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#### **Beau Monde Development**

Director General's Utility Report – Sewer, Water, Gas, Fire & Electrical Services

Winten Property Group

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## Contents

1	Executive Summary				
2	Design Criteria				
3	Hydraulic Services				
	3.1	Figure 2 Existing Water, Gas and Sewer services	3		
4	Sewer Services				
	4.1	Existing Sydney Water sewer main assets	4		
	4.2	Proposed sewer main upgrade	4		
	4.3	Existing private sewer connections	4		
	4.4	Connection no 1- Beau Monde Tower	5		
	4.5	Connection no 2- Beau Monde Retail (Shopping World)	5		
	4.6	Proposed sewer drainage – commercial office building	5		
	4.7	Proposed early works – Beau Monde Commercial	5		
5	Wate	er Services	6		
	5.1	Existing Sydney Water's water main assets	6		
	5.2	Proposed water main upgrade	6		
	5.3	Existing private water connections	6		
	5.4	Incoming Cold Water Service	7		
	5.5	Incoming Fire Hydrant Service	7		
	5.6	Incoming Fire Sprinkler Service	7		
	5.7	Proposed water services for Beau Monde Commercial	7		
	5.8	Proposed early works – Water Services	7		
6	Gas	Services	8		
	6.1	Existing Jemena gas main assets	8		
	6.2	Incoming gas supply and meter arrangements generally	8		
	6.3	Proposed gas supply for commercial office building	8		
7	Electrical Services				
	7.1	Existing Energy Australia assets	9		
	7.2	As part of the new Electrical Services for Commercial Tower and Retail	9		
8	Communication Services				
	8.1	Communications for Commercial Tower, Hotel and Retail	10		

### Figures

Figure 1 - Proposed and existing site layout	2
Figure 2 - Existing authority mains site layout	3

## 1 Executive Summary

Aurecon has been appointed by Winten Property Group Pty Ltd to prepare a report for the Director General addressing the existing capacity and requirements of the development for the provision of utilities including staging of infrastructure works.

The development site is currently comprised of the land and buildings located within Berry Street, Little Spring Street, Spring Street and Denison Street, North Sydney.

Aurecon has been asked to review and assess the proposed changes to determine what, if any, impact such changes will have on the existing utilities.

Aurecon has obtained information that is generally available to the public through normal methods of obtaining such information (such as "dial-before-you-dig" and building management records). The information reviewed to prepare this report is not exhaustive and considers only the information which was available to Aurecon as at the date of this report.

Aurecon has reviewed the electrical, water, sewer and gas services for the development. In summary, the conclusion reached by Aurecon as set out in this report confirms that the proposed changes will not detrimentally affect existing utilities.

# 2 Design Criteria

In order to review the impact of the Proposed Development, the following criteria have been used to assess each respective system:

The Proposed Development will include the following components:-

#### Commercial Tower

A new 39 level commercial office building (which will contain approximately 63,700 square metres of office space), separate to the existing Beau Monde Tower. This will replace the existing retail space known as Shopping World.

#### Retail

One and a half levels of retail space will be provided on the ground and mezzanine levels of the Proposed Development.

#### • Car Parking

The existing Beau Monde car parking (located under existing Beau Monde Tower) will remain and a new five level basement car park will be constructed within the Commercial Tower site.



Figure 1 - Proposed and existing site layout

## 3 Hydraulic Services

### 3.1 Figure 2 Existing Water, Gas and Sewer services



Figure 2 - Existing authority mains site layout

## 4 Sewer Services

#### 4.1 Existing Sydney Water sewer main assets

Sydney Water owns the sewer mains located around the Proposed Development site. These include:

- Berry Street (northern boundary)
   A 225 sewer running from west to east with one manhole and two provisional connection points.
   No connections within Beau Monde appear to discharge into this sewer.
- Denison Street (western boundary) A 225 sewer running from north to south with four manholes and three provisional connection points. No connections within Beau Monde appear to discharge into this sewer
- Little Spring Street (eastern boundary) A 225 sewer running from north to south with three manholes and ten provisional connection points. The existing Beau Monde Tower is connected into and discharge into this sewer.
- **Spring Street** (southern boundary) A 225 sewer running from west to east with two manholes and three provisional connection points. Beau Monde Retail (Shopping World) appears to be connected into and discharges into this sewer.

#### 4.2 Proposed sewer main upgrade

To satisfy Sydney Water's requirements the following Sydney Water assets will need to be constructed:

- (a) The construction of a 225mm sewer sideline in Little Spring Street to serve the existing Beau Monde Tower
- (b) The construction of a 225mm sewer sideline in Spring Street to serve the proposed Commercial Tower

#### 4.3 Existing private sewer connections

Two sewer connections extend from Sydney Water sewers in to the proposed site:

- (a) 1 connection located in Little Spring Street serving Beau Monde Tower and
- (b) 1 connection located in Spring Street serving the Beau Monde retail (Shopping World).

### 4.4 Connection No 1 - Beau Monde Tower

#### (a) Existing

A 225 sewer extends from the eastern boundary of Beau Monde located 100 metres south of Berry Street. The sewer service extends into Beau Monde terminating with a boundary trap within the loading dock.

(b) Proposed Changes

The outlet of the boundary trap traverses horizontally through to the existing loading dock located in Beau Monde Retail, prior to exiting Beau Monde and connecting to the Sydney Water sewer in Little Spring Street. This sewer outfall will require relocation, prior to the commencement of works for the Proposed Development.

### 4.5 **Connection No 2 - Beau Monde Retail (Shopping World)**

(a) Existing

A 150 sewer extends from the southern boundary of Beau Monde and connects to Sydney Waters 225 sewer in Spring Street.

The sewer and grease waste drainage from Beau Monde Retail (Shopping World) falls from north to south, and discharges via a boundary trap to the authority sewer main located in Spring Street.

(b) Proposed Changes

This sewer and grease waste drainage pipes will need to be cut and sealed prior to the commencement of any works for the Proposed Development, and reinstated once the Proposed Development works have been completed.

#### 4.6 **Proposed sewer drainage – Commercial Tower**

The proposed commercial tower sewer connection will be connected to the Sydney Water sewer in Spring Street.

The proposed commercial office building will be designed to achieve a 5 Green Star rating and a 5 star ABGR.

#### 4.7 **Proposed early works – Beau Monde Tower**

In order to commence construction on the proposed new Commercial Tower office building but ensure the continuity of the existing sewer connection for the Beau Monde Tower (apartments and commercial), works may be required to install:

- (a) Temporary sewer pump station and rising main; and/or
- (b) A new gravity alternative connection to Little Spring Street.

## 5 Water Services

### 5.1 Existing Sydney Water's water main assets

The Sydney Water owned cold water mains locations are as follows:

- Berry Street (northern boundary) A 375mm trunk main and a 150mm cold water main reticulate from west to east. There are no connections to this water main from Beau Monde.
- Denison Street (western boundary) A 100mm cold water main reticulates from north to south. There are no connections to this water main from Beau Monde
- Little Spring Street (eastern boundary) A 100mm cold water main reticulates from south to north. There are no connections to this water main from Beau Monde
- Spring Street (southern boundary) There is one off Sydney Water mains changing from a 200mm water main to a 150mm water main which reticulate from west to east. Beau Monde Retail (Shopping World) connects to the 200mm cold water main.

#### 5.2 Proposed water main upgrade

To satisfy Sydney Water's requirements the following Sydney Water assets will need constructed:

The construction of a 200mm water main in either Denison Street or Little Spring Street (subject to final design) connecting into the existing 200mm water main located in Spring Street and interconnecting into the150mm water main located in Berry Street.

### 5.3 Existing private water connections

Three water connections extend from the Sydney Water's water main to the development site. These service connections provide water for:

- 1 off fire sprinkler service
- 1 off fire hydrant service
- 1 off cold water services

### 5.4 Incoming Cold Water Service

(a) Existing water service - Beau Monde

A single property service extends from the water main located in Spring Street and enters the development site at the southern end.

#### (b) Proposed Changes to water services

The existing Spring Street water main connection serving the development will be disconnected and a new connection for the existing Beau Monde Tower will be located in Little Spring Street.

### 5.5 Incoming Fire Hydrant Service

- (a) Existing fire Hydrant service- Beau Monde A fire hydrant service extends from the water main located in Spring Street and enters the
  - development site at the southern end.
- (b) Proposed Changes

The existing Spring Street fire hydrant main connection serving the development will be disconnected and a new connection for the existing Beau Monde Tower will be located in Little Spring Street.

### 5.6 Incoming Fire Sprinkler Service

- (a) Existing fire sprinkler- Beau Monde
- A fire sprinkler water service extends from the water main located in Spring Street and enters the development at the southern end.

#### (b) Proposed Changes

The existing Spring Street fire sprinkler main connection serving the development will be disconnected and a new connection for the existing Beau Monde Tower will be located in Little Spring Street.

#### 5.7 **Proposed water services - Commercial Tower**

It is proposed that the existing 100mm water main along Little Spring Street be up graded to 200mm water main. This water main will provide the water main connection for the new Commercial Tower and the existing Beau Monde Tower. This will serve the domestic water service and combined hydrant and fire sprinkler service for the proposed new building and the existing Beau Monde Tower.

A new water meter room, water filtration room and cold water booster pump house will be provided within the back of house areas located in the basement of the new Commercial Tower.

#### 5.8 **Proposed early works – Water Services**

To ensure the continuation of cold water supply to Beau Monde Tower prior to, during and after the construction of the new Commercial Tower, the following works will need to be carried out at Beau Monde. Relocation of the cold water service, fire hydrant service, fire sprinkler service and brigade booster assembly, together with fire sprinkler service connections, rooms for pumps, valve rooms, and connect into the new amplified 200mm main.

## 6 Gas Services

#### 6.1 Existing Jemena gas main assets

The Jemena owned gas mains located around the site are as follows:

- Berry Street (northern end)
   A 75mm low pressure (7kpa) gas main and a 150mm (1050kpa) high pressure secondary gas main are located at this boundary. Beau Monde has no gas connection to this gas main
- Denison Street (western end)
   A 160mm low pressure (7kpa) gas main and a 150mm (1050kpa) high pressure secondary gas main are located at this boundary. The gas connection for Beau Monde is connected to the secondary main.
- Little Spring Street (Eastern end) There is no gas main located in Little Spring Street
- **Spring Street** (southern end) A 75mm low pressure (7kpa) gas main is located at this boundary. Beau Monde has no gas connection in to this gas main.

#### 6.2 Incoming gas supply and meter arrangements

Two gas connections enter the development site, 1 off located on Denison Street and the other located on Walker Street

(a) Existing Gas service- Beau Monde

A single property service extends from the gas main located in Denison Street and enters the development site from the West.

(b) Proposed changes

The gas supply entering the development will need to be disconnected prior to the demolition of the existing Shopping World centre.

### 6.3 **Proposed gas supply - Commercial Tower**

A new gas application will be submitted to Jemena for a gas connection to service the Commercial Tower. It is proposed the new billing meter will be located in a gas meter room within the back of house areas located within the basement of the new Commercial Tower.

## 7 Electrical Services

### 7.1 Existing Energy Australia assets

The current site has an existing Energy Australia elevated 2x1500kVA chamber substation facing Little Spring Street.

This substation supplies:

- Existing Retail (Shopping World) area and carpark that will be demolished to make space for the new development.
- Existing Beau Monde Tower, which is a mixture of commercial and residential suits. This site will remain.

#### 7.2 Electrical Services - Commercial Tower and Retail

As part of the new works the existing substation will be demolished and a new 1x1500kVA dedicated substation will be built to supply the existing Beau Monde Tower site. This will be an elevated chamber substation facing Little Spring Street.

As part of the staging works, first the new chamber substation will be built and Beau Monde connected to the new supply prior to demolition of the existing substation.

In addition to the above, two chamber substations with capacity of 3x1500 transformers in each will be required to supply the Proposed Development.

The two chamber substations will be elevated and will face Little Spring Street.

The above information is currently being prepared for an application for power supply connection to Ausgrid.

## 8 Communication Services

### 8.1 **Communications - Commercial Tower and Retail**

#### 8.1.1 Commercial Tower

The new Commercial Tower building will be provided with diverse telecommunication paths from Little Spring Street to separate Main Distribution Frame (MDF) rooms within the basement beneath the Commercial Tower building.

#### 8.1.2 Retail

The telecommunications service for the retail area will emanate from the two Main Distribution Frame (MDF) rooms within the basement beneath the retail area.

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