Macquarie Capital

Metro Martin Place

Stage 1 Amending DA - Utility Services Infrastructure Assessment

CSWSMP-MAC-SMA-CE-REP-999905

Rev A | 4 July 2018

This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number 247838

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This report takes into account our client's particular instructions and requirements and addresses their priorities at the time. This report is relied upon by third parties at their own risk, third parties must make their own assessment of it and it should not be relied on by any third party without first obtaining independent specific professional advice. No responsibility is undertaken to any third party by Arup in relation to this report.

1 Introduction

1.1 Introduction

This report supports a State Significant Development (SSD) Development Application (DA) submitted to the Minister for Planning (Minister) pursuant to Part 4 of *the Environmental Planning and Assessment Act 1979* (EP&A Act) on behalf of Macquarie Corporate Holdings Pty Limited (Macquarie), who is seeking to create a world class transport and employment precinct at Martin Place, Sydney.

The SSD DA seeks approval for an amended Concept Proposal (otherwise known as a Stage 1 DA) relating to the Martin Place Metro Station Precinct ('the Precinct'). An existing development consent (SSD 17_8351) for a Concept Proposal is in place for the Precinct, which approved the concept for two Over Station Development (OSD) commercial towers above the northern (North Site) and southern (South Site) entrances of Martin Place Metro Station. The Concept Proposal approved building envelopes, land uses, Gross Floor Areas (GFA) and Design Guidelines with which the detailed design (otherwise known as a Stage 2 DA) must be consistent.

This Stage 1 Amending DA is a concept development application made under Section 4.22 of the EP&A Act. It seeks to align the approved South Site building envelope with the new planning controls established for the precinct as a result of a site specific amendment to Sydney LEP 2012. The new controls permit greater building height (over a portion of the South Site only) and additional floor space (North Site and South Site).

Whilst the approved Concept Proposal related to the entire Precinct, this Amending DA relates principally to the building envelope of the **South Site**, in terms of amending the approved height and floor space.

This application does not seek approval for elements of the Martin Place Station Precinct which relate to Stage 2 of the Sydney Metro infrastructure project, which is subject to a separate Critical State Significant Infrastructure (CSSI) approval. These include:

- Demolition of buildings on the North Site and South Site;
- Construction of rail infrastructure, including station platforms and concourses;
- Ground level public domain works; and
- Station related elements in the podium of the North Site and South Site building.

The approved Stage 1 Concept Proposal approved conceptual OSD areas in the approved Martin Place Station Structure, above and below ground level, which are classified as SSD as they relate principally to the OSD. These components are within the Metro CSSI approved station envelope that will contain some OSD

elements not approved in the CSSI consent. Those elements include the end of trip facilities, office entries, office space and retail areas, along with other office/retail plant and back of house requirements that are associated with the proposed OSD and not the rail infrastructure. This Amending DA does not propose to modify this.

Currently due to the design being at an early stage of development, the proposals put forward in this report are subject to change due to further development and refinement of design, contractor input into construction methodology and staging and further in ground investigation from both destructive and non-destructive survey methods.

A 'Dial Before You Dig' (DBYD) enquiry was sought for all utility providers and the information collated throughout the report. To date no initial discussions have been undertaken with key utility providers due to the confidentiality of the unsolicited bid. It is anticipated by Stage 2 DA initial conversations will have taken place with affected authorities to gain confirmation of proposed alterations/ protections.

1.2 Context

The New South Wales (NSW) Government is implementing Sydney's Rail Future (Transport for NSW, 2012), a plan to transform and modernise Sydney's rail network so that it can grow with the city's population and meet the needs of customers in the future.

Sydney Metro is a new standalone rail network identified in Sydney's Rail Future. The Sydney Metro network consists of Sydney Metro Northwest (Stage 1) and Sydney Metro City & Southwest (Stage 2).

Stage 2 of the Metro entails the construction and operation of a new Metro rail line from Chatswood, under Sydney Harbour through Sydney's CBD to Sydenham and onto to Bankstown through the conversion of the existing line to Metro standards. The project also involves the delivery of seven (7) new Metro stations, including Martin Place.

This step-change piece of public transport infrastructure once complete will have the capacity for 30 trains an hour (one every two minutes) through the CBD in each direction catering for an extra 100,000 customers per hour across the Sydney CBD rail lines.

On 9 January 2017 the Minister approved the Stage 2 (Chatswood to Sydenham) Metro application lodged by Transport for NSW (TfNSW) as a Critical State Significant Infrastructure (CSSI) project (reference SSI 15_7400). Work is well underway under this approval, including demolition of buildings at Martin Place.

The OSD development is subject to separate applications to be lodged under the relevant provisions of the EP&A Act.

1.3 Site Description

The Sydney Metro Martin Place Station Precinct project relates to the following properties (refer to **Figure 1**):

- 50 Martin Place, 9 – 19 Elizabeth Street, 8 – 12 Castlereagh Street, 5 Elizabeth Street, 7 Elizabeth Street, and 55 Hunter Street (North Site);
- 39 – 49 Martin Place (South Site); and
- Martin Place (that part bound by Elizabeth Street and Castlereagh Street).

This Stage 1 Amending DA relates principally to the building envelope of the South Site, being land at 39 – 49 Martin Place, Sydney (refer to **Figure 1**).

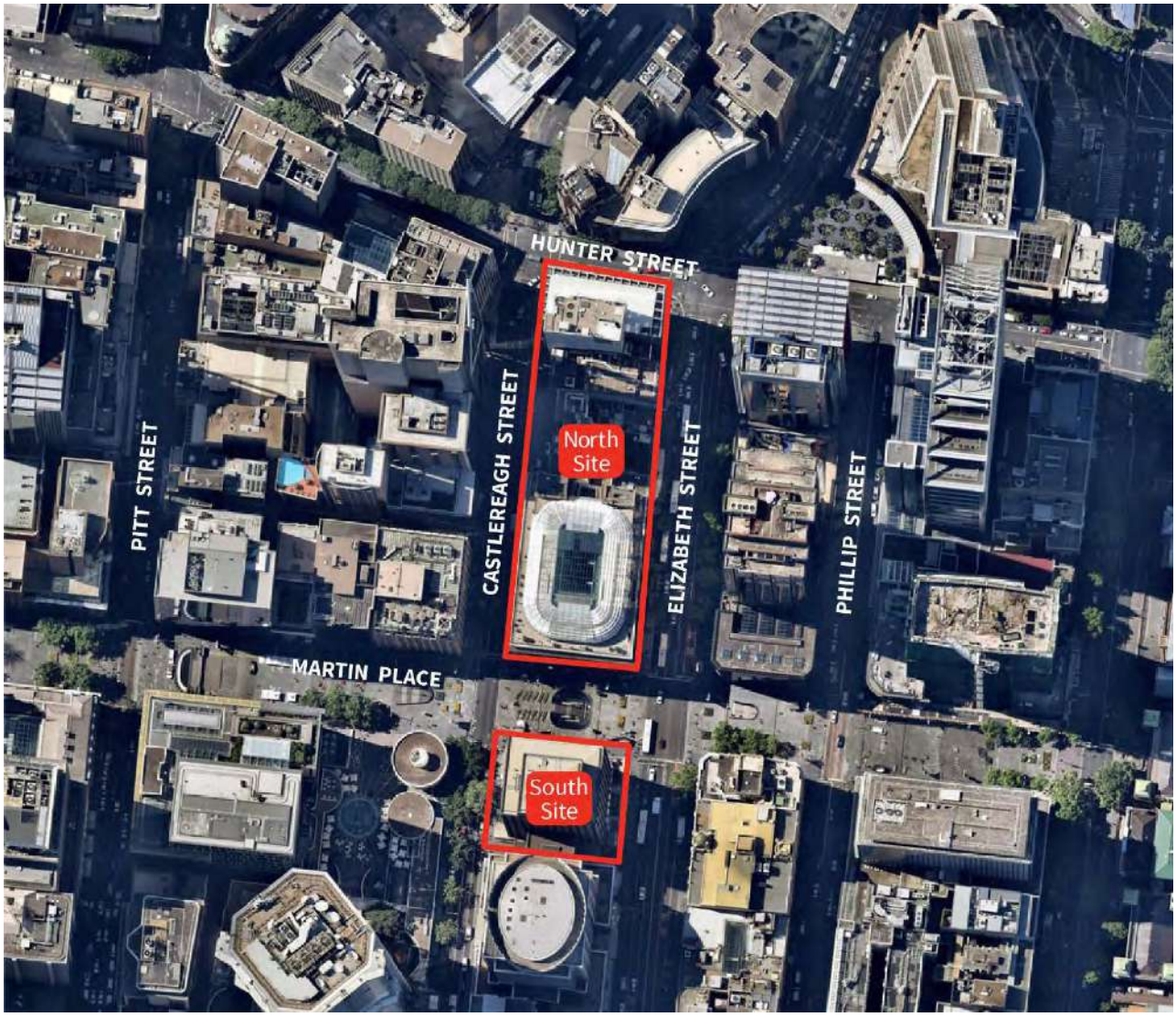


Figure 1 – Aerial Photo of the North and South Site of the Martin Place Metro Station Precinct

1.4 Background

Sydney Metro Stage 2 Approval (SSI 15_7400)

On 9 January 2017, the Minister approved Stage 2 of the Sydney Metro project, involving the construction and operation of a metro rail line between Chatswood and Sydenham, including the construction of a tunnel under Sydney Harbour, links with the existing rail network, seven metro stations (including a station at Martin Place), and associated ancillary infrastructure. The project approves the demolition of existing buildings at Martin Place, excavation and construction of the new station (above and below ground) along with construction of below and above ground structural and other components of the future OSD, although the fit-out and use of such areas are the subject of separate development approval processes.

Modification 3 to the Sydney Metro consent, approved 22 March 2018, enabled the inclusion of Macquarie-owned land at 50 Martin Place and 9-19 Elizabeth Street within the Martin Place Station footprint, and other associated changes (including retention of existing MLC pedestrian link).

Planning Proposal (PP_2017_SYDNE_007_00) – Amendment to Sydney LEP 2012

The Planning Proposal (PP_2017_SYDNE_007_00) sought to amend the development standards applying to the Sydney Metro Martin Place Station Precinct through the inclusion of a site-specific provision in the Sydney LEP 2012. This site-specific provision reduced the portion of the South Site that was subject to a 55 metre height limit from 25 metres from the boundary to Martin Place, to 8 metres, and applies the Hyde Park North Sun Access Plane to the remainder of the South Site, forming the height limit of the tower. It also permitted a revised FSR of 22:1 on the South Site and 18.5:1 on the North Site (resulting in a combined permissible overall GFA of 153,141m^2). These amendments were gazetted within Sydney LEP 2012 and reflect the new planning controls applying to the precinct.

Concept Proposal (SSD 17_8351)

On 22 March 2018, the Minister approved a Concept Proposal (SSD 17_8351) for the Precinct. The Concept Proposal established the planning and development framework through which to assess the detailed Stage 2 applications.

The approved Concept Proposal specifically encompassed:

- building envelopes for OSD towers on the North Site and South Site (see **Figure 3**) comprising:
  - 28+ storey building on the South Site, with a 25m setback to Martin Place above 55m in height, and a 40+ storey building on the North Site.
  - Concept approval to integrate the North Site with the existing/retained 50 Martin Place building (the former Government Savings Bank of NSW).
- predominantly commercial land uses on both sites, comprising office, business and retail premises;
- a maximum total GFA of 125,437m^2 across both sites;

- consolidated Design Guidelines to guide the built form and design of the future development.
- a framework for achieving design excellence.
- strategies for utilities and services provision, managing drainage and flooding, and achieving ecological sustainable development.
- conceptual OSD areas in the approved Martin Place Metro Station structure, above and below ground level[1].

The Concept Proposal was prepared and determined prior to the site specific Sydney LEP 2012 amendment being gazetted and was developed based on the height development standards that applied to the South Site at the time. As a result, the approved Concept Proposal allows for a tower on the South Site that is now inconsistent with the building envelope envisaged through the Sydney LEP 2012.

Figure 2 – North Site and South Site Approved OSD Building Envelopes

1.5 Overview of the Proposed Development

The Stage 1 Amending DA seeks approval for an amended Concept Proposal for the Martin Place Metro Station Precinct, specifically a larger building envelope

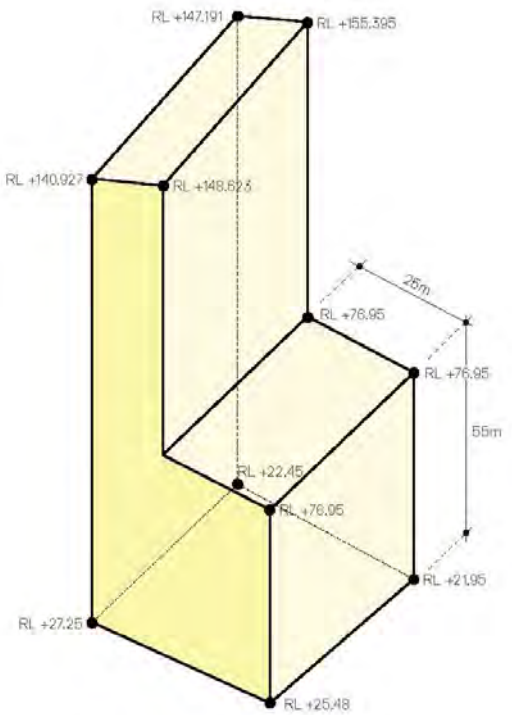
[1] *Refers to those components within the Metro CSSI approved station envelope that will contain some OSD elements not approved in the CSSI consent. Those elements include the end of trip facilities, office entries, office space and retail areas, along with other office/retail plant and back of house requirements that are associated with the proposed OSD and not the rail infrastructure.*

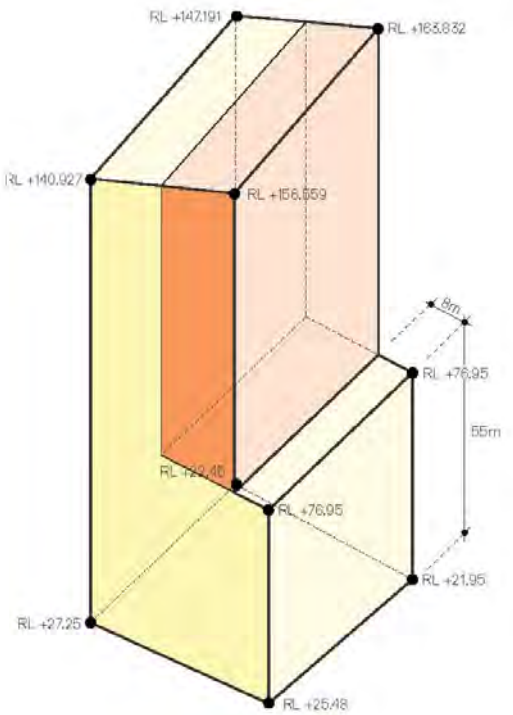
for the South Site compared to the building envelope approved by the Minister through SSD 17_8351. The amended South Tower envelope will reflect a building envelope that aligns with the new controls applying to the precinct under Sydney LEP 2012, including increased height and FSR limits. It is proposed to amend the South Tower building envelope, through:

- a tower setback to Martin Place of 8 metres above the 55m podium height (reduced from 25 metres as approved within the Concept Proposal);
- a tower height that is consistent with the Hyde Park North Sun Access Plane beyond the 8m setback to Martin Place (constituting a generally taller tower than approved within Concept Proposal); and
- an increase in GFA/FSR for the South Site from approximately 23,700m^2 (12.5:1) up to approximately 41,700m^2 (22:1) - inclusive of all CSSI Station components.

Figure 3 below illustrates these proposed amendments to the South Site building envelope.

It is proposed that a condition be imposed on the Stage 1 Amending DA development consent pursuant to Section 4.17(1)(b) of the EP&A Act, requiring the modification of the original consent (SSD 17_8351) upon the commencement of the Stage 1 Amending DA Consent, in accordance with the procedures under Clause 97 of the *Environment Planning and Assessment Regulation 2000* (EP&A Regulation). This condition would address any inconsistency between the approved Concept Proposal and the Stage 1 Amending DA (and any subsequent detailed consents, i.e. the Stage 2 South Site DA).





Approved South Site Building Envelope *Proposed Amended South Site OSD Envelope (aligning with site specific amendment to Sydney LEP 2012)*

Figure 3 – Relationship between the approved and proposed amended South Site building envelope

1.6 Planning Approvals Strategy

State Environmental Planning Policy (State and Regional Development) 2011 (SEPP SRD) identifies development which is declared to be State Significant. Under Schedule 1 and Clause 19(2) of SEPP SRD, development within a railway corridor or associated with railway infrastructure that has a capital investment value of more than $30 million and involves commercial premises is declared to be State Significant Development (SSD) for the purposes of the EP&A Act.

The proposed amendment (involving commercial development that is both located within a rail corridor and associated with rail infrastructure) is therefore SSD.

Submitted separately to this SSD DA are detailed proposals for the South Site (Stage 2 South Site DA) and North Site (Stage 2 North Site DA), which follow the approval of the Concept Proposal for the Precinct under Section 4.22 of the EP&A Act (formerly Section 83B). The Stage 2 detailed DA for the South Tower includes a design which is consistent with the envelope envisaged with this subject Stage 1 Amending DA and where it must only be determined following approval of the subject Stage 1 Amending DA.

Figure 5 below is a diagrammatic representation of the suite of key planning applications undertaken or proposed by Macquarie and their relationship to the subject application (the subject of this report).

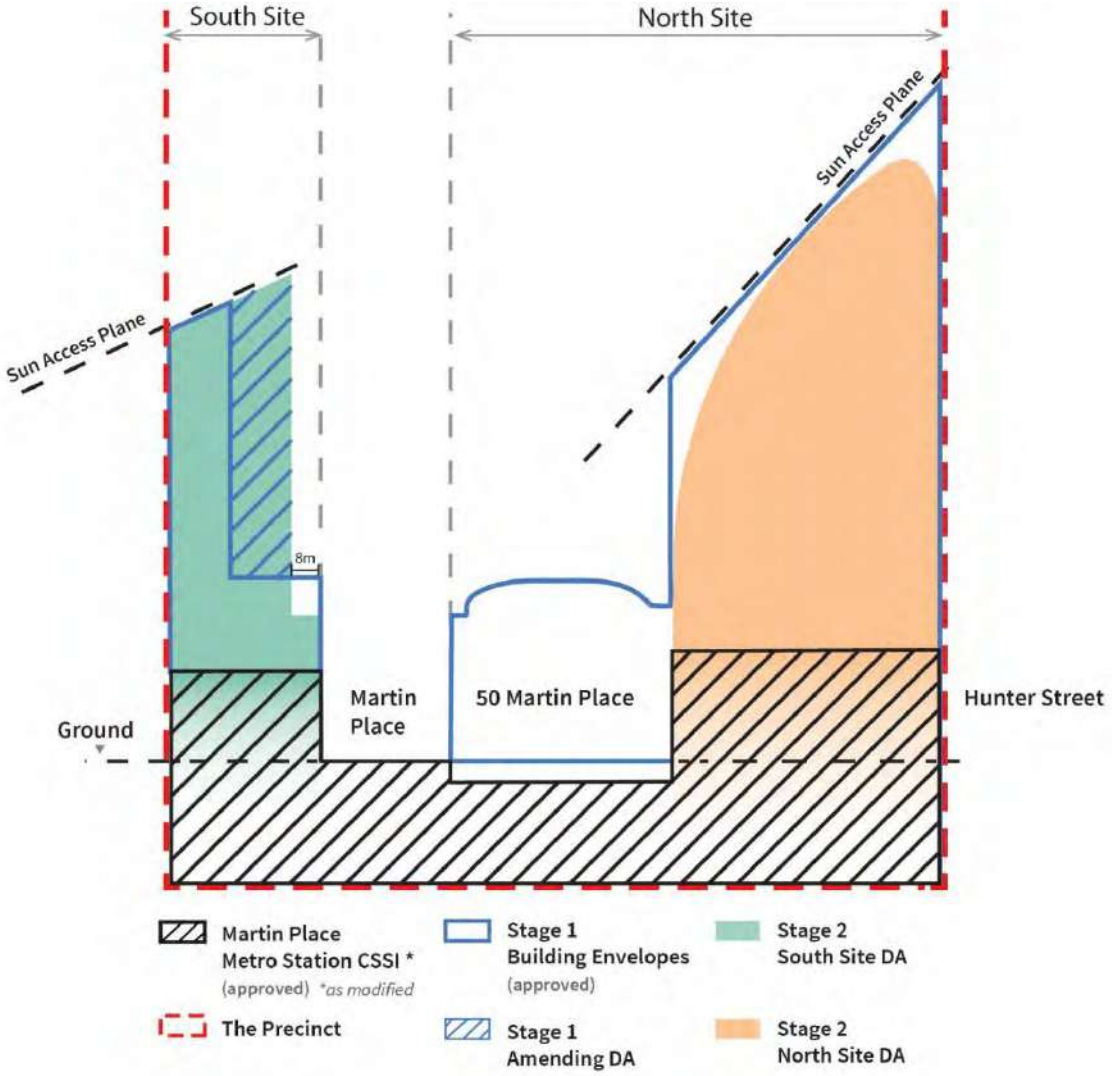


Figure 4 – Relationship of key planning applications to the **Stage 1 Amending DA** (this application)

The Department of Planning and Environment have provided Secretary's Environmental Assessment Requirements (SEARs) to the applicant for the preparation of an Environmental Impact Statement for the proposed development. This report has been prepared having regard to the SEARs as follows:

- **Utilities:** In consultation with relevant agencies, the EIS shall demonstrate how the capacity of utilities to service the Existing Concept Proposal will be augmented to service the Amending Concept Proposal.

The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the *EP&A Regulation 2000*. Provide these as part of the EIS rather than as separate documents.

In addition, the EIS must include the following:

- Services and utilities infrastructure report.

2 Desk Top Investigation

This report details the investigation of existing utilities in the vicinity of the development, the likely points of future connection to the utilities; and associated potential upgrades or augmentation that may be required.

The basis for the investigation of the existing utilities in the vicinity of the site was a 'Dial Before You Dig' enquiry that was undertaken on 17th January 2017. This report does not consider any utility infrastructure outside the enquiry boundary and its' potential relationship to, or impact on the supply of utility services to the site.

While preliminary development staging and sequencing information has formed the basis of consultation with utility providers to date, the final staging of utility works and the protection of assets is dependent on detailed construction staging and shall be developed in detail at a later stage of the planning and design process.

The utility assessment completed relates to the works required for the station development and North and South Towers. All works associated with other elements of the Metro line are part of the separate project and therefore not included in this report.

Table 1: Asset Owners identified in DBYD

Authority Name	Utility Type	Currently Impacted by Current Design (Yes/ No)
AAPT/ PowerTel	Telecommunications	Yes (Cables affected owned by 3rd party)
AARNet Pty Ltd	Telecommunications	No
AusGrid	Electrical	Yes
City of Sydney Council	Stormwater & Electrical & Lighting Pole	Yes
Jemena Gas South	Gas	Yes (Building connections only)
NBN Co.	Telecommunications	No
Nextgen	Telecommunications	Yes (Cables affected owned by 3rd party 'Telstra')
Optus and/or Uecom	Telecommunications	Yes (Cables affected owned by 3rd party 'Telstra' and building connections)
Pipe Network	Telecommunications	No
Primus Telecom	Telecommunications	(Cables affected owned by 3rd party 'Telstra' and building connections)
RailCorp	Electrical	No
Roads and Maritime Services	Telecommunications and Electrical	Yes (Comms connection between Elizabeth Street and Castlereagh Street)
Soul Australia Communication	Telecommunications	Yes (Building connections only)
Sydney Water Corporation	Sewerage, Potable Water, Stormwater	Yes
Telstra	Telecommunications	Yes
Verizon	Telecommunications	Yes (Comms connection between Elizabeth Street and Castlereagh Street)
Vocus Communications	Telecommunications	No

3 Stormwater Infrastructure

3.1 Existing Stormwater Infrastructure

3.1.1 Sydney Water/ City of Sydney Council

The proposed development has both Sydney Water and City of Sydney Council stormwater infrastructure within the extent of proposed works.

The DBYD search indicates that the infrastructure surrounding the site is as follows as shown in Figure 4;

- Castlereagh Street – 710 x 1070 brick oviform drain (heritage listed as part of the Bennelong stormwater channel network in the middle of the street)
- Elizabeth Street – 710 x 1070 brick oviform drain (heritage listed as part of the Bennelong stormwater channel network in the middle of the street)
- Hunter Street – ∅400 vitrified clay pipe
- Bligh Street near Richard Johnson Square – ∅250 cast iron cement lined (CICL) pipe

3.2 Proposed Alterations/ Diversions

As part of the development alterations/ diversions completed under the CSSI approval are as follows;

- There are currently two existing stormwater lines ∅375 through Martin Place Plaza on northern side between Elizabeth Street and Castlereagh Street will be affected by proposed temporary partial occupation of this section of Martin Place Plaza. Stormwater within Martin Place will be redesigned to collected minor events within this area to meet the proposed design in this area.

Figure 6: City of Sydney Council/ Sydney Water existing stormwater infrastructure

4 Sewerage Infrastructure

4.1 Existing Sewerage Infrastructure

The proposed development has Sydney Water sewerage infrastructure within the extent of proposed works.

The DBYD search indicates that the infrastructure surrounding the site is as follows as shown in Figure 5;

- Castlereagh Street – 711 x 1066 and 914 x 1371 concrete main
- Elizabeth Street – ∅300 vitrified clay (Concrete Encased) main
- Hunter Street – ∅225 vitrified clay (Concrete Encased) main
- Bligh Street near Richard Johnson Square – 711 x 1066 concrete main

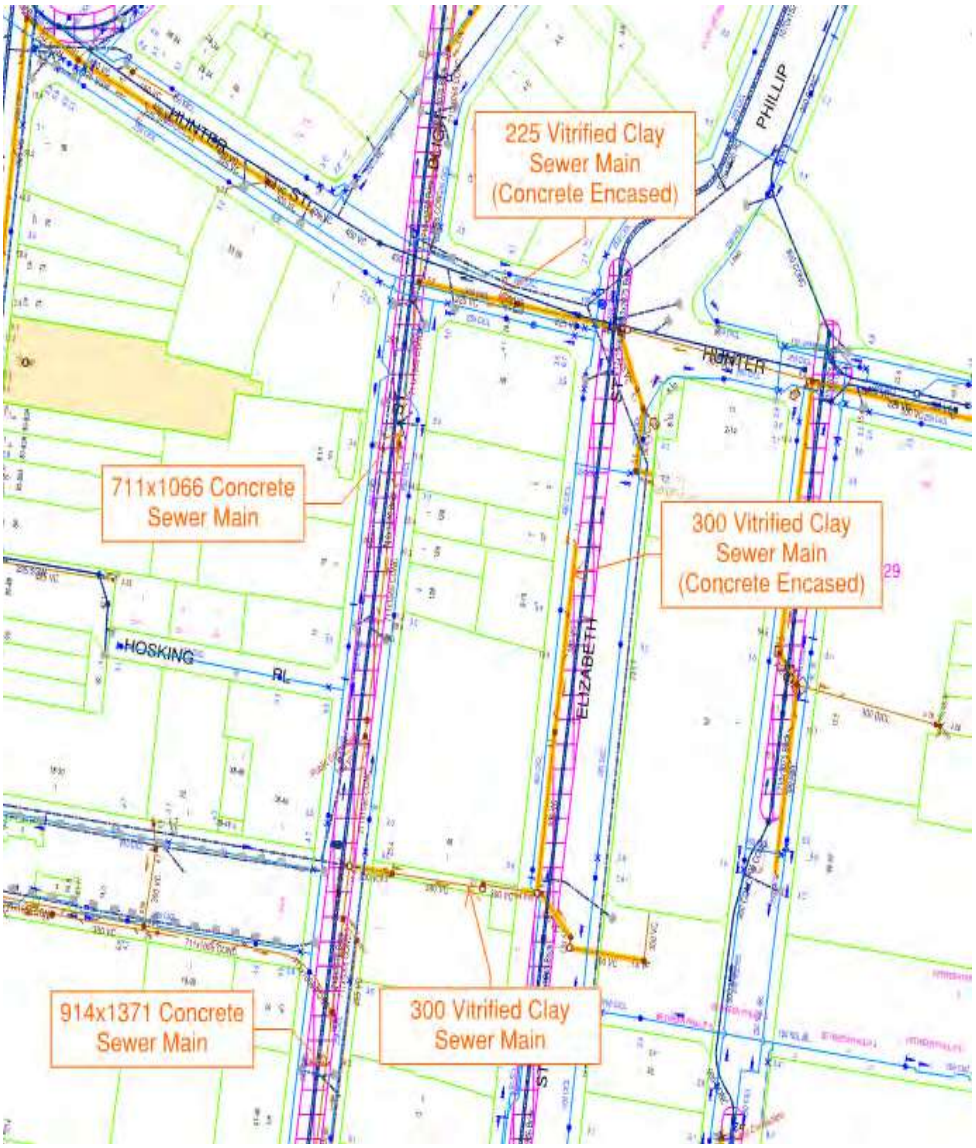


Figure 7: Sydney Water existing sewer infrastructure

4.2 Proposed Alterations/ Diversions

Under the CSSI approval a ∅300 vitrified clay sewer main adjacent to the Macquarie Bank building may be affected by proposed works in Martin Place Plaza. This mains existing invert level ranges from 15.93 – 12.43 Australian Height Datum (AHD) through Martin Place Plaza based on Sydney Water Work As Executed (WAE) documents.

5 Potable Water Infrastructure

5.1 Existing Potable Water Infrastructure

The proposed development has Sydney Water potable water infrastructure within the extent of proposed works.

The DBYD search indicates that the infrastructure surrounding the site is as follows as shown in Figure 6;

- Castlereagh Street – ∅250 cast iron cement lined (CICL) main
- Elizabeth Street – ∅450 CICL main
- Hunter Street – ∅250 CICL main
- Bligh Street near Richard Johnson Square – ∅250 CICL main

5.2 Proposed Alterations/ Diversions

The water mains should not be affected by the proposed development as the water mains are located under streets (noting the early stage of development and limited discussions with asset owners and stakeholders). However subject to further investigation certain sections of the water utilities may need to be lowered or protected from reference designs analysis shown in Figure 6 due to lowering of footpath levels for max 2.5% cross fall footpath compliance with City of Sydney Council standards/ proximity to proposed basement excavation and/ or proposed driveways.

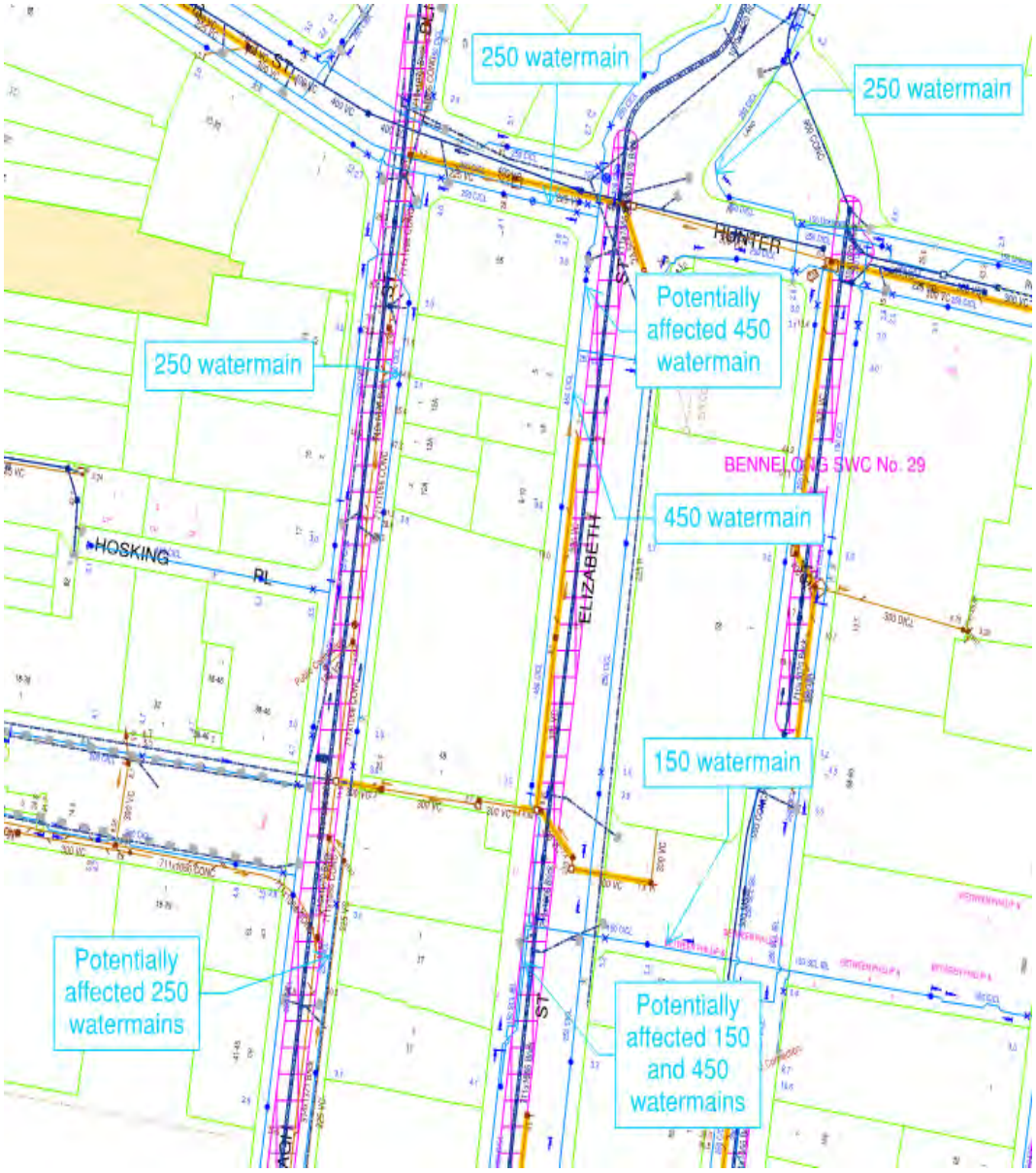


Figure 8: Sydney Water existing potable water infrastructure

6 Telecommunications Infrastructure

6.1 Existing Telecommunications Infrastructure & Proposed Alterations/ Diversions

Telecommunications services infrastructure in the vicinity of the development are either owned by or share conduits with AAPT/ PowerTel, AARNet, NBN Co., Nextgen, Optus, PipeNetworks, Primus Telecom, Soul Communications, Telstra, Uecomm, Vocus Communications and Verizon. The following sections show the review of each of the DBYD results for each communications service provider. Largely from current design information most providers will need to be contacted for alteration/ diversion or the lowering of existing finished levels reducing cover levels of existing conduits.

6.1.1 AAPT/ PowerTel

From DBYD records (shown on Figure 7) AAPT/ PowerTel telecommunication lines run around the entire site. Various connections along Castlereagh Street and Elizabeth Street will need to be disconnected and removed due to the proposed demolition to their connecting buildings. As part of the CSSI approval lines that run across Martin Place Plaza from Castlereagh Street to Elizabeth Street will be required to be adjusted/ relocated due to the proposed excavation at this location.

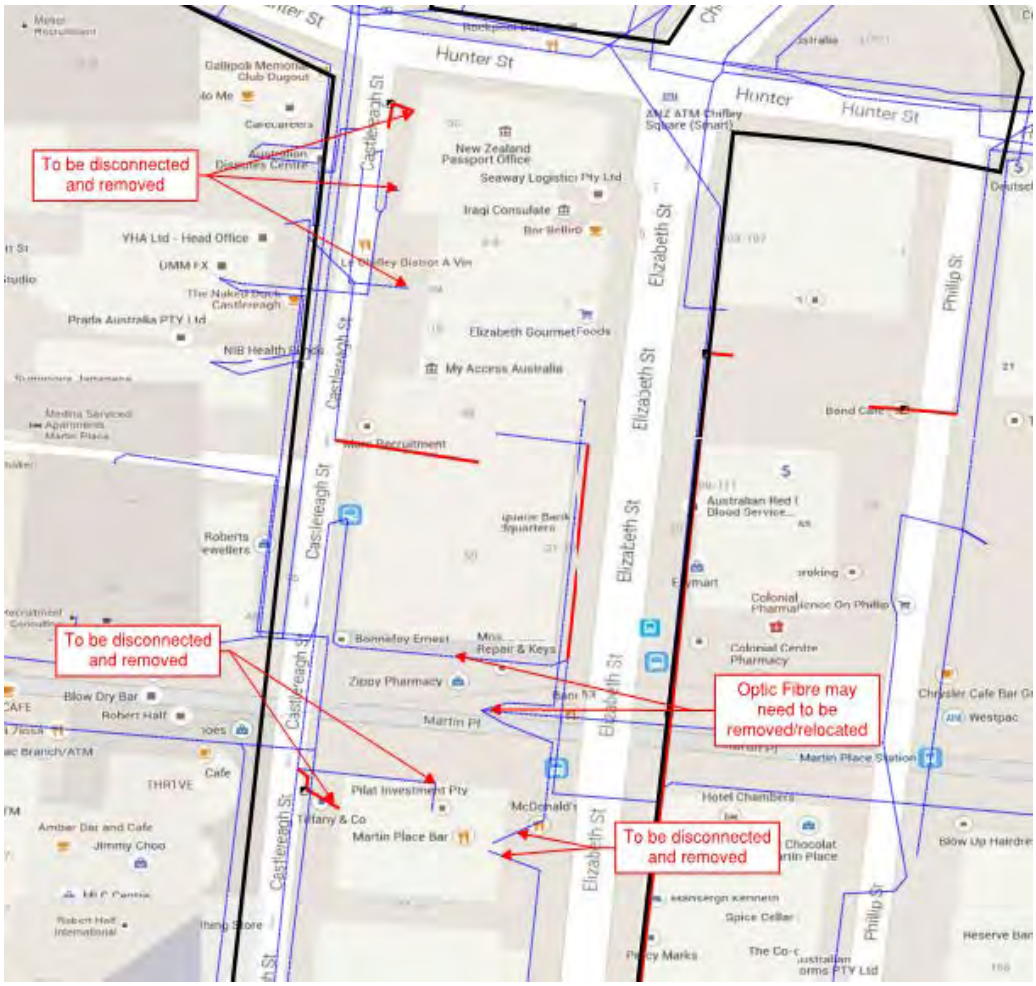


Figure 9: AAPT/ PowerTel existing telecommunications infrastructure

6.1.2 AARNet

From DBYD records (shown on Figure 8) AARNet telecommunication lines run along Elizabeth Street, Hunter Street and Bligh Street. No existing connections are shown. This providers lines should largely be unaffected by the proposed development

Figure 10: AARNet existing telecommunications infrastructure

6.1.3 NBN Co.

From DBYD records (shown on Figure 9) NBN Co. telecommunication lines run along Elizabeth Street and Hunter Street. No existing connections are shown. This providers lines should largely be unaffected by the proposed development.

Figure 11: NBN Co. existing telecommunications infrastructure

6.1.4 Nextgen Network

From DBYD records (shown on Figure 10) Nextgen telecommunication lines run along Castlereagh Street, Elizabeth Street, Hunter Street, Bligh Street and through Martin Place Plaza. There appears to be no existing connections to buildings that are to be demolished. Optic fibre running across Martin Place Plaza from Castlereagh Street to Elizabeth Street will need to be redirected/ altered due to the proposed works. The rest of this provider's cabling will be unaffected by the proposed development.

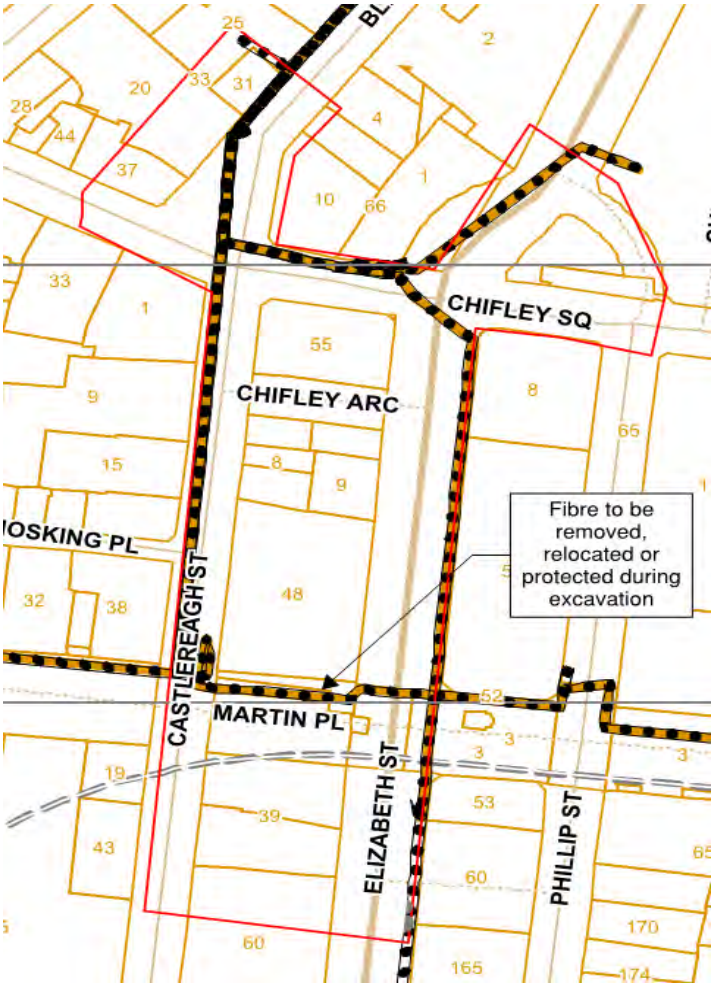


Figure 12: Nextgen existing telecommunications infrastructure

6.1.5 Optus

From DBYD records (shown on Figure 11) Optus has extensive amount of cabling running along Castlereagh Street, Elizabeth Street, Hunter Street, Bligh Street and through Martin Place Plaza with connections to existing lines that will need to be made redundant. Telecommunications running across Martin Place Plaza from Castlereagh Street to Elizabeth Street will need to be redirected/ altered for the proposed works. This work will be completed as part of the CSSI approval.

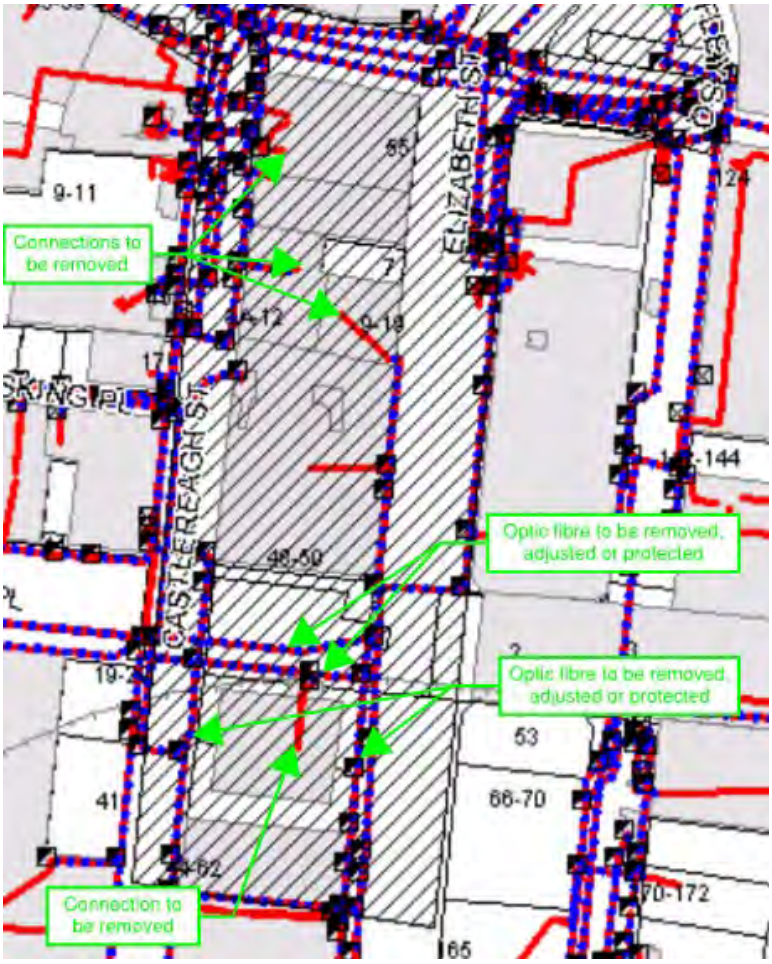


Figure 13: Optus existing telecommunications infrastructure

6.1.6 PipeNetworks

From DBYD records (shown on Figure 12) PipeNetworks telecommunication lines are limited. Subject to the design proposed these lines should be largely unaffected by the proposed development.

Figure 24: PipeNetworks existing telecommunications infrastructure

6.1.7 Primus Telecom

From DBYD records (shown on Figure 13) Primus telecommunication lines are located on Castlereagh Street, Hunter Street and Bligh Street. No existing connections are shown, except for the existing Macquarie Bank building that will not be redeveloped. This provider's lines should be largely unaffected by the proposed development.

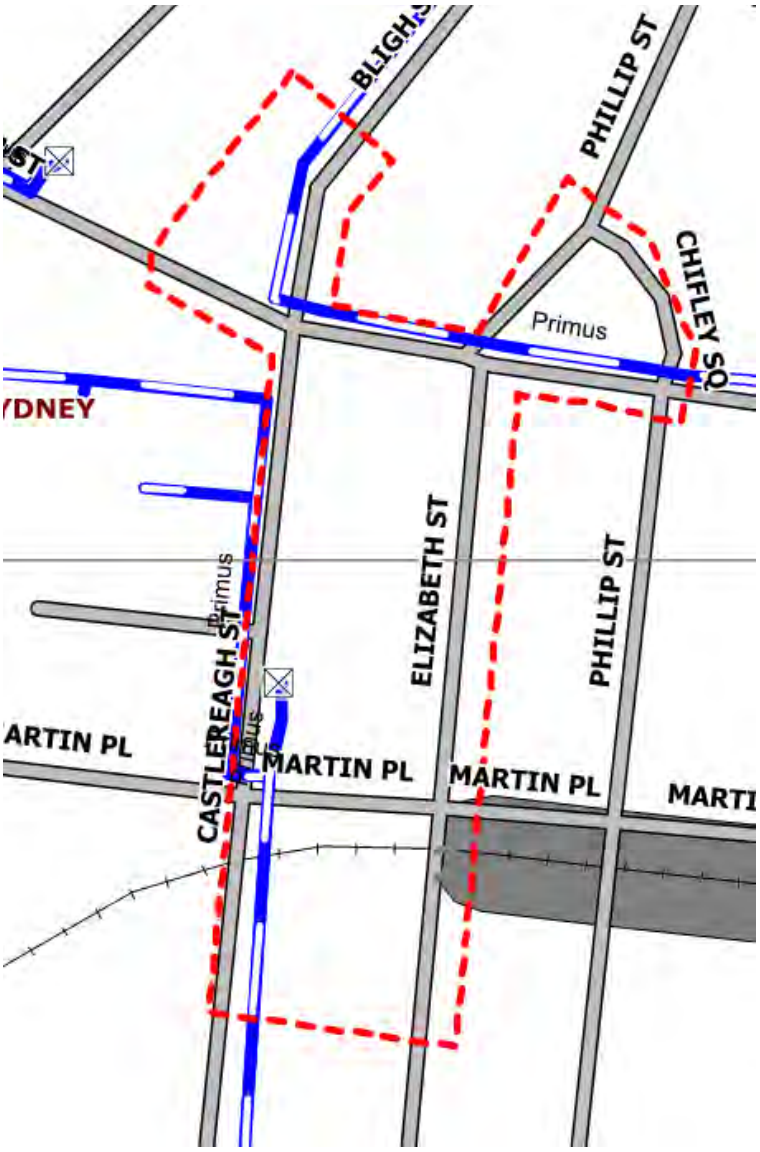


Figure 35: Primus existing telecommunications infrastructure

6.1.8 Soul Communications

From DBYD records (shown on Figure 14) Soul telecommunication lines are located in a section of Hunter Street and Bligh Street. The existing connection on Hunter Street will be disconnected and removed. This provider's lines should be largely unaffected by the proposed development

Figure 46: Soul Communications existing telecommunications infrastructure

6.1.9 Telstra

From DBYD records (shown on Figure 15 and Figure 16) Telstra has extensive cabling running along Castlereagh Street, Elizabeth Street, Hunter Street, Bligh Street and through Martin Place Plaza with connections to existing lines that will need to be made redundant. In addition, within the existing building in the Northern Tower development area there is both a communications tower and an exchange that will need to be relocated. Relocations and street works related to the relocation of the communications tower and exchange will be done by Telstra. Telecommunications running across Martin Place Plaza from Castlereagh Street to Elizabeth Street will need to be redirected/ altered during excavation in this area. In addition, proposed driveways may lead to existing cabling to be protected or lowered. All this work will be completed under the CSSI approval. Lowering of footpath levels for max 2.5% cross fall footpath compliance with City of Sydney Council standards/ proximity may be required.

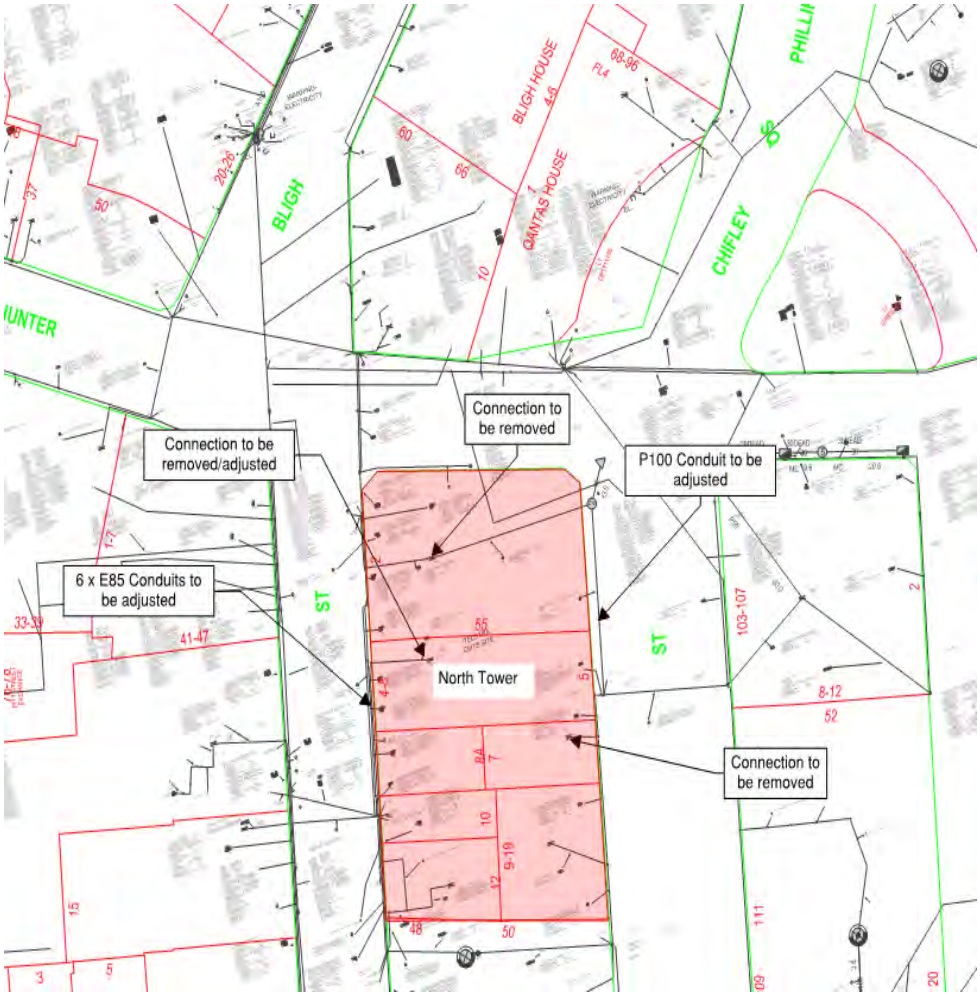


Figure 57: Telstra existing telecommunications infrastructure (North Tower)

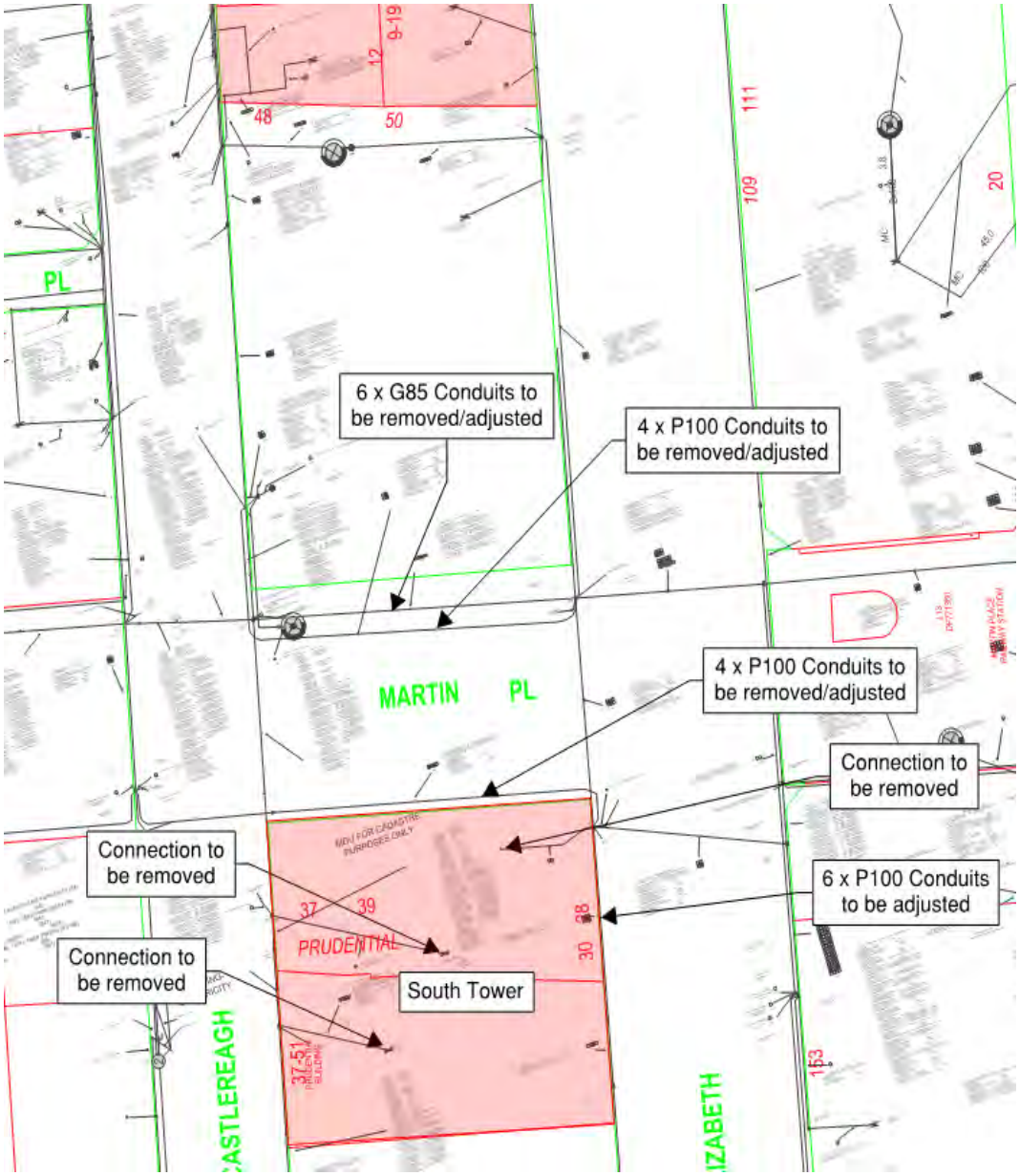


Figure 68: Telstra existing telecommunications infrastructure (South Tower)

6.1.10 Uecomm

From DBYD records (shown on Figure 17) Uecomm telecommunication lines run along Bligh Street and sections of Castlereagh Street. The existing connection on Hunter Street will be disconnected and removed. This provider's lines should be largely unaffected by the development.

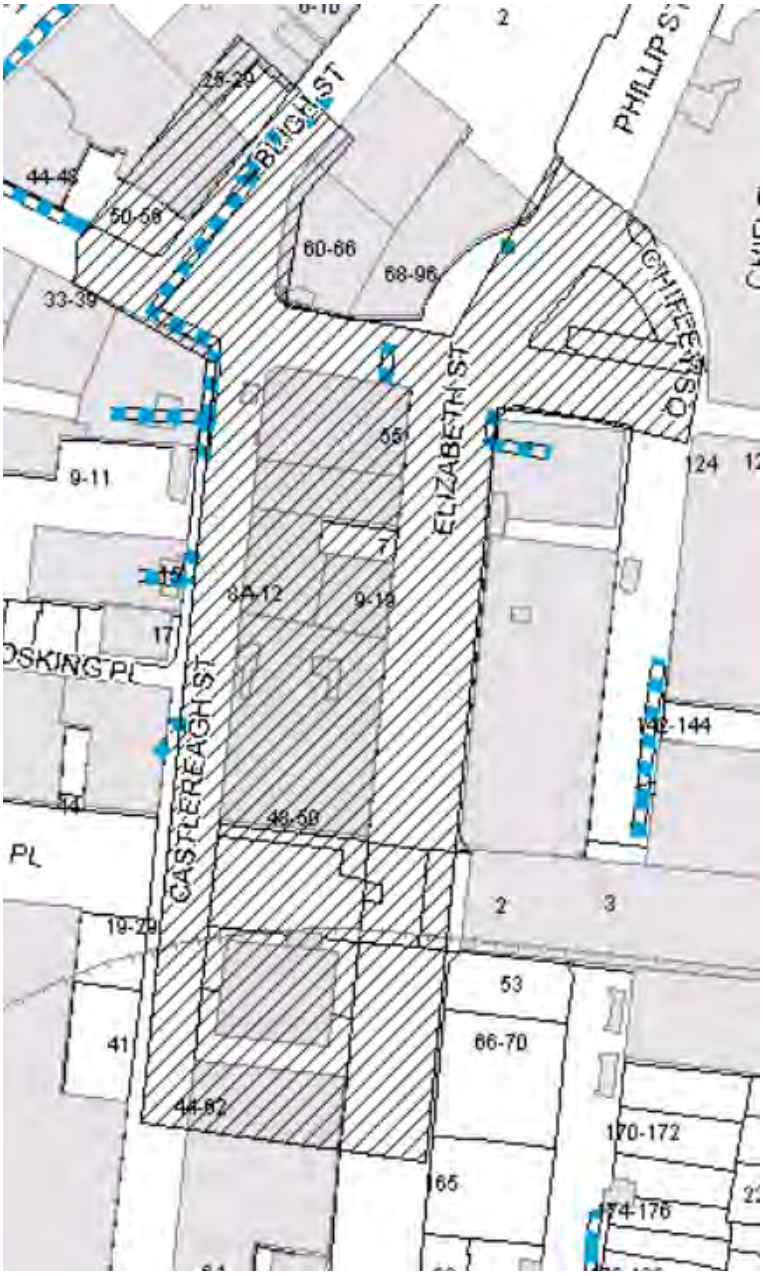


Figure 79: Uecomm existing telecommunications infrastructure

6.1.11 Verizon

From DBYD records (shown on Figure 18) Verizon lines are located on Castlereagh Street, Elizabeth Street, Hunter Street and Bligh Street. There appears to be no existing connections to buildings located in the development. Lines will need to relocated/ altered during excavation in Martin Place Plaza between Castlereagh Street and Elizabeth Street. This work will be completed as part of CSSI approval. Additionally, lines located at the intersection between Hunter Street and Elizabeth Street may need to be lowered/ protected/ altered due to the cable's proximity to the demolition of the adjacent building basement.

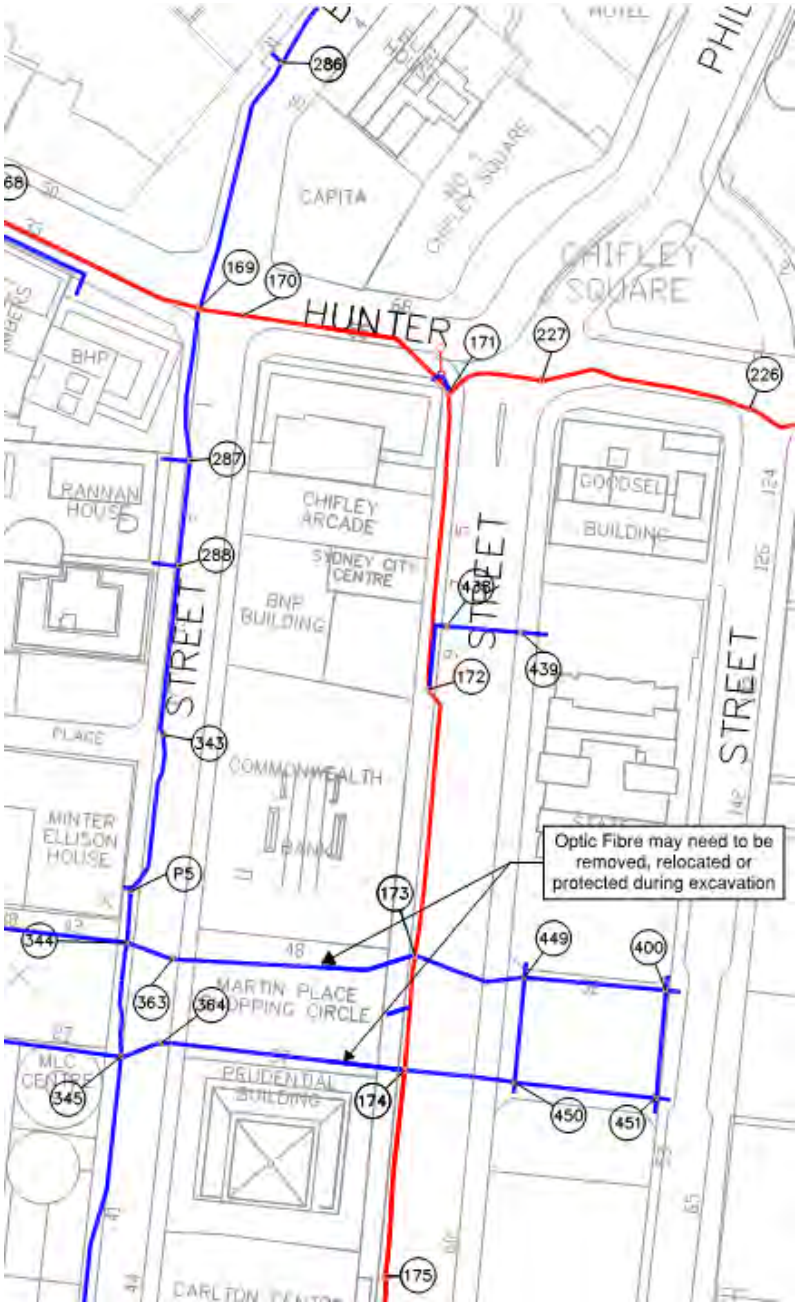


Figure 20: Verizon existing telecommunications infrastructure

6.1.12 Vocus Communications

From DBYD records (shown on Figure 19) Vocus telecommunication lines are located on Castlereagh Street and Bligh Street. These lines should be largely unaffected by the proposed development.

Figure 21: Vocus existing telecommunications infrastructure

7 Gas Infrastructure

7.1 Existing Gas Infrastructure

The proposed development has Jemena gas infrastructure within the vicinity of the proposed works.

The DBYD search indicates that the infrastructure surrounding the site is as follows;

- Castlereagh Street – ∅150 1050kPa Main and ∅110 7kPa Main
- Elizabeth Street – ∅75 / ∅200mm 7kPa Main
- Hunter Street – ∅100 1050kPa Main and ∅75 7kPa Main
- Bligh Street near Richard Johnson Square – ∅110 7kPa Main

7.2 Proposed Alterations/ Diversions

As part of the development the alterations largely relate to disconnections as shown on Figure 20. Proposed driveways may lead to existing cabling to be protected or lowered. This work will be completed under the CSSI approval. Lowering of footpath levels for max 2.5% cross fall footpath compliance with City of Sydney Council standards/ proximity may be required.

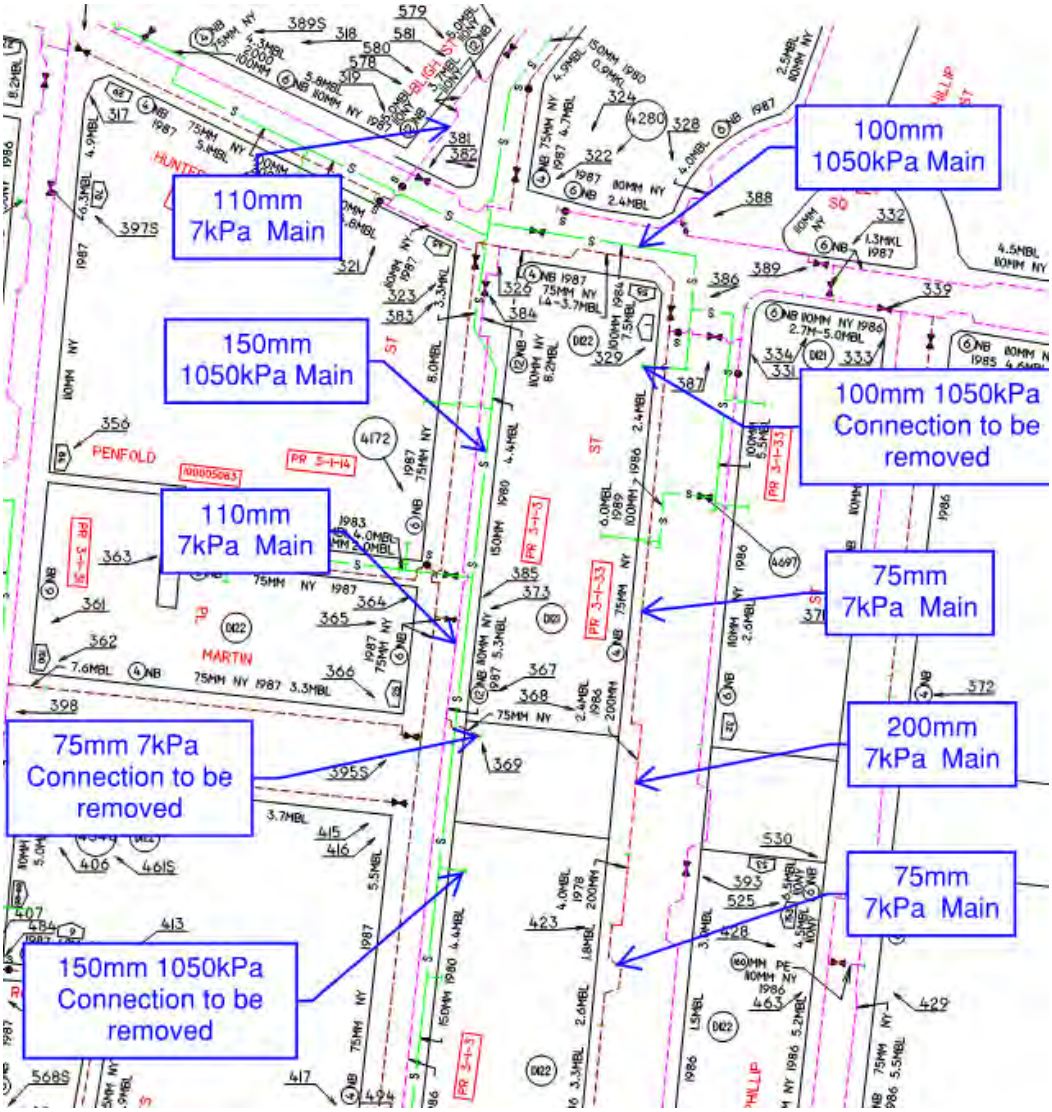


Figure 82: Jemena existing gas infrastructure & proposed alterations/ diversions

8 Electrical Infrastructure

8.1 Existing Electrical Infrastructure

From DBYD records (shown on Figure 21 and Figure 22) Ausgrid has extensive electrical infrastructure running along Castlereagh Street, Elizabeth Street, Hunter Street, Bligh Street and through Martin Place Plaza with connections to existing lines that will need to be made redundant. Power running across Martin Place Plaza from Castlereagh Street to Elizabeth Street will need to be redirected/ altered during excavation in this area. In addition, proposed driveways may lead to existing cabling to be protected or lowered. All this work will be completed under the CSSI approval. Lowering of footpath levels for max 2.5% cross fall footpath compliance with City of Sydney Council standards/ proximity may be required.

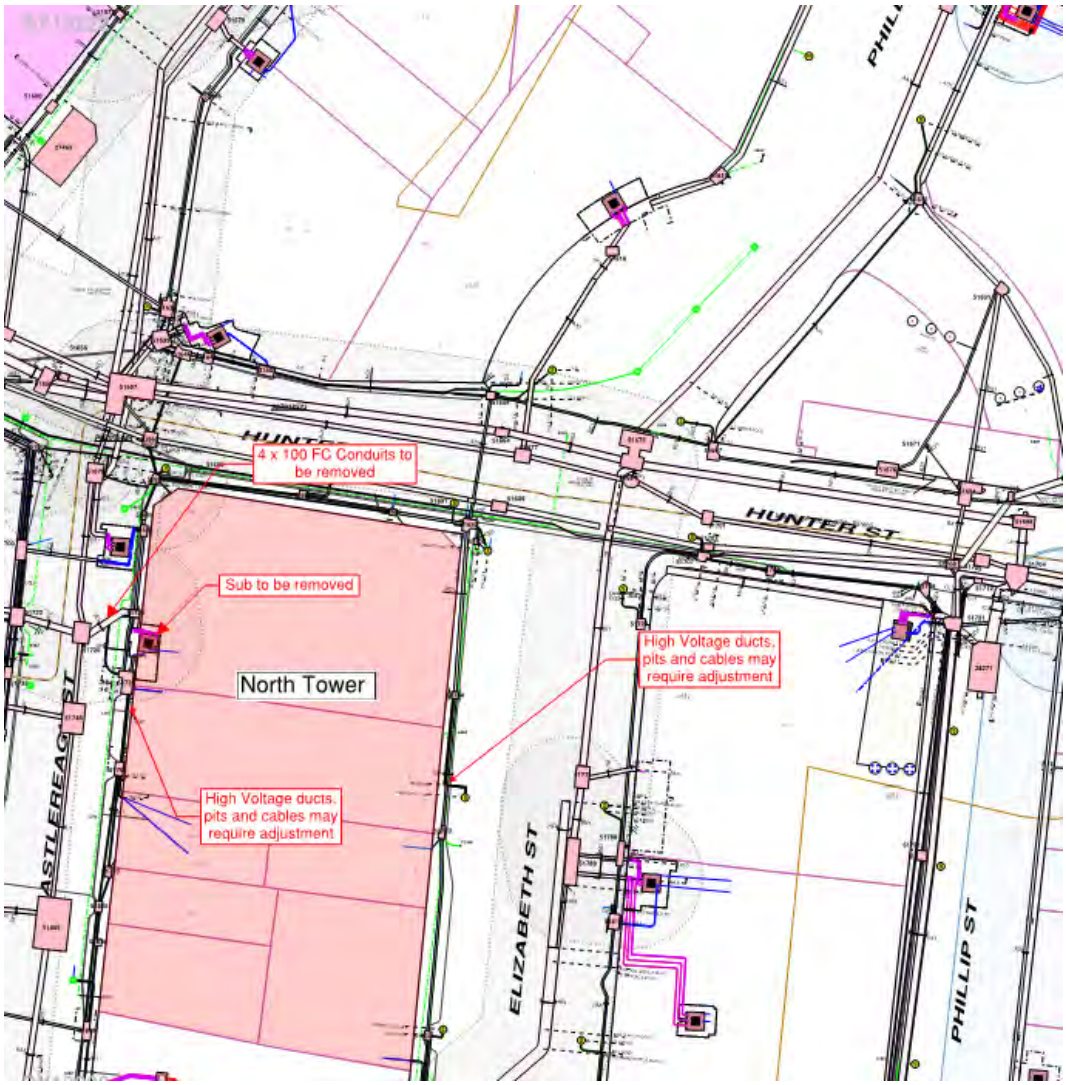


Figure 23: Electrical existing infrastructure & proposed alterations/ diversions (North Tower)

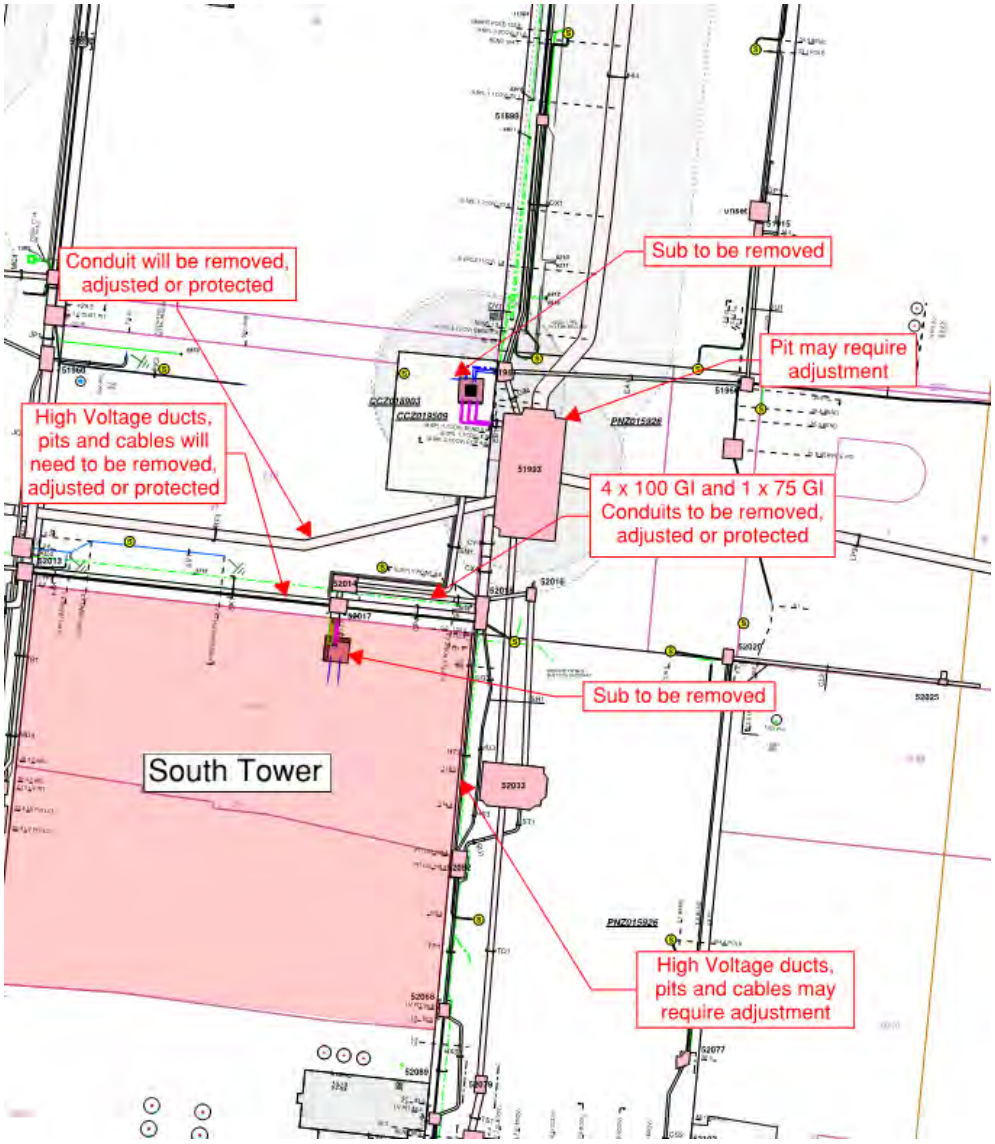


Figure 94: Electrical existing infrastructure & proposed alterations/ diversions (South Tower)

8.2 Proposed Incoming Power Supply to Proposed Towers

The 'North' tower (shown on Figure 21) and 'South' tower (shown on Figure 22) are proposed to be supplied from the Ausgrid network individually. Within the North Tower, there will be one basement chamber triplex substation and one upper level chamber triplex substation with its control point chamber on LG/F. Within the 'South' tower, there will be one basement chamber triplex substation. Each triplex substation will consist of 3 x 1.5MVA transformers. All substations are proposed to be located on the Elizabeth Street side of the buildings. New high voltage (HV) incoming cables from Ausgrid to the proposed towers will be expected as the overall size of the buildings will be larger than the existing buildings that results in larger power demand. Detailed HV cables routing and cable entry requirements to the towers will be further coordinated with the Level 3 substation designer and Ausgrid.

8.3 Incoming Power Supply to Station

For the Metro station, power supply will be taken from Sydney Metro's own substation and distribution network. Incoming HV cables will be laid through the rail tunnel and thus underground incoming cables at grade are not expected.

9 RMS Infrastructure

9.1 Existing RMS Infrastructure & Proposed Alterations/ Diversions

The proposed development is surrounded by roads with signalised intersections leading to RMS electrical and telecommunications within the extent of the proposed works. The degree of alteration largely depends on the urban design of existing public domain areas and works at Martin Place Plaza, although currently no change will be required. In addition, there is a communication line that runs through Martin Place Plaza connecting traffic signals that will need to be diverted/ altered during works in this area, which will be completed under the CSSI approval.

10 Protection of Existing Utility Infrastructure

The following process will be followed to ensure existing utilities infrastructure is protected:

- Desktop investigation and review of existing services using Dial Before You Dig information and site observations;
- Non-destructive in-ground services mapping will be undertaken to accurately locate existing infrastructure assets where practical;
- Destructive investigations will be undertaken where considered necessary to more accurately locate existing critical infrastructure assets and investigate unknown services or potentially redundant services;
- Utility providers will be consulted to obtain and necessary consents to perform construction work in their vicinity and discuss necessary diversions and connections for the proposed works;
- Utility technical and hazard requirements will be incorporated into the design and construction documentation;
- Safe work methods statements and inspection and test plans will be prepared by accredited contractors;
- Pre-start work checklists will be implemented and recorded;
- Field safety inspectors will be present during critical works as determined by each utility provider.

As the design progresses or as new information becomes available, the above process will be adjusted or supplemented as required to ensure existing infrastructure assets are adequately protected.

Appendix A: DBYD Information

Response Cover Letter

Date: 16/01/2017

AAPT (PowerTel) Limited
GPO Box 7041 Sydney 2001
Phone: 1800 786 306
A/H: 1800 786 306

To:
Mr Nicholas Rouggos - Customer ID: 1643225
ARUP
201 Kent Street
Sydney NSW 2000

Email: nicholas.rouggos@arup.com
Phone: 0293209298
Fax: Not Supplied
Mobile: Not Supplied

Dear Mr Nicholas Rouggos

The following is our response to your Dial Before You Dig enquiry.

AAPT ASSETS ARE AFFECTED BY YOUR ENQUIRY 58207253

Sequence Number:	58207253
Location:	Hunter Street Sydney NSW 2000
Commencement Date:	01/03/2018

In relation to your enquiry at the above address, AAPT (PowerTel) advises as follows.

The records of AAPT (PowerTel) Limited disclose that there are underground FIBRE OPTIC / TELECOMMUNICATIONS cables in the vicinity of the above enquiry.

Your enquiry has been dispatched to an AAPT (PowerTel) Route Technician who will contact you ASAP with further information regarding the exact location of the AAPT (PowerTel) network.

It is essential that no excavations are undertaken until you have been contacted by an AAPT (PowerTel) Representative. Your local AAPT (PowerTel) Field Representative can be contacted on ph: **0405 133 156**

Should the scope of your work or the area of your work change, please contact as below to receive further advice. Due to continued network expansion, the network information can only be considered valid and accurate for 28 days from issue.

AAPT will seek compensation for any damage to its network through negligence or ignorance of duty of care. Should you require any further information, please contact as below:

AAPT
Ph: 1800 786 306

DISCLAIMER: This document has been prepared solely for the use of AAPT. It should not be scaled to locate any asset. No warranty is given that the information given is accurate or complete

DUTY OF CARE

Due to the nature of underground cables and the age of some cables and records the accuracy and/or completeness of the information cannot be guaranteed and, accordingly, they are indicative only and as a result AAPT (PowerTel) does not accept any responsibility for any inaccuracies of its plans. They should not be solely relied upon when undertaking underground works. It is also inaccurate to assume that fibre optic cables follow straight lines and careful onsite investigations are essential to locate an assets exact position.

The following minimum clearances must be maintained.

1) 300mm when laying asset's inline, horizontal or vertical.

2) 500mm when operating vibrating equipment. Eg: Vibrating plates.

3) 1000mm when operating mechanical excavators or Jackhammers.

ON SITE LOCATING OF AAPT'S (POWERTEL) CABLING AND INFRASTRUCTURE MUST BE CONDUCTED BY AAPT'S (POWERTEL) PERSONNEL ONLY. AAPT (POWERTEL) WILL USE ALL LEGAL MEANS TO SEEK DAMAGES AND ANY OTHER REMEDIES AVAILABLE TO IT IN THE EVENT THAT ITS CABLE OR ANY OTHER NETWORK INFRASTRUCTURE IS DAMAGED BY YOU OR YOUR PERSONNEL AND/OR CONTRACTORS. IT IS AN OFFENCE TO OPEN ANY AAPT'S (POWERTEL) PITS OR MANHOLES AND/OR ANY ASSOCIATED INFRASTRUCTURE BELONGING TO OR PART OF AAPT'S (POWERTEL) NETWORK

Due to the inherent dangers associated with excavation in the vicinity of underground cables, precautions should be taken in the undertaking of any underground works, including (but not limited to) the following.

All excavation sites should be examined for underground cables by careful hand excavation. Cable cover slabs & Manhole covers must not be disturbed. Hand excavation needs to be undertaken with extreme care to minimise the possibility of damage to the cable.

EG: Blades of hand equipment should be orientated parallel to the line of the cable rather than digging across the cable.

All personnel must be properly briefed, particularly those associated with the use of earth-moving equipment, trenching, boring and pneumatic equipment.

All excavations must be undertaken in accordance with the relevant legislation and regulations.

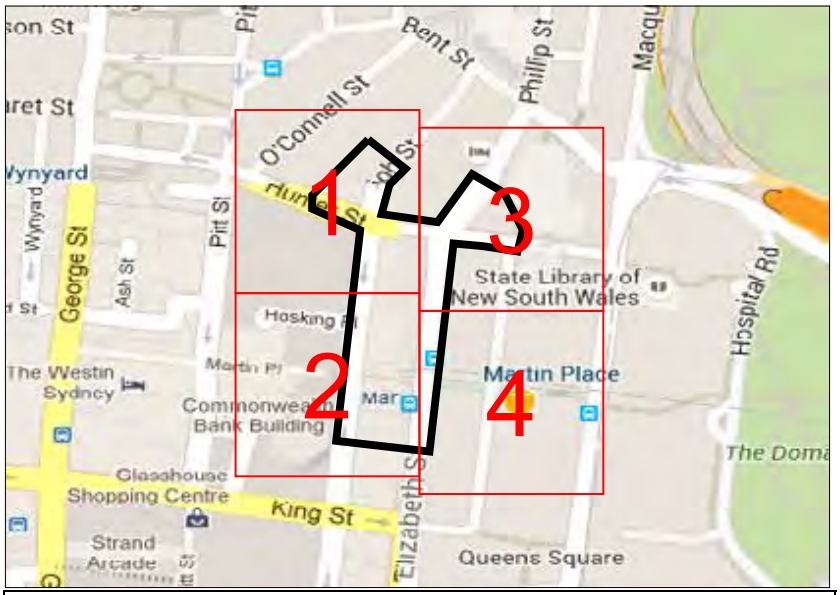
ANY DAMAGE TO AAPT (POWERTEL) NETWORK MUST BE REPORTED IMMEDIATELY TO 1800 786 306

Any information provided is valid only for 28 days from the date of issue of this document.

If the work operations extend beyond this period, or if the designs are altered in any way, you are requested to re-submit your proposal for re-assessment by contacting Dial Before You Dig ph:1100 or www.dialbeforeyoudig.com.au

Onsite visits by AAPT (PowerTel) agents may incur costs, this would solely depend on the type and extent of the work to be carried out. EG: Major roadwork's, network relocation's, Large planning and design work's.

Overview Map



0 0.07km **Scale: 1:** 6000

AAPT (for information specific to this job only) Ph 1800 786 306

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DIAL BEFORE YOU DIG
www.1100.com.au
The Essential First Step.

AAPT

PowerTel
Simply Business

AAPT (PowerTel) Limited GPO Box 7041 Sydney 2001
Phone: 1800 786 306 A/H 1800 786 306

Enquiry Number: 58207253

Map Sheet: 1

Scale: 1:750

0 0.008km

LEGEND:

- DBYD Work Area
- AAPT Duct
- Non AAPT Duct
- AAPT Manhole

N

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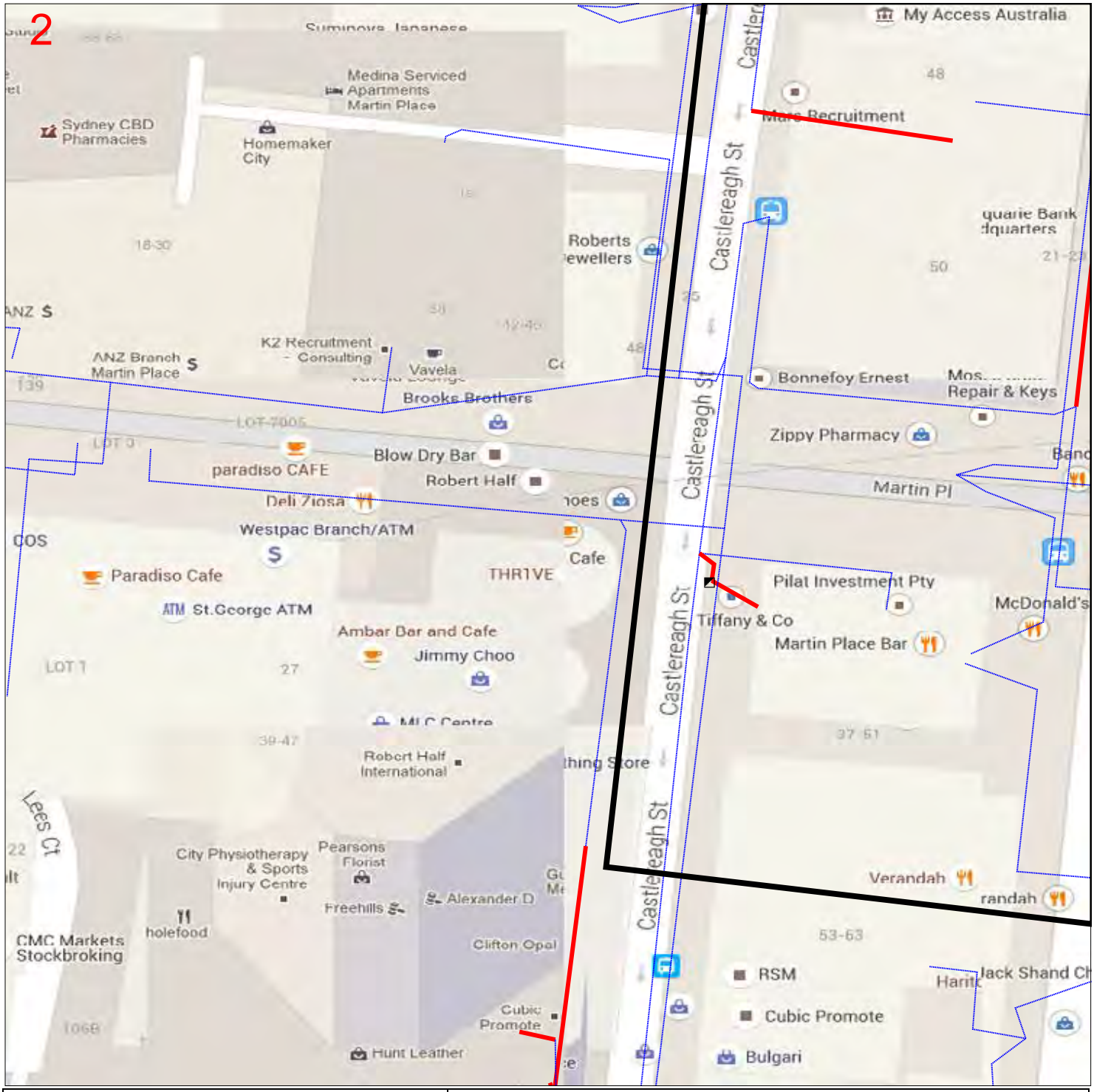

Enquiry Number: 58207253

Map Sheet: 2

Scale: 1:750

0 0.008km

LEGEND:

- DBYD Work Area
- AAPT Duct
- Non AAPT Duct
- AAPT Manhole

N

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DIAL BEFORE YOU DIG
www.1100.com.au
The Essential First Step.

AAPT

PowerTel
Simply Business

AAPT (PowerTel) Limited GPO Box 7041 Sydney 2001
Phone: 1800 786 306 A/H 1800 786 306

Enquiry Number: 58207253

Map Sheet: 3

Scale: 1:750

0 0.008km

LEGEND:

- DBYD Work Area
- AAPT Duct
- Non AAPT Duct
- AAPT Manhole

N

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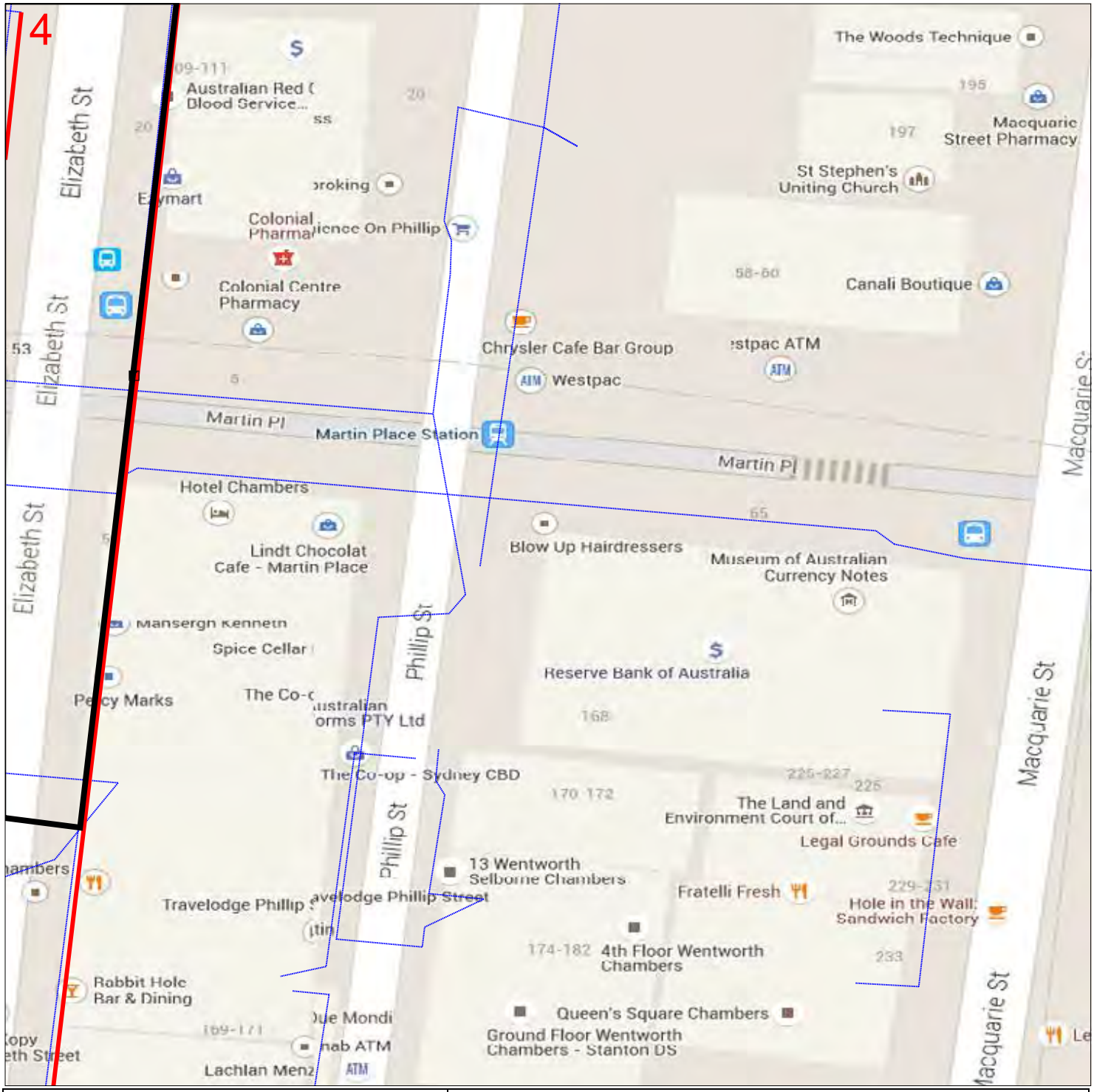
AAPT (PowerTel) Limited GPO Box 7041 Sydney 2001
Phone: 1800 786 306 A/H 1800 786 306



Enquiry Number: 58207253

Map Sheet: 4

Scale: 1:750

0 0.008km

LEGEND:

- DBYD Work Area
- AAPT Duct
- Non AAPT Duct
- AAPT Manhole

N

DISCLAIMER: This document has been prepared solely for the use of AAPT. It should not be scaled to locate any asset. No warranty is given that the information given is accurate or complete

AARNet

Level 2, Building 1
Binary Centre
3 Richardson Place
North Ryde NSW 2113

Dial Before You Dig Response

To:
Mr Nicholas Rouggos (Customer ID: 1643225)
ARUP
201 Kent Street
Sydney, NSW 2000

Email: nicholas.rouggos@arup.com
Phone: 0293209298
Fax: Not Supplied
Mobile: Not Supplied

Sequence No: 58207260
Location: Hunter Street
Sydney, NSW
Commencement Date: 01/03/2018 12:00:00 AM

Dear Mr Nicholas Rouggos,

This letter is to confirm that the proposed work at Hunter Street is in the vicinity and may impact AARNet fibre optic cable assets.

Attached is a map indicating the approximate location of the AARNet assets in relation to your enquiry area.

There may be additional AARNet assets in this area contained within Telstra duct. No work is to take place until plans have been obtained from Telstra and reviewed as necessary.

Any information provided is valid for 28 days from the date of issue of this document.

Please review the map and if you have any further concerns, contact the AARNet NOC on 1300 APL NOC (1300 275 662).

f you are proposing to carry out digging in the vicinity of AARNet underground infrastructure you will need to carry out these works in accordance with the guidelines below.

WARNING

Where AARNet plans have been attached, they are indicative of the position of AARNet Pty Ltd's (AARNet) fibre optic installation/s only. Services belonging to other third parties are not included on these plans.

These plans have been prepared solely for the use of AARNet and any reliance placed on these plans by you is entirely at your own risk. The plans may show the position of our assets relative to fences, buildings etc., as they existed at the time the fibre etc. was installed. The plans may not have been updated to take account of any subsequent change in the location or style of those features since the time at which the plans were initially prepared.

AARNet makes no warranty as to the accuracy or completeness of the enclosed plans and does not assume any duty of care to you nor any responsibility for the accuracy, adequacy, suitability or completeness of the plans or for any error, omission, lack of detail, transmission failure or corruption in the information provided. AARNet does not accept any responsibility for any loss that you or anyone else may suffer in connection with the provision of these plans, however that loss may arise (including whether or not arising from the negligence of AARNet, its employees, agents, officers or contractors).

The recipient of these plans must use their own care and diligence in carrying out their works and must carry out further surveys to locate services at their work site. Persons excavating or carrying out other earthworks will be held responsible for any damage caused to AARNet's fibre optic installations.

While reasonable measures have been taken to ensure the accuracy of the information contained in this plan response, neither AARNet or PelicanCorp shall have any liability whatsoever in relation to any loss, damage, cost or expense arising from the use of this plan response or the information contained in it or the completeness or accuracy of such information. Use of such information is subject to and constitutes acceptance of these terms.

WORKING IN THE VICINITY OF AARNET ASSETS

All Areas

Under no circumstances shall construction, digging or excavating work entailing crossing AARNet plant be carried out without first exposing or locating the AARNet asset by an accredited locator and under the supervision of an accredited plant location contractor.

Manual pot-holing needs to be undertaken with extreme care, common-sense and employing techniques least likely to damage cables. For example, orientate shovel blades and trowels parallel to the cable rather than digging across the cable.

Visual location of asset must be carried out by hand digging or using non-destructive water jet method (pot holing) where construction activities may damage or interfere with AARNet assets.

The following minimum clearances must be maintained between mechanical construction activity and the located AARNet asset.

Jackhammers / Pneumatic Breakers	Not within 1.0m of actual location
Vibrating Plate or Wacker Packer Compactor	Not within 0.5m of actual location 300mm compact clearance before compactor can be used over AARNet conduits. 750mm compact clearance cover before compactor can be used Over AARNet Direct Buried cable
Boring Equipment **(in-line, horizontal and vertical)**	Not within 5.0m of actual location without supervision of accredited plant location contractor onsite **OR** AARNet asset must exposed via hand dig or non-destructive water jet method (pot holing). **AND** AARNet asset must not be crossed without first exposing the asset at the crossing point and not without an accredited plant location contractor representative onsite.
Heavy vehicle Traffic (over 3 tonnes)	Not to be driven over AARNet conduits or assets with less than 600mm of cover. Depth to be verified via hand digging
Mechanical Excavators, Farm ploughing, Boring, Tree removal, fencing	Not within 1.0m of actual location. Constructor to hand dig or use non-destructive water jet method (pot holing) and expose asset.

Urban Areas

Under no circumstances shall construction, digging or excavating work be carried out: within 1.5m of AARNet assets without first locating and identifying the AARNet asset by an accredited locator and under the supervision of an accredited plant location contractor.

Rural Areas

Under no circumstances shall construction, digging or excavating work be carried out within 10m of AARNet plant be carried out without first locating and identifying the AARNet asset by an accredited locator and under the supervision of an accredited plant location contractor.

ASSET RELOCATIONS

You are not permitted to relocate, modify or alter any AARNet assets under any circumstances.

Please contact AARNet Infrastructure Development Group via email apl-infdev@aarnet.edu.au for all enquiries relating to the relocation of AARNet assets.

DAMAGE

AARNet will seek Compensation for any loss caused by damage to its assets.

Damage to any AARNet asset must be immediately reported to AARNet NOC on 1300 APL NOC (1300 275 662).

FURTHER ASSISTANCE

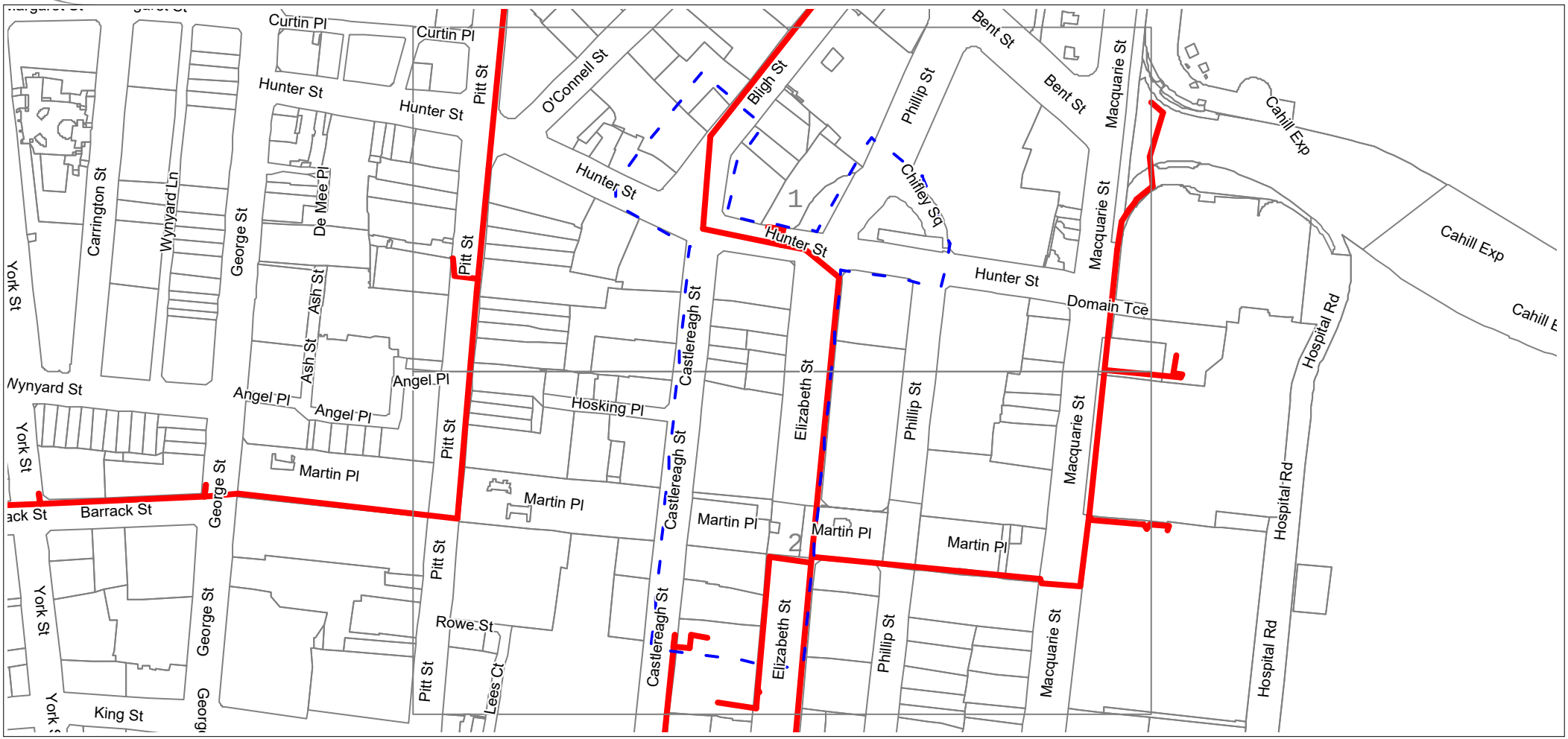
Assistance can be obtained by contacting AARNet NOC on 1300 APL NOC (1300 275 662)
Where an on-site location is provided by an accredited locator, the owner is responsible for all costs associated with hand digging or use of non-destructive water jet method (pot holing) to visually locate AARNet assets.

If plant location drawings or visual location of AARNet assets by digging reveals that the location of AARNet plant is situated wholly or partly within the owner work area, then AARNet Infrastructure Development Group **apl-infdev@aarnet.edu.au must be contacted to discuss possible engineering solutions.**

AARNet

Sequence Number: 58207260

Address:Hunter Street, Sydney, NSW, 2000



Create Date: 16/01/2017

Scale 1:1500

N

Enquiry Area

AARNet Assets

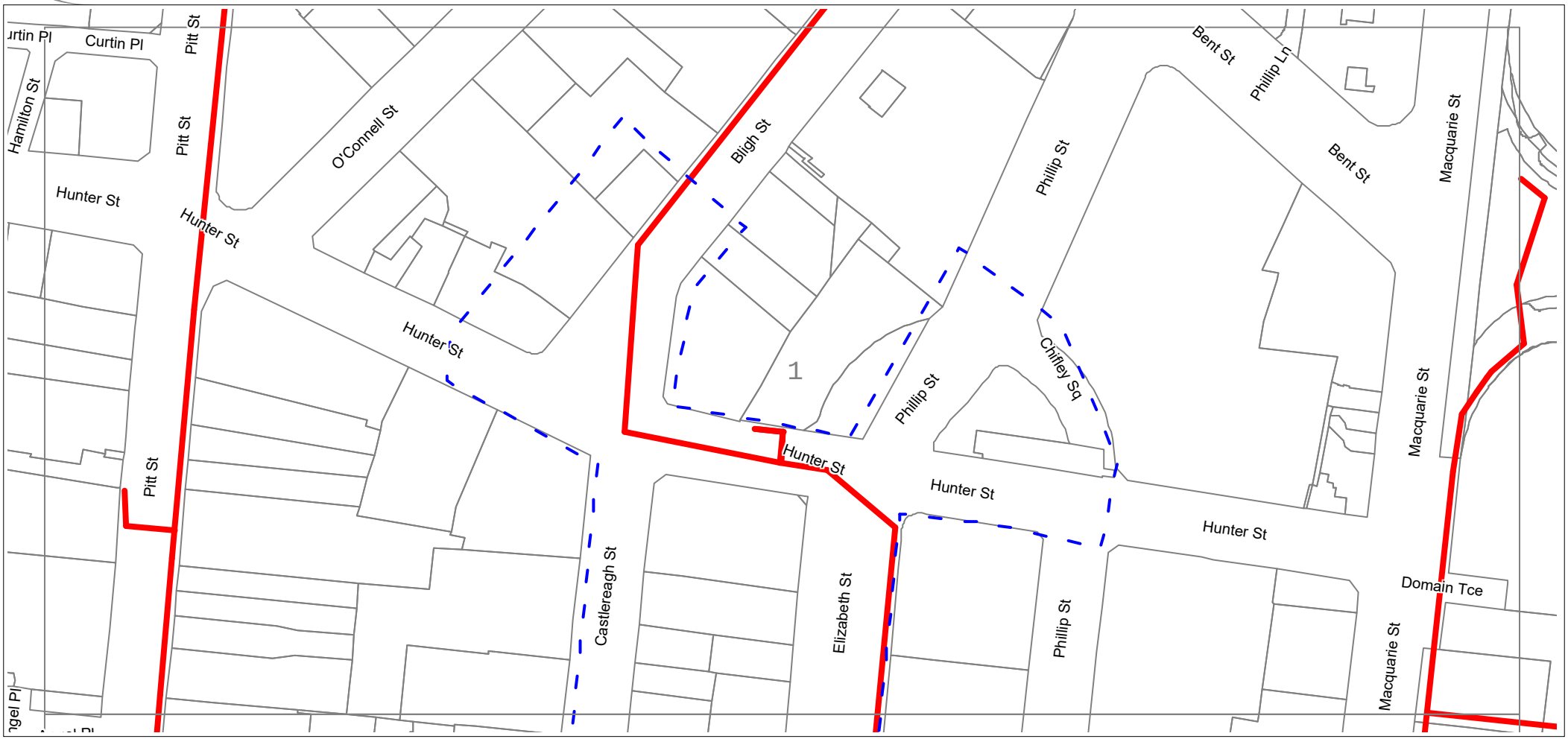
Cadastre

DISCLAIMER: While every care is taken by AARNet to ensure the accuracy of this data, AARNet makes no representation or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and disclaim all responsibility and all liability (including without limitation liability in negligence) for all expenses, losses, damages (including indirect or consequential damage) and costs which may be incurred as a result of the data being inaccurate or incomplete in any way and for any reason.

Exact positions of any assets shown on this map report should be confirmed on site.

AARNet

Sequence Number: 58207260
Address:Hunter Street, Sydney, NSW, 2000



Create Date: 16/01/2017

Scale 1:1500

N

Enquiry Area

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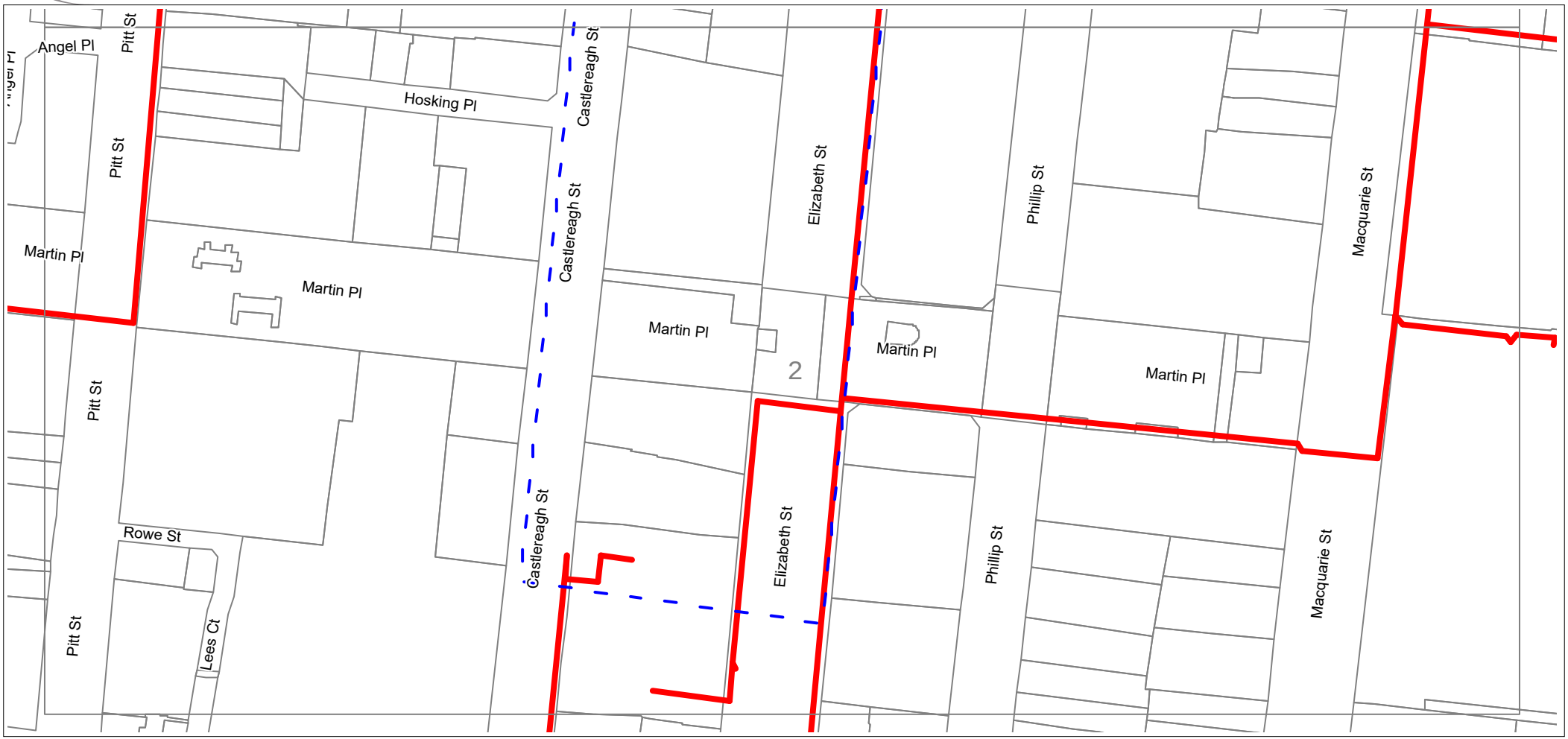

Create Date: 16/01/2017

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Enquiry Area

AARNet Assets

Cadastre

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Exact positions of any assets shown on this map report should be confirmed on site.

Ausgrid

Reading Ausgrid Plans

COMN0119

1 Property Lines

"property line" (PL), sometimes referred to as **"building line" (BL)**, is the standard dimensioning reference point on all Ausgrid plans and represents property boundaries.

Typically the PL is the boundary between private property and local council's footpath area or nature reserve. Most residential fences and office blocks are erected along the PL.

"kerb line" (KL) is less frequently referred to on Ausgrid plans, and where used will be identified clearly as KL.

Numbers listed within property boundaries should correspond to recognised "street numbers". (refer to figure 1)

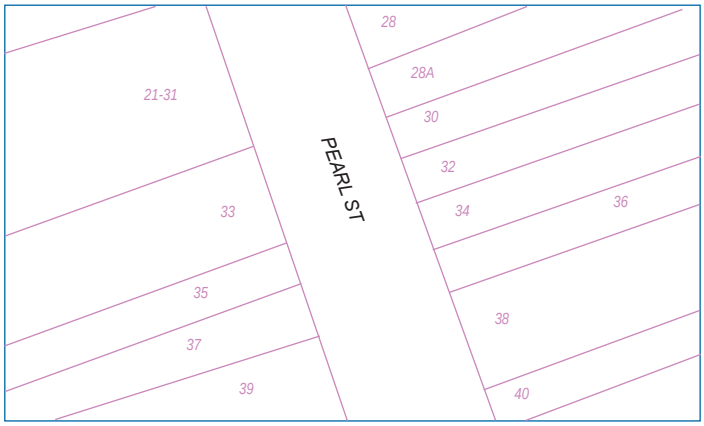


Figure 1

2 Datum References

"datum references" identify distances (in metres) from significant features (such as corners of property boundaries) to reference points such as Ausgrid assets (eg: **"conduits", "cables", "joints"**). (refer to figure 2)

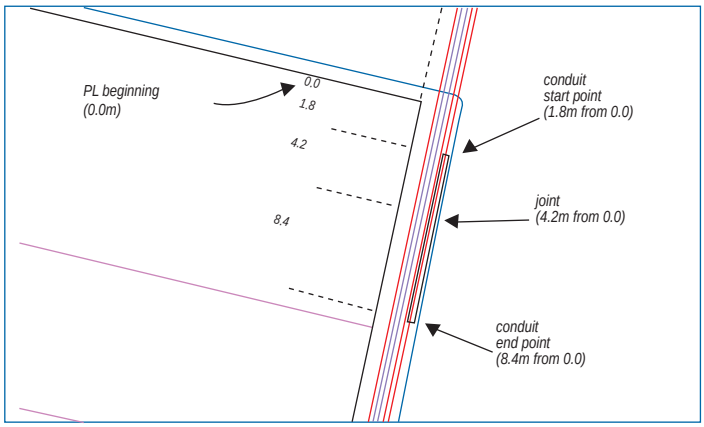


Figure 2

3 Cross Sections

"cross sections" displayed on Ausgrid plans detail information relating to the relative position (ie: distance from the **"property line"**, and the depth of **"cover"**) of Ausgrid assets.

"cover" is a term used to refer to the depth of cables underground.

A "cross section" leader line will be drawn indicating the location of the displayed **"cable"** or **"conduit"** information on Ausgrid plans.

The distance from **"property line"** (in metres) and depth of **"cover"** (in metres) references are displayed as; ie: 0.6 metres from PL and 0.5 metres underground).

Where distance and cover are not recorded, they will be clearly marked as **"NR"**.

NOTE: Distance and cover where indicated may be different to the actual position of the cables (eg: fill may have been placed at site that has changed the ground level).

"PL" distance shown in cross sections is an indicative measure to the centre of the trench allocation from the adjacent property line.

On some plans the "cross sections" may also be shown with a specific number (eg: HR1). This number will match with a cross-section detail found in the border of the plot or on a separate plot page. (refer to figures 3 and 4)

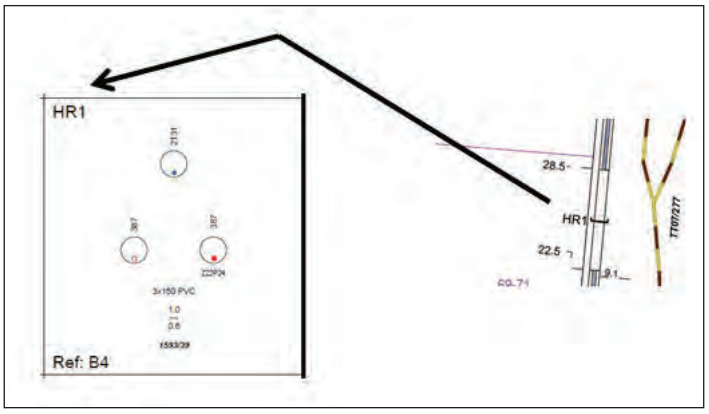


Figure 3

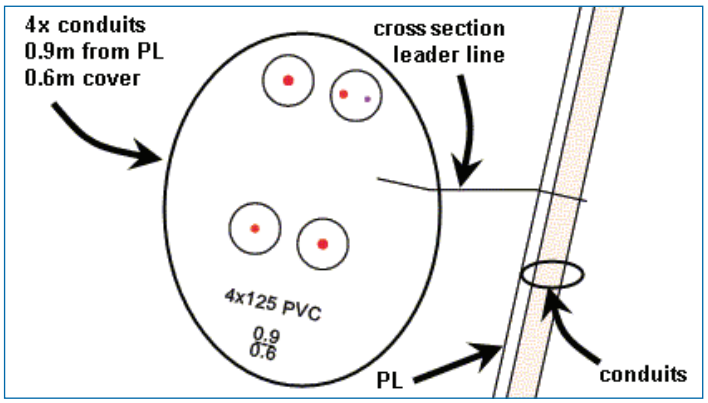


Figure 4

4 Cable Joints and Joint Reports

"cable joints" (numbered individually) and **"joint reports"** (attached to Ausgrid plans) can provide information relating to the relative position of Ausgrid assets, distance from the "property line" (in metres), and the depth of "cover" (in metres). (refer to figures 5 and 6)

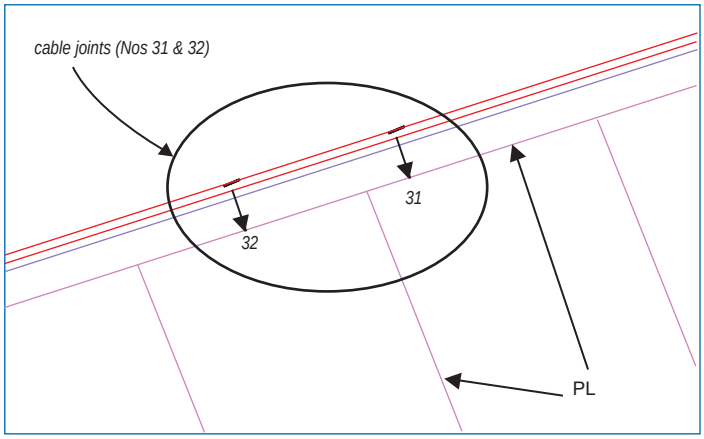


Figure 5

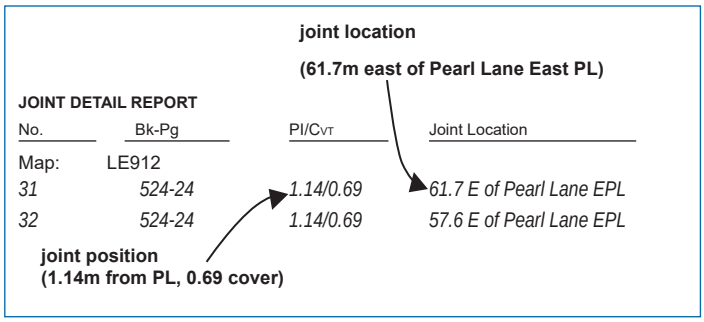


Figure 6

5 Cross Section Detail Boxes

"cross section" *detail boxes* on the sides of an Ausgrid plan are used when there is insufficient room to display **"cable"** and/or "conduit" information on the Ausgrid plan.

Ausgrid plans (refer to figure 7) are bordered by numeric identifiers along the *top and bottom borders* and alpha identifiers along the *side borders*.

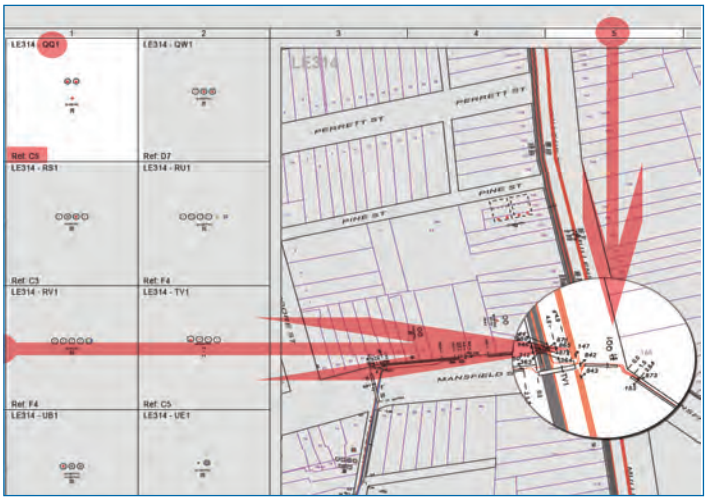


Figure 7

A **"cross section"** *leader line* and annotation is drawn on the Ausgrid plan for a reference to **"cable"** and/or **"conduit"** information in the **"cross section"** *detail boxes*.

6 Pits

Underground **"pits"** are numbered on Ausgrid plans, positioned relative to the **"property line" (PL)**, and can be found on either the footpath (nature strip) or the road (see figure 8).

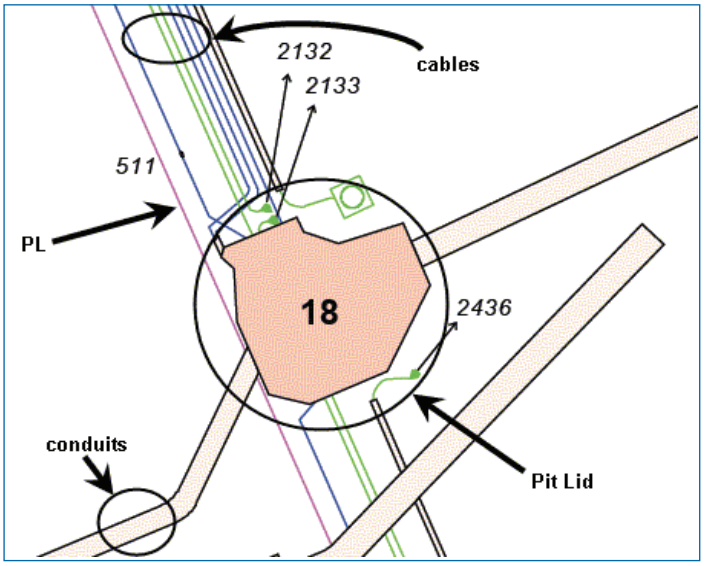


Figure 8

7 Proposal Areas

There are areas where underground work may have been issued for construction by Ausgrid, but details are not yet completely displayed on Ausgrid plans. In such cases a shaded **"proposal area"** is displayed on the Ausgrid plan, indicating underground work may have commenced in the vicinity but is not yet complete.

In some instances cables and other assets within the shaded **"proposal area"** will be shown in a **bright magenta** colour, indicating that the proposed new work displayed within the shaded area is based on initial planning documentation. (refer to figure 9)

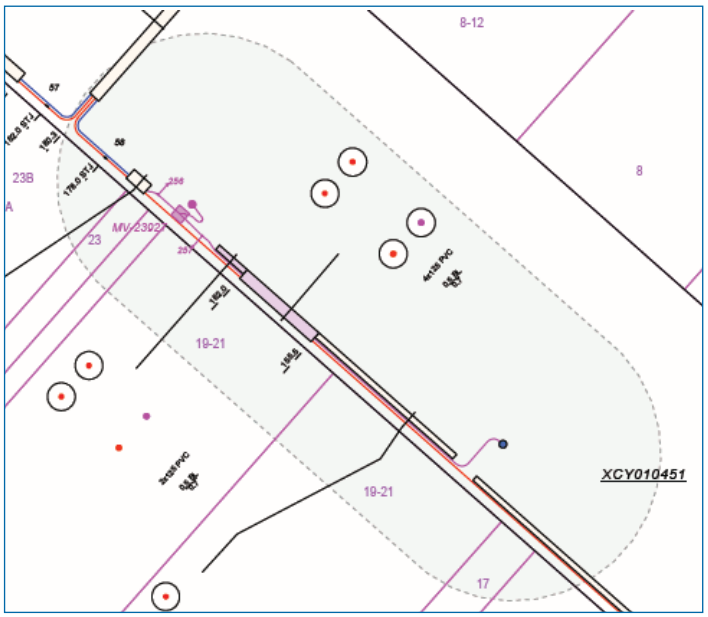


Figure 9

In other instances the shaded **"proposal area"** itself may be shown as a **blue** colour, indicating that the new work displayed within the shaded area on the Ausgrid plan is yet to include details regarding final depths and dimensioning. (refer to figure 10)

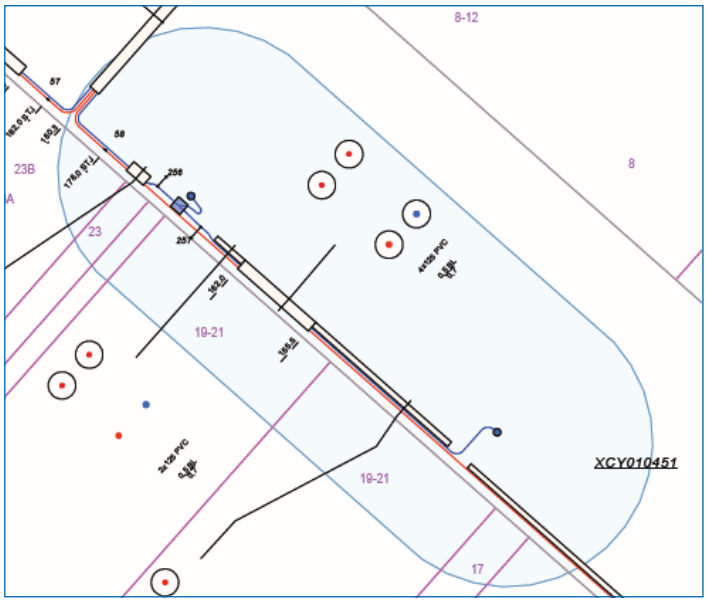


Figure 10

NOTE: In cases where these shaded **"proposal areas"** are displayed on Ausgrid plans.

"Ausgrid's design plans showing the proposed position of its underground cables, overhead lines and structures have been prepared solely for Ausgrid's own planning use. They show the proposed position of such underground cables, overhead lines and structures as proposed at the time of planning and have not necessarily been corrected to take into account any changes to road widths, road levels, fences and buildings subsequent to proposed installation.

Actual installations may vary from proposed installations as it may be necessary to take account of unforeseen above ground or subterranean constructions. Therefore, Ausgrid does not hold out that the design plans show more than the proposed presence or absence of its underground cables, overhead lines and structures in the street and will accept no liability for inaccuracies in the information shown on such design plans from any cause whatsoever."

Any further information regarding information displayed for **"proposal areas"** can be obtained by contacting the Ausgrid DBYD office at the number indicated on the response to your DBYD enquiry for further information.

8 Ausgrid (ISG) Map Grid

The pale grey line indicates the **1:1000 Ausgrid (ISG) map grid** *border*.

The pale grey annotation located in the corners of the Ausgrid plan window, indicates the 1:1000 Ausgrid (ISG) map grid reference.

The **1:1000 Ausgrid (ISG) map grid** *border and reference* on Ausgrid plans should be used when reading the **"joint report"** (see part 4 of this document for more detail) to accurately locate underground cables.

The buffer area shown on the plan should relate to the area requested on the original Dial Before you Dig request.

The **grid index box** can be used for reference where necessary (located in the bottom right corner of the Ausgrid plans), and will also indicate the buffer area shown on the plan.

9 Ausgrid "Distribution" and "Transmission" Plans

The Ausgrid plans supplied may identify both **"distribution"** and **"transmission"** voltage assets for the area defined in the DBYD request. (refer to figure 11)

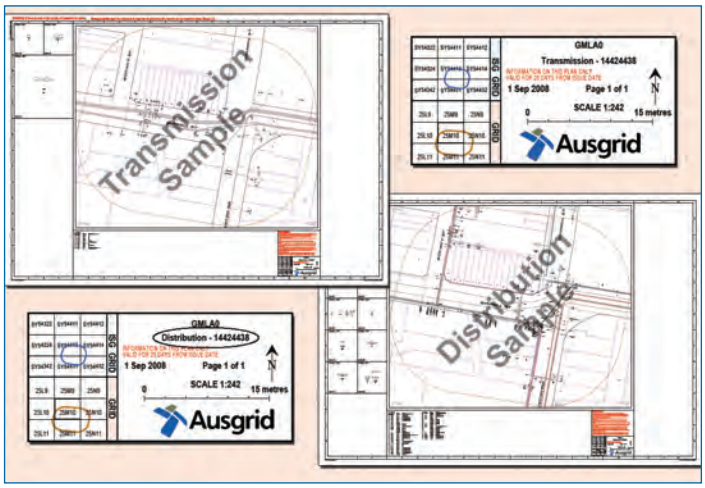


Figure 11

In the Sydney region, the Ausgrid plans are separately labelled as **"Distribution – nnnnnnn"** and **"Transmission – nnnnnnn"**, where "nnnnnnn" refers to the DBYD sequence number quoted.

In the Hunter region, the Ausgrid plans show combined **"distribution"** and **"transmission"** voltage assets, and are clearly labelled as **"Distr + Trans – nnnnnnn"** where "nnnnnnn" refers to the DBYD sequence number.

In the Hunter region, some DBYD requests are covered by PENGUIN grid references. In such cases, the Ausgrid Plans show the grid quoted with a cross-reference to a corresponding Ausgrid (ISG) map grid (eg: PENGUIN 136B3 – DP711, where DP711 is the Ausgrid (ISG) grid) to optimise the legibility of plans due to PENGUIN grid scale.

Some Hunter plans may have transmission cables in the area, when these cables are present there will be a warning printed at the top of the plan supplied:

> **WARNING: If there is work in the vicinity of transmission cables, Ausgrid must be contacted at least two weeks before the work is due to commence.**

10 "Shifting Land Base" on Ausgrid Distribution and Transmission Plans

In some instances, the plans supplied may indicate road or property outlines that appear to have shifted in relation to the Ausgrid assets displayed. (refer to figure 12)

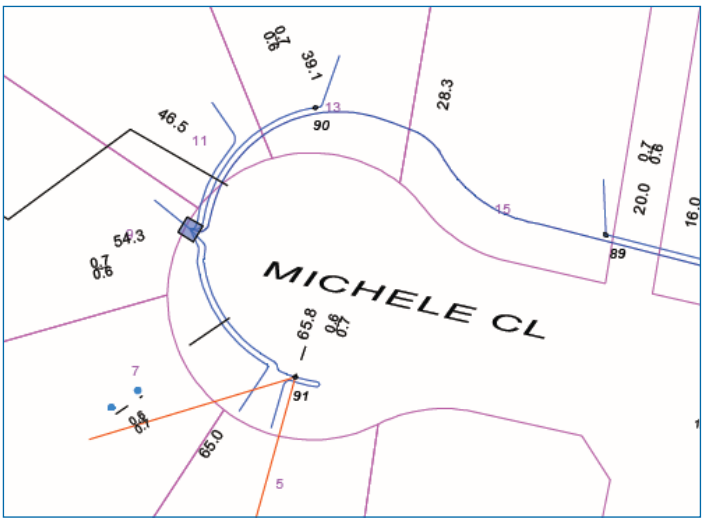


Figure 12

In such instances, always refer to the **"property line"** (in metres) and depth of **"cover"** (in metres) references displayed on the nearest relevant **"cross sections"** to obtain Ausgrid asset location information (see Reading Ausgrid Plans, clause 3, Cross Sections for more detail).

11 "Underground Earthing Infrastructure"

In some instances, the plans supplied may also indicate the presence of underground earthing infrastructure associated with underground and/or overhead Ausgrid assets.

The "Earth Point" symbol (refer to figure 13) will be shown on plans to minimize risk of disturbance or damage to any Ausgrid underground earthing infrastructure in the vicinity.

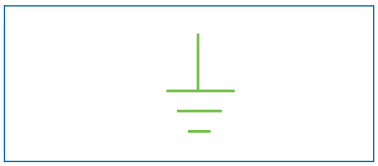


Figure 13

Working near
Ausgrid cables

Finding out what's below the surface can save your life.

Call Dial Before You Dig on **1100** or visit **1100.com.au**

Ausgrid

Changes in the Law.

NSW legislation now requires people who are planning to do excavation work to obtain copies of underground electricity cable plans through Dial Before you Dig (Phone 1100) and to make sure that the plans are no more than 30 days old when excavation commences.

The aim of the legislation is to ensure that when workers dig near electricity cables, they will establish the exact location of the cables and thus avoid coming into contact with them or damaging them. This will ensure worker safety and also prevent disruption to Ausgrid's electricity network.

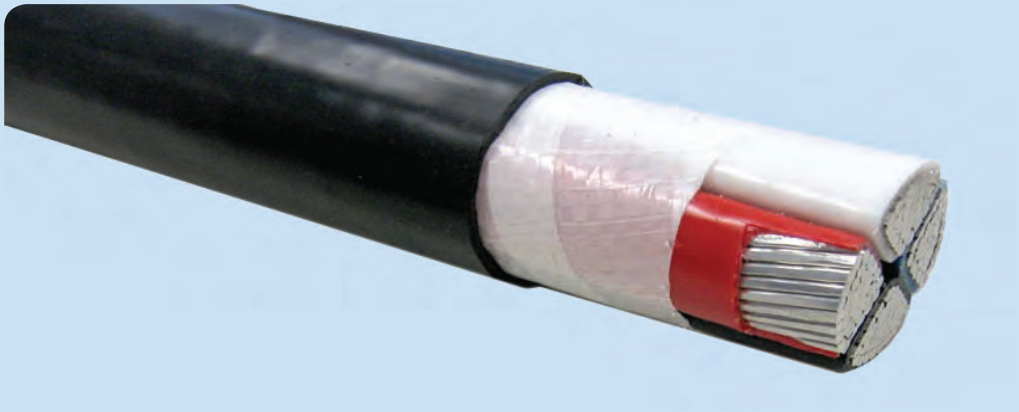
This brochure gives you a brief overview of how to prepare for excavation works near or around electricity cables. It is important that you also consult our guide How to Read Ausgrid Plans and make sure that workers engaged in excavation works fully understand how to read the plan. If the people actually doing the digging can't read the plans, it is essential that the work is directed by a person who has been trained to read Ausgrid's plans.

You must also consult Ausgrid's Network Standard NS156, which contains comprehensive information concerning all the issues that arise when excavating near underground cables (such as safety hazards from asbestos conduits and organochlorine pesticides).

Excavating near transmission cables.

If any cable plan you receive says "You are working near transmission cables" it is compulsory to notify Ausgrid two weeks before work is scheduled to begin. Ausgrid will then arrange for an Ausgrid representative to attend the site during excavation work.

Phone the Ausgrid Transmission enquiries line on (02) 4951 9200 to arrange for an Ausgrid representative in your region.



Be prepared. Wise words for safety at work.

Here are some simple precautions you and your workers need to follow in order to be as safe as possible.

- Make sure that your Dial Before You Dig (DBYD) plan is less than 30 days old
- Keep a copy of the cable plan on site at all times
- Make sure the excavation work is conducted or directed by staff who are trained to read the plan
- Hand dig until the exact location of the cable has been established
- Have on site at all times a first aid kit and a person trained in resuscitation
- Wear protective clothing, including safety footwear and safety helmet
- Have emergency contact numbers on site
- Set up safety barriers, witches hats and warning lights to reduce the risk of injury to the general public
- Comply with all WorkCover requirements and codes.

See also:

- **WorkCover Guidelines: Work Near Underground Assets**
- **WorkCover Code of Practice: Excavation Work**
- **WorkCover Code of Practice: Work Near Overhead Powerlines (if applicable).**

Before you start. Complete the checklist. Stop and look around.

Before you start excavating, consult the flow chart and fill in the checklist at the end of this brochure.

Then, be sure to look for clues where cables might be located on the site: for example pits, distribution pillars (green and other colours), cables attached to the side of poles, street lights without overhead wires.

Do all power cables look the same?

No. Power cables come in different sizes, colours and coverings. They may be covered in black plastic sheath, steel wires in a sticky bitument like material, or even a simple lead or steel wire/tape sheath.

What else should I look for below ground level?

Cables may also be buried in orange PVC or PE conduits or even in earthenware or steel pipes. A bank of cables may be covered with electrical bricks, plastic warning markers or protective covers, or they may not be covered at all. If they have been buried close to the surface, they may be covered by concrete slabs or steel plates.

When in doubt, ask Ausgrid.

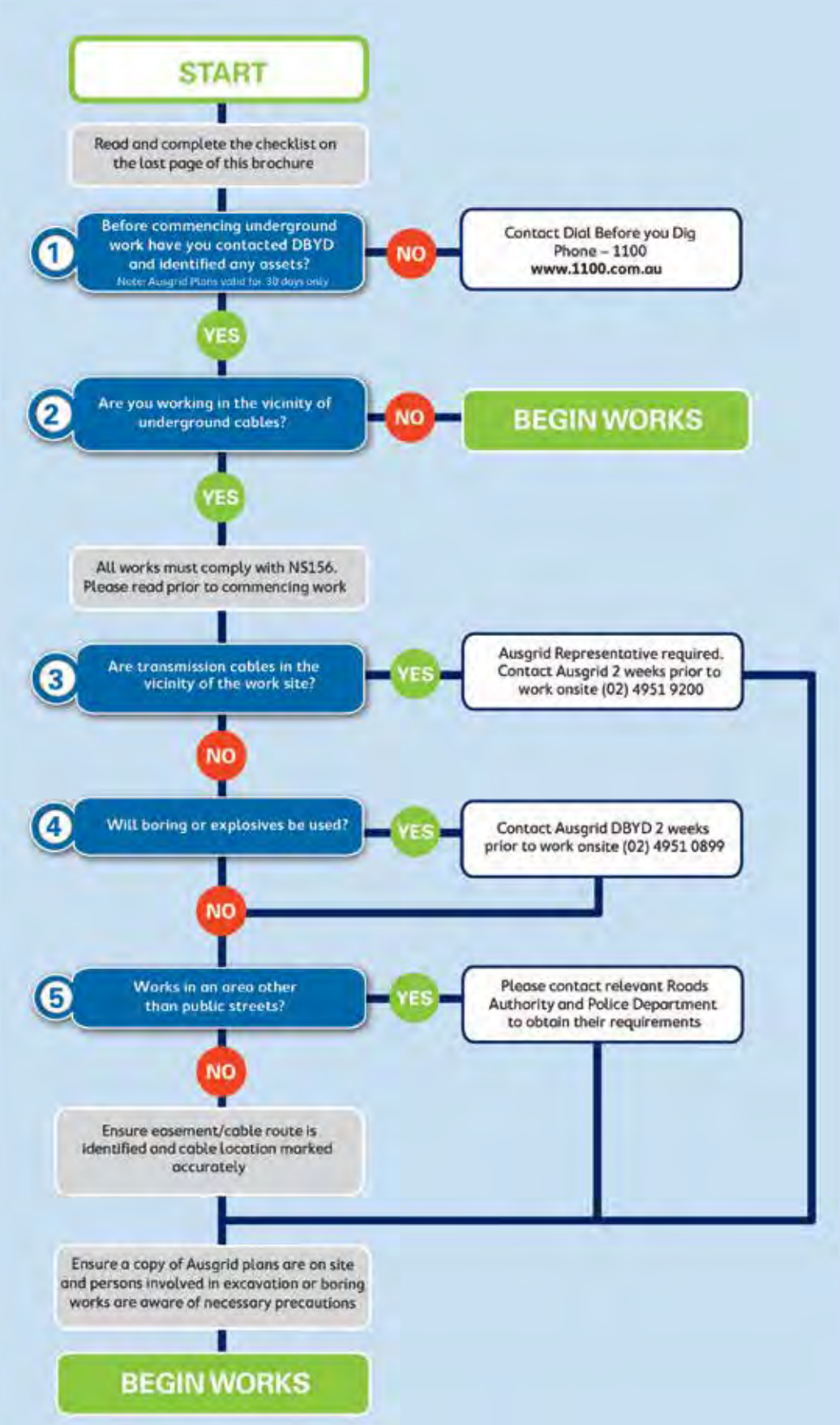
If you have any questions about excavating near Ausgrid cables, read **NS156** (available at ausgrid.com.au).
For further information call 13 13 65.

You've taken every precaution but accidents still happen. What now?

If you damage an electricity cable, it is compulsory to notify Ausgrid on **13 13 88**.

Striking power cables can cause serious damage to the cables and endanger the lives of anyone who comes in contact with them. Machinery and hand operated plant such as jack hammers can become alive if it is in contact with electrical cables or equipment. Keep people well away from machinery and the work site if contact is made with a cable.

Flow Chart for work near Ausgrid Cables



Ausgrid Checklist for work near or around underground cables

It is the responsibility of the Constructor to ensure that underground pits, ducts and cables are not damaged as a result of construction work. It is also your duty to protect your workers from harm or injury. This Checklist is intended to be used as a guide to what Constructors should do to make sure they have satisfied the minimum requirements to minimise damage to underground networks.

PLANS, LOCATION and NOTIFICATIONS	Completed
All relevant utilities plans obtained from Dial Before You Dig? (call 1100 – allow at least 5 working days for plans).	
Checked issue date on all the above plans to ensure issue was within the last 30 days?	
Examined plans and assessed all possible impacts on Ausgrid's network?	
Do you have both Underground Distribution and Transmission Plans (if applicable), on site at all times?	
All cables and conduits shown on the Ausgrid plans been located and marked on the ground?	
If you are planning to use a bore, have you ensured that the equipment is calibrated?	
Have you read and understood the requirements of NS 156? (for copies of NS 156 visit Ausgrid's Website or phone Ausgrid DBYD Office (02) 4951 0899) **www.ausgrid.com.au**	
Have you notified Ausgrid as specified by NS 0156 and complied with requirements? Where an Ausgrid representative is required, two weeks notice is required before work commencing on site. Contact phone number for Transmission cable enquiries is (02) 4951 9200. For all other cases contact Ausgrid DBYD Office: (02) 4951 0899.	
INSPECTION OF WORK BY Ausgrid's REPRESENTATIVE	
Is the Ausgrid representative on site for any work near or around* any transmission cable before you start? (*Refer to NS 156.)	
For proposed work near or around* cables other than transmission and/or conduits, are any requirements specified by Ausgrid's representative clearly understood and ready to be applied before you start the work? (*Refer to NS 156.)	
PROTECTION	
Check that all people on-site have been made aware of the presence and location of ALL Ausgrid underground cables and/or conduits; especially boring, drilling and trenching machine operators?	
Is there any asbestos or asbestos containing material in Ausgrid's underground network assets?	
Have you checked for the presence of any Organo-Chloride Pesticides (OCP) in transmission trenches?	
Is the site supervisor monitoring all machine operators working near or around Ausgrid's underground cables and/or conduits?	
Are the requirements specified by Ausgrid's representative being followed?	
Are Ausgrid's requirements in place for any exposed cables and/or conduits to be supported and protected?	
Have you marked all exposed underground cables and/or conduits with flags that are clearly visible from within all machinery used on-site?	
Have safety barriers, fencing or para-webbing been erected to protect staff and the public as well underground cables and/or conduits in areas that are at risk?	
Have safety barriers, fencing or para-webbing been erected to protect staff and the public as well underground cables and/ conduits in areas that are at risk?	

In the event of DAMAGE to Ausgrid's cable or conduits, call 13 13 88 immediately.

PROCEED with CAUTION

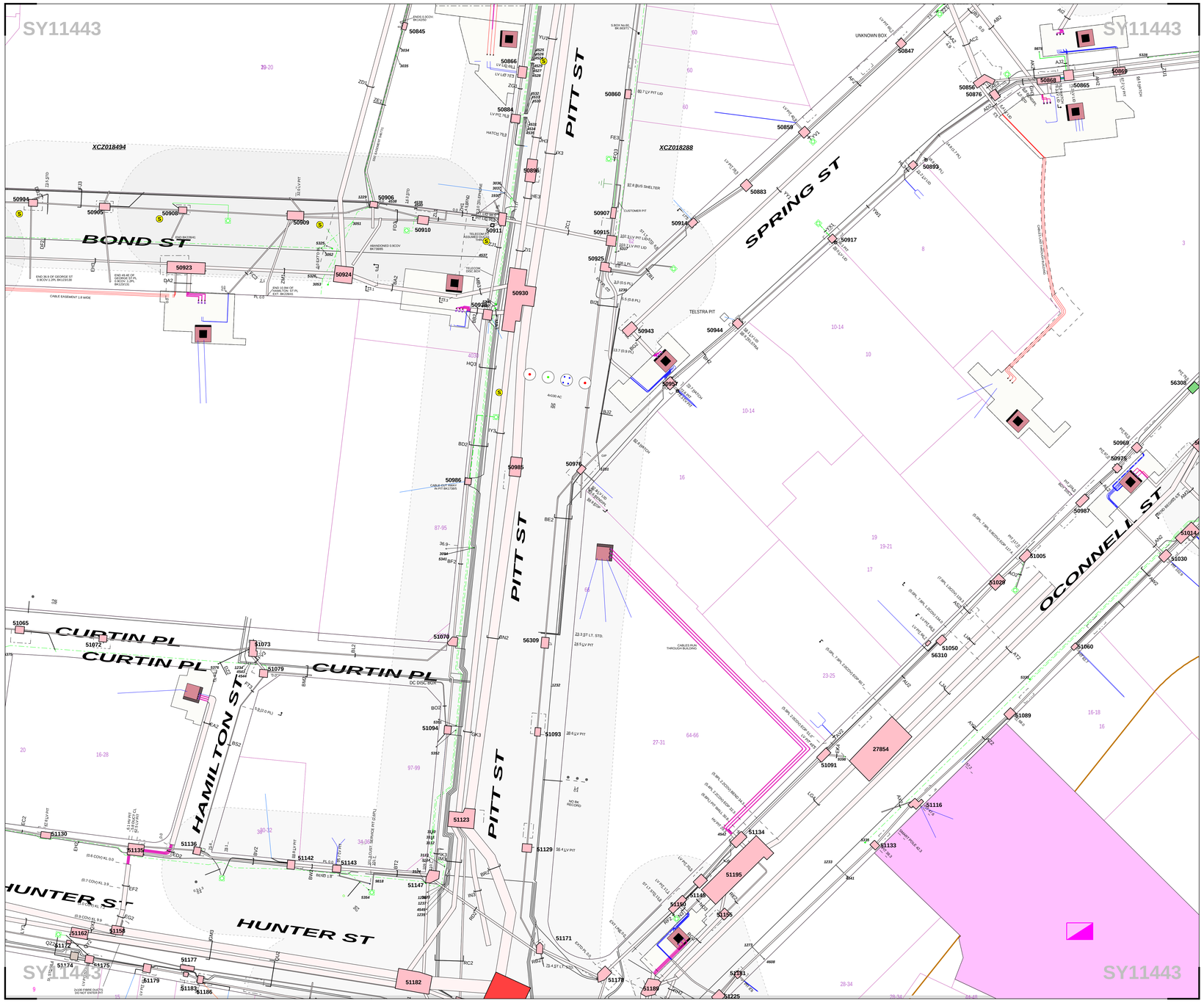
It is your responsibility to protect Ausgrid's cables and conduits from damage and your Duty of Care to protect your workers from harm or injury.

Signed: _____ **Date:** _____ / _____ / _____

Responsible person on site

For more information call 13 13 65 or visit www.ausgrid.com.au

Ausgrid



WARNING

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Persons working near electricity networks must exercise care and will be held responsible for any damage caused.
You must excavate by hand or use vacuum excavation to establish the location of Ausgrid underground cables and associated assets.
Underground: Working near a cable may result in electric shock even if no contact is made. Any work in the vicinity of any cable should only be performed using safe work methods developed in accordance with the recommendations contained in WorkCover's Code of Practice for Excavation and WorkCover Guide for Work Near Underground Assets
as well as recommendations of Ausgrid's Network Standard NS156.
Overhead: Do not excavate near poles or towers until the stability of the foundation has been assessed by Ausgrid. Cables or earth conductors may be present close to substations, poles or towers.
Workers must maintain safe approach distances and follow applicable WorkCover Codes of Practice.
NOTE: 1. You must keep Ausgrid plans on site during excavation works. If the people actually performing the excavation works do not know how to read and interpret Ausgrid's plans, then the work must be directed by a person who knows how to read and interpret the plans. 2. This information includes data from the NSW Digital Cadastral Database by Land and Property Information (c) 2016, used under Creative Commons licence version 2.0

SY11443	SY11444	SY12333	BSG GRID
SY13321	SY13222	SY14111	
SY13223	SY13224	SY14113	
1H14	1J14	2H14	GRID
1H15	1J15	2H15	
1H16	1J16	2H16	

SY11443GMLA0

Distribution - 58207255

INFORMATION ON THIS PLAN ONLY VALID FOR 30 DAYS FROM ISSUE DATE

17 Jan 2017

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1:251

0 — 15 metres

N

Ausgrid

A0 MOCS_std_plot

E_58207255_SY11443GMLA0_1.tmpl

SY114 - PL1

4x150 FC
NA

1.4-2.7

DUCTS CHANGE IN SECTION

Ref: F4

SY114 - PM1

4x666 NR
NA

NR

Ref: F4

SY114 - QG2

4x100 FC
2.7KL

NR

Ref: F7

SY114 - QK2

1x32 PVC
0.5

0.45

Ref: F5

SY114 - QL2

NR

0.3

3x100 AC
NR

NR

Ref: F5

SY114 - QM2

1x50 PVC
NA

0.4

NA

NR

Ref: G3

SY114 - QO2

3x100 AC
NR

NR

Ref: G4

SY114 - BJ4

16x150 PVC
3x50 PVC
8.3-10.4

1.1-1.6

Ref: G4

SY114 - CM4

16x150 PVC
3x50 PVC
9.8

1.6

Ref: G4

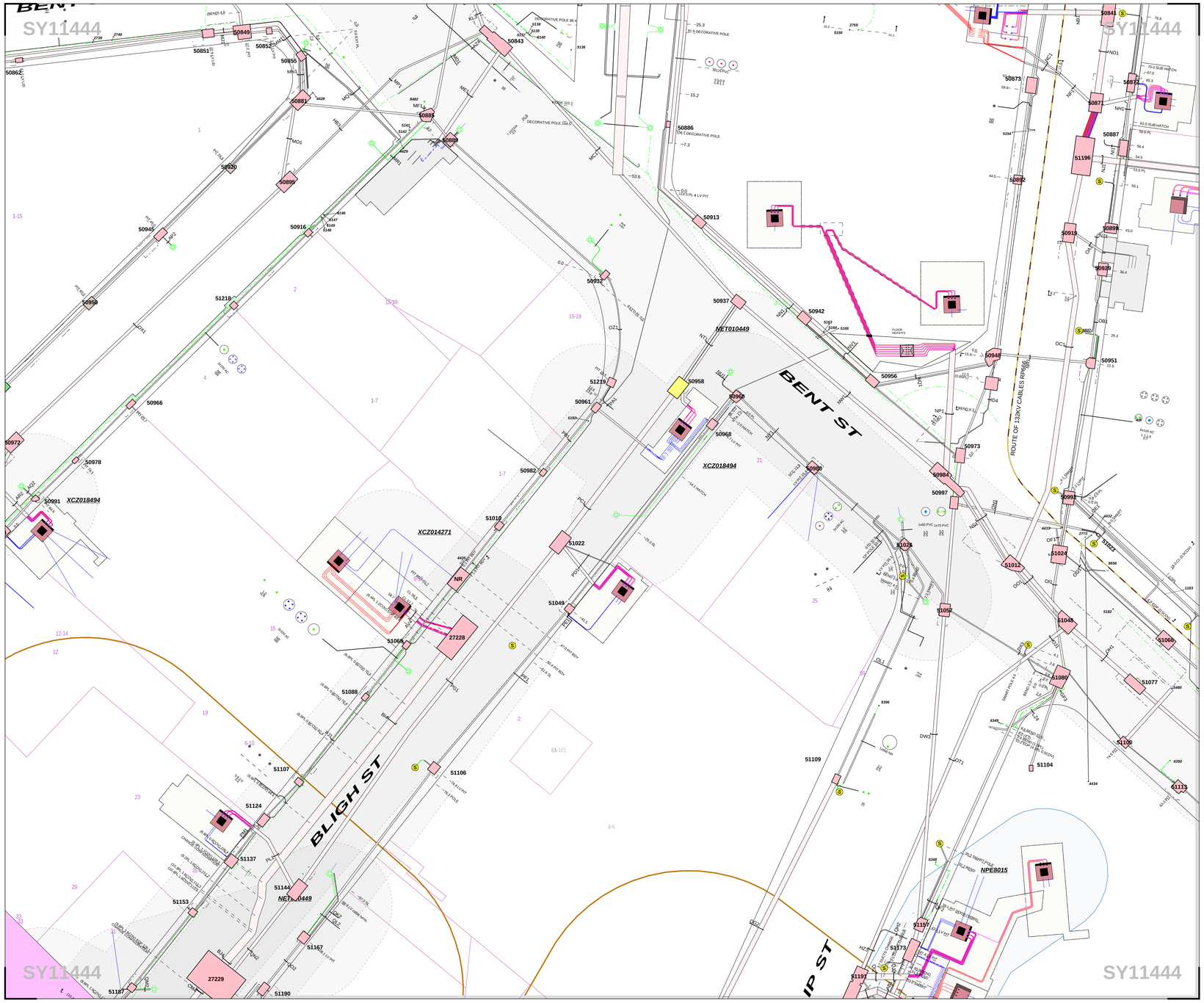
SY114 - QN2

6xCOL. PILOTS BK 2184/12, 14

8x150 FC
6.6

1.1-1.4

Ref: F4



JOINT DETAIL REPORT

No....	Bk-Pg.....	FSCxr.....	Joint Location
Map:	SY114		
1027	IC08-0991		IN PIT S1191
1027	IC08-0991		IN PIT S1191
1029	ER15-23-+...	6.90'	IN PIT 918
1030	ER15-23-+...	6.90'	IN PIT 918
1031	ER15-23-+...	6.90'	IN PIT 918
1651	281-46		IN PIT 279
1652	1357-71		IN PIT 282
1653	1357-71		IN PIT 282
2340	398-10		IN PIT 923
2341	334-103		IN PIT 923. JOINT ON 2 PHASE ONLY
2343	LV06-0104		IN PIT 923. JOINT ON 2 PHASE ONLY
2344	1033-1		IN PIT 920
2345	1215-60		IN PIT 920
2346	281-45		IN PIT 921
2347	1389-33-+...		IN PIT 921
2348	1389-33		IN PIT 921
2350	423-38		IN PIT 922
2351	LV06-0140		IN PIT 922
2800	168-25		IN PIT 281
3434	1368-4-+...		IN PIT 923
3435	1368-4-+...		IN PIT 921
4188	ER15-21	6.90'	IN PIT 918
4713	2188-10-+...		IN PIT 916
5195	822-72		IN PIT 281
5471	LV06-0104		IN PIT 923
5993	HV05-0296		IN PIT 916
8703	HV05-0296		IN PIT 916
8704	HV05-0296		IN PIT 916
8705	HV05-0296		IN PIT 916
8706	HV05-0296		IN PIT 916
8707	HV05-0296		IN PIT 916
8708	HV05-0296		IN PIT 916
8709	HV05-0296		IN PIT 916
8710	HV05-0296		IN PIT 916
8711	HV05-0296		IN PIT 916
8967	LV06-0107		IN PIT 279
8968	LV06-0113		IN PIT 920

No....	Bk-Pg.....	FSCxr.....	Joint Location
8969	LV06-0106		IN PIT 921
8971	1389-33-+...		IN PIT 921
8972	LV06-0106		IN PIT 921
8570	IC08-0991		IN PIT S1191
8739	IC09-0967		IN PIT SY-S1191
8740	IC09-0963-+...		IN PIT SY-S1191
8748	IC09-1108		IN PIT SY-S1191
8749	IC09-1108		IN PIT SY-S1191
8750	IC09-1106		IN PIT SY-S1191
9110	IC11-1341		IN SY91137

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SY11443	SY11444	SY12333	
SY13221	SY13222	SY14111	SSG GRID
SY13223	SY13224	SY14113	
1314	1414	3114	
1315	1415	3115	GRID
1316	1416	3116	

SY11444GMLA0

Distribution - 58207255

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1:251

0 — 15 metres

N

Ausgrid

A0 MOCS_std_plot

E_58207255_SY11444GMLA0_V.kapt

SY132 - FA1

3x100 AC
1.3

0.4-0.5

Ref: A8

SY132 - FB1

6x100 AC
1.2 - 1.8

0.4 - 0.6

Ref: B10

SY132 - FC1

1.1

0.4

3x100 AC
0.7-1.6

0.3-0.7

Ref: B9

SY132 - FD1

3x100 AC
NA

NR

Ref: B10

SY132 - FE1

NA

NR

3x100 AC
NA

0.7

Ref: C10

SY132 - FF1

1.1

0.4

3 x 100 AC
0.7-1.6

0.3-0.7

Ref: B9

SY132 - HT1

2x63 PVC
0.6-1.0

0.3 BFWR

3x100 AC
1.1-1.3

0.6

2x125 PVC
1.0-1.6

0.45

Ref: C10

SY132 - IP1

2x63 PVC
0.7-0.8

0.5

3x100 AC
1.1-1.3

0.5

Ref: F10

SY132 - IQ1

6x100 AC
NA

0.9

Ref: F10

SY132 - IS1

2x63 PVC
0.5-1.0

0.3-0.5

3x100 AC
0.9-1.5

0.5

Ref: G10

SY132 - IW4

2x63 PVC
0.5-0.9

0.3 BFWR

Ref: C10

SY132 - IY4

2x63 PVC
NA

NR

BFWR

Ref: C10

SY132 - JA4

2x63 PVC
0.4-0.6

0.5

3x100 AC
NA

NR

Ref: E10

SY132 - JH4

2x63 PVC
1.0-2.9

0.5

BFWR

Ref: F10

SY132 - JI4

2x63 PVC
0.9-2.2

0.4-0.5

Ref: F10

SY132 - JL4

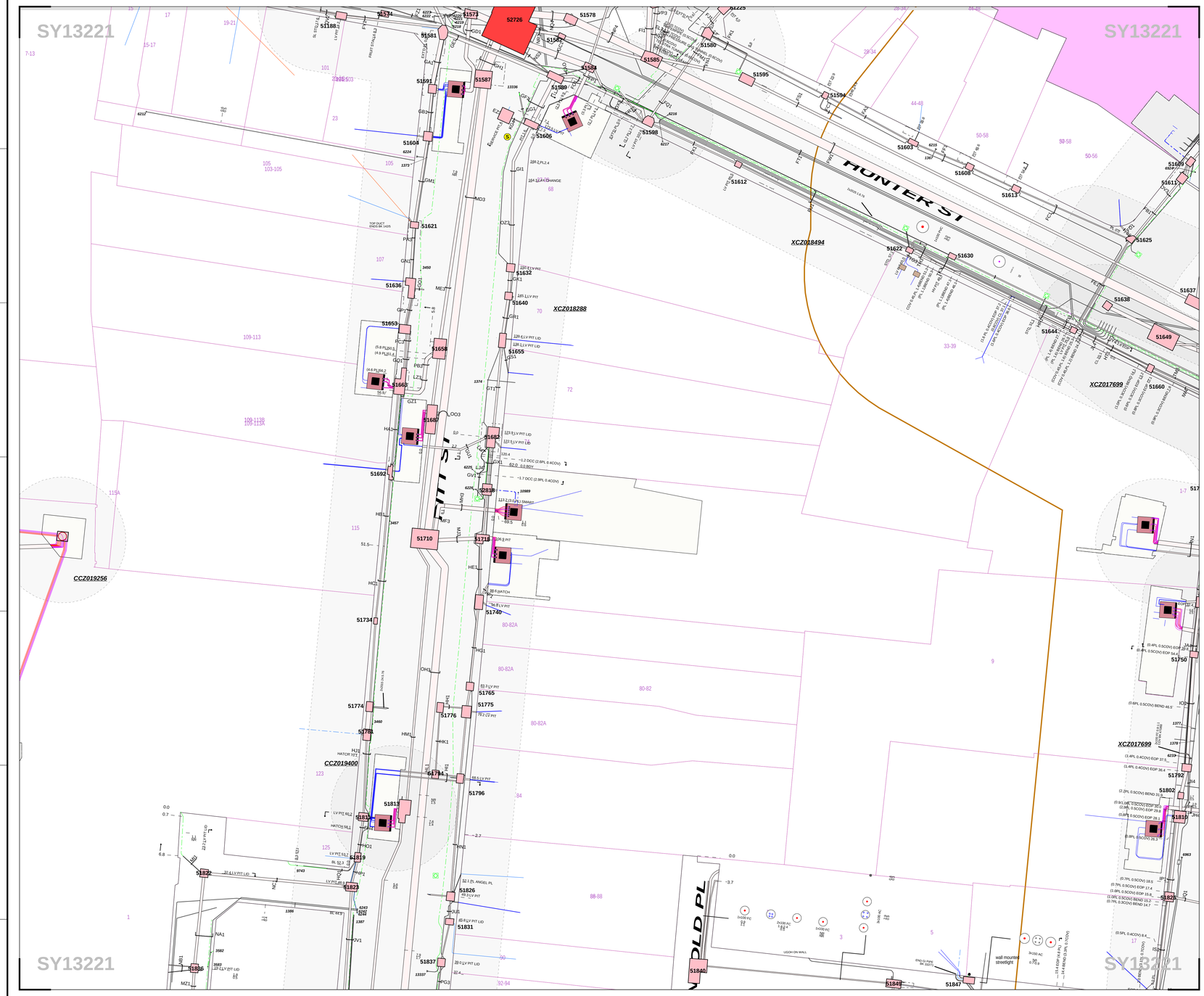
3x100 AC
1.1-1.3

0.6

2x125 PVC
1.1-1.6

0.45

Ref: C10



SY132 - OV3

6x100 AC
1.2 - 1.8

0.4 - 0.6

Ref: B10

SY132 - TG3

2x150 PVC
NA

0.3

Ref: B8

SY132 - TH3

3x100 AC
1.5

0.6

2x125 PVC
1.1-1.6

0.45

1.5

0.5

NR

NR

1.2

0.5

Ref: B9

SY132 - TI3

1x100 AC
1.0

0.3

3x100 AC
1.5

0.6

2x125 PVC
1.1-1.6

0.45

Ref: C9

SY132 - TJ3

3x100 AC
1.1-1.3

0.6

2x125 PVC
1.1-1.6

0.45

Ref: C10

SY132 - TK3

3x100 AC
1.5

0.6

2x125 PVC
1.1-1.6

0.45

1.5

0.5

NR

NR

1.2

0.5

Ref: B9

SY132 - TM3

2x125 PVC
NR

NR

Ref: C10

SY132 - FW1

16x100 AC
NR

NR

EXTRAMWAY SHARED DUCTS
RMS / AUSGRID

Ref: B8

SY132 - HR1

3x100 AC
1.5

0.6

3x100 AC
1.5

0.6

2x125 PVC
1.1-1.6

0.45

1.5

0.5

NR

NR

1.2

0.5

Ref: C9

SY132 - IN1

4x100 AC
NA

NR

4x100 AC
NA

0.9

COL.PILOTS
5.8.90 BK 2155/49, 50

Ref: D10

JOINT DETAIL REPORT

No....	Bk.Pg.....	PiCur.....	Joint Location.....
Map: SY132			
1367		0.500.30	IN HUNTER STREE
1377			NO RECORD
1378			NO RECORD
1722	LV06-0117		Pit SY01609
1724	379-137-+...		IN PIT 116
1725	LV06-0118		IN PIT 115, JOINT ON ONE PHASE ONLY
1728	146-98-+...		IN PIT 115
1729	169-73-+...		IN PIT 115
1730	LV06-0119		IN PIT 113
1731	LV06-0119		IN PIT 113
1732	LV06-0119		IN PIT 113
1733	281-45-+...		IN PIT 113
1734	LV06-0119		IN PIT 113
1736	958-60-+...		IN PIT 117
1737	741-9-+...		IN PIT 118
1738	1861-83-+...		IN PIT 128
1833	479-50-+...		IN PIT 166
1834	940-43-+...		IN PIT 166
1835	940-43-+...		IN PIT 166
1866	645-57	0.90'	IN PIT 188
1867	645-57	0.90'	IN PIT 188
1868	486-11	1.20'	IN PIT 190
1869	3518-77	1.20'	IN PIT 190
1870	1513-58	1.00'	IN PIT 189
1871	2233-13	1.00'	IN PIT 189
1872	1695-36	0.30'	IN PIT 191
1873	1695-36	0.30'	IN PIT 191
1875	1215-22	0.90'	IN PIT 192
3413	1825-17+...		IN PIT 116
3416	2034-2+...		IN PIT 115
3417	2034-2+...		IN PIT 115
3421	1059-51+...		IN SY01825
3422	1825-17+...		IN PIT 116
3423	379-137+...		IN PIT 116
3424	2183-66+...		IN SY01623
3471	LV05-0086	0.90'	IN PIT 192
3474	LV05-0086	0.90'	IN PIT 192
4803	665-77	2.00'	IN PIT 119
4845	948-32+...		IN PIT 164
4846	1019-65+...		IN PIT 164
4848	1131-43+...		IN PIT 164
4849	663-22+...		IN PIT 164
4883	299-5	2.40'	IN PIT 192
4884	299-5	2.40'	IN PIT 192
6213		0.500.30	IN HUNTER STREET
6233			NO RECORD
6515	1738-11	1.20'	IN PIT 190
6516	511-55	1.20'	IN PIT 190
6517	1215-22	0.90'	IN PIT 192
6518	1215-22	0.90'	IN PIT 192
6924	1088-31+...		
6925	2183-66+...		IN PIT 128
6926	2183-66+...		IN PIT 128
6927	2183-66+...		IN PIT 128
6949	2184-38+...		IN PIT 166
6963			IN CASTLEREAGH ST
7484	2015-89	0.90'	IN PIT 188
7485	2015-89	0.90'	IN PIT 188
7486	2015-89	0.90'	IN PIT 188
8120	LV07-0073		IN PIT 116
9410	KC05-5237		IN PIT 191
9411	LV05-0087		IN PIT 191
9412	LV05-0088		IN PIT 189
9413	LV05-0088		IN PIT 189
9414	LV05-0088		IN PIT 189
9426	LV05-0090		IN PIT 188
9427	LV05-0090		IN PIT 188
9984	LV05-0086		IN PIT 192
9985	LV05-0086		IN PIT 192
9988	LV05-0086		IN PIT 192
10068	LV06-0117		IN SY01609
10069	LV06-0118		IN PIT 115
10070	LV06-0119		IN PIT 113
10071	LV06-0119		IN PIT 113
10966	LV06-0118		IN PIT 115, JOINT ON 1 PHASE
10977	LV06-0061		IN PIT 166
10978	LV06-0061		IN PIT 166
12875	KC11-1354		PII SY01811
12886	KC11-1341		PII SY01809
12887	KC11-1341		PII SY01809
12889			PII SY01809
12895	KC11-1511		PII SY01811
13941	KC16-0493		PII SY01644
13942	KC16-0494		PII SY01822
13944	KC16-0500		PII SY01811
13945	KC16-0500		PII SY01811

WARNING

Ausgrid's plans show the position of assets at the time of installation and may not account for subsequent changes to road alignments, fences or buildings. The plans show no more than the presence or absence of Ausgrid assets in the street.
Persons working near electricity networks must exercise care and will be held responsible for any damage caused.
You must excavate by hand or use vacuum excavation to establish the location of Ausgrid underground cables and associated assets.
Underground: Working near a cable may result in electric shock even if no contact is made. Any work in the vicinity of any cable should only be performed after the cable has been located in accordance with the recommendations included in WorkCover Code of Practice for Excavation and WorkCover Guide for Work Near Underground Assets.
as well as recommendations of Ausgrid's Network Standard NS156.
Overhead: Do not excavate near poles or towers until the stability of the foundations has been assessed by Ausgrid. Cables or earth conductors may be present close to substations, poles or towers.
Workers must maintain safe approach distances and follow applicable WorkCover Codes of Practice.
NOTE: 1. You must keep Ausgrid plans on site during excavation works. If the people actually performing the excavation works do not know how to read and interpret Ausgrid's plans, then the work must be directed by a person who knows how to read and interpret the plans. 2. This information includes data from the NSW Digital Cadastral Database by Land and Property Information (c) 2016, used under Creative Commons Licence version 4.0.

SY11443	SY11444	SY12333	ISG GRID
SY13221	SY13222	SY14111	ISG GRID
SY13223	SY13224	SY14113	ISG GRID
1N15	1J15	1K15	GRID
1N16	1J16	1K16	GRID
1N1	1J1	1K1	GRID

SY13221GMLA0
Distribution - 58207255

INFORMATION ON THIS PLAN ONLY VALID FOR 30 DAYS FROM ISSUE DATE

17 Jan 2017

Page 1 of 2

1:251

0 — 15 metres

N

Ausgrid

A0 MOCS_std_plot

E_58207255_SY13221GMLA0_V1.dwg

SY132 - IO1

2x63 PVC	1x100 AC	3x100 AC
0.4-1.4	0.8-0.9	1.1-1.4
---	---	---
0.4-0.6	0.3-0.4	0.5-0.6

Ref: E10

SY132 - AD1

Ref: A8

SY132 - AE1

0.6

0.4

4x100 FC
2.7KL
NR

Ref: A7

SY132 - AF1

4x100 FC
6.2

1.2

Ref: B6

SY132 - AG1

3x100 AC
1.0-1.1

0.6-0.7

Ref: A4

SY132 - AH1

4x100 FC
NA

0.8-0.9

Ref: A4

SY132 - AI1

8x100 FC
5.5

1.5

Ref: B4

SY132 - AJ1

3x100 AC
1.8

0.3
1.0-1.1

0.6-0.7

Ref: B4

SY132 - AL1

3x100 AC
0.8-1.2

0.7

Ref: B4

SY132 - AM1

7x100 AC
1.2

0.8

Ref: C4

SY132 - AN1

2x100 AC
NA

NR

4x125 PVC
NA

0.5

Ref: B4

SY132 - AO1

4x100 AC
NA

0.6-0.8

3x100 AC
NA

NR

Ref: C4

SY132 - AQ1

3x100 AC
0.6-2.4

0.6-0.9

Ref: C5

SY132 - AR1

1x100 AC
NA

0.5

Ref: C5

SY132 - AS1

4 x 100 FC
NA

0.6-0.9

Ref: C5

SY132 - AT1

4x100 AC
NA

0.8-1.2

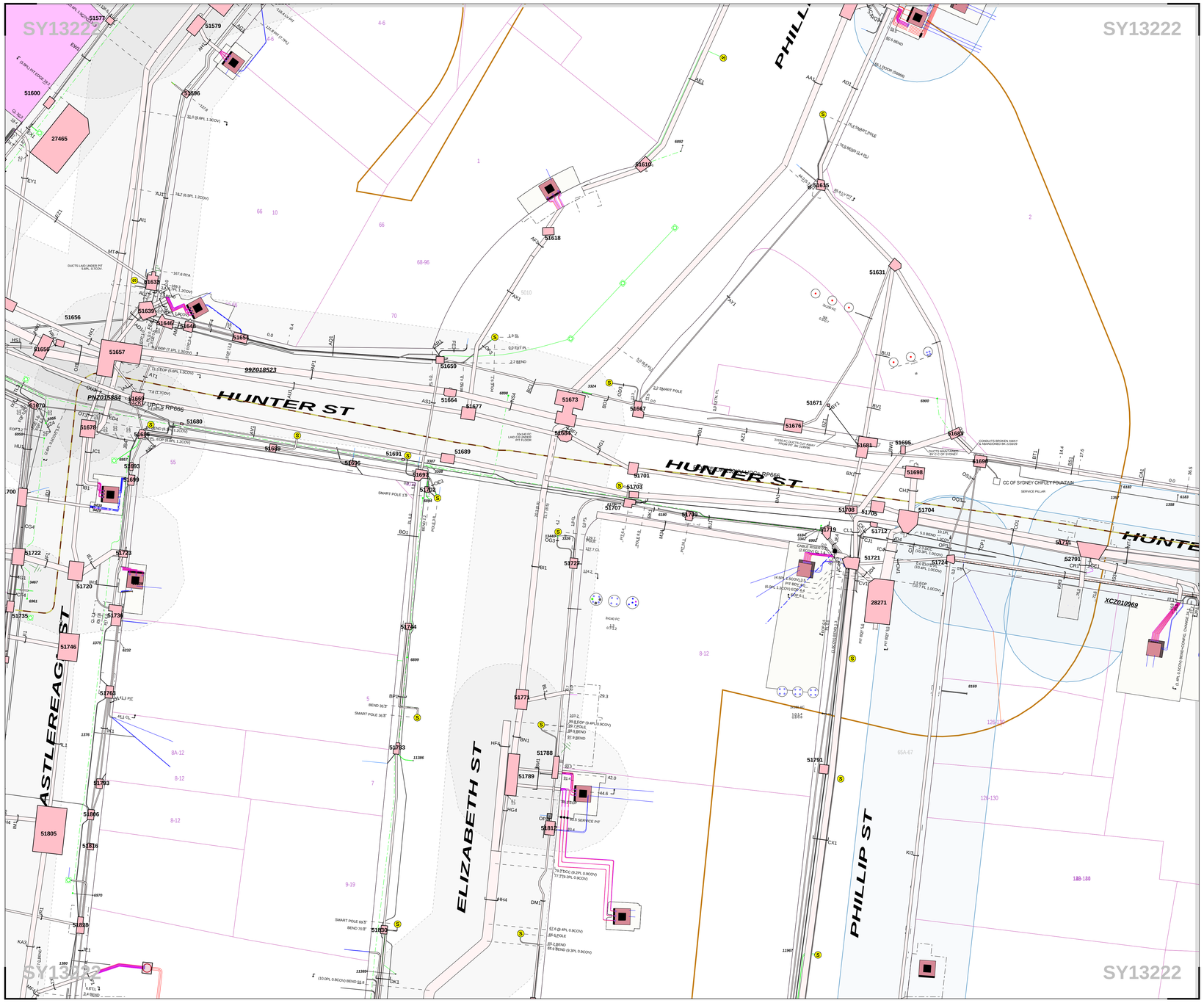
Ref: C4

SY132 - AU1

4x100 FC
NR

NR

Ref: C5



JOINT DETAIL REPORT IS ON PAGE 4

WARNING

Ausgrid's plans show the position of assets at the time of installation and may not account for subsequent changes to road alignments, fences or buildings. The plans show no more than the presence or absence of Ausgrid assets in the area.
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SY11443	SY11444	SY12333
SY13221	SY13222	SY14111
SY13223	SY13224	SY14113

ISG GRID

1J15	1K15	1L15
1J16	1K16	1L16
3J1	3K1	3L1

GRID

SY13222GMLA0

Distribution - 58207255

INFORMATION ON THIS PLAN ONLY VALID FOR 30 DAYS FROM ISSUE DATE

17 Jan 2017

Page 1 of 4

1:251

0 — 15 metres

N

Ausgrid

SY132 - AV1

1x100 GI
NR

NR

Ref: C4

SY132 - AW1

2x125 PVC
NA

NR

Ref: C4

SY132 - AX1

4x100 FC
8.8

1.8

Ref: B6

SY132 - AY1

6x125 PVC
NA

0.5

Ref: C7

SY132 - AZ1

6x150 PVC
NA

1.1

Ref: C7

SY132 - BA1

4x100 FC
NR

0.7-0.9

Ref: D8

SY132 - BC1

3x100 AC
NA

0.5-0.6

Ref: C6

SY132 - BD1

3x100 AC
NA

0.9

Ref: C7

SY132 - BF1

1x100 FC
NA

1.0

Ref: C6

SY132 - BG1

4x100 FC
NA

1.1-1.2

Ref: C6

SY132 - BJ1

3x100AC
0.9-1.4

0.4-0.6
NR

NR
1.3

0.6
NR

NR

Ref: D7

SY132 - BK1

3x100 AC
0.9-1.4

0.5-0.6

Ref: D7

SY132 - BL1

3x140 AC & 1x100 FC
NA

0.7

Ref: E6

SY132 - BO1

3x100 AC
0.5-2.4

0.3-0.8

Ref: D5

SY132 - BP1

1x100 PVC
3x100 AC
0.5-2.1

0.6
NR

NR
1.8

0.5

Ref: E5

SY132 - BS1

3x100 PVC
1.0

0.6

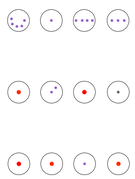
Ref: D9

A0 MOCS_std_plot

	1	2	3	4	5	6	7	8	9	10	11	12
A	SY132 - BT1 1x100 FC 2x100 PVC 1.0 --- 0.6 Ref: D9	SY132 - BU1 Ref: C8	SY132 - BV1 Ref: C8	SY132 - BW1 6x125 PVC NA --- 0.8 Ref: D8	SY132 - BX1 1x50 PVC 9x100 AC N.A --- N.R Ref: D8	SY132 - BY1 1x150 FC NA --- 0.4 Ref: C8	SY132 - BZ1 3x150 FC NA --- 0.6 Ref: C8	SY132 - CE1 1X100 PVC NA ----- 0.5-1.0 Ref: D10	SY132 - CG4 2x125 PVC 1.5 --- 0.6 Ref: D3	SY132 - CI1 NA --- NR Ref: D8	SY132 - CJ1 36x100 EW DUCTS NA --- NR Ref: D8	SY132 - CK1 2X100 EW NA --- NR Ref: D8
B	SY132 - CL1 6X100 AC NA --- NR EXTRAMWAY DUCTS OWNED BY AUSGRID Ref: D8	SY132 - CM1 6x100 FC NA --- 0.8-1.1 3x6W Ducts NA --- NR Ref: D8	SY132 - CP1 1x100 GI NR --- NR Ref: D9	SY132 - CR1 4X100 FC NA --- 0.9 6X140 FC NA --- 1.1 Ref: D10	SY132 - CV1 2x50 PVC 3.1 --- 0.4 Ref: D8	SY132 - DK1 2x150 FC NR --- 0.6-0.6 3x100 AC 2.1 --- 0.5 3x100 FC 0.5-2.4 0.3-0.8 Ref: G5	SY132 - DM1 3x100 AC 0.3-2.0 --- 0.6-1.2 Ref: F6	SY132 - ED4 8x150 PVC 5.6-6.8 ----- 1.2-1.7 Ref: C3	SY132 - EW1 3x100 AC 0.9-1.2 --- 0.4-0.8 0.9-2.0 --- 0.5 NR --- NR Ref: A3	SY132 - EX1 4x100 AC 1.2 --- 0.4 Ref: A3	SY132 - EY1 4x100 AC NA --- 1.2 C P'S BK 2155/49,50 Ref: B3	SY132 - EZ1 4x100 AC NA --- 0.6-0.8 Ref: B3
C	SY132 - FE3 1 x 50 PVC NR ----- 0.5 Ref: C6	SY132 - FE4 2x150 PVC 1.2-1.5 ----- 0.6 Ref: C4	SY132 - FF4 3x150 AC NR --- NR 3x150 PVC 0.6 --- 0.7 Ref: C4	SY132 - FG4 1x150 PVC 0.6 --- 0.7 Ref: B4	SY132 - HF4 TSB 12x150 PVC 9.2-9.4 --- 0.9 Ref: E6	SY132 - HG4 TSB 4x150 PVC 8.7-9.2 --- 0.9-1.3 Ref: F6	SY132 - HH4 TSB 16x150 PVC 8.9-10.0 --- 9.8-11.1 Ref: F6	SY132 - HS1 6x140 FC NA --- 0.8-1.2 Ref: C3	SY132 - HU1 2x150 FC 0.7 --- 0.5 2x125 PVC 3x100 FC 1.1 --- 0.6 2x125 PVC 1.6 --- 0.5-0.6 Ref: C3	SY132 - HX1 4x100 AC NA --- NR Ref: C3	SY132 - IA1 6x140 FC NA --- 0.8-1.4 Ref: C4	SY132 - IC1 4x100 FC 8.8 --- 0.9-1.2 Ref: C3
D	SY132 - IC4 TSB 24x150PVC 10.3-10.7 --- 1.0 Ref: D8	SY132 - ID1 6x100 AC NA --- 1.4 Ref: D3	SY132 - ID4 TSB 8x150PVC 10.1-10.3 --- 1.0-1.3 Ref: D8	SY132 - IE1 4X100 FC NA --- 0.8-1.4 Ref: D3	SY132 - IF1 4x100 FC NA --- 0.9 Ref: D3	SY132 - IH1 3x125 PVC 0.9A1 --- 0.9-0.5 1.1-1.4 --- 0.5-0.6 4x100 FC 2.0 --- 0.6 Ref: D3	SY132 - II1 4x140 PVC NA --- 1.1 Ref: D3		SY132 - IK1 3x100 FC 2x600 MR 0.7-1.9 --- 0.4-0.8 NR --- NR Ref: E3	SY132 - IL1 8x140 AC 9.8-10.2 --- NR Ref: E3	SY132 - IM1 4x140 AC NA --- NR Ref: F3	SY132 - IR1 6x100 AC NA --- 0.9 Ref: F3
E	SY132 - IX1 4x125 PVC NA --- 1.2 Ref: G3	SY132 - IX4 2x63 PVC 0.5-0.9 ---- 0.3 BFWR Ref: C3	SY132 - IZ4 2x63 PVC NA --- 0.3 BFWR Ref: C3	SY132 - JB4 2x63 PVC NA --- 0.3-0.6 BFWR Ref: C3	SY132 - JC4 4x125 PVC NA --- 0.7 Ref: D8	SY132 - JD4 16x150 PVC NA --- 1.3-1.5 BFWR Ref: D8	SY132 - JE1 3x100 FC 0.7-1.6 --- 0.4-0.6 Ref: F3	SY132 - JE4 16x150 PVC NA --- 1.0-1.6 BFWR Ref: D8	SY132 - JF1 4x125 PVC NA --- 1.2 Ref: G3	SY132 - KH3 4x63 PVC 8x125 PVC NR --- NR CONDUITS IN DASHED LINE ARE CURRENTLY LIVE AND RUN TO UNKNOWN OUTSIDE PIT Ref: D9	SY132 - MF4 4x125 PVC NA --- 1.2 Ref: G3	SY132 - MJ4 CONCRETE 21x150PVC NR --- NR NPW22014663 Ref: D7
F	SY132 - OD3 1x125 PVC NR --- NR Ref: C7	SY132 - OE3 1x125 PVC NR --- NR Ref: D5	SY132 - OF3 1x125 PVC NR --- NR Ref: C6	SY132 - OG3 1x125 PVC 1.8-4.2 --- NR Ref: D6	SY132 - OP3 3x125 PVC NR ----- 0.5-0.75 Ref: D9	SY132 - OP4 1x50PVC NR --- NR Ref: F6	SY132 - OQ3 STELL PLATE 3x125 PVC NR ----- 0.5-0.6 Ref: D9	SY132 - OS3 3x125 PVC NR ----- 0.5-0.6 Ref: D9	SY132 - OT3 4x100 AC NA --- 1.2 Ref: C3	SY132 - RQ3 1 x 50 PVC NA --- NA Ref: A8	SY132 - TL3 2x125 PVC NR --- NR Ref: C3	SY132 - AA1 16x125 PVC NR --- 0.8 6 COL. PILOTS BK 2184/12,14 Ref: A8
G												
H												

WARNING: REFER TO DISCLAIMER ON PAGE 1

SY132 - AP1



12x100 AC

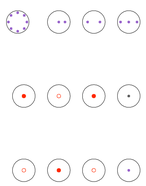
NA

NR

EXTRAMWAY SHARED DUCTS
RMS / AUSGRID

Ref: C5

SY132 - BB1



12x100 AC

NR

NR

COL PS 24DEF
BK 2110/33,34

EXTRAMWAY SHARED D
RMS / AUSGRID

Ref: C7

SY132 - CH1

12 x 75 AC

NA

NR

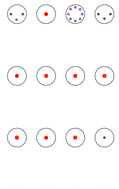
EXTRAMWAY SHARED DUCTS
RMS / AUSGRID

COL PS 24DEF

BK2110/33,34

Ref: D8

SY132 - HW1



16x100 AC

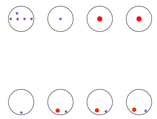
NR

NR

EXTRAMWAY SHARED DUCTS
RMS / AUSGRID

Ref: C3

SY132 - IB1



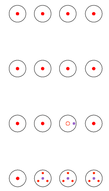
8x100 AC

8.9

0.8

Ref: D3

SY132 - KA3



WARNING
POSITION & CONFIGURATION OF
CONDUIT IS NOT KNOWN

16 x 125 PVC

NR

0.7

Ref: F3

SY132 - NR4

16x100 AC

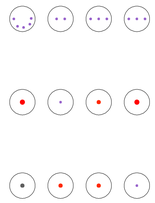
NR

NR

EXTRAMWAY SHARED DUCTS
RMS / AUSGRID

Ref: C3

SY132 - NS4



12x100 AC

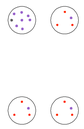
NR

NR

EXTRAMWAY SHARED DU
RMS / AUSGRID

Ref: C6

SY132 - OU3



4x100 AC

NA

1.2

Ref: C3

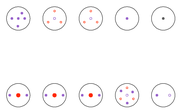
SY132 - CF4

Ref: D3

SY132 - IG1

Ref: D3

SY132 - BI1



10x140 FC

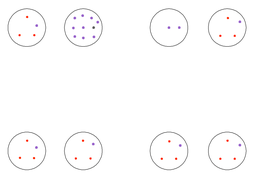
NR

1.2-2.1

COL.PIL. BK2110/33,34

Ref: D6

SY132 - BM1



4x140 PVC 4x140 PVC

NA

1.2

Ref: E6

SY132 - BN1

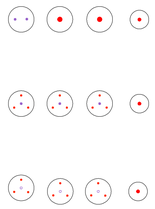
9x140 AC

7.8

1.2

Ref: E6

SY132 - MT4



9x150 PVC

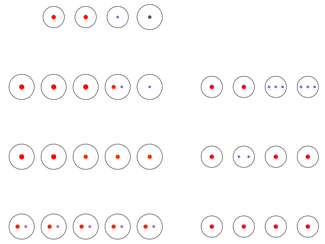
3x50 PVC

6.5-10.4

1.2-1.9

Ref: B4

SY132 - OI3



3x100 AC

16x140 AC

NA

1.1-1.3

12x100 AC

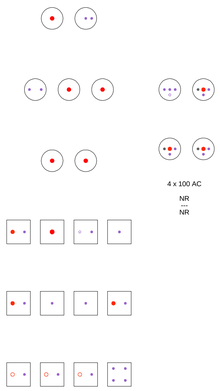
NA

NR

EXTRAMWAY SHARED DUCTS
RMS / AUSGRID

Ref: C3

SY132 - CO1



4 x 100 AC

NR

NR

7 x 75 AC

4 x 100 AC

12 x EW DUCTS

NR

NR

EXTRAMWAY SHARED DUCTS
RMS / AUSGRID

Ref: D9

A0 UG Details

DERIVE SCALE FROM COMPARISON TO RELATIVE FEATURES & SCALE ON PAGE 1

17 Jan 17

SY13222GMLA0

Distribution - 58207255

JOINT DETAIL REPORT

Map: SY132

No.	Bk-Pg	Pl/Cvr	Joint Location
3	320-69+...	3.50/	IN PIT 5
4	320-69+...	3.50/	IN PIT 5
5	467-74+...	3.50/	IN PIT 5
6	ER15-14+...	6.30/	IN PIT 6
7	419-18+...	6.30/	IN PIT 6
8	ER15-14+...	6.30/	IN PIT 6
9	ER15-14+...	6.30/	IN PIT 6
10	419-18+...	6.30/	IN PIT 6
11	419-18+...	6.30/	IN PIT 6
15	470-5+...	9.70/	IN PIT 17
16	470-5+...	9.70/	IN PIT 17
17	333-14+...	9.70/	IN PIT 17
18	470-10+...	9.70/	IN PIT 17
19	470-5+...	9.70/	IN PIT 17
20	469-44+...	9.70/	IN PIT 17
23	492-17+...		IN PIT 174
26	HV05-0351		IN PIT 174
27	1986-58+...		IN PIT 174
32	1986-59+...		IN PIT 174
35	ER86-63+...		IN PIT 29 + 30 NE cnr of Phillip & Hunter St
38	2155-83+...		IN PIT 29 + 30
39	HV05-0337		IN PIT 29 + 30
41	HV05-0337		IN PIT 29 + 30
42	ER86-63+...		IN PIT 29 + 30 NE cnr of Phillip & Hunter St
46	469-44+...		IN PIT 31
47	470-10+...		IN PIT 31
55	1787-22+...		IN PIT 37
56	1838-36+...		IN PIT 37
57	1787-22+...		IN PIT 37
58	HV05-0319		IN PIT 37
59	HV05-0319		IN PIT 37
60	ER1-19+...		IN PIT 37
62	2158-78		IN PIT 54
63	2183-19		IN PIT 54
64	490-7		IN PIT 54
66	490-7		IN PIT 54
67	2183-19		IN PIT 54
68	683-29+...	5.50/66.67	IN PIT 41
69	2157-28+...	5.50/66.67	IN PIT 41
72	379-54+...	5.50/	IN PIT 41
73	379-54+...	5.50/	IN PIT 41
74	2157-28+...	5.50/66.67	IN PIT 41
75	683-29+...	5.50/66.67	IN PIT 41
76	2157-28+...	5.50/66.67	IN PIT 41
79	470-10	3.80/66.67	IN PIT 53
80	470-6+...	3.80/66.67	IN PIT 53
81	469-45+...	3.80/66.67	IN PIT 53
82	2163-19		IN PIT 52
84	492-15		IN PIT 52
86	491-64		Pit SY51704
88	505-18		IN PIT 52
90	2158-78		IN PIT 52
199	1004-32+...		IN PIT 169
200	1004-38+...		IN PIT 169
201	1937-78+...		IN PIT 169
202	1937-78+...		IN PIT 169
203	1937-78+...		IN PIT 169
204	1004-47+...		IN PIT 169
206	1695-67+...		IN PIT 174
217	1695-67+...		IN PIT 174
218	1695-67+...		IN PIT 174
222	2084-64	8.00/	IN PIT 178
223	2084-61	8.00/	IN PIT 178
224	2198-89	8.00/	IN PIT 178
225	2084-76	8.00/	IN PIT 178
227	2084-75	8.00/	IN PIT 178
232	1962-85	10.50/	IN PIT 180
233		10.50/	IN PIT 180
234	2198-89	10.50/	IN PIT 180
1375		66.67/66.67	NOT RECORDED
1376			NO RECORD
1380			NOT RECORD
1559	ER61-127+...		IN PIT 3, JOINTS ON THREE PHASES ONLY
1560	423-40		IN PIT 7
1561	146-114+...		IN PIT 8, JOINTS ON 2 PHASES ONLY
1562	1059-73+...		IN PIT 8
1563	1003-2+...		IN PIT 8
1564	146-114+...		IN PIT 8
1565	143-99+...		Pit SY51646
1566	143-99+...		IN PIT 12
1567	143-99+...		IN PIT 12
1568	148-20+...		IN PIT 18
1569	ER64-73	1.60/	IN PIT 20
1571	LV05-0762		IN PIT 24
1572	1215-29		IN PIT 24
1573	2082-32		IN PIT 24
1575	380-179		IN PIT 175
1576	269-97+...	0.90/	IN PIT 176
1577	1211-34	0.90/	IN PIT 176, JOINT ON 3 PHASE
1578	1211-34	0.90/	IN PIT 176, JOINT ON 3 PHASE
1579	IC03-0468+...		IN PIT 25
1582	ER57-70+...		Pit SY51707
1583	890-13+...		IN PIT 32
1584	LV05-0273		IN PIT 34
1585	821-5+...		IN PIT 34
1589	IC06-205+...		IN PIT 38, JOINT ON 'B' PHASE ONLY (NEW PHASE 2264)
1591	1097-73+...		IN PIT 38
1592	704-80+...		IN PIT 38 ON 2 PHASES ONLY
1593	1862-90+...		IN PIT 82
1594	958-43	1.00/	IN PIT 40
1595	148-3	1.00/	IN PIT 40
1596	331-87		IN PIT 43
1597	IC03-0467+...		IN PIT 44
1600	169-185+...		IN PIT 51
1637	1862-90+...		IN PIT 82
1718	331-71		IN PIT 111, JOINTS ON 2 PHASES ONLY
1719	331-71		IN PIT 111
1720	331-71		IN PIT 112
1836	940-39		IN PIT 173
1837	940-39		IN PIT 173
1838	281-45	1.00/	IN PIT 168
1839	269-92	1.00/	IN PIT 168
1840	1407-71	1.00/	IN PIT 168
1841	645-44	1.00/	IN PIT 168
1842	645-44	1.00/	IN PIT 168
1845	2233-15	0.80/	IN PIT 186
1846	1407-73	0.80/	IN PIT 186
1847	1407-73	0.80/	IN PIT 186
1848	ER1-36	0.80/	IN PIT 186
1849	LV05-0092		IN PIT 186
1850	379-67	1.20/	IN PIT 177
1851	1173-91		IN PIT 177
1853	1211-33+...	1.20/	IN PIT 177
1854	1211-33+...		IN PIT 177
1855	2233-15	0.60/	IN PIT 187
1856	148-4	0.90/	IN PIT 182
1857	783-53	0.90/	IN PIT 182
1859	148-74	0.90/17.00	IN PIT 182
1860	1120-66	1.10/	IN PIT 183
1861	1120-66	1.10/	IN PIT 183
1891	LV04-428	1.30/	IN PIT 203
1892	LV04-428	1.30/	IN PIT 203
1893	ER66-21	1.30/	IN PIT 203
1894	1215-22	1.30/	IN PIT 203
3293	1268-17		IN PIT 4
3296	LV06-0103		IN PIT 8
3297	1215-77+...		IN PIT 8
3298	1003-2+...		IN PIT 8
3299	1215-77+...		IN PIT 8
3300	1354-55	1.70/	IN PIT 13
3303	1354-55	1.70/	IN PIT 13
3304	155-45	1.70/	IN PIT 13
3305	507-30+...		IN PIT 18
3307			NO RECORD
3308			NO RECORD
3310	165-63		IN PIT 18
3311	1306-36		IN PIT 18.
3315	IC05-0612		IN PIT 20
3318	1215-38		IN PIT 24
3319	1215-38		IN PIT 24
3320	1215-38		IN PIT 24
3321	1211-9	0.90/	IN PIT 176
3322	1211-9	0.90/	IN PIT 176
3324	192-24		NO RECORD
3326	842-68	4.10/	NO RECORD
3327	1290-17+...		IN PIT 38
3328	1290-17+...		IN PIT 38
3329	251-55+...	1.00/	IN PIT 39
3330	LV05-0768	1.00/	IN PIT 39
3331	332-149	1.00/	IN PIT 40
3332	LV05-0769		IN PIT 40
3333	1526-57+...	1.00/	IN PIT 40
3334	LV05-0769		IN PIT 40
3336	ER5-38+...		IN PIT 44
3337	LV06-0193		IN PIT 44
3338	ER13-66+...		IN PIT 44
3342			NO RECORD
3344	2021-91+...		IN PIT 50
3361	LV05-0770		IN PIT 80
3362	161-70		IN PIT 80
3414	282-83		IN PIT 111
3467			NO RECORD
3468	1211-9		IN PIT 177
3469	1211-9		IN PIT 177
3470	254-31	1.00/	IN PIT 202
3489	1407-10	1.30/	IN PIT 203
3490	1407-10	1.30/	IN PIT 203
3491	LV04-428	1.30/	IN PIT 203
3492	1173-92		IN PIT 203
4717	ER15-22+...	6.30/66.67	IN PIT 6
4719	1074-70+...		IN PIT 174
4720	229-50+...	7.50/66.67	IN PIT 17
4721	1711-12+...	7.50/66.67	IN PIT 17
4722	470-5+...	7.50/66.67	IN PIT 17
4723	1986-57+...		IN PIT 174
4724	683-86+...		IN PIT 174
4725	2194-13+...		IN PIT 174
4728	2157-6+...		IN PIT 174
4732	664-80	3.50/66.67	IN PIT 21
4740	ER1-9+...		IN PIT 29 + 30
4747	HV05-0318		IN PIT 36
4748	528-93	6.30/66.67	IN PIT 54
4749	HV05-0168		IN PIT 41
4750	606-64+...	5.50/66.67	IN PIT 41
4753	568-42+...	5.50/66.67	IN PIT 41
4754	1318-34+...	5.50/66.67	IN PIT 41
4755	548-50+...	5.50/66.67	IN PIT 41
4756	548-50+...		IN PIT 41
4757	530-91+...	5.50/	IN PIT 41
4758	545-92+...	5.50/	IN PIT 41
4759	570-60+...	5.50/66.67	IN PIT 41
4761	665-36	2.20/66.67	IN PIT 48
4764	1484-57+...		IN PIT 53
4765	1738-70	5.80/66.67	IN PIT 52
4766	1212-5	5.80/66.67	IN PIT 52
4767	683-67	5.80/66.67	IN PIT 52
4768	2112-1	5.80/66.67	IN PIT 52
4769	2112-1	5.80/66.67	IN PIT 52
4770	1164-60	5.80/66.67	IN PIT 52
4771	1164-38+...		IN PIT 50
4773	379-140+...		IN PIT 50
4774	2184-79+...		IN PIT 50
4775	1484-56+...	5.50/66.67	IN PIT 41
4844	1019-57+...		IN PIT 164
4847	687-1+...		IN PIT 164
4850	1074-70+...		IN PIT 174
4852	2194-13+...		IN PIT 174
4853	2131-44+...		IN PIT 174
4854	HV05-0351		IN PIT 174
4855	848-27+...		IN PIT 169
4856	HV05-0351		IN PIT 174
4859	2194-13+...		IN PIT 174
4861	HV05-0351		IN PIT 174
4862	HV05-0351		IN PIT 174
4864	HV05-0351		IN PIT 174
4867	HV05-0351		IN PIT 174
4868	HV05-0351		IN PIT 174
4869	HV05-0351		IN PIT 174
4871	HV05-0351		IN PIT 174
4872	ER 12-81+...		IN PIT 172
4873	379-110+...		IN PIT 172
4877	LV05-0092		IN PIT 186
4878	ER 12-80	0.90/	IN PIT 178
4879	2112-78		IN PIT 179
4880	2112-78		IN PIT 179
4881	2112-78		IN PIT 179
4882	1967-95	10.50/	in pit 180
5880	1164-60		IN PIT 52
5881	1164-60		IN PIT 52
5882	1164-60		IN PIT 52
5883	1164-60		Pit SY51704
5884	1164-60		Pit SY51704
5885	1164-60		Pit SY51704
6173	423-78+...		IN PIT 11
6174	HV05-0351		IN PIT 174
6179	104-30	1.80/66.67	7.2E ELIZABETH ST KL
6180	104-30	1.30/66.67	28.8W PHILLIP ST PL
6181			IN PIT 44, NOT RECORDED
6184		2.00/66.67	2.4W PHILLIP ST PL
6230	LV04-433		IN PIT 177
6231	LV04-433		IN PIT 177
6232	917-14	1.00/0.40	27.8S HUNTER ST PL
6446	2184-18+...		IN PIT 8
6450	2082-29+...		IN PIT 10
6451	1625-82+...		IN PIT 10
6452	1709-51	1.70/	IN PIT 13
6453	148-20+...		IN PIT 18
6456	2199-9		IN PIT 43
6466	1391-79+...		IN PIT 80
6474	1862-90+...		IN PIT 82
6475	1862-90+...		IN PIT 82
6509	2183-77		IN PIT 177
6510	2183-77	1.20/	IN PIT 177
6522	1215-22	1.30/	IN PIT 203
6523	1215-22	1.30/	IN PIT 203
6892			
6894			
6898			
6899			
6900	2199-31		IN PIT
6901	2199-31		IN PIT 43
6902			
6903	LV05-0275		IN PIT 50
6956			
6957			
6958			
6961			NO RECORD
6970			
7391	1074-70+...		IN PIT 174
7464	1695-67+...		IN PIT 174
7468	1937-78+...		IN PIT 174
8111	ER109-072+...		IN PIT18.
8112	ER109-072		IN PIT 13
8144	ER132-051+...		In Pit 41
8147	ER132-051+...		In Pit 41
8150	ER132-051+...		In Pit 41
8169			
8178	LV05-0275		IN PIT 50
8179	LV05-0275		IN PIT 50
9110	LV04-431		IN PIT 183
9111	LV04-430		IN PIT 184
9404	IC05-408		IN PIT 59
9428	ER109-54+...		IN PIT 168
9429			
9430			
9436	HV05-0168		INSIDE PIT 41
9437	HV05-0168		INSIDE PIT 41
9438	HV05-0168		INSIDE PIT 41
9440	HV05-0168		INSIDE PIT 41
9441	HV06-0168		IN PIT 41
9442	HV05-0168		INSIDE PIT 41
9443	HV06-0168		IN PIT 41
9444	HV05-0168		INSIDE PIT 41
9445	HV05-0168		INSIDE PIT 41
9446	HV05-0168		IN PIT 41
9447	HV05-0168		IN PIT 41
9448	HV05-0168		IN PIT 41
9450	HV05-0168		INSIDE PIT 41
9451	HV05-0168		INSIDE PIT 41
9452	HV05-0168		INSIDE PIT 41
9483	HV05-0168		INSIDE PIT 41
9484	HV05-0168		INSIDE PIT 41
9572	HV05-0168	99.00/99.00	IN PIT 41
9634	HV05-0168	99.00/99.00	IN PIT 41
9639			
9640			
9641	LV05-0270		Pit SY51788
9747	LV05-0273		2 PHASES ONLY. IN PIT 34
9766	IC05-408		IN PIT 59
9923	LV05-0764		IN PIT 23
9924	LV05-0765		IN PIT 20
9925	LV05-0766		IN PIT 18
9926	IC06-360+...		IN PIT 18
9927	LV05-0766		IN PIT 18
9928	LV05-0766		IN PIT 18
9929	LV05-0766		IN PIT 18
9930	LV05-0766		IN PIT 18
9931	LV05-0766		IN PIT 18
9932	LV05-0766		IN PIT 18
9934	LV05-0758		
9935	LV05-0758		
9936	LV05-0766		IN PIT 18
9937	LV05-0766		IN PIT 18
9938	LV05-0767		IN PIT 19
9942	LV05-0732		IN PIT 13
9943	LV05-0732		IN PIT 13
9946	LV05-0769		IN PIT 40
9947	LV05-0769		IN PIT 40
9953	LV05-0730		IN PIT 10
10039			
10146	LV05-0730		IN PIT 10
10147	LV05-0767		IN PIT NO.19
10148	LV05-0767		IN PIT NO.19
10165	HV05-0199		
10170	HV05-0207		
10172	HV05-0206+...		Pit SY51805
10221	HV06-0047	/1.70	IN PIT 6
10234	HV06-0051		
10235	HV06-0051		IN PIT 52
10236	HV06-0051		IN PIT 52
10237	HV06-0051		IN PIT 52
10238	HV06-0051		IN PIT 52
10248	HV05-0199	0.90/	IN PIT 178
10249	HV05-0199	0.90/	IN PIT 178
10342	HV06-0045		
10371	HV06-0042		IN PIT 27
10373	HV06-0041		IN PIT 53
10389	1937-78+...		IN PIT 174
10391	HV05-0351		IN PIT 174
10392	HV05-0351		IN PIT 174
10393	HV05-0351		IN PIT 174
10394	HV05-0351		IN PIT 174
10395	HV06-0045		IN PIT 31
10396	HV06-0045		IN PIT 31
10397	HV06-0045		IN PIT 31
10398	HV06-0045		IN PIT 31
10399	HV06-0045		IN PIT 31
10400	848-28+...		IN PIT 174
10401	HV05-0351		IN PIT 174
10402	HV05-0351		IN PIT 174
10438	HV05-0337		IN PIT 29 + 30
10439	HV05-0337		IN PIT 29 + 30
10440	HV05-0337		IN PIT 29 + 30
10441	HV05-0337		IN PIT 29 + 30
10442	HV05-0337		IN PIT 29 + 30
10443	HV05-0337		IN PIT 29 + 30
10445	HV05-0337		IN PIT 29 + 30
10446	HV05-0337		IN PIT 29 + 30
10447	HV05-0337		IN PIT 29 + 30
10448	HV05-0337		IN PIT 29 + 30
10449	HV05-0337		IN PIT 29 + 30
10458	IC06-205+...		IN PIT 38, JOINT ON 'B' PHASE ONLY (NEW PHASE 2264)
10459	HV06-0028		IN PIT 54
10460	HV06-0028		IN PIT 54
10523	IC05-613		IN PIT 7
10562	HV05-0351		IN PIT 174
10563	HV05-0351		IN PIT 174
10619	HV05-0337		IN PIT 29 + 30
10651	IC03-0469+...		IN PIT 3
10652	LV06-0184		IN PIT 3.
10653	LV06-0184		IN PIT 3
10654	LV06-0184		IN PIT 3
10655	IC03-0467+...		IN PIT 25
10656	LV06-0103		IN PIT 44
10660	LV06-0103		IN PIT 8
10663	LV06-0110		IN PIT 111
10664	LV06-0110		IN PIT 111
10665	LV06-0116		IN PIT 112
10672	LV05-0729		IN PIT 12
10673	LV05-0729		IN PIT 12
10674	HV06-0304+...		IN PIT 11
10681	LV06-0110		IN PIT 111
10682	LV06-0110		IN PIT 111
10724	IC03-0467+...		IN PIT 44
10847	HV05-0352		IN PIT 169
10848	HV05-0352		IN PIT 169
10975			IN PIT 13
11017	LV05-0270		
11018			
11019	IC05-408		IN PIT 59
11023	LV05-0272		IN PIT 32
11024	LV05-0272		IN PIT 32
11124	IC07-330		INSIDE PIT NO.176
11125	IC07-330		INSIDE PIT NO.182
11385			
11386			
11511	IC08-0991		IN PIT 51191
11560	IC09-0091		IN PIT SY-51657
11563	IC09-0098		IN PIT SY-51678
11587	IC09-0107		IN PIT SY-51657
11588	IC09-0110		IN PIT SY-51678
11636	IC09-0243		IN PIT SY51657
11648	IC09-0249		IN PIT 51678
11649	IC09-0238		Pit SY51805
11668	IC09-0415		IN PIT SY51700
11669	IC09-0415		IN PIT SY51700
11980	IC09-1089		IN PIT SY-51191
12278	IC10-0243		IN PIT SY-51721
12366	IC10-0485		IN PIT SY-51657
12368	IC10-0487		IN PIT SY-51657
12369	IC10-0506		IN PIT SY-51657
12370	IC10-0517		IN PIT SY-51657
12376	IC10-0538		IN PIT SY-51657
12377	IC10-0538		IN PIT SY-51657
12378	IC10-0538		IN PIT SY-51657
12379	IC10-0538		IN PIT SY-51657
12381	IC10-0531		IN PIT SY-51657
12382	IC10-0547		IN PIT SY51657
12383	IC10-0547		IN PIT SY51657
12384	IC10-0522		IN PIT SY-51657
12458			IN PIT SY-51657; NO RECORD
12477	IC10-0746		IN PIT SY-51657
12478	IC10-0746		IN PIT SY-51657
12479	IC10-0747		IN PIT SY-51657
12480	IC10-0747		IN PIT SY-51657
12481	IC10-0748		IN PIT SY-51657
12482	IC10-0748		IN PIT SY-51657
12483	IC10-0749		IN PIT SY-51657
12484	IC10-0749		IN PIT SY-51657
12485	IC10-0783		IN PIT SY-51657
12486	IC10-0783		IN PIT SY-51657
12487	IC10-0784		IN PIT SY-51657
12488	IC10-0784		IN PIT SY-51657
12542	IC10-1110		IN PIT SY-51735
12543	IC10-1110		IN PIT SY-51735
12565	IC11-0065		Pit SY51727
12608	IC11-0313		Pit SY51788
12662	IC11-0322		Pit SY51771
12663	IC11-0322		Pit SY51771
12664	IC11-0311		Pit SY51771
12665	IC11-0311		Pit SY51771
12666	ES11-0318		Pit SY51771
12667	ES11-0318		Pit SY51771
12668	IC11-0312		Pit SY51771
12669	IC11-0326		Pit SY51771
12670	IC11-0323		Pit SY51771
12831			Pit SY51724
12890	IC11-1450		Pit SY51646
13153	IC12-1883		Pit SY51719
13181	IC12-1972		Pit SY51704
13182	IC12-1972		Pit SY51704
13183	IC12-1818+...		Pit SY51805
13184	IC12-1879		Pit SY51805
13185	IC12-1879		Pit SY51805
13186	IC12-1870		Pit SY51805
13187	IC12-1870		Pit SY51805
13188	IC12-1870		Pit SY51805
13189	IC12-1862		Pit SY51805
13190	IC12-1862		Pit SY51805
13191	IC12-1818+...		Pit SY51805
13192	IC12-1878		Pit SY51805
13193			Pit SY51805
13194			Pit SY51805
13195	IC12-1878		Pit SY51805
13205	IC12-1970		Pit SYNR
13206	IC12-1970		Pit SYNR
13207	IC12-1971		Pit SYNR
13208	IC12-1986		Pit SYNR
13209	IC12-1986		Pit SYNR
13210	IC12-1991		Pit SYNR
13211	IC13-0061		Pit SY51704
13212	IC13-0061		Pit SY51704
13213	IC13-0062		Pit SY51704
13214	IC13-0062		Pit SY51704
13215	IC13-0080		Pit SYNR
13216	IC13-0080		Pit SYNR
13217	IC13-0081		Pit SYNR
13218	IC13-0081		Pit SYNR
13219	IC13-0082		Pit SYNR
13220	IC13-0082		Pit SYNR
13221	IC13-0085		Pit SY51704
13222	IC13-0085		Pit SY51704
13223	IC13-0086		Pit SY51704
13224	IC13-0086		Pit SY51704
13225	IC13-0087		Pit SY51704
13226	IC13-0087		Pit SY51704
13227	IC13-0088		Pit SY51704
13228	IC13-0088		Pit SY51704
13246	IC13-0237		Pit SY51721
13247	IC13-0237		Pit SY51721
13248	IC13-0237		Pit SY51721
13249	IC13-0237		Pit SY51721
13250	IC13-0239		Pit SY51727
13440			NR
13576	IC14-1005		Pit SY51673
13577	IC14-1005		Pit SY51673
13730	IC15-0519		Pit SY51707
13773	IC15-1042		Pit SY52791
13786	IC15-1091		Pit SY51727
13787	IC15-1091		Pit SY51727
13829	IC15-1161		Pit SY51812, JOINT ON 'A' PHASE ONLY
13841	IC15-1287		Pit SY51637
13842	IC15-1287		Pit SY51637
13843	IC15-1293		Pit SY51637
13844	IC15-1290		Pit SY51637
13845	IC15-1290		Pit SY51637
13846	IC15-1293		Pit SY51637
13918	IC16-0372		Pit SY51720
13934	IC16-0411		Pit SY51720
13940	IC16-0490		Pit SY51670
13968	IC16-0585		Pit SY51720
13997	IC15-1090		Pit SY51707
13998	IC15-1090		Pit SY51719
14056	IC16-0833		Pit SY51673
14057	IC16-0833		Pit SY51673

SY132 - IT1

5x100 AC

0.9-1.8

0.6-0.8

Ref: A10

SY132 - IV1

6x100 AC

2.7 - 4.6

0.8

Ref: A10

SY132 - IW1

4x100 FC

2.4

0.8

Ref: A10

SY132 - IY1

4x125 PVC

NA

1.2

Ref: A10

SY132 - JH1

3x100 AC

1.1-1.6

0.6-0.8

Ref: C10

SY132 - JJ1

4x100 AC

4.7

0.8

Ref: B10

SY132 - JK1

3x100 AC

NR

NR

1.1-1.4

0.5

Ref: B10

SY132 - JL1

4x100 FC

4.7

0.8

Ref: C10

SY132 - JN1

4x100 AC

NA

0.6-1.0

Ref: C10

SY132 - JS1

20x140 FC

6.5-8.5

3.5

Ref: D10

SY132 - LR3

16X125 PVC

NR

NR

WARNING
POSITION OR CONFIGURATION
OF CABLES/CONDUITS INSIDE
DASHED LINE IS NOT KNOWN

Ref: C10

SY132 - MG4

M6

2x63 PVC

0.5-1.0

0.3-0.5

3x100 AC

0.9-1.5

0.5

Ref: A10

SY132 - NN3

2x100 AC

3.0 NPL

0.5 - 0.6

Ref: A9

SY132 - ON4

4x150 PVC

2.9-4.8

0.7 BFWR

Ref: A10

SY132 - SW1

4x100 FC

NA

0.6 - 1.0

Ref: D10

SY132 - SX1

3x100 FC

0.8-1.4

0.7-0.9

Ref: D10

SY132 - SY1

4x100 FC

4.6-4.8

0.8

Ref: D10

SY132 - SZ1

1x50 PVC 4x100 FC

1.0-1.4

0.4-0.7

Ref: E10

SY132 - TC1

1.6

0.5

0.8 - 1.1

0.8

Ref: E10

SY132 - TE1

4x150 FC

1.9

NR

Ref: E10

SY132 - TF1

1x50 PVC | 3x100 FC | 4x100 FC | 1x50 PVC

NR --- NR | 1.0-1.4 --- 0.6 | 2.0-2.1 --- 0.5-0.8 | NR --- NR

Ref: E10

SY132 - TG1

8x100 FC

NA

0.8 - 0.9

Ref: E10

SY132 - TI1

5x100 FC

NA

0.3

Ref: E10

SY132 - TK1

6 x 100 FC | 3x100 FC

1.5 --- 0.6 | 1.1 --- 0.8 | NR --- NR | 1.1 --- 0.5

Ref: F10

SY132 - TL1

3x100 FC 6x100 FC

0.7 - 1.7

0.5 - 1.2

Ref: F10

SY132 - TM1

9x100 FC

NR

NR

Ref: G10

SY132 - TN1

3x100 FC

1.5 - 2.0

0.7 - 0.9

NR --- NR | 2.4 - 2.6 ---- NR | NR --- NR

Ref: F9

SY132 - EJ4

TSB

1x50 PVC

16x150 PVC

6.1-8.4

0.7-2.0

Ref: E10

SY132 - TJ1

6x100 FC | 3x100 FC

1.6 --- 0.5 | 0.8 - 1.1 --- 0.8 | NR --- NR | 0.7 - 1.7 --- 0.4 - 1.0

Ref: E10

JOINT DETAIL REPORT

No.	Bk-Pg	Pl/Cvr	Joint Location
Map: SY132			
248	ER91-128	66.00/	IN PIT 214
250	531-54		IN PIT 214
1379			IN PIT 193
1383	940-50	4.00/0.50	3.3W CASTLEREAGH ST PL
1384	940-50	3.80/0.50	2.6 TO 2.7W CASTLEREAGH ST PL
1385	1291-92	3.40/0.50	4.9W CASTLEREAGH ST PL
1876	IC05-0237		IN PIT 193
1877	2233-14		IN PIT 193
1878	2015-87	1.00/	IN PIT 193
1880	2015-87	0.90/	IN PIT 194
1881	2200-22	0.90/	IN PIT 194
1882	2200-22	0.90/	IN PIT 194
1889	490-75	1.90/	IN PIT 201
1890	490-75	1.90/	IN PIT 201
1897	ER108-095		in pit 209 located in Castlereagh St 0.9 metres north of Martin Pl NPL
1898	131-105	1.50/	IN PIT 209
2141	1317-15	1.00/	IN PIT 413
2142	322-108	1.40/	IN PIT 415
2143		1.50/	IN PIT 417
2144	490-76	0.80/	IN PIT 1290
2145	400-60	0.80/	IN PIT 418
2146	118-79	1.10/	IN PIT 420
2147	2196-8		IN PIT 419
2149	122-83		IN PIT 422
2150	1050-85		IN PIT 423
2151	938-82		IN PIT 423
3475		1.00/	IN PIT 193
3476	1290-65		IN PIT 193
3477	1290-64		IN PIT 196
3479	1215-37		IN PIT 196
3503	155-34	1.60/	IN PIT 209
3504	132-52		IN PIT 209
3505	136-128	1.60/	IN PIT 209
3506		/99.99	NO RECORD
3507			NO RECORD
3508			NO RECORD
3722	LV04-418	1.00/	IN PIT 413
3723	1355-32	1.00/	IN PIT 413
3724	ER50-84	1.00/	IN PIT 413
3726	ER88-85		IN PIT 413.
3728	741-80	1.40/	IN PIT 415
3729	1862-42		IN PIT 415
3730	ER54-6		IN PIT 415
3731	490-76		IN PIT 1290
3732	196-5	1.10/	IN PIT 422
3733	1098-71	1.10/	IN PIT 422
3735			NO RECORD
3736	975-92		IN PIT 423
3737	975-92		IN PIT 423
4885	299-181		IN PIT 195
4886	492-76	4.50/	IN PIT 195
4890	505-93		IN PIT 201
4893		5.70/	IN PIT 214
4894	2003-5	5.70/	IN PIT 214
5067	1319-89	1.80/	IN PIT 414
5068	1354-3	1.80/	IN PIT 414
5979	1319-89	1.80/	IN PIT 414
5980	1319-89	1.80/	IN PIT 414
5981	1319-89	1.80/	IN PIT 414
5982	841-25	4.30/	IN PIT 416
5983	841-25	4.30/	IN PIT 416
5984	841-25	4.30/	IN PIT 416
6234			NOT RECORDED
6235	1164-22	1.10/0.30	12.8W CASTLEREAGH ST PL
6236	1164-22	1.10/0.30	12.8W CASTLEREAGH ST PL
6237	1164-2	1.10/0.30	16.1W CASTLEREAGH ST PL
6238	1164-2	1.10/0.30	16.1W CASTLEREAGH ST PL
6239	940-50	3.80/0.50	3.3W CASTLEREAGH ST PL
6240	1123-58	1.20/0.40	20.1W CASTLEREAGH ST PL
6241	1123-58	1.20/0.40	20.0W CASTLEREAGH ST PL
6519	LV05-0085		IN PIT 193.
6595	2196-26		IN PIT 419
6596	2199-26		IN PIT 419
6597	LV04-424		IN PIT 419 EASTERN SIDE OF PITT ST
6964	1290-65	1.00/	IN PIT 193
6965	1290-65	1.00/	IN PIT 193
6966	1290-64		IN PIT 196
7089			
7090			NO RECORD
7091			NO RECORD
7092	1355-32	1.10/	IN PIT 422
7497	1513-90	5.70/	IN PIT 214
7599	1319-89	1.80/	IN PIT 414
7600	903-19	4.30/	IN PIT 416
7601	903-19	4.30/	IN PIT 416
7602	841-25	4.30/	IN PIT 416
7603	LV04-424		IN PIT 419 ON EASTERN SIDE OF PITT ST
8886	LV04-414		
8893	LV04-415		IN PIT 422
8894	LV04-415		IN PIT 422
8898	892-93	1.50/	IN PIT 417
8975	LV04-418		IN PIT 413
8979	1173-49		IN PIT 413
8997	1173-49		IN PIT 413
9000	LV04-417	1.40/	IN PIT 415
9001	LV04-418		IN PIT 413
9009	LV04-420		IN PIT 1290
9010	LV04-420		IN PIT 1290
9011	LV04-420		IN PIT 1290
9039	471-68		IN PIT 419
9178	LV04-418		IN PIT 413
9409	194-123	1.00/	IN PIT 193
9417	LV05-0083		IN PIT 201
9418	IC05-0237		IN PIT 201
9433	LV05-0096		IN PIT 205
9434	LV05-0096		IN PIT 205
9435	LV05-0096		IN PIT 205
9449	LV05-0095		IN PIT 209
9475	LV05-0096		IN PIT 205
9476	LV05-0094		IN PIT 196
9477	LV05-0094		IN PIT 196
9804		99.00/99.00	INSIDE PIT 214
9806		99.00/99.00	
9809		99.00/99.00	
9810		99.00/99.00	
9811		99.00/99.00	
9812		99.00/99.00	
9815		99.00/99.00	INSIDE PIT 214
9816		99.00/99.00	INSIDE PIT 214
9817		99.00/99.00	INSIDE PIT 214
9818		99.00/99.00	INSIDE PIT 214
9980	LV05-0085		IN PIT 193
9982	LV05-0001+...		IN PIT 209
11402	ER108-95		IN PIT 51924
12528	ES10-1113		Pit SY51878
12529	ES10-1113		Pit SY51878
13254	IC13-0353		Pit SY51873
13255	IC13-0355		Pit SY51866
13256	IC13-0345		Pit SY51866
13258	IC13-0368		Pit SY51873
13259	IC13-0373		Pit SY51866
13261	IC13-0390		Pit SY51873
13262	IC13-0387		Pit SY51866
13263	IC13-0388		Pit SY51873
13435			
13445	IC14-0031		Pit SY51873
13446	IC14-0032		Pit SY51873
13447	IC14-0032		Pit SY51873
13448	IC14-0048		Pit SY51873
13449	IC14-0049		Pit SY51873
13450	IC14-0049		Pit SY51873
13451	IC14-0063		Pit SY51873
13452	IC14-0063		Pit SY51873
13453	IC14-0064		Pit SY51873
13985	IC16-0629		Pit SY51991
13986	IC16-0629		Pit SY51991
13988	IC16-0628		Pit SY51991

WARNING

Ausgrid's plans show the position of assets at the time of installation and may not account for subsequent changes to road alignments, fences or buildings. The plans show no more than the presence or absence of Ausgrid assets in the street.
Persons working near electricity networks must exercise care and will be held responsible for any damage caused.
You must excavate by hand or use vacuum excavation to establish the location of Ausgrid underground cables and associated assets.
Underground: Working near a cable may result in electric shock even if no contact is made. Any work in the vicinity of any cable should only be performed using safe work methods developed in accordance with the recommendations included in WorkCover Code of Practice for Excavation and WorkCover Guide for Work Near Underground Assets
as well as recommendations of Ausgrid's Network Standard NS156.
Overhead: Do not excavate near poles or towers until the stability of the foundation has been assessed by Ausgrid. Cables or earth conductors may be present close to substations, poles or towers.
Workers must maintain safe approach distances and follow applicable WorkCover Codes of Practice.
NOTE: 1. You must keep Ausgrid plans on site during excavation works. If the people actually performing the excavation works do not know how to read and interpret Ausgrid's plans, then the work must be directed by a person who knows how to read and interpret the plans. 2. This information includes data from the NSW Digital Cadastral Database by Land and Property Information (c) 2016, used under Creative Commons licence version 4.0.

SY11443	SY11444	SY12333
SY13221	SY13222	SY14111
SY13223	SY13224	SY14113

ISG GRID

3H1	3J1	3K1
3H2	3J2	3K2
3H3	3J3	3K3

GRID

SY13223GMLA0

Distribution - 58207255

INFORMATION ON THIS PLAN ONLY VALID FOR 30 DAYS FROM ISSUE DATE

17 Jan 2017

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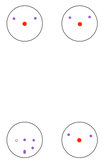
N

1:251

0 — 15 metres

Ausgrid

SY132 - JM1



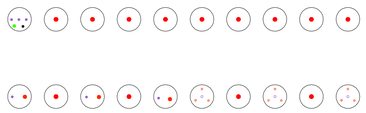
4x100 FC

4.7

0.8

Ref: C10

SY132 - JR1



20x140 FC

6.5-8.5

3.5

Ref: D10

SY132 - CL2
3x100 FC 1x666 NR
1.2-1.5

0.5-0.6
Ref: D6

SY132 - CN2
1x125 PVC
3x100 AC
1.0-1.2

0.5-0.6
Ref: E6

SY132 - CP4
1x50 PVC
NR

NR
3x125 PVC
1x100 PVC
0.5

0.6
Ref: D4

SY132 - CS2
3x100 AC
1.3-2.7

0.6-0.8
Ref: F5

SY132 - CT2
3x100AC
1.0-1.2

0.5-0.6
Ref: F5

SY132 - CX4
5x140 AC
NA

1.2
Ref: D5

SY132 - CY4
5x140 AC
NA

1.9
Ref: D5

SY132 - DO1
3x100 AC
0.5-1.1

0.6-1.2
1x125 PVC
Ref: A6

SY132 - DP1
1.1

0.4
1x100 PVC
NA

NR
Ref: B6

SY132 - DU1
5x100 AC
0.5-1.1

0.8-1.2
Ref: C6

SY132 - DY1
NR

0.2-0.5
Ref: C5

SY132 - DZ1
6x150 AC
NA

1.4-1.7
Ref: C5

SY132 - EA1
6x100 AC
NA

0.6-1.7
Ref: C5

SY132 - EB1
R272
4x140 AC
NA

1.5-1.6
Ref: C5

SY132 - EX3
1 x 50 PVC
4.0

NR
Ref: C3

SY132 - HI4
TSB
16x150 PVC
6.0-10.0

0.8-2.1
Ref: B5

JOINT DETAIL REPORT

No.	Bk-Pg	Pl/Cvr	Joint Location
Map: SY132			
458	1513-21+...	5.90/	IN PIT 426
459	1513-21+...	5.90/	IN PIT 426
460	1513-21+...	5.90/	IN PIT 426
461	1098-35+...	5.30/	IN PIT 428
462	HV05-0020	5.30/	IN PIT 428
463	1306-59+...	5.30/	IN PIT 428
464	271-91+...	5.30/	IN PIT 428
465	ER92-82+...		IN PIT 429 OUTSIDE 60 CASTLEREAGH ST
466	ER92-80+...		IN PIT 429 OUTSIDE 60 CASTLEREAGH ST
467	ER92-80+...		IN PIT 429 OUTSIDE 60 CASTLEREAGH ST
470	ER92-81+...		IN PIT 429 OUTSIDE 60 CASTLEREAGH ST
471	ER92-81+...		IN PIT 429 OUTSIDE 60 CASTLEREAGH ST
472	ER92-82+...		IN PIT 429 OUTSIDE 60 CASTLEREAGH ST
776	1931-97+...	1.30/	IN PIT 651
777	1931-97+...	1.30/	IN PIT 651
778	1931-97+...	1.30/	IN PIT 651
1381	938-6	2.40/0.50	3.4N MARTIN PL
1382	938-6	2.60/0.50	3.1N MARTIN PL
1634	510-72	99.99/	IN PIT 81
1635	509-48		IN PIT 81
1638	175-155	1.00/	IN PIT 83
1639	LV05-0319		IN PIT 84
1640	ER110-135+...		IN PIT 84
1641	509-2	1.30/	Pit SY51915
1648	132-106	0.80/	IN PIT 90
1649	1425-59	0.80/	IN PIT 90
1650	1425-59	0.80/	IN PIT 90
1653	132-106	0.80/	IN PIT 90
1654	915-17	0.80/	IN PIT 90
1656	LV05-0449	2.30/	IN PIT 91
1657	LV05-0449	2.30/	IN PIT 91
1664	509-3	0.80/	IN PIT 92
1665	1425-50	0.80/	IN PIT 92
1667	399-12	0.80/	IN PIT 92
1669	509-3	0.80/	IN PIT 92
1670	LV05-0321		IN PIT 92
1671	LV05-0321	0.80/	IN PIT 92
2133	1408-69		IN PIT 424
2134	183-8	1.00/	IN PIT 412
2135	322-58	1.00/	IN PIT 412
2136	1317-8	1.00/	IN PIT 412
2137	1484-82	1.00/	IN PIT 412
2138	1317-14	1.00/	IN PIT 412
2139	1317-14	1.00/	IN PIT 412
2140	1484-82	1.00/	IN PIT 412
2152	466-45	0.80/	IN PIT 425
2153	466-45	0.70/	IN PIT 427
2155	400-21	0.90/	IN PIT 433
2156	486-28	1.10/	IN PIT 434
3363	1270-50	1.00/	IN PIT 83
3364	1290-35	1.00/	IN PIT 83
3365	1355-27	1.30/	IN PIT 84
3366	2139-57	1.30/	IN PIT 84
3367	915-17		IN PIT 90
3368	1270-58	0.80/	IN PIT 90
3370	LV05-0449		IN PIT 91
3371	LV05-0449		IN PIT 91
3372	LV05-0449		IN PIT 91
3373	2024-64	0.80/	IN PIT 92
3493	1215-33	1.60/	IN PIT 211
3494	444-7		IN PIT 211
3495	1215-33	1.60/	IN PIT 211
3496	251-83		IN PIT 211
3497	251-83		IN PIT 211
3498	251-83		IN PIT 211
3499	127-75	1.60/	IN PIT 211
3500	127-75	1.60/	IN PIT 211
3501	127-75	1.60/	IN PIT 211
3714	IC10-0204		IN PIT 406
3715			NO RECORD
3716	800-87		IN PIT 410
3717	1388-7		IN PIT 410
3718	1425-21		IN PIT 412
3719	155-99	1.00/	IN PIT 412
3720	126-128	1.00/	IN PIT 412
3721	126-128	1.00/	IN PIT 412
3738	LV05-0157	0.80/	IN PIT 425
3739	LV05-0157	0.80/	IN PIT 425
3740	466-45	0.70/	IN PIT 427
3741	LV05-0155	0.90/	IN PIT 431
3742	LV05-0155	0.90/	IN PIT 431
3938	1455-33		IN PIT 647
3941	LV05-0160	1.60/	IN PIT 650
3942	975-69	1.60/	IN PIT 650
4891	299-5	1.60/	IN PIT 211
4892	299-5	1.60/	IN PIT 211
5062	1354-05		IN PIT 409
5063	1354-05		IN PIT 409
5069	1503-23	5.90/	IN PIT 426
5070	1503-23	5.90/	IN PIT 426
5071	331-107		IN PIT 428
5072	271-91	5.30/	IN PIT 428
5073	296-127+...		IN PIT 428
5077	470-44	5.80/	IN PIT 429
5308	1931-97	1.30/	in pit 651
6210		3.00/	8.5N MARTIN PL
6211		3.00/	8.5N MARTIN PL
6476	1639-45	1.30/	IN PIT 84
6477	LV05-0320	0.80/	IN PIT 90
6478	LV05-0321	0.80/	IN PIT 92
6526	LV04-426		IN PIT 211
6594	1408-69	0.80/	IN PIT 424
6663	1308-60	1.60/	IN PIT 650
6664	1308-60	1.60/	IN PIT 650
6665		2.30/	IN PIT 651
6666		2.30/	IN PIT 651
6909			NO RECORD
6910			NO RECORD
6911			NO RECORD
6912			NO RECORD
6913			NO RECORD
6914	LV05-0321	0.80/	IN PIT 92
6915	LV05-0321	0.80/	IN PIT 92
6916	LV05-0321	0.80/	IN PIT 92
6973		5.00/	NO RECORD
7078			NO RECORD
7085	1359-88		IN PIT 410
7086	1408-69	0.80/	IN PIT 424
7087	LV04-419	1.00/	IN PIT 412
7088	LV04-419	1.00/	IN PIT 412
7595			IN PIT 409
8032	ER108-091		In pit 212 at NE corner of inters. between Castlereagh and Martin Place, Sydney
8108	ER109-081		IN PIT 211
8125	ER108-031		IN PIT No.84
8974	LV04-419		
8980	LV04-419		
8981			
8984	LV04-419		IN PIT 412
8985	LV04-419		IN PIT 412
8991	LV04-419		IN PIT 412
8992	LV04-419		IN PIT 412
8993	LV04-419		IN PIT 412
9020	LV04-419		IN PIT 412
9101	LV04-426		IN PIT 211
9103	LV04-426		IN PIT 211
9238			IN PIT 424
9239	LV05-0159		IN PIT 411
9248	LV05-0156		IN PIT 427
9359	LV05-0320		IN PIT 90
9360	LV05-0320		IN PIT 90
9361	LV05-0320		IN PIT 90
9362			IN PIT 90
9363	LV05-0319		IN PIT 84 ONE PHASE ONLY
9398	LV05-0160	1.60/	IN PIT 650
9399	LV05-0160	1.60/	IN PIT 650
9401	LV05-0319		IN PIT 84
9469	LV05-0153		IN PIT 434
9470	LV05-0153		IN PIT 434
9471	LV05-0153		IN PIT 434
9472	LV05-0153		IN PIT 434
9652	LV05-0318		IN PIT 50
9653			
9737	LV05-0319		
9738	LV05-0319		
9742			
9800			
9802			
9803			
9988	1425-50	0.80/	IN PIT 92
9990	LV05-0320		IN PIT 90
11384			
12561	IC10-0204		Pit SY52017
12996	IC12-0389		Pit SY51993
12997	IC12-0389		Pit SY51993
12998	IC12-0389		Pit SY52018
13204	IC12-1990		Pit SY51961
13518	IC14-0765		Pit SY51852
13519	IC14-0765		Pit SY51852
13618	IC14-1167		Pit SY51993
13619	IC14-1171		Pit SY51993
13620	IC14-1171		Pit SY51993
13621	IC14-1167		Pit SY51993
13622	IC14-1167		Pit SY51993
13623	IC14-1192		Pit SY51993
13624	IC14-1199		Pit SY51993
13625	IC14-1191		Pit SY51993
13626	IC14-1191		Pit SY51993
13627	IC14-1191		Pit SY51993
13630	IC14-1221		Pit SY51993
13631	IC14-1214		Pit SY51993
13632	IC14-1214		Pit SY51993
13633	IC14-1214		Pit SY51993
13634	IC14-1215		Pit SY51993
13827	IC15-1160		Pit SY51853, JOINT ON 'C' PHASE AND NEUTRAL ONLY

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SY11443	SY11444	SY12333	ISG GRID
SY13221	SY13222	SY14111	
SY13223	SY13224	SY14113	

3H1	3J1	3K1	GRID
3H2	3J2	3K2	
3H3	3J3	3K3	

SY13224GMLA0
Distribution - 58207255
INFORMATION ON THIS PLAN ONLY VALID FOR 30 DAYS FROM ISSUE DATE
17 Jan 2017
Page 1 of 2
1:251
0 — 15 metres
N
Ausgrid

SY132 - HS3
4x140 AC
0.6-3.1

0.2-0.3
Ref: E5

SY132 - HT3
3x100 AC
1.0

0.7
Ref: D5

SY132 - HU3
4x140 AC
3.1-3.2

0.6
Ref: D5

SY132 - HX3
4x100 FC
2.9-3.4

0.6
Ref: F5

SY132 - JG1
1.5

0.5
1.4

0.8
2x100 FC
NR

NR
3x100 FC
0.7-1.6

0.4-0.6
Ref: A3

SY132 - JK4
2x125 PVC
NA

NR
Ref: A5

SY132 - JO1
1x50 PVC
NR

NR
9x100 FC
0.4-0.6

0.6-1.1
1x50 PVC
2.0

NR
Ref: B3

SY132 - JP1
M6
9x100 FC
0.4-0.6

0.6-1.1
Ref: C3

SY132 - KE4
1x50 PVC
NA

NR
Ref: D3

SY132 - KF4
1x50 PVC
NA

NR
Ref: D3

SY132 - LP3
18x100 AC
NR

NR
Ref: D6

SY132 - MC4
4x100 AC
NA

0.6-1.0
Ref: B3

SY132 - MD4
M6
4x150 FC 3x100 FC
1.9

NR
Ref: D3

SY132 - ME4
4x125 PVC
NA

1.2
Ref: A3

SY132 - OO4
1x50PVC
NR

NR
Ref: A6

SY132 - RF3
20x140 FC
6.5-8.5

3.5
Ref: D4

SY132 - SK1

Ref: D4

SY132 - SN1

Ref: D5

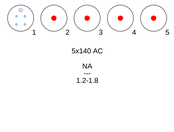
SY132 - SO1

Ref: D5

SY132 - SQ1

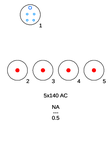
Ref: D5

SY132 - ST1



Ref: E5

SY132 - SU1



Ref: E5

SY132 - SV1

1x50 PVC

3.8-5.2

NR

Ref: D3

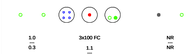
SY132 - TB1

Ref: D3

SY132 - TO1

Ref: E5

SY132 - TP1



Ref: E5

SY132 - TR1

Ref: F4

SY132 - TS1

Ref: F5

SY132 - TT1

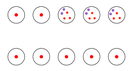
4x100 FC

NA

0.6-1.1

Ref: F5

SY132 - TU1



Ref: F4

SY132 - TV1

Ref: F5

SY132 - TW1

Ref: G4

SY132 - TX1

3x100 FC

1.0-1.5

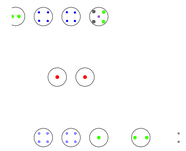
0.7-0.8

NR

NR

Ref: F4

SY132 - DX1



3x100 AC

5x100 AC

1.7-2.1

NR

1.8-2.4

0.8

1x100 AC

NR

NR

Ref: B5

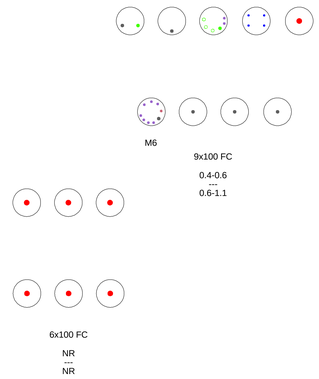
SY132 - JJ4

Ref: A5

SY132 - DL1

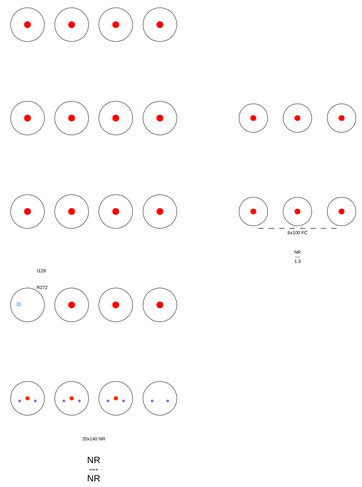
Ref: A5

SY132 - JQ1



Ref: C3

SY132 - SR1



Ref: D5

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SY11443	SY11444	SY12333
SY13221	SY13222	SY14111
SY13223	SY13224	SY14113

SSG GRID

3H1	1J1	3H1
3H2	1J2	3H2
3H3	1J3	3H3

GRID

SY13241GMLA0

Distribution - 58207255

INFORMATION ON THIS PLAN ONLY VALID FOR 30 DAYS FROM ISSUE DATE

17 Jan 2017

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1:251

0 — 15 metres

N

Ausgrid

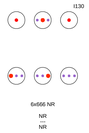
A0 MOCS_std_plot

E_58207255_SY13241GMLA0_1.tmpl

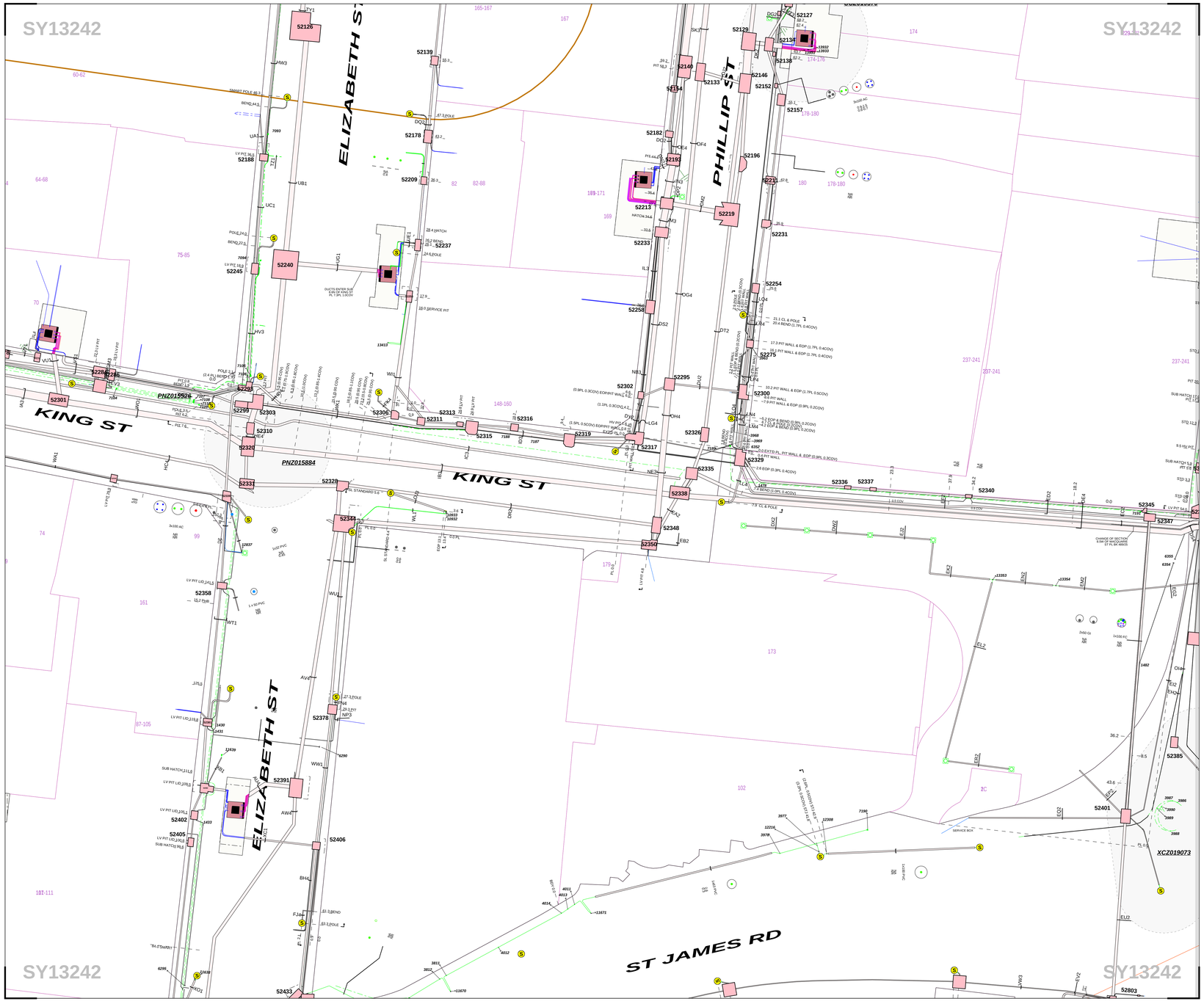
SY132 - HW3

Ref: A5

SY132 - TY1



Ref: A5



JOINT DETAIL REPORT

No....	Dir.Fig.....	RSCe.....	Joint Location
Map:	SY132		
474	469-474-...	4.50/	IN PIT 435
475	470-24-...	4.50/	IN PIT 435
476	469-474-...	4.50/	IN PIT 435
5084	310-107	4.50/	IN PIT 435
5085	1389-30	4.50/	IN PIT 435
9179			IN PIT 682. JOINT IN 1 CORE ONLY
9308	LV05-0325		IN PIT 682 ONE CORE ONLY

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SY11443	SY11444	SY12333
SY13221	SY13222	SY14111
SY13223	SY13224	SY14113

SSG GRID

3H1	1/1	1H1
3H2	1/2	1H2
3H3	1/3	1H3

GRID

SY13242GMLA0

Distribution - 58207255

INFORMATION ON THIS PLAN ONLY VALID FOR 30 DAYS FROM ISSUE DATE

17 Jan 2017

Page 1 of 1

1:251

0 — 15 metres

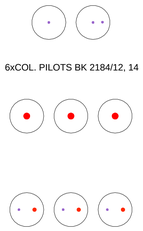
N

Ausgrid

A0 MOCS_std_plot

You are working near Transmission Cables. You must contact Ausgrid on (02) 4951 9200 at least two weeks before work commences. See Ausgrid Network Standard NS156.

SY114 - QN2



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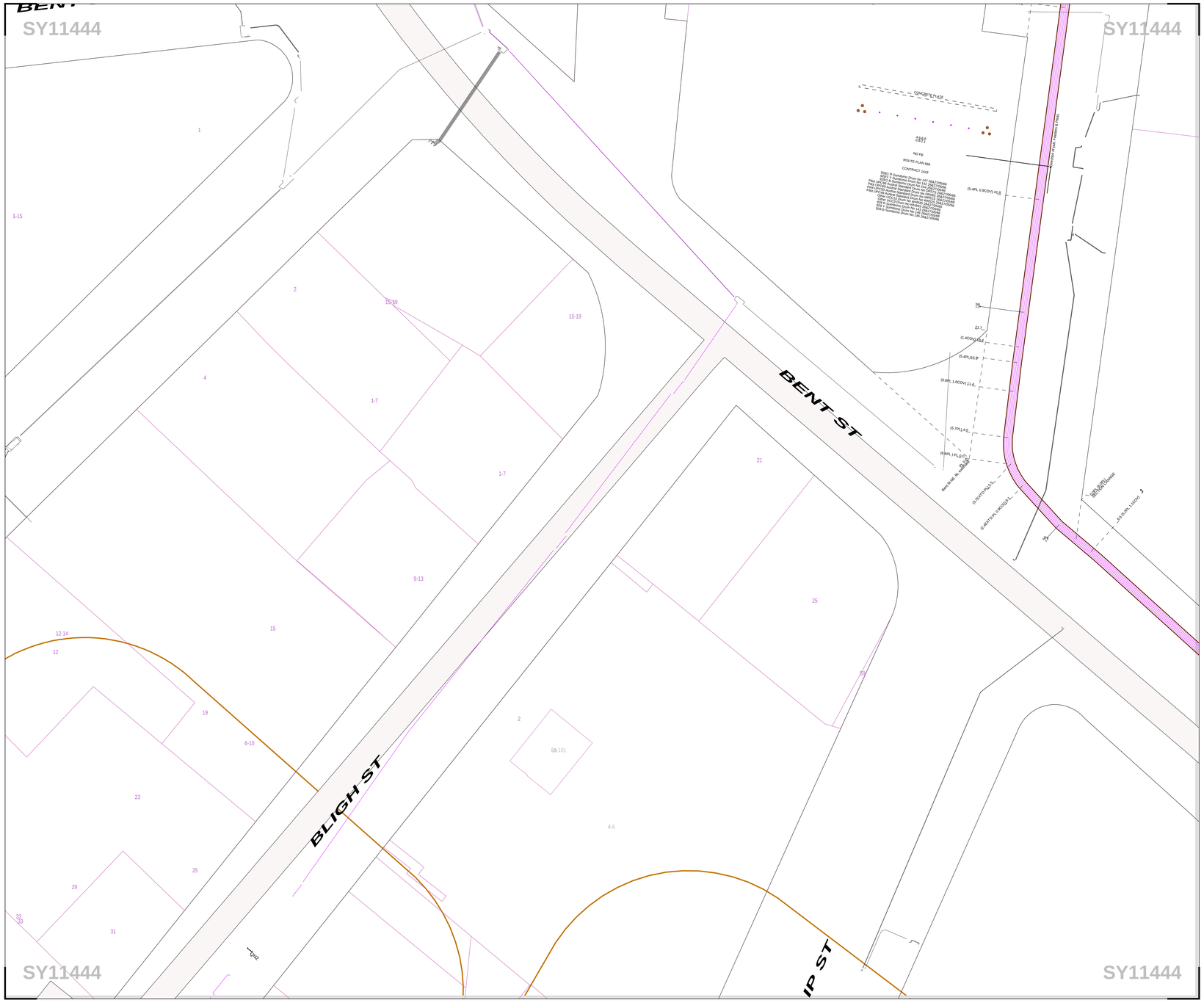

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NOTE: 1. Do not place any load on the pole stays until the stability of the foundation has been assessed by Ausgrid. Cables or earth conductors may be present close to substations, poles or towers.
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SY11443	SY11444	SY12333	ISG GRID
SY13221	SY13222	SY14111	
SY13223	SY13224	SY14113	
1214	9614	3L14	GRID
1215	9615	3L15	
1216	9616	3L16	

SY11444GMLA0

Transmission - 58207255

INFORMATION ON THIS PLAN ONLY VALID FOR 30 DAYS FROM ISSUE DATE

17 Jan 2017

Page 1 of 1

1:251

0 — **15 metres**

N

Ausgrid

A0 TR_MOCS_std_plot

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SY132 - TY3

CONCRETE PLATE

NA
1.6
NO FB
ROUTE PLAN 666
CONTRACT 1443

Pilot UPC68 Austral Standard Drum No RH106 14/05/66
Pilot UPC69 Austral Standard Drum No RH106 14/05/66
Pilot UPC50 Austral Standard Drum No RH106 14/05/66
Pilot UPC49 Austral Standard Drum No RH106 14/05/66
Pilot UPC71 Austral Standard Drum No RH105 14/05/66
Pilot UPC70 Austral Standard Drum No RH106 14/05/66

Ref: C3

SY132 - UB3

CONCRETE

9x100 AC
7.2
0.7-0.8
NO FB
ROUTE PLAN 666
CONTRACT 1443

Pilot UPC68 Austral Standard Drum No RH106 14/05/66
Pilot UPC69 Austral Standard Drum No RH106 14/05/66
Pilot UPC50 Austral Standard Drum No RH106 14/05/66
Pilot UPC49 Austral Standard Drum No RH106 14/05/66
Pilot UPC71 Austral Standard Drum No RH105 14/05/66
Pilot UPC70 Austral Standard Drum No RH106 14/05/66

Ref: C6

SY132 - UC3

CONCRETE

9x100 AC
7.2-7.3
0.8-1.4
NO FB
ROUTE PLAN 666
CONTRACT 1443

Pilot UPC68 Austral Standard Drum No RH106 14/05/66
Pilot UPC69 Austral Standard Drum No RH106 14/05/66
Pilot UPC50 Austral Standard Drum No RH106 14/05/66
Pilot UPC49 Austral Standard Drum No RH106 14/05/66
Pilot UPC71 Austral Standard Drum No RH105 14/05/66
Pilot UPC70 Austral Standard Drum No RH106 14/05/66

Ref: D6

SY132 - UD3

CONCRETE PLATE

NA
0.9-1.9
NO FB
ROUTE PLAN 666
CONTRACT 1443

Pilot UPC68 Austral Standard Drum No RH106 14/05/66
Pilot UPC69 Austral Standard Drum No RH106 14/05/66
Pilot UPC50 Austral Standard Drum No RH106 14/05/66
Pilot UPC49 Austral Standard Drum No RH106 14/05/66
Pilot UPC71 Austral Standard Drum No RH105 14/05/66
Pilot UPC70 Austral Standard Drum No RH106 14/05/66

Ref: D8

SY132 - UE3

CONCRETE PLATE

7.5
1.0
NO FB
ROUTE PLAN 666
CONTRACT 1443

Pilot UPC68 Austral Standard Drum No RH106 14/05/66
Pilot UPC69 Austral Standard Drum No RH106 14/05/66
Pilot UPC50 Austral Standard Drum No RH106 14/05/66
Pilot UPC49 Austral Standard Drum No RH106 14/05/66
Pilot UPC71 Austral Standard Drum No RH105 14/05/66
Pilot UPC70 Austral Standard Drum No RH106 14/05/66

Ref: D3

SY132 - TZ3

CONCRETE PLATE

NA
1.0-1.3
NO FB
ROUTE PLAN 666
CONTRACT 1443

□68 Austral Standard Drum No RH106 1
□69 Austral Standard Drum No RH106 1
□50 Austral Standard Drum No RH106 1
□49 Austral Standard Drum No RH106 1
□71 Austral Standard Drum No RH105 1
□70 Austral Standard Drum No RH106 1

Ref: D3

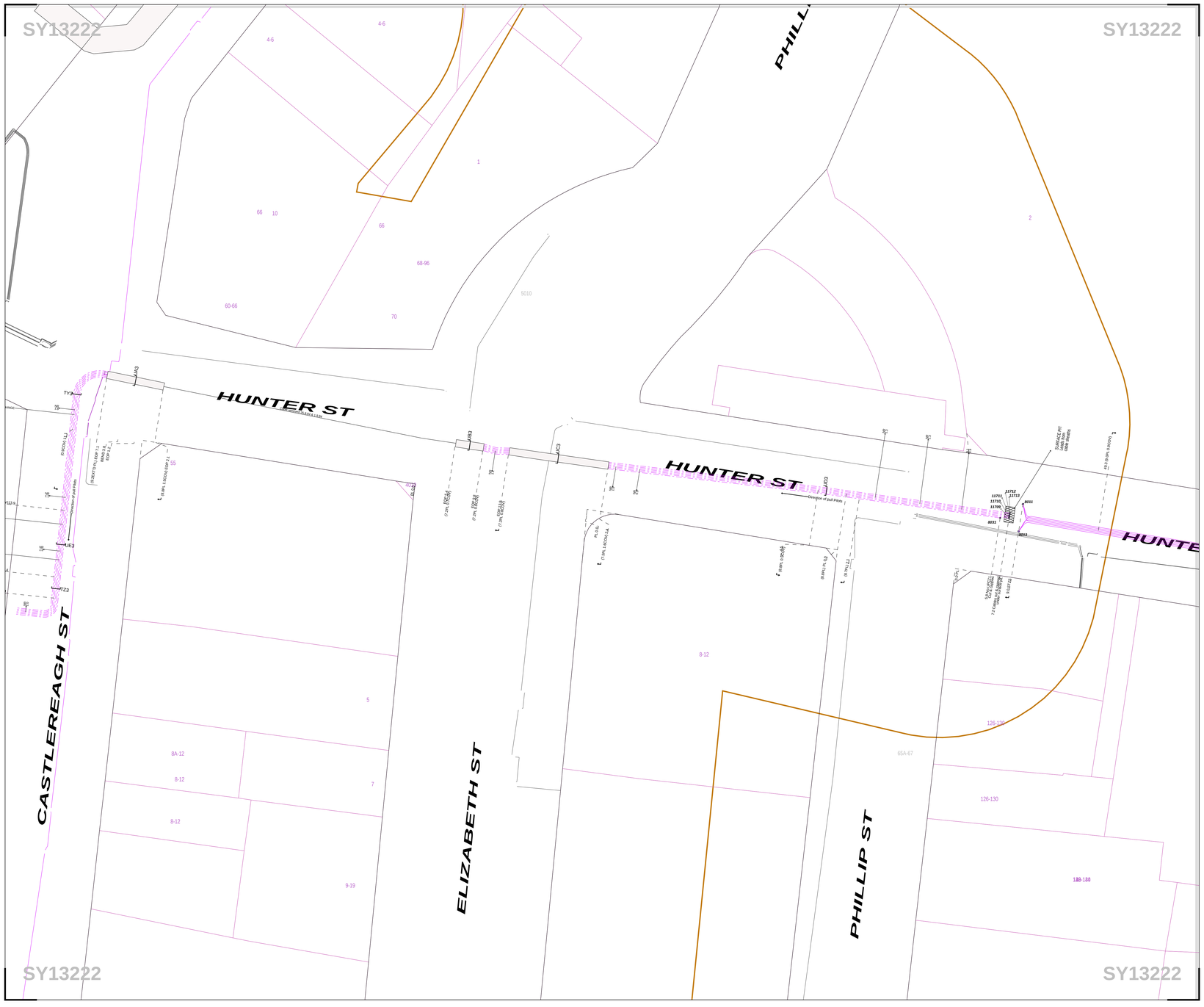
SY132 - UA3

CONCRETE

9x100 AC
8.8-9.2
0.7-0.8
1.5
NO FB
ROUTE PLAN 666
CONTRACT 1443

ilot UPC68 Austral Standard Drum No RH106 14/05/6
ilot UPC69 Austral Standard Drum No RH106 14/05/6
ilot UPC50 Austral Standard Drum No RH106 14/05/6
ilot UPC49 Austral Standard Drum No RH106 14/05/6
ilot UPC71 Austral Standard Drum No RH105 14/05/6
ilot UPC70 Austral Standard Drum No RH106 14/05/6

Ref: C4



JOINT DETAIL REPORT

No.:..... Sh.Pg.:..... PSCur:..... Joint Location

Map: SY132

8011	/0.76	NA
8013	/0.81	NA
8021		NA
11709		NA
11710		NA
11711		NA
11712		NA
11713		NA

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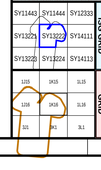
NOTE: 1. You must keep Ausgrid plans on site during excavation works. If the persons who are performing the excavation works do not know how to read and interpret Ausgrid's plans, then the work must be directed by a person who knows how to read and interpret the plans. 2. This information includes data from the NSW Digital Cadastral Database by Land and Property Information (c) 2016, used under Creative Commons licence version 4.0



SY13222GMLA0

Transmission - 58207255

INFORMATION ON THIS PLAN ONLY VALID FOR 30 DAYS FROM ISSUE DATE

17 Jan 2017

Page 1 of 1

1:251

0 **15 metres**

Ausgrid

A0 TR_MOCS_std_plot

TR_X_58207255_SY13222GMLA0_V_Map0

You are working near Transmission Cables. You must contact Ausgrid on (02) 4951 9200 at least two weeks before work commences. See Ausgrid Network Standard NS156.

WARNING

Ausgrid's plans show the position of assets at the time of installation and may not account for subsequent changes to road alignments, fences or buildings. The plans show no more than the presence or absence of Ausgrid assets in the area.

Persons working near electricity networks must exercise care and will be held responsible for any damage caused.

You must excavate by hand or use vacuum excavation to establish the location of Ausgrid underground cables and associated assets.

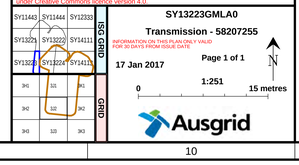
Underground: Working near a cable may result in electric shock even if no contact is made. Any work in the vicinity of any cable should only be performed using safe work methods developed in accordance with the recommendations included in WorkCover Code of Practice for Excavation and WorkCover Guide for Work Near Underground Assets.

as well as recommendations of Ausgrid's Network Standard NS156.

Overhead: Do not excavate near poles or towers until the stability of the foundation has been assessed by Ausgrid. Cables or earth conductors may be attached to substations, poles or towers.

Workers must maintain safe approach distances and follow applicable WorkCover Codes of Practice.

NOTE: 1. You must keep Ausgrid plans on site during excavation works. If the people actually performing the excavation works do not know how to read and interpret Ausgrid's plans, then the work must be directed by a person who knows how to read and interpret the plans. 2. This information includes data from the NSW Digital Cadastral Database by Land and Property Information (c) 2016, used under Creative Commons licence version 4.0.



SY13223GMLA0

Transmission - 58207255

INFORMATION ON THIS PLAN ONLY VALID FOR 30 DAYS FROM ISSUE DATE

17 Jan 2017

Page 1 of 1

1:251

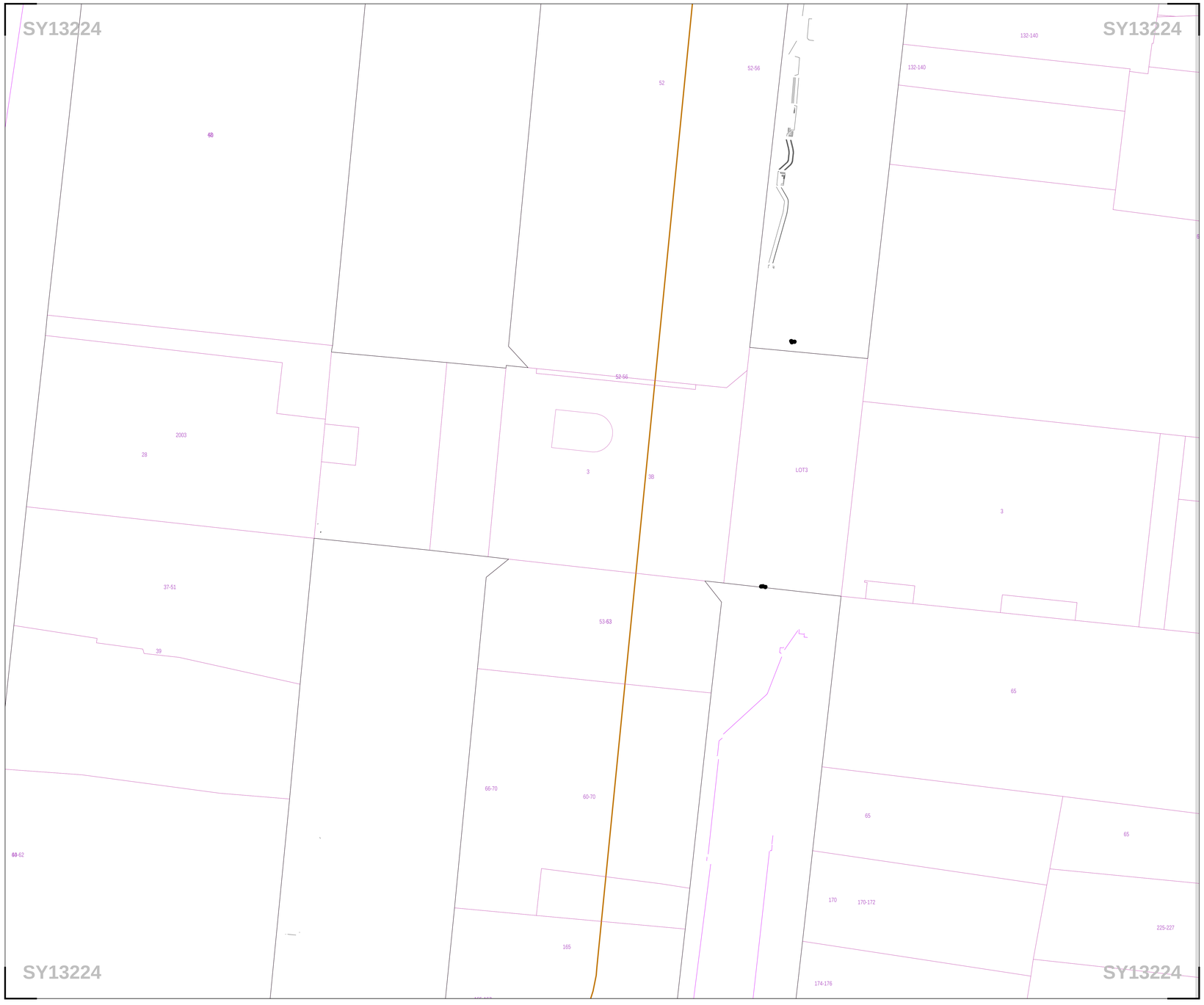
0 **15 metres**

Ausgrid

A0 TR_MOCS_std_plot

TR_R_58207255_SY13223GMLA0_A0_Image

You are working near Transmission Cables. You must contact Ausgrid on (02) 4951 9200 at least two weeks before work commences. See Ausgrid Network Standard NS156.



WARNING

Ausgrid's plans show the position of assets at the time of installation and may not account for subsequent changes to road alignments, fences or buildings. The plans show no more than the presence or absence of Ausgrid assets in the street.
Persons working near electricity networks must exercise care and will be held responsible for any damage caused.
You must excavate by hand or use vacuum excavation to establish the location of Ausgrid underground cables and associated assets.
Underground: Working near a cable may result in electric shock even if no contact is made. Any work in the vicinity of any cable should only be performed using safe work methods developed in accordance with the recommendations included in WorkCover Code of Practice for Excavation and WorkCover Guide for Work Near Underground Assets.
As well as recommendations of Ausgrid's Network Standard NS156.
Overhead: Do not excavate near poles or towers until the stability of the structure has been verified by Ausgrid. Cables or earth conductors may be present close to substations, poles or towers.
Workers must maintain safe approach distances and follow applicable WorkCover Codes of Practice.
NOTE: 1. You must keep Ausgrid plans on site during excavation works. If the people actually performing the excavation works do not know how to read and interpret Ausgrid's plans, then the work must be directed by a person who knows how to read and interpret the plans. 2. This information includes data from the NSW Digital Cadastral Database by Land and Property Information (c) 2016, used under Creative Commons licence version 4.0

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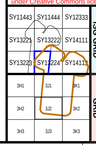


SY13224GMLA0

Transmission - 58207255

INFORMATION ON THIS PLAN ONLY VALID FOR 30 DAYS FROM ISSUE DATE

17 Jan 2017

Page 1 of 1

N

1:251

0 — **15 metres**

Ausgrid

A0 TR_MOCS_std_plot

TR_X_58207255_SY13224GMLA0_0.1wpd

You are working near Transmission Cables. You must contact Ausgrid on (02) 4951 9200 at least two weeks before work commences. See Ausgrid Network Standard NS156.

WARNING

Ausgrid's plans show the position of assets at the time of installation and may not account for subsequent changes to road alignments, fences or buildings. The plans show no more than the presence or absence of Ausgrid assets in the street.
Persons working near electricity networks must exercise care and will be held responsible for any damage caused.
You must excavate by hand or use vacuum excavation to establish the location of Ausgrid underground cables and associated assets.
Underground: Working near a cable may result in electric shock even if no contact is made. Any work in the vicinity of any cable should only be performed after the cable has been isolated in accordance with the recommendations included in WorkCover Code of Practice for Excavation and WorkCover Guide for Work Near Underground Assets,
as well as recommendations of Ausgrid's Network Standard NS156.
Overhead: Do not excavate near poles or towers until the stability of the foundation has been assessed by Ausgrid. Cables or earth conductors may be present close to substations, poles or towers.
Workers must maintain safe approach distances and follow applicable WorkCover Codes of Practice.
NOTE: 1. You must keep Ausgrid plans on site during excavation works. If the people actually performing the excavation works do not know how to read and interpret Ausgrid's plans, then the work must be directed by a person who knows how to read and interpret the plans. 2. This information includes data from the NSW Digital Cadastral Database by Land and Property Information (c) 2016, used under Creative Commons license version 4.0.

SY11443	SY11444	SY12333	ISG GRID
SY13221	SY13222	SY14111	
SY13223	SY13224	SY14113	
3H1	3J1	3K1	GRID
3H2	3J2	3K2	
3H3	3J3	3K3	

SY13241GMLA0

Transmission - 58207255

INFORMATION ON THIS PLAN ONLY VALID FOR 30 DAYS FROM ISSUE DATE

17 Jan 2017

Page 1 of 1

1:251

0 — 15 metres

N

Ausgrid

A0 TR_MOCS_std_plot

TR_E_58207255_SY13241GMLA0_V1.map

City of Sydney

GPO Box 1591 Sydney NSW 2001 • Town Hall House, 456 Kent Street Sydney NSW 2000
p (02) 9265 9333• **f** (02) 9265 9222 • **e** council@cityofsydney.nsw.gov.au • www.cityofsydney.nsw.gov.au

Dial Before You Dig (DBYD): Asset Location Response

ARUP - Mr Nicholas Rouggos
201 Kent Street
Sydney NSW 2000
nicholas.rouggos@arup.com

City of Sydney has been advised that you have placed an enquiry through the Dial Before You Dig service. Our records indicate the enquiry with the following details are affecting City of Sydney asset(s) as per the attached plans.

Enquiry Details	
Sequence Number	58207248
Enquiry Date	16/01/2017 17:01
Response	**AFFECTED**
Address	Hunter Street Sydney
Location in Road	CarriageWay,Footpath,Nature Strip
Activity	Planning & Design

It is important to read and understand all the information and disclaimers provided below and the responsibilities outlined in the attachment prior to commencing work(s)

Due to the nature and the age of assets and records, the accuracy and/or completeness of the information in the attached plan(s) cannot be guaranteed. The City does not make any representation or give any guarantee, warranty or undertaking as to the accuracy, currency, completeness, effectiveness or reliability of the information.

Plan(s) are indicative only and all information needs to be verified through field survey including the use of appropriately qualified personnel and equipment.

This information has been generated by an automated system based on the information specified by the Enquirer. It is the Enquirer's responsibility to ensure that the work site has been properly identified and is accurately reflected in the information provided by the City. If the information does not match the work site, resubmit your enquiry for the correct site.

To the extent of any inconsistency, the information contained in this document will prevail over any other information provided to you by the City and Dial Before You Dig.

Duty of Care

When working in the vicinity of City Assets you have a "duty of care" that must be observed.

Works or proposed works should be planned to allow for minimal impact and appropriate protection of City Assets.

Locating Assets

It is the Enquirer's responsibility to:

- Request plans of City Assets for a particular location at a reasonable time before work begins. If you have any doubts as to the exact location of City Assets, we strongly recommend that you engage the service of a suitably qualified locator; and
- Visually locate City Assets. For buried assets this should be done by hand digging or using non-destructive methods such as water jetting (pot holing) where construction activities may damage or interfere with City Assets.

Damage of Assets

Damage to City Assets must be reported immediately to 02 9265 9333 or council@cityofsydney.nsw.gov.au anytime, any day.

Enquirers and other parties undertaking works will be held responsible for all damage that occurs or impacts City Assets as a result of the works. This includes interfering with City Assets, conducting unauthorised modification works and interfering with City Assets in a way that prevents the City or a third party from accessing or using City Assets in the future.

The City reserves all rights to recover compensation for any Loss (including consequential losses).

Relevant Approvals

Relevant approval must be obtained prior to commencement of works on or near City Assets. The Enquirer is responsible to ensure that all requisite approvals have been obtained prior to works and that all works are undertaken in accordance with the requirements of any approval.

There is a variety of legislation, regulation and City policies that govern requirements for approval to install or modify City Assets. These requirements will also vary depending on the type of asset. Additional guidance may be provided in subsequent sections of this document. This is intended for guidance purposes only and is not comprehensive. It should also be acknowledged that standards may vary from time to time and the information supplied regarding approvals or standards may be out of date or superseded.

User Risk

The Enquirer acknowledges that they use the information at their own risk. In consideration of the information provided by the City to the fullest extent permitted by law:

- All conditions and guarantees concerning the information (whether as to quality, outcome, fitness, care, skill or otherwise) expressed or implied by statute, common law, equity, trade, custom or usage or otherwise are expressly excluded. To the extent that those statutory guarantees cannot be excluded, the liability of the City to the Enquirer is limited to the supplying of the information again;
- In no event will the City be liable for, and the Enquirer releases the City from, any Loss arising from or in connection with the information, including the use of or inability to use the information and delay in the provision of the information;
- The Enquirer will indemnify the City against any Loss arising from or in connection with the information and the works; and
- The Enquirer assumes all risks associated with the use of the Dial Before You Dig and City websites, including risk to the Enquirer's computer, software or data being damaged by any virus, and release and discharge the City from all Loss which might arise in respect of your use of the websites.

Glossary

"City" *means The Council of the City of Sydney.*

"City Assets" *mean those items that are under the ownership, care or control of the City*

"Enquirer" *is the person(s) or organisation(s) requesting or using the information.*

"Loss" *includes any loss, cost, expense, claim, liability or damage (including arising in connection with personal injury, death or any damage to or loss of property and economic or consequential loss, lost profits, loss of revenue, loss of management time, opportunity costs or special damages).*

If you have any further enquiries in regards to assets affected in this referral, please contact the following:

- For Survey infrastructure: Don Urquhart, Principal Surveyor via email Surveyors@cityofsydney.nsw.gov.au or phone: (02) 9265 9819.
- For Stormwater: Terry Kefalianos, Principal Engineer Water Assets via email Stormwater@cityofsydney.nsw.gov.au or phone (02) 9246 7859.
- For Electrical: Paul Gowans, Principal Engineer Electrical & Furniture via email Electrical@cityofsydney.nsw.gov.au or phone (02) 9246 7226.

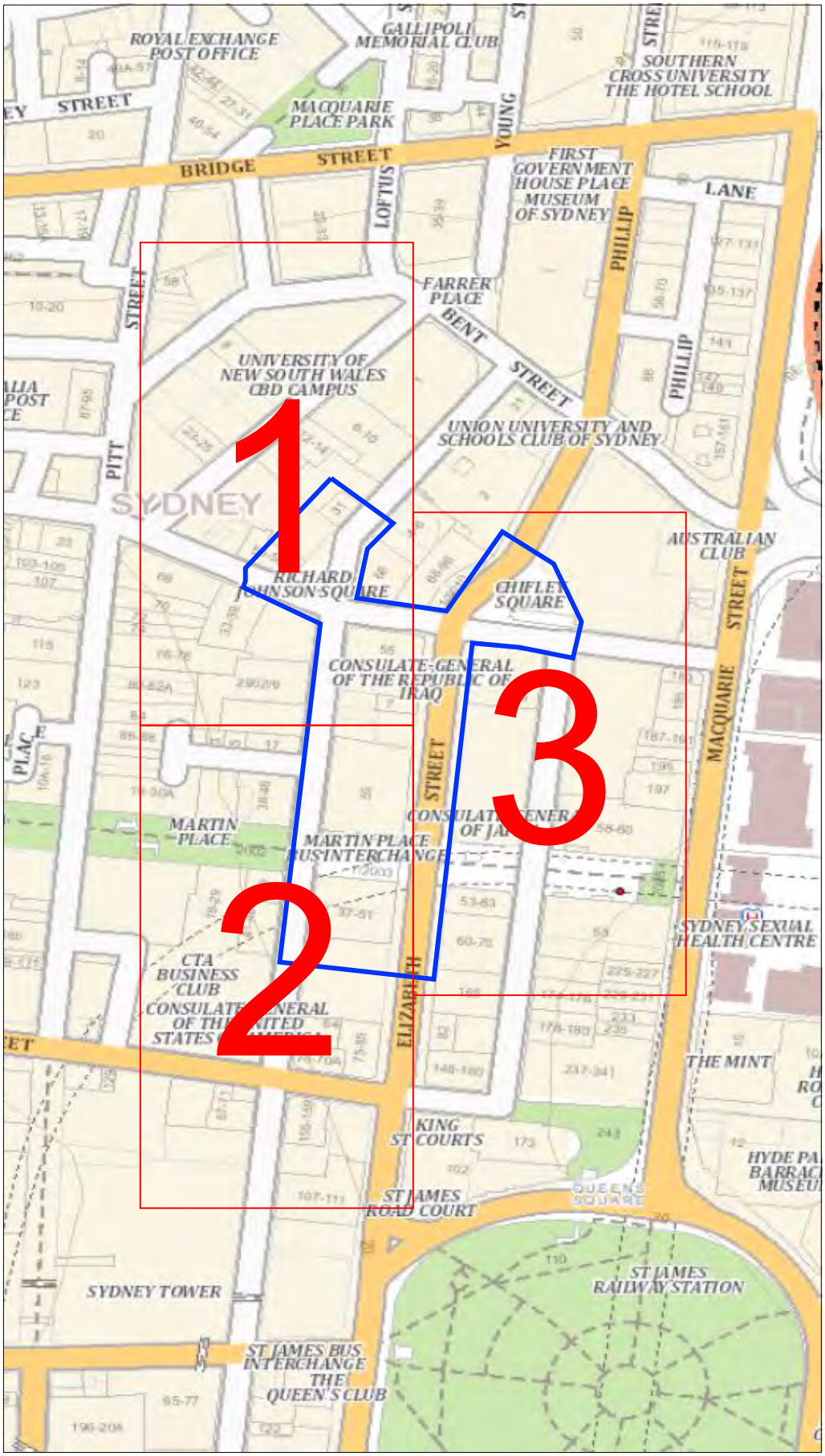
Yours sincerely,

Don Urquhart
Principal Surveyor

Overview Map

Sequence No: 58207248

Hunter Street Sydney



LEGEND:

Affected DBYD Work Area

1 Detail Map

N

0 0.03km

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Map 1

Sequence No: 58207248

Hunter Street Sydney

LEGEND:

Affected DBYD Work Area

Survey Infrastructure

- Permanent Mark
- Trigonometrical Station
- State Survey Mark
- Miscellaneous Mark

Stormwater

- Stormwater Gross Pollutant Traps
- Stormwater Structures
- Stormwater Conduit
- Stormwater Raingardens

Electrical

- Lightning Points
- Smart Poles

Electrical Services

- Main Switch Board
- Distribution Board
- Special Small Service
- Electrical Pit
- Supply Feature
- Other

Electrical Conduits & Cables

- Underground
- Building
- Aerial

N

0 0.01km

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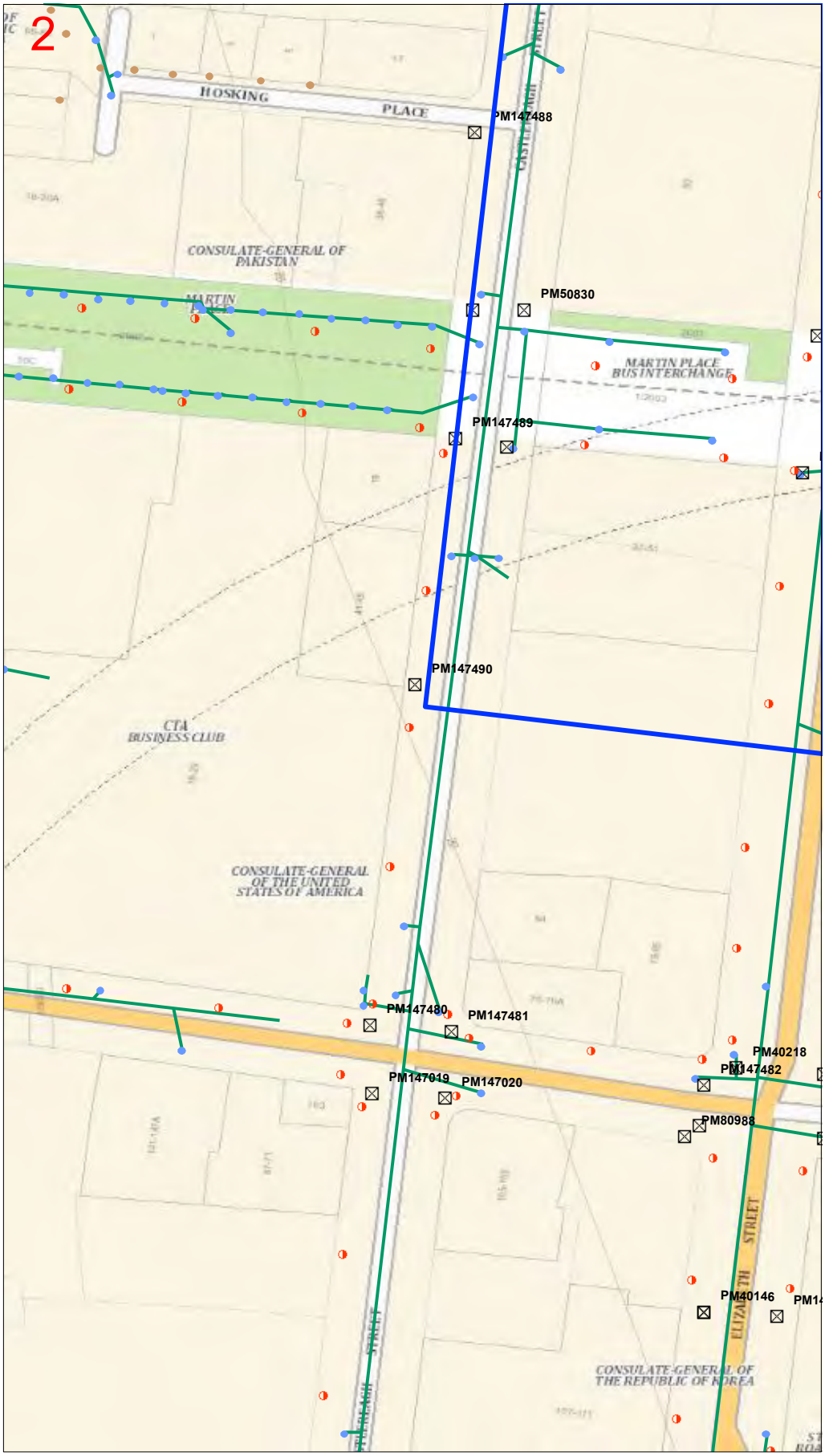
Map 2

Sequence No: 58207248

Hunter Street Sydney



LEGEND:

Affected DBYD Work Area

Survey Infrastructure

- Permanent Mark
- Trigonometrical Station
- State Survey Mark
- Miscellaneous Mark

Stormwater

- Stormwater Gross Pollutant Traps
- Stormwater Structures
- Stormwater Conduit
- Stormwater Raingardens

Electrical

- Lightning Points
- Smart Poles

Electrical Services

- Main Switch Board
- Distribution Board
- Special Small Service
- Electrical Pit
- Supply Feature
- Other

Electrical Conduits & Cables

- Underground
- Building
- Aerial

N

0 0.01km

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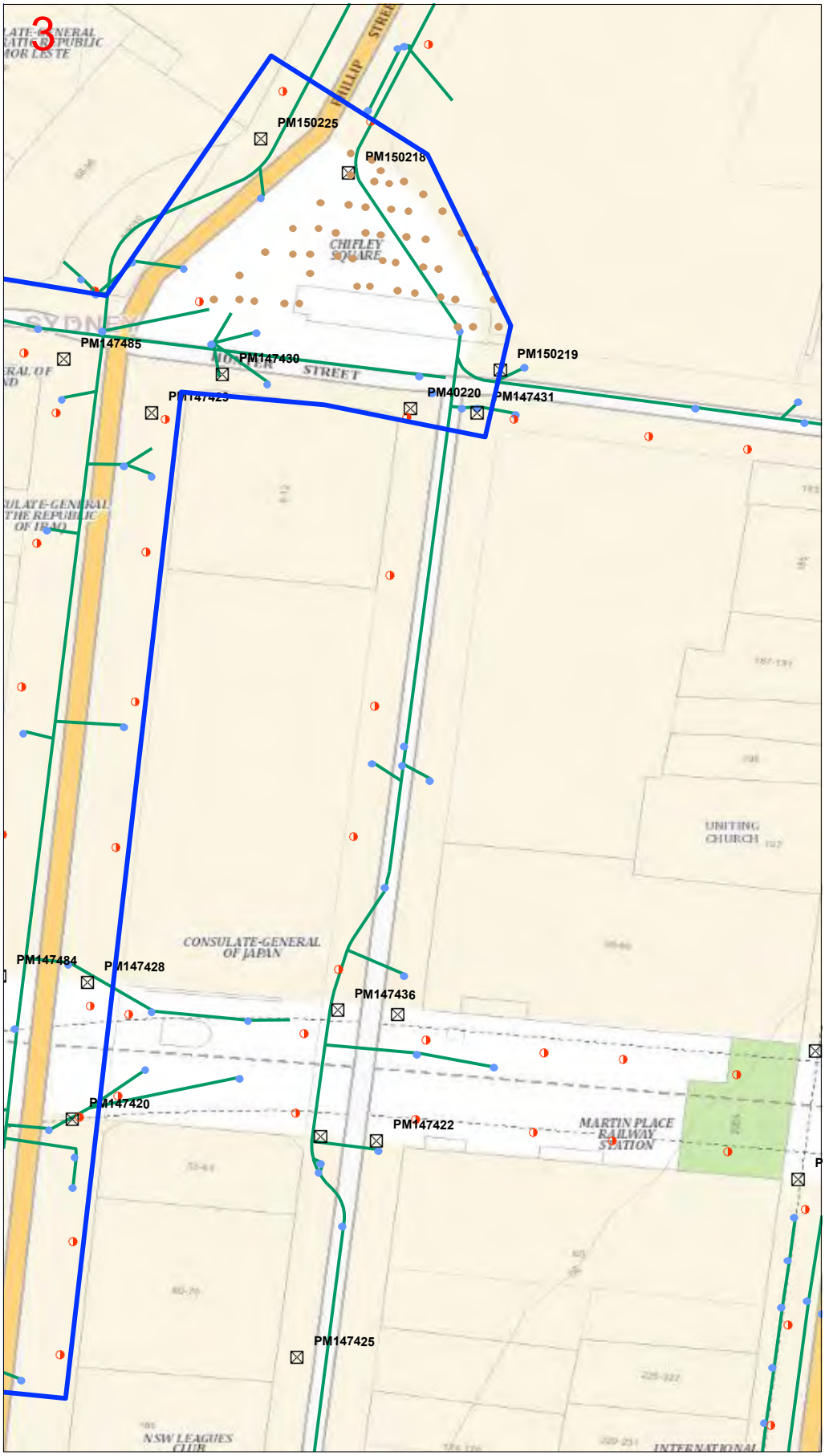
Map 3

Sequence No: 58207248

Hunter Street Sydney



LEGEND:

Affected DBYD Work Area

Survey Infrastructure

- Permanent Mark
- Trigonometrical Station
- State Survey Mark
- Miscellaneous Mark

Stormwater

- Stormwater Gross Pollutant Traps
- Stormwater Structures
- Stormwater Conduit
- Stormwater Raingardens

Electrical

- Lightning Points
- Smart Poles

Electrical Services

- Main Switch Board
- Distribution Board
- Special Small Service
- Electrical Pit
- Supply Feature
- Other

Electrical Conduits & Cables

- Underground
- Building
- Aerial

N

0 0.01km

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Jemena Gas

Network Protection

High Pressure - Assets Affected

In reply to your enquiry, there are **High Pressure Gas Mains** in the vicinity of your intended work, as generally illustrated on the attached map. There may also be other mains or services at the location, as discussed in the warning below. For an explanation of the map, please see the key below.
The following excavations guidelines apply:

Excavation Guidelines:

Prior to **any** excavations in this area, you ***must*** contact the High Pressure Response Coordinator on **1300 665 380**. ***(Appointments will be coordinated with availability of a Jemena Representative)*** to arrange a survey. For all works in the vicinity of High Pressure Gas Mains you must arrange for a Jemena Representative to attend and supervise all excavations. Charges apply for attendance of any works outside the hours of 7am to 4pm, Monday to Friday ("**Standard Business Hours**") and for any attendance during Standard Business Hours that is longer than 2 hours.
In accordance with clause 34(5) of the Gas Supply (Safety and Network Management) Regulation 2013 (NSW), you should be informed that all excavation, (including pot-holing by hand to confirm the location of pipes) should be performed in accordance with "***Work Near Underground Assets Guideline"*** *published in 2007 by the Work Cover Authority.*
A copy of this Guideline is available at: www.workcover.nsw.gov.au

KEY

	MAX ALLOWABLE OPERATING PRESSURE	
T	TRUNK PIPELINE	7000 kPa
P	PRIMARY MAIN	3500 kPa
S	SECONDARY MAIN	1050 kPa
400	NETWORK MAIN	400 kPa
	NETWORK MAIN	300 kPa
	NETWORK MAIN	210 kPa
100	NETWORK MAIN	100 kPa
30	NETWORK MAIN	30 kPa
	NETWORK MAIN	7 kPa
	NETWORK MAIN	2 kPa
	PROPOSED MAINS	

	VALVE
	SYSTEM PRESSURE REGULATOR
S	SIPHON
123	NETWORK NODE
123S	NETWORK VALVE NODE
1298	VALVE NUMBER
6NB	6 INCH CAST IRON MAIN
150MM	150MM STEEL MAIN
110MM PE/NY	110MM POLYETHYLENE/NYLON MAIN
6 NB 50MM NY	50MM NYLON INSERTED INTO 6NB CAST IRON MAIN
1.2MBL	DISTANCE IN METRES OF MAIN FROM BOUNDARY LINE
1957	YEAR LAID
123	HOUSE NUMBER
P	PRESSURE MONITORING STATION
	MUNICIPALITY BOUNDARY
	NETWORK BOUNDARY
PR 11-2 3	STEEL MAIN PROJECT NUMBER

Warning: The enclosed plans show the position of Jemena Gas Networks (NSW) Ltd's underground gas mains and installations in public gazetted roads only. **Individual customers' services and services belonging to other third parties are not included** on these plans. These plans have been prepared solely for the use of Jemena Gas Networks (NSW) Ltd and Jemena Asset Management Pty Ltd (together "**Jemena**") and any reliance placed on these plans by you is entirely at your own risk. The plans may show the position of underground mains and installations relative to fences, buildings etc., as they existed at the time the mains etc were installed. The plans may not have been updated to take account of any subsequent change in the location or style of those features since the time at which the plans were initially prepared. Jemena makes no warranty as to the accuracy or completeness of the enclosed plans and does not assume any duty of care to you nor any responsibility for the accuracy, adequacy, suitability or completeness of the plans or for any error, omission, lack of detail, transmission failure or corruption in the information provided. Jemena does not accept any responsibility for any loss that you or anyone else may suffer in connection with the provision of these plans, however that loss may arise (including whether or not arising from the negligence of Jemena, its employees, agents, officers or contractors). The recipient of these plans must use their own care and diligence in carrying out their works and must carry out further surveys to locate services at their work site. Persons excavating or carrying out other earthworks will be held responsible for any damage caused to Jemena's underground mains and equipment. Jemena advises that you may be required to carry out potholing by hand if required by a Jemena Representative to confirm the location of Jemena's main and installations. This must also be performed by you under the supervision of a Jemena Representative and be carried out in accordance with the Working Near Underground Assets Guideline published in 2007 by Work Cover Authority

In case of Emergency Phone 131 909 (24 hours)

Admin
1300 880 906

Warning Action Required
Warning Action Required

SYDNEY IAD

SCALE 1:1000

25 0 25 50 75 100

THIS MAP UPDATED ON 18/03/2015
THIS PLAN IS DIAGRAMATIC ONLY. DISTANCES SCALED FROM THIS PLAN MAY NOT BE ACCURATE.

SIAA	SIAB	SIBA
SIAC	SIAD	SIBC
SICA	SICB	SIDA

ADJOINING MAPS

592 593

NETWORK AREA

SYDNEY

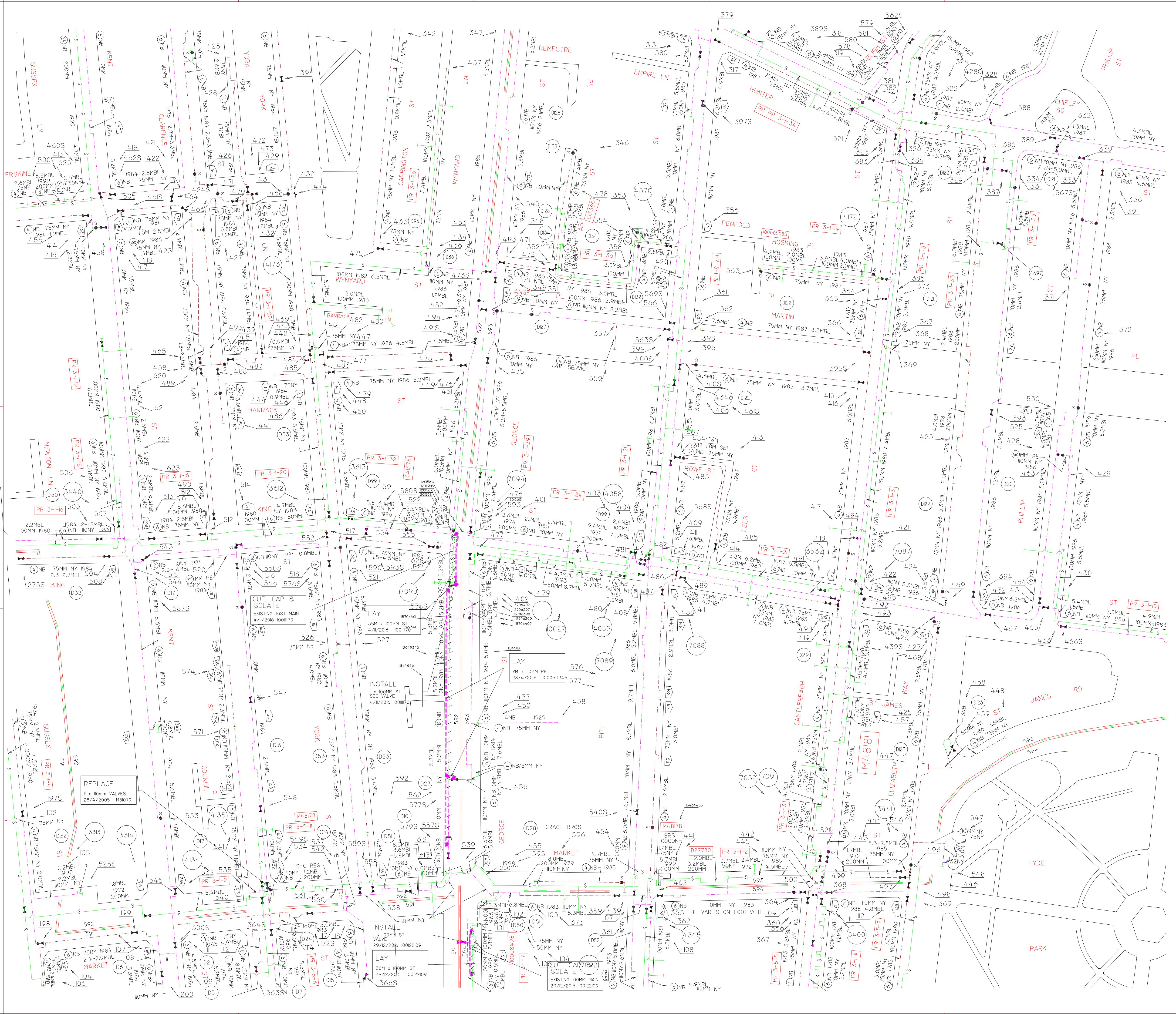
MUNICIPALITY AREA

Jemena

KEY

		MAX ALLOWABLE OPERATING PRESSURE
T	TRUNK PIPELINE	7000 kPa
P	PRIMARY MAIN	3500 kPa
S	SECONDARY MAIN	1050 kPa
400	NETWORK MAIN	400 kPa
	NETWORK MAIN	300 kPa
	NETWORK MAIN	210 kPa
100	NETWORK MAIN	100 kPa
30	NETWORK MAIN	30 kPa
	NETWORK MAIN	7 kPa
	NETWORK MAIN	2 kPa
	PROPOSED MAINS	
PR II-2 3	STEEL MAIN PROJECT NUMBER	
P	PRESSURE MONITORING STATION	
	VALVE	
	SYSTEM PRESSURE REGULATOR	
S	SIPHON	
123	NETWORK NODE	
123S	NETWORK VALVE NODE	
1298	VALVE NUMBER	
6NB	6 INCH CAST IRON MAIN	
150MM	150MM STEEL MAIN	
110MM PE/NY	110MM POLYETHYLENE/NYLON MAIN	
6NB 50MM NY	50MM NYLON INSERTED INTO 6NB MAIN CAST IRON MAIN	
1.2MBL	DISTANCE IN METRES OF MAIN FROM BOUNDARY LINE	
1957	YEAR LAID	
	MUNICIPALITY BOUNDARY	
	NETWORK BOUNDARY	
123	HOUSE NUMBER	

SYDNEY IAD



SYDNEY ICB

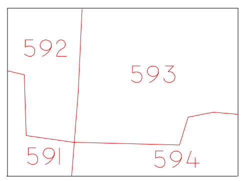
SCALE 1:1000

25 0 25 50 75 100

THIS MAP UPDATED ON 09/01/2017
THIS PLAN IS DIAGRAMATIC ONLY. DISTANCES SCALED FROM THIS PLAN MAY NOT BE ACCURATE.

SIAC	SIAD	SIBC
SICA	SICB	SIDA
SICC	SICD	SIDC

ADJOINING MAPS



NETWORK AREA

MUNICIPALITY AREA

Jemena

KEY

MAX ALLOWABLE OPERATING PRESSURE

Symbol	Description	Pressure
T	TRUNK PIPELINE	7000 kPa
P	PRIMARY MAIN	3500kPa
S	SECONDARY MAIN	1050 kPa
400	NETWORK MAIN	400 kPa
	NETWORK MAIN	300 kPa
	NETWORK MAIN	210 kPa
100	NETWORK MAIN	100 kPa
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	NETWORK MAIN	7 kPa
	NETWORK MAIN	2 kPa
	PROPOSED MAINS	
PR 11-2 3	STEEL MAIN PROJECT NUMBER	
P	PRESSURE MONITORING STATION	
	VALVE	
	SYSTEM PRESSURE REGULATOR	
S	SIPHON	
123	NETWORK NODES	
123S	NETWORK VALVE NODE	
1298	VALVE NUMBER	
6NB	6 INCH CAST IRON MAIN	
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110MM PE/NY	110MM POLYETHYLENE/NYLON MAIN	
(6)NB 50MM NY	50MM NYLON INSERTED INTO 6NB MAIN CAST IRON MAIN	
1.2MBL	DISTANCE IN METRES OF MAIN FROM BOUNDARY LINE	
1957	YEAR LAID	
	MUNICIPALITY BOUNDARY	
	NETWORK BOUNDARY	
123	HOUSE NUMBER	

SYDNEY ICB

NBN Co.

To:	Mr Nicholas Rouggos
Phone:	0293209298
Fax:	Not Supplied
Email:	nicholas.rouggos@arup.com

Dial before you dig Job #:	11738734	DIAL BEFORE YOU DIG www.1100.com.au
Sequence #	58207263	
Issue Date:	01/16/2017	
Location:	Hunter Street,Sydney,NSW-2000	Some impact. No onsite action required.

Location of Underground Telecommunications Facilities

We thank you for your enquiry. In relation to your enquiry at the above address:

- **nbn's** records indicate that there **ARE** underground fibre optic/telecommunications facility/facilities (owned or controlled by **nbn**) in the vicinity of the location identified above ("Location").
- **nbn** indicative plan/s are attached with this notice ("Indicative Plans").
- The Indicative Plans show general depth and alignment information only and are not an exact scale or accurate depiction of the location, depth and alignment of the fibre optic/ telecommunications facilities shown on the Indicative Plans.
- In particular, the fact that the Indicative Plans show that a facility is installed in a straight line, or at uniform depth along its length cannot be relied upon as evidence that the facility is, in fact, installed in a straight line or at uniform depth.
- You should read the Indicative Plans in conjunction with this notice and in particular, the notes below.
- The information contained in the Indicative Plans is valid for 28 days from the date of issue set out above. You are expected to make your own inquiries and perform your own investigations (including engaging appropriately qualified plant locators at your expense to locate **nbn** telecommunications facilities during any activities you carry out on site).

We thank you for your enquiry and appreciate your continued use of the Dial Before You Dig Service. If you are planning to excavate or require further information, please contact **nbn** on 1800 626 762. For any enquiries related to moving assets or Planning and Design activities, please email **nbn** at RelocationWorks@nbnco.com.au.

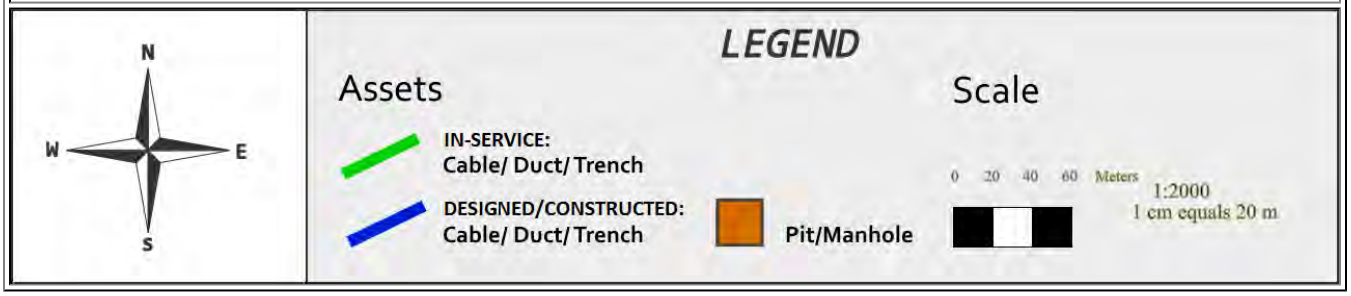
Notes:

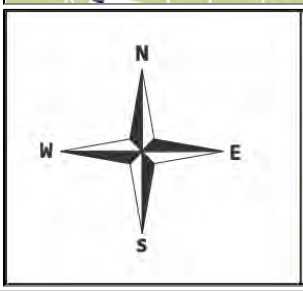
1. You are now aware that there are items of telecommunications and/or power facilities in the vicinity of the above property that could be damaged as a result of activities carried out (or proposed to be carried out) by you in the vicinity of the Location.
2. You should have regard to section 474.6 and 474.7 of the *Criminal Code Act 1995* (Cth) which deals with the consequences of interfering or tampering with a telecommunications facility. Only persons authorised by **nbn** can interact with **nbn's** network facilities.
3. Any information provided is valid only for **28 days** from the date of issue set out above.

Indicative Plans

1

2





LEGEND

Assets

IN-SERVICE:
Cable/ Duct/ Trench

DESIGNED/CONSTRUCTED:
Cable/ Duct/ Trench

Pit/Manhole

Scale

0 20 40 60 Meters

1:2000
1 cm equals 20 m

Referral Conditions

The following are conditions on which **nbn** provides you with the Indicative Plans. By receiving, accepting or relying upon the plans (including the Indicative Plans), you are agreeing to these conditions. These conditions are in addition to (and not in replacement of) any duties and obligations you have under applicable law.

1. **nbn** does not accept any responsibility for any inaccuracies of its plans including the Indicative Plans. You are expected to make your own inquiries and perform your own investigations (including engaging appropriately qualified plant locators at your cost to locate **nbn** telecommunications facilities during any activities you carry out on site).
2. You should not assume that **nbn** cables and assets follow straight lines or are installed at uniformed depths along their lengths, even if they are indicated on plans provided to you. Careful onsite investigations are essential to locate the exact position of cables.
3. In carrying out any works in the vicinity of **nbn** facilities, you must maintain the following minimum clearances:
    - 300mm when laying assets inline, horizontally or vertically
    - 500mm when operating vibrating equipment, for example: jackhammers or vibrating plates;and
    - 1000mm when operating mechanical excavators.
    - Adherence to clearances as directed by other asset owner's instructions
4. You are aware that there are inherent risks and dangers associated with carrying out work in the vicinity of underground facilities (such as **nbn** fibre optic,copper and coaxial

cables,and power cable feed to **nbn** assets).Damage to underground electric cables may result in:

- Injury from electric shock or severe burns, with the possibility of death.
- Interruption of the electricity supply to wide areas of the city.
- Damage to your excavating plant.
- Responsibility for the cost of repairs.

5. You must take all reasonable precautions to avoid damaging **nbn** facilities. These precautions may include ,but not limited to, the following:
    - All excavation sites should be examined for underground cables by careful hand excavation. Cable cover slabs if present must not be disturbed. Hand excavation needs to be undertaken with extreme care to minimise the likelihood of damage to the cable, for example, the blades of hand equipment should be aligned parallel to the line of the cable rather than digging across the cable.
    - If any undisclosed underground cables are located, notify **nbn** immediately.
    - All personnel must be properly briefed, particularly those associated with the use of earth-moving equipment, trenching, boring and pneumatic equipment.
    - The safety of the public and other workers must be ensured.
    - All excavations must be undertaken in accordance with all relevant legislation and regulations.
6. You will be responsible for all damage to **nbn** facilities that are connected whether directly, or indirectly with work you carry out (or work that is carried out for you or on your behalf) at the Location. This will include,without limitation, all losses expenses incurred by **nbn** as a result of any such damage.
7. You must immediately report any damage to **nbn™** network that you are/become aware of. Notification may be by telephone - 1800 626 762.
8. Except to the extent that liability may not be capable of lawful exclusion, **nbn** and its servants and agents and the related bodies corporate of **nbn** and their servants and agents shall be under no liability whatsoever to any person for any loss or damage (including indirect or consequential loss or damage) however caused (including, without limitation, breach of contract negligence and/or breach of statute) which may be suffered or incurred from or in connection with this information sheet or any Plans attached hereto. Except as expressly provided to the contrary in this information sheet or the attached Indicative Plans, all terms, conditions, warranties, undertakings or representations (whether expressed or implied) are excluded to the fullest extent permitted by law.

All works undertaken shall be in accordance with all relevant legislations, acts and regulations applicable to the particular state or territory of the Location. The following table lists all relevant documents that shall be considered and adhered to.

State/Territory	Documents
National	Work Health and Safety Act 2011
	Work Health and Safety Regulations 2011
	Safe Work Australia - Working in the Vicinity of Overhead and Underground Electric Lines (Draft)

	Occupational Health and Safety Act 1991
NSW	Electricity Supply Act 1995
	Work Cover NSW - Work Near Underground Assets Guide
	Work Cover NSW - Excavation Work: Code of Practice
VIC	Electricity Safety Act 1998
	Electricity Safety (Network Asset) Regulations 1999
QLD	Electrical Safety Act 2002
	Code of Practice for Working Near Exposed Live Parts
SA	Electricity Act 1996
TAS	Tasmanian Electricity Supply Industry Act 1995
WA	Electricity Act 1945
	Electricity Regulations 1947
NT	Electricity Reform Act 2005
	Electricity Reform (Safety and Technical) Regulations 2005
ACT	Electricity Act 1971

Thank You,

Network Operations Centre - Assurance

Date: 01/16/2017

This document is provided for information purposes only. This document is subject to the information classification set out on this page. If no information classification has been included, this document must be treated as UNCLASSIFIED, SENSITIVE and must not be disclosed other than with the consent of nbn co. The recipient (including third parties) must make and rely on their own inquiries as to the currency, accuracy and completeness of the information contained herein and must not use this document other than with the consent of nbn co.

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Nextgen

Plant Location Details

16/01/2017

Mr Nicholas Rouggos
ARUP
201 Kent Street
Sydney, NSW 2000
Phone: 0293209298
Fax: Not Supplied

Nextgen Networks Pty Ltd
Level 6, 333 Collins Street
Melbourne VIC 3000
T 1800 032 532
E DBYD@nextgengroup.com.au

Dear Mr Nicholas Rouggos,

The following is a response to your Dial Before You Dig enquiry

Assets Affected: Nextgen Assets

Sequence No: 58207252
Location: Hunter Street Sydney, NSW 2000

IMPORTANT:

- Please read and understand all the information and disclaimers provided below
- Sketches and Plans provided by Nextgen Networks are circuit diagrams only and indicate the presence of telecommunications plant in the general vicinity of the geographical area shown; exact ground cover and alignments cannot be given with any certainty and cover may alter over time. Telecommunications plant seldom follow straight lines and careful on site investigation is essential to uncover and reveal its exact position
- The accuracy and/or completeness of the information in the plans can not be guaranteed often due to changes in the surrounding land subsequent to Nextgen's deployment and, accordingly the plans are intended to be indicative only

"DUTY OF CARE"
When working in the vicinity of telecommunications plant you have a legal "Duty of Care" that must be observed. The following points must be considered:

1. It is the responsibility of the owner and any consultant engaged by the owner, including an architect, consulting engineer, developer, and head contractor to design for minimal impact and protection of Nextgen Networks plant. Nextgen Networks will provide free plans and sketches showing the presence of its network to assist at this design stage.
2. It is the owner's (or constructor's) responsibility to:
   a) Request plans of Nextgen Networks plant for a particular location at a reasonable time before construction begins
   b) Visually locate Nextgen Networks plant by vacuum excavation (pot-holing) where construction activities may damage or interfere with Nextgen Networks plant (see "Essential Precautions and Approach Distances" section for more information)
   c) Contact Nextgen Networks Network (see below for details) if Nextgen Networks plant is wholly or partly located near planned construction activities

DAMAGE
ANY DAMAGE TO Nextgen Networks NETWORK MUST BE REPORTED TO 1800 032 532 IMMEDIATELY

- The owner is responsible for all plant damage when works commence prior to obtaining Nextgen Networks plans, or failure to follow agreed instructions
- Nextgen Networks reserves all rights to recover compensation for lose or damage to its cable network or other property including consequential losses

CONCERNING NEXTGEN NETWORK PLANS

- Phone 1100. Dial Before You Dig for free plans of Nextgen Networks plant locations. Please give at least 2 business days notice
- Nextgen Networks plans and information provided are valid for 30 days from the date of issue
- Nextgen Networks retains copyright in all plans and details provided in conjunction with your request. These plans and or details should be disposed of by shredding or any other secure disposal method after use
- Nextgen Networks plans or other details are provided for the use of the applicant, its servants, or agents, and shall not be used for any unauthorised purpose
- Please contact the Network Help Desk (see below for details) immediately should you locate Nextgen Networks assets not indicated on these plans
- Nextgen Networks, its servants or agents shall not be liable for any loss or damage caused or occasioned by the use of plans and or details so supplied to the applicant, its servants and agents, and the applicant agrees to indemnify Nextgen Networks against any claim or demand for any such loss or damage
- Please ensure Nextgen Networks plans and information provided remains on-site at all times throughout your construction phase

ESSENTIAL PRECAUTION AND APPROACH DISTANCE

NOTE: If the following clearances cannot be maintained, please contact the Nextgen Network Help Desk (see below for details) for advice on how best to resolve this situation

1. On receipt of plans and sketches and before commencing excavation work or similar activities near Nextgen Networks plant, carefully locate this plant first to avoid damage. Undertake prior exposure (vacuum excavation) such as potholing when intending to excavate or work closer to Nextgen Networks plant than the following approach distances:

- Where Nextgen Networks plant is in an area where road and footpaths are well defined by kerbs or other features a minimum clear distance of 600mm must be maintained from where it could be reasonably presumed that plant would reside
- In non established or unformed reserves and terrain, this approach distance must be at least 1.5 metres
- In country/rural areas which may have wider variations in reasonably presumed plant presence, the following minimum approach distances apply:
  a) Parallel to major plant: 10 metres (for optic fibre cable)
  b) Parallel to other plant: 5 metres

Note: Even pot-holing needs to be undertaken with extreme care, common sense and employing techniques least likely to damage cables. For example - vacuum excavation.

- If construction work is parallel to Nextgen Networks plant, then careful pot-holing at least every 5m is required to establish the location of all plant, hence continuing nominal locations before work can commence

2. Maintain the following minimum clearance between construction activity and actual location of Nextgen Networks Plant.

Jackhammers/Pneumatic Breakers	*Not within 1.0m of **actual locations***
Vibrating Plate or Wackers Packer Compactors	*Not within 0.5m of Nextgen Networks ducts 300mm compact clearance cover before compactor can be used across Nextgen Networks ducts, and 600mm clearance across Nextgen Networks cables in the solid*
Boring Equipment (in-line, horizontal and vertical)	*Not within 2.0m of **actual location** Constructor to check depth via vacuum excavation (pot-hole)*
Heavy Vehicle Traffic (over 3 tonnes)	*Not to be driven across Nextgen Networks ducts with less than 600mm cover. Not to be driven across Nextgen Networks fibre with less than 1.2m cover Constructor to vacuum excavate(pot-hole) and expose plant*
Mechanical Excavators, Boring and Tree Removal	*Not within 1.0m of actual location Constructor to vacuum excavate (pot-hole) and expose plant*

- All Nextgen Networks pits and manholes should be a minimum of 1.2m in from the back of kerb after the completion of your work
- All Nextgen Networks conduit should have the following minimum depth of cover after the completion of your work:

  Footway 450mm
  Roadway 450mm at drain invert and 600mm below the pavement subgrade level invert

- All Nextgen Networks fibre in the solid should have the following minimum depth of cover after the completion of your work:

  Footway 600mm
  Roadway 1200mm at drain invert and 1200mm below the pavement subgrade level invert

- For clearance distances relating to Nextgen Networks above ground infrastructure please contact the Network Help Desk (see below for details)

FURTHER ASSISTANCE

Over-the-phone assistance can be obtained by calling the Network Help Desk below.
Nextgen require 5 clear business days notice to conduct an on-site location. The initial on site location visit will not normally incur a charge, but at the discretion of Nextgen subsequent site visits may incur a charge to be applied at an hourly rate.
Where an on-site location is provided, the owner is responsible for all vacuum excavation work (pot-holing) to visually locate and expose Nextgen Networks plant.
If plant location plans or visual location of Nextgen Networks plant by vacuum excavation reveals that the location of Nextgen Networks plan is situated wholly or partly where the owner plans to work, then **Nextgen Networks** must be contacted through the **Network Help Desk** to discuss possible engineering solutions.
The contact number for the **Network Help Desk** is 1800 032 532.

NOTE:
If Nextgen Networks relocation or protection works are part of the agreed solution, then payment to Nextgen Networks for the cost of this work shall be the responsibility of the principal developer. The principal developer will be required to provide Nextgen Networks with the details of their proposed work showing how Nextgen Networks plant is to be accommodated and these details must be approved by the Nextgen National Operations Manager prior to the commencement of site works.

RURAL LANDOWNER - IMPORTANT INFORMATION

Where Nextgen Networks owned cable crosses agricultural land Nextgen Networks will provide a one off free-on-site electronic cable location. Please note that the exact location of cables can only be verified by visual proving by pot holing, which is not covered by this service. The Network Integrity HelpDesk Officer will provide assistance in determining whether a free-on-site location is required. Please ring the Nextgen Network Help Desk as listed above.

PRIVACY NOTE

Your information has been provided to Nextgen Networks by DBYD to enable Nextgen Networks to respond to your DBYD request. Nextgen Networks keeps your information in accordance with its privacy statement entitled 'Protecting Your Privacy' which can be obtained from Nextgen Networks either by calling 1800 032 532 or visiting our website www.nextgengroup.com.au

Warning: Nextgen Networks plans show only the presence of cables and plant. They only show their position relative to road boundaries, property fences etc, at the time of installation and Nextgen Networks does not warrant or hold out that such plans are accurate thereafter due to changes that may occur over time.
DO NOT ASSUME DEPTH OR ALIGNMENT of cables or plant as these vary significantly.
The customer has A DUTY OF CARE when excavating near Nextgen Networks cables and plant.
Before using machine excavators NEXTGEN PLANT MUST FIRST BE PHYSICALLY EXPOSED BY VACUUM EXCAVATION (potholing) to identify its location.
Nextgen Networks will seek compensation for damages caused to its property and losses caused to Nextgen Networks and its customers.

EXPERIENCED PLANT LOCATORS (for your area)

On-site assistance should be sought from an Experienced Plant Locater if the telecommunications plant cannot be located within 2.5 metres of the locations indicated on the drawings provided. On-site advice should be obtained from a suitably qualified contractor highly skilled in locating Nextgen Networks plant. If there is any doubt whatsoever about the actual location of the telecommunications plant, the best method for locating the telecommunications plant or the correct interpretation of the drawings provided. In the case where Nextgen Networks plant is outside a recognised road reserve Nextgen Networks recommends that the **Network Help Desk** is contacted for assistance prior to engaging an Experienced Plant Locater.

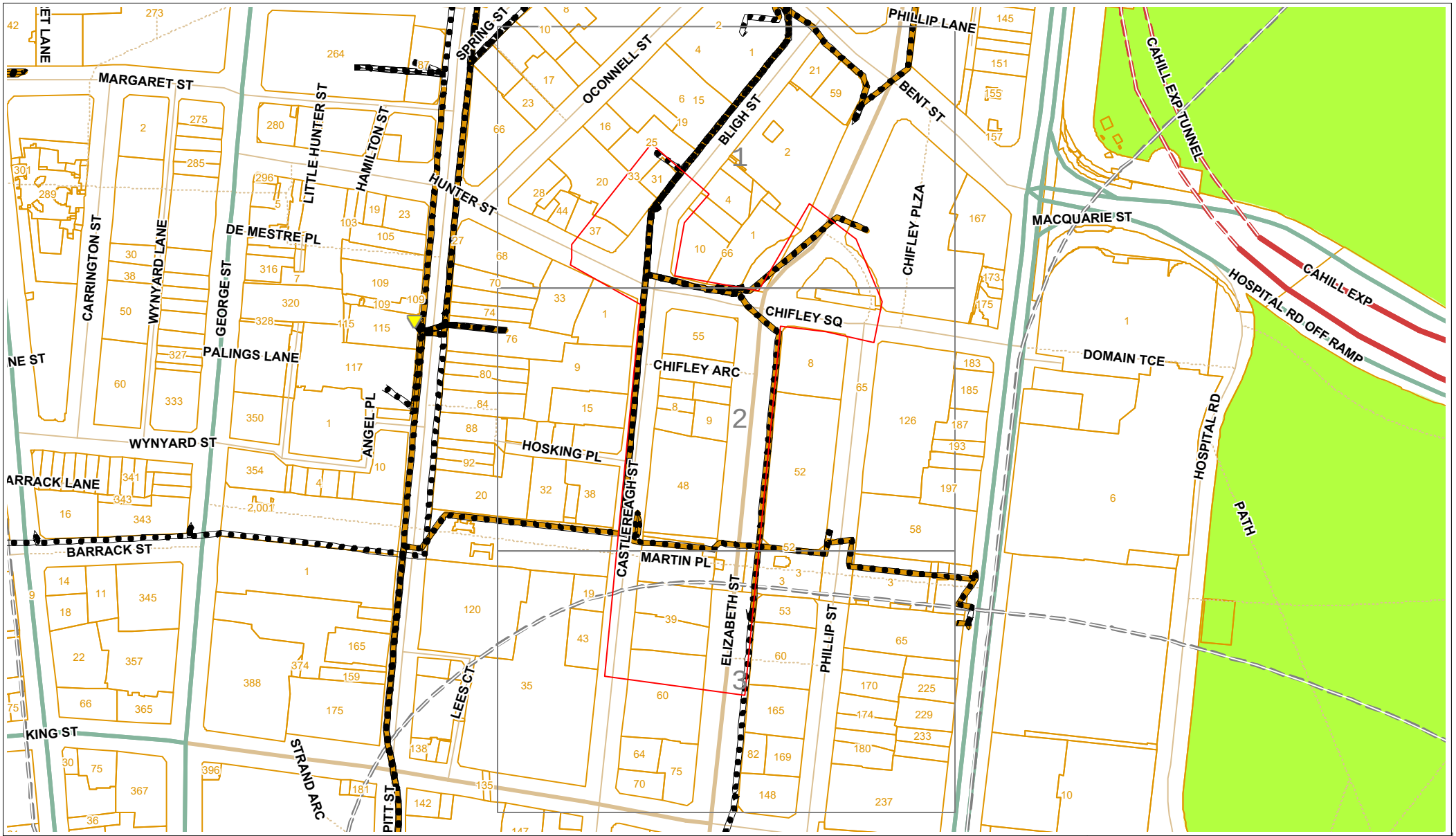
For the assistance of customers Nextgen Networks has established strict criteria to assess the skill of contractors that may be engaged by owners requiring Nextgen Networks plant locating services to perform any of the following activities if requested to do so by the owner:

- Review Nextgen Networks plans to assess the approximate location of Nextgen Networks plant
- Advise owners of the approximate location of Nextgen Networks plant according to the plans
- Advise the owners of the best method for locating Nextgen Networks plant
- Advise owners of the hazard of unqualified persons attempting to find the exact location of Nextgen Networks plant and working in the vicinity of Nextgen Networks plant without first locating its exact position
- Perform trial hole explorations by vacuum excavation (pot-holing) to expose Nextgen Networks plant with a high degree of skill, competence and efficiency and utilising all necessary safety equipment

Nextgen Networks does not accept any liability or responsibility for the performance of or advice given by any Plant Locater engaged by you but we will, if requested, recommend suitably qualified plant locators.

GENERAL DISCLAIMER

While reasonable measures have been taken to ensure the accuracy of the information contained in this plan response, neither Nexgen or PelicanCorp shall have any liability whatsoever in relation to any loss, damage, cost or expense arising from the use of this plan response or the information contained in it or the completeness or accuracy of such information. Use of such information is subject to and constitutes acceptance of these terms.



Sequence Number: 58207252

Date: 16/01/2017

DISCLAIMER: THIS DRAWING SHOULD NOT BE SCALED TO LOCATE CABLES. NO WARRANTY IS GIVEN THAT THE INFORMATION IS ACCURATE OR COMPLETE. IF YOU REQUIRE INFORMATION REGARDING LOCATING THE CABLE PLEASE CALL NEXTGEN. THIS DOCUMENT HAS BEEN PREPARED SOLELY FOR DIAL BEFORE YOU DIG USE. THIS PLAN CONTAINS COMMERCIALLY SENSITIVE INFORMATION AND IS TO BE TREATED ACCORDINGLY. NO SUCH INFORMATION IS TO BE PASSED ONTO OTHER PARTIES WITHOUT WRITTEN CONSENT FROM NEXTGEN PTY LTD.

nextgen GROUP

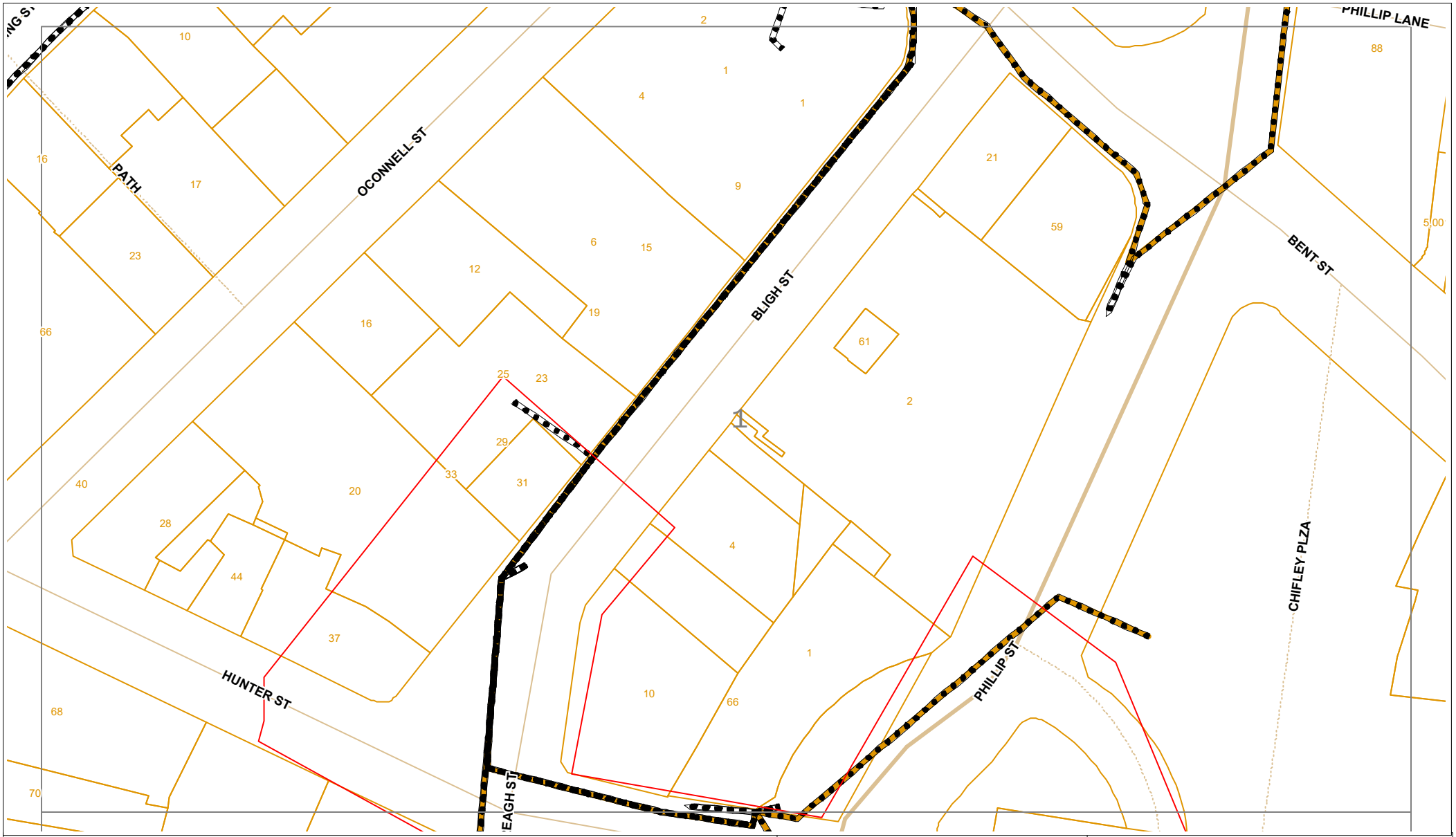
LEGEND

Digsite

- Point
- Line
- Area

Assets

- Cable
- 3rd Party Duct
- Marker Post



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nextgen GROUP

LEGEND

Digsite	Assets
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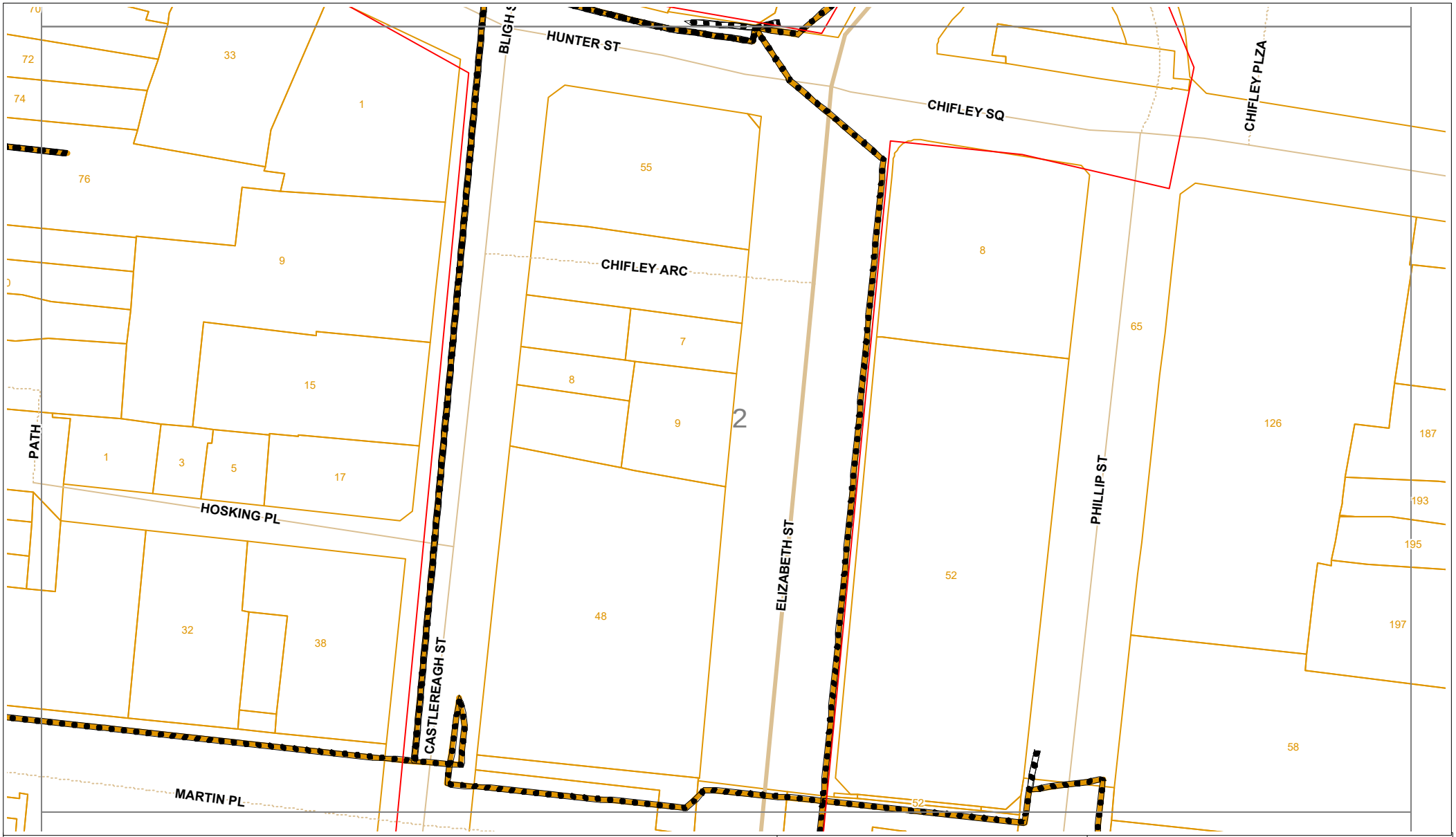
Line	3rd Party Duct
Area	Marker Post



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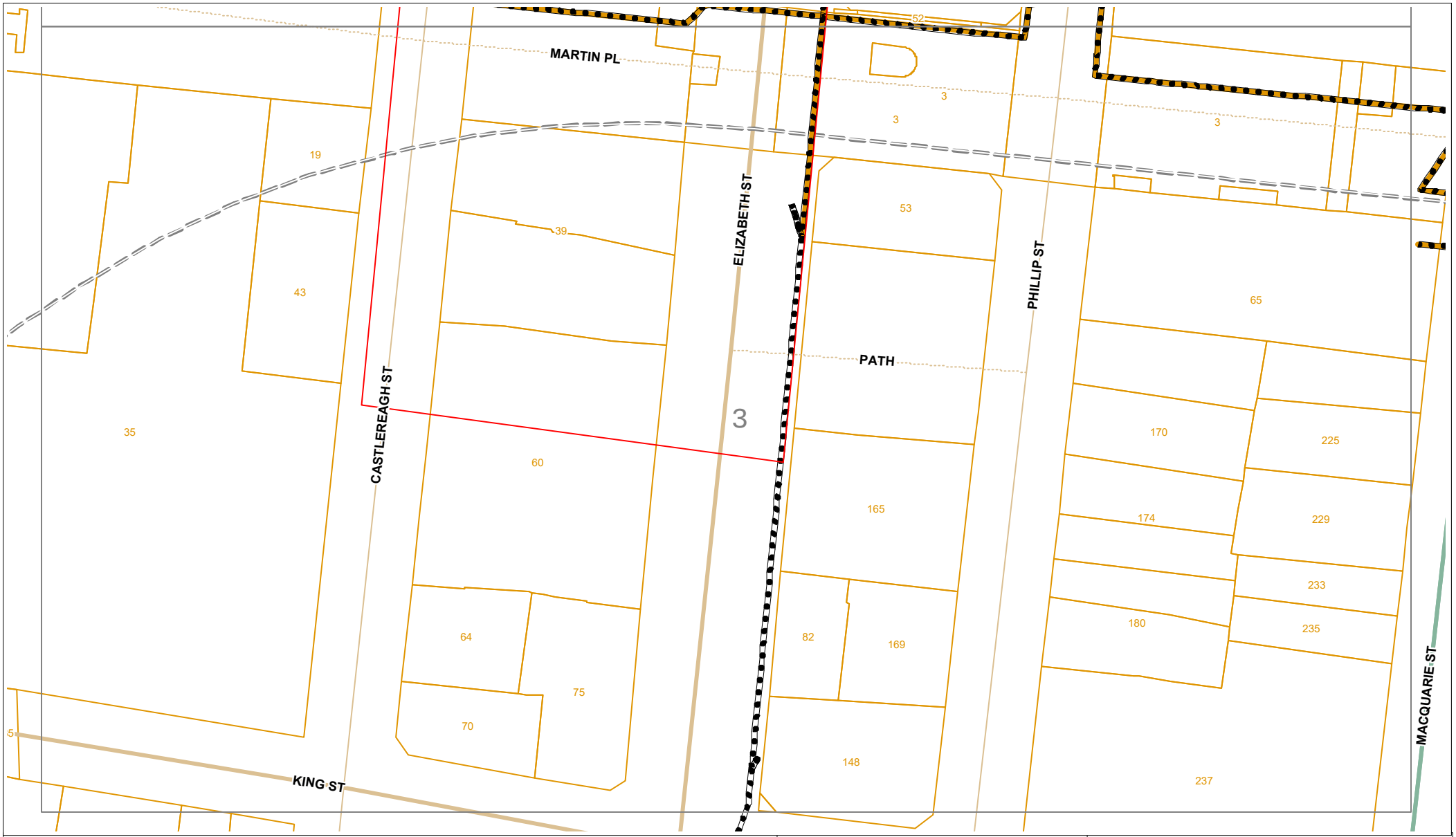

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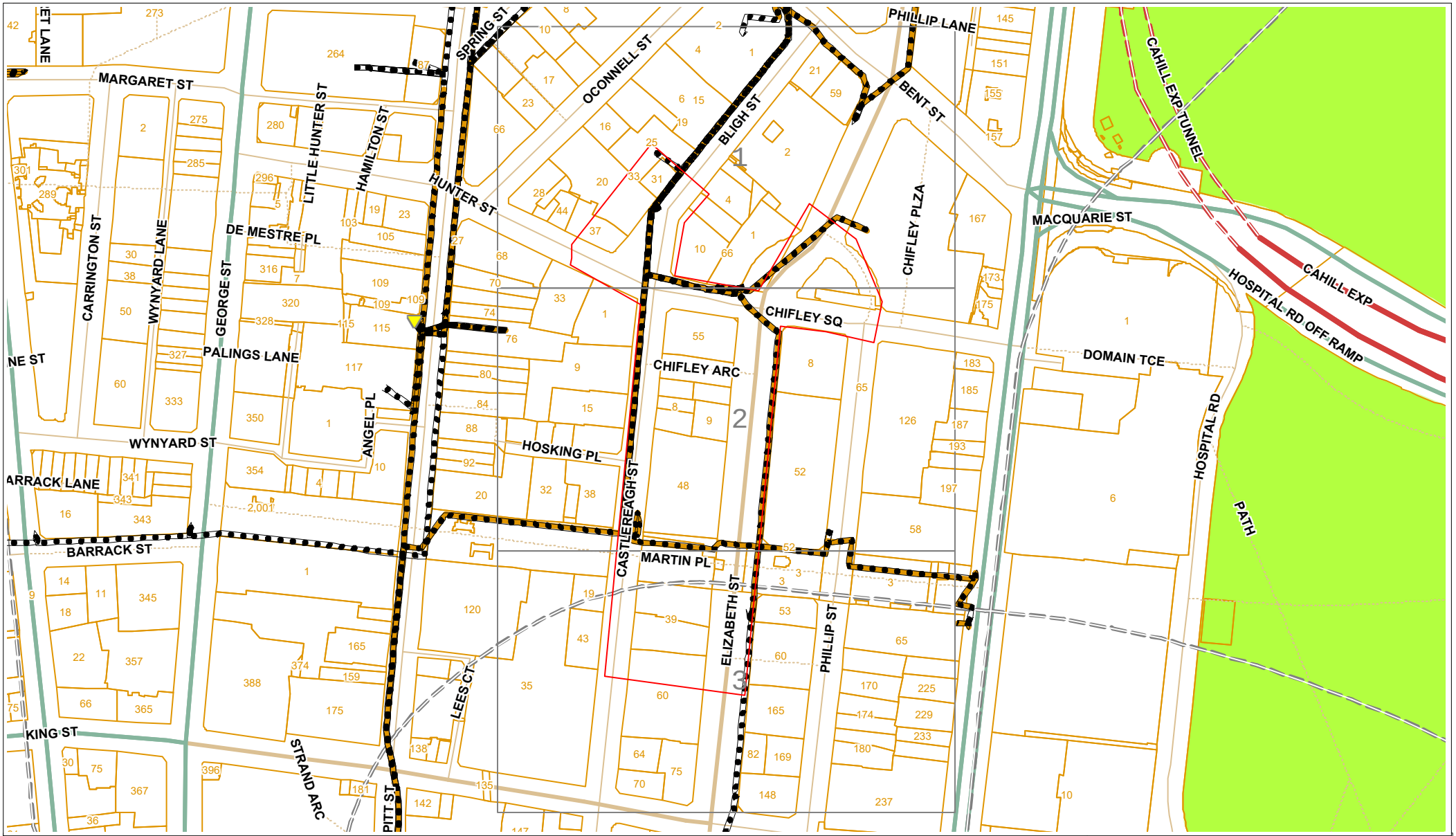

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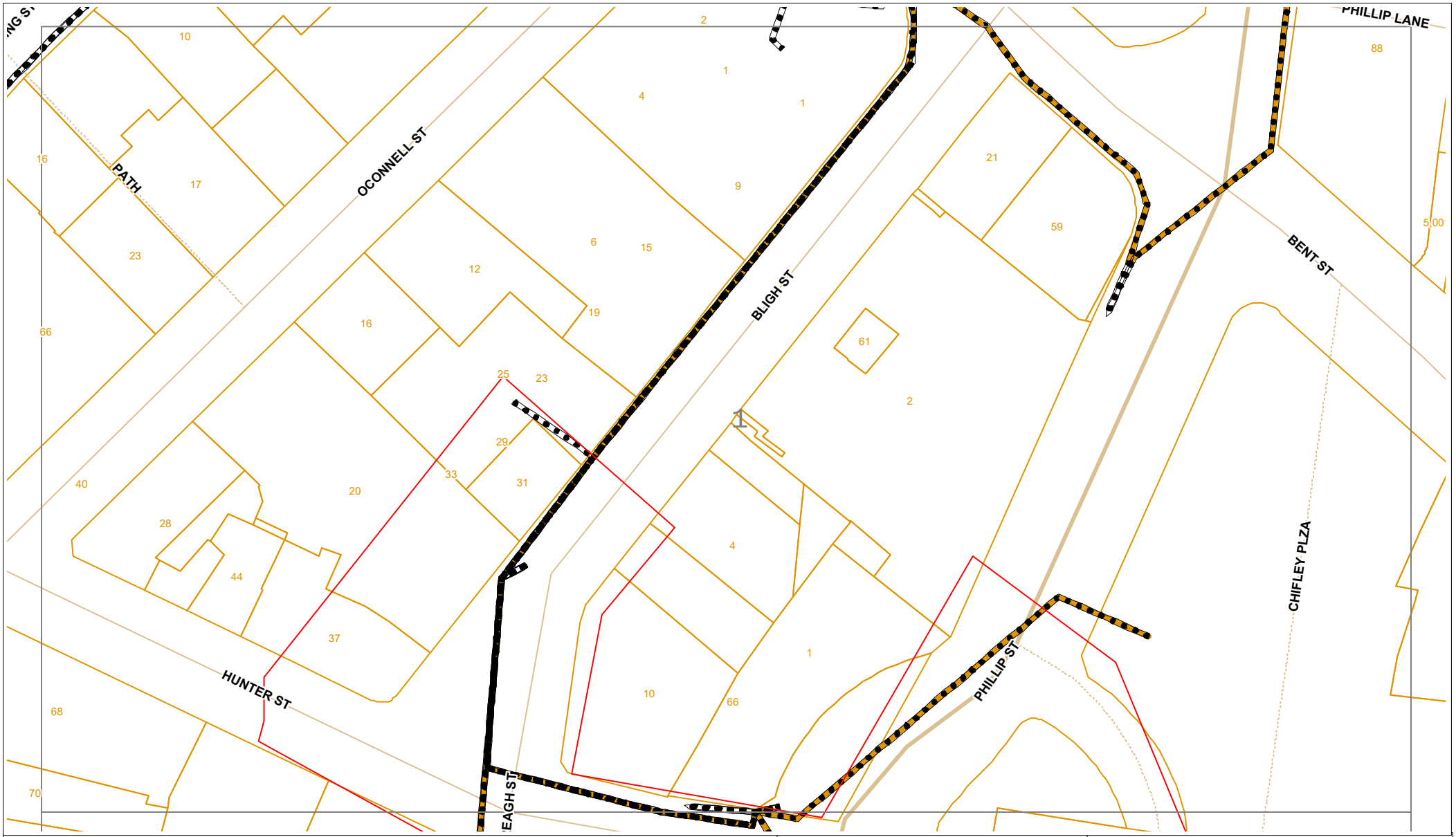

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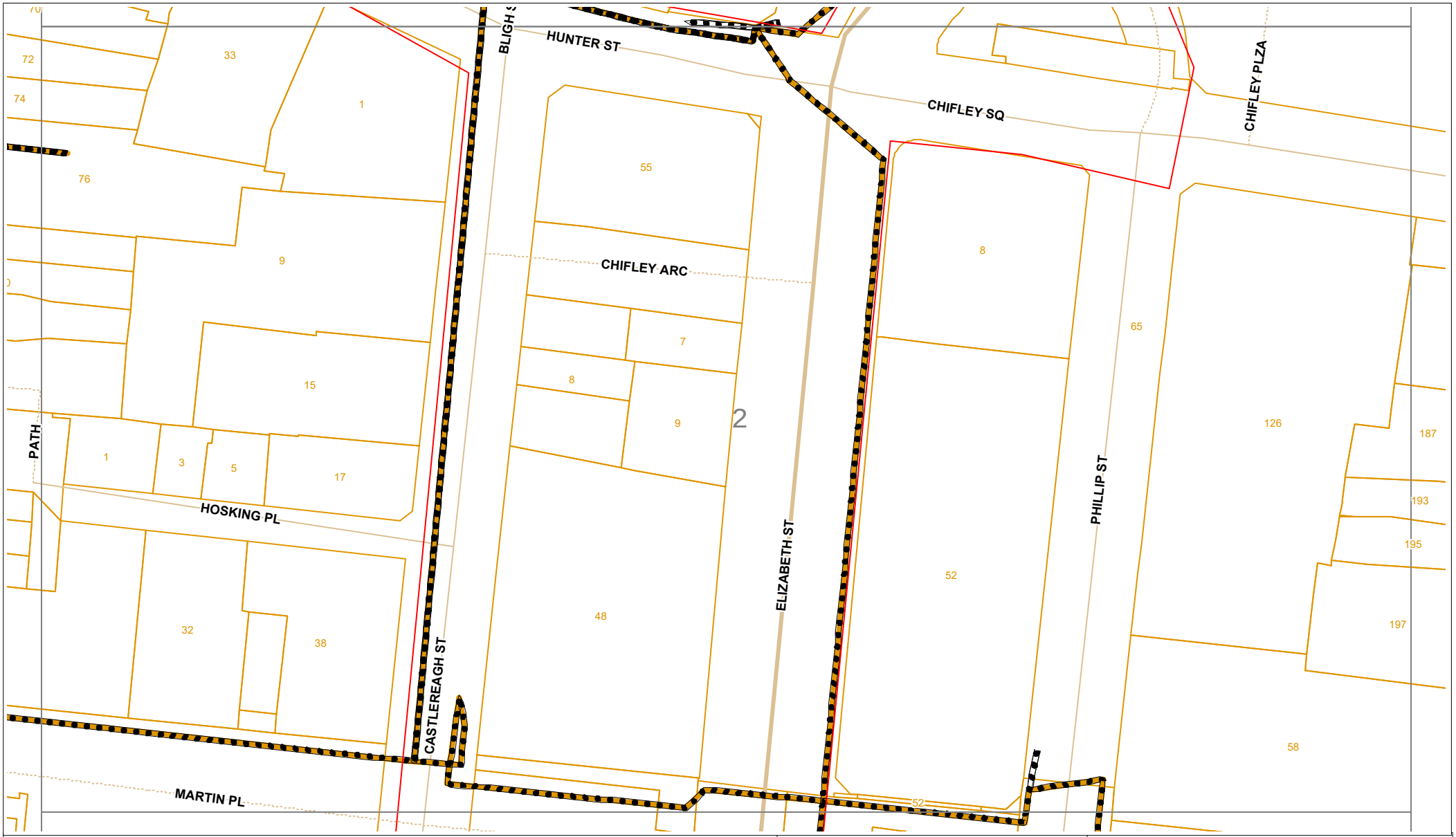

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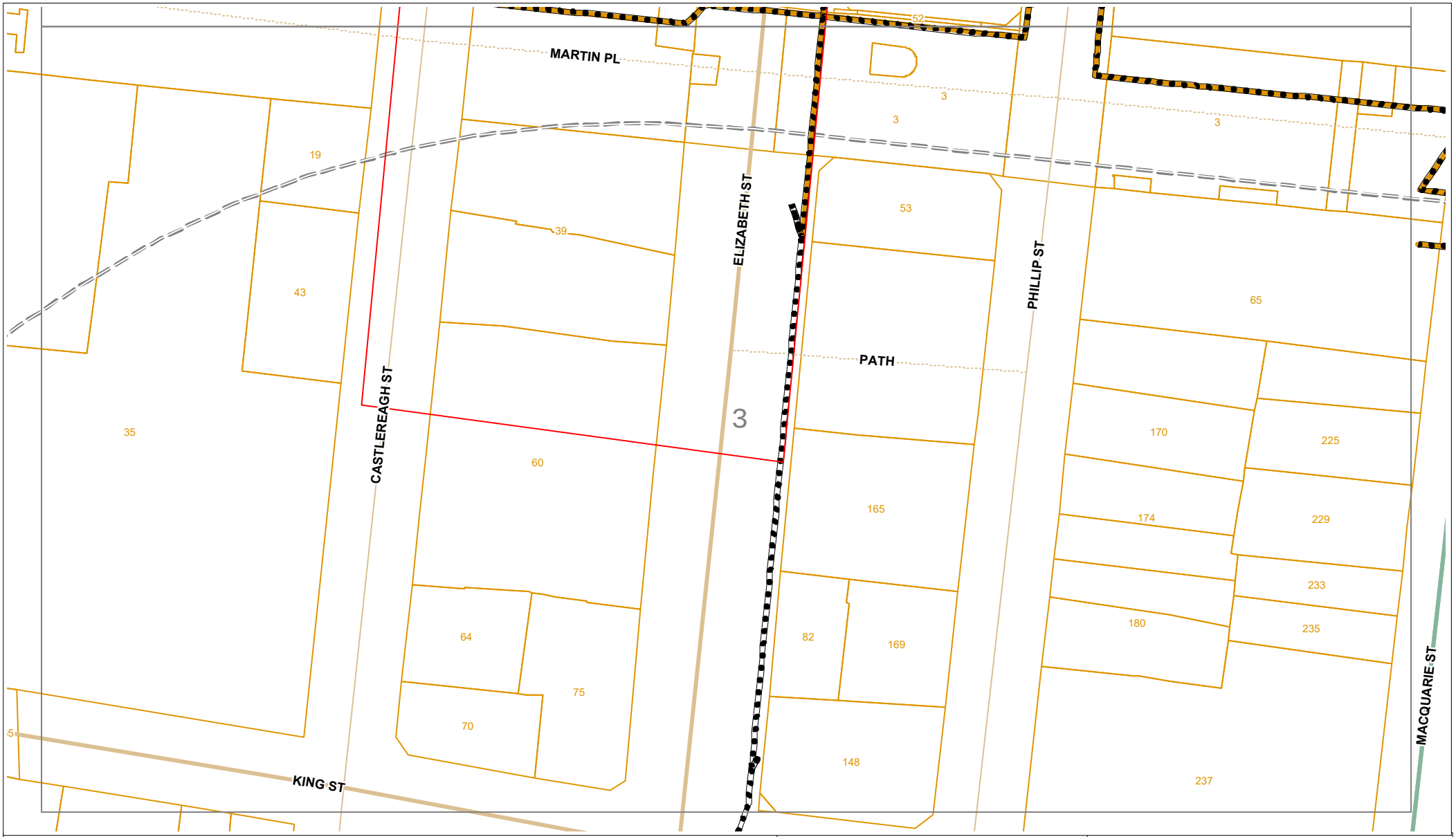

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nextgen GROUP

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- Area

Assets

- Cable
- 3rd Party Duct
- Marker Post

Optus

Network Operations– Asset Analysis
Unit 9, 677 Springvale Road
Mulgrave, Victoria, 3178

Date:	17/01/2017
To:	Mr Nicholas Rouggos
Company:	
Address:	201 Kent Street Sydney, NSW 2000

ENQUIRY DETAILS

Location:	Hunter Street, Sydney, NSW 2000
Sequence No.:	58207257
DBYD Reference:	11738734

In relation to your enquiry of the above address, Optus advises as follows:
The records of Optus disclose that there ARE underground FIBRE OPTIC TELECOMMUNICATIONS cables in the vicinity of the above enquiry as per the attached plan(s). This reply is valid for a period of 30 days from the date above.

IMPORTANT INFORMATION

Drawings and Plans provided by Optus are reference diagrams which were correct at the time the asset was built. Exact ground cover and alignments cannot be provided with any certainty as these may alter over time. Depths of Telecommunications plant vary considerably as do alignments. It is essential to uncover the asset and positively identify the assets exact location.
Optus plans are provided as a guide only and the completeness of the information cannot be guaranteed.

"DUTY OF CARE"

When working in the vicinity of Telecommunications plant you have a legal "Duty of Care" that must be observed.

It is the responsibility of the owner and any consultant engaged by the owner, including an architect, consulting engineer, developer and head contractor to design for minimal impact to Optus plant. Optus will provide assistance at this design stage through the provision of plans and sketches or consultation.

It is the owner's (or constructor's) responsibility to:-

a) Request plans of Optus plant for a particular location at a reasonable time before construction begins. If you have doubts about the presence of Optus assets we strongly recommend that you engage an Optus Accredited plant locator.

b) Visually locate Optus plant by hand digging or using non-destructive water jet method where construction activities may damage or interfere with Optus plant

c) Contact Optus Network Operations – Asset Analyst (details below) if Optus plant is wholly or partly located near construction activities

CRIMINAL CODE ACT 1995

The following is an extract from the Criminal Code Act 1995 and is applicable to Optus plant

Chapter 10 National infrastructure

Part 10.6 Telecommunications Services

Division 474 Telecommunications offences

Sect 474.6 Interference with facilities

1) A person is guilty of an offence if the person tampers with, or interferes with, a facility owned or operated by:
   (a) a carrier; or
   (b) a carriage service provider; or
   (c) a nominated carrier.

Penalty: Imprisonment for 1 year.

2) For the purposes of an offence against subsection (1), absolute liability applies to the physical element of circumstance of the offence, that the facility is owned or operated by a carrier, a carriage service provider or a nominated carrier.

3) A person is guilty of an offence if:
   (a) the person tampers with, or interferes with, a facility owned or operated by:
      i. a carrier; or
      ii. a carriage service provider; or
      iii. a nominated carrier; and
   (b) this conduct results in hindering the normal operation of a carriage service supplied by a carriage service provider.

Penalty: Imprisonment for 2 years.

4) For the purposes of an offence against subsection (3), absolute liability applies to the following physical elements of circumstance of the offence:
   (a) that the facility is owned or operated by a carrier, a carriage service provider or a nominated carrier;
   (b) that the carriage service is supplied by a carriage service provider.

5) A person is guilty of an offence if:
   (a) the person uses or operates any apparatus or device (whether or not it is comprised in, connected to or used in connection with a telecommunications network); and
   (b) this conduct results in hindering the normal operation of a carriage service supplied by a carriage service provider.

Penalty: Imprisonment for 2 years.

DAMAGE

ANY DAMAGE TO OPTUS NETWORK MUST BE REPORTED TO 1800 500 253 IMMEDIATELY

The owner is responsible for all plant damage when works commence prior to obtaining Optus Drawings, or failure to follow instructions.

Optus reserves the right to recover compensation for loss or damage to its cable network and other property including consequential loss

ASSET RELOCATIONS

You are not permitted to relocate or alter any Optus assets or network under any circumstance.

For all enquiries relating to the relocation of Optus assets please email Fibre.Locations@optus.net.au

ESSENTIAL PRECAUTIONS AND APPROACH DISTANCES

Note: If the following clearances cannot be maintained, please contact Optus Network Operations Asset Analysis Team for advice on how to resolve the situation.

1. On receipt of plans and before commencing excavation work or similar activities near Optus plant, carefully locate the plant first to avoid damage. Engage an Optus accredited locator to undertake exposure of the Optus plant when working within the following approach distances.

Where Optus plant is in an area where road and footpaths are well defined by kerbs or other features a minimum clear distance of 1.0m must be maintained from where it could be reasonably presumed that plant would reside.

In non established or unformed reserves this distance must be at least 3 metres.

In country or rural areas which may have wider variations in reasonably presumed plant presence, the following minimum approach distance applies:

a) Parallel to plant: 5 metres

Note: **Indicated depths may vary significantly and pot-holing needs to be undertaken within extreme care**, **commonsense and using techniques least likely to damage cables. Potholing is only to be undertaken by an Optus accredited plant location contractor.**

If construction work is parallel to Optus plant, then carful hand digging or using non destructive water jet method (pot holing) at least every 5m is required to establish the location of the plant, confirming the location of the plant prior to work commencing.

Under no circumstances is crossing of Optus plant to be performed without first exposing the Optus plant and having an Optus representative present onsite.

2. Maintain the following minimum clearance between construction activity and the actual location of Optus plant.

Jackhammers / Pneumatic Breakers	Not within 1.0m of actual location
Vibrating Plate or Wacker Packer Compactor	Not within 0.5m of actual location 300mm compact clearance before compactor can be used across Optus ducts 750mm compact clearance cover before compactor can be used across Optus *Direct Buried* cable
Boring Equipment **(in-line, horizontal and vertical)**	Not within 5.0m of actual location without Optus representative onsite Constructor to hand dig or non-destructive water jet method (pot holing) and expose the Optus plant Not to cross the Optus plant without first exposing the plant at the crossing point and without Optus representative onsite
Heavy vehicle Traffic (over 3 tonnes)	Not to be driven across Optus ducts or plant with less than 600mm of cover Depth to be verified via hand digging
Mechanical Excavators, Farm ploughing, Boring, Tree removal, fencing	Not within 1.0m of actual location Constructor to hand dig or use non-destructive water jet method (pot holing) and expose plant

All Optus pits and manholes should be a minimum of 1.0m in from the back of kerb or within 15m of street intersection after the completion of your work.

All Optus conduit should have the following minimum depth of cover **after the completion of your work**:-

- **Footway** **600mm**
- **Roadway** **1000mm at drain invert and at road centre crown**

In cases where it is considered that these clearances cannot be maintained at the completion of works advice is to be sought form the Optus Damages and Relocations Team

FURTHER ASSISTANCE

Assistance can be obtained by contacting Optus Network Operations Asset Analysis on **1800 505 777**

Where an on-site location is provided, the owner is responsible for all costs associated with hand digging or use of non-destructive water jet method (pot holing) to visually locate and expose Optus plant.

If plant location drawings or visual location of Optus plant by digging reveals that the location of Optus plant is situated wholly or partly where the owner plans to work, then Optus Damages and Relocates Team must be contacted through Optus Network Operations Asset Locations to discuss possible engineering solutions.

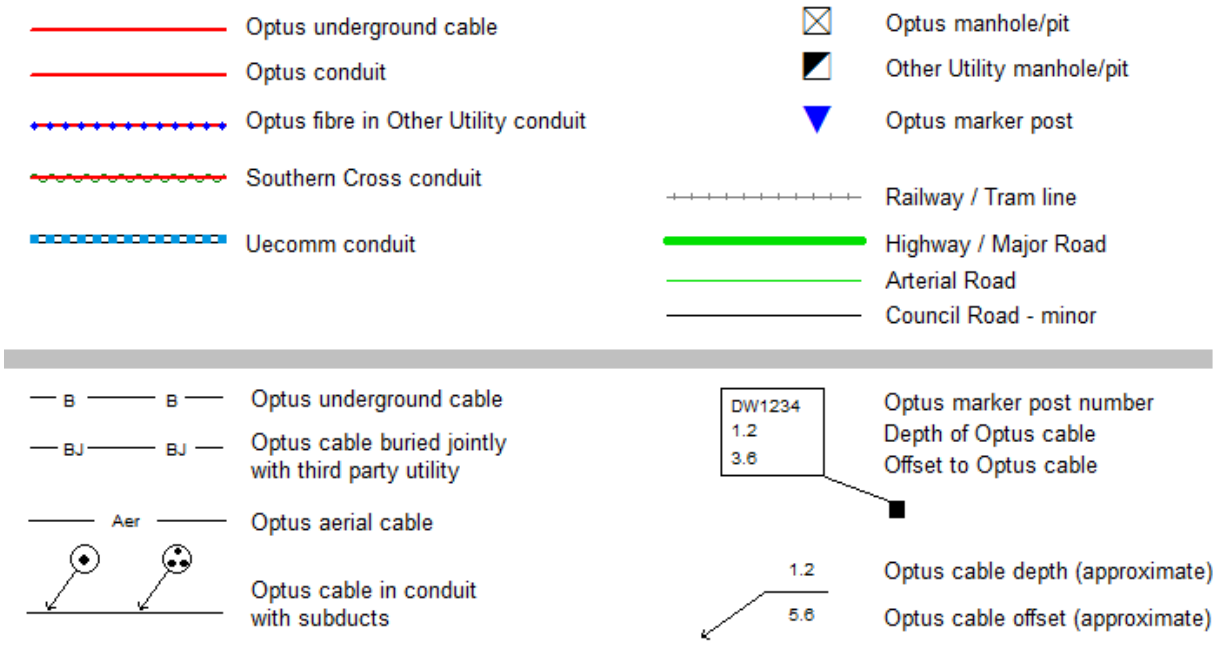
PRIVATE RESIDENTIAL LANDOWNERS and RURAL LANDOWNERS

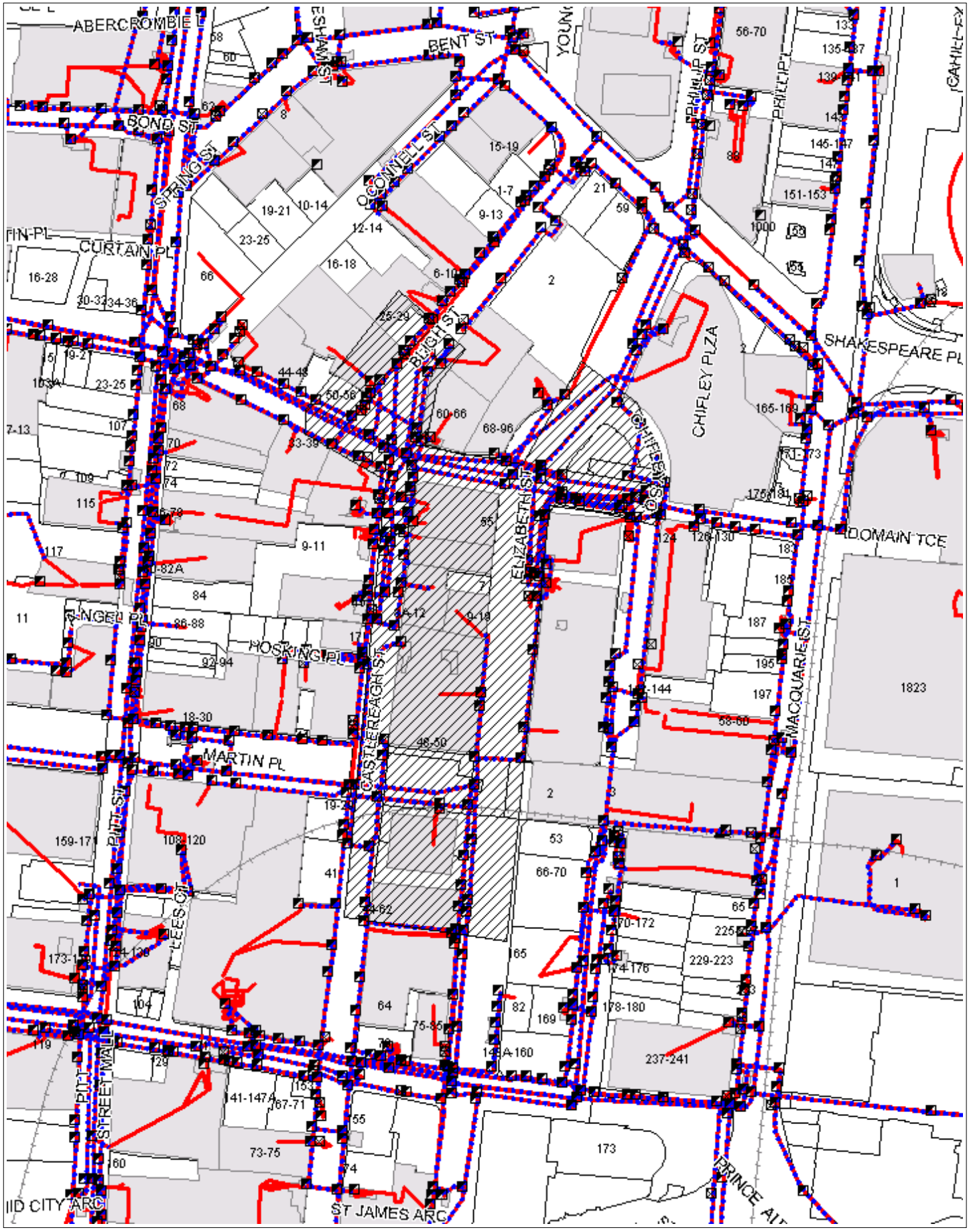
Where Optus owned cable crosses private residential property or agricultural land, Optus may provide a once off free onsite electronic cable location. Optus Network Operations Asset Analyst will provide assistance in determining whether a free on-site location is required.

Please note:

- The exact location, including depth of cables can only be verified by pot holing which is not covered under this service
- This service is only available to assist private residential land owners and rural land owners
- The service covers one hour onsite only. Additional time will be charged at the current nominal rate.

OPTUS ENGINEERING DRAWING SYMBOLS





WARNING: This document is confidential and may also be privileged. Confidentiality nor privilege is not waived or destroyed by virtue of it being transmitted to an incorrect addressee. Unauthorised use of the contents is therefore strictly prohibited. Any information contained in this document that has been extracted from our records is believed to be accurate, but no responsibility is assumed for any error or omission.
Optus Plans and information supplied are valid for 30 days from the date of issue. If this timeline has elapsed please raise a new enquiry.

Sequence Number: 58207257 Date Generated: 17/01/2017

For all Optus DBYD plan enquiries –
Email: Fibre.Locations@optus.net.au
For urgent onsite assistance contact 1800 505 777
Optus Limited ACN 052 833 208

DIAL BEFORE YOU DIG
www.1100.com.au

PipeNetworks

Level 17, PIPE Networks House, 127 Creek Street, Brisbane 4000
PH:(07) 3233 9895 FAX:(07) 3233 9885

DBYD ENQUIRY RETURN:

PIPE Networks **DOES** own or operate telecommunications network infrastructure within the request area detailed above.

The affected network infrastructure is contained within the **Telstra** duct network and can be found listed on the appropriate **Telstra** duct Network plans.

THIS NETWORK IS VITAL TO OUR OPERATIONS AND AS SUCH, IT IS CRITICAL THAT **NO WORKS** COMMENCE WITHIN THE AREA UNTIL YOU HAVE RECEIVED AND APPRAISED THE TELSTRA DUCT PLANS FOR THIS AREA.

Due to continued network expansion, this network information can only be considered valid and accurate for 28 days from issue.

PIPE Networks will seek compensation for any damage to its network through negligence or ignorance of your duty of care.

PIPE NETWORKS
Ph (07) 3233 9895
Email: dbyd@pipenetworks.com
(for information specifically on this job only)

Response Cover Letter

Date: 16/01/2017

PIPE Networks
Level 17, 127 Creek St
Brisbane QLD 4000
Phone: +61 732339895
Fax: +61 732339880

To:
Mr Nicholas Rouggos - Customer ID: 1643225
ARUP - Mr Nicholas Rouggos
201 Kent Street
Sydney
NSW
2000

Email: nicholas.rouggos@arup.com
Phone: 0293209298
Fax: Not Supplied
Mobile: Not Supplied

Dear Mr Nicholas Rouggos

The following is our response to your Dial Before You Dig enquiry.

Assets Affected: PIPE Networks, Telstra

Sequence Number: 58207254

Location: Hunter Street
Sydney
NSW
2000

Commencement Date: 01/03/2018

Please read over the attached documents for more information about your enquiry.

DISCLAIMER: *No responsibility/liability is taken by PIPE Networks for any inaccuracy, error, omission or action based on the information supplied in this correspondence.*

Note: *If the works fall in an area that adjacent to PIPE Networks infrastructure, a pre-inspection is required prior to commencement of works. Contact PIPE Networks to arrange an inspection time.* ***NO WORKS TO COMMENCE PRIOR TO INSPECTION.***

Level 17, PIPE Networks House, 127 Creek Street, Brisbane 4000
PH:(07) 3233 9895 FAX:(07) 3233 9880

Attention: Mr Nicholas Rouggos
Fax: Not Supplied
DBYD Enquiry Number: 58207254

Date: 16/01/2017

Location: Hunter Street
Sydney
NSW
2000

DBYD ENQUIRY RETURN:

PIPE Networks **DOES** own or operate telecommunications network infrastructure within the area detailed above.

The affected network **is contained in the PIPE Networks duct network** and can be found on **PIPE Networks** own network plans.

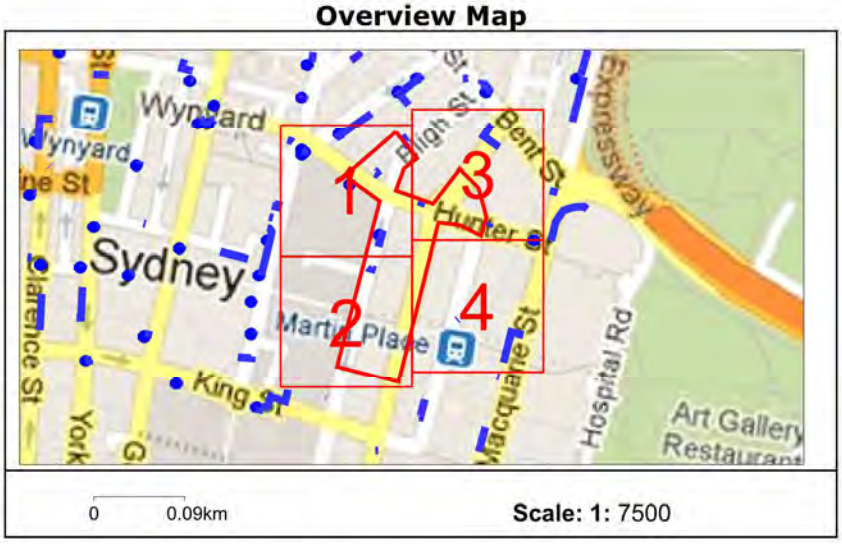
This network is vital to our operations and as such, it is critical that no works commence within the area until a PIPE Networks representative has contacted you.

A PIPE Networks representative will contact you within 24 hours to further discuss your intended works. If you do not hear from PIPE networks within 24hours please call us for assistance.

Due to continued network expansion, this network information can only be considered valid and accurate for 28 days from issue.

PIPE Networks will seek compensation for any damage to its network through negligence or ignorance of your duty of care.

Overview Map



PIPE Networks (for information specific to this job only)
Ph (07) 3233 9895
Email: dbyd@pipenetworks.com

DISCLAIMER: *No responsibility/liability is taken by PIPE Networks for any inaccuracy, error, omission or action based on the information supplied in this correspondence.*

Note: *If the works fall in an area that adjacent to PIPE Networks infrastructure, a pre-inspection is required prior to commencement of works. Contact PIPE Networks to arrange an inspection time.* ***NO WORKS TO COMMENCE PRIOR TO INSPECTION.***

Only PIPE Networks' duct displayed.

For location of PIPE Networks cable in third-party duct, please contact third-party named on attached cover letter.

Enquiry Number: 58207254

Map Sheet: 1

Scale: 1:750

0 0.008km

LEGEND

DBYD Request Area **Asset**

Line

Area

Manhole

Duct

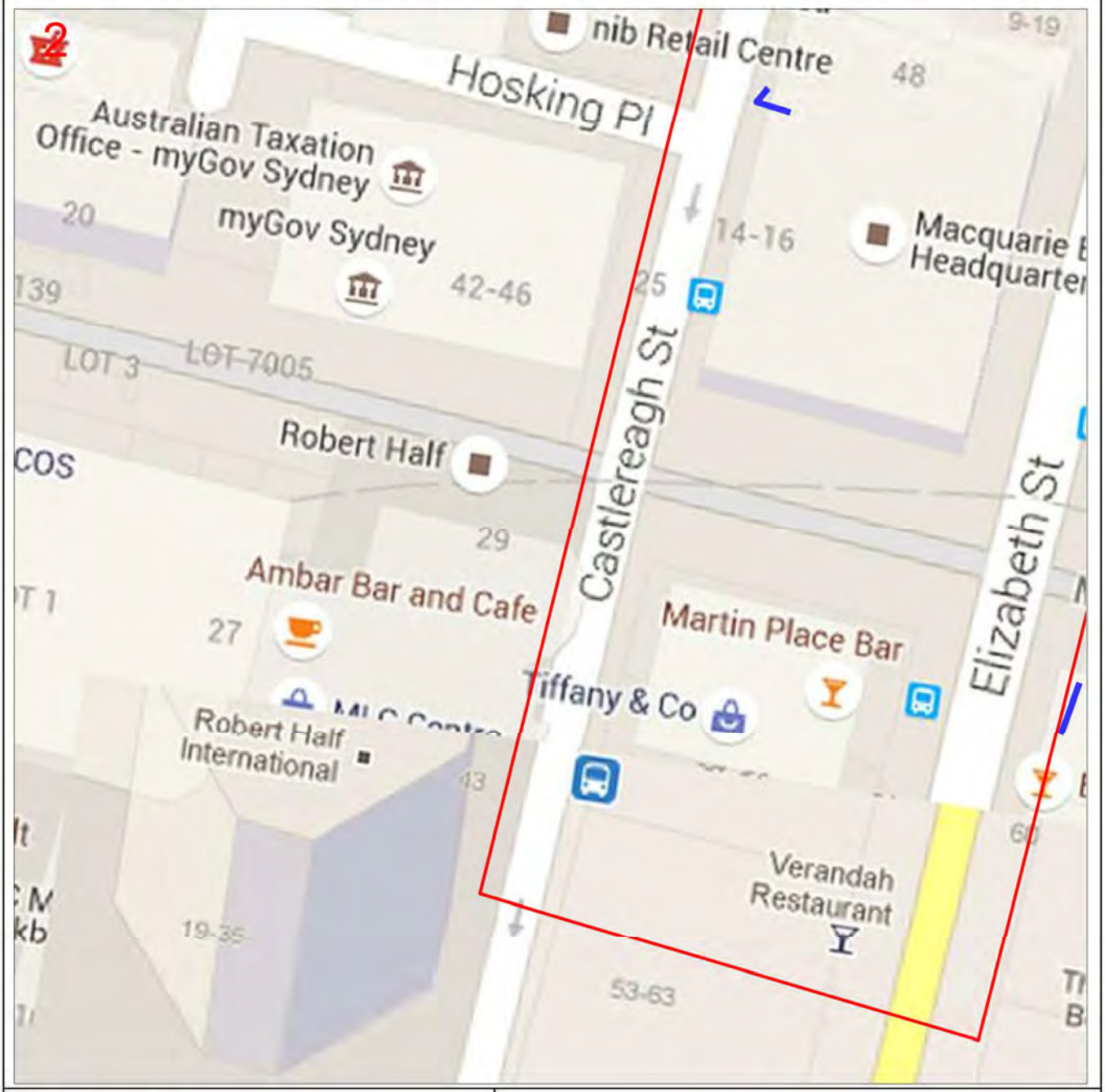
N

DISCLAIMER: *No responsibility/liability is taken by PIPE Networks for any inaccuracy, error, omission or action based on the information supplied in this correspondence. © 2013 PIPE Networks Ltd.*

Note: *If the works fall in an area that is adjacent to PIPE Networks infrastructure, a pre-inspection is required prior to commencement of works. Contact PIPE Networks to arrange an inspection time.* ***NO WORKS TO COMMENCE PRIOR TO INSPECTION.***

Only PIPE Networks' duct displayed.

For location of PIPE Networks cable in third-party duct, please contact third-party named on attached cover letter.



Enquiry Number: 58207254

Map Sheet: 2

Scale: 1:750

0 0.008km

LEGEND

DBYD Request Area **Asset**

Line

Area

Manhole

Duct

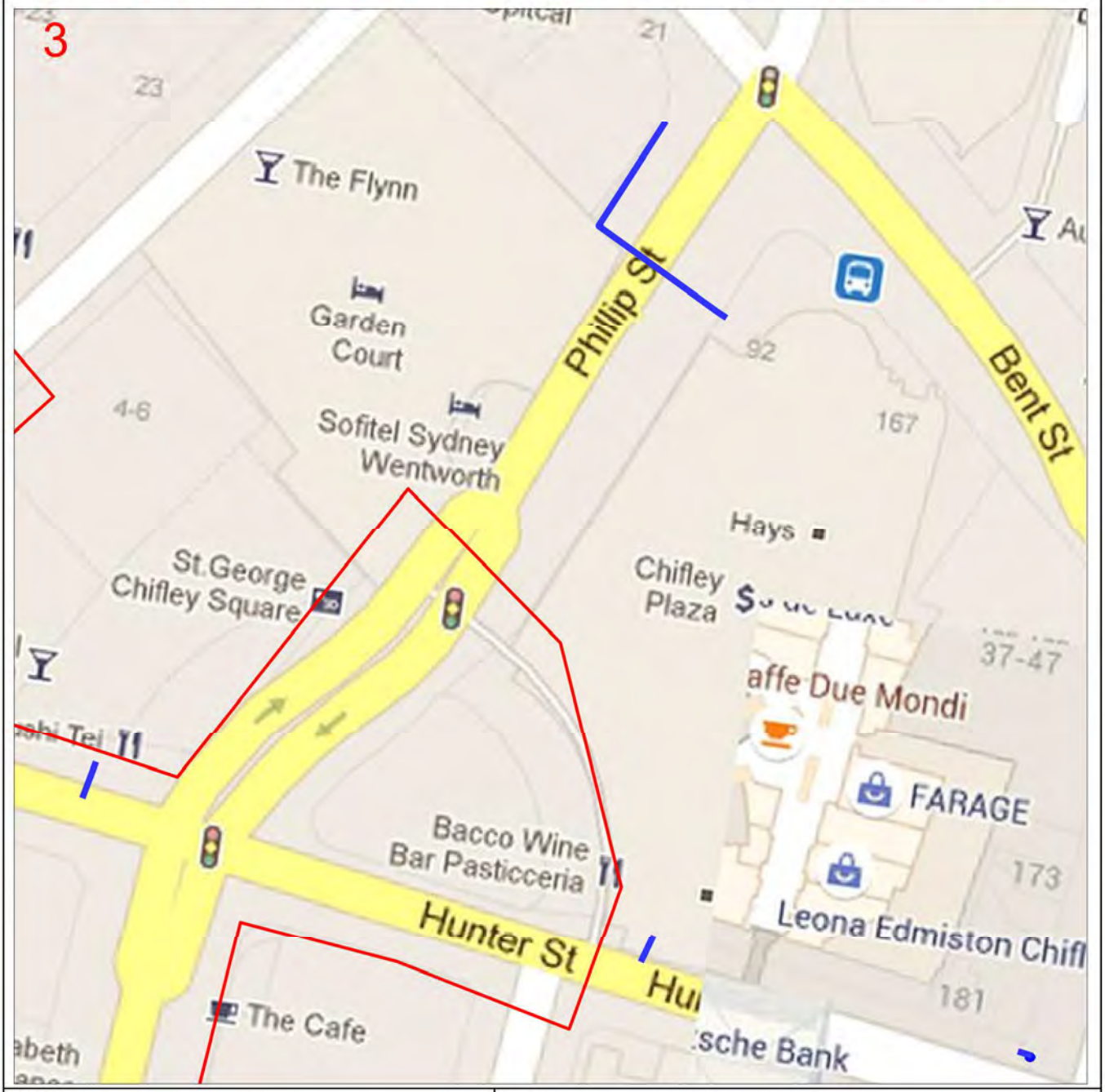
N

DISCLAIMER: *No responsibility/liability is taken by PIPE Networks for any inaccuracy, error, omission or action based on the information supplied in this correspondence. © 2013 PIPE Networks Ltd.*

Note: *If the works fall in an area that is adjacent to PIPE Networks infrastructure, a pre-inspection is required prior to commencement of works. Contact PIPE Networks to arrange an inspection time.* ***NO WORKS TO COMMENCE PRIOR TO INSPECTION.***

Only PIPE Networks' duct displayed.

For location of PIPE Networks cable in third-party duct, please contact third-party named on attached cover letter.



Enquiry Number: 58207254

Map Sheet: 3

Scale: 1:750

0 0.008km

LEGEND

DBYD Request Area **Asset**

Line

Area

Manhole

Duct

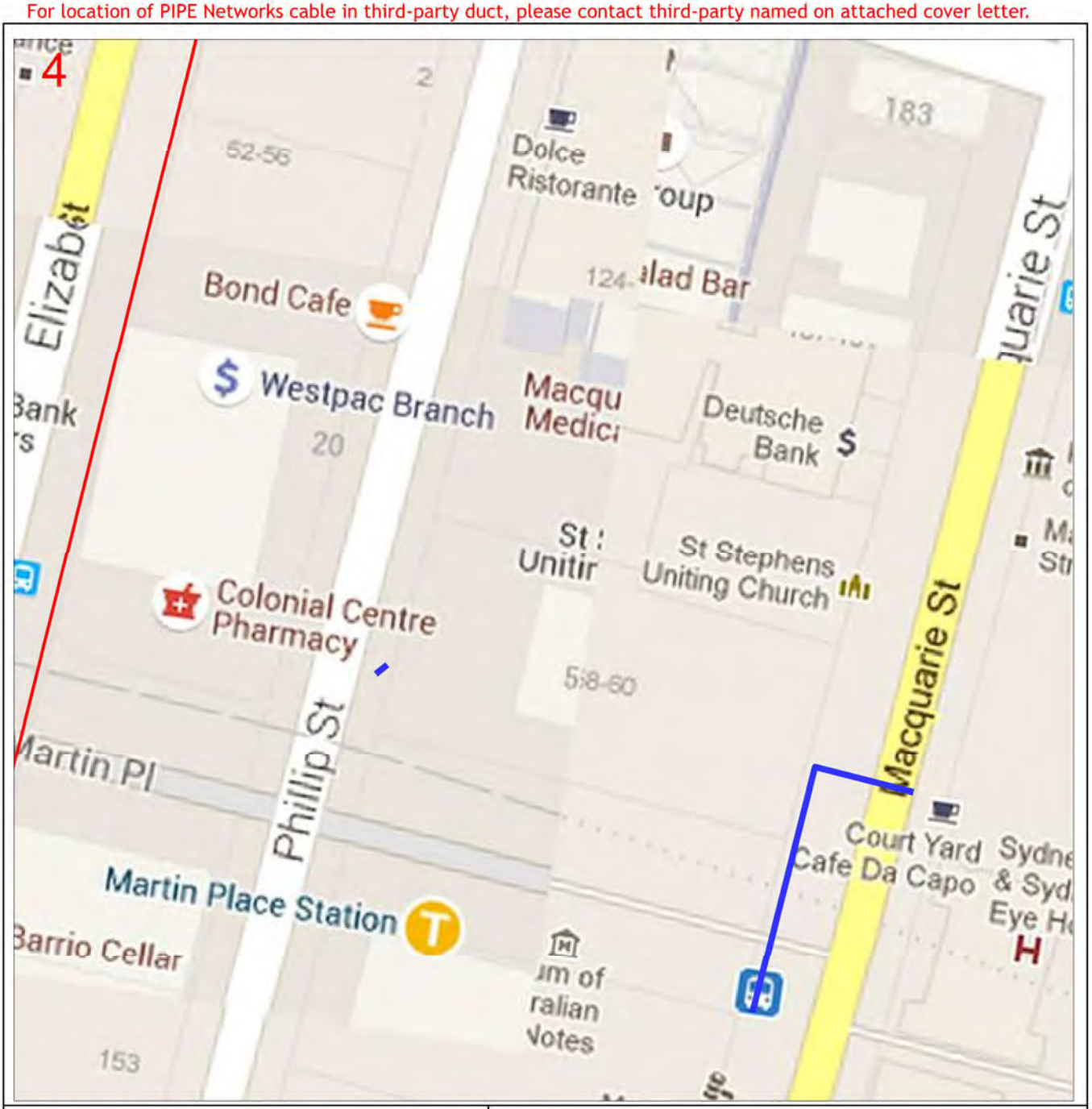
N

DISCLAIMER: *No responsibility/liability is taken by PIPE Networks for any inaccuracy, error, omission or action based on the information supplied in this correspondence. © 2013 PIPE Networks Ltd.*

Note: *If the works fall in an area that is adjacent to PIPE Networks infrastructure, a pre-inspection is required prior to commencement of works. Contact PIPE Networks to arrange an inspection time.* ***NO WORKS TO COMMENCE PRIOR TO INSPECTION.***

Only PIPE Networks' duct displayed.

For location of PIPE Networks cable in third-party duct, please contact third-party named on attached cover letter.



Enquiry Number: 58207254

Map Sheet: 4

Scale: 1:750

0 0.008km

LEGEND

DBYD Request Area **Asset**

Line

Area

Manhole

Duct

DISCLAIMER: *No responsibility/liability is taken by PIPE Networks for any inaccuracy, error, omission or action based on the information supplied in this correspondence. © 2013 PIPE Networks Ltd.*

Note: *If the works fall in an area that is adjacent to PIPE Networks infrastructure, a pre-inspection is required prior to commencement of works. Contact PIPE Networks to arrange an inspection time.* ***NO WORKS TO COMMENCE PRIOR TO INSPECTION.***

Primus

Response Cover Letter

16/01/2017

Primus Telecom
Level 3
538 Collins St
Melbourne, VIC 3000
Ph: (02) 9458 5808

To:
Mr Nicholas Rouggos
ARUP
201 Kent Street
Sydney, NSW 2000

Phone: 0293209298
Fax: Not Supplied

Dear Mr Nicholas Rouggos,

The following is our response to your Dial Before You Dig enquiry.

Assets Affected: Assets

Sequence Number: 58207261
Location: Hunter Street Sydney, NSW 2000

Commencement Date: 01/03/2018 12:00:00 AM

Please have a read over the attached documents for more information about your enquiry.

Disclaimer:
This document has been prepared solely for the use of Primus Telecom Pty Ltd for use in maintaining primus facilities it has not been created for any other use. It should be scaled to locate primus assets. No warranty is given that the information is accurate or complete.

16/01/2017 06:03:19 AM

Dear Sir/Madam,

Sequence Number: 58207261

Primus Telecom have existing underground assets located within the area you have identified.

The Primus asset is contained in the Telstra duct / conduit network and to an adjacent Primus Pit.
It is your responsibility that this duct is physically located by Telstra.

The Primus conduit has a minimum 450mm cover to the Finished Ground Level.

Attached is a drawing identifying the location of the Primus Pit and conduit.

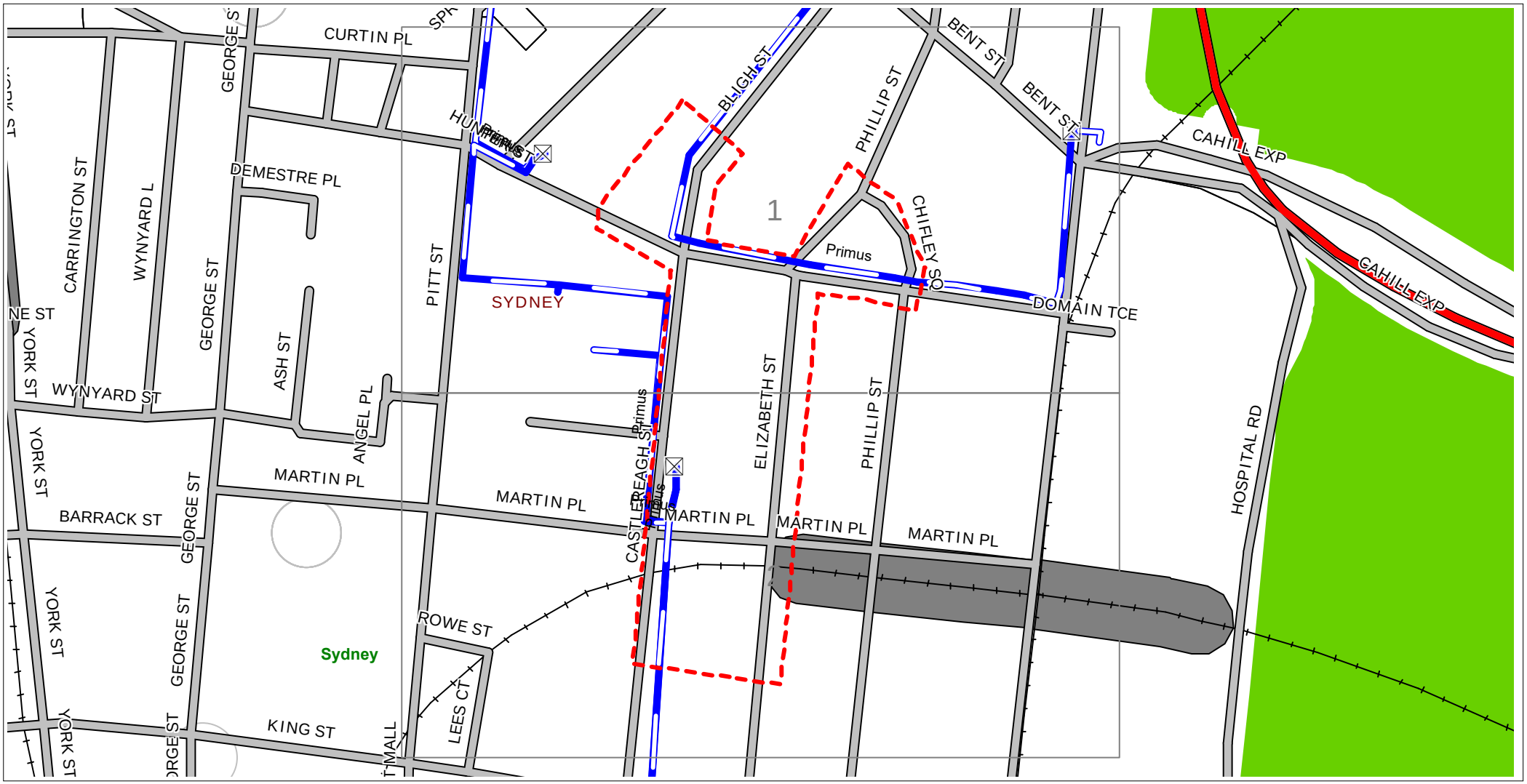
Please ensure excavating within two (2) metres of Primus assets is by hand method only.

Thank you for your inquiry.

Primus Telecom

Assets Affected

Sequence Number : 58207261 Hunter Street, Sydney, NSW, 2000



Create Date: 16/01/2017

Scale: 1:1500

DISCLAIMER:

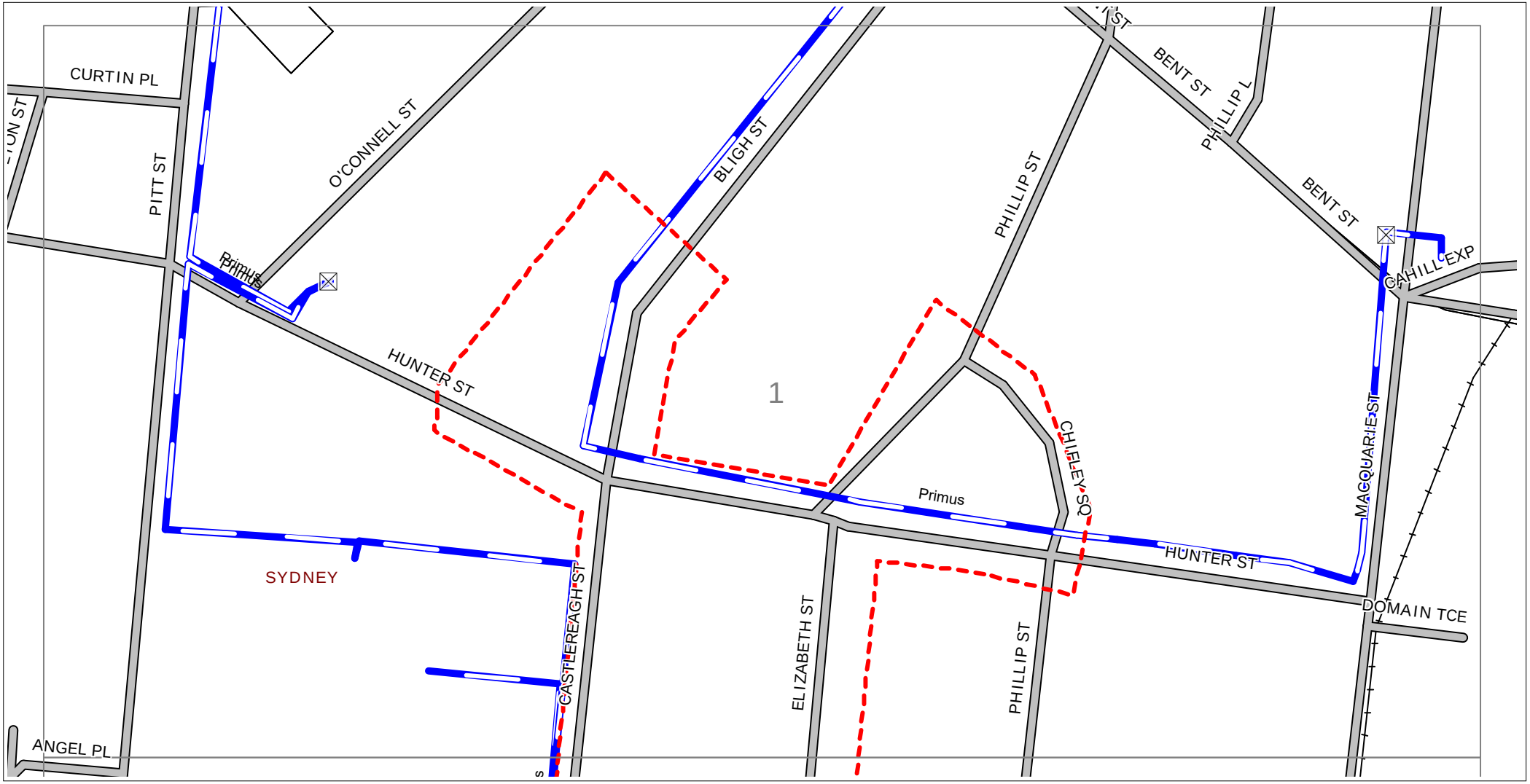
This document has been prepared solely for the use of Primus Telecom Pty Ltd for use in maintaining Primus facilities it has not been created for any other use. It should be scaled to locate Primus assets. No warranty is given that the information is accurate or complete.

Legend

- Manhole
- Point
- Cable
- Line
- Road
- Area

Assets Affected

Sequence Number : 58207261 Hunter Street, Sydney, NSW, 2000



Create Date: 16/01/2017

Scale: 1:1500

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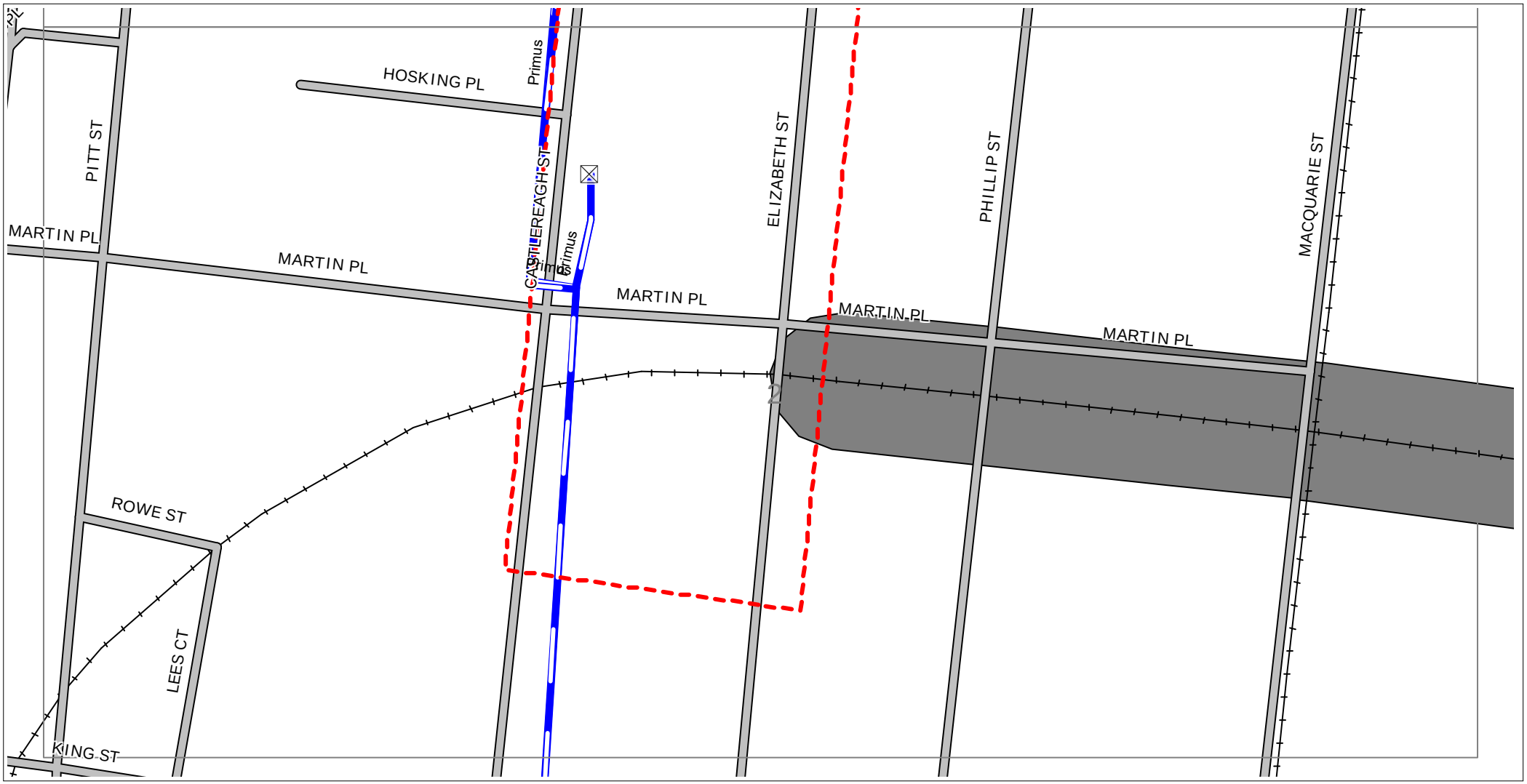
Legend

- Manhole
- Point
- Cable
- Line
- Road
- Area

Assets Affected

Sequence Number : 58207261 Hunter Street, Sydney, NSW, 2000



Create Date: 16/01/2017

Scale: 1:1500

DISCLAIMER:

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Legend

Manhole Point
Cable Line
Road Area

RailCorp

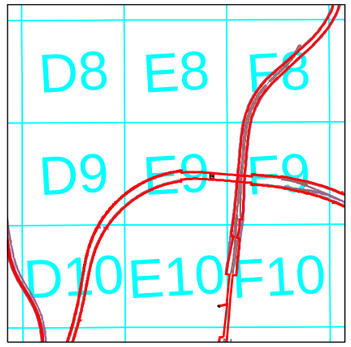
THIS PLAN IS NOT VALID UNLESS PRINTED IN COLOUR
SYDNEY TRAINS Dial Before You Dig Service Search

PLOTTED DATE: 09/02/2016

This plan is to be read in conjunction with Sydney Trains' Dial Before you Dig Terms & Conditions.

LEGEND FOR MAIN MAP

- Platform.Boundary
- Stairs.Coverage
- External Agency Service Crossing.Centreline - underground
- Kilometre Post.Location - whole
- Tunnel Section.Coverage Over
- Tunnel Section.Coverage Under
- Wall.Boundary
- Substation Location.Boundary
- Earth Cable.in use location
- HV Cable.11kV Location
- OHW Structure.Location
- Mounting Post.Location
- Track Segment.Centreline Active
- Trench/Tunnel/Trough.Location
- UBD Map Grid.Coverage
- Road Segment.Centreline
- Road Segment.Distributor Road Centreline
- Road Segment.Local Road Centreline
- Lot.Coverage Standard
- Easement.Coverage Current



OVERVIEW
Showing Adjacent Grids

Use this overview to determine if additional response plans are required to manage you work. Additional response plans can be ordered from the Sydney Trains External Interface Manager.

The precision of the location of the services on this plan varies depending on the source and method of capture.
This plan should be used as a guide only.
This plan shows only Sydney Trains electrical cables and tunnels located outside of the rail corridor.
Contact for further information:
Sydney Trains External Interface Manager Ph. 9847 8914
Airport Line Maintainance Manager Ph. 9669 8602

Exposure of or suspected damage to Sydney Trains' services must be reported immediately to Electrical Systems Operations
Ph. 9379 4911 or 1800 060 015

Transport Sydney Trains
WhereInfo ... dis
PRODUCED BY SYDNEY TRAINS GIS FROM MAPPED DATA

Copyright: Some data shown here has been supplied by external sources and is subject to Copyright. Reproduction of this image is not permissible except with the express permission of the supplier

UBD: Sydney 236 E9

SYDNEY TRAINS HIGH VOLTAGE ELECTRICAL SERVICES SEARCH

N

PLOTTED DATE: 09/02/2016

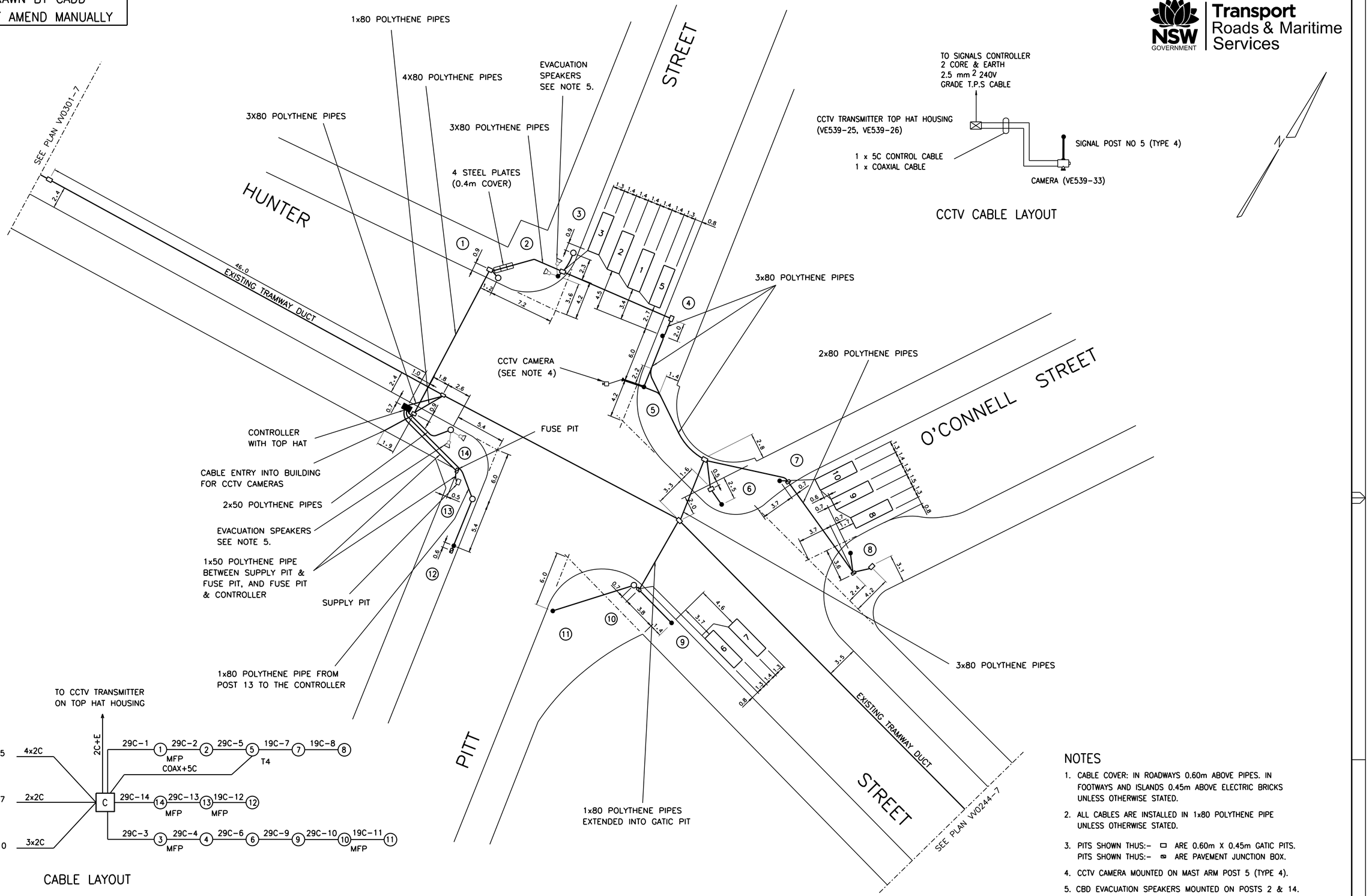
PLOTTED BY: dgrimshaw

RMS

DRAWN BY CADD
DO NOT AMEND MANUALLY

7000.412.VV.0241

Transport Roads & Maritime Services
NSW GOVERNMENT



NOTES

1. CABLE COVER: IN ROADWAYS 0.60m ABOVE PIPES. IN FOOTWAYS AND ISLANDS 0.45m ABOVE ELECTRIC BRICKS UNLESS OTHERWISE STATED.
2. ALL CABLES ARE INSTALLED IN 1x80 POLYTHENE PIPE UNLESS OTHERWISE STATED.
3. PITS SHOWN THUS:- ▭ ARE 0.60m X 0.45m GATIC PITS.
   PITS SHOWN THUS:- ▭ ARE PAVEMENT JUNCTION BOX.
4. CCTV CAMERA MOUNTED ON MAST ARM POST 5 (TYPE 4).
5. CBD EVACUATION SPEAKERS MOUNTED ON POSTS 2 & 14.

A ORIGINAL ISSUE
PLAN DRAWN ON CAD TO SUIT
J.K. 5-2-05-99 C.Z
'B' ISSUE- W.A.E
POST 13 WAS A TYPE 4.
POST 5 WAS A TYPE 2.
ADDED CCTV CAMERA-FACILITIES.
ADDED CBD EVACUATION SPEAKERS ON POST 2 & 14.
JJ KD 6-05-2014

PUBLIC UTILITY LEGEND	
HYDRANT	□
STOP VALVE	▲
GAS VALVE	#
SEWER MANHOLE	Ⓢ
TELECOM PIT	◪
ELECT LIGHT POLE	↺
POWER POLE	○
STAY POLE	⊘
TELEPHONE BOX	T
TELECOM PILLAR	◐

REFERENCE PLANS	
SYMBOLS/ABBS.	VD003-6
STD POSIT	VD001-5
DET SCHED EXP	VD018-10
PRES. DETECT	VC005-17
SSG DIS. SEQ.	VD018-8
DESIGN LAYOUT	SHEET 6
CABLE CHART	SHEET 10
CCTV CAMERA	VE539-35
SURVEYOR : N/A	
DATE : N/A	

U.B.D. Ref. Map 01 H16
I.S.G. CO-ORDS E: 319 199 N: 1 251 251
DESIGNED B. KUMAR
CHECKED C. ZAMUDIO
SITE CHECKED
RECOMMENDED

APPROVED
R. C. BIRD
ELECTRICAL DESIGN MANAGER
26-05-99
DATE

ROADS AND MARITIME SERVICES
CITY OF SYDNEY
PITT STREET
AND HUNTER STREET
SYDNEY
CALE INSTALLATION
TCS No 0241

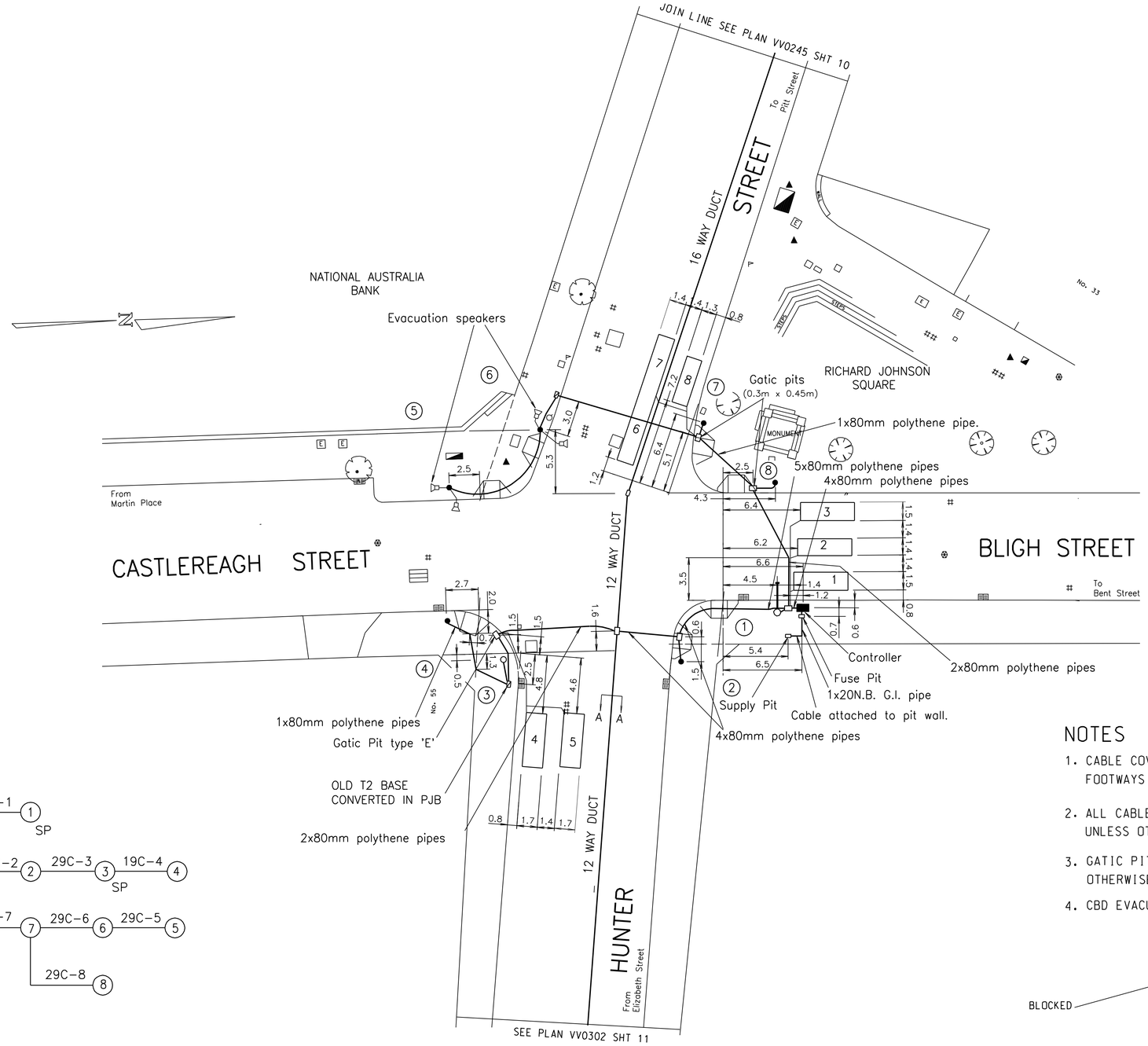
EXISTING ☒ PROPOSED ☐
CADD: VV0241_9B_INS.dgn
SCALE 5 0 (1:200) 5 10
FILE 412.TS.458
SUPERSEDES SHEET/ISSUE 7D
ISSUE B
REGN. 7000.412.VV.0241
SHEET 9

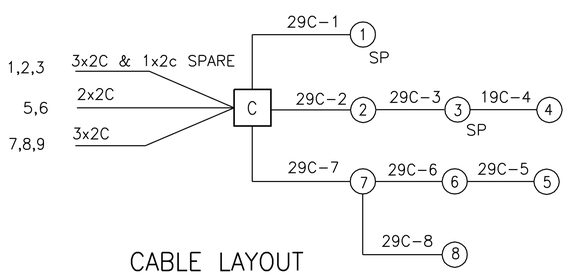
© COPYRIGHT ROADS AND TRAFFIC AUTHORITY

DRAWN USING CAD
DO NOT AMEND MANUALLY

DATE IN SERVICE: 18/07/66

7000.412.VV.0244

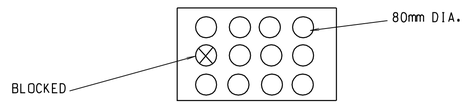




CABLE LAYOUT

NOTES

1. CABLE COVER: IN ROADWAYS 0.6m ABOVE PIPE. IN FOOTWAYS 0.5m ABOVE PIPE UNLESS OTHERWISE STATED.
2. ALL CABLES ARE INSTALLED IN 1 X 80 mm POLYTHENE PIPE UNLESS OTHERWISE STATE.
3. GATIC PITS SHOWN THUS:- ▭ ARE 0.6m x 0.5m UNLESS OTHERWISE STATE.
4. CBD EVACUATION SPEAKERS MOUNTED ON POSTS 5 & 6.



CROSS SECTION 'A-A'

CABLE INSTALLATION

A	ORIGINAL ISSUE
A	ISSUE J1 PLAN RE-DRAWN ON CAD & UPDATE AS PER DESIGN LAYOUT SHEET 9 ISSUE'B'. D.C. 20/10/01
B	ISSUE: WAE COMPLETED. ICON 08/06 CBD EVACUATION SPEAKERS MOUNTED ON POSTS 5 & 6. NOTE 4 ADDED. F.P/R.W.A. 17.04.08

PUBLIC UTILITY LEGEND	
HYDRANT	□
STOP VALVE	▲
GAS VALVE	#
SEWER MANHOLE	⊗
TELECOM PIT	◪
ELECT LIGHT POLE	☾
POWER POLE	○
STAY POLE	⊘
TELEPHONE BOX	T
TELECOM PILLAR	◕

REFERENCE PLANS	
SYMBOLS/ABBS.	VD003-6
STD POSIT	VD001-5
DET SCHED EXP	VD018-10
PRES. DETECT	VC005-17
SSG DIS. SEQ.	VD018-8
DESIGN LAYOUT	SHEET 12
CABLE CHART	SHEET 11
SURVEYOR: SYDNEY CITY CCL	
DATE MAY 1997	

U.B.D. Ref MAP 1 J16
I.S.G. CO-ORDS E: 319 500 N: 1 251 295
DESIGNED D.C. 20/10/01
CHECKED R.W.A. 27/10/01
SITE CHECKED
RECOMMENDED

APPROVED
ELECT. DESIGN MANAGER
27/10/01
DATE

Roads and Traffic Authority.NSW

CITY OF SYDNEY
INTERSECTION OF CASTLEREAGH STREET
HUNTER STREET AND BLIGH STREET.
SYDNEY

TCS No 0244

DESIGN OFFICE PARRAMATTA - SYDNEY TECHNICAL SERVICES
CADD DRAWING FILE: VV0244_10B_INS.dgn
SCALE 5 0 (1:200) 5 10
ISSUE B
FILE 412TS459
SUPERSEDES SHEET/ISSUE 7B
REGN. 7000.412.VV.0244
SHEET 10

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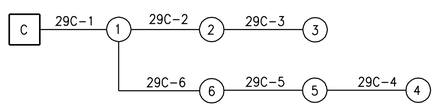
7000.412.VV.0245

DATE IN SERVICE: 28/04/65

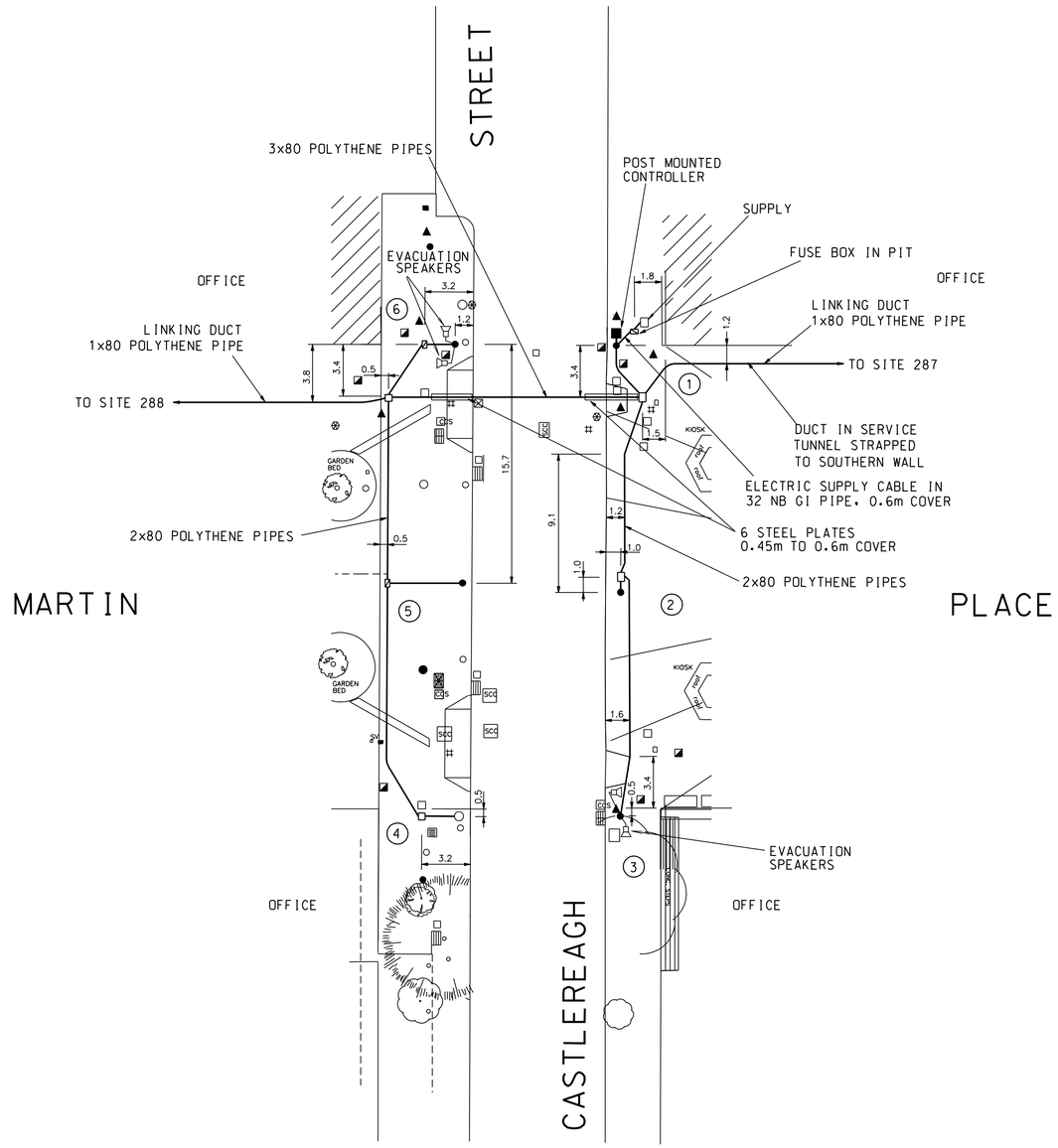
R T A

NOTES

1. COVER ABOVE CONDUITS IS 0.6m IN ROADWAYS & 0.5m IN FOOTWAYS UNLESS OTHERWISE STATED.
2. ALL CONDUITS ARE 1x80 HD PVC OR 1x80 POLYTHENE PIPE UNLESS OTHERWISE STATED.
3. ALL FOOTWAY PITS SHOWN THUS:-
   - □ 450mmx450mm
   - □ 600mmx450mm
4. CBD EVACUATION SPEAKERS MOUNTED ON POSTS 3 & 6.



CABLE LAYOUT



A ORIGINAL ISSUE			
B ISSUE: CBD EVACUATION SPEAKERS MOUNTED ON POSTS 3 & 6. NOTE 4 ADDED. CABLE LAYOUT REVISED. F.P./R.W.A. 17.04.08			

PUBLIC UTILITY LEGEND		REFERENCE PLANS	
HYDRANT	□	SYMBOLS/ABBS.	VD003-6
STOP VALVE	▲	STD POSIT	VD001-5
GAS VALVE	#	DET SCHED EXP	VD018-10
SEWER MANHOLE	⊗	PRES. DETECT	VC005-17
TELECOM PIT	◪	SSG DIS. SEQ.	VD018-8
ELECT LIGHT POLE	☾	DESIGN LAYOUT	SHT 9
POWER POLE	○	CABLE CHART	SHT 11
STAY POLE	⊘	DUCT PLAN	CA301-56
TELEPHONE BOX	☎	SURVEYOR :HTR 1997	
TELECOM PILLAR	◕	DATE :-	

U.B.D. Ref.MAP 1
I.S.G. E: 319 190
CO-ORDS N: 1 251 099

DESIGNED CORRIGAN
CHECKED
SITE CHECKED
RECOMMENDED

APPROVED
R.C.BIRD
ELECTRICAL DESIGN MANAGER
15/05/00
DATE

Roads & Traffic Authority.N.S.W

CITY OF SYDNEY
TRAFFIC SIGNALS AT THE INTERSECTION OF CASTLEREAGH STREET & MARTIN PLACE
SYDNEY

CABLE INSTALLATION TCS No 245

DESIGN OFFICE PARRAMATTA - SYDNEY TECHNICAL SERVICES
CADD DRAWING FILE: VV0245_10B_INS.dgn
SCALE 5 0 (1:200) 5 10
ISSUE B
FILE 412.TS.186
SUPERSEDES SHEET/ISSUE 7A
REGN. 7000.412.VV.0245
SHEET 10

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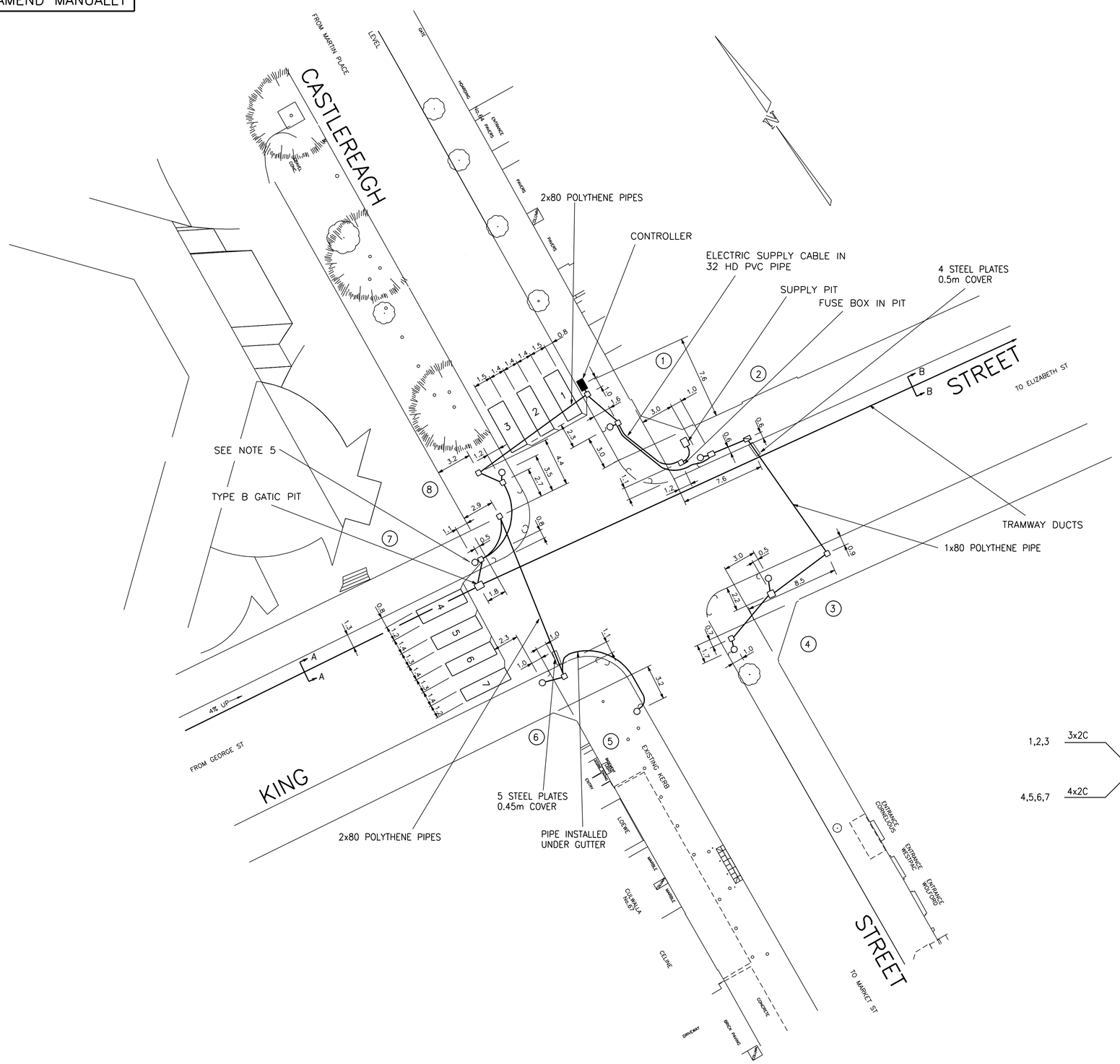
7000.412.VV.0246

DRAWN BY CADD
DO NOT AMEND MANUALLY

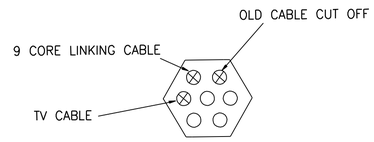
R T A



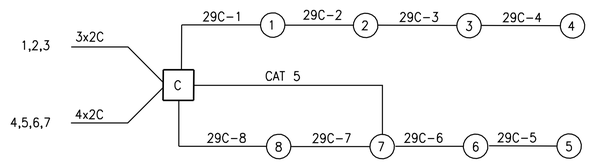
NOTES

1. COVER ABOVE CONDUITS IS 0.6m IN ROADWAYS & 0.5m IN FOOTWAYS UNLESS OTHERWISE STATED.
2. ALL FOOTWAY CONDUITS ARE 1x80 HD PVC PIPE UNLESS OTHERWISE STATED.
3. ALL ROADWAY CONDUITS ARE 2x80mm POLYTHENE PIPES UNLESS OTHERWISE STATED.
4. ALL FOOTWAY PITS SHOWN THUS:–
   - ▫ 450mmx450mm
   - □ 600mmx450mm
   - □ 600mmx600mm

   UNLESS OTHERWISE STATED.
5. CBD EVACUATION REPEATER STATION MOUNTED ON POST 7.



SECTION OF DUCTS
A – A, B – B



CABLE LAYOUT

A	ORIGINAL ISSUE
B	ISSUE: CBD EVACUATION REPEATER STATION MOUNTED ON POST 7. NOTE 5 ADDED. F.P./R.W.A. 30.04.08

PUBLIC UTILITY LEGEND	
HYDRANT	□
STOP VALVE	▲
GAS VALVE	#
SEWER MANHOLE	⊗
TELECOM PIT	◪
ELECT LIGHT POLE	↺
POWER POLE	○
STAY POLE	⊘
TELEPHONE BOX	▯
TELECOM PILLAR	◕

REFERENCE PLANS	
SYMBOLS/ABBS.	VD003-6
STD POSIT	VD001-5
DET SCHED EXP	VD018-10
PRES. DETECT	VC005-17
SSG DIS. SEQ.	VD018-8
DESIGN LAYOUT	SHT 13
CABLE CHART	SHT 18
SURVEYOR :SYDNEY CITY CCL	
DATE : 1997	

U.B.D. Ref. MAP3 J3
I.S.G. CO-ORDS E: 319 293 N: 1 250 890
DESIGNED CORRIGAN
CHECKED
SITE CHECKED
RECOMMENDED

APPROVED
R.C.BIRD
ELECTRICAL DESIGN MANAGER
17/05/00
DATE

Roads & Traffic Authority,N.S.W

CITY OF SYDNEY
TRAFFIC SIGNALS AT THE INTERSECTION OF CASTLEREAGH STREET & KING STREET
SYDNEY

CABLE INSTALLATION TCS No 246

DESIGN OFFICE PARRAMATTA – SYDNEY TECHNICAL SERVICES
CADD DRAWING FILE: VV0246_17B_INS.dgn
SCALE 5 0 (1:200) 5 10
ISSUE B
FILE 412.TS.188
SUPERSEDES SHEET/ISSUE 12A
REGN. 7000.412.VV.0246
SHEET 17

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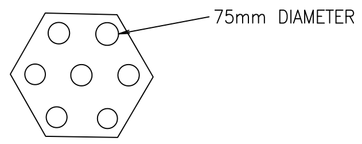
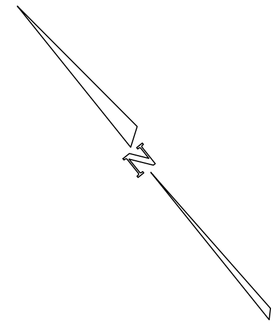
7000.412.W.0278

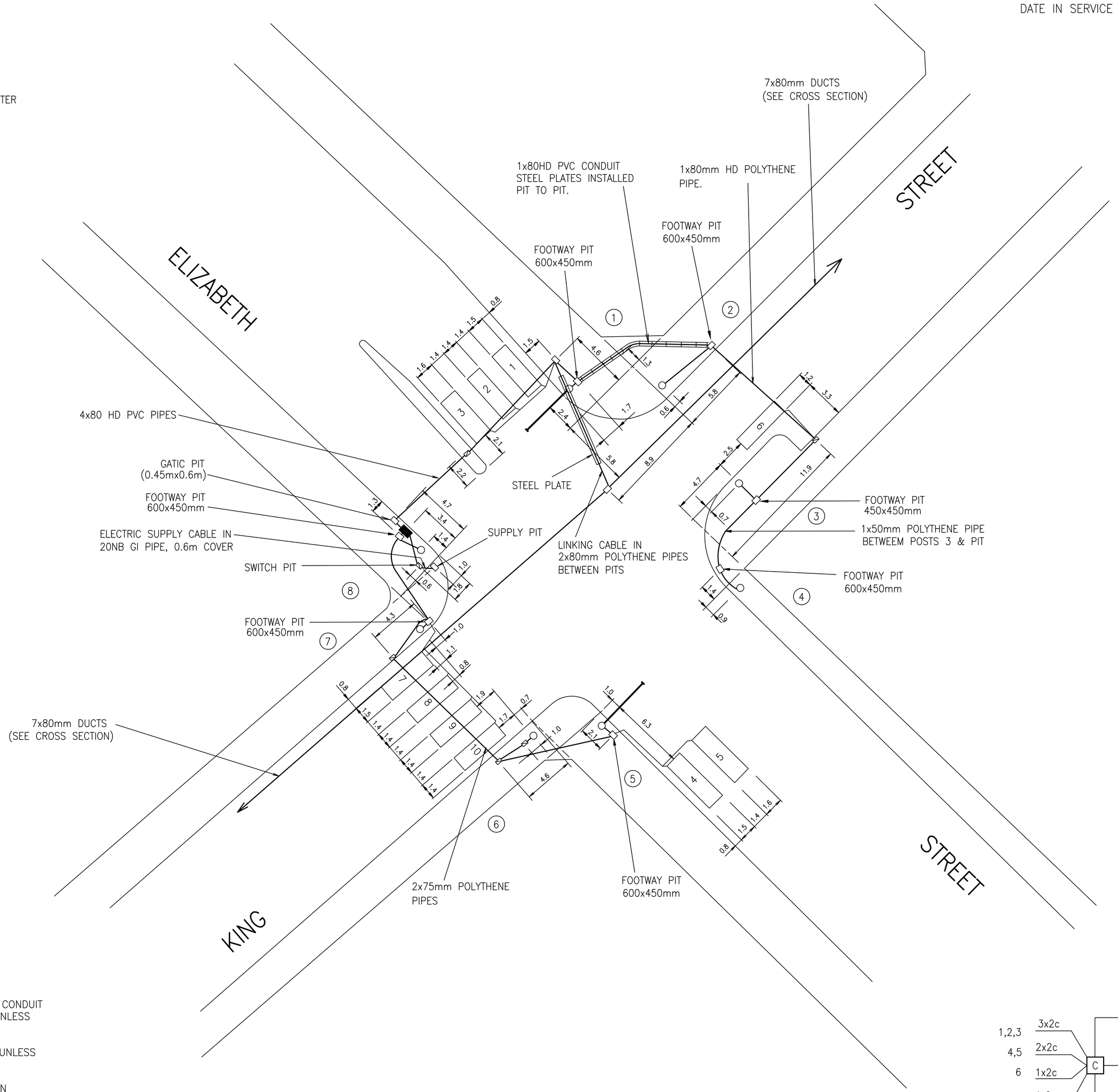
DATE IN SERVICE : 22/11/64

Transport Roads & Maritime Services



CROSS SECTION OF EXISTING DUCT IN KING STREET

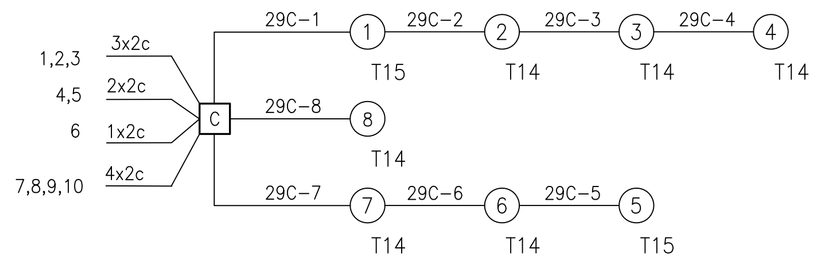




NOTES

1. CABLE COVER IN ROADWAY IS 0.75m ABOVE CONDUIT AND IN FOOTWAY IS 0.5m ABOVE CONDUIT UNLESS OTHERWISE STATED.
2. ALL FOOTWAY CONDUITS ARE 1x80 HD PVC UNLESS OTHERWISE STATED.
3. ALL ROADCROSSING CONDUITS ARE AS SHOWN

CABLE LAYOUT



CABLE INSTALLATION

A	ORIGINAL ISSUE	
'B'	ISSUE 'FED 'B' ADDED. PHASING CHANGED. A.SOAN	JI SE663 18/05/95 CLZ
'C'	ISSUE PLAN AMENDED TO SUIT WORK AS EXECUTED. R.W.A.	JI YEN 95/101 18/08/95 CLZ
'D'	ISSUE MEDIAN POST 1 DELETED. POSTS RENUMBERED. NEW POSTS 1,4,5,7 & 8 (SHARED POLES) WERE TYPE 2 CORRIGAN	12/00 WAE
'E'	ISSUE BLISTER ADDED TO S/E CORNER. POSTS 2 & 3 WERE TYPE 2 NOW MPP (SHARED POLES). CMJ 12/06	1.09.06 WAE
'F'	ISSUE POST 6 ALTERED TO TYPE 14 AND PJB ADDED ADJACENT. CORRIGAN 5/2014	23.03.14 WAE

PUBLIC UTILITY LEGEND	
HYDRANT	□
STOP VALVE	▲
GAS VALVE	#
SEWER MANHOLE	⊗
TELECOM PIT	◪
ELECT LIGHT POLE	↺
POWER POLE	○
STAY POLE	⊘
TELEPHONE BOX	T
TELECOM PILLAR	◕

REFERENCE PLANS	
SYMBOLS/ABBS.	VD003–6
STD POSIT	VD001–5
DET SCHED EXP	VD018–10
PRES. DETECT	VC005–17
SSG DIS. SEQ.	VD018–8
DESIGN LAYOUT	VV0278–15
CABLE CHART	VV0278–13
SURVEYOR :	
DATE :	

U.B.D. Ref.
I.S.G. CO-ORDS E: N:
DESIGNED M.MAHINTHAN
CHECKED C. L. 20/03/95
CHECKED
RECOMMENDED

APPROVED
R.C.BIRD
ELECTRICAL DESIGN MANAGER
21/03/94
DATE

ROADS AND MARITIME SERVICES

SYDNEY CITY COUNCIL
KING STREET
AND ELIZABETH STREET
SYDNEY

TCS No 278

EXISTING ☒ PROPOSED ☐
CADD FILE: VV0278_12F.dgn
SCALE 5 0 (1:200) 5 10
FILE 412 TS 193
SUPERSEDES SHEET/ISSUE 7B
ISSUE F
REGN. 7000.412.W.0278
SHEET 12

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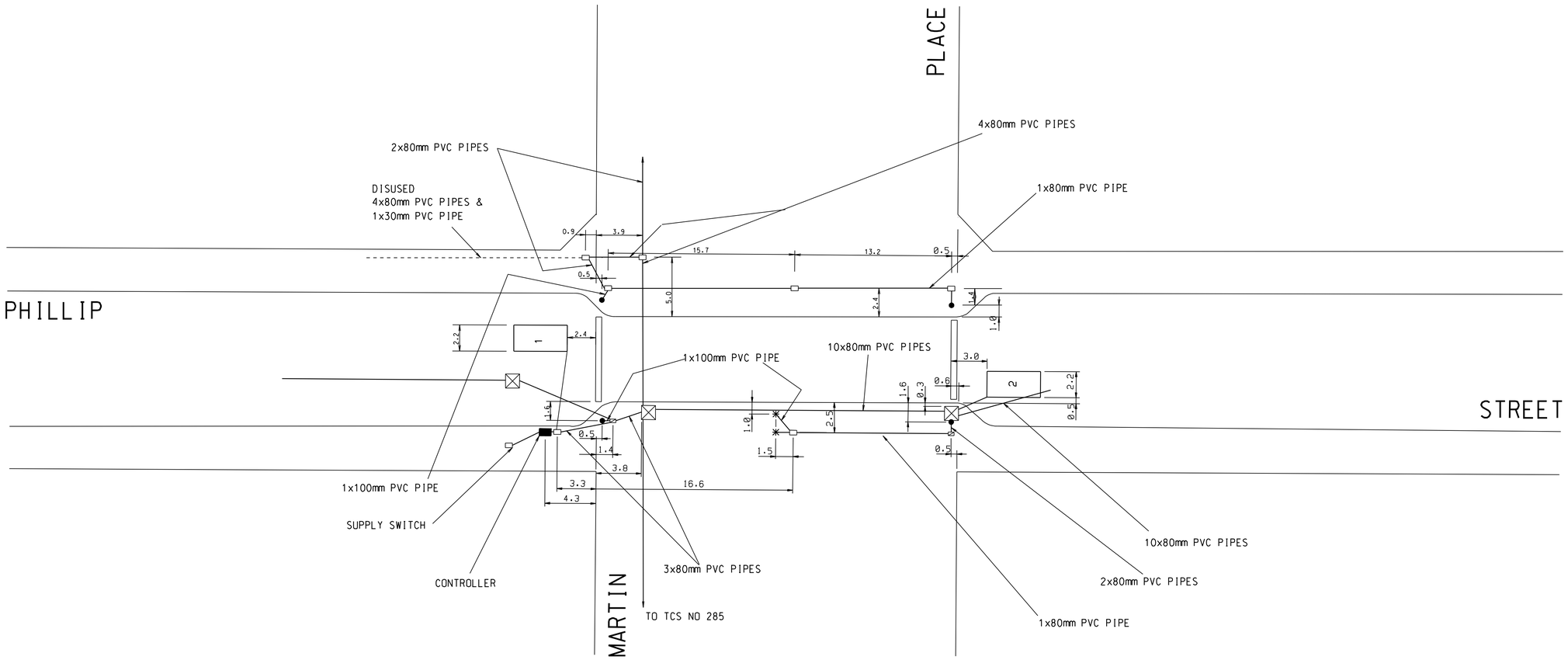
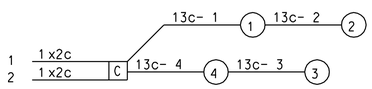
VV0286-10A

DATE IN SERVICE : 00/00/00

R T A





NOTES

1. CABLE COVER: IN ROADWAYS 0.75m ABOVE PIPE. IN FOOTWAYS 0.5m ABOVE PIPE UNLESS OTHERWISE STATED.

2. * — PROVISION IS MADE FOR FUTURE POSTS.

CABLE INSTALLATION

A ORIGINAL ISSUE
REDRAWN ON C.A.D. T.U.P.A. 07.12.94

PUBLIC UTILITY LEGEND	
HYDRANT	□
STOP VALVE	▲
GAS VALVE	#
SEWER MANHOLE	⊗
TELECOM PIT	◪
ELECT LIGHT POLE	↺
POWER POLE	○
STAY POLE	⊘
TELEPHONE BOX	T
TELECOM PILLAR	◕

REFERENCE PLANS	
SYMBOLS/ABBS.	VD003-6
STD POSIT	VD001-5
DET SCHED EXP	VD018-10
PRES. DETECT	VC005-17
SSG DIS. SEQ.	VD018-8
DESIGN LAYOUT	SHEET 6
CABLE CHART	SHEET 9
SURVEYOR :	
DATE :	

U.B.D. Ref.
I.S.G. E:
CO-ORDS N:
DRAWN: T.U.P.A. 07.12.94
CHECKED XX
SITE CHECKED
RECOMMENDED

APPROVED
R.C. BIRD
ELECTRICAL DESIGN MANAGER
10/02/95
DATE

Roads and Traffic Authority.N.S.W

PHILLIP STREET
AT MARTIN PLACE
SYDNEY

TCS No 286

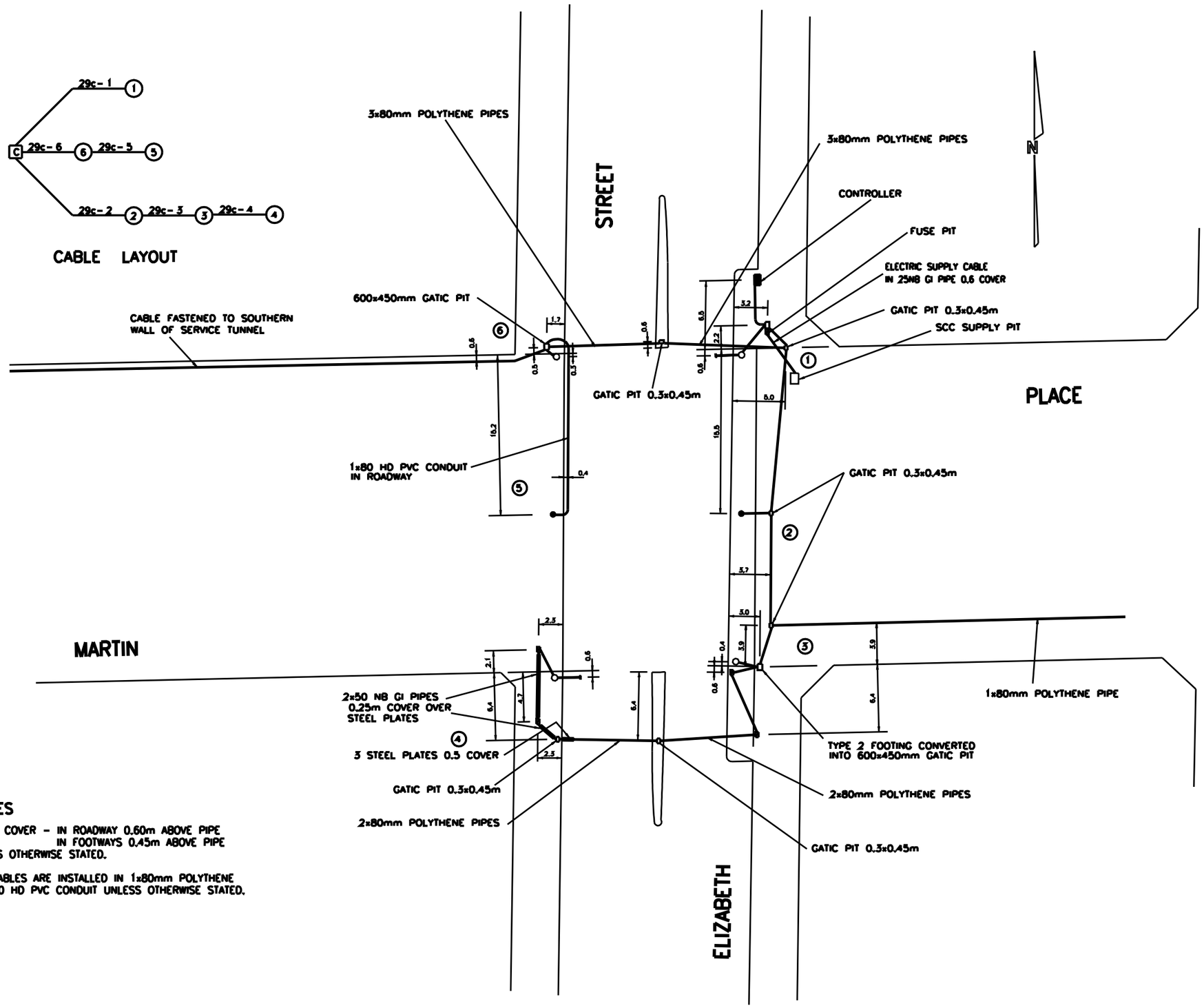
REGION: SYDNEY
BRANCH: CONSULTANT SERVICES
LOGIN: ELECTA
DGGS DRAWING FILE: VV0286_10A.INS
SCALE 5 0 (1:200) 5 10
ISSUE A
FILE 412.TS.167
SUPERSEDES SHEET/ISSUE 4A
REGN. 7000.412.VV.0286
SHEET 10

© COPYRIGHT ROADS AND TRAFFIC AUTHORITY

7000.412.W.0287

DATE IN SERVICE : 00/00/00

R T A



NOTES

1. CABLE COVER - IN ROADWAY 0.60m ABOVE PIPE
   IN FOOTWAYS 0.45m ABOVE PIPE
   UNLESS OTHERWISE STATED.
2. ALL CABLES ARE INSTALLED IN 1x80mm POLYTHENE OR 1x80 HD PVC CONDUIT UNLESS OTHERWISE STATED.

A ORIGINAL ISSUE
B ISSUE 02/01 PLAN AMENDED TO SUIT WAE CONDITIONS

PUBLIC UTILITY LEGEND	
HYDRANT	
STOP VALVE	
GAS VALVE	
SEWER MANHOLE	
TELECOM PIT	
ELECT LIGHT POLE	
POWER POLE	
STAY POLE	
TELEPHONE BOX	
TELECOM PILLAR	

REFERENCE PLANS	
SYMBOLS/ABBS.	V0001-6
STD POSIT	V0001-5
DET SCHED EXP	V0018-10
PRES. DETECT	V0006-17
SSG DS. SEQ.	V0018-8
DESIGN LAYOUT	SHT 8
CABLE CHART	SHT 7
SURVEYOR :	
DATE :	

U.B.D. Ref.
I.S.C. E:
CO-ORDS N:
DESIGNED YSC
CHECKED C.AYO 04/97
SITE CHECKED
RECOMMENDED

APPROVED
R.C.BIRD
ELECTRICAL DESIGN MANAGER
04/97
DATE

Roads and Traffic Authority.N.S.W

CITY OF SYDNEY
MARTIN PLACE
AND ELIZABETH STREET
SYDNEY

CABLE INSTALLATION TCS No 0287

REGION: SYDNEY
BRANCH: CONSULTANT SERVICES
LOCN: ELECT
DOCS DRAWING FILE: VW0287_68_WS.dgn
SCALE 5 0 (1:200) 5 10
ISSUE B
FILE X
SUPERSEDES SHEET/ISSUE 20
SHEET 6
REGN. 7000.412.W.0287

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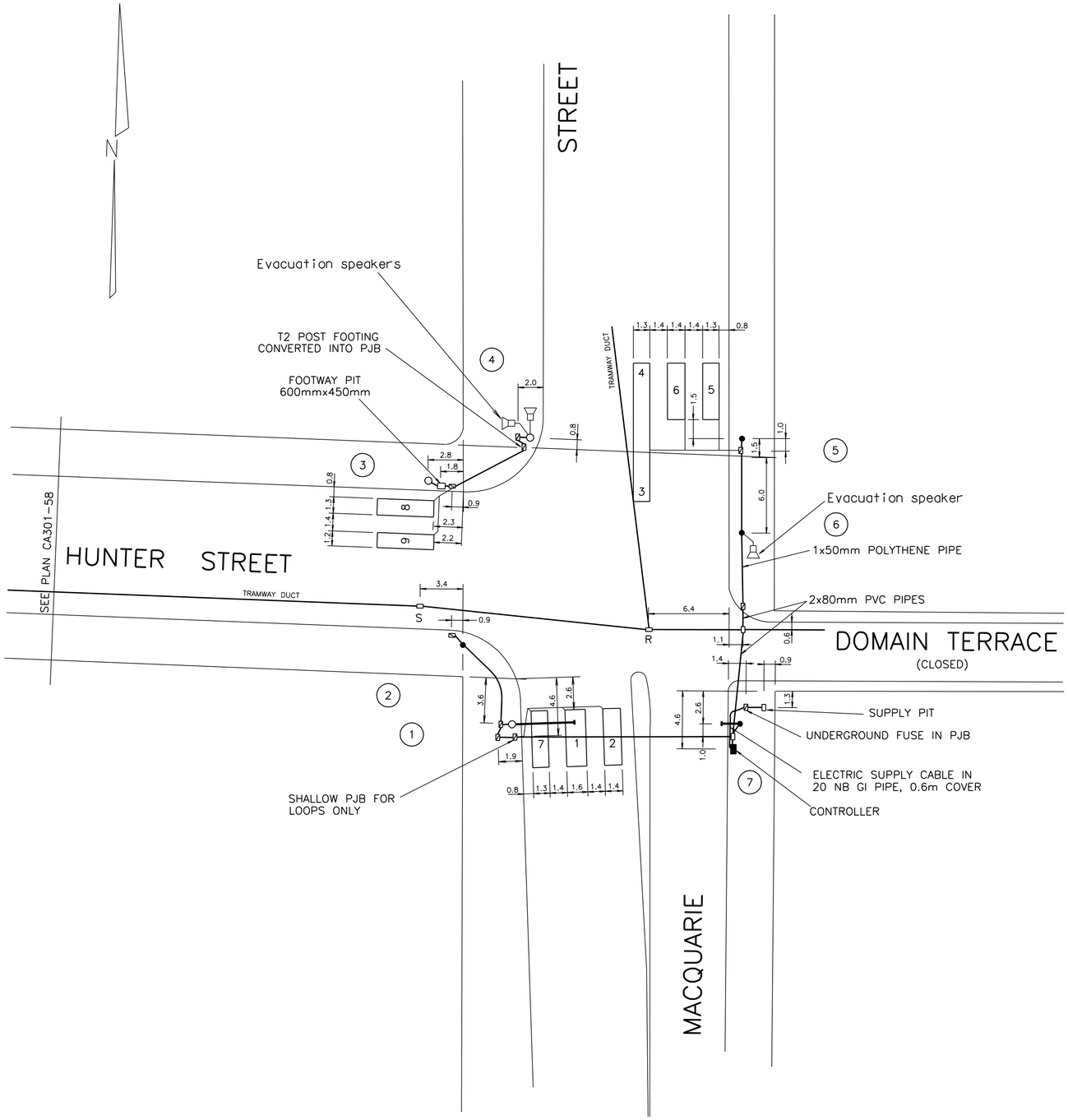
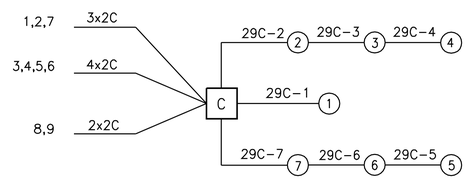
DATE IN SERVICE : 08/07/57

7000.412.VV.0290



NOTES

1. CABLE COVER: IN ROADWAYS 0.6m ABOVE PIPE. IN FOOTWAYS 0.45m ABOVE PIPE UNLESS OTHERWISE STATED.
2. ALL CABLES IN FOOTWAYS ARE INSTALLED IN 1x90mm POLYTHENE PIPE OR 1x80 HD PVC PIPE UNLESS OTHERWISE STATED.
3. ALL CABLES IN ROADWAYS ARE INSTALLED IN 1x90mm POLYTHENE PIPE OR 1x80 HD PVC PIPE UNLESS OTHERWISE STATED.
4. CBD EVACUATION SPEAKERS MOUNTED ON POSTS 4 & 6.



CABLE LAYOUT

A ORIGINAL ISSUE

B ISSUE:
CBD EVACUATION SPEAKERS MOUNTED ON POSTS 4 & 6. NOTE 6 ADDED.
P.P./R.W.A. 24.06.98

PUBLIC UTILITY LEGEND	
HYDRANT	□
STOP VALVE	▲
GAS VALVE	#
SEWER MANHOLE	Ⓢ
TELECOM PIT	◪
ELECT LIGHT POLE	↺
POWER POLE	○
STAY POLE	⊘
TELEPHONE BOX	T
TELECOM PILLAR	◕

REFERENCE PLANS	
SYMBOLS/ABBS.	VD003-6
STD POSIT	VD001-5
DET SCHED EXP	VD018-10
PRES. DETECT	VC005-17
SSG DIS. SEQ.	VD018-8
DESIGN LAYOUT	SHT 7
CABLE CHART	SHT 12
DUCT LAYOUT	CA301-58
SURVEYOR :	
DATE :	

U.B.D. Ref. MAP 138 F4
I.S.G. CO-ORDS E: 319 080 N: 1 263 210

DESIGNED A.SONI

CHECKED CLZ

SITE CHECKED

RECOMMENDED

APPROVED

R.C.BIRD
ELECT. DESIGN MANAGER

16/02/00
DATE

Roads and Traffic Authority,N.S.W

CITY OF SYDNEY
TRAFFIC SIGNALS AT
MACQUARIE ST & HUNTER ST
SYDNEY

CABLE INSTALLATION LAYOUT TCS No 290

DESIGN OFFICE PARRAMATTA – SYDNEY TECHNICAL SERVICES

CADD FILE: VV0290_11B_INS.dgn

SCALE 5 0 (1:200) 5 10

ISSUE B

FILE 412 TS 304 SUPERSEDES SHEET/ISSUE 9B

REGN. 7000.412.VV.0290

SHEET 11

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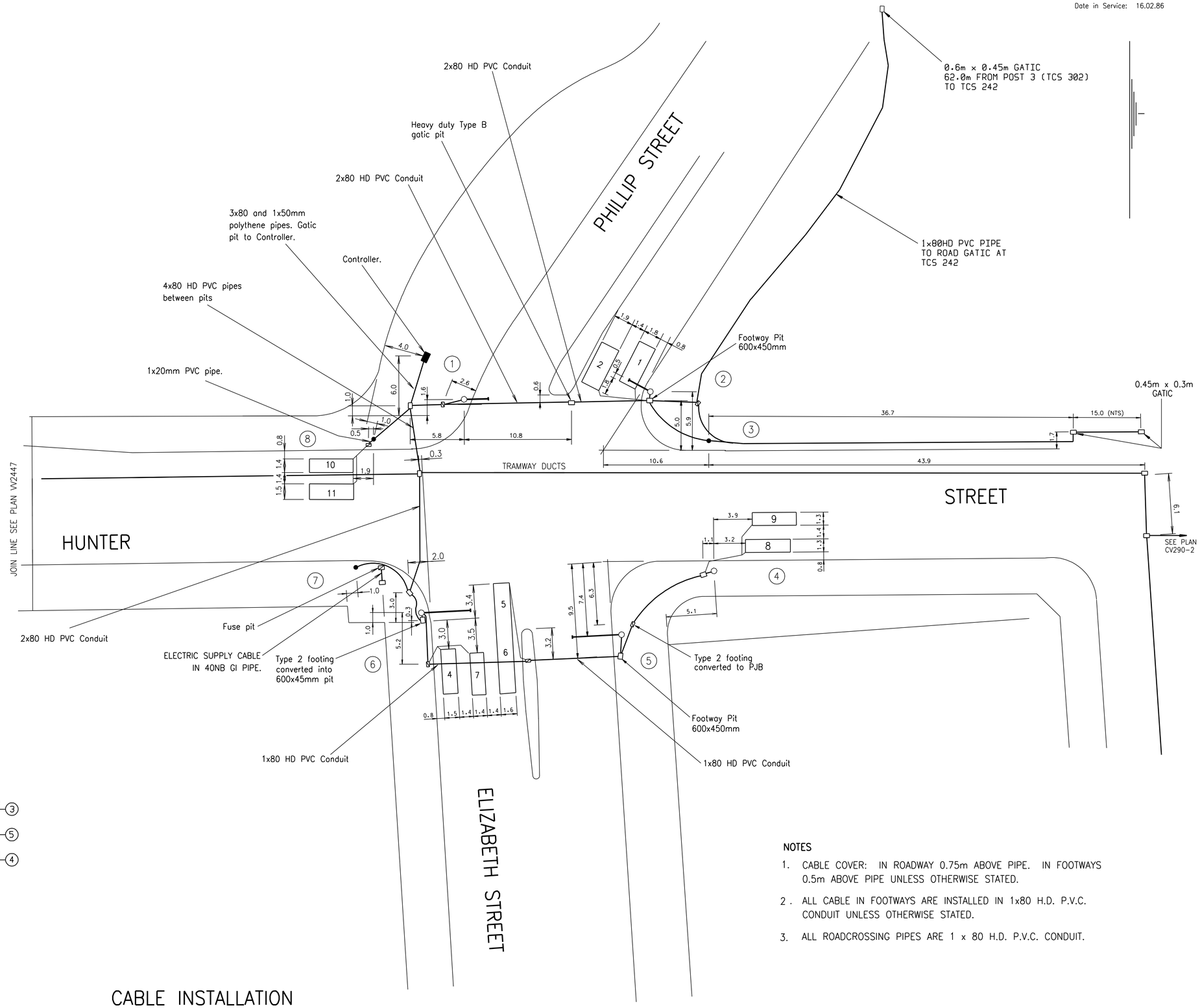
DO NOT AMEND MANUALLY

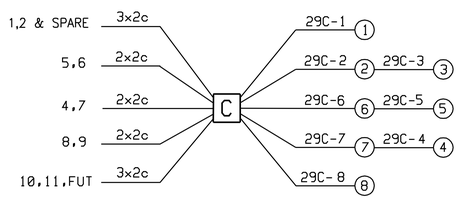
7000.412.WV0302

Date in Service: 16.02.86



CABLE INSTALLATION

CABLE LAYOUT



NOTES

1. CABLE COVER: IN ROADWAY 0.75m ABOVE PIPE. IN FOOTWAYS 0.5m ABOVE PIPE UNLESS OTHERWISE STATED.
2. ALL CABLE IN FOOTWAYS ARE INSTALLED IN 1x80 H.D. P.V.C. CONDUIT UNLESS OTHERWISE STATED.
3. ALL ROADCROSSING PIPES ARE 1 x 80 H.D. P.V.C. CONDUIT.

A ORIGINAL ISSUE

'B' ISSUE 25.10.94
W.A.E. RMO 3884
T.U.P.A.

C ISSUE 02/01
PLAN AMENDED TO SUIT WAE.
CORRIGAN

D ISSUE 11/06
POSTS 4 CHANGED TO SMART POLE.
CNJ 14.11.06
DIMENSION CHANGES TO MARK-UP
F.P/R.W.A. 03.04.08

REFERENCE PLANS	
Symbols & Abb.	VD003-6
Standard Posit.	VD001-5
Det. Sched. Exp.	VD018-10
Pres. Detectors	2C005-9
SSG Dis. Seq.	VD018-8
Design Layout	SHEET 14
Cable Connection	SHEET 13

U.B.D.REF.

R.W.A 12/11/92
DESIGNED
C.L.Z. 12/11/92
CHECKED
C.L.Z. 12/11/92
PASSED

APPROVED
R. C. Bird
ELECTRICAL DESIGN MANAGER
DATE 13.11.92

ROADS AND TRAFFIC AUTHORITY OF NSW
CITY OF SYDNEY
ELIZABETH, PHILLIP AND HUNTER STREETS
SYDNEY

REGION: SYDNEY
SCALE 5 0 5 10
FILE 412.TS.164
SUPERSEDES SHEET 8
REGN. 7000.412.VV.0302

SHEET 11

ISSUE A B C D

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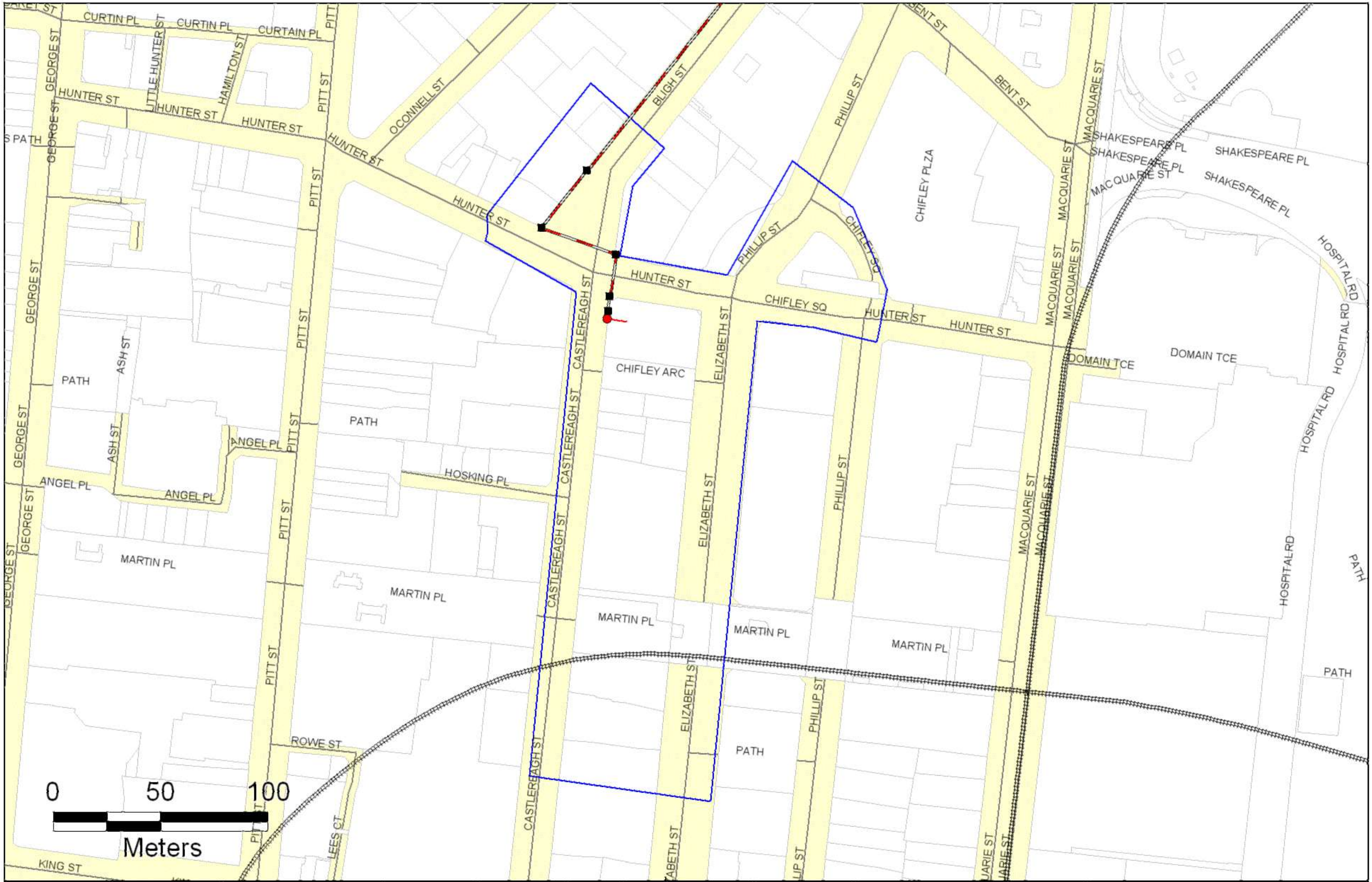
Soul Communications



SEQUENCE NUMBER	58207262	Map Number	1 of 1	DATE	17/01/2017	Map Reference	DBYD Fibre	Comment

SOUL

WARNING - MAJOR OPTIC FIBRE IN THE AREA.

The accuracy completeness of the information provided can not be guaranteed as property boundaries, depths and other natural landscape features may change over time, and accordingly the plans are indicative only. SOUL AUSTRALIA COMMUNICATION does not warrant or hold out that its plans are accurate and accept no responsibility for any inaccuracy shown on the plans. It is your responsibility to locate SOUL AUSTRALIA COMMUNICATION underground plant by careful hand potholing prior to any excavation in the vicinity and to exercise due care during that excavation. SOUL AUSTRALIA COMMUNICATION WILL SEEK COMPENSATION FOR LOSS CAUSED BY DAMAGE TO ITS PLANT. Please read and understand the information provided in the duty of care statement attached with the SOUL AUSTRALIA COMMUNICATION Plans. SOUL AUSTRALIA COMMUNICATION plans or other details are provided for the use of the applicant, its servants, or agents, and shall not be used for any unauthorised purpose. Contact the SOUL AUSTRALIA COMMUNICATION SOUL AUSTRALIA COMMUNICATION plans and information are valid for 60 days from the date of issue. If this timeframe has elapsed, please reapply for plans. SOUL AUSTRALIA COMMUNICATION retains copyright of these plans and as such they should be disposed of by shredding or any other secure disposal method after use.

N

Sydney Water

IMPORTANT INFORMATION - DIAL BEFORE YOU DIG

Attention: You must read the information below

The material provided or made available to you by Sydney Water (including on the Sydney Water website) in relation to your Dial Before You Dig enquiry (**Information**) is provided on each of the following conditions, which you are taken to have accepted by using the Information:

1 The Information has been generated by an automated system based on the area highlighted in the "Locality Indication Only" window on your Caller Confirmation. It is your responsibility to ensure that the dig site is properly defined when submitting your Dial Before You Dig enquiry and, if the Information does not match the dig site, to resubmit your enquiry for the correct dig site.

2 Neither Sydney Water nor Dial Before You Dig make any representation or give any guarantee, warranty or undertaking (express or implied) as to the currency, accuracy, completeness, effectiveness or reliability of the Information. The Information, including Sydney Water plans and work-as-executed diagrams, amongst other things:

(a) may not show all existing structures, including Sydney Water's pipelines, particularly in relation to newer developments and in relation to structures owned by parties who do not participate in the Dial Before You Dig service;

(b) may be out of date and not show changes to surface levels, road alignments, fences, buildings and the like;

(c) is approximate only and is therefore not suitable for scaling purposes; and

(d) does not show locations of property services (often called house service lines) belonging to or servicing individual customers, which are usually connected to Sydney Water's structures.

3 You are responsible for, amongst other things:

(a) exposing underground structures, including Sydney Water's pipelines, by pot-holing using hand-held tools or vacuum techniques so as to determine the precise location and extent of structures before any mechanical means of excavation are used;

(b) the safe and proper excavation of and for underground works and structures, including having regard to the fact that asbestos cement pipelines, which can pose a risk to health, may form part of Sydney Water's water and sewerage reticulation systems;

(c) protecting underground structures, including Sydney Water's pipelines, from damage and interference;

(d) maintaining minimum clearances between Sydney Water's structures and structures belonging to others;

(e) ensuring that backfilling of excavation work in the vicinity of Sydney Water's structures complies with Sydney Water's standards contained on its website or otherwise communicated to you;

(f) notifying Sydney Water immediately of any damage caused or threat of damage to Sydney Water's structures;

(g) ensuring that plans are approved by Sydney Water (usually signified by stamping) prior to landscaping or building over or in the vicinity of any Sydney Water structure; and

(h) ensuring that the Information is used only for the purposes for which Sydney Water and Dial Before You Dig intended.

4 You acknowledge that you use the Information at your own risk. In consideration for the provision of the Dial Before You Dig service and the Information by Sydney Water and Dial Before You Dig, to the fullest extent permitted by law:

(a) all conditions and guarantees concerning the Information (whether as to quality, outcome, fitness, care, skill or otherwise) expressed or implied by statute, common law, equity, trade, custom or usage or otherwise are expressly excluded and to the extent that those statutory guarantees cannot be excluded, the liability of Sydney Water and Dial Before You Dig to you is limited to either of the following as nominated by Sydney Water in its discretion, which you agree is your only remedy:

(i) the supplying of the Information again; or

(ii) payment of the cost of having the Information supplied again;

(b) in no event will Sydney Water or Dial Before You Dig be liable for, and you release Sydney Water and Dial Before You Dig from, any Loss arising from or in connection with the Information, including the use of or inability to use the Information and delay in the provision of the Information:

(i) whether arising under statute or in contract, tort or any other legal doctrine, including any negligent act, omission or default (including wilful default) by Sydney Water or Dial Before You Dig; and

(ii) regardless of whether Sydney Water or Dial Before You Dig are or ought to have been aware of, or advised of, the possibility of such loss, costs or damages;

(c) you will indemnify Sydney Water and Dial Before You Dig against any Loss arising from or in connection with Sydney Water providing incorrect or incomplete information to you in connection with the Dial Before You Dig service; and

(d) you assume all risks associated with the use of the Dial Before You Dig and Sydney Water websites, including risk to your computer, software or data being damaged by any virus, and you release and discharge Sydney Water and Dial Before You Dig from all Loss which might arise in respect of your use of the websites.

5 "**Sydney Water**" means Sydney Water Corporation and its employees, agents, representatives and contractors. "**Dial Before You Dig**" means Dial Before You Dig Incorporated and its employees, agents, representatives and contractors. References to "**you**" include references to your employees, agents, representatives, contractors and anyone else using the Information. References to "**Loss**" include any loss, cost, expense, claim, liability or damage (including arising in connection with personal injury, death or any damage to or loss of property and economic or consequential loss, lost profits, loss of revenue, loss of management time, opportunity costs or special damages). To the extent of any inconsistency, the conditions in this document will prevail over any other information provided to you by Sydney Water and Dial Before You Dig.

In an emergency, or to notify Sydney Water of damage or threats to its structures, call 13 20 90 (24 hours, 7 days)

Further information and guidance is available in the Building Development and Plumbing section of Sydney Water's website at www.sydneywater.com.au, where you will find the following documents under 'Dial Before You Dig':

- Avoid Damaging Water and Sewer Pipelines
- Water Main Symbols
- Depths of Mains
- Guidelines for Building Over/Adjacent to Sydney Water Assets
- Clearances Between Underground Services

Or call **13 20 92** for Customer Enquires.

Note: The lodging of enquiries via **www.1100.com.au** will enable you to receive colour plans in PDF format 24 hours a day, 7 days a week via email.

This communication is confidential. If you are not the intended recipient, please destroy all copies immediately. Sydney Water Corporation prohibits unauthorised copying or distribution of this communication.

Guide to reading Sydney Water DBYD Plans

February 2015

Asset Information

Legend

Sewer

- Sewer Main (with flow arrow & size type text) — 225 PVC
- Disused Main
- Rising Main
- Maintenance Hole (with upstream depth to invert) — 1.7
- Sub-surface chamber
- Maintenance Hole with Overflow chamber
- Ventshalft EDUCT — VSE
- Ventshaft INDUCT — VS
- Property Connection Point (with chainage to downstream MH) — 10.6
- Concrete Encased Section — Concrete Encased
- Terminal Maintenance Shaft — TMS
- Maintenance Shaft — MS
- Rodding Point — RP
- Lamphole
- Vertical — VERT
- Pumping Station — SP0882
- Sewer Rehabilitation

Pressure Sewer

- Pressure Sewer Main
- Pump Unit (Alarm, Electrical Cable, Pump Unit) — A
- Property Valve Boundary Assembly
- Stop Valve
- Reducer / Taper
- Flushing Point — FP

Vacuum Sewer

- Pressure Sewer Main
- Division Valve
- Vacuum Chamber
- Clean Out Point

Stormwater

- Stormwater Pipe
- Stormwater Channel
- Stormwater Gully
- Stormwater Maintenance Hole

Property Details

- Boundary Line
- Easement Line
- House Number
- Lot Number
- Proposed Land
- Sydney Water Heritage Site (please call **132 092** and ask for the **Heritage Unit**)

Water

- WaterMain - Potable (with size type text) — 200 PVC
- Disconnected Main - Potable
- Proposed Main - Potable
- Water Main - Recycled
- Special Supply Conditions - Potable
- Special Supply Conditions - Recycled
- Restrained Joints - Potable
- Restrained Joints - Recycled
- Hydrant
- Maintenance Hole
- Stop Valve
- Stop Vale with By-pass
- Stop Valve with Tapers
- Closed Stop Valve
- Air Valve
- Valve
- Scour
- Reducer / Taper
- Vertical Bends
- Reservoir
- Recycled Water is shown as per Potable above. Colour as indicated

Private Mains

- Potable Water Main
- Recycled Water Main
- Sewer Main
- Symbols for Private Mains shown grey

Pipe Types

ABS	Acrylonitrile Butadiene Styrene	**AC**	Asbestos Cement
BRICK	Brick	**CI**	Cast Iron
CICL	Cast Iron Cement Lined	**CONC**	Concrete
COPPER	Copper	**DI**	Ductile Iron
DICL	Ductile Iron Cement (mortar) Lined	**DIPL**	Ductile Iron Polymeric Lined
EW	Earthenware	**FIBG**	Fibreglass
FL BAR	Forged Locking Bar	**GI**	Galvanised Iron
GRP	Glass Reinforced Plastics	**HDPE**	High Density Polyethylene
MS	Mild Steel	**MSCL**	Mild Steel Cement Lined
PE	Polyethylene	**PC**	Polymer Concrete
PP	Polypropylene	**PVC**	Polyvinylchloride
PVC - M	Polyvinylchloride, Modified	**PVC - O**	Polyvinylchloride, Oriented
PVC - U	Polyvinylchloride, Unplasticised	**RC**	Reinforced Concrete
RC-PL	Reinforced Concrete Plastics Lined	**S**	Steel
SCL	Steel Cement (mortar) Lined	**SCL IBL**	Steel Cement Lined Internal Bitumen Lined
SGW	Salt Glazed Ware	**SPL**	Steel Polymeric Lined
SS	Stainless Steel	**STONE**	Stone
VC	Vitrified Clay	**WI**	Wrought Iron
WS	Woodstave		

Further Information

Please consult the Dial Before You Dig enquiries page on the Sydney Water website

For general enquiries please call the Customer Contact Centre on **132 092**

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