



**Construction
Environmental
Management Plan**

**Block 1 & Block
1&4N Combined
Basement**

**Central Park JV No.
2**

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Fraser's Property
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Ltd**

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Section 1 Introduction

This Construction Environmental Management Plan (CEMP) has been prepared by Frasers Property Management Australia Pty Ltd for the development of Block 1 & the associated Blocks 1&4N combined basement at Central Park. The location of the site is at the north west corner of Central Park fronting onto Chippendale Way (to the east), Central Park Ave (to the south), Broadway (to the north) and Abercrombie Street to the west.

This CMP will form part of the State Significant Development Application for Block 1& Blocks 1&4N Combined Basement, and has been prepared to cover the construction management of the site during the construction of the combined basement and the 18 storey residential building. 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 minimize 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 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 4 basement levels of parking and service areas to ground level, and the construction of a 18 storey residential building containing 281 apartments on levels 2-18, and retail shops on Ground Floor.

The details are further described in the EIS of this SSDA.

As the site is surrounded by public areas, the appointed contractor will need to put in place strict controls to ensure public safety.

Section 4 Description of Works

4.1 Construction Scope

The proposed excavation and construction works associated with Block 1 and the Block 1&4N Combined Basement are summarised as follows:

- (i) Complete any remediation of initial ground levels where necessary
- (ii) Detailed excavation of the basement. (Bulk Excavation of the combined basement is part of a separate approval MP08_0253 Mod 4)
- (iii) Construction of below ground structure and associated services
- (iv) Construction and completion of the above ground works
- (v) Public domain 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 contractor will supply and install a "B" Class hoarding around the site to provide protection and space for workers amenities. 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 for Block 4S and the Brewery Yard building to the south of the site. It is envisaged that Central Park Avenue (west of Chippendale Way) will remain a construction zone whilst both Block 4S, Brewery Yard building and Block 1 are being constructed. All work will be in accordance with the

contractor's work methods and safe work method statements and OHS Act 2000 and OHS Regulations 2001.

Detailed excavation works will be undertaken by excavators fitted with rock saws and hydraulic hammers to cut through and break up existing rock. Excavators will then load the material onto trucks for transporting off site.

Monitoring stations will be set up around the site to monitor vibrations during the excavation and building works to monitor any vibrations to the adjacent Heritage structures Australian Hotel and Terraces on Abercrombie St, and the Brewery Yard Building.

4.6 Construction

The contractor will set up the materials handling items being a site crane, hoist and a scaffold system for the building. At times it is expected that mobile cranes will be used to load up materials into the building. This should be undertaken from Central Park Ave.

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 while the suspended floor construction progresses.

4.7 Materials Handling

It is envisaged that the majority of materials unloading and loading will occur within the overall site with an internal loading zone to be established on Central Park Avenue. If any loading zones are required to be established on existing roads, the Contractor will seek approval from the relevant Authorities.

4.8 Work Programme and Working Hours

The working hours will be in accordance with the conditions of the consent which are as follows:

- Monday to Friday: 7.00am – 7.00pm inclusive
- Saturday: 7.00am – 5.00pm
- Sunday & Public Holidays: No work

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
- Stormwater and Sediment Control Plan – Mott MacDonald
- Traffic Management Plan – GTA Consultants

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 by the Contractor.

5.1 Heritage and Archaeology Plan

An Archaeology Plan for the site has been produced by Godden Mackay Logan (GML). The bulk excavation works for this site was carried out in accordance with the GML Archaeology Plan and has been completed under separate approval.

Vibration monitors will be set up around the site to monitor vibrations to adjacent Heritage structures Australian Hotel and Terraces on Abercrombie St, and the Brewery Yard Building.

Barriers/fencing are 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 the heritage structure. 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
- Roadworks

Vibration monitoring will be used to:

- 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 exceedence 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

A register of noise complaints should be maintained by the Contractor.

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 Stormwater 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.

The secant pile wall is intended to be reasonably water tight so as not to cause a lowering of the water table external to the excavation.

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 OH&S and legislative requirements.

5.7 Traffic Management Plan

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

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

- The Basement Works construction traffic entry and exit will be via Chippendale Way and Abercrombie Streets
- The Main Building Works construction traffic entry and exit will be via Chippendale Way and Abercrombie Streets
- Designated transport routes shall be communicated to all personnel
- Strict scheduling of vehicle movements is to occur to minimize vehicles waiting off the site
- Site workers are to utilize 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