

Intended for

Prysmian Cables and Systems Ltd

Date

October 2022

Project Number

1620013493

PRYSMIAN CABLES, EASTLEIGH UNIT 1 EXTENSION TIER I PRELIMINARY RISK ASSESSMENT

**UNIT 1 EXTENSION TIER I PRELIMINARY RISK
ASSESSMENT
PRYSMIAN CABLES AND SYSTEMS LTD, EASTLEIGH**

Project No. **1620013493**
Issue No. **-**
Date **26/10/2022**
Made by **Elena Henning**
Checked by **Wendy Furgusson**
Approved by **Wendy Furgusson**

This report is produced by Ramboll at the request of the client for the purposes detailed herein. This report and accompanying documents are intended solely for the use and benefit of the client for this purpose only and may not be used by or disclosed to, in whole or in part, any other person without the express written consent of Ramboll. Ramboll neither owes nor accepts any duty to any third party and shall not be liable for any loss, damage or expense of whatsoever nature which is caused by their reliance on the information contained in this report.

Version Control Log

Revision	Date	Made by	Checked by	Approved by	Description
00	26/10/22	EH	WF	WF	Report

CONTENTS

EXECUTIVE SUMMARY	I
1. INTRODUCTION	1
1.1 Background	1
1.2 Scope of Works	1
1.3 Scope of Works Notable Exceptions and Restrictions	1
1.4 The Proposed Development	1
1.5 General Limitations and Reliance	2
1.6 Summary of Previous Assessments	2
2. SITE VISIT	4
2.1 Site Setting	4
2.2 Site Layout and Activities	4
2.3 Bulk Storage of Chemicals and Hazardous Substances	5
2.4 Water, Wastewater and Drainage	5
2.5 Deleterious Materials	5
2.6 Other Issues	5
2.7 Potential for Ground Contamination from Current Uses	6
3. HISTORICAL & REGULATORY INFORMATION	7
3.1 Map History	7
3.2 Anecdotal Information	8
3.3 Proprietary Environmental Database Records	8
3.4 Regulatory Authority Enquiries	10
3.5 Historical Potential for Ground Contamination	10
4. ENVIRONMENTAL SETTING	12
4.1 Geology and Hydrogeology	12
4.2 Coal Mining	13
4.3 Hydrology	13
4.4 Regulatory Flood Designations	14
4.5 Designated Ecological Sites	14
4.6 Environmental Sensitivity and Vulnerability	14
5. QUALITATIVE RISK ASSESSMENT	15
5.1 Legislative Framework	15
5.2 Risk Assessment Framework	15
5.3 Preliminary Risk Assessment	16
6. CONCLUSIONS AND RECOMMENDATIONS	19

LIST OF TABLES

Table 2.1: Adjacent and Surrounding Land Uses	4
Table 3.1: Summary of Key Proprietary Environmental Database Information ..	8
Table 4.1: Summary of Geology and Hydrogeology	12
Table 4.2: Licensed Surface Water Abstractions within 2 km of the Site	13
Table 5.1: Classification of Risk (after NHBC/EA 2008).....	16
Table 5.2: Conceptual Site Model	17

APPENDICES

Appendix 1

Figures

Appendix 2

Photographic Log

Appendix 3

Waste Transfer Notes and WAC testing Information

Appendix 4

Historical Site Photographs

Appendix 5

Selected Historical Maps

EXECUTIVE SUMMARY

Ramboll UK Limited (Ramboll) was instructed by Prysmian Cables and Systems Ltd (the "client"), to undertake a Tier I Preliminary Risk Assessment of a portion of Prysmian Cables and Systems Ltd, Eastleigh (the "site"). This is a follow-on study from a previous Preliminary Risk Assessment for the construction of two prefabricated buildings conducted in December 2021 by Ramboll (Units 1 and 2). The client is considering development of one of these buildings (Unit 1) with an extension to the existing prefabricated warehouse for further commercial/industrial end-use.

The review was undertaken by desk-based research, a site visit and regulatory enquiries. As the previous PRA for the development in the same location was conducted recently and the original site boundaries for the desk based research included the area of the extension, this original information has been used again for this PRA.

The site is located in the wider commercial/industrial property of Prysmian Cables and Systems Ltd approximately 900 m southeast of Eastleigh train station and approximately 100 m southwest of the River Barton and the River Itchen, and occupies an area of approximately 1200 square metres. No works processes are understood to be undertaken on site and no significant contaminant sources have been identified.

The area in the vicinity of the site has historically been used for various commercial and industrial end uses, including gasworks to the northwest and rail works to the south and southwest. The immediate site surroundings were developed as Prysmian Cables and Systems Ltd in several phases of development between 1966 and 1985.

The potential for residual contamination to be present from current and former site uses in the vicinity of the site cannot be ruled out, but is considered to be low. Based on the proposed development comprising the covering of the site area with concrete hardstanding and the construction of a prefabricated building that will not penetrate the slab, it is considered that there is no plausible pathway for any contamination underlying or in the vicinity of the site to adversely affect site end users or the structures of the proposed development. It is also considered that the hardstanding will act to mitigate any effects of the proposed development on the underlying groundwater receptor and that this, combined with the presence of site drainage to capture surface run-off, will successfully mitigate the risk of contamination relating to the proposed site end use affecting the nearby surface watercourses of the River Barton and the River Itchen, which are designated at both a national and European level.

On this basis, it is considered that there is a **low** risk of the proposed development posing a risk to proximate environmental receptors, or site end-users. No further action is considered as necessary at this time.

1. INTRODUCTION

1.1 Background

This report presents the objectives, scope, findings and conclusions of a Tier I Preliminary Risk Assessment (PRA) undertaken for a portion of Prysmian Cables and Systems Ltd, Eastleigh (the 'site', as shown in Figure 1). This is a follow-on study from a previous preliminary risk assessment which was for the construction of two prefabricated buildings, Units 1 and 2. This PRA relates to the development of an extension of one of these buildings, Unit 1, thus the focus of this preliminary risk assessment is now on the extension, so from hereafter 'the site' refers to the extension area only.

This report was prepared by Ramboll UK Limited ("Ramboll") on behalf of Prysmian Cables and Systems Ltd (the "client") and has been prepared in order to support the planning application for the proposed development.

The report forms a Tier 1 Preliminary Risk Assessment under Land Contamination: Risk Management (LCRM, the current government guidelines for investigation of contaminated land).

This assessment has been undertaken with the understanding that the site will undergo redevelopment comprising the construction of a 40 m extension of an existing prefabricated building (Unit 1) for a continued industrial end-use in line with the wider site.

1.2 Scope of Works

The scope of the PRA has included the following:

- i. Examination of historic, recent and current Ordnance Survey plans to identify activities which might have led to contamination of soil or groundwater (for example, from manufacturing processes, from storage activities or waste disposal practices) both on the subject site and immediately adjacent to the site;
- ii. Examination of published records and plans on the shallow and deep geology and hydrogeology of the site to assess the vulnerability and sensitivity of groundwater and surface water resources to contamination, if present, and the possible direction of movement off site, if mobile;
- iii. Search of a proprietary database of environmental permits, records and incidents at the site and surrounding area;
- iv. Enquiries of the Local Authority Planning and Environmental Health Departments to obtain information on environmental conditions, incidents and known contamination risks and on the Local Authority's Contaminated Land Strategy; and
- v. A site walk-over visit.

1.3 Scope of Works Notable Exceptions and Restrictions

No sampling or analysis of soils, waters or other materials has been carried out as part of the PRA.

The PRA specifically excluded a detailed assessment as to the presence and condition of asbestos or asbestiform containing materials at the site.

The PRA considered only the portions of the wider commercial/industrial development immediately adjacent to the site.

1.4 The Proposed Development

Ramboll understands that the proposed development is to comprise the construction of an extension of a prefabricated building to the south of the recently developed Unit 1 building. The

UNIT 1 EXTENSION

proposed extension will be approximately 30 m wide by 40 m long, and be formed of pre-fabricated metal, the same as Unit 1.

The proposed development will require the reduction of the ground level at the site to the same as that in place at Unit 1, with over-dig as required to facilitate the construction of a ground-bearing floor slab of 200 mm thickness, to which the pre-fabricated building will be attached. Total excavated depth is expected to be in the region of 0.9 m. The existing cable testing ducts that run under the site will be removed.

Soils excavated as part of this process will be tested for waste classification purposes and disposed of offsite using a certified waste carrier. Soils removed as part of the construction of Unit 1 were classified as a mix of inert and non-hazardous¹.

1.5 General Limitations and Reliance

This report has been prepared by Ramboll exclusively for the intended use by the client in accordance with the agreement (authority to proceed form dated 03 October 2022) between Ramboll and the client defining, among others, the purpose, the scope and the terms and conditions for the services. No other warranty, expressed or implied, is made as to the professional advice included in this report or in respect of any matters outside the agreed scope of the services or the purpose for which the report and the associated agreed scope were intended or any other services provided by Ramboll.

In preparation of the report and performance of any other services, Ramboll has relied upon publicly available information, information provided by the client and information provided by third parties. Accordingly, the conclusions in this report are valid only to the extent that the information provided to Ramboll was accurate, complete and available to Ramboll within the reporting schedule.

Ramboll's services are not intended as legal advice, nor an exhaustive review of site conditions and/or compliance. This report and accompanying documents are initial and intended solely for the use and benefit of the client for this purpose only and may not be used by or disclosed to, in whole or in part, any other person without the express written consent of Ramboll. Ramboll neither owes nor accepts any duty to any third party, unless formally agreed by Ramboll through that party entering into, at Ramboll's sole discretion, a written reliance agreement.

Ramboll's scope of services for this assignment did not include collecting samples of any environmental media. Ramboll cannot rule out the existence of conditions, including, but not limited to, contamination not identified and defined by the data and information available to and/or obtained by Ramboll. Specifically, this assessment must not be considered as an asbestos survey (whether in built structures, waste, soils, etc.), even though the subject of asbestos-containing materials may have been discussed in the report.

1.6 Summary of Previous Assessments

The previous PRA was for the development of two prefabricated buildings at the site. The proposed development comprised of the construction of two units to the east (Unit 1) and to the south (Unit 2) of the existing factory on site.

¹ See Tier I Preliminary Risk Assessment, Prysmian Cables and Systems LTD, Eastleigh (December 2021) for waste classification certificates.

UNIT 1 EXTENSION

Although there were a number of historical land uses and the site was in close proximity to areas which are designated on both a national and European level, the nature of the project meant that Ramboll found a low level of risk of contamination, and no remediation was deemed necessary.

The historical site information and site data for the previous PRA has also informed this PRA, as the current site of the extension was incorporated within the study area considered in the previous assessment. Much of the information relating to Unit 1 has been included in this report as this proposed development is an extension of Unit 1, however information relating to Unit 2 from the previous PRA has been disregarded due to the distance from the proposed development.

2. SITE VISIT

The following information was derived from a site visit undertaken on 7th October 2022 by a Ramboll environmental consultant. Discussions were held with Nicolas Chevaux (project manager at Prysmian Cables and Systems Ltd – the site representative), who has worked at the site since 2001. The purpose of the site visit was to assess whether there is potential for contamination from current and recent activities at the location of the proposed Unit 1 extension that could present a risk to human health and/or the environment as a result of the proposed development.

Photographs taken during the site visit are presented in Appendix 2.

2.1 Site Setting

The site is located within the wider commercial/industrial property of Prysmian Cables and Systems Ltd, approximately 900 m southeast of Eastleigh train station and 170 m southwest of the confluence of the River Barton and the River Itchen. The National Grid reference for the site is 446464E, 118562N. Access to the site is via Chickenhall Lane. The total site area is approximately 0.15 hectares (Ha), with the existing building being 30 m wide and the proposed extension 40 m long, access path around the perimeter of the extension.

The ground across the site is laid to grass, and flat, with a level of approximately 13.3 m above Ordnance Datum (AOD). The ground level of the adjacent Unit 1, to which the extension will be attached, is 12.6 m AOD and is also flat. The land to the east of site slopes gently towards the River Itchen with a steep downward slope from 12 mAOD at Chickenhall Lane to 9 mAOD at the River Itchen.

The site is located within an area of commercial/industrial land use, with agricultural land located opposite the River Itchen. Adjacent and surrounding land uses are detailed in Table 2.1 and **Error! Reference source not found.** below.

Table 2.1: Adjacent and Surrounding Land Uses

Direction	Distance	Activities/Feature
North	50 m	River Barton and River Itchen
	50 m	Chickenhall Lane
South	5 m	Cable testing facility
	150 m	Waste water treatment works
	170 m	Maintenance yards and works
East	100 m	River Itchen
	5 m	Scottish and Southern Electricity (SSE) electricity substation, including the electricity substation switch house
West	5 m	Warehouses, factory and offices (Prysmian Cables and Systems Ltd)

2.2 Site Layout and Activities

The proposed development is an area of formerly open undeveloped land and covered by grass. During a site inspection visit to view the construction of Unit 1 the site contact advised that the area had previously been built up to an elevation of 13.3 mAOD by placement of Made Ground from elsewhere on the Prysmian Cables and Systems Ltd property and used by Prysmian Cables and Systems Ltd as a cable network testing area. Underground cables (approximately 0.5 metres below ground level (mbgl)) run across the site and are used for testing purposes.

UNIT 1 EXTENSION

To the southeast of the site is situated a Scottish and Southern Electric (SSE) electricity substation, enclosed within a fenced compound. This provides power to both the Prysmian site and the wider Eastleigh borough area. The Unit 1 extension will not infringe upon the substation.

To the south of the site lies a further area of open ground, currently utilised for the informal storage of pallets and waste inert materials from the current roof-replacement works being carried out on site. No chemicals or potentially deleterious materials were observed in this area. The site contact reported that the materials will be removed shortly, once the roof-replacement works are complete.

2.3 Bulk Storage of Chemicals and Hazardous Substances

2.3.1 Underground Storage Tanks (USTs) and Above Ground Storage Tanks (ASTs)

Site personnel were not aware of the current or former presence of USTs or ASTs within or in the vicinity of the site and no visual evidence of USTs or ASTs, such as fill points, pumps, gauges, or signage, markings or concrete scarring indicative of such potential uses was identified during the visit.

2.3.2 Other Bulk Chemical Storage

No bulk storage was present at the proposed site.

2.4 Water, Wastewater and Drainage

A drainage drawing for Prysmian Cables and Systems Ltd was not available for review by Ramboll during the site visit. No oil-water interceptors were reported to be present on site or identified at or in the vicinity of the site by Ramboll during the site visit; however, their presence or absence cannot be confirmed without review of comprehensive drainage drawings.

No current issues in relation to flooding were reported by the site contacts during the site visit.

2.5 Deleterious Materials

2.5.1 Asbestos Containing Materials (ACM)

No materials labelled as containing asbestos were identified during the site visit. An asbestos survey has not been undertaken by Ramboll as it is outside the scope of this assessment.

2.5.2 Polychlorinated Biphenyls (PCB)

A set of electricity substations operated by SSE Power distribution is located adjacent to the southeast of the site. Responsibility for PCB oils (if present) would be expected to lie with SSE Power. No other potential PCB-containing equipment was identified during the site visit.

Under the Polychlorinated Biphenyls Regulations 2000, the holder of equipment that contains PCBs must ensure it is decontaminated to less than 0.05 % unless within an electricity transformer, which requires annual registration with the regulatory authorities.

2.6 Other Issues

According to the site representative, there is no known history of complaints, enforcements or other regulatory actions regarding the site or immediate surrounding properties related to environmental conditions. No fire or spill events were reported.

No invasive species were observed to be present on-site.

UNIT 1 EXTENSION

2.7 Potential for Ground Contamination from Current Uses**2.7.1 Potential On-site Contamination Sources**

No significant potential on-site contamination sources were noted during the site walkover.

2.7.2 Potential Off-site Contamination Sources

An electricity substation was identified directly to the southeast of the site. While this appeared in good repair at the time of the site visit it has the potential to be a source of contamination due to any historical practices.

3. HISTORICAL & REGULATORY INFORMATION

3.1 Map History

Ramboll has undertaken a review of historical mapping and aerial imagery (where available) obtained from a proprietary environmental database which is summarised below. Selected historical maps are presented in Appendix 5.

While the existing access roads and immediate surroundings of the site have been included in the site boundary within the proprietary environmental database, development will be confined to the footprint of the extension of Unit 1. As such, where distances from site are noted in the descriptions below, they relate to distances from the extension.

This site history has been compiled using information gathered from the previous PRA, as the site of the extension of Unit 1 falls within the area of this assessment. Therefore the plan indicating the locations of historical features (Figure 3) shows this in relation to the previous site location boundary.

3.1.1 The Site

The earliest available mapping data, dated 1871-1872, showed that the unit area comprised of an open field, likely for agricultural use.

Based on the mapping data available, the footprint of the extension remained undeveloped to the present day. From 1992, a footpath was located within and parallel to the western site boundary running alongside the main building of Prysmian Cables and Systems Ltd adjacent to the west. This appears to be surfaced with concrete hardstanding on the subsequent aerial photography dated 1999.

3.1.2 The Surrounding Area

The earliest available mapping data dated 1871-1872 showed the site to lie within a predominantly agricultural area. A river (the River Barton) was shown running from northwest to southeast approximately 100 m to the northeast of the site and 180 m to the east (the River Itchen), with a canal running in the same direction, approximately 150 m to the northeast. A railway line was shown to run from northwest to southeast approximately 400 m to the southwest of the site.

By the map edition of 1956-1968, the surrounding site area had been partially developed with the industrial buildings in the contemporary site layout. A small, unmarked building is shown to have been added immediately to the east of the site, with a larger cable works building present 300 m to the northwest. Ramboll was informed by the site representative that the earliest cable works buildings were constructed by 1966.

The map edition dated 1968 showed an area of cable works buildings to have been added to the south of the site, with the nearest structure being a tank approximately 3200 m to the southwest of the site.

The map dated 1975 shows that the cable works buildings to the northwest of the site were extended, with the nearest building now adjacent to the site. Ramboll has been informed that this extension was completed by 1980. A small, unmarked building was also shown to be present directly to the southeast of Unit 1, in the approximate location of the electricity substations observed during the site visit.

The map dated 1984 shows a travelling crane in connection with the railway lines approximately 380 m southwest of the site.

UNIT 1 EXTENSION

Following 1986, maps show works buildings in the location of the contemporary cable works buildings to have been constructed approximately 300 m south of the site. An electricity substation is also added to these contemporary cable works buildings, approximately 290 m to the south of the site, on the northern side of the adjacent structure. No further significant changes are shown.

3.2 Anecdotal Information

During the site inspection the site representative advised that the land occupied by Prysmian Cables Limited was purchased from the British Rail in 1966. The construction of the works buildings was undertaken in several phases. Construction of the first building/works was undertaken in 1966, including the office building. The wider site becomes further developed in the 1980s and 1990s. Development within the footprint of the extension of Unit 1 was limited to the placement of Made Ground (excavated from the footprint of the adjacent building) and the construction of cable testing chambers.

3.3 Proprietary Environmental Database Records

The information presented in Table 3.1 has been obtained from a review of a proprietary environmental database (dated 6th December 2021) procured by Ramboll relating to the site and surrounding land. This is the same data that was used for the previous PRA, as the reports are recently purchased and therefore still accurate, and the new site boundary was included in the previous report.

Table 3.1: Summary of Key Proprietary Environmental Database Information

Data Type	On site	Within 250 m	Within 500 m	Relevant records within 250 m of the site
Contaminated Land Register entries	0	0	0	None
Prosecutions or enforcement actions	0	0	0	None
Pollution incidents	0	7	N/R	The nearest recorded incident relates to the discharge of sewage to Barton River circa 70 m to the northeast of the site, recorded as being a minor incident (Category 3). The most significant recorded incident within 250 m of the site relates to the leakage of oils to Barton River circa 250 m to the north of the site. This is recorded as being a significant incident (Category 2).
Former landfill sites	0	0	0	None
Current landfill sites	0	0	0	None
Registered Waste Sites	0	0	3	The closest recorded historical landfill site is approximately 385 m to the southwest, relating to an Aggregate Industries site licensed for inert and excavation waste. This licence is recorded to have been surrendered in 2018.

UNIT 1 EXTENSION

Data Type	On site	Within 250 m	Within 500 m	Relevant records within 250 m of the site
Part A(1) Environmental Permits	0	0	N/R	None
Part A(2) Environmental Permits	0	3	N/R	The nearest recorded Part A(2) permits are located approximately 180 m to the west and northwest of the site relating to rubber processes and the blending, packing, loading and use of bulk cement.
Part B Environmental Permits	0	0	N/R	None
Control of Major Accident Hazards Sites (COMAH)	0	0	0	None
Fuel Stations	0	0	N/R	None
Contemporary trade directory entries	0	16	N/R	The nearest recorded entry relates to cable manufacturing recorded as being located 85 m to the west of the site. This is expected to relate to Prysmian Cables and Systems Ltd.
Registered Radioactive Substances	0	0	0	None
EA discharge consents	0	1	6	The nearest recorded discharge consent relates to the trade discharge of process water from the manufacture of electricity equipment/batteries or domestic appliances. This is recorded as being located circa 24 m to the east of the site and relates to the wider Prysmian Cables site.
Radon affected area (Y/N)	N	-	-	N/A

According to the proprietary environmental database the site is located in an area where less than 1% of residential properties are projected to contain radon above the residential action threshold). As such it is not within a "Radon Affected Area" as defined by Public Health England.

Under Health and Safety legislation, employers have a duty to manage workplace risks including the potential for radon exposure. Health and Safety Executive guidance recommends radon monitoring for workplaces located in Radon Affected Areas. If the workplace radon threshold is exceeded, the Ionising Radiations Regulations 1999 require employers to take action to reduce risks.

According to Building Research Establishment (BRE) Report BR211 (2015) Radon: Protective Measures for New Buildings, radon protection measures are not required under building regulations for new buildings at this location.

The LinesearchbeforeUdig database, which lists pipelines distributing crude oil and refined hydrocarbon products owned and/or operated by a number of UK pipeline operators indicates

that there are no records of underground oil or refined hydrocarbon product pipelines on the site or within 250 m. As noted above, the area has been used for the testing of cables and so may be underlain by ducts to allow the routing of cables for test purposes.

3.4 Regulatory Authority Enquiries

3.4.1 Local Authority Environmental Health Department

Ramboll requested information from the Environmental Health Department of Eastleigh Borough Council. The Environmental Health Department advised that:

- i. The site has not been identified for inspection or further review under the Council's Contaminated Land Strategy;*
- ii. The Council provided a copy of WAC testing results for the material removed from site as part of the ongoing development on site (also provided by the client and presented as Appendix 3);*
- iii. The Council hold no records of any current or former landfills within a 250 m radius of the site;*
- iv. The Council hold no records relating to radon gas concentrations or radon gas protective measures within buildings on or within 100 m of the site;*
- v. The Council advised that four complaints had been received in relation the adjacent Southern Water Waste Water Treatment Works off Chickenhall Lane and three complaints in relation to the adjacent former Eastleigh Railway Works to the southwest of the site in the last five years. One complaint relating to the waste water treatment works in April 2018 related to 'accumulations' and was forwarded to the Environment Agency. The rest of the complaints related to odours, insects, noise and light, and no further actions were taken;*
- vi. The Council have no known private water supplies recorded on the Local Authority Private Water Supply Register within 2 km of the site; and*
- vii. The Council hold records of one Local Authority Pollution Prevention and Controls (LAPPC) permit in the vicinity of the site; a 'rubber process' on the Prysmian Cables and Systems Ltd site.*

3.4.2 Petroleum Enforcement Authority

An enquiry was submitted to the Lead Petroleum Officer at Hampshire County Council in order to establish if the site is currently or has previously been licensed for the bulk storage of petroleum products. The Lead Petroleum Officer advised that they could find no record of petroleum having been stored at Prysmian Cables and Systems Ltd (including the site).

Given the nature of the proposed development of the extension of Unit 1, the information provided by the Environmental Health Department at Eastleigh Borough Council and Lead Petroleum Officer at Hampshire County Council is not considered to present additional significant contamination risk to sensitive receptors at the site beyond that of potential contaminant sources already identified.

3.5 Historical Potential for Ground Contamination

3.5.1 The Site

No potentially significant contaminative activities have been identified as having taken place within the footprint of the extension of Unit 1.

UNIT 1 EXTENSION

3.5.2 The Surrounding Area

The following potentially contaminative activities have been identified as having taken place in the surrounding area:

- i. The historical gasworks (including a tank) located approximately 360 m to the southwest of the site between 1909 and 1968 is a potential source of contamination. The nature of the tank is unknown and contaminants relating to it may comprise fuels and oils in the case of a fuel storage tank or poly-aromatic hydrocarbons and volatile organic compounds in the case of a gasholder. It is, however, situated a significant distance from the site;
- ii. The historical and current cable works buildings on the wider site between and around the proposed unit extension are considered a potential source of contamination. No specifically contaminative processes are known to be or to have been carried out on site, however due to the use of machinery on site it is a potential source of fuels and oils associated with leaks or spills of the same;
- iii. The electricity substation identified during the site walkover was added in 1966, during the period when PCBs were still in use in substations and so represents a potential source of contamination relating to PCBs; and
- iv. LAPPC for a 'rubber process' at Prysmian Cables and Systems Ltd; and

The above activities represent potential off-site sources of contamination that (if present) could potentially migrate beneath the site.

The potential for off-site contamination (if present) to migrate beneath the site would be dependent on the nature of the contaminants together with the underlying geological conditions, the latter which are discussed in Section 4.

It is noted that the proposed works involves very limited intrusive groundworks in the footprint of the proposed extension (excavation of < 1 m of Made Ground in the footprint of the extension of Unit 1 and construction of a prefabricated building on a 200 mm ground-bearing concrete slab, and all excavated materials will be sent off-site as waste). As such the development does not have the potential to introduce any new pathways between ground contamination and sensitive receptors (human health or controlled waters).

4. ENVIRONMENTAL SETTING

Desk-based research of the local geology, hydrogeology and hydrology was carried out in order to establish the potential for migration of contamination onto or away from the site, and to assess the sensitivity and vulnerability of the site's setting with respect to surface water, groundwater and ecological resources.

Information was obtained from a number of sources, including:

- i. examination of published geological maps produced by the British Geological Survey (BGS);
- ii. review of historical ground investigation in the footprint of Unit 1²²;
- iii. a proprietary environmental database procured by Ramboll; and
- iv. Regulatory authority websites including the Environment Agency (EA).

4.1 Geology and Hydrogeology

According to BGS 1:50,000 mapping of the area, the site is underlain by superficial deposits comprising River Terrace Deposits, which are in turn underlain by the Wittering Formation with the Whitecliff Sand Member, London Clay Formation and White Chalk Subgroup present at depth. A summary of the site geology and hydrogeology is presented in Table 4.1 below, based on BGS geological maps and borehole logs included in the historical ground investigation report provided by the client^{Error! Bookmark not defined.}. Where obsolete terminology has been used within historical borehole logs, modern terminology has been substituted in Table 4.1.

Table 4.1: Summary of Geology and Hydrogeology

Formation	Description	Thickness	EA Aquifer Designation	Hydrogeological Significance
Made Ground 'Brickearth'	Slightly sandy clay, occasional gravel of flint and timber fragments	0.45 m to 1.3 m	Not classified	N/A
River Terrace Deposits	Clay, Silt and Gravels	1.8 m to 4.1 m	Secondary (undifferentiated)	Permeable formations with potential to support localised abstractions.
Wittering Formation (Bracklesham Group)	Sands, silts and clays	5.6 m to 7.6 m	Secondary A	Variable permeability formations with potential to support small abstractions.
Whitecliff Sand Member (London Clay Formation)	Sand with occasional coarse gravel beds at surface	< 12.45 m (base not proven)	Secondary A	Variable permeability formations with potential to support small abstractions.
London Clay Formation	Stiff grey clay	Not encountered	Unproductive Strata	Low permeability formation little potential to support

²² Soil Mechanics Ltd (July 1997). Site Investigation for the Proposed Development at Pirelli Cables Limited, Eastleigh, Hampshire. Ref. 7556/60

UNIT 1 EXTENSION

Formation	Description	Thickness	EA Aquifer Designation	Hydrogeological Significance
				abstractions. May form an aquitard.
White Chalk Subgroup	Chalk	Not encountered	Principal Aquifer	Highly permeable formation with potential to support abstractions at a strategic scale.

The closest groundwater body classified under the Water Framework Directive (WFD) classification scheme is the River Itchen Chalk groundwater body (associated with the White Chalk Subgroup), cropping out approximately 4 km to the north of the site and likely to be present at significant depth beneath the site. The River Itchen Chalk groundwater body is classified as being of 'Poor' chemical quality and of 'Poor' quantitative status under the WFD classification scheme as of 2019.

According to EA information provided by a proprietary environmental database provider, there are 5 licensed groundwater abstractions within a 2 km radius of the site. Of these, none are within 1 km of the site and none are used for potable water.

The site is not situated within an EA designated groundwater Source Protection Zone.

4.2 Coal Mining

According to the Coal Authority, the site is not located in a Coal Mining Affected Area. No information on other (non-coal) mining activities is provided in the proprietary environmental database.

4.3 Hydrology

The nearest identified surface water body is the River Barton (part of the larger River Itchen course) located approximately 100 m to the northeast at its closest point and draining back to the River Itchen approximately 180 m to the east. The River Itchen is non-tidal at this point in its reach. The EA currently classifies the River Itchen as being of 'moderate' ecological quality and 'good' chemical quality under the Water Framework Directive classification scheme.

According to an independent, proprietary environmental database, there are nine licensed surface water abstractions within a 2 km radius of the site, four of which are within 1 km of the site, as detailed in Table 4.2 below.

Table 4.2: Licensed Surface Water Abstractions within 1 km of the Site

Licence Holder	Distance from Site	Abstraction source	Purpose of Abstraction
Eastleigh Borough Council	511 m N	Itchen Navigation in Eastleigh	Environmental: Non-remedial River/Wetland Support: Transfer between sources
The Plant Director	753 m S	Itchen Carrier at Rail Workshop, Eastleigh	Transport: General Use (Medium Loss)
The Plant Director	753 m S	Itchen Carrier at Rail Workshop, Eastleigh	Transport: General Use (Medium Loss)
Wessex Traincare Ltd	753 m S	Itchen Carrier at Rail Workshop, Eastleigh	Transport: General Use (Medium Loss)

4.4 Regulatory Flood Designations

4.4.1 Fluvial and Tidal

According to the EA's fluvial and tidal flood map for planning, the site is located in Flood Zone 1 (low probability). This zone comprises land assessed as having a less than 1 in 1000 annual probability of river or sea flooding (<0.1% in any year).

4.4.2 Surface Water

According to the EA Flood Map for surface water which presents the theoretical potential for flooding from pluvial sources (i.e. flooding caused by rainwater exceeding capacity of drainage systems), the site is located in an area of very low flooding probability. This zone comprises land assessed as having a less than 1 in 1,000 annual probability of pluvial flooding (<0.1 % in any year).

Surface water drainage networks are typically designed to accommodate only a 1 in 30 (3.3 %) annual probability rainfall event. Older drainage networks may have a lower capacity, especially if they have not been maintained adequately. Although not true of every situation, surface water flooding is typically relatively shallow and would be expected to subside following the storm event assuming drainage assets are maintained in an appropriate condition.

4.5 Designated Ecological Sites

The River Barton and the River Itchen, passing within 100 m of the site to the northeast and 180 m to the east respectively are designated as a Site of Special Scientific Interest and Special Area of Conservation for a portion of their length (designated area is located approximately 900 m to the south at its closest point).

An area of Ancient Woodland designated as Stoke Park Wood is present approximately 1 km to the northeast of the site.

4.6 Environmental Sensitivity and Vulnerability

The site is considered to be situated in an area of low sensitivity with respect to groundwater resources. The most permeable underlying aquifer is the Secondary A aquifer of the Wittering Formation and Whitecliff Sand Member. There are no licensed groundwater abstractions from these strata within 1 km of the site and while several exist within a 2 km radius, none are for the abstraction of potable water; the nearest groundwater body (the River Itchen Chalk groundwater body) is associated with the White Chalk Subgroup, located at significant depth beneath the site and overlain by the London Clay Formation.

The sensitivity of the hydrological receptor can be considered as high as the River Barton and the River Itchen (the nearest surface watercourses) are designated as a Site of Special Scientific Interest (SSSI) and a Special Area of Conservation (SAC). Proximate surface water abstractions are not for sensitive use.

The vulnerability of the groundwater and surface water receptors in the vicinity of the site is considered to be low as the extension site will be entirely covered by hardstanding following development.

5. QUALITATIVE RISK ASSESSMENT

5.1 Legislative Framework

The regime for contaminated land was set out in Part 2A (ss.78A-78YC) of the Environmental Protection Act 1990 (EPA), as inserted by S.57 of The Environment Act 1995 and came into effect in England on 1st April 2000 as The Contaminated Land (England) Regulations 2000 (SI 2000/227). These regulations were subsequently revoked with the provision of The Contaminated Land (England) Regulations 2006 (SI 2006/1380) (as amended), which came into force in August 2006, and consolidated the previous regulations and amendments. Revised statutory guidance ("the Guidance") for local authorities on how to implement the regime, including the decision-making process on whether land is contaminated land in the legal sense, has been published by Defra and entered into force in April 2012.

Under Part 2A of the EPA Section 78A(2), "contaminated land" is defined as "land which appears... to be in such a condition, by reason of substances in, on or under the land, that:

- a) significant harm is being caused or there is a significant possibility of such harm being caused³; or
- b) significant pollution of controlled waters is being caused, or there is a significant possibility of such pollution being caused".

The pollution of controlled waters is defined in Section 78A(9) of the Act as "the entry into controlled waters of any poisonous, noxious or polluting matter or any solid waste matter".

5.2 Risk Assessment Framework

"Significant harm" or "significant pollution of controlled waters" is defined in the Guidance on risk-based criteria and must be the result of one or more relevant 'contaminant linkages' relating to the land.

The presence of a contaminant linkage relies on the Source-Pathway-Receptor concept, where all three factors must be present and potentially or actually linked for a potential risk to exist. For a risk of pollution or environmental harm to occur as a result of ground contamination, all of the following elements must be present:

- A source - a substance that is capable of causing pollution or harm;
- A receptor - something which could be adversely affected by the contaminant; and
- A pathway - a route by which the contaminant can reach the receptor.

If one of these elements is absent there can be no significant risk. If all are present then the magnitude of the risk is a function of the magnitude and mobility of the source, the sensitivity of the receptor and the nature of the migration pathway.

The potential severity of the risk and the probability of the risk occurring have been combined in accordance with the following matrix in order to give a level of risk for each potential hazard.

³ Water Act 2003 (Commencement No. 11) Order 2012

Table 5.1: Classification of Risk (after NHBC/EA 2008)

		Consequence			
		Severe	Medium	Mild	Minor
Probability	High Likelihood	Very high	High	Moderate	Low
	Likely	High	Moderate	Moderate/Low	Low
	Low Likelihood	Moderate	Moderate/ Low	Low	Very low
	Unlikely	Moderate/ Low	Low	Very low	Very low

The assessment has been undertaken in the context of the proposed development, comprising the construction of an extension of a prefabricated building including a shallow concrete slab foundation.

5.3 Preliminary Risk Assessment

A preliminary conceptual site model has been developed and qualitative risk assessment undertaken to identify and assess the potential risks associated with environmental conditions at and in the vicinity of the site based on the available information. This is presented in Table 5.2.

Table 5.2: Conceptual Site Model

Source	Pathway	Receptor	Risk of Contaminant Linkage	
On-site Historical Made Ground and cable test chambers in footprint of the site Ground gas	Direct contact, ingestion and inhalation of contaminated soil, dust and fibres	Future site users (commercial)	Very low. Site will be entirely covered by hardstanding. Only potential on-site contaminant source (Made Ground) will be removed by development works.	
		Construction workers	Very low. Intrusive groundworks (limited to excavation of Made Ground in footprint of the extension) will be undertaken, and all excavated materials removed from site. Sampling of materials removed from the footprint of Unit 1 were classified as inert or non-hazardous.	
		Adjacent site users	Very low. No significant source of contamination is considered to exist on site.	
	Inhalation of asbestos fibres	Future site users (commercial)	Very low. Site will be entirely covered by hardstanding. Only potential on-site source (Made Ground) will have been largely removed by development works.	
		Construction workers	Very low. Intrusive groundworks (limited to excavation of Made Ground in footprint of the extension) will be undertaken, and all excavated materials removed from site. Sampling of materials removed from the footprint of Unit 1 were classified as inert or non-hazardous.	
		Adjacent site users	Very low. No significant source of contamination is considered to exist on site.	
	Accumulation of asphyxiative/explosive gases in confined spaces.	Future site users (commercial)	Very low. No potential source of ground gas has been identified on site, and development will remove Made Ground which forms the only potentially plausible source of ground gas. Site will be entirely covered by concrete hardstanding, minimising further potential for ground gas to migrate to receptors on site. Proposed development comprises a prefabricated building which is expected to be well ventilated by nature of its design.	
		On-site buildings		
		Construction workers	Very low. No potential source of ground gas has been identified on site, and development will involve the removal of Made Ground which forms the only potentially plausible source of ground gas.	
	Leaching and lateral migration of contaminants in	Adjacent site users	Very low. No significant sources of ground gas present on site.	
Surface water (River Itchen)		Very low. Site will be entirely covered by hardstanding, minimising potential for leaching. Only potential on-site contaminant source (Made Ground) will be removed by development works.		

Source	Pathway	Receptor	Risk of Contaminant Linkage
Off-site sources - Electricity substations to southeast of the site - Main works building adjacent to west of the site - Historical gasworks 360 m southwest of the site between c. 1909 and 1968. - Rubber process on Prysmian Cables and Systems Ltd	groundwater to surface water body Leaching and vertical migration of contaminants to groundwater	Shallow (Secondary A) Aquifer	Very low. Site will be entirely covered by hardstanding, minimising potential for leaching. Only potential on-site contaminant source (Made Ground) will be removed by development works.
		Deep (Primary) Aquifer	No potential risk. Aquifer is at significant depth beneath the site and overlain by the London Clay Formation.
	Leaching and vertical migration of contaminants onto site in soil and groundwater with accumulation of gas and vapours in confined spaces	Future Site users	Very low. Only potential contaminant sources within plausible distance for contaminant migration are electricity substations and main works buildings adjacent to the site. Site will be entirely covered by hardstanding, breaking any potential linkage between migrating contaminants and future site users.
		Construction workers	Very low. Intrusive groundworks limited to excavation of Made Ground in footprint of the site will be undertaken. Sampling of materials removed from the footprint of Unit 1 were classified as inert or non-hazardous indicating that it is unlikely that contamination will have migrated from off-site sources to the area of the Unit 1 extension.
		Buildings	Very low. Only potential contaminant sources within plausible distance for contaminant migration are electricity substations and main works buildings adjacent to the extension. Site will be entirely covered by hardstanding, minimising potential for accumulation of ground gas in the proposed building. Proposed development comprises a prefabricated building which is expected to be well ventilated by nature of its design.

6. CONCLUSIONS AND RECOMMENDATIONS

The PRA of the proposed extension to Unit 1 presented in this report is effectively a continuation from a previous Preliminary Risk Assessment conducted by Ramboll in 2021. The site of the extension has had minimal previous development, it is shown on historical maps to have been an area of an open field since at least 1871 and no development is shown to have occurred with the exception of placement of Made Ground to build up site levels. The area was noted to contain ducts for use in cable testing during the site walkover, however no significantly contaminative processes are known to have occurred associated with this. The main works building for Prysmian Cables and Systems Ltd and a row of electricity substations have been located adjacent to the west and east of the site since 1966.

The site is considered to lie within an area of low sensitivity with respect to groundwater resources. The site is not located in a groundwater SPZ and there are no recorded groundwater abstractions within 1 km of the site.

The site does lie within a high sensitivity area with regard to hydrological receptors, as the River Barton and the River Itchen, located approximately 100 m northeast and 180 m east of the site respectively, are designated at both national and European level.

The proposed development is understood to comprise the construction of an extension of prefabricated warehouse building on concrete hardstanding covering the site. The presence of concrete hardstanding across the site is considered to break any potential pathways between the site and the underlying soils and groundwater, reducing the potential for the site to affect environmental receptors or to be adversely affected by any contamination released from off-site or historical on-site sources.

Due to this, the proposed development is considered to present a very low risk to the underlying aquifers and the River Itchen, and potential off-site and historical sources of contamination are considered to present a very low risk to site end-users and buildings.

The proposed building is not anticipated to require penetration of the underlying strata and internal spaces will be large and well ventilated, and for commercial end-use. On this basis, the risk from ground gases and vapours to the site end-users and buildings is considered to be very low.

No further assessment of geo-environmental risks associated with the development of the site is considered to be necessary at this time.

APPENDIX 1

FIGURES

Figure 1: Site Location

Figure 2: Detailed Site Location

Figure 3: Historical Site Features Plan

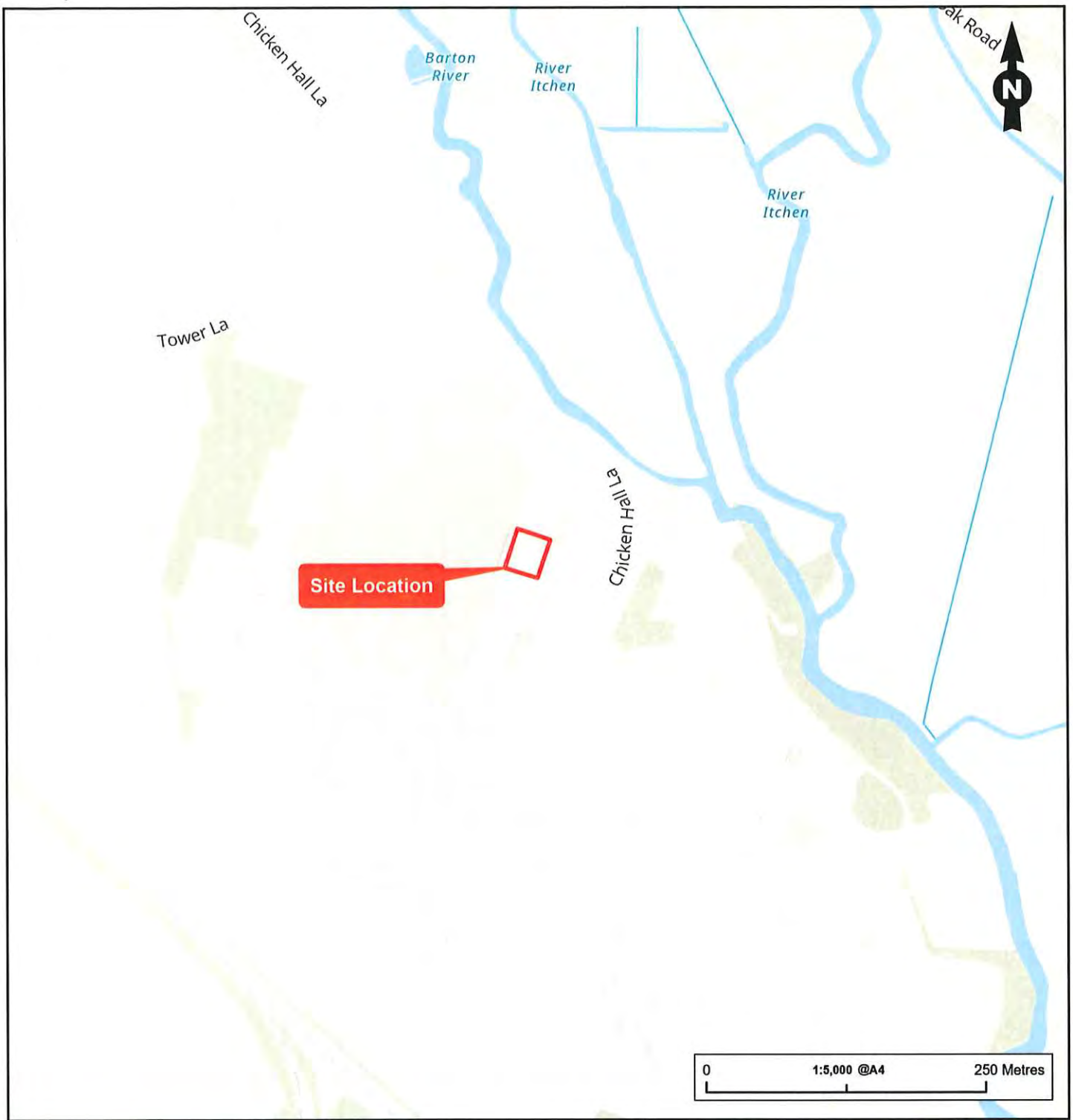


Figure Title Figure 1: Site Location		Project Name Prysmian Cables Unit 1 Extension, Eastleigh		Date October 2022		
				Scale As shown		
Project Number 1620013493		Client Prysmian Cables and Systems Ltd		Issue 1	Prepared By BE	

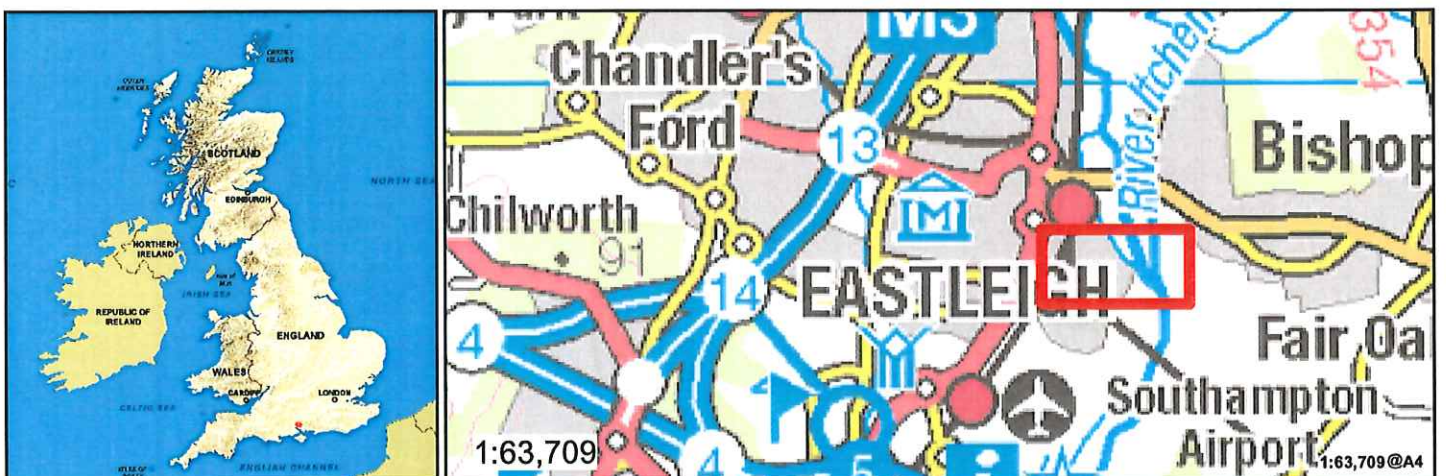
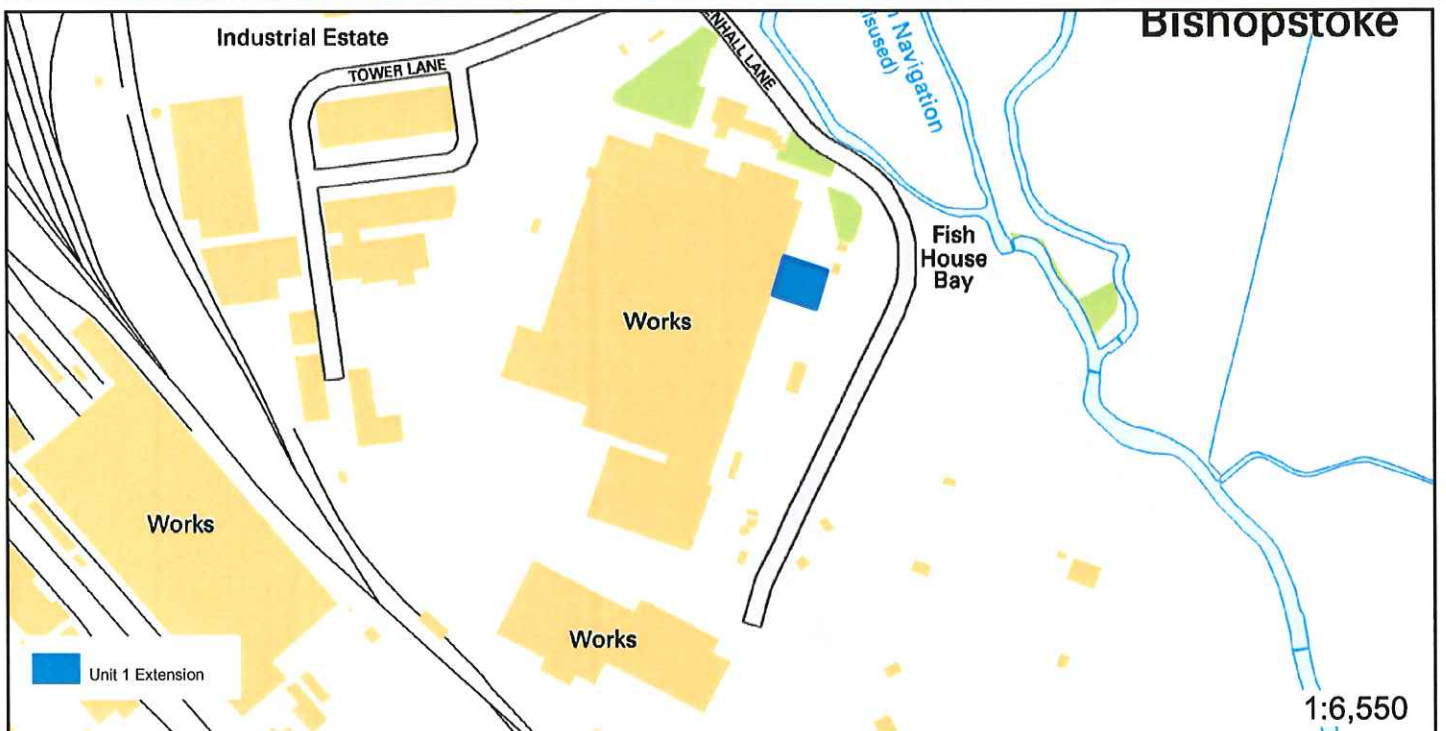
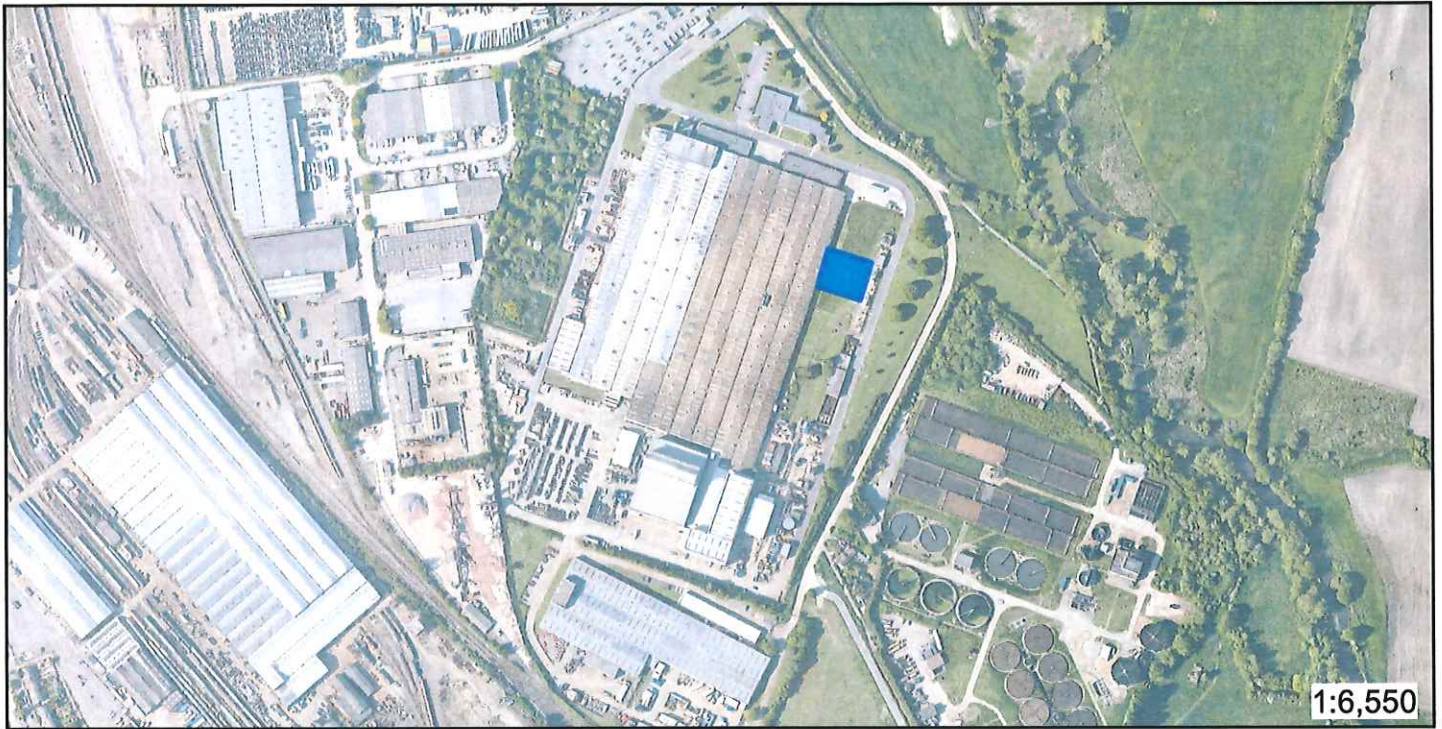


Figure Title Figure 2: Detailed Site Location Plan	Project Name Prysmian Cables, Eastleigh	Date October 2022		
		Scale As shown		
Project Number Prysmian Cables and Systems Ltd	Client Prysmian Cables	Issue 01	Prepared By BB	

TIER I PRELIMINARY RISK ASSESSMENT

UNIT 1 EXTENSION

APPENDIX 2 PHOTOGRAPHIC LOG



Photo 1 Looking east along the southern side of Unit 1



Photo 2 Looking southeast across the site towards the substation

Title: Photographic Log	Client: Prysmian Cables and Systems Ltd
Site: Prysmian Cables Unit 1 Extension, Eastleigh	Date: 07 October 2022



Photo 3 The electrical substation adjacent to the site



Photo 4 Looking north towards Unit 1 across the proposed extension area

Title: Photographic Log	Client: Prysmian Cables and Systems Ltd
Site: Prysmian Cables Unit 1 Extension, Eastleigh	Date: 07 October 2022

APPENDIX 3

WASTE TRANSFER NOTES AND WAC TESTING INFORMATION



Our Ref: 21-25192

Your Ref:

ENVIROCHEM

Analytical Laboratories Ltd.

12 The Gardens
Broadcut, Fareham
Hampshire
PO16 8SS



1227

Tel: (01329) 287777

Fax: (01329) 287755

www.envirochem.co.uk

lab@envirochem.co.uk

Analysis Report

Client: Prysmian Group
Prsymian Group
Chicken Hall Lane
Bishopstoke
SO50 6YU

Sample Details: 4 soil samples for Waste Acceptance Criteria (WAC) analysis

Date report issued: 9 June 2021

Number of pages (including this one): 5

Accreditation

All analytes marked **M** have been analysed under the scope of our MCERTS accreditation

All analytes marked **U** have been analysed under the scope of our UKAS accreditation

All analytes marked **m** have been subcontracted and analysed under the scope of their MCERTS accreditation

All analytes marked **u** have been subcontracted and analysed under the scope of their UKAS accreditation

All results labelled with an asterisk (*) are non-conforming due to incorrect sample storage or handling. The result may be invalid.

All comments are beyond the scope of our accreditation.

The results shown in this test report specifically refer to the sample(s) tested as received unless otherwise stated.

This report shall not be reproduced except in full, without written approval of Envirochem.

Uncertainty of measurement is not accounted for in reported results

Signed on behalf of Envirochem by an authorised signatory

Dan Dockree

Authorised Signatory



ENVIROCHEM

Analytical Laboratories Ltd.

www.envirochem.co.uk

lab@envirochem.co.uk



LANDFILL WASTE ACCEPTANCE CRITERIA

Client:	Prysmian Group	Date Sampled:	26 May 2021
Site:	Not Supplied	Date Received:	27 May 2021
Sample Description:	Soil - WAC	Submitted by:	Courier
Sample Details:	TL1 Top Left of Area	Date Analysis Started:	27 May 2021
Sampled By:	Client	Date Completed:	8 June 2021

Table 1: parameters determined on whole sample (all results in mg/kg dry wt except where stated)

Analyte	Method	Sample Lab Ref: Job: 21-25192 Samp. 74129	Landfill acceptance criteria for Inert waste	Stable non-reactive hazardous waste in non-hazardous	Hazardous waste landfill
Mineral oil (C10 - C40)	6.04	90.4	500	---	---
Loss on ignition (%)	5.01, 6.09	3.8	---	---	10 %
Total Organic Carbon (%)	6.07	1.5	3 %	5 %	6 %
BTEX	6.11	< 1.0	6	---	---
PCBs (7 congeners)	6.06	< 1.0	1	---	---
PAHs	6.05	< 2.0	100	---	---
% water (105°C)	6.01	22.6	---	---	---

Table 2: parameters determined on leachate (all results in mg leached per kg dry material)

Analyte	Method	Sample Lab Ref: Job: 21-25192 Samp. 74129	Landfill acceptance criteria for Inert waste	Stable non-reactive hazardous waste in non-hazardous	Hazardous waste landfill
Arsenic U	5.04, 6.08	< 0.2	0.5	2	25
Antimony	5.04, 6.08	< 0.06	0.06	0.7	5
Barium U	5.04, 6.08	0.7	20	100	300
Cadmium U	5.04, 6.08	< 0.04	0.04	1	5
Chromium (total) U	5.04, 6.08	0.3	0.5	10	70
Copper U	5.04, 6.08	< 0.2	2	50	100
Lead U	5.04, 6.08	< 0.4	0.5	10	50
Mercury U	5.04, 6.08	< 0.01	0.01	0.2	2
Molybdenum	5.04, 6.08	< 0.5	0.5	10	30
Nickel U	5.04, 6.08	< 0.2	0.4	10	40
Selenium	5.04, 6.08	< 0.1	0.1	0.5	7
Zinc U	5.04, 6.08	< 1	4	50	200
Sulphate	5.04, 6.02	4.2	1000	20000	50000
Fluoride	5.04, 6.02	< 3.0	10	150	500
Chloride	5.04, 6.02	7.8	800	15000	25000
Phenol index	5.04, 6.19	< 1.00	1	---	---
pH (pH units)	6.03	8.16	To be set	> 6	---
Total dissolved solids	5.04, 6.12	592	4000	60000	100000
Dissolved organic carbon	5.04, 6.07	109	500	800	1000

All analytes marked U have been analysed under the scope of our UKAS accreditation

Note that the UKAS accreditation currently applies to the analysis of metals in the leachate but not the leaching process.

The limits are taken from BS EN 12457-3 for a liquid:solid ratio of 10:1

Comments: (comments are beyond the scope of UKAS accreditation)



ENVIROCHEM

Analytical Laboratories Ltd.

www.envirochem.co.uk

lab@envirochem.co.uk



LANDFILL WASTE ACCEPTANCE CRITERIA

Client:	Prysmian Group	Date Sampled:	26 May 2021
Site:	Not Supplied	Date Received:	27 May 2021
Sample Description:	Soil - WAC	Submitted by:	Courier
Sample Details:	TR2 Top Right of Area	Date Analysis Started:	27 May 2021
Sampled By:	Client	Date Completed:	8 June 2021

Table 1: parameters determined on whole sample (all results in mg/kg dry wt except where stated)

Analyte	Method	Sample Lab Ref: Job: 21-25192 Samp. 74130	Landfill acceptance criteria for Inert waste	Stable non-reactive hazardous waste in non-hazardous	Hazardous waste landfill
Mineral oil (C10 - C40)	6.04	79.7	500	---	---
Loss on ignition (%)	5.01, 6.09	5.2	---	---	10 %
Total Organic Carbon (%)	6.07	2.6	3 %	5 %	6 %
BTEX	6.11	< 1.0	6	---	---
PCBs (7 congeners)	6.06	< 1.0	1	---	---
PAHs	6.05	< 2.0	100	---	---
% water (105°C)	6.01	23.3	---	---	---

Table 2: parameters determined on leachate (all results in mg leached per kg dry material)

Analyte	Method	Sample Lab Ref: Job: 21-25192 Samp. 74130	Landfill acceptance criteria for Inert waste	Stable non-reactive hazardous waste in non-hazardous	Hazardous waste landfill
Arsenic U	5.04, 6.08	< 0.2	0.5	2	25
Antimony	5.04, 6.08	< 0.06	0.06	0.7	5
Barium U	5.04, 6.08	1.1	20	100	300
Cadmium U	5.04, 6.08	< 0.04	0.04	1	5
Chromium (total) U	5.04, 6.08	0.5	0.5	10	70
Copper U	5.04, 6.08	1.2	2	50	100
Lead U	5.04, 6.08	0.5	0.5	10	50
Mercury U	5.04, 6.08	< 0.01	0.01	0.2	2
Molybdenum	5.04, 6.08	< 0.5	0.5	10	30
Nickel U	5.04, 6.08	0.2	0.4	10	40
Selenium	5.04, 6.08	< 0.1	0.1	0.5	7
Zinc U	5.04, 6.08	< 1	4	50	200
Sulphate	5.04, 6.02	5.3	1000	20000	50000
Fluoride	5.04, 6.02	< 3.0	10	150	500
Chloride	5.04, 6.02	7.4	800	15000	25000
Phenol index	5.04, 6.19	< 1.00	1	---	---
pH (pH units)	6.03	7.99	To be set	> 6	---
Total dissolved solids	5.04, 6.12	631	4000	60000	100000
Dissolved organic carbon	5.04, 6.07	135	500	800	1000

All analytes marked U have been analysed under the scope of our UKAS accreditation

Note that the UKAS accreditation currently applies to the analysis of metals in the leachate but not the leaching process.

The limits are taken from BS EN 12457-3 for a liquid:solid ratio of 10:1

Comments: (comments are beyond the scope of UKAS accreditation)



ENVIROCHEM

Analytical Laboratories Ltd.

www.envirochem.co.uk

lab@envirochem.co.uk



LANDFILL WASTE ACCEPTANCE CRITERIA

Client:	Prysmian Group	Date Sampled:	26 May 2021
Site:	Not Supplied	Date Received:	27 May 2021
Sample Description:	Soil - WAC	Submitted by:	Courier
Sample Details:	CM3 Centre Middle of Area	Date Analysis Started:	27 May 2021
Sampled By:	Client	Date Completed:	4 June 2021

Table 1: parameters determined on whole sample (all results in mg/kg dry wt except where stated)

Analyte	Method	Sample Lab Ref: Job: 21-25192 Samp. 74131	Landfill acceptance criteria for Inert waste	Stable non-reactive hazardous waste in non-hazardous	Hazardous waste landfill
Mineral oil (C10 - C40)	6.04	71.2	500	---	---
Loss on ignition (%)	5.01, 6.09	4.3	---	---	10 %
Total Organic Carbon (%)	6.07	2.4	3 %	5 %	6 %
BTEX	6.11	< 1.0	6	---	---
PCBs (7 congeners)	6.06	< 1.0	1	---	---
PAHs	6.05	< 2.0	100	---	---
% water (105°C)	6.01	26.5	---	---	---

Table 2: parameters determined on leachate (all results in mg leached per kg dry material)

Analyte	Method	Sample Lab Ref: Job: 21-25192 Samp. 74131	Landfill acceptance criteria for Inert waste	Stable non-reactive hazardous waste in non-hazardous	Hazardous waste landfill
Arsenic U	5.04, 6.08	< 0.2	0.5	2	25
Antimony	5.04, 6.08	< 0.06	0.06	0.7	5
Barium U	5.04, 6.08	0.9	20	100	300
Cadmium U	5.04, 6.08	< 0.04	0.04	1	5
Chromium (total) U	5.04, 6.08	0.4	0.5	10	70
Copper U	5.04, 6.08	0.5	2	50	100
Lead U	5.04, 6.08	0.7	0.5	10	50
Mercury U	5.04, 6.08	< 0.01	0.01	0.2	2
Molybdenum	5.04, 6.08	< 0.5	0.5	10	30
Nickel U	5.04, 6.08	< 0.2	0.4	10	40
Selenium	5.04, 6.08	< 0.1	0.1	0.5	7
Zinc U	5.04, 6.08	1	4	50	200
Sulphate	5.04, 6.02	4.4	1000	20000	50000
Fluoride	5.04, 6.02	< 3.0	10	150	500
Chloride	5.04, 6.02	< 3.0	800	15000	25000
Phenol index	5.04, 6.19	< 1.00	1	---	---
pH (pH units)	6.03	6.30	To be set	> 6	---
Total dissolved solids	5.04, 6.12	69	4000	60000	100000
Dissolved organic carbon	5.04, 6.07	176	500	800	1000

All analytes marked U have been analysed under the scope of our UKAS accreditation

Note that the UKAS accreditation currently applies to the analysis of metals in the leachate but not the leaching process.

The limits are taken from BS EN 12457-3 for a liquid:solid ratio of 10:1

Comments: (comments are beyond the scope of UKAS accreditation)



ENVIROCHEM

Analytical Laboratories Ltd.

www.envirochem.co.uk

lab@envirochem.co.uk



LANDFILL WASTE ACCEPTANCE CRITERIA

Client:	Prysmian Group	Date Sampled:	26 May 2021
Site:	Not Supplied	Date Received:	27 May 2021
Sample Description:	Soil - WAC	Submitted by:	Courier
Sample Details:	BR4 Bottom Right of Area	Date Analysis Started:	27 May 2021
Sampled By:	Client	Date Completed:	8 June 2021

Table 1: parameters determined on whole sample (all results in mg/kg dry wt except where stated)

Analyte	Method	Sample Lab Ref: Job: 21-25192 Samp. 74132	Landfill acceptance criteria for Inert waste	Stable non-reactive hazardous waste in non-hazardous	Hazardous waste landfill
Mineral oil (C10 - C40)	6.04	61.4	500	---	---
Loss on ignition (%)	5.01, 6.09	5.3	---	---	10 %
Total Organic Carbon (%)	6.07	1.7	3 %	5 %	6 %
BTEX	6.11	< 1.0	6	---	---
PCBs (7 congeners)	6.06	< 1.0	1	---	---
PAHs	6.05	< 2.0	100	---	---
% water (105°C)	6.01	28.2	---	---	---

Table 2: parameters determined on leachate (all results in mg leached per kg dry material)

Analyte	Method	Sample Lab Ref: Job: 21-25192 Samp. 74132	Landfill acceptance criteria for Inert waste	Stable non-reactive hazardous waste in non-hazardous	Hazardous waste landfill
Arsenic U	5.04, 6.08	< 0.2	0.5	2	25
Antimony	5.04, 6.08	< 0.06	0.06	0.7	5
Barium U	5.04, 6.08	0.5	20	100	300
Cadmium U	5.04, 6.08	< 0.04	0.04	1	5
Chromium (total) U	5.04, 6.08	0.3	0.5	10	70
Copper U	5.04, 6.08	0.3	2	50	100
Lead U	5.04, 6.08	0.4	0.5	10	50
Mercury U	5.04, 6.08	< 0.01	0.01	0.2	2
Molybdenum	5.04, 6.08	< 0.5	0.5	10	30
Nickel U	5.04, 6.08	< 0.2	0.4	10	40
Selenium	5.04, 6.08	< 0.1	0.1	0.5	7
Zinc U	5.04, 6.08	< 1	4	50	200
Sulphate	5.04, 6.02	6.5	1000	20000	50000
Fluoride	5.04, 6.02	< 3.0	10	150	500
Chloride	5.04, 6.02	6.3	800	15000	25000
Phenol index	5.04, 6.19	< 1.00	1	---	---
pH (pH units)	6.03	6.15	To be set	> 6	---
Total dissolved solids	5.04, 6.12	114	4000	60000	100000
Dissolved organic carbon	5.04, 6.07	173	500	800	1000

All analytes marked U have been analysed under the scope of our UKAS accreditation

Note that the UKAS accreditation currently applies to the analysis of metals in the leachate but not the leaching process.

The limits are taken from BS EN 12457-3 for a liquid:solid ratio of 10:1

Comments: (comments are beyond the scope of UKAS accreditation)

[EXTERNAL]Waste Caries

Paul Lane <paul@maccontracting.co.uk>

Fri 08/10/2021 15:51

To: Jamie Bessant <J.Bessant@earlcoate.co.uk>;

Certificate of Registration under the Waste (England and Wales) Regulations 2011

Regulation authority



Name

National Customer Service Centre
58 Parkway Avenue
Sheffield
S9 4WF

Address

Telephone number

03708 506506

The Environment Agency certify that the following information is entered in the register which they maintain under regulation 28 of the Waste (England and Wales) Regulations 2011.

Carriers details

Name of registered carrier	Somborne Chalk Quarry Ltd
Registered as	An upper tier waste carrier, broker and dealer
Registration number	CB0570694
Address of place of business	SOMBOURNE CHALK QUARRY STOCKBRIDGE SO20 6QR
Telephone number	02476641771
Expiry date of registration (unless revoked)	21 January 2021
Expiry date of registration (unless revoked)	21 January 2024

Making changes to your registration

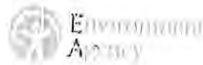
Your registration will last 3 years and will need to be renewed after this period. If any of your details change, you must notify us within 28 days of the change.

Paul's iPhone 12 Pro Max

Certificate of Registration under the Waste (England and Wales) Regulations 2011

Regulation authority

Name



Address

National Customer Service Centre
99 Parkway Avenue
Sheffield
S9 4WF

Telephone number

03708 506506

The Environment Agency certify that the following information is entered in the register which they maintain under regulation 28 of the Waste (England and Wales) Regulations 2011.

Carriers details

Name of registered carrier

Ace Liftaway Ltd

Registered as

an upper tier waste carrier, broker and dealer

Registration number

CBDU92880

Address of place of business

ACE LIFTWAY
YOKESFORD HILL
ROMSEY
SO51 0PF

Telephone number

01794 367939

Date of registration

Wednesday 20th March 2019

Expiry date of

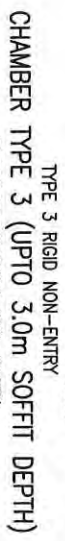
registration (unless
revoked)

Saturday 2nd April 2022

Making changes to your registration

Your registration will last 3 years and will need to be renewed after this period. If any of your details change, you must notify us within 28 days of the change.

Notes



(FIGURE B.18: SEWERS FOR ADOPTION 7th EDITION - NON-ENTRY)



(SCALE 1:200)



(SCALE 1:25)



(SCALE 1:25)



JOINT DETAIL - 2



200

rev	date	by	description
P6	03.06.21	WBP	ACCESS DOOR NOT ADDED, SAGE FINISHED CHARGED.
P5	28.07.21	WK	UPDATED TO COMMENTS
P4	22.07.21	WBP	UPDATED TO COMMENTS
P3	21.07.21	WBP	UPDATED TO COMMENTS
P2	15.07.21	WBP	UPDATED TO COMMENTS
P1	08.07.21	WBP	PRELIMINARY FOR INFORMATION

PHRYSMAN
EASTLEIGH
SOUTHAMPTON
PROPOSED GOODS
STORAGE BUILDING
AND HARD STANDING
SITE LAYOUT

PRELIMINARY - NOT TO BE
USED FOR CONSTRUCTION

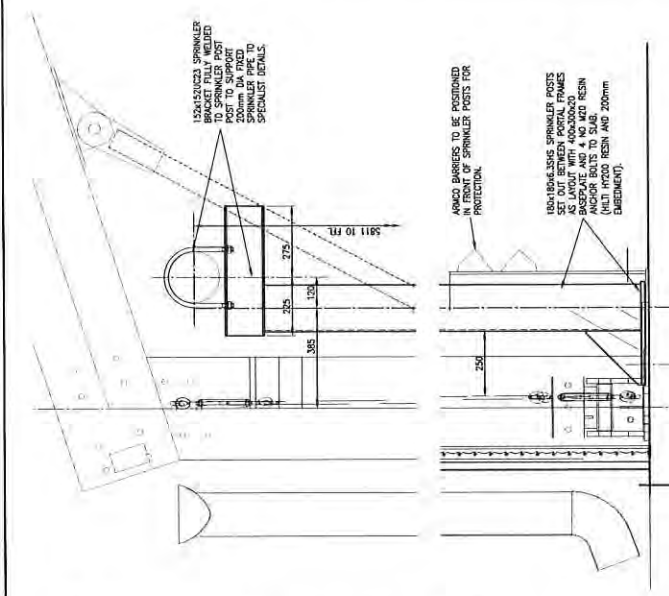
RJWatkinson
Consulting Civil and Structural Engineers
12 High Street | York YO1 1PE
Tel: 01904 626262 | Fax: 01904 626263
Email: info@rjwatkinson.co.uk
Web: www.rjwatkinson.co.uk

Hampshire SO43 7BL
T: 023 8028 3794
e: nupts@jwalkinson.co.uk

21117-01	P6
----------	----

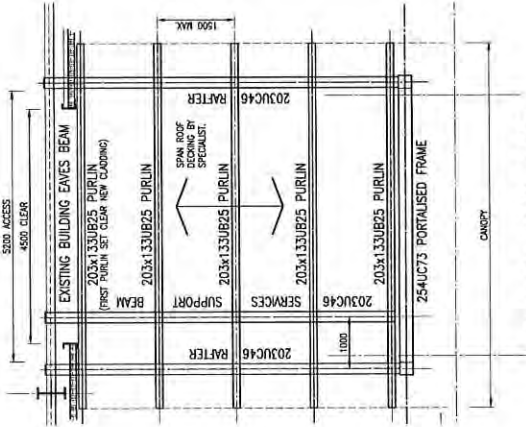
NOTES

1. THIS DRAWING IS COPYRIGHT & MUST NOT BE DISCLOSED TO THIRD PARTIES WITHOUT OUR PERMISSION.
2. SEALED DIMENSIONS ARE NOT TO BE USED FOR CONSTRUCTION.
3. CONCRETE TO BE GRADE 40-40/SURE.
4. CONCRETE COVER TO REINFORCEMENT TO BE 20mm MINIMUM USING PROPRIETARY COVER DEVICES ARE NOT ACCEPTABLE.
5. ALL CONCRETE TO BE MECHANICALLY VIBRATED.
6. ALL CONCRETE MATERIALS / WORKMANSHIP TO BE IN ACCORDANCE WITH BS 8110.
7. MINIMUM LAP IN WELD TO BE 400mm.
8. THE FOUNDATION LEVEL FOR THE NEW SLAB IS TO BE PROOF ROLLED TO THE SATISFACTION OF THE ENGINEER. ADDITIONAL SUB-BASE MAY BE REQUIRED IF THE EXISTING SUB-BASE IS DEFICIENT.

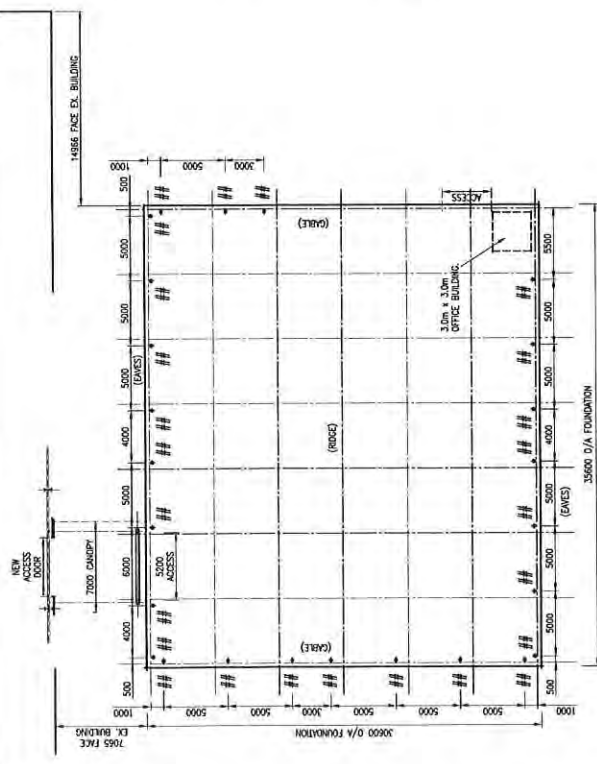


SPRINKLER SUPPORT POSTS (SCALE 1:10)

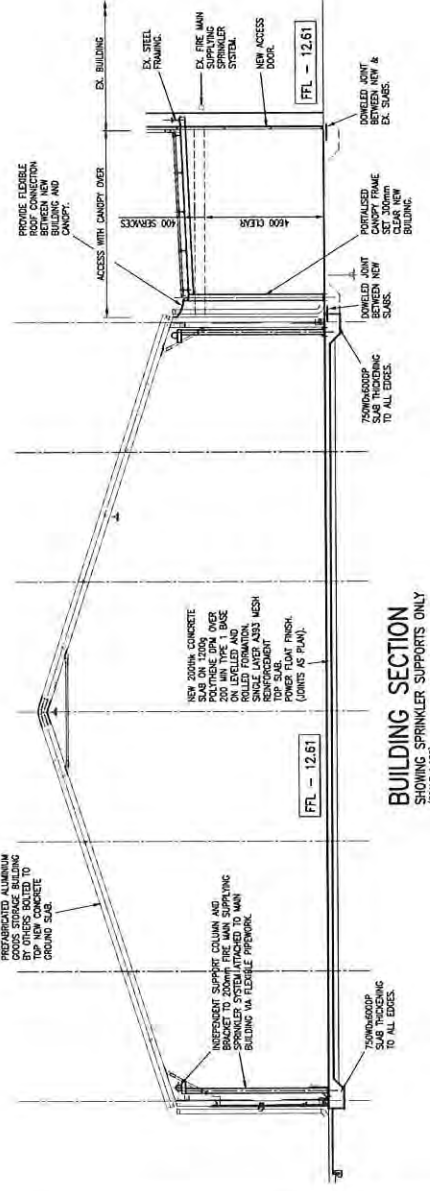
TYPICAL BASE PLATE DETAIL (SCALE 1:10)



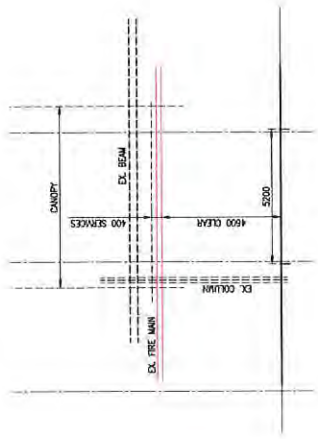
NEW CANOPY ROOF
ROOF SHEETING BY OTHERS
ALL STEELWORK GALVANISED
(SCALE 1:50)



SPRINKLER LAYOUT
SHOWING SPRINKLER SUPPORTS MARKED - ##
(SCALE 1:200)



BUILDING SECTION
SHOWING SPRINKLER SUPPORTS ONLY
(SCALE 1:100)



NEW ACCESS
LOOKING TOWARD EX. BUILDING
(SCALE 1:100)

Rev	Date	By	Description
P6	06.10.21	MPR	CANOPY ROOF FRAME UPDATED.
P6	06.10.21	MPR	PROVIDE NEW DOWN ADD TO INTERNAL CANOPY SERVICES.
P7	06.10.21	MPR	REPLACEMENT CLADDING INDICATED.
P8	03.08.21	MPR	ACCESS DOOR NOTE ADDED.
P8	28.07.21	MPR	UPDATED TO COMMENTS AND NOTES ADDED.
P8	22.07.21	MPR	UPDATED TO COMMENTS AND NOTES ADDED.
P8	21.07.21	MPR	UPDATED TO COMMENTS.
P8	13.07.21	MPR	UPDATED TO COMMENTS.
P8	08.07.21	MPR	PRELIMINARY FOR INFORMATION.

Project
PRYSMAN
EASTLEIGH
SOUTHAMPTON

PROPOSED GOODS
STORAGE BUILDING
AND HARD STANDING
SPRINKLER PIPE LAYOUT
AND DETAILS

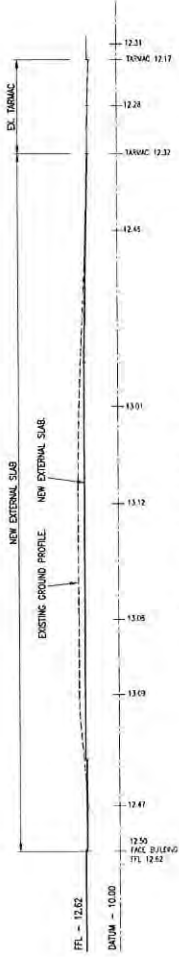
PRELIMINARY - NOT TO BE
USED FOR CONSTRUCTION

RJWatkinson
Civil and Structural Engineers
12 High Street, Lyndhurst,
Hampshire SO43 7SD
t 023 8028 3754
c rjwat@rjwatkinson.co.uk
www.rjwatkinson.co.uk

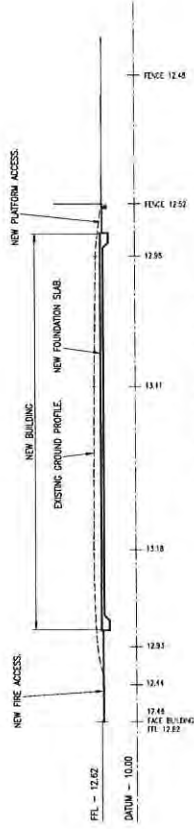
Drawn	Check	Issue	AS SHOWN	Rev	Rev
MPR	JUL 2021	AS SHOWN	A1		P9

Notes

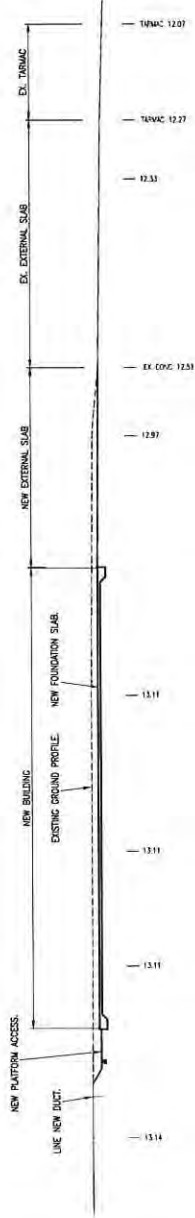
1. THIS DRAWING IS COPYRIGHT & MUST NOT BE DISCLOSED TO THIRD PARTIES WITHOUT OUR PERMISSION.
2. SCALED DIMENSIONS ARE NOT TO BE USED FOR CONSTRUCTION.



SITE CROSS SECTION
(TAKEN THROUGH NEW CONCRETE PARKING AREA)
(SCALE 1:200)



SITE CROSS SECTION
(TAKEN THROUGH NEW NEW BUILDING)
(SCALE 1:200)



SITE LONG SECTION
(TAKEN THROUGH NEW NEW BUILDING)
(SCALE 1:200)

P1 21.07.21 ASD PRELIMINARY FOR INFORMATION

Project

PRYSMAN
EASTLEIGH
SOUTHAMPTON

PROPOSED GOODS
STORAGE BUILDING
AND HARD STANDING

SITE SECTIONS

PRELIMINARY - NOT TO BE
USED FOR CONSTRUCTION

RJWatkinson
Consulting Civil and Structural Engineers

12 High Street, Lyndhurst,
Hampshire SO43 7BD
t: 023 8028 3754
e: rjw@rjwatkinson.co.uk
www.rjwatkinson.co.uk

Drawn: ASD Date: JUL 2021 Scale: AS SHOWN Sheet: A1

Checked: ASD Revision: P1

21117-03

0 10 20 30 40 50 60 70 80 90 100
Horizontal Scale (metres)

APPENDIX 4

HISTORICAL SITE PHOTOGRAPHS



Photo 1. Historic aerial photograph showing the site in 1985.



Photo 2. Historic aerial photograph showing the site in 1995.

Title: Historic Photographic Log	Client: Prysmian Cables and Systems Ltd
Site: Prysmian Cables, Eastleigh	Date: 14 December 2021



Photo 3. View of the Unit 1 area from the north-west. Photograph taken 01/10/21



Photo 4. View of the Unit 1 area from the north-east. Photograph taken 01/10/21

Title: Historic Photographic Log	Client: Prysmian Cables and Systems Ltd
Site: Prysmian Cables, Eastleigh	Date: 14 December 2021

Title: Historic Photographic Log	Client: Prysmian Cables and Systems Ltd
Site: Prysmian Cables, Eastleigh	Date: 14 December 2021