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MILLIGAN GROUP

HUNTER AND PITT

BUILDING SERVICES
REPORT FOR
DEVELOPMENT
APPLICATION

wsp

JULY 2020

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Hunter and Pitt Building Services Report for Development Application

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EXECUTIVE SUMMARY

The proposed development at 15 – 23 Hunter Street and 105 – 107 Pitt Street Sydney consists of a new commercial office tower, retail and basements in place of the existing buildings.

The approximate location of existing utilities services has been identified via dial before you dig information. Electricity, communications, mains water and waste water and gas are present in the immediate vicinity of the site. Authority stormwater and sewer drainage assets appear to be below the site from 107 Pitt Street to 15 - 17 Hunter Street.

An existing heritage tank stream is located below the site from 107 Pitt Street to 15 - 17 Hunter Street. With reference to Sydney Trains Dial Before You Dig (DBYD) information, a tunnel is located in close vicinity to the site.

Based on a desktop review of the available data, site inspection and initial services demand calculations, it is determined that the existing utilities services infrastructure will require alterations to serve the proposed development.

The proposed development will be designed to comply with the BCA, DDA and all other relevant codes, standards and Authorities requirements.

1 PROJECT BACKGROUND

This Building Services Report for Development Application (DA) has been prepared by WSP in support of a Planning Proposal to amend the Sydney Local Environmental Plan 2012 (Sydney LEP). This report has been prepared on behalf of Milligan Group Pty Ltd (the Proponent) and its related entities and consultants, representatives and agents and FT Sydney Pty Ltd as trustee for FT Sydney Unit Trust. It relates to an amalgamated site at 15-21 Hunter Street and 105-107 Pitt Street (the site).

The purpose of this Planning Proposal is to amend the site's Floor Space Ratio (FSR) development standard, and the Maximum Building Height to align with the Martin Place Sun Access Plane contained within the concurrent Central Sydney Planning Proposal.

This Planning Proposal supports the City of Sydney Council's draft Central Sydney Planning Strategy (Draft CSPA) by unlocking additional employment generating floor space within a designated tower cluster. The proposed Sydney LEP amendment is part of the broader redevelopment plan for the site to facilitate a new commercial office tower. It will also facilitate significant public benefits through additional site activation and embellishment of the public domain.

The Planning Proposal is accompanied by amendments to the Sydney Development Control Plan 2012 (Sydney DCP). The site specific DCP amendments reflect the proposed outcome to provide a podium tower scheme.

This is reflected in the accompanying reference design prepared by Bates Smart which serves as a baseline proof of concept for this Planning Proposal. This 2,108m² strategic site presents a unique opportunity to deliver a landmark premium commercial office tower that will exhibit design excellence and offer significant employment opportunities for global Sydney.

The uplift being sought is consistent with the strategic intent of the draft CSPA, which contains the City's requirements and expectations for projects pursuing this pathway. Following the Planning Proposal, the planning approval pathway involves a competitive design process and a detailed Development Application. As such, this report reflects the concept stage of the proposal, and may be embellished as the detailed design and required works evolve.

The indicative architectural scheme comprises:

- Ground level including including food and beverage lobby, retail, substation, truck parking and access to car stacker.
- 4 storey podium, including commercial sky lobby, reception, commercial offices, terrace area, retail and back of house areas.
- 42 storeys of commercial offices (each level including 11 rooms, with a total of 407 rooms)
- 2 levels at rooftop including a lounge terrace and an upper level lounge area.
- 3 levels of plant and equipment areas.
- 5 basement levels including car parking spaces via car stacker system, end of trip facilities, gym and retail facilities

The purpose of this report is to:

- Describe the existing services
- Identify the required alterations to serve the proposed development

Details of the existing services have been obtained from the 'dial before you dig' (DBYD) service which include:

- Electricity Supply - Ausgrid
- Communications Services – NBN Co, Optus, AARNet, Primus Telecom, Vocus and Telstra various fibre, broadband and mobile services
- Water Services – Sydney Water cold water, sewer and stormwater

- Gas Supply – Jemena natural gas
- Sydney Metro
- Sydney Train
- Roads and Maritime Services

2 ELECTRICITY SUPPLY

2.1 EXISTING SERVICES

WSP's Level 3 Accredited Service Provider has carried out preliminary investigations of the existing services utilising DBYD and Ausgrid GIS to ascertain the existing connectivity. Based on this review, the existing services are as follows:

- The site is currently fed via a service tee off from a low voltage distributor from an existing basement substation S.418. This substation is in the local vicinity of Hunter Street to the North West situated in the road reserve in front of 5 Hunter Street.
- There are multiple high voltage (HV) and low voltage (LV) services in the immediate vicinity of 15 Hunter Street. Refer to Figure 1, where for clarity only the HV ones are shown.
- Hunter Street is part of Ausgrid CBD's triplex system that incorporates 3 feeders to each substation to allow for multiple redundancy within the Scada network. This network utilises a pit and duct network for all connections, i.e., that there are multiple pits within the vicinity of the site.

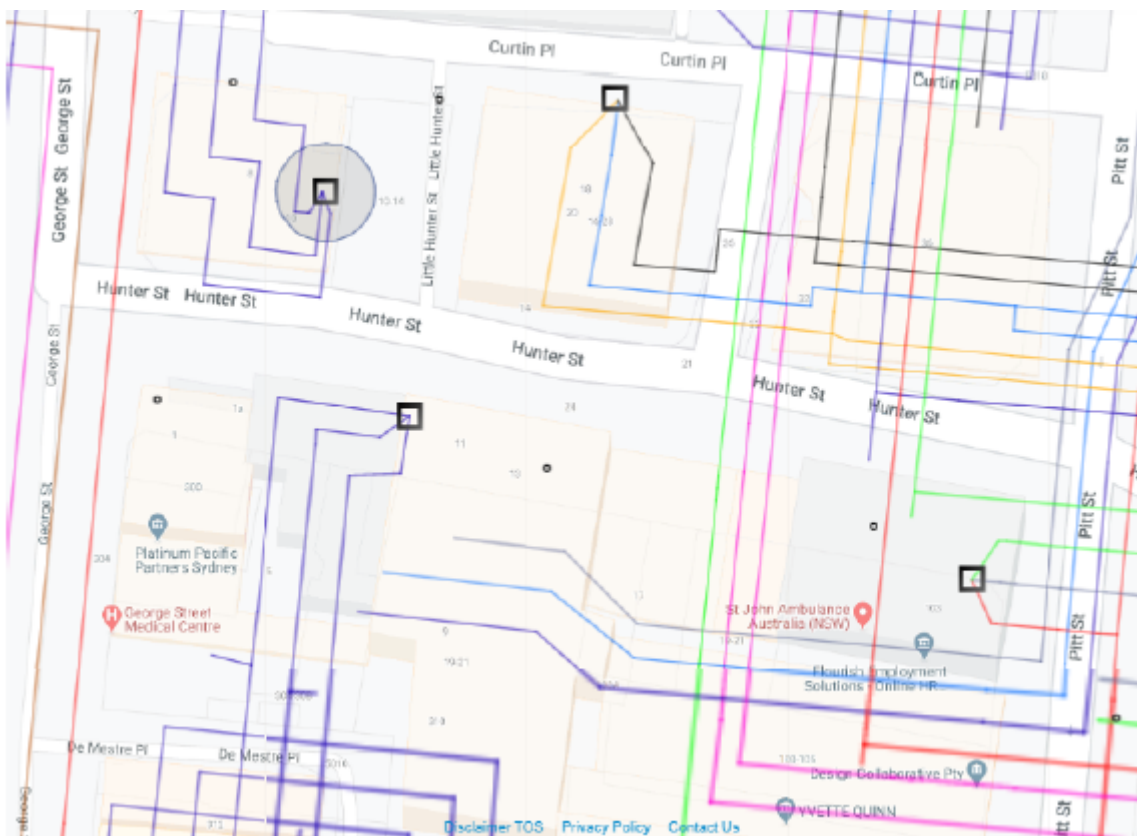


Figure 1: Existing HV arrangement in vicinity of Hunter Street showing multiple HV feeders

2.2 PROPOSED ALTERATION

- Given that substation S.418 'Hunter & George STS' is non-dedicated, the capacity would be limited and a connection beyond a temporary building supply would not be sustainable. Use as a temporary building supply to a maximum of 400 amps would be subject to Ausgrid approval.

- For a maximum demand up to 5MVA, a firm load connected to either City North Zone Panel 53 K/L/M or Dalley Street Zone Panel 37 G/H/J may be supplied from a 3x1500kVA chamber substation. The capacity of these feeders would have to be determined as part of the detailed design stage via lodgement of a ‘preliminary enquiry’ with Ausgrid. Refer to Figure 2 for a possible interconnection methodology plan.
- Both the HV feeders in vicinity are part of the CBD triplex system and hence offer multiple redundancy via the three feeds that would likely be connected via a ring-main.
- Ausgrid will dictate whether a new HV pit is required at the front of site for any jointing works or whether these can be facilitated within one of the existing pits in the street.
- The substation will likely be either a basement or elevated substation due to a requirement to avoid ventilation at street level.
- The substation low voltage board will have 2x3000A circuit breakers installed to feed the site that will be used to split the overall maximum 5MVA load.

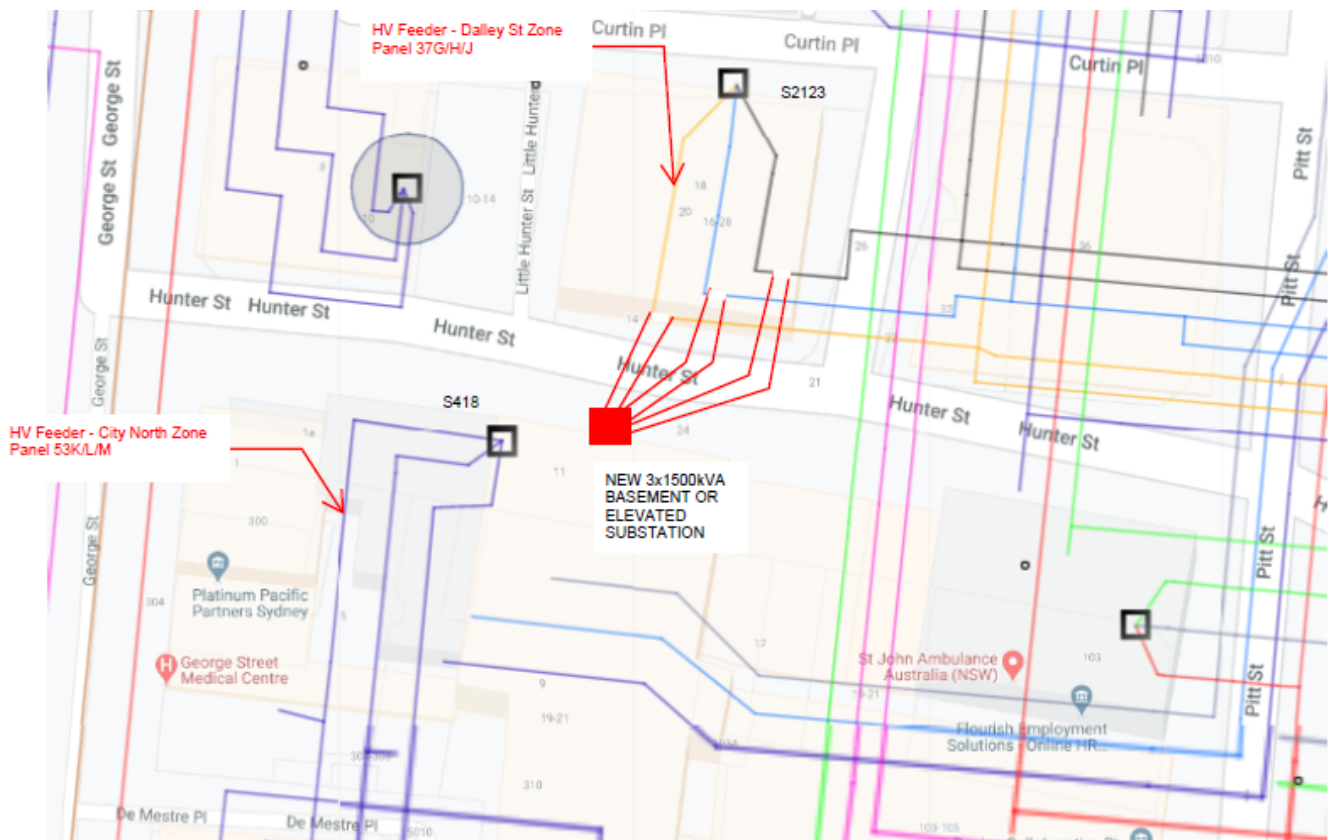


Figure 2: Proposed preliminary HV arrangement of substation interconnected to triplex network (6x300Cu1/Triplex cabling).

3 COMMUNICATIONS

3.1 EXISTING SERVICES

Based on the DBYD information, WSP have identified that the following services are available in the vicinity or near the boundary of Hunter and Pitt project:

- NBN Co fibre optic cables
- Nextgen Network fibre optic cables
- Optus copper and fibre optic cables
- TPG fibre optic cables
- AARNet fibre optic cables
- Primus Telecom fibre optic cables
- Vocus fibre optic cables
- Verizon fibre optic cables

Refer to Figure 3 for an indicative sketch showing location of cables, ducts and manholes for communication services. These are all subject to further confirmation with service providers.

Telstra did not confirm their assets in the vicinity of the site under the DBYD application. But it is expected that they will have fibre optic cables and pits on Hunter Street and Pitt Street due to their central location in CBD. This is subject to confirmation with Telstra.

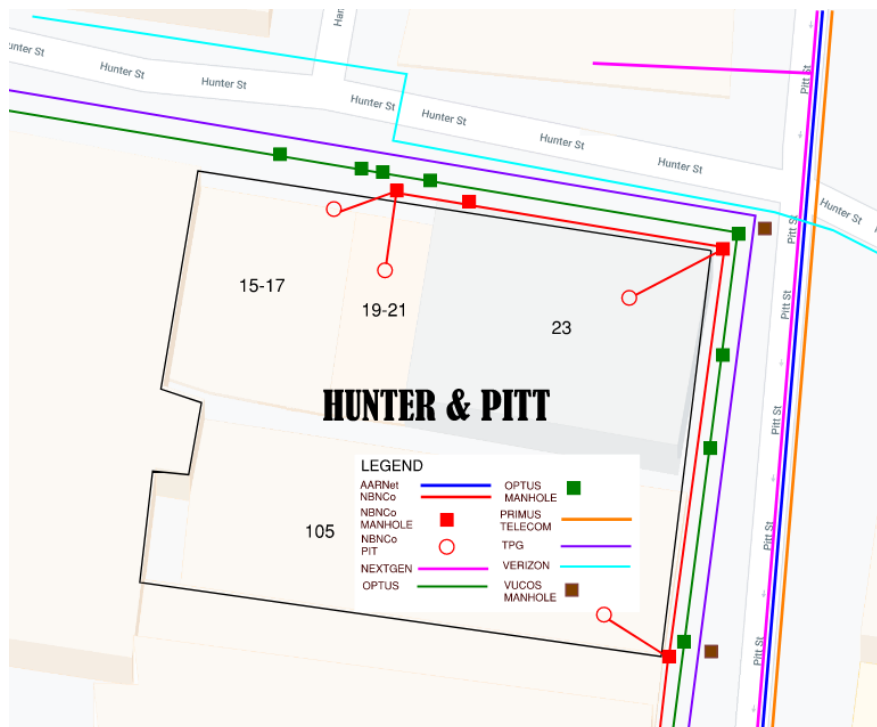


Figure 3: indicative sketch showing location of cables, ducts and manholes for communication services.

3.2 PROPOSED ALTERATIONS

Required alterations to suit the Pitt and Hunter are to be considered throughout design development. The project will be registered with the relevant service providers to achieve the aspirations for this site.

The Client shall determine their provider(s) of choice, and the design team will liaise with the latter(s) to ensure suitable containment is provided.

4 WATER, SEWER AND STORMWATER

4.1 SECTION 73 CERTIFICATE

With the water authority being Sydney Water, this requirement informs the need to obtain a Section 73 Certificate prior to issue of the Development Consent. The Section 73 Notice of Requirements will advise what is required to meet all Sydney Waters development approval requirements.

Applications must be submitted to Sydney Water electronically through the e-Developer system. A licensed Water Servicing Coordinator (WSC) is required to be engaged for this process, to liaise between developers, design companies and Sydney Water. The WSC will assess the development against the criteria, determine and prepare the type of application the development needs and the information that needs to be submitted with it.

4.2 EXISTING SERVICES

The existing Sydney Water services present are as shown in Figure 4.

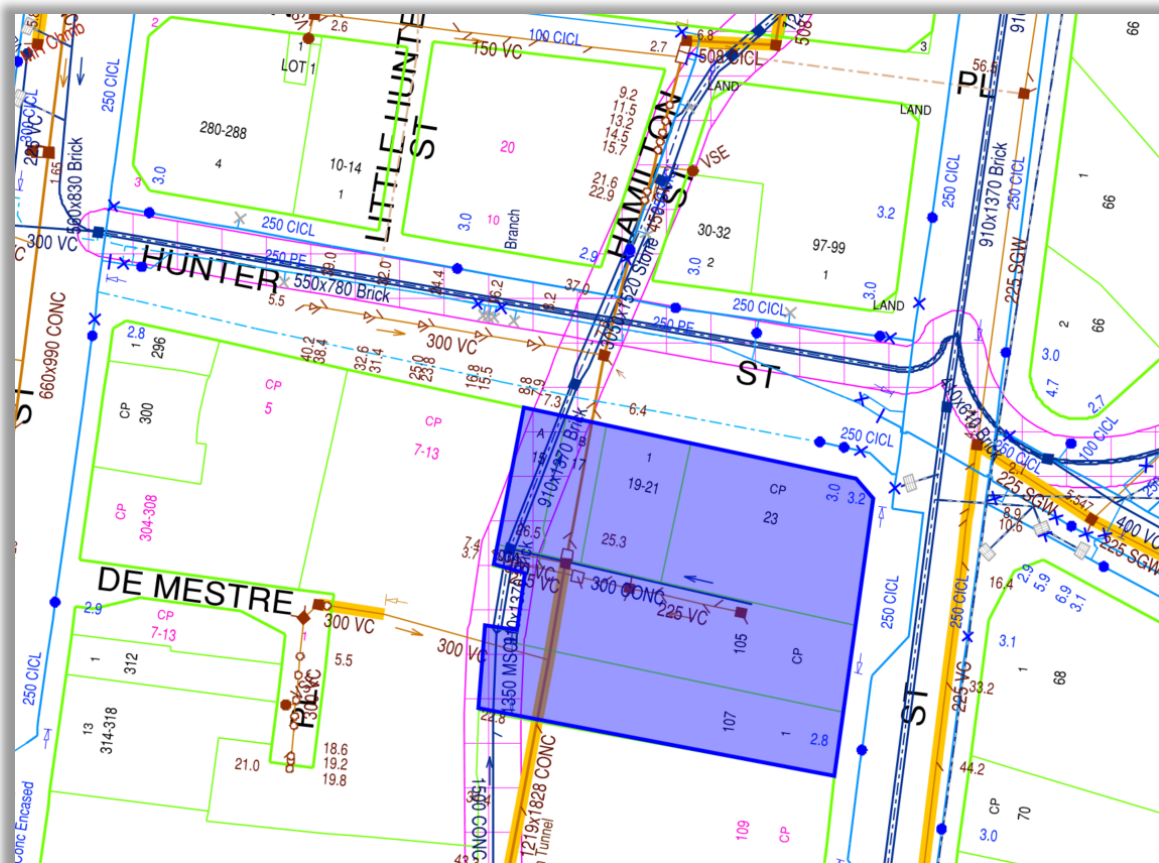


Figure 4: Sydney Water DBYD information showing location of existing authority water main, sewer drainage and stormwater drainage services.

- Water supply - Existing 250mm CICL (Cast Iron Cement Lined) authority water main is available in Pitt Street. There is an existing 250mm CICL authority water main terminated at an existing hydrant location.

- Sewer - Existing 225mm VC (Vitrified Clay) authority sewer main is located behind existing 15-23 Hunter Street, adjacent to 105 Pitt Street. This existing sewer drain currently serves the existing 15-23 Hunter Street and 105 Pitt Street buildings. The drain then connects into an existing 1219 x 1828 CONC (Concrete) authority sewer main which runs under 105–107 Pitt Street and runs downstream under 15-17 Hunter Street, towards Hamilton Street.
- Stormwater - Existing 300mm CONC (Concrete) authority stormwater drain is located behind existing 15-23 Hunter Street, adjacent to 105 Pitt Street. The stormwater drain connects to an existing 910 x 1370 Brick Stormwater Channel running below 15-17 Hunter Street, towards Hamilton Street.

4.3 REQUIRED ALTERATIONS

Required alterations to suit the new development are to be considered throughout design development. At present, we anticipate the following:

- Water supply - An increase in water demand over and above the existing site supplies will require a new connection from the existing 250mm water main at Pitt Street, subject to Sydney Water approval.
- Sewer – The existing 225mm sewer drain may be required to be demolished and terminated at the connection point to the existing 1219 x 1828 CONC authority sewer main, subject to Sydney Water approval. New sewer drain connection for the new site shall then be made to the existing 225mm sewer drain.
- Stormwater – the stormwater drainage flow may increase in demand, with the use of Civil Drainage Services on-site detention (OSD) to be confirmed with modelling to determine water quality.

The supply requirements and connection point location(s) for water and sewer will need to be confirmed with Sydney Water as part of a future Section 73 application.

5 NATURAL GAS

5.1 EXISTING SERVICES

The existing Jemena services present are as shown in Figure 5. The existing site is served by low pressure gas connection from the secondary 110NY (Nylon) 7kPa gas main at Pitt street. There is also a low pressure 110NY (Nylon) 7kPa gas main located in Hunter Street.

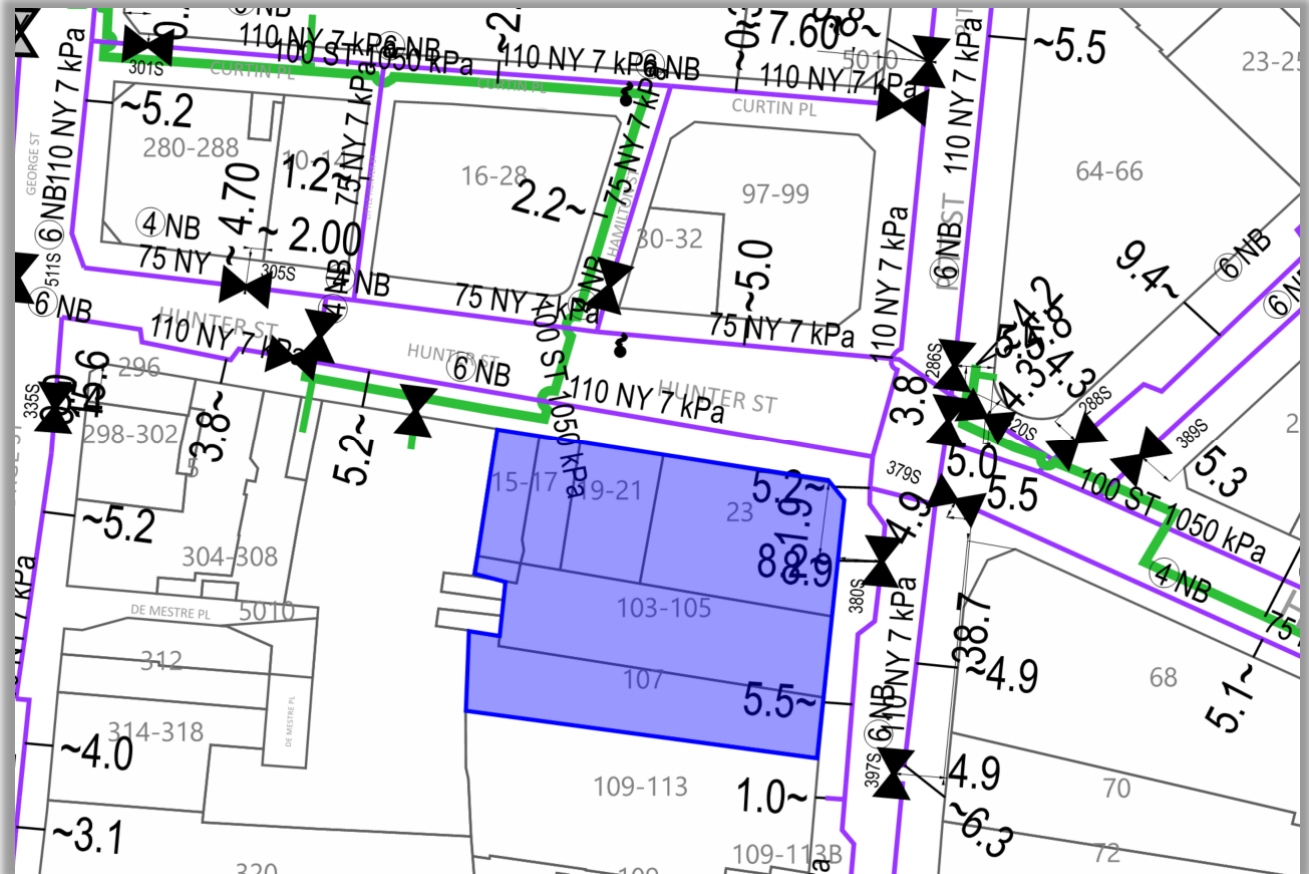


Figure 5: Jemena Natural Gas DBYD information showing locations of existing authority gas main

5.2 REQUIRED ALTERATIONS

WSP anticipate that there will be an increase in gas requirements to the site and new gas connection will be required. To determine any required alterations, demand calculations will need to be completed and a formal application lodged with Jemena as part of the development application process.

6 CONCLUSION

This report has described the existing services and identified the required alterations to serve the proposed development. The services demand required to serve the new development is to be confirmed as part of design development. Once the demand is confirmed, the project will be registered with the Authorities and formal applications made for connection as part of the development application process.