

SERVICING REPORT



FINAL DRAFT

RYDE REHABILITATION REDEVELOPMENT VICTORIA ROAD RYDE, NSW

Prepared for:

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1 INTRODUCTION

Meinhardt have been engaged to undertake a desk top study and investigations into the availability, location and capacity of services for the proposed redevelopment to enable budgets to be allocated to off-site or upgrade works on services.

In particular the scope of the study is to:

- identify what services are on site
- identify what services are in the adjacent streets
- identify where will new services be connected to the local network
- identify does the existing local network have sufficient capacity to supply this development.
- determine whether any off site services need to be upgraded as a result of the development.
- Identify what will the authority charges be for the development

A services search was undertaken using “Dial Before You Dig” and utility services diagrams were obtained.

Subsequently further correspondence and discussions were held with the relevant authorities to determine the above information.

2 PROPOSED DEVELOPMENT

The proposed develop comprises a consolidation of the rehabilitation facility to a 2 hectare site and the residual land of 17 hectares being developed into residential subdivision for up to 900 dwellings including roads, parkland, community and recreation centre and infrastructure services.

3 SEWER

A review of the existing sewer services diagrams for the site revealed that several small sewer mains are located around the perimeter of the site boundary and drain those properties in Charles Street, Princes Street, Linley Way and Morrison Road. A small main also traverse the middle of the site and drains Dalton Gardens development to the sewer main in Linley Way.

In particular the sewer mains in Linley Way drain to the Northern Sydney Ocean Outfall Sewer (NSOOS) which traverses the middle of the site generally from west to east and is likely to be very deep (more than 10 metres). It is recommended that the location and details of this main will need to be determined as part of the future design in order to determine any of Sydney Water’s requirements for building over this main.

Discussions with Sydney Water also revealed that a Feasibility Application has been lodged by Cardno in 2005. Sydney Water have subsequently issued a “Guidance Note For Proposed Development” (Case No. 88672). We have reviewed the “Guidance Note For Proposed Development” from Sydney Water and advise that Sewer can be connected to the existing sewer mains at the back of properties facing Charles Street. As the majority of the site appears to drain to the sewer carrier main in Linley Way Sydney Water have advised we can connect to this main however a section of this main (260 metres) will need to be upsized to a 375mm diameter main.

Sydney Water have advised that the Developer Servicing Charges for this project are \$55,800 and are applicable to 30/6/06. Following 1/7/06 new DSP charges will apply and are subject to a new application once a revised development consent has been obtained.

4 WATER

A review of the existing water services diagrams for the site revealed that several small 100-150 mm diameter water mains are located around the perimeter of the site boundary in Charles Street, Princes Street, Linley Way and Morrison Road. In addition a large 450mm diameter trunk water main is located on the northern side of Victoria Road and a 600mm trunk water main is located in Princes Street and Morrison Road.

Sydney Water have advised that the new water mains can be connected to Princes Street, Charles Street and Ken Street. Further that a new 150mm diameter main is to be provided through the site connecting to each of the fore-mentioned streets.

Sydney Water have also advised that the developer Servicing Charges for water are \$458,125 and are applicable to 30/6/06. Following 1/7/06 new DSP charges will apply and are subject to a new application once a revised development consent has been obtained.

5 GAS

A review of Agility service diagrams indicates that low pressure mains are located on the eastern side of Morrison Road, southern side of Charles Street, western and eastern side of Victoria Road and northern side of Princes Street. A secondary main (150mm diameter) also traverses the site from Morrison Road to Kenneth Street near Victoria Road.

We have contacted Neale Hilton of Agility who advised that Agility has conducted some capacity planning to service this development. Further that natural gas supply would be connected from the 75mm nylon main in Morrison Rd, the 75mm nylon main in Charles St, the 32mm nylon main in Princes St and the 32mm nylon main in Victoria Rd. These mains are medium pressure 210kPa and currently have enough capacity to supply the additional 900 dwellings plus light commercial within this proposal. No additional upgrades external to the site will be required at this time. Please note however that capacity is not reserved for individual developments and may need to be reassessed should this proposal commence in the future.

Neale advised that any costs attributed to extending the infrastructure throughout the development can be formalised once the number of dwellings utilizing natural gas and appliance types are verified. Should the 150mm high pressure (HP) steel main, that is currently located in the Rehabilitation Centre property, need re-locating, this can be obtained from Agility's Land Services Business Unit. (contact Brad Feeney 0402 059 824).

We have subsequently contacted Brad and discussed the possibility of relocating this HP gas main to the new street network or to Morrison Road and Charles Street. Brad has advised a budget estimate for the relocation of the gas main to Morrison Road and Charles Street would be in the order of \$285,000 exclusive of GST.

6 ELECTRICITY

A review of the existing electricity services plans revealed that electricity cables are located in Victoria Road, Princes Street, Morrison Road and Charles Street. Further that there are two (2) existing substations on the site however their locations may not suit the final development layout. Energy Australia (EA) however have advised that the existing substations may be used in the early stages of the project to supply these stages however new substations will need to be constructed as required to meet demand as stages are developed.

As the proposed development will require a load of about 4 MVA (210 A - 11 kV), this development will be classified as a large load customer in accordance with Energy Australia's Capital Contribution Guidelines ES8. As such, Energy Australia (EA) have advised that the likely linkage point will be at Meadowbank Zone Substation and therefore, the method of supply will be a dedicated 11 kV underground feeder from Meadowbank Zone to the proposed development,

which is to be fully funded by the developer. Note that Meadowbank Zone is located at the corner of McPherson St and Mellor St and is approximately 2.3 kilometres from the site.

The budgetary estimated cost to install this cable to site would be in the order of \$550,000 plus road or footpath restoration.

In regards to high voltage reticulation on site, it is envisaged that the development will require about 4-6 kiosk type customer substations at various locations in the development area to reticulate the power supply to the buildings. Please note this estimate of the number of substations is subject to the final electrical load assessment, calculations and detail design.

7 TELECOMMUNICATIONS

7.1 TELSTRA

Telstra local mains services are located generally on the western side of Morrison Road, northern side of Charles Street, northern side of Princes Street and eastern side of Victoria Road.

Telstra optic fibre mains are located on the western side of Victoria Road nearest the site, and on both sides of Morrison Road. No optic fibre services are located on Princes Street or Charles Street except near Victoria Road and Morrison Road. (refer service diagrams)

Rob Giles of Telstra has verbally advised that there should be no problem with connecting the development to their network. He advised he did not think there will be sufficient capacity in the existing network however advised that Telstra have a policy to provide capacity regardless. Once an application for services is made by the developer Telstra will program any works necessary. Rob advised it will be necessary for the developer to provide trenches within the development. Telstra will then lay services in these trenches free of charge to the developer.

7.2 OPTUS

A request for information was sent to Optus however no advice has been received from Optus.

7.3 PIPE NETWORKS

As a result of our services search it was found that Pipe Networks have assets in the surrounding streets. Pipe Networks provide telephony, ISP and optic fibre cables for a variety of corporate customers including National ISPs, Large modern telecommunications carriers, Regional and Local ISPs, Large Web hosting companies, Public and Private Educational establishments as well as medium and large corporations.

Pipe Networks have advised that they have assets in Telstra ducts adjacent to the site and that these will need to be protected.

8 CONCLUSION

In summary the estimated cost for Capital Works required to service the development (excluding services reticulation on site) is shown below along with our estimate of the likely service fees and charges for headworks. Please note that these figures do not allow for such fees as:

- Water main shutdown and disinfection
- Connection of new mains
- Design and construction audit fees
- Sydney Water Contract administration on project finalisation
- Creation or modification of Sydney Water interests in land
- Further application fees for staged development etc

SERVICE	CAPITAL WORKS	DEVELOPER CHARGES
Sewer	\$265,000	\$56,000
Water	\$0	\$459,000
Gas	\$285,000	TBA
Electricity	\$550,000	TBA
Telstra	\$0	\$0
Optus	TBA	TBA
Total (excluding GST)	\$1,100,000	\$515,000

Please note also that Meinhardt have prepared these cost estimates derived from information provided by usually reliable sources but are subject to variation upon advice from utility authorities and are subject to detail design.