

# CIVIL ENGINEERING SERVICES

50-52 Phillip St  
SEARs REPORT



## DOCUMENT CONTROL

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## APPROVALS

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# CIVIL ENGINEERING SERVICES

## 1. INTRODUCTION

This report supports a Stage 1 State Significant Development (SSD) Development Application (DA) for the redevelopment of a new mixed-use hotel and branded residential building at 50-52 Phillip Street, Sydney. The Staged SSD DA proposes a concept proposal or Stage 1 DA for the retention and refurbishment of the heritage building on the site, demolition of other existing buildings on the site and construction of a new mixed-use building. The Stage 1 SSD DA specifically seeks consent for land uses, a maximum gross floor area, a maximum building envelope, pedestrian and vehicle access and circulation arrangements, and associated car parking provision.

Built is seeking to transform the current site to deliver a new and modern mixed-use development which contributes to overcoming a shortage of hotel accommodation in Sydney, and positively contributes to the character and vibrancy of Sydney's Central Business District (CBD). As part of the redevelopment project, the existing heritage-listed building on the site will be retained and refurbished for hotel purposes.

As the proposal is for the development of a predominately tourist-related purpose, being a hotel, that has a capital investment value in excess of \$100 million, it is SSD as prescribed in Schedule 1 of *State Environmental Planning Policy (State and Regional Development) 2011* (SRD SEPP).

### 1.1 SITE DESCRIPTION

The site is located in Central Sydney, along the eastern edge of Sydney's core Central Business District (CBD). The immediate surrounds of the site in the eastern edge of the Sydney CBD present a mix of commercial, residential, and tourism uses. The prevailing built form in the vicinity of the site includes a range of building typologies and heights, as well as several significant state-listed heritage buildings, such as the Chief Secretary's Building immediately to the north of the site.

The site itself is located at 50-52 Phillip Street, Sydney and has a total area of approximately 1,726m<sup>2</sup>, with frontages to Phillip Street and Phillip Lane. Two commercial buildings sharing a built-to-boundary condition currently occupy the site. The heritage-listed sandstone building in the northern portion of the site is six generous storeys in height and contains commercial office space. The building located on the southern portion of the site is 12 storeys in height, and contains a ground-level café/bar use, with commercial office space above.

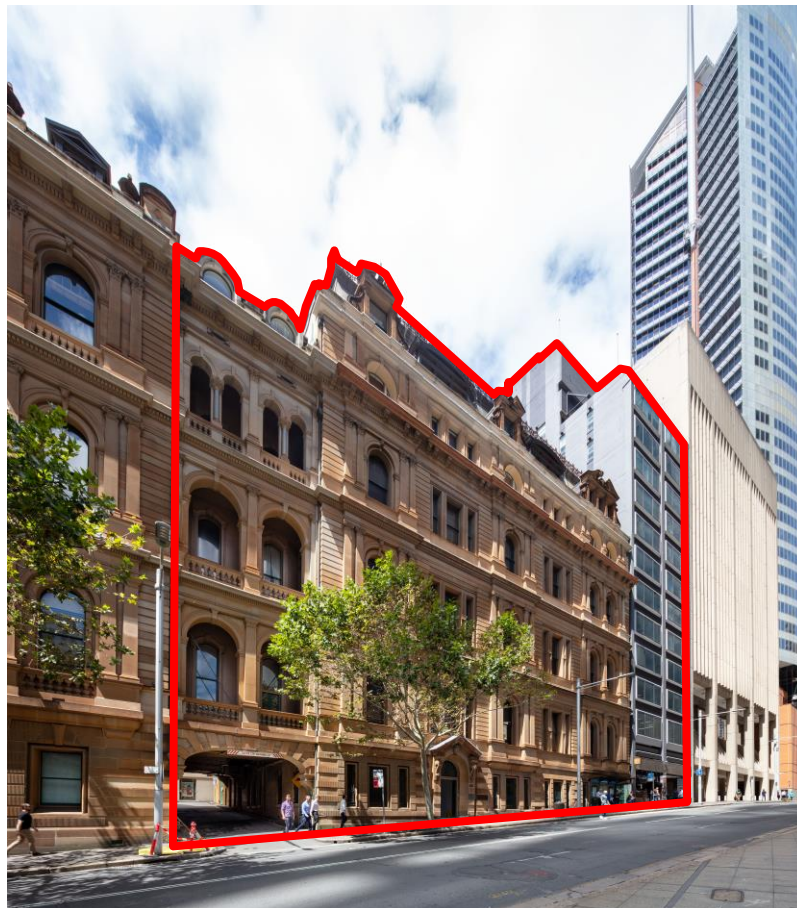
Phillip Lane, which forms part of the 50 Phillip Street lot, connects through the site from Phillip Street at the northern boundary of the site. Phillip Lane is not proposed to be altered from its current form as an access point to the remainder of Phillip Lane at the rear of the site.

An aerial image of the site is provided in Figure 1-1 and a photograph of the existing buildings fronting Phillip Street is provided in Figure 1-2.



**Figure 1-1 Aerial photograph of the Site**

*Source: Nearmaps*



**Figure 1-2 Existing buildings fronting Phillip Street**

*Source: Built*

## 1.2 BACKGROUND

### *Built Unsolicited Proposal*

On 15 October 2019, the NSW Government published details of the Built Unsolicited Proposal for the leasehold purchase of 50 Phillip Street, Sydney to allow for the proposed hotel redevelopment. The Built proposal has progressed to Stage 2 of the Unsolicited Proposal process, and has been deemed unique as Built owns the adjacent property (52 Phillip Street, Sydney) to the Government owned 50 Phillip Street, Sydney. As there are no other privately owned properties immediately contiguous to 50 Phillip Street, Built possesses unique property ownership that enables it to amalgamate 50 and 52 Phillip Street, and take full advantage of the unused developable air space.

The proposed redevelopment project will combine both private and Government land, breathing new life into an underutilised heritage-listed NSW Government owned building and Built's aging privately-held commercial office building.

Built is well recognised for work in the refurbishment and restoration of iconic heritage properties across Australia. As such, a foremost principle of the project is to ensure that the integrity of the heritage listed Government building is not compromised. Rather, the heritage qualities of the building will be celebrated and revitalised for the people of NSW. The Chief Secretary's Building which fronts Bridge Street will not be leased as part of this redevelopment project, and it is intended to remain in Government ownership and control.

### *Project Vision*

The vision for the redevelopment is to revitalise the lower end of Sydney's financial services district by delivering a new luxury mixed use hotel with a portion of branded residential apartments. The proposal will provide an important and much needed asset to the people of NSW and visitors. Sydney will have, as part of the amalgamation of the properties, its finest luxury hotel with associated retail areas providing ground floor public activation accessible to the general public and hotel guests alike.

Overall, the project will provide the following key public benefits:

- Job creation and benefits to the tourism industry via construction and operation of a new 5/6 star hotel in Central Sydney.
- Contribution to the NSW State's economic activity and Gross State Product, including the generation of construction phase revenue for the Government in the form of payroll tax, stamp duty and GST payments.
- Rejuvenation and adaptive reuse of a Government owned heritage building.
- Regeneration, enhancement and activation of the surrounding public domain, particularly upgrades to Phillip Lane.
- Creation of a heritage-tourism precinct with a new hotel as the centrepiece.
- A portion of branded residential apartments to support the deliver of the hotel and provide a variety of uses to contribute to the liveability of Central Sydney.
- The potential to deliver a capital return to Government to fund future Government investment in services and infrastructure.

### 1.3 PROJECT DESCRIPTION

This SSD DA seeks consent for a concept proposal for a new landmark mixed use building with approximately 331 new hotel rooms and 23 branded residential apartments in Sydney's CBD. The Stage 1 SSD DA Concept Proposal will establish a maximum building envelope, land uses, a maximum total quantity of floor space, pedestrian, vehicle circulation, and drop-off arrangements and associated car parking provision.

Specifically, the Stage 1 SSD DA seeks concept approval for:

- In-principle site preparation works, including termination/relocation of site services and infrastructure, demolition of the existing buildings/structure on the site, excluding the existing heritage-listed building;
  
- A new 47 storey mixed use building envelope containing:
  - lower level café/bar uses and associated servicing and back-of-house facilities;
  - a new basement containing waste rooms, loading space, and car parking spaces;
  - hotel uses on levels 1 to 35; and
  - residential uses on levels 36 to 47.
  
- Retention of the existing heritage-listed building on the site, and refurbishment of this building for hotel purposes.
- A new driveway crossing over Phillip Street at the southern end of the site.
- Maintenance and retention of the existing vehicular access over Phillip Lane.

Development consent is not sought for any detailed component of development. A future separate Stage 2 SSD DA will be lodged for the detailed design and construction of the development, following the completion of a competitive design process.

A further detailed description of the proposal is contained in the supporting Environmental Impact Statement prepared for the SSD DA by Ethos Urban.

## 2. ABBREVIATIONS AND DEFINITIONS

<b>AEP</b>	Annual Exceedance Probability
<b>AHD</b>	Australian Height Datum
<b>ARI</b>	Average Recurrence Interval
<b>DN</b>	Diameter (mm)
<b>EY</b>	Exceedances per Year
<b>IFD</b>	Intensity-Frequency-Duration
<b>L/s</b>	Litres per second
<b>m/s</b>	Metres per second
<b>MUSIC</b>	Model for Urban Stormwater Improvement Conceptualisation
<b>OSD</b>	On-Site Detention
<b>PSD</b>	Permissible Site Discharge
<b>RCP</b>	Reinforced Concrete Pipe
<b>RWT</b>	Rainwater Reuse Tank
<b>SID</b>	Safety In Design
<b>SSR</b>	Site Storage Requirement
<b>WSC</b>	Water Services Coordinator
<b>WSUD</b>	Water Sensitive Urban Design

### **The Use of Must, Shall & Should:**

In accordance with the international Organization for Standardisation (ISO) Directives, the word “shall” is used to state that a requirement is strictly to be followed in order to conform to a Performance Requirement. Consequently, there can be no deviation from that requirement, other than a specific tolerance.

It is noted that in legislation and specifications it is common to use the word “must” to express a requirement. The word “shall” in this document should be considered as equivalent to “must” in the legislation.

The word “should” introduces a suggestion or recommendation that is not a requirement. It is not necessary that such recommendations or suggestions be followed in order to comply with the Performance Requirement.

### 3. CONNECTIONS

A Dial Before You Dig (DBYD) search was obtained to determine the existing infrastructure and potential connection points in the project's vicinity. The DBYD is suitable for the purpose of this report, however a detailed survey and site potholing are recommended to be undertaken for detailed design.

It is noted that the proposed development is located within the Sydney CBD with significant existing services infrastructure fronting the building. It is not expected that any major upgrades of infrastructure will be required but this will be confirmed by the respective authorities post receipt of consent.

#### 3.1 SYDNEY WATER – WATER MAIN CONNECTION

As part of the DBYD, a Sydney Water (SWC) utility map of the area was provided and can be viewed in Appendix B. There is a DN100 (CO5469) SWC water main located in Phillip Lane and a DN250 (WO70017) and DN150 (WO60643) watermain in Phillip Street. Watermain locations can be seen in Figure 3-1

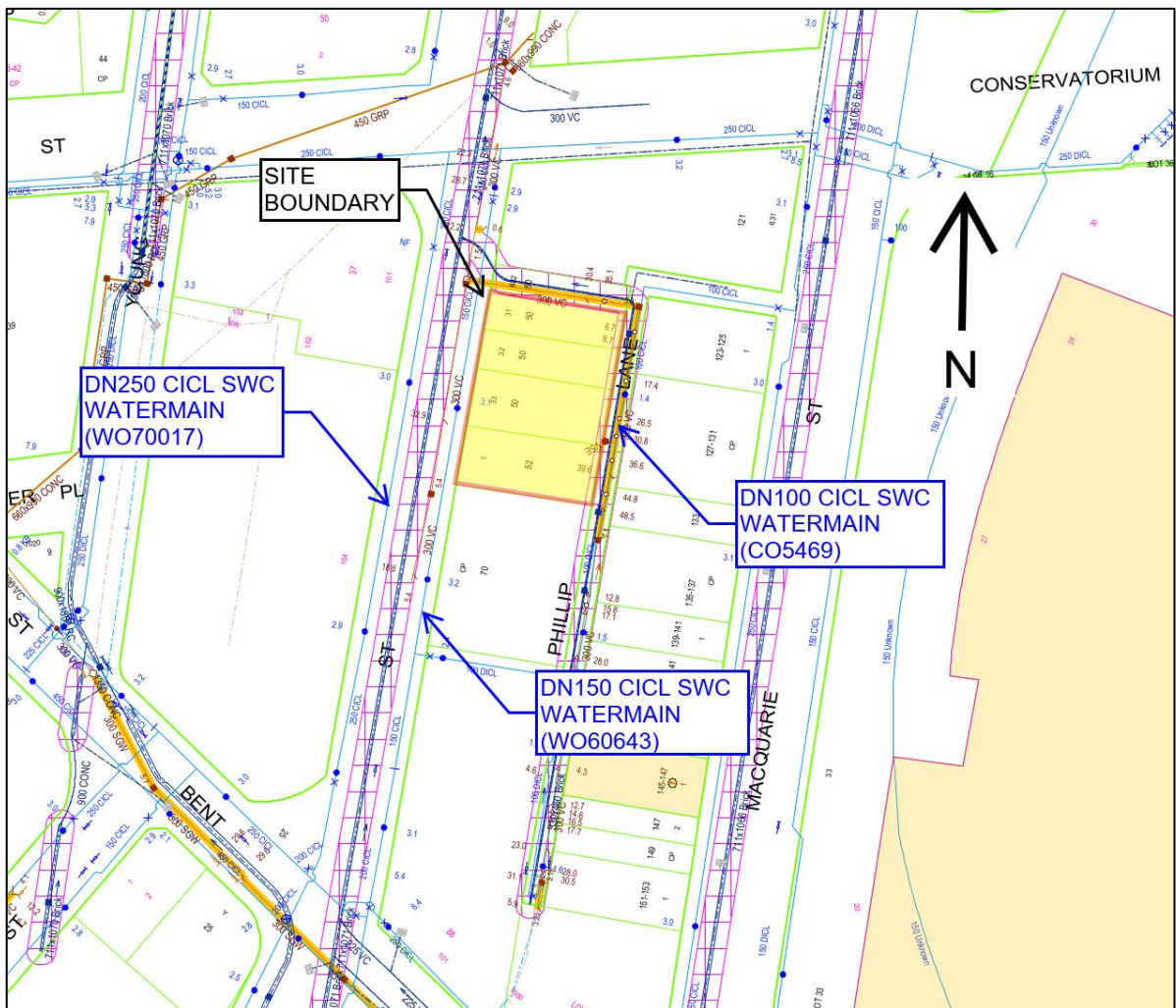


Figure 3-1 Existing SWC Watermains

### 3.2 SYDNEY WATER – SEWER MAIN CONNECTION

There is two DN300 (WO36778 and SO43080) SWC sewer assets that boarder the site boundary that provide potential connection points. The sewer asset locations can be seen in Figure 3-2.

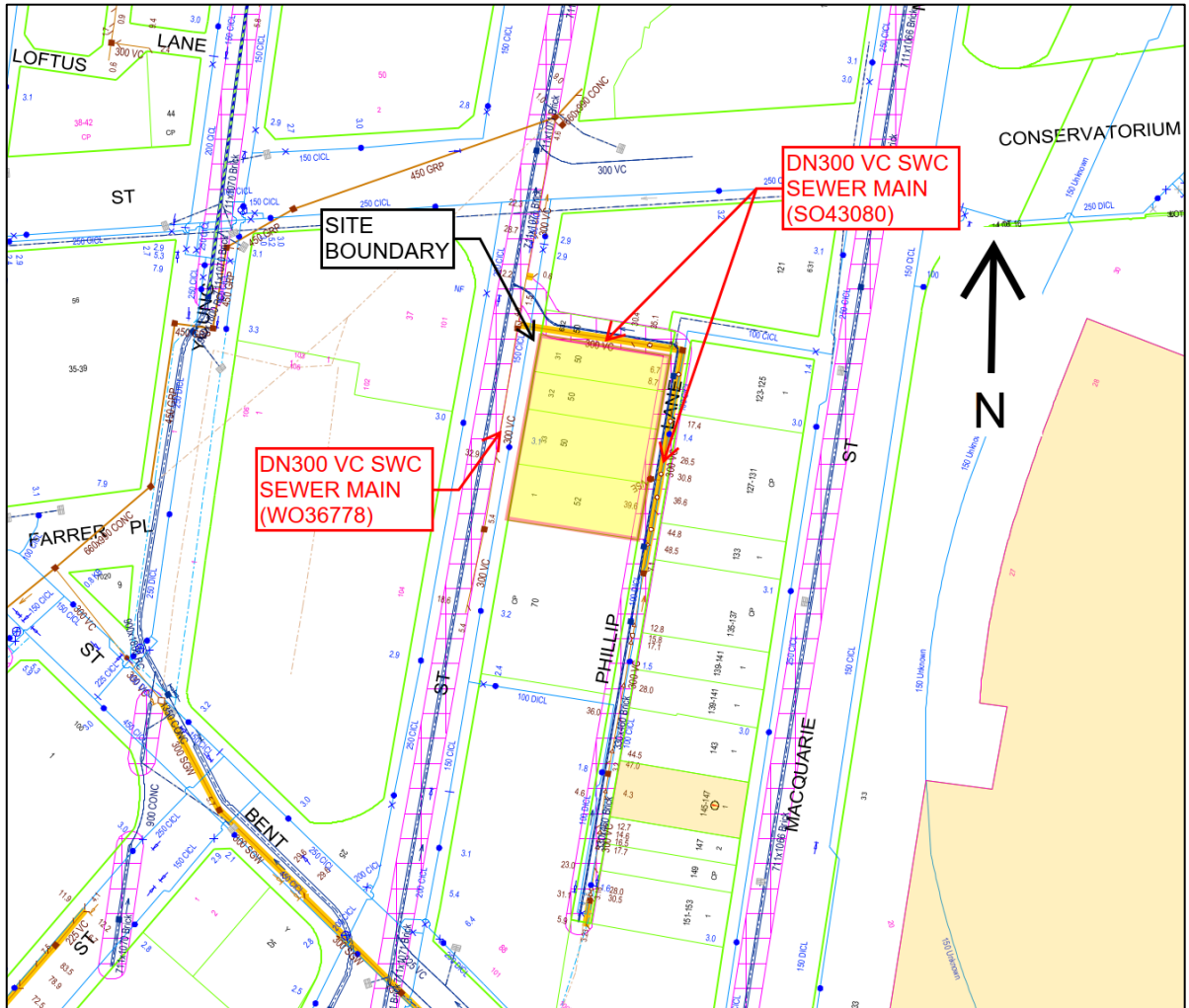


Figure 3-2 Existing SWC Sewer Main Locations

### 3.3 SYDNEY WATER – STORMWATER CONNECTION

There is SWC stormwater assets located in both Phillip Street and Phillip Lane. A 1.017m x 0.711m (OCP140) stormwater channel is located within Phillip Street and a 0.330m x 0.460 (OCP97) stormwater channel is located in Phillip Lane. The stormwater assets can be seen in Figure 3-3.

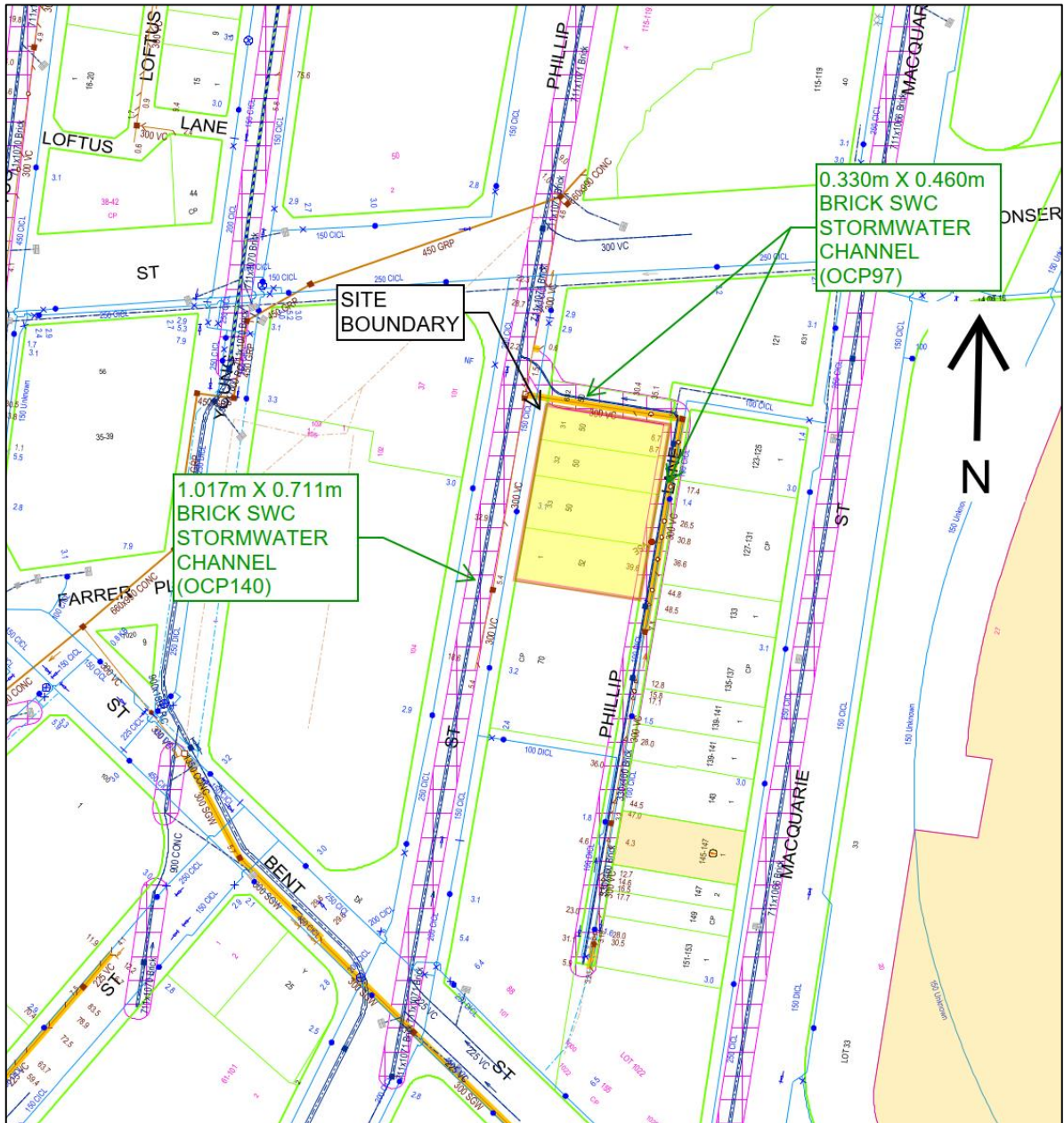


Figure 3-3 Existing SWC Stormwater Locations

### 3.4 GAS

The existing Jemena gas lines in the project vicinity are shown below in Figure 3-4.

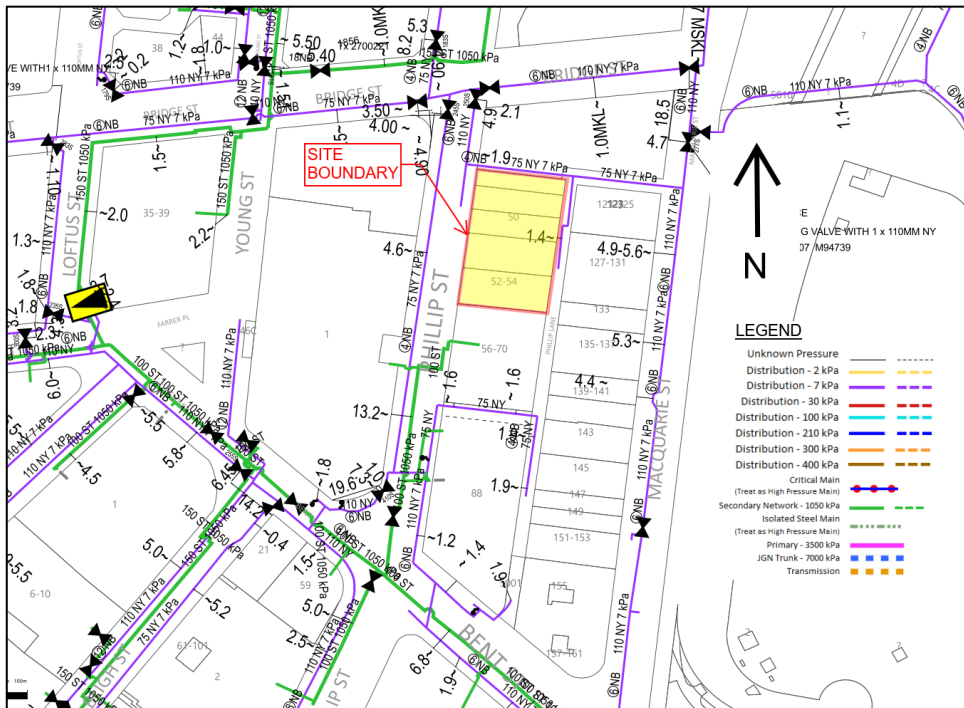


Figure 3-4 Existing Jemena Gas Lines

### 3.5 AUSGRID

The existing Ausgrid infrastructure within the project vicinity is shown below in Figure 3-5.

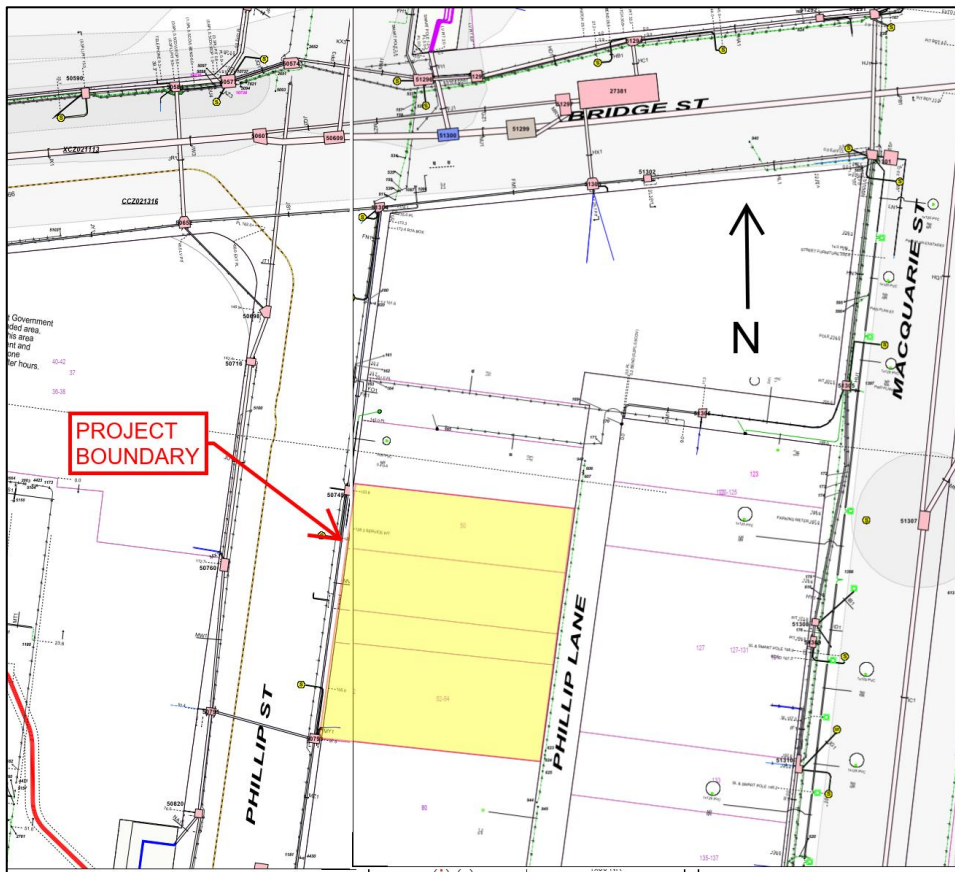


Figure 3-5 Ausgrid Existing Utilities

### 3.6 OPTUS FIBRE OPTIC ASSETS

The existing Optus fibre optic infrastructure within the project vicinity is shown in Figure 3-6.

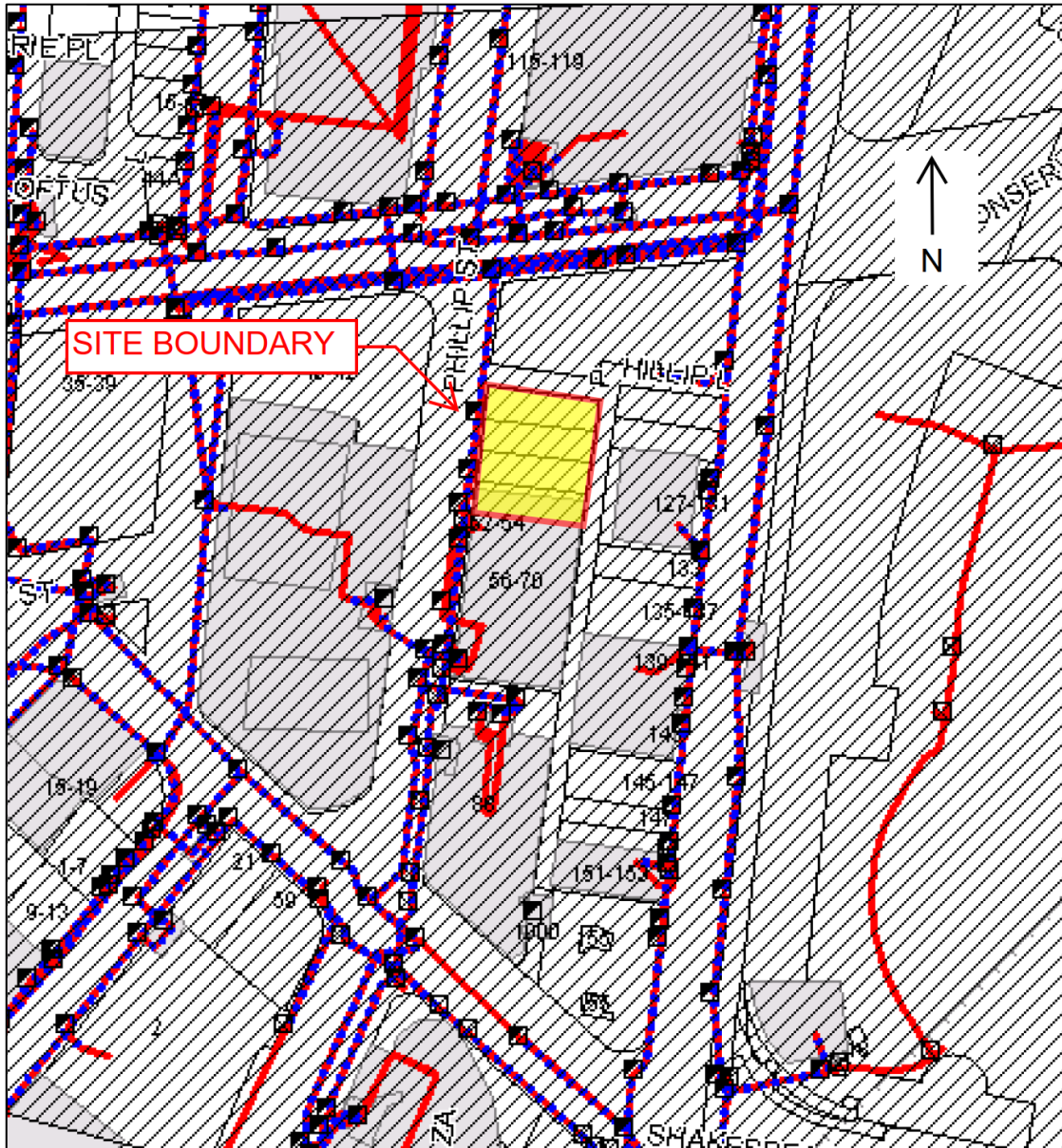


Figure 3-6 Optus Existing Infrastructure

## 4. DEMAND CALCULATIONS

### 4.1 WATER DEMAND CALCULATIONS

The proposed development consists of a mix of retail, café and hotel accommodations.

The average daily water demand for the development has been calculated using the Average Daily Water Use documentation by Sydney Water (see Appendix A), which shows that the demand for the development is to be calculated based on the gross floor area. The summary of average daily water demand for this building classification is given in Table 4-1.

**Table 4-1 Average Daily Water Demand Per Use**

Classification	Metric Unit	Average Demand (L/Metric Unit/Day)
Hotel	Room	359.94
Café	Square Metre	2.48
Residential	Square Metre	3.34
Retail	Square Metre	2.48

This data was used to calculate the total demand for the proposed development and is summarised in Table 4-2.

**Table 4-2 Proposed Development Total Water Demand by Use**

Classification	Total Unit	Average Demand (L/Metric Unit/Day)	Total Average Daily Water Demand (kL)
Hotel	246 Rooms	359.94	88.55
Café	1,477 Sq. m	2.48	3.66
Residential	4,478 Sq. m	3.34	14.96
Retail	123 Sq. m	2.48	0.31
<b>Total</b>			<b>107.48</b>

It is not expected that any major upgrades of infrastructure will be required to the DN100 (CO5469) SWC water main located in Phillip Lane and a DN250 (WO70017) and DN150 (WO60643) watermain in Phillip Street but this will be confirmed during the detailed design stage.

## 4.2 SEWER DEMAND CALCULATIONS

In order to determine the average daily sewer discharge for the proposed development, an estimate in terms of Litres/Day has been made by adopting information derived by the NSW Water Directorate. The Directorate states that standard equivalent tenement figures suggest that a 60% water to sewer discharge factor is appropriate. The calculated results for total average daily sewer discharge are given in Table 4-3.

**Table 4-3 Calculated Total Average Daily Sewer Discharge**

Classification	Total Unit	Average Demand [60% of Water Average Demand] (L/Metric Unit/Day)	Total Average Daily Sewer Discharge (kL)
Hotel	246 Rooms	215.96	53.13
Café	1,477 Sq. m	1.49	2.20
Residential	4,478 Sq. m	2.00	8.96
Retail	123 Sq. m	1.49	0.18
<b>Total</b>			<b>64.47</b>

It is not expected that any major upgrades of infrastructure will be required to the two DN300 (WO36778 and SO43080) SWC sewer assets that boarder the site boundary but this will be confirmed during the detailed design stage.

## 4.3 GAS DEMAND CALCULATION

The site estimated gas loads are provided in Table 4-4.

**Table 4-4 Estimated Gas Demands**

Usage	Total (MJ/hr)
Peak Hour Demand	25,904
Daily Demand	291,420

## 5. FLOOD ASSESSMENT

A flood assessment was undertaken for the development site in order to determine flood affectation and flood related development controls which apply to the site. The flood planning levels for the site are outlined in Table 5-1 and Table 5-2 and include minimum floor and below-ground car park entry levels.

**Table 5-1 Flood Levels and Depth Summary at the Site**

Point of Interest	1% AEP Level (mAHD)	1% AEP Depths (m)	PMF Level (mAHD)	PMF Depth (m)	Types of Flooding per CoS Policy
01	22.48	0.01	22.52	0.03	Local Drainage
02	22.00	0.42	22.03	0.47	Mainstream
03	22.00	0.64	22.03	0.69	Mainstream
04	23.59	0.08	23.61	0.10	Local Drainage
05	24.52	0.07	24.55	0.10	Local Drainage
06	22.29	0	22.29	0	Local Drainage
07	20.36	0	20.36	0	Local Drainage
08	21.20	0.04	21.22	0.06	Local Drainage

**Table 5-2 FPL for the Site**

Land Use	Type of Flooding	FPL
Below-Ground Car Parks	Local Drainage or Mainstream	The higher of 1% AEP flood level + 0.5m Freeboard and PMF Flood Level
Residential	Local Drainage or Mainstream	1% AEP Flood Level + 0.5m for habitable rooms and 1% AEP flood level for non-habitable rooms
Industrial or Commercial (Business or Retail)	Local Drainage or Mainstream	Merits Approach Presented by the Applicant with a Minimum of the 1% AEP Flood Level

Please refer to Appendix C for the flood assessment undertaken by GRC Hydro.

There are no major flooding issues associated with the development and safe evacuation along Phillip Street is possible in events up to and including the PMF.

## 6. ONSITE STORMWATER DETENTION (OSD)

No OSD is required for the site as per the correspondence with SWC. Refer to Appendix D for correspondence.

## 7. WATER SENSITIVE URBAN DESIGN (WSUD)

With reference to the City of Sydney DCP 2012, Part 3.7.3 Stormwater Quality, the WSUD requirements are presented in Table 7-1.

**Table 7-1 WSUD Stormwater Quality Performance Targets**

Pollutant Type	Target Reduction Percentage (%)
Gross Pollutants	90%
Total Suspended Solids	85%
Total Phosphorus	65%
Total Nitrogen	45%

It is not expected that any major upgrades of infrastructure to the SWC stormwater assets located in both Phillip Street and Phillip Lane will be required but this will be confirmed during the detailed design stage.

# APPENDIX A SYDNEY WATER AVERAGE DAILY WATER USE BY PROPERTY TYPE

# Average daily water use

## By property development type

Water Supply Code of Australia



MWH/PB Flow Study Report



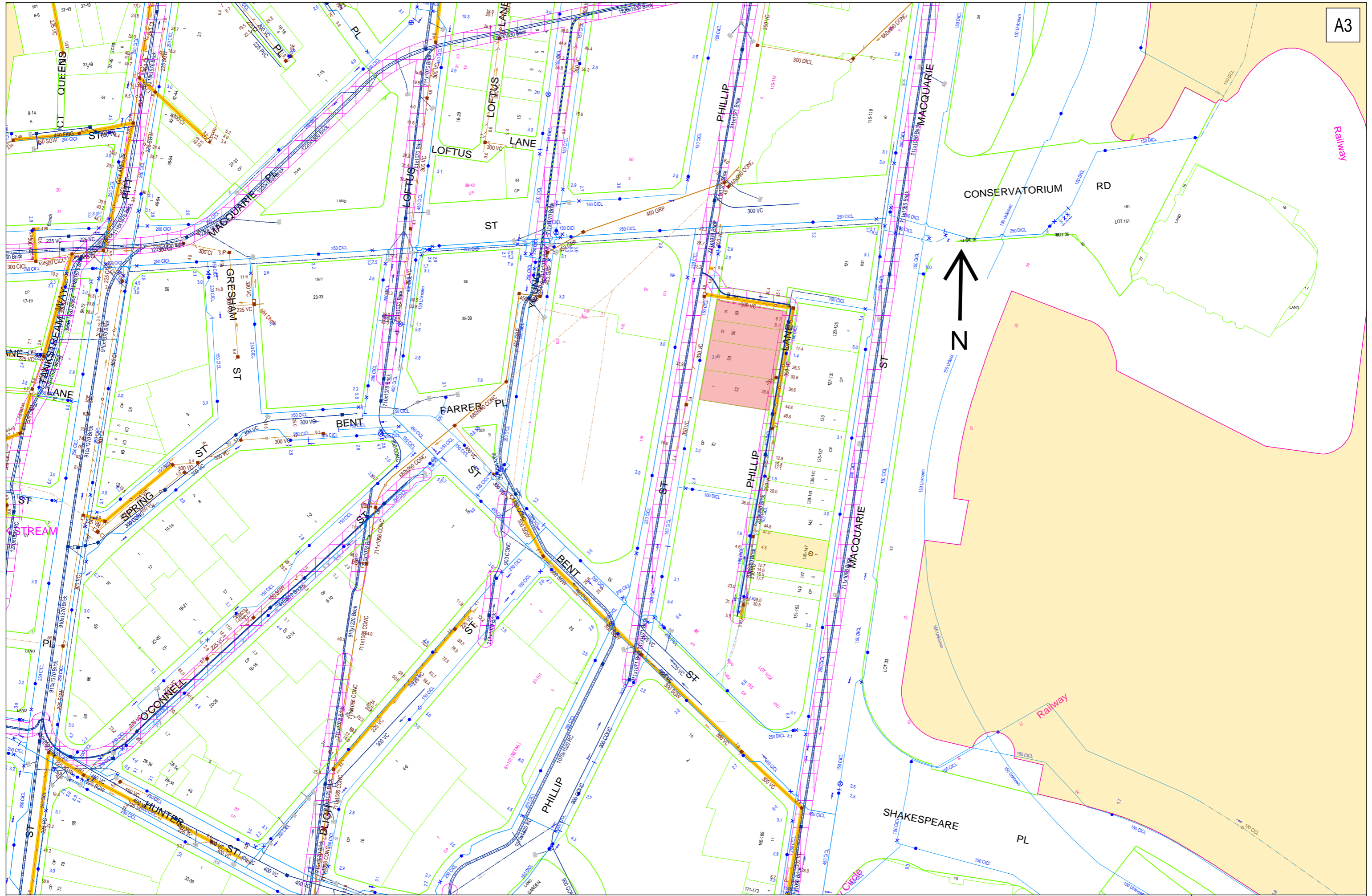
Water usage survey



Development Type	Development Sub-Type	Key Metric	Metric Unit	Average Demand (L/Metric unit/Day)
Residential	Single Lot Torrens	Dwelling	Each dwelling	623.00
	Flats Torrens	Net floor area	Square metre	2.36
	High Rise Units	Net floor area	Square metre	3.34
	Single Lot Community	Dwelling	Each dwelling	623.00
Mixed	Residential / Commercial	Combined floor area	Each dwelling / Square metre	Use separate rates for each component
	Commercial / Industrial	Combined floor area	Square metre	Use separate rates for each component
Commercial	Aged Accom - Self Care	Net floor area	Square metre	2.50
	Aged Accom - Hostel	Bed	Each bed	271.00
	Aged Accom - Full Care	Bed	Each bed	271.00
	Childcare	Net floor area	Square metre	3.60
	Hotel / motel / serviced apartments	Room	Each room	359.94
	Office	Net floor area	Square metre	2.27
	Shopping Centre	Net floor area	Square metre	3.00
	Laundry / Dry Cleaner	Net floor area	Square metre	10.50
	Café / Fast Food / Butcher / Deli	Net floor area	Square metre	2.48
	Retail Units	Net floor area	Square metre	2.48
	Medical / Veterinary	Net floor area	Square metre	2.48
	Mechanical Repair	Net floor area	Square metre	2.48
	Car / Boat Sales	Net floor area	Square metre	2.48
	Car Wash	Net floor area	Square metre	9.40
	Club	Net floor area	Square metre	3.77
Industrial	Heavy Process	As required		
	Chemical Manufacturing	As required		

	Printing Manufacturing	As required		
	Beverage Manufacturing	As required		
	Light Factory Unit	Developed floor area	Square metre	2.82
	Warehousing	Developed floor area	Square metre	2.82
	Transport / Bus depot	Site area	Square metre	0.91
Special Uses	University	Student	Each student	20.00
	School	Student	Each student	20.00
	Hospital	Bed	Each bed	271.00
	Religious assemblies	Developed floor area	Square metre	1.30
	Government depot	Site area	Square metre	0.91
	Community Centre / Library	Floor area	Square metre	1.84
	Sports Fields with amenities	As required		
	Parks & Reserves	As required		
	Services: Police, Ambulance, etc	Floor area	Square metre	1.40

# APPENDIX B SYDNEY WATER DBYD MAP

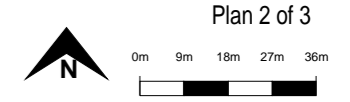


DBYD Address:  
50 Phillip Street  
Sydney NSW 2000

DBYD Job No: 19556650  
DBYD Sequence No: 97802638

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Date of Production: 19/05/2020



# APPENDIX C GRC FLOOD STUDY



*Job Number:* 200044  
*Date:* 11 January 2021

Warren Smith & Partners  
Level 9, 233 Castlereagh St  
Sydney NSW 2000

GRC Hydro  
Level 9, 233 Castlereagh Street  
Sydney NSW 2000

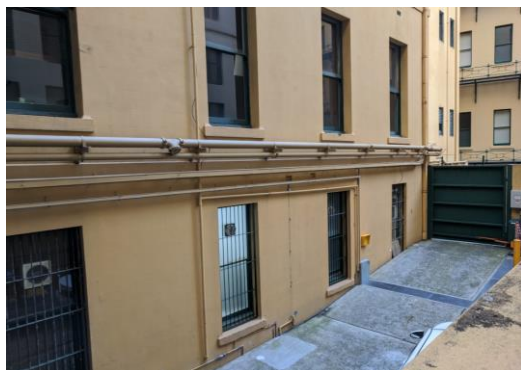
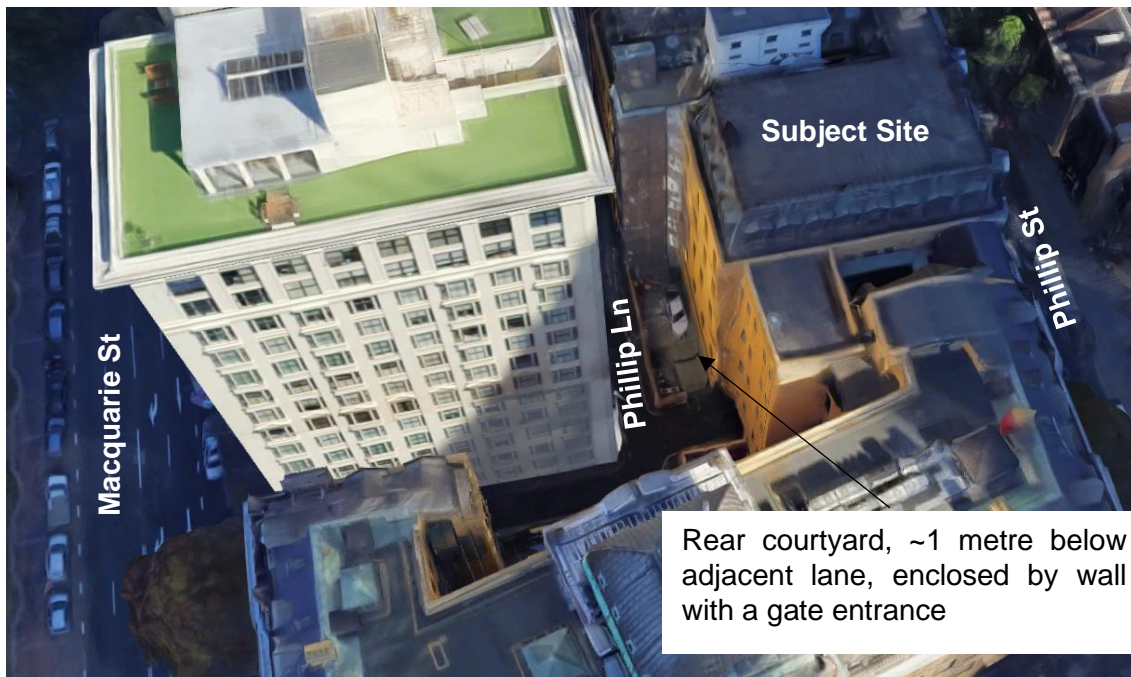
Tel: +61 432 477 036  
[www.grchydro.com.au](http://www.grchydro.com.au)

Dear Mr. Michael Cahalane

**Re: 50-52 Phillip Street, Sydney**

Thank you for inviting GRC Hydro to provide a flood certificate for the above referenced property. This certificate describes flood behaviour at the site, based on available flood modelling from City Area Catchment Floodplain Risk Management Plan (WMAwater, 2016), and determines the design flood levels for the property. These can be used to determine Flood Planning Levels (FPL) at the site, based on Sydney Local Environmental Plan (2012) and City of Sydney Interim Floodplain Management Policy (2014).

The subject site is located in the Sydney CBD on Phillip Street, with the rear and north sides of the lot on Phillip Lane. The site is located in the Sydney CBD catchment, a relatively small urban catchment that drains north towards Circular Quay. The site is located on the east side of the catchment and has very minimal upstream catchment area. At the site itself, there is a rear courtyard that is around 1 m lower than Phillip Lane. The courtyard is enclosed by a ~2 m wall, with a single-entry point on the north side of the lot, from Phillip Lane. These features are labelled on the image below.



Rear courtyard viewed from Phillip Lane



Corner of Phillip Lane showing gate entrance

Flood behaviour, including peak flood depths and levels, have been derived using City of Sydney's City Area Catchment Floodplain Risk Management Plan (WMAwater 2016), which utilised a TUFLOW hydraulic model to determine flood behaviour throughout the catchment. The model was refined in the area of interest by including the rear courtyard wall as an impermeable barrier, with an ingress point at the location of the gate. These features were confirmed via site inspection. The model was then run to determine the 1% AEP Annual Exceedance Probability (AEP) event (see Figure 1) and the Probable Maximum Flood (PMF) event, as shown on Figure 2.

The City of Sydney Interim Floodplain Management Policy (2014) specifies different controls for mainstream flooding and local drainage flooding. Local drainage flooding occurs where the maximum cross-sectional depth of flooding in the local overland flow path through and upstream of the site is less than 0.25m for the 1% AEP flood.

The following is noted for the site:

- The site has a small upstream catchment and depths of flooding are consequently very shallow in Phillip Lane, with a maximum of 0.1-0.2 m depth in the 1% AEP event. The rear lane and Phillip Street are not affected by a trapped low point and so meet the criteria of 'Local Drainage Flooding' as per City of Sydney policy.
- The enclosed courtyard at the rear of the property, on Phillip Lane, is significantly lower than the laneway. However, the only ingress point for runoff to enter the courtyard is a gate on the north side of the courtyard. The remainder is enclosed by a wall. The refined hydraulic model shows that runoff will enter the courtyard via this gate. Modelling has been carried out by GRC Hydro to confirm that blocking all flow into the courtyard will not have any adverse impact on flooding, due to the very shallow flow that occurs in the lane.
- The applicable flood planning levels at the site will depend on whether any proposed development alters the wall structure.
  - o If the wall or gate is modified, more runoff may accumulate within the courtyard and the Flood Planning Level may be higher at the rear of the building. This will require further assessment via an updated model.
  - o If the wall and gate are not modified, the flood planning levels as per Table 1 and Table 2 will apply.

The Flood Planning Level (FPL) for the property is a function of the type of development and flood behaviour. A new hotel is currently planned for the site, including residential apartments on upper levels, and Flood Planning Levels have been provided below, on that basis. There is no residential use or habitable space proposed for the ground floor level, so it is classified as 'Industrial or Commercial (Business or Retail)' per the Interim Floodplain Management Policy.

Table 1 summarises the flood levels and type of flooding for a range of points of interest around the site. Table 2 summarises the applicable FPL for the type of development at the site. Information in the tables for the laneway will be revised if the courtyard wall and gate are modified as part of the development.

*Table 1: Flood Levels and Depth summary at the site*

Point of interest	1% AEP Level (mAHD)	1% AEP Depths (m)	PMF Level (mAHD)	PMF Depth (m)	Type of Flooding per CoS policy
01	22.48	0.01	22.52	0.03	Local Drainage
02	22	0.42	22.03	0.47	Mainstream
03	22	0.64	22.03	0.69	Mainstream
04	23.59	0.08	23.61	0.10	Local Drainage
05	24.52	0.07	24.55	0.10	Local Drainage
06	22.29	0	22.29	0	Local Drainage
07	20.36	0	20.36	0	Local Drainage
08	21.2	0.04	21.22	0.06	Local Drainage

Table 2: FPL for the site

Land use category	Type of Flooding	FPL
Below-ground car parks	Local drainage or Mainstream	The higher of 1% AEP flood level + 0.5m freeboard and PMF flood level.
Industrial or commercial (Business or Retail)	Local drainage or Mainstream	Merits approach presented by the applicant with a minimum of the 1% AEP flood level

It should also be noted that the City of Sydney Interim Floodplain Management Policy (2014) specifies the following: “The below ground garage/car park level applies to all possible ingress points to the car park such as vehicle entrances and exits, ventilation ducts, windows, light wells, lift shaft openings, risers and stairwells”.

Based on the points around the site, any elevators on the ground floor that connect to basement levels will have a Flood Planning Level based on the highest applicable building entrance. For example, to prevent ingress of water into the basement,

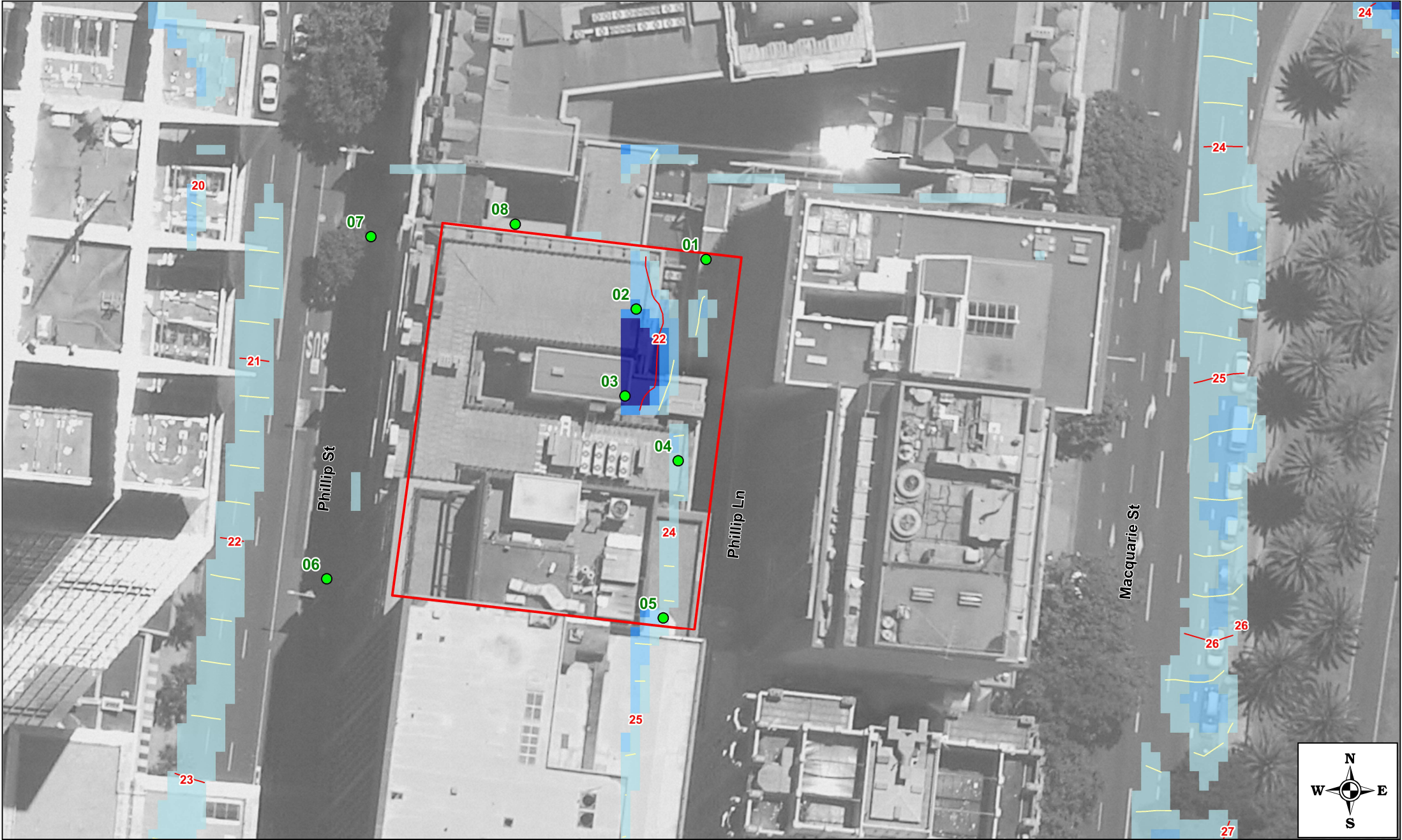
- an entrance on Phillip Lane at Point 08 in Table 1, where the 1% AEP flood level is 21.20, will require that elevators connected to this entrance be at least 21.7 mAHD (1% AEP + 0.5 m).
- an entrance on Phillip Street at Point 06 will require that elevators connected to the entrance be at least 22.79 mAHD (1% AEP + 0.5 m).

If you require any further information, please do not hesitate to contact me on 0413 631 447.

Yours Sincerely



Steve Gray  
Director



<p><b>Flood Depths (m)</b></p> <ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #e0f2f7; border: 1px solid black; margin-right: 5px;"></span> 0.05 to 0.1</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #b3e5fc; border: 1px solid black; margin-right: 5px;"></span> 0.1 to 0.3</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #81c784; border: 1px solid black; margin-right: 5px;"></span> 0.3 to 0.5</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #4dd0e1; border: 1px solid black; margin-right: 5px;"></span> 0.5 to 1</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #000000; border: 1px solid black; margin-right: 5px;"></span> &gt; 1</li> </ul>	<ul style="list-style-type: none"> <li><span style="display: inline-block; width: 10px; height: 10px; background-color: #008000; border: 1px solid black; margin-right: 5px;"></span> Inspection Locations (IDs in Report)</li> <li><span style="display: inline-block; width: 10px; border-bottom: 1px solid red; margin-right: 5px;"></span> Major Flood Level Contours Spacing = 1m</li> <li><span style="display: inline-block; width: 10px; border-bottom: 1px solid yellow; margin-right: 5px;"></span> Minor Flood Level Contours Spacing = 0.2m</li> </ul>	<div style="border: 1px solid red; width: 20px; height: 10px; margin: 0 auto;"></div> Study Area
<div style="display: flex; align-items: center; justify-content: center;"> <div style="width: 250px; border-bottom: 1px solid black; margin-right: 5px;"></div> <span>0</span> <span style="margin-left: 20px;">25</span> </div> <p style="text-align: center; margin-top: 5px;">meters</p>		

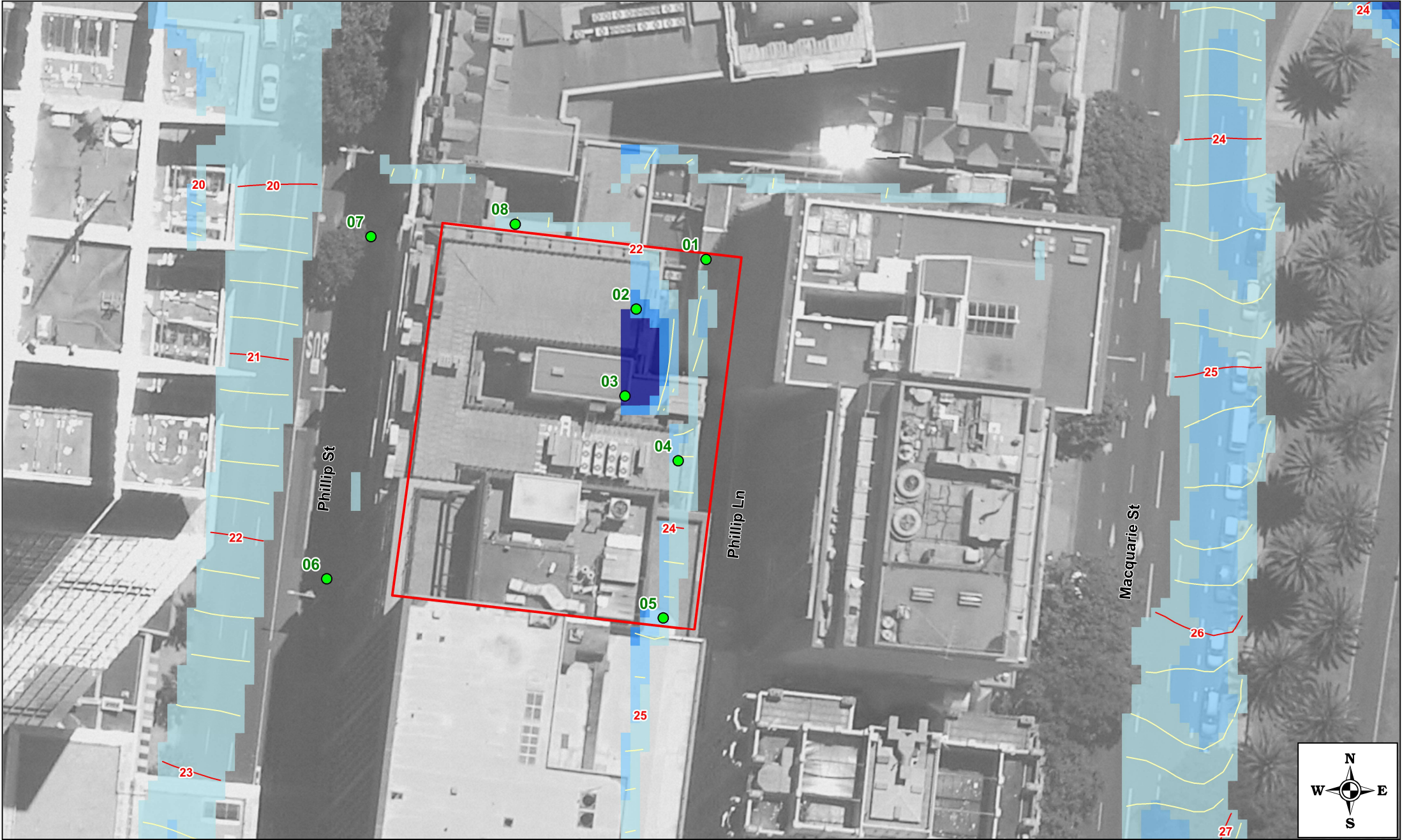
**TITLE:** 1% AEP (100 year ARI) Design Event - Peak Flood Depths & Levels

**PROJECT:** 50-52 Phillip Street, Sydney

**PROJECT No.:** 200044

<b>DATE:</b> June 2020	<b>SCALE:</b> 1 : 500	<b>FIGURE NUMBER:</b> 01
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<p><b>Flood Depths (m)</b></p> <ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #ADD8E6; border: 1px solid black; margin-right: 5px;"></span> 0.05 to 0.1</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #66B3FF; border: 1px solid black; margin-right: 5px;"></span> 0.1 to 0.3</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #0070C0; border: 1px solid black; margin-right: 5px;"></span> 0.3 to 0.5</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #0056B3; border: 1px solid black; margin-right: 5px;"></span> 0.5 to 1</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #000000; border: 1px solid black; margin-right: 5px;"></span> &gt; 1</li> </ul>	<ul style="list-style-type: none"> <li><span style="display: inline-block; width: 10px; height: 10px; background-color: #008000; border: 1px solid black; margin-right: 5px;"></span> Inspection Locations (IDs in Report)</li> <li><span style="display: inline-block; width: 10px; border-bottom: 1px solid red; margin-right: 5px;"></span> Major Flood Level Contours Spacing = 1m</li> <li><span style="display: inline-block; width: 10px; border-bottom: 1px solid yellow; margin-right: 5px;"></span> Minor Flood Level Contours Spacing = 0.2m</li> </ul>	<div style="border: 2px solid red; width: 20px; height: 10px; margin: 0 auto;"></div> Study Area
<div style="display: flex; align-items: center; justify-content: center;"> <span style="margin-right: 5px;">0</span> <div style="flex-grow: 1; border-bottom: 2px solid black; position: relative;"> <span style="position: absolute; right: -5px; top: -5px;">25</span> </div> <span style="margin-left: 5px;">meters</span> </div>		

**TITLE:** PMF Design Event - Peak Flood Depths & Levels

**PROJECT:** 50-52 Phillip Street, Sydney

**PROJECT No.:** 200044

<b>DATE:</b> June 2020	<b>SCALE:</b> 1 : 500	<b>FIGURE NUMBER:</b> 02
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# APPENDIX D SWC OSD CORRESPONDENCE

## David Barcal

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**From:** Stormwater <Stormwater@sydneywater.com.au>  
**Sent:** Friday, 29 May 2020 3:23 PM  
**To:** David Barcal  
**Cc:** Laura Shaughnessy  
**Subject:** RE: 6929000 - 50-52 Phillip Street

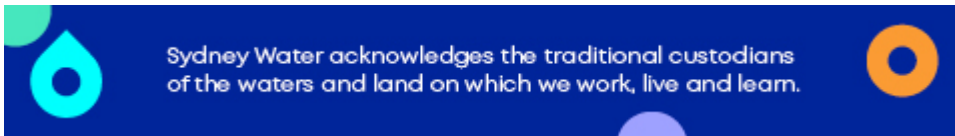
David,

On Site Detention is not required for any development at this location.

Jeya Jeyadevan  
Senior Capability Assessor  
Business Development Group

Sydney Water, Level 13, 1 Smith Street, Parramatta NSW 2150

**Sydn** Phone 8849 6118  
Mobile 0409 318 827  
[jeya.jeyadevan@sydneywater.com.au](mailto:jeya.jeyadevan@sydneywater.com.au)



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**From:** David Barcal [mailto:DBarcal@warrensmith.com.au]  
**Sent:** Friday, 29 May 2020 1:42 PM  
**To:** Stormwater <Stormwater@sydneywater.com.au>  
**Cc:** Laura Shaughnessy <laura.s@warrensmith.com.au>  
**Subject:** RE: 6929000 - 50-52 Phillip Street

Hi,

Affected Lots below:

- Lot 31 DP984186
- Lot 32 DP984186
- Lot 33 DP1141812
- Lot 1 DP448584

Let me know if further information is required.

Thank you,

Regards,  
**David Barcal**

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**From:** Stormwater [<mailto:Stormwater@sydneywater.com.au>]  
**Sent:** Friday, 29 May 2020 8:27 AM  
**To:** David Barcal <[DBarcal@warrensmith.com.au](mailto:DBarcal@warrensmith.com.au)>  
**Cc:** Laura Shaughnessy <[laura.s@warrensmith.com.au](mailto:laura.s@warrensmith.com.au)>  
**Subject:** RE: 6929000 - 50-52 Phillip Street

David,

Could you please send us any further information such as Lot and DP number or marked in a Google Map to exactly identify the property.

Best Regards  
Planning and Technical, Customer Growth and Development

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**From:** David Barcal [<mailto:DBarcal@warrensmith.com.au>]  
**Sent:** Tuesday, 26 May 2020 8:39 AM  
**To:** Stormwater <[Stormwater@sydneywater.com.au](mailto:Stormwater@sydneywater.com.au)>  
**Cc:** Laura Shaughnessy <[laura.s@warrensmith.com.au](mailto:laura.s@warrensmith.com.au)>  
**Subject:** 6929000 - 50-52 Phillip Street

Hello,

I have a 0.1706 Ha development at 50-52 Phillip Street which requires an OSD. Could you provide me with the OSD and PSD requirements for the following site:

Address: 50-52 Phillip Street, Sydney NSW 2000  
LGA: City of Sydney  
Total Site Area: 0.1706 Ha  
Pre-Development Impervious Area: 0.1706 Ha  
Post Development Impervious Area: 0.1706 Ha

If you have any questions, please do not hesitate in contacting me.

Thank you,

**David Barcal**  
Engineer - Civil & Water Engineering

Direct +61 2 8234 8622  
Mobile +61 410 949 378  
Address: Level 9, 233 Castlereagh St, Sydney NSW 2000



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