestos. The only possible risk is from sanding of hardened material when appropriate precautions should be taken.

Reinforced plastic and resin composites, used for toilet cisterns, seats, banisters, window seals, lab bench tops, brakes and clutches in machines. The plastics usually contain 1-10% chrysotile and were used in for example car batteries to improve the acid resistance. Resins may contain between 20 and 50% amosite, but because of its composition fibre release is likely to be low.

7. Material Assessment Algorithms

HSG 264 calls for all samples identified as being ACMs to be subject to a Material Assessment Algorithm, in order to assess the potential for fibre release when subject to a standard disturbance. The factors to be considered are;

A	Product Type	Scored 1-3
B	Extent of Damage or Deterioration	Scored 0-3
C	Surface Treatment	Scored 0-3
D	Asbestos Type	Scored 1-3

For each of these factors a score is allocated and the results are added together to give a result between 0 and 12. Scores are interpreted as follows:

<5:	Very Low
5-6:	Low
7-9:	Medium
>9:	High

This material assessment purely assesses the condition of the material. It identifies the materials that present a higher risk of fibre release if disturbed. This algorithm does not automatically mean that those materials with a higher score should be given a higher priority for remedial work. Rather, this score should be considered along with other factors involved, such as the location of the material (for example; outside, inside, in plant areas, by or in ventilation systems), its extent, occupancy and the type of activity likely to affect it. Factors effecting such activity are, for example, that it may be only accessed during major works or alternatively, occupants undertake actions which may easily disturb it during everyday activity.

8. Asbestos Data Sheets





ASBESTOS SAFETY DATA SHEET

Survey No.	2011031
Survey Type	RDAS
Survey Date	23/11/20
Surveyor	Neal Christopher
Client Name	Oxygen Environmental
Site Address	Farm buildings Derryarkin Co. Offaly
Location	Main shed roof
Sample Range	2011031-01



MATERIAL ASSESSMENT ALGORITHM

Product type	Asbestos Cement sheeting	Score	1
Extent of damage/deterioration	Low damage	Score	1
Surface treatment	AC products	Score	1
Asbestos type	Chrysotile	Score	1
		Total	4

PRIORITY ASSESSMENT ALGORITHM

Normal Occupancy Activity			
Main type of activity in area	N/A	Score	
Secondary activities for area	N/A	Score	
		Average	
Likelihood of disturbance			
Location	N/A	Score	
Accessibility	N/A	Score	
Extent/amount	1100m2 approx.	Score	
		Average	
Human Exposure Potential			
Number of occupants	N/A	Score	
Frequency of use of area	N/A	Score	
Average time area is in use	N/A	Score	
		Average	
Maintenance Activity			
Type of maintenance activity	N/A	Score	
Frequency of maintenance activity	N/A	Score	
		Average	
		Total	4
Total Material Assessment & Priority Assessment Score			4

RECOMMENDATIONS

The Asbestos Cement sheeting, located on the roof and gable ends of the main shed, contains Chrysotile asbestos. The sheeting has a low level of damage and poses a very low risk. The AC sheeting should be removed by a competent asbestos contractor prior to demolition works. The resulting waste should be disposed of as 'Asbestos Waste' at a licensed facility. On completion of the works a Certificate of Reoccupation should be issued by an independent asbestos analyst.



ASBESTOS SAFETY DATA SHEET

Survey No.	2011031
Survey Type	RDAS
Survey Date	23/11/20
Surveyor	Neal Christopher
Client Name	Oxygen Environmental
Site Address	Farm buildings Derryarkin Co. Offaly
Location	Main shed roof
Sample Range	2011031-02



MATERIAL ASSESSMENT ALGORITHM

Product type	Asbestos Cement ridge cappings	Score	1
Extent of damage/deterioration	Low damage	Score	1
Surface treatment	AC products	Score	1
Asbestos type	Chrysotile	Score	1
		Total	4

PRIORITY ASSESSMENT ALGORITHM

Normal Occupancy Activity

Main type of activity in area	N/A	Score	
Secondary activities for area	N/A	Score	
		Average	

Likelihood of disturbance

Location	N/A	Score	
Accessibility	N/A	Score	
Extent/amount	4OLM approx.	Score	
		Average	

Human Exposure Potential

Number of occupants	N/A	Score	
Frequency of use of area	N/A	Score	
Average time area is in use	N/A	Score	
		Average	

Maintenance Activity

Type of maintenance activity	N/A	Score	
Frequency of maintenance activity	N/A	Score	
		Average	
		Total	4

Total Material Assessment & Priority Assessment Score

RECOMMENDATIONS

The Asbestos Cement ridge cappings, located on the gable ends of the main shed, contains Chrysotile asbestos. The ridge cappings have a low level of damage and pose a very low risk. The AC ridge cappings should be removed by a competent asbestos contractor prior to demolition works. The resulting waste should be disposed of as 'Asbestos Waste' at a licensed facility. On completion of the works a Certificate of Reoccupation should be issued by an independent asbestos analyst.



ASBESTOS SAFETY DATA SHEET

Survey No.	2011031
Survey Type	RDAS
Survey Date	23/11/20
Surveyor	Neal Christopher
Client Name	Oxygen Environmental
Site Address	Farm buildings Derryarkin Co. Offaly
Location	Main shed surround
Sample Range	



MATERIAL ASSESSMENT ALGORITHM

Product type	Asbestos Cement debris	Score	1
Extent of damage/deterioration	High damage	Score	3
Surface treatment	AC products	Score	1
Asbestos type	Strongly Presumed Asbestos	Score	3
		Total	8

PRIORITY ASSESSMENT ALGORITHM

Normal Occupancy Activity

Main type of activity in area	N/A	Score	
Secondary activities for area	N/A	Score	
		Average	

Likelihood of disturbance

Location	N/A	Score	
Accessibility	N/A	Score	
Extent/amount	Unknown	Score	
		Average	

Human Exposure Potential

Number of occupants	N/A	Score	
Frequency of use of area	N/A	Score	
Average time area is in use	N/A	Score	
		Average	

Maintenance Activity

Type of maintenance activity	N/A	Score	
Frequency of maintenance activity	N/A	Score	
		Average	
		Total	8

Total Material Assessment & Priority Assessment Score

RECOMMENDATIONS

The Asbestos Cement debris, surrounding the main shed, is strongly presumed to contain asbestos. The debris has a high level of damage and poses a medium risk. The AC debris should be removed by a competent asbestos contractor prior to demolition works. The resulting waste should be disposed of as 'Asbestos Waste' at a licensed facility. On completion of the works a Certificate of Reoccupation should be issued by an independent asbestos analyst.



ASBESTOS SAFETY DATA SHEET

Survey No.	2011031
Survey Type	RDAS
Survey Date	23/11/20
Surveyor	Neal Christopher
Client Name	Oxygen Environmental
Site Address	Farm buildings Derryarkin Co. Offaly
Location	Shed 2
Sample Range	2011031-03



MATERIAL ASSESSMENT ALGORITHM

Product type	Asbestos Cement sheeting	Score	1
Extent of damage/deterioration	Low damage	Score	1
Surface treatment	AC products	Score	1
Asbestos type	Chrysotile	Score	1
		Total	4

PRIORITY ASSESSMENT ALGORITHM

Normal Occupancy Activity

Main type of activity in area	N/A	Score	
Secondary activities for area	N/A	Score	
		Average	

Likelihood of disturbance

Location	N/A	Score	
Accessibility	N/A	Score	
Extent/amount	130m2 approx.	Score	
		Average	

Human Exposure Potential

Number of occupants	N/A	Score	
Frequency of use of area	N/A	Score	
Average time area is in use	N/A	Score	
		Average	

Maintenance Activity

Type of maintenance activity	N/A	Score	
Frequency of maintenance activity	N/A	Score	
		Average	
		Total	4

Total Material Assessment & Priority Assessment Score

RECOMMENDATIONS

The Asbestos Cement sheeting, located on the roof of shed 2, contains Chrysotile asbestos. The sheeting has a low level of damage and poses a very low risk. The AC sheeting should be removed by a competent asbestos contractor prior to demolition works. The resulting waste should be disposed of as 'Asbestos Waste' at a licensed facility. On completion of the works a Certificate of Reoccupation should be issued by an independent asbestos analyst.

9. Laboratory Analysis Results



BULK MATERIAL SAMPLE REPORT			
Reference No:	J639368	Client Order No:	N/A
Date Received:	30 Nov 2020		
Client Name and Address:	Asbestos Safe (IE), 66 Hollystown Park, Hollystown, Dublin D15 N8X0		
Site Address:	Derryarkin, Co. Offaly		
Sampling Officer:	Asbestos Safe (IE)		
Date of Analysis:	1 Dec 2020		
Analyst:	David McNaugher		
Approving Officer:	Laura Webb	Signed:	
Issue Date:	1 Dec 2020		

ANALYSIS RESULTS

Sampling carried out by our own officers follows the procedures documented in our internal method M3: The Sampling of Bulk Materials, for Analysis to Determine the Presence of Asbestos. These samples have been analysed in accordance with internal method M2: The Identification of Asbestos, within Bulk Materials, by the Use of Optical Microscopy. Both these internal methods are based on the standard method as outlined in the HSE Document 'Asbestos: The analysts' guide for sampling, analysis and clearance procedures. Any deviations from these standard methods will be recorded in this report. No responsibility is taken for sampling that is not carried out by own officers. Opinions and interpretations expressed herein are outside the scope of our UKAS accreditation. Any comments regarding percentage content is outside the scope of our UKAS accreditation. The material classification is the opinion of the analyst, based on the samples' appearance, as received, and may not accurately reflect the source material on site. All samples are analysed at one of our UKAS accredited laboratories in Somerset or Northern Ireland. This report must not be reproduced, except in full, without the written permission of the laboratory. These samples will be retained within this laboratory for a period of six months prior to disposal at a licensed asbestos disposal site, unless the client makes alternative arrangements. For advice concerning these materials, risk assessments, removal procedures or information regarding the current legislation for work with asbestos containing materials, please contact G&L Consultancy Ltd.

Site Ref	Lab Ref	Description	Analysis Result	Classification
2011031-01	BS181628	Main shed - AC sheeting	Chrysotile	Asbestos Cement
2011031-02	BS181629	Main shed - AC ridge capping	Chrysotile	Asbestos Cement
2011031-03	BS181630	Shed 2 - AC sheeting	Chrysotile	Asbestos Cement

G&L Consultancy Ltd

54A Huntly Road, Banbridge, Co. Down, Northern Ireland, BT32 3UA

Tel: 028 4062 3566 Email: ni@gnl.org.uk Web: www.gnl.org.uk

Company Directors: Mrs J Lewis and Mr P Lewis. VAT Registration Number 729 1092 34

Registered Office: Unit 5A, Castle Road, Chelston Business Park, Wellington, Somerset, TA21 9JQ

G&L Consultancy Ltd is a company registered in England and Wales with a Company Number: 3687929



10. Asbestos Register

Sample No.	Relevant Report Section	Location – Description	Qty	Result	Condition	Risk	Material Assessment Algorithm	Recommended Action
2011031-01	8	Main shed roof and gables – Asbestos Cement sheeting	1100m2 approx.	Chrysotile	Low damage	Very low	4	Remove
2011031-02	8	Main shed gables – Asbestos Cement ridge cappings	40LM approx.	Chrysotile	Low damage	Very low	4	Remove
-	8	Main shed surround – Asbestos Cement debris	-	Strongly Presumed Asbestos	High damage	Medium	8	Remove
2011031-03	8	Shed 2 roof – Asbestos Cement sheeting	130m2 approx.	Chrysotile	Low damage	Very low	4	Remove

11. Specific Exclusions and Caveats

- No inspection was carried out on live internal electrical or mechanical plant
- No inspection was carried out of any areas outside the agreed scope of works

All reasonable steps have been taken to ensure that the contents and findings of this report are accurate and true. Although every effort is made to locate all asbestos containing materials, it is impossible to rule out the likelihood that undiscovered asbestos containing materials may be present. If the building is to undergo major refurbishment/demolition, it is recommended that the persons carrying out the work are made aware of this and take sufficient precautions, as may be appropriate, to ensure the health and safety of themselves or their employees and any other parties who may be affected by the works.

12. Legislation and Code of Practice

The Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006 amended 2010, apply to work where there is or maybe asbestos fibres present. These regulations apply to any person or employer working with or removing asbestos.

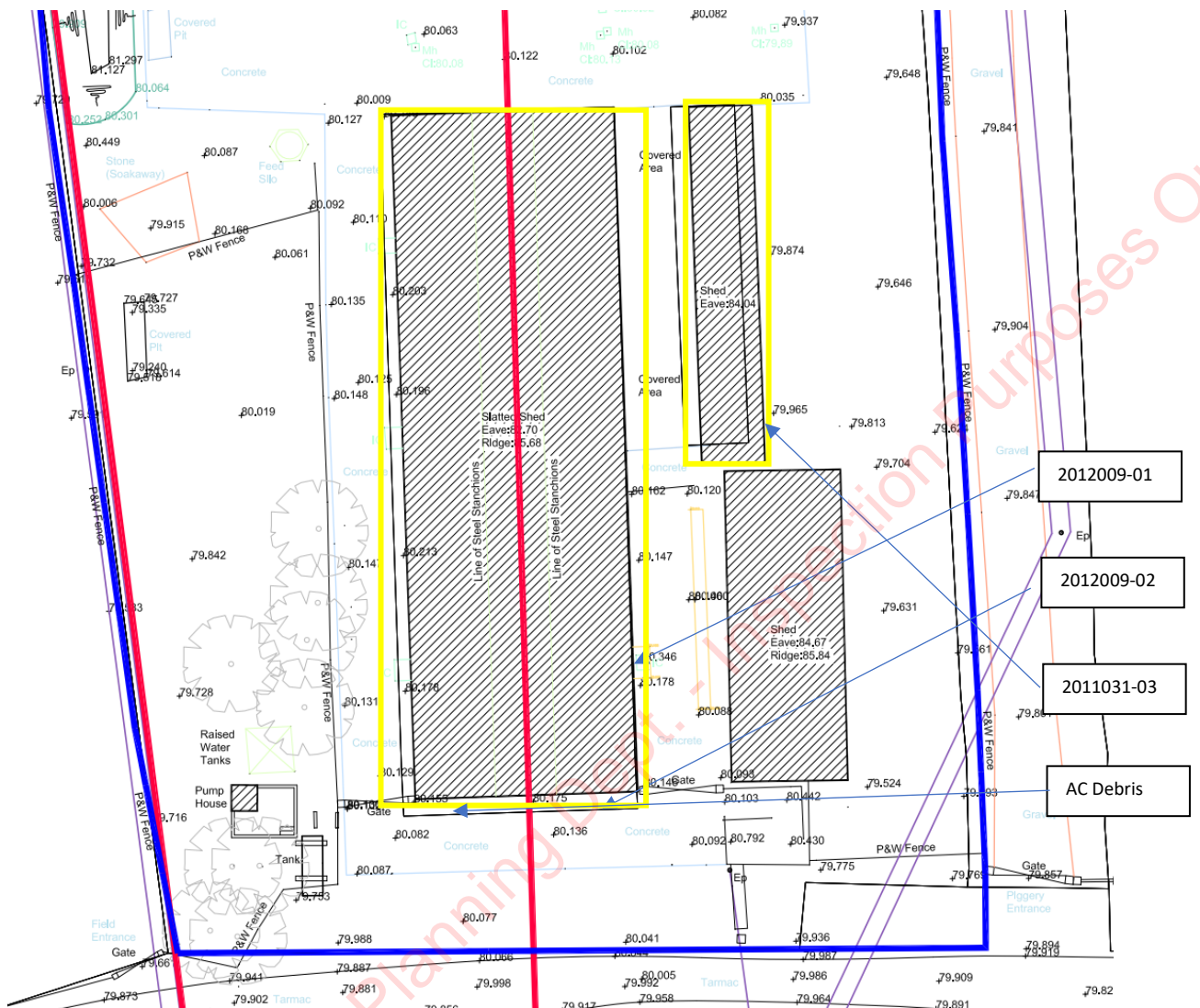
In addition, The Safety, Health and Welfare at Work (Construction) Regulations 2013 also apply to any building, installation, repair, demolition and asbestos removal works.

13. Conclusions and Recommendations

The Asbestos Cement sheeting, ridge cappings and debris, located on the main shed and shed 2, contains Chrysotile asbestos. The ACMs should be removed by a competent asbestos contractor prior to demolition works. The resulting waste should be disposed of as 'Asbestos Waste' at a licensed facility. On completion of the works a Certificate of Reoccupation should be issued by an independent asbestos analyst.

No other Asbestos Containing Materials (ACMs) were detected during survey.

14. Drawings



ACMs marked in yellow