

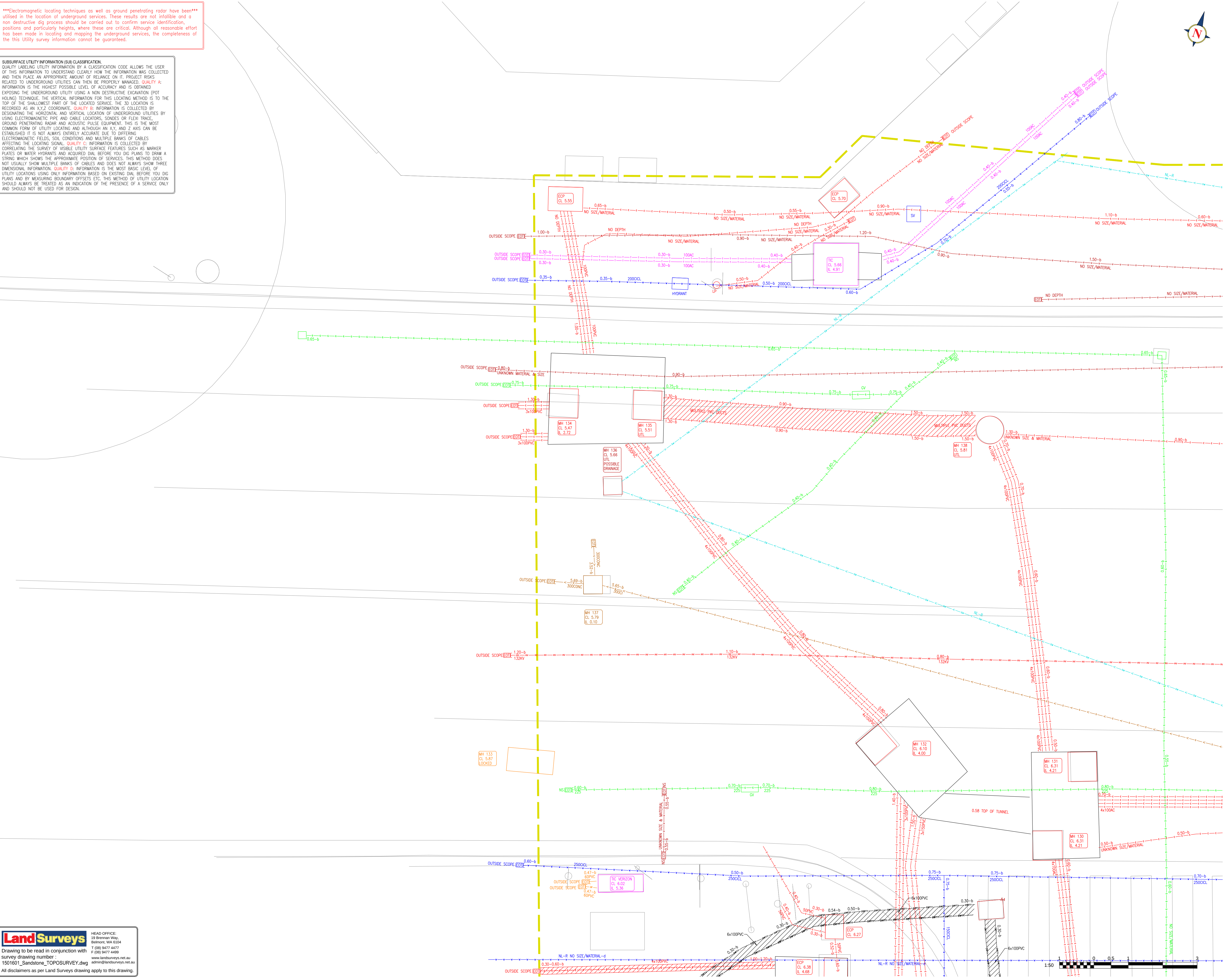
Electromagnetic locating techniques as well as ground penetrating radar have been utilised in the location of underground services. These results are not infallible and a non destructive dig process should be carried out to confirm service identification, positions and particularly heights, where these are critical. Although all reasonable effort has been made in locating and mapping the underground services, the completeness of the this Utility survey information cannot be guaranteed.

SUBSURFACE UTILITY INFORMATION (SUI) CLASSIFICATION.
QUALITY LABELING UTILITY INFORMATION BY A CLASSIFICATION CODE ALLOWS THE USER OF THIS INFORMATION TO UNDERSTAND CLEARLY HOW THE INFORMATION WAS COLLECTED AND THEN PLACE AN APPROPRIATE AMOUNT OF RELIANCE ON IT. PROJECT RISKS RELATED TO UNDERGROUND UTILITIES CAN THEN BE PROPERLY MANAGED. QUALITY A: INFORMATION IS THE HIGHEST POSSIBLE LEVEL OF ACCURACY AND IS OBTAINED EXPOSING THE UNDERGROUND UTILITY USING A NON DESTRUCTIVE EXCAVATION (POT HOLE) TECHNIQUE. THE VERTICAL INFORMATION FOR THIS LOCATING METHOD IS TO THE TOP OF THE SHALLOWEST PART OF THE LOCATED SERVICE. THE 3D LOCATION IS RECORDED AS AN X,Y,Z COORDINATE. QUALITY B: INFORMATION IS COLLECTED BY DESIGNATING THE HORIZONTAL AND VERTICAL LOCATION OF UNDERGROUND UTILITIES BY USING ELECTROMAGNETIC PIPE AND CABLE LOCATORS, SONDES OR FLEXI TRACE, GROUND PENETRATING RADAR AND ACOUSTIC PULSE EQUIPMENT. THIS IS THE MOST COMMON FORM OF UTILITY LOCATING AND ALTHOUGH AN X,Y, AND Z AXIS CAN BE ESTABLISHED IT IS NOT ALWAYS ENTIRELY ACCURATE DUE TO DIFFERING ELECTROMAGNETIC FIELDS, SOIL CONDITIONS AND MULTIPLE BANKS OF CABLES AFFECTING THE LOCATING SIGNAL. QUALITY C: INFORMATION IS COLLECTED BY CORRELATING THE SURVEY OF VISIBLE UTILITY SURFACE FEATURES SUCH AS MARKER PLATES OR WATER HYDRANTS AND ACQUIRED DIA BEFORE YOU DIG PLANS TO DRAW A STRING WHICH SHOWS THE APPROXIMATE POSITION OF SERVICES. THIS METHOD DOES NOT USUALLY SHOW MULTIPLE BANKS OF CABLES AND DOES NOT ALWAYS SHOW THREE DIMENSIONAL INFORMATION. QUALITY D: INFORMATION IS THE MOST BASIC LEVEL OF UTILITY LOCATIONS USING ONLY INFORMATION BASED ON EXISTING DIA BEFORE YOU DIG PLANS AND BY MEASURING BOUNDARY OFFSETS ETC. THIS METHOD OF UTILITY LOCATION SHOULD ALWAYS BE TREATED AS AN INDICATION OF THE PRESENCE OF A SERVICE ONLY AND SHOULD NOT BE USED FOR DESIGN.

LandSurveys

Drawing to be read in conjunction with survey drawing number: 1501601_Sandstone_TOPOSURVEY.dwg
All disclaimers as per Land Surveys drawing apply to this drawing.

HEAD OFFICE:
19 Brennan Way,
Belconnen, WA 6104
P (08) 9477 4477
F (08) 9477 4499
www.landsurveys.net.au
admin@landsurveys.net.au



Key for underground services

Air line

Communications cable

Cemms optic fibre

Electric cable

Electric earth cable

Electric HV cable

Fuel line

Gas pipe

Irrigation line

Chilled water pipe

Heated water pipe

Oil pipe

Sewer/Waste Pipe

Sewer Pressure Main

Sewer/Waste vent pipe

Stormwater/Drainage pipe

Telstra cable

Traffic cable

Unidentified

Water pipe

Multi User Duct

Overhead service or

Survey Boundary

Cable/Pipe banding

End of trace

End of trench scar

Characteristic change

Spot Level

Where chamber extents are significantly greater than the cover size, their approximate extents are shown thus:

Inaccessible areas, shown thus:

Abbreviations for underground services

AC Asbestos cement

ALK Alkaline

AR Assumed Route

BD Back drop

BH Bore hole

Br Brick

CA Compressed air

CATV Cable tv

CCTV Closed circuit television

CH Coal hole

CI Cast iron

CL Cover level

CM Cable marker

CONC Concrete

C/PIT Cotton pit

CU Copper

CR Cable riser

DB Direct buried

DI Ductile iron

DTB Depth to base

ECP Electric cable pit

EHV Extra high voltage

ELB Electric joint box

EP Electricity pole

ER Earthing rod

ES Earthing strap

FI Fire hydrant

FL Floor level

Fit Floodlight

F/O Fibre optic

FP Feeder pillar

G Gully

GM Gas meter

GV Gas valve

HV High voltage

IC Inspection chamber

IL Invert level

Kv Kilo volts

LD Land drain

LH Lamp hole

LP Lamp post

LPG Liquid petroleum gas

LV Low voltage

MDPE Medium density polyethylene

MH Manhole

Mkr Marker post

NFI No further information

NL-A Not located - route assumed

NL-I Not located - route plotted from on-site information

NL-R Not located - route plotted from records

NL-T Not located - plotted from visible trench scar detail

NRV Non return valve

NS No signal

o/h Overhead

PE Polyethylene

pe Pot ended

PR Pipe riser

PRV Pressure reducing valve

PVC Polyvinyl chloride

RE Rooding eye

RG Road gully

RS Road sign

RWP Rain water pipe

S/A Sockaway

SC Stop cock

SE Side entry

SI Spun iron

SL Soffit level

SP Soil pipe

ST Steel

SV Stop valve

SVP Soil vent pipe

SW Sink waste

TCB Telephone call box

TIC Telecom inspection chamber

T/I Trapped inlet

T/O Trapped outlet

TP Telephone pole

UST Underground storage tank

UTL Unable to lift

Unf Unable to find

UTGA Unable to gain access

UTR Unable to rod

UTS Unable to survey

UTT Unable to trace

VC Vitrified clay

WL Water level

WM Water meter

WO Wash out

SUI Class Definition, Quality Level Locates

QUALITY A shown after pipe size or depth in small case -> 100-a -> 0.65-a -> 0.65-a

QUALITY B shown after pipe size or depth in small case -> 100-b -> 0.65-b -> 0.65-b

QUALITY C shown after pipe size or depth in small case -> 100-c -> 0.65-c -> 0.65-c

QUALITY D shown after pipe size or depth in small case -> 100-d -> 0.65-d -> 0.65-d

Notes for underground services
I. Where no cover level is available, depths to pipe inverts are shown thus; **II**. Depths of services at inspection chambers, where possible, are shown thus; **III**. Depths obtained electronically are generally to the centre of the service and are shown thus; **IV**. Number of duct ways, where known, shown thus; **V**. Pipe sizes, which cannot be obtained by visual survey, are taken from record drawings/marker plates where available.
VI. Cable routes shown as a single line may actually consist of many cables.
VII. Electric cable routes shown are assumed to be LV unless otherwise annotated.
VIII. Information taken from records is suffixed thus; **IX**. Drainage pipe sizes & invert levels have been determined without man entry into chambers. Every effort has been made to correctly obtain this information, however, accuracy is dependent on visibility from the surface.
X. To assist with clarity of presentation, services and drains have been extended within buildings.

REV	REVISION DESCRIPTION	DATE	SIG	CHK

Utility
MAPPING

Phone: +61 3 9566 7292
Address: 343 Plummer Street
Port Melbourne
Victoria
3207
Mail: info@utilitymapping.com.au
Web: www.utilitymapping.com.au

RIDLEY ARCHITECTS

SANDSTONE BUILDINGS
23-39 BRIDGE ST, SYDNEY, NSW

Surveyed SH/CB/AB

Drawn AMM

Checked SHH

Date 15/04/16

Scale at A1 1:50

DBYD Ref VARIOUS

Drawing No. NSW16-02-01

Rev. 0