

7422/H/SM

5 November, 2014

Aurora Projects Pty Ltd
Level 6, 50 Berry Street
North Sydney NSW 2059

Attention : Suzanne Nieuwenhuizen

Dear Suzanne

**Re : Services Strategy – Hydraulic and Fire
Lismore Base Hospital Stage 3B Development**

Further to your email dated 23rd October 2014 we confirm the following services strategy for the above phase of works;

Integrated Water Management Plan

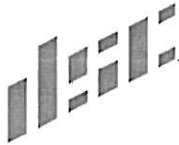
- Stage 3B will be supplied from the Stage 3A via a direct connection to the authorities watermain in Uralba Street via a water meter located adjacent to the Uralba street frontage
- A Water storage tank to ensure a water supply (limited time period) to the facility should the water main fail will located with the high level plantroom located in Stage 3B
- Installation of a water storage tank will also reduce “peaks” in water draw-off with a slower more steady draw-off
- To reduce contamination of the potable water supply backflow prevention devices will be installed as per the requirements of AS3500
- The installation of water saving taps and outlets to reduce water consumption will be adopted

Services Statements

- Sewer – Sanitary plumbing and drainage from the Stage 3B development above Stage 3A will connect into the Stage 3A redevelopment via a connection to the existing hospital's 150mm sewer located in a north westerly direction from the Stage 3A site. Sanitary plumbing and drainage from the Stage 3B development to the north of Stage 3A will connect into a new Authorities sewer

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in Little Uralba Street via an extension of their sewer in Fermoy Street. Authorities to advise if any upgrade of the existing sewer system is required due to the additional loads and design requirements associated with the extension of their sewer.

- Water – to the Stage 3B development will extend from the Stage 3A redevelopment which connects to the authorities watermain in Uralba Street via a water meter located adjacent to the Uralba street frontage. Water will initial supply an onsite water storage tank with water from this tank supplying domestic cold water fixtures and fittings as well as hot water plant, mechanical plant.
- Gas – to the Stage 3B development will extend from the Stage 3A redevelopment which connects into the authorities Liquefied Petroleum Gas (LPG) main located in Uralba Street. Gas will supply domestic hot water plant and mechanical heating plant via a gas meter located adjacent to the Uralba street frontage.

NOTE – As per Stage 3A, the Authorities have advised that when actual loads etc are known a formal submission should be made.

Stormwater, Onsite stormwater detention, sedimentation and erosion control etc is being undertaken by the civil engineer

Yours faithfully,

DONNELLEY SIMPSON CLEARY CONSULTING ENGINEERS PTY LTD

Simon Matthews
Director

TO: Geoff Ong (Health Infrastructure)

CC: Steven Brims (Wood & Grieve Engineers)
Alissandra Johnston (Woods Bagot)
Suzanne Nieuwenhuizen (Aurora Projects)

FROM: Paul De Gabriele

PROJECT: Lismore Base Hospital Stage 3B

PROJECT NUMBER: 25262-SYD-E-1

DATE: 23 October 2014

SUBJECT: Electrical Services and Telecommunications Services – Director General Requirements

The following information regarding electrical and telecommunications services is provided to assist in the preparation of an Infrastructure Management Plan in accordance with the Director-General's Requirements for the Lismore Base Hospital Stage 3B Redevelopment.

Electrical Services

The relevant supply authority for the region is Essential Energy. The existing Lismore Base Hospital site is served by the following Essential Energy supplies:

- 2x1,000kVA chamber substation located within the existing Block B.
- 1x1,000kVA pad-mount substation located adjacent to the existing Cancer Care building.
- 1x750kVA pad-mount substation located on Hunter Street.
- 1xthree phase overhead low voltage (LV) from the Essential Energy 300kVA transformer located on Hunter Street.

The existing substations have insufficient spare capacity to serve the Stage 3B Redevelopment.

A new 1,500kVA pad-mount substation will be installed at the Uralba Street frontage as part of the Stage 3A redevelopment. In order to supply the enlarged building at Stage 3B, a second 1,500kVA pad-mount substation will be installed adjacent to the Stage 3A substation. New Essential Energy underground high voltage cabling will be provided to the new substation. This arrangement has been approved by Essential Energy and we attach correspondence confirming this. The new building will be supplied by the new substations via new underground low voltage consumers mains cabling.

Telecommunications Services

The existing site is served by the following telecommunications carriers (lead-in services):

- Telstra
- Australia's Academic and Research Network (AARNET)
- Nextgen (TPG)

Additional carrier service(s) may be provided to the site as part of Stage 3B in order to provide service redundancy (backup).

Attachments

- Email from Essential Energy confirming availability of supply.

If you have any queries, please contact the author.

Regards



Paul De Gabriele
for **Wood & Grieve Engineers**

Paul De Gabriele

From: Mark.Grainger@essentialenergy.com.au
Sent: Thursday, 2 May 2013 9:07 AM
To: Paul De Gabriele
Subject: Re: Lismore Base Hospital Stage 3a Redevelopment
Attachments: Lismore Hospital .pdf; pic00046.gif

Hi Paul

Essential Energy can see no issues arising by supplying the development from 1 x 1500KVA padsub in lieu of 2 x 500KVA padsubs.

Please be aware that if a second 1500KVA padsub is required for the later expansion (3B), an additional 11KV connection would be required from existing sub 41-10052, Uralba St as well as the upgrading of 2 span of existing OH conductor and a short section of UG cable from pole 10175. A 4-way RMU would also be required in the initial sub.

If this second sub is a real possibility I would recommend a spare conduit be installed along Uralba St at the same time as the cable for the initial stage.

(See attached file: Lismore Hospital .pdf)

Regards
Mark Grainger
Network Planning Engineering Officer

(Embedded image moved to file: pic00046.gif)T: 02 6643 7745 | mark.grainger@essentialenergy.com.au
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For information about our network operations visit www.essentialenergy.com.au, or call general enquiries - 13 23 91. Customers within the Essential Energy network area can contact us on 13 20 80 to report electricity network faults and emergencies. Water customers in Broken Hill and surrounding areas can report faults to their water service on 13 20 80. Our local field service teams will be ready to respond 24 hours a day, seven days a week.

From: Paul De Gabriele <paul.de.gabriele@wge.com.au>
To: "'mark.grainger@essentialenergy.com.au'"
<mark.grainger@essentialenergy.com.au>
Cc: Mark Mulholland <mark.mulholland@wge.com.au>
Date: 22/04/2013 06:37 PM
Subject:Lismore Base Hospital Stage 3a Redevelopment

Dear Mark

As discussed on Friday, we are now the electrical engineers for the above project. We are investigating an option of supplying the development with only one 1,500kVA pad mount substation in lieu of the 2x500kVA pad mount substations that were proposed in the DIP. The later vertical expansion (Phase 3B) could be supplied by a second

1,500kVA pad mount substation installed at a later date adjacent to the first substation, subject to the maximum demand assessment for this future development.

Please advise whether a new switching station would be required for the above arrangement.

We understand that a new application for connection must be made for the project but would be grateful for your approval in principle of the above option prior to the application so that we can inform the client.

Regards

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