

REPORT

NORMAN DISNEY & YOUNG



Utility Services Report

Revision: B - Authority Submission
Issued: 27 April 2009

City One Wynyard
Thakral Holdings Group

CONFIDENTIAL

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1 EXECUTIVE SUMMARY

1.1 PURPOSE

The purpose of this report is to detail the existing electrical and communications infrastructure within the vicinity of the proposed City One project and provide comments on the impact of the proposed City One development including possible relocation of services.

This report shall not be relied upon as providing any detailed services information for construction purposes. This report has been produced on the available information provided by Supply Authority's in response to Dial Before You Dig request, informal enquiries to Energy Australia and site investigations carried out in 2007. It is likely that some services remain undocumented and this report should not be used as a guarantee of all in-ground services in the vicinity.

Formal enquiries of the various Authorities and applications for utility capacities have not been made at this time.

1.2 AUTHORITY

Authority to undertake this report was provided by PTW for Thakral Holdings Group on the 9th of April 2009.

1.3 MAJOR RECOMMENDATIONS

The following items were identified in our existing utility services review and are provided as major areas of concern:

1.3.1 Electrical

- Substations 1771 & 1772 in Zone A
- Substation 420 in Zone A

1.3.2 Communications

- Remove redundant Telstra cables in Zone A
- Renegotiate new paths for existing Telstra cables serving other buildings in Zone A
- Remove redundant AAPT/PowerTel cables in Zone A
- Remove redundant Optus/Uecomm cables in Zone A



2 BACKGROUND

2.1 INFORMATION SOURCES

- 1 Site inspection and report prepared by NDY in 2007
- 2 Dial Before You Dig information from:
 - Existing utility services drawings from AAPT/PowerTel
 - Existing utility services drawings from Verizon Business
 - Existing utility services drawings from Energy Australia
 - Existing utility services drawings from Telstra
 - Existing utility services drawings from Optus/Uecomm
 - Existing utility services drawings from RailCorp

2.2 REVISION HISTORY

	Date Issued	Comment
A	21 April 2009	Review
B	27 April 2009	Authority Submission



3 UTILITY SERVICES

Utility services affected by the proposed City One Wynyard project are shown on the sketch plan in Appendix A and include:

- Telstra Services
- AAPT/PowerTel Services
- Optus/Uecomm Services
- Verizon Business Services
- Energy Australia Services
- Railcorp Services

We understand the project is categorised into Zone A and B as shown on Appendix A and that Zone A is a major redevelopment while Zone B is mainly a refurbishment of the existing in-ground structure to facilitate for the link between Zone A and Wynyard station. Utility services noted in Zone B of the project are provided for general information only and may not necessarily be affected by the redevelopment.

3.1 TELSTRA SERVICES

Existing Telstra services are present throughout Zone A and B of the project.

There is a mixture of in-ground and aerial services expanding across the proposed City One Tower. Should the cables be redundant they can be removed. If the cables are serving other buildings then a new path for the service cables must be renegotiated with telecommunications service provider. Further investigation is required to confirm.

The majority of the existing Telstra services within the Zone B project boundary are located in York and Carrington Street. The refurbishment of Zone B will not affect the services along York Street, however, construction in Zone A may have impact on the services located in Carrington Street.

3.2 AAPT/POWERTEL SERVICES

There is one AAPT/PowerTel service line into the City One Tower site, originating from Wynyard Lane. This appears to be for the use of the existing building at the City One Tower site and would be redundant when the project is underway. Further investigation is required to confirm.

Along York Street, on the Transport House side, is a service route for AAPT/PowerTel services which appears to be serving the various buildings along that street. As no major development is to occur along this street we believe the project will not impact on these existing services.

3.3 OPTUS/UECOMM SERVICES

There is an existing Optus/Uecomm service to the City One Tower site which would be redundant as it is serving an existing building within the development boundary. Further investigation is required to confirm. Depending on the extent of the development a service line running along Carrington Street may be affected by construction works in Zone A.

Other existing Optus/Uecomm services further away from Zone A will not be affected.

3.4 VERIZON BUSINESS SERVICES

Verizon Business services, consisting of optical fibre cables in conduit, are present on York Street, close to the Transport House side. Services along this street will not be interrupted as there are no foreseeable major construction works in the area.



3.5 ENERGY AUSTRALIA SERVICES

Energy Australia services cables are present throughout the proposed development site.

Within Zone A are three existing substations, two of which are for the sole use of Zone A while the third substation is serving multiple customers, including street lighting. Energy Australia has acknowledged that the three substations will need to be replaced for the redevelopment. Substation 420 (refer to drawing attached) is proposed to be retained to serve existing customer loads, construction loads and street lighting loads from the other substations while substations 1771 & 1772 are being replaced. Upon completion of the work existing loads on substation 420 will be transferred to the new substations. Substation 420 will then be decommissioned. A new substation will be established to serve the concourse level.

Depending on the extent of the development, existing low voltage cables running along Carrington Street could be affected by works within Zone A of the project.

3.6 RAILCORP SERVICES

There are two existing substations beneath Wynyard Park (on Upper concourse level 2) belonging to Railcorp. High voltage cables to the substations are believed to enter from the corner of Margaret and York Street, and through the manhole at Wynyard Park.

Another substation, dedicated to serve the Railcorp services, is located on basement level 1. High voltage cables are believed to enter from York Lane.

At this stage we anticipate that the existing Railcorp assets will not be affected by the proposed development. However, further investigation of the existing installation will be required if major works are to occur around those areas. Note: existing asset locations are indicative only.



4 SITE STRATEGY

The site strategy for the retention and/or replacement of the existing site infrastructure will be developed in detail with all interested parties.

For guidance, the following measures are proposed.

4.1 SITE SURVEY

The services impacting on the existing site will be surveyed in conjunction with the relevant Authority to confirm their location and capacity. These services will be documented on the existing site plans.

4.2 REQUIRED CAPACITY

The capacity and location of the new services required by the City One Development will be determined as part of the concept design process for the site. The production of this information will allow meaningful discussions to take place with the services providers.

4.3 DESIGN NEGOTIATIONS

Once the site requirements have been confirmed, design discussions will take place with all relevant authorities, including but not limited to Energy Australia, State Rail Authority, Telstra, etc. Where appropriate, these authorities will be engaged to carry out preliminary design calculations to confirm the available capacity and any constraints on their infrastructure system.

These designs will then be coordinated and incorporated into the design of City One.



5 APPENDIX A – SITE PLAN – SHOWING EXISTING SERVICES



LEGEND:

- ☒ - FOOTWAY ACCESS CHAMBER/PIT/MANHOLE
- - CABLE JOINTING PIT
- ⊙ - PILLAR/CABINET (ABOVE GROUND / FREE STANDING)
- - CABLE PIT
- - SERVICE ROUTE
- #### - SERVICE ROUTE, UTILISING OTHER SERVICES DUCTS.

☐ - SUBSTATION

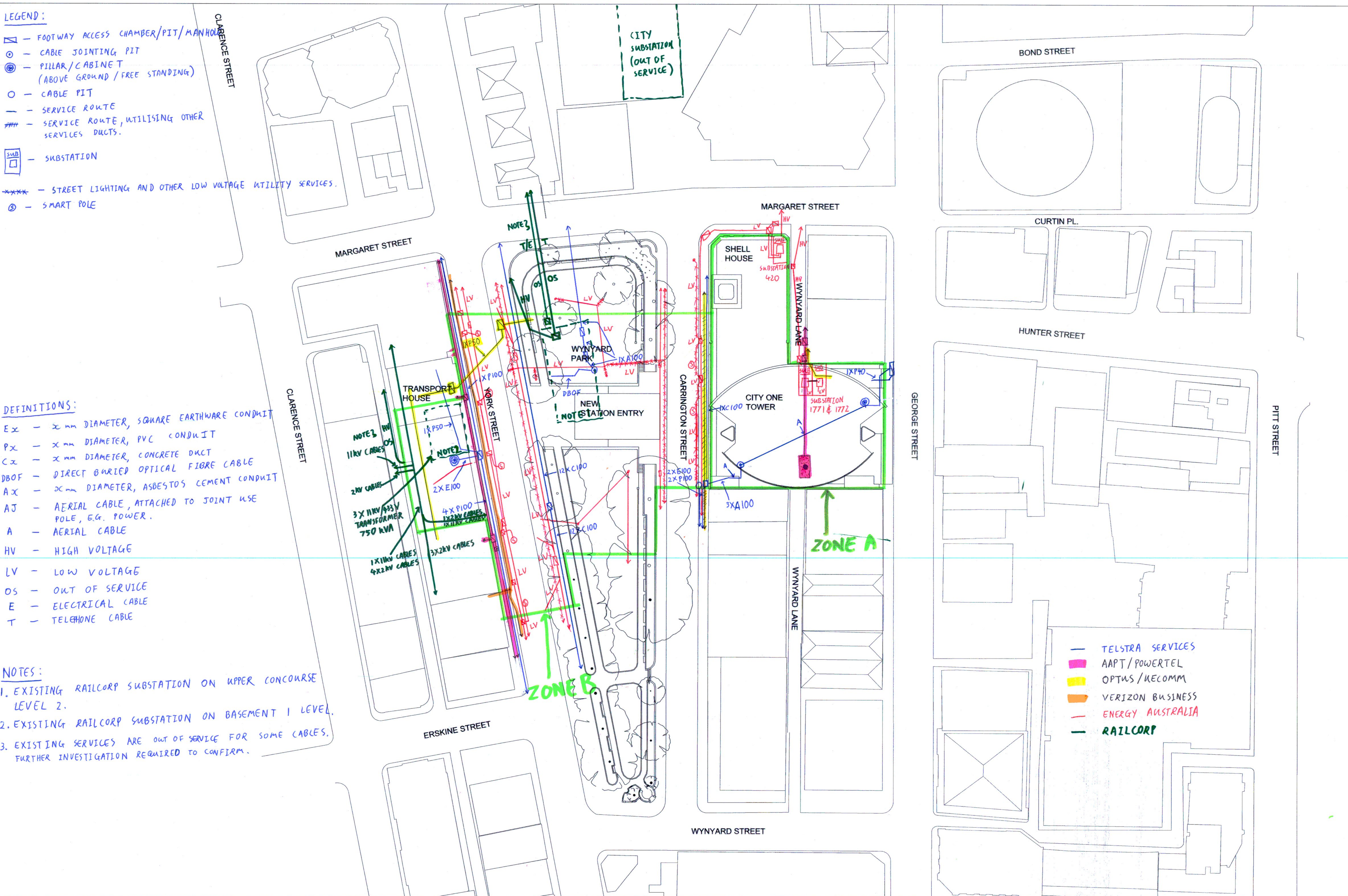
- ***** - STREET LIGHTING AND OTHER LOW VOLTAGE UTILITY SERVICES.
- ⊙ - SMART POLE

DEFINITIONS:

- Ex - x mm DIAMETER, SQUARE EARTHWARE CONDUIT
- Px - x mm DIAMETER, PVC CONDUIT
- Cx - x mm DIAMETER, CONCRETE DUCT
- DBOF - DIRECT BURIED OPTICAL FIBRE CABLE
- AX - x mm DIAMETER, ASBESTOS CEMENT CONDUIT
- AJ - AERIAL CABLE, ATTACHED TO JOINT USE POLE, E.G. POWER.
- A - AERIAL CABLE
- HV - HIGH VOLTAGE
- LV - LOW VOLTAGE
- OS - OUT OF SERVICE
- E - ELECTRICAL CABLE
- T - TELEPHONE CABLE

NOTES:

1. EXISTING RAILCORP SUBSTATION ON UPPER CONCOURSE LEVEL 2.
2. EXISTING RAILCORP SUBSTATION ON BASEMENT 1 LEVEL.
3. EXISTING SERVICES ARE OUT OF SERVICE FOR SOME CABLES. FURTHER INVESTIGATION REQUIRED TO CONFIRM.



- TELSTRA SERVICES
- AAPT/POWERTEL
- OPTUS/NECOMM
- VERIZON BUSINESS
- ENERGY AUSTRALIA
- RAILCORP

Revision	Revision	Consultants	Contractor	Client	Architect	Drawing	Project
Do not scale from drawings. Verify all dimensions on site before commencing work. Copying or the reproduction of this drawing is strictly prohibited without the consent of Peddie Thorp & Walker P/L.	A ISSUED FOR REVIEW B WORK IN PROGRESS	31/09/01 10/04/08 00/00/00 00/00/00 00/00/00 00/00/00	No Revision Issue No Revision Issue No Revision Issue No Revision Issue No Revision Issue No Revision Issue	00/00/00 00/00/00 00/00/00 00/00/00 00/00/00 00/00/00	Contractor Name Address Address Telephone Facsimile e-mail	Client's Name Address Address Telephone Facsimile e-mail	PTW Architects Level 17, 9 Castlereagh St Sydney NSW Australia 2000 T 612 9232 5877 F 612 9221 4139 www.ptw.com.au
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