



**Construction  
Environmental  
Management Plan**

**Block 11**

**Prepared for:  
Frasers Broadway Pty Ltd**

**1<sup>st</sup> November 2014**

# Contents

<b>Section 1</b>	<b>Introduction</b>	<b>3</b>
<b>Section 2</b>	<b>Objectives</b>	<b>4</b>
<b>Section 3</b>	<b>Building Description</b>	<b>5</b>
<b>Section 4</b>	<b>Description of Works</b>	<b>6</b>
Section 4.1	Demolition and Construction Scope	6
Section 4.2	Site establishment and Security	6
Section 4.3	Environmental and Safety Controls	6
Section 4.4	Adjacent Building Works	7
Section 4.5	Construction	7
Section 4.6	Work Program and Working Hours	7
<b>Section 5</b>	<b>Environmental Management Plans</b>	<b>8</b>
Section 5.1	Heritage and Archaeology Plan	8
Section 5.2	Noise and Vibration Management Plan	9
Section 5.3	Air Quality Management Plan	9
Section 5.4	Soil and Water Management Plan	10
Section 5.5	Waste Management Plan	10
Section 5.6	Chemical Management Plan	10
Section 5.7	Construction Traffic Management Plan	11
Section 5.8	Health and Safety Management Plan	11
Section 5.9	Environmental Complaints	11

## **Section 1                      Introduction**

### **Block 11 – State Significant Development**

The State Significant Development Application (SSD) seeks approval for the redevelopment of Block 11 as a mixed use building, with associated non-residential/retail uses located on ground and 1<sup>st</sup> floors, consistent with the approved Concept Plan. Specifically, the proposal includes the following uses (as shown on the Architectural Drawing at Attachment B):

- Residential
- Retail
- Child Care
- Refurbishment of existing Castle Connell Hotel

The proposal has a total GFA of 25,521 m<sup>2</sup> of which 24,108 m<sup>2</sup> is proposed to be used for residential purposes and 1,413 m<sup>2</sup> is to be used for non-residential purposes being generally in accordance with the Concept Plan (MP 06\_0171 MOD9)

The existing Castle Connell Hotel will be retained.

A basement below Block 11 is proposed to accommodate all residential and non-residential car parking, bicycle parking, residential and commercial storage, waste handling, back of house facilities, building plant and services. The proposed 3 storey basement will accommodate a total of 235 residential car parking spaces.

This Construction Environmental Management Plan (CEMP) has been prepared by Frasers Broadway Pty Ltd in support of the SSD PA for the redevelopment of Block 11. A more detailed CEMP will be prepared by the Contractor prior to the commencement of the works.

## **Section 2                      Objectives**

The objective of the CEMP is to:

- Ensure that the works are carried out in accordance with appropriate environmental statutory requirements
- Ensure that works are carried out in such a way as to minimise impact to the neighboring areas
- Ensure that works are carried out in such a way as to minimize potential environmental degradation by the implementation of best environmental practice;
- Ensure that all personnel engaged in the works comply with the terms and conditions of the CEMP;
- Ensure that no change is made to the CEMP during the construction stages without written permission of the Superintendent
- Respond to changes in environmental and physical conditions during the proposed works through review and monitoring and control programs in consultation with the Superintendent or their nominated representative(s);
- Ensure that corrective actions are completed in a timely manner.

## **Section 3                      Building Description**

The project involves the detailed excavation and construction of 3 basement levels of parking and service areas and the construction of a part 13 part 9 storey mixed use building containing 296 residential dwellings, child care and ground floor retail.

The details are further described in the FJMT architectural design report and the JBA Environmental Impact Statement (EIS) of this SSD submission.

As the site is surrounded by public areas including residential, light industrial and commercial uses, the appointed contractor will need to put in place strict controls to ensure public safety is maintained during the construction delivery phase.

## **Section 4                      Description of Works**

### **4.1 Demolition & Construction Scope**

The proposed excavation and construction works associated with Block 11 are summarised as follows:

- (i) Demolish existing boundary walls along Kensington and Wellington Street
- (ii) Demolish existing ground floor slabs and sub ground footings and structure
- (iii) Removal of non-heritage items from Castle Connell Hotel
- (iv) Complete ground remediation where necessary
- (v) Detailed excavation of the basement
- (vi) Construction of sub structure and associated services
- (vii) Construction and completion of basement car park works
- (viii) Construction and completion of the above ground works
- (ix) Public domain and external landscape works

### **4.2 Site Establishment and Security**

Site establishment will include the establishment of site contractor's offices, mess and toilet facilities, vehicle access, vehicle loading and unloading, lay down areas, establishment and maintenance of on-site work areas.

It is expected that the early works contractor will supply and install an "A" or "B" Class hoardings, as required, around the site to provide protection and space for workers amenities. Note that this will be placed at the rear of the kerb to ensure no narrow footpaths result. The hoarding for the construction works will be defined in a Fencing and Security Plan to be prepared by the Contractor and approved by the Superintendent prior to the commencement of the works. The Hoarding Plan shall clearly identify all access points onto the site.

The Contractor will ensure the security of all active work areas to ensure the safety of the public and protection of the works.

### **4.3 Environmental and Safety Controls**

Environmental and safety controls shall be installed by the Contractor prior to the commencement of the construction works.

These will include but not be limited to:

- Security measures (fencing and gate access)
- Occupation health and safety measures (personal protective equipment, first aid supplies, signage and barriers if needed); and
- Environmental management measures (spill kits, booms, storm water control, dust control)

## **4.4 Adjacent Building Works**

It is expected that there will be adjacent construction works at Central Park including Block 8 to the west and Block 4S and the Brewery Yard Building to the north. O'Connor Street will remain a publically accessible road during the construction of Block 11. All work will be in accordance with the Contractor's work methods and safe work method statements, and WHS Acts, Regulations and Codes of Practice. It is currently envisaged that all construction works will enter and leave the site via Kensington Street and Regent Street.

Monitoring stations will be set up around the site to monitor vibrations during the excavation and building works to the adjacent Castle Connell Hotel and other nearby structures. Dilapidation surveys will be carried out prior to on site works commencing.

## **4.5 Construction**

The contractor will set up materials handling machinery/equipment including a tower crane, hoists and scaffold systems for the building. At times it is expected that mobile cranes will be used to load up materials into the building.

Once there are safe areas to commence work, it is expected that perimeter scaffold will be erected to work on the façade elements as they become available. Once the construction of the floor slabs rise past the ground level, temporary perimeter screens will be installed around the façade perimeter of the building for safety as the construction progresses.

## **4.6 Work Programme and Working Hours**

The working hours will be in accordance with the conditions of approval as determined by the SSD

## **Section 5 Environmental Management Plans**

The following EMPs are provided separately by other Consultants in conjunction with the Building Works Contractor:

- Heritage Impact statement - Urbis
- Storm water and Sediment Control Plan – Mott MacDonald

Prior to the commencement of construction works, a site specific Health and Safety Plan will be prepared by the Contractor and implemented for the site

This document and the associated reports provide the generic conditions which will be augmented by more detail once the Contractor has been appointed

### **5.1 Heritage and Archaeology Plan**

An Archaeological Research Design report has been prepared by GML and approved for the CUB (Central Park) site in 2006. The report sets out the requirements for future investigations throughout the Central park site including Block 11. The bulk excavation and ground remediation works for this site will be carried out in accordance with the GML ARD (2006). Refer to the *Statement of Commitments* in the approved site wide concept plan for further details regarding Frasers site wide archaeological obligations.

Vibration monitors will be set up around the site to monitor vibrations to adjacent Heritage structures including the Castle Connell Hotel Barriers/fencing is to be erected to create exclusion zones as required.

Site induction and tool box talks will be held by the Contractor to inform site personnel and visitors of the location and requirements for the protection of heritage items. Work Method Statements shall be developed by the Contractor for works in close proximity to the heritage structures.

### **5.2 Noise and Vibration Management Plan**

The contractor shall provide a Noise and Vibration Management Plan prior to the commencement of the works.

The following noise management measures will be implemented during the construction works:

- The Contractor shall set up noise and vibration monitors around the site at locations identified by the Acoustic Consultant as sensitive areas and high risk areas.
- Works on site will only be carried out during approved hours
- The Contractor will be responsible for scheduling activities that generate high noise to short term duration wherever possible and practical
- Establishment of site practices and strategic positioning of processes on site
- Establishment of direct communication with affected Parties



Activities that have the potential to produce significant ground vibration include:

- Jack hammering during detailed excavation works
- Piling foundation works
- Road works

Vibration monitoring will be used:

- At the commencement of a new activity near a sensitive structure, establish and confirm safe working distances from the sensitive structure
- When activity identified as producing significant ground vibration is occurring within the safe working distance established, continuously record vibration levels at sensitive structures using unattended vibration loggers. These will also provide a visual/audible alarm when vibration limits are approached
- When operating very close to sensitive structures, attended monitoring is to ensure that any preventative action is taken immediately to prevent the targets from being exceeded.

Where a monitor alarm is activated, the following actions shall be undertaken:

- All vibration producing works in the vicinity of the alarm shall cease immediately
- Cause of the exceedance shall be investigated immediately
- If the cause of the event is likely to be caused again, or if another alarm is triggered, then the acoustic specialist should be advised and further action taken place before works recommence.
- One of two courses of action can then follow:
  1. If attended monitoring is established the activity can continue with the attended monitoring confirming that even if the alarm level is exceeded the works can proceed provided the vibration limits are not exceeded
  2. Work practices are modified and attended monitoring used to confirm the vibration limits are being achieved, before returning to unattended monitoring

## **5.3 Air Quality Management Plan**

A detailed Air Quality Management Plan shall be prepared by the Contractor prior to the commencement of works.

The following air quality management measures will be adopted during the construction works:

- Dust emissions will be controlled by the use of water spraying when required;
- Concrete decks to be kept clean to reduce dust emissions
- All motorized equipment used on the site will be selected on the basis of its noise performance and will comply with regulatory standards for noise generation;
- High efficiency mufflers are to be installed for major plant items particularly those that would be used for long periods on the project to reduce construction noise;
- Equipment will be operated in a proper, efficient and correct manner which includes proper maintenance in order to control noise and associated exhaust emissions;
- Odour emissions from the site which could adversely affect air quality or the amenity of the local area to be monitored

## 5.4 Soil and Water Management Plan

The Storm water and Sediment Control plan is to be prepared by the Contractor prior to the commencement of the works and shall include measures to ensure compliance with the Protection of the Environment Operations Act (2000), as amended, and other relevant legislation. The SSC shall include a plan showing the location of the sediment controls to be implemented by the Contractor with the following measures to be adopted:

- Provide temporary drainage channels and detention pondage to appropriately manage stormwater
- Stormwater drain grates will be wrapped in filtration medium. The filtration medium will be periodically cleaned and changed as and when required;
- Diversion drains will be constructed to minimize runoff from rainfall flowing into the works area. Stormwater diversion drains are to be constructed in the vicinity of areas to be excavated to minimize water flow into excavations;
- Regular visual inspection of the site drainage system will be undertaken by the Contractor

Upon further geotechnical investigation and testing of existing groundwater in the area of work, the disposal of such from the excavation will be determined as to any “treatment” necessary before it is discharged into either the stormwater or sewerage system.

## 5.5 Waste Management Plan

The Contractor shall prepare a Waste Management Plan (WMP) prior to the commencement of works.

The Contractor shall retain waste records and submit quarterly reports to the Superintendent. As a minimum, the Contractor shall reuse or recycle 80% (by mass) of the construction waste.

## 5.6 Chemical Management Plan

The Contractor shall prepare the Chemical Management Plan prior to the commencement of works.

Before a product or substance is used for construction activity, the Contractor shall review the Material Safety Data Sheet (MSDS) to determine if the product or substance is classified as hazardous. All workers involved in the use of products classified as hazardous are to be provided with information and training to allow safe completion of the required tasks. As a minimum standard, all safety and environmental precautions for use listed on the MSDS are followed when using the substance and included in their Safe Work Method Statements. No products or substances, including chemicals or fibrous materials, are brought to the workplace without a current MSDS. All products and substances to be brought to the workplace are to be documented.

All storage and use of hazardous substances and dangerous goods is to be in accordance with the MSDS and legislative requirements. Hazardous substances and dangerous goods are not to be stored in amenities, containers (unless properly constructed for the purpose) sheds or offices.

Disposal of chemical substances shall be in accordance with WHS Regulations and legislative requirements.

## **5.7 Construction Traffic Management Plan**

The Contractor shall prepare a Construction Traffic Management Plan (CTMP) prior to the commencement of on site works. A Construction Traffic Management Plan has not been developed as part of this submission, however it will be prepared by a suitably qualified RMS traffic consultant prior to any on site works commencing;

Traffic will generally be managed at the site in the following way:

- Construction traffic will enter and exit the site via the existing vehicle crossing on Kensington Street via the traffic lights on the corner of Regent and Kensington Street
- Designated transport routes shall be communicated to all personnel
- Strict scheduling of vehicle movements is to occur to minimise vehicles waiting off the site
- Site workers are to utilise local public transport and car sharing wherever possible

## **5.8 Health and Safety Management Plan**

A detailed Health and Safety Management Plan (HASP), which will include a health and safety risk assessment for the planned construction works shall be prepared by the Contractor prior to the . The HASP shall include, but not be limited to:

- Name key personnel responsible for site safety;
- Emergency contact details and procedures;
- Identify and describe the risks associated with each operation conducted;
- Describe actions to be taken to mitigate risks and hazards;
- Confirm that on-site personnel are adequately trained to perform their job responsibilities;
- Describe personal protective clothing and equipment that will be worn by personnel
- Any other requirements as included in the future planning approval

## **5.9 Environmental Complaints**

The Contractor shall maintain a register of complaints received during the works. The register shall contain details of the nature of the complaint, the course of action taken by the Contractor, and the response to the complainant.

The Contractor shall provide their contact number for community enquiries and complaints specific to this project and is to be displayed on the Site Project Signage Board located at the entry to the site.