

Hydraulic Services Feasibility Report

FOR

Proposed New Seniors Housing

Elanora Country Club – 154 Elanora Road, Elanora Heights NSW



Client:

Elanora Country Club

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Preliminary

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Document Revision Schedule

This sheet records the Revision and Date Approval of the document. The current revision is highlighted with a grey background.

For convenience, the nature of the revision is briefly noted under 'Revision Description'. Any notes included within this schedule shall not be considered as part of the document.

Rev No.	Revision Description	Date	Author
P3	Preliminary for Review	15/08/2017	LH/DB
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1. INTRODUCTION

The following feasibility study addresses the capability of existing authority mains and Club infrastructure to support the proposed Seniors Housing at Elanora Country Club.

This is a high level report at a very early stage. We have received a copy of an Aerial Photograph entitled New Scope of Works dated 2/05/2017 by URBIS Architects and no other information.

It has not been possible to approach Sydney Water for preliminary assessment of the proposal as their minimum requirement is lodgement of a DA. We have, however been able to obtain reasonably good services information, as is available through 'Dial Before You Dig' and from that information together with our experience and liaison with other members of the team, we have formed a reasonably solid view of the project.

In compiling this report, we have raised several questions that would assist in a more detailed review.

2. SCOPE OF THE DEVELOPMENT

We have identified the following elements in the proposed development:

- Club Residential - 46 Apartments 2 and 3 bed mix.
- Additional Road works.

Each of the above elements and their demand on infrastructure are included under the service discussed.

3. SERVICES AND AVAILABILITY

3.1 POTABLE COLD WATER

A new potable cold water service will be required to service the new Seniors Housing 46 Apartments. Elsewhere, facilities should be served by extension of existing site services.

It is assumed that the apartments will be constructed under some form of community or strata title, which will require that they are served independently from the Club and directly from Sydney Water's mains.

We calculate that the probable simultaneous demand of the 46 Apartment development will be approximately 4.2 litres per second.

A review of Sydney Water's area plans indicates that they have significant water infrastructure traversing the Club site and we assess that a new connection should be approved from or near to the Iluka Avenue boundary with the site.

A condition of a future DA will be to submit the project to Sydney Water and obtain a Section 73 Notice of Requirements. This notice will contain conditions that must be met prior to occupancy. We recommend that this notice be obtained as soon as possible because it may contain conditions and charges that could impact the development.

3.2 NON POTABLE COLD WATER

There is no authority reticulated non potable service at present or planned for this area. As such any requirements for non potable water supply will need to be met by local generation/capture and reticulation which will need to be restricted to cover each land title lot.

As such we believe that should non potable water be required in the Apartments, as a condition of DA, that this requirement be met by the incorporation of local rainwater catchment and reuse on the apartment site only.

Any non potable supplies required on the residual country club site can be met by extension of the existing on site systems.

3.3 FIRE SERVICES WATER

The proposed extensions to the existing Country Club facilities will be able to be served by extension from existing fire fighting facilities.

The proposed Apartments (subject to title confirmation) will require the provision of an independent Fire Hydrant Facility and booster station.

Review of Sydney Water infrastructure drawings indicate that the capacity of the mains will be adequate to service this fire load however this will require confirmation by executing the formal section 73 application process described in Potable Water above. Head works and connection charges may apply.

3.4 IRRIGATION WATER

It is not anticipated that the proposed Seniors Housing will require any integration with the clubs current irrigation network.

3.5 SEWER DRAINAGE

Increased sewer loads will be generated by the proposed new Seniors Housing Apartments.

The new 46 Seniors Housing Apartments will, as with water, require to be supplied with an independent connection to Sydney Water's infrastructure.

This connection will require a formal application for a section 73 certificate (as described under potable water above) when a live DA number is available.

This application will generate a *Notice of Requirements* and head works charges may apply.

A review of Sydney Water's infrastructure plans indicates that a 150mm junction is available for connection to this block near it's boundary with Iluka Avenue.

This size of connection is capable of supporting the load generated by the 46 units.

Sydney Water will need to analyse the impact of development on downstream peaks.

3.6 TRADE WASTE SEWER

It is not envisaged that any specialist trade waste systems will be required for this project. Any minor trade waste generating functions would be treated with proprietary point of source treatment devices.

3.7 NATURAL GAS SERVICE

Natural gas will be required to service the proposed 46 Seniors Housing Apartments. These apartments will each require an independent gas meter.

Jemena has gas mains in Iluka Avenue and Elanora Road which are both capable of serving the proposed development.

The new service will need to be provided with a boundary regulator and an internal service pressure regulated down to 5kPa for reticulation across the site to each unit's meter location.

Reticulation through the Apartments will be at 2.75 kPa.

Jemena is the network infrastructure provider only. Each unit owner or occupier will need to contract with their own energy retailer to arrange for meter and supply connection.

End of report.