

9-11 Bowen Bridge Road, Bowen Hills
Lot 11 & 12 RP9940
Our ref: 130743

SERVICING REPORT
JANUARY 2014

PLANS AND DOCUMENTS
referred to in the PDA APPROVAL

19 MAR 2014

MEDQ



sellick
consultants

structural civil hydraulic engineers



Report Amendment Record

No	Description	Design and Documentation	Reviewed	Date
1	Client Review	Mark Richardson	Bernie Cusack	29 January 2014
2	Development Approval Only	Mark Richardson	Bernie Cusack	29 January 2014

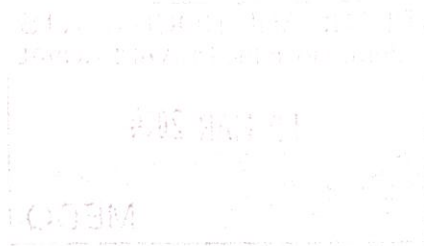




Table of Contents

1. Introduction	2
2. External Services	2
Appendix A Existing Records	5
Appendix B Correspondence with QUU	9

1. Introduction

1.1. Purpose

The purpose of this report is to present the hydraulic servicing requirements for the proposed development at 9-11 Bowen Bridge Rd, Bowen Hills, including:

- Sewer
- Stormwater
- Water
- Gas
- Communications
- Electrical

Some available existing services information was obtained from the various local authorities and service providers in the area, in advance of this report. A survey was also conducted across the site

1.2. Proposed Development

Currently lot 12 has a single timber building and lot 11 is currently undeveloped

The site is intended to be used as a mixed use development, with basement car parking below ground and at ground level, retail space fronting Bowen Bridge Road and residential use on levels 1 - 9.

1.3. Existing records

All existing records discussed are taken from local authority or Dial Before You Dig records and should be checked on site prior to construction.

2. External Services

2.1. Sewer

The existing sewer infrastructure comprises a 375mm diameter main along Bowen Bridge Road as well as a 150mm diameter main along Walden Lane. One existing sewer service exists for each lot. Existing records show that both mains are under the road.

The existing sewer mains are owned and operated by Queensland Urban Utilities.

A single 150mm diameter sewer service is required to adequately service the sewage for the site.

It is proposed to abandon the 2 existing sewer services that currently connect to the 375mm diameter sewer main and connect a new 150mm diameter sewer service to the 150mm main on Walden Lane via the existing manhole. It is noted that this sewer is on the higher side of the site and as such a detailed levels check will be required at detailed design stage. Based on the records showing that the sewer main is within the road, these works will require works within the roadway.

Some discussion has been undertaken with asset owners on specific servicing requirements for this site. Based on this it is considered that the existing sewer mains on Walden Lane or Bowen Bridge Road have the capacity to be connected to. Refer emails included in Appendix B.



Formal applications will be required at a later date. All works are to be completed in accordance with local council and asset owner requirements.

A further detailed design (including a sizing and levels check) will need to be conducted to investigate the viability of this connection. Specific asset owner requirements will also need to be considered.

2.2. Water

The existing water infrastructure comprises a 225mm diameter main along Bowen Bridge Road, within the verge. One hydrant exists on the main. One existing water tie is assumed to exist for each lot. No existing records are available for water ties. Existing records show that the main is in the verge.

The existing water mains are owned and operated by Queensland Urban Utilities.

A single 150mm diameter water service is required to adequately service the fire and water demands for the site.

It is proposed to remove the 2 existing water services that currently connect to the 225mm diameter water main and connect a new 150mm diameter water tie to the main. Based on the records showing that the sewer main is within the verge, these works will likely only require works in the verge.

Some preliminary discussion has been undertaken with the local council on specific servicing requirements for this site and this connection location has been discussed as having acceptable capacity. Refer emails included in Appendix B.

Formal applications will be required at a later date. All works are to be completed in accordance with local council and asset owner requirements.

Any fire tank required due to pressure of the main will be provided below the basement.

A further detailed design (including a sizing and pressure check) will need to be conducted to investigate the viability of this connection. Specific asset owner requirements will also need to be considered.

2.3. Stormwater

The existing stormwater infrastructure comprises a 300mm diameter main along Walden Lane, within the road. Existing records show the main as being 100mm however the survey shows the outlet from a nearby pit to be 300mm diameter. On this basis it is assumed that the main is 300mm diameter. One existing stormwater tie is assumed to exist for each lot. No existing records are available for these services. Existing records show that the main is in the road.

The existing stormwater mains are owned and operated by Brisbane City Council.

A Site Based Stormwater Management Plan has been completed separately to address local council requirements in terms of stormwater management.

A single 300mm diameter stormwater service is required to adequately service the stormwater for the site, with discharge controlled by an orifice plate in accordance with the Site Based Stormwater Management Plan.

It is proposed to remove the 2 existing stormwater services that currently connect to the 300mm diameter stormwater main and connect a new 300mm diameter stormwater service to the main via a new manhole. Based on the records showing



that the stormwater main is within the road, this works will likely require works in the road.

Some preliminary discussion has been undertaken with the local council on specific servicing requirements for this site and this connection location has been discussed.

Formal applications will be required at a later date. All works are to be completed in accordance with local council and asset owner requirements.

A further detailed design (including a levels check) will need to be conducted to investigate the viability of this connection. Specific asset owner requirements will also need to be considered.

2.4. Gas

The existing gas infrastructure comprises a 32mm diameter low pressure main along Bowen Bridge Road verge as well as a 110mm diameter high pressure main, along Bowen Bridge roadway. It is unknown whether the existing lots have gas services.

The existing gas mains are owned and operated by APA Group.

No sizing design has been completed for the gas servicing, however it is assumed to be serviced from the low pressure main in the verge.

It is proposed to remove any existing gas ties that currently connect to the existing main and connect a new appropriately sized gas service to the low pressure main in the verge. Based on the records showing that the gas main is within the verge, this works will likely require works in the verge only.

No discussion has been undertaken with the local council or asset owners on specific servicing requirements for this site. Formal applications will be required at a later date. All works are to be completed in accordance with local council and asset owner requirements.

A further detailed design (including a sizing requirement) will need to be conducted to investigate the viability of this connection. Specific asset owner requirements will also need to be considered.

2.5. Communications

The existing communications services adjacent to the development comprise the following:

- Optus cabling on Bowen Bridge Road
- Uecomm cabling on Walden St
- AAPT cabling on the opposite side of Bowen Bridge Road

The electrical consultant will design the communications servicing in accordance with specific asset owner requirements.

2.6. Electrical

The existing electrical services adjacent to the development comprise the following:

- Energex cabling on Bowen Bridge Road

The electrical consultant will design the communications servicing in accordance with specific asset owner requirements.



Appendix A

Existing Records

9-11 Bowen Bridge Rd Herston

Existing Infrastructure

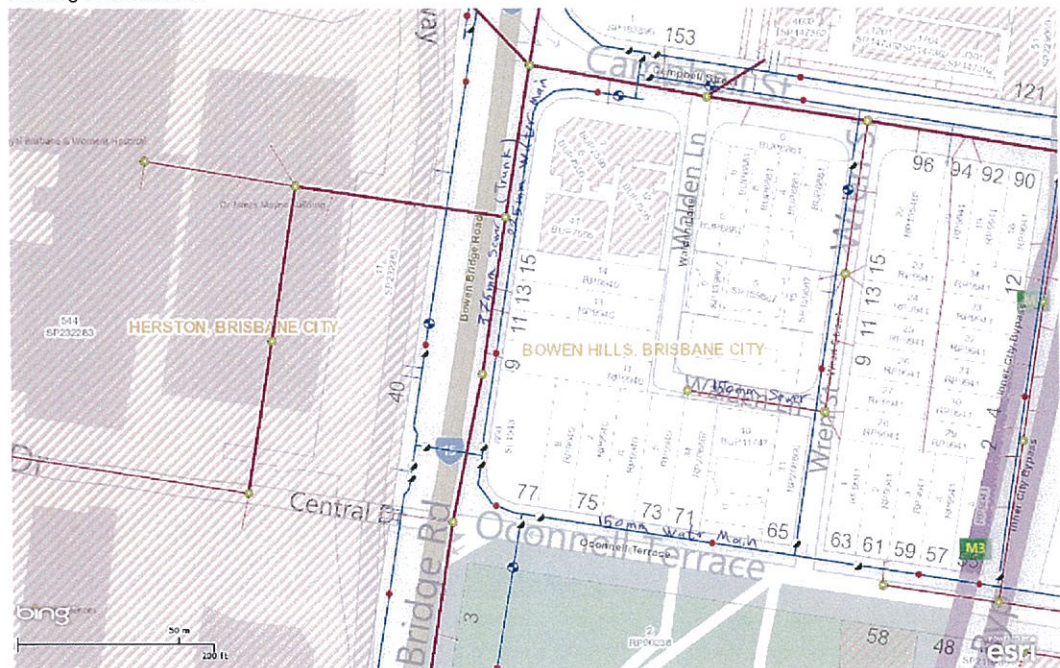


Figure A.1 - Existing Sewer & Water Records

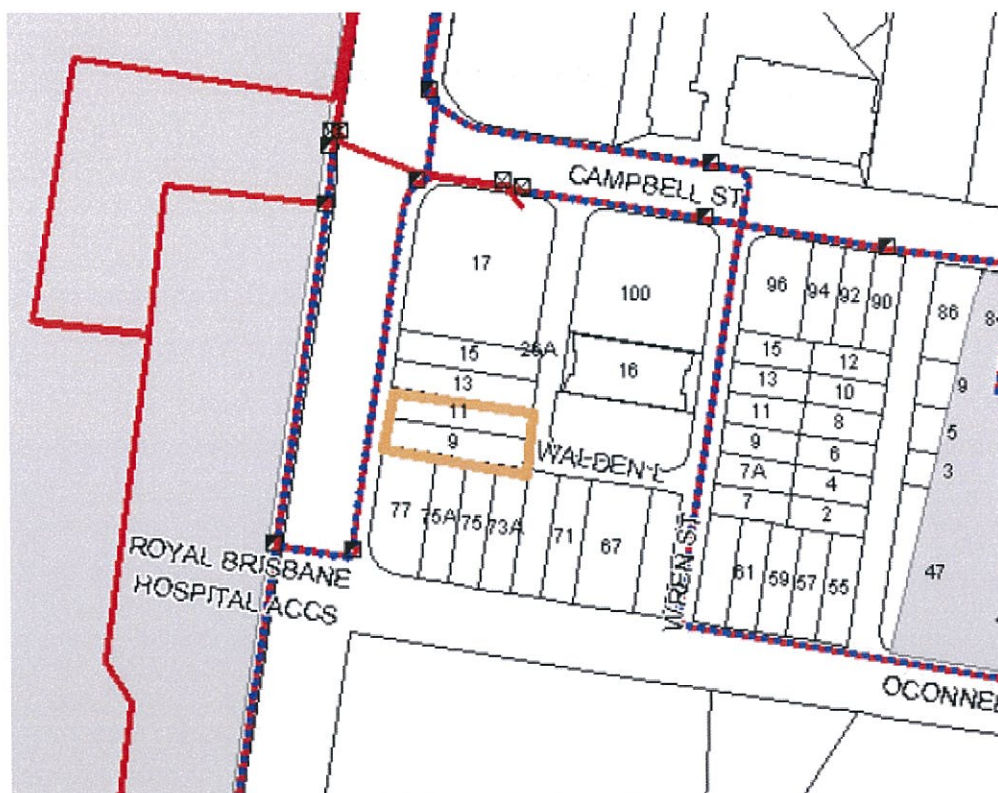


Figure A.2 - Existing Optus Records





Figure A.2 - Existing Energex Electrical Records



Figure A.2 - Existing Brisbane City Council Stormwater & Cable Records



Appendix B

Correspondence with Queensland Urban Utilities

Mark Richardson

From: Arash Pouya <Arash.Pouya@urbanutilities.com.au>
Sent: Wednesday, 6 November 2013 3:18 PM
Subject: Development Assessment - Utility Infrastructure Water and Sewerage capacity - 9 & 11 Bowen Bridge Road, Herston - QUU Ref: 13/1189

Hi Damien

I refer to your e-mail below requesting advice for the capacity of existing system to service the proposed development at 9 & 11 Bowen Bridge Road, Herston.

The development has been assessed as a mixed use residential and commercial development.

An assessment of the water supply available at the site including computer hydraulic modelling of the network under peak demand and fire flow conditions has been completed.

It has been determined that existing system has sufficient capacity to service the proposed development in terms of water pressure and flow. The assessment has been completed based on the calculated peak demand of 1.35 L/s.

The advice about capacity of sewerage infrastructure has been provided to you in a separate email from David Morrow.

Please contact me if you wish to discuss this matter further.

Kind regards

Arash Pouya
Senior Technical Officer
Developer Services
Queensland Urban Utilities

T 07 3432 2071
E arash.pouya@urbanutilities.com.au
www.urbanutilities.com.au



From: Damien Todd [<mailto:damien.todd@dameline.com.au>]
Sent: Wednesday, 16 October 2013 4:24 PM
To: DevelopmentEnquiries
Cc: David Morrow
Subject: 13/1189, Development Assessment - Utility Infrastructure Water and Sewerage capacity - 9 & 11 Bowen Bridge Road, Herston - Arash

To Development Enquiries,

I kindly request your advice advising if the existing services (water, sewer, stormwater) have the capacity to service a proposed development on 9 (lot 11) and 11 (lot 12) Bowen Bridge Road, Herston.

The proposed development is a 10 storey residential development, consisting of approx. 90m2 of retail/commercial space on ground level and 75 units – 51 x 1 bed & 24 x 2 bed/2 bath units

I kindly ask if you would provide your response by no later than 31 October as we have a due diligence clause under the purchase contract which expires on 1 November.

Thank you for your assistance. Please do not hesitate to contact me if you require further information.

Kind Regards,

Damien Todd
Dameline Developments Pty Ltd
Phone: 0447 758 339



ACN: 165 377 319

Email: damien.todd@dameline.com.au

This e-mail & any attachments are intended only for the use of the individual/s or entities named above and may contain information that is confidential and privileged. If you are not the intended recipient you are notified that disclosing, copying, distributing or taking any action in reliance on the contents of this information is strictly prohibited.

This email and any file attached should be scanned for viruses. If you have received this e-mail in error, please notify us immediately by return e-mail and destroy the original message.

Mark Richardson

From: David Morrow <David.Morrow@urbanutilities.com.au>
Sent: Wednesday, 6 November 2013 12:19 PM
Subject: RE: Bowen Bridge Rd

Hi Todd

Sorry but I have been out of the office or in meetings much of the day.

SNPOP indicates there is about 142 EPs in the immediate area that could go to the 150mm sewer. Some of this though appears to go directly to the 450mm sewer. 142 EPs equates to less than 2 L/s. Based on your development loading of 51 - 1 bdrm, 24 - 2 bdrm units and 90m2 GFA commercial the expected DF should be 2.2 L/s. Therefore based on a total load of 4.2 L/s there will still be spare capacity in the 150mm sewer for future development based on minimum grade.

The 375mm sewer down Bowen Bridge Rd has approximately 49 L/s PWWF draining to it. The capacity of a 375mm sewer at minimum grade is 78 L/s. Therefore there is adequate capacity in the 375mm sewer to accept flow from the development.

The 450mm and 675mm sewer downstream in Campbell St is currently overloaded. There are capital works programmed in the next few years to alleviate this subject to funding availability. In any case because the developments contribution is insignificant to the whole catchment contribution it is not seen as fair and reasonable to ask for any upgrades to be undertaken on the 450mm/ 675mm sewers.

Regards

David Morrow
Senior Engineer
Development Services

T 07 3432 2200
E DevelopmentEnquiries@urbanutilities.com.au
www.urbanutilities.com.au

-----Original Message-----

From: Damien Todd [<mailto:damien.todd@dameline.com.au>]
Sent: Tuesday, 5 November 2013 11:58 AM
To: David Morrow
Subject: Bowen Bridge Rd

Hi Mate. Just being the squeaky wheel and kindly asking if you could provide your response this morning please. If we can connect to the 150mm sewer out the back of the site would be greatly appreciated. Thank you.

Kind Regards,
Damien Todd

Mark Richardson

From: Arash Pouya <Arash.Pouya@urbanutilities.com.au>
Sent: Friday, 8 November 2013 11:47 AM
Subject: RE: Development Assessment - Utility Infrastructure Water and Sewerage capacity - 9 & 11 Bowen Bridge Road, Herston - QUU Ref: 13/1189

Dear Damien

The existing property connections to each lot are 100mm. Normally for a commercial building a minimum 150mm connection is required sized based on the fixture units as per AS3500. For a 100mm property connection the maximum number of fixture units allowed is 165. If the development is under that then the existing 100mm property connection can be used.

I trust this has been of assistance. Please contact me if I can be of further assistance,

Yours sincerely

Arash Pouya
Senior Technical Officer
Developer Services
Queensland Urban Utilities

T 07 3432 2071
E arash.pouya@urbanutilities.com.au
www.urbanutilities.com.au



From: Damien Todd [<mailto:damien.todd@dameline.com.au>]
Sent: Thursday, 7 November 2013 10:51 AM
To: Arash Pouya
Subject: Re: Development Assessment - Utility Infrastructure Water and Sewerage capacity - 9 & 11 Bowen Bridge Road, Herston - QUU Ref: 13/1189

Thank you Arash. Also, Can we utilise the existing sewer connections going into each site for the new development?

Kind Regards,

Damien Todd

Dameline Developments Pty Ltd

Phone: 0447 758 339



ACN: 165 377 319

Email: damien.todd@dameline.com.au

This e-mail & any attachments are intended only for the use of the individual/s or entities named above and may contain information that is confidential and privileged. If you are not the intended recipient you are notified that disclosing, copying, distributing or taking any action in reliance on the contents of this information is strictly prohibited.

This email and any file attached should be scanned for viruses. If you have received this e-mail in error, please notify us immediately by return e-mail and destroy the original message.

From: Arash Pouya <Arash.Pouya@urbanutilities.com.au>
Date: Thursday, 7 November 2013 10:41 am
To: Damien Todd <damien.todd@dameline.com.au>
Cc: David Morrow <developmentenquiries@urbanutilities.com.au>
Subject: RE: Development Assessment - Utility Infrastructure Water and Sewerage capacity - 9 & 11 Bowen Bridge Road, Herston - QUU Ref: 13/1189

Hi Damien

I have attached a plan showing the existing infrastructure in the area.

I hope this is helpful.

Please contact me if I can assist you further.

Kind regards

Arash Pouya
Senior Technical Officer
Developer Services
Queensland Urban Utilities

T 07 3432 2071
E arash.pouya@urbanutilities.com.au
www.urbanutilities.com.au



From: Damien Todd [mailto:damien.todd@dameline.com.au]
Sent: Wednesday, 6 November 2013 2:41 PM
To: Arash Pouya
Subject: Re: Development Assessment - Utility Infrastructure Water and Sewerage capacity - 9 & 11 Bowen Bridge Road, Herston - QUU Ref: 13/1189

Hi Arash,

I kindly ask if you would email through plan(s) showing the location, size, etc. of water and sewer. Many Thanks.

Kind Regards,

Damien Todd

Dameline Developments Pty Ltd

Phone: 0447 758 339



ACN: 165 377 319

Email: damien.todd@dameline.com.au

This e-mail & any attachments are intended only for the use of the individual/s or entities named above and may contain information that is confidential and privileged. If you are not the intended recipient you are notified that disclosing, copying, distributing or taking any action in reliance on the contents of this information is strictly prohibited.

This email and any file attached should be scanned for viruses. If you have received this e-mail in error, please notify us immediately by return e-mail and destroy the original message.

From: Arash Pouya <Arash.Pouya@urbanutilities.com.au>

Date: Wednesday, 6 November 2013 2:17 pm

To: Damien Todd <damien.todd@dameline.com.au>

Cc: David Morrow <developmentenquiries@urbanutilities.com.au>

Subject: Development Assessment - Utility Infrastructure Water and Sewerage capacity - 9 & 11 Bowen Bridge Road, Herston - QUU Ref: 13/1189

Hi Damien

I refer to your e-mail below requesting advice for the capacity of existing system to service the proposed development at 9 & 11 Bowen Bridge Road, Herston.

The development has been assessed as a mixed use residential and commercial development.

An assessment of the water supply available at the site including computer hydraulic modelling of the network under peak demand and fire flow conditions has been completed.

It has been determined that existing system has sufficient capacity to service the proposed development in terms of water pressure and flow. The assessment has been completed based on the calculated peak demand of 1.35 L/s.

The advice about capacity of sewerage infrastructure has been provided to you in a separate email from David Morrow.

Please contact me if you wish to discuss this matter further.

Kind regards

Arash Pouya
Senior Technical Officer
Developer Services
Queensland Urban Utilities

T 07 3432 2071
E arash.pouya@urbanutilities.com.au
www.urbanutilities.com.au



From: Damien Todd [<mailto:damien.todd@dameline.com.au>]
Sent: Wednesday, 16 October 2013 4:24 PM
To: DevelopmentEnquiries
Cc: David Morrow
Subject: 13/1189, Development Assessment - Utility Infrastructure Water and Sewerage capacity - 9 & 11 Bowen Bridge Road, Herston - Arash

To Development Enquiries,

I kindly request your advice advising if the existing services (water, sewer, stormwater) have the capacity to service a proposed development on 9 (lot 11) and 11 (lot 12) Bowen Bridge Road, Herston.

The proposed development is a 10 storey residential development, consisting of approx. 90m2 of retail/commercial space on ground level and 75 units – 51 x 1 bed & 24 x 2 bed/2 bath units

I kindly ask if you would provide your response by no later than 31 October as we have a due diligence clause under the purchase contract which expires on 1 November.

Thank you for your assistance. Please do not hesitate to contact me if you require further information.

Kind Regards,

Damien Todd
Dameline Developments Pty Ltd
Phone: 0447 758 339



ACN: 165 377 319
Email: damien.todd@dameline.com.au

This e-mail & any attachments are intended only for the use of the individual/s or entities named above and may contain information that is confidential and privileged. If you are not the intended recipient you are notified that disclosing, copying, distributing or taking any action in reliance on the contents of this information is strictly prohibited.
This email and any file attached should be scanned for viruses. If you have received this e-mail in error, please notify us immediately by return e-mail and destroy the original message.