



PROPOSED MIXED USE DEVELOPMENT 181 JAMES RUSE DRIVE, CAMELLIA

SERVICES INFRASTRUCTURE

SEPTEMBER 2014

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1. INTRODUCTION

A former industrial site fronting the Parramatta River at 181 James Ruse Drive Camellia is proposed for redevelopment for a high rise mixed use development.

A planning proposal submitted in a gateway process with the Department of Planning and Environment has been approved subject to the provision of additional information.

One aspect of additional information requested was “A report which considers the requirement for upgrades to utility infrastructure including water, sewer and power”.

This report details how the development is likely to be serviced with water, sewer, power and gas.

2. SITE DESCRIPTION

The site has an area of approximately 6.8ha and is bounded on the northern side by Parramatta River, on the western side by James Ruse Drive, on the eastern side by the Carlingford rail line and on the southern side by Tasman Street (see Figure 1). It also has a long handle heading south along the rail line to provide access to the Camellia rail station.

The site ground levels vary from around RL 3.6m AHD at the river foreshore and up to RL 5.8m at the southern boundary.

The subject site is part of the Camellia: 21st Century Business, Industry and Entertainment Precinct which the Department of Planning and Environment and Parramatta Council consider to be one of the most important employment precincts ...with great strategic value....and opportunities for future development.

3. PROPOSED DEVELOPMENT

The proposed high rise development consists of basement carpark, 13,180m² GFA retail floor space on a podium level at RL 6.5m AHD and approximately 2,845 apartments above (see Figure 2). The minimum residential (habitable) floor level would be RL 8.0m AHD. The internal road system would be located above the basement at a level of RL 6.5m AHD.

The development would consist of apartment towers between 14 to 35 floors high.

4. EXISTING SERVICES

4.1 Water

There are significant water mains located along James Ruse Drive and Grand Ave near to the subject site.

Approximately 1km south of the subject site, a 300mm main connects to a 1500mm main in Eleanor St. This 300mm main continues north along James Ruse Drive gradually decreasing in size to a 150mm main at the subject site frontage.

Along Grand Ave there are twin watermain consisting of a 150mm main and a 250-300mm main. These mains are only about 120m south of the subject site.

4.2 Sewer

There is a large concrete sewer (711x1066mm) which services the subject site and drains to the sewage pumping station (SP0067) approximately 150m south of the subject site.

4.3 Power

The Rosehill Zone Substation is located on the corner of Unwin and Colquhoun Streets approximately 2km south of the subject site.

4.4 Gas

There are 100mm secondary gas mains located adjacent to the subject site on the western side of James Ruse Drive and on the northern side of Grand Ave. There is another secondary gas main along the eastern boundary of the subject site adjacent to the Carlingford rail corridor.

5. PROPOSED UTILITY INFRASTRUCTURE UPGRADES

The upgrades to the water, sewer, power and gas infrastructure required to service the proposed development are detailed in the following sections. The provision of telecommunications infrastructure is the responsibility of Telstra and NBN Co.

5.1 Water

Sydney Water has advised in their Feasibility Letter (refer attachment B) that the proposed development could be serviced by connection to the 150mm diameter watermain in James Ruse Drive and the 250mm diameter watermain in Grand Ave. The internal watermain in the development would likely be a 250mm diameter watermain.

5.2 Sewer

The site is already serviced by a large sewer main and pumping station. Sydney Water has advised in their Feasibility Letter (refer attachment B) that the proposed development could be serviced by connection to the existing sewer.

5.3 Power

Liaison with Endeavour Energy identified that the Rosehill Zone Substation was recently upgraded and could service the proposed development.

Endeavour Energy has advised that the developer would be responsible for provision of a 11kV high voltage feeder between the ZS and the subject site (refer Attachment A).

5.4 Gas

High pressure secondary gas mains are located around the site boundary and are likely to be able to service the proposed development.

Supply of gas to the development by Jemena would depend on Jemena's commercial assessment of the viability of this supply.

6. CONCLUSION

The subject development is considered to be readily serviced by reasonable upgrades of local infrastructure for water, sewer, power, gas and telecommunications.

FIGURES

FIGURE 1



FIGURE 2



ATTACHMENT A

Email from Endeavour Energy

Mark Tooker

From: Len Blair-Hickman
Sent: Friday, 22 August 2014 11:24 AM
To: mark.tooker@npc.com.au
Subject: FW: TECHNICAL REVIEW REQUEST - CAMELLIA (EAST PARRAMATTA)
Attachments: Layout plan.pdf; Location plan.pdf; Lot details.pdf; 20140821101056653.pdf; FPJ6009.pdf

Mark,

There is insufficient capacity in the network to supply the development. A new 11kV feeder is expected to be required and will originate from Rose Hill Zone Substation located corner Unwin and Colquhoun Streets, however our planning branch will need to be engaged by submission of an application for connection of load. A form is attached for your convenience.

Len Blair-Hickman
Major Projects and Customer Manager
Ph: 9853 7928, Mob: 0403 343 172, fax:9853 7903
PO Box 811 Seven Hills 1730
len.blair-hickman@endeavourenergy.com.au

From: David Otto
Sent: Friday, 22 August 2014 10:28 AM
To: Len Blair-Hickman
Subject: RE: TECHNICAL REVIEW REQUEST - CAMELLIA (EAST PARRAMATTA)

Len

Technical review request at Camellia – not solar.

Regards,
David Otto

From: Len Blair-Hickman
Sent: Friday, 22 August 2014 10:26 AM
To: David Otto
Subject: FW: TECHNICAL REVIEW REQUEST - CAMELLIA (EAST PARRAMATTA)

From: CWAdmin
Sent: Friday, August 22, 2014 10:26:01 AM
To: Len Blair-Hickman
Subject: FW: TECHNICAL REVIEW REQUEST - CAMELLIA (EAST PARRAMATTA)
Auto forwarded by a Rule

Louise Fabrello

Contestable Works Administrator

D: 61 2 9853 7933

F: 61 2 9853 7925

T: 131 081

E: louise.fabrello@endeavourenergy.com.au

PO Box 811, SEVEN HILLS NSW 1730

www.endeavourenergy.com.au

From: Mark Tooker [<mailto:mark.tooker@npc.com.au>]

Sent: Thursday, 21 August 2014 9:27 AM

To: CWAdmin; David Ho

Subject: FW: TECHNICAL REVIEW REQUEST - CAMELLIA (EAST PARRAMATTA)

Admin/David,

This time with the Technical Review Request form.

Thanks

Mark



Mark Tooker |

t: +61 2 9906 8611 | **d:** +61 2 9432 2808 | **f:** +61 2 9906 7318 | **m:** +61 409 912 631

level 4 10-12 clark street crows nest nsw 2065 australia | po box 1060 crows nest nsw 1585

Offices: Sydney Australia, Hanoi, Hai Phong & Ho Chi Minh City Vietnam

e: mark.tooker@npc.com.au | **w:** www.npc.com.au

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From: Mark Tooker [<mailto:mark.tooker@npc.com.au>]

Sent: Thursday, 21 August 2014 9:19 AM

To: CWAdmin; DAVID HO (david.ho@endeavourenergy.com.au)

Subject: TECHNICAL REVIEW REQUEST - CAMELLIA (EAST PARRAMATTA)

Admin/David,

Attached is the request for the proposed redevelopment of a 6.8ha site at 181 James Ruse Drive Camellia. The lot numbers are detailed on the attachment marked as lot numbers. The location of the site is presented on the attached noted as location plan. The development will consist of 2500 apartments and 13,500m2 of retail. The apartments will be located in buildings between 12 and 25 floors high. The development will commence in about 2 years and extend for about 10 years. A schematic plan layout of the proposed development is presented on the attachment noted as layout.

It would be appreciated if you could indicate that Rosehill ZS has sufficient power supply to service this proposed development and the likely number of HV feeders required to service the development.

If you have any questions, please do not hesitate to ring me on 0409 912 631.

Thanks

Mark



Mark Tooker |

t: +61 2 9906 8611 | **d:** +61 2 9432 2808 | **f:** +61 2 9906 7318 | **m:** +61 409 912 631

level 4 10-12 clarke street crows nest nsw 2065 australia | po box 1060 crows nest nsw 1585

Offices: Sydney Australia, Hanoi, Hai Phong & Ho Chi Minh City Vietnam

e: mark.tooker@npc.com.au | **w:** www.npc.com.au

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.....

ATTACHMENT B

Sydney Water Feasibility Letter

Case Number: **140873**

23 September 2014

NPC
C/- Qalchek Pty Ltd

FEASIBILITY LETTER

Developer: NPC
Your reference: PM 13095
Development: 181 James Ruse Drive, Camellia
Development Description: Proposed new development consisting of 2500 apartments and 13,500m² of retail. The apartments will be located in buildings between 12 and 25 storeys high. The development will commence in two years' time and extend over a 10 year period.
Your application date: 27 August 2014

Dear Applicant,

This Feasibility Letter (Letter) is a guide only. It provides general information about what Sydney Water's requirements could be if you applied to us for a Section 73 Certificate (Certificate) for your proposed development. **The information is accurate at today's date only.**

If you obtain development consent for that development from your consent authority (this is usually your local Council) they will require you to apply to us for a Section 73 Certificate. You will need to submit a new application (and pay another application fee) to us for that Certificate by using your current or another Water Servicing Coordinator (Coordinator).

Sydney Water will then send you either a:

- Notice of Requirements (Notice) and Developer Works Deed (Deed) or
- Certificate.

These documents will be the definitive statement of Sydney Water's requirements.

There may be changes in Sydney Water's requirements between the issue dates of this Letter and the Notice or Certificate. The changes may be:

- if you change your proposed development eg the development description or the plan/site layout, after today, the requirements in this Letter could change when you submit

your new application; and

- if you decide to do your development in stages then you must submit a new application (and pay another application fee) for each stage.

You have made an application for specific information. Sydney Water's possible requirements are set out on the following pages:

What You Must Do To Get A Section 73 Certificate In The Future

To get a Section 73 Certificate you must do the following things. You can also find out about this process by visiting www.sydneywater.com.au > Plumbing, building & developing > Developing > Land development.

1. **Obtain Development Consent from the consent authority for your development proposal.**
2. **Engage a Water Servicing Coordinator (Coordinator).**

You must engage your current or another authorised Coordinator to manage the design and construction of works that you must provide, at your cost, to service your development. If you wish to engage another Coordinator (at any point in this process) you must write and tell Sydney Water.

For a list of authorised Coordinators, either visit www.sydneywater.com.au > Plumbing, building & developing > Developing > Providers > Lists or call **13 20 92**.

The Coordinator will be your point of contact with Sydney Water. They can answer most questions that you might have about the process and developer charges and can give you a quote or information about costs for services/works (including Sydney Water costs).

3. Developer Works Deed

After the Coordinator has submitted your new application, they will receive the Sydney Water Notice and Developer Works Deed. You and your accredited Developer Infrastructure Providers (Providers) will need to sign and lodge both copies of the Deed with your nominated Coordinator. After Sydney Water has signed the documents, one copy will be returned to the Coordinator.

The Deed sets out for this project:

- your responsibilities;
- Sydney Water's responsibilities; and
- the Provider's responsibilities.

You must do all the things that we ask you to do in that Deed. This is because your development does not have water and sewer services and you must construct and pay for the following works extensions under this Deed to provide these services.

Note: The Coordinator must be fully authorised by us for the whole time of the agreement.

4. Water and Sewer Works

4.1 Water

Your development must have a frontage to a water main that is the right size and can be used for connection.

Sydney Water has assessed your application and found that:

- Preliminary investigation indicates that the existing water supply from the DN150 water main in James Ruse Drive and DN250 water main in Grand Avenue has sufficient capacity to cater for the estimated additional water demands for this development.
- However, the Application for the first stage of the development, to be lodged with Sydney Water, should include a concept servicing strategy detailing the proposed water supply scheme plan for the ultimate development.
- The Developer will need to construct additional suitably sized water mains within the site as the proposed development proceeds. These mains must be designed and constructed in accordance with the standards set out in the “Water Supply Code of Australia – Sydney Water Edition”. Your Water Servicing Coordinator will be able to provide further advice about this.
- Refer to additional advice under “Large Water Service Connections”, “Fire Fighting”, “Individual metering of units” and “Private Water Services, Connections and Metering” located at the end of this Letter.
- Further detailed requirements will only be made known for any development of the site after an approval within the meaning of Section 69 of the Sydney Water Act 1994 is obtained and an application for a Section 73 Subdivider/Developer Compliance Certificate is made.

Additional advice on Water Mains Not in Dedicated Public Roads

If you have to construct a water main to get a Section 73 Certificate and this water main is not in a dedicated public road or pathway, you have to pay to create an easement in favour of Sydney Water. The easement will also have to include conditions about adequate drainage. (See condition (b) below.)

Your Design Consultant must take this requirement into account when designing the works.

You will not be given a Section 73 Certificate until:

- (a) the water main(s) have been constructed: and
- (b) the main can be flushed by Sydney Water without the discharge of water onto private property. This condition must be incorporated in the easement documentation; and
- (c) you have paid to have a survey and the survey has been completed, before the trenches are backfilled, to define the centreline of each water main; and
- (d) all plans and documents relating to the easement have been approved by Sydney Water; and
- (e) you have paid our related costs; and
- (f) you have paid the security we require for each easement until it is registered.

You can get all the easement details from Sydney Water’s Group Property, 1 Smith Street, Parramatta 2150. Ph: (02) 8849 6223 or (02) 8849 5647.

4.2 Sewer

Your development must have a sewer main that is the right size and can be used for connection. That sewer must also have a connection point within your development's boundaries.

Sydney Water has assessed your application and found that:

- § Preliminary investigation indicates the existing trunk wastewater system has capacity to service the proposed development.
- § However, the Application for the first stage of the development, to be lodged with Sydney Water, should include a concept wastewater servicing strategy detailing the proposed extensions and connections to the existing system to serve the ultimate development. A Catchment Plan should include wastewater discharge from the ultimate development, by land use, ie residential, commercial etc. This should be based on information contained in the Sewerage Code of Australia – Sydney Water Edition.
- § The Developer will need to construct additional suitably sized sewers within the site as the proposed development proceeds. These sewers must be designed and constructed in accordance with the standards set out in the “Sewerage Code of Australia – Sydney Water Edition”. Your Water Servicing Coordinator will be able to provide further advice about this.
- § Further detailed requirements will only be made known for any development of the site after an approval within the meaning of Section 69 of the Sydney Water Act 1994 is obtained and an application for a Section 73 Subdivider/Developer Compliance Certificate is made.
- § Your attention is also drawn to the presence of a Sydney Water Oviform (711x1066 Concrete) Trunk Sewer within an “Easement for Sewage 6.095W” crossing James Ruse Drive and located along the southern boundary of your development site.

5. Ancillary Matters

5.1 Asset adjustments

After Sydney Water issues this Notice (and more detailed designs are available), Sydney Water may require that the water main/sewer main/stormwater located in the footway/your property needs to be adjusted/deviated. If this happens, you will need to do this work as well as the extension we have detailed above at your cost. The work must meet the conditions of this Notice and you will need to complete it **before we can issue the Certificate**. Sydney Water will need to see the completed designs for the work and we will require you to lodge a security. The security will be refunded once the work is completed.

5.2 Entry onto neighbouring property

If you need to enter a neighbouring property, you must have the written permission of the relevant property owners and tenants. You must use Sydney Water's **Permission to Enter** form(s) for this. You can get copies of these forms from your Coordinator or the Sydney Water website. Your Coordinator can also negotiate on your behalf. Please make sure that you address all the items on the form(s) including payment of compensation and whether there are other ways of designing and constructing that could avoid or reduce their impacts. You will be responsible for all costs of mediation involved in resolving any disputes. Please

allow enough time for entry issues to be resolved.

5.3 Costs

Construction of these **future** works will require you to pay project management, survey, design and construction costs **directly to your suppliers**. Additional costs payable to Sydney Water may include:

- water main shutdown and disinfection;
- connection of new water mains to Sydney Water system(s);
- design and construction audit fees;
- contract administration, Operations Area Charge & Customer Redress prior to project finalisation;
- creation or alteration of easements etc; and
- water usage charges where water has been supplied for building activity purposes prior to disinfection of a newly constructed water main.

Note: Payment for any Goods and Services (including Customer Redress) provided by Sydney Water will be required prior to the issue of the Section 73 Certificate or release of the Bank Guarantee or Cash Bond.

Your Coordinator can tell you about these costs.

OTHER THINGS YOU MAY NEED TO DO

Shown below are other things you need to do that are NOT a requirement for the Certificate. They may well be a requirement of Sydney Water in the future because of the impact of your development on our assets. You must read them before you go any further.

Stamping and approval of your building plans

Please note that your building plans must be stamped and approved. This can be done at a Quick Check agency. For an agency list visit www.sydneywater.com.au > Plumbing, building & developing > Building > Quick Check agents or call 13 20 92.

This is not a requirement of the Certificate but the approval is needed because construction/building works may impact on existing Sydney Water assets (e.g. water and sewer mains). In any case, these works **MUST NOT** commence until Sydney Water has granted approval.

Your Coordinator can tell you about the approval process including:

- Possible requirements;
- Costs; and
- Timeframes.

Note: You must obtain our written approval before you do any work on Sydney Water's systems. Sydney Water will take action to have work stopped on the site if you do not have that approval. We will apply Section 44 of the *Sydney Water Act 1994*.

Individual metering of units

From 1 September 2014, it is **mandatory** for new multi-level developments to be designed for individual unit metering. However, because your Section 73 Certificate application was received before then you have the option to install the pipework and meters.

Visit www.sydneywater.com.au > Plumbing, Building & Developing > Plumbing > Meters & metered standpipes to look at our *Multi-level individual metering guide* and find out more.

Backflow Prevention Water supply connections

A backflow prevention containment device appropriate to the property's hazard rating must be installed at the property boundary. The device is to be installed on all water supplies entering the property, regardless of the supply type or metering arrangements. It is needed to reduce the risk of contamination by backflow from these supplies.

A licensed plumber with backflow accreditation can advise you of the correct requirements for your property. To view a copy of Sydney Water's Backflow Prevention Policy and a list of backflow accredited plumbers visit www.sydneywater.com.au > Plumbing, building & developing > Plumbing > Backflow prevention.

Fire Fighting

Definition of fire fighting systems is the responsibility of the developer and is not part of the Section 73 process. It is recommended that a consultant should advise the developer regarding the fire fighting flow of the development and the ability of Sydney Water's system to provide that flow in an emergency. Sydney Water's Operating Licence directs that Sydney Water's mains are only required to provide domestic supply at a minimum pressure of 15 m head.

Disused Water Service Sealing

You must pay to disconnect all disused private water services and seal them at the point of connection to a Sydney Water water main. This work must meet Sydney Water's standards in the Plumbing Code of Australia (the Code) and be done by a licensed plumber. The licensed plumber must arrange for an inspection of the work by a NSW Fair Trading Plumbing Inspection Assurance Services (PIAS) officer. After that officer has looked at the work, the drainer can issue the Certificate of Compliance. The Code requires this.

Disused Sewerage Service Sealing

Please do not forget that you must pay to disconnect all disused private sewerage services and seal them at the point of connection to a Sydney Water sewer main. This work must meet Sydney Water's standards in the Plumbing Code of Australia (the Code) and be done by a licensed drainer. The licensed drainer must arrange for an inspection of the work by a NSW Fair Trading Plumbing Inspection Assurance Services (PIAS) officer. After that officer has looked at the work, the drainer can issue the Certificate of Compliance. The Code requires this.

Large Water Service Connection

Once you have completed construction of the necessary additional reticulation water mains

required to serve the various stages of the proposed development, these mains would then be available to provide your development with a domestic supply. The size of your development means that you will need connections larger than the standard domestic 20 mm size.

To get approval for such a connection, you will need to lodge an application with a Quick Check agent. You, or your Hydraulic Consultant, may need to supply the following:

- A plan of the hydraulic layout;
- A list of all the fixtures/fittings within the property;
- A copy of the fireflow pressure inquiry issued by Sydney Water;
- A pump application form (if a pump is required);
- All pump details (if a pump is required).

You will have to pay an application fee.

Sydney Water does not consider whether a water main is adequate for fire fighting purposes for your development. We cannot guarantee that this water supply will meet your Council's firefighting requirements. The Council and your Hydraulic Consultant can help.

Private Water Services Connection and Metering

To provide domestic water to the total development you will need to connect to the Sydney Water main. This connection must comply with the Plumbing Code of Australia. You may have to include isolation valves on either side of the connection(s) to the Sydney Water main.

Visit www.sydneywater.com.au > Plumbing, building & developing > Plumbing > Meters & metered standpipes to help position meters correctly.

For a vertical commercial/residential building, the meter servicing the residential area generally must be located in the commercial area and after all commercial off-takes.

Sydney Water will supply enough meters to meet the above guidelines but will not provide check meters. All meters **must** be placed in an accessible area that should be either:

- no more than one metre inside the property boundary **or**
- in a location acceptable to Sydney Water eg in the commercial area after all commercial off-takes.

Soffit Requirements

Please be aware that floor levels must be able to meet Sydney Water's soffit requirements for property connection and drainage.

Other fees and requirements

The requirements in this Notice relate to your Certificate application only. Sydney Water may be involved with other aspects of your development and there may be other fees or requirements. These include:

- plumbing and drainage inspection costs;
- the installation of backflow prevention devices; and
- Council firefighting requirements. (It will help you to know what the firefighting requirements are for your development as soon as possible. Your Hydraulic Consultant can help you here.)

No warranties or assurances can be given about the suitability of this document or any of its provisions for any specific transaction. It does not constitute an approval from Sydney Water and to the extent that it is able, Sydney Water limits its liability to the reissue of this Letter or the return of your application fee. You should rely on your own independent professional advice.

END