Appendix 14

Preliminary Site Investigation

JK Geotechnic

REPORT TO

CIFI ST LEONARDS DEVELOPMENT MANAGEMENT PTY LTD

ON

PRELIMINARY (STAGE 1) SITE INVESTIGATION

FOR

PROPOSED RESIDENTIAL DEVELOPMENT - EAST QUARTER ST LEONARDS

AT

22-34 BERRY STREET, 21-31 HOLDSWORTH AVENUE & 42-46 RIVER ROAD, ST LEONARDS, NSW

Date: 31 January 2022

Ref: E33629BTrpt

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E33629BTrpt	Final Report	31 January 2021

Executive Summary

CIFI St Leonards Development Management Pty Ltd ('the client') commissioned JK Environments (JKE) to undertake a Preliminary (Stage 1) Site Investigation (PSI) for the proposed residential development at East Quarter St Leonards, 22-34 Berry Street, 21-31 Holdsworth Avenue and 42-46 River Road, St Leonards, NSW. The purpose of the investigation is to make a preliminary assessment of site contamination. The site location is shown on Figure 1 and the investigation was confined to the site boundaries as shown on Figure 2 shown on the attached appendices.

This report has been prepared to support the lodgement of a Development Application (DA) for the proposed East Quarter development, with regards to State Environmental Planning Policy No.55 – Remediation of Land (1998).

A geotechnical investigation was undertaken in conjunction with this PSI by JK Geotechnics (JKG). The results of the geotechnical investigation are presented in a separate report (Ref: 33629Brpt). This report should be read in conjunction with the JKG report.

The proposed development is at the concept design phase however, it is understood that it will likely include demolition of the existing buildings and structures at the site and construction of four residential buildings comprising between eight to 12 floors with associated landscaping and basement car parking. Selected development plans issued to JKE are attached in the appendices.

The primary aims of the investigation were to identify any past or present potentially contaminating activities at the site, identify the potential for site contamination, and make a preliminary assessment of the soil contamination conditions. The objectives were to:

- Provide an appraisal of the past site use(s) based on a review of historical records;
- Assess the current site conditions and use(s) via a site walkover inspection;
- Identify potential contamination sources/areas of environmental concern (AEC) and contaminants of potential concern (CoPC);
- Assess the soil contamination conditions via implementation of a preliminary sampling and analysis program;
- Prepare a conceptual site model (CSM);
- Assess the potential risks posed by contamination to the receptors identified in the CSM (Tier 1 assessment);
- Assess whether the site is suitable or can be made suitable for the proposed development (from a contamination viewpoint); and
- Assess whether further intrusive investigation and/or remediation is required.

The site history information and site walkover inspection identified the following AEC: imported fill; potential application of pesticides; hazardous building materials in existing site structures and upgradient off-site land uses including a dry cleaner and several service station/motor garages.

Soil sampling for the PSI was undertaken from six boreholes shown on Figure 2. The boreholes generally encountered fill material to depths of approximately 0.35m below ground level (BGL) to 1mBGL, underlain by residual clayey and sandy soils. The fill contained inclusions of sand, sandstone and igneous gravel, brick fragments, silt and root fibres. A selection of soil samples was analysed for the CoPC identified in the CSM. Zinc was detected in fill above the ecological based Site Assessment Criteria (SAC).

The PSI has not identified contamination that would preclude the proposed development/use of the site. However, a Detailed Site Investigation (DSI) is required to characterise the risks posed by the AEC and establish whether remediation is necessary. We recommend the following:

1. Undertake a DSI (additional soil sampling and groundwater sampling) to characterise potential contamination in the proposed development footprint and other risks associated with the AEC. If contamination is identified, this investigation is to inform the preparation of a Remediation Action Plan (RAP);
2. Undertake a hazardous materials survey of the existing site buildings;
3. Develop a suitable unexpected-finds protocol (UFP) to be implemented during development; and
4. Where required based on the outcome of the DSI, develop and implement a RAP. Any requirements documented in a RAP are to be implemented and the site is to be validated (a validation report is to be prepared on completion of remediation).

The conclusions and recommendations should be read in conjunction with the limitations presented in the body of this report.

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Attachments

Abbreviations

Asbestos Fines/Fibrous Asbestos	**AF/FA**
Ambient Background Concentrations	**ABC**
Added Contaminant Limits	**ACL**
Asbestos Containing Material	**ACM**
Area of Environmental Concern	**AEC**
Australian Height Datum	**AHD**
Acid Sulfate Soil	**ASS**
Below Ground Level	**BGL**
Benzo(a)pyrene Toxicity Equivalent Factor	**BaP TEQ**
Benzene, Toluene, Ethylbenzene, Xylene	**BTEX**
Cation Exchange Capacity	**CEC**
Contaminated Land Management	**CLM**
Contaminant(s) of Potential Concern	**CoPC**
Chain of Custody	**COC**
Conceptual Site Model	**CSM**
Development Application	**DA**
Dial Before You Dig	**DBYD**
Data Quality Indicator	**DQI**
Data Quality Objective	**DQO**
Detailed (Stage 2) Site Investigation	**DSI**
Ecological Investigation Level	**EIL**
Ecological Screening Level	**ESL**
Environment Protection Authority	**EPA**
General Approval of Immobilisation	**GAI**
Health Investigation Level	**HILs**
Health Screening Level	**HSL**
International Organisation of Standardisation	**ISO**
JK Environments	**JKE**
Lab Control Spike	**LCS**
Map Grid of Australia	**MGA**
National Association of Testing Authorities	**NATA**
National Environmental Protection Measure	**NEPM**
Organochlorine Pesticides	**OCP**
Organophosphate Pesticides	**OPP**
Polycyclic Aromatic Hydrocarbons	**PAH**
Polychlorinated Biphenyls	**PCBs**
Per-and Polyfluoroalkyl Substances	**PFAS**
Photo-ionisation Detector	**PID**
Protection of the Environment Operations	**POEO**
Practical Quantitation Limit	**PQL**
Quality Assurance	**QA**
Quality Control	**QC**
Relative Percentage Difference	**RPD**
Site Assessment Criteria	**SAC**
Sampling, Analysis and Quality Plan	**SAQP**
Source, Pathway, Receptor	**SPR**
Standard Penetration Test	**SPT**
Trip Blank	**TB**
Total Recoverable Hydrocarbons	**TRH**
Trip Spike	**TS**
Volatile Organic Compounds	**VOC**
World Health Organisation	**WHO**

Units

Metres BGL	**mBGL**
Metres	**m**
Milligrams per Kilogram	**mg/kg**
Parts Per Million	**ppm**
Percentage	**%**
Percentage weight for weight	**%w/w**

1 INTRODUCTION

CIFI St Leonards Development Management Pty Ltd ('the client') commissioned JK Environments (JKE) to undertake a Preliminary (Stage 1) Site Investigation (PSI) for the proposed residential development at East Quarter St Leonards, 22-34 Berry Street, 21-31 Holdsworth Avenue and 42-46 River Road, St Leonards, NSW. The purpose of the investigation is to make a preliminary assessment of site contamination. The site location is shown on Figure 1 and the investigation was confined to the site boundaries as shown on Figure 2 show attached in the appendices.

This report has been prepared to support the lodgement of a Development Application (DA) for the proposed East Quarter development, with regards to State Environmental Planning Policy No.55 – Remediation of Land (1998)[1].

A geotechnical investigation was undertaken in conjunction with this PSI by JK Geotechnics (JKG). The results of the geotechnical investigation are presented in a separate report (Ref: 33629Brpt)[2]. This report should be read in conjunction with the JKG report.

1.1 Proposed Development Details

The proposed development is at the concept design phase however, it is understood that it will likely include demolition of the existing buildings and structures at the site and construction of four residential buildings comprising between eight to 12 floors with associated landscaping and basement car parking. The development is likely to include four basement levels. The lowest basement is proposed at RL49.6m, which will require excavation to depths ranging from approximately 3m below ground level (BGL) at the southern River Road end to approximately 20m at the northern end. The basement will be offset by approximately 4m from the northern, eastern and western boundaries and 10m from the southern boundary and will not occupy the central portion of the site, where deep planting will be present within a central courtyard

Selected development plans issued to JKE are attached in the appendices.

1.2 Aims and Objectives

The primary aims of the investigation were to identify any past or present potentially contaminating activities at the site, identify the potential for site contamination, and make a preliminary assessment of the soil contamination conditions. The objectives were to:

- Provide an appraisal of the past site use(s) based on a review of historical records;
- Assess the current site conditions and use(s) via a site walkover inspection;
- Identify potential contamination sources/areas of environmental concern (AEC) and contaminants of potential concern (CoPC);
- Assess the soil contamination conditions via implementation of a preliminary sampling and analysis program;
- Prepare a conceptual site model (CSM);

[1] *State Environmental Planning Policy No. 55 – Remediation of Land 1998* (NSW) (referred to as SEPP55)

[2] JKG, (2021). *Report to Greaton Developments Pty Ltd on Geotechnical Investigation for Proposed Residential Development – East Quarter St Leonards at 22-34 Berry Street, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW.* (referred to as JKG report)

- Assess the potential risks posed by contamination to the receptors identified in the CSM (Tier 1 assessment);
- Assess whether the site is suitable or can be made suitable for the proposed development (from a contamination viewpoint); and
- Assess whether further intrusive investigation and/or remediation is required.

1.3 Scope of Work

The investigation was undertaken generally in accordance with a JKE proposal (Ref: EP52861BT_Rev3) of 14 October 2021 and written acceptance from the client of 12 November 2021. The scope of work included the following:

- Review of site information, including background and site history information from various sources outlined in the report;
- Preparation of a CSM;
- Design and implementation of a sampling, analysis and quality plan (SAQP);
- Interpretation of the analytical results against the adopted Site Assessment Criteria (SAC);
- Data Quality Assessment; and
- Preparation of a report including a Tier 1 risk assessment.

The scope of work was undertaken with reference to the National Environmental Protection (Assessment of Site Contamination) Measure 1999 as amended (2013)[3], other guidelines made under or with regards to the Contaminated Land Management Act (1997)[4] and SEPP55. A list of reference documents/guidelines is included in the appendices.

[3] National Environment Protection Council (NEPC), (2013). *National Environmental Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013).* (referred to as NEPM 2013)

[4] Contaminated Land Management Act 1997 (NSW) (referred to as CLM Act 1997)

2 SITE INFORMATION

2.1 Site Identification

Table 2-1: Site Identification

Current Site Owner (certificate of title):	SJD St Leonards Pty Ltd - *22 Berry Road (Lot 15 Section 2 DP 7259)* - *21 Holdsworth Avenue (Lot 29 Section 2 in DP7259)* Greaton St Leonards Holdings Pty Ltd – *34 Berry Road (Lot 1 in DP1037926)* – *42 River Road (Lot 21 Section 2 in DP7259)*
Site Address:	22-34 Berry Road, 21-31 Holdsworth Avenue and 42-44 River Road, St Leonards, NSW
Lot & Deposited Plan:	Lots 1 and 2 in DP1037926, Lots 15 to 22 Section2 in DP7259, and Lots 24 to 29 Section 2 in DP7259
Current Land Use:	Residential (low density)
Proposed Land Use:	Residential (high density)
Local Government Authority:	Lane Cove Municipal Council
Current Zoning:	R4: High density residential
Site Area (m^2) (approx.):	8,750
RL (AHD in m) (approx.):	46.3 to 70.44
Geographical Location (decimal degrees) (approx.):	Latitude: -33.8272364 Longitude: 151.1924109
Site Plans:	Appendix A

2.2 Site Location and Regional Setting

The site is located in a predominantly residential area of St Leonards and is bound by Berry Road to the west, Holdsworth Avenue to the east and River Road to the south. The site is located approximately 140m to the north of Berrys Creek, a tributary leading into Gore Cove.

2.3 Topography

The regional topography is characterised by a south facing hillside that falls towards Berrys Creek. The site is located mid-slope and has a gentle fall towards the south at approximately 6°. Parts of the site appear to have been levelled to account for the slope and accommodate the existing development.

2.4 Site Inspection

A walkover inspection of the site was undertaken by JKE on 16 December 2021. The inspection was limited to accessible areas of the site and immediate surrounds. An internal inspection of buildings was not

undertaken. Selected site photographs obtained during the inspection are attached in the appendices. A summary of the inspection findings is outlined in the following subsections:

2.4.1 Current Site Use and/or Indicators of Former Site Use

At the time of the inspection, the site was occupied by 16 individual residential properties, comprised of one or two storey residences and associated out buildings.

2.4.2 Buildings, Structures and Roads

All properties included a main residence and access driveway, with some properties including associated outbuildings and detached car ports/garages. The buildings and structures on the site were generally constructed with brick, sandstone block, fibre cement and tile. The buildings and structures were of an age indicative of housing hazardous building materials (i.e. asbestos containing materials, lead paint, etc.).

2.4.3 Boundary Conditions, Soil Stability and Erosion

Fencing was generally present along the street side boundary of all properties, with access via driveway and/or pedestrian gate. No evidence of erosion was observed during the inspection.

2.4.4 Presence of Drums/Chemical Storage and Waste

No evidence of drums or chemical storage was observed during the site inspection. Where general household waste was observed, it was noted to be appropriately stored in municipal waste bins on a majority of the properties within the site.

2.4.5 Evidence of Cut and Fill

The individual residences appeared to have been built into the fall of the site with localised cut and fill for levelling purposes observed. This was more evident at the southern end of the site.

Fill material (inclusions of sandstone gravel and brick fragments) was generally visible in garden beds and at the interface between paved sections and graces covered garden areas of the site.

2.4.6 Visible or Olfactory Indicators of Contamination (odours, spills etc)

No visible or olfactory indicators of contamination were observed on any of the properties during the site inspection.

2.4.7 Drainage and Services

Surface runoff from the site is expected to flow towards the south in keeping with the overall fall of the site. Local stormwater drainage points were observed in individual property driveways and it was assumed that these discharged into the street and the regional stormwater system.

2.4.8 Sensitive Environments

Sensitive environments such as wetlands, ponds, creeks or extensive areas of natural vegetation were not identified on site or in the immediate surrounds.

2.4.9 Landscaped Areas and Visible Signs of Plant Stress

The unpaved areas of the properties generally comprised grass coverage with small to large shrubs and trees around each property boundary. The vegetation observed appeared generally healthy (based on a cursory inspection) and no evidence of stress or die-back was recorded.

2.5 Surrounding Land Use

During the site inspection, the site was observed to be surrounded by low density properties in all directions. JKE did not observe any land uses in the immediate surrounds that were identified as potential off-site contamination sources for the site.

2.6 Underground Services

The DBYD plans indicated that a sewer main extends in a north-south direction, through the eastern end of the Berry Road properties, exiting the site through 46 River Road. The sewer is understood to be at a depth of approximately 2.5mBGL. The sewer trench could act as a preferential pathway for contaminant migration. Copies of the relevant plans are attached in the appendices.

2.7 Section 10.7 Planning Certificate

The section 10.7 (2 and 5) planning certificates for the four corner properties within the site (22 and 34 Berry Road, 21 Holdsworth Avenue and 42 River Road) were reviewed the investigation. The properties were selected based on the results of the site inspection. Copies of the certificates are attached in the appendices. A summary of the relevant information is outlined below:

- None of the four properties are deemed to be: significantly contaminated; subject to a management order; subject of an approved voluntary management proposal; or subject to an on-going management order under the provisions of the CLM Act 1997;
- None of the properties are the subject of a Site Audit Statement (SAS);
- None of the properties are located within an acid sulfate soil (ASS) risk area; and
- There are no items of environmental heritage on the land.

It is also noted that all property certificates reviewed stated:

> *Council records do not have sufficient information about the uses (including previous uses) of the land which is the subject of this Section 10.7 certificate. To confirm that the land hasn't been used for a purpose which would be likely to have contaminated the land, parties should make their own enquiries as to whether the land may be contaminated.*

3 GEOLOGY AND HYDROGEOLOGY

3.1 Regional Geology

Regional geological information was reviewed for the investigation. The information was sources from the Lotsearch report attached in the appendices. The report indicates that the north-west corner of the site (22-26 Berry Road and 21 Holdsworth Avenue) is underlain by Ashfield Shale of the Wianamatta Group, which typically consists of black to dark grey shale and laminate, with the remainder, and the majority of the site is underlain by Hawkesbury Sandstone, which typically consists of medium to coarse grained quartz sandstone with minor shale and laminite lenses.

3.2 Acid Sulfate Soil (ASS) Risk and Planning

The site is not located in an ASS risk area according to the risk maps prepared by the Department of Land and Water Conservation.

ASS information presented in the Lotsearch report indicated that the site is not located within an ASS risk area.

3.3 Hydrogeology

Hydrogeological information presented in the Lotsearch report indicated that the regional aquifer on-site and in the areas immediately surrounding the site includes porous, extensive aquifers of low to moderate productivity. There was a total of 22 registered bores within the report buffer of 1,000m. In summary:

- The nearest registered bore was located approximately 825m upgradient from the site. This was utilised for domestic purposes;
- The majority of the bores were registered for monitoring purposes;
- There were no down-gradient bores registered for domestic or irrigation uses; and
- The drillers log information from the closest registered bores typically identified fill and/or clay soil to depths of approximately 0.6-9.2m, underlain by sandstone bedrock. Standing water levels (SWL) in the bores ranged from approximately 13mBGL to 48mBGL.

The information reviewed for the PSI indicates that the subsurface conditions at the site are likely to consist of relatively low permeability (residual) soils overlying shallow bedrock. The potential for viable groundwater abstraction and use of groundwater under these conditions is considered to be low. There is a reticulated water supply in the area and consumption of groundwater is not expected to occur. Use of groundwater is not proposed as part of the development.

Considering the local topography and surrounding land features, JKE anticipate groundwater to flow towards the south.

3.4 Receiving Water Bodies

Surface water bodies were not identified in the immediate vicinity of the site. The closest surface water body is Berrys Creek located approximately 140m to the south of the site. This is down-gradient from site and is considered to be a potential receptor.

4 SITE HISTORY INFORMATION

4.1 Review of Historical Aerial Photographs

Historical aerial photographs were reviewed for the investigation. The information was sourced from the Lotsearch report. JKE has reviewed the photographs and summarised relevant information in the following table:

Table 4-1: Summary of Historical Aerial Photographs

Year	Details
1930	**On-site:** The site appeared to comprise 16 residential lots with buildings and structures positioned along Berry Road, Holdsworth Avenue and River Road, and rear garden areas present (consistent with existing site layout). A low-lying gully feature was located on the south section of the wider site (north boundary of properties 42 to 46 River Rd). The gully ran in an east-west direction within the site and to the north-east beyond the site. **Off-site:** The surrounds to the north, east and west appeared similar to the site and comprised residential lots. The land to the south appeared to comprise a mix of residential lots and vacant parkland.
1943 1951 1955-1956 1961	**On-site:** The site appeared generally similar to the previous photograph. **Off-site:** Further residential development including apartment buildings, was visible to the south of the site.
1965 1970 1978 1982 1986 1991 1994 2000	The site and surrounding features appeared generally similar to the previous photograph.
2005 2011 2016 2021	**On-site:** The site appeared generally similar to the previous photograph and present layout. **Off-site:** Some redevelopment of residential apartment buildings was visible to the south of the site.

4.2 Review of Historical Land Title Records

Historical land title records for the four corner properties within the site (22 and 34 Berry Road, 21 Holdsworth Avenue and 42 River Road) were reviewed for the investigation. The record search was undertaken by InfoTrack. Copies of the title records are attached in the appendices. The title records indicate the following:

- With the exception of Lot 1 in DP1037926 between 1989 and 1993 and Lot 21 in 7259 between 1995 to 2003 and between 2017 and 2018, both lots were owned by individuals until Greaton St Leonards Holdings Pty Ltd took ownership in 2018;
- The companies that owned Lot 1 in DP1037926 between 1989 and 1993 (Ballasal Pty Limited) and Lot 21 in 7259 between 1995 to 2003 (Bradfield Corporate Services Pty Limited) and between 2017 and 2018 (Jontina Pty Ltd) were listed as finance or investments companies; and

- Lot 15 Section 2 in DP 7259 and Lot 29 Section 2 in DP 7259 were owned by individuals until SJD St Leonards Pty Ltd took ownership of both properties in 2017.

The historical land title records did not identify any particular land uses which could have resulted in significant contamination. The professions of the individuals listed on the title records are unlikely to be associated with site related activities.

4.3 SafeWork NSW Records

SafeWork NSW records in relation to the registered storage of dangerous goods were reviewed for 27 Holdsworth Avenue. The individual lot was selected based on a review of the available site information. Copies of relevant documents are attached in the appendices. The search did not identify any licences to store dangerous goods including underground fuel storage tanks (USTs), above ground storage tanks (ASTs) or chemicals at the site.

4.4 NSW EPA and Department of Defence Records

A review of the NSW EPA and Department of Defence databases was undertaken for the PSI. Information from the following databases were sourced from the Lotsearch report:

- Records maintained in relation to contaminated land under Section 58 of the CLM Act 1997;
- Records of sites notified in accordance with the Guidelines on the Duty to Report Contamination under Section 60 of the CLM Act 1997 (2015)[5];
- Licensed activities under the Protection of the Environment Operations Act (1997)[6];
- Sites being investigated under the NSW EPA per-and polyfluoroalkyl substances (PFAS) investigation program;
- Sites being investigated by the Department of Defence for PFAS contamination; and
- Sites being managed by the Department of Defence for PFAS contamination.

The search included the site and surrounding areas in the report buffer. A summary of the information is provided below:

Table 4-2: NSW EPA and Department of Defence Records

Records	On-site	Off-site
Records under Section 58 of the CLM Act 1997	None	There was one property listed in the report buffer. This property was the Oyster Cove AGL located approximately 835m to the south and cross to down-gradient of the site. Due to the distance and topographic location of the property, it is not considered to represent an off-site source of contamination.

[5] NSW EPA, (2015). *Guidelines on the Duty to Report Contamination under Section 60 of the CLM Act 1997.* (referred to as Duty to Report Contamination)

[6] Protection of the Environment Operations Act 1997 (NSW) (referred to as POEO Act 1997)

Records	On-site	Off-site
Records under the Duty to Report Contamination under Section 60 of the CLM Act 1997	None	There were three properties listed in the report buffer. These properties included a Telstra data centre located approximately 730m to the north and on the other side of a topographical rise, the Gore Creek drainage line located approximately 835m to the west and cross-gradient and the Oyster Cove AGL site located approximately 835m to the south and cross to down-gradient (listed above). Due to the distance and topographic location of the properties, they are not considered to represent off-site source of contamination.
Former Gasworks	None	There was one property listed in the report buffer. This property was located at King Street, Waverton approximately 760m to the south and cross to down-gradient of the site. The property is not considered to represent an off-site source of contamination.
Licences under the POEO Act 1997	None	Current and historical licenses were identified for several properties within the report buffer, including railway systems, waste storage (including at the Royal North Shore Hospital) and application of herbicides to waterways. However, these activities are considered unlikely to pose a contamination risk to the site or represent and off-site source of contamination.
Records relating to the NSW EPA PFAS Investigation Program	None	None
Records relating to the Department of Defence PFAS management and investigation programs	None	There was one property listed in the report buffer. This property was the HMAS Waterhen site located approximately 1.2km to the south and down-gradient of the site. The property is not considered to represent an off-site source of contamination.

4.5 Historical Business Directory and Additional Lotsearch Information

Historical business records and other relevant information were reviewed for the investigation. The information was sourced from the Lotsearch report and summarised in the following table:

Table 4-3: Historical Business Directory and other Records

Records	On-site	Off-site
Historical dry cleaners, motor garages and service stations	None	There were 12 services stations/motor garages and five dry cleaners listed in the report buffer between 1950-1990.

Records	On-site	Off-site
		Six of these businesses, including one dry cleaner and five services stations/motor garages, were located approximately 180m and 280m upgradient of the site. Due to the proximity and topographical position of these businesses, they are considered to represent potential off-site sources of contamination.
Other historical businesses that could represent potential sources of contamination	None	None
National waste management site database	None	There was one property listed in the report buffer. This property was a SITA facility located approximately 865m to the north-west and on the opposite side of a topographic rise. The property is not considered to represent an off-site source of contamination.
National liquid fuel facilities	None	There was one property listed in the report buffer. This property was a Shell facility located approximately 995m to the south-west and down-gradient of the site. The property is not considered to represent an off-site source of contamination.
Mapped heritage items	None	Various heritage items were mapped in the report buffer. These are not considered to have any relevance in the context of the PSI objectives.
Mapped ecological constraints	Exotic/Native vegetation was mapped within the site. These are not considered to have any relevance in the context of the PSI objectives.	Various ecological items were mapped in the report buffer. These are not considered to have any relevance in the context of the PSI objectives.
Mapped naturally occurring asbestos	None	None

4.6 Summary of Site History Information

A time line summary of the historical land uses and activities is presented in the following table. The information presented in the table is based on a weight of evidence assessment of the site history documentation and observations made by JKE.

Table 4-4: Summary of Historical Land Uses / Activities

Year(s)	On-site - Potential Land Use / Activities	Off-site - Potential Land Use / Activities
1930 onwards	• Residential (unclear exactly when this use commenced); • Potential (minor) filling in areas of structures for levelling purposes; • Use of hazardous building materials in the buildings and structures; and • Potential application of pesticides around and beneath site structures.	• Residential.
1948-1989	• Continued residential land use	• Ongoing residential development; and • Upgradient registered dry cleaner and service station/motor garage businesses within 180m to 280m of the site.

4.7 Integrity of Site History Information

The majority of the site history information was obtained from government organisations as outlined in the relevant sections of this report. The veracity of the information from these sources is considered to be relatively high. A certain degree of information loss can be expected given the lack of specific land use details over time. JKE have relied upon the Lotsearch report and have not independently verified any information contained within. However, it is noted that the Lotsearch report is generated based on databases maintained by various government agencies and is expected to be reliable.

5 CONCEPTUAL SITE MODEL

NEPM (2013) defines a CSM as a representation of site related information regarding contamination sources, receptors and exposure pathways between those sources and receptors. The CSM for the site is presented in the following sub-sections and is based on the site information (including the site inspection information) and the review of site history information. Reference should also be made to the figures attached in the appendices.

A review of the CSM in relation to source, pathway and receptor (SPR) linkages has been undertaken as part of the Tier 1 risk assessment process, as outlined in Section 9.2.

5.1 Potential Contamination Sources/AEC and CoPC

The potential contamination sources/AEC and CoPC are presented in the following table:

Table 5-1: Potential (and/or known) Contamination Sources/AEC and Contaminants of Potential Concern

Source / AEC	CoPC
Fill material – The site appears to have been historically filled to achieve the existing levels. The fill may have been imported from various sources and could be contaminated.	Heavy metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc), petroleum hydrocarbons (referred to as total recoverable hydrocarbons – TRHs), benzene, toluene, ethylbenzene and xylene (BTEX), polycyclic aromatic hydrocarbons (PAHs), organochlorine pesticides (OCPs), organophosphate pesticides (OPPs), polychlorinated biphenyls (PCBs) and asbestos.
Use of pesticides – Pesticides may have been used beneath the buildings and/or around the site.	Heavy metals and OCPs
Hazardous Building Material – Hazardous building materials may be present in the existing buildings/ structures on site.	Asbestos, lead and PCBs
Off-site areas – One dry cleaner and five service stations/motor garages were identified to be currently or historically located up-gradient of the site and are considered to be potential sources of contamination.	Heavy metals, BTEX, PAHs, TRHs and VOCs, including tetrachloroethene (also known as perchloroethylene - PCE) and the breakdown products trichloroethene (TCE), cis-1,2-dichloroethene (cis-DCE) and vinyl chloride (VC).

5.2 Mechanism for Contamination, Affected Media, Receptors and Exposure Pathways

The mechanisms for contamination, affected media, receptors and exposure pathways relevant to the potential contamination sources/AEC are outlined in the following CSM table:

Table 5-2: CSM

Potential mechanism for contamination	Potential mechanisms for contamination include: • Fill material – importation of impacted material, 'top-down' impacts (e.g. placement of fill, leaching from surficial material etc), or sub-surface release (e.g. impacts from buried material);

	• Use of pesticides – 'top-down' and spills (e.g. during normal use, application and/or improper storage); • Hazardous building materials – 'top-down' (e.g. demolition resulting in surficial impacts in unpaved areas); and • Off-site land uses – 'top-down', spill or sub-surface release. Impacts to the site could occur via migration of contaminated groundwater.
Affected media	Soil has been identified as the potentially affected medium. The potential for groundwater impacts is considered to be relatively low. However, groundwater would need to be considered in the event significant contamination was identified in soil. It is noted that some of the CoPC for fill are potentially volatile. The need to consider soil vapour as a potentially affected medium would be assessed in the event that volatile contamination is found in soil and/or groundwater.
Receptor identification	Human receptors include site occupants/users (including adults and children), construction workers and intrusive maintenance workers. Off-site human receptors include adjacent land users and recreational water users within Gore Cove. Ecological receptors include terrestrial organisms and plants within unpaved areas (including the proposed landscaped areas), and freshwater ecology in Berrys Creek.
Potential exposure pathways	Potential exposure pathways relevant to the human receptors include ingestion, dermal absorption and inhalation of dust (all contaminants) and vapours (volatile TRH, naphthalene and BTEX). The potential for exposure would typically be associated with the construction and excavation works, and future use of the site. Potential exposure pathways for ecological receptors include primary/direct contact and ingestion. Exposure during future site use could occur via direct contact with soil in unpaved areas such as gardens, inhalation of airborne asbestos fibres during soil disturbance, or inhalation of vapours within enclosed spaces such as buildings and basements.
Potential exposure mechanisms	The following have been identified as potential exposure mechanisms for site contamination: • Vapour intrusion into the proposed basement and/or building (either from soil contamination or volatilisation of contaminants from groundwater); • Contact (dermal, ingestion or inhalation) with exposed soils in landscaped areas and/or unpaved areas; and • Migration of groundwater off-site and into nearby water bodies, including aquatic ecosystems and those being used for recreation.
Presence of preferential pathways for contaminant movement	The sewer (see attached DBYD plan in Appendix B) and the sewer trench/trench backfill is a potential preferential pathway for contaminant migration. The potential for contaminant migration would depend on the fate and transport properties of the contaminant(s).

6 SAMPLING, ANALYSIS AND QUALITY PLAN

6.1 Data Quality Objectives (DQO)

Data Quality Objectives (DQOs) were developed to define the type and quality of data required to achieve the project objectives outlined in Section 1.2. The DQOs were prepared with reference to the process outlined in Schedule B2 of NEPM (2013). The seven-step DQO approach for this project is outlined in the following sub-sections.

The DQO process is validated in part by the Data Quality Assurance/Quality Control (QA/QC) Evaluation. The Data (QA/QC) Evaluation is summarised in Section 8.4 and the detailed evaluation is provided in the appendices.

6.1.1 Step 1 - State the Problem

The CSM identified potential sources of contamination/AEC at the site that may pose a risk to human health and the environment. Investigation data is required to assess the contamination status of the site, assess the risks posed by the contaminants in the context of the proposed development/intended land use, and assess whether remediation is required. This information will be considered by the consent authority in exercising its planning functions in relation to the development proposal.

6.1.2 Step 2 - Identify the Decisions of the Study

The objectives of the investigation are outlined in Section 1.2. The decisions to be made reflect these objectives and are as follows:

- Did the site inspection, or does the historical information identify potential contamination sources/AEC at the site?
- Are any results above the SAC?
- Do potential risks associated with contamination exist, and if so, what are they?
- Is remediation required?
- Is the site suitable for the proposed development, or can the site be made suitable subject to further characterisation and/or remediation?

6.1.3 Step 3 - Identify Information Inputs

The primary information inputs required to address the decisions outlined in Step 2 include the following:

- Site information, including site observations and site history documentation;
- Sampling of soil media;
- Observations of sub-surface variables such as soil type, photo-ionisation detector (PID) concentrations, odours and staining;
- Laboratory analysis of soils for the CoPC identified in the CSM; and
- Field and laboratory QA/QC data.

6.1.4 Step 4 - Define the Study Boundary

The sampling was confined to the site boundaries as shown in Figure 2 and limited vertically to a depth of approximately 6mBGL (spatial boundary). The sampling was completed on 16 December 2021 (temporal boundary).

Sampling was not undertaken within the existing building footprint due to access constraints.

6.1.5 Step 5 - Develop an Analytical Approach (or Decision Rule)

6.1.5.1 Tier 1 Screening Criteria

The laboratory data will be assessed against relevant Tier 1 screening criteria (referred to as SAC), as outlined in Section 7. Exceedances of the SAC do not necessarily indicate a requirement for remediation or a risk to human health and/or the environment. Exceedances are considered in the context of the CSM and valid SPR-linkages.

For this investigation, the individual results have been assessed as either above or below the SAC. Statistical evaluation of the dataset via calculation of mean values and/or 95% upper confidence limit (UCL) values has not been undertaken due to the spatial distribution of the data and the number of samples submitted for analysis.

6.1.5.2 Field and Laboratory QA/QC

Field QA/QC included analysis of an intra-laboratory duplicate, a trip spike, and a trip blank sample. Further details regarding the sampling and analysis undertaken, and the acceptable limits adopted, is provided in the Data Quality (QA/QC) Evaluation in the appendices.

The suitability of the laboratory data is assessed against the laboratory QA/QC criteria which is outlined in the attached laboratory reports. These criteria were developed and implemented in accordance with the laboratory's National Association of Testing Authorities, Australia (NATA) accreditation and align with the acceptable limits for QA/QC samples as outlined in NEPM (2013) and other relevant guidelines.

In the event that acceptable limits are not met by the laboratory analysis, other lines of evidence are reviewed (e.g. field observations of samples, preservation, handling etc) and, where required, consultation with the laboratory is undertaken in an effort to establish the cause of the non-conformance. Where uncertainty exists, JKE typically adopt the most conservative concentration reported (or in some cases, consider the data from the affected sample as an estimate).

6.1.5.3 Appropriateness of Practical Quantitation Limits (PQLs)

The PQLs of the analytical methods are considered in relation to the SAC to confirm that the PQLs are less than the SAC. In cases where the PQLs are greater than the SAC, a discussion of this is provided.

6.1.6 Step 6 – Specify Limits on Decision Errors

To limit the potential for decision errors, a range of quality assurance processes are adopted. A quantitative assessment of the potential for false positives and false negatives in the analytical results is undertaken with reference to Schedule B(3) of NEPM (2013) using the data quality assurance information collected.

Decision errors can be controlled through the use of hypothesis testing. The test can be used to show either that the baseline condition is false or that there is insufficient evidence to indicate that the baseline condition is false. The null hypothesis is an assumption that is assumed to be true in the absence of contrary evidence. For this investigation, the null hypothesis has been adopted which is that, there is considered to be a complete SPR linkage for the CoPC identified in the CSM unless this linkage can be proven not to (or unlikely to) exist. The null hypothesis has been adopted for this investigation.

Quantitative limits on decision errors were not established as the sample plan was not probabilistic.

6.1.7 Step 7 - Optimise the Design for Obtaining Data

The most resource-effective design will be used in an optimum manner to achieve the investigation objectives. Adjustment of the investigation design can occur following consultation or feedback from project stakeholders. For this investigation, the design was optimised via consideration of the various lines of evidence used to select the sample locations, the media being sampled, and also by the way in which the data were collected.

The sampling plan and methodology are outlined in the following sub-sections.

6.2 Soil Sampling Plan and Methodology

The soil sampling plan and methodology adopted for this investigation is outlined in the table below:

Table 6-1: Soil Sampling Plan and Methodology

Aspect	Input
Sampling Density	Samples were collected from six borehole locations (BH1 to BH6) as shown on the attached Figure 2. Based on the site area (8,770m^2), this number of locations corresponded to a sampling density of approximately one sample per 1,462m^2. The sampling plan was not designed to meet the minimum sampling density for hotspot identification, as outlined in the NSW EPA Contaminated Sites Sampling Design Guidelines (1995)[7].
Sampling Plan	The sampling locations were placed on a judgemental sampling plan and were broadly positioned for site coverage, taking into consideration areas that were not easily accessible. This sampling plan was considered suitable to make a preliminary assessment of potential risks associated with the AEC and CoPC identified in the CSM, and assess whether further investigation is warranted.
Set-out and Sampling Equipment	Sampling locations were set out using a tape measure. In-situ sampling locations were checked for underground services by an external contractor prior to sampling.

[7] NSW EPA, (1995), *Contaminated Sites Sampling Design Guidelines.* (referred to as EPA Sampling Design Guidelines 1995)

Aspect	Input
	Samples were collected using a drill rig equipped with spiral flight augers (150mm diameter). Soil samples were obtained from a Standard Penetration Test (SPT) split-spoon sampler, and/or directly from the auger.
Sample Collection and Field QA/QC	Soil samples were obtained on 16 December 2021 in accordance with our standard field procedures. Soil samples were collected from the fill and natural profiles based on field observations. The sample depths are shown on the logs attached in the appendices. Samples were placed in glass jars with plastic caps and teflon seals with minimal headspace. Samples for asbestos analysis were placed in zip-lock plastic bags. During sampling, soil at selected depths was split into primary and duplicate samples for field QA/QC analysis. The field splitting procedure included alternately filling the sampling containers to obtain a representative split sample.
Field Screening	A portable Photoionisation Detector (PID) fitted with a 10.6mV lamp was used to screen the samples for the presence of volatile organic compounds (VOCs). PID screening for VOCs was undertaken on soil samples using the soil sample headspace method. VOC data was obtained from partly filled zip-lock plastic bags following equilibration of the headspace gases. PID calibration records are maintained on file by JKE. The field screening for asbestos quantification included the following: • A representative 10L sample was collected from the surface to a maximum depth of 0.1m where a fill profile was present. The bulk sample intervals are shown on the attached borehole logs; • Each 10L sample was weighed using an electronic scale; • Each bulk sample was passed through a sieve with a 7.1mm aperture and inspected for the presence of fibre cement; • The condition of fibre cement or any other suspected asbestos materials was noted on the field records; and • If observed, any fragments of fibre cement in the 10L sample were collected, placed in a zip-lock bag and assigned a unique identifier. Calculations for asbestos content were undertaken based on the requirements outlined in Schedule B1 of NEPM (2013), as summarised in Section 7.1. A calibration/check of the accuracy of the scale used for weighing the fibre cement fragments (FCF) was undertaken using a set of calibration weights. Calibration/check records are maintained on file by JKE. The scale used to weigh the 10L samples was not calibrated, however this is not considered significant as this method of providing a weight for the bulk sample is considered to be considerably more accurate than applying a nominal soil density conversion.
Decontami-nation and Sample Preservation	Sampling personnel used disposable nitrile gloves during sampling activities. Soil samples were preserved by immediate storage in an insulated sample container with ice. On completion of the fieldwork, the samples were stored temporarily in fridges in the JKE warehouse before being delivered in the insulated sample container to a NATA registered laboratory for analysis under standard chain of custody (COC) procedures.

6.2.1 Laboratory Analysis

Samples were analysed by an appropriate, NATA Accredited laboratory using the analytical methods detailed in Schedule B(3) of NEPM 2013. Reference should be made to the laboratory reports attached in the appendices for further details.

Table 6-2: Laboratory Details

Samples	Laboratory	Report Reference
All primary samples and field QA/QC samples including (intra-laboratory duplicates, trip blank and trip spike samples)	Envirolab Services Pty Ltd NSW, NATA Accreditation Number – 2901 (ISO/IEC 17025 compliance)	285684 and 285684-A

7 SITE ASSESSMENT CRITERIA (SAC)

The SAC were derived from the NEPM 2013 and other guidelines as discussed in the following sub-sections. The guideline values for individual contaminants are presented in the attached report tables and further explanation of the various criteria adopted is provided in the appendices.

7.1 Soil

Soil data were compared to relevant Tier 1 screening criteria in accordance with NEPM (2013) as outlined below.

7.1.1 Human Health

- Health Investigation Levels (HILs) for a 'residential with minimal opportunities for soil access' exposure scenario (HIL-B);
- Health Screening Levels (HSLs) for a 'low-high density residential' exposure scenario (HSL-A & HSL-B). HSLs were calculated based on conservative assumptions including a 'sand' type and a depth interval of 0m to 1m;
- HSLs for direct contact presented in the CRC Care Technical Report No. 10 – Health screening levels for hydrocarbons in soil and groundwater Part 1: Technical development document (2011)[8]; and
- Asbestos was assessed on the basis of presence/absence and against the HSL-B criteria. A summary of the asbestos criteria is provided in the table below:

Table 7-1: Details for Asbestos SAC

Guideline	Applicability
Asbestos in Soil	The HSL-B criteria were adopted for the assessment of asbestos in soil. The SAC adopted for asbestos were derived from the NEPM 2013 and are based on the Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia (2021)[9]. The SAC include the following: • No visible asbestos at the surface/in the top 10cm of soil; • <0.04% w/w bonded asbestos containing material (ACM) in soil; and • <0.001% w/w asbestos fines/fibrous asbestos (AF/FA) in soil. Concentrations for bonded ACM concentrations in soil are based on the following equation which is presented in Schedule B1 of NEPM (2013): $$\textbf{\% w/w asbestos in soil} = \frac{\textbf{\% asbestos content x bonded ACM (kg)}}{\text{Soil volume (L) x soil density (kg/L)}}$$ However, we are of the opinion that the actual soil volume in a 10L bucket varies considerably due to the presence of voids, particularly when assessing cohesive soils. Therefore, each bucket sample was weighed using electronic scales and the above equation was adjusted as follows (we note that the units have also converted to grams):

[8] Cooperative Research Centre for Contamination Assessment and Remediation of the Environment (CRC Care), (2011). Technical Report No. 10 - *Health screening levels for hydrocarbons in soil and groundwater Part 1: Technical development document*

[9] Western Australian (WA) Department of Health (DoH), (2021). *Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia*. (referred to as WA DoH 2021)

Guideline	Applicability
	% w/w asbestos in soil = $\frac{\textbf{\% asbestos content x bonded ACM (g)}}{\text{Soil weight (g)}}$

7.1.2 Environment (Ecological – terrestrial ecosystems)

- Ecological Investigation Levels (EILs) and Ecological Screening Levels (ESLs) for an 'urban residential and public open space' (URPOS) exposure scenario. These have only been applied to the top 2m of soil as outlined in NEPM (2013). The criterion for benzo(a)pyrene has been increased from the value presented in NEPM (2013) based on the Canadian Soil Quality Guidelines[10];
- ESLs were adopted based on the soil type; and
- EILs for selected metals were calculated based on the most conservative added contaminant limit (ACL) values presented in Schedule B(1) of NEPM (2013) and published ambient background concentration (ABC) values presented in the document titled Trace Element Concentrations in Soils from Rural and Urban Areas of Australia (1995)[11]. This method is considered to be adequate for the Tier 1 screening.

7.1.3 Management Limits for Petroleum Hydrocarbons

Management limits for petroleum hydrocarbons (as presented in Schedule B1 of NEPM 2013) were considered (if required).

[10] Canadian Council of Ministers of the Environment, (1999). *Canadian soil quality guidelines for the protection of environmental and human health: Benzo(a)Pyrene (1997)* (referred to as the Canadian Soil Quality Guidelines)

[11] Olszowy, H., Torr, P., and Imray, P., (1995), *Trace Element Concentrations in Soils from Rural and Urban Areas of Australia. Contaminated Sites Monograph Series No. 4*. Department of Human Services and Health, Environment Protection Agency, and South Australian Health Commission

8 RESULTS

8.1 Subsurface Conditions

A summary of the subsurface conditions encountered during the investigation is presented in the following table. Reference should be made to the borehole logs attached in the appendices for further details.

Table 8-1: Summary of Subsurface Conditions

Profile	Description
Pavement	Concrete pavement was encountered at the surface in BH4 and was 200mm in thickness.
Fill	Fill was encountered at the surface or beneath the pavement in all boreholes and extended to depths of approximately 0.35mBGL to 1mBGL. The fill typically comprised clayey gravel, clayey sand, silty sandy clay or silty sand with inclusions of sand, sandstone and ironstone gravel, brick fragments, silt and root fibres. Neither staining nor odours were encountered in the fill material during the fieldwork. No visible FCF was encountered in the fill material during the fieldwork.
Natural Soil	With the exception of BH1, natural clayey or sandy residual soils were encountered between depths of approximately 1mBGL and 5mBGL. Neither staining nor odours were encountered in the natural soils during the fieldwork.
Bedrock	Sandstone bedrock was encountered beneath the fill or natural soils in all boreholes from depths of 0.35mBGL to the termination depth of approximately 6mBGL.
Groundwater	Groundwater seepage was encountered in BH4 and BH6 at depths of approximately 4mBGL and 4.7mBGL during drilling. SWL was recorded at 3.4mBGL in BH6 a short time after completion of drilling. All other boreholes remained dry during drilling and a short time after completion of drilling.

8.2 Field Screening

A summary of the field screening results are presented in the following table:

Table 8-2: Summary of Field Screening

Aspect	Details
PID Screening of Soil Samples for VOCs	PID soil sample headspace readings are presented in attached report tables and the COC documents attached in the appendices. All results were 0ppm isobutylene equivalents which indicates a lack of PID detectable VOCs.
Bulk Screening for Asbestos	The bulk field screening results are summarised in the attached report tables. FCF was not encountered in any of the bulk field screening samples and all results were below the SAC.

8.3 Soil Laboratory Results

The soil laboratory results were assessed against the SAC presented in Section 7.1. Individual SAC are shown in the report tables attached in the appendices. A summary of the results is presented below:

8.3.1 Human Health and Environmental (Ecological) Assessment

Table 8-3: Summary of Soil Laboratory Results – Human Health and Environmental (Ecological)

Analyte	N	Max. (mg/kg)	N> Human Health SAC	N> Ecological SAC	Comments
Arsenic	8	54	0	0	-
Cadmium	8	<0.4	0	NSL	-
Chromium (total)	8	22	0	0	-
Copper	8	54	0	0	-
Lead	8	270	0	0	-
Mercury	8	<0.1	0	NSL	-
Nickel	8	4	0	0	-
Zinc	8	200	0	1	The zinc concentration in one field duplicate sample SDUP1 obtained from borehole BH6 exceeded the ecological SAC of 190mg/kg.
Total PAHs	8	19	0	NSL	-
Benzo(a)pyrene	8	1.9	NSL	0	-
Carcinogenic PAHs (as BaP TEQ)	8	2.7	0	NSL	-
Naphthalene	8	<1	0	NSL	-
DDT+DDE+DDD	6	<0.1	0	NSL	-
DDT	6	<0.1	NSL	0	-
Aldrin and dieldrin	6	<0.1	0	NSL	-
Chlordane	6	<0.1	0	NSL	-
Heptachlor	6	<0.1	0	NSL	-
PCBs	6	<0.1	0	NSL	-
TRH F1	8	<25	0	0	-
TRH F2	8	<50	0	0	-
TRH F3	8	220	0	0	-

Analyte	N	Max. (mg/kg)	N> Human Health SAC	N> Ecological SAC	Comments
TRH F4	8	120	0	0	-
Benzene	8	<0.2	0	0	-
Toluene	8	<0.5	0	0	-
Ethylbenzene	8	<1	0	0	-
Xylenes	8	<3	0	0	-
Asbestos (in soil)	3	<0.001% w/w	0	NA	-

Notes:

N: Total number (primary samples)

NSL: No set limit

NL: Not limiting

8.4 Summary of Data (QA/QC) Evaluation

The data evaluation is presented in the appendices. In summary, JKE are of the opinion that the data are adequately precise, accurate, representative, comparable and complete to serve as a basis for interpretation to achieve the investigation objectives.

9 DISCUSSION

9.1 Contamination Sources/AEC and Potential for Site Contamination

Based on the scope of work undertaken for this investigation, JKE identified the following potential contamination sources/AEC:

- Fill material;
- Use of pesticides;
- Hazardous building materials; and
- Upgradient off-site land uses including former dry cleaner and service station/motor garages.

Considering the above, and based on a qualitative assessment of various lines of evidence as discussed throughout this report, JKE are of the opinion that there is a potential for site contamination. The preliminary soil data collected for the investigation is discussed further in the following subsection, as part of the Tier 1 risk assessment.

9.2 Tier 1 Risk Assessment and Review of CSM

For a contaminant to represent a risk to a receptor, the following three conditions must be present:

1. Source – The presence of a contaminant;
2. Pathway – A mechanism or action by which a receptor can become exposed to the contaminant; and
3. Receptor – The human or ecological entity which may be adversely impacted following exposure to contamination.

If one of the above components is missing, the potential for adverse risks is relatively low.

9.2.1 Soil

9.2.1.1 Zinc

Zinc was detected at a concentration in fill that exceeded the ecological SAC. The elevation is shown on Figure 3. The source of the elevated zinc is considered likely to be associated with imported fill material. JKE have adopted the most conservative EIL values. Soil properties (pH and CEC) was not used in deriving the ACL for zinc. In the current site configuration, there is considered to be a complete SPR linkage to the zinc impacted fill material.

9.2.1.2 Asbestos

No visible FCF/asbestos containing material (ACM) was encountered in the fill material at the site during the field work. Indicators for asbestos (i.e. brick fragments indicative of building and demolition waste) were encountered in the fill material during fieldwork and we note that sampling was completed from only six boreholes using auger drilling methods which limits the disturbance of the soil and a thorough visual assessment of the fill which may potentially contain asbestos. Given the site history and observations indicates filling has taken place, further detailed investigation is required to adequately assess the risks posed by asbestos (relative to the SAC) in the context of proposed development and on-going land use.

It is also recommended that a hazardous building materials survey is undertaken to confirm the presence of any hazardous building materials (i.e. asbestos) prior to demolition of the existing buildings and structures. Where hazardous building materials are identified, and following removal, a clearance certificate should be provided to reduce the risk of potential contamination from poor demolition practices.

9.2.2 Other CoPC

Elevated concentrations of the other CoPC were not encountered above the adopted SAC in the soil samples analysed and therefore are not consider to pose a risk to the receptors.

Based on the site history and the soil results reported, the potential for OCPs/OPPs and PCBs to impact the groundwater, as a result of the current or historical site and wider property use, is considered to be low. Further investigation of potential groundwater impacts from off-site land-uses (upgradient former dry cleaner and service stations/motor garages, i.e. heavy metals, BTEX, PAHs, TRHs and VOCs) is warranted.

9.3 Decision Statements

The decision statements are addressed below:

> *Did the site inspection, or does the historical information identify potential contamination sources/AEC at the site?*

Yes, as noted in Section 9.1.

> *Are any results above the SAC?*

Yes, zinc in one fill sample was reported above the ecological based SAC.

> *Do potential risks associated with contamination exist, and if so, what are they?*

Yes, potential ecological risk associated with elevated zinc in fill. There are also potential contamination risks to groundwater from off-site land-uses associated with the use of solvents and fuel storage.

> *Is remediation required?*

Based on the current dataset and the definitions of remediation and contamination in the CLM Act 1997, remediation is not considered to be required at this stage. However, further investigation via a Detailed Site Investigation (DSI) is required to characterise potential groundwater risks at the site and address the data gaps outlined in Section 9.4.

Is the site suitable for the proposed development, or can the site be made suitable subject to further characterisation and/or remediation?

JKE are of the opinion that the site can be made suitable for the proposed development subject to implementing the recommendations outlined in Section 10.

9.4 Data Gaps

An assessment of data gaps is provided in the following table:

Table 9-1: Data Gap Assessment

Data Gap	Assessment
Soil sampling density below minimum guideline density	Sampling was limited to approximately 30% of the minimum sampling density recommended in the EPA Sampling Design Guidelines 1995 considering the entire site area. Given the site area and field observations identifying fill containing brick fragments, recommendations for additional soil sampling are included in the report to address this data gap.
Areas beneath the existing building and structure footprints have not been assessed	Sampling beneath the existing buildings and structures at the site was not undertaken due to accessibility constraints and the preliminary nature of the investigation. The main concern beneath the buildings (in addition to ACM) is pesticides. Recommendations are included in Section 10 to address this data gap.
Groundwater not assessed	Based on the site history and the results reported, the potential for groundwater contamination to pose a risk to the receptors is considered to exist. Recommendations to address this data gap are included in Section 10.

10 CONCLUSIONS AND RECOMMENDATIONS

The PSI included a review of limited site history information, a site inspection, and soil sampling from six boreholes. The site history information and site walkover inspection identified the following areas of environmental concern: imported fill; potential application of pesticides; hazardous building materials in existing site structures and upgradient offsite land uses including a dry cleaner and several service station/motor garages.

The boreholes generally encountered fill material to depths of approximately 0.35mBGL to 1mBGL, underlain by residual clayey and sandy soils. The fill contained inclusions of sand, sandstone and igneous gravel, brick fragments, silt and root fibres. A selection of soil samples was analysed for the CoPC identified in the CSM. Zinc was detected in fill above the ecological based SAC.

The PSI has not identified contamination that would preclude the proposed development/use of the site. However, a Detailed Site Investigation (DSI) is required to characterise the risks and establish whether remediation is necessary. We recommend the following:

1. Undertake a DSI (additional soil sampling and groundwater sampling) to characterise potential contamination in the proposed development footprint and other risks associated with the AEC. If contamination is identified, this investigation is to inform the preparation of a Remediation Action Plan (RAP);
2. Undertake a hazardous materials survey of the existing site structures;
3. Develop a suitable unexpected-finds protocol to be implemented during construction; and
4. Where required based on the outcome of the DSI, develop and implement a RAP. Any requirements documented in a RAP are to be implemented and the site is to be validated (a validation report is to be prepared on completion of remediation).

At this stage, JKE consider that there is currently no requirement to report any site contamination to the NSW EPA under the NSW EPA Guidelines on the Duty to Report Contamination under Section 60 of the CLM Act 1997 (2015). This will be further evaluated as part of the DSI.

JKE consider that the report objectives outlined in Section 1.2 have been addressed.

11 LIMITATIONS

The report limitations are outlined below:

- JKE accepts no responsibility for any unidentified contamination issues at the site. Any unexpected problems/subsurface features that may be encountered during development works should be inspected by an environmental consultant as soon as possible;
- Previous use of this site may have involved excavation for the foundations of buildings, services, and similar facilities. In addition, unrecorded excavation and burial of material may have occurred on the site. Backfilling of excavations could have been undertaken with potentially contaminated material that may be discovered in discrete, isolated locations across the site during construction work;
- This report has been prepared based on site conditions which existed at the time of the investigation; scope of work and limitation outlined in the JKE proposal; and terms of contract between JKE and the client (as applicable);
- The conclusions presented in this report are based on investigation of conditions at specific locations, chosen to be as representative as possible under the given circumstances, visual observations of the site and immediate surrounds and documents reviewed as described in the report;
- Subsurface soil and rock conditions encountered between investigation locations may be found to be different from those expected. Groundwater conditions may also vary, especially after climatic changes;
- The investigation and preparation of this report have been undertaken in accordance with accepted practice for environmental consultants, with reference to applicable environmental regulatory authority and industry standards, guidelines and the assessment criteria outlined in the report;
- Where information has been provided by third parties, JKE has not undertaken any verification process, except where specifically stated in the report;
- JKE has not undertaken any assessment of off-site areas that may be potential contamination sources or may have been impacted by site contamination, except where specifically stated in the report;
- JKE accept no responsibility for potentially asbestos containing materials that may exist at the site. These materials may be associated with demolition of pre-1990 constructed buildings or fill material at the site;
- JKE have not and will not make any determination regarding finances associated with the site;
- Additional investigation work may be required in the event of changes to the proposed development or landuse. JKE should be contacted immediately in such circumstances;
- Material considered to be suitable from a geotechnical point of view may be unsatisfactory from a soil contamination viewpoint, and vice versa; and
- This report has been prepared for the particular project described and no responsibility is accepted for the use of any part of this report in any other context or for any other purpose.

Important Information About This Report

These notes have been prepared by JKE to assist with the assessment and interpretation of this report.

The Report is based on a Unique Set of Project Specific Factors
This report has been prepared in response to specific project requirements as stated in the JKE proposal document which may have been limited by instructions from the client. This report should be reviewed, and if necessary, revised if any of the following occur:

- The proposed land use is altered;
- The defined subject site is increased or sub-divided;
- The proposed development details including size, configuration, location, orientation of the structures or landscaped areas are modified;
- The proposed development levels are altered, eg addition of basement levels; or
- Ownership of the site changes.

JKE will not accept any responsibility whatsoever for situations where one or more of the above factors have changed since completion of the investigation. If the subject site is sold, ownership of the investigation report should be transferred by JKE to the new site owners who will be informed of the conditions and limitations under which the investigation was undertaken. No person should apply an investigation for any purpose other than that originally intended without first conferring with the consultant.

Changes in Subsurface Conditions
Subsurface conditions are influenced by natural geological and hydrogeological process and human activities. Groundwater conditions are likely to vary over time with changes in climatic conditions and human activities within the catchment (e.g. water extraction for irrigation or industrial uses, subsurface waste water disposal, construction related dewatering). Soil and groundwater contaminant concentrations may also vary over time through contaminant migration, natural attenuation of organic contaminants, ongoing contaminating activities and placement or removal of fill material. The conclusions of an investigation report may have been affected by the above factors if a significant period of time has elapsed prior to commencement of the proposed development.

This Report is based on Professional Interpretations of Factual Data
Site investigations identify actual subsurface conditions at the actual sampling locations at the time of the investigation. Data obtained from the sampling and subsequent laboratory analyses, available site history information and published regional information is interpreted by geologists, engineers or environmental scientists and opinions are drawn about the overall subsurface conditions, the nature and extent of contamination, the likely impact on the proposed development and appropriate remediation measures.

Actual conditions may differ from those inferred, because no professional, no matter how qualified, and no subsurface exploration program, no matter how comprehensive, can reveal what is hidden by earth, rock and time. The actual interface between materials may be far more gradual or abrupt than an investigation indicates. Actual conditions in areas not sampled may differ from predictions. Nothing can be done to prevent the unanticipated, but steps can be taken to help minimise the impact. For this reason, site owners should retain the services of their consultants throughout the development stage of the project, to identify variances, conduct additional tests which may be needed, and to recommend solutions to problems encountered on site.

Investigation Limitations
Although information provided by a site investigation can reduce exposure to the risk of the presence of contamination, no environmental site investigation can eliminate the risk. Even a rigorous professional investigation may not detect all contamination on a site. Contaminants may be present in areas that were not surveyed or sampled, or may migrate to areas which showed no signs of contamination when sampled. Contaminant analysis cannot possibly cover every type of contaminant which may occur; only the most likely contaminants are screened.

Misinterpretation of Site Investigations by Design Professionals

Costly problems can occur when other design professionals develop plans based on misinterpretation of an investigation report. To minimise problems associated with misinterpretations, the environmental consultant should be retained to work with appropriate professionals to explain relevant findings and to review the adequacy of plans and specifications relevant to contamination issues.

Logs Should not be Separated from the Investigation Report

Borehole and test pit logs are prepared by environmental scientists, engineers or geologists based upon interpretation of field conditions and laboratory evaluation of field samples. Logs are normally provided in our reports and these should not be re-drawn for inclusion in site remediation or other design drawings, as subtle but significant drafting errors or omissions may occur in the transfer process. Photographic reproduction can eliminate this problem, however contractors can still misinterpret the logs during bid preparation if separated from the text of the investigation. If this occurs, delays, disputes and unanticipated costs may result. In all cases it is necessary to refer to the rest of the report to obtain a proper understanding of the investigation. Please note that logs with the 'Environmental Log' header are not suitable for geotechnical purposes as they have not been peer reviewed by a Senior Geotechnical Engineer.

To reduce the likelihood of borehole and test pit log misinterpretation, the complete investigation should be available to persons or organisations involved in the project, such as contractors, for their use. Denial of such access and disclaiming responsibility for the accuracy of subsurface information does not insulate an owner from the attendant liability. It is critical that the site owner provides all available site information to persons and organisations such as contractors.

Read Responsibility Clauses Closely

Because an environmental site investigation is based extensively on judgement and opinion, it is necessarily less exact than other disciplines. This situation has resulted in wholly unwarranted claims being lodged against consultants. To help prevent this problem, model clauses have been developed for use in written transmittals. These are definitive clauses designed to indicate consultant responsibility. Their use helps all parties involved recognise individual responsibilities and formulate appropriate action. Some of these definitive clauses are likely to appear in the environmental site investigation, and you are encouraged to read them closely. Your consultant will be pleased to give full and frank answers to any questions.

Appendix A: Report Figures

AERIAL IMAGE SOURCE: MAPS.AU.NEARMAP.COM

This plan should be read in conjunction with the Environmental report.

Title: **SITE LOCATION PLAN**

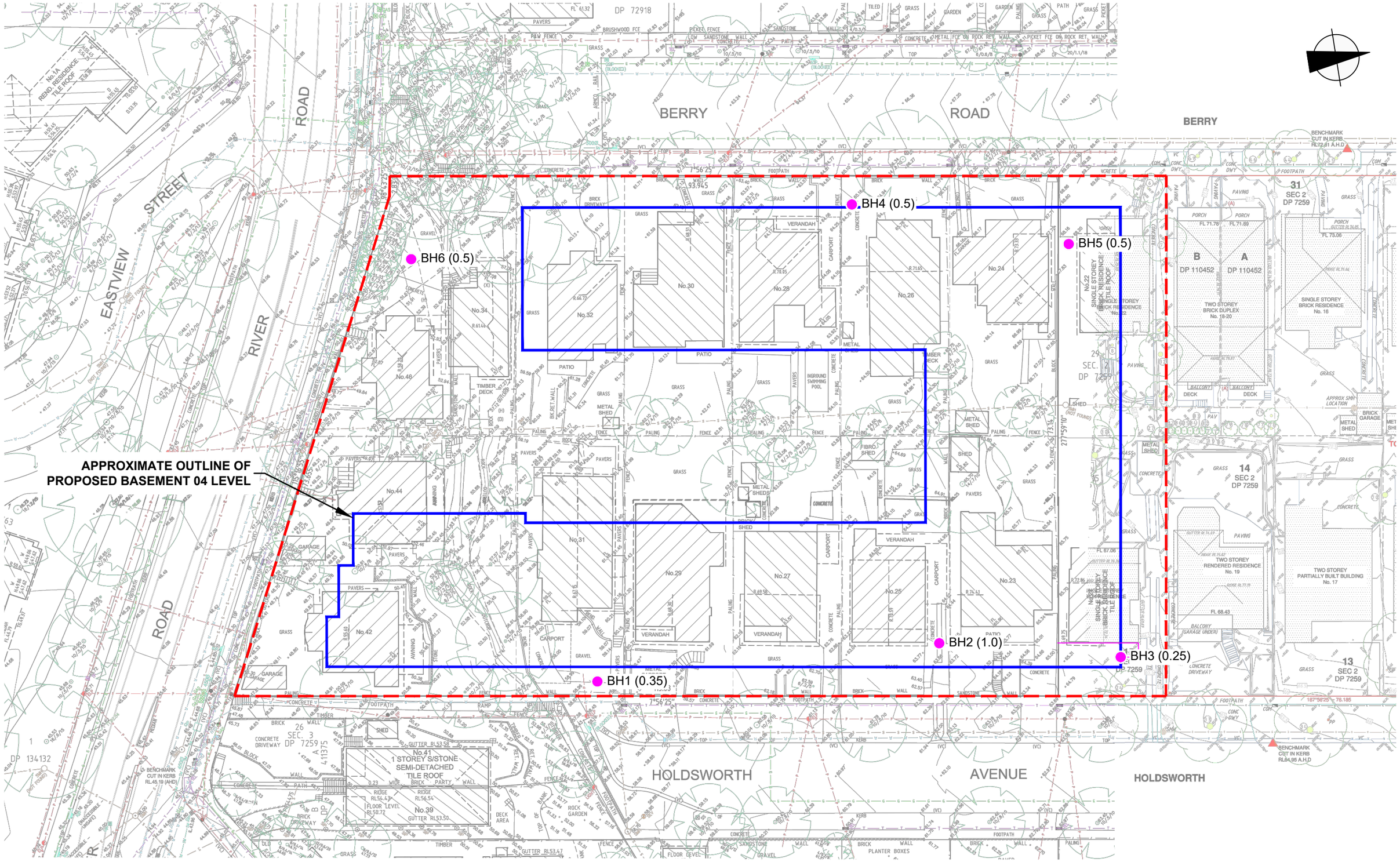
Location: 22-34 BERRY ROAD, 21-31 HOLDSWORTH AVENUE & 42-46 RIVER ROAD, ST LEONARDS, NSW

Project No: E33629BT

Figure No: 1

JKEnvironments

PLOT DATE: 19/01/2022 2:03:01 PM DWG FILE: S:\5 EIS\5C EIS JOBS\33000'S\E33629BT ST LEONARDS\CAD\E33629BT.DWG



LEGEND

— — — —	APPROXIMATE SITE BOUNDARY
● BH(Fill Depth)	BOREHOLE LOCATION, NUMBER AND DEPTH OF FILL (m)

0 5 10 15 20 25

SCALE 1:500 @A3 METRES

This plan should be read in conjunction with the Environmental report.

Title: **SAMPLE LOCATION PLAN**

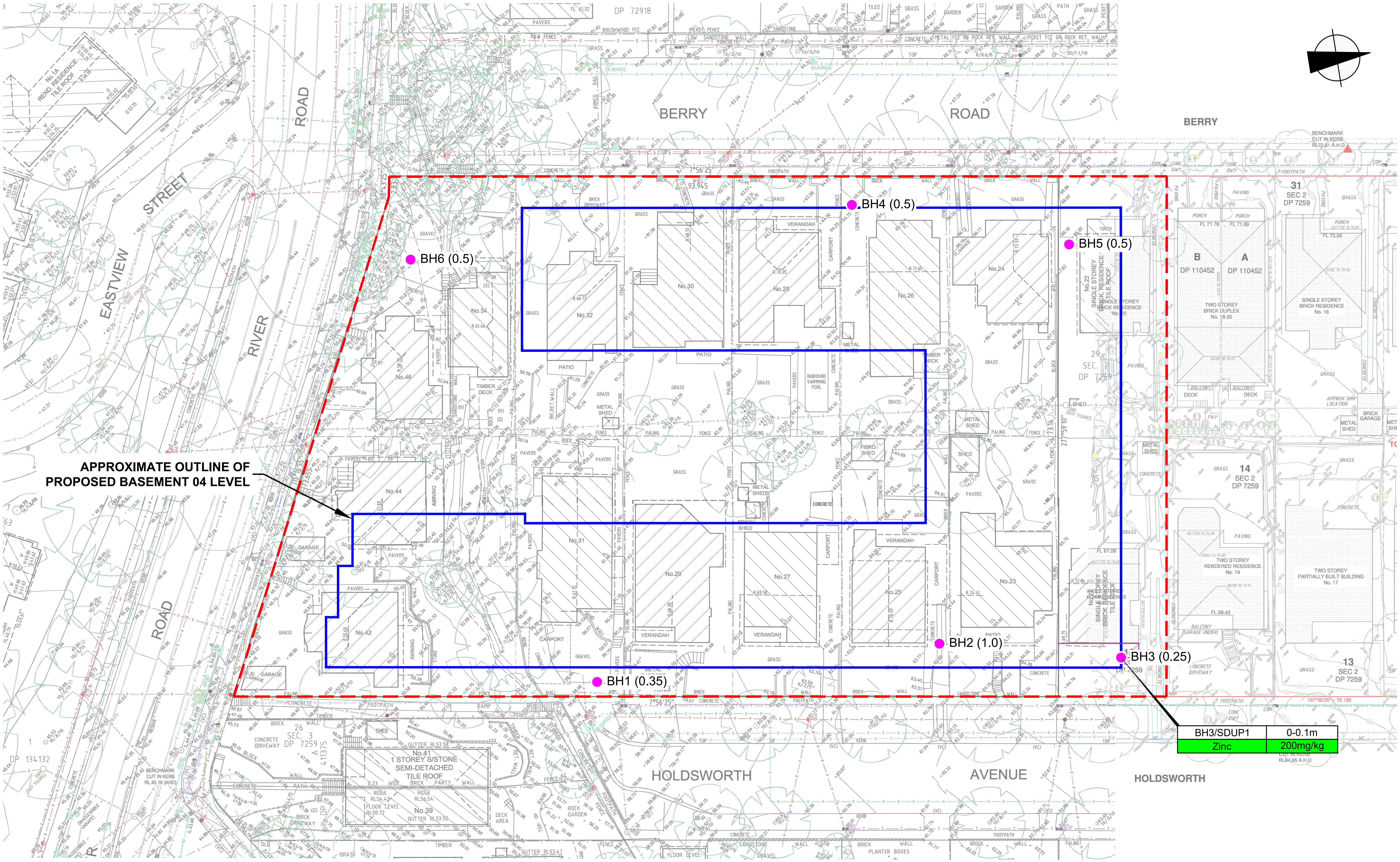
Location: 22-34 BERRY ROAD, 21-31 HOLDSWORTH AVENUE & 42-46 RIVER ROAD, ST LEONARDS, NSW

Project No: E33629BT

Figure No: 2

JKEnvironments

PLOT DATE: 19/01/2022 2:03:12 PM DWG FILE: S:\5 EIS\5C EIS JOBS\33000'S\E33629BT ST LEONARDS\CAD\E33629BT.DWG



LEGEND

APPROXIMATE SITE BOUNDARY

BH(Fill Depth) — BOREHOLE LOCATION, NUMBER AND DEPTH OF FILL (m)

SAMPLE ID	DEPTH (metres)
CHEMICAL	CONCENTRATION

SOIL/SURFACE SAMPLE EXCEEDANCE

SOIL/SURFACE CONTAMINATION ABOVE SAC FOR ECOLOGICAL RISK

SCALE 0 5 10 15 20 25 METRES 1:500 @A3

This plan should be read in conjunction with the Environmental report.

Title: **SAC EXCEEDANCE PLAN**

Location: 22-34 BERRY ROAD, 21-31 HOLDSWORTH AVENUE & 42-46 RIVER ROAD, ST LEONARDS, NSW

Project No: E33629BT

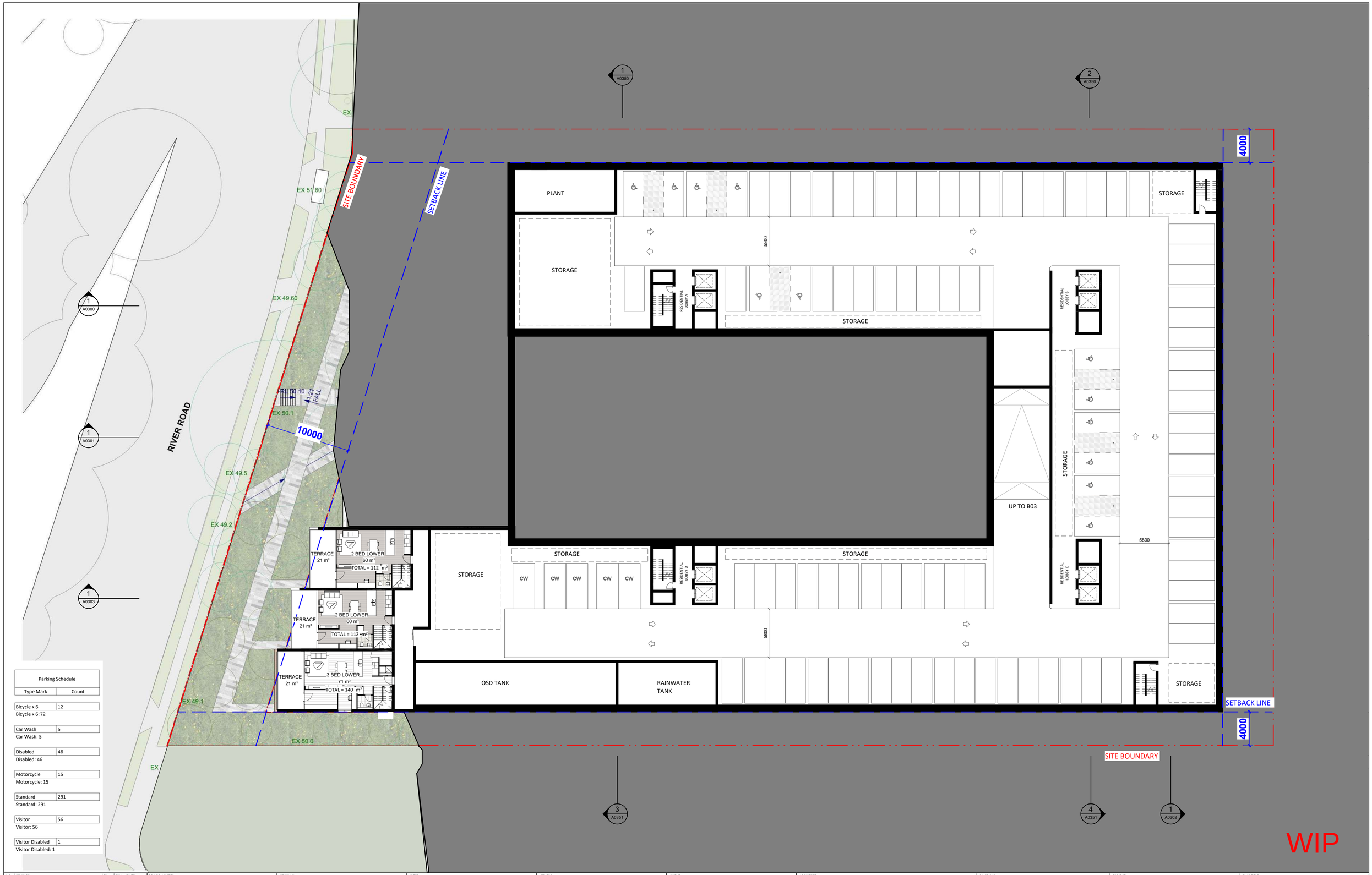
Figure No: 3

JKEnvironments

PLOT DATE: 19/01/2022 2:03:25 PM DWG FILE: S:\5 EIS\5C EIS JOBS\33000'S\E33629BT ST LEONARDS\CAD\E33629BT.DWG

Appendix B: Site Information and Site History

Proposed Development Plans



Parking Schedule	
Type Mark	Count
Bicycle x 6	12
Bicycle x 6: 72	
Car Wash	5
Car Wash: 5	
Disabled	46
Disabled: 46	
Motorcycle	15
Motorcycle: 15	
Standard	291
Standard: 291	
Visitor	56
Visitor: 56	
Visitor Disabled	1
Visitor Disabled: 1	

NO.	REVISION	BY	CHK	DATE
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B	Issue for DEP Meeting	JD	AC	02/12/2021
C	ISSUE FOR INFORMATION	JD	AC	16/12/2021

REVISION NOTES:

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PROJECT
ST LEONARDS SOUTH, EQ
LOT 18,19 & 20

STATUS
DA

0 10 m

DWG TITLE
BASEMENT 04 (RIVER ROAD GROUND)

DWG NO.
A0095

REVISION
C

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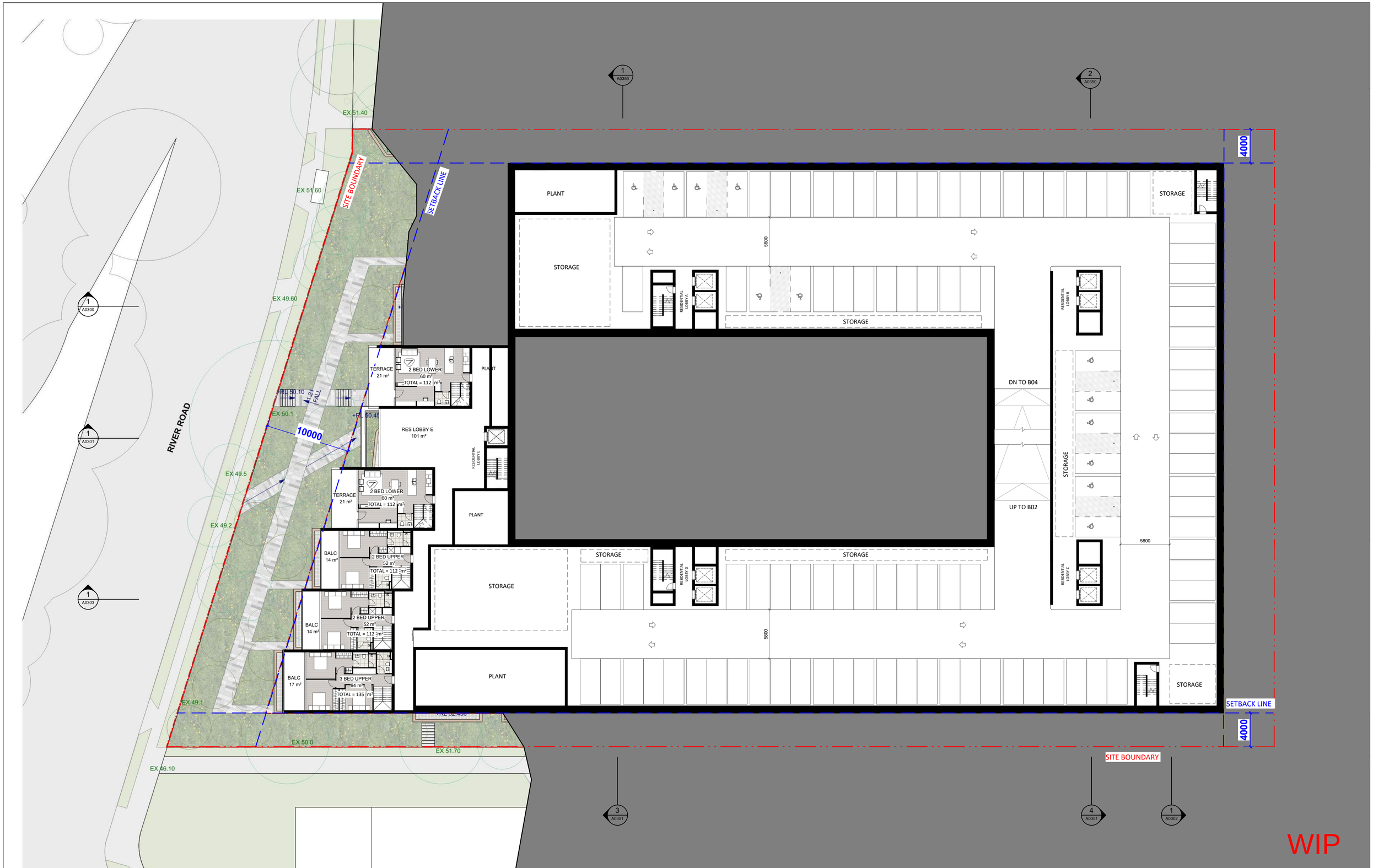
DATE
16/12/2021



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PROJECT
ST LEONARDS SOUTH, EQ
LOT 18,19 & 20

DWG TITLE
BASEMENT 03

STATUS
DA

DWG NO.
A0096

REVISION
C

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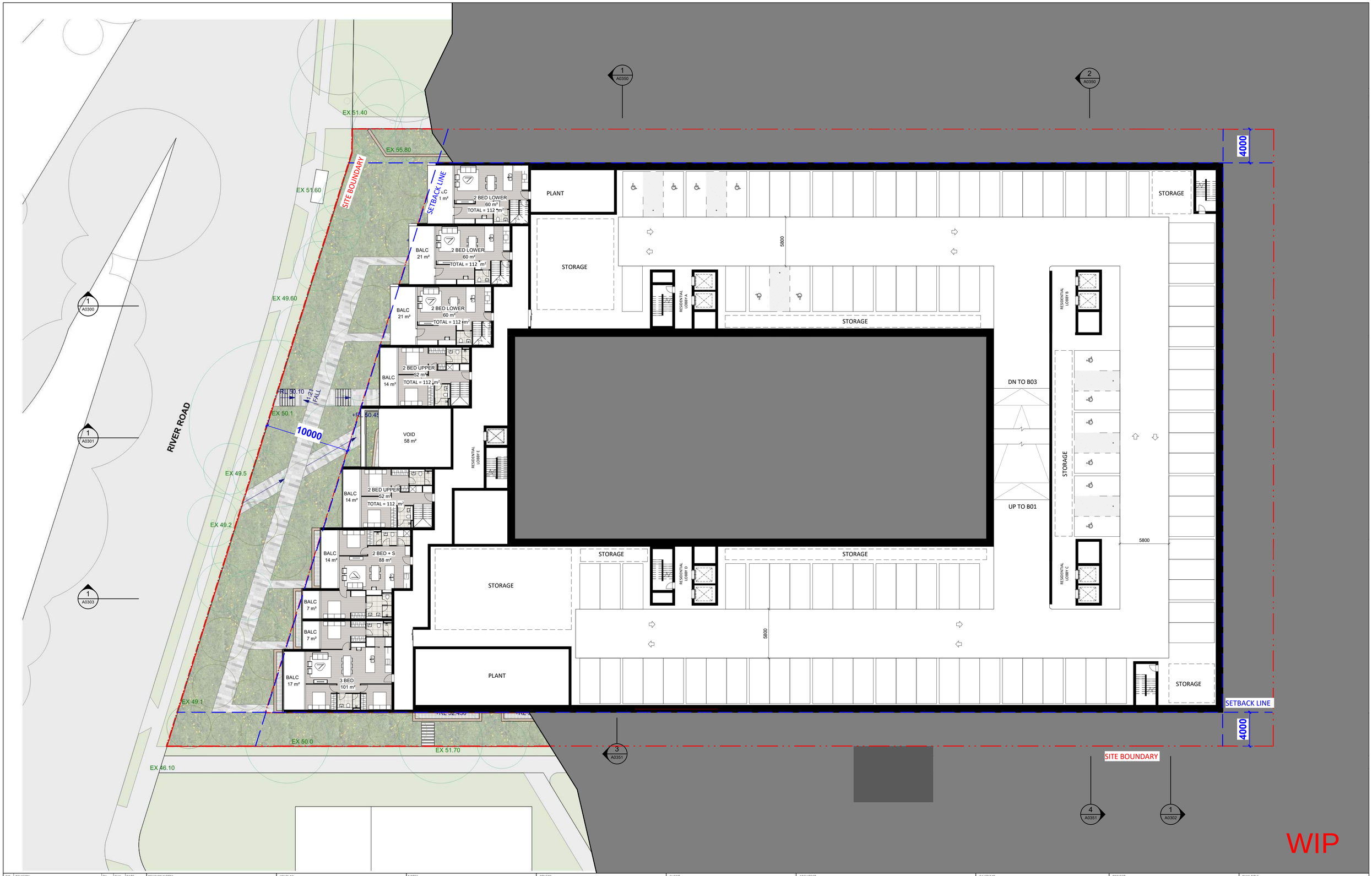
16/12/2021



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PROJECT
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LOT 18,19 & 20

DWG TITLE
BASEMENT 02

STATUS
DA

DWG NO.
A0097

REVISION
C

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SCALE
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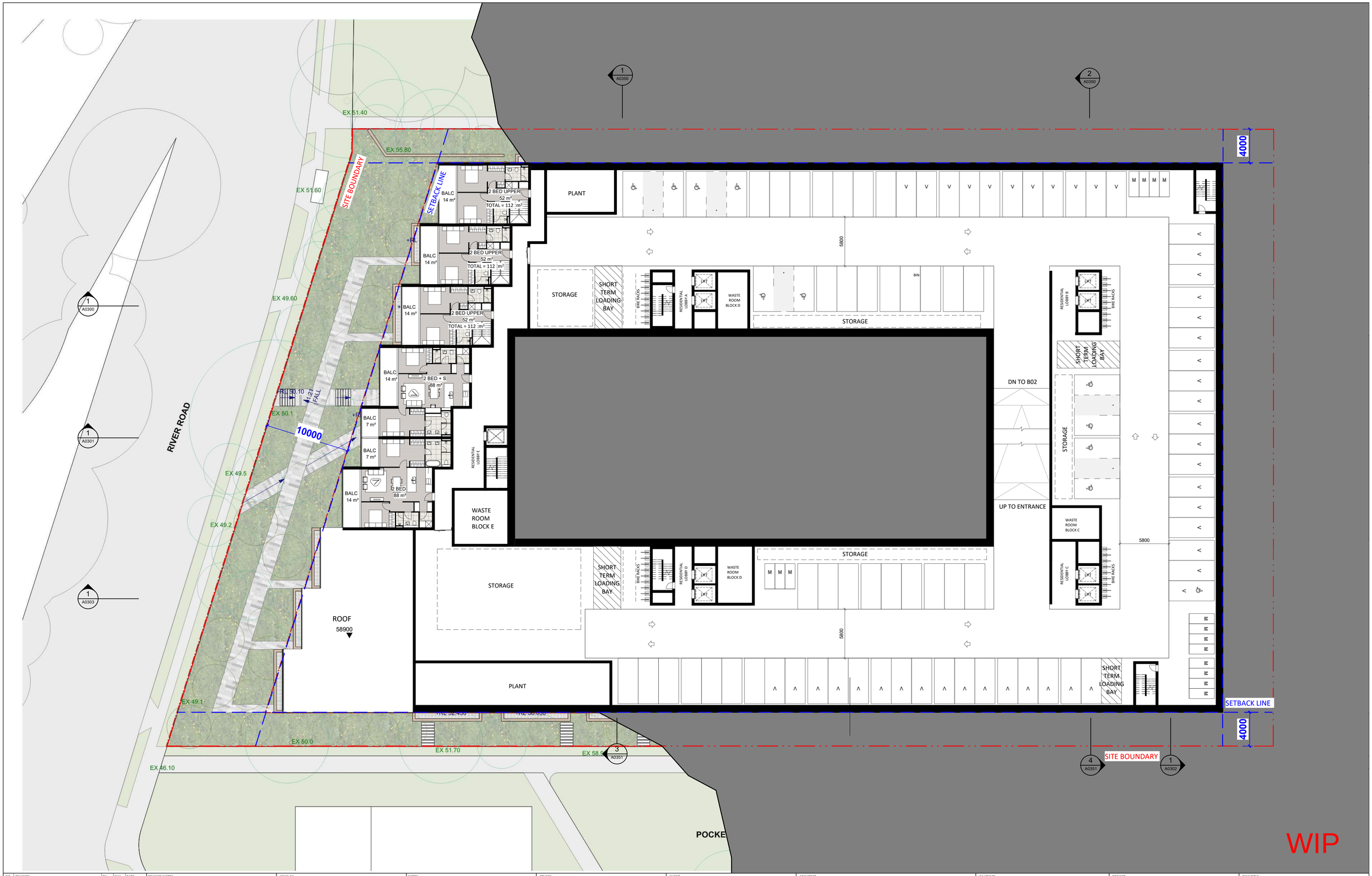
DATE
16/12/2021



NO.	REVISION	BY	CHK	DATE
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PROJECT
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LOT 18,19 & 20

DWG TITLE
BASEMENT 01

STATUS
DA

DWG NO.
A0098

REVISION
C

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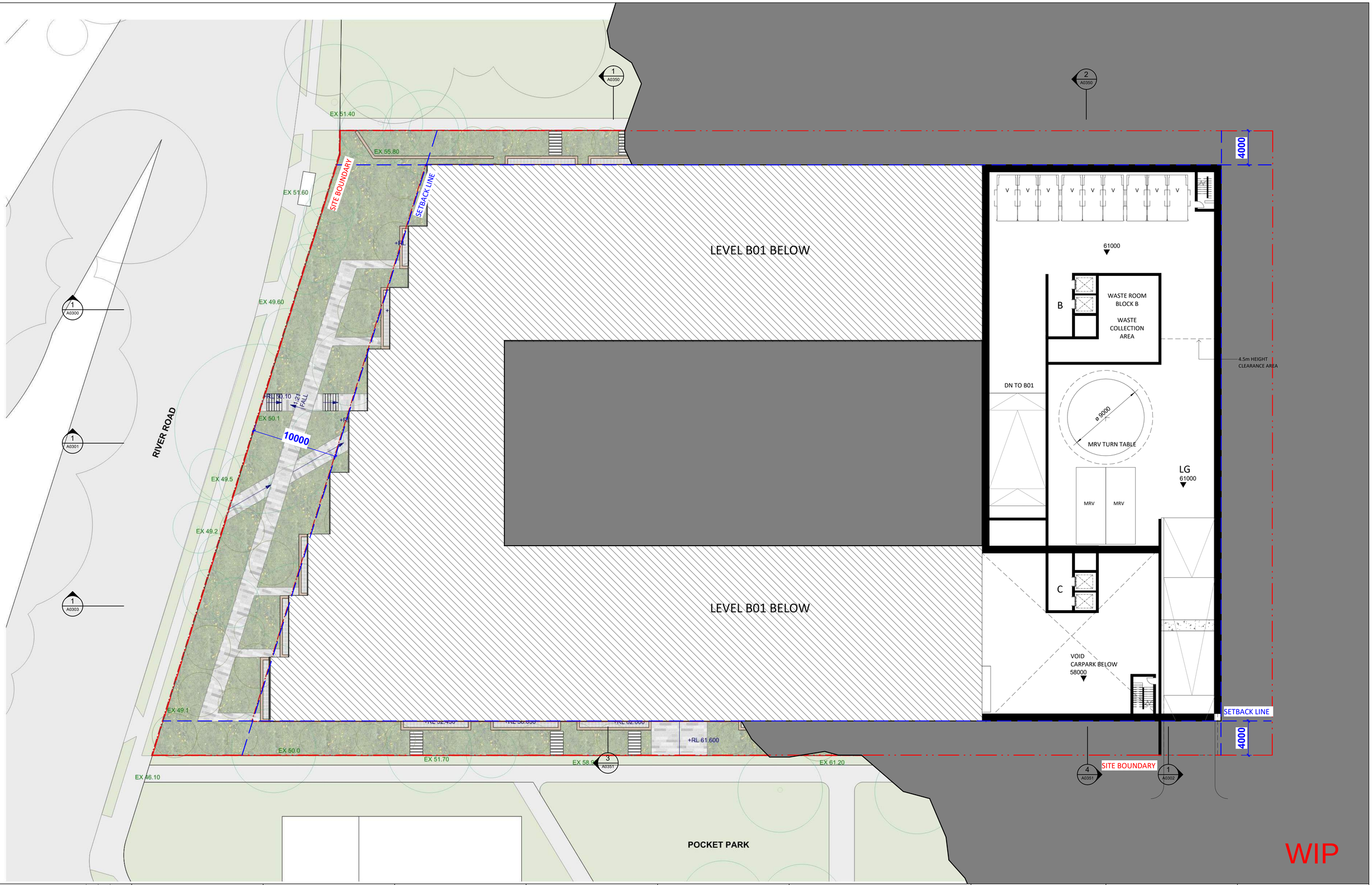
DATE
16/12/2021



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PROJECT
ST LEONARDS SOUTH, EQ
LOT 18,19 & 20

DWG TITLE
LOADING DOCK FLOOR PLAN

STATUS
DA

DWG NO.
A0099

REVISION
B

0 10 m

SCALE
1:200@A1, 1:400@A3

DATE
02/12/2021

POCKET PARK

A

B

C

D

E

1 A0350

2 A0350

3 A0351

4 A0351

1 A0300

1 A0301

1 A0303

1 A0302

EX 51.40

EX 64.10

EX 61.70

EX 55.80

EX 51.60

EX 49.60

EX 50.1

EX 49.5

EX 49.2

EX 49.1

EX 50.0

EX 51.70

EX 58.9

EX 61.20

EX 62.30

EX 46.10

EX 63.10

SITE BOUNDARY

SETBACK LINE

4000

6000

10000

RIVER ROAD

UNDERGROUND SERVICES/STORAGE

LOADING DOCK BELOW

UNIT LAYOUT AND BALCONY TO BE UPDATED

UNIT LAYOUT AND BALCONY TO BE UPDATED

BALC 18 m²

BALC 15 m²

2 BED 82 m²

1 BED + S 79 m²

1 BED + S 62 m²

RES LOBBY A 51 m²

PLANT

BALC 11 m²

62250

RES AMENITIES 139 m²

PLANT

BALC 17 m²

2 BED + S 90 m²

1:21 FALL

+RL 63.39

1:21 FALL

+RL 62.67

+RL 67.00

+RL 62.000

+RL 65.350

1:28 FALL

+RL 50.10

1:21 FALL

+RL 52.800

+RL 55.200

+RL 57.600

+RL 60.000

+RL 62.000

+RL 50.45

+RL 61.920

POOL

GREEN SPINE LANDSCAPE ZONE

OUTLINE OF BASEMENT BELOW

OUTLINE OF BASEMENT BELOW

+RL 61.920

+RL 55.550

+RL 58.650

+RL 62.000

+RL 62.000

+RL 66.350

+RL 62.62

LEVEL B2
FFL 55.550

RES AMENITIES 229 m²

ROOF BELOW

BALC 18 m²

3 BED LOWER 80 m²
TOTAL 145 m²

1:21 FALL

+RL 61.91

BALC 10 m²

2 BED LOWER 44 m²

RES AMENITIES 84 m²

PLANT

2 BED 81 m²

2 BED + S 88 m²

2 BED + S 88 m²

62000

RES LOBBY D 118 m²

SERVICE

3 BED LOWER 77 m²
TOTAL 151 m²

1:21 FALL

3 BED LOWER 59 m²

RES AMENITIES 99 m²

RES LOBBY C 50 m²

PLANT

DRIVEWAY

63000

BALC 18 m²

BALC 17 m²

BALC 17 m²

BALC 22 m²

BALC 19 m²

+RL 61.600

+RL 61.20

+RL 62.650

+RL 64.000

POCKET PARK

HOLDSWORTH AVENUE

WIP

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1	For revision			17/12/20
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REVISION NOTES:

KEY PLAN

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PROJECT
ST LEONARDS SOUTH, EQ
LOT 18,19 & 20

DWG TITLE
GROUND FLOOR PLAN

STATUS
DA

DWG NO.
A0100

REVISION
C

0 10 m

SCALE
1:200@A1, 1:400@A3

DATE
16/12/2021

POCKET PARK

A

B

C

D

E

UNIT LAYOUT AND BALCONY TO BE UPDATED

BLOCK A

UNIT LAYOUT AND BALCONY TO BE UPDATED

UNIT LAYOUT AND BALCONY TO BE UPDATED

LEVEL B2
FFL 55.550

ROOF BELOW

DRIVEWAY BELOW

SITE BOUNDARY

SETBACK LINE

RIVER ROAD

OUTLINE OF BASEMENT BELOW

OUTLINE OF BASEMENT BELOW

ADJACENT

POCKET PARK

HOLDSWORTH AVENUE

SITE BOUNDARY

SETBACK LINE

4000

6000

4000

10000

PRIVATE TERRACE

PRIVATE TERRACE

2 BED 80 m²

1 BED + S 62 m²

VOID

2 BED + S 94 m²

3 BED 97 m²

1 BED 52 m²

2 BED 83 m²

3 BED LOWER 59 m²

2 BED + S 92 m²

RES LOBBY B 50 m²

PLANT

PLANT

2 BED LOWER 44 m²

1 BED + S 76 m²

PLANT

2 BED 79 m²

1 BED + S 66 m²

1 BED 52 m²

3 BED UPPER 65 m²
TOTAL 145 m²

2 BED 81 m²

2 BED + S 88 m²

2 BED + S 88 m²

2 BED + S 88 m²

3 BED UPPER 74 m²
TOTAL 151 m²

2 BED UPPER 53 m²

1 BED + S 76 m²

3 BED 111 m²

3 BED UPPER 71 m²

2 BED + S 88 m²

VOID

BALC 10 m²

BALC 8 m²

BALC 12 m²

BALC 25 m²

BALC 16 m²

BALC 23 m²

BALC 16 m²

BALC 8 m²

BALC 10 m²

BALC 12 m²

1:21 FALL

1:28 FALL

+RL 64.100

+RL 63.39

+RL 62.67

+RL 67.00

+RL 62.000

+RL 65.350

+RL 67.000

+RL 62.000

+RL 60.000

+RL 58.650

+RL 61.920

+RL 61.920

+RL 65.500

+RL 65.500

+RL 62.000

+RL 62.000

+RL 66.350

+RL 66.350

+RL 62.62

+RL 61.91

+RL 61.600

+RL 61.20

+RL 62.650

+RL 64.000

+RL 52.800

+RL 55.200

+RL 57.600

+RL 50.45

+RL 55.550

+RL 50.10

RL 66.25

RL 65.35

RL 67.00

EX 51.40

EX 61.70

EX 64.10

EX 66.30

EX 67.00

EX 55.80

EX 51.60

EX 49.60

EX 50.1

EX 49.5

EX 49.2

EX 49.1

EX 50.0

EX 51.70

EX 58.90

EX 61.20

EX 62.30

EX 46.10

EX 63.10

EX 65.20

EX 67.20

EX 65.70

EX 66.80

1 A0350

2 A0350

1 A0300

1 A0301

1 A0303

3 A0351

4 A0351

1 A0302

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KEY PLAN

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REVISION

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PROJECT
ST LEONARDS SOUTH, EQ
LOT 18,19 & 20

DWG TITLE
LEVEL 01 FLOOR PLAN

STATUS
DA

DWG NO.
A0101

REVISION
C

0 10 m

SCALE
1:200@A1, 1:400@A3

DATE
16/12/2021

POCKET PARK

BERRY ROAD

A

B

C

D

RIVER ROAD

ADJACENT DEVELOPMENT

SITE BOUNDARY

SETBACK LINE

OUTLINE OF BASEMENT BELOW

LEVEL B2
FFL 55.550

10000

4000

6000

4000

POCKET PARK

HOLDSWORTH AVENUE

WIP

NO.	REVISION	BY	CHK	DATE
1	For revision			17/12/20
2	Issue for Pre-DA	VC	AC	19/02/21
A	WIP - ISSUE FOR INFORMATION			19/11/2021
B	Issue for DEP Meeting	JD	AC	02/12/2021
C	ISSUE FOR INFORMATION	JD	AC	16/12/2021

REVISION NOTES:

KEY PLAN

CLOUD LEGEND

REVISION

ON HOLD

OTHERS

CLIENT

GREATON

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SYDNEY NSW 2000

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Koichi Takada Architects

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PROJECT
ST LEONARDS SOUTH, EQ
LOT 18,19 & 20

DWG TITLE
LEVEL 03 FLOOR PLAN

STATUS
DA

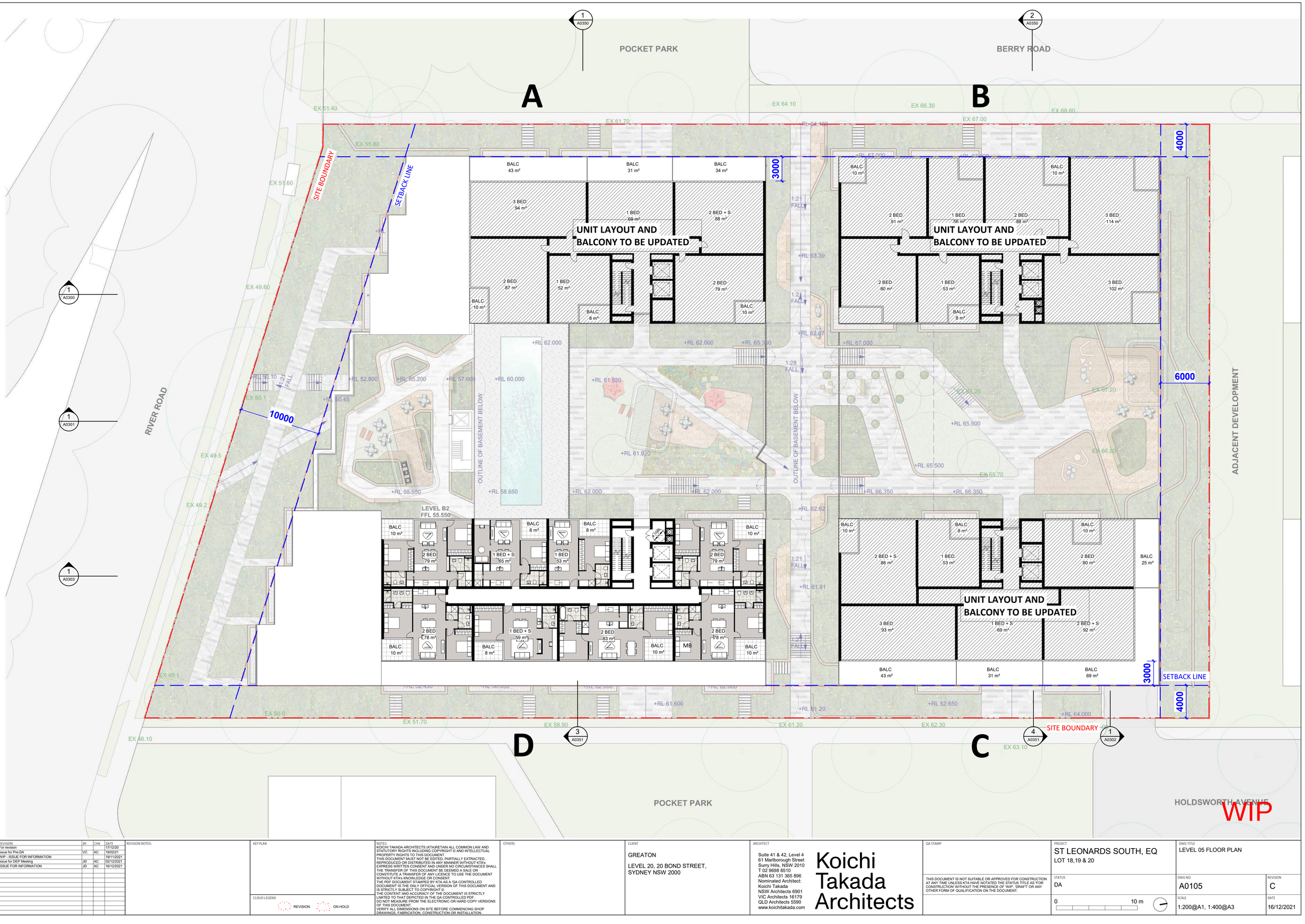
DWG NO.
A0103

REVISION
C

0 10 m

SCALE
1:200@A1, 1:400@A3

DATE
16/12/2021



NO.	REVISION	BY	CHK	DATE
1	For revision.			17/12/20
2	Issue for Pre-DA	VC	AC	19/02/21
A	WIP - ISSUE FOR INFORMATION			19/11/2021
B	Issue for DEP Meeting	JD	AC	02/12/2021
C	ISSUE FOR INFORMATION	JD	AC	16/12/2021

REVISION NOTES:

KEY PLAN

CLOUD LEGEND
REVISION
ON HOLD

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PROJECT
ST LEONARDS SOUTH, EQ
LOT 18,19 & 20

DWG TITLE
LEVEL 05 FLOOR PLAN

STATUS
DA

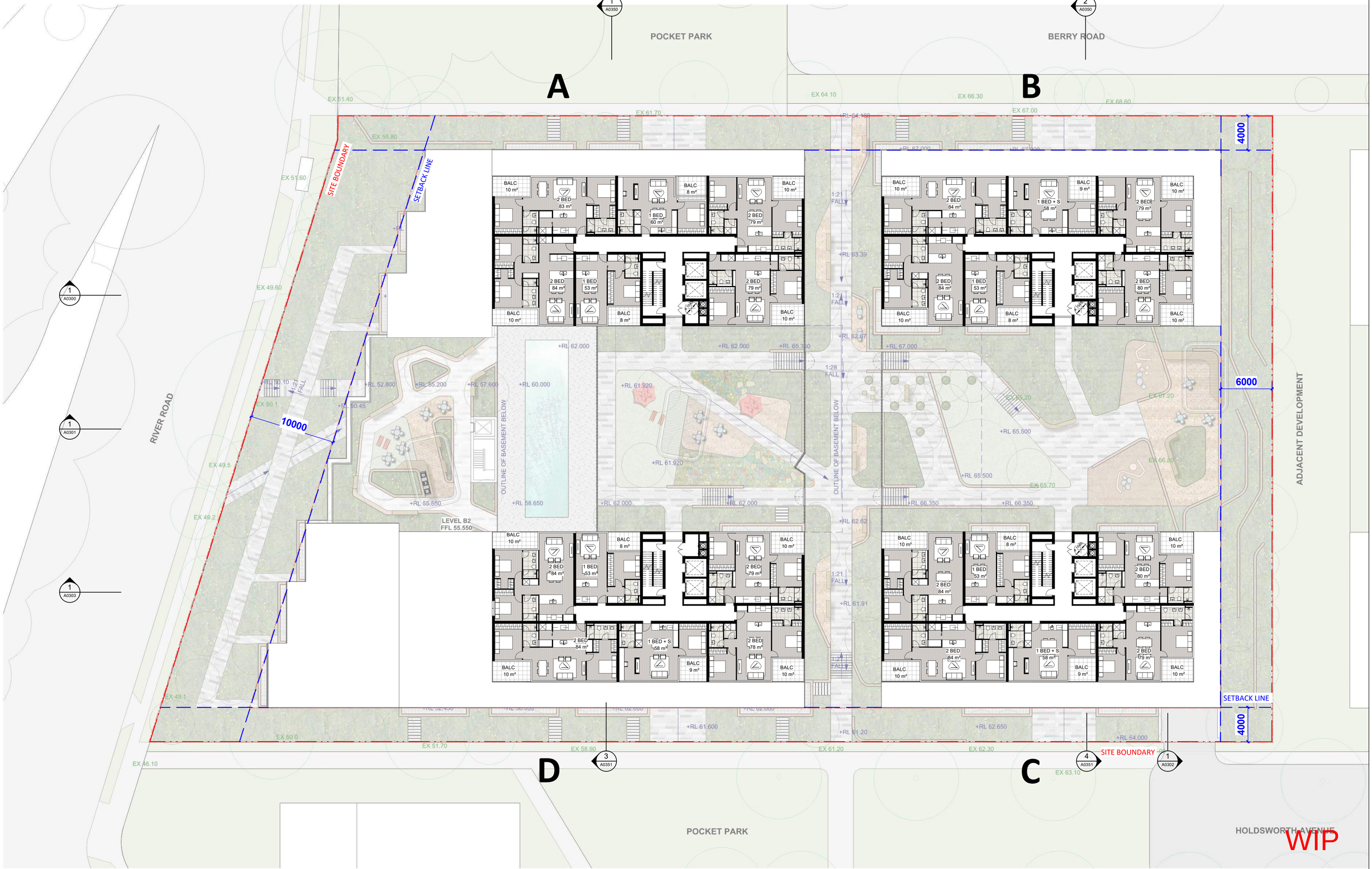
DWG NO.
A0105

REVISION
C

SCALE
1:200@A1, 1:400@A3

DATE
16/12/2021

0 10 m



WIP

NO.	REVISION	BY	CHK	DATE
A	WIP - ISSUE FOR INFORMATION			19/11/2021
B	Issue for DEP Meeting	JD	AC	02/12/2021
C	ISSUE FOR INFORMATION	JD	AC	16/12/2021

REVISION NOTES:

KEY PLAN

CLOUD LEGEND

REVISION ON HOLD

OTHERS

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PROJECT
ST LEONARDS SOUTH, EQ
LOT 18,19 & 20

DWG TITLE
LEVEL 07 FLOOR PLAN

STATUS
DA

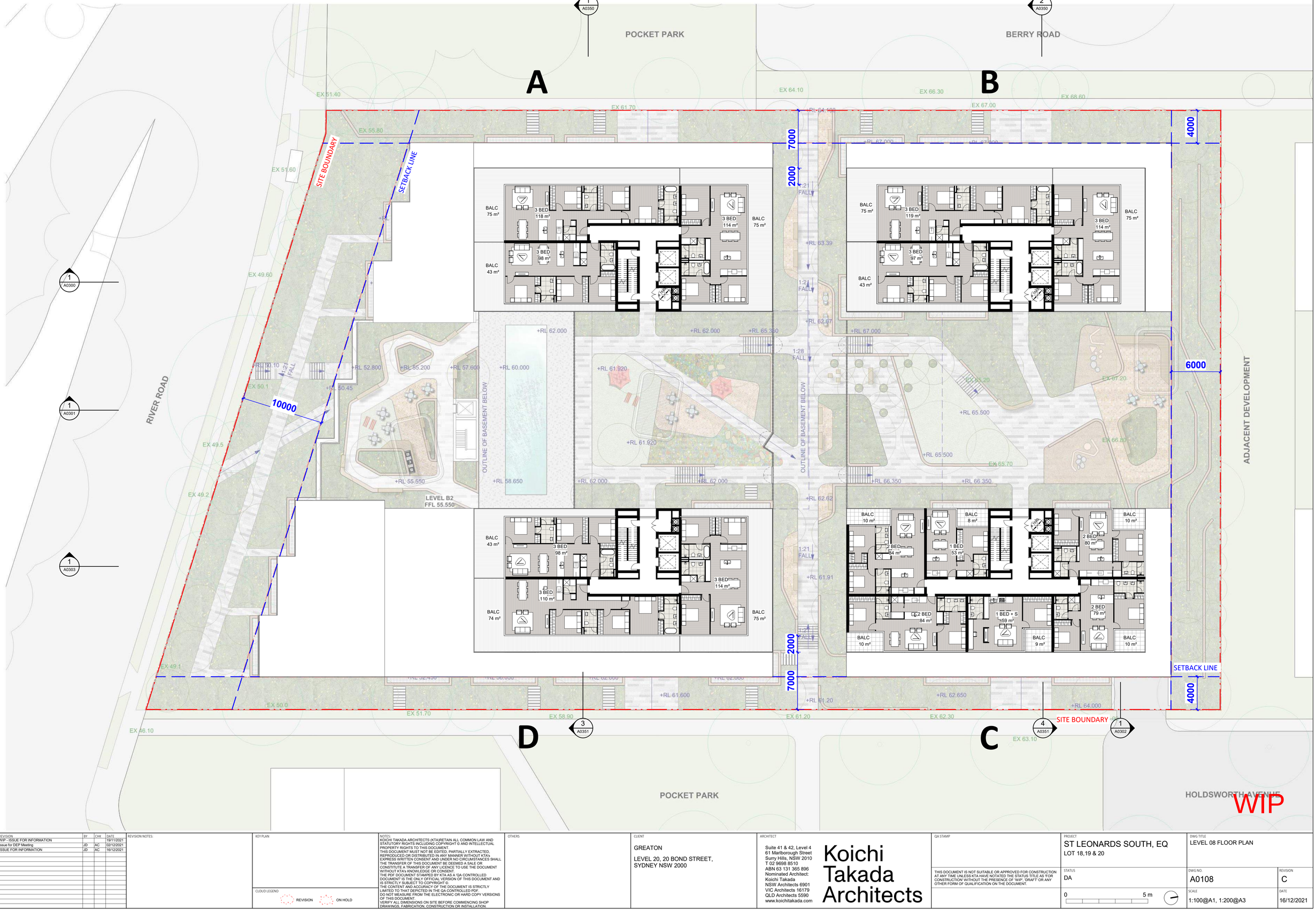
DWG NO.
A0107

REVISION
C

0 10 m

SCALE
1:200@A1, 1:400@A3

DATE
16/12/2021



NO.	REVISION	BY	CHK	DATE
A	WIP - ISSUE FOR INFORMATION			19/11/2021
B	Issue for DEP Meeting	JD	AC	02/12/2021
C	ISSUE FOR INFORMATION	JD	AC	16/12/2021

REVISION NOTES:

KEY PLAN

CLOUD LEGEND: REVISION | ON HOLD

OTHERS

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PROJECT
ST LEONARDS SOUTH, EQ
LOT 18,19 & 20

DWG TITLE
LEVEL 08 FLOOR PLAN

STATUS
DA

DWG NO.
A0108

REVISION
C

SCALE
1:100@A1, 1:200@A3

DATE
16/12/2021

0 5 m

NO.	REVISION	BY	CHK	DATE
1	Issue for Pre-DA	VC	AC	19/02/21
A	WIP - ISSUE FOR INFORMATION			19/11/2021
B	Issue for DEP Meeting	JD	AC	02/12/2021

REVISION NOTES:

KEY PLAN

CLOUD LEGEND
REVISION
ON HOLD

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PROJECT
ST LEONARDS SOUTH, EQ
LOT 18,19 & 20

STATUS
DA

0 10 m

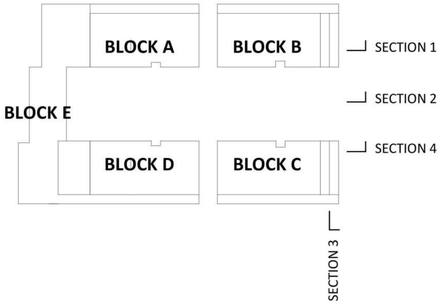
DWG TITLE
ELEVATION EAST

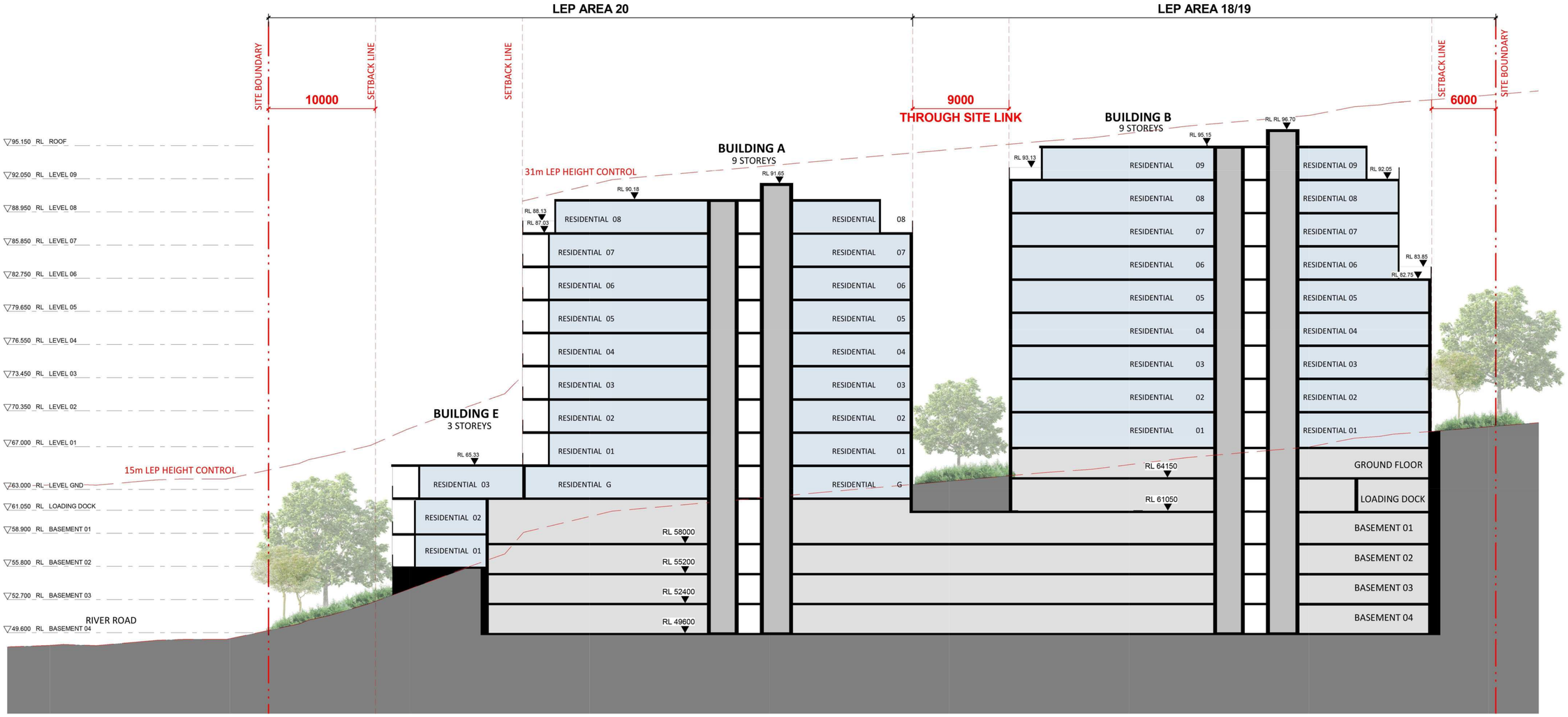
DWG NO.
A0201

REVISION
B

SCALE
1:200@A1, 1:400@A3

DATE
30/11/2021





NO.	REVISION	BY	CHK	DATE
A	Issue for DEP Meeting	JD	AC	02/12/2021

REVISION NOTES:

KEY PLAN

CLOUD LEGEND
REVISION
ON HOLD

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PROJECT
ST LEONARDS SOUTH, EQ
LOT 18,19 & 20

STATUS
DA

0 10 m

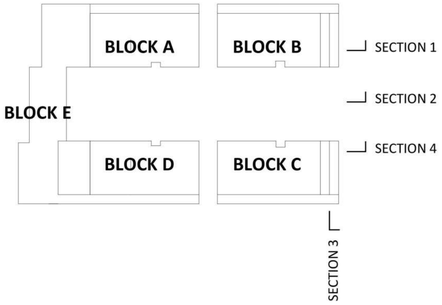
DWG TITLE
SITE SECTION 01

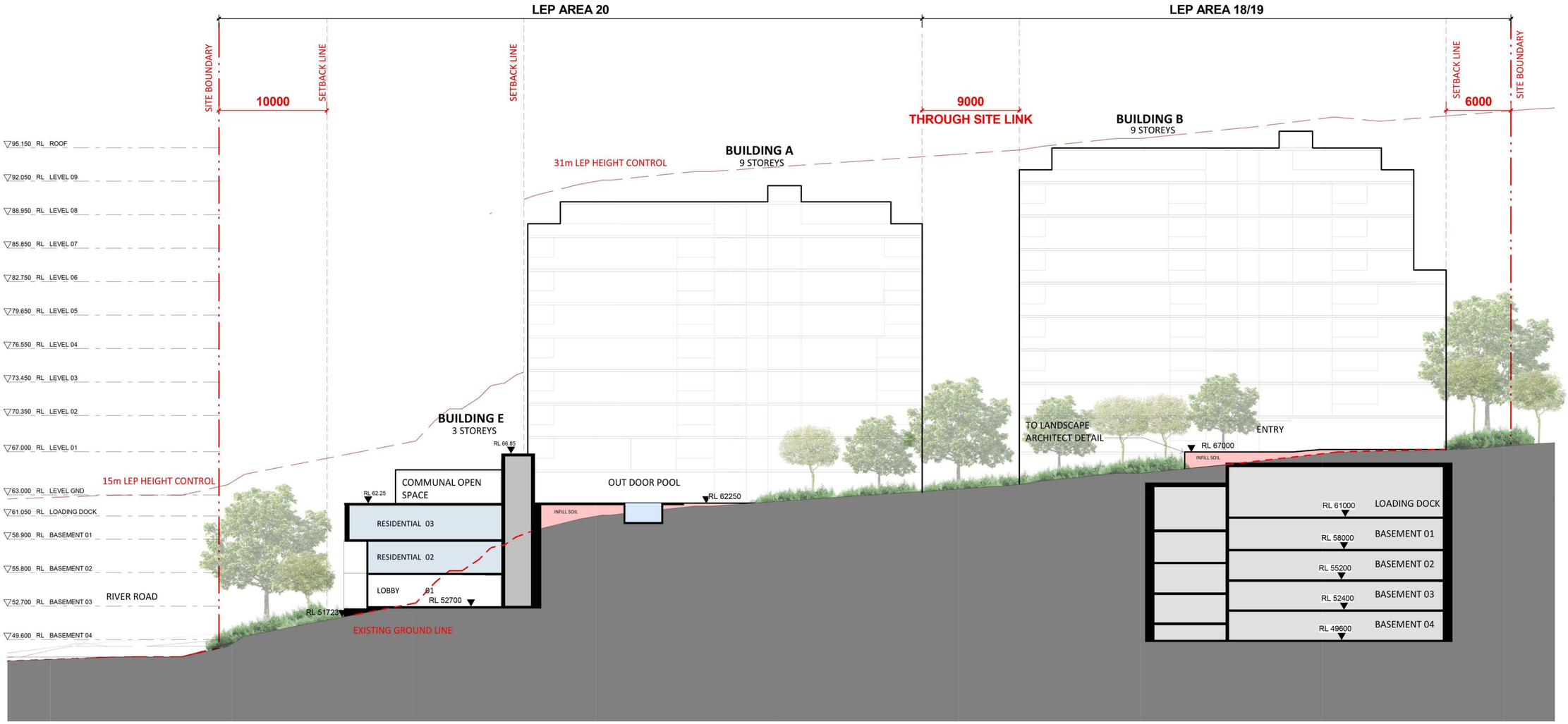
DWG NO.
A0300

REVISION
A

SCALE
1:200@A1, 1:400@A3

DATE
02/12/2021





NO.	REVISION	BY	CHK	DATE
A	Issue for DEP Meeting	JD	AC	02/12/2021

REVISION NOTES:

KEY PLAN

CLOUD LEGEND
REVISION
ON HOLD

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PROJECT
ST LEONARDS SOUTH, EQ
LOT 18,19 & 20

DWG TITLE
SITE SECTION 02

STATUS
DA

DWG NO.
A0301

REVISION
A

0 10 m

SCALE
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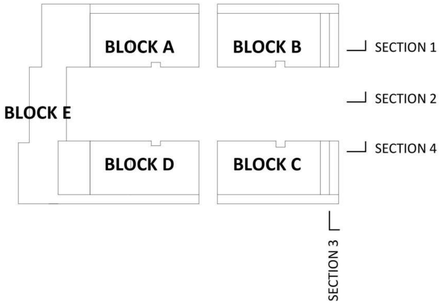
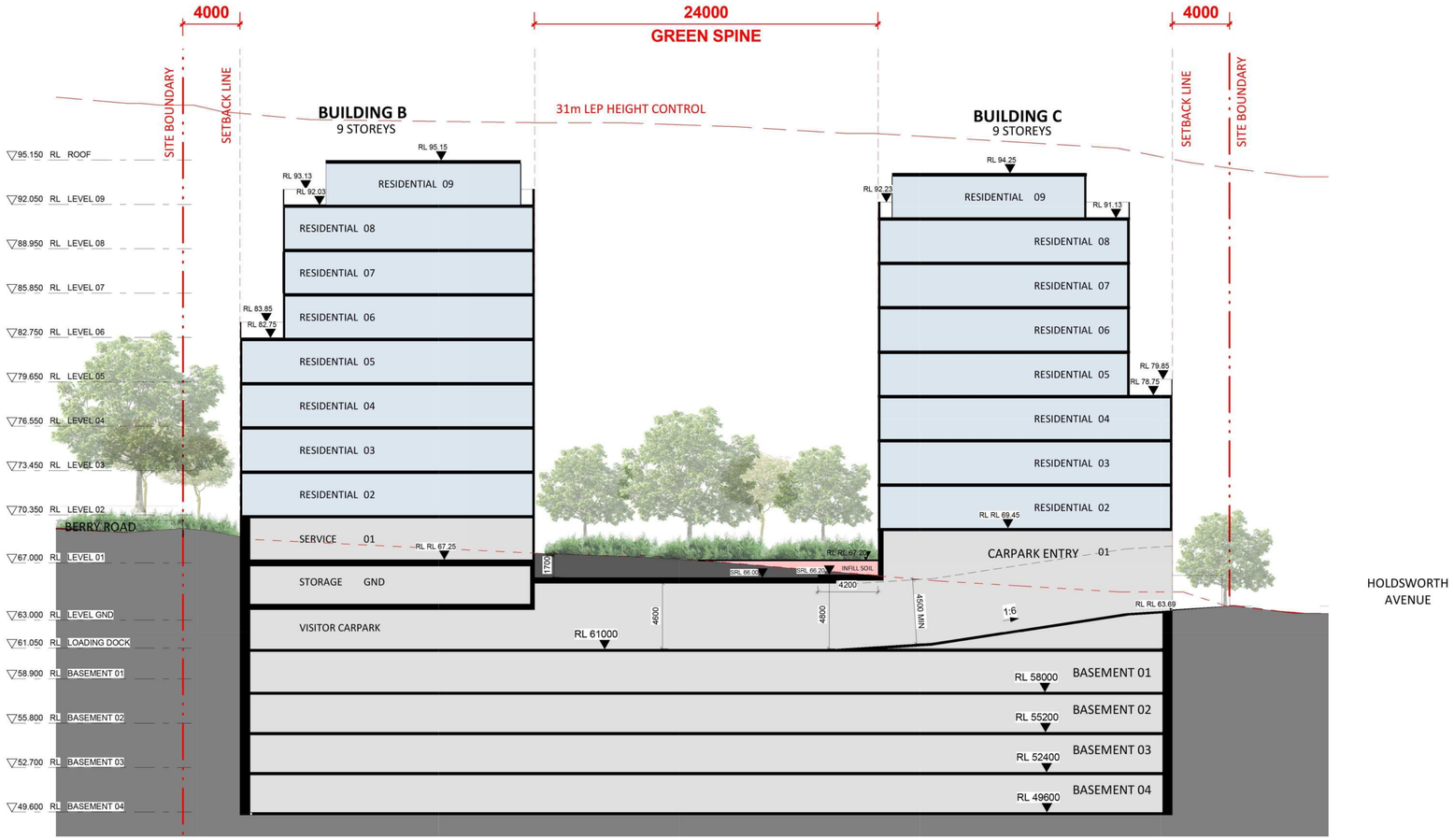
DATE
02/12/2021





NO.	REVISION	BY	CHK	DATE
A	Issue for DEP Meeting	JD	AC	02/12/2021

REVISION NOTES:

KEY PLAN

CLOUD LEGEND

REVISION ON HOLD

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PROJECT
ST LEONARDS SOUTH, EQ
LOT 18,19 & 20

STATUS
DA

0 5 m

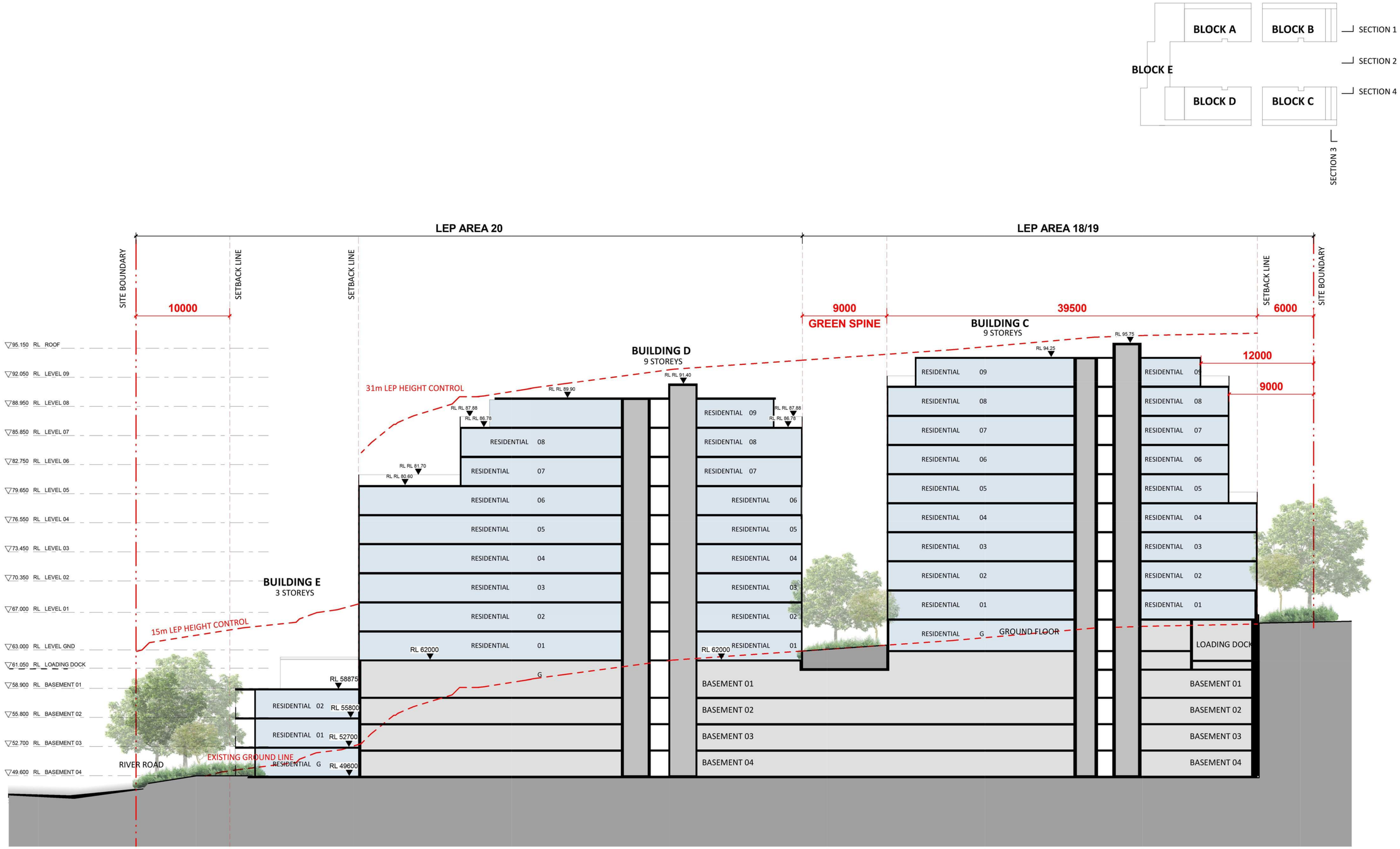
DWG TITLE
SITE SECTION 03

DWG NO.
A0302

REVISION
A

SCALE
1:100@A1, 1:200@A3

DATE
02/12/2021



NO	REVISION	BY	CHK	DATE
A	Issue for DEP Meeting	JD	AC	02/12/2021

REVISION NOTES:

KEY PLAN

CLOUD LEGEND: REVISION / ON HOLD

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PROJECT
ST LEONARDS SOUTH, EQ
LOT 18,19 & 20

DWG TITLE
SITE SECTION 04

STATUS
DA

DWG NO.
A0303

REVISION
A

0 5 m

SCALE
1:100@A1, 1:200@A3

DATE
02/12/2021

Site Photographs

Project Ref: E33629BT St Leonards
Site Address: 22-34 Berry Street, 21-31 Holdsworth Avenue and 42-46 River Road, St Leonards, NSW
Selected Site Photos Dated: 16 December 2021

	**Photograph 1:** 22 Berry Street
	**Photograph 2:** 24 Berry Street.
	**Photographs 3:** 26 Berry Street.
	**Photograph 4:** 28 Berry Street.

Project Ref: E33629BT St Leonards
Site Address: 22-34 Berry Street, 21-31 Holdsworth Avenue and 42-46 River Road, St Leonards, NSW
Selected Site Photos Dated: 16 December 2021

	**Photograph 5:** 30 Berry Street.
	**Photograph 6:** 32 Berry Street.
	**Photograph 7:** 34 Berry Street.
	**Photograph 8:** 21 Holdsworth Avenue.

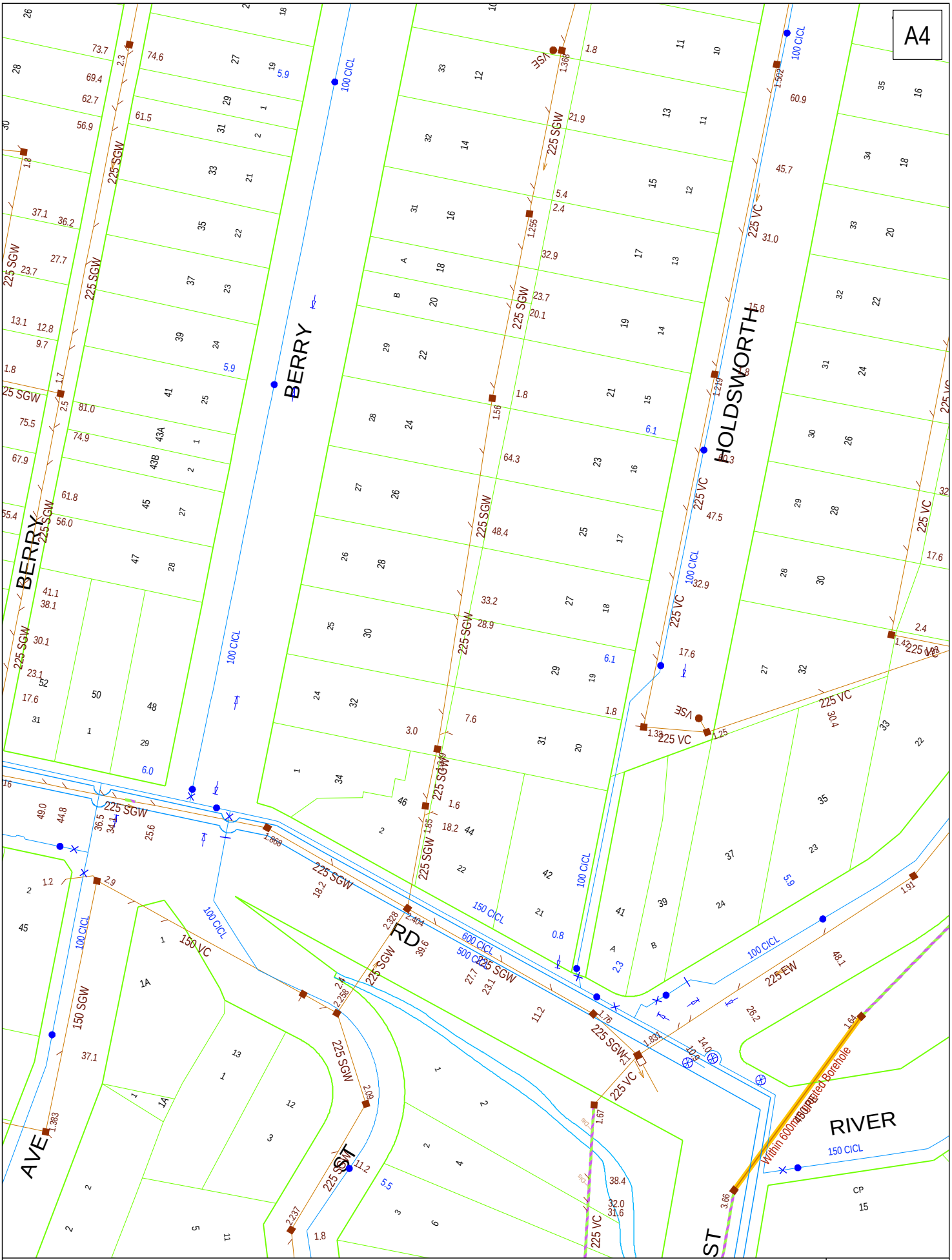
Project Ref: E33629BT St Leonards
Site Address: 22-34 Berry Street, 21-31 Holdsworth Avenue and 42-46 River Road, St Leonards, NSW
Selected Site Photos Dated: 16 December 2021

	**Photograph 9:** 23 Holdsworth Avenue.
	**Photograph 10:** 25 Holdsworth Avenue.
	**Photograph 11:** 27 Holdsworth Avenue.
	**Photograph 12:** 29 Holdsworth Avenue.

Project Ref: E33629BT St Leonards
Site Address: 22-34 Berry Street, 21-31 Holdsworth Avenue and 42-46 River Road, St Leonards, NSW
Selected Site Photos Dated: 16 December 2021

	**Photograph 13:** 31 Holdsworth Avenue.
	**Photograph 14:** 42 River Road.
	**Photograph 15:** 44 River Road.
	**Photograph 16:** 46 River Road.

DBYD Sewer Plan



DBYD Address:
29 Holdsworth Avenue
St Leonards NSW 2065

DBYD Job No: 31069777
DBYD Sequence No: 206246478

SYDNEY WATER CORPORATION

Scale: 1:1000

Date of Production: 13/12/2021

Plan 1 of 1

N

0m 5m 10m 15m 20m

Lotsearch Environmental Risk and Planning Report

LOTSEARCH

LOTSEARCH ENVIRO PROFESSIONAL

Date: 16 Dec 2021 16:32:05

Reference: LS027665 EP

Address: 22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

Dataset Listing

Datasets contained within this report, detailing their source and data currency:

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features On-site	No. Features within 100m	No. Features within Buffer
Cadastre Boundaries	NSW Department of Finance, Services & Innovation	30/06/2021	30/06/2021	Quarterly	-	-	-	-
Topographic Data	NSW Department of Finance, Services & Innovation	25/06/2019	25/06/2019	As required	-	-	-	-
List of NSW contaminated sites notified to EPA	Environment Protection Authority	10/12/2021	09/12/2021	Monthly	1000m	0	0	3
Contaminated Land Records of Notice	Environment Protection Authority	06/12/2021	06/12/2021	Monthly	1000m	0	0	1
Former Gasworks	Environment Protection Authority	11/08/2021	11/10/2017	Quarterly	1000m	0	0	1
National Waste Management Facilities Database	Geoscience Australia	12/05/2021	07/03/2017	Annually	1000m	0	0	1
National Liquid Fuel Facilities	Geoscience Australia	15/02/2021	13/07/2012	Annually	1000m	0	0	1
EPA PFAS Investigation Program	Environment Protection Authority	14/12/2021	14/07/2021	Monthly	2000m	0	0	0
Defence PFAS Investigation & Management Program - Investigation Sites	Department of Defence	29/10/2021	29/10/2021	Monthly	2000m	0	0	0
Defence PFAS Investigation & Management Program - Management Sites	Department of Defence	29/10/2021	29/10/2021	Monthly	2000m	0	0	0
Airservices Australia National PFAS Management Program	Airservices Australia	08/10/2021	08/10/2021	Monthly	2000m	0	0	0
Defence 3 Year Regional Contamination Investigation Program	Department of Defence	19/08/2021	19/08/2021	Quarterly	2000m	0	0	1
EPA Other Sites with Contamination Issues	Environment Protection Authority	02/02/2021	13/12/2018	Annually	1000m	0	0	0
Licensed Activities under the POEO Act 1997	Environment Protection Authority	10/11/2021	10/11/2021	Monthly	1000m	0	0	13
Delicensed POEO Activities still regulated by the EPA	Environment Protection Authority	10/11/2021	10/11/2021	Monthly	1000m	0	0	4
Former POEO Licensed Activities now revoked or surrendered	Environment Protection Authority	10/11/2021	10/11/2021	Monthly	1000m	0	0	8
UBD Business Directories (Premise & Intersection Matches)	Hardie Grant			Not required	150m	0	6	12
UBD Business Directories (Road & Area Matches)	Hardie Grant			Not required	150m	-	12	12
UBD Business Directory Dry Cleaners & Motor Garages/Service Stations (Premise & Intersection Matches)	Hardie Grant			Not required	500m	0	0	198
UBD Business Directory Dry Cleaners & Motor Garages/Service Stations (Road & Area Matches)	Hardie Grant			Not required	500m	-	0	11
Points of Interest	NSW Department of Finance, Services & Innovation	19/08/2021	19/08/2021	Quarterly	1000m	0	0	83
Tanks (Areas)	NSW Department of Customer Service - Spatial Services	19/08/2021	19/08/2021	Quarterly	1000m	0	0	0
Tanks (Points)	NSW Department of Customer Service - Spatial Services	19/08/2021	19/08/2021	Quarterly	1000m	0	0	0
Major Easements	NSW Department of Finance, Services & Innovation	19/08/2021	19/08/2021	Quarterly	1000m	0	0	9
State Forest	Forestry Corporation of NSW	25/02/2021	14/02/2021	Annually	1000m	0	0	0
NSW National Parks and Wildlife Service Reserves	NSW Office of Environment & Heritage	22/01/2021	11/12/2020	Annually	1000m	0	0	0
Hydrogeology Map of Australia	Commonwealth of Australia (Geoscience Australia)	08/10/2014	17/03/2000	As required	1000m	1	1	1
Temporary Water Restriction (Botany Sands Groundwater Source) Order 2018	NSW Department of Planning, Industry and Environment	26/10/2020	21/02/2018	Annually	1000m	0	0	0
Groundwater Boreholes	NSW Dept. of Primary Industries - Water NSW; Commonwealth of Australia (Bureau of Meteorology)	24/07/2018	23/07/2018	Annually	2000m	0	0	22

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features On-site	No. Features within 100m	No. Features within Buffer
Geological Units 1:100,000	NSW Department of Planning, Industry and Environment	20/08/2014		Annually	1000m	2	2	5
Geological Structures 1:100,000	NSW Department of Planning, Industry and Environment	20/08/2014		Annually	1000m	0	0	0
Naturally Occurring Asbestos Potential	NSW Dept. of Industry, Resources & Energy	04/12/2015	24/09/2015	Unknown	1000m	0	0	0
Atlas of Australian Soils	Australian Bureau of Agriculture and Resource Economics and Sciences (ABARES)	19/05/2017	17/02/2011	As required	1000m	1	1	1
Soil Landscapes of Central and Eastern NSW	NSW Department of Planning, Industry and Environment	14/10/2020	27/07/2020	Annually	1000m	2	3	7
Environmental Planning Instrument Acid Sulfate Soils	NSW Department of Planning, Industry and Environment	15/11/2021	05/11/2021	Monthly	500m	0	-	-
Atlas of Australian Acid Sulfate Soils	CSIRO	19/01/2017	21/02/2013	As required	1000m	1	1	3
Dryland Salinity - National Assessment	National Land and Water Resources Audit	18/07/2014	12/05/2013	None planned	1000m	0	0	0
Mining Subsidence Districts	NSW Department of Customer Service - Subsidence Advisory NSW	19/08/2021	05/08/2021	Quarterly	1000m	0	0	0
Current Mining Titles	NSW Department of Industry	02/11/2021	02/11/2021	Monthly	1000m	0	0	0
Mining Title Applications	NSW Department of Industry	02/11/2021	02/11/2021	Monthly	1000m	0	0	0
Historic Mining Titles	NSW Department of Industry	02/11/2021	02/11/2021	Monthly	1000m	11	11	13
Environmental Planning Instrument SEPP State Significant Precincts	NSW Department of Planning, Industry and Environment	15/11/2021	07/12/2018	Monthly	1000m	0	0	0
Environmental Planning Instrument Land Zoning	NSW Department of Planning, Industry and Environment	15/11/2021	05/11/2021	Monthly	1000m	1	14	147
Commonwealth Heritage List	Australian Government Department of the Agriculture, Water and the Environment	18/05/2021	20/11/2019	Annually	1000m	0	0	0
National Heritage List	Australian Government Department of the Agriculture, Water and the Environment	18/05/2021	20/11/2019	Annually	1000m	0	0	0
State Heritage Register - Curtilages	NSW Department of Planning, Industry and Environment	19/08/2021	25/06/2021	Quarterly	1000m	0	0	4
Environmental Planning Instrument Local Heritage	NSW Department of Planning, Industry and Environment	15/11/2021	05/11/2021	Monthly	1000m	0	1	194
Bush Fire Prone Land	NSW Rural Fire Service	14/12/2021	08/12/2021	Weekly	1000m	0	1	2
Native Vegetation of the Sydney Metropolitan Area	NSW Office of Environment & Heritage	01/03/2017	16/12/2016	As required	1000m	1	1	28
Ramsar Wetlands of Australia	Australian Government Department of Agriculture, Water and the Environment	24/02/2021	19/03/2020	Annually	1000m	0	0	0
Groundwater Dependent Ecosystems	Bureau of Meteorology	14/08/2017	15/05/2017	Annually	1000m	0	0	0
Inflow Dependent Ecosystems Likelihood	Bureau of Meteorology	14/08/2017	15/05/2017	Unknown	1000m	0	0	0
NSW BioNet Species Sightings	NSW Office of Environment & Heritage	14/12/2021	14/12/2021	Weekly	10000m	-	-	-

Site Diagram

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

Legend

- Site Boundary
- Internal Parcel Boundaries

Total Area: 8744m²

Total Perimeter: 390m

Scale: 0 15 30 Meters

Data Source Aerial Imagery: © Aerometrex Pty Ltd

Disclaimers:

Measurements are approximate only and may have been simplified or smaller lengths removed for readability.

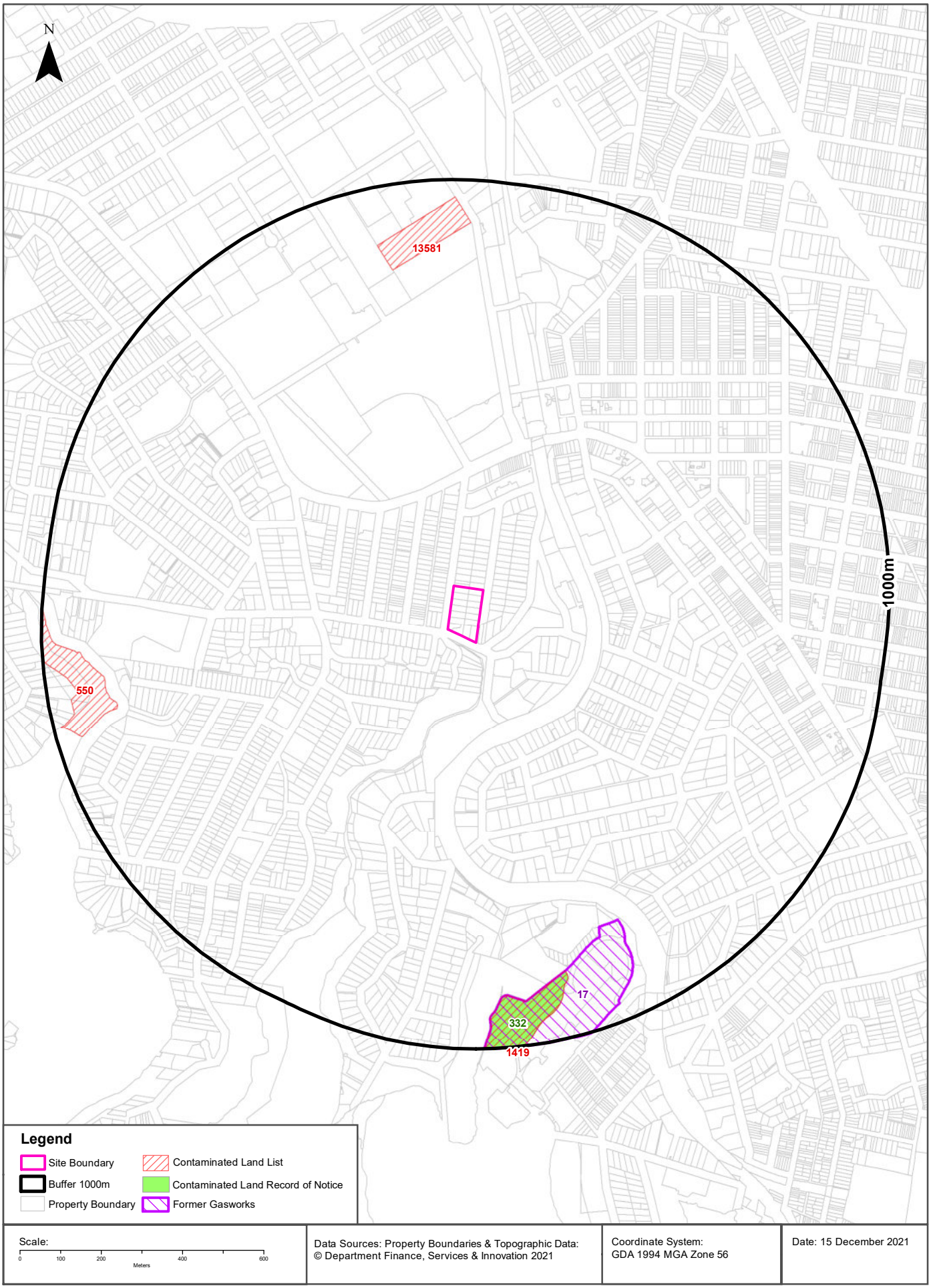
Parcels that make up a small percentage of the total site area have not been labelled for increased legibility.

Coordinate System: GDA 1994 MGA Zone 56

Date: 15 December 2021

Contaminated Land

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065



Contaminated Land

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

List of NSW contaminated sites notified to EPA

Records from the NSW EPA Contaminated Land list within the dataset buffer:

Map Id	Site	Address	Suburb	Activity	Management Class	Status	Location Confidence	Dist	Direction
13581	Telstra Data Centre	4A Herbert STREET	ST LEONARDS	Other Petroleum	Regulation under CLM Act not required	Current EPA List	Premise Match	792m	North
550	Gore Creek Reserve - Drainage Line	St Vincents Road	Greenwich	Other Industry	Regulation under CLM Act not required	Current EPA List	Premise Match	833m	West
1419	Oyster Cove AGL	2 King Street	Waverton	Gasworks	Ongoing maintenance required to manage residual contamination (CLM Act)	Current EPA List	Premise Match	836m	South

The values within the EPA site management class in the table above, are given more detailed explanations in the table below:

EPA site management class	Explanation
Contamination being managed via the planning process (EP&A Act)	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation. The contamination of this site is managed by the consent authority under the Environmental Planning and Assessment Act 1979 (EP&A Act) planning approval process, with EPA involvement as necessary to ensure significant contamination is adequately addressed. The consent authority is typically a local council or the Department of Planning and Environment.
Contamination currently regulated under CLM Act	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation under the Contaminated Land Management Act 1997 (CLM Act). Management of the contamination is regulated by the EPA under the CLM Act. Regulatory notices are available on the EPA's Contaminated Land Public Record of Notices.
Contamination currently regulated under POEO Act	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation. Management of the contamination is regulated under the Protection of the Environment Operations Act 1997 (POEO Act). The EPA's regulatory actions under the POEO Act are available on the POEO public register.
Contamination formerly regulated under the CLM Act	The EPA has determined that the contamination is no longer significant enough to warrant regulation under the Contaminated Land Management Act 1997 (CLM Act). The contamination was addressed under the CLM Act.
Contamination formerly regulated under the POEO Act	The EPA has determined that the contamination is no longer significant enough to warrant regulation. The contamination was addressed under the Protection of the Environment Operations Act 1997 (POEO Act).
Contamination was addressed via the planning process (EP&A Act)	The EPA has determined that the contamination is no longer significant enough to warrant regulation. The contamination was addressed by the appropriate consent authority via the planning process under the Environmental Planning and Assessment Act 1979 (EP&A Act).
Ongoing maintenance required to manage residual contamination (CLM Act)	The EPA has determined that ongoing maintenance, under the Contaminated Land Management Act 1997 (CLM Act), is required to manage the residual contamination. Regulatory notices under the CLM Act are available on the EPA's Contaminated Land Public Record of Notices.
Regulation being finalised	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation under the Contaminated Land Management Act 1997. A regulatory approach is being finalised.
Regulation under the CLM Act not required	The EPA has completed an assessment of the contamination and decided that regulation under the Contaminated Land Management Act 1997 is not required.
Under assessment	The contamination is being assessed by the EPA to determine whether regulation is required. The EPA may require further information to complete the assessment. For example, the completion of management actions regulated under the planning process or Protection of the Environment Operations Act 1997. Alternatively, the EPA may require information via a notice issued under s77 of the Contaminated Land Management Act 1997 or issue a Preliminary Investigation Order.

NSW EPA Contaminated Land List Data Source: Environment Protection Authority

Contaminated Land

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

Contaminated Land: Records of Notice

Record of Notices within the dataset buffer:

Map Id	Name	Address	Suburb	Notices	Area No	Location Confidence	Distance	Direction
332	Oyster Cove AGL	2 King Street	Waverton	1 current and 7 former	3076	Premise Match	836m	South

Contaminated Land Records of Notice Data Source: Environment Protection Authority

Former Gasworks

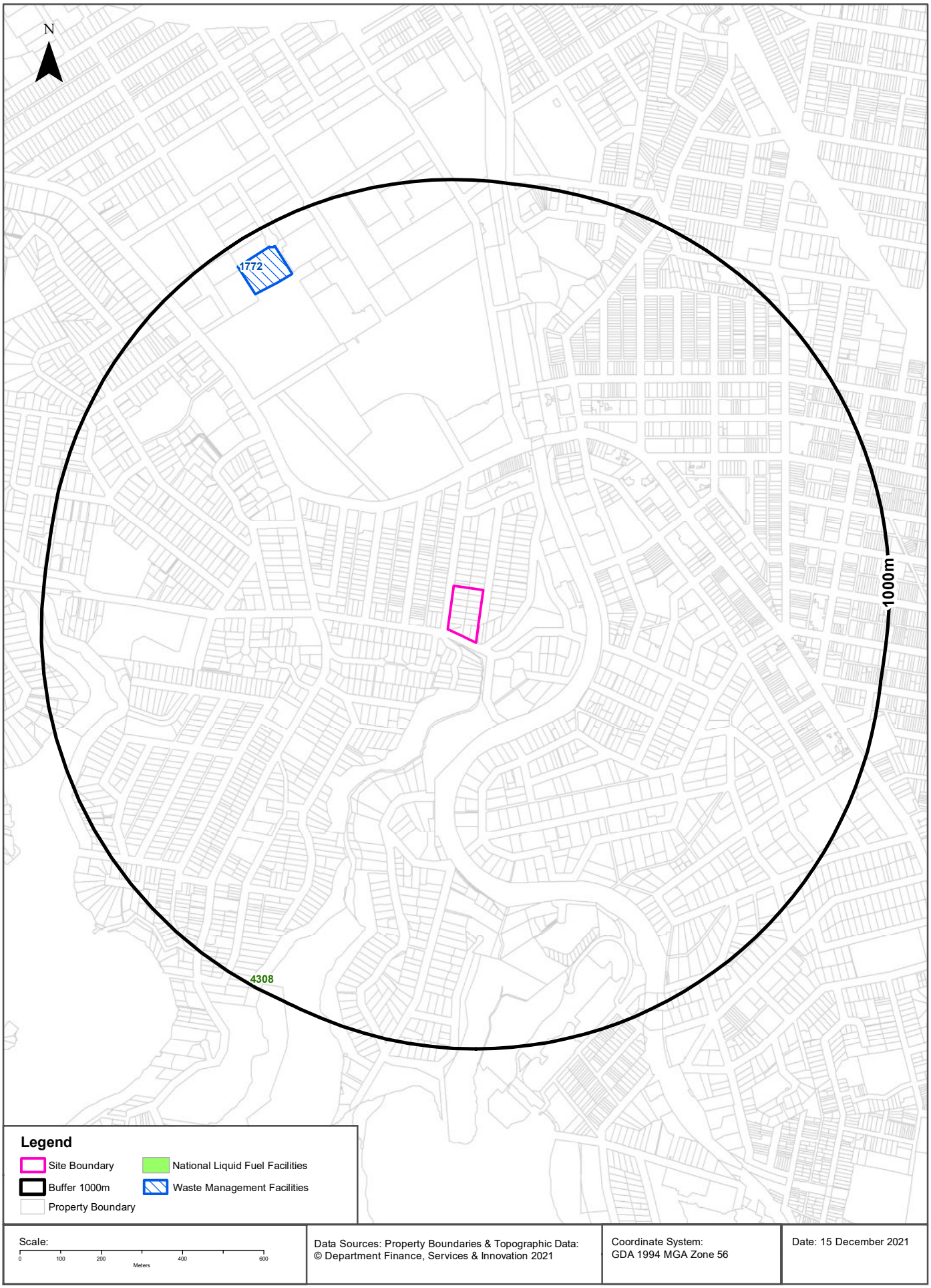
Former Gasworks within the dataset buffer:

Map Id	Location	Council	Further Info	Location Confidence	Distance	Direction
17	King Street, Waverton	North Sydney Council	Search record of EPA notices	Premise Match	760m	South

Former Gasworks Data Source: Environment Protection Authority

Waste Management & Liquid Fuel Facilities

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065



Waste Management & Liquid Fuel Facilities

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

National Waste Management Site Database

Sites on the National Waste Management Site Database within the dataset buffer:

Site Id	Owner	Name	Address	Suburb	Class	Landfill	Reprocess	Transfer	Comments	Loc Conf	Dist	Direction
1772	Sita Australia Pty Ltd	Artarmon Waste and Recycling Centre	Lanceley Place	Artarmon	Transfer Station			Operational		Premise Match	864 m	North West

Waste Management Facilities Data Source: Geoscience Australia

National Liquid Fuel Facilities

National Liquid Fuel Facilties within the dataset buffer:

Map Id	Owner	Name	Address	Suburb	Class	Operational Status	Operator	Revision Date	Loc Conf	Dist	Direction
4308	Shell	Gore Bay	Manns Avenue	Greenwich	Fuel Terminal	Operational	Shell	11/06/2012	Premise Match	994m	South West

National Liquid Fuel Facilities Data Source: Geoscience Australia

PFAS Investigation & Management Programs

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

EPA PFAS Investigation Program

Sites that are part of the EPA PFAS investigation program, within the dataset buffer:

Map ID	Site	Address	Loc Conf	Dist	Dir
N/A	No records in buffer				

EPA PFAS Investigation Program: Environment Protection Authority

Defence PFAS Investigation Program

Sites being investigated by the Department of Defence for PFAS contamination within the dataset buffer:

Map ID	Base Name	Address	Loc Conf	Dist	Dir
N/A	No records in buffer				

Defence PFAS Investigation Program Data Custodian: Department of Defence, Australian Government

Defence PFAS Management Program

Sites being managed by the Department of Defence for PFAS contamination within the dataset buffer:

Map ID	Base Name	Address	Loc Conf	Dist	Dir
N/A	No records in buffer				

Defence PFAS Management Program Data Custodian: Department of Defence, Australian Government

Airservices Australia National PFAS Management Program

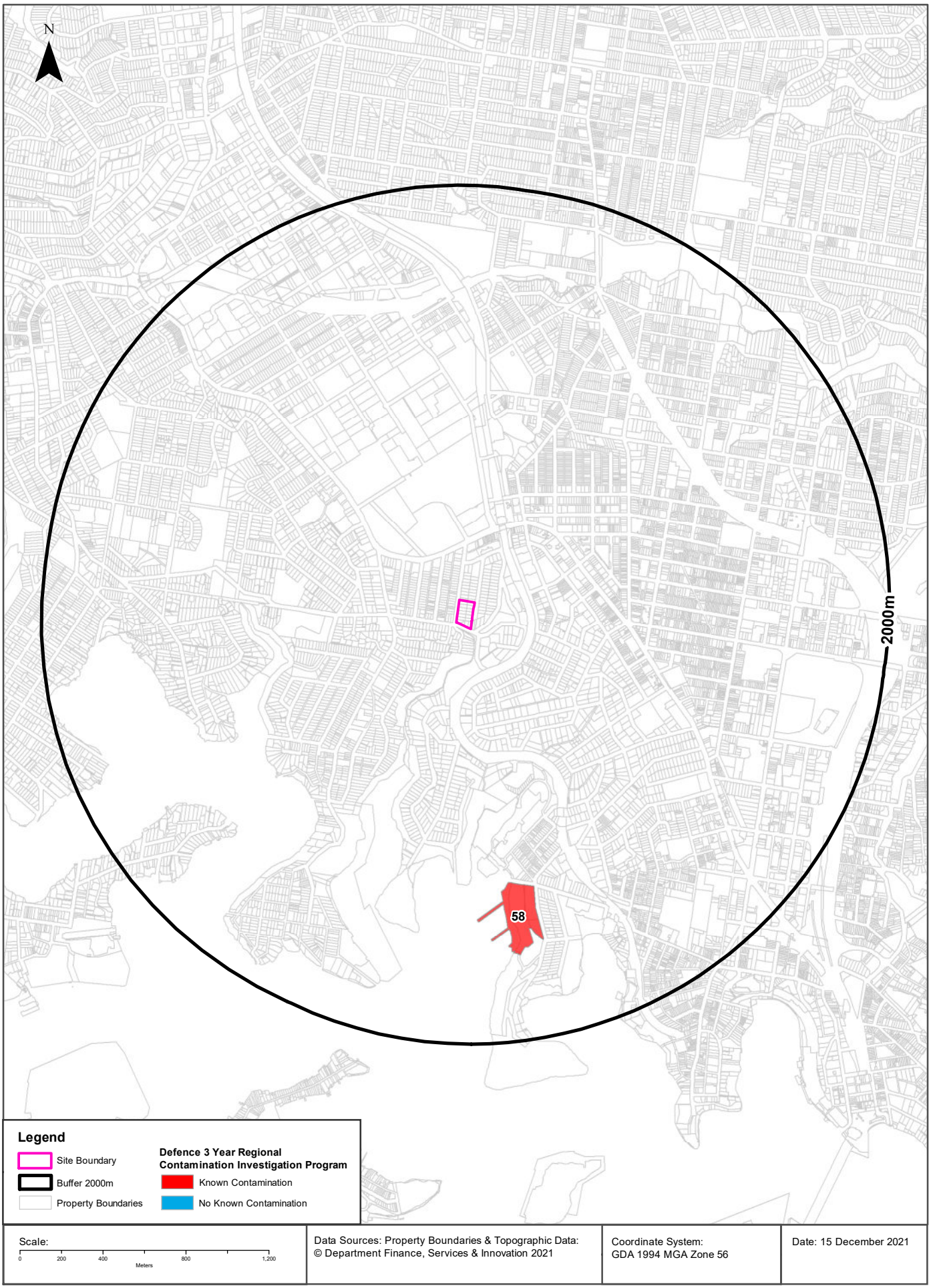
Sites being investigated or managed by Airservices Australia for PFAS contamination within the dataset buffer:

Map ID	Site Name	Impacts	Loc Conf	Dist	Dir
N/A	No records in buffer				

Airservices Australia National PFAS Management Program Data Custodian: Airservices Australia

Defence 3 Year Regional Contamination Investigation Program

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065



Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2021

Coordinate System: GDA 1994 MGA Zone 56

Date: 15 December 2021

Defence Sites

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

Defence 3 Year Regional Contamination Investigation Program

Sites which have been assessed as part of the Defence 3 Year Regional Contamination Investigation Program within the dataset buffer:

Property ID	Base Name	Address	Known Contamination	Loc Conf	Dist	Dir
58	HMAS Waterhen	Waverton, New South Wales	YES	Premise Match	1232m	South

Defence 3 Year Regional Contamination Investigation Program, Data Custodian: Department of Defence, Australian Government

EPA Other Sites with Contamination Issues

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

EPA Other Sites with Contamination Issues

This dataset contains other sites identified on the EPA website as having contamination issues. This dataset currently includes:

- James Hardie asbestos manufacturing and waste disposal sites
- Radiological investigation sites in Hunter's Hill
- Pasminco Lead Abatement Strategy Area

Sites within the dataset buffer:

Site Id	Site Name	Site Address	Dataset	Comments	Location Confidence	Distance	Direction
N/A	No records in buffer						

EPA Other Sites with Contamination Issues: Environment Protection Authority

Current EPA Licensed Activities

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

EPA Activities

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

Licensed Activities under the POEO Act 1997

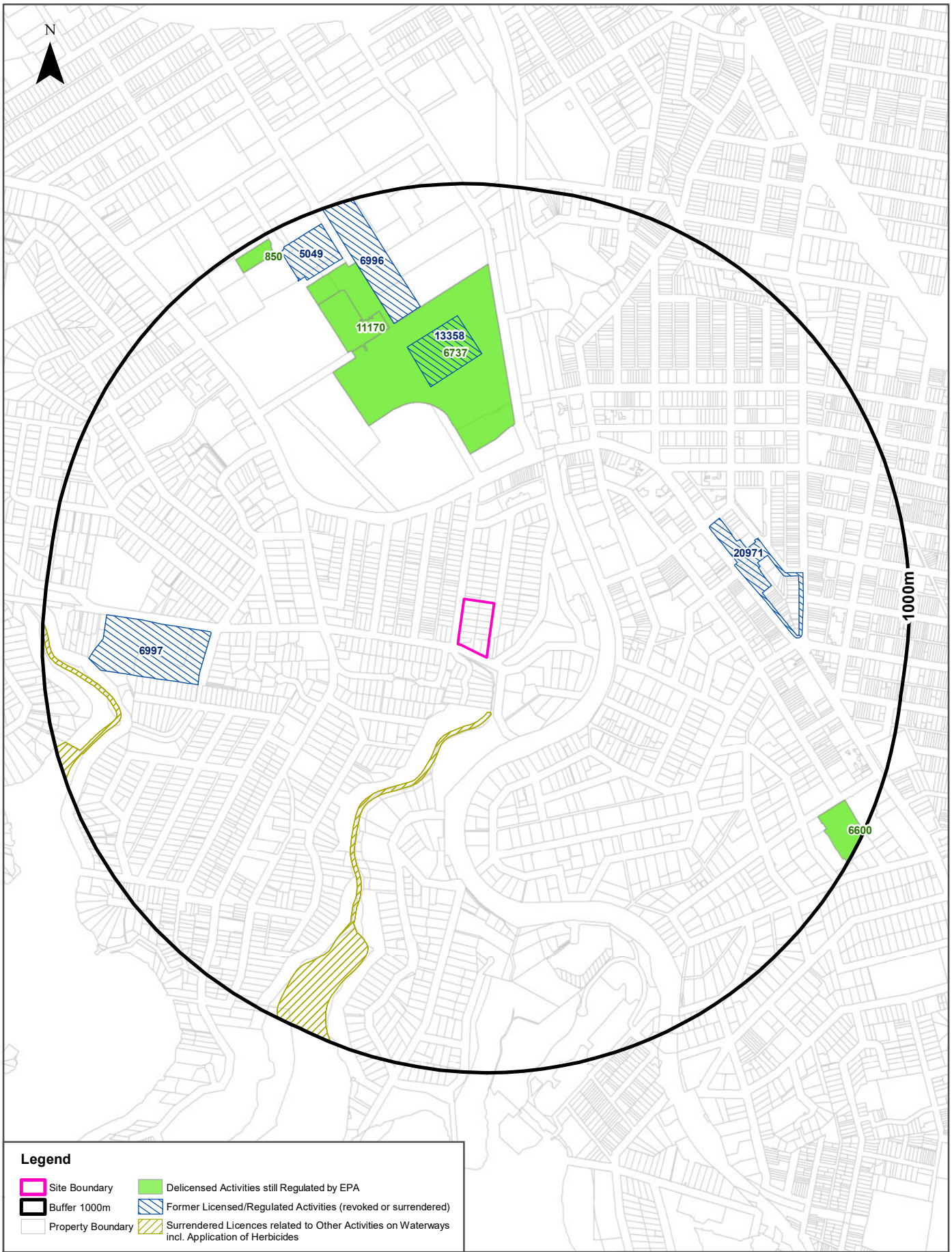
Licensed activities under the Protection of the Environment Operations Act 1997, within the dataset buffer:

EPL	Organisation	Name	Address	Suburb	Activity	Loc Conf	Distance	Direction
12208	SYDNEY TRAINS		SYDNEY TRAINS, HAYMARKET, NSW 1238		Railway systems activities	Network of Features	226m	East
21247	Metro Trains Sydney Pty Ltd		SYDNEY METRO, ROUSE HILL, NSW 2155		Railway systems activities	Network of Features	508m	North East
21423	CPB CONTRACTORS PTY LIMITED		BETWEEN CHATSWOOD DIVE SITE AND SYDENHAM DIVE SITE, SYDNEY, NSW 2000		Railway infrastructure construction (<50,000T)	Network of Features	508m	North East
4922	SUEZ RECYCLING & RECOVERY PTY LTD	ARTARMON RESOURCE RECOVERY CENTRE	LANCELEY PLACE	ARTARMON	Non-thermal treatment of general waste	Premise Match	864m	North West
4922	SUEZ RECYCLING & RECOVERY PTY LTD	ARTARMON RESOURCE RECOVERY CENTRE	LANCELEY PLACE	ARTARMON	Waste storage - other types of waste	Premise Match	864m	North West
4922	SUEZ RECYCLING & RECOVERY PTY LTD	ARTARMON RESOURCE RECOVERY CENTRE	LANCELEY PLACE	ARTARMON	Recovery of general waste	Premise Match	864m	North West
4922	SUEZ RECYCLING & RECOVERY PTY LTD	ARTARMON RESOURCE RECOVERY CENTRE	LANCELEY PLACE	ARTARMON	Waste storage - waste tyres	Premise Match	864m	North West
4922	SUEZ RECYCLING & RECOVERY PTY LTD	ARTARMON RESOURCE RECOVERY CENTRE	LANCELEY PLACE	ARTARMON	Composting	Premise Match	864m	North West
4922	SUEZ RECYCLING & RECOVERY PTY LTD	ARTARMON RESOURCE RECOVERY CENTRE	LANCELEY PLACE	ARTARMON	Waste storage - hazardous, restricted solid, liquid, clinical and related waste and asbestos waste	Premise Match	864m	North West
661	VIVA ENERGY AUSTRALIA PTY LTD	GORE BAY TERMINAL	MANNS AVENUE	GREENWICH	Petroleum products storage	Premise Match	994m	South West
661	VIVA ENERGY AUSTRALIA PTY LTD	GORE BAY TERMINAL	MANNS AVENUE	GREENWICH	Chemical storage waste generation	Premise Match	994m	South West
661	VIVA ENERGY AUSTRALIA PTY LTD	GORE BAY TERMINAL	MANNS AVENUE	GREENWICH	Waste storage - hazardous, restricted solid, liquid, clinical and related waste and asbestos waste	Premise Match	994m	South West
661	VIVA ENERGY AUSTRALIA PTY LTD	GORE BAY TERMINAL	MANNS AVENUE	GREENWICH	Shipping in bulk	Premise Match	994m	South West

POEO Licence Data Source: Environment Protection Authority

Delicensed & Former Licensed EPA Activities

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065



Scale:	Property Boundary Data Source:	Coordinate System:	Date: 15 December 2021
0 100 200 400 600 Meters	© Department Finance, Services & Innovation 2021	GDA 1994 MGA Zone 56	

EPA Activities

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

Delicensed Activities still regulated by the EPA

Delicensed activities still regulated by the EPA, within the dataset buffer:

Licence No	Organisation	Name	Address	Suburb	Activity	Loc Conf	Distance	Direction
6737	NORTHERN SYDNEY AND CENTRAL COAST AREA HEALTH SERVICE	ROYAL NORTH SHORE HOSPITAL	PACIFIC HIGHWAY	ST LEONARDS	Hazardous, Industrial or Group A Waste Generation or Storage	Premise Match	349m	North
11170	RAMSAY HEALTH CARE AUSTRALIA PTY LIMITED	NORTH SHORE PRIVATE HOSPITAL	3 Westbourne Street	ST LEONARDS	Hazardous, Industrial or Group A Waste Generation or Storage	Premise Match	643m	North
6600	ST VINCENTS & MATER HEALTH SYDNEY LIMITED	THE MATER HOSPITAL	25 - 35 ROCKLANDS ROAD	NORTH SYDNEY	Hazardous, Industrial or Group A Waste Generation or Storage	Premise Match	882m	South East
850	HANSON CONSTRUCTION MATERIALS PTY LTD	HANSON CONSTRUCTION MATERIALS PTY LTD	6 LANCELEY PLACE	ARTARMON	Concrete works	Premise Match	948m	North West

Delicensed Activities Data Source: Environment Protection Authority

Former Licensed Activities under the POEO Act 1997, now revoked or surrendered

Former Licensed activities under the Protection of the Environment Operations Act 1997, now revoked or surrendered, within the dataset buffer:

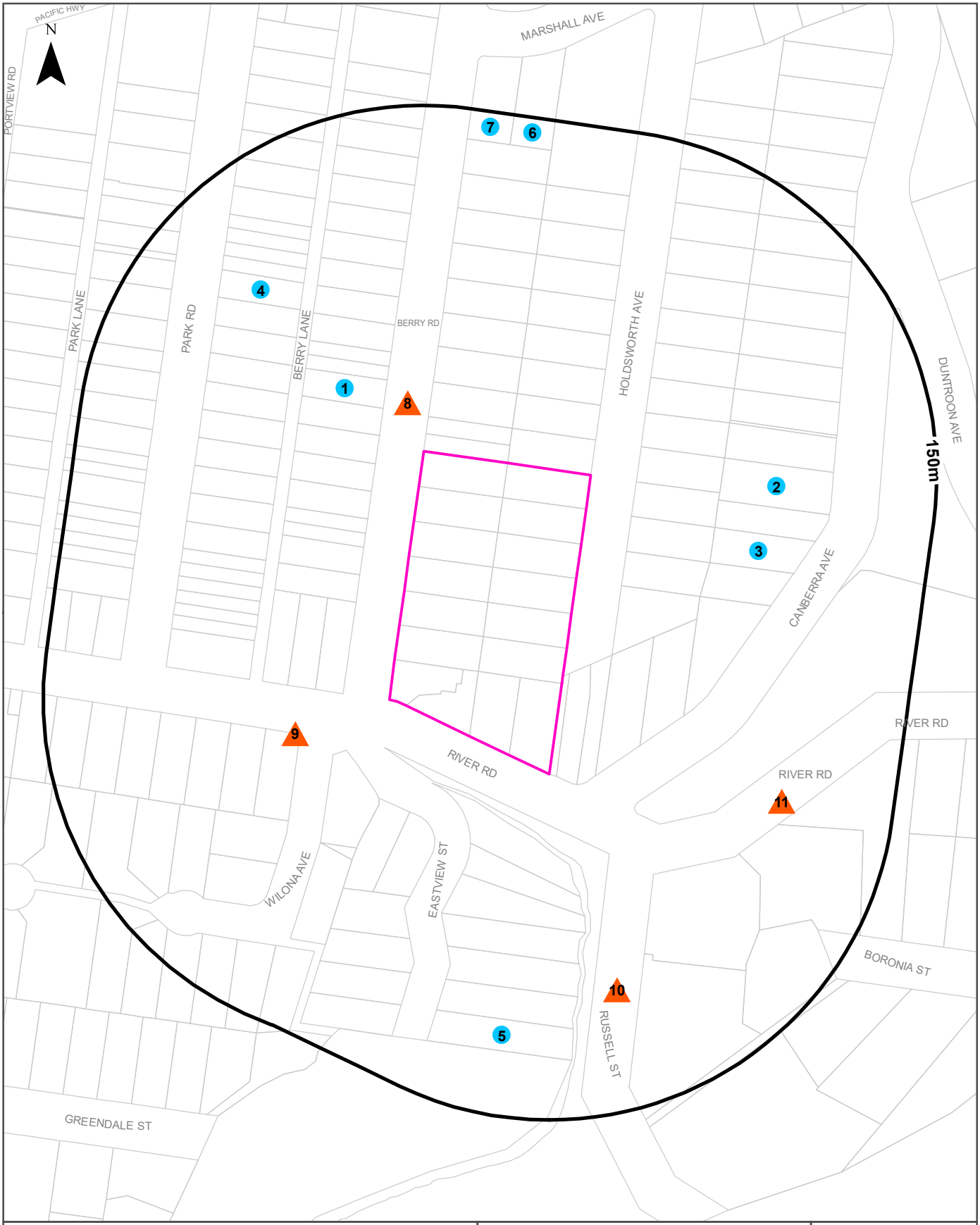
Licence No	Organisation	Location	Status	Issued Date	Activity	Loc Conf	Distance	Direction
4653	LUHRMANN ENVIRONMENT MANAGEMENT PTY LTD	WATERWAYS THROUGHOUT NSW	Surrendered	06/09/2000	Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	132m	South West
4838	Robert Orchard	Various Waterways throughout New South Wales - SYDNEY NSW 2000	Surrendered	07/09/2000	Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	132m	South West
6630	SYDNEY WEED & PEST MANAGEMENT PTY LTD	WATERWAYS THROUGHOUT NSW - PROSPECT, NSW, 2148	Surrendered	09/11/2000	Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	132m	South West
13358	VENTIA UTILITY SERVICES PTY LIMITED	Royal North Shore Hospital - Acute Services Building, Royal North Shore Hospital, Reserve Road, ST LEONARDS, NSW 2065, ST LEONARDS	Surrendered	20/04/2011	Generation of electrical power from gas	Premise Match	518m	North

Licence No	Organisation	Location	Status	Issued Date	Activity	Loc Conf	Distance	Direction
20971	JOHN HOLLAND PTY LTD	Sydney Metro City & Southwest Tunnels and Excavation Works, locations between Chatswood railway station and Sydenham railway station, SYDNEY, NSW 2000, SYDNEY, NSW	Surrendered	28/09/2017	Concrete works, Railway systems activities	Network of Features	549m	East
6997	HOPE HEALTHCARE LIMITED	97 - 115 RIVER ROAD, GREENWICH, NSW 2065	Surrendered	07/09/2000	Hazardous, Industrial or Group A Waste Generation or Storage	Premise Match	594m	West
6996	MOCKRIDGE BULMER PTY LTD	2/12 FREDERICK STREET, ST LEONARDS, NSW 2065	Surrendered	26/06/2000	Hazardous, Industrial or Group A Waste Generation or Storage	Premise Match	685m	North
5049	ROCK & DIRT PTY LTD	11 LANCELEY PLACE, ARTARMON, NSW 2064	Surrendered	10/08/2000	Waste Storage, Transfer, Separating or Processing; Crushing, grinding or separating	Premise Match	856m	North West

Former Licensed Activities Data Source: Environment Protection Authority

Historical Business Directories

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065



Legend

- Site Boundary
- Buffer 150m
- Property Boundary
- Business directory records mapped to a specific premise
- Business directory records mapped to a road intersection
- Business directory records mapped to a road corridor
- Business directory records mapped to a general area

Scale: 0 30 60 90 120 Meters

Coordinate System: GDA 1994 MGA Zone 56

Date: 16 December 2021

Data Sources: Reproduced with permission of UBD and Hardie Grant Media Pty Ltd DD 01/08/2018

Historical Business Directories

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

Business Directory Records 1950-1991
Premise or Road Intersection Matches

Universal Business Directory records from years 1991, 1986, 1982, 1978, 1975, 1970, 1965, 1961 & 1950, mapped to a premise or road intersection within the dataset buffer:

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
1	CARRIERS & CARTAGE CONTRACTORS	Robson, J., 33 Berry Rd., St. Leonards	285268	1961	Premise Match	25m	North West
	CARRIERS & CARTAGE CONTRACTORS	Robson, J., 33 Berry Rd., St. Leonards	19673	1950	Premise Match	25m	North West
2	GUEST HOUSES (G665)	Canberra Guest House., 27 Canberra Ave., St. Leonards	313245	1970	Premise Match	56m	East
3	COSMETIC MANUFACTURERS &. WHOLESALERS	Laird, L. J., 29 Canberra Ave., Wollstonecraft	29256	1950	Premise Match	56m	East
4	CARRIERS & CARTAGE CONTRACTORS	Blanford, F. A., 24 Park Rd., St. Leonards	284555	1961	Premise Match	81m	North West
	CARRIERS & CARTAGE CONTRACTORS	Blanford, F. A., 24 Park Rd., St. Leonards	18434	1950	Premise Match	81m	North West
5	ELECTRICAL CONTRACTORS-LICENSED	Ball, C. G., 14 Eastview St., Wollstonecraft	301600	1961	Premise Match	108m	South
6	MEDICAL PRACTITIONERS.	Fevre, L., 14 Marshall Ave., St. Leonards. 2065.	54815	1986	Premise Match	137m	North
	MEDICAL PRACTITIONERS.	Nagy, G. S., 14 Marshall Ave., St Leonards. 2065	56659	1986	Premise Match	137m	North
	MEDICAL PRACTITIONERS. (M2020)	Nagy, G. S., 14 Marshall Ave., St. Leonards. 2065.	49545	1982	Premise Match	137m	North
	MEDICAL PRACTITIONERS.	Nagy. G. S., 14 Marshall Ave., St. Leonards. 2065	43777	1978	Premise Match	137m	North
7	MEDICAL PRACTITIONERS.	Riley, J. W., 16 Marshall Ave., St Leonards. 2065	57213	1986	Premise Match	137m	North

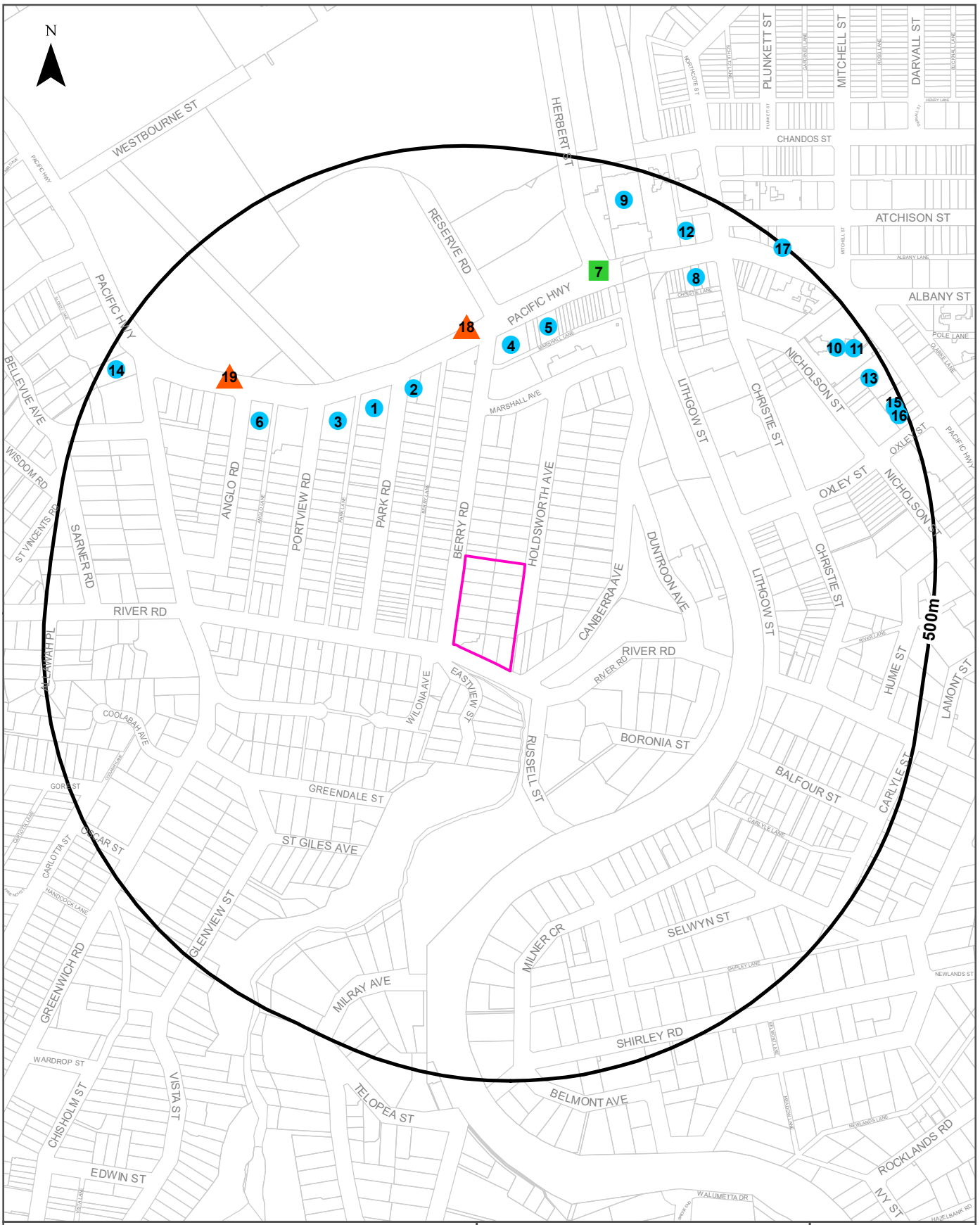
Business Directory Records 1950-1991
Road or Area Matches

Universal Business Directory records from years 1991, 1986, 1982, 1978, 1975, 1970, 1965, 1961 & 1950, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
8	ENGINEERS- GENERAL &/OR MANUFACTURING &/OR MECHANICAL	Henderson, P. A. & Co., Berry Rd., St. Leonards. 2065	25132	1978	Road Match	0m
	ENGINEERS-MINING.	Henderson. P. A. & Co., Berry Rd., St. Leonards. 2065	25867	1978	Road Match	0m
	ENGINEERS-GENERAL &/OR MFRG.&/OR MECHANICAL (E615)	Henderson, P. A. & Co., Berry Rd., St. Leonards	299210	1970	Road Match	0m
	TRANSFORMER MFRS.	Henderson, P. A. and Co., Berry Rd., St. Leonards	259251	1961	Road Match	0m
	ELECTRICAL ENGINEERS	Henderson, P. A. and Co., Berry Rd., St. Leonards	38125	1950	Road Match	0m
	ENGINEERS-GENERAL &/OR MANUFACTURING &/OR MECHANICAL	Henderson, P. A. and Co., Berry Rd., St. Leonards	40807	1950	Road Match	0m
	TRANSFORMER MANUFACTURERS	Henderson, P. A. and Co., Berry Rd., St. Leonards	110175	1950	Road Match	0m
9	CLUBS & /OR SPORTING BODIES	Lane Cove Country Club Ltd., River Rd., Northwood. 2066	18079	1975	Road Match	0m
	HOSTELS (H630)	Stella Maris Hostel., River Rd., Greenwich	316853	1970	Road Match	0m
10	ARCHITECTS	Wilton, F. H. B., Russell St., Wollstonecraft	2516	1950	Road Match	43m
11	CLUBS & SPORTING BODIES (C487)	Wollstonecraft Bowling Club., River Rd., Wollstonecraft	284756	1970	Road Match	57m
	Clubs & Sporting Bodies	Wollstonecraft Bowling Club, River Rd., Wollstonecraft	69399	1965	Road Match	57m

Dry Cleaners, Motor Garages & Service Stations

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065



Legend

- Site Boundary
- Buffer 500m
- Property Boundary
- Business directory records mapped to a specific premise
- Business directory records mapped to a road intersection
- Business directory records mapped to a road corridor
- Business directory records mapped to a general area

Scale: 0 90 180 270 360 Meters

Coordinate System: GDA 1994 MGA Zone 56

Date: 15 December 2021

Data Sources: Reproduced with permission of UBD and Hardie Grant Media Pty Ltd DD 01/08/2018

Historical Business Directories

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

Dry Cleaners, Motor Garages & Service Stations 1948-1993 Premise or Road Intersection Matches

Dry Cleaners, Motor Garages & Service Stations from UBD Business Directories, mapped to a premise or road intersection, within the dataset buffer.

Note: The Universal Business Directories were published between 1948 and 1993. Dry Cleaners, Motor Garages & Service Stations have been extracted from all of these directories except the following years 1951, 1955, 1957, 1960, 1963, 1973, 1974, 1977, 1987.

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
1	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	McIntyre W. A., 100 Pacific Hghwy., St. Leonards	38687	1962	Premise Match	183m	North West
	MOTOR SERVICE STATIONS—PETROL, OIL, Etc.	McIntyre, W. A., 100 Pacific Hghwy., St. Leonards	350848	1961	Premise Match	183m	North West
	MOTOR SERVICE STATIONS-PETROL,. OIL, ETC.	McIntyre W. A., 100 Pacific Hghwy., St. Leonards	24559	1959	Premise Match	183m	North West
	MOTOR SERVICE STATIONS-PETROL, ETC.	Mcintyre (Bill) W. A., 100 Pacific Hghwy., St. Leonards	9663	1958	Premise Match	183m	North West
	MOTOR SERVICE STATIONS-PETROL, ETC.	Mcintyre (Bill) W. A., 100 Pacific Hghwy., St. Leonards	62013	1956	Premise Match	183m	North West
	MOTOR GARAGES &/OR ENGINEERS.	Mcintyre (Bill) W. A., 100 Pacific Hghwy., St. Leonards	49624	1954	Premise Match	183m	North West
	MOTOR SERVICE STATIONS-PETROL, ETC.	Mcintyre (Bill) W. A., 100 Pacific Hghwy., St. Leonards	54563	1954	Premise Match	183m	North West
	MOTOR GARAGES &/OR ENGINEERS.	Mcintyre Pty. Ltd., 100 Pacific Hghwy St. Leonards	40308	1953	Premise Match	183m	North West
2	MOTOR GARAGES &/OR ENGINEERS.	Steves Filling Station., 94 Pacific Hghwy., St. Leonards	54166	1954	Premise Match	195m	North
	MOTOR GARAGES &/OR ENGINEERS.	Steves Filling Station., 94 Pacific Hghwy St. Leonards	40739	1953	Premise Match	195m	North
	MOTOR GARAGES &/OR ENGINEERS.	Steves Filling Station., 94 Pacific Hghwy., St. Leonards	32293	1952	Premise Match	195m	North
	MOTOR GARAGES &/OR ENGINEERS	Steves Filling Station, 94 Pacific Highway., St. Leonards	84429	1950	Premise Match	195m	North
3	MOTOR GARAGE & SERVICE STATIONS.	Portview Motors (Caltex), 114 Pacific Hghwy, Greenwich. 2065	5416	1989	Premise Match	198m	North West
	MOTOR GARAGES & SERVICE STATIONS.	Portview Motors (Caltex), 114 Pacific Hghwy, Greenwich. 2065	59797	1988	Premise Match	198m	North West
	MOTOR GARAGES & SERVICE STATIONS.	Portview Motors (Caltex), 114 Pacific H'way., Greenwich. 2065	65279	1986	Premise Match	198m	North West
	MOTOR GARAGES & SERVICE STATIONS.	Portview Motors (Caltex)., 114 Pacific Hghwy, Greenwich. 2065	45389	1985	Premise Match	198m	North West
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Portview Motors (Caltex), 114 Pacific Hghwy, Greenwich. 2065	33961	1984	Premise Match	198m	North West
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Portview Motors (Caltex)., 114 Pacific H'way., Greenwich 2065	21410	1983	Premise Match	198m	North West
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS. (M6860)	Portview Motors (Caltex), 114 Pacific H'way., Greenwich. 2065.	57399	1982	Premise Match	198m	North West

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
3	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Portview Service Station., 114 Pacific Highway., St Leonards. 2065.	46175	1979	Premise Match	198m	North West
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Portview Service Station, 114 Pacific H'way, St. Leonards. 2065	50679	1978	Premise Match	198m	North West
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Portview Service Station., 114 Pacific H'way., St. Leonards 2065	34747	1976	Premise Match	198m	North West
	MOTOR GARAGES &/OR ENGINEERS.	Portview Service Station, 114 Pacific H'way. St. Leonards.	59408	1975	Premise Match	198m	North West
	MOTOR GARAGES &/OR ENGINEERS.	Port View Service Station., 114 Pacific Hghwy., Greenwich	12263	1972	Premise Match	198m	North West
	MOTOR GARAGES &/OR ENGINEERS.	Port View Service Station., 114 Pacific Hghwy., Greenwich	56875	1971	Premise Match	198m	North West
	MOTOR GARAGES & ENGINEERS(M6S6)	Port View Service Station, 114 Pacific Highway. GREENWICH	338438	1970	Premise Match	198m	North West
	MOTOR GARAGES & ENGINEERS.	Port View Service Station., 114 Pacific Hghwy, Greenwich	42298	1969	Premise Match	198m	North West
	MOTOR GARAGES & ENGINEERS	Port View Service Station., 114 Pacific Hghwy., Greenwich	25818	1968	Premise Match	198m	North West
	MOTOR GARAGES & ENGINEERS.	Port View Service Station., 114 Pacific Hghwy., Greenwich	10319	1967	Premise Match	198m	North West
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Port View Service Station., 114 Pacific Hghwy., Greenwich	15765	1967	Premise Match	198m	North West
	MOTOR GARAGES & ENGINEERS.	Port View Service Station., 114 Pacific Hghway., Greenwich	56212	1966	Premise Match	198m	North West
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Port View Service Station., 114 Pacific Hghwy., Greenwich	1338	1966	Premise Match	198m	North West
	Motor Garages & Engineers	Port View Service Station, 114 Pacific Highway. Greenwich	122742	1965	Premise Match	198m	North West
	Motor Service Stations - Petrol, Oil, Etc.	Port View Service Station, 114 Pacific Highway. Greenwich	125747	1965	Premise Match	198m	North West
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Port View Service Station., 114 Pacific Hghwy., Greenwich	52032	1964	Premise Match	198m	North West
	MOTOR GARAGES & ENGINEERS	Port View Service Station., 114 Pacific Highway Greenwich	48010	1964	Premise Match	198m	North West
	MOTOR GARAGES & ENGINEERS.	Cogan's Service Station., 114 Pacific Hghwy., Greenwich	29545	1962	Premise Match	198m	North West
	MOTOR GARAGES & ENGINEERS.	Port View Service Station., 114 Pacific Hghwy., Greenwich	29549	1962	Premise Match	198m	North West
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Port View Service Station., 114 Pacific Hghwy., Greenwich	38247	1962	Premise Match	198m	North West
	MOTOR GARAGES & ENGINEERS	Cogan's Service Station, 114 Pacific Highway. Greenwich	346909	1961	Premise Match	198m	North West
	MOTOR GARAGES & ENGINEERS	Park View Service Station, 114 Pacific Highway., GREENWICH	347852	1961	Premise Match	198m	North West
	MOTOR SERVICE STATIONS—PETROL, OIL, Etc.	Port View Service Station, 114 Pacific Hghwy., GREENWICH	350974	1961	Premise Match	198m	North West
	MOTOR GARAGES & ENGINEERS.	Cogan's Service Station., 114 Pacific Hghwy., Greenwich	14197	1959	Premise Match	198m	North West
	MOTOR GARAGES & ENGINEERS.	Park View Service Station., 114 Pacific Hghwy., Greenwich	14201	1959	Premise Match	198m	North West
	MOTOR GARAGE/ENGINEERS.	Cogan's Service Station., 114 Pacific Hghwy., Greenwich	853	1958	Premise Match	198m	North West
	MOTOR GARAGE/ENGINEERS.	Reilly L. V., 114 Pacific Hghwy., Greenwich	4841	1958	Premise Match	198m	North West
	MOTOR GARAGE/ENGINEERS.	Wadds Heck Service Station., 114 Pacific Hghwy., Grnwch	9224	1958	Premise Match	198m	North West

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3	MOTOR GARAGES &/OR ENGINEERS.	Cogan's Service Station., 114 Pacific Hghwy., Greenwich	57453	1956	Premise Match	198m	North West
	MOTOR GARAGES &/OR ENGINEERS.	Reilly L. V., 114 Pacific Hghwy., Greenwich	61369	1956	Premise Match	198m	North West
	MOTOR GARAGES &/OR ENGINEERS.	Cogan's Service Station., 114 Pacific Hghwy., Greenwich	49080	1954	Premise Match	198m	North West
	MOTOR GARAGES &/OR ENGINEERS.	Reilly L. V., 114 Pacific Hghwy., Greenwich	49925	1954	Premise Match	198m	North West
	MOTOR GARAGES &/OR ENGINEERS.	Cogan's Service Station., 114 Pacific Hghwy., Greenwich	39831	1953	Premise Match	198m	North West
	MOTOR GARAGES &/OR ENGINEERS.	Cogan's Service Station., 114 Pacific Hghwy., Greenwich	31492	1952	Premise Match	198m	North West
	MOTOR GARAGES &/OR ENGINEERS	Cogan's Service Station, 114 Pacific Highway., Greenwich	83602	1950	Premise Match	198m	North West
	MOTOR SERVICE STATIONS-PETROL, Etc.	Cogan's Service Station, 114 Pacific Highway., Greenwich	85879	1950	Premise Match	198m	North West
	MOTOR GARAGES &/OR ENGINEERS.	Cogan's Service Station., 114 Pacific Hghwy., Greenwich	65235	1948-49	Premise Match	198m	North West
	MOTOR SERVICE STATIONS-PETROL, ETC.	Cogan's Service Station., 114 Pacific Hghwy., Greenwich	23189	1948-49	Premise Match	198m	North West
4	MOTOR GARAGES & ENGINEERS.	St. Leonards Garage., 50 Pacific Hghwy., St. Leonards	33414	1962	Premise Match	236m	North
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	St. Leonards Garage., 50 Pacific Hghwy., St. Leonards	38690	1962	Premise Match	236m	North
	MOTOR SERVICE STATIONS—PETROL, OIL, Etc.	St. Leonards Garage, 50 Pacific Hghwy. St. Leonards	351114	1961	Premise Match	236m	North
	MOTOR GARAGES & ENGINEERS	St. Leonards Garage, 50 Pacific Hghwy., St Leonards	348187	1961	Premise Match	236m	North
	MOTOR GARAGES & ENGINEERS.	St. Leonards Garage., 50 Pacific Hghwy., St. Leonards	19963	1959	Premise Match	236m	North
	MOTOR GARAGE/ENGINEERS.	St. Leonards Garage., 54-56 Pacific Hghwy., St. Leonards	4925	1958	Premise Match	236m	North
	MOTOR GARAGES &/OR ENGINEERS.	St. Leonards Garage., 54-56 Pacific Hghwy., St. Leonards	61446	1956	Premise Match	236m	North
	MOTOR GARAGES &/OR ENGINEERS.	St. Leonards Garage., 54-56 Pacific Hghwy., St. Leonards	54061	1954	Premise Match	236m	North
	MOTOR GARAGES &/OR ENGINEERS.	St. Leonards Garage., 54 Pacific Hghwy., St. Leonards	36465	1953	Premise Match	236m	North
	MOTOR GARAGES &/OR ENGINEERS.	St. Leonards Garage., 54-56 Pacific Hghwy., St. Leonards	40643	1953	Premise Match	236m	North
	MOTOR GARAGES &/OR ENGINEERS.	St. Leonards Garage., 54-56 Pacific Hghwy., St. Leonards	32209	1952	Premise Match	236m	North
	MOTOR SERVICE STATIONS-PETROL, Etc.	St. Leonards Garage (A. Killorn)., 54-56 Pacific Hghwy., St. Leonards	86415	1950	Premise Match	236m	North
	MOTOR GARAGES &/OR ENGINEERS	St. Leonards Garage, 54-56 Pacific Highway., St. Leonards	84407	1950	Premise Match	236m	North
	MOTOR GARAGES &/OR ENGINEERS.	St. Leonards Garage., 54-56 Pacific Hghwy., St. Leonards	22836	1948-49	Premise Match	236m	North
5	DRY CLEANERS, PRESSERS &/OR DYERS.	Same Day Dry Cleaning., 36 Pacific Hghwy., St. Leonards 2065	7230	1972	Premise Match	268m	North
6	MOTOR GARAGES &/OR ENGINEERS.	Greenwich Motors., 122 Pacific H'way., Greenwich. 2065	59003	1975	Premise Match	279m	North West
	MOTOR GARAGES &/OR ENGINEERS.	Greenwich Motors., 124 Pacific Hghwy., Greenwich	12262	1972	Premise Match	279m	North West
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Horsburghs Auto Centre., 126 Pacific Hghwy., Greenwich	16733	1972	Premise Match	279m	North West
	MOTOR GARAGES &/OR ENGINEERS.	Greenwich Motors., 124 Pacific Hghwy., Greenwich	56874	1971	Premise Match	279m	North West
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Horsburghs Auto Centre., 126 Pacific Hghwy., Greenwich	2199	1971	Premise Match	279m	North West

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6	MOTOR GARAGES & ENGINEERS(M6S6)	Greenwich Motors., 124 Pacific Highway., GREENWICH	337945	1970	Premise Match	279m	North West
	MOTOR SERVICE STATIONS-PETROL,OIL,Etc.	Horsburghs Auto Centre., 126 Pacific Hghwy., GREENWICH	341216	1970	Premise Match	279m	North West
	MOTOR GARAGES & ENGINEERS.	Greenwich Motors., 124 Pacific Hghwy, Greenwich	42297	1969	Premise Match	279m	North West
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Horsburghs Auto Centre., 126 Pacific Hghwy Greenwich	47861	1969	Premise Match	279m	North West
	MOTOR GARAGES & ENGINEERS	Greenwich Motors., 124 Pacific Hghwy., Greenwich	25817	1968	Premise Match	279m	North West
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Horsbyghs Auto Centre., 126 Pacific Hghwy., Greenwich	31289	1968	Premise Match	279m	North West
	MOTOR GARAGES & ENGINEERS.	Greenwich Motors., 124 Pacific Hghwy., Greenwich	10318	1967	Premise Match	279m	North West
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Horsburghs Auto Centre., 126 Pacific Hghwy., Greenwich	15764	1967	Premise Match	279m	North West
	MOTOR GARAGES & ENGINEERS.	Greenwich Motors., 124 Pacific Highway., Greenwich	56211	1966	Premise Match	279m	North West
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Horsburghs Auto Centre., 126 Pacific Hghwy., Greenwich	1337	1966	Premise Match	279m	North West
	Motor Garages & Engineers	Greenwich Motors, 124 Pacific Highway. Greenwich	122741	1965	Premise Match	279m	North West
	Motor Service Stations - Petrol, Oil, Etc.	Horsburghs Auto Centre, 126 Pacific Highway. Greenwich	125746	1965	Premise Match	279m	North West
	MOTOR GARAGES & ENGINEERS	Greenwich Motors., 124 Pacific Highway Greenwich	48009	1964	Premise Match	279m	North West
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Horsburghs Auto Centre., 126 Pacific Hghwy., Greenwich	52031	1964	Premise Match	279m	North West
	MOTOR GARAGES & ENGINEERS.	Greenwich Motors & Bodyworks., Rear 124 Pacific Hghwy., Greenwich	29546	1962	Premise Match	279m	North West
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Horsburghs Auto Centre., 126 Pacific Hghwy., Greenwich	38248	1962	Premise Match	279m	North West
	MOTOR GARAGES & ENGINEERS	Greenwich Motors & Bodyworks, Rear 124 Pacific Highway., GREENWICH	347280	1961	Premise Match	279m	North West
	MOTOR SERVICE STATIONS—PETROL, OIL, Etc.	Horsburghs Auto Centre, 126 Pacific Hghwy., GREENWICH	350708	1961	Premise Match	279m	North West
	MOTOR GARAGES & ENGINEERS.	Greenwich Motors & Barker Body Works., 124 Pacific Hghwy., Greenwich	14198	1959	Premise Match	279m	North West
	MOTOR SERVICE STATIONS-PETROL,. OIL, ETC.	Horsburghs Auto Centre., 126 Pacific Hghwy., Greenwich	24222	1959	Premise Match	279m	North West
	MOTOR GARAGE/ENGINEERS.	Greenwich Motors & Barker Body Works., 124 Pacific Hghwy., Greenwich	4208	1958	Premise Match	279m	North West
7	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	K.G.A. Service Station Pty. Ltd., Cnr Herbert St & Pacific Highway., St. Leonards	38685	1962	Road Intersection	369m	North
	MOTOR GARAGES & ENGINEERS.	K.G.A. Service Station Pty. Ltd., Cnr Herbert St. & Pacific Hghwy., St. Leonards	33411	1962	Road Intersection	369m	North
	MOTOR GARAGES & ENGINEERS	K.G.A. Service Station Pty. Ltd., Cnr. Herbert St. & Pacific Hghwy., St Leonards	347475	1961	Road Intersection	369m	North
	MOTOR SERVICE STATIONS—PETROL, OIL, Etc.	K.G.A. Service Station Pty. Ltd., Cnr. Herbert St. & Pacific Hghwy., St. Leonards	350739	1961	Road Intersection	369m	North
	MOTOR GARAGES & ENGINEERS.	K.G.A. Service Station Pty. Ltd., Herbert St St Leonards	19962	1959	Road Intersection	369m	North
	MOTOR SERVICE STATIONS-PETROL,. OIL, ETC.	K.G.A. Service Station Pty. Ltd., Herbert St St Leonards	24557	1959	Road Intersection	369m	North
	MOTOR SERVICE STATIONS-PETROL, ETC.	K.G.A. Service Station Pty. Ltd., Pacific Hghwy., St. Leonards	9619	1958	Road Intersection	369m	North

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7	MOTOR SERVICE STATIONS-PETROL, ETC.	K.G.A. Service Station Pty. Ltd., Pacific Hghwy., St. Leonards	61976	1956	Road Intersection	369m	North
8	DRY CLEANERS, PRESSERS & DYERS.	Catts & Co., 552 Pacific Hghwy., St. Leonards	54800	1956	Premise Match	393m	North East
	DRY CLEANERS, PRESSERS & DYERS.	Catts & Co., 552 Pacific Hghwy., St. Leonards	44326	1954	Premise Match	393m	North East
	DRY CLEANERS, PRESSERS & DYERS.	Catts & Co., 552 Pacific Hghwy., St. Leonards	36133	1953	Premise Match	393m	North East
	DRY CLEANERS, PRESSERS & DYERS	Catts and Co. 552 Pacific Highway., St. Leonards	35151	1950	Premise Match	393m	North East
	DRY CLEANERS, PRESSERS & DYERS.	Catts And Co., 552 Pacific Hghwy	17099	1948-49	Premise Match	393m	North East
	DRY CLEANERS, PRESSERS & DYERS.	Catts And Co., 552 Pacific Hghwy., St. Leonards	17100	1948-49	Premise Match	393m	North East
9	DRY CLEANERS & PRESSERS.	Rosemont Dry Cleaning., St. Leonards Railway Station., St. Leonards. 2065	53269	1988	Premise Match	422m	North
	DRY CLEANERS & PRESSERS.	Rosemont Dry Cleaning, St. Leonards Railway Station, St. Leonards. 2065	25497	1986	Premise Match	422m	North
	DRY CLEANERS & PRESSERS.	David Jones Dry Cleaning St. Leonards Railway Station, St. Leonards. 2065	34490	1985	Premise Match	422m	North
	DRY CLEANERS & PRESSERS.	David Jones Dry Cleaning St. Leonards, Railway Station, St. Leonards. 2065	21934	1984	Premise Match	422m	North
	DRY CLEANERS & PRESSERS.	David Jones Dry Cleaning St. Leonards Railway Station., St. Leonards 2065	8525	1983	Premise Match	422m	North
	DRY CLEANERS, PRESSERS &/OR DYERS.	Lawrence Dry Cleaners., Station Entrance, Pacific H'way., St. Leonards 2065	23606	1976	Premise Match	422m	North
	DRY CLEANERS, PRESSERS &/OR DYERS.	Lawrence Dry Cleaners, Station Entrance, Pacific H'way, St. Leonards	24128	1975	Premise Match	422m	North
10	DRY CLEANERS, PRESSERS & DYERS	Tasman Dry Cleaners. 494 Pacific Highway., St. Leonards	35765	1950	Premise Match	428m	North East
	DRY CLEANERS, PRESSERS & DYERS.	Tasman Dry Cleaners., 494 Pacific Hwy, St Leonards	17514	1948-49	Premise Match	428m	North East
11	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Orbit Service Station (Ampol), 472 Pacific Hghwy, St.Leonards. 2065	33890	1984	Premise Match	432m	North East
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Orbit Service Station (Ampol)., 472 Pacific H'way St. Leonards. 2065	21339	1983	Premise Match	432m	North East
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS. (M6860)	Orbit Service Station (Ampol), 472 Pacific H'way., St. Leonards. 2065.	57323	1982	Premise Match	432m	North East
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Ampol St. Leonards Service Station., 472 Pacific H'way., St Leonards. 2065	63701	1981	Premise Match	432m	North East
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Ampol St. Leonards Service Station., 472 Pacific Highway., St Leonards. 2065	50173	1980	Premise Match	432m	North East
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Ampol Service Station, 472 Pacific H'way., St Leonards. 2065.	35698	1979	Premise Match	432m	North East
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Ampol Service Station, 472 Pacific H'way, St. Leonards. 2065	49299	1978	Premise Match	432m	North East
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Yellow Cabs Of Australia Pty. Ltd., 472 Pacific H'way., St. Leonards 2065	35251	1976	Premise Match	432m	North East
	MOTOR GARAGES &/OR ENGINEERS.	Yellow Cabs of Australia Pty. Ltd., 472 Pacific H'way., St. Leonards. 2065	59809	1975	Premise Match	432m	North East

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11	MOTOR GARAGES &/OR ENGINEERS.	Yellow Cabs Of Australia Pty. Ltd., 482 Pacific Hghwy St. Leonards 2065	13036	1972	Premise Match	432m	North East
	MOTOR GARAGES &/OR ENGINEERS.	Yellow Cabs Of Australia Pty. Ltd., 482 Pacific Hghwy., St. Leonards 2065	62699	1971	Premise Match	432m	North East
	MOTOR GARAGES & ENGINEERS(M6S6)	Yellow Cabs of Aust. Pty. Ltd., 482 Pacific Highway., CROW'S NEST	338924	1970	Premise Match	432m	North East
	MOTOR GARAGES & ENGINEERS.	Yellow Cabs Of Aust. Pty. Ltd., 482 Pacific Hghwy, Crows Nest	42005	1969	Premise Match	432m	North East
	MOTOR GARAGES & ENGINEERS	Yellow Cabs Of Aust. Pty. Ltd., 482 Pacific Hghwy., Crows Nest	25556	1968	Premise Match	432m	North East
	MOTOR GARAGES & ENGINEERS	Orbit Service Station., 482-484 Pacific Highway Crows Nest	43695	1964	Premise Match	432m	North East
	MOTOR GARAGES & ENGINEERS.	Orbit Service Station., 482-484 Pacific Hghwy., St. Leonards	33412	1962	Premise Match	432m	North East
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Orbit Service Station., 482-484 Pacific Hghwy., St. Leonards	38688	1962	Premise Match	432m	North East
	MOTOR GARAGES & ENGINEERS	Orbit Service Station, 482-484 Pacific Hghwy., St Leonards	347828	1961	Premise Match	432m	North East
	MOTOR SERVICE STATIONS—PETROL, OIL, Etc.	Orbit Service Station, 482-484 Pacific Hghwy., St Leonards	350926	1961	Premise Match	432m	North East
12	DRY CLEANERS, PRESSERS & DYERS	Marcel Poincare, 661 Pacific Highway., St. Leonards	35489	1950	Premise Match	432m	North East
	DRY CLEANERS, PRESSERS & DYERS.	Marcel Poincare., 661 Pacific Hghwy., St. Leonards	17346	1948-49	Premise Match	432m	North East
13	MOTOR GARAGES &/OR ENGINEERS.	Northern Motor Repairs., 458 Pacific Hghwy., Crows Nest	22682	1948-49	Premise Match	433m	North East
14	MOTOR GARAGES &/OR ENGINEERS.	Knodis S. D., 156 Pacific Hghwy., Greenwich	49540	1954	Premise Match	458m	North West
	MOTOR GARAGES &/OR ENGINEERS.	Knodis S. D., 156 Pacific Hghwy., Greenwich	40241	1953	Premise Match	458m	North West
	MOTOR GARAGES &/OR ENGINEERS.	Knodis S. D., 156 Pacific Hghwy., Greenwich	31847	1952	Premise Match	458m	North West
	MOTOR GARAGES &/OR ENGINEERS	Knodis, S. D., 156 Pacific Highway., Greenwich	83968	1950	Premise Match	458m	North West
	MOTOR GARAGES &/OR ENGINEERS.	Knodis, S. D., 156 Pacific Hghwy., Greenwich	22532	1948-49	Premise Match	458m	North West
15	MOTOR GARAGES & ENGINEERS.	Hook's Motor Units., 452 Pacific Hghwy., Crow's Nest	29231	1962	Premise Match	477m	North East
	MOTOR GARAGES & ENGINEERS	Hook's Motor Units, 452 Pacific Highway. CROW'S NEST	347391	1961	Premise Match	477m	North East
	MOTOR GARAGES & ENGINEERS	Hook's Motor Units., 452 Pacific Hghwy., Crows Nest	13909	1959	Premise Match	477m	North East
	MOTOR GARAGE/ENGINEERS.	Hooks Motor Units., 452 Pacific Hghwy., Crows Nest	4298	1958	Premise Match	477m	North East
	MOTOR GARAGES &/OR ENGINEERS.	Hooks Motor Units., 452 Pacific Hghwy., Crows Nest	57823	1956	Premise Match	477m	North East
	MOTOR GARAGES &/OR ENGINEERS.	Hooks Motor Units., 452 Pacific Hghwy., Crows Nest	49425	1954	Premise Match	477m	North East
	MOTOR GARAGES &/OR ENGINEERS.	Hornsby Hooks Motor Units., 452 Pacific Hghwy., Crows Nest	40142	1953	Premise Match	477m	North East
16	MOTOR GARAGES & ENGINEERS	Burnett & Gallen Pty Ltd., 446 Pacific Hghwy., Crows Nest	13905	1959	Premise Match	480m	North East
	MOTOR SERVICE STATIONS-PETROL,. OIL, ETC.	Burnett & Gallen Pty. Ltd., 446 Pacific Hghwy., Crow's Nest	24121	1959	Premise Match	480m	North East
	MOTOR SERVICE STATIONS-PETROL, ETC.	Burnett & Gallen Pty. Ltd., 446 Pacific Hghwy., Crow's Nest	9425	1958	Premise Match	480m	North East
	MOTOR GARAGE/ENGINEERS.	Burnett & Gallen Pty. Ltd., 446 Pacific Hghwy., Crws Nst	749	1958	Premise Match	480m	North East
	MOTOR GARAGES &/OR ENGINEERS.	Burnett & Gallen Pty. Ltd., 446 Pacific Hghwy., Crws Nst	57355	1956	Premise Match	480m	North East
	MOTOR GARAGES &/OR ENGINEERS.	Burnett & Gallen Pty. Ltd., 446 Pacific Hghwy., Crws Nst	48984	1954	Premise Match	480m	North East

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16	MOTOR GARAGES &/OR ENGINEERS.	Burnett & Gallen Pty. Ltd., 446 Pacific Hghwy., Crws Nst	36695	1953	Premise Match	480m	North East
	MOTOR GARAGES &/OR ENGINEERS.	Burnett & Gallen Pty. Ltd., 446 Pacific Hghwy., Crws Nst	31417	1952	Premise Match	480m	North East
	MOTOR GARAGES &/OR ENGINEERS	Burnett and Gallen Pty. Ltd., 446 Pacific Highway., Crows Nest	83527	1950	Premise Match	480m	North East
	MOTOR SERVICE STATIONS-PETROL, Etc.	Burnett and Gallen Pty. Ltd., 446 Pacific Highway., Crows Nest	85835	1950	Premise Match	480m	North East
	MOTOR GARAGES &/OR ENGINEERS.	Burnett And Gallen Pty. Ltd., 446 Pacific Hghwy., Crows Nest	17843	1948-49	Premise Match	480m	North East
	MOTOR SERVICE STATIONS-PETROL, ETC.	Burnett and Gallen Pty. Ltd., 446 Pacific Hghwy., Crows Nest	23159	1948-49	Premise Match	480m	North East
17	MOTOR GARAGES & SERVICE STATIONS.	Shell St. Leonards Service Station, 611 Pacific Hwy., St. Leonards. 2065	25432	1993	Premise Match	492m	North East
	Motor Garages & Service Stations	Shell St. Leonards Service Station, 611 Pacific H'way., St. Leonards 2065	53875	1991	Premise Match	492m	North East
	MOTOR GARAGES & SERVICE STATIONS.	Shell St. Leonards Service Station, 611 Pacific Hghwy, St. Leonards. 2065	12129	1990	Premise Match	492m	North East
	MOTOR GARAGE & SERVICE STATIONS.	Shell St. Leonards Service Station, 611 Pacific Hghwy., St. Leonards. 2065	5551	1989	Premise Match	492m	North East
	MOTOR GARAGES & SERVICE STATIONS.	Shell St. Leonards Service Station, 611 Pacific Hghwy., St. Leonards. 2065	59940	1988	Premise Match	492m	North East
	MOTOR GARAGES & SERVICE STATIONS.	Shell St. Leonards Service Station, 611 Pacific H'way., St Leonards. 2065	65442	1986	Premise Match	492m	North East
	MOTOR GARAGES & SERVICE STATIONS.	Shell St. Leonards Service Station, 611 Pacific Hghwy, St. Leonards. 2065	45554	1985	Premise Match	492m	North East
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Shell St. Leonards Service Station, 611 Pacific Hghwy, St. Leonards. 2065	34118	1984	Premise Match	492m	North East
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Shell St. Leonards Service Station., 611 Pacific H'way., St. Leonards 2065	21572	1983	Premise Match	492m	North East
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	St. Leonards Auto Port. (Shell)., 609 Pacific H'way., St. Leonards 2065	21622	1983	Premise Match	492m	North East
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS. (M6860)	Shell St. Leonards Service Station, 611 Pacific H'way., St. Leonards. 2065.	57563	1982	Premise Match	492m	North East
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS. (M6860)	St. Leonards Auto Port, (Shell), 609 Pacific H'way., St Leonards. 2065.	57612	1982	Premise Match	492m	North East
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Shell St. Leonards Service Station., 611 Pacific H'way., St Leonards 2065	65728	1981	Premise Match	492m	North East
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	St. Leonards Auto Port (Shell)., 609 Pacific H'way., St Leonards 2065	8203	1981	Premise Match	492m	North East
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Shell St. Leonards Service Station., 611 Pacific H'way., St. Leonards. 2065	58834	1980	Premise Match	492m	North East
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	St. Leonards Auto Port (Shell)., 609 Pacific Highway., St. Leonards. 2065	58884	1980	Premise Match	492m	North East
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	St. Leonards Auto Port (Shell)., 609 Pacific Highway., St Leonards. 2065.	46383	1979	Premise Match	492m	North East

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
17	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	St. Leonards Auto Port, (Shell), 609 Pacific H'way, St. Leonards. 2065	50872	1978	Premise Match	492m	North East
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	St. Leonards Auto Port (Shell)., 609 Pacific H'way., St. Leonards 2065	34950	1976	Premise Match	492m	North East
	MOTOR SERVICE STATIONS - PETROL, OIL	St. Leonards Auto Port, (Shell)., 609 Pacific H'way, St. Leonards 2065	61959	1975	Premise Match	492m	North East
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	St. Leonards Auto Port., 609 Pacific Hghwy., St. Leonards	18164	1972	Premise Match	492m	North East
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	St. Leonards Auto Port., 609 Pacific Hghwy., St. Leonards	2586	1971	Premise Match	492m	North East
	MOTOR SERVICE STATIONS-PETROL,OIL,Etc.	St. Leonards Auto Port., 609 Pacific Hghwy., ST. LEONARDS	341492	1970	Premise Match	492m	North East
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	St. Leonards Auto Port., 609 Pacific Hghwy St. Leonards	50745	1969	Premise Match	492m	North East
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	St. Leonards Auto Port., 609 Pacific Hghwy., St Leonards	36828	1968	Premise Match	492m	North East
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	St. Leonards Auto Port., 609 Pacific Hghwy., St. Leonards	16230	1967	Premise Match	492m	North East
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	St. Leonards Auto Port., 609 Pacific Hghwy., St Leonards	1797	1966	Premise Match	492m	North East
	Motor Service Stations - Petrol, Oil, Etc. - St. Leonards	St. Leonards Auto Port., 609 Pacific Hghwy., St. Leonards	126145	1965	Premise Match	492m	North East
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	St. Leonards Auto Port., 609 Pacific Hghwy., St. Leonards	52395	1964	Premise Match	492m	North East
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	St. Leonards Auto Port., 609 Pacific Hghwy., St. Leonards	38689	1962	Premise Match	492m	North East
	MOTOR SERVICE STATIONS—PETROL, OIL, Etc.	St. Leonards Auto Port, 609 Pacific Hghwy., St. Leonards	351113	1961	Premise Match	492m	North East

Dry Cleaners, Motor Garages & Service Stations 1948-1993 Road or Area Matches

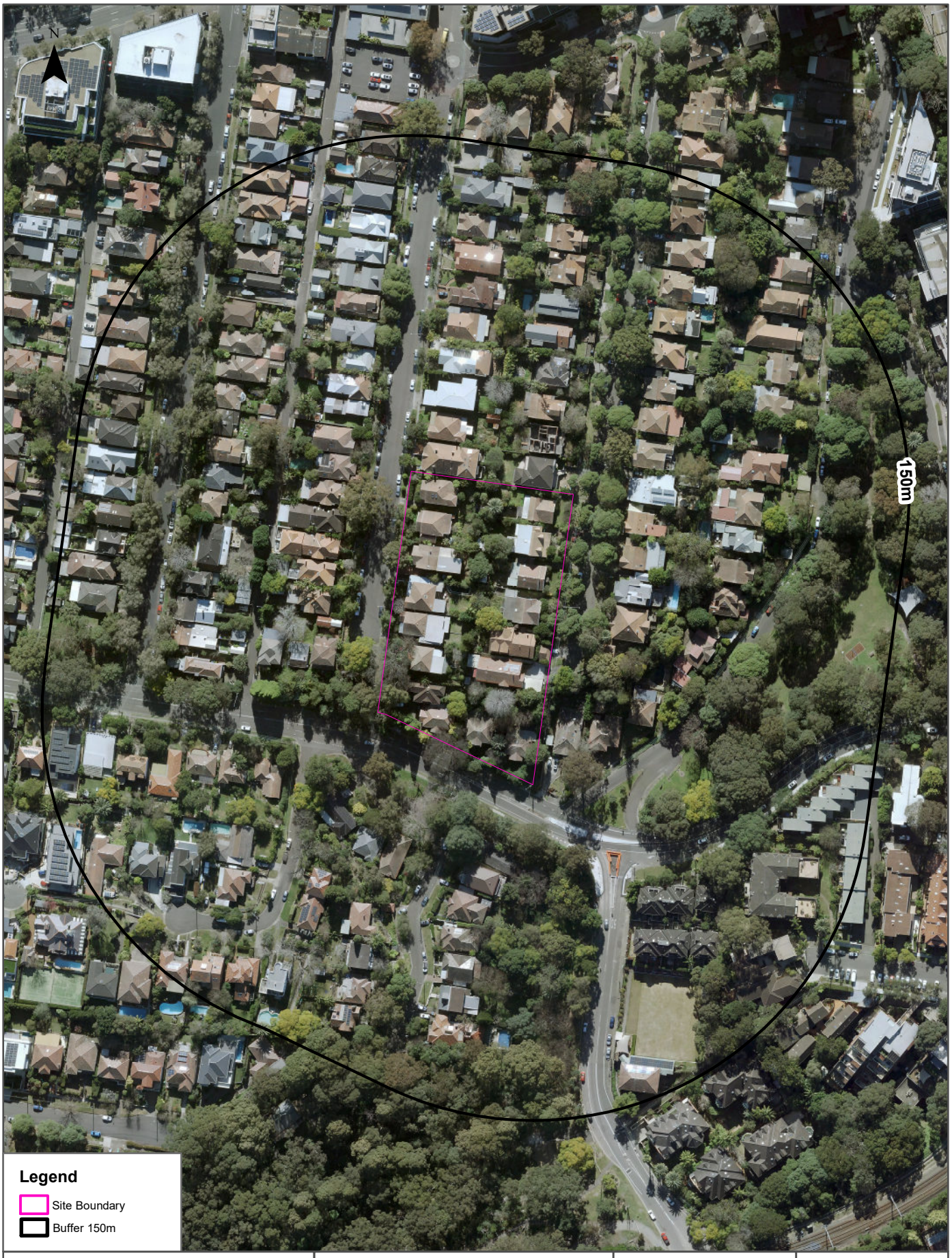
Dry Cleaners, Motor Garages & Service Stations from UBD Business Directories, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published.

Note: The Universal Business Directories were published between 1948 and 1993. Dry Cleaners, Motor Garages & Service Stations have been extracted from all of these directories except the following years 1951, 1955, 1957, 1960, 1963, 1973, 1974, 1977, 1987.

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
18	DRY CLEANERS, PRESSERS &/OR DYERS.	Lindfield Laundry & Dry Cleaners., Pacific H'way., St. Leonards 2065	23654	1976	Road Match	227m
	DRY CLEANERS, PRESSERS &/OR DYERS.	Lindfield Laundry & Dry Cleaners, Pacific H'way. St. Leonards. 2065	24178	1975	Road Match	227m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Koala Service Station., Cnr Pacific Hghwy & Jersey St., St. Leonards	38686	1962	Road Match	227m
	MOTOR SERVICE STATIONS-PETROL,. OIL, ETC.	Koala Service Station., Cnr Pacific Hghwy. & Jersey St., St. Leonards	24558	1959	Road Match	227m
19	Motor Service Stations - Petrol, Oil, Etc.	Scholtz, P. B., Pacific Highway. Artarmon	125387	1965	Road Match	227m
	MOTOR GARAGES & ENGINEERS	Atlantic Service Station, Pacific Highway. ARTARMON	346549	1961	Road Match	227m
	MOTOR SERVICE STATIONS—PETROL, OIL, Etc.	Scholtz, P. B., Pacific Hghwy., ARTARMON	351064	1961	Road Match	227m
	MOTOR SERVICE STATIONS-PETROL, ETC.	Horsburghs Auto Service., Pacific Hghwy., Greenwich	9594	1958	Road Match	227m
	MOTOR SERVICE STATIONS-PETROL, ETC.	Horsburghs Auto Service., Pacific Hghwy., Greenwich	61952	1956	Road Match	227m
	MOTOR SERVICE STATIONS-PETROL, ETC.	Scholtz P. B., Pacific Hghwy Artarmon	25	1956	Road Match	227m
	MOTOR SERVICE STATIONS-PETROL, ETC.	Horsburghs Auto Service., Pacific Hghwy., Greenwich	54509	1954	Road Match	227m

Aerial Imagery 2021

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065



Scale:	Data Source Aerial Imagery:	Coordinate System:	Date: 15 December 2021
0 25 50 75 100 Meters	© Aerometrex Pty Ltd	GDA 1994 MGA Zone 56	

Aerial Imagery 2016

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

Scale:	Data Source Aerial Imagery:	Coordinate System:	Date: 15 December 2021
0 25 50 75 100 Meters	© Aerometrex Pty Ltd	GDA 1994 MGA Zone 56	

Aerial Imagery 2011

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

Scale: 0 25 50 75 100 Meters	Data Source Aerial Imagery: © Aerometrex Pty Ltd	Coordinate System: GDA 1994 MGA Zone 56	Date: 15 December 2021

Aerial Imagery 2005

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

Scale: 0 25 50 75 100 Meters	Data Source Aerial Imagery: © Aerometrex Pty Ltd	Coordinate System: GDA 1994 MGA Zone 56	Date: 15 December 2021

Aerial Imagery 2000

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

Scale: 0 25 50 75 100 Meters	Data Source Aerial Imagery: © Aerometrex Pty Ltd	Coordinate System: GDA 1994 MGA Zone 56	Date: 15 December 2021

Aerial Imagery 1994

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

Scale:	Data Source Aerial Imagery:	Coordinate System:	Date: 14 December 2021
0 25 50 75 100 Meters	© NSW Department of Customer Service	GDA 1994 MGA Zone 56	

Aerial Imagery 1991

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

Aerial Imagery 1986

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

Aerial Imagery 1982

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

Scale: 0 25 50 75 100 Meters	Data Sources: Aerial Imagery: © NSW Department of Customer Service	Coordinate System: GDA 1994 MGA Zone 56	Date: 15 December 2021

Aerial Imagery 1978

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

Scale:	Data Source Aerial Imagery:	Coordinate System:	Date: 14 December 2021
0 25 50 75 100 Meters	© NSW Department of Customer Service	GDA 1994 MGA Zone 56	

Aerial Imagery 1970

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

Scale: 0 25 50 75 100 Meters	Data Sources: Aerial Imagery: © NSW Department of Customer Service	Coordinate System: GDA 1994 MGA Zone 56	Date: 15 December 2021

Aerial Imagery 1965

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

Aerial Imagery 1961

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

Data Sources: Aerial Imagery:
© NSW Department of Customer Service

Coordinate System:
GDA 1994 MGA Zone 56

Date: 15 December 2021

Aerial Imagery 1955, 1956

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

Aerial Imagery 1951

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

Aerial Imagery 1943

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

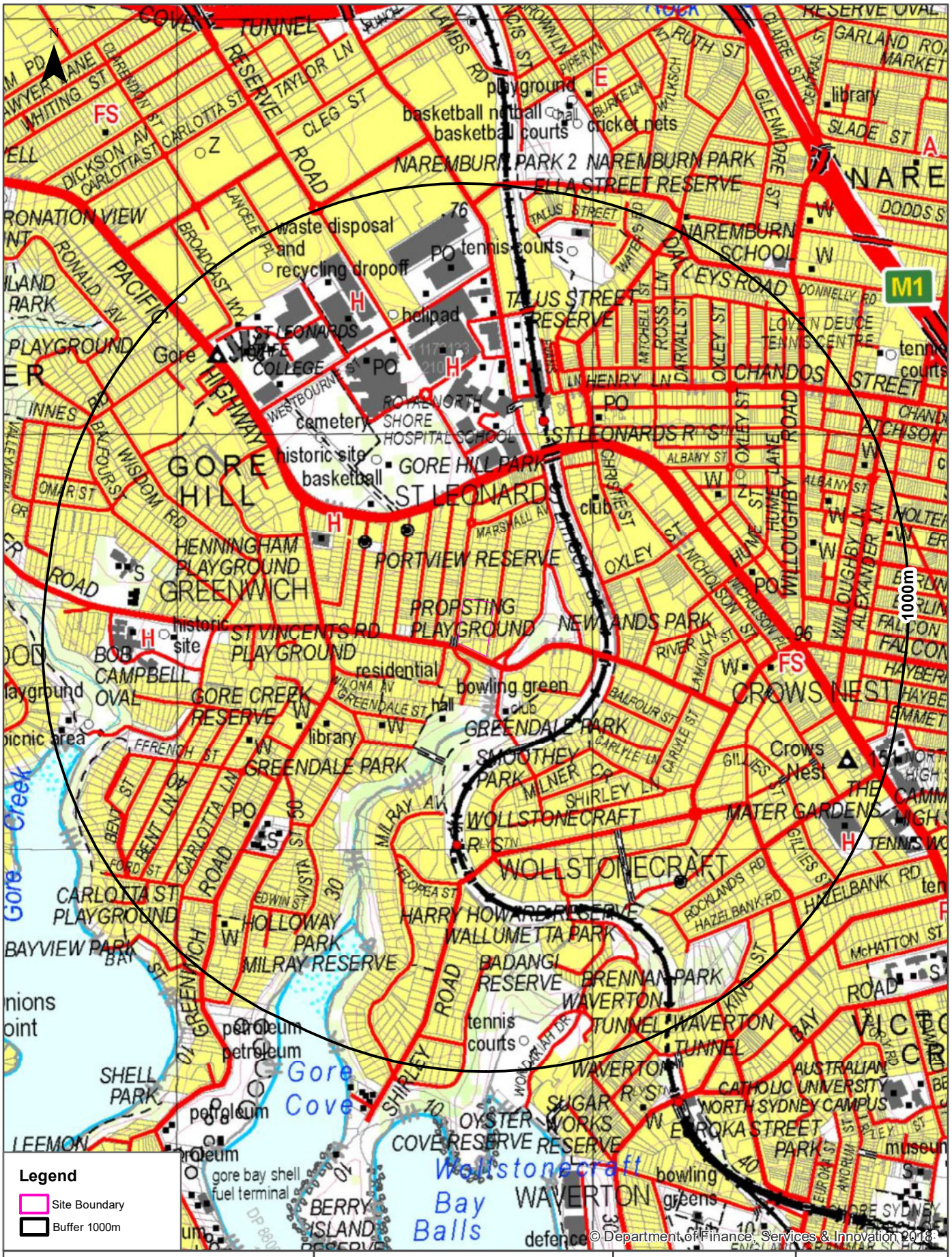
Scale: 0 25 50 75 100 Meters	Data Source Aerial Imagery: © Aerometrex Pty Ltd	Coordinate System: GDA 1994 MGA Zone 56	Date: 15 December 2021

Aerial Imagery 1930

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

Topographic Map 2015

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065



Historical Map 1975

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

Historical Map c.1936

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

Scale: 0 290 580 870 1,160 Meters

Data Sources: Australia 1:63360
Produced by Australian Section Imperial General Staff

Coordinate System:
GDA 1994 MGA Zone 56

Date: 15 December 2021

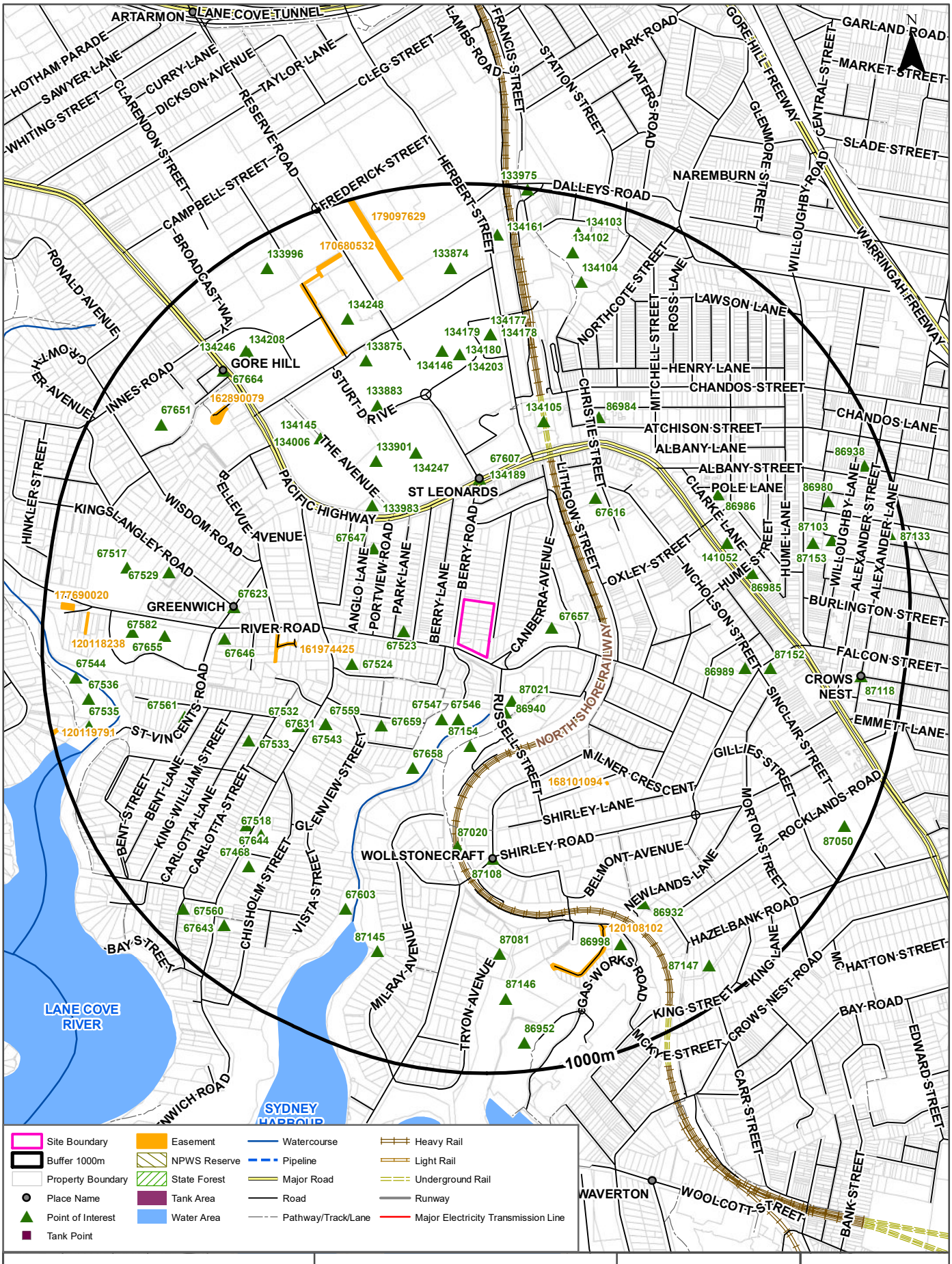
Historical Map c.1917

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

Scale: 0 290 580 870 1,160 Meters	Data Sources: Australia 1:63360 Produced by Australian Section Imperial General Staff	Coordinate System: GDA 1994 MGA Zone 56	Date: 15 December 2021

Topographic Features

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065



Site Boundary | Easement | Watercourse | Heavy Rail
Buffer 1000m | NPWS Reserve | Pipeline | Light Rail
Property Boundary | State Forest | Major Road | Underground Rail
Place Name | Tank Area | Road | Runway
Point of Interest | Water Area | Pathway/Track/Lane | Major Electricity Transmission Line
Tank Point

Scale: 0 100 200 400 600 Meters

Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2021

Coordinate System: GDA 1994 MGA Zone 56

Date: 15 December 2021

Topographic Features

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

Points of Interest

What Points of Interest exist within the dataset buffer?

Map Id	Feature Type	Label	Distance	Direction
87021	Sports Field	BOWLING GREEN	119m	South East
67523	Park	PROPSTING PLAYGROUND	133m	West
86940	Club	WOLLSTONECRAFT BOWLING AND RECREATION CLUB	139m	South
67657	Park	NEWLANDS PARK	145m	East
67546	Park	GREENDALE PARK	162m	South
67547	Community Facility	GREENWICH WOLLSTONECRAFT SCOUT HALL	179m	South
87154	Park	SMOOTHEY PARK	215m	South
67647	Park	PORTVIEW RESERVE	250m	North West
67524	Community Home	GLENWOOD NURSING HOME	259m	West
67659	Place Of Worship	ANGLICAN CHURCH	269m	South West
134189	Suburb	ST LEONARDS	293m	North
67607	Transport Interchange	ST LEONARDS BUS INTERCHANGE	315m	North
67658	Park	GREENDALE PARK	316m	South West
133983	Primary School	INTERNATIONAL CHINESE SCHOOL ST LEONARDS	317m	North West
67616	Club	NORTHS RUGBY CLUB	353m	North East
67543	Community Facility	GREENWICH MEMORIAL COMMUNITY CENTRE	371m	South West
67631	Library	GREENWICH LIBRARY	371m	South West
134247	Sports Field	GORE HILL PARK	371m	North
67559	Child Care Centre	KU GREENWICH COMMUNITY PRESCHOOL	371m	South West
133901	Sports Court	BASKETBALL	395m	North West
67532	Place Of Worship	THE CHURCH OF JESUS CHRIST OF LATTER DAY SAINTS	430m	South West
134105	Railway Station	ST LEONARDS RAILWAY STATION	455m	North
87020	Railway Station	WOLLSTONECRAFT RAILWAY STATION	460m	South
87108	Suburb	WOLLSTONECRAFT	485m	South
133883	Special School	ROYAL NORTH SHORE HOSPITAL SCHOOL	512m	North West
86984	Post Office	ST LEONARDS POST OFFICE	514m	North East
134006	Historic Site	GORE HILL MEMORIAL CEMETERY	519m	North West
134145	Cemetery	GORE HILL CEMETERY	519m	North West
67623	Suburb	GREENWICH	546m	West
67533	Place Of Worship	UNITING CHURCH	554m	South West
67646	Park	ST VINCENTS RD PLAYGROUND	561m	West

Map Id	Feature Type	Label	Distance	Direction
141052	Railway Station	CROWS NEST RAILWAY STATION	579m	East
134203	Helipad	Helipad	589m	North
86986	Place Of Worship	Place Of Worship	599m	North East
134146	General Hospital	ROYAL NORTH SHORE HOSPITAL	601m	North
86989	Place Of Worship	UNITING CHURCH	619m	East
133875	Post Office	ROYAL NORTH SHORE HOSPITAL POST OFFICE	621m	North West
86985	Post Office	CROWS NEST POST OFFICE	625m	East
134177	Community Medical Centre	NORTHERN SYDNEY AREA COMMUNITY HEALTH	641m	North
134180	Community Medical Centre	ROYAL NORTH SHORE COMMUNITY HEALTH CENTRE	641m	North
134178	Community Medical Centre	NORTHERN SYDNEY CENTRAL COAST ACUTE CARE FACILITY	641m	North
134179	Community Medical Centre	SYDNEY DIALYSIS CENTRE	641m	North
67518	Primary School	GREENWICH PUBLIC SCHOOL	659m	South West
67644	Post Office	GREENWICH POST OFFICE	669m	South West
87152	Fire Station	CROWS NEST FIRE STATION	679m	East
67561	Park	GORE CREEK RESERVE	680m	West
67603	Park	HOLLOWAY PARK	691m	South West
86932	Park	HARRY HOWARD RESERVE	701m	South East
67582	Historic Site	PALLISTER	706m	West
67529	Park	HENNINGHAM PLAYGROUND	712m	West
87081	Embassy	CONSULATE-GENERAL OF MONGOLIA	713m	South
134248	General Hospital	NORTH SHORE PRIVATE HOSPITAL	731m	North West
67468	Retirement Village	CLANCY TERRACE	733m	South West
87145	Park	MILRAY RESERVE	753m	South
86998	Park	WALLUMETTA PARK	761m	South East
87153	Place Of Worship	BAPTIST CHURCH	780m	East
67655	General Hospital	GREENWICH HOSPITAL	784m	West
134208	High School	BRADFIELD COLLEGE	786m	North West
134246	TAFE College	ST LEONARDS TAFE COLLEGE	795m	North West
133874	Post Office	ST LEONARDS POST BUSINESS CENTRE	798m	North
67664	Urban Place	GORE HILL	799m	North West
134104	Park	TALUS STREET RESERVE	803m	North
67517	Primary School	GREENWICH PUBLIC SCHOOL	813m	West
87146	Park	BADANGI RESERVE	821m	South
87103	Community Medical Centre	CROWS NEST COMMUNITY HEALTH CENTRE	827m	East
86980	Place Of Worship	METHODIST CHURCH	840m	East
67651	Retirement Village	WATERBROOK AT GREENWICH	841m	North West
134102	Sports Court	TENNIS COURTS	866m	North

Map Id	Feature Type	Label	Distance	Direction
67643	Place Of Worship	PRESBYTERIAN CHURCH	878m	South West
134161	Embassy	ROYAL NORWEGIAN CONSULATE-GENERAL	882m	North
67536	Sports Field	BOB CAMPBELL OVAL	898m	West
87118	Suburb	CROWS NEST	898m	East
67535	Picnic Area	GORE CREEK RESERVE	908m	West
87147	Park	BRENNAN PARK	913m	South East
134103	Community Facility	NORTHERN SUBURBS TENNIS ASSOCIATION	915m	North
67560	Park	CARLOTTA ST PLAYGROUND	917m	South West
67544	Park	PLAYGROUND	923m	West
133996	Rubbish Depot	ARTARMON RESOURCE RECOVERY CENTRE	927m	North West
86952	Sports Court	TENNIS COURTS	931m	South
86938	Place Of Worship	JEHOVAHS WITNESSES CHURCH	951m	East
87050	General Hospital	MATER MISERICORDIAE PRIVATE HOSPITAL	951m	South East
87133	Place Of Worship	ORTHODOX CHURCH	965m	East
133975	Park	ELLA STREET RESERVE	998m	North

Topographic Features

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

Tanks (Areas)

What are the Tank Areas located within the dataset buffer?
Note. The large majority of tank features provided by LPI are derived from aerial imagery & are therefore primarily above ground tanks.

Map Id	Tank Type	Status	Name	Feature Currency	Distance	Direction
N/A	No records in buffer					

Tanks (Points)

What are the Tank Points located within the dataset buffer?
Note. The large majority of tank features provided by LPI are derived from aerial imagery & are therefore primarily above ground tanks.

Map Id	Tank Type	Status	Name	Feature Currency	Distance	Direction
N/A	No records in buffer					

Major Easements

What Major Easements exist within the dataset buffer?
Note. Easements provided by LPI are not at the detail of local governments. They are limited to major easements such as Right of Carriageway, Electrical Lines (66kVa etc.), Easement to drain water & Significant subterranean pipelines (gas, water etc.).

Map Id	Easement Class	Easement Type	Easement Width	Distance	Direction
161974425	Primary	Right of way	Variable	389m	West
168101094	Primary	Right of way		415m	South East
170680532	Primary	Right of way	Var	655m	North West
120108102	Primary	Undefined		699m	South
162890079	Primary	Right of way	VAR	725m	North West
179097629	Primary	Right of way	12m & var	782m	North
120118238	Primary	Undefined		890m	West
177690020	Primary	Right of way		927m	West
120119791	Primary	Undefined		984m	West

Topographic Features

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

State Forest

What State Forest exist within the dataset buffer?

State Forest Number	State Forest Name	Distance	Direction
N/A	No records in buffer		

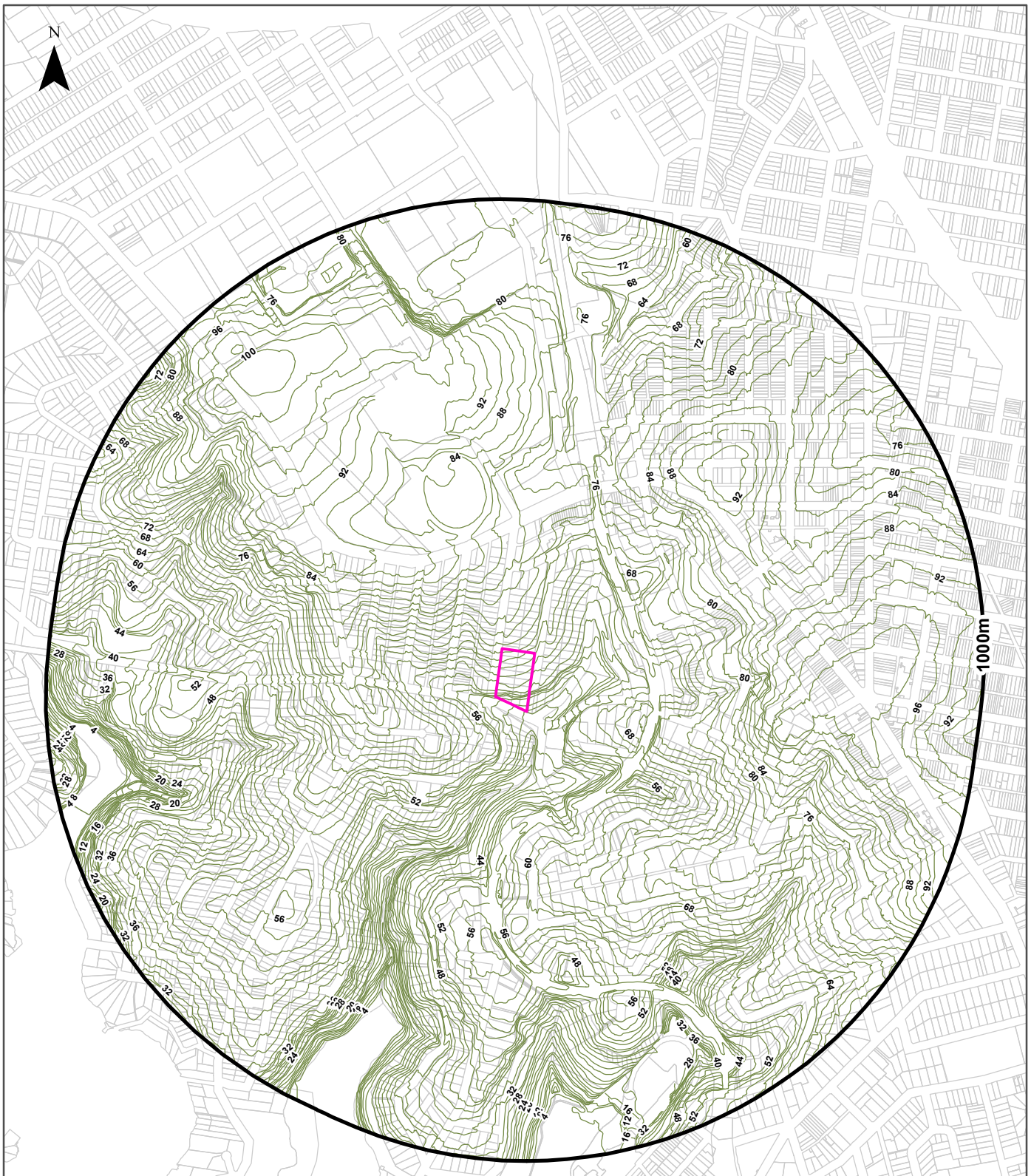
National Parks and Wildlife Service Reserves

What NPWS Reserves exist within the dataset buffer?

Reserve Number	Reserve Type	Reserve Name	Gazetted Date	Distance	Direction
N/A	No records in buffer				

Elevation Contours (m AHD)

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065



Legend

- Elevation Contour (m AHD)
- Site Boundary
- Buffer 1000m
- Property Boundary

Accuracy & Currency: This contour data can be up to 0.4 of the contour interval out in height and must therefore not be used for any design or engineering works, but only as a general guide to topography. Gaps may occur along contour lines due to vertical topography, obscured topography in the source photography such as buildings, dense vegetation or dead ground, or the fact that original buildings have been replaced in the intervening thirty years since the original contour capture.

Scale:	Data Sources: Property Boundaries & Topographic Data:	Coordinate System:	Date: 15 December 2021
0 100 200 400 Meters	© Department Finance, Services & Innovation 2021	GDA 1994 MGA Zone 56	

Hydrogeology & Groundwater

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

Hydrogeology

Description of aquifers within the dataset buffer:

Description	Distance	Direction
Porous, extensive aquifers of low to moderate productivity	0m	On-site

Hydrogeology Map of Australia : Commonwealth of Australia (Geoscience Australia)

Temporary Water Restriction (Botany Sands Groundwater Source) Order 2018

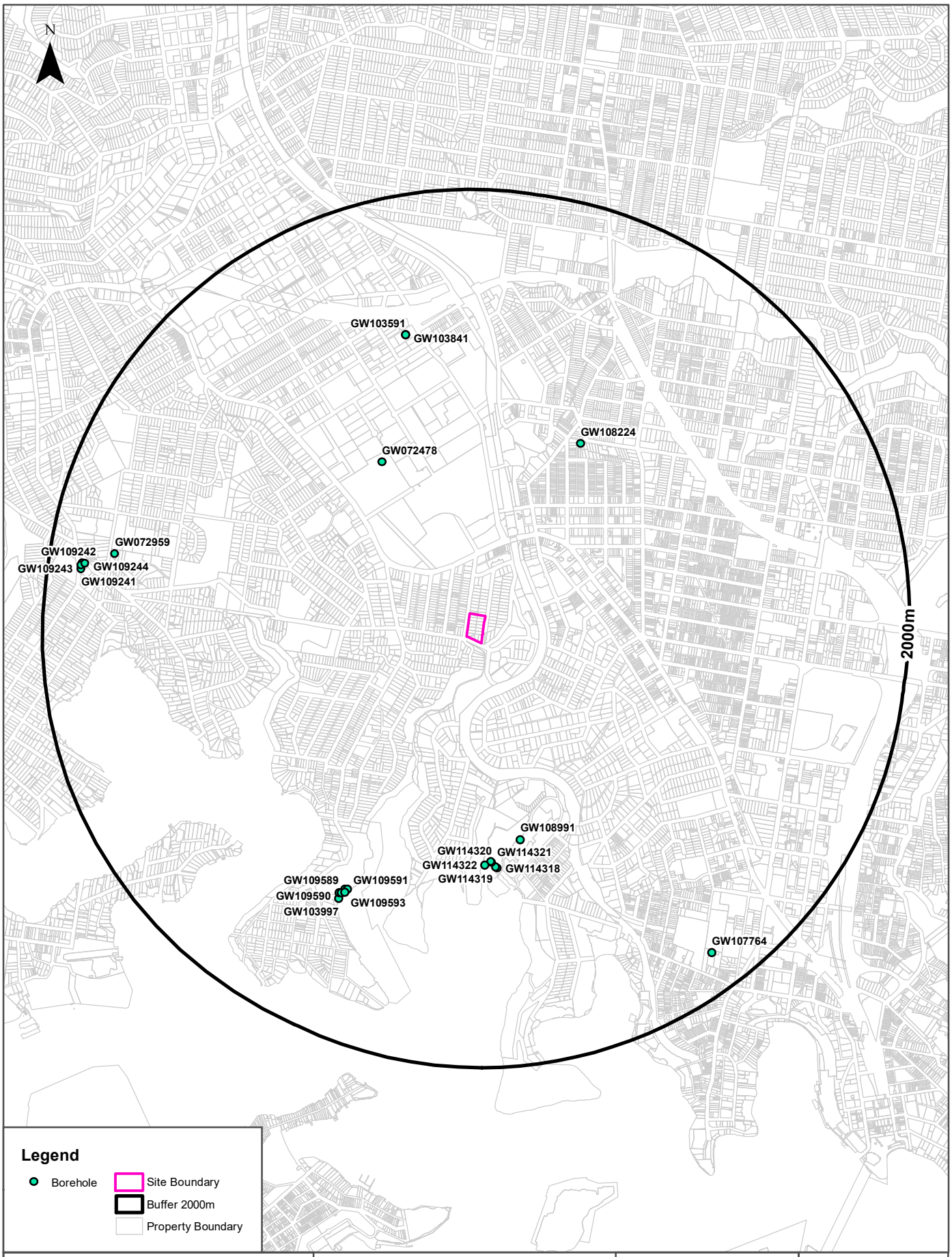
Temporary water restrictions relating to the Botany Sands aquifer within the dataset buffer:

Prohibition Area No.	Prohibition	Distance	Direction
N/A	No records in buffer		

Temporary Water Restriction (Botany Sands Groundwater Source) Order 2018 Data Source : NSW Department of Primary Industries

Groundwater Boreholes

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065



Hydrogeology & Groundwater

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

Groundwater Boreholes

Boreholes within the dataset buffer:

GW No.	Licence No	Work Type	Owner Type	Authorised Purpose	Intended Purpose	Name	Complete Date	Final Depth (m)	Drilled Depth (m)	Salinity (mg/L)	SWL (m bgl)	Yield (L/s)	Elev (AHD)	Dist	Dir
GW072478		Bore			Domestic		10/01/1995	180.50	180.50	270	48.00	0.700		825m	North West
GW108224	10BL600442, 10WA109080	Bore	Private	Domestic	Domestic		05/09/2006	132.40	132.40		35.00	0.300		928m	North East
GW108991	10BL165659, 10WA109008	Bore	Private	Domestic	Domestic		08/07/2008	168.00		300	13.00	0.120		944m	South
GW114321	10BL604924	Bore	Private	Monitoring Bore	Monitoring Bore	North Shore Gas	11/09/1996	11.90	11.90					1030m	South
GW114320	10BL604924	Bore	Private	Monitoring Bore	Monitoring Bore	North Shore Gas	12/09/1996	5.00	5.00					1035m	South
GW114322	10BL604924	Bore	Private	Monitoring Bore	Monitoring Bore	North Shore Gas	03/09/1996	10.00	10.00					1046m	South
GW114319	10BL604924	Bore	Private	Monitoring Bore	Monitoring Bore	North Shore Gas	12/09/1996	5.00	5.00					1056m	South
GW114318	10BL604924	Bore	Private	Monitoring Bore	Monitoring Bore	North Shore Gas	12/09/1996	10.00	10.00					1063m	South
GW109591	10BL163745	Bore	Private	Monitoring Bore	Monitoring Bore		05/09/2003	2.00	2.00					1318m	South West
GW109589	10BL163745	Bore	Private	Monitoring Bore	Monitoring Bore		30/04/2003	2.90	2.90					1323m	South West
GW109593	10BL163745	Bore	Private	Monitoring Bore	Monitoring Bore		02/05/2003	4.00	4.00					1335m	South West
GW109592	10BL163745	Bore	Private	Monitoring Bore	Monitoring Bore		05/09/2003	4.50	4.50					1345m	South West
GW103591	10BL159969	Bore	Private	Monitoring Bore	Monitoring Bore		11/01/2001	5.80	5.80					1348m	North
GW103841	10BL159969	Bore		Monitoring Bore	Monitoring Bore		11/01/2001	5.80	5.80					1348m	North
GW109590	10BL163745	Bore	Private	Monitoring Bore	Monitoring Bore		30/04/2003	4.40	4.40					1350m	South West
GW103997	10BL158770	Bore		Monitoring Bore	Monitoring Bore		26/08/1998	4.50	4.50					1374m	South West
GW072959	10BL156425, 10BL602137, 10CA109539	Bore open thru rock	Private	Irrigation, Monitoring Bore, Recreation (groundwater)	Irrigation, Monitoring Bore		03/02/1995	24.50	24.50	0-500 ppm				1696m	West
GW107764	10BL601165, 10WA109154	Bore		Domestic			22/01/2007							1818m	South East
GW109244	10BL602428	Bore	Private	Monitoring Bore	Monitoring Bore		20/08/2008	4.50	4.50					1828m	West
GW109242	10BL602428	Bore	Private	Monitoring Bore	Monitoring Bore		20/08/2008	4.50	4.50					1841m	West
GW109241	10BL602428	Well	Private	Monitoring Bore	Monitoring Bore		20/08/2008	4.50	4.50					1843m	West
GW109243	10BL602428	Bore	Private	Monitoring Bore	Monitoring Bore		20/08/2008	4.50	4.50					1845m	West

Hydrogeology & Groundwater

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

Driller's Logs

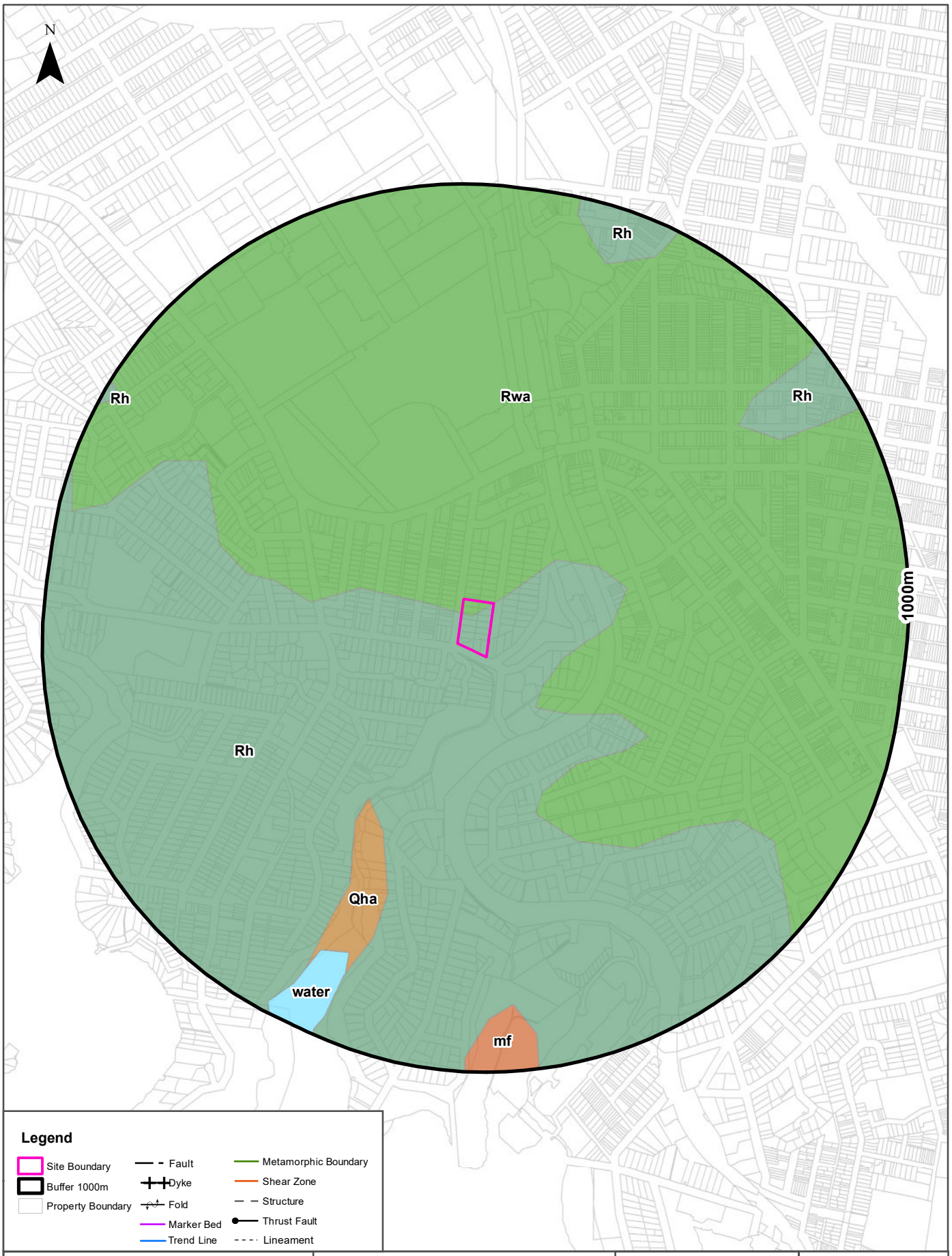
Drill log data relevant to the boreholes within the dataset buffer:

Groundwater No	Drillers Log	Distance	Direction
GW072478	0.00m-2.50m CONCRETE OVERBURDEN 2.50m-5.10m MOIST CLAY 5.10m-28.70m L/G MED. GRAIN SANDSTONE 28.70m-30.10m LIGHT GREY MED. GRAIN S/STONE QUARTZ MATRIX 30.10m-35.90m L/GREY GRAIN SANDSTONE 35.90m-37.20m L/GREY MED GRAIN S/STONE QUARTZ MATRIX 37.20m-45.30m L/GREY MED GRAIN S/STONE 45.30m-54.30m DARK GREY SHALE 54.30m-72.40m L/GREY CEMENTED S/STONE 72.40m-75.40m DARK GREY SHALE 75.40m-109.70m L/GREY MED GRAIN S/STONE 109.70m-110.60m QUARTZ LAYER 110.60m-121.80m L/GREY MED GRAIN S/STONE 121.80m-123.30m DARK GREY SHALE 123.30m-135.40m L/GREY MED GRAIN S/STONE 135.40m-138.00m L/GREY MED GRAIN S/STONE QUARTZ MATRIX 138.00m-139.80m WATER BEARING QUARTZ 139.80m-143.80m L/GREY MED GRAIN S/STONE QUARTZ MATRIX 143.80m-144.40m WATER BEARING QUARTZ 144.40m-154.10m L/GREY CEMENTED SANDSTONE 154.10m-163.70m L/GREY MED GRAIN S/STONE QUARTZ MATRIX 163.70m-166.90m QUARTZ LAYER 166.90m-168.70m GREY MED GRAIN S/STONE 168.70m-180.50m L/GREY MED GRAIN SANDSTONE	825m	North West
GW108224	0.00m-0.60m clay, sandy 0.60m-2.80m sandstone, weathered 2.80m-3.10m clay 3.10m-25.50m sandstone, weathered 25.50m-27.00m sandstone, grey quartz 27.00m-29.00m shale 29.00m-35.00m sandstone, quartz grey 35.00m-41.00m shale 41.00m-52.00m sandstone, grey 52.00m-54.00m sandstone, quartz grey 54.00m-61.00m sandstone, grey 61.00m-65.00m shale 65.00m-81.00m sandstone, grey 81.00m-84.00m sandstone, grey quartz siltstone 84.00m-98.00m sandstone, grey 98.00m-100.00m sandstone, grey quartz 100.00m-106.50m sandstone, grey 106.50m-109.00m sandstone, dark brown 109.00m-110.50m sandstone, grey quartz 110.50m-112.00m siltstone 112.00m-132.40m sandstone, grey	928m	North East
GW109591	0.00m-0.30m CONCRETE 0.30m-0.60m BLACK AND DARK GREY LOAMY SAND WITH GRAVEL 0.60m-2.00m MIXTURE OF GREY AND LIGHT BROWN SANDY LOAM	1318m	South West
GW109589	0.00m-0.30m CONCRETE 0.30m-0.50m DARK GREY AND BLACK SANDY LOAM/GRAVEL 0.50m-1.20m DARK GREY AND BLACK SANDY LOAM 1.20m-2.90m DARK GREY SANDY CLAY	1323m	South West
GW109593	0.00m-0.20m CONCRETE 0.20m-0.60m DARK GREY AND BLACK SANDY LOAM WITH GRAVEL 0.60m-1.80m DARK GREY AND BLACK SANDY LOAM 1.80m-4.00m DARK GREY AND BLACK SANDY CLAY/GRAVEL	1335m	South West
GW109592	0.00m-0.20m CONCRETE 0.20m-0.50m BLACK AND DARK GREY LOAMY SAND/GRAVEL 0.50m-1.10m BLACK AND DARK GREY SANDY LOAM 1.10m-4.50m BLACK SANDY AND SILTY LOAM	1345m	South West
GW103591	0.00m-2.00m ROAD BASE 2.00m-4.00m CLAY 4.00m-5.80m SANDY CLAY	1348m	North
GW103841	0.00m-0.20m ROAD BASE 0.20m-4.00m STIFF CLAY 4.00m-5.80m SANDY CLAY	1348m	North

Groundwater No	Drillers Log	Distance	Direction
GW109590	0.00m-0.20m CONCRETE 0.20m-0.70m DARK GREY AND BLACK SANDY LOAM WITH SOME GRAVEL 0.70m-1.20m DARK GREY AND BLACK SANDY LOAM 1.20m-4.40m DARK GREY TO BLACK SANDY CLAY	1350m	South West
GW103997	0.00m-0.20m CONCRETE 0.20m-1.00m FILL: SANDY,DARK 1.00m-2.00m SANDY CLAY 2.00m-2.90m SANDY SILT/DARK GREY 2.90m-4.50m SANDY SILT:DARK GREY	1374m	South West
GW072959	0.00m-0.80m Sandy Loam 0.80m-6.90m 6.90m-9.20m 9.20m-16.60m L/grey Med Grain Sandstone 16.60m-18.10m Light Grey Med Grain Sandstone Fractured Watr Bearing Zones 18.10m-21.10m L/grey Med Grain Sandstone 21.10m-22.30m L/grey Med Grain Sandstone Fractured Water Bearing Zones 22.30m-24.50m Light Grey Marine Clay	1696m	West
GW109244	0.00m-1.00m CONCRETE,FILL,CLAY,SANDY,BROWN YELLOW 1.00m-2.00m WEATHERED SANDSTONE RED ORANGE 2.00m-4.50m WEATHERED SANDSTONE ,RED WHITE,DAMP,ODOUR	1828m	West
GW109242	0.00m-1.00m CONCRETE,CLAY,BROWN YELLOW 1.00m-2.00m WEATHERED SANDSTONE,WHITE,BROWN 2.00m-3.00m AS ABOVE,RED BROWN, DAMP 3.00m-4.50m AS ABOVE,WHITE GREY	1841m	West
GW109241	0.00m-1.00m CONCRETE,CLAY,WEATHERED SANDSTONE 1.00m-2.00m AS ABOVE,RED BROWN,(INCREASED DENSITY TO 1.5m) 2.00m-3.00m AS ABOVE,WHITE ORANGE,DAMP 3.00m-4.50m AS ABOVE,GREY WHITE,DAMP,BLACK LAYER 3.5, 3.8m	1843m	West
GW109243	0.00m-0.50m CONCRETE,CLAY,BROWN GREY 0.50m-2.00m WEATHERED SANDSTONE,RED BROWN,DRY 2.00m-3.00m AS ABOVE,WHITE,YELLOW, DAMP 3.00m-4.50m WEATHERED SANDSTONE,BROWN,WET,DENSE	1845m	West

Geology

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065



Geology

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

Geological Units 1:100,000

What are the Geological Units within the dataset buffer?

Symbol	Description	Unit Name	Group	Sub Group	Age	Dom Lith	Map Sheet	Dist	Dir
Rh	Medium to coarse grained quartz sandstone, very minor shale and laminate lenses				Triassic		Sydney	0m	On-site
Rwa	Black to dark grey shale and laminate	Ashfield Shale	Wianamatta Group		Triassic		Sydney	0m	On-site
Qha	Silty to peaty quartz sand, silt, and clay. Ferruginous and humic cementation in places. Common shell layers				Quaternary		Sydney	427m	South West
water							Sydney	784m	South West
mf	Man-made fill. Dredged estuarine sand and mud, demolition rubble, industrial and household waste.				Quaternary		Sydney	838m	South

Geological Structures 1:100,000

What are the Geological Structures within the dataset buffer?

Feature	Name	Description	Map Sheet	Distance	Direction
N/A	No records in buffer				

Geological Data Source : NSW Department of Industry, Resources & Energy

Naturally Occurring Asbestos Potential

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

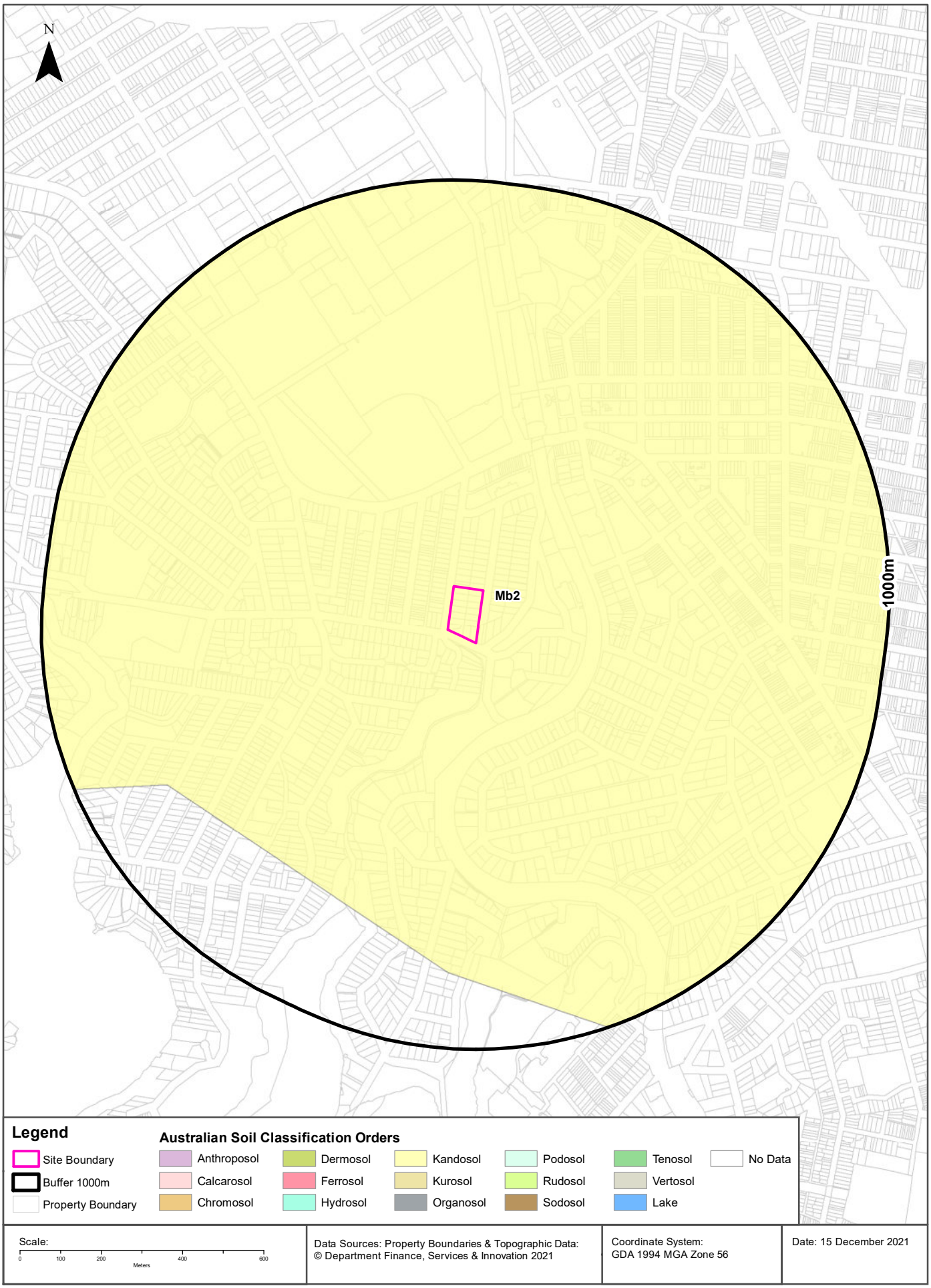
Naturally Occurring Asbestos Potential

Naturally Occurring Asbestos Potential within the dataset buffer:

Potential	Sym	Strat Name	Group	Formation	Scale	Min Age	Max Age	Rock Type	Dom Lith	Description	Dist	Dir
No records in buffer												

Atlas of Australian Soils

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065



Soils

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

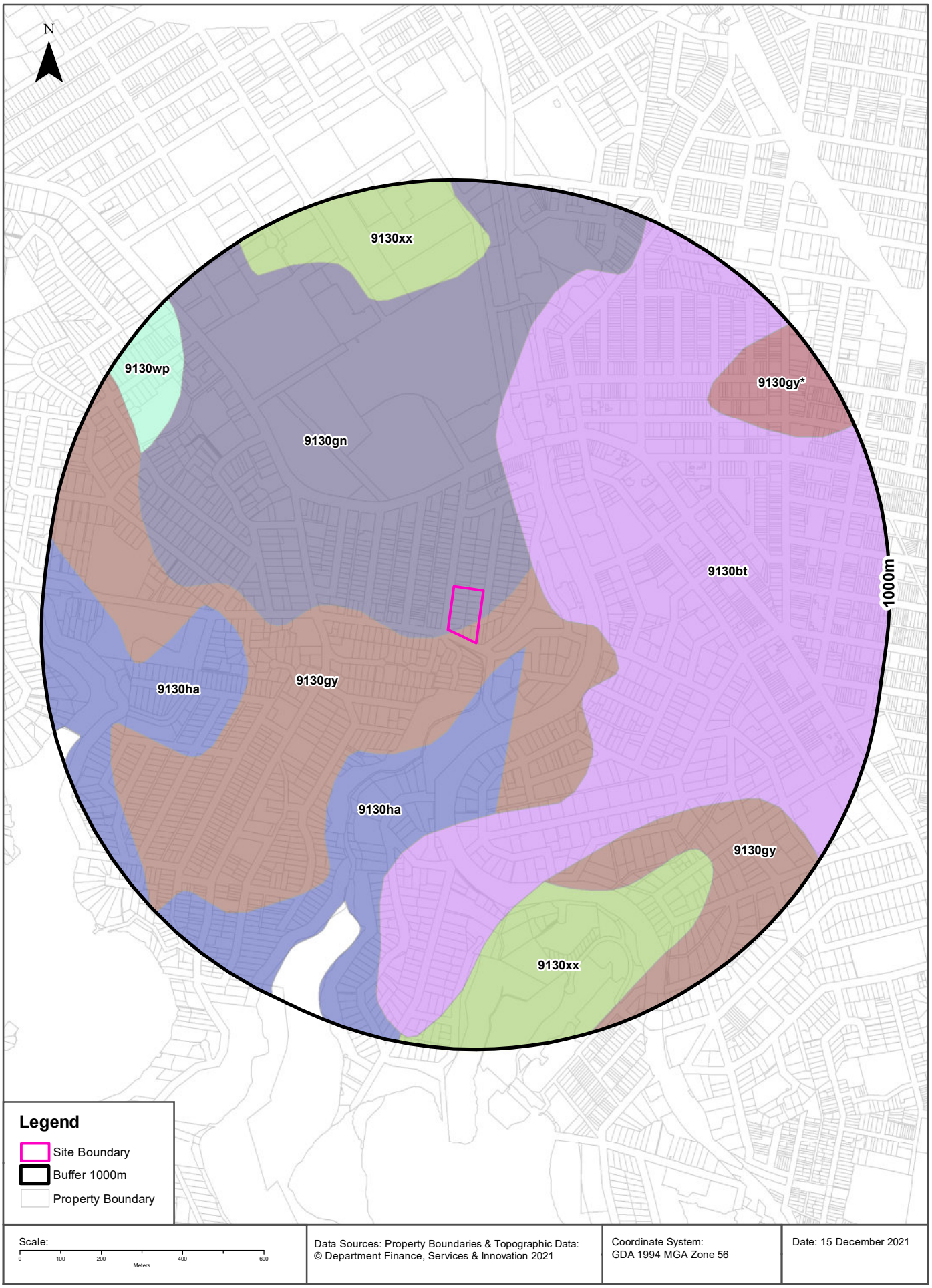
Atlas of Australian Soils

Soil mapping units and Australian Soil Classification orders within the dataset buffer:

Map Unit Code	Soil Order	Map Unit Description	Distance	Direction
Mb2	Kandosol	Dissected sandstone plateau of moderate to strong relief with sandstone pillars, ledges, and slabs-- level to undulating ridges, irregularly benched slopes, steep ridges, cliffs, canyons, narrow sandy valleys: chief soils are (i) on areas of gentle to moderate relief, acid yellow leached earths (Gn2.74) and (Gn2.34) and acid leached yellow earths (Gn2.24)- sometimes these soils contain ironstone gravel; and (ii) on, or adjacent to, areas of strong relief, siliceous sands (Uc1.2), leached sands (Uc2.12) and (Uc2.2), and shallow forms of the above (Gn2) soils. Associated are: (i) on flat to gently undulating remnants of the original plateau surface, leached sands (Uc2.3), siliceous sands (Uc1.2), sandy earths (Uc5.22), and (Gn2) soils as for (i) above (these areas are in part comparable with unit Cb29); (ii) on flat ironstone gravelly remnants of the original plateau surface, (Gn2) soils as for unit Mb5(i); (iii) on gently undulating ridges where interbedded shales are exposed, shallow, often stony (Dy3.41), (Dr2.21), and related soils similar to unit Tb35; (iv) narrow valleys of (Uc2.3) soils flanked by moderate slopes of (Dy3.41) soils; (v) escarpments of steep hills with shallow (Dy) and (Dr) soils between sandstone pillars; and (vi) shallow (Um) soils, such as (Um6.21) on steep hills of basic rocks. As mapped, minor areas of units Mg20, Mm1, and Mw8 are included. Data are limited.	0m	On-site

Soil Landscapes of Central and Eastern NSW

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065



Soils

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

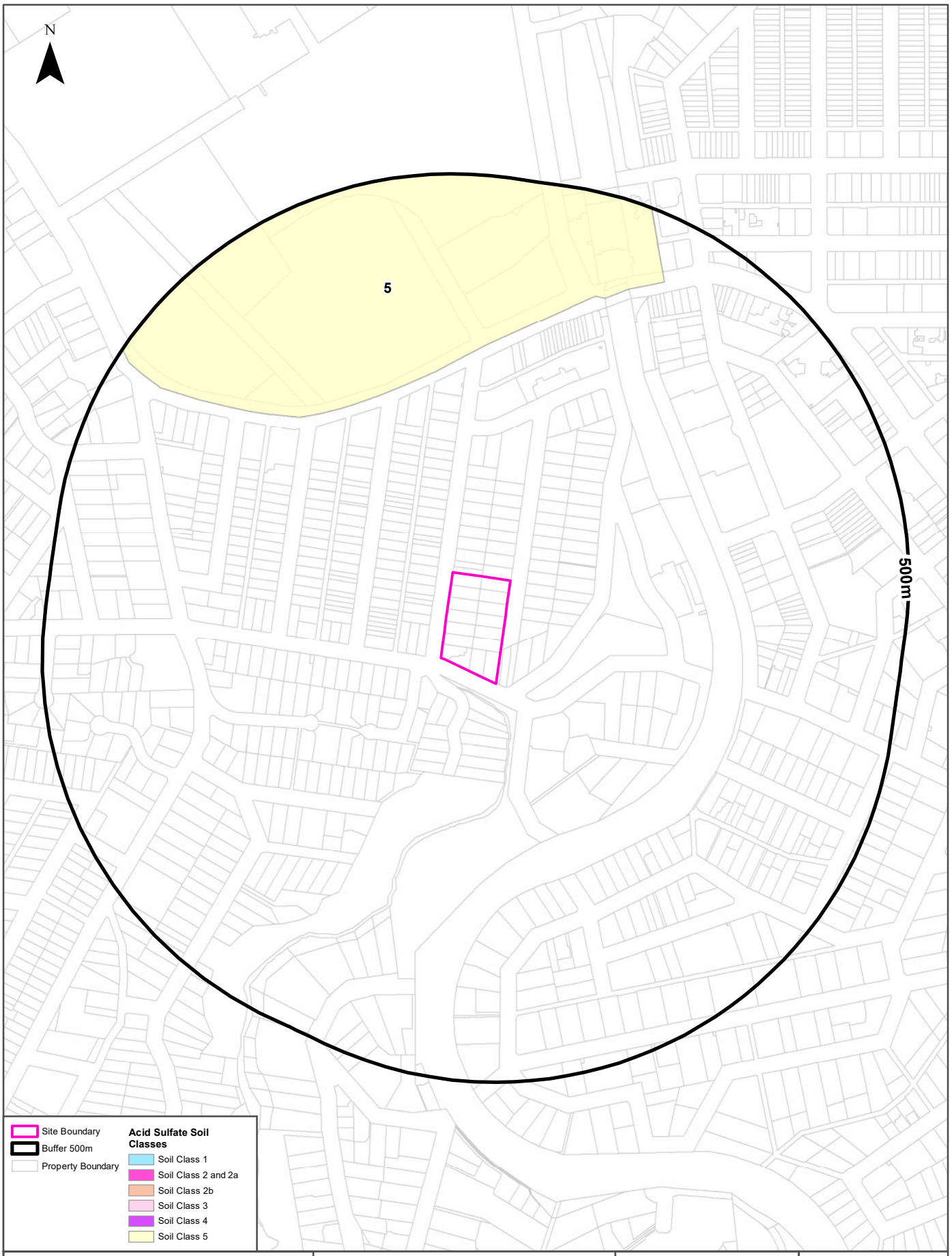
Soil Landscapes of Central and Eastern NSW

Soil Landscapes of Central and Eastern NSW within the dataset buffer:

Soil Code	Name	Distance	Direction
9130gn	Glenorie	0m	On-site
9130gy	Gymea	0m	On-site
9130ha	Hawkesbury	80m	South West
9130bt	Blacktown	133m	East
9130xx	Disturbed Terrain	610m	South
9130gy*	Gymea/lambert	720m	North East
9130wp	West Pennant Hills	810m	North West

Acid Sulfate Soils

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065



Scale: 0 100 200 Meters	Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2021	Coordinate System: GDA 1994 MGA Zone 56	Date: 15 December 2021

Acid Sulfate Soils

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

Environmental Planning Instrument - Acid Sulfate Soils

What is the on-site Acid Sulfate Soil Plan Class that presents the largest environmental risk?

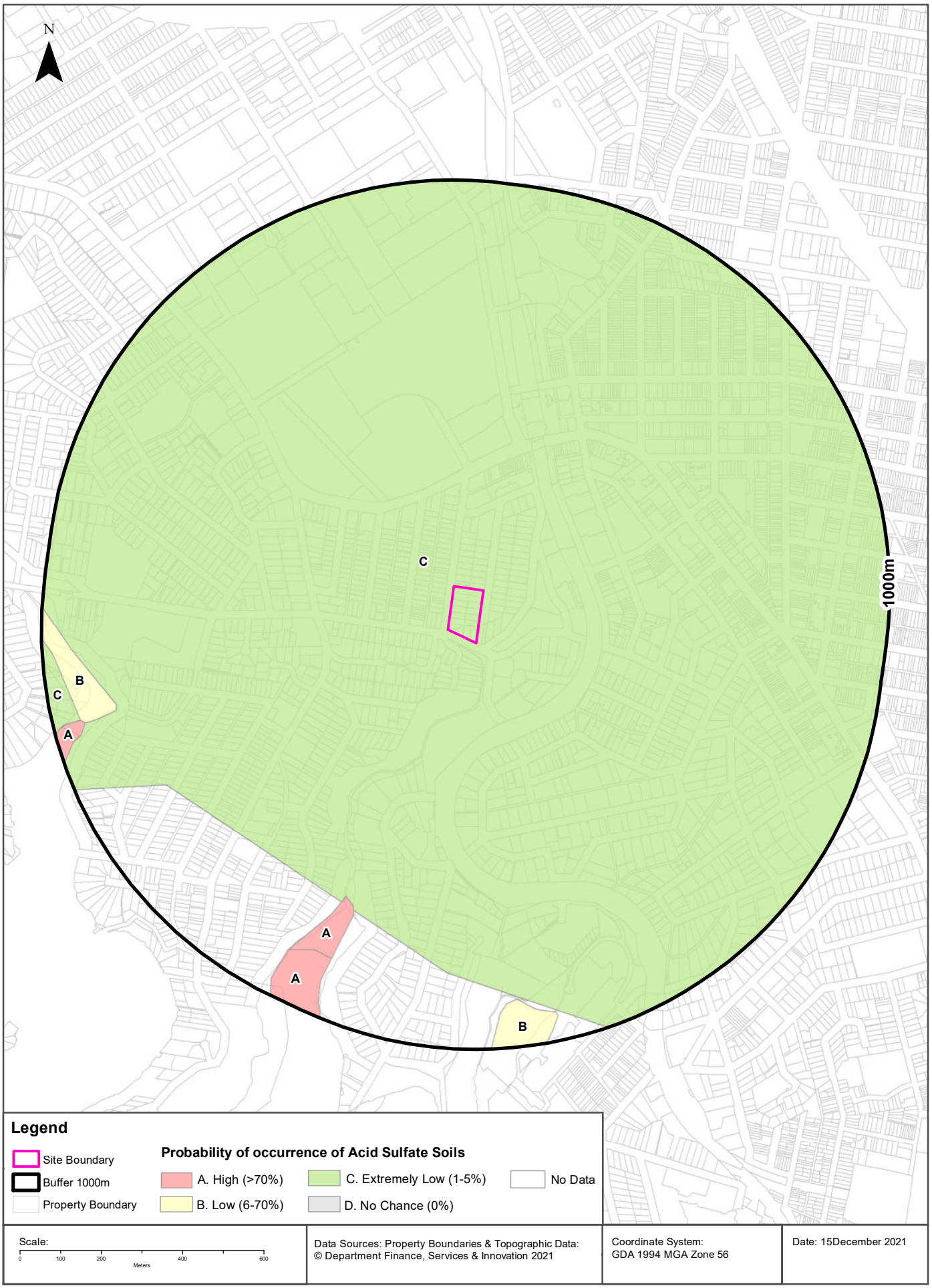
Soil Class	Description	EPI Name
N/A		

If the on-site Soil Class is 5, what other soil classes exist within 500m?

Soil Class	Description	EPI Name	Distance	Direction
N/A				

Atlas of Australian Acid Sulfate Soils

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065



Acid Sulfate Soils

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

Atlas of Australian Acid Sulfate Soils

Atlas of Australian Acid Sulfate Soil categories within the dataset buffer:

Class	Description	Distance	Direction
C	Extremely low probability of occurrence. 1-5% chance of occurrence with occurrences in small localised areas.	0m	On-site
A	High Probability of occurrence. >70% chance of occurrence.	699m	South West
B	Low Probability of occurrence. 6-70% chance of occurrence.	881m	South

Dryland Salinity

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

Dryland Salinity - National Assessment

Is there Dryland Salinity - National Assessment data onsite?

No

Is there Dryland Salinity - National Assessment data within the dataset buffer?

No

What Dryland Salinity assessments are given?

Assessment 2000	Assessment 2020	Assessment 2050	Distance	Direction
N/A	N/A	N/A		

Dryland Salinity Data Source : National Land and Water Resources Audit
The Commonwealth and all suppliers of source data used to derive the maps of "Australia, Forecast Areas Containing Land of High Hazard or Risk of Dryland Salinity from 2000 to 2050" do not warrant the accuracy or completeness of information in this product. Any person using or relying upon such information does so on the basis that the Commonwealth and data suppliers shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information. Any persons using this information do so at their own risk.
In many cases where a high risk is indicated, less than 100% of the area will have a high hazard or risk.

Mining

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

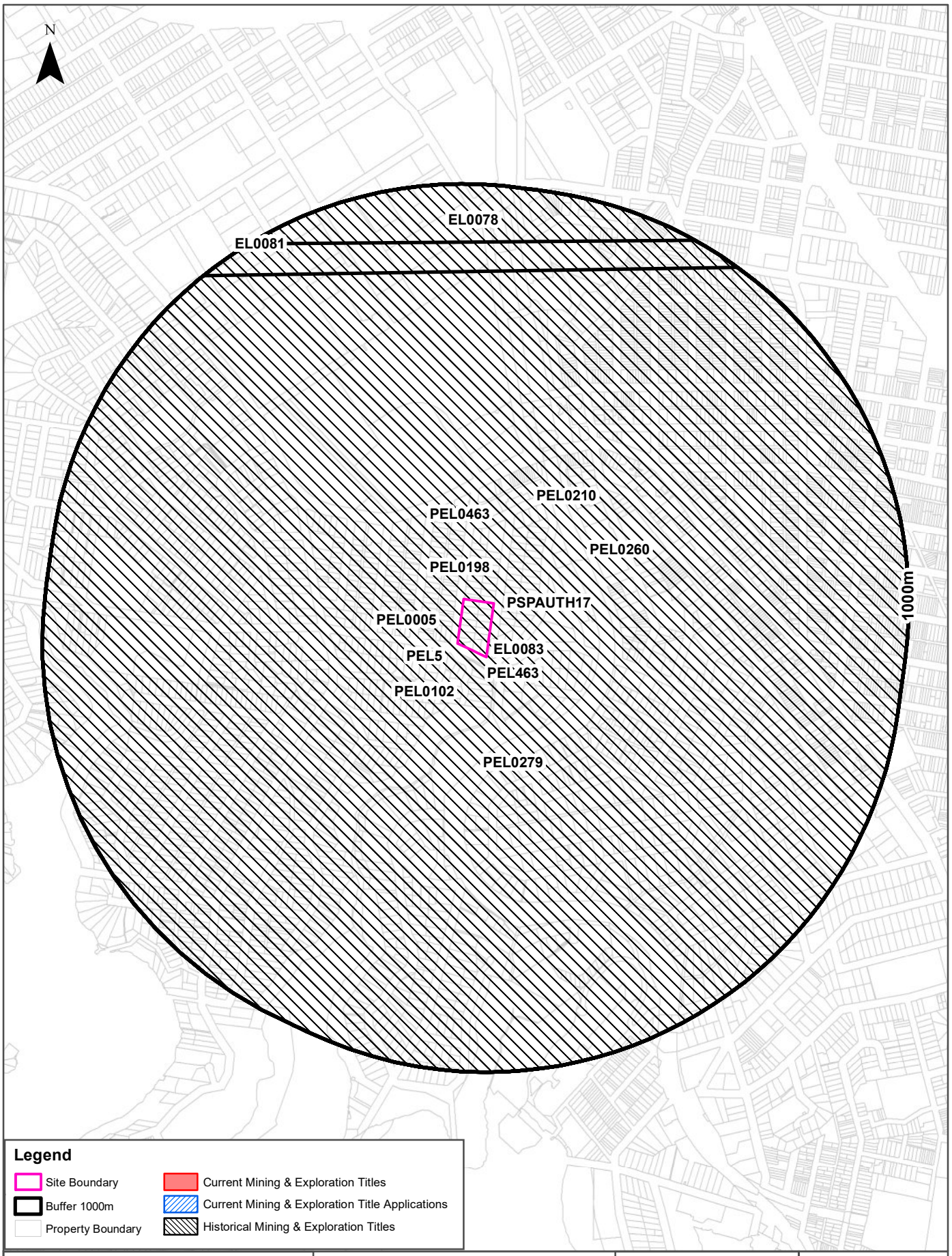
Mining Subsidence Districts

Mining Subsidence Districts within the dataset buffer:

District	Distance	Direction
There are no Mining Subsidence Districts within the report buffer		

Mining & Exploration Titles

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065



Mining

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

Current Mining & Exploration Titles

Current Mining & Exploration Titles within the dataset buffer:

Title Ref	Holder	Grant Date	Expiry Date	Last Renewed	Operation	Resource	Minerals	Dist	Dir
N/A	No records in buffer								

Current Mining & Exploration Titles Data Source: © State of New South Wales through NSW Department of Industry

Current Mining & Exploration Title Applications

Current Mining & Exploration Title Applications within the dataset buffer:

Application Ref	Applicant	Application Date	Operation	Resource	Minerals	Dist	Dir
N/A	No records in buffer						

Current Mining & Exploration Title Applications Data Source: © State of New South Wales through NSW Department of Industry

Mining

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

Historical Mining & Exploration Titles

Historical Mining & Exploration Titles within the dataset buffer:

Title Ref	Holder	Start Date	End Date	Resource	Minerals	Dist	Dir
PEL0102	AUSTRALIAN OIL AND GAS CORPORATION LTD			PETROLEUM	Petroleum	0m	On-site
PEL0005	AGL UPSTREAM INVESTMENTS PTY LIMITED	11/11/1993	4/03/2015	PETROLEUM	Petroleum	0m	On-site
PSPAUTH17	MACQUARIE ENERGY PTY LTD	8/03/2007	7/03/2008	PETROLEUM	Petroleum	0m	On-site
EL0083	CONTINENTAL OIL CO OF AUSTRALIA LIMITED	01 Feb 1967	01 Feb 1968	MINERALS		0m	On-site
PEL0463	DART ENERGY (APOLLO) PTY LTD	22/10/2008	6/03/2015	PETROLEUM	Petroleum	0m	On-site
PEL0210	THE AUSTRALIAN GAS LIGHT COMPANY (AGL), NORTH BULLI COLLIERIES PTY LTD			PETROLEUM	Petroleum	0m	On-site
PEL463	DART ENERGY (APOLLO) PTY LTD			MINERALS		0m	On-site
PEL5	AGL UPSTREAM INVESTMENTS PTY LIMITED			MINERALS		0m	On-site
PEL0198	JOHN STREVENS (TERRIGAL) NL			PETROLEUM	Petroleum	0m	On-site
PEL0260	NORTH BULLI COLLIERIES PTY LTD, AGL PETROLEUM OPERATIONS PTY LTD, THE AUSTRALIAN GAS LIGHT CO.	9/09/1981	8/03/1993	PETROLEUM	Petroleum	0m	On-site
PEL0279	THE ELECTRICITY COMMISSION OF NSW (TRADING AS PACIFIC POWER)	17/04/1990	11/11/1993	PETROLEUM	Petroleum	0m	On-site
EL0078	CONTINENTAL OIL CO OF AUSTRALIA LIMITED	01 Feb 1967	01 Feb 1968	MINERALS		860m	North
EL0081	CONTINENTAL OIL CO OF AUSTRALIA LIMITED	01 Feb 1967	01 Feb 1968	MINERALS		986m	North West

State Environmental Planning Policy

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

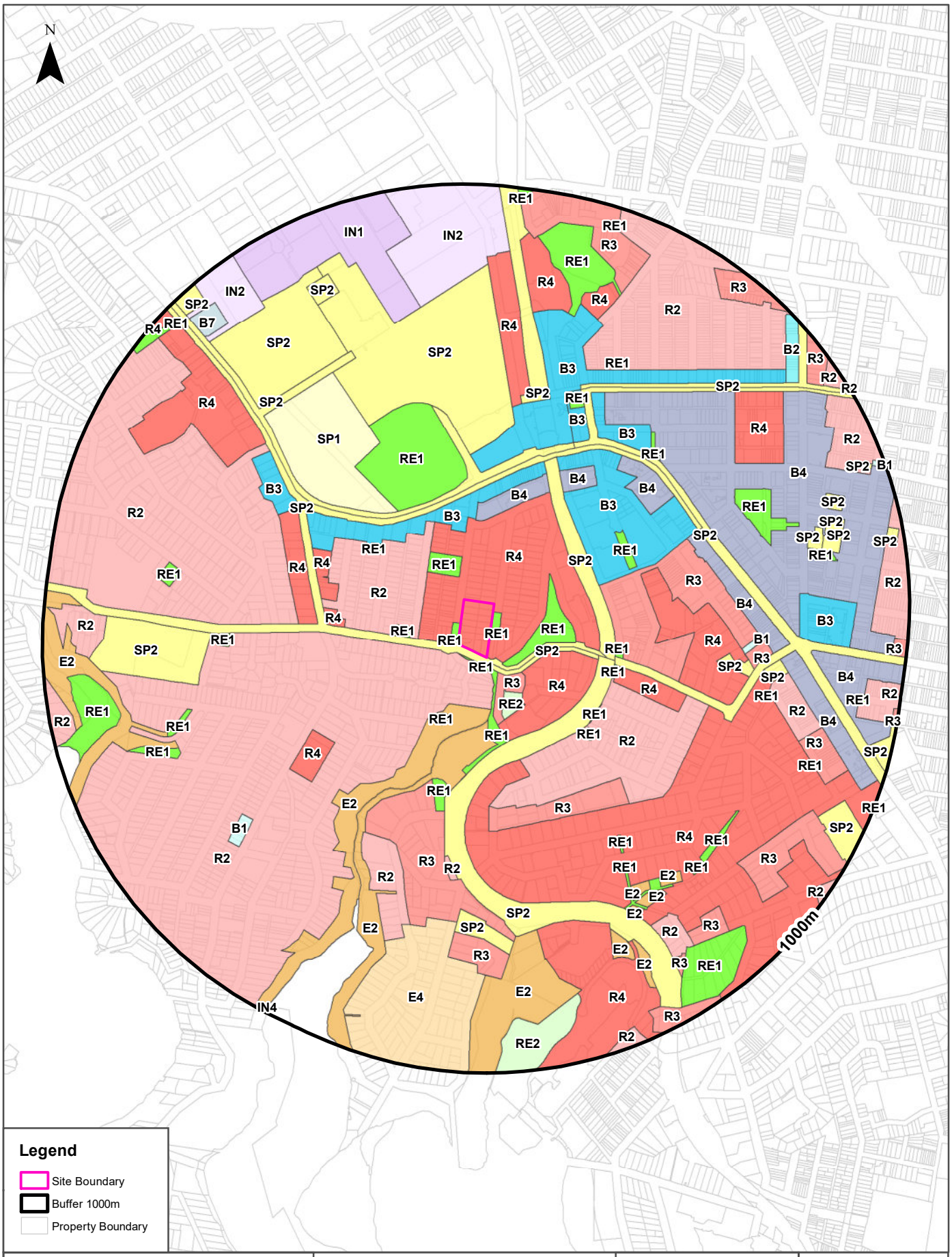
State Significant Precincts

What SEPP State Significant Precincts exist within the dataset buffer?

Map Id	Precinct	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
N/A	No records in buffer							

EPI Planning Zones

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065



Environmental Planning Instrument

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

Land Zoning

What EPI Land Zones exist within the dataset buffer?

Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
R4	High Density Residential		Lane Cove Local Environmental Plan 2009	30/10/2020	30/10/2020	30/10/2020	Amendment No 25	0m	On-site
RE1	Public Recreation		Lane Cove Local Environmental Plan 2009	30/10/2020	30/10/2020	30/10/2020	Amendment No 25	0m	West
RE1	Public Recreation		Lane Cove Local Environmental Plan 2009	30/10/2020	30/10/2020	30/10/2020	Amendment No 25	0m	East
SP2	Infrastructure	Road	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		0m	North West
SP2	Infrastructure	Classified Road	North Sydney Local Environmental Plan 2013	30/06/2021	30/06/2021	30/06/2021	Amendment No 30	18m	South East
RE1	Public Recreation		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		20m	South
R2	Low Density Residential		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		20m	South West
RE1	Public Recreation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		26m	South
RE1	Public Recreation		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		40m	East
R3	Medium Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		43m	South East
RE1	Public Recreation		Lane Cove Local Environmental Plan 2009	30/10/2020	30/10/2020	30/10/2020	Amendment No 25	56m	North West
RE2	Private Recreation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		88m	South East
R4	High Density Residential		North Sydney Local Environmental Plan 2013	30/06/2021	30/06/2021	30/06/2021	Amendment No 30	89m	South East
R2	Low Density Residential		Lane Cove Local Environmental Plan 2009	30/10/2020	30/10/2020	30/10/2020	Amendment No 25	98m	North West
RE1	Public Recreation		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		118m	West
E2	Environmental Conservation		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		122m	South West
E2	Environmental Conservation		North Sydney Local Environmental Plan 2013	30/06/2021	30/06/2021	30/06/2021	Amendment No 30	146m	South
B3	Commercial Core		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		163m	North West
RE1	Public Recreation		Lane Cove Local Environmental Plan 2009	23/08/2013	23/08/2013	30/10/2020	Amendment No 12	164m	South
B4	Mixed Use		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		194m	North
SP2	Infrastructure	Railway	North Sydney Local Environmental Plan 2013	30/06/2021	30/06/2021	30/06/2021	Amendment No 30	204m	South
SP2	Infrastructure	Railway	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		210m	North East
RE1	Public Recreation		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		230m	North West
SP2	Infrastructure	Classified Road	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		241m	North
B3	Commercial Core		Lane Cove Local Environmental Plan 2009	01/12/2017	01/12/2017	30/10/2020	Amendment No 22	250m	North East
RE1	Public Recreation		Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		251m	North
R3	Medium Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		255m	East
R2	Low Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		257m	South East

Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
R4	High Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		257m	South East
SP1	Special Activities	Cemetery	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		266m	North West
R4	High Density Residential		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		277m	West
RE1	Public Recreation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		291m	South East
RE1	Public Recreation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		295m	South East
RE1	Public Recreation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		302m	East
R4	High Density Residential		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		304m	West
RE1	Public Recreation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		304m	East
SP2	Infrastructure	Classified Road	North Sydney Local Environmental Plan 2013	30/06/2021	30/06/2021	30/06/2021	Amendment No 30	305m	East
R4	High Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		309m	East
B3	Commercial Core		Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		309m	North East
RE1	Public Recreation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		313m	South
B4	Mixed Use		Lane Cove Local Environmental Plan 2009	01/12/2017	01/12/2017	30/10/2020	Amendment No 22	316m	North East
R3	Medium Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		320m	South
RE1	Public Recreation		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		332m	North East
R4	High Density Residential		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		341m	West
SP2	Infrastructure	Hospital	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		349m	North
R3	Medium Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		356m	South East
R4	High Density Residential		North Sydney Local Environmental Plan 2013	30/06/2021	30/06/2021	30/06/2021	Amendment No 30	358m	East
R4	High Density Residential		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		380m	South West
R2	Low Density Residential		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		387m	West
B4	Mixed Use		Lane Cove Local Environmental Plan 2009	15/05/2015	15/05/2015	30/10/2020	Amendment No 18	420m	North East
B3	Commercial Core		North Sydney Local Environmental Plan 2013	15/05/2020	15/05/2020	30/06/2021	Amendment No 28	432m	North East
B3	Commercial Core		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		458m	North West
B3	Commercial Core		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		471m	North East
R4	High Density Residential		Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		475m	North
R2	Low Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		485m	South
SP2	Infrastructure	Railway	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		487m	North
B4	Mixed Use		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		489m	East
R2	Low Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		497m	South
RE1	Public Recreation		North Sydney Local Environmental Plan 2013	15/05/2020	15/05/2020	30/06/2021	Amendment No 28	505m	North East
B4	Mixed Use		North Sydney Local Environmental Plan 2013	24/10/2014	24/10/2014	30/06/2021	Amendment No 5	508m	North East
RE1	Public Recreation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		517m	North East
RE1	Public Recreation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		530m	South East

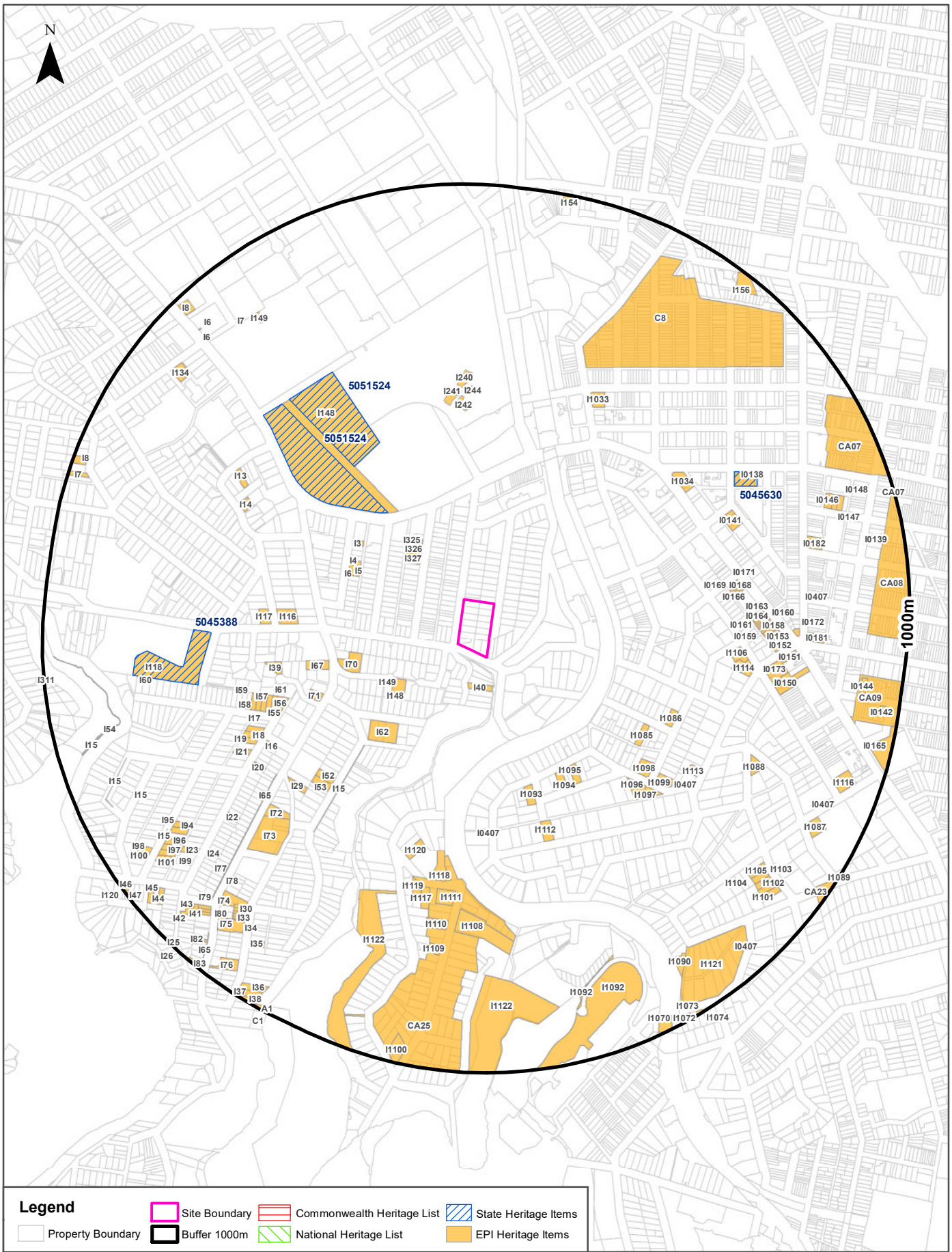
Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
SP2	Infrastructure	Place of Public Worship	North Sydney Local Environmental Plan 2013	30/06/2021	30/06/2021	30/06/2021	Amendment No 30	548m	East
RE1	Public Recreation		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		550m	West
RE1	Public Recreation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		589m	South East
SP2	Infrastructure	Health Services Facilities	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		594m	West
B1	Neighbourhood Centre		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		604m	East
R2	Low Density Residential		Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		604m	North East
SP2	Infrastructure	Health Services Facilities	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		608m	South
R4	High Density Residential		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		609m	North West
R3	Medium Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		614m	East
RE1	Public Recreation		North Sydney Local Environmental Plan 2013	05/05/2017	05/05/2017	30/06/2021	Amendment No 15	627m	East
RE1	Public Recreation		Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		636m	North East
E4	Environmental Living		North Sydney Local Environmental Plan 2013	23/05/2014	23/05/2014	30/06/2021	Amendment No 3	639m	South
E2	Environmental Conservation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		648m	South East
B1	Neighbourhood Centre		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		649m	South West
SP2	Infrastructure	Educational Establishment	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		652m	North West
RE1	Public Recreation		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		659m	West
R3	Medium Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		663m	South
SP2	Infrastructure	Emergency Services Facility	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		664m	East
E2	Environmental Conservation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		664m	South
R4	High Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		671m	North East
E2	Environmental Conservation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		672m	South East
RE1	Public Recreation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		676m	East
R2	Low Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		682m	East
E2	Environmental Conservation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		684m	South East
RE1	Public Recreation		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		684m	West
IN1	General Industrial		Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		685m	North
E2	Environmental Conservation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		690m	South East
B4	Mixed Use		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		699m	East
RE1	Public Recreation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		699m	South East
RE1	Public Recreation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		702m	South East
R4	High Density Residential		Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		708m	North
IN2	Light Industrial		Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		712m	North
E2	Environmental Conservation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		716m	South East

Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
RE1	Public Recreation		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		717m	West
E2	Environmental Conservation		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		718m	West
RE1	Public Recreation		Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		719m	North
R4	High Density Residential		Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		728m	North
B3	Commercial Core		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		734m	East
R2	Low Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		752m	South East
RE1	Public Recreation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		762m	East
E2	Environmental Conservation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		764m	South East
SP2	Infrastructure	Place of Public Worship	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		765m	East
B4	Mixed Use		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		770m	East
R3	Medium Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		776m	East
R3	Medium Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		778m	South East
SP2	Infrastructure	Electricity Transmission & Distribution	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		792m	North West
SP2	Infrastructure	Community Facility	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		797m	East
R3	Medium Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		808m	South East
R3	Medium Density Residential		Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		808m	North
SP2	Infrastructure	Car Park	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		812m	East
RE1	Public Recreation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		816m	East
SP2	Infrastructure	Place of Public Worship	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		825m	East
RE1	Public Recreation		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		829m	West
RE2	Private Recreation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		836m	South
RE1	Public Recreation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		845m	South East
R2	Low Density Residential		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		848m	West
R3	Medium Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		849m	South East
IN2	Light Industrial		Willoughby Local Environmental Plan 2012	20/10/2017	20/10/2017	05/03/2021	Amendment No 10	852m	North West
R2	Low Density Residential		North Sydney Local Environmental Plan 2013	30/06/2021	30/06/2021	30/06/2021	Amendment No 30	861m	East
B7	Business Park		Willoughby Local Environmental Plan 2012	05/05/2017	05/05/2017	05/03/2021	Amendment No 9	874m	North West
B2	Local Centre		Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		880m	North East
SP2	Infrastructure	Health Services Facilities	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		882m	South East
R2	Low Density Residential		North Sydney Local Environmental Plan 2013	30/06/2021	30/06/2021	30/06/2021	Amendment No 30	898m	East
RE1	Public Recreation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		899m	East
R3	Medium Density Residential		Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		915m	North East
R3	Medium Density Residential		Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		921m	North East

Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
SP2	Infrastructure	Place of Public Worship	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		930m	North East
R3	Medium Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		935m	South East
SP2	Infrastructure	Educational Establishment	North Sydney Local Environmental Plan 2013	30/06/2021	30/06/2021	30/06/2021	Amendment No 30	941m	East
R2	Low Density Residential		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		942m	West
RE1	Public Recreation		Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		944m	North
SP2	Infrastructure	Telecommunications	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		947m	North West
R2	Low Density Residential		Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		949m	North East
SP2	Infrastructure	Place of Public Worship	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		951m	East
R2	Low Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		956m	South
RE1	Public Recreation		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		956m	North West
R3	Medium Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		963m	East
R2	Low Density Residential		North Sydney Local Environmental Plan 2013	30/06/2021	30/06/2021	30/06/2021	Amendment No 30	963m	South East
B1	Neighbourhood Centre		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		967m	East
R4	High Density Residential		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		970m	North West
RE1	Public Recreation		Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		973m	North
IN4	Working Waterfront		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		983m	South West
R3	Medium Density Residential		North Sydney Local Environmental Plan 2013	30/06/2021	30/06/2021	30/06/2021	Amendment No 30	985m	East
R2	Low Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		998m	North East
RE1	Public Recreation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021		999m	South East

Heritage Items

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065



Heritage

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

Commonwealth Heritage List

What are the Commonwealth Heritage List Items located within the dataset buffer?

Place Id	Name	Address	Place File No	Class	Status	Register Date	Distance	Direction
N/A	No records in buffer							

Heritage Data Source: Australian Government Department of the Environment and Energy - Heritage Branch
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National Heritage List

What are the National Heritage List Items located within the dataset buffer?
Note. Please click on Place Id to activate a hyperlink to online website.

Place Id	Name	Address	Place File No	Class	Status	Register Date	Distance	Direction
N/A	No records in buffer							

Heritage Data Source: Australian Government Department of the Environment and Energy - Heritage Branch
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State Heritage Register - Curtilages

What are the State Heritage Register Items located within the dataset buffer?

Map Id	Name	Address	LGA	Listing Date	Listing No	Plan No	Distance	Direction
5051524	Gore Hill Memorial Cemetery	Pacific Highway, Gore Hill	WILLOUGHBY	25/05/2001	01491	2121	278m	North West
5051524	Gore Hill Memorial Cemetery	Pacific Highway, Gore Hill	WILLOUGHBY	25/05/2001	01491	2121	415m	North West
5045388	Pallister	95 River Road Greenwich	LANE COVE	02/04/1999	00574	1571	594m	West
5045630	Electricity Power House	23 Albany Street Crows Nest	NORTH SYDNEY	02/04/1999	00931	3076	644m	North East

Heritage Data Source: NSW Crown Copyright - Office of Environment & Heritage
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Environmental Planning Instrument - Heritage

What are the EPI Heritage Items located within the dataset buffer?

Map Id	Name	Classification	Significance	EPI Name	Published Date	Commenced Date	Currency Date	Distance	Direction
I40	House, 8 Eastview Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	66m	South

Map Id	Name	Classification	Significance	EPI Name	Published Date	Commenced Date	Currency Date	Distance	Direction
I327	House, 7 Park Road	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	138m	North West
I148	House, 18 Wilona Avenue	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	152m	South West
I326	House, 5 Park Road	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	153m	North West
I325	Sandringham, 3 Park Road	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	166m	North West
I149	House and garage, 20 Wilona Avenue	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	185m	South West
I70	Glenwood Nursing Home, 34-40 Greenwich Road	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	232m	West
I62	St. Giles Anglican Church, 6-12 Greendale Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	239m	South West
I6	House, 14 Anglo Road	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	260m	North West
I5	House, 12 Anglo Road	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	261m	North West
I4	House, 10 Anglo Road	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	263m	North West
I148	Gore Hill Memorial Cemetery	Item - General	State	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	06/11/2020	266m	North West
I3	House, 2 Anglo Road	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	275m	North West
I67	House, 35 Greenwich Road	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	313m	West
I1093	House	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	323m	South
I1094	House	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	323m	South East
I1095	House	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	327m	South East
I15	Streetscape elements (drain, embankment walls, sandstone retaining walls, rocky outcrop, steps), Be*	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	333m	South West
I71	House, 45 Greenwich Road	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	346m	South West
I116	Hazelhurst, 90 River Road	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	388m	West
I1085	House	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	409m	South East
I1112	House	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	415m	South
I0407	North Sydney bus shelters	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	422m	South
I56	House, 1 Gore Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	428m	West

Map Id	Name	Classification	Significance	EPI Name	Published Date	Commenced Date	Currency Date	Distance	Direction
I39	House, 5 Coolabah Avenue	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	428m	West
I52	House, 19 Glenview Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	437m	South West
I1096	House	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	443m	South East
I1098	'Wyagdon'	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	444m	South East
I55	House, 3 Gore Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	30/08/2013	30/08/2013	15/12/2017	452m	West
I117	House, 92 River Road	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	453m	West
I53	House, 21 Glenview Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	455m	South West
I242	Resident Medical Officers (RMO) Building-known as Vanderfield Building (including original interior*	Item - General	Local	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	06/11/2020	455m	North
I1086	House	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	456m	South East
I61	House, 5 Gore Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	30/08/2013	30/08/2013	15/12/2017	463m	West
I1120	'Tullamore'	Item - Landscape	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	464m	South
I241	Pavilion Wing Building, Block 1A (including original interiors)	Item - General	Local	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	06/11/2020	470m	North
I57	Banksia, 7 Gore Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	474m	West
I1118	'The Briars'	Item - Landscape	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	477m	South
CA25	Wollstonecraft	Conservation Area - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	477m	South
I58	Ione, 9 Gore Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	486m	West
I1097	'Morville'	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	493m	South East
I244	Orthotics Building (including original interiors)	Item - General	Local	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	06/11/2020	494m	North
I59	Rockleigh, 11 Gore Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	497m	West
I1099	House	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	499m	South East
I16	House, 2 Carlotta Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	499m	South West
I29	House, 2 Chisholm Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	501m	South West
I243	Anstro,Body Protein Building (including original interiors)	Item - General	Local	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	06/11/2020	501m	North

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I17	Tewhare, 5 Carlotta Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	507m	South West
I240	Pavilion Wing Building, Block 1B (including original interiors)	Item - General	Local	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	06/11/2020	509m	North
I18	Marathon, 7 Carlotta Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	519m	South West
I1034	Former Marco Building	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	527m	North East
I1033	Commercial building	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	530m	North East
I19	Greenwich Uniting Church, 9 Carlotta Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	532m	South West
I65	Streetscape elements (sandstone gutters, steps, outcrops and kerbing), Greenwich Road, Bay Street a*	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	538m	South West
I20	House, 12 Carlotta Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	551m	South West
I1113	'Illaroo'	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	553m	South East
I1119	House	Item - Landscape	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	555m	South
I14	House, 14 Bellevue Avenue	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	556m	North West
I21	House, 13 Carlotta Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	557m	South West
I0171	Higgins Buildings	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	561m	East
I0407	North Sydney bus shelters	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	564m	South East
I0170	Higgins Buildings	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	564m	East
I0169	Higgins Buildings	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	567m	East
I1111	House	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	567m	South
I0168	Higgins Buildings	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	569m	East
I1117	House	Item - Landscape	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	570m	South
I0167	Higgins Buildings	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	572m	East
I72	House, 70 Greenwich Road	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	575m	South West
I0166	Higgins Buildings	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	575m	East
I1106	House	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	576m	East

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I73	Greenwich Infants School, 72A Greenwich Road	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	585m	South West
I0141	St Leonards Centre	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	585m	North East
I1114	Uniting Church	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	587m	East
I13	House, 8 Bellevue Avenue	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	589m	North West
I118	Pallister, 95 River Road	Item - General	State	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	595m	West
I1122	Wollstonecraft foreshore reserves	Item - Landscape	Local	North Sydney Local Environmental Plan 2013	30/06/2021	30/06/2021	30/06/2021	604m	South
I1108	Carpenter House	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	608m	South
C8	Narembum	Conservation Area - General	Local	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	06/11/2020	610m	North East
I0164	Shop	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	621m	East
I0163	Shop	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	625m	East
I0162	Shop	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	629m	East
I0161	Shop	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	632m	East
I0160	Shop	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	636m	East
I1110	House	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	639m	South
I0159	Shop	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	644m	East
I0138	Electricity Powerhouse No 187	Item - General	State	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	644m	North East
I0158	Shop	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	648m	East
I0157	Shop	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	653m	East
I0156	Shop	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	656m	East
I0155	Shop	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	658m	East
I0154	Shop	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	661m	East
I0173	Crows Nest Fire Station	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	664m	East
I0153	Shop	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	664m	East
I22	House, 32 Carlotta Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	673m	South West

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I1088	Astley Bank	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	675m	South East
I0152	Former National Australia Bank	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	675m	East
I0150	Former North Shore Gas Co office	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	687m	East
I1109	House	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	700m	South
I0151	Bank	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	701m	East
I0407	North Sydney bus shelters	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	705m	East
I0172	Willoughby House, former OJ Williams store	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	720m	East
I60	Sandstone swimming pool (associated with Pallister, 95 River Road), 51 Gore Street	Item - General	State	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	745m	West
I0181	Crows Nest Hotel	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	757m	East
I24	House, 50 Carlotta Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	763m	South West
I1122	Wollstonecraft foreshore reserves	Item - Landscape	Local	North Sydney Local Environmental Plan 2013	30/06/2021	30/06/2021	30/06/2021	764m	South
I0182	Northside Baptist Church	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	765m	East
I94	House, 36 King William Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	772m	South West
I0407	North Sydney bus shelters	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	774m	East
I77	House, 111 Greenwich Road	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	775m	South West
I1092	Gas works (including boiler house, exhauster house, carburettor building, chimney and wharfs)	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	776m	South
I78	House, 113 Greenwich Road	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	781m	South West
I95	House, 38 King William Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	785m	South West
I23	House, 45 Carlotta Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	793m	South West
I1092	Gas works (including boiler house, exhauster house, carburettor building, chimney and wharfs)	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	797m	South
I74	House, 82 Greenwich Road	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	801m	South West
I30	House, 13 Chisholm Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	809m	South West

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I96	House, 42 King William Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	812m	South West
I1105	House	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	814m	South East
I31	House, 15 Chisholm Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	816m	South West
I32	House, 17 Chisholm Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	823m	South West
I0146	Crows Nest Performing Arts Centre	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	825m	East
I149	Former stables	Item - General	Local	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	06/11/2020	825m	North West
I97	House, 44 King William Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	826m	South West
I1104	House	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	829m	South East
I15	Streetscape elements (drain, embankment walls, sandstone retaining walls, rocky outcrop, steps), Be*	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	829m	South West
I33	House, 19 Chisholm Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	829m	South West
I54	Gore Creek Reserve, Gore Street	Item - Landscape	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	833m	West
I34	House, 21 Chisholm Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	835m	South West
I15	Streetscape elements (drain, embankment walls, sandstone retaining walls, rocky outcrop, steps), Be*	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	838m	South West
I99	House, 46 King William Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	840m	South West
I0147	Uniting Church hall	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	841m	East
I75	John Taylor Memorial Church, 86A Greenwich Road	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	842m	South West
I15	Streetscape elements (drain, embankment walls, sandstone retaining walls, rocky outcrop, steps), Be*	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	843m	South West
I1103	House	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	844m	South East
I1121	Brennan Park	Item - Landscape	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	845m	South East
I1090	Kyneton Apartments	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	849m	South East
I0148	Uniting Church parsonage	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	852m	East

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I101	House, 48 King William Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	853m	South West
I134	Mandalay, 2/4 Ulonga Avenue	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	854m	North West
I35	House, 34 Chisholm Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	855m	South West
I1102	House	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	858m	South East
I7	Footings of the former transmission tower	Item - General	Local	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	06/11/2020	858m	North West
CA07	Holtermann Estate A	Conservation Area - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	861m	North East
I1087	Mater Hospital, RMOs, residence	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	866m	South East
I79	House, 125 Greenwich Road	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	867m	South West
I1101	House	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	872m	South East
I80	House, 127 Greenwich Road	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	873m	South West
I81	House, 129 Greenwich Road	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	879m	South West
I1116	Former Mater Misericordiae Maternity Hospital	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	881m	South East
I0407	North Sydney bus shelters	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	882m	South East
I6	Gateway entry pylons	Item - General	Local	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	06/11/2020	883m	North West
I98	House, 45 King William Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	884m	South West
CA09	Holtermann Estate C	Conservation Area - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	884m	East
I15	Streetscape elements (drain, embankment walls, sandstone retaining walls, rocky outcrop, steps), Be*	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	885m	West
I41	House, 2 Evelyn Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	885m	South West
I42	House, 4 Evelyn Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	890m	South West
I43	House, 6/8 Evelyn Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	894m	South West
I100	House, 47 King William Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	898m	South West
CA08	Holtermann Estate B	Conservation Area - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	899m	East
I0144	Former hall	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	900m	East

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I6	Gateway entry pylons	Item - General	Local	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	06/11/2020	907m	North West
I0139	House	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	910m	East
I65	Streetscape elements (sandstone gutters, steps, outcrops and kerbing), Greenwich Road, Bay Street a*	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	918m	South West
I44	House, 2 Ford Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	919m	South West
I76	House, 100 Greenwich Road	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	925m	South West
I1100	House	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	928m	South
I82	House, 143 Greenwich Road	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	932m	South West
I0407	North Sydney bus shelters	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	932m	South East
I45	House, 6 Ford Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	935m	South West
I0165	North Sydney Girls' High School	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	941m	East
I36	House, 48 Chisholm Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	942m	South West
I7	House, 4 Balfour Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	949m	West
I156	Converted Naremburn Public School and Resources Centre	Item - General	Local	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	06/11/2020	950m	North East
I8	Communications tower (excluding all ancillary buildings and structures and tower attachments)	Item - General	Local	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	06/11/2020	953m	North West
I0142	House	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	953m	East
I1070	House	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	956m	South East
I37	House, 50 Chisholm Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	961m	South West
CA23	Crows Nest Road	Conservation Area - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	963m	South East
I8	House, 8 Balfour Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	967m	North West
I46	Wyncourt, 14 Ford Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	978m	South West
I38	House, 52 Chisholm Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	978m	South West
I1072	'Rinaultrie'	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	978m	South East

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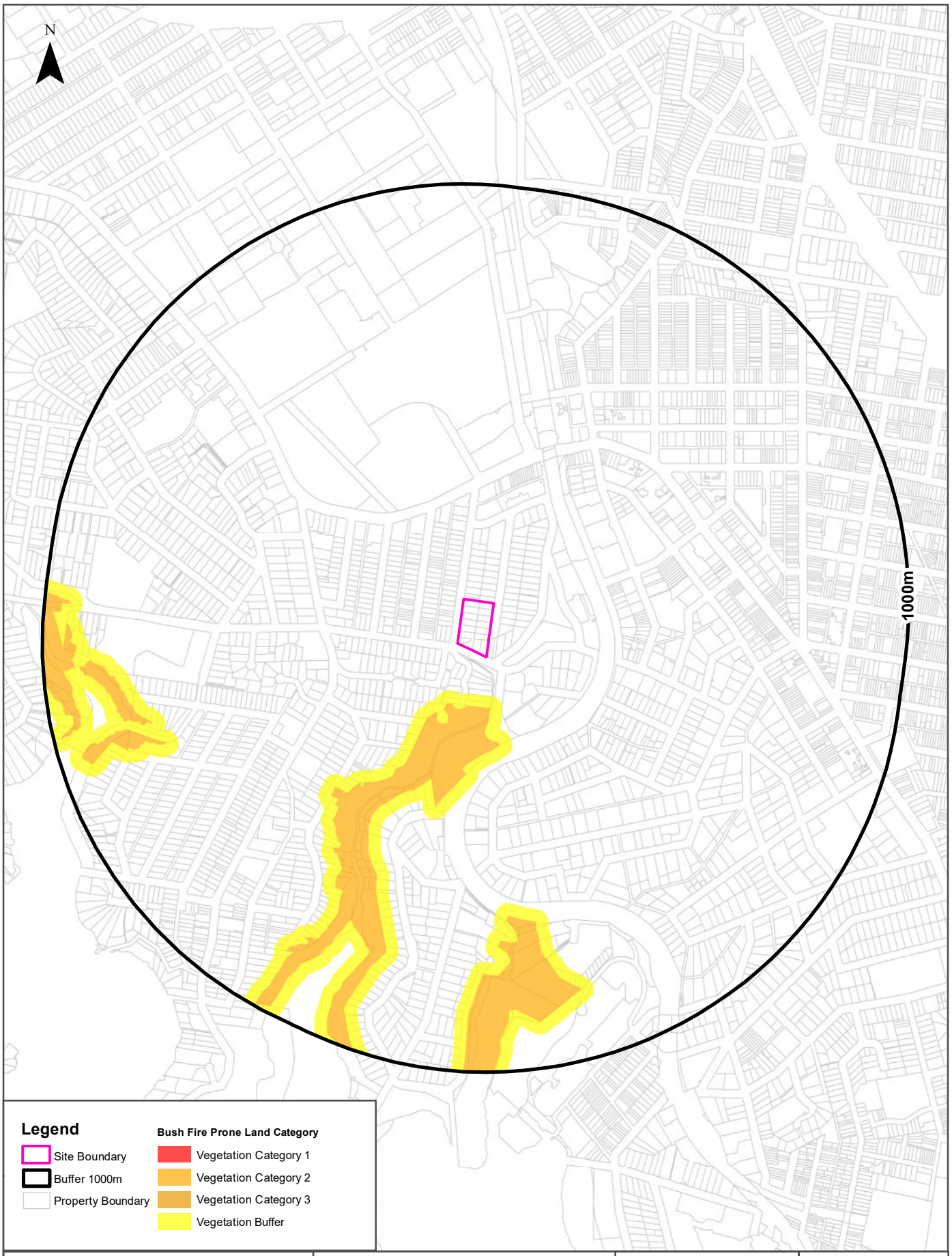
I154	House (including original interiors)	Item - General	Local	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	06/11/2020	981m	North
I1073	'St Elmo'	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	982m	South East
A1	Fells Shale Oil Refinery, 124 Gother Avenue	Item - Archaeological	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	983m	South West
I47	House, 16 Ford Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	983m	South West
I83	House, 153 Greenwich Road	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	985m	South West
I25	Bedford, 73 Carlotta Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	988m	South West
I120	House, 11 Robertson Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	988m	South West
I311	House, 40A Upper Cliff Road	Item - General	Local	Lane Cove Local Environmental Plan 2009	30/08/2013	30/08/2013	15/12/2017	988m	West
I1074	'Miroma'	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	988m	South East
I26	Florence, 75 Carlotta Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	993m	South West
C1	Greenwich Conservation Area, Greenwich	Conservation Area - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	997m	South West
I1089	Plane trees	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	30/06/2021	999m	South East

Natural Hazards - Bush Fire Prone Land

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065



Data Sources: Bush Fire Prone Land: © NSW Rural Fire Service 2021. Property Boundaries: © Department Finance, Services & Innovation 2021

Coordinate System: GDA 1994 MGA Zone 56

Date: 15 December 2021

Natural Hazards

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

Bush Fire Prone Land

What are the nearest Bush Fire Prone Land Categories that exist within the dataset buffer?

Bush Fire Prone Land Category	Distance	Direction
Vegetation Buffer	92m	South West
Vegetation Category 2	122m	South West

Ecological Constraints - Vegetation & Ramsar Wetlands

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

Ecological Constraints

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

Native Vegetation

What native vegetation exists within the dataset buffer?

Map ID	Map Unit Name	Threatened Ecological Community NSW	Threatened Ecological Community EPBC Act	Understorey	Disturbance	Disturbance Index	Dominant Species	Dist	Dir
Urban_E/N	Urban_E/N: Urban Exotic/Native			00: Not assessed	00: Not assessed	0: Not assessed	Urban Exotic/Native	0m	On-site
S_DSF06	S_DSF06: Coastal Sandstone Foreshores Forest			17: Pittosporum dominant	13: Weeds	2: Moderate	E.piperita/A.costataE.pilularis	111m	South West
S_DSF06	S_DSF06: Coastal Sandstone Foreshores Forest			17: Pittosporum dominant	13: Weeds	3: High	E.piperita/A.costataE.pilularis	113m	South
S_RF02	S_RF02: Coastal Sandstone Gallery Rainforest			10: Mesic/rainforest	13: Weeds	3: High	C.apetalum/T.laurina/C.serratifolia	150m	South West
S_DSF06	S_DSF06: Coastal Sandstone Foreshores Forest			17: Pittosporum dominant	13: Weeds	2: Moderate	E.pilularis/A.costata/C.gummifera E.resinifera	172m	South
S_DSF06	S_DSF06: Coastal Sandstone Foreshores Forest			17: Pittosporum dominant	19: Clearing/Part clearing	4: Very high	E.piperita/A.costataE.pilularis	308m	South West
Weed_Ex	Weed_Ex: Weeds and Exotics			00: Not assessed	00: Not assessed	0: Not assessed	Exotic Species >90%cover	325m	South West
S_DSF06	S_DSF06: Coastal Sandstone Foreshores Forest			17: Pittosporum dominant	13: Weeds	3: High	E.pilularis/A.costata/C.gummifera E.resinifera	408m	South West
S_WSF02	S_WSF02: Coastal Enriched Sandstone Moist Forest			17: Pittosporum dominant	13: Weeds	3: High	E.piperita/A.costataE.pilularis	543m	South West
S_DSF04	S_DSF04: Coastal Enriched Sandstone Dry Forest			21: Ferns dominant	20: Previously cleared 1943	3: High	E.pilularis/A.costata/C.gummifera E.resinifera	595m	West
S_DSF06	S_DSF06: Coastal Sandstone Foreshores Forest			17: Pittosporum dominant	13: Weeds	3: High	B.integrifolia/F.rubiginosa/Kunzea sppeucalypts	614m	South
S_WSF01	S_WSF01: Blue Gum High Forest	Blue Gum High Forest		10: Mesic/rainforest	20: Previously cleared 1943	3: High	E.saligna/S.gloms uliferaE.pilularis	654m	West
S_DSF04	S_DSF04: Coastal Enriched Sandstone Dry Forest			24: Urban and hard surface	24: Urban mixed use	4: Very high	E.pilularis/A.costata/C.gummifera E.resinifera	687m	West
S_FoW08	S_FoW08: Estuarine Swamp Oak Forest	Swamp Oak Floodplain Forest		12: Dry xeric shrubs	99: No visible disturbance	5: No visible disturbance	C.glauca	708m	South
S_DSF06	S_DSF06: Coastal Sandstone Foreshores Forest			17: Pittosporum dominant	15: Regrowth	3: High	E.piperita/A.costataE.pilularis	710m	South
S_SW02	S_SW02: Estuarine Saltmarsh	Coastal Saltmarsh	Subtropical and Temperate Coastal Saltmarsh (possible)	00: Not assessed	00: Not assessed	0: Not assessed	S.repens/S.quinqueflora/S.virginicusJ.krausii	713m	South West
S_SW01	S_SW01: Estuarine Mangrove Forest			00: Not assessed	00: Not assessed	0: Not assessed	Mangroves	722m	South
S_DSF06	S_DSF06: Coastal Sandstone Foreshores Forest			17: Pittosporum dominant	13: Weeds	1: Low	E.pilularis/A.costata/C.gummifera E.resinifera	748m	West
S_SW03	S_SW03: Seagrass Meadows			00: Not assessed	00: Not assessed	0: Not assessed	Seagrass (DPI)	789m	South
Plant_n	Plant_n: Plantation (native and/or exotic)			00: Not assessed	00: Not assessed	0: Not assessed	Native or Exotic Plantations	845m	South

Map ID	Map Unit Name	Threatened Ecological Community NSW	Threatened Ecological Community EPBC Act	Understorey	Disturbance	Disturbance Index	Dominant Species	Dist	Dir
S_RF02	S_RF02: Coastal Sandstone Gallery Rainforest			17: Pittosporum dominant	13: Weeds	3: High	B.integrifolia/F.rubiginosa/Kunzeasppeucalypts	857m	West
S_FoW08	S_FoW08: Estuarine Swamp Oak Forest	Swamp Oak Floodplain Forest		00: Not assessed	00: Not assessed	0: Not assessed	C.glauca	895m	South
S_DSF06	S_DSF06: Coastal Sandstone Foreshores Forest			17: Pittosporum dominant	13: Weeds	1: Low	A.costataE.resinifera/E.piperita/E.pilularis	914m	South
S_WSF01	S_WSF01: Blue Gum High Forest	Blue Gum High Forest		24: Urban and hard surface	24: Urban mixed use	4: Very high	E.saligna/S.gomuliferaE.pilularis	936m	North West
S_DSF04	S_DSF04: Coastal Enriched Sandstone Dry Forest			11: Semi sheltered dry/mesic	13: Weeds	2: Moderate	E.pilularis/A.costata/C.gummiferaE.resinifera	938m	West
S_WSF02	S_WSF02: Coastal Enriched Sandstone Moist Forest			10: Mesic/rainforest	13: Weeds	3: High	A.costataE.resinifera/E.piperita/E.pilularis	945m	South
S_WSF06	S_WSF06: Coastal Shale-Sandstone Forest			17: Pittosporum dominant	13: Weeds	2: Moderate	E.pilularis/A.costata/C.gummiferaE.resinifera	960m	West
S_DSF04	S_DSF04: Coastal Enriched Sandstone Dry Forest			11: Semi sheltered dry/mesic	13: Weeds	2: Moderate	E.piperita/A.costataE.pilularis	960m	West

Ramsar Wetlands

What Ramsar Wetland areas exist within the dataset buffer?

Map Id	Ramsar Name	Wetland Name	Designation Date	Source	Distance	Direction
N/A	No records in buffer					

Ecological Constraints

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

Groundwater Dependent Ecosystems Atlas

Type	GDE Potential	Geomorphology	Ecosystem Type	Aquifer Geology	Distance	Direction
N/A	No records in buffer					

Ecological Constraints

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

Inflow Dependent Ecosystems Likelihood

Type	IDE Likelihood	Geomorphology	Ecosystem Type	Aquifer Geology	Distance	Direction
N/A	No records in buffer					

Ecological Constraints

22-34 Berry Road, 21-31 Holdsworth Avenue & 42-46 River Road, St Leonards, NSW 2065

NSW BioNet Atlas

Species on the NSW BioNet Atlas that have a NSW or federal conservation status, a NSW sensitivity status, or are listed under a migratory species agreement, and are within 10km of the site?

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Amphibia	Litoria aurea	Green and Golden Bell Frog	Endangered	Not Sensitive	Vulnerable	
Animalia	Amphibia	Pseudophryne australis	Red-crowned Toadlet	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Actitis hypoleucos	Common Sandpiper	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Anous stolidus	Common Noddy	Not Listed	Not Sensitive	Not Listed	CAMBA;JAMBA
Animalia	Aves	Anseranas semipalmata	Magpie Goose	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Anthochaera phrygia	Regent Honeyeater	Critically Endangered	Not Sensitive	Critically Endangered	
Animalia	Aves	Apus pacificus	Fork-tailed Swift	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Ardenna carneipes	Flesh-footed Shearwater	Vulnerable	Not Sensitive	Not Listed	ROKAMBA;JAMBA
Animalia	Aves	Ardenna grisea	Sooty Shearwater	Not Listed	Not Sensitive	Not Listed	JAMBA
Animalia	Aves	Ardenna pacifica	Wedge-tailed Shearwater	Not Listed	Not Sensitive	Not Listed	JAMBA
Animalia	Aves	Ardenna tenuirostris	Short-tailed Shearwater	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Arenaria interpres	Ruddy Turnstone	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Artamus cyanopterus cyanopterus	Dusky Woodswallow	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Botaurus poiciloptilus	Australasian Bittern	Endangered	Not Sensitive	Endangered	
Animalia	Aves	Burhinus grallarius	Bush Stone-curlew	Endangered	Not Sensitive	Not Listed	
Animalia	Aves	Calidris acuminata	Sharp-tailed Sandpiper	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Calidris alba	Sanderling	Vulnerable	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Calidris canutus	Red Knot	Not Listed	Not Sensitive	Endangered	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Calidris ferruginea	Curlew Sandpiper	Endangered	Not Sensitive	Critically Endangered	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Calidris melanotos	Pectoral Sandpiper	Not Listed	Not Sensitive	Not Listed	ROKAMBA;JAMBA
Animalia	Aves	Calidris ruficollis	Red-necked Stint	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Callocephalon fimbriatum	Gang-gang Cockatoo	Endangered Population, Vulnerable	Category 3	Not Listed	
Animalia	Aves	Callocephalon fimbriatum	Gang-gang Cockatoo	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Calonectris leucomelas	Streaked Shearwater	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Calyptorhynchus banksii banksii	Red-tailed Black-Cockatoo (coastal subspecies)	Critically Endangered	Category 2	Not Listed	
Animalia	Aves	Calyptorhynchus banksii samueli	Red-tailed Black-Cockatoo (inland subspecies)	Vulnerable	Category 2	Not Listed	

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Aves	Calyptorhynchus lathami	Glossy Black-Cockatoo	Vulnerable	Category 2	Not Listed	
Animalia	Aves	Certhionyx variegatus	Pied Honeyeater	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Chthonicola sagittata	Speckled Warbler	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Climacteris picumnus victoriae	Brown Treecreeper (eastern subspecies)	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Cuculus optatus	Oriental Cuckoo	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Daphoenositta chrysoptera	Varied Sittella	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Diomedea exulans	Wandering Albatross	Endangered	Not Sensitive	Endangered	
Animalia	Aves	Ephippiorhynchus asiaticus	Black-necked Stork	Endangered	Not Sensitive	Not Listed	
Animalia	Aves	Epthianura albifrons	White-fronted Chat	Endangered Population, Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Erythrotriorchis radiatus	Red Goshawk	Critically Endangered	Category 2	Vulnerable	
Animalia	Aves	Esacus magnirostris	Beach Stone-curlew	Critically Endangered	Not Sensitive	Not Listed	
Animalia	Aves	Eudyptula minor	Little Penguin	Endangered Population	Not Sensitive	Not Listed	
Animalia	Aves	Falco subniger	Black Falcon	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Gallinago hardwickii	Latham's Snipe	Not Listed	Not Sensitive	Not Listed	ROKAMBA;JAMBA
Animalia	Aves	Glossopsitta pusilla	Little Lorikeet	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Grantiella picta	Painted Honeyeater	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Aves	Haematopus fuliginosus	Sooty Oystercatcher	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Haematopus longirostris	Pied Oystercatcher	Endangered	Not Sensitive	Not Listed	
Animalia	Aves	Haliaeetus leucogaster	White-bellied Sea-Eagle	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Hieraaetus morphnoides	Little Eagle	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Hirundapus caudacutus	White-throated Needletail	Not Listed	Not Sensitive	Vulnerable	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Hydroprogne caspia	Caspian Tern	Not Listed	Not Sensitive	Not Listed	JAMBA
Animalia	Aves	Ixobrychus flavicollis	Black Bittern	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Lathamus discolor	Swift Parrot	Endangered	Category 3	Critically Endangered	
Animalia	Aves	Limosa lapponica	Bar-tailed Godwit	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Limosa limosa	Black-tailed Godwit	Vulnerable	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Lophochroa leadbeateri	Major Mitchell's Cockatoo	Vulnerable	Category 2	Not Listed	
Animalia	Aves	Lophoictinia isura	Square-tailed Kite	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Macronectes giganteus	Southern Giant Petrel	Endangered	Not Sensitive	Endangered	
Animalia	Aves	Manorina melanotis	Black-eared Miner	Critically Endangered	Not Sensitive	Endangered	
Animalia	Aves	Menura alberti	Albert's Lyrebird	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Neophema pulchella	Turquoise Parrot	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Nettapus coromandelianus	Cotton Pygmy-Goose	Endangered	Not Sensitive	Not Listed	

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Aves	Ninox connivens	Barking Owl	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Ninox strenua	Powerful Owl	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Numenius madagascariensis	Eastern Curlew	Not Listed	Not Sensitive	Critically Endangered	ROKAMBA;CAMBA;JAMBA
Animalia	Aves	Numenius minutus	Little Curlew	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA;JAMBA
Animalia	Aves	Numenius phaeopus	Whimbrel	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA;JAMBA
Animalia	Aves	Onychoprion fuscata	Sooty Tern	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Pachycephala olivacea	Olive Whistler	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Pandion cristatus	Eastern Osprey	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Petroica boodang	Scarlet Robin	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Phaethon lepturus	White-tailed Tropicbird	Not Listed	Not Sensitive	Not Listed	CAMBA;JAMBA
Animalia	Aves	Pluvialis fulva	Pacific Golden Plover	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA;JAMBA
Animalia	Aves	Pluvialis squatarola	Grey Plover	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA;JAMBA
Animalia	Aves	Polytelis anthopeplus monarchoides	Regent Parrot (eastern subspecies)	Endangered	Category 3	Vulnerable	
Animalia	Aves	Polytelis swainsonii	Superb Parrot	Vulnerable	Category 3	Vulnerable	
Animalia	Aves	Pterodroma leucoptera leucoptera	Gould's Petrel	Vulnerable	Not Sensitive	Endangered	
Animalia	Aves	Pterodroma solandri	Providence Petrel	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Ptilinopus regina	Rose-crowned Fruit-Dove	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Ptilinopus superbus	Superb Fruit-Dove	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Stagonopleura guttata	Diamond Firetail	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Stercorarius longicaudus	Long-tailed Jaeger	Not Listed	Not Sensitive	Not Listed	CAMBA;JAMBA
Animalia	Aves	Stercorarius parasiticus	Arctic Jaeger	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA;JAMBA
Animalia	Aves	Stercorarius pomarinus	Pomarine Jaeger	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA;JAMBA
Animalia	Aves	Sterna hirundo	Common Tern	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA;JAMBA
Animalia	Aves	Sternula albifrons	Little Tern	Endangered	Not Sensitive	Not Listed	ROKAMBA;CAMBA;JAMBA
Animalia	Aves	Sula dactylatra	Masked Booby	Vulnerable	Not Sensitive	Not Listed	ROKAMBA;JAMBA
Animalia	Aves	Thalassarche bulleri	Buller's Albatross	Not Listed	Not Sensitive	Vulnerable	
Animalia	Aves	Thalassarche cauta	Shy Albatross	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Aves	Thalassarche chrysostoma	Grey-headed Albatross	Not Listed	Not Sensitive	Endangered	
Animalia	Aves	Thalassarche melanophris	Black-browed Albatross	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Aves	Thalasseus bergii	Crested Tern	Not Listed	Not Sensitive	Not Listed	JAMBA
Animalia	Aves	Thinornis cucullatus cucullatus	Eastern Hooded Dotterel	Critically Endangered	Not Sensitive	Vulnerable	
Animalia	Aves	Tringa brevipes	Grey-tailed Tattler	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA;JAMBA
Animalia	Aves	Tringa incana	Wandering Tattler	Not Listed	Not Sensitive	Not Listed	JAMBA

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Aves	Tringa nebularia	Common Greenshank	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Tringa stagnatilis	Marsh Sandpiper	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Tyto novaehollandiae	Masked Owl	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Tyto tenebricosa	Sooty Owl	Vulnerable	Category 3	Not Listed	
Animalia	Insecta	Petalura gigantea	Giant Dragonfly	Endangered	Not Sensitive	Not Listed	
Animalia	Mammalia	Aepyprymnus rufescens	Rufous Bettong	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Arctocephalus forsteri	New Zealand Fur-seal	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Arctocephalus pusillus doriferus	Australian Fur-seal	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Cercartetus nanus	Eastern Pygmy-possum	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Chalinolobus dwyeri	Large-eared Pied Bat	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Mammalia	Dasyurus maculatus	Spotted-tailed Quoll	Vulnerable	Not Sensitive	Endangered	
Animalia	Mammalia	Dasyurus viverrinus	Eastern Quoll	Endangered	Not Sensitive	Endangered	
Animalia	Mammalia	Eubalaena australis	Southern Right Whale	Endangered	Not Sensitive	Endangered	
Animalia	Mammalia	Falsistrellus tasmaniensis	Eastern False Pipistrelle	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Isoodon obesulus obesulus	Southern Brown Bandicoot (eastern)	Endangered	Not Sensitive	Endangered	
Animalia	Mammalia	Megaptera novaeangliae	Humpback Whale	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Mammalia	Micronomus norfolkensis	Eastern Coastal Free-tailed Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Miniopterus australis	Little Bent-winged Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Miniopterus orianae oceanensis	Large Bent-winged Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Myotis macropus	Southern Myotis	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Perameles nasuta	Long-nosed Bandicoot	Endangered Population	Not Sensitive	Not Listed	
Animalia	Mammalia	Petauroides volans	Greater Glider	Not Listed	Not Sensitive	Vulnerable	
Animalia	Mammalia	Petaurus australis	Yellow-bellied Glider	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Petaurus norfolcensis	Squirrel Glider	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Phascolarctos cinereus	Koala	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Mammalia	Pseudomys gracilicaudatus	Eastern Chestnut Mouse	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Pseudomys novaehollandiae	New Holland Mouse	Not Listed	Not Sensitive	Vulnerable	
Animalia	Mammalia	Pteropus poliocephalus	Grey-headed Flying-fox	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Mammalia	Saccolaimus flaviventris	Yellow-bellied Sheathtail-bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Scoteanax rueppellii	Greater Broad-nosed Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Vespadelus troughtoni	Eastern Cave Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Reptilia	Aspidites ramsayi	Woma	Vulnerable	Not Sensitive	Not Listed	
Animalia	Reptilia	Caretta caretta	Loggerhead Turtle	Endangered	Not Sensitive	Endangered	
Animalia	Reptilia	Chelonia mydas	Green Turtle	Vulnerable	Not Sensitive	Vulnerable	

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Reptilia	Dermochelys coriacea	Leatherback Turtle	Endangered	Not Sensitive	Endangered	
Animalia	Reptilia	Eretmochelys imbricata	Hawksbill Turtle	Not Listed	Not Sensitive	Vulnerable	
Animalia	Reptilia	Myuchelys bellii	Western Sawshelled Turtle, Bell's Turtle	Endangered	Not Sensitive	Vulnerable	
Animalia	Reptilia	Tiliqua occipitalis	Western Blue-tongued Lizard	Vulnerable	Not Sensitive	Not Listed	
Animalia	Reptilia	Varanus rosenbergi	Rosenberg's Goanna	Vulnerable	Not Sensitive	Not Listed	
Fungi	Flora	Camarophyllopsis kearneyi		Endangered	Not Sensitive	Not Listed	
Fungi	Flora	Hygrocybe anomala var. ianthinomarginata		Vulnerable	Not Sensitive	Not Listed	
Fungi	Flora	Hygrocybe aurantipes		Vulnerable	Not Sensitive	Not Listed	
Fungi	Flora	Hygrocybe austropratensis		Endangered	Not Sensitive	Not Listed	
Fungi	Flora	Hygrocybe collucera		Endangered	Not Sensitive	Not Listed	
Fungi	Flora	Hygrocybe griseoramosa		Endangered	Not Sensitive	Not Listed	
Fungi	Flora	Hygrocybe lanecovensis		Endangered	Not Sensitive	Not Listed	
Fungi	Flora	Hygrocybe reesiae		Vulnerable	Not Sensitive	Not Listed	
Fungi	Flora	Hygrocybe rubronivea		Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Acacia bynoeana	Bynoe's Wattle	Endangered	Not Sensitive	Vulnerable	
Plantae	Flora	Acacia gordonii		Endangered	Not Sensitive	Endangered	
Plantae	Flora	Acacia terminalis subsp. Eastern Sydney	Sunshine wattle	Endangered	Not Sensitive	Endangered	
Plantae	Flora	Allocasuarina portuensis	Nielsen Park She-oak	Endangered	Category 3	Endangered	
Plantae	Flora	Amperea xiphoclada var. pedicellata		Presumed Extinct	Not Sensitive	Extinct	
Plantae	Flora	Asterolasia buxifolia		Endangered	Not Sensitive	Not Listed	
Plantae	Flora	Baeckea kandos		Endangered	Category 3	Endangered	
Plantae	Flora	Caladenia tessellata	Thick Lip Spider Orchid	Endangered	Category 2	Vulnerable	
Plantae	Flora	Callistemon linearifolius	Netted Bottle Brush	Vulnerable	Category 3	Not Listed	
Plantae	Flora	Chamaesyce psammogeton	Sand Spurge	Endangered	Not Sensitive	Not Listed	
Plantae	Flora	Darwinia biflora		Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Davidsonia jerseyana	Davidson's Plum	Endangered	Category 2	Endangered	
Plantae	Flora	Deyeuxia appressa		Endangered	Not Sensitive	Endangered	
Plantae	Flora	Dichanthium setosum	Bluegrass	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Doryanthes palmeri	Giant Spear Lily	Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Epacris purpurascens var. purpurascens		Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Epacris sparsa	Sparse Heath	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Eucalyptus camfieldii	Camfield's Stringybark	Vulnerable	Not Sensitive	Vulnerable	

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Plantae	Flora	Eucalyptus fracta	Broken Back Ironbark	Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Eucalyptus leucoxylon subsp. pruinosa	Yellow Gum	Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Eucalyptus nicholii	Narrow-leaved Black Peppermint	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Eucalyptus pulverulenta	Silver-leafed Gum	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Eucalyptus scoparia	Wallangarra White Gum	Endangered	Not Sensitive	Vulnerable	
Plantae	Flora	Euphrasia collina subsp. muelleri	Mueller's Eyebright	Endangered	Not Sensitive	Endangered	
Plantae	Flora	Genoplesium baueri	Bauer's Midge Orchid	Endangered	Category 2	Endangered	
Plantae	Flora	Grammitis stenophylla	Narrow-leaf Finger Fern	Endangered	Category 3	Not Listed	
Plantae	Flora	Grevillea caleyi	Caley's Grevillea	Critically Endangered	Category 3	Critically Endangered	
Plantae	Flora	Grevillea hilliana	White Yiel Yiel	Endangered	Not Sensitive	Not Listed	
Plantae	Flora	Haloragodendron lucasii		Endangered	Not Sensitive	Endangered	
Plantae	Flora	Hibbertia puberula		Endangered	Not Sensitive	Not Listed	
Plantae	Flora	Hibbertia spanantha	Julian's Hibbertia	Critically Endangered	Category 2	Critically Endangered	
Plantae	Flora	Hibbertia superans		Endangered	Not Sensitive	Not Listed	
Plantae	Flora	Isotoma fluviatilis subsp. fluviatilis		Not Listed	Not Sensitive	Extinct	
Plantae	Flora	Lasiopetalum joyceae		Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Leptospermum deanei		Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Macadamia integrifolia	Macadamia Nut	Not Listed	Not Sensitive	Vulnerable	
Plantae	Flora	Macadamia tetraphylla	Rough-shelled Bush Nut	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Melaleuca biconvexa	Biconvex Paperbark	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Melaleuca deanei	Deane's Paperbark	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Microtis angusii	Angus's Onion Orchid	Endangered	Category 2	Endangered	
Plantae	Flora	Persoonia hirsuta	Hairy Geebung	Endangered	Category 3	Endangered	
Plantae	Flora	Persoonia laxa		Presumed Extinct	Not Sensitive	Extinct	
Plantae	Flora	Pimelea curviflora var. curviflora		Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Prasophyllum fuscum	Slaty Leek Orchid	Critically Endangered	Category 2	Vulnerable	
Plantae	Flora	Prostanthera marifolia	Seaforth Mintbush	Critically Endangered	Category 3	Critically Endangered	
Plantae	Flora	Rhodamnia rubescens	Scrub Turpentine	Critically Endangered	Not Sensitive	Critically Endangered	
Plantae	Flora	Sarcochilus hartmannii	Hartman's Sarcochilus	Vulnerable	Category 2	Vulnerable	
Plantae	Flora	Syzygium paniculatum	Magenta Lilly Pilly	Endangered	Not Sensitive	Vulnerable	
Plantae	Flora	Tetratheca glandulosa		Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Tetratheca juncea	Black-eyed Susan	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Thesium australe	Austral Toadflax	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Triplarina imbricata	Creek Triplarina	Endangered	Not Sensitive	Endangered	

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Plantae	Flora	Wilsonia backhousei	Narrow-leafed Wilsonia	Vulnerable	Not Sensitive	Not Listed	

Data does not include NSW category 1 sensitive species.

Location Confidences

Where Lotsearch has had to georeference features from supplied addresses, a location confidence has been assigned to the data record. This indicates a confidence to the positional accuracy of the feature. Where applicable, a code is given under the field heading “LC” or “LocConf”. These codes lookup to the following location confidences:

LC Code	Location Confidence
Premise Match	Georeferenced to the site location / premise or part of site
Area Match	Georeferenced to an approximate or general area
Road Match	Georeferenced to a road or rail corridor
Road Intersection	Georeferenced to a road intersection
Buffered Point	A point feature buffered to x metres
Adjacent Match	Land adjacent to a georeferenced feature
Network of Features	Georeferenced to a network of features
Suburb Match	Georeferenced to a suburb boundary
As Supplied	Spatial data supplied by provider

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12. These Terms are subject to New South Wales law.

Land Title Records

ABN: 36 092 724 251
Ph: 02 9099 7400
(Ph: 0412 199 304)

Level 14, 135 King Street, Sydney
Sydney 2000
GPO Box 4103 Sydney NSW 2001
DX 967 Sydney

Summary of Owners Report

Address: - Berry Road, Holdsworth Avenue & River Road, St Leonards

Description: - Lots 15, 21 & 29 Section 2 D.P. 7259 & Lot 1 D.P. 1037926

As regards Lot 15 Section 2 D.P. 7259.

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
15.07.1920 (1920 to 1938)	Charles Frederick Caines Eyers (Civil Servant) (& his deceased estate)	Vol 2938 Fol 229
22.07.1938 (1938 to 1944)	Florence Elizabeth Eyers (Widow) Walter Arthur Christopher Eyers (Insurance Clerk)	Vol 2938 Fol 229 Now Vol 4933 Fol's 6 & 7
29.04.1944 (1944 to	Walter Arthur Christopher Eyers (Insurance Clerk) (Transmission Application not investigated)	Vol 4933 Fol's 6 & 7
01.06.1973 (1973 to 1975)	Keith George Hartman (Medical Practitioner)	Vol 4933 Fol's 6 & 7
10.06.1975 (1975 to 1993)	William Gordon Griffith (Company Secreatary) Stephen James Griffith (Bank Clerk) Barbara Ruth Griffith (Spinster) Susan Louise Griffith (Spinster)	Vol 4933 Fol's 6 & 7 Then Vol 12841 Fol 156 Now 15/2/7259
18.08.1993 (1993 to 2014)	William Gordon Griffith (Company Secreatary) Barbara Ruth Griffith (Spinster) Susan Louise Griffith (Spinster)	
04.09.2014 (2014 to 2015)	Andrew Lee Yida Lee	15/2/7259
19.10.2015 92015 to 2017)	Agnes Sook Lin Seeto	15/2/7259
20.11.2017 (2017 to date)	# SJD St Leonards Pty Ltd	15/2/7259

 # Denotes current registered proprietor

Leases and Easements: - NIL

ABN: 36 092 724 251
Ph: 02 9099 7400
(Ph: 0412 199 304)

Level 14, 135 King Street, Sydney
Sydney 2000
GPO Box 4103 Sydney NSW 2001
DX 967 Sydney

As regards Lot 21 Section 2 D.P. 7259.

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
30.11.1927 (1927 to 1929)	Nellie May Reilly (Married Woman)	Vol 4083 Fol 236
10.01.1929 (1929 to 1932)	Carlton William Edward Walter (Clerk)	Vol 4083 Fol 236
08.06.1932 (1932 to 1937)	Frances Jean Fortey (Married Woman)	Vol 4083 Fol 236
26.05.1937 (1937 to 1942)	Allan Bede Cameron (Civil Servant)	Vol 4083 Fol 236
23.07.1942 (1942 to 1942)	Myra Elizabeth Collings (Widow) Now Myra Elizabeth Archibald (Married Woman)	Vol 4083 Fol 236
02.10.1952 (1952 to 1954)	Theodore George Scholer (Retired) Elman May Scholer (Married Woman)	Vol 4083 Fol 236
25.01.1954 (1954 to 1956)	John Alan McCraw (Company Director)	Vol 4083 Fol 236 Now Vol 6790 Fol 30
17.05.1956 (1956 to 1959)	Kenneth William Colby Hancock (Bank Officer)	Vol 6790 Fol 30
02.08.1959 (1959 to 1977)	Colin Archibald Cousins (Bank Officer)	Vol 6790 Fol 30
04.05.1977 (1977 to 1995)	Jeanne Key Borg (Secretary) Caroline Joan Squire (Secretary)	Vol 6790 Fol 30 Now 21/2/7259
01.02.1995 91995 to 2003)	Bradfield Corporate Services Pty Limited	21/2/7259
05.06.2003 (2003 to 2017)	Andrew Gordon Hutton	21/2/7259
23.02.2017 (2017 to 2018)	Jontina Pty Ltd	21/2/7259
03.05.2018 (2018 to date)	# Greaton St Leonards Holdings Pty Ltd	21/2/7259

 # Denotes current registered proprietor

Leases and Easements: - NIL

ABN: 36 092 724 251
Ph: 02 9099 7400
(Ph: 0412 199 304)

Level 14, 135 King Street, Sydney
Sydney 2000
GPO Box 4103 Sydney NSW 2001
DX 967 Sydney

As regards Lot 29 Section 2 D.P. 7259.

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
17.08.1923 (1923 to 1967)	Thomas John Norman Holmes (Bank Clerk)	Vol 3402 Fol 156
22.06.1967 (1967 to 1968)	Eric Norman Holmes (Architect) (Section 94 Application not investigated)	Vol 3402 Fol 156
05.03.1968 (1968 to 1992)	Brian McMahon Glynn (Solicitor)	Vol 3402 Fol 156 Now 29/2/7259
23.07.1992 (1992 to 1992)	Eamon McMahon Glynn (Re the Estate of Brian McMahon Glynn)	29/2/7259
20.10.1992 (1992 to 1997)	Brett John Jeffery Michael Stuart Doughty Robert James Doughty	29/2/7259
21.03.1997 (1997 to 1998)	Michael Stuart Doughty Robert James Doughty Suzique Anne Weine	29/2/7259
24.09.1998 (1998 to 2017)	Michael Stuart Doughty Suzique Anne Weine Now Suzique Anne Doughty	29/2/7259
20.11.2017 (2017 to date)	# SJD St Leonards Pty Ltd	29/2/7259

 # Denotes current registered proprietor

Leases and Easements: - NIL

ABN: 36 092 724 251
Ph: 02 9099 7400
(Ph: 0412 199 304)

Level 14, 135 King Street, Sydney
Sydney 2000
GPO Box 4103 Sydney NSW 2001
DX 967 Sydney

As regards Lot 1 D.P. 1037926

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
02.08.1929 (1929 to 1935)	Emily Holloway (Married Woman)	Vol 3753 Fol 9
01.07.1935 (1935 to 1950)	Frederick George Holloway (Bank Clerk) (Transmission Application not investigated)	Vol 3753 Fol 9
31.05.1950 (1950 to 1951)	John Lamont Barden (Manager)	Vol 3753 Fol 9
08.02.1951 (1951 to 1966)	Henry Edward Holder (Electric Train Driver) Violet Easter Holder (Married Woman)	Vol 3753 Fol 9
06.07.1966 (1966 to 1967)	Henry Edward Holder (Electric Train Driver)	Vol 3753 Fol 9
11.01.1967 (1967 to 1977)	Roland Whiting (Engineer) Helen Elizabeth Whiting (Married Woman)	Vol 3753 Fol 9
14.02.1977 (1977 to 1978)	Glenn Lawrence Barnes (Group Product Manager) Sandra Ann Barnes (Married Woman)	Vol 3753 Fol 9 Now Vol 13279 Fol 199
02.03.1978 (1978 to 1979)	George Washington Butler (Retired) Gillian Harrison (Receptionist)	Vol 13279 Fol 199
07.02.1979 (1979 to 1989)	Vera Beryl Ireland (Home Duties)	Vol 13279 Fol 199 Now 23/2/7259
26.09.1989 (1989 to 1993)	Ballasal Pty Limited	23/2/7259
27.07.1993 (1993 to 2002)	Deborah Veronica Gervay	23/2/7259 Now 1/1037926
27.11.2002 (2002 to 2013)	Alison Margaret Stevens	1/1037926
28.06.2013 (2013 to 2017)	Nathan Matthew Hogan Jillian Lee Hogan	1/1037926
13.01.2017 (2017 to 2018)	Dino Dinov	
03.05.2018 (2018 to date)	# Greaton St Leonards Holdings Pty Ltd	1/1037926

 # Denotes current registered proprietor

Leases: - NIL

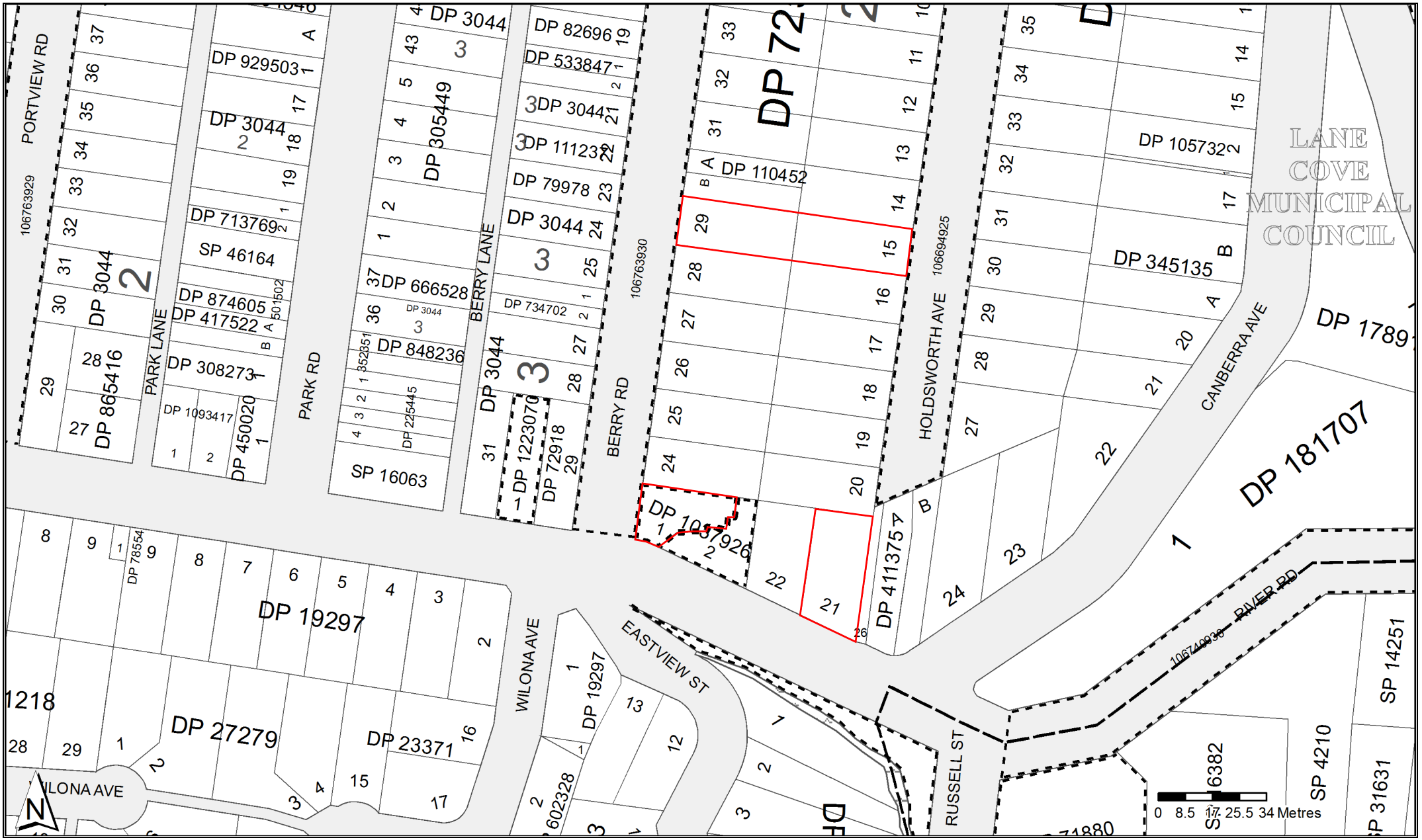
Easements: -

- 08.02.2002 (D.P. 1037926) Right of Carriageway 3 metres wide.
- 08.02.2002 (D.P. 1037926) Easement for Parking 2.5 metres wide.
- 08.02.2002 (D.P. 1037926) Easement for Overhang variable width.
- 28.06.2002 (8695477) Easement for Passive Recreation variable width.

Yours Sincerely
Mark Groll
21 December 2021

Cadastral Records Enquiry Report : Lot 25 Section 2 DP 7259

Locality : ST LEONARDS
Parish : WILLOUGHBY
LGA : LANE COVE
County : CUMBERLAND



This information is provided as a searching aid only.Whilst every endeavour is made to ensure that current map, plan and titling information is accurately reflected, the Registrar General cannot guarantee the information provided. For ALL ACTIVITY PRIOR TO SEPTEMBER 2002 you must refer to the RGs Charting and Reference Maps

PLAN FORM 2

Plan Drawing only to appear in this space

DP1037926

*OFFICE USE ONLY

SIGNATURES AND SEALS ONLY

Mortgagee under Mortgage No. IS 6741
Signed at Sydney this 4TH day of JANUARY 2002 for National Australia Bank Limited ABN 12 004 044 937 by Fiona Mary FERGUSON its duly appointed Attorney under Power No. 548 Book 3934

Manager

Witness/Bank Officer Kylie GRIFFITH
255 George Street, Sydney NSW

Registered: 8-2-2002

Title System: TORRENS

Purpose: SUBDIVISION

Ref Map: U0952-644

Last Plan: DP7259

PLAN OF: SUBDIVISION
LOT 23 SEC 2 DP 7259

Lengths are in metres. Reduction Ratio 1: 300

L.G.A.: LANE COVE

Locality: ST LEONARDS

Parish: WILLOUGHBY

County: CUMBERLAND

~~This is sheet 1 of my plan in sheets.~~
(Delete if inapplicable)

Surveyors (Practice) Regulation 1996

I, MICHAEL BERNARD SCOTT GREEN of M.B.S GREEN & ASSOCS. P/L

a surveyor registered under the Surveyor's Act. 1929, hereby certify that the survey represented in this plan is accurate, has been made in accordance with the Surveyors (Practice) Regulation 1996 and was completed on 5 OCT 2000

The survey relates to

(here specify the land actually surveyed or specify any land shown in the plan that is not the subject of the survey)

Datum Line: 'A' - 'B'

Zone: ~~Suburban/County~~

(Signature)

Surveyor registered under the Surveyors Act. 1929

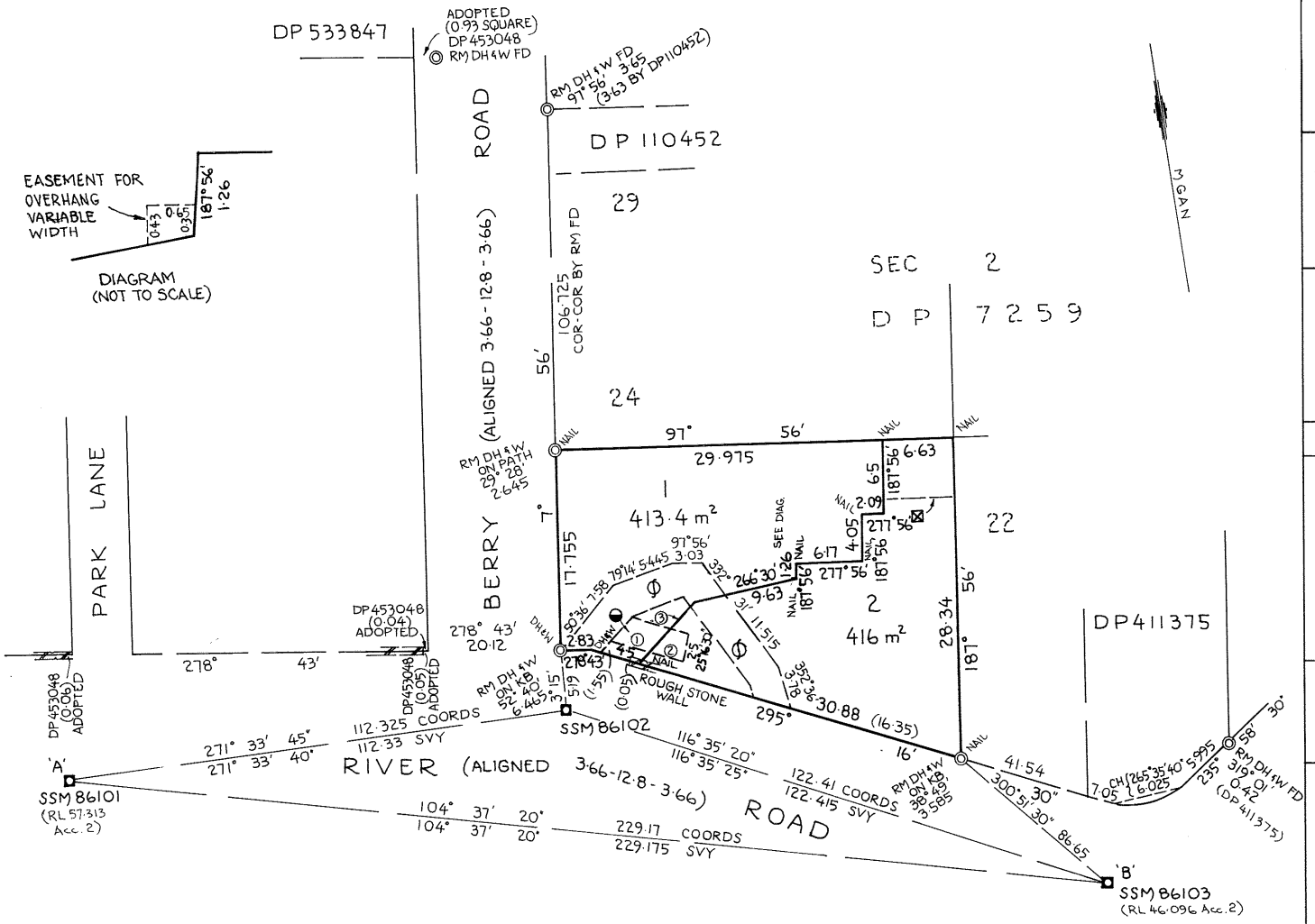
Plans used in preparation of survey/compilation

DP 7259 110452 411375
453048 533847

PANEL FOR USE ONLY for statements of intention to dedicate public roads, to create public reserves, drainage reserves, easements, restrictions on the use of land or positive covenants.

PURSUANT TO SEC 88B CONVEYANCING ACT 1919 IT IS INTENDED TO CREATE

1. RIGHT OF CARRIAGEWAY 3 WIDE
2. EASEMENT FOR PARKING 2·5 WIDE
3. EASEMENT TO DRAIN SEWAGE OVER EXISTING LINE OF PIPES (APPROXIMATE POSITION)
4. EASEMENT FOR OVERHANG VARIABLE WIDTH
5. RESTRICTION AS TO USER



Φ RIGHT OF CARRIAGEWAY 3 WIDE

◒ EASEMENT FOR PARKING 2·5 WIDE

⊠ EASEMENT TO DRAIN SEWAGE OVER EXISTING LINE OF PIPES (APPROXIMATE POSITION)

LINE	BEARING	DISTANCE
①	295° 16' 30"	4·525
②	295° 16' 30"	2·355
③	231° 29' 30"	7·475

SURVEYORS (PRACTICE) REGULATION 1996 CLAUSE 32(2)

MARK	MGA COORDINATES EASTING	MGA COORDINATES NORTHING	ZONE	ORDER
SSM 86101	332 563·200	6 255 493·581	56	U
SSM 86102	332 675·484	6 255 490·518	56	U
SSM 86103	332 784·948	6 255 435·728	56	U

SOURCE: MGA COORDINATES ADOPTED FROM LIC INFORMATION SUPPLIED 7 SEPT 2000

LINE SCALE FACTOR 0·999937

Crown Lands Office Approval

PLAN APPROVED

Authorised Officer

Land District

Paper No.

Field Book pages

Subdivision Certificate

I certify that the provisions of s. 109J of the Environmental Planning and Assessment Act 1979 have been satisfied in relation to the proposed subdivision set out hereon

(Insert 'subdivision' or 'new road')

~~*Authorised Person/General Manager/Accredited Certifier~~

Consent Authority: Lane Cove Council

Date of endorsement: 14th December 2001

Accreditation No.:

Subdivision Certificate No.: 2977

File No.: D 69/92

When the plan is to be lodged electronically in the Land Titles Office, it should include a signature in an electronic or digital format approved by the Registrar-General.

*Delete whichever is inapplicable

© SURVEYOR'S REFERENCE: M5400(S8063)

10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 Table of mm 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390

WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

[redacted]FICATE OF TITLE

NEW SOUTH WALES [redacted]EAL PROPERTY ACT, 1900

Vol. 12841 Fol. 156

EDITION ISSUED 15 8 1975

Appln. No. 3083

Prior Title Vol. 4933 Fols.6 & 7

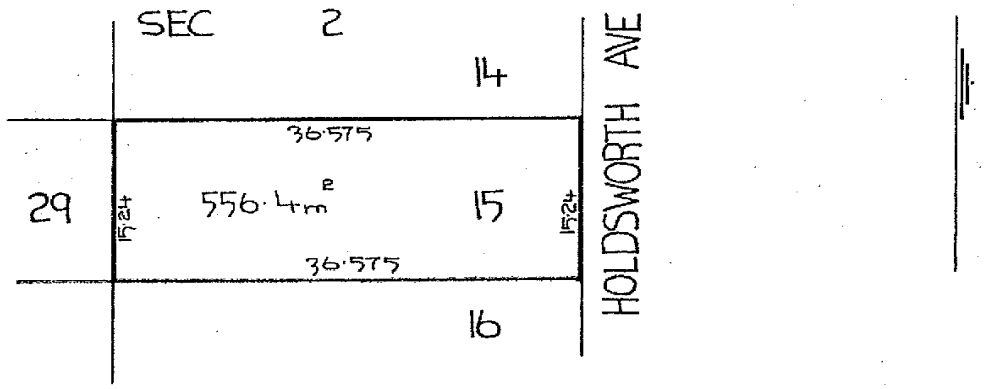
(Page 1) Vol. 12841 Fol. 156

I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

Registrar General.

PLAN SHOWING LOCATION OF LAND

LENGTHS ARE IN METRES



P331367 Ef
BF
S
GRY

REDUCTION RATIO 1:500

ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 15 of Section 2 in Deposited Plan 7259 in the Municipality of Lane Cove Parish of Willoughby and County of Cumberland being part of Portion 323 granted to Edward Wollstonecraft on 30-6-1825.

FIRST SCHEDULE

WILLIAM GORDON GRIFFITH of Castle Hill, Company Secretary, STEPHEN JAMES GRIFFITH of Kirribilli, Bank Clerk, BARBARA RUTH GRIFFITH and SUSAN LOUISE GRIFFITH both of Cambewarra, Spinsters, as Tenants in Common in equal shares.

SECOND SCHEDULE

1. Reservations and conditions, if any, contained in the Crown Grant above referred to.
CV 2. Covenant created by Transfer No.A241721.

Vol. 12841 Fol. 156

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT			ENTERED	Signature of Registrar General
	NATURE	NUMBER	DATE		

SECOND SCHEDULE (continued)

INSTRUMENT			PARTICULARS	ENTERED	Signature of Registrar General	CANCELLATION		
NATURE	NUMBER	DATE						
			CANCELLED					
			SEE AUTO FOLIO					

(Page 2 of 2 pages)

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED

Historical Title

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
21/12/2021 12:32PM

FOLIO: 15/2/7259

First Title(s): SEE PRIOR TITLE(S)
Prior Title(s): VOL 12841 FOL 156

Recorded	Number	Type of Instrument	C.T. Issue
8/8/1989		TITLE AUTOMATION PROJECT	LOT RECORDED FOLIO NOT CREATED
12/9/1989		CONVERTED TO COMPUTER FOLIO	FOLIO CREATED CT NOT ISSUED
18/8/1993	I574352	TRANSFER	EDITION 1
11/8/1999	6082975	DEPARTMENTAL DEALING	
4/9/2014	AI624694	TRANSFER	
4/9/2014	AI624695	MORTGAGE	EDITION 2
19/10/2015	AJ916467	DISCHARGE OF MORTGAGE	
19/10/2015	AJ916468	TRANSFER	
19/10/2015	AJ916469	MORTGAGE	EDITION 3
14/6/2016	AK506776	CAVEAT	
20/11/2017	AM898862	WITHDRAWAL OF CAVEAT	
20/11/2017	AM898863	DISCHARGE OF MORTGAGE	
20/11/2017	AM898864	TRANSFER	
20/11/2017	AM898865	MORTGAGE	EDITION 4 CORD ISSUED
15/9/2020	AP912711	DEPARTMENTAL DEALING	

*** END OF SEARCH ***

River Road, ST LEONARDS PRINTED ON 21/12/2021

Received: 21/12/2021 12:32:17

RP13

TRANSFER

Real Property Act, 1900

I 574352 K

Office of Stat

180893 7904 04 00155252/01 $15.00

(A) **LAND TRANSFERRED**

Show no more than 20 References to Title.
If appropriate, specify the share transferred.

Certificate of Title Volume 12841
Folio 156 to be Folio Identifier
15/2/7259

(B) **LODGED BY**

L.T.O. Box

Name, Address or DX and Telephone
SUSAN GRIFFITH
~~COLLEGE OF LAW~~ ~~CLE 363~~
~~2 HOLDSWORTH AV~~ ~~DX CPL~~
2 HOLDSWORTH AV ST LEONARDS
~~WOLLSTONECRAFT NSW 2065~~
WOLLSTONE CRAFT.
REFERENCE (max. 15 characters):

(C) **TRANSFEROR** Stephen James Griffith

(D) acknowledges receipt of the consideration of $70,000.00

and as regards the land specified above transfers to the transferee an estate in fee simple as to my one quarter share as tenant in common

(E) subject to the following **ENCUMBRANCES** 1. ..... 2. ..... 3. .....

(F) **TRANSFEREE**

T

(G) Susan Louise Griffith

~~as joint tenants/tenants in common~~

(H) We certify this dealing correct for the purposes of the Real Property Act, 1900. **DATE OF EXECUTION** .....

Signed in my presence by the transferor who is personally known to me.

Joan M. Coulthart
Signature of Witness

JOAN MARY COULTHART
Name of Witness (BLOCK LETTERS)

182 MAIN RD TERARA NSW
Address of Witness

RETIRED

~~Signature of Transferor~~

Signed in my presence by the transferee who is personally known to me.

Signature of Witness

JANE M. BOYD
Name of Witness (BLOCK LETTERS)

SOLICITOR, SYDNEY
Address of Witness

S. Griffith
Signature of Transferee
(17/6/93)

☞ INSTRUCTIONS FOR FILLING OUT THIS FORM ARE AVAILABLE FROM THE LAND TITLES OFFICE

CHECKED BY (office use only)

CANC. CERT. S. Griffith

35

Form: 01T
Release: 6·1

TRANSFER

New South Wales
Real Property Act 1900

AI624694E

RELODGED

PRIVACY NOTE: Section 31B of the Real Property Act 1900 (RP Act) authorises the Registrar to collect the information required by this form for the establishment and maintenance of the Real Property Act Register. Section 96B RP Act requires that the Register is made available to any person for search upon payment of a fee, if any.

STAMP DUTY — Office of State Revenue use only

Office of State Revenue
NSW Treasury
Client No: 2764070 670
Duty: $10.00 Trans No 7576589
Asst details IS

TIME: 9:00

(A) TORRENS TITLE: 15/2/7259

(B) LODGED BY

Document Collection Box	Name, Address or DX, Telephone, and Customer Account Number if any	CODES
24J	LLPN: 123836E CTB Reference: 4239772	T TW

(C) TRANSFEROR: SUSAN LOUISE GRIFFITH IN 1/2 SHARE, WILLIAM GORDON GRIFFITH IN 1/4 SHARE & BARBARA RUTH GRIFFITH IN 1/4 SHARE, AS TENANTS IN COMMON

(D) CONSIDERATION: The transferor acknowledges receipt of the consideration of $ 1,675,000.00 and as regards

(E) ESTATE: the abovementioned land transfers to the transferee an estate in fee simple

RELODGED
- 2 SEP 2014
TIME: 9.45

(F) SHARE TRANSFERRED: 100%

(G) Encumbrances (if applicable):

(H) TRANSFEREE: ANDREW LEE AND YIDA LEE

(I) TENANCY: Joint Tenants

DATE 19/5/2014

(J) I certify I am an eligible witness and that the transferor signed this dealing in my presence. [See note* below]

Signature of witness:

Name of witness: JANE MARION BOYD
Address of witness: 64 MIDDLE HARBOUR ROAD
LINDFIELD NSW 2070
SOLICITOR

Certified correct for the purposes of the Real Property Act 1900 by the transferor.

Signature of transferor: S. J. Griffith. B. (Gregory) Griffith

Certified correct for the purposes of the Real Property Act 1900 on behalf of the transferee by the person whose signature appears below.

Signature:

Signatory's name: Jeffrey Lee
Signatory's capacity: solicitor for the Transferee

(K) The transferee's agent certifies that the eNOS data relevant to this dealing has been submitted and stored under eNOS ID No. 609561 Full name: ~~Jeffrey Lee Solicitor~~ PAULINE BEAUSOLEIL Signature: Pauline Beausoleil

* s117 RP Act requires that you must have known the signatory for more than 12 months or have sighted identifying documentation.

ALL HANDWRITING MUST BE IN BLOCK CAPITALS

1303

Form 10-1221

Statutory Declaration

New South Wales, Oaths Act 1900, Eighth Schedule

I, Barbara Ruth GRIFFITH of 55 Johnston Crescent, LANE COVE NSW 2066, , solemnly and sincerely declare that —

1. I am identical with Barbara Ruth GRIFFITH descibed as one of the registered proprietors as to a one quarter share as tenants in common, of the property known as 21 Holdsworth Avenue, St Leonards being the land contained in Folio Identifier 15/2/7259 ("the property").
2. On 9 August, 1991 I was married and assumed the name Barbara Ruth GREGORY for most purposes. I did not assume that name in relation to the property and the title remained in the name of Barbara Ruth GRIFFITH and the property was rated in that name.
3. The contract was entered into by me in the name of Barbara Ruth GRIFFITH.
4. Settlement of the sale of the property was effected on 19 May, 2014 and prior to that settlement, I signed the Transfer as B (Gregory) Griffith. I initially signed the Transfer as "B Gregory" and then realised that I had signed in my married name. The part of my signature which read "Gregory" was bracketed and I finished the signature with "Griffith" being the name on the title deed for the property. When signing the Transfer the bracketed word "Gregory" was not intented to represent my middle name but was the way of me indicating that the use of the name "Gregory" was an error in my signature. My usual signature for matters relating to the property is "B Griffith".

and I make this solemn declaration conscientiously believing the same to be true and by virtue of the Oaths Act 1900.

Made and subscribed at *[place]* SYDNEY

in *[State or Territory]* NEW SOUTH WALES on *[date]* 17 JUNE, 2014

in the presence of *[full name]* JANE MARION BOYD

of *[residential address]* 64 MIDDLE HARBOUR ROAD, LINDFIELD NSW, 2070

☐ Justice of the Peace (J.P. Number) ☑ Practising Solicitor

☐ Other qualified witness *[specify]* .....,

who certifies the following matters concerning the making of this statutory declaration by the person who made it:

1. I saw the face of the person OR* ~~I did not see the face of the person because the person was wearing a face covering, but I am satisfied that the person had a special justification for not removing the covering~~; and
2. I have known the person for at least 12 months OR* ~~I have confirmed the person's identity using an identification document and the document I relied on was a~~ .....*[Omit ID No.]*

Signature of witness: ..... Signature of declarant: B Griffith

JANE MARION BOYD

* *Cross out the words which do not apply.*

AUSTRALIAN LEGAL PRACTITIONER

Form: 01T
Release: 6·1

TRANSFER

New South Wales
Real Property Act 1900

AJ916468M

PRIVACY NOTE: Section 31B of the Real Property Act 1900 (RP Act) authorises th... by this form for the establishment and maintenance of the Real Property Act Register. Section 96B RP Act requ... the Register is made available to any person for search upon payment of a fee, if any.

STAMP DUTY Office of State Revenue use only

Office of State Revenue NSW Treasury
Client No: 2764070 670
Duty: $10.00 Trans No 8359606-001
Asst details TS, s18(2)

(A) **TORRENS TITLE** 15/2/7259

(B) **LODGED BY**

Document Collection Box	Name, Address or DX, Telephone, and Customer Account Number if any	CODES
256	Westpac Banking Corporation ABN 33 007 457 141 25 Pierson St Lockleys SA 5032 ~~Tel: 132 558 Fax: 1300 655 674~~ ~~LLPN: 132097R~~ Reference:	T TW

(C) **TRANSFEROR** ANDREW LEE AND YIDA LEE

(D) **CONSIDERATION** The transferor acknowledges receipt of the consideration of $ 1,950,000.00 and as regards

(E) **ESTATE** the abovementioned land transfers to the transferee an estate in fee simple

(F) **SHARE TRANSFERRED** 100%

(G) Encumbrances (if applicable):

(H) **TRANSFEREE** AGNES SOOK LIN SEETO

(I) **TENANCY:**

DATE

(J) I certify I am an eligible witness and that the transferor signed this dealing in my presence. [See note* below]

Signature of witness:

Name of witness: SBAH SIEW KOON
Address of witness: BLK 703, WOODLANDS, DR 40, #08-96, S (730703)

Certified correct for the purposes of the Real Property Act 1900 by the transferor.

Signature of transferor:

I certify I am an eligible witness and that the transferee signed this dealing in my presence. [See note* below]

Signature of witness:

Name of witness: AIDAN SEETO
Address of witness: 22 WYRALLA AVE EPPING NSW 2121

Certified correct for the purposes of the Real Property Act 1900 by the transferee.

Signature of transferee:

I am authorised to make this alteration Pauline Beauso(e)il PAULINE BEAUSOLEIL, Solicitor, 8 October 2015

(K) The transferee's solicitor certifies that the eNOS data relevant to this dealing has been submitted and stored under eNOS ID No. 929339 Full name: JEFFREY LEE Signature:

* *s117 RP Act requires that you must have known the signatory for more than 12 months or have sighted identifying documentation.*

ALL HANDWRITING MUST BE IN BLOCK CAPITALS

1303

Title Search

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 15/2/7259

SEARCH DATE	TIME	EDITION NO	DATE
21/12/2021	12:31 PM	4	20/11/2017

LAND

LOT 15 OF SECTION 2 IN DEPOSITED PLAN 7259
AT ST LEONARDS
LOCAL GOVERNMENT AREA LANE COVE
PARISH OF WILLOUGHBY COUNTY OF CUMBERLAND
TITLE DIAGRAM DP7259

FIRST SCHEDULE

SJD ST LEONARDS PTY LTD (T AM898864)

SECOND SCHEDULE (3 NOTIFICATIONS)

1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
2 A241721 COVENANT
3 AM898865 MORTGAGE TO ING BANK (AUSTRALIA) LIMITED

NOTATIONS

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

Received: 21/12/2021 12:31:26

Historical Title

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
21/12/2021 12:32PM

FOLIO: 21/2/7259

First Title(s): SEE PRIOR TITLE(S)
Prior Title(s): VOL 6790 FOL 30

Recorded	Number	Type of Instrument	C.T. Issue
7/9/1989		TITLE AUTOMATION PROJECT	LOT RECORDED FOLIO NOT CREATED
6/12/1989		CONVERTED TO COMPUTER FOLIO	FOLIO CREATED CT NOT ISSUED
1/2/1995	U982546	TRANSFER	EDITION 1
5/6/2003	9672271	TRANSFER	
5/6/2003	9672272	MORTGAGE	EDITION 2
22/4/2015	AJ423871	CAVEAT	
7/2/2017	AM139266	WITHDRAWAL OF CAVEAT	
23/2/2017	AM179872	DISCHARGE OF MORTGAGE	
23/2/2017	AM179873	TRANSFER	
23/2/2017	AM179874	MORTGAGE	EDITION 3
6/11/2017	AM863766	CAVEAT	
3/5/2018	AN310069	WITHDRAWAL OF CAVEAT	
3/5/2018	AN310070	DISCHARGE OF MORTGAGE	
3/5/2018	AN310071	TRANSFER	EDITION 4
22/10/2018	AN798221	MORTGAGE	EDITION 5
15/9/2020	AP912711	DEPARTMENTAL DEALING	
4/12/2020	AQ612959	DISCHARGE OF MORTGAGE	
4/12/2020	AQ612961	MORTGAGE	EDITION 6
16/3/2021	AQ873450	CAVEAT	
19/7/2021	AR255005	WITHDRAWAL OF CAVEAT	

*** END OF SEARCH ***

River Road, ST LEONARDS PRINTED ON 21/12/2021

Received: 21/12/2021 12:32:17

97-01T

TRANSFER

Real Property Act, 1900

U 982546 U

Office of State Revenue use only

$2.00 0301952 3002 04 00175297I/03

(A) **LAND TRANSFERRED**
Show no more than 20 References to Title.
If appropriate, specify the share transferred.

Volume 6790 Folio 30 now being
Folio Identifier 21/2/7259

(B) **LODGED BY**

L.T.O. Box	Name, Address or DX and Telephone
8985	Corrs Chambers Westgarth DX 133 Sydney Tel: 210 6500 Reference (max. 15 characters): BRAD-new (MXF)

(C) **TRANSFEROR** JEANNE KEY BORG and CAROLINE JOAN SQUIRE

(D) acknowledges receipt of the consideration of $325,000.00

and as regards the land specified above transfers to the transferee an estate in fee simple

(E) subject to the following **ENCUMBRANCES** 1. ..... 2. ..... 3. .....

(F) **TRANSFEREE** T BRADFIELD CORPORATE SERVICES PTY LIMITED (A.C.N. 003 271 172)

(G) TENANCY:

(H) We certify this dealing correct for the purposes of the Real Property Act, 1900 **DATE** 31 January 1995

Signed in my presence by the transferor who is personally known to me

R Reuma ..... Fiona M Hibbett X

Signature of Witness

ROBERT PICONE FIONA M HIBBETT

Name of Witness (BLOCK LETTERS)

SOLICITOR, Sydney. 23 CAMERON AVE ARTARMON NSW 2064 ..... Jeanne Borg

Address of Witness Signature of Transferor

Signed in my presence by the transferee who is personally known to me

..... Signature of Witness

..... Name of Witness (BLOCK LETTERS)

..... Address of Witness

..... Signature of Transferee's Solicitor

M.A. DORIA

☛ **INSTRUCTIONS FOR FILLING OUT THIS FORM ARE AVAILABLE FROM THE LAND TITLES OFFICE**

CHECKED BY (office use only)

H. C. MARTYN & SONS (AUST.) PTY. LTD. PH: (02) 699 2499

Form: 01T
Release: 2.1
www.lpi.nsw.gov.au

TRANSFER

New South Wales
Real Property Act 1900

9672271N

~~PRIVACY NOTE: this information is legally required and will become part of the public record~~

STAMP DUTY

OFFICE OF STATE REVENUE (N.S.W. TREASURY)
Office of State Revenue use only
CLIENT No. 3323749 STAMP No. 1192
STAMP DUTY $0 SIGNATURE
TRANSACTION No. 13959 89 DATE 12.5.03
ASSESSMENT DETAILS:

(A) **TORRENS TITLE**

FOLIO IDENTIFIER: 21/2/7259

(B) **LODGED BY**

Delivery Box	Name, Address or DX and Telephone	CODES
~~124E~~ 415A	LEGALINK NATIONAL AUSTRALIA BANK 107 Railway Highway Seven Hills NSW 2147 DX 25 0404 Reference: J-CLA- 03PT4409	T TW (Sheriff)

(C) **TRANSFEROR**

BRADFIELD CORPORATE SERVICES PTY. LIMITED A.C.N 003 271 172

(D) **CONSIDERATION** The transferor acknowledges receipt of the consideration of $ 665,000.00 and as regards

(E) **ESTATE** the land specified above transfers to the transferee an estate in fee simple

(F) **SHARE TRANSFERRED**

(G) Encumbrances (if applicable):

(H) **TRANSFEREE**

ANDREW GORDON HUTTON

(I) **TENANCY:**

(J) **DATE**

I certify that the person(s) signing opposite, with whom I am personally acquainted or as to whose identity I am otherwise satisfied, signed this instrument in my presence.

The Common Seal of Bradfield Corporate Services Pty Limited ACN 003 271 172 was hereunto affixed by authority of the Board of Directors and in the presence of:

Signature of witness:

Name of witness:

Address of witness:

CORPORATION: Bradfield Corporate Services P/L

AUTHORITY: S127 Corporations Law/Act

Certified correct for the purposes of the Real Property Act 1900 by the ~~transferor~~ corporation named below the common seal of which was affixed pursuant to the authority specified and in the presence of the authorised persons below.

Signature of transferor:

P.J. Bradfield
PETER JOHN BRADFIELD
DIRECTOR

ALICE JENNIFER BRADFIELD, DIRECTOR

BRADFIELD CORPORATE SERVICES PTY LIMITED A.C.N. 003 271 172 THE COMMON SEAL OF

Certified for the purposes of the Real Property Act 1900 by the person whose signature appears below.

Signature:

Signatory's name: ANNE ELIZABETH CLARKE
Signatory's capacity: Solicitor for Transferee

All handwriting must be in block capitals.

Form: 01T
Licence: 01-05-025
Licensee: LEAP Legal Software Pty Limited
Firm name: Harris & Harris

3/5

TRANSFER

New South Wales
Real Property Act 1900

AM179873H

PRIVACY NOTE: Section 31B of the Real Property Act 1900 (RP Act) authorises the Registrar General to collect the information required by this form for the establishment and maintenance of the Real Property Act Register. Section 96B RP Act requires that the Register is made available to any person for search upon payment of a fee, if any.

STAMP DUTY Office of State Revenue use only

Office of State Revenue NSW
Client No: 1411509 3796
Duty: $10 Trans No 5008 512 001
Asst details:

(A) TORRENS TITLE 21/2/7259

(B) LODGED BY

Document Collection Box	Name, Address or DX, Telephone, and Customer Account Number if any	CODES
124E	GlobalX Legal Solutions Pty Ltd Level 3, 175 Castlereagh Street SYDNEY 2000 LLPN : 123820V Phone [illegible] Reference: MQB-5699091	T TW

(C) TRANSFEROR Andrew Gordon HUTTON

(D) CONSIDERATION The transferor acknowledges receipt of the consideration of $3,070,000.00 and as regards

(E) ESTATE the abovementioned land transfers to the transferee an estate in fee simple.

(F) SHARE TRANSFERRED

(G) Encumbrances (if applicable):

(H) TRANSFEREE Jontina Pty Ltd ACN 615 755 532

(I) TENANCY:

DATE

(J) I certify that I am an eligible witness and that the transferor signed this dealing in my presence.
[See note* below]

Signature of witness: Linda Hutton

Name of witness: LINDA HUTTON
Address of witness: 17 ORTONA ROAD
LINDFIELD NSW 2071

Linda Hutton

Certified correct for the purposes of the Real Property Act 1900 by the transferor.

Signature of transferor:

Certified correct for the purposes of the Real Property Act 1900 by the person whose signature appears below.

Signature:

Signatory's name: Michael James Harris
Signatory's capacity: Solicitor for the Transferee

(K) The transferee's solicitor certifies that the eNOS data relevant to this dealing has been submitted and stored under eNOS ID No. 1219179 Full name: Michael James Harris Signature:

** s 117 RP Act requires that you must have known the signatory for more than 12 months or have sighted identifying documentation.*

ALL HANDWRITING MUST BE IN BLOCK CAPITALS.

Title Search

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 21/2/7259

SEARCH DATE	TIME	EDITION NO	DATE
21/12/2021	12:31 PM	6	4/12/2020

LAND

LOT 21 OF SECTION 2 IN DEPOSITED PLAN 7259
AT ST LEONARDS
LOCAL GOVERNMENT AREA LANE COVE
PARISH OF WILLOUGHBY COUNTY OF CUMBERLAND
TITLE DIAGRAM DP7259

FIRST SCHEDULE

GREATON ST LEONARDS HOLDINGS PTY LTD (T AN310071)

SECOND SCHEDULE (4 NOTIFICATIONS)

1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
2 A359301 COVENANT
3 658032 COVENANT
4 AQ612961 MORTGAGE TO MCH AGENCY SERVICES PTY LIMITED

NOTATIONS

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

Received: 21/12/2021 12:31:25

Historical Title

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
21/12/2021 12:32PM

FOLIO: 29/2/7259

First Title(s): SEE PRIOR TITLE(S)
Prior Title(s): VOL 3402 FOL 156

Recorded	Number	Type of Instrument	C.T. Issue
17/9/1989		TITLE AUTOMATION PROJECT	LOT RECORDED FOLIO NOT CREATED
7/6/1990		CONVERTED TO COMPUTER FOLIO	FOLIO CREATED CT NOT ISSUED
23/7/1992	E630426	TRANSMISSION APPLICATION	EDITION 1
20/10/1992	E838299	TRANSFER	
20/10/1992	E838300	MORTGAGE	EDITION 2
21/3/1997	2923499	DISCHARGE OF MORTGAGE	
21/3/1997	2923500	TRANSFER	
21/3/1997	2923501	MORTGAGE	EDITION 3
24/9/1998	5288063	DISCHARGE OF MORTGAGE	
24/9/1998	5288064	TRANSFER	
24/9/1998	5288065	CHANGE OF NAME	
24/9/1998	5288066	MORTGAGE	EDITION 4
31/8/2000	7057580	DISCHARGE OF MORTGAGE	
31/8/2000	7057581	CHANGE OF NAME	
31/8/2000	7057582	MORTGAGE	EDITION 5
1/3/2004	AA458665	DISCHARGE OF MORTGAGE	
1/3/2004	AA458666	MORTGAGE	EDITION 6
29/1/2009	AE466761	DISCHARGE OF MORTGAGE	
29/1/2009	AE466762	MORTGAGE	EDITION 7
14/6/2016	AK506678	CAVEAT	
20/11/2017	AM898849	WITHDRAWAL OF CAVEAT	
20/11/2017	AM898850	DISCHARGE OF MORTGAGE	
20/11/2017	AM898851	TRANSFER	
20/11/2017	AM898865	MORTGAGE	EDITION 8 CORD ISSUED

*** END OF SEARCH ***

River Road, ST LEONARDS PRINTED ON 21/12/2021

Received: 21/12/2021 12:32:16

RP3

STAMP DUTY

E 630426 W

TRANSMISSION APPLICATION

TA

SECTION 93, REAL PROPERTY ACT, 1900

(See Instructions for Completion on back of form)

	of		R
	$		

DESCRIPTION OF LAND Note (a)

LAND of which deceased is registered proprietor		
Torrens Title reference	If Part Only, Delete Whole and Give Details	Location
Certificate of Title Volume 3402 Folio 156 NOW 29/2/7259	WHOLE	at St. Leonards

REGISTERED DEALING Note (b)

LEASE, MORTGAGE, OR CHARGE of which deceased is registered proprietor			
Type of Dealing	Registered Number	Torrens Title Reference	Location

DECEASED REGISTERED PROPRIETOR Note (c)

BRIAN McMAHON GLYNN

Note (d)

(the abovenamed DECEASED) is registered as proprietor of the ~~abovementioned registered dealing~~ land above described. The APPLICANT

APPLICANT Note (e)

EAMON McMAHON GLYNN of 28 Clarkson Avenue, Brooklyn, New York, 11226

OFFICE USE ONLY

ENTITLEMENT Note (f) and (j)

being entitled as Executor of the will/~~estate~~ of the abovenamed deceased

~~Letters of Administration No.~~ Probate No. 107442/92 ~~of whose estate were~~ of whose will was granted on 11 June, 1992

to Eamon McMahon Glynn

Note (d)

hereby applies to be registered as proprietor of the estate or interest of the said deceased in the ~~abovementioned registered dealing~~ land above described.

DATE

I hereby certify this application to be correct for the purposes of the real Property Act, 1900.

Signed in my presence by the applicant who is personally known to me

MARY C. NOONAN
Notary Public, State of New York
No. 31-4875529
Qualified in New York County
Commission Expires Nov. 3, 1992

EXECUTION Note (g)

Mary C. Noonan
Signature of Witness

MARY C. NOONAN
Name of Witness (BLOCK LETTERS)

1435 York Ave. (34) NY, NY 10021
Address and Occupation of Witness

Partnership Secretary
Coopers & Lybrand

Eamon
Signature of Applicant

TO BE COMPLETED BY LODGING PARTY Notes (g) and (h)

LODGED BY BLAKE DAWSON WALDRON

238 N

Ref: Delivery Box Number RL 868/92

CT	PROBATE No. AND/OR OTHER	DATE OF DEATH	LOCATION OF DOCUMENTS
	S/R	21-2-92	Herewith.
			In L.T.O. with
			Produced by

OFFICE USE ONLY

Checked	Passed	REGISTERED - -19
Signed	Extra Fee	

Secondary Directions			
Delivery Directions			

RP 3
1987

MARY C. NOONAN
Notary Public, State of New York
No. 31-4875529
Qualified in New York County
Commission Expires Nov. 3, 1992

I/~~We~~ Eamon McMahon Glynn

executor of the will of ~~administrator of the estate of~~ Brian McMahon Glynn

consent to this application.

Signature of Witness Mary C. Noonan

Name of Witness (BLOCK LETTERS) MARY C. NOONAN

Address and Occupation of Witness 1435 York Ave. (3A) NY. NY. 10021 - Partnership Secretary Conyers & Lybrand

Signature of Executor/~~Administrator~~

CONSENT OF EXECUTOR OR ADMINISTRATOR
Note (j)

INSTRUCTIONS FOR COMPLETION

Before lodgment at the Land Titles Office this application—

(i) Should be marked "Registration not Opposed" by the Commissioner of Stamp Duties if the deceased registered proprietor died before 31st December, 1982; and

(ii) Where applicable, stamp duty should be paid and the application appropriately stamped.

Typewriting and handwriting should be clear, legible and in permanent dense black or dark blue non-copying ink.

Alterations are not to be made by erasure; the words rejected are to be ruled through and initialled by the parties to the dealing in the left hand margin.

If the space provided is insufficient, additional sheets of the same size and quality of paper and having the same margins as this form should be used. Each additional sheet must be identified as an annexure and signed by the applicant and the attesting witness.

Rule up all blanks.

The following instructions relate to the side notes on the form.

(a) Description of land. (If application is only in respect of a registered dealing, rule through this panel.)

(i) TORRENS TITLE REFERENCE. Insert the current reference to the Folio of the Register for the land the subject of the application, e.g., 12/701924 or Vol. 12364 Fol. 126.

(ii) PART/WHOLE. If part only of the land in the Folio of the Register is the subject of the application, delete the word "WHOLE" and insert the lot and plan number, portion, &c.

(iii) LOCATION. Insert the locality shown on the Folio of the Register, e.g., at Chullora. If the locality is not shown, insert the Parish and County, e.g., Ph. Lismore Co. Rous.

(b) Registered dealing. (If application is only in respect of a Certificate of Title, rule through this panel.)

Show the registered number of the lease, mortgage, or charge, the title reference affected thereby, and the location of the land involved, e.g. Lease—W123456—Vol. 12634 Fol. 124—at Camperdown.

(c) Show the full name of the deceased registered proprietor.

(d) Strike out "land above described" or "abovementioned registered dealing", whichever does not apply.

(e) Show the full name, address and description of the applicant. If devisees or beneficiaries apply, indicate whether they hold as joint tenants or tenants in common, and, if as tenants in common, state the shares in which they hold.

(f) Insert executor, administrator, trustee, devisee or beneficiary as appropriate. If letters of administration have been granted, e.g., "cum testamento annexo" or "de bonis non", the entitlement may be abbreviated, e.g. administrator c.t.a., administrator d.b.n., &c. Applicants should not claim as executor *and* devisee or executor *and* trustee.

(g) Execution.

GENERALLY (i) Should there be insufficient space for the execution of this dealing, use an annexure sheet.

(ii) The certificate of correctness under the Real Property Act, 1900, must be signed by all the applicants, each applicant to execute the dealing in the presence of an adult witness, not being a party to the application, to whom he/she is personally known. Any person falsely or negligently certifying is liable to the penalties provided by section 117 of the Real Property Act, 1900.

ATTORNEY (iii) If the application is executed by an attorney for the applicant pursuant to a registered power of attorney, the form of attestation must set out the full name of the attorney, and the form of execution must indicate the source of his/her authority, e.g. "AB by his/her attorney (or receiver or delegate, as the case may be), XY pursuant to power of attorney registered Book No. ".

AUTHORITY (iv) If the application is executed pursuant to an authority (other than specified in (iii)), the form of execution must indicate the statutory, judicial or other authority pursuant to which the application has been executed.

CORPORATION (v) If the application is executed by a corporation under seal, the form of execution should include a statement that the seal has been properly affixed, e.g. in accordance with the Articles of Association of the corporation. Each person attesting the affixing of the seal must state his/her position (e.g., director, secretary) in the corporation.

(h) Insert the name, postal address, Document Exchange reference, telephone number and delivery box number of the lodging party.

(i) The lodging party is to complete the LOCATION OF DOCUMENTS panel. Place a tick in the appropriate box to indicate the whereabouts of the Certificate of Title or duplicate registered dealing. List, in an abbreviated form, other documents lodged, e.g. stat. dec. for statutory declaration, pbte for probate, L/A for letters of administration.

(j) Consent of the executor or administrator is required only where the applicant claims otherwise than as executor, administrator, or trustee.

FIRST SCHEDULE DIRECTIONS

(A) FOLIO IDENTIFIER	(B) DIRECTION	(C) NAME	
			26
			52
			78
			104
			130

SECOND SCHEDULE AND OTHER DIRECTIONS

(D) FOLIO IDENTIFIER (OR REGD. DEALING & FOLIO IDENTIFIER)	(E) DIRECTION	(F) NOTFN TYPE	(G) DEALING NUMBER	(H) DETAILS

LO. 720

RP13

TRANSFER

Real Property Act, 1900

E 838299 S

Office o.

$200

(A) **LAND TRANSFERRED**

Show no more than 20 References to Title.
If appropriate, specify the share transferred.

FOLIO IDENTIFIER 29/2/7259

(B) **LODGED BY**

L.T.O. Box: 544F

Name, Address or DX and Telephone: MACLARENS

REFERENCE (max. 15 characters): 93-00-6357

(C) **TRANSFEROR** EAMON MCMAHON GLYNN

(D) acknowledges receipt of the consideration of $275,000.00

and as regards the land specified above transfers to the transferee an estate in fee simple

(E) subject to the following **ENCUMBRANCES** 1. NIL 2. 3.

(F) **TRANSFEREE**

T

(G) BRETT JOHN JEFFERY, MICHAEL STUART DOUGHTY and ROBERT JAMES DOUGHTY

as ~~joint tenants~~/tenants in common in equal shares

(H) We certify this dealing correct for the purposes of the Real Property Act, 1900. **DATE OF EXECUTION** 2ND OCTOBER, 1992

Signed in my presence by the transferor who is personally known to me.

MARY C. NUONAN
Notary Public, State of New York
No. 31-4875529
Qualified in New York County
Commission Expires Nov. 3, 1992

Signature of Witness

Name of Witness (BLOCK LETTERS)

1435 York Ave, NY, NY 10021
Address of Witness

Signature of Transferor

Signed in my presence by the transferee who is personally known to me.

Signature of Witness

Name of Witness (BLOCK LETTERS)

Address of Witness

RICHARD ARTHUR SCHMIDT
SOLICITOR FOR TRANSFEREES
28.8.92
Signature of Transferee

☞ **INSTRUCTIONS FOR FILLING OUT THIS FORM ARE AVAILABLE FROM THE LAND TITLES OFFICE**

CHECKED BY (office use only)

·97-01T

TRANSFER

Real Property Act, 1900

2923500 E

Office

N.S.W. STAMP DUTY
280297 6004 04 00205831/01 $1149.50

(A) **LAND TRANSFERRED**

Show no more than 20 References to Title.
If appropriate, specify the share transferred.

FOLIO IDENTIFIER 29/2/7259
as to a one third share

(B) **LODGED BY**

L.T.O. Box	Name, Address or DX and Telephone
715E	S. D. RATNER & CO. SOLICITORS 191 CLARENCE STREET SYDNEY 2000 D.X 865 715 E
	REFERENCE (max. 15 characters):

(C) **TRANSFEROR** BRETT JOHN JEFFERY

(D) acknowledges receipt of the consideration of $161,666.66

and as regards the land specified above transfers to the Transferee an estate in fee simple

(E) subject to the following **ENCUMBRANCES** 1. ..... 2. ..... 3. .....

(F) **TRANSFEREE**

T TS (s713 LGA) TW (Sheriff)	MICHAEL STUART DOUGHTY and SUZIQUE ANNE WEINE
(G)	**TENANCY:** JOINT TENANTS

(H) We certify this dealing correct for the purposes of the Real Property Act, 1900. **DATED** ~~27 February 1997~~ 12th. March 1997

Signed in my presence by the Transferor who is personally known to me.

Signature of Witness

MAUREEN ALLEN
Name of Witness (BLOCK LETTERS)

142 HIGH ST., WILLOUGHBY
Address of Witness

Signature of Transferor

Signed in my presence by the Transferee who is personally known to me.

Signature of Witness

CHRISTOPHER G. T. QUILTER
Name of Witness (BLOCK LETTERS)

1 CHANDOS ST., ST. LEONARDS
Address of Witness

SOLICITOR

Michael Doughty

27/2/97
Signature of Transferee

INSTRUCTIONS FOR FILLING OUT THIS FORM ARE AVAILABLE FROM THE LAND TITLES OFFICE

CHECKED BY (office use only)

Form: 97-01T
Licence: 026CN/0526/96

D5259 1/1

TRANSFER

New South Wales

Real Property Act 1900

5288064K

Instructions for filling out this form are available from the Land Titles Office

Office of State Revenue use only

26089B 2629 04 Z01490558/01 $5259.00
N.S.W. STAMP DUTY

(A) **LAND TRANSFERRED**
Show no more than 20 titles. If appropriate, specify the share or part transferred.

29/2/7259 AS TO A ONE THIRD SHARE

(B) **LODGED BY**

LTO Box	Name. Address or DX and Telephone
659M	REFERENCE (15 character maximum): 464 042587501

(C) **TRANSFEROR** ROBERT JAMES DOUGHTY

(D) acknowledges receipt of the consideration of $193000.00
and as regards the land specified above transfers to the transferee an estate in fee simple.

(E) Encumbrances (if applicable) 1. 2. 3.

(F) **TRANSFEREE**

T TS (s713 LGA) TW (Sheriff)	MICHAEL STUART DOUGHTY & SUZIQUE ANNE WEINE TENANCY: JOINT TENANTS

(G)

(H) We certify this dealing correct for the purposes of the Real Property Act 1900. DATE 19 AUG 98
Signed in my presence by the transferor who is personally known to me.

Signature of Witness

RICHARD ARTHUR SCHMIDT
Name of Witness (BLOCK LETTERS)

1 CHANDOS ST, ST LEONARDS
Address of Witness

Robert Doughty
Signature of Transferor

Signed in my presence by the transferee who is personally known to me.

Signature of Witness

RICHARD ARTHUR SCHMIDT
Name of Witness (BLOCK LETTERS)

1 CHANDOS ST, ST LEONARDS
Address of Witness

Suzique Ann
Michael Doughty
Signature of Transferee

NB: if signed on the transferee's behalf by a solicitor or licensed conveyancer, show the signatory's full name in block letters.

CHECKED BY (LTO use) RJ

#ma_980324_3.doc

Form: 01T
Release: 6·1

TRANSFER

New South Wales
Real Property Act 1900

AM898851H

PRIVACY NOTE: Section 31B of the Real Property Act 1900 (RP Act) authorises the R by this form for the establishment and maintenance of the Real Property A the Register is made available to any person for search upon payment of a fee, if any.

STAMP DUTY Office of State Revenue use only

Office of State Revenue
NSW Treasury
Client No: 119578250 3560
Duty: 10·00 Trans No: 9221915-001
Asst details:

(A) **TORRENS TITLE** 29/2/7259

(B) **LODGED BY**

Document Collection Box	Name, Address or DX, Telephone, and Customer Account Number if any	CODES
	M J ARMSTRONG & CO - DENTONS 654X LPP:131317K Reference: 39695	T TW

(C) **TRANSFEROR** Michael Stuart Doughty and Suzique Ann Doughty

(D) **CONSIDERATION** The transferor acknowledges receipt of the consideration of $ 6,541,666.00 and as regards

(E) **ESTATE** the abovementioned land transfers to the transferee an estate in fee simple

(F) **SHARE TRANSFERRED**

(G) Encumbrances (if applicable):

(H) **TRANSFEREE** SJD St Leonards Pty Ltd ACN 606 429 896

(I) **TENANCY:**

DATE 13/11/2017

(J) I certify I am an eligible witness and that the transferor signed this dealing in my presence. [See note* below]

Signature of witness:

Name of witness: Michael John Beverley
Address of witness: Solicitor & Attorney
L2, 1 Innovation Road
North Ryde NSW 2113
Law Society # 1205

Certified correct for the purposes of the Real Property Act 1900 by the transferor.

Signature of transferor: Michael Doughty

Certified correct for the purposes of the Real Property Act 1900 on behalf of the transferee by the person whose signature appears below.

Signature:

Signatory's name: Daniel John Marucci
Signatory's capacity: solicitor

(K) The transferee's solicitor certifies that the eNOS data relevant to this dealing has been submitted and stored under eNOS ID No. 1439015 Full name: Daniel John Marucci Signature:

** s117 RP Act requires that you must have known the signatory for more than 12 months or have sighted identifying documentation.*

ALL HANDWRITING MUST BE IN BLOCK CAPITALS

1303

Title Search

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 29/2/7259

SEARCH DATE	TIME	EDITION NO	DATE
21/12/2021	12:31 PM	8	20/11/2017

LAND

LOT 29 OF SECTION 2 IN DEPOSITED PLAN 7259
AT ST LEONARDS
LOCAL GOVERNMENT AREA LANE COVE
PARISH OF WILLOUGHBY COUNTY OF CUMBERLAND
TITLE DIAGRAM DP7259

FIRST SCHEDULE

SJD ST LEONARDS PTY LTD (T AM898851)

SECOND SCHEDULE (3 NOTIFICATIONS)

1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
2 A241721 COVENANT
3 AM898865 MORTGAGE TO ING BANK (AUSTRALIA) LIMITED

NOTATIONS

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

River Road, ST LEONARDS PRINTED ON 21/12/2021

Received: 21/12/2021 12:31:25

[redacted]FICATE OF TITLE

NEW SOUTH WALES

[redacted]L PROPERTY ACT, 1900

13276199

Appln No. 3083

Prior Title Vol. 3753 Fol. 9

Vol. 13276 Fol. 199

EDITION ISSUED

CANCELLED 30 3 1977

(Page 1) Vol. 13276 Fol. 199

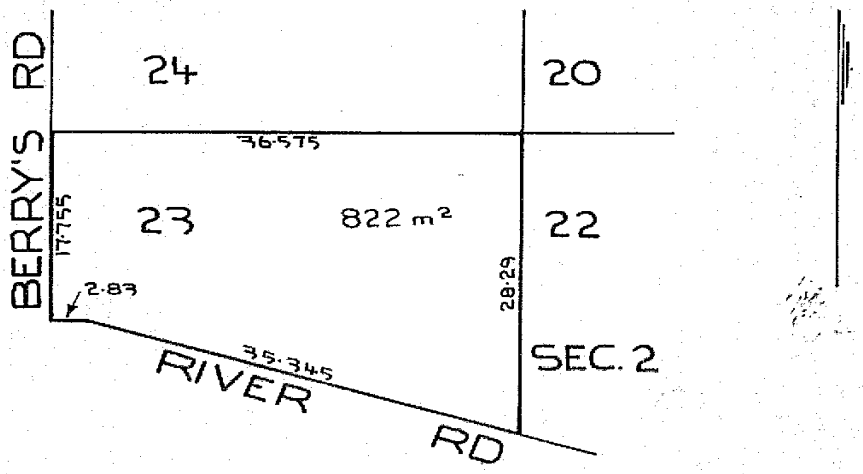
I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

SEE AUTO FOLIO

Registrar General.

PLAN SHOWING LOCATION OF LAND

LENGTHS ARE IN METRES



Q71248

REDUCTION RATIO 1:500

S

ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 23 of Section 2 in Deposited Plan 7259 in the Municipality of Lane Cove Parish of Willoughby and County of Cumberland being part of Portion 323 granted to Edward Wollstonecraft on 30-6-1825.

FIRST SCHEDULE

~~GLENN LAWRENCE BARNES of Baulkham Hills, Group Product Manager and SANDRA ANN BARNES his wife, as Joint Tenants.~~

GRY

SECOND SCHEDULE

1. Reservations and conditions, if any, contained in the Crown Grant above referred to.
2. ~~Mortgage No. Q71248 to Government Insurance Office of New South Wales. Registered 14-2-1977.~~ Discharged Q585480

Res Cen 7-3-1977

Vol. 13276 Fol. 199

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar General
George Washington Butler of Retired and Gillian Harrison, Receptionist both of Greenwich as joint tenants.	Transfer	Q585481	-------	2-3-1978	
Vera Beryl Ireland of Rose Bay, Home Duties	Transfer	R65815	-------	7-2-1979	

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar General	CANCELLATION		
Mortgage	Q585482	------	to N.S.W. Permanent Building Society Limited.	2-3-1978		Discharged	R65814	
Mortgage	R65816	------	to John William Charles d'Apice and Hugh Desmond Odillo d'Apice both of Sydney, Solicitors	7-2-1979		Discharged	R541849	
Mortgage	R541850 P	------	to John William Charles d'Apice and Hugh Desmond Odillo d'Apice, both of Sydney, Solicitors, as joint tenants	28-11-1979				
R541850 P Mortgage. T323384 Variation. Registered 26-11-1982.								
R541850 P Mortgage. X247355 Variation. Registered 8-12-1987.								

CANCELLED

SEE AUTO FOLIO

(Page 2 of 2 pages)

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED

Historical Title

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
21/12/2021 6:04PM

FOLIO: 23/2/7259

First Title(s): SEE PRIOR TITLE(S)
Prior Title(s): VOL 13276 FOL 199

Recorded	Number	Type of Instrument	C.T. Issue
8/8/1989		TITLE AUTOMATION PROJECT	LOT RECORDED FOLIO NOT CREATED
14/9/1989		CONVERTED TO COMPUTER FOLIO	FOLIO CREATED CT NOT ISSUED
26/9/1989	Y599764	DISCHARGE OF MORTGAGE	
26/9/1989	Y599765	TRANSFER	
26/9/1989	Y599766	MORTGAGE	EDITION 1
27/7/1993	I516739	DISCHARGE OF MORTGAGE	
27/7/1993	I516740	TRANSFER	
27/7/1993	I516741	MORTGAGE	EDITION 2
8/2/2002	DP1037926	DEPOSITED PLAN	FOLIO CANCELLED

*** END OF SEARCH ***

River Road, ST LEONARDS PRINTED ON 21/12/2021

Received: 21/12/2021 18:04:54

RP 13 STAMP DUTY

[redacted]

Y599765

$1 /

TRANSFER

REAL PROPERTY ACT, 1900

T | 2 | 2 of 3 | X | R 2/3 | $ 44

Torrens Title Reference	If Part Only, Delete Whole and Give Details	Location
DESCRIPTION OF LAND Note (a) CERTIFICATE OF TITLE VOLUME 13276 FOLIO 199 NOW BEING WHOLE OF LAND COMPRISED IN FOLIO/C.T. 23/2/7259	WHOLE	PARISH OF WILLOUGHBY COUNTY OF CUMBERLAND

TRANSFEROR Note (b)

VERA BERYL IRELAND of Rose Bay, Home Duties

ESTATE Note (c)

(the abovenamed TRANSFEROR) hereby acknowledges receipt of the consideration of $ 231,000.00 and transfers an estate in fee simple in the land above described to the TRANSFEREE

TRANSFEREE Note (d)

BALLASAL PTY. LIMITED a company duly incorporated in the State of New South Wales and having its registered office at 36 Lonsdale Street Lilyfield

OFFICE USE ONLY S

TENANCY Note (e)

as joint tenants/tenants in common

PRIOR ENCUMBRANCES Note (f)

subject to the following PRIOR ENCUMBRANCES 1. ..... 2. ..... 3. .....

DATE 24th AUGUST 1989.

We hereby certify this dealing to be correct for the purposes of the Real Property Act, 1900.

EXECUTION Note (g)

Signed in my presence by the transferor who is personally known to me

.....
Signature of Witness

ROBERT IRELAND
Name of Witness (BLOCK LETTERS)

50 FRANKS FOREST RD
Address and occupation of Witness

INVALID PROF.

.....
Signature of Transferor

Note (g)

Signed in my presence by the transferee who is personally known to me

.....
Signature of Witness

.....
Name of Witness (BLOCK LETTERS)

.....
Address and occupation of Witness

NATIONAL AUSTRALIA BANK LIMITED
National Australia Bank Limited
255 George Street, Sydney
237-1111 FAX 237-1284
45A

RICHARD ARTHUR SCHMIDT by his partner TIMOTHY NICHOLSON
SOLICITOR FOR TRANSFEREE
5.6.89.....
Signature of Transferee

TO BE COMPLETED BY LODGING PARTY Notes (h) and (i)

LODGED BY NATIONAL AUSTRALIA BANK LIMITED [illegible] Street, Sydney [illegible] FAX 237-1284

Ref: 45A

Delivery Box Number

LOCATION OF DOCUMENTS	CT	OTHER	
	1		Herewith.
			In L.T.O. with
			Produced by

OFFICE USE ONLY

Checked	Passed	REGISTERED - -19	Secondary Directions		
KAH		26 SEP 1989			
Signed	Extra Fee		Delivery Directions		

NSW $*********1.00 STAMP DUTY 25/07/89 22452 X

RP13

TRANSFER

Real Property Act, 1900

I 516740 D

Office of State Revenue use only

OFFICE OF STATE REVENUE F42
STAMP DUTY 1992 93
DUTY $ 5315-00 ... 200484938

B

(A) **LAND TRANSFERRED**
Show no more than 20 References to Title.
If appropriate, specify the share transferred.

FOLIO IDENTIFIER 23/2/7259

(B) **LODGED BY**

L.T.O. Box
45A

Name, Address or DX and Telephone: NATIONAL AUSTRALIA BANK LIMITED
National Australia Bank House
255 George Street, Sydney
237 - 1111 FAX 237 - 1284
REFERENCE (max. 15 characters): CG5003

(C) **TRANSFEROR** BALLASAL PTY LIMITED
A.C.N. 001 697 338.

(D) acknowledges receipt of the consideration of $170,000.00 ~~$180,000.00~~
and as regards the land specified above transfers to the transferee an estate in fee simple

(E) subject to the following **ENCUMBRANCES** 1. .... 2. .... 3. ....

(F) **TRANSFEREE**

(G) T

DEBORAH VERONICA GERVAY

as joint tenants/tenants in common

(H) We certify this dealing correct for the purposes of the Real Property Act, 1900. DATE OF EXECUTION 26 JUN 92

THE COMMON SEAL of BALLASAL PTY LIMITED
Signed in my presence by the transferor who is personally known to me.
ACN 001 697 338. was hereunto
affixed in the presence of:

Common Seal BALLASAL PTY. LTD. A.C.N. 001 697 338

....
Signature of Witness

.... Secretary. Director
Name of Witness (BLOCK LETTERS)

....
Address of Witness

....
Signature of Transferor

Signed in my presence by the transferee who is personally known to me.

....
Signature of Witness

....
Name of Witness (BLOCK LETTERS)

....
Address of Witness

RICHARD ARTHUR SCHMIDT
SOLICITOR FOR TRANSFEREE.

INSTRUCTIONS FOR FILLING OUT THIS FORM ARE AVAILABLE FROM THE LAND TITLES OFFICE

CHECKED BY (office use only)

Historical Title

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
21/12/2021 12:32PM

FOLIO: 1/1037926

First Title(s): OLD SYSTEM
Prior Title(s): 23/2/7259

Recorded	Number	Type of Instrument	C.T. Issue
8/2/2002	DP1037926	DEPOSITED PLAN	FOLIO CREATED EDITION 1
28/6/2002	8695477	TRANSFER	
28/6/2002	8700926	TRANSFER GRANTING EASEMENT	EDITION 2
27/11/2002	9163868	DISCHARGE OF MORTGAGE	
27/11/2002	9163869	TRANSFER	EDITION 3
17/7/2003	9792374	MORTGAGE	EDITION 4
28/6/2013	AH844570	DISCHARGE OF MORTGAGE	
28/6/2013	AH844571	TRANSFER	
28/6/2013	AH844572	MORTGAGE	EDITION 5
1/4/2015	AJ376288	CAVEAT	
23/12/2016	AM22173	WITHDRAWAL OF CAVEAT	
13/1/2017	AM55201	DISCHARGE OF MORTGAGE	
13/1/2017	AM55202	TRANSFER	
13/1/2017	AM55203	MORTGAGE	EDITION 6
6/11/2017	AM863765	CAVEAT	
19/1/2018	AN55414	DISCHARGE OF MORTGAGE	
19/1/2018	AN55415	MORTGAGE	EDITION 7
3/5/2018	AN308578	WITHDRAWAL OF CAVEAT	
3/5/2018	AN308579	DISCHARGE OF MORTGAGE	
3/5/2018	AN308580	TRANSFER	EDITION 8
22/10/2018	AN798221	MORTGAGE	EDITION 9
4/12/2020	AQ612959	DISCHARGE OF MORTGAGE	
4/12/2020	AQ612961	MORTGAGE	EDITION 10
16/3/2021	AQ873450	CAVEAT	
19/7/2021	AR255005	WITHDRAWAL OF CAVEAT	

END OF PAGE 1 - CONTINUED OVER

SEARCH DATE
21/12/2021 12:32PM

FOLIO: 1/1037926

Recorded	Number	Type of Instrument	C.T. Issue

*** END OF SEARCH ***

Form: 01TE
Licence: 01-09-046
Licensee: Aust. Forms P/L

TRANSFER INCLUDING EASEM

New South Wales
Real Property Act 190

8695477M

PRIVACY NOTE: this information is legally required and will become part of the public record

STAMP DUTY Office of State Revenue use only

(A) **TORRENS TITLE** Land transferred: 2/1037926

(B) **TENEMENTS**

Servient (land burdened)	Dominant (land benefited)
1/1037926	2/1037926

(C) **LODGED BY**

Delivery Box	Name, Address or DX and Telephone		CODE
20S	ANZ Reference (optional): 3449 50405	OVER SEE ANNEXURE 'C'	TE

(D) **TRANSFEROR** DEBORAH VERONICA GERVAY

(E) The transferor acknowledges receipt of the consideration of $ ~~460,000.00~~ and transfers

(F) to the transferee an estate in fee simple; and the transferor — GRANTS an easement as set out in Schedule 1 hereto.
— RESERVES an easement as set out in Schedule 2 hereto.

(G) Encumbrances (if applicable): 1. 2. 3.

(H) **TRANSFEREE** CHRISTINE DALEY and STEPHEN MILES ELCOATE

(I) **TENANCY** TENANTS IN COMMON IN EQUAL SHARES

DATE 05 / 04 / 02 (dd mm yyyy)

(J) I certify that the transferor, with whom I am personally acquainted or as to whose identity I am otherwise satisfied, signed this transfer in my presence.

Signature of witness:

Name of witness: RICHARD SCHMIDT

Address of witness: SOLICITOR, SYDNEY

Certified correct for the purposes of the Real Property Act 1900 by the transferor.

Signature of transferor:

I certify that the transferee, with whom I am personally acquainted or as to whose identity I am otherwise satisfied, signed this transfer in my presence.

Signature of witness:

Name of witness:

Address of witness:

Certified correct for the purposes of the Real Property Act 1900 by the transferee.

Signature of transferee:

Shaun Mulholland (Solicitor)

All handwriting must be in block capitals.

CT 1/1037926 Prod. 45A. for this dealing 11.6.02

(K) **SCHEDULE 1**

Grant of easement

complete the tenements panel on the front

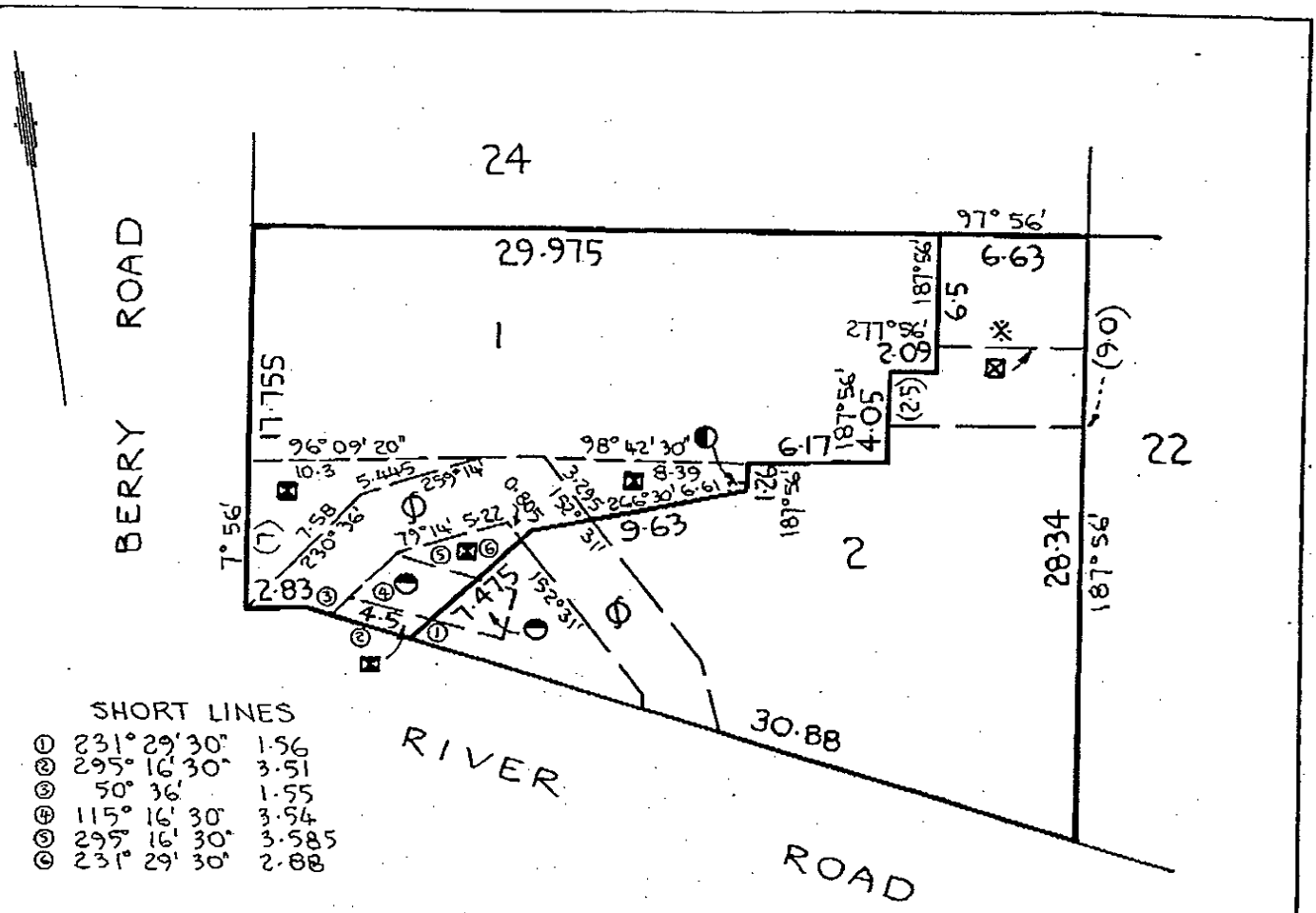
'B'

FILM WITH 8695477

The transferor GRANTS

to the transferee full and free right for the body in whose favour this easement is created, and every person authorised by it, from time to time and at all times to pass and re-pass and to enter upon the servient tenement and to remain there for any reasonable time for the purpose of passive recreation including horticultural purposes. The said easement shall cover the area indicated in the plan annexed hereto and marked "A".

/7 FILM WITH 8695477



SHORT LINES

①	231° 29' 30"	1.56
②	295° 16' 30"	3.51
③	50° 36'	1.55
④	115° 16' 30"	3.54
⑤	295° 16' 30"	3.585
⑥	231° 29' 30"	2.88

Ø RIGHT OF CARRIAGEWAY 3 WIDE

◓ EASEMENT FOR PARKING 2.5 WIDE

⊠ EASEMENT TO DRAIN SEWAGE OVER EXISTING LINE OF PIPES (APPROXIMATE POSITION)

◐ EASEMENT FOR OVERHANG VARIABLE WIDTH

※ EASEMENT FOR PASSIVE RECREATION 9 WIDE & 2.5 WIDE

◘ EASEMENT FOR PASSIVE RECREATION VARIABLE WIDTH

PLAN SHOWING EASEMENTS FOR PASSIVE RECREATION

LOTS 1 & 2 DP 1037926

TITLE REF 1 & 2/1037926

L.G.A. LANE COVE

LOCALITY ST LEONARDS

RATIO 1:300 DATE 11 JAN 2002 REF S8063

MBS GREEN & ASSOCIATES
Pty Ltd
REGISTERED SURVEYORS

Suite 34, 12 Waratah Street
Mona Vale NSW 2103
Ph 9999 3811 Fax 9979 5847

REGISTRATION DIRECTION ANNEXURE

Use this side only for **First and Second Schedule** directions

DO NOT USE BOTH SIDES OF THE FORM

FIRST SCHEDULE DIRECTIONS

FOLIO IDENTIFIER	DIRECTION	DETAILS
2/1037926	T2	CHRISTINE DALEY AND STEPHEN MILES ELCOATE

SECOND SCHEDULE AND OTHER DIRECTIONS

FOLIO IDENTIFIER	DIRECTION	NOTFN TYPE	DEALING NUMBER	DETAILS
1/1037926	GN	EA		EASEMENT FOR PASSIVE RECREATION VARIABLE WIDTH AFFECTING THE PART SHOWN SO BURDENED IN PLAN WITH 8695477
2/1037926	ON	EA		EASEMENT FOR PASSIVE RECREATION VARIABLE WIDTH APPURTENANT TO THE LAND ABOVE DESCRIBED AFFECTING THE PART SHOWN SO BURDENED IN PLAN WITH 8695477.
		*		

Form: 01T
Licence: 01-05-025
Licensee: Holman Webb

TRANSFER

New South Wales
Real Property Act 1900

9163869M

PRIVACY NOTE: this information is legally required and will become part of the public record

STAMP DUTY

Office of State Revenue use only

NEW SOUTH WALES DUTY
22-10-2002 0001152212-001
SECTION 18(2)
DUTY $ A**********2.00

(A) TORRENS TITLE

If appropriate, specify the part transferred
1/1037926

(B) LODGED BY

Delivery Box

Name, Address or DX and Telephone

HOLMAN WEBB
DX 233 SYDNEY
L.T.O. BOX 406T

Reference (optional): RC STS 819/16

CODES
T
TW
(Sheriff)

(C) TRANSFEROR

DEBORAH VERONICA GERVAY

(D) CONSIDERATION The transferor acknowledges receipt of the consideration of $580,000.00 and as regards

(E) ESTATE The land specified above transfers to the transferee an estate in fee simple.

(F) SHARE TRANSFERRED

(G) Encumbrances (if applicable) 1. 2. 3.

(H) TRANSFEREE

ALISON MARGARET STEVENS

(I) TENANCY:

DATE 14-11-2002

(J) I certify that the transferor, with whom I am personally acquainted or as to whose identity I am otherwise satisfied, signed this instrument in my presence.

Signature of witness:

Name of witness: M GERVAY (MEGAN GERVAY)

Address of witness: 9 MITCHELL ST GREENWICH

Certified correct for the purposes of the Real Property Act 1900 by the transferor.

Signature of transferor:

Certified correct for the purposes of the Real Property Act 1900 by the person whose signature appears below.

Signature:

Signatory's name: Roger John Cornforth
Signatory's capacity: Solicitor for Transferee

ALL HANDWRITING MUST BE IN BLOCK CAPITALS

Form: 01T
Release: 4.1
www.lpma.nsw.gov.au

TRANSFER

New South Wales
Real Property Act 1900

AH844571T

PRIVACY NOTE: Section 31B of the Real Property Act 1900 (RP Act) authorises the Registrar General to collect the information required by this form for the establishment and maintenance of the Real Property Act Register. Section 96B RP Act requires that the Register is made available to any person for search upon payment of a fee, if any.

STAMP DUTY — Office of State Revenue use only

Office of State Revenue
NSW Treasury
Client No: 2574638 185
Duty: $10 Trans No: 7152152
Asset details:

(A) TORRENS TITLE — Folio Identifier 1/1037926

(B) LODGED BY

Document Collection Box	Name, Address or DX, Telephone, and Customer Account Number if any	CODES
45A	LLPN: 123011G Level 5, Building C 1 Homebush Bay Drive Rhodes, NSW 2138 Reference: 13EJ6802	T JT TF TJ TK TW

(C) TRANSFEROR — ALISON MARGARET STEVENS

(D) CONSIDERATION — The transferor acknowledges receipt of the consideration of $ 875,500.00 and as regards
(E) ESTATE — the abovementioned land transfers to the transferee an estate in fee simple

(F) SHARE TRANSFERRED —

(G) Encumbrances (if applicable):

(H) TRANSFEREE — NATHAN MATTHEW HOGAN and JILLIAN LEE HOGAN

(I) TENANCY: JOINT TENANTS

DATE

(J) I certify that the person(s) signing opposite, with whom I am personally acquainted or as to whose identity I am otherwise satisfied, signed this instrument in my presence.

Signature of witness:

Name of witness:
Address of witness:

Certified correct for the purposes of the Real Property Act 1900 by the transferor.

Signature of transferor:

See "ANNEXURE A" ATTACHED

Certified correct for the purposes of the Real Property Act 1900 by the person whose signature appears below.

Signature:

Signatory's name: David Ronald Pickering
Signatory's capacity: transferees' solicitor

(K) The transferee's solicitor certifies that the eNOS data relevant to this dealing has been submitted and stored under eNOS ID No. 426286 Full name: David Ronald Pickering Signature:

1008

ALL HANDWRITING MUST BE IN BLOCK CAPITALS.

LAND AND PROPERTY MANAGEMENT AUTHORITY

THIS IS ANNEXURE "A" OF 1 PAGE REFERRED TO IN TRANSFER BETWEEN Alison Margaret Stevens (AS TRANSFEROR) AND Nathan Matthew Hogan and Jillian Lee Hogan (AS TRANSFEREE)

DATED THIS DAY OF 2013

I certify that I am an eligible witness and that the transferor signed this dealing in my presence.

Signature of witness:

CHRISTOPHER REGINALD MILEY
Name of witness:

Address of witness:
8 MERRENBURN AVENUE
NARRAMBURN NSW 2065

Certified correct for the purposes of the Real Property Act 1900 by the transferor.

Signature of transferor:

Form: 01T
Licence: 01-05-025
Licensee: LEAP Legal Software Pty Limited
Firm name: Harris & Harris

TRANSFER

New South Wales
Real Property Act 1900

AM55202B

PRIVACY NOTE: Section 31B of the Real Property Act 1900 (RP Act) authorises th
by this form for the establishment and maintenance of the Real Property
the Register is made available to any person for search upon payment of a fee, if any.

STAMP DUTY Office of State Revenue use only

Office of State Revenue
NSW Treasury
Client No: 1411509 2652
Duty: $10 Trans No: 8976987-001
Asst details: 13/1/17

(A) **TORRENS TITLE** 1/1037926

(B) **LODGED BY**

Document Collection Box	Name, Address or DX, Telephone, and Customer Account Number if any	CODES
128V	GILBERT + TOBIN, L35, Tower Two, International Towers Sydney, 200 Barangaroo Ave, Barangaroo NSW 2000 TEL: 92634832 LLPN: 123065G Reference: AAH: 1032095	T TW

(C) **TRANSFEROR** Nathan Matthew HOGAN and Jillian Lee HOGAN

(D) **CONSIDERATION** The transferor acknowledges receipt of the consideration of $1,625,000.00 and as regards
(E) **ESTATE** the abovementioned land transfers to the transferee an estate in fee simple.

(F) **SHARE TRANSFERRED**

(G) Encumbrances (if applicable):

(H) **TRANSFEREE** Dino DINOV

(I) **TENANCY:**

DATE 13 January 2017

(J) I certify that I am an eligible witness and that the transferor signed this dealing in my presence.
[See note* below]

Signature of witness:

Name of witness: Roderick Ahern
Address of witness: 21 Simon Place
Hornsby Heights
NSW 2077

Certified correct for the purposes of the Real Property Act 1900 by the transferor.

Signature of transferor:

Certified correct for the purposes of the Real Property Act 1900 by the person whose signature appears below.

Signature:

Signatory's name: Michael James Harris
Signatory's capacity: Solicitor for the Transferee

(K) The transferee's solicitor certifies that the eNOS data relevant to this dealing has been submitted and stored under eNOS ID No. 1203572 Full name: Michael James Harris Signature:

* *s 117 RP Act requires that you must have known the signatory for more than 12 months or have sighted identifying documentation.*

ALL HANDWRITING MUST BE IN BLOCK CAPITALS.

Title Search

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 1/1037926

SEARCH DATE	TIME	EDITION NO	DATE
21/12/2021	12:31 PM	10	4/12/2020

LAND

LOT 1 IN DEPOSITED PLAN 1037926
AT ST LEONARDS
LOCAL GOVERNMENT AREA LANE COVE
PARISH OF WILLOUGHBY COUNTY OF CUMBERLAND
TITLE DIAGRAM DP1037926

FIRST SCHEDULE

GREATON ST LEONARDS HOLDINGS PTY LTD (T AN308580)

SECOND SCHEDULE (11 NOTIFICATIONS)

1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
2 DP1037926 RIGHT OF CARRIAGEWAY 3 METRE(S) WIDE AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
3 DP1037926 RIGHT OF CARRIAGEWAY 3 METRE(S) WIDE APPURTENANT TO THE LAND ABOVE DESCRIBED
4 DP1037926 EASEMENT FOR PARKING 2.5 METRE(S) WIDE AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
5 DP1037926 EASEMENT FOR PARKING 2.5 METRE(S) WIDE APPURTENANT TO THE LAND ABOVE DESCRIBED
6 DP1037926 EASEMENT TO DRAIN SEWAGE OVER EXISTING LINE OF PIPES APPURTENANT TO THE LAND ABOVE DESCRIBED
7 DP1037926 EASEMENT FOR OVERHANG VARIABLE WIDTH AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
8 DP1037926 RESTRICTION(S) ON THE USE OF LAND
9 8695477 EASEMENT FOR PASSIVE RECREATION VARIABLE WIDTH AFFECTING THE PART SHOWN SO BURDENED IN PLAN WITH 8695477
10 8700926 EASEMENT FOR PASSIVE RECREATION VARIABLE WIDTH APPURTENANT TO THE LAND ABOVE DESCRIBED AFFECTING THE PART SHOWN SO BURDENED IN THE PLAN WITH 8700926
11 AQ612961 MORTGAGE TO MCH AGENCY SERVICES PTY LIMITED

NOTATIONS

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

River Road, ST LEONARDS PRINTED ON 21/12/2021

Received: 21/12/2021 12:31:26

Section 10.7 Certificates

Lane Cove Council
48 Longueville Road, Lane Cove NSW 2066 Tel: 9911 3555 Fax: 9911 3600

PLANNING CERTIFICATE

Under Section10.7 Environmental Planning and Assessment Act, 1979

Applicant:
JK Environments Pty Ltd
Attention: Katrina Taylor
PO Box 976
North Ryde BC NSW 1670

Date of Issue: 13/12/2021
Council Reference: 205573
Applicant Reference: E33629BT
Certificate No: 1979

Property address: **22 Berry Road ST LEONARDS NSW 2065**
Description: **Lot: 29 Sec: 2 DP: 7259**
Property Reference: **4903**

INFORMATION PROVIDED PURSUANT TO SECTION 10.7(2) & (5) OF THE ACT

The planning information contained in this certificate applies specifically to the land.

Table of Contents

PO Box 20 Lane Cove NSW 1595, Lane Cove
Email - service@lanecove.nsw.gov.au • Website - www.lanecove.nsw.gov.au • ABN 42 062 211 626

PART 2:

Sec: 1 Names of relevant planning instruments and DCP

1) The name of each environmental planning instrument that applies to the carrying out of development on the land.
Lane Cove Local Environmental Plan 2009 - gazetted on 19 February 2010

State Environmental Planning Policy No.19: Bushland in Urban Areas - gazetted 24 October 1986

State Environmental Planning Policy No.55: Remediation of Land - gazetted 28 August 1998

State Environmental Planning Policy No.64: Advertising and Signage - gazetted 16 March 2001

State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004 - gazetted 25 June 2004

State Environmental Planning Policy (Housing for seniors or people with a disability) 2004 Amendment No.2 - gazetted 31 March 2004 effective 12 October 2007

State Environmental Planning Policy (Temporary Structures and Places of Public Entertainment) - gazetted 28 September 2007

State Environmental Planning Policy (Infrastructure) 2007 - gazetted 21 December 2007; commenced 1 January 2008

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State Environmental Planning Policiy (Affordable Rental Housing) 2009, gazetted: 31 September 2009

State Environmental Planning Policy (Major Projects) 2005 - gazetted 1 August 2005. Replaced by State Environmental Planning Policy (State Significant Precincts) 2005.

State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017 - gaztted 25 August 2017

2) The name of each proposed environmental planning instrument that will apply to the carrying out of development on the land and that is or has been the subject of community consultations or on public exhibition under the Act (unless the Director-General has notified the council that the making of the proposed instrument has been deferred indefinitely or has not been approved)
Planning Proposal 25 (St Leonards South) to amend Local Environmental Plan 2009 applies to this land. This amendment was gazetted on 31 August 2020, but does not take effect until 1 November 2020

3) The name of each development control plan that applies to the carrying out of development on the land.
Lane Cove Development Control Plan, effective 22 February 2010

4) In this clause, proposed environmental planning instrument includes a planning proposal for a LEP or draft environmental planning instrument.

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Sec: 2 Zoning and land use under relevant LEPs

The land is zoned: High Density Residential R4

1) Objectives of zone

- To provide for the housing needs of the community within a high density residential environment.
- To provide a variety of housing types within a high density residential environment.
- To enable other land uses that provide facilities or services to meet the day to day needs of residents.
- To provide for a high concentration of housing with good access to transport, services and facilities.
- To ensure that the existing amenity of residences in the neighbourhood is respected.
- To avoid the isolation of sites resulting from site amalgamation.
- To ensure that landscaping is maintained and enhanced as a major element in the residential environment.

2) Permitted without consent

Nil

3) Permitted with consent

Bed and breakfast accommodation; Boarding houses; Centre-based child care facilities; Community facilities; Exhibition homes; Group homes; Home businesses; Home industries; Hotel or motel accommodation; Multi dwelling housing; Neighbourhood shops; Oyster aquaculture; Places of public worship; Residential flat buildings; Respite day care centres; Restaurants or cafes; Roads; Shop top housing; Signage

4) Prohibited

Pond-based aquaculture; Tank-based aquaculture Any development not specified in item 2 or 3

5) Whether any development standards applying to the land fix minimum land dimensions for the erection of a dwelling-house on the land and, if so, the minimum land dimensions so fixed:
No

6) Whether the land includes or comprises critical habitat:
NO

7) Whether the land is in a conservation area (however described):
NO

8) Whether an item of environmental heritage (however described) is situated on the land:
NO

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Sec: 2A Zoning and land use under State Environmental Planning Policy (Sydney Region Growth Centres) 2006

Not applicable.

Sec: 3 Complying development

1) The extent to which the land is on which complying development may be carried out under each of the codes for complying development because of the provisions of clauses 1.17A (1) (c) to (e), (2), (3) and (4) and 1.19 of State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

2) The extent to which complying development may not be carried out on that land because of the provisions of clauses 1.17A (1)(c) to (e), (2), (3) and (4) and 1.19 of that Policy and the reasons why it may not be carried out under those clauses.

3) If the council does not have sufficient information to ascertain the extent to which complying development may or may not be carried out on the land, a statement that a restriction applies to the land, but it may not apply to all of the land, and that council does not have sufficient information to ascertain the extent to which complying development may or may not be carried out on the land.

(1) Complying development may be carried out on the land as a whole under the SEPP in accordance with the following Codes (unless the land is excluded elsewhere in this Section):- Housing Code, Housing Alterations Code, General Development Code, Subdivision Code, Demolition Code and/or Fire Safety Code.

(2) Not applicable.

(3) Not applicable

Sec: 4 Coastal Protection

Whether or not the land is affected by the operation of section 38 or 39 of the Coastal Protection Act 1979, but only to the extent that the council has been so notified by the Department of Services, Technology and Administration.

NO

Sec: 4A Certain information relating to beaches and coasts

Not applicable.

Sec: 4B Annual charges under Local Government Act 1993 for coastal protection services that relate to existing coastal protection works

Not applicable.

Sec: 5 Mine subsidence

Whether or not the land is proclaimed to be a mine subsidence district within the meaning of section 15 of the *Mine Subsidence Compensation Act 1961*:
NO

Sec: 6 Road widening and road realignment

Whether or not the land is affected by any road widening or road realignment under:

a) Division 2 of Part 3 of the *Roads Act 1993*:
Not affected by road widening

b) Any environmental planning instrument:
NO

c) Any resolution of the council:
NO

Sec: 7 Council and other public authority policies on hazard risk restrictions

Whether or not the land is affected by a policy:
a) Adopted by the council, or
b) Adopted by any other public authority and notified to the council for the express purpose of its adoption by that authority being referred to in planning certificates issued by the council, that restricts the development of the land because of the likelihood of :-

Land slip:
NO

Bushfire:
See Section 11.

Tidal inundation:
NO

Subsidence:
NO

Acid Sulphate soils:
NO

Sec: 7A Flood related development controls information

1) Whether or not development on that land or part of the land for the purposes of dwelling houses, dual occupancies, multi dwelling housing or residential flat buildings (not including development for the purposes of group homes or seniors housing) is subject to flood related development controls.
The Lane Cove Development Control Plan - effective 22 February 2010 - applies

2) Whether or not development on that land or part of the land for any other purpose is subject to flood related development controls.
The Lane Cove Development Control Plan - effective 22 February 2010 - applies

Overland Flow
A study is currently being undertaken to determine exact locations subject to overland flow in the Municipality of Lane Cove. Until such time as Council has completed this work, property owners should conduct their own investigations to be satisfied that this property is not affected by overland flow.

Words and expressions in this clause have the same meanings as in the standard instrument set out in the *Standard Instrument (Local Environmental Plans) Order 2006*.

Sec: 8 Land reserved for acquisition

Whether or not any environmental planning instrument or proposed environmental planning instrument referred to in clause 1 makes provision in relation to the acquisition of the land by a public authority, as referred to in section 27 of the Act.
NO

Sec: 9 Contributions plans

Lane Cove Section 94 Contributions Plan.

Sec: 9A Biodiversity certified land

Not applicable.

Sec: 10 Biobanking agreements

Not applicable.

Sec: 11 Bushfire prone land

The land is not identified on the Lane Cove Bushfire Prone Land Map dated 27 May 2016.

Sec: 12 Property vegetation plans

Not applicable.

Sec: 13 Orders under Trees (disputes Between Neighbours) Act 2006

Whether an order has been made under the *Trees (Disputes Between Neighbours) Act 2006* to carry out work in relation to a tree on the land (but only if the council has been notified of the order).
NONE

Sec: 14 Directions under Part 3A

If there is a direction by the Minister in force under section 75P (2) (c1) of the Act that a provision of an environmental planning instrument prohibiting or restricting the carrying out of a project or a stage of a project on the land under Part 4 of the Act does not have effect, a statement to that effect identifying the provision that does not have effect.
NONE

Sec: 15 Site compatibility certificates and conditions for seniors housing

If the land to which *State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004* applies:
NO

Sec: 16 Site compatibility certificates for infrastructure

Whether there is a valid site compatibility certificate (infrastructure), of which the council is aware, in respect of proposed development on the land.
NO

Sec: 17 Site compatibility certificates and conditions for affordable rental housing

Whether there is a current site compatibility certificate (affordable rental housing), of which the council is aware, in respect of proposed development on the land:
NO

Sec: 18 Paper Subdivision Information

1) The name of any development plan adopted by a relevant authority that applies to the land or that is proposed to be subject to a consent ballot.
Not applicable

2) The date of an subdivision order that applies to the land.
Not applicable

3) Words and expressions used in this clause have the same meaning as they have in Part 16C of this Regulation.

Sec: 19 Site verification certificates

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Email - service@lanecove.nsw.gov.au • Website - www.lanecove.nsw.gov.au • ABN 42 062 211 626

Not applicable

Sec: 20 Loose-fill asbestos insulation

If the land includes any residential premises (within the meaning of Division 1A of Part 8 of the Home Building Act 1989) that are listed on the register that is required to be maintained under that Division, a statement to that effect.

- **Some residential homes located in the Local Government Area have been identified as containing Loose Fill Asbestos Insulation (LFAI) , for example in the roof space**
- **NSW Fair Trading maintains a Register of these homes that are affected by Loose Fill Asbestos Insulation. This register can be found on NSW Fair Trading's website -** http://www.fairtrading.nsw.gov.au/ftw/Tenants_and_home_owners/Loose_fill_asbestos_insulation.page

You should make your own enquiries as to the age of the buildings on the land to which this certificate relates to confirm the status of the property.

Sec: 21 Affected building notices and building product rectification orders

1) A statement of whether there is any affected building notice of which the council is aware that is in force in respect of the land.
NO

2) A statement of:
(a) whether there is any building product rectification order of which the council is aware that is in force in respect of the land and has not been fully complied with, and
NO

(b) whether any notice of intention to make a building product rectification order of which the council is aware has been given in respect of the land and is outstanding.

NO

3) In this clause:
affected building notice has the same meaning as in Part 4 of the Building Products (Safety) Act 2017.
building product rectification order has the same meaning as in the Building Products (Safety) Act 2017.

Note. The following matters are prescribed by section 59 (2) of the Contaminated Land Management Act 1997 as additional matters to be specified in a planning certificate:

a) That the land to which the certificate relates is significantly contaminated land within the meaning of that Act – if the land (or part of the land) is significantly contaminated land at the date when the certificate is issued,
NO

b) That the land to which the certificate relates is subject to a management order within the meaning of that Act – if it is subject to such an order at the date when the certificate is issued,

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NO

c) That the land to which the certificate relates is subject of an approved voluntary management proposal within the meaning of that Act – if it is the subject of such an approved proposal at the date when the certificate is issued,
NO

d) That the land to which the certificate relates is subject to an ongoing maintenance order within the meaning of that Act – if it is subject to such an order at the date when the certificate is issued,
NO

e) That the land to which the certificate relates is the subject of a site audit statement within the meaning of that Act – if a copy of such a statement has been provided at any time to the local authority issuing the certificate.
NO

Council records do not have sufficient information about the uses (including previous uses) of the land which is the subject of this Section 10.7 certificate. To confirm that the land hasn't been used for a purpose which would be likely to have contaminated the land, parties should make their own enquiries as to whether the land may be contaminated.

For further information, please contact the Strategic Planning Department on 9911 3612.

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Part 5:
ADDITIONAL INFORMATION PROVIDED UNDER SECTION 10.7(5) OF THE ACT

The instruments and the plans should be examined in relation to the specific restrictions which may apply to any development which may be proposed.

The land is subject to a Tree Preservation Order, details of which are available at Council's Customer Service Centre.

The Register of Consents may be examined at Council's Customer Service Centre for particulars relating to development consents which may have been issued for the use or development of the land.

Enquiries regarding Arterial Road Reservations and Regional Open Space should be directed to the Roads and Traffic Authority and Department of Planning respectively.

The information provided concerning the Coastal Protection Act, 1979 is only to the extent that the Council has been notified by the Department of Public Works and Services.

For more information, please contact the Strategic Planning Department on 9911 3555

Lane Cove Council
48 Longueville Road, Lane Cove NSW 2066 Tel: 9911 3555 Fax: 9911 3600

PLANNING CERTIFICATE

Under Section10.7 Environmental Planning and Assessment Act, 1979

Applicant:
JK Environments Pty Ltd
Attention: Katrina Taylor
PO Box 976
North Ryde BC NSW 1670

Date of Issue: 13/12/2021
Council Reference: 205573
Applicant Reference: E33629BT
Certificate No: 1977

Property address: **34 Berry Road ST LEONARDS NSW 2065**
Description: **Lot: 1 DP: 1037926**
Property Reference: **15871**

INFORMATION PROVIDED PURSUANT TO SECTION 10.7(2) & (5) OF THE ACT

The planning information contained in this certificate applies specifically to the land.

Table of Contents

PO Box 20 Lane Cove NSW 1595, Lane Cove
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1) The name of each environmental planning instrument that applies to the carrying out of development on the land.
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State Environmental Planning Policy (Major Projects) 2005 - gazetted 1 August 2005. Replaced by State Environmental Planning Policy (State Significant Precincts) 2005.

State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017 - gaztted 25 August 2017

2) The name of each proposed environmental planning instrument that will apply to the carrying out of development on the land and that is or has been the subject of community consultations or on public exhibition under the Act (unless the Director-General has notified the council that the making of the proposed instrument has been deferred indefinitely or has not been approved)
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3) The name of each development control plan that applies to the carrying out of development on the land.
Lane Cove Development Control Plan, effective 22 February 2010

4) In this clause, proposed environmental planning instrument includes a planning proposal for a LEP or draft environmental planning instrument.

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Sec: 2 Zoning and land use under relevant LEPs

The land is zoned: High Density Residential R4

1) Objectives of zone

- To provide for the housing needs of the community within a high density residential environment.
- To provide a variety of housing types within a high density residential environment.
- To enable other land uses that provide facilities or services to meet the day to day needs of residents.
- To provide for a high concentration of housing with good access to transport, services and facilities.
- To ensure that the existing amenity of residences in the neighbourhood is respected.
- To avoid the isolation of sites resulting from site amalgamation.
- To ensure that landscaping is maintained and enhanced as a major element in the residential environment.

2) Permitted without consent

Nil

3) Permitted with consent

Bed and breakfast accommodation; Boarding houses; Centre-based child care facilities; Community facilities; Exhibition homes; Group homes; Home businesses; Home industries; Hotel or motel accommodation; Multi dwelling housing; Neighbourhood shops; Oyster aquaculture; Places of public worship; Residential flat buildings; Respite day care centres; Restaurants or cafes; Roads; Shop top housing; Signage

4) Prohibited

Pond-based aquaculture; Tank-based aquaculture Any development not specified in item 2 or 3

DA consent - Dual Occupancy Subdivision SEPP 53: In addition to the information provided directly above, the land was subject to a development consent for a dual occupancy subdivision under Part 3 of SEPP 53. PLEASE NOTE: that because this SEPP was repealed on 3 June 2011 any consent received under this SEPP is no longer valid.

5) Whether any development standards applying to the land fix minimum land dimensions for the erection of a dwelling-house on the land and, if so, the minimum land dimensions so fixed:
No

6) Whether the land includes or comprises critical habitat:
NO

7) Whether the land is in a conservation area (however described):
NO

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8) Whether an item of environmental heritage (however described) is situated on the land:
NO

Sec: 2A Zoning and land use under State Environmental Planning Policy (Sydney Region Growth Centres) 2006

Not applicable.

Sec: 3 Complying development

1) The extent to which the land is on which complying development may be carried out under each of the codes for complying development because of the provisions of clauses 1.17A (1) (c) to (e), (2), (3) and (4) and 1.19 of State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

2) The extent to which complying development may not be carried out on that land because of the provisions of clauses 1.17A (1)(c) to (e), (2), (3) and (4) and 1.19 of that Policy and the reasons why it may not be carried out under those clauses.

3) If the council does not have sufficient information to ascertain the extent to which complying development may or may not be carried out on the land, a statement that a restriction applies to the land, but it may not apply to all of the land, and that council does not have sufficient information to ascertain the extent to which complying development may or may not be carried out on the land.

(1) Complying development may be carried out on the land as a whole under the SEPP in accordance with the following Codes (unless the land is excluded elsewhere in this Section):- Housing Code, Housing Alterations Code, General Development Code, Subdivision Code, Demolition Code and/or Fire Safety Code.

(2) Not applicable.

(3) Not applicable

Sec: 4 Coastal Protection

Whether or not the land is affected by the operation of section 38 or 39 of the Coastal Protection Act 1979, but only to the extent that the council has been so notified by the Department of Services, Technology and Administration.

NO

Sec: 4A Certain information relating to beaches and coasts

Not applicable.

Sec: 4B Annual charges under Local Government Act 1993 for coastal protection services that relate to existing coastal protection works

Not applicable.

Sec: 5 Mine subsidence

Whether or not the land is proclaimed to be a mine subsidence district within the meaning of section 15 of the *Mine Subsidence Compensation Act 1961*:
NO

Sec: 6 Road widening and road realignment

Whether or not the land is affected by any road widening or road realignment under:

a) Division 2 of Part 3 of the *Roads Act 1993*:
Not affected by road widening

b) Any environmental planning instrument:
NO

c) Any resolution of the council:
NO

Sec: 7 Council and other public authority policies on hazard risk restrictions

Whether or not the land is affected by a policy:
a) Adopted by the council, or
b) Adopted by any other public authority and notified to the council for the express purpose of its adoption by that authority being referred to in planning certificates issued by the council, that restricts the development of the land because of the likelihood of :-

Land slip:
NO

Bushfire:
See Section 11.

Tidal inundation:
NO

Subsidence:
NO

Acid Sulphate soils:
NO

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Sec: 7A Flood related development controls information

1) Whether or not development on that land or part of the land for the purposes of dwelling houses, dual occupancies, multi dwelling housing or residential flat buildings (not including development for the purposes of group homes or seniors housing) is subject to flood related development controls.
The Lane Cove Development Control Plan - effective 22 February 2010 - applies

2) Whether or not development on that land or part of the land for any other purpose is subject to flood related development controls.
The Lane Cove Development Control Plan - effective 22 February 2010 - applies

Overland Flow
A study is currently being undertaken to determine exact locations subject to overland flow in the Municipality of Lane Cove. Until such time as Council has completed this work, property owners should conduct their own investigations to be satisfied that this property is not affected by overland flow.

Words and expressions in this clause have the same meanings as in the standard instrument set out in the *Standard Instrument (Local Environmental Plans) Order 2006*.

Sec: 8 Land reserved for acquisition

Whether or not any environmental planning instrument or proposed environmental planning instrument referred to in clause 1 makes provision in relation to the acquisition of the land by a public authority, as referred to in section 27 of the Act.
NO

Sec: 9 Contributions plans

Lane Cove Section 94 Contributions Plan.

Sec: 9A Biodiversity certified land

Not applicable.

Sec: 10 Biobanking agreements

Not applicable.

Sec: 11 Bushfire prone land

The land is not identified on the Lane Cove Bushfire Prone Land Map dated 27 May 2016.

Sec: 12 Property vegetation plans

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Not applicable.

Sec: 13 Orders under Trees (disputes Between Neighbours) Act 2006

Whether an order has been made under the *Trees (Disputes Between Neighbours) Act 2006* to carry out work in relation to a tree on the land (but only if the council has been notified of the order).
NONE

Sec: 14 Directions under Part 3A

If there is a direction by the Minister in force under section 75P (2) (c1) of the Act that a provision of an environmental planning instrument prohibiting or restricting the carrying out of a project or a stage of a project on the land under Part 4 of the Act does not have effect, a statement to that effect identifying the provision that does not have effect.
NONE

Sec: 15 Site compatibility certificates and conditions for seniors housing

If the land to which *State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004* applies:
NO

Sec: 16 Site compatibility certificates for infrastructure

Whether there is a valid site compatibility certificate (infrastructure), of which the council is aware, in respect of proposed development on the land.
NO

Sec: 17 Site compatibility certificates and conditions for affordable rental housing

Whether there is a current site compatibility certificate (affordable rental housing), of which the council is aware, in respect of proposed development on the land:
NO

Sec: 18 Paper Subdivision Information

1) The name of any development plan adopted by a relevant authority that applies to the land or that is proposed to be subject to a consent ballot.
Not applicable

2) The date of an subdivision order that applies to the land.
Not applicable

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3) Words and expressions used in this clause have the same meaning as they have in Part 16C of this Regulation.

Sec: 19 Site verification certificates

Not applicable

Sec: 20 Loose-fill asbestos insulation

If the land includes any residential premises (within the meaning of Division 1A of Part 8 of the Home Building Act 1989) that are listed on the register that is required to be maintained under that Division, a statement to that effect.

- **Some residential homes located in the Local Government Area have been identified as containing Loose Fill Asbestos Insulation (LFAI) , for example in the roof space**
- **NSW Fair Trading maintains a Register of these homes that are affected by Loose Fill Asbestos Insulation. This register can be found on NSW Fair Trading's website -** http://www.fairtrading.nsw.gov.au/ftw/Tenants_and_home_owners/Loose_fill_asbestos_insulation.page

You should make your own enquiries as to the age of the buildings on the land to which this certificate relates to confirm the status of the property.

Sec: 21 Affected building notices and building product rectification orders

1) A statement of whether there is any affected building notice of which the council is aware that is in force in respect of the land.
NO

2) A statement of:
(a) whether there is any building product rectification order of which the council is aware that is in force in respect of the land and has not been fully complied with, and
NO

(b) whether any notice of intention to make a building product rectification order of which the council is aware has been given in respect of the land and is outstanding.

NO

3) In this clause:
affected building notice has the same meaning as in Part 4 of the Building Products (Safety) Act 2017.
building product rectification order has the same meaning as in the Building Products (Safety) Act 2017.

Note. The following matters are prescribed by section 59 (2) of the Contaminated Land Management Act 1997 as additional matters to be specified in a planning certificate:

a) That the land to which the certificate relates is significantly contaminated land within the meaning of that Act – if the land (or part of the land) is significantly contaminated land at the date when the certificate is issued,

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NO

b) That the land to which the certificate relates is subject to a management order within the meaning of that Act – if it is subject to such an order at the date when the certificate is issued,
NO

c) That the land to which the certificate relates is subject of an approved voluntary management proposal within the meaning of that Act – if it is the subject of such an approved proposal at the date when the certificate is issued,
NO

d) That the land to which the certificate relates is subject to an ongoing maintenance order within the meaning of that Act – if it is subject to such an order at the date when the certificate is issued,
NO

e) That the land to which the certificate relates is the subject of a site audit statement within the meaning of that Act – if a copy of such a statement has been provided at any time to the local authority issuing the certificate.
NO

Council records do not have sufficient information about the uses (including previous uses) of the land which is the subject of this Section 10.7 certificate. To confirm that the land hasn't been used for a purpose which would be likely to have contaminated the land, parties should make their own enquiries as to whether the land may be contaminated.

For further information, please contact the Strategic Planning Department on 9911 3612.

Part 5:
ADDITIONAL INFORMATION PROVIDED UNDER SECTION 10.7(5) OF THE ACT

The instruments and the plans should be examined in relation to the specific restrictions which may apply to any development which may be proposed.

The land is subject to a Tree Preservation Order, details of which are available at Council's Customer Service Centre.

The Register of Consents may be examined at Council's Customer Service Centre for particulars relating to development consents which may have been issued for the use or development of the land.

Enquiries regarding Arterial Road Reservations and Regional Open Space should be directed to the Roads and Traffic Authority and Department of Planning respectively.

The information provided concerning the Coastal Protection Act, 1979 is only to the extent that the Council has been notified by the Department of Public Works and Services.

For more information, please contact the Strategic Planning Department on 9911 3555

Lane Cove Council
48 Longueville Road, Lane Cove NSW 2066 Tel: 9911 3555 Fax: 9911 3600

PLANNING CERTIFICATE

Under Section10.7 Environmental Planning and Assessment Act, 1979

Applicant:
JK Environments Pty Ltd
Attention: Katrina Taylor
PO Box 976
North Ryde BC NSW 1670

Date of Issue: 13/12/2021
Council Reference: 205573
Applicant Reference: E33629BT
Certificate No: 1978

Property address: **21 Holdsworth Avenue ST LEONARDS NSW 2065**
Description: **Lot: 15 Sec: 2 DP: 7259**
Property Reference: **2513**

INFORMATION PROVIDED PURSUANT TO SECTION 10.7(2) & (5) OF THE ACT

The planning information contained in this certificate applies specifically to the land.

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PART 2:

Sec: 1 Names of relevant planning instruments and DCP

1) The name of each environmental planning instrument that applies to the carrying out of development on the land.
Lane Cove Local Environmental Plan 2009 - gazetted on 19 February 2010

State Environmental Planning Policy No.19: Bushland in Urban Areas - gazetted 24 October 1986

State Environmental Planning Policy No.55: Remediation of Land - gazetted 28 August 1998

State Environmental Planning Policy No.64: Advertising and Signage - gazetted 16 March 2001

State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004 - gazetted 25 June 2004

State Environmental Planning Policy (Housing for seniors or people with a disability) 2004 Amendment No.2 - gazetted 31 March 2004 effective 12 October 2007

State Environmental Planning Policy (Temporary Structures and Places of Public Entertainment) - gazetted 28 September 2007

State Environmental Planning Policy (Infrastructure) 2007 - gazetted 21 December 2007; commenced 1 January 2008

State Environmental Planning Policy (Exempt & Complying Development Codes) - gazetted 12 December 2008

State Environmental Planning Policiy (Affordable Rental Housing) 2009, gazetted: 31 September 2009

State Environmental Planning Policy (Major Projects) 2005 - gazetted 1 August 2005. Replaced by State Environmental Planning Policy (State Significant Precincts) 2005.

State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017 - gaztted 25 August 2017

2) The name of each proposed environmental planning instrument that will apply to the carrying out of development on the land and that is or has been the subject of community consultations or on public exhibition under the Act (unless the Director-General has notified the council that the making of the proposed instrument has been deferred indefinitely or has not been approved)
Planning Proposal 25 (St Leonards South) to amend Local Environmental Plan 2009 applies to this land. This amendment was gazetted on 31 August 2020, but does not take effect until 1 November 2020

3) The name of each development control plan that applies to the carrying out of development on the land.
Lane Cove Development Control Plan, effective 22 February 2010

4) In this clause, proposed environmental planning instrument includes a planning proposal for a LEP or draft environmental planning instrument.

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Sec: 2 Zoning and land use under relevant LEPs

The land is zoned: High Density Residential R4

1) Objectives of zone

- To provide for the housing needs of the community within a high density residential environment.
- To provide a variety of housing types within a high density residential environment.
- To enable other land uses that provide facilities or services to meet the day to day needs of residents.
- To provide for a high concentration of housing with good access to transport, services and facilities.
- To ensure that the existing amenity of residences in the neighbourhood is respected.
- To avoid the isolation of sites resulting from site amalgamation.
- To ensure that landscaping is maintained and enhanced as a major element in the residential environment.

2) Permitted without consent

Nil

3) Permitted with consent

Bed and breakfast accommodation; Boarding houses; Centre-based child care facilities; Community facilities; Exhibition homes; Group homes; Home businesses; Home industries; Hotel or motel accommodation; Multi dwelling housing; Neighbourhood shops; Oyster aquaculture; Places of public worship; Residential flat buildings; Respite day care centres; Restaurants or cafes; Roads; Shop top housing; Signage

4) Prohibited

Pond-based aquaculture; Tank-based aquaculture Any development not specified in item 2 or 3

5) Whether any development standards applying to the land fix minimum land dimensions for the erection of a dwelling-house on the land and, if so, the minimum land dimensions so fixed:
No

6) Whether the land includes or comprises critical habitat:
NO

7) Whether the land is in a conservation area (however described):
NO

8) Whether an item of environmental heritage (however described) is situated on the land:
NO

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Sec: 2A Zoning and land use under State Environmental Planning Policy (Sydney Region Growth Centres) 2006

Not applicable.

Sec: 3 Complying development

1) The extent to which the land is on which complying development may be carried out under each of the codes for complying development because of the provisions of clauses 1.17A (1) (c) to (e), (2), (3) and (4) and 1.19 of State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

2) The extent to which complying development may not be carried out on that land because of the provisions of clauses 1.17A (1)(c) to (e), (2), (3) and (4) and 1.19 of that Policy and the reasons why it may not be carried out under those clauses.

3) If the council does not have sufficient information to ascertain the extent to which complying development may or may not be carried out on the land, a statement that a restriction applies to the land, but it may not apply to all of the land, and that council does not have sufficient information to ascertain the extent to which complying development may or may not be carried out on the land.

(1) Complying development may be carried out on the land as a whole under the SEPP in accordance with the following Codes (unless the land is excluded elsewhere in this Section):- Housing Code, Housing Alterations Code, General Development Code, Subdivision Code, Demolition Code and/or Fire Safety Code.

(2) Not applicable.

(3) Not applicable

Sec: 4 Coastal Protection

Whether or not the land is affected by the operation of section 38 or 39 of the Coastal Protection Act 1979, but only to the extent that the council has been so notified by the Department of Services, Technology and Administration.

NO

Sec: 4A Certain information relating to beaches and coasts

Not applicable.

Sec: 4B Annual charges under Local Government Act 1993 for coastal protection services that relate to existing coastal protection works

Not applicable.

Sec: 5 Mine subsidence

Whether or not the land is proclaimed to be a mine subsidence district within the meaning of section 15 of the *Mine Subsidence Compensation Act 1961*:
NO

Sec: 6 Road widening and road realignment

Whether or not the land is affected by any road widening or road realignment under:

a) Division 2 of Part 3 of the *Roads Act 1993*:
Not affected by road widening

b) Any environmental planning instrument:
NO

c) Any resolution of the council:
NO

Sec: 7 Council and other public authority policies on hazard risk restrictions

Whether or not the land is affected by a policy:
a) Adopted by the council, or
b) Adopted by any other public authority and notified to the council for the express purpose of its adoption by that authority being referred to in planning certificates issued by the council, that restricts the development of the land because of the likelihood of :-

Land slip:
NO

Bushfire:
See Section 11.

Tidal inundation:
NO

Subsidence:
NO

Acid Sulphate soils:
NO

Sec: 7A Flood related development controls information

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1) Whether or not development on that land or part of the land for the purposes of dwelling houses, dual occupancies, multi dwelling housing or residential flat buildings (not including development for the purposes of group homes or seniors housing) is subject to flood related development controls.
The Lane Cove Development Control Plan - effective 22 February 2010 - applies

2) Whether or not development on that land or part of the land for any other purpose is subject to flood related development controls.
The Lane Cove Development Control Plan - effective 22 February 2010 - applies

Overland Flow
A study is currently being undertaken to determine exact locations subject to overland flow in the Municipality of Lane Cove. Until such time as Council has completed this work, property owners should conduct their own investigations to be satisfied that this property is not affected by overland flow.

Words and expressions in this clause have the same meanings as in the standard instrument set out in the *Standard Instrument (Local Environmental Plans) Order 2006*.

Sec: 8 Land reserved for acquisition

Whether or not any environmental planning instrument or proposed environmental planning instrument referred to in clause 1 makes provision in relation to the acquisition of the land by a public authority, as referred to in section 27 of the Act.
NO

Sec: 9 Contributions plans

Lane Cove Section 94 Contributions Plan.

Sec: 9A Biodiversity certified land

Not applicable.

Sec: 10 Biobanking agreements

Not applicable.

Sec: 11 Bushfire prone land

The land is not identified on the Lane Cove Bushfire Prone Land Map dated 27 May 2016.

Sec: 12 Property vegetation plans

Not applicable.

Sec: 13 Orders under Trees (disputes Between Neighbours) Act 2006

Whether an order has been made under the *Trees (Disputes Between Neighbours) Act 2006* to carry out work in relation to a tree on the land (but only if the council has been notified of the order).
NONE

Sec: 14 Directions under Part 3A

If there is a direction by the Minister in force under section 75P (2) (c1) of the Act that a provision of an environmental planning instrument prohibiting or restricting the carrying out of a project or a stage of a project on the land under Part 4 of the Act does not have effect, a statement to that effect identifying the provision that does not have effect.
NONE

Sec: 15 Site compatibility certificates and conditions for seniors housing

If the land to which *State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004* applies:
NO

Sec: 16 Site compatibility certificates for infrastructure

Whether there is a valid site compatibility certificate (infrastructure), of which the council is aware, in respect of proposed development on the land.
NO

Sec: 17 Site compatibility certificates and conditions for affordable rental housing

Whether there is a current site compatibility certificate (affordable rental housing), of which the council is aware, in respect of proposed development on the land:
NO

Sec: 18 Paper Subdivision Information

1) The name of any development plan adopted by a relevant authority that applies to the land or that is proposed to be subject to a consent ballot.
Not applicable

2) The date of an subdivision order that applies to the land.
Not applicable

3) Words and expressions used in this clause have the same meaning as they have in Part 16C of this Regulation.

Sec: 19 Site verification certificates

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Not applicable

Sec: 20 Loose-fill asbestos insulation

If the land includes any residential premises (within the meaning of Division 1A of Part 8 of the Home Building Act 1989) that are listed on the register that is required to be maintained under that Division, a statement to that effect.

- **Some residential homes located in the Local Government Area have been identified as containing Loose Fill Asbestos Insulation (LFAI) , for example in the roof space**
- **NSW Fair Trading maintains a Register of these homes that are affected by Loose Fill Asbestos Insulation. This register can be found on NSW Fair Trading's website -** http://www.fairtrading.nsw.gov.au/ftw/Tenants_and_home_owners/Loose_fill_asbestos_insulation.page

You should make your own enquiries as to the age of the buildings on the land to which this certificate relates to confirm the status of the property.

Sec: 21 Affected building notices and building product rectification orders

1) A statement of whether there is any affected building notice of which the council is aware that is in force in respect of the land.
NO

2) A statement of:
(a) whether there is any building product rectification order of which the council is aware that is in force in respect of the land and has not been fully complied with, and
NO

(b) whether any notice of intention to make a building product rectification order of which the council is aware has been given in respect of the land and is outstanding.

NO

3) In this clause:
affected building notice has the same meaning as in Part 4 of the Building Products (Safety) Act 2017.
building product rectification order has the same meaning as in the Building Products (Safety) Act 2017.

Note. The following matters are prescribed by section 59 (2) of the Contaminated Land Management Act 1997 as additional matters to be specified in a planning certificate:

a) That the land to which the certificate relates is significantly contaminated land within the meaning of that Act – if the land (or part of the land) is significantly contaminated land at the date when the certificate is issued,
NO

b) That the land to which the certificate relates is subject to a management order within the meaning of that Act – if it is subject to such an order at the date when the certificate is issued,

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NO

c) That the land to which the certificate relates is subject of an approved voluntary management proposal within the meaning of that Act – if it is the subject of such an approved proposal at the date when the certificate is issued,
NO

d) That the land to which the certificate relates is subject to an ongoing maintenance order within the meaning of that Act – if it is subject to such an order at the date when the certificate is issued,
NO

e) That the land to which the certificate relates is the subject of a site audit statement within the meaning of that Act – if a copy of such a statement has been provided at any time to the local authority issuing the certificate.
NO

Council records do not have sufficient information about the uses (including previous uses) of the land which is the subject of this Section 10.7 certificate. To confirm that the land hasn't been used for a purpose which would be likely to have contaminated the land, parties should make their own enquiries as to whether the land may be contaminated.

For further information, please contact the Strategic Planning Department on 9911 3612.

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Part 5:
ADDITIONAL INFORMATION PROVIDED UNDER SECTION 10.7(5) OF THE ACT

The instruments and the plans should be examined in relation to the specific restrictions which may apply to any development which may be proposed.

The land is subject to a Tree Preservation Order, details of which are available at Council's Customer Service Centre.

The Register of Consents may be examined at Council's Customer Service Centre for particulars relating to development consents which may have been issued for the use or development of the land.

Enquiries regarding Arterial Road Reservations and Regional Open Space should be directed to the Roads and Traffic Authority and Department of Planning respectively.

The information provided concerning the Coastal Protection Act, 1979 is only to the extent that the Council has been notified by the Department of Public Works and Services.

For more information, please contact the Strategic Planning Department on 9911 3555

Lane Cove Council
48 Longueville Road, Lane Cove NSW 2066 Tel: 9911 3555 Fax: 9911 3600

PLANNING CERTIFICATE

Under Section10.7 Environmental Planning and Assessment Act, 1979

Applicant:
JK Environments Pty Ltd
Attention: Katrina Taylor
PO Box 976
North Ryde BC NSW 1670

Date of Issue: 13/12/2021
Council Reference: 205573
Applicant Reference: E33629BT
Certificate No: 1980

Property address: **42 River Road ST LEONARDS NSW 2065**
Description: **Lot: 21 Sec: 2 DP: 7259**
Property Reference: **10484**

INFORMATION PROVIDED PURSUANT TO SECTION 10.7(2) & (5) OF THE ACT

The planning information contained in this certificate applies specifically to the land.

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PART 2:

Sec: 1 Names of relevant planning instruments and DCP

1) The name of each environmental planning instrument that applies to the carrying out of development on the land.
Lane Cove Local Environmental Plan 2009 - gazetted on 19 February 2010

State Environmental Planning Policy No.19: Bushland in Urban Areas - gazetted 24 October 1986

State Environmental Planning Policy No.55: Remediation of Land - gazetted 28 August 1998

State Environmental Planning Policy No.64: Advertising and Signage - gazetted 16 March 2001

State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004 - gazetted 25 June 2004

State Environmental Planning Policy (Housing for seniors or people with a disability) 2004 Amendment No.2 - gazetted 31 March 2004 effective 12 October 2007

State Environmental Planning Policy (Temporary Structures and Places of Public Entertainment) - gazetted 28 September 2007

State Environmental Planning Policy (Infrastructure) 2007 - gazetted 21 December 2007; commenced 1 January 2008

State Environmental Planning Policy (Exempt & Complying Development Codes) - gazetted 12 December 2008

State Environmental Planning Policiy (Affordable Rental Housing) 2009, gazetted: 31 September 2009

State Environmental Planning Policy (Major Projects) 2005 - gazetted 1 August 2005. Replaced by State Environmental Planning Policy (State Significant Precincts) 2005.

State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017 - gaztted 25 August 2017

2) The name of each proposed environmental planning instrument that will apply to the carrying out of development on the land and that is or has been the subject of community consultations or on public exhibition under the Act (unless the Director-General has notified the council that the making of the proposed instrument has been deferred indefinitely or has not been approved)
Planning Proposal 25 (St Leonards South) to amend Local Environmental Plan 2009 applies to this land. This amendment was gazetted on 31 August 2020, but does not take effect until 1 November 2020

3) The name of each development control plan that applies to the carrying out of development on the land.
Lane Cove Development Control Plan, effective 22 February 2010

4) In this clause, proposed environmental planning instrument includes a planning proposal for a LEP or draft environmental planning instrument.

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Sec: 2 Zoning and land use under relevant LEPs

The land is zoned: High Density Residential R4

1) Objectives of zone

- To provide for the housing needs of the community within a high density residential environment.
- To provide a variety of housing types within a high density residential environment.
- To enable other land uses that provide facilities or services to meet the day to day needs of residents.
- To provide for a high concentration of housing with good access to transport, services and facilities.
- To ensure that the existing amenity of residences in the neighbourhood is respected.
- To avoid the isolation of sites resulting from site amalgamation.
- To ensure that landscaping is maintained and enhanced as a major element in the residential environment.

2) Permitted without consent

Nil

3) Permitted with consent

Bed and breakfast accommodation; Boarding houses; Centre-based child care facilities; Community facilities; Exhibition homes; Group homes; Home businesses; Home industries; Hotel or motel accommodation; Multi dwelling housing; Neighbourhood shops; Oyster aquaculture; Places of public worship; Residential flat buildings; Respite day care centres; Restaurants or cafes; Roads; Shop top housing; Signage

4) Prohibited

Pond-based aquaculture; Tank-based aquaculture Any development not specified in item 2 or 3

5) Whether any development standards applying to the land fix minimum land dimensions for the erection of a dwelling-house on the land and, if so, the minimum land dimensions so fixed:
No

6) Whether the land includes or comprises critical habitat:
NO

7) Whether the land is in a conservation area (however described):
NO

8) Whether an item of environmental heritage (however described) is situated on the land:
NO

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Sec: 2A Zoning and land use under State Environmental Planning Policy (Sydney Region Growth Centres) 2006

Not applicable.

Sec: 3 Complying development

1) The extent to which the land is on which complying development may be carried out under each of the codes for complying development because of the provisions of clauses 1.17A (1) (c) to (e), (2), (3) and (4) and 1.19 of State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

2) The extent to which complying development may not be carried out on that land because of the provisions of clauses 1.17A (1)(c) to (e), (2), (3) and (4) and 1.19 of that Policy and the reasons why it may not be carried out under those clauses.

3) If the council does not have sufficient information to ascertain the extent to which complying development may or may not be carried out on the land, a statement that a restriction applies to the land, but it may not apply to all of the land, and that council does not have sufficient information to ascertain the extent to which complying development may or may not be carried out on the land.

(1) Complying development may be carried out on the land as a whole under the SEPP in accordance with the following Codes (unless the land is excluded elsewhere in this Section):- Housing Code, Housing Alterations Code, General Development Code, Subdivision Code, Demolition Code and/or Fire Safety Code.

(2) Not applicable.

(3) Not applicable

Sec: 4 Coastal Protection

Whether or not the land is affected by the operation of section 38 or 39 of the Coastal Protection Act 1979, but only to the extent that the council has been so notified by the Department of Services, Technology and Administration.

NO

Sec: 4A Certain information relating to beaches and coasts

Not applicable.

Sec: 4B Annual charges under Local Government Act 1993 for coastal protection services that relate to existing coastal protection works

Not applicable.

Sec: 5 Mine subsidence

Whether or not the land is proclaimed to be a mine subsidence district within the meaning of section 15 of the *Mine Subsidence Compensation Act 1961*:
NO

Sec: 6 Road widening and road realignment

Whether or not the land is affected by any road widening or road realignment under:

a) Division 2 of Part 3 of the *Roads Act 1993*:
Not affected by road widening

b) Any environmental planning instrument:
NO

c) Any resolution of the council:
NO

Sec: 7 Council and other public authority policies on hazard risk restrictions

Whether or not the land is affected by a policy:
a) Adopted by the council, or
b) Adopted by any other public authority and notified to the council for the express purpose of its adoption by that authority being referred to in planning certificates issued by the council, that restricts the development of the land because of the likelihood of :-

Land slip:
NO

Bushfire:
See Section 11.

Tidal inundation:
NO

Subsidence:
NO

Acid Sulphate soils:
NO

Sec: 7A Flood related development controls information

1) Whether or not development on that land or part of the land for the purposes of dwelling houses, dual occupancies, multi dwelling housing or residential flat buildings (not including development for the purposes of group homes or seniors housing) is subject to flood related development controls.
The Lane Cove Development Control Plan - effective 22 February 2010 - applies

2) Whether or not development on that land or part of the land for any other purpose is subject to flood related development controls.
The Lane Cove Development Control Plan - effective 22 February 2010 - applies

Overland Flow
A study is currently being undertaken to determine exact locations subject to overland flow in the Municipality of Lane Cove. Until such time as Council has completed this work, property owners should conduct their own investigations to be satisfied that this property is not affected by overland flow.

Words and expressions in this clause have the same meanings as in the standard instrument set out in the *Standard Instrument (Local Environmental Plans) Order 2006*.

Sec: 8 Land reserved for acquisition

Whether or not any environmental planning instrument or proposed environmental planning instrument referred to in clause 1 makes provision in relation to the acquisition of the land by a public authority, as referred to in section 27 of the Act.
NO

Sec: 9 Contributions plans

Lane Cove Section 94 Contributions Plan.

Sec: 9A Biodiversity certified land

Not applicable.

Sec: 10 Biobanking agreements

Not applicable.

Sec: 11 Bushfire prone land

The land is not identified on the Lane Cove Bushfire Prone Land Map dated 27 May 2016.

Sec: 12 Property vegetation plans

Not applicable.

Sec: 13 Orders under Trees (disputes Between Neighbours) Act 2006

Whether an order has been made under the *Trees (Disputes Between Neighbours) Act 2006* to carry out work in relation to a tree on the land (but only if the council has been notified of the order).
NONE

Sec: 14 Directions under Part 3A

If there is a direction by the Minister in force under section 75P (2) (c1) of the Act that a provision of an environmental planning instrument prohibiting or restricting the carrying out of a project or a stage of a project on the land under Part 4 of the Act does not have effect, a statement to that effect identifying the provision that does not have effect.
NONE

Sec: 15 Site compatibility certificates and conditions for seniors housing

If the land to which *State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004* applies:
NO

Sec: 16 Site compatibility certificates for infrastructure

Whether there is a valid site compatibility certificate (infrastructure), of which the council is aware, in respect of proposed development on the land.
NO

Sec: 17 Site compatibility certificates and conditions for affordable rental housing

Whether there is a current site compatibility certificate (affordable rental housing), of which the council is aware, in respect of proposed development on the land:
NO

Sec: 18 Paper Subdivision Information

1) The name of any development plan adopted by a relevant authority that applies to the land or that is proposed to be subject to a consent ballot.
Not applicable

2) The date of an subdivision order that applies to the land.
Not applicable

3) Words and expressions used in this clause have the same meaning as they have in Part 16C of this Regulation.

Sec: 19 Site verification certificates

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Not applicable

Sec: 20 Loose-fill asbestos insulation

If the land includes any residential premises (within the meaning of Division 1A of Part 8 of the Home Building Act 1989) that are listed on the register that is required to be maintained under that Division, a statement to that effect.

- **Some residential homes located in the Local Government Area have been identified as containing Loose Fill Asbestos Insulation (LFAI) , for example in the roof space**
- **NSW Fair Trading maintains a Register of these homes that are affected by Loose Fill Asbestos Insulation. This register can be found on NSW Fair Trading's website -** http://www.fairtrading.nsw.gov.au/ftw/Tenants_and_home_owners/Loose_fill_asbestos_insulation.page

You should make your own enquiries as to the age of the buildings on the land to which this certificate relates to confirm the status of the property.

Sec: 21 Affected building notices and building product rectification orders

1) A statement of whether there is any affected building notice of which the council is aware that is in force in respect of the land.
NO

2) A statement of:
(a) whether there is any building product rectification order of which the council is aware that is in force in respect of the land and has not been fully complied with, and
NO

(b) whether any notice of intention to make a building product rectification order of which the council is aware has been given in respect of the land and is outstanding.

NO

3) In this clause:
affected building notice has the same meaning as in Part 4 of the Building Products (Safety) Act 2017.
building product rectification order has the same meaning as in the Building Products (Safety) Act 2017.

Note. The following matters are prescribed by section 59 (2) of the Contaminated Land Management Act 1997 as additional matters to be specified in a planning certificate:

a) That the land to which the certificate relates is significantly contaminated land within the meaning of that Act – if the land (or part of the land) is significantly contaminated land at the date when the certificate is issued,
NO

b) That the land to which the certificate relates is subject to a management order within the meaning of that Act – if it is subject to such an order at the date when the certificate is issued,

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NO

c) That the land to which the certificate relates is subject of an approved voluntary management proposal within the meaning of that Act – if it is the subject of such an approved proposal at the date when the certificate is issued,
NO

d) That the land to which the certificate relates is subject to an ongoing maintenance order within the meaning of that Act – if it is subject to such an order at the date when the certificate is issued,
NO

e) That the land to which the certificate relates is the subject of a site audit statement within the meaning of that Act – if a copy of such a statement has been provided at any time to the local authority issuing the certificate.
NO

Council records do not have sufficient information about the uses (including previous uses) of the land which is the subject of this Section 10.7 certificate. To confirm that the land hasn't been used for a purpose which would be likely to have contaminated the land, parties should make their own enquiries as to whether the land may be contaminated.

For further information, please contact the Strategic Planning Department on 9911 3612.

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Part 5:
ADDITIONAL INFORMATION PROVIDED UNDER SECTION 10.7(5) OF THE ACT

The instruments and the plans should be examined in relation to the specific restrictions which may apply to any development which may be proposed.

The land is subject to a Tree Preservation Order, details of which are available at Council's Customer Service Centre.

The Register of Consents may be examined at Council's Customer Service Centre for particulars relating to development consents which may have been issued for the use or development of the land.

Enquiries regarding Arterial Road Reservations and Regional Open Space should be directed to the Roads and Traffic Authority and Department of Planning respectively.

The information provided concerning the Coastal Protection Act, 1979 is only to the extent that the Council has been notified by the Department of Public Works and Services.

For more information, please contact the Strategic Planning Department on 9911 3555

SafeWork NSW Records

Katrina Taylor

From: Licensing <licensing@safework.nsw.gov.au>
Sent: Thursday, 30 December 2021 1:31 PM
To: Katrina Taylor
Cc: Campbell@jkgeotechnics.com.au
Subject: SafeWork NSW: 00643892 –Site Search application – Result not found [ref:_00D281hl6J._5004a6Fo7M:ref]

Security Classification: Sensitive Personal
Please do not amend the subject line of this email

Dear Katrina

Re: Site Search for Schedule 11 Hazardous Chemicals on premises Application – Result not found

I refer to your application for a Site Search for Schedule 11 Hazardous Chemicals on premises for the following site: 27 Holdsworth Avenue St Leonards NSW 2065.

A search of the records held by SafeWork NSW has not located any records pertaining to the above-mentioned premises.

If you have any further information or if you have any questions, please use one of the following options, quoting the SafeWork NSW enquiry reference number: 00643892

- Email: licensing@safework.nsw.gov.au
- Phone: 13 10 50

Kind regards

Gabriela Draper
Licensing Representative
SafeWork NSW | Better Regulation Division
Department of Customer Service
p- 13 10 50
e- licensing@safework.nsw.gov.au | www.customerservice.nsw.gov.au
Level 3, 32 Mann Street, Gosford, NSW 2250

Appendix C: Laboratory Results Summary Tables

ABBREVIATIONS AND EXPLANATIONS

Abbreviations used in the Tables:

ABC:	Ambient Background Concentration
ACM:	Asbestos Containing Material
ADWG:	AustralianDrinking Water Guidelines
AF:	Asbestos Fines
ANZG	Australian and New Zealand Guidelines
B(a)P:	Benzo(a)pyrene
CEC:	Cation Exchange Capacity
CRC:	Cooperative Research Centre
CT:	Contaminant Threshold
EILs:	Ecological Investigation Levels
ESLs:	Ecological Screening Levels
FA:	Fibrous Asbestos
GIL:	Groundwater Investigation Levels
GSW:	General Solid Waste
HILs:	Health Investigation Levels
HSLs:	Health Screening Levels
HSL-SSA:	Health Screening Level-SiteSpecific Assessment
kg/L	kilograms per litre
NA:	Not Analysed
NC:	Not Calculated
NEPM:	National Environmental Protection Measure
NHMRC:	National Health and Medical Research Council
NL:	Not Limiting
NSL:	No Set Limit
OCP:	Organochlorine Pesticides
OPP:	Organophosphorus Pesticides
PAHs:	Polycyclic Aromatic Hydrocarbons
%w/w:	weight per weight
ppm:	Parts per million
PCBs:	Polychlorinated Biphenyls
PCE:	Perchloroethylene (Tetrachloroethylene or Teterachloroethene)
pH_{KCL} :	pH of filtered 1:20, 1M KCL extract, shaken overnight
pH_{ox} :	pH of filtered 1:20 1M KCl after peroxide digestion
PQL:	Practical Quantitation Limit
RS:	Rinsate Sample
RSL:	Regional Screening Levels
RSW:	Restricted Solid Waste
SAC:	Site Assessment Criteria
SCC:	Specific Contaminant Concentration
S_{Cr}:	Chromium reducible sulfur
S_{POS}:	Peroxide oxidisable Sulfur
SSA:	Site Specific Assessment
SSHSLs:	Site Specific Health Screening Levels
TAA:	Total Actual Acidity in 1M KCL extract titrated to pH6.5
TB:	Trip Blank
TCA:	1,1,1 Trichloroethane (methyl chloroform)
TCE:	Trichloroethylene (Trichloroethene)
TCLP:	Toxicity Characteristics Leaching Procedure
TPA:	Total Potential Acidity, 1M KCL peroxide digest
TS:	Trip Spike
TRH:	Total Recoverable Hydrocarbons
TSA:	Total Sulfide Acidity (TPA-TAA)
UCL:	Upper Level Confidence Limit on Mean Value
USEPA	United States Environmental Protection Agency
VOCC:	Volatile Organic Chlorinated Compounds
WHO:	World Health Organisation

Table Specific Explanations:

HIL Tables:

- The chromium results are for Total Chromium which includes Chromium III and VI. For initial screening purposes, we have assumed that the samples contain only Chromium VI unless demonstrated otherwise by additional analysis.
- Carcinogenic PAHs is a toxicity weighted sum of analyte concentrations for a specific list of PAH compounds relative to B(a)P. It is also refered to as the B(a)P Toxic Equivalence Quotient (TEQ).
- Statistical calculations are undertaken using ProUCL (USEPA). Statistical calculation is usually undertaken using data from fill samples.

EIL/ESL Table:

- ABC Values for selected metals have been adopted from the published background concentrations presented in Olszowy et. al., (1995), Trace Element Concentrations in Soils from Rural and Urban New South Wales (the 25th percentile values for old suburbs with high traffic have been quoted).

Waste Classification and TCLP Table:

- Data assessed using the NSW EPA Waste Classification Guidelines, Part 1: Classifying Waste (2014).
- The assessment of Total Moderately Harmful pesticides includes: Dichlorovos, Dimethoate, Fenitrothion, Ethion, Malathion and Parathion.
- Assessment of Total Scheduled pesticides include: HBC, alpha-BHC, gamma-BHC, beta-BHC, Heptachlor, Aldrin, Heptachlor Epoxide, gamma-Chlordane, alpha-chlordane, pp-DDE, Dieldrin, Endrin, pp-DDD, pp-DDT, Endrin Aldehyde.

QA/QC Table:

- Field blank, Inter and Intra laboratory duplicate results are reported in mg/kg.
- Trip spike results are reported as percentage recovery.
- Field rinsate results are reported in µg/L.

TABLE S1
SOIL LABORATORY RESULTS COMPARED TO NEPM 2013.
HIL-B: 'Residential with minimal opportunities for soil access; including dwellings with fully/permanently paved yards like high-rise buildings'

All data in mg/kg unless stated otherwise			HEAVY METALS								PAHs		ORGANOCHLORINE PESTICIDES (OCPs)							OP PESTICIDES (OPPs)	TOTAL PCBs	ASBESTOS FIBRES
			Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc	Total PAHs	Carcinogenic PAHs	HCB	Endosulfan	Methoxychlor	Aldrin & Dieldrin	Chlordane	DDT, DDD & DDE	Heptachlor	Chlorpyrifos		
PQL - Envirolab Services			4	0.4	1	1	1	0.1	1	1	-	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	100
Site Assessment Criteria (SAC)			500	150	500	30000	1200	120	1200	60000	400	4	15	400	500	10	90	600	10	340	1	Detected/Not Detected
Sample Reference	**Sample Depth**	**Sample Description**																				
BH1	0-0.05	Fill: clayey gravel	<4	<0.4	**2**	**43**	**7**	<0.1	**2**	**29**	**7.9**	**1.6**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH1 - [LAB_DUP]	0-0.05	Fill: clayey gravel	<4	<0.4	<1	**7**	**2**	<0.1	<1	**7**	**11**	**2.3**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH1 - [TRIPLICATE]	0-0.05	Fill: clayey gravel	<4	<0.4	**2**	**31**	**7**	<0.1	**1**	**31**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH2	0-0.1	Fill: Silty sandy clay	**54**	<0.4	**17**	**26**	**120**	<0.1	**2**	**110**	**5.7**	**0.9**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH2	0.5-0.95	Silty clay	**9**	<0.4	**22**	<1	**11**	<0.1	<1	**32**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH3	0-0.1	Fill: clayey sand	<4	<0.4	**6**	**16**	**270**	<0.1	**2**	**120**	**19**	**2.7**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH3	0.5-0.95	Silty clay	**5**	<0.4	**13**	**1**	**9**	<0.1	<1	**5**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH4	0.2-0.5	Fill: silty clay	**4**	<0.4	**9**	**54**	**110**	<0.1	**3**	**65**	**12**	**1.8**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
BH5	0-0.1	Fill: Silty sandy clay	<4	<0.4	**8**	**16**	**51**	<0.1	**2**	**84**	**7.6**	**1.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH6	0-0.1	Fill: Silty sandy clay	**15**	<0.4	**4**	**3**	**42**	<0.1	**3**	**52**	**1.1**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
SDUP1	-	Fill: clayey sand	**5**	<0.4	**11**	**27**	**230**	<0.1	**4**	**200**	**15**	**2.6**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Number of Samples			11	11	11	11	11	11	11	11	10	10	7	7	7	7	7	7	7	7	7	3
Maximum Value			54	<PQL	22	54	270	<PQL	4	200	19	2.7	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	Not Detected

Concentration above the SAC **VALUE**
Concentration above the PQL **Bold**

TABLE S2
SOIL LABORATORY RESULTS COMPARED TO HSLs
All data in mg/kg unless stated otherwise

					C_6-C_{10} (F1)	>C_{10}-C_{16} (F2)	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene	Field PID Measurement
PQL - Envirolab Services					25	50	0.2	0.5	1	1	1	ppm
NEPM 2013 HSL Land Use Category					**HSL-A/B: LOW/HIGH DENSITY RESIDENTIAL**							
Sample Reference	**Sample Depth**	**Sample Description**	**Depth Category**	**Soil Category**								
BH1	0-0.05	Fill: clayey gravel	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
BH1 - [LAB_DUP]	0-0.05	Fill: clayey gravel	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
BH2	0-0.1	Fill: Silty sandy clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
BH2	0.5-0.95	Silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
BH3	0-0.1	Fill: clayey sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
BH3	0.5-0.95	Silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
BH4	0.2-0.5	Fill: silty clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
BH5	0-0.1	Fill: Silty sandy clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
BH6	0-0.1	Fill: Silty sandy clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	0
SDUP1	-	Fill: clayey sand	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<3	<1	NA
Total Number of Samples					10	10	10	10	10	10	10	9
Maximum Value					<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL

Concentration above the SAC **VALUE**
Concentration above the PQL **Bold**
The guideline corresponding to the concentration above the SAC is highlighted in grey in the Site Assessment Criteria Table below

HSL SOIL ASSESSMENT CRITERIA

Sample Reference	**Sample Depth**	**Sample Description**	**Depth Category**	**Soil Category**	C_6-C_{10} (F1)	>C_{10}-C_{16} (F2)	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene
BH1	0-0.05	Fill: clayey gravel	0m to <1m	Sand	45	110	0.5	160	55	40	3
BH1 - [LAB_DUP]	0-0.05	Fill: clayey gravel	0m to <1m	Sand	45	110	0.5	160	55	40	3
BH2	0-0.1	Fill: Silty sandy clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
BH2	0.5-0.95	Silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
BH3	0-0.1	Fill: clayey sand	0m to <1m	Sand	45	110	0.5	160	55	40	3
BH3	0.5-0.95	Silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
BH4	0.2-0.5	Fill: silty clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
BH5	0-0.1	Fill: Silty sandy clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
BH6	0-0.1	Fill: Silty sandy clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
SDUP1	-	Fill: clayey sand	0m to <1m	Sand	45	110	0.5	160	55	40	3

TABLE S3
SOIL LABORATORY RESULTS COMPARED TO MANAGEMENT LIMITS
All data in mg/kg unless stated otherwise

			C_6-C_{10} (F1) plus BTEX	$>C_{10}$-C_{16} (F2) plus napthalene	$>C_{16}$-C_{34} (F3)	$>C_{34}$-C_{40} (F4)
PQL - Envirolab Services			25	50	100	100
NEPM 2013 Land Use Category			**RESIDENTIAL, PARKLAND & PUBLIC OPEN SPACE**			
Sample Reference	**Sample Depth**	**Soil Texture**				
BH1	0-0.05	Coarse	<25	<50	<100	<100
BH1 - [LAB_DUP]	0-0.05	Coarse	<25	<50	<100	<100
BH2	0-0.1	Fine	<25	<50	<100	<100
BH2	0.5-0.95	Fine	<25	<50	<100	<100
BH3	0-0.1	Coarse	<25	<50	**220**	**120**
BH3	0.5-0.95	Fine	<25	<50	<100	<100
BH4	0.2-0.5	Fine	<25	<50	<100	<100
BH5	0-0.1	Fine	<25	<50	<100	<100
BH6	0-0.1	Fine	<25	<50	**220**	<100
SDUP1	-	Coarse	<25	<50	**190**	**120**
Total Number of Samples			10	10	10	10
Maximum Value			<PQL	<PQL	220	120

Concentration above the SAC **VALUE**
Concentration above the PQL **Bold**

MANAGEMENT LIMIT ASSESSMENT CRITERIA

Sample Reference	**Sample Depth**	**Soil Texture**	C_6-C_{10} (F1) plus BTEX	$>C_{10}$-C_{16} (F2) plus napthalene	$>C_{16}$-C_{34} (F3)	$>C_{34}$-C_{40} (F4)
BH1	0-0.05	Coarse	700	1000	2500	10000
BH1 - [LAB_DUP]	0-0.05	Coarse	700	1000	2500	10000
BH2	0-0.1	Fine	800	1000	3500	10000
BH2	0.5-0.95	Fine	800	1000	3500	10000
BH3	0-0.1	Coarse	700	1000	2500	10000
BH3	0.5-0.95	Fine	800	1000	3500	10000
BH4	0.2-0.5	Fine	800	1000	3500	10000
BH5	0-0.1	Fine	800	1000	3500	10000
BH6	0-0.1	Fine	800	1000	3500	10000
SDUP1	-	Coarse	700	1000	2500	10000

TABLE S4
SOIL LABORATORY RESULTS COMPARED T0 DIRECT CONTACT CRITERIA
All data in mg/kg unless stated otherwise

Analyte		C_6-C_{10}	>C_{10}-C_{16}	>C_{16}-C_{34}	>C_{34}-C_{40}	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene	PID
PQL - Envirolab Services		25	50	100	100	0.2	0.5	1	1	1	
CRC 2011 -Direct contact Criteria		5,600	4,200	5,800	8,100	140	21,000	5,900	17,000	2,200	
Site Use		HIGH DENSITY RESIDENTIAL - DIRECT SOIL CONTACT									
Sample Reference	**Sample Depth**										
BH1	0-0.05	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
BH1 - [LAB_DUP]	0-0.05	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
BH2	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
BH2	0.5-0.95	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
BH3	0-0.1	<25	<50	**220**	**120**	<0.2	<0.5	<1	<3	<1	0
BH3	0.5-0.95	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
BH4	0.2-0.5	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
BH5	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<1	0
BH6	0-0.1	<25	<50	**220**	<100	<0.2	<0.5	<1	<3	<1	0
SDUP1	-	<25	<50	**190**	**120**	<0.2	<0.5	<1	<3	<1	NA
Total Number of Samples		10	10	10	10	10	10	10	10	10	9
Maximum Value		<PQL	<PQL	220	120	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL

Concentration above the SAC **VALUE**
Concentration above the PQL **Bold**

TABLE S5
ASBESTOS QUANTIFICATION - FIELD OBSERVATIONS AND LABORATORY RESULTS
HSL-B: Residential with minimal opportunities for soil access

FIELD DATA															LABORATORY DATA											
Date Sampled	Sample reference	Sample Depth	Visible ACM in top 100mm	Approx. Volume of Soil (L)	Soil Mass (g)	Mass ACM (g)	Mass Asbestos in ACM (g)	[Asbestos from ACM in soil] (%w/w)	Mass ACM <7mm (g)	Mass Asbestos in ACM <7mm (g)	[Asbestos from ACM <7mm in soil] (%w/w)	Mass FA (g)	Mass Asbestos in FA (g)	[Asbestos from FA in soil] (%w/w)	Lab Report Number	Sample refeference	Sample Depth	Sample Mass (g)	Asbestos ID in soil (AS4964) >0.1g/kg	Trace Analysis	Total Asbestos (g/kg)	Asbestos ID in soil <0.1g/kg	ACM >7mm Estimation (g)	FA and AF Estimation (g)	ACM >7mm Estimation %(w/w)	FA and AF Estimation %(w/w)
SAC			**No**					**0.04**			**0.001**			**0.001**											**0.04**	**0.001**
16/12/2021	BH1	0-0.05	No	9680		No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
16/12/2021	BH2	0-0.1	No	10220		No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	285684	BH2	0-0.1	577.19	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
16/12/2021	BH3	0-0.1	No	8250		No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	--	--	--	--	--	--	--	--	--	--	--	--
16/12/2021	BH5	0-0.1	No	11050		No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	285684	BH5	0-0.1	707.98	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
16/12/2021	BH6	0-0.1	No	9400		No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	285684	BH6	0-0.1	576.9	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001

Concentration above the SAC **VALUE**

JKEnvironments

TABLE S6
SOIL LABORATORY RESULTS COMPARED TO NEPM 2013 EILs AND ESLs
All data in mg/kg unless stated otherwise

Land Use Category				URBAN RESIDENTIAL AND PUBLIC OPEN SPACE																		
							AGED HEAVY METALS-EILs						EILs		ESLs							
				pH	CEC (cmolc/kg)	Clay Content (% clay)	Arsenic	Chromium	Copper	Lead	Nickel	Zinc	Naphthalene	DDT	C_6-C_{10} (F1)	>C_{10}-C_{16} (F2)	>C_{16}-C_{34} (F3)	>C_{34}-C_{40} (F4)	Benzene	Toluene	Ethylbenzene	Total Xylenes	B(a)P
PQL - Envirolab Services				-	1	-	4	1	1	1	1	1	1	0.1	25	50	100	100	0.2	0.5	1	1	0.05
Ambient Background Concentration (ABC)				-	-	-	NSL	13	28	163	5	122	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL
Sample Reference	**Sample Depth**	**Sample Description**	**Soil Texture**																			
BH1	0-0.05	Fill: clayey gravel	Coarse	NA	NA	NA	<4	**2**	**43**	**7**	**2**	**29**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	**1.1**
BH1 - [LAB_DUP]	0-0.05	Fill: clayey gravel	Coarse	NA	NA	NA	<4	<1	**7**	**2**	<1	**7**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	**1.6**
BH1 - [TRIPLICATE]	0-0.05	Fill: clayey gravel	Coarse	NA	NA	NA	<4	**2**	**31**	**7**	**1**	**31**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH2	0-0.1	Fill: Silty sandy clay	Fine	NA	NA	NA	**54**	**17**	**26**	**120**	**2**	**110**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	**0.6**
BH2	0.5-0.95	Silty clay	Fine	NA	NA	NA	**9**	**22**	<1	**11**	<1	**32**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05
BH3	0-0.1	Fill: clayey sand	Coarse	NA	NA	NA	<4	**6**	**16**	**270**	**2**	**120**	<1	<0.1	<25	<50	**220**	**120**	<0.2	<0.5	<1	<3	**1.9**
BH3	0.5-0.95	Silty clay	Fine	NA	NA	NA	**5**	**13**	**1**	**9**	<1	**5**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<3	<0.05
BH4	0.2-0.5	Fill: silty clay	Fine	NA	NA	NA	**4**	**9**	**54**	**110**	**3**	**65**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	**1.3**
BH5	0-0.1	Fill: Silty sandy clay	Fine	NA	NA	NA	<4	**8**	**16**	**51**	**2**	**84**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<3	**0.79**
BH6	0-0.1	Fill: Silty sandy clay	Fine	NA	NA	NA	**15**	**4**	**3**	**42**	**3**	**52**	<1	<0.1	<25	<50	**220**	<100	<0.2	<0.5	<1	<3	**0.1**
SDUP1	-	Fill: clayey sand	Coarse	NA	NA	NA	**5**	**11**	**27**	**230**	**4**	**200**	<1	NA	<25	<50	**190**	**120**	<0.2	<0.5	<1	<3	**1.8**
Total Number of Samples				0	0	0	11	11	11	11	11	11	10	7	10	10	10	10	10	10	10	10	10
Maximum Value				NA	NA	NA	54	22	54	270	4	200	<PQL	<PQL	<PQL	<PQL	220	120	<PQL	<PQL	<PQL	<PQL	1.9

Concentration above the SAC **VALUE**
Concentration above the PQL **Bold**
The guideline corresponding to the elevated value is highlighted in grey in the EIL and ESL Assessment Criteria Table below

EIL AND ESL ASSESSMENT CRITERIA

Sample Reference	**Sample Depth**	**Sample Description**	**Soil Texture**	pH	CEC (cmolc/kg)	Clay Content (% clay)	Arsenic	Chromium	Copper	Lead	Nickel	Zinc	Naphthalene	DDT	C_6-C_{10} (F1)	>C_{10}-C_{16} (F2)	>C_{16}-C_{34} (F3)	>C_{34}-C_{40} (F4)	Benzene	Toluene	Ethylbenzene	Total Xylenes	B(a)P
BH1	0-0.05	Fill: clayey gravel	Coarse	NA	NA	NA	100	200	90	1300	35	190	170	180	180	120	300	2800	50	85	70	105	20
BH1 - [LAB_DUP]	0-0.05	Fill: clayey gravel	Coarse	NA	NA	NA	100	200	90	1300	35	190	170	180	180	120	300	2800	50	85	70	105	20
BH1 - [TRIPLICATE]	0-0.05	Fill: clayey gravel	Coarse	NA	NA	NA	100	200	90	1300	35	190	--	--	--	--	--	--	--	--	--	--	--
BH2	0-0.1	Fill: Silty sandy clay	Fine	NA	NA	NA	100	200	90	1300	35	190	170	180	180	120	1300	5600	65	105	125	45	20
BH2	0.5-0.95	Silty clay	Fine	NA	NA	NA	100	200	90	1300	35	190	170	--	180	120	1300	5600	65	105	125	45	20
BH3	0-0.1	Fill: clayey sand	Coarse	NA	NA	NA	100	200	90	1300	35	190	170	180	180	120	300	2800	50	85	70	105	20
BH3	0.5-0.95	Silty clay	Fine	NA	NA	NA	100	200	90	1300	35	190	170	--	180	120	1300	5600	65	105	125	45	20
BH4	0.2-0.5	Fill: silty clay	Fine	NA	NA	NA	100	200	90	1300	35	190	170	180	180	120	1300	5600	65	105	125	45	20
BH5	0-0.1	Fill: Silty sandy clay	Fine	NA	NA	NA	100	200	90	1300	35	190	170	180	180	120	1300	5600	65	105	125	45	20
BH6	0-0.1	Fill: Silty sandy clay	Fine	NA	NA	NA	100	200	90	1300	35	190	170	180	180	120	1300	5600	65	105	125	45	20
SDUP1	-	Fill: clayey sand	Coarse	NA	NA	NA	100	200	90	1300	35	190	170	--	180	120	300	2800	50	85	70	105	20

TABLE Q1
SOIL QA/QC SUMMARY

			TRH C6 - C10	TRH >C10-C16	TRH >C16-C34	TRH >C34-C40	Benzene	Toluene	Ethylbenzene	m+p-xylene	o-Xylene	Naphthalene	Acenaphthylene	Acenaph-thene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo(a)anthracene	Chrysene	Benzo(b,j+k)fluoranthene	Benzo(a)pyrene	Indeno(1,2,3-c,d)pyrene	Dibenzo(a,h)anthra-cene	Benzo(g,h,i)perylene	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc
	PQL Envirolab SYD		*25*	*50*	*100*	*100*	*0.2*	*0.5*	*1*	*2*	*1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.2*	*0.05*	*0.1*	*0.1*	*0.1*	*4*	*0.4*	*1*	*1*	*1*	*0.1*	*1*	*1*
	PQL Envirolab VIC		*25*	*50*	*100*	*100*	*0.2*	*0.5*	*1.0*	*2.0*	*1.0*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.2*	*0.1*	*0.1*	*0.1*	*0.1*	*4.0*	*0.4*	*1.0*	*1.0*	*1.0*	*0.1*	*1.0*	*1.0*
Intra	BH3	0-0.1	<25	<50	220	120	<0.2	<0.5	<1	<2	<1	<0.1	0.3	<0.1	0.1	1.6	0.4	3.2	3.2	1.6	1.4	2.8	1.9	1.1	0.3	1.3	<4	<0.4	6	16	270	<0.1	2	120
laboratory	SDUP1	-	<25	<50	190	120	<0.2	<0.5	<1	<2	<1	<0.1	0.2	<0.1	<0.1	0.8	0.2	2.1	2.3	1.2	1.2	2.6	1.8	1	0.3	1.3	5	<0.4	11	27	230	<0.1	4	200
duplicate	MEAN		nc	nc	205	120	nc	nc	nc	nc	nc	nc	0.25	nc	0.075	1.2	0.3	2.65	2.75	1.4	1.3	2.7	1.85	1.05	0.3	1.3	3.5	nc	8.5	21.5	250	nc	3	160
	RPD %		nc	nc	15%	0%	nc	nc	nc	nc	nc	nc	40%	nc	67%	67%	67%	42%	33%	29%	15%	7%	5%	10%	0%	0%	86%	nc	59%	51%	16%	nc	67%	50%
Field	TB-S1	-	<25	NA	NA	NA	<0.2	<0.5	<1	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Blank	16/12/21																																	
Trip	TS-S1		-	-	-	-	95%	95%	97%	96%	96%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spike	16/12/21																																	

Result outside of QA/QC acceptance criteria

Appendix D: Borehole Logs

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BOREHOLE LOG

Borehole No. 1

1/1

Client: CIFI ST LEONARDS DEVELOPMENT MANAGEMENT PTY LTD

Project: PROPOSED RESIDENTIAL DEVELOPMENT

Location: 22-34 BERRY RD, 21-31 HOLDSWORTH AVE & 42-46 RIVER RD, ST LEONARDS, NSW

Job No.: 33629B **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 59.0m

Date: 16/12/2021 **Datum:** AHD

Plant Type: JK205 **Logged/Checked by:** J.F./D.B.

Groundwater Record	SAMPLES ES	SAMPLES U50	SAMPLES DB	SAMPLES DS	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLET-ION						0			FILL: Clayey gravel, fine to medium grained, dark grey brown, trace of fine to medium grained sand.	M			PEBBLE COVER SCREEN: 9.08kg 0-0.05m NO FCF
								-	FILL: Clayey sand, fine to medium grained, dark grey brown, with fine to medium grained sandstone gravel.	DW	VL		LOW 'TC' BIT RESISTANCE
						1			SANDSTONE: fine to medium grained, light grey brown, with extremely weathered bands.		M		MODERATE TO HIGH RESISTANCE WITH LOW BANDS
													MODERATE TO HIGH RESISTANCE
									SANDSTONE: fine to medium grained, light grey and red brown.		H		HIGH RESISTANCE
									END OF BOREHOLE AT 1.6m				'TC' BIT REFUSAL
						2							
						3							
						4							
						5							
						6							
						7							

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BOREHOLE LOG

Borehole No. 2
1/1

Client: CIFI ST LEONARDS DEVELOPMENT MANAGEMENT PTY LTD

Project: PROPOSED RESIDENTIAL DEVELOPMENT

Location: 22-34 BERRY RD, 21-31 HOLDSWORTH AVE & 42-46 RIVER RD, ST LEONARDS, NSW

Job No.: 33629B **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 64.0m

Date: 16/12/2021 **Datum:** AHD

Plant Type: JK205 **Logged/Checked by:** J.F./D.B.

Groundwater Record	SAMPLES ES	SAMPLES U50	SAMPLES DB	SAMPLES DS	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLET-ION	■			■		0			FILL: Silty sandy clay, medium plasticity, dark grey brown, fine to medium grained sand, trace of brick fragments and root fibres.	w>PL			GRASS COVER SCREEN: 10.27kg 0-0.1m NO FCF
	■			■	N = 5 1,2,3			CI-CH	FILL: Silty sandy clay, low plasticity, grey brown, fine to medium grained sand, trace of fine to medium grained ironstone gravel.	w>PL	St-VSt	200 190 180	RESIDUAL
						1			Silty CLAY: medium to high plasticity, light grey brown and orange brown, with fine to medium grained sand.				
				■	N = 31 10,14,17			CL-CI	Sandy CLAY: low to medium plasticity, light grey mottled brown, with fine to medium ironstone bands.		(VSt-Hd)		
						2			as above, but with extremely weathered bands.				
				■	N = SPT 6/50mm REFUSAL								
						3		-	SANDSTONE: fine to medium grained, light grey, with high strength iron indurated bands and extremely weathered bands.	DW	M		MODERATE 'TC' BIT RESISTANCE
				■		4			SANDSTONE: fine to medium grained, light grey and grey.	SW	M-H		MODERATE RESISTANCE WITH HIGH BANDS
									END OF BOREHOLE AT 4.7m				'TC' BIT REFUSAL
						5							
						6							
						7							

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BOREHOLE LOG

Borehole No. 3
1/1

Client: CIFI ST LEONARDS DEVELOPMENT MANAGEMENT PTY LTD

Project: PROPOSED RESIDENTIAL DEVELOPMENT

Location: 22-34 BERRY RD, 21-31 HOLDSWORTH AVE & 42-46 RIVER RD, ST LEONARDS, NSW

Job No.: 33629B **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 65.8m

Date: 16/12/2021 **Datum:** AHD

Plant Type: JK205 **Logged/Checked by:** J.F./D.B.

Groundwater Record	SAMPLES ES	SAMPLES U50	SAMPLES DB	SAMPLES DS	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLET-ION	■					0			FILL: Clayey sand, fine to medium grained, dark grey, with silt, trace of root fibres.	M			GRASS COVER SCREEN: 8.5kg 0-0.1m NO FCF
	■							CH	Silty CLAY: high plasticity, light brown, with fine to medium grained sand, trace of root fibres.	w>PL	VSt-Hd	480 370 530	RESIDUAL
	■			■	N = 7 2,3,4	1		-	Extremely Weathered sandstone: silty sandy CLAY, medium plasticity, light grey and light brown, with high strength iron indurated bands.	XW	Hd		VERY LOW 'TC' BIT RESISTANCE
				■	N > 12 20,12/ 100mm REFUSAL	2							
				■					SANDSTONE: fine to medium grained, light grey and light brown, with high strength iron indurated bands.	DW	L-M		MODERATE RESISTANCE
				■		3			SANDSTONE: fine to medium grained, light grey.				
				■		4							
				■		5					M		MODERATE TO HIGH RESISTANCE
											H		
						6			END OF BOREHOLE AT 6.0m				
						7							

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BOREHOLE LOG

Borehole No. 4
1/1

Client: CIFI ST LEONARDS DEVELOPMENT MANAGEMENT PTY LTD

Project: PROPOSED RESIDENTIAL DEVELOPMENT

Location: 22-34 BERRY RD, 21-31 HOLDSWORTH AVE & 42-46 RIVER RD, ST LEONARDS, NSW

Job No.: 33629B **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 65.0m

Date: 16/12/2021 **Datum:** AHD

Plant Type: JK205 **Logged/Checked by:** J.F./D.B.

Groundwater Record	SAMPLES ES	SAMPLES U50	SAMPLES DB	SAMPLES DS	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
	■			■		0			CONCRETE: 200mm.t				6mm DIA. REINFORCEMENT, 105mm TOP COVER
	■			■				-	FILL: Silty clay, medium plasticity, dark grey brown, with fine to medium grained sand, trace of fine to medium grained sandstone gravel.	w>PL			INSUFFICIENT RETURN FOR BULK SCREEN
	■			■	N = 9 3,4,5			SC	Silty clayey SAND: fine to medium grained, grey brown.	M	L		RESIDUAL
						1			as above, but light grey brown, trace of fine to medium grained ironstone gravel.				
				■	N = 18 5,7,11				Clayey SAND: fine to medium grained, light grey and orange brown, trace of ash.		MD		
						2							
								CI-CH	Silty CLAY: medium to high plasticity, light grey, with fine to medium grained ironstone gravel, fine to medium grained sand, and extremely weathered sandstone bands.	w<PL	(Hd)		
ON COMPLET-ION ▼						3							
▶				■		4		-	SANDSTONE: fine to medium grained, light grey and light brown, with iron indurated bands.	DW	M		MODERATE 'TC' BIT RESISTANCE
													HIGH RESISTANCE 'TC' BIT REFUSAL
									END OF BOREHOLE AT 4.7m				
						5							
						6							
						7							

JKGeotechnics

BOREHOLE LOG

Borehole No. 5
1/1

Client: CIFI ST LEONARDS DEVELOPMENT MANAGEMENT PTY LTD

Project: PROPOSED RESIDENTIAL DEVELOPMENT

Location: 22-34 BERRY RD, 21-31 HOLDSWORTH AVE & 42-46 RIVER RD, ST LEONARDS, NSW

Job No.: 33629B **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 68.2m

Date: 16/12/2021 **Datum:** AHD

Plant Type: JK205 **Logged/Checked by:** J.F./D.B.

Groundwater Record	SAMPLES ES	SAMPLES U50	SAMPLES DB	SAMPLES DS	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION	■			■		0			FILL: Silty sandy clay, low plasticity, dark grey brown, trace of brick fragments and root fibres.	w>PL			GRASS COVER SCREEN: 11.05kg 0-0.1m NO FCF
	■			■	N = 4 1,2,2	1		CI	Silty CLAY: medium plasticity, light grey brown and orange brown, with fine to medium grained sand, trace of fine to medium grained ironstone gravel.	w>PL	St-VSt	100 125 300	RESIDUAL
								CL-CI	Sandy CLAY: low to medium plasticity, light grey, orange brown and red brown, fine to medium grained sand, trace of silt.				
				■	N = 24 4,9,15	2		CI-CH	Silty CLAY: medium to high plasticity, light grey, with fine grained sand and extremely weathered sandstone bands.	w<PL	Hd	550 600 >600	
				■		3		-	Extremely Weathered sandstone: Sandy silty CLAY, medium plasticity, light grey, fine to medium grained sand.	XW	Hd		VERY LOW 'TC' BIT RESISTANCE
				■						DW	L		LOW TO MODERATE RESISTANCE
				■		4							
				■		5			SANDSTONE: fine to medium grained, light grey and light brown, with iron indurated bands.				
						6			END OF BOREHOLE AT 6.0m				
						7							

JKGeotechnics

BOREHOLE LOG

Borehole No. 6

1/1

Client: CIFI ST LEONARDS DEVELOPMENT MANAGEMENT PTY LTD

Project: PROPOSED RESIDENTIAL DEVELOPMENT

Location: 22-34 BERRY RD, 21-31 HOLDSWORTH AVE & 42-46 RIVER RD, ST LEONARDS, NSW

Job No.: 33629B **Method:** SPIRAL AUGER **R.L. Surface:** ≈ 51.8m

Date: 16/12/2021 **Datum:** AHD

Plant Type: JK205 **Logged/Checked by:** J.F./D.B.

Groundwater Record	SAMPLES ES	SAMPLES U50	SAMPLES DB	SAMPLES DS	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLET-ION	■			■		0			FILL: Silty sandy clay, low to medium plasticity, grey brown, fine to medium grained sand, trace of root fibres, and fine to medium grained sandstone gravel.	w≈PL / M			GRASS COVER SCREEN: 9.4kg 0-0.1m NO FCF
	■			■	N = 9 3,3,6			CL-CI	FILL: Silty sand, fine to medium grained, light brown, with sandstone gravel.	w≈PL	(VSt-Hd)		COLLUVIAL
				■		1		-	Silty sandy CLAY: low to medium plasticity, grey mottled brown, fine to medium grained sand, trace of ash, root fibres and fine to medium ironstone gravel.	DW	L		MODERATE 'TC' BIT RESISTANCE
									SANDSTONE BOULDER: fine to medium grained, light grey brown.				
				■		2		CI	Silty CLAY: medium plasticity, light grey, with fine to medium grained sand.	w≈PL	(VSt-Hd)		SOIL RESISTANCE RESIDUAL
				■	N = 11 3,4,7	3		SP	SAND: fine to medium grained light brown, trace of silt.	M	L		
				■				CL	Sandy CLAY: low plasticity, light grey mottled light brown, fine to medium grained sand, trace of silt.	w>PL	St-VSt	220 170 270	
						4		CI	Silty CLAY: medium plasticity, grey and orange brown, trace of fine to medium grained ironstone gravel.		Hd		
▶				■	N > 29 14,15/ 100mm							560 400 590	
				■	REFUSAL	5		-	SANDSTONE: fine to medium grained, light grey brown.	SW	M-H		HIGH RESISTANCE
									END OF BOREHOLE AT 5.4m				'TC' BIT REFUSAL
						6							
						7							

ENVIRONMENTAL LOGS EXPLANATION NOTES

INTRODUCTION

These notes have been provided to amplify the environmental report in regard to classification methods, field procedures and certain matters relating to the logging of soil and rock. Not all notes are necessarily relevant to all reports.

Where geotechnical borehole logs are utilised for environmental purpose, reference should also be made to the explanatory notes included in the geotechnical report. Environmental logs are not suitable for geotechnical purposes.

The ground is a product of continuing natural and man-made processes and therefore exhibits a variety of characteristics and properties which vary from place to place and can change with time. Environmental studies include gathering and assimilating limited facts about these characteristics and properties in order to understand or predict the behaviour of the ground on a particular site under certain conditions. This report may contain such facts obtained by inspection, excavation, probing, sampling, testing or other means of investigation. If so, they are directly relevant only to the ground at the place where and time when the investigation was carried out.

DESCRIPTION AND CLASSIFICATION METHODS

The methods of description and classification of soils and rocks used in this report are based on Australian Standard 1726:2017 *'Geotechnical Site Investigations'*. In general, descriptions cover the following properties – soil or rock type, colour, structure, strength or density, and inclusions. Identification and classification of soil and rock involves judgement and the Company infers accuracy only to the extent that is common in current geoenvironmental practice.

Soil types are described according to the predominating particle size and behaviour as set out in the attached soil classification table qualified by the grading of other particles present (eg. sandy clay) as set out below:

Soil Classification	Particle Size
Clay	< 0.002mm
Silt	0.002 to 0.075mm
Sand	0.075 to 2.36mm
Gravel	2.36 to 63mm
Cobbles	63 to 200mm
Boulders	> 200mm

Non-cohesive soils are classified on the basis of relative density, generally from the results of Standard Penetration Test (SPT) as below:

Relative Density	SPT 'N' Value (blows/300mm)
Very loose (VL)	< 4
Loose (L)	4 to 10
Medium dense (MD)	10 to 30
Dense (D)	30 to 50
Very Dense (VD)	> 50

Cohesive soils are classified on the basis of strength (consistency) either by use of a hand penetrometer, vane shear, laboratory testing and/or tactile engineering examination. The strength terms are defined as follows.

Classification	Unconfined Compressive Strength (kPa)	Indicative Undrained Shear Strength (kPa)
Very Soft (VS)	≤ 25	≤ 12
Soft (S)	> 25 and ≤ 50	> 12 and ≤ 25
Firm (F)	> 50 and ≤ 100	> 25 and ≤ 50
Stiff (St)	> 100 and ≤ 200	> 50 and ≤ 100
Very Stiff (VSt)	> 200 and ≤ 400	> 100 and ≤ 200
Hard (Hd)	> 400	> 200
Friable (Fr)	Strength not attainable – soil crumbles	

Rock types are classified by their geological names, together with descriptive terms regarding weathering, strength, defects, etc. Where relevant, further information regarding rock classification is given in the text of the report. In the Sydney Basin, 'shale' is used to describe fissile mudstone, with a weakness parallel to bedding. Rocks with alternating inter-laminations of different grain size (eg. siltstone/claystone and siltstone/fine grained sandstone) are referred to as 'laminite'.

INVESTIGATION METHODS

The following is a brief summary of investigation methods currently adopted by the Company and some comments on their use and application. All methods except test pits, hand auger drilling and portable Dynamic Cone Penetrometers require the use of a mechanical rig which is commonly mounted on a truck chassis or track base.

Test Pits: These are normally excavated with a backhoe or a tracked excavator, allowing close examination of the insitu soils and 'weaker' bedrock if it is safe to descend into the pit. The depth of penetration is limited to about 3m for a backhoe and up to 6m for a large excavator. Limitations of test pits are the problems associated with disturbance and difficulty of reinstatement and the consequent effects on close-by structures. Care must be taken if construction is to be carried out near test pit locations to either properly recompact the backfill during construction or to design and construct the

structure so as not to be adversely affected by poorly compacted backfill at the test pit location.

Hand Auger Drilling: A borehole of 50mm to 100mm diameter is advanced by manually operated equipment. Refusal of the hand auger can occur on a variety of materials such as obstructions within any fill, tree roots, hard clay, gravel or ironstone, cobbles and boulders, and does not necessarily indicate rock level.

Continuous Spiral Flight Augers: The borehole is advanced using 75mm to 115mm diameter continuous spiral flight augers, which are withdrawn at intervals to allow sampling and insitu testing. This is a relatively economical means of drilling in clays and in sands above the water table. Samples are returned to the surface by the flights or may be collected after withdrawal of the auger flights, but they can be very disturbed and layers may become mixed. Information from the auger sampling (as distinct from specific sampling by SPTs or undisturbed samples) is of limited reliability due to mixing or softening of samples by groundwater, or uncertainties as to the original depth of the samples. Augering below the groundwater table is of even lesser reliability than augering above the water table.

Rock Augering: Use can be made of a Tungsten Carbide (TC) bit for auger drilling into rock to indicate rock quality and continuity by variation in drilling resistance and from examination of recovered rock cuttings. This method of investigation is quick and relatively inexpensive but provides only an indication of the likely rock strength and predicted values may be in error by a strength order. Where rock strengths may have a significant impact on construction feasibility or costs, then further investigation by means of cored boreholes may be warranted.

Wash Boring: The borehole is usually advanced by a rotary bit, with water being pumped down the drill rods and returned up the annulus, carrying the drill cuttings. Only major changes in stratification can be assessed from the cuttings, together with some information from "feel" and rate of penetration.

Mud Stabilised Drilling: Either Wash Boring or Continuous Core Drilling can use drilling mud as a circulating fluid to stabilise the borehole. The term 'mud' encompasses a range of products ranging from bentonite to polymers. The mud tends to mask the cuttings and reliable identification is only possible from intermittent intact sampling (eg. from SPT and U50 samples) or from rock coring, etc.

Continuous Core Drilling: A continuous core sample is obtained using a diamond tipped core barrel. Provided full core recovery is achieved (which is not always possible in very low strength rocks and granular soils), this technique provides a very reliable (but relatively expensive) method of investigation. In rocks, NMLC or HQ triple tube core barrels, which give a core of about 50mm and 61mm diameter, respectively, is usually used with water flush. The length of core recovered is compared to the length drilled and any length not recovered is shown as NO CORE. The location of NO CORE recovery is determined on site by the supervising engineer; where the location is uncertain, the loss is placed at the bottom of the drill run.

Standard Penetration Tests: Standard Penetration Tests (SPT) are used mainly in non-cohesive soils, but can also be used in cohesive soils, as a means of indicating density or strength and also of obtaining a relatively undisturbed sample. The test procedure is described in Australian Standard 1289.6.3.1–2004 (R2016) *'Methods of Testing Soils for Engineering Purposes, Soil Strength and Consolidation Tests – Determination of the Penetration Resistance of a Soil – Standard Penetration Test (SPT)'*.

The test is carried out in a borehole by driving a 50mm diameter split sample tube with a tapered shoe, under the impact of a 63.5kg hammer with a free fall of 760mm. It is normal for the tube to be driven in three successive 150mm increments and the 'N' value is taken as the number of blows for the last 300mm. In dense sands, very hard clays or weak rock, the full 450mm penetration may not be practicable and the test is discontinued.

The test results are reported in the following form:

- In the case where full penetration is obtained with successive blow counts for each 150mm of, say, 4, 6 and 7 blows, as

  N = 13
  4, 6, 7

- In a case where the test is discontinued short of full penetration, say after 15 blows for the first 150mm and 30 blows for the next 40mm, as

  N > 30
  15, 30/40mm

The results of the test can be related empirically to the engineering properties of the soil.

A modification to the SPT is where the same driving system is used with a solid 60° tipped steel cone of the same diameter as the SPT hollow sampler. The solid cone can be continuously driven for some distance in soft clays or loose sands, or may be used where damage would otherwise occur to the SPT. The results of this Solid Cone Penetration Test (SCPT) are shown as 'N_c' on the borehole logs, together with the number of blows per 150mm penetration.

LOGS

The borehole or test pit logs presented herein are an interpretation of the subsurface conditions, and their reliability will depend to some extent on the frequency of sampling and the method of drilling or excavation. Ideally, continuous undisturbed sampling or core drilling will enable the most reliable assessment, but is not always practicable or possible to justify on economic grounds. In any case, the boreholes or test pits represent only a very small sample of the total subsurface conditions.

The terms and symbols used in preparation of the logs are defined in the following pages.

Interpretation of the information shown on the logs, and its application to design and construction, should therefore take into account the spacing of boreholes or test pits, the method of drilling or excavation, the frequency of sampling and testing and the possibility of other than 'straight line' variations between the boreholes or test pits. Subsurface conditions between boreholes or test pits may vary significantly from conditions encountered at the borehole or test pit locations.

GROUNDWATER

Where groundwater levels are measured in boreholes, there are several potential problems:

- Although groundwater may be present, in low permeability soils it may enter the hole slowly or perhaps not at all during the time it is left open.
- A localised perched water table may lead to an erroneous indication of the true water table.
- Water table levels will vary from time to time with seasons or recent weather changes and may not be the same at the time of construction.
- The use of water or mud as a drilling fluid will mask any groundwater inflow. Water has to be blown out of the hole and drilling mud must be washed out of the hole or 'reverted' chemically if reliable water observations are to be made.

More reliable measurements can be made by installing standpipes which are read after the groundwater level has stabilised at intervals ranging from several days to perhaps weeks for low permeability soils. Piezometers, sealed in a particular stratum, may be advisable in low permeability soils or where there may be interference from perched water tables or surface water.

FILL

The presence of fill materials can often be determined only by the inclusion of foreign objects (eg. bricks, steel, etc) or by distinctly unusual colour, texture or fabric. Identification of the extent of fill materials will also depend on investigation methods and frequency. Where natural soils similar to those at the site are used for fill, it may be difficult with limited testing and sampling to reliably assess the extent of the fill.

The presence of fill materials is usually regarded with caution as the possible variation in density and material type is much greater than with natural soil deposits. Consequently, there is an increased risk of adverse environmental characteristics or behaviour. If the volume and nature of fill is of importance to a project, then frequent test pit excavations are preferable to boreholes.

LABORATORY TESTING

Laboratory testing has not been undertaken to confirm the soil classification and rock strengths indicated on the environmental logs unless noted in the report.

SYMBOL LEGENDS

SOIL


FILL


TOPSOIL


CLAY (CL, CI, CH)


SILT (ML, MH)


SAND (SP, SW)


GRAVEL (GP, GW)


SANDY CLAY (CL, CI, CH)


SILTY CLAY (CL, CI, CH)


CLAYEY SAND (SC)


SILTY SAND (SM)


GRAVELLY CLAY (CL, CI, CH)


CLAYEY GRAVEL (GC)


SANDY SILT (ML, MH)


PEAT AND HIGHLY ORGANIC SOILS (Pt)

ROCK


CONGLOMERATE


SANDSTONE


SHALE/MUDSTONE


SILTSTONE


CLAYSTONE


COAL


LAMINITE


LIMESTONE


PHYLLITE, SCHIST


TUFF


GRANITE, GABBRO


DOLERITE, DIORITE


BASALT, ANDESITE


QUARTZITE

OTHER MATERIALS


BRICKS OR PAVERS


CONCRETE


ASPHALTIC CONCRETE

CLASSIFICATION OF COARSE AND FINE GRAINED SOILS

Major Divisions		Group Symbol	Typical Names	Field Classification of Sand and Gravel	Laboratory Classification	
Coarse grained soil (more than 65% of soil excluding oversize fraction is greater than 0.075mm)	GRAVEL (more than half of coarse fraction is larger than 2.36mm	GW	Gravel and gravel-sand mixtures, little or no fines	Wide range in grain size and substantial amounts of all intermediate sizes, not enough fines to bind coarse grains, no dry strength	≤ 5% fines	$C_u > 4$ $1 < C_c < 3$
		GP	Gravel and gravel-sand mixtures, little or no fines, uniform gravels	Predominantly one size or range of sizes with some intermediate sizes missing, not enough fines to bind coarse grains, no dry strength	≤ 5% fines	Fails to comply with above
		GM	Gravel-silt mixtures and gravel-sand-silt mixtures	'Dirty' materials with excess of non-plastic fines, zero to medium dry strength	≥ 12% fines, fines are silty	Fines behave as silt
		GC	Gravel-clay mixtures and gravel-sand-clay mixtures	'Dirty' materials with excess of plastic fines, medium to high dry strength	≥ 12% fines, fines are clayey	Fines behave as clay
	SAND (more than half of coarse fraction is smaller than 2.36mm)	SW	Sand and gravel-sand mixtures, little or no fines	Wide range in grain size and substantial amounts of all intermediate sizes, not enough fines to bind coarse grains, no dry strength	≤ 5% fines	$C_u > 6$ $1 < C_c < 3$
		SP	Sand and gravel-sand mixtures, little or no fines	Predominantly one size or range of sizes with some intermediate sizes missing, not enough fines to bind coarse grains, no dry strength	≤ 5% fines	Fails to comply with above
		SM	Sand-silt mixtures	'Dirty' materials with excess of non-plastic fines, zero to medium dry strength	≥ 12% fines, fines are silty	N/A
		SC	Sand-clay mixtures	'Dirty' materials with excess of plastic fines, medium to high dry strength	≥ 12% fines, fines are clayey	

Major Divisions		Group Symbol	Typical Names	Field Classification of Silt and Clay			Laboratory Classification
				Dry Strength	Dilatancy	Toughness	% < 0.075mm
ine grained soils (more than 35% of soil excluding oversize fraction is less than 0.075mm)	SILT and CLAY (low to medium plasticity)	ML	Inorganic silt and very fine sand, rock flour, silty or clayey fine sand or silt with low plasticity	None to low	Slow to rapid	Low	Below A line
		CL, CI	Inorganic clay of low to medium plasticity, gravelly clay, sandy clay	Medium to high	None to slow	Medium	Above A line
		OL	Organic silt	Low to medium	Slow	Low	Below A line
	SILT and CLAY (high plasticity)	MH	Inorganic silt	Low to medium	None to slow	Low to medium	Below A line
		CH	Inorganic clay of high plasticity	High to very high	None	High	Above A line
		OH	Organic clay of medium to high plasticity, organic silt	Medium to high	None to very slow	Low to medium	Below A line
	Highly organic soil	Pt	Peat, highly organic soil	–	–	–	–

Laboratory Classification Criteria

A well graded coarse grained soil is one for which the coefficient of uniformity $Cu > 4$ and the coefficient of curvature $1 < C_c < 3$. Otherwise, the soil is poorly graded. These coefficients are given by:

$$C_U = \frac{D_{60}}{D_{10}} \qquad and \qquad C_C = \frac{(D_{30})^2}{D_{10}\, D_{60}}$$

Where D_{10}, D_{30} and D_{60} are those grain sizes for which 10%, 30% and 60% of the soil grains, respectively, are smaller.

NOTES:

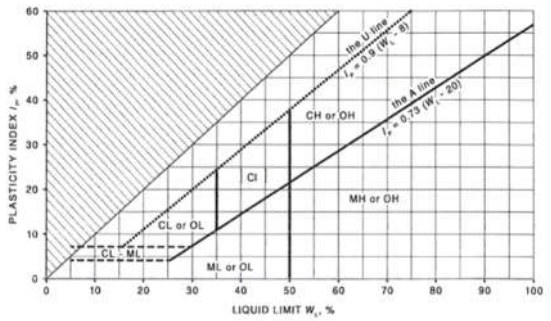
1 For a coarse grained soil with a fines content between 5% and 12%, the soil is given a dual classification comprising the two group symbols separated by a dash; for example, for a poorly graded gravel with between 5% and 12% silt fines, the classification is GP-GM.

2 Where the grading is determined from laboratory tests, it is defined by coefficients of curvature (C_c) and uniformity (C_u) derived from the particle size distribution curve.

3 Clay soils with liquid limits > 35% and ≤ 50% may be classified as being of medium plasticity.

4 The U line on the Modified Casagrande Chart is an approximate upper bound for most natural soils.

Modified Casagrande Chart for Classifying Silts and Clays according to their Behaviour



LOG SYMBOLS

Log Column	Symbol	Definition
Groundwater Record		Standing water level. Time delay following completion of drilling/excavation may be shown.
		Extent of borehole/test pit collapse shortly after drilling/excavation.
		Groundwater seepage into borehole or test pit noted during drilling or excavation.
Samples	ES	Sample taken over depth indicated, for environmental analysis.
	U50	Undisturbed 50mm diameter tube sample taken over depth indicated.
	DB	Bulk disturbed sample taken over depth indicated.
	DS	Small disturbed bag sample taken over depth indicated.
	ASB	Soil sample taken over depth indicated, for asbestos analysis.
	ASS	Soil sample taken over depth indicated, for acid sulfate soil analysis.
	SAL	Soil sample taken over depth indicated, for salinity analysis.
	PFAS	Soil sample taken over depth indicated, for analysis of Per- and Polyfluoroalkyl Substances.
Field Tests	N = 17 4, 7, 10	Standard Penetration Test (SPT) performed between depths indicated by lines. Individual figures show blows per 150mm penetration. 'Refusal' refers to apparent hammer refusal within the corresponding 150mm depth increment.
	N_c = 5 7 3R	Solid Cone Penetration Test (SCPT) performed between depths indicated by lines. Individual figures show blows per 150mm penetration for 60° solid cone driven by SPT hammer. 'R' refers to apparent hammer refusal within the corresponding 150mm depth increment.
	VNS = 25	Vane shear reading in kPa of undrained shear strength.
	PID = 100	Photoionisation detector reading in ppm (soil sample headspace test).
Moisture Condition (Fine Grained Soils)	w > PL	Moisture content estimated to be greater than plastic limit.
	$w \approx$ PL	Moisture content estimated to be approximately equal to plastic limit.
	w < PL	Moisture content estimated to be less than plastic limit.
	$w \approx$ LL	Moisture content estimated to be near liquid limit.
	w > LL	Moisture content estimated to be wet of liquid limit.
(Coarse Grained Soils)	D	DRY – runs freely through fingers.
	M	MOIST – does not run freely but no free water visible on soil surface.
	W	WET – free water visible on soil surface.
Strength (Consistency) Cohesive Soils	VS	VERY SOFT – unconfined compressive strength ≤ 25kPa.
	S	SOFT – unconfined compressive strength > 25kPa and ≤ 50kPa.
	F	FIRM – unconfined compressive strength > 50kPa and ≤ 100kPa.
	St	STIFF – unconfined compressive strength > 100kPa and ≤ 200kPa.
	VSt	VERY STIFF – unconfined compressive strength > 200kPa and ≤ 400kPa.
	Hd	HARD – unconfined compressive strength > 400kPa.
	Fr	FRIABLE – strength not attainable, soil crumbles.
	( )	Bracketed symbol indicates estimated consistency based on tactile examination or other assessment.
Density Index/ Relative Density (Cohesionless Soils)	VL	VERY LOOSE – Density Index (I_D) Range (%) ≤ 15 – SPT 'N' Value Range (Blows/300mm) 0 – 4
	L	LOOSE – > 15 and ≤ 35 – 4 – 10
	MD	MEDIUM DENSE – > 35 and ≤ 65 – 10 – 30
	D	DENSE – > 65 and ≤ 85 – 30 – 50
	VD	VERY DENSE – > 85 – > 50
	( )	Bracketed symbol indicates estimated density based on ease of drilling or other assessment.

Log Column	Symbol	Definition
Hand Penetrometer Readings	300 250	Measures reading in kPa of unconfined compressive strength. Numbers indicate individual test results on representative undisturbed material unless noted otherwise.
Remarks	'V' bit	Hardened steel 'V' shaped bit.
	'TC' bit	Twin pronged tungsten carbide bit.
	T_{60}	Penetration of auger string in mm under static load of rig applied by drill head hydraulics without rotation of augers.
	Soil Origin	The geological origin of the soil can generally be described as: RESIDUAL – soil formed directly from insitu weathering of the underlying rock. No visible structure or fabric of the parent rock. EXTREMELY WEATHERED – soil formed directly from insitu weathering of the underlying rock. Material is of soil strength but retains the structure and/or fabric of the parent rock. ALLUVIAL – soil deposited by creeks and rivers. ESTUARINE – soil deposited in coastal estuaries, including sediments caused by inflowing creeks and rivers, and tidal currents. MARINE – soil deposited in a marine environment. AEOLIAN – soil carried and deposited by wind. COLLUVIAL – soil and rock debris transported downslope by gravity, with or without the assistance of flowing water. Colluvium is usually a thick deposit formed from a landslide. The description 'slopewash' is used for thinner surficial deposits. LITTORAL – beach deposited soil.

Classification of Material Weathering

Term		Abbreviation		Definition
Residual Soil		RS		Material is weathered to such an extent that it has soil properties. Mass structure and material texture and fabric of original rock are no longer visible, but the soil has not been significantly transported.
Extremely Weathered		XW		Material is weathered to such an extent that it has soil properties. Mass structure and material texture and fabric of original rock are still visible.
Highly Weathered	Distinctly Weathered (Note 1)	HW	DW	The whole of the rock material is discoloured, usually by iron staining or bleaching to the extent that the colour of the original rock is not recognisable. Rock strength is significantly changed by weathering. Some primary minerals have weathered to clay minerals. Porosity may be increased by leaching, or may be decreased due to deposition of weathering products in pores.
Moderately Weathered		MW		The whole of the rock material is discoloured, usually by iron staining or bleaching to the extent that the colour of the original rock is not recognisable, but shows little or no change of strength from fresh rock.
Slightly Weathered		SW		Rock is partially discoloured with staining or bleaching along joints but shows little or no change of strength from fresh rock.
Fresh		FR		Rock shows no sign of decomposition of individual minerals or colour changes.

NOTE 1: The term 'Distinctly Weathered' is used where it is not practicable to distinguish between 'Highly Weathered' and 'Moderately Weathered' rock. 'Distinctly Weathered' is defined as follows: *'Rock strength usually changed by weathering. The rock may be highly discoloured, usually by iron staining. Porosity may be increased by leaching, or may be decreased due to deposition of weathering products in pores'*. There is some change in rock strength.

Rock Material Strength Classification

Term	Abbreviation	Uniaxial Compressive Strength (MPa)	Guide to Strength	
			Point Load Strength Index $Is_{(50)}$ (MPa)	Field Assessment
Very Low Strength	VL	0.6 to 2	0.03 to 0.1	Material crumbles under firm blows with sharp end of pick; can be peeled with knife; too hard to cut a triaxial sample by hand. Pieces up to 30mm thick can be broken by finger pressure.
Low Strength	L	2 to 6	0.1 to 0.3	Easily scored with a knife; indentations 1mm to 3mm show in the specimen with firm blows of the pick point; has dull sound under hammer. A piece of core 150mm long by 50mm diameter may be broken by hand. Sharp edges of core may be friable and break during handling.
Medium Strength	M	6 to 20	0.3 to 1	Scored with a knife; a piece of core 150mm long by 50mm diameter can be broken by hand with difficulty.
High Strength	H	20 to 60	1 to 3	A piece of core 150mm long by 50mm diameter cannot be broken by hand but can be broken by a pick with a single firm blow; rock rings under hammer.
Very High Strength	VH	60 to 200	3 to 10	Hand specimen breaks with pick after more than one blow; rock rings under hammer.
Extremely High Strength	EH	> 200	> 10	Specimen requires many blows with geological pick to break through intact material; rock rings under hammer.

Appendix E: Laboratory Report(s) & COC Documents

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CERTIFICATE OF ANALYSIS 285684

Client Details

Client	JK Environments
Attention	Katrina Taylor
Address	PO Box 976, North Ryde BC, NSW, 1670

Sample Details

Your Reference	**E33629BT, St Leonards**
Number of Samples	20 Soil
Date samples received	17/12/2021
Date completed instructions received	17/12/2021

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	24/12/2021
Date of Issue	23/12/2021

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Authorised by Asbestos Approved Signatory: Lucy Zhu

Results Approved By
Dragana Tomas, Senior Chemist
Giovanni Agosti, Group Technical Manager
Kyle Gavrily, Chemist
Lucy Zhu, Asbestos Supervisor
Manju Dewendrage, Prep Team Leader
Steven Luong, Organics Supervisor

Authorised By

Nancy Zhang, Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		285684-1	285684-4	285684-7	285684-10	285684-12
Your Reference	UNITS	BH1	BH2	BH3	BH4	BH5
Depth		0.-0.05	0-0.1	0-0.1	0.2-0.5	0-0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	118	123	116	121	128

vTRH(C6-C10)/BTEXN in Soil					
Our Reference		285684-15	285684-18	285684-19	285684-20
Your Reference	UNITS	BH6	SDup1	TB-S1	TS-S1
Depth		0-0.1	-	-	-
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	20/12/2021	20/12/2021	20/12/2021	22/12/2021
TRH C_6 - C_9	mg/kg	<25	<25	<25	[NA]
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	[NA]
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	[NA]
Benzene	mg/kg	<0.2	<0.2	<0.2	95%
Toluene	mg/kg	<0.5	<0.5	<0.5	95%
Ethylbenzene	mg/kg	<1	<1	<1	97%
m+p-xylene	mg/kg	<2	<2	<2	96%
o-Xylene	mg/kg	<1	<1	<1	96%
Naphthalene	mg/kg	<1	<1	<1	[NA]
Total +ve Xylenes	mg/kg	<3	<3	<3	[NA]
Surrogate aaa-Trifluorotoluene	%	130	116	116	114

svTRH (C10-C40) in Soil						
Our Reference		285684-1	285684-4	285684-7	285684-10	285684-12
Your Reference	UNITS	BH1	BH2	BH3	BH4	BH5
Depth		0.-0.05	0-0.1	0-0.1	0.2-0.5	0-0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021	21/12/2021	21/12/2021	21/12/2021
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	200	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	200	<50	<50
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	220	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	120	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	350	<50	<50
Surrogate o-Terphenyl	%	80	83	84	78	83

svTRH (C10-C40) in Soil			
Our Reference		285684-15	285684-18
Your Reference	UNITS	BH6	SDup1
Depth		0-0.1	-
Date Sampled		16/12/2021	16/12/2021
Type of sample		Soil	Soil
Date extracted	-	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021
TRH C_{10} - C_{14}	mg/kg	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100
TRH C_{29} - C_{36}	mg/kg	190	180
Total +ve TRH (C10-C36)	mg/kg	190	180
TRH >C_{10} -C_{16}	mg/kg	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50
TRH >C_{16} -C_{34}	mg/kg	220	190
TRH >C_{34} -C_{40}	mg/kg	<100	120
Total +ve TRH (>C10-C40)	mg/kg	220	310
Surrogate o-Terphenyl	%	85	86

PAHs in Soil						
Our Reference		285684-1	285684-4	285684-7	285684-10	285684-12
Your Reference	UNITS	BH1	BH2	BH3	BH4	BH5
Depth		0.-0.05	0-0.1	0-0.1	0.2-0.5	0-0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	22/12/2021	22/12/2021	22/12/2021	22/12/2021	22/12/2021
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	0.3	0.2	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.2	0.4	1.6	0.8	0.6
Anthracene	mg/kg	0.1	0.1	0.4	0.2	0.1
Fluoranthene	mg/kg	0.8	1	3.2	1.9	1.3
Pyrene	mg/kg	1.1	1.0	3.2	2.0	1.3
Benzo(a)anthracene	mg/kg	0.6	0.5	1.6	1	0.6
Chrysene	mg/kg	0.6	0.4	1.4	1.0	0.7
Benzo(b,j+k)fluoranthene	mg/kg	2	0.9	2.8	2	1
Benzo(a)pyrene	mg/kg	1.1	0.60	1.9	1.3	0.79
Indeno(1,2,3-c,d)pyrene	mg/kg	0.7	0.3	1.1	0.7	0.4
Dibenzo(a,h)anthracene	mg/kg	0.2	<0.1	0.3	0.2	0.1
Benzo(g,h,i)perylene	mg/kg	0.9	0.4	1.3	0.8	0.5
Total +ve PAH's	mg/kg	7.9	5.7	19	12	7.6
Benzo(a)pyrene TEQ calc (zero)	mg/kg	1.6	0.8	2.7	1.8	1.1
Benzo(a)pyrene TEQ calc(half)	mg/kg	1.6	0.8	2.7	1.8	1.1
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	1.6	0.9	2.7	1.8	1.1
Surrogate p-Terphenyl-d14	%	123	120	132	122	119

PAHs in Soil			
Our Reference		285684-15	285684-18
Your Reference	UNITS	BH6	SDup1
Depth		0-0.1	-
Date Sampled		16/12/2021	16/12/2021
Type of sample		Soil	Soil
Date extracted	-	20/12/2021	20/12/2021
Date analysed	-	22/12/2021	22/12/2021
Naphthalene	mg/kg	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	0.2
Acenaphthene	mg/kg	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	0.8
Anthracene	mg/kg	<0.1	0.2
Fluoranthene	mg/kg	0.3	2.1
Pyrene	mg/kg	0.2	2.3
Benzo(a)anthracene	mg/kg	0.1	1.2
Chrysene	mg/kg	0.1	1.2
Benzo(b,j+k)fluoranthene	mg/kg	0.2	2.6
Benzo(a)pyrene	mg/kg	0.1	1.8
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	1.0
Dibenzo(a,h)anthracene	mg/kg	<0.1	0.3
Benzo(g,h,i)perylene	mg/kg	<0.1	1.3
Total +ve PAH's	mg/kg	1.1	15
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	2.6
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	2.6
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	2.6
Surrogate p-Terphenyl-d14	%	122	107

Organochlorine Pesticides in soil						
Our Reference		285684-1	285684-4	285684-7	285684-10	285684-12
Your Reference	UNITS	BH1	BH2	BH3	BH4	BH5
Depth		0.-0.05	0-0.1	0-0.1	0.2-0.5	0-0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	22/12/2021	22/12/2021
Date analysed	-	22/12/2021	22/12/2021	22/12/2021	23/12/2021	23/12/2021
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	100	118	116	110	107

Organochlorine Pesticides in soil		
Our Reference		285684-15
Your Reference	UNITS	BH6
Depth		0-0.1
Date Sampled		16/12/2021
Type of sample		Soil
Date extracted	-	22/12/2021
Date analysed	-	23/12/2021
alpha-BHC	mg/kg	<0.1
HCB	mg/kg	<0.1
beta-BHC	mg/kg	<0.1
gamma-BHC	mg/kg	<0.1
Heptachlor	mg/kg	<0.1
delta-BHC	mg/kg	<0.1
Aldrin	mg/kg	<0.1
Heptachlor Epoxide	mg/kg	<0.1
gamma-Chlordane	mg/kg	<0.1
alpha-chlordane	mg/kg	<0.1
Endosulfan I	mg/kg	<0.1
pp-DDE	mg/kg	<0.1
Dieldrin	mg/kg	<0.1
Endrin	mg/kg	<0.1
Endosulfan II	mg/kg	<0.1
pp-DDD	mg/kg	<0.1
Endrin Aldehyde	mg/kg	<0.1
pp-DDT	mg/kg	<0.1
Endosulfan Sulphate	mg/kg	<0.1
Methoxychlor	mg/kg	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1
Surrogate TCMX	%	108

Organophosphorus Pesticides in Soil						
Our Reference		285684-1	285684-4	285684-7	285684-10	285684-12
Your Reference	UNITS	BH1	BH2	BH3	BH4	BH5
Depth		0.-0.05	0-0.1	0-0.1	0.2-0.5	0-0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	22/12/2021	22/12/2021
Date analysed	-	22/12/2021	22/12/2021	22/12/2021	23/12/2021	23/12/2021
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	100	118	116	110	107

Organophosphorus Pesticides in Soil		
Our Reference		285684-15
Your Reference	UNITS	BH6
Depth		0-0.1
Date Sampled		16/12/2021
Type of sample		Soil
Date extracted	-	22/12/2021
Date analysed	-	23/12/2021
Dichlorvos	mg/kg	<0.1
Dimethoate	mg/kg	<0.1
Diazinon	mg/kg	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1
Ronnel	mg/kg	<0.1
Fenitrothion	mg/kg	<0.1
Malathion	mg/kg	<0.1
Chlorpyriphos	mg/kg	<0.1
Parathion	mg/kg	<0.1
Bromophos-ethyl	mg/kg	<0.1
Ethion	mg/kg	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1
Surrogate TCMX	%	108

PCBs in Soil						
Our Reference		285684-1	285684-4	285684-7	285684-10	285684-12
Your Reference	UNITS	BH1	BH2	BH3	BH4	BH5
Depth		0.-0.05	0-0.1	0-0.1	0.2-0.5	0-0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	20/12/2021	20/12/2021	20/12/2021	22/12/2021	22/12/2021
Date analysed	-	22/12/2021	22/12/2021	22/12/2021	23/12/2021	23/12/2021
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	100	118	116	110	107

PCBs in Soil		
Our Reference		285684-15
Your Reference	UNITS	BH6
Depth		0-0.1
Date Sampled		16/12/2021
Type of sample		Soil
Date extracted	-	22/12/2021
Date analysed	-	23/12/2021
Aroclor 1016	mg/kg	<0.1
Aroclor 1221	mg/kg	<0.1
Aroclor 1232	mg/kg	<0.1
Aroclor 1242	mg/kg	<0.1
Aroclor 1248	mg/kg	<0.1
Aroclor 1254	mg/kg	<0.1
Aroclor 1260	mg/kg	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1
Surrogate TCMX	%	108

Acid Extractable metals in soil						
Our Reference		285684-1	285684-4	285684-7	285684-10	285684-12
Your Reference	UNITS	BH1	BH2	BH3	BH4	BH5
Depth		0.-0.05	0-0.1	0-0.1	0.2-0.5	0-0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Arsenic	mg/kg	<4	54	<4	4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	2	17	6	9	8
Copper	mg/kg	43	26	16	54	16
Lead	mg/kg	7	120	270	110	51
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	2	2	2	3	2
Zinc	mg/kg	29	110	120	65	84

Acid Extractable metals in soil				
Our Reference		285684-15	285684-18	285684-21
Your Reference	UNITS	BH6	SDup1	BH1 - [TRIPLICATE]
Depth		0-0.1	-	0.-0.05
Date Sampled		16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil
Date prepared	-	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	20/12/2021	20/12/2021	20/12/2021
Arsenic	mg/kg	15	5	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4
Chromium	mg/kg	4	11	2
Copper	mg/kg	3	27	31
Lead	mg/kg	42	230	7
Mercury	mg/kg	<0.1	<0.1	<0.1
Nickel	mg/kg	3	4	1
Zinc	mg/kg	52	200	31

Moisture						
Our Reference		285684-1	285684-4	285684-7	285684-10	285684-12
Your Reference	UNITS	BH1	BH2	BH3	BH4	BH5
Depth		0.-0.05	0-0.1	0-0.1	0.2-0.5	0-0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	20/12/2021	20/12/2021	20/12/2021	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021	21/12/2021	21/12/2021	21/12/2021
Moisture	%	9.1	17	21	11	14

Moisture			
Our Reference		285684-15	285684-18
Your Reference	UNITS	BH6	SDup1
Depth		0-0.1	-
Date Sampled		16/12/2021	16/12/2021
Type of sample		Soil	Soil
Date prepared	-	20/12/2021	20/12/2021
Date analysed	-	21/12/2021	21/12/2021
Moisture	%	18	23

Asbestos ID - soils NEPM - ASB-001				
Our Reference		285684-4	285684-12	285684-15
Your Reference	UNITS	BH2	BH5	BH6
Depth		0-0.1	0-0.1	0-0.1
Date Sampled		16/12/2021	16/12/2021	16/12/2021
Type of sample		Soil	Soil	Soil
Date analysed	-	23/12/2021	23/12/2021	23/12/2021
Sample mass tested	g	577.19	707.98	576.9
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil (AS4964) >0.1g/kg	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected
Total Asbestos[#1]	g/kg	<0.1	<0.1	<0.1
Asbestos ID in soil <0.1g/kg*	-	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected
ACM >7mm Estimation*	g	–	–	–
FA and AF Estimation*	g	–	–	–
ACM >7mm Estimation*	%(w/w)	<0.01	<0.01	<0.01
FA and AF Estimation*#2	%(w/w)	<0.001	<0.001	<0.001

Method ID	Methodology Summary
ASB-001	Asbestos ID - Qualitative identification of asbestos in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques including Synthetic Mineral Fibre and Organic Fibre as per Australian Standard 4964-2004.
ASB-001	Asbestos ID - Identification of asbestos in soil samples using Polarised Light Microscopy and Dispersion Staining Techniques. Minimum 500mL soil sample was analysed as recommended by "National Environment Protection (Assessment of site contamination) Measure, Schedule B1 and "The Guidelines from the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia - May 2009" with a reporting limit of 0.1g/kg (0.01% w/w) as per Australian Standard AS4964-2004. Results reported denoted with * are outside our scope of NATA accreditation. **NOTE** #1 Total Asbestos g/kg was analysed and reported as per Australian Standard AS4964 (This is the sum of ACM >7mm, <7mm and FA/AF) **NOTE** #2 The screening level of 0.001% w/w asbestos in soil for FA and AF only applies where the FA and AF are able to be quantified by gravimetric procedures. This screening level is not applicable to free fibres. Estimation = Estimated asbestos weight Results reported with "--" is equivalent to no visible asbestos identified using Polarised Light microscopy and Dispersion Staining Techniques.
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-021	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.

Method ID	Methodology Summary
Org-021	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PCBs" is simply a sum of the positive individual PCBs.
Org-022	Determination of VOCs sampled onto coconut shell charcoal sorbent tubes, that can be desorbed using carbon disulphide, and analysed by GC-MS.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS.
Org-022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-MS/GC-MSMS. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS and/or GC-MS/MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'EQ PQL'values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'EQ zero'values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'EQ half PQL'values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	[NT]
Date extracted	-			20/12/2021	1	20/12/2021	20/12/2021		20/12/2021	[NT]
Date analysed	-			20/12/2021	1	20/12/2021	20/12/2021		20/12/2021	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	<25	1	<25	<25	0	95	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	<25	1	<25	<25	0	95	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	1	<0.2	<0.2	0	89	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	1	<0.5	<0.5	0	103	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	1	<1	<1	0	101	[NT]
m+p-xylene	mg/kg	2	Org-023	<2	1	<2	<2	0	92	[NT]
o-Xylene	mg/kg	1	Org-023	<1	1	<1	<1	0	89	[NT]
Naphthalene	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	117	1	118	121	3	129	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	[NT]
Date extracted	-			20/12/2021	1	20/12/2021	20/12/2021		20/12/2021	[NT]
Date analysed	-			21/12/2021	1	21/12/2021	21/12/2021		21/12/2021	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	1	<50	<50	0	90	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	1	<100	<100	0	101	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	1	<100	<100	0	127	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	1	<50	<50	0	90	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	1	<100	<100	0	101	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	1	<100	<100	0	127	[NT]
Surrogate o-Terphenyl	%		Org-020	86	1	80	77	4	83	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	[NT]
Date extracted	-			20/12/2021	1	20/12/2021	20/12/2021		20/12/2021	[NT]
Date analysed	-			22/12/2021	1	22/12/2021	22/12/2021		22/12/2021	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	92	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	<0.1	1	0.1	0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	81	[NT]
Fluorene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	88	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	1	0.2	0.2	0	86	[NT]
Anthracene	mg/kg	0.1	Org-022/025	<0.1	1	0.1	0.2	67	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	<0.1	1	0.8	1.1	32	82	[NT]
Pyrene	mg/kg	0.1	Org-022/025	<0.1	1	1.1	1.5	31	89	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	<0.1	1	0.6	0.9	40	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	<0.1	1	0.6	0.7	15	67	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	<0.2	1	2	2.3	14	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	<0.05	1	1.1	1.6	37	92	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	<0.1	1	0.7	1	35	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	<0.1	1	0.2	0.2	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	<0.1	1	0.9	1.3	36	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	99	1	123	122	1	109	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	[NT]
Date extracted	-			20/12/2021	1	20/12/2021	20/12/2021		20/12/2021	[NT]
Date analysed	-			21/12/2021	1	22/12/2021	22/12/2021		21/12/2021	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	100	[NT]
HCB	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	114	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	103	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	89	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	110	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	119	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	116	[NT]
Endrin	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	109	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	108	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	108	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	112	1	100	108	8	97	[NT]

QUALITY CONTROL: Organophosphorus Pesticides in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	[NT]
Date extracted	-			20/12/2021	1	20/12/2021	20/12/2021		20/12/2021	[NT]
Date analysed	-			22/12/2021	1	22/12/2021	22/12/2021		22/12/2021	[NT]
Dichlorvos	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	102	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Chlorpyriphos-methyl	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	110	[NT]
Fenitrothion	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	81	[NT]
Malathion	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	101	[NT]
Chlorpyriphos	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	108	[NT]
Parathion	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	84	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-022	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	90	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	112	1	100	108	8	97	[NT]

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	[NT]
Date extracted	-			20/12/2021	1	20/12/2021	20/12/2021		20/12/2021	[NT]
Date analysed	-			22/12/2021	1	22/12/2021	22/12/2021		22/12/2021	[NT]
Aroclor 1016	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	118	[NT]
Aroclor 1260	mg/kg	0.1	Org-021	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate TCMX	%		Org-021	112	1	100	108	8	97	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	[NT]
Date prepared	-			20/12/2021	1	20/12/2021	20/12/2021		20/12/2021	[NT]
Date analysed	-			20/12/2021	1	20/12/2021	20/12/2021		20/12/2021	[NT]
Arsenic	mg/kg	4	Metals-020	<4	1	<4	<4	0	107	[NT]
Cadmium	mg/kg	0.4	Metals-020	<0.4	1	<0.4	<0.4	0	106	[NT]
Chromium	mg/kg	1	Metals-020	<1	1	2	<1	67	117	[NT]
Copper	mg/kg	1	Metals-020	<1	1	43	7	144	105	[NT]
Lead	mg/kg	1	Metals-020	<1	1	7	2	111	112	[NT]
Mercury	mg/kg	0.1	Metals-021	<0.1	1	<0.1	<0.1	0	95	[NT]
Nickel	mg/kg	1	Metals-020	<1	1	2	<1	67	108	[NT]
Zinc	mg/kg	1	Metals-020	<1	1	29	7	122	116	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Report Comments

Acid Extractable Metals in Soil: The laboratory RPD acceptance criteria has been exceeded for 285684-1 for Cu and Zn. Therefore a triplicate result has been issued as laboratory sample number 285684-21.

Asbestos-ID in soil: NEPM
This report is consistent with the reporting recommendations in the National Environment Protection (Assessment of Site Contamination) Measure, Schedule B1, May 2013. This is reported outside our scope of NATA accreditation.

Envirolab Services Pty Ltd
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SAMPLE RECEIPT ADVICE

Client Details

Client	JK Environments
Attention	Katrina Taylor

Sample Login Details

Your reference	E33629BT, St Leonards
Envirolab Reference	285684
Date Sample Received	17/12/2021
Date Instructions Received	17/12/2021
Date Results Expected to be Reported	24/12/2021

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	20 Soil
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	13
Cooling Method	Ice Pack
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
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Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticides in soil	Organophosphorus Pesticides in Soil	PCBsin Soil	Acid Extractable metalsin soil	Asbestos ID - soils NEPM - ASB-001	On Hold
BH1-0.-0.05	✓	✓	✓	✓	✓	✓	✓		
BH1-0.05-0.15									✓
BH1-0.35-0.5									✓
BH2-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	
BH2-0.3-0.5									✓
BH2-0.5-0.95									✓
BH3-0-0.1	✓	✓	✓	✓	✓	✓	✓		
BH3-0.25-0.5									✓
BH3-0.5-0.95									✓
BH4-0.2-0.5	✓	✓	✓	✓	✓	✓	✓		
BH4-0.5-0.8									✓
BH5-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	
BH5-0.2-0.5									✓
BH5-0.5-0.95									✓
BH6-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	
BH6-0.3-0.5									✓
BH6-0.7-1.0									✓
SDup1	✓	✓	✓				✓		
TB-S1	✓								
TS-S1	✓								

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

SAMPLE AND CHAIN OF CUSTODY FORM

TO:		FROM:
ENVIROLAB SERVICES PTY LTD 12 ASHLEY STREET CHATSWOOD NSW 2067 P: (02) 99106200 F: (02) 99106201 Attention: Aileen	JKE Job Number: E33629BT Date Results Required: STANDARD Page: 1 of 1	JKEnvironments REAR OF 115 WICKS ROAD MACQUARIE PARK, NSW 2113 P: 02-9888 5000 F: 02-9888 5001 Attention: Katrina Taylor

Location:	St Leonards						Sample Preserved in Esky on Ice											
Sampler:	MME						Tests Required											
Date Sampled	Lab Ref:	Sample Number	Depth (m)	Sample Container	PID	Sample Description	Combo 6	Asbestos (500ml NEPM)	Combo 3	BTEX								
16/12/2021	1	BH1	0-0.05	G, A	0	F: Clayey gravel	X											
16/12/2021	2	BH1	0.05-0.15	G, A	0	F: clayey sand												
16/12/2021	3	BH1	0.35-0.5	G, A	0	Sandstone												
16/12/2021	4	BH2	0-0.1	G, A	0	F: silty sandy clay	X	X										
16/12/2021	5	BH2	0.3-0.5	G, A	0	F: silty sandy clay												
16/12/2021	6	BH2	0.5-0.95	G, A	0	silty clay												
16/12/2021	7	BH3	0-0.1	G, A	0	F: clayey sand	X											
16/12/2021	8	BH3	0.25-0.5	G, A	0	silty clay												
16/12/2021	9	BH3	0.5-0.95	G	0	XW Sandstone												
16/12/2021	10	BH4	0.2-0.5	G, A	0	F: silty clay	X											
16/12/2021	11	BH4	0.5-0.8	G	0	silty clayey sand												
16/12/2021	12	BH5	0-0.1	G, A	0	F: silty sandy clay	X	X										
16/12/2021	13	BH5	0.2-0.5	G, A	0	silty clay												
16/12/2021	14	BH5	0.5-0.95	G	0	silty clay												
16/12/2021	15	BH6	0-0.1	G, A	0	F: silty sandy clay	X	X										
16/12/2021	16	BH6	0.3-0.5	G, A	0	F: silty sand												
16/12/2021	17	BH6	0.7-1.0	G, A	0	silty sandy clay												
16/12/2021	18	SDup1	-	G	-	Fill			X									
16/12/2021	19	TB-S1	-	G	-	Sand				X								
16/12/2021	20	TS-S1	-	G	-	Sand				X								

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 286684

Date Received: 17/12/21

Time Received: 13:30

Received by: [signature]

Temp: Cool/Ambient

Cooling: Ice/Icepack

Security: Intact/Broken/None

Remarks (comments/detection limits required):

Sample Containers:
G - 250mg Glass Jar
A - Ziplock Asbestos Bag
P - Plastic Bag

Relinquished By:	Date:	Time:	Received By:	Date:
		13:30	Nancy Zhang	17/12/21

13°C.

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 285684-A

Client Details

Client	JK Environments
Attention	Katrina Taylor
Address	PO Box 976, North Ryde BC, NSW, 1670

Sample Details

Your Reference	**E33629BT, St Leonards**
Number of Samples	additional analysis
Date samples received	17/12/2021
Date completed instructions received	05/01/2022

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

Date results requested by	12/01/2022
Date of Issue	12/01/2022

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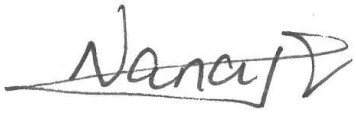
Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By
Giovanni Agosti, Group Technical Manager
Kyle Gavrily, Chemist
Liam Timmins, Chemist
Steven Luong, Organics Supervisor

Authorised By



Nancy Zhang, Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil			
Our Reference		285684-A-6	285684-A-9
Your Reference	UNITS	BH2	BH3
Depth		0.5-0.95	0.5-0.95
Date Sampled		16/12/2021	16/12/2021
Type of sample		Soil	Soil
Date extracted	-	06/01/2022	06/01/2022
Date analysed	-	07/01/2022	07/01/2022
TRH C_6 - C_9	mg/kg	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25
Benzene	mg/kg	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1
m+p-xylene	mg/kg	<2	<2
o-Xylene	mg/kg	<1	<1
Naphthalene	mg/kg	<1	<1
Total +ve Xylenes	mg/kg	<3	<3
Surrogate aaa-Trifluorotoluene	%	102	101

svTRH (C10-C40) in Soil			
Our Reference		285684-A-6	285684-A-9
Your Reference	UNITS	BH2	BH3
Depth		0.5-0.95	0.5-0.95
Date Sampled		16/12/2021	16/12/2021
Type of sample		Soil	Soil
Date extracted	-	06/01/2022	06/01/2022
Date analysed	-	06/01/2022	07/01/2022
TRH C_{10} - C_{14}	mg/kg	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50
TRH >C_{10} -C_{16}	mg/kg	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50
Surrogate o-Terphenyl	%	111	111

PAHs in Soil			
Our Reference		285684-A-6	285684-A-9
Your Reference	UNITS	BH2	BH3
Depth		0.5-0.95	0.5-0.95
Date Sampled		16/12/2021	16/12/2021
Type of sample		Soil	Soil
Date extracted	-	06/01/2022	06/01/2022
Date analysed	-	06/01/2022	06/01/2022
Naphthalene	mg/kg	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	101	105

Acid Extractable metals in soil			
Our Reference		285684-A-6	285684-A-9
Your Reference	UNITS	BH2	BH3
Depth		0.5-0.95	0.5-0.95
Date Sampled		16/12/2021	16/12/2021
Type of sample		Soil	Soil
Date prepared	-	07/01/2022	07/01/2022
Date analysed	-	07/01/2022	07/01/2022
Arsenic	mg/kg	9	5
Cadmium	mg/kg	<0.4	<0.4
Chromium	mg/kg	22	13
Copper	mg/kg	<1	1
Lead	mg/kg	11	9
Mercury	mg/kg	<0.1	<0.1
Nickel	mg/kg	<1	<1
Zinc	mg/kg	32	5

Moisture			
Our Reference		285684-A-6	285684-A-9
Your Reference	UNITS	BH2	BH3
Depth		0.5-0.95	0.5-0.95
Date Sampled		16/12/2021	16/12/2021
Type of sample		Soil	Soil
Date prepared	-	06/01/2022	06/01/2022
Date analysed	-	07/01/2022	07/01/2022
Moisture	%	23	18

Method ID	Methodology Summary
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS and/or GC-MS/MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'EQ PQL'values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'EQ zero'values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'EQ half PQL'values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.

Method ID	Methodology Summary
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date extracted	-			06/01/2022	[NT]	[NT]	[NT]	[NT]	06/01/2022	[NT]
Date analysed	-			07/01/2022	[NT]	[NT]	[NT]	[NT]	07/01/2022	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	100	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	100	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	[NT]	[NT]	[NT]	[NT]	97	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	89	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	110	[NT]
m+p-xylene	mg/kg	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	102	[NT]
o-Xylene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	94	[NT]
Naphthalene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	94	[NT]	[NT]	[NT]	[NT]	97	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date extracted	-			06/01/2022	[NT]	[NT]	[NT]	[NT]	06/01/2022	[NT]
Date analysed	-			06/01/2022	[NT]	[NT]	[NT]	[NT]	06/01/2022	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	114	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	112	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	109	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	114	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	112	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	109	[NT]
Surrogate o-Terphenyl	%		Org-020	115	[NT]	[NT]	[NT]	[NT]	105	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date extracted	-			06/01/2022	[NT]	[NT]	[NT]	[NT]	06/01/2022	[NT]
Date analysed	-			06/01/2022	[NT]	[NT]	[NT]	[NT]	06/01/2022	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	116	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	109	[NT]
Fluorene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	116	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	102	[NT]
Anthracene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	90	[NT]
Pyrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	91	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	83	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	120	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	98	[NT]	[NT]	[NT]	[NT]	112	[NT]

QUALITY CONTROL: Acid Extractable metals in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			07/01/2022	[NT]	[NT]	[NT]	[NT]	07/01/2022	[NT]
Date analysed	-			07/01/2022	[NT]	[NT]	[NT]	[NT]	07/01/2022	[NT]
Arsenic	mg/kg	4	Metals-020	<4	[NT]	[NT]	[NT]	[NT]	93	[NT]
Cadmium	mg/kg	0.4	Metals-020	<0.4	[NT]	[NT]	[NT]	[NT]	86	[NT]
Chromium	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	93	[NT]
Copper	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	91	[NT]
Lead	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	90	[NT]
Mercury	mg/kg	0.1	Metals-021	<0.1	[NT]	[NT]	[NT]	[NT]	109	[NT]
Nickel	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	89	[NT]
Zinc	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	89	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

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12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
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SAMPLE RECEIPT ADVICE

Client Details

Client	JK Environments
Attention	Katrina Taylor

Sample Login Details

Your reference	E33629BT, St Leonards
Envirolab Reference	285684-A
Date Sample Received	17/12/2021
Date Instructions Received	05/01/2022
Date Results Expected to be Reported	12/01/2022

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	additional analysis
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	13
Cooling Method	Ice Pack
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
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Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Acid Extractable metalsin soil	On Hold
BH1-0.-0.05					✓
BH1-0.05-0.15					✓
BH1-0.35-0.5					✓
BH2-0-0.1					✓
BH2-0.3-0.5					✓
BH2-0.5-0.95	✓	✓	✓	✓	
BH3-0-0.1					✓
BH3-0.25-0.5					✓
BH3-0.5-0.95	✓	✓	✓	✓	
BH4-0.2-0.5					✓
BH4-0.5-0.8					✓
BH5-0-0.1					✓
BH5-0.2-0.5					✓
BH5-0.5-0.95					✓
BH6-0-0.1					✓
BH6-0.3-0.5					✓
BH6-0.7-1.0					✓
SDup1					✓
TB-S1					✓
TS-S1					✓
BH1 - [TRIPLICATE]-0.-0.05					✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

Ming To

Subject: FW: Results for Registration 285684 E33629BT, St Leonards
Attachments: 285684-[R00].pdf; 285684-COC.pdf; JK Environment Soil for Envirolab 285684.xlsx; 285684.Excel.xlsx

Ref: 285684-A.
TAT: Standard
Due: 12/01/2022
MT

285684-A

From: Katrina Taylor <KTaylor@jkenvironments.com.au>
Sent: Wednesday, 5 January 2022 10:22 AM
To: Samplereceipt <Samplereceipt@envirolabservices.com.au>
Subject: FW: Results for Registration 285684 E33629BT, St Leonards

Morning,

Please schedule the following analysis on standard TA:

#3
6. BH2 (0.5-0.95)
9. BH3 (0.5-0.95)

Thanks.

Regards
Katrina Taylor
Associate | Environmental Scientist
NSW Licensed Asbestos Assessor

T: +612 9888 5000
D: 0418 481 628
E: KTaylor@jkenvironments.com.au
www.jkenvironments.com.au

PO Box 976
NORTH RYDE BC NSW 1670
115 Wicks Road
MACQUARIE PARK NSW 2113

JKEnvironments

From: Nancy Zhang <NZhang@envirolab.com.au>
Sent: Thursday, 23 December 2021 4:21 PM
To: Katrina Taylor <KTaylor@jkenvironments.com.au>
Subject: Results for Registration 285684 E33629BT, St Leonards

Please refer to attached for:
a copy of the Certificate of Analysis

Appendix F: Report Explanatory Notes

QA/QC Definitions

The QA/QC terms used in this report are defined below. The definitions are in accordance with US EPA publication SW-846, entitled *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods* (1994)[12] methods and those described in *Environmental Sampling and Analysis, A Practical Guide,* (1991)[13]. The NEPM (2013) is consistent with these documents.

A. Practical Quantitation Limit (PQL), Limit of Reporting (LOR) & Estimated Quantitation Limit (EQL)

These terms all refer to the concentration above which results can be expressed with a minimum 95% confidence level. The laboratory reporting limits are generally set at ten times the standard deviation for the Method Detection Limit for each specific analyte. For the purposes of this report the LOR, PQL, and EQL are considered to be equivalent.

When assessing laboratory data it should be borne in mind that values at or near the PQL have two important limitations: *"The uncertainty of the measurement value can approach, and even equal, the reported value. Secondly, confirmation of the analytes reported is virtually impossible unless identification uses highly selective methods. These issues diminish when reliably measurable amounts of analytes are present. Accordingly, legal and regulatory actions should be limited to data at or above the reliable detection limit*" (Keith, 1991).

B. Precision

The degree to which data generated from repeated measurements differ from one another due to random errors. Precision is measured using the standard deviation or Relative Percent Difference (RPD).

C. Accuracy

Accuracy is a measure of the agreement between an experimental result and the true value of the parameter being measured (i.e. the proximity of an averaged result to the true value, where all random errors have been statistically removed). The assessment of accuracy for an analysis can be achieved through the analysis of known reference materials or assessed by the analysis of surrogates, field blanks, trip spikes and matrix spikes. Accuracy is typically reported as percent recovery.

D. Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents a characteristic of a population, parameter variations at a sampling point, or an environmental condition. Representativeness is primarily dependent upon the design and implementation of the sampling program. Representativeness of the data is partially ensured by the avoidance of contamination, adherence to sample handing and analysis protocols and use of proper chain-of-custody and documentation procedures.

E. Completeness

Completeness is a measure of the number of valid measurements in a data set compared to the total number of measurements made and overall performance against DQIs. The following information is assessed for completeness:

- Chain-of-custody forms;
- Sample receipt form;
- All sample results reported;
- All blank data reported;

[12] US EPA, (1994). *SW-846: Test Methods for Evaluating Solid Waste, Physical/Chemical Methods.* (US EPA SW-846)

[13] Keith., H, (1991). *Environmental Sampling and Analysis, A Practical Guide*

- All laboratory duplicate and RPDs calculated;
- All surrogate spike data reported;
- All matrix spike and lab control spike (LCS) data reported and RPDs calculated;
- Spike recovery acceptable limits reported; and
- NATA stamp on reports.

F. Comparability

Comparability is the evaluation of the similarity of conditions (e.g. sample depth, sample homogeneity) under which separate sets of data are produced. Data comparability checks include a bias assessment that may arise from the following sources:

- Collection and analysis of samples by different personnel; Use of different techniques;
- Collection and analysis by the same personnel using the same methods but at different times; and
- Spatial and temporal changes (due to environmental dynamics).

G. Blanks

The purpose of laboratory and field blanks is to check for artefacts and interferences that may arise during sampling, transport and analysis.

H. Matrix Spikes

Samples are spiked with laboratory grade standards to detect interactive effects between the sample matrix and the analytes being measured. Matrix Spikes are reported as a percent recovery and are prepared for 1 in every 20 samples. Sample batches that contain less than 20 samples may be reported with a Matrix Spike from another batch. The percent recovery is calculated using the formula below. Acceptable recovery limits are 70% to 130%.

$$\frac{\text{(Spike Sample Result – Sample Result) x 100}}{\text{Concentration of Spike Added}}$$

I. Surrogate Spikes

Samples are spiked with a known concentration of compounds that are chemically related to the analyte being investigated but unlikely to be detected in the environment. The purpose of the Surrogate Spikes is to check the accuracy of the analytical technique. Surrogate Spikes are reported as percent recovery.

J. Duplicates

Laboratory duplicates measure precision, expressed as Relative Percent Difference. Duplicates are prepared from a single field sample and analysed as two separate extraction procedures in the laboratory. The RPD is calculated using the formula where D1 is the sample concentration and D2 is the duplicate sample concentration:

$$\frac{(D1 - D2) \times 100}{\{(D1 + D2)/2\}}$$

Appendix G: Data (QA/QC) Evaluation

Data (QA/QC) Evaluation

A. INTRODUCTION

This Data (QA/QC) Evaluation forms part of the validation process for the DQOs documented in Section 6.1 of this report. Checks were made to assess the data in terms of precision, accuracy, representativeness, comparability and completeness. These 'PARCC' parameters are referred to collectively as DQIs and are defined in the Report Explanatory Notes attached in the report appendices.

1. Field and Laboratory Considerations

The quality of the analytical data produced for this project has been considered in relation to the following:

- Sample collection, storage, transport and analysis;
- Laboratory PQLs;
- Field QA/QC results; and
- Laboratory QA/QC results.

2. Field QA/QC Samples and Analysis

A summary of the field QA/QC samples collected and analysed for this investigation is provided in the following table:

Sample Type	Sample Identification	Frequency (of Sample Type)	Analysis Performed
Intra-laboratory duplicate (soil)	SDUP1 (primary sample BH3 0-0.1m)	Approximately 13% of primary samples	Heavy metals, TRH/BTEX, and PAHs
Trip spike (soil)	TS1 (16 December 2021)	One for the investigation to demonstrate adequacy of preservation, storage and transport methods	BTEX
Trip blank (soil)	TB1 (16 December 2021)	One for the investigation to demonstrate adequacy of storage and transport methods	BTEX

The results for the field QA/QC samples are detailed in laboratory summary table Q1 attached to the investigation report and are discussed in the subsequent sections of this Data (QA/QC) Evaluation report.

3. Data Assessment Criteria

JKE adopted the following criteria for assessing the field and laboratory QA/QC analytical results:

Field Duplicates

Acceptable targets for precision of field duplicates in this report will be 30% or less, consistent with NEPM (2013). RPD failures will be considered qualitatively on a case-by-case basis taking into account factors such as the concentrations used to calculate the RPD (i.e. RPD exceedance where concentrations are close to the

PQL are typically not as significant as those where concentrations are reported at least five or 10 times the PQL), sample type, collection methods and the specific analyte where the RPD exceedance was reported.

Field/Trip Blanks

Acceptable targets for field blank samples in this report will be less than the PQL for organic analytes.

Trip Spikes

Acceptable targets for trip spike samples in this report will be 70% to 130%.

Laboratory QA/QC

The suitability of the laboratory data is assessed against the laboratory QA/QC criteria which is outlined in the laboratory reports. These criteria were developed and implemented in accordance with the laboratory's NATA accreditation and align with the acceptable limits for QA/QC samples as outlined in NEPM (2013) and other relevant guidelines.

A summary of the acceptable limits adopted by the primary laboratory (Envirolab) is provided below:

RPDs

- Results that are <5 times the PQL, any RPD is acceptable; and
- Results >5 times the PQL, RPDs between 0-50% are acceptable.

Laboratory Control Samples (LCS) and Matrix Spikes

- 70-130% recovery acceptable for metals and inorganics;
- 60-140% recovery acceptable for organics; and
- 10-140% recovery acceptable for VOCs.

Surrogate Spikes

- 60-140% recovery acceptable for general organics; and
- 10-140% recovery acceptable for VOCs.

Method Blanks

- All results less than PQL.

B. DATA EVALUATION

1. Sample Collection, Storage, Transport and Analysis

Samples were collected by trained field staff in accordance. Field sampling procedures were designed to be consistent with relevant guidelines, including NEPM (2013) and other guidelines made under the CLM Act 1997.

Appropriate sample preservation, handling and storage procedures were adopted. Laboratory analysis was undertaken within specified holding times generally in accordance with Schedule B(3) of NEPM (2013) and the laboratory NATA accredited methodologies.

Envirolab noted that the asbestos results were reported to be consistent with the recommendations in NEPM (2013), however this level of reporting is outside the scope of their NATA accreditation. In the absence of other available analytical methods for asbestos, this was found to be acceptable for the purpose of this investigation.

Review of the project data also indicated that:

- COC documentation was adequately maintained;
- Sample receipt advice documentation was provided for all sample batches;
- All analytical results were reported; and
- Consistent units were used to report the analysis results.

2. Laboratory PQLs

Appropriate PQLs were adopted for the analysis and all PQLs were below the SAC.

3. Field QA/QC Sample Results

Field Duplicates

The results indicated that field precision was acceptable. Elevated RPDs were reported for several PAH compounds, arsenic, chromium, copper, nickel and zinc in SDUP1/BH3 (0-0.1m). Values outside the acceptable limits have been attributed to sample heterogeneity and the difficulties associated with obtaining homogenous duplicate samples of heterogeneous matrices. As both the primary and duplicate sample results were less than the SAC, the exceedances are not considered to have had an adverse impact on the data set as a whole.

Field/Trip Blanks

During the investigation, one soil trip blank was placed in the esky during sampling and transported back to the laboratory. The results were all less than the PQLs, therefore cross contamination between samples that may have significance for data validity did not occur.

Trip Spikes

The results ranged from 95% to 97% and indicated that field preservation methods were appropriate.

4. Laboratory QA/QC

The analytical methods implemented by the laboratory were performed in accordance with their NATA accreditation and were consistent with Schedule B(3) of NEPM (2013). The frequency of data reported for the laboratory QA/QC (i.e. duplicates, spikes, blanks, LCS) was considered to be acceptable for the purpose of this investigation. JKE note that due to the limited number of samples submitted for analysis, duplicates and matrix spikes were not reported. This is not considered to have an impact on the data quality for this investigation.

A review of the laboratory QA/QC data identified that the laboratory RPD acceptance criteria was exceeded for copper and zinc in one sample, therefore a triplicate result was issued.

C. DATA QUALITY SUMMARY

JKE are of the opinion that the data are adequately precise, accurate, representative, comparable and complete to serve as a basis for interpretation to achieve the investigation objectives.

Non-conformances were reported for some field QA/QC samples and laboratory QA/QC analysis. These non-conformances were considered to be sporadic and minor, and were not considered to be indicative of systematic sampling or analytical errors. On this basis, these non-conformances are not considered to materially impact the report findings.

Appendix H: Guidelines and Reference Documents

Acid Sulfate Soils Management Advisory Committee (ASSMAC), (1998). Acid Sulfate Soils Manual

Canadian Council of Ministers of the Environment, (1999). Canadian soil quality guidelines for the protection of environmental and human health: Benzo(a)Pyrene (1997)

CRC Care, (2011). Technical Report No. 10 – Health screening levels for hydrocarbons in soil and groundwater Part 1: Technical development document

Contaminated Land Management Act 1997 (NSW)

Department of Land and Water Conservation, (1997). 1:25,000 Acid Sulfate Soil Risk Map Series

Managing Land Contamination, Planning Guidelines SEPP55 – Remediation of Land (1998)

NSW EPA, (1995). Contaminated Sites Sampling Design Guidelines

NSW EPA, (2015). Guidelines on the Duty to Report Contamination under Section 60 of the CLM Act 1997

NSW EPA, (2017). Guidelines for the NSW Site Auditor Scheme, 3rd Edition

NSW EPA, (2020). Consultants Reporting on Contaminated Land, Contaminated Land Guidelines

National Environment Protection Council (NEPC), (2013). National Environmental Protection (Assessment of Site Contamination) Measure 1999 as amended (2013)

Olszowy, H., Torr, P., and Imray, P., (1995). Trace Element Concentrations in Soils from Rural and Urban Areas of Australia. Contaminated Sites Monograph Series No. 4. Department of Human Services and Health, Environment Protection Agency, and South Australian Health Commission

Protection of the Environment Operations Act 1997 (NSW)

State Environmental Planning Policy No.55 – Remediation of Land 1998 (NSW)

Western Australia Department of Health, (2021). Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia