JBA Urban Planning Consultants + TCW Consulting

Environmental Assessment Report

Frasers Broadway

Demolition and Recycling Project Application

Submitted to
NSW Department of Planning
On behalf of Frasers Broadway Pty Ltd

October 2007 ■ 07317

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Statement of Validity

Environmental Assessment

This Environmental Assessment has been prepared and submitted under Part 3A of the *Environmental Planning and Assessment Act* 1979 (as amended) by:

Project Summary

Name	Jennie Masson
Position	Senior Planner
Qualifications	BPlan
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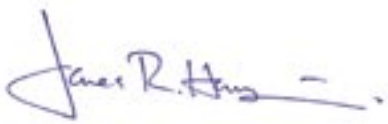
Address	Level 7, 77 Berry Street North Sydney NSW 2060

Applicant	Frasers Broadway Pty Ltd
Address	Level 11, 488 Kent Street Sydney NSW 2000
Subject Site	Frasers Broadway
Lot & DP	Refer to list of lots at **Appendix B**.
Address	26 Broadway, Chippendale NSW 2008 Refer to **Figure 3**.
Project	Demolition and recycling works

Statement of Validity

I certify that the following Environmental Assessment Report has been prepared in accordance with the requirements of Part 3A of the Act and that, to the best of my knowledge, the information contained in this report is not false or misleading.

Jennie Masson



James Harrison

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Executive Summary

Project Description

Concept Plan approval was granted in February 2007 for the redevelopment of the Frasers Broadway Site (formerly known as the Carlton United Brewery Site) into a mixed residential and commercial precinct with public open space and retail facilities.

This application seeks approval for demolition of the majority of existing buildings and structures at Frasers Broadway to prepare the site for future ground investigation, bulk excavation and remediation (to be the subject of a separate application). The proposed demolition works will involve localised excavation required for the removal of footings and some concrete slabs. No bulk excavation is proposed and pile caps will remain in situ. Heritage items nominated for protection in the Concept Plan approval will be retained and protected.

It is proposed that the demolition works will constitute one of the biggest recycling projects undertaken in Sydney with over 90% of the weight of the materials demolished to be recycled. Frasers Broadway Pty Ltd have made a commitment to target a 6 Star rating under the Green Building Council's Green Star Rating Tool.

Staging

With regard to Clause 17 of the City of Sydney Local Environmental Plan it is noted that a Concept Plan Approval is in place for the site and as such there is a development consent in force for the "comprehensive redevelopment" of the site. An indicative timeline for the future redevelopment of the site is included at **Appendix L**.

The proposed works will be undertaken over a period of approximately 12 months and will be carried out in four stages moving progressively from the west of the site to the east. The first stage of the works will involve the establishment of the site, protection of heritage items and the soft strip of buildings. The following stages will comprise mechanical demolition in different areas of the site as shown on the staging plan ST-002.00/01 which is included in Demolition and Recycling – Demolition and Hoarding Management Plan (**Appendix C**).

Compliance with Relevant EPI's and Guidelines

The following Environmental Planning Instruments (EPI's) and Approvals are relevant to this Project Application:

- SEPP 55 - Land Contamination
- SEPP 63 - Major Transport Projects
- Frasers Broadway Concept Plan Approval (ref: MP06_0171)

SEPP 55 - Land Contamination

The proposed works will allow for further ground testing to be carried in areas of the site that are currently inaccessible. Once this testing is carried out a remediation action plan will be prepared and submitted for approval as part of a subsequent application for bulk excavation works. This will be carried out in accordance with a Management & Audit Plan and will be signed off by an accredited site auditor.

This project application does not propose any remediation work, however a contingency plan will be in place should contaminated soils be encountered during the course of the demolition works. The following measures and protocols will be undertaken when works requiring isolated excavation are proposed:

- Prior to intrusive works a review of available environmental data will be undertaken to assess potential contamination issues;
- Appropriate protective clothing will be worn and hygiene protocols will be adopted;
- Excavated soils, associated with the removal of footings and slabs will be stockpiled and appropriately bunded and labelled; and
- Soils will not be disposed offsite until sampled, analysed and classified by an environmental consultant in accordance with *"Environmental Guidelines: Assessment, Classification and Management of Liquid & Non-Liquid Wastes" (2004)*

Should demolition and recycling works proceed such that the open excavations will be left open for an extended period of time (greater than 3 months), from a health, safety and an environmental prospective, a temporary cover, or seal will be placed over the open excavations.

SEPP 63 - Major Transport Projects

RailCorp have identified that the site falls within the Redfern-Chatswood Rail Link Corridor. As the proposed works only involve minor localised excavation generally less than 3m in depth there will be no affect on the ability to deliver or operate the proposed Major Transport Project.

Frasers Broadway Concept Plan Approval

The Frasers Broadway Concept Plan outlines the key objectives upon which the redevelopment of the Frasers Broadway site will be based. As part of the Concept Plan Approval a number of Commitments were made which need to be addressed in subsequent Project Applications.

As this application is for demolition and site preparation works, many of the Commitments made do not relate to this application. Commitments which have been complied with in this application include the preparation of a Heritage Impact Statement, preparation of a Construction Environmental Management Plan (CEMP) and preparation of a Waste Management Plan (WMP).

The proposed demolition and recycling works will facilitate future implementation of the Concept Plan and its key development objectives.

Heritage

In 2006 Godden MacKay Logan (GML) prepared a Heritage Impact Assessment which identified several buildings and archaeological items which were of heritage significance and warranted protection. During this process the overall impacts of the redevelopment of the Frasers Broadway Site were assessed and approved as part of the Concept Plan approval.

GML consider that the proposed demolition and recycling works which are the subject of this Project Application are consistent with that assessment and that the mitigative measures proposed will minimise or avoid the extent of potential impacts that may occur. Permits will be sought where necessary to undertake the proposed demolition and recycling works and further archaeological investigation.

Mitigative measures proposed include, but are not limited to:

- Stabilisation of Heritage buildings and structures;
- Preparation of Work Method Statements;
- Overseeing of isolated excavation works by a suitable qualified archaeological expert; and
- Vibration monitoring.

Waste Management

As 90% of the weight of materials on the site are to be recycled, waste management will form an integral part of the project. It is expected that materials recycled will include:

- 50,000 tonnes of concrete;
- 8,700 tonnes of brick;
- 3,900 tonnes of steel; and
- 50 tonnes of timber.

The demolition contractor will be responsible for tracking the quantities of materials that have been recycled and will prepare a monthly report regarding the progress of on-site management; including demolition and recycling activities.

Waste management principles have been included in the CEMP and an updated Waste Management Plan will be prepared by the demolition contractor once appointed. A Hazardous Materials Survey has been prepared and is included at **Appendix P**. All items identified in the survey will be dismantled and removed prior to the demolition of the buildings on a stage by stage basis. These works will be carried out in accordance with the relevant guidelines and legislation relating to the removal of hazardous materials including, *"Environmental Guidelines: Assessment, Classification & Management of Liquid and Non-Liquid Wastes"* (NSW, EPA 2004). Both the CEMP and Demolition and Recycling Transport Management Plan include contingency measures should an accident occur on site when handling or transporting hazardous materials.

Traffic

Generally demolition materials will be removed from the site by truck and trailer with a capacity of 30 tonnes. It is expected that the two-way truck volumes will be 37 per day or 3.7 per hour, although peak loads may occur from time to time. This volume can be readily absorbed with no noticeable impact on the adjacent main road network. The demolition contractor will be responsible for ensuring that operators use the routes which have been identified, particularly when carrying hazardous material.

Access to and egress from the site will initially be gained through the existing gates on Abercrombie Street. Once new traffic signals have been installed at the Balfour Street and Kensington Street gates, these too will be available for two way traffic. The new signals will be designed in accordance with the Concept Plan approval and to RTA design requirements.

In order to prevent any impact on the operation of bus services along Broadway, the STA will be consulted during the design phase of the new intersections and prior to the erection of hoardings along Broadway and Regent Street. Safe pedestrian access will be maintained around the site throughout the duration of the demolition and recycling works.

Noise

Noise generated by plant and equipment throughout the duration of the demolition and recycling works will be managed to generally comply with the background noise level + 10 dB(A) criterion. Where this is exceeded, noise will be managed in strict compliance with AS 2436 "Guide to Noise Control on Construction and Demolition Sites".

Potential noise receivers have been identified and noise measurements have been taken to establish noise goals for those receivers. In some cases surrounding residences will be affected by the demolition and recycling activities, however many of the noise sources identified are likely to be present for only a few days with a significant intervening period before the activity occurs again. In the cases where noise generation is likely to exceed the nominated noise goal, the noise emissions will be minimised by adopting the processes indicated in the "Control of Noise Flow Chart" which is contained within the Vibration and Noise Management Plan (**Appendix J**).

Vibration

In order to mitigate against vibration impacts safe separation distances have been determined. Many of the properties surrounding the site are separated by streets and as such are generally located at a sufficient distance away such that they are unlikely to be impacted. Notwithstanding this Frasers Broadway Pty Ltd will undertake dilapidation surveys of selected properties in close proximity to the site.

Several buildings that are to be retained on the site, most of which are heritage items, are in closer proximity to the demolition works and as such vibration monitoring will be used on the site in the following circumstances:

- at the commencement of a new activity near a sensitive structure to establish and confirm safer working distances from sensitive structures (attended monitoring);
- when an activity identified as producing a significant ground vibration is occurring within the safe working distance established. An unattended monitor with an alarm will be used which will sound when vibration limits are being approached; and
- when operating very close to sensitive structures (attended monitoring).

Air Quality

To manage air quality during the demolition and recycling works, stockpiles will be managed so that the potential for dust generation is minimised. Trucks will be covered when carrying materials which have the potential to generate dust and will be appropriately enclosed or covered when carrying hazardous materials. Dust generating works may also be rescheduled to avoid windy or dry weather conditions.

Water Quality and Stormwater Management

An erosion and sediment control plan has been prepared for the site to prevent run off and pollution. Silt fences, sand bags and/or hay bales will be installed where required down gradient of disturbed areas, base of embankments, existing drainage lines, earthworks and stock piles. These will be inspected daily and after rainfall.

The existing stormwater overland flow path will be maintained during the demolition and recycling works. When buildings that form part of, or are adjacent to, the overland flow path are to be demolished or regraded, bunding will be used to maintain the overland flow path

Infrastructure

The existing services on the site include electrical services, communications services, sewer services, potable water services, gas and stormwater services.

All of the existing electrical infrastructure will be decommissioned and removed from the site with the exception of the Energy Australia Substation No. S102 which services outside of the site, and lead-in cables to the HV switching station 5008.

The main Site Distributor for communications is located within Building 10A of the Administration Block. As this building is to be retained there will be no direct impact on the Site Distributor, however in-direct impacts will arise from the need to isolate communication devices that feed into buildings which are nominated for demolition.

All local hydraulic building services that are related to buildings which are to be demolished will be removed as part of the demolition and recycling works. All existing site connections to existing mains will be decommissioned in accordance with the relevant guidelines and requirements of the service provider.

Stakeholder Consultation

A Community Awareness Plan has been prepared for this phase of the redevelopment of the Frasers Broadway site. It is intended that the relevant stakeholders will be regularly updated during the project through several different communication medium including newsletters, meetings, a website and site noticeboards. Those stakeholders which are in close proximity will be consulted with much greater intensity due to the greater potential for impacts, including face to face meetings. A 1800 number will be set up for the project which will allow stakeholders to contact Frasers Broadway Pty Ltd for further information, to provide comments or suggestions or to complain.

Statement of Commitments

38 commitments have been made which aim to minimise potential impacts which may be generated by demolition and recycling works. The commitments relate to minimisation of impacts on residential amenity, protection of heritage items, minimisation of environmental impacts, site management during the demolition and recycling works and stakeholder awareness and consultation.

1.0 Introduction

This report is submitted to the Department of Planning (DoP) as part of a Part 3A project application for demolition and recycling works at Frasers Broadway (formerly known as the Carlton United Brewery Site).

This application seeks approval for demolition of nominated existing structures and recycling of demolition materials to prepare the site for future development, as approved in the Frasers Broadway Concept Plan. It is proposed that the demolition works at Frasers Broadway will constitute one of the biggest recycling projects to be conducted in Sydney, with 100% of steel, iron and timber to be recycled. This particular application forms part of a larger commitment made by Frasers Broadway to provide an example of sustainability through the redevelopment of the Frasers Broadway site.

The application has been prepared on behalf of the applicant Frasers Broadway Pty Ltd (ABN 50 122 575 286). JBA Urban Planning Consultants Pty Ltd has prepared this report based on plans and information provided by Frasers Broadway Pty Ltd and supporting technical documents.

This report describes the site and its environs, the proposed development and includes an assessment of the proposal in terms of the matters for consideration as required by the Director General and as listed under Part 3A of the Act. It should be read in conjunction with the supporting information appended to this report (refer to Table of Contents).

1.1 Background

On 9 February 2007, the Minister for Planning granted Concept Plan approval for the redevelopment of Frasers Broadway. The approval provided for the following:

- The layout of development into 11 development blocks, a major new park, and other areas of open space and street layout.
- Land uses across the site and for specific blocks/floor levels where specified.
- Built envelopes including floor plates and maximum heights.
- Maximum floor space (GFA) within each development block and a total 235,000m^2 GFA across the site.
- Retention of a range of heritage items of significance.
- Street hierarchy for specific streets (including road and pavement widths and provision for bicycles).
- Landscape concept.
- Access arrangements and car parking based on the recommended rate and the assumed dwelling mix.
- Storm-water management concept.
- Voluntary Planning Agreements and Statement of Commitments.

A SEPP amendment to SEPP (Major Projects) 2005 is currently being drafted by the Parliamentary Counsel in relation to the Frasers Broadway site so that the controls established in the Concept Plan approval are reflected in the SEPP.

2.0 Site Analysis

The following section provides a written description of the site and its context. Plans showing the following are included in **Appendix A**:

- Regional context of the site;
- Site boundary;
- Existing streets and laneways;
- Existing buildings on the site and in the surrounding area;
- Existing land use in the surrounding area;
- Existing building heights on the site and in the surrounding area;
- Existing noise sources;
- Existing pedestrian routes and regional open space;
- Existing and proposed cycle routes;
- Existing public transport routes; and
- The relevant consent authority for planning applications on the site and within the surrounding area.

2.1 Site Location and Context

Frasers Broadway is located on the southern edge of the Sydney Central Business District (CBD). As shown in **Figures 1 and 2** the site is in close proximity to Central Station and Broadway Shopping Centre.

The site is located on Broadway, the major south west bus route into and out of the city, linking into George Street, Central Sydney's major public transport artery.

2.2 Site Description

The site's formal address is 26 Broadway, Chippendale, although it includes other properties in Kensington Street and O'Connor Street that are not known by this address. The boundary of the demolition and recycling Project Application is shown in **Figure 3**.

The general topography of the surrounding area slopes west and south towards Blackwattle Bay. Elevations range from approximately 18m (AHD) in Kensington Street to approximately 10m AHD along Abercrombie Street (8 metre height difference). There is no significant flora or fauna located on the site and no publically accessible through site links exist.

Figure 1 – Locality Plan

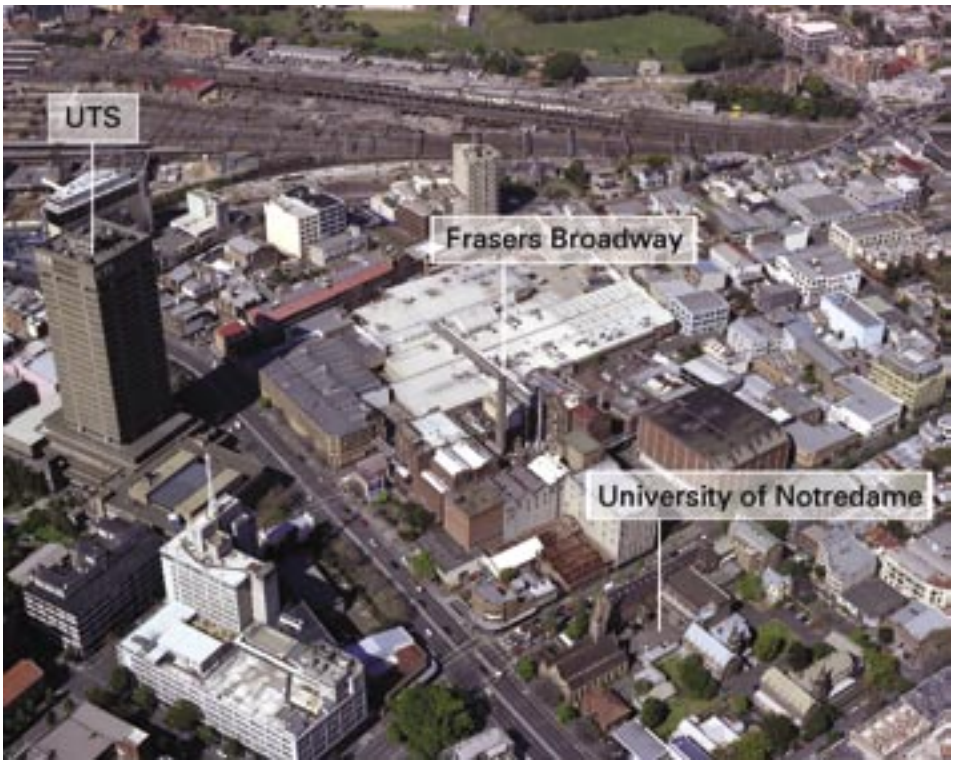

Figure 2 – Aerial photo of Frasers Broadway

2.3 Site Ownership

The site is currently made up of 29 lots are owned by Frasers Broadway Pty Ltd. Owners consent is currently being sought form the City of Sydney who own some of the roads on the site as shown in **Figure 3** below. Energy Australia also owns a parcel of land within the site, however this is excluded from this Project Application. A survey plan showing the legal description of the site is provided at **Appendix B**.

Figure 3 – Project application boundary and land ownership

2.4 Existing Development

The site comprises various buildings and structures which have most recently been used for production of beer by Carlton United Brewery. 80% of the site is occupied by buildings, several of which have been identified as heritage items and will be retained. A further 15% of the site is covered by hard standing.

The evolution of the brewery is reflected in the current layout of streets and lanes within the site (which retain original/early layouts and names) and around which various groups of structures have developed.

The existing structures on the site generally vary in height between 9m and 54m (Refer to the building heights map at **Appendix A**).

The site is currently linked to and/or contains the following services/infrastructure:

- Electricity;
- Gas;
- Potable water;
- Communications;
- Sewer; and
- Stormwater.

Figure 4 – Main entrance gateway (Broadway entrance to the site)

Figure 5 – Abercrombie Street entrance to the site

Figure 6 – Australian Hotel

Figure 7 – The Kensington Street façade of the Administration Building (Building 10a and b)

2.5 Surrounding Development

The University of Notre dame and a childcare centre are located to the immediate west of the site. To the east, south and southwest are a mixture of residential and business uses. While the University of Technology, Sydney (UTS) is located to the immediate north of the site. To the south-east of the site is the old Mortuary Station.

Figure 8 – UTS and various buildings to the north of the site on Broadway

Figure 9 – University of Notre dame

Figure 10 – Existing development in Abercrombie Street

Figure 11 – Former Mortuary Station

3.0 Relevant Planning Instruments and Controls

3.1 SEPP (Major Projects) 2005

The Major Projects SEPP identifies certain categories of development and certain specified sites that are subject to assessment and determination under Part 3A of the EP&A Act. The Minister for Planning is the consent authority for a Part 3A project.

Following approval of a concept plan in February 2007, an amendment to the SEPP is in the process of being drafted by the Parliamentary Counsel. The SEPP amendment will identify the Frasers Broadway site as a State Significant site in Schedule 3 of SEPP (Major Projects) 2005. The SEPP amendment will rezone the Frasers Broadway site. It will also establish maximum building height and gross floor area development standards for future development on the site. The SEPP will also identify heritage items within the site boundaries.

3.2 Contaminated Land Management Act 1997 and SEPP 55 – Contaminated Land

The Contaminated Land Management Act provides a process for investigating and remediating contaminated land.

SEPP 55 aims to promote the remediation of contaminated land for the purpose of reducing the risk of harm to human health or any other aspect of the environment. It specifically requires consideration when development proposes a more sensitive land use and requires that remediation work meets certain standards and notification requirements.

Previous investigations carried out on the application site have determined that some buildings and areas of filled ground within the application site are contaminated due to past activities which were carried out on the site and by contaminated ground water flowing into the site from an off-site source in Wellington Street.

3.3 SEPP 63 – Major Transport Projects

SEPP 63 – Major Transport Projects seeks to facilitate major transport projects within NSW. It aims to achieve this by co-ordinating the orderly and economic development of land and by providing for the assessment of those projects under Part 5 of the Act or, if applicable, Part 3A of the Act.

Where development is proposing excavation or other penetration of the ground that may affect any of those projects, the application must be referred to the proponent of the major transport project.

The SEPP requires that the concurrence of RailCorp must be given to applications that may affect land within specified rail corridors.

The SEPP is relevant to the Frasers Broadway site as it falls within the Redfern-Chatswood Rail Link corridor.

3.4 Frasers Broadway Concept Plan

Under Part 3A of the Environmental Planning and Assessment Act (EP&A Act), where approval has been granted to a Concept Plan, any future application, whether submitted under Part 3A or Part 4 of the Act, must be consistent with that Concept Plan.

The key parameters for the future development of the site have been established through the Concept Plan approval. These are:

- The layout of development into 11 development blocks, a major new park, and other areas of open space and street layout.
- Land uses across the site and for specific blocks/floor levels where specified.
- Built envelopes including floor plates and maximum heights.
- Maximum floor space (GFA) within each development block and a total 235,000m^2 GFA across the site.
- Retention of a range of heritage items of significance.
- Street hierarchy for specific streets (including road and pavement widths and provision for bicycles).
- Landscape concept.
- Access arrangements and car parking based on the recommended rate and the assumed dwelling mix.
- Storm-water management concept.
- Voluntary Planning Agreements and Statement of Commitments.

4.0 Description of Development Proposal

This application seeks consent for the demolition and recycling of nominated structures and buildings within the Frasers Broadway site. The purpose of the demolition works is to prepare the site for further archaeological testing and remediation work (which is to be the subject of a separate application) and eventually the redevelopment of Frasers Broadway in accordance with the Concept Plan approval. The demolition and recycling works will be undertaken in several stages, as shown on the plans at **Appendix C,** and will constitute one of the biggest recycling projects undertaken in Sydney.

4.1 Staging and Buildings / Structures to be Demolished

A full scope of works and methodology for the demolition and recycling works at Frasers Broadway has been jointly prepared by Enstruct Group Pty Ltd and Incoll Management Pty Ltd. The documentation and staging plans are included are included at **Appendix C**.

Staging

The duration of the demolition works will be undertaken over an approximate period of 12 months.

Stage 1 of the demolition works will involve site establishment and the soft strip of the existing buildings on the site. This will involve:

- Conducting a building and roads dilapidation survey;
- Erection of security fencing and hoardings;
- Implementation of environmental and safety controls;
- Protection of heritage buildings;
- Identification and removal/protection of items which have interpretive value, heritage significance (fixtures/fittings) or artistic merit;
- Disconnection and blocking of site services;
- Removal of hazardous materials; and
- Soft strip of the buildings (i.e. removal of all non-structural elements).

Stages 2a, 2b, 3 and 4 will involve:

- Protection and retention of nominated heritage items and other structures and services to be retained;
- Mechanical demolition of nominated structures in accordance with the demolition work methodology;
- Breakdown of materials for recycling and transporting; and
- Isolated exposure of in-ground areas to determine extent of site remediation and areas of archaeological significance. Appropriate management of areas of archaeological sensitivity.

Stabilisation details for the north wall of the Old Boiler House are shown on drawing ST-003.01/01 and ST-003.02/01 within the Demolition and Hording Management Plan at **Appendix C**. A description of how the heritage buildings will be protected is given in the Godden Mackay Logan report at **Appendix D**.

Structures to be demolished

Stages 2a, 2b, 3 and 4 of the demolition works will involve the demolition of all existing structures nominated in **Table 1** below and shown on drawing ST-002.04 at **Appendix C**. During these works the majority of materials will be recovered and recycled. The methodology for demolishing one and two storey buildings, multistorey buildings, warehouses and buildings adjacent to heritage items is provided in Section 3.4 of the Demolition and Hoarding Management Plan at **Appendix C**.

Table 1 – Summary of structures to be demolished

Building No.	Description	Stage
1	Bottling B1 and B2 (excluding first suspended floor, slab on grade and foundations)	3
2	Bottling B3 and Racking (excluding first suspended floor, slab on grade and foundations)	3
3	Bottling B3 and Racking (including slab on grade and footings – excluding piles)	2b
4	Main Store (excluding slab on grade and foundations)	3
5	Cellar 15 & 16 (excluding first suspended floor, slab on grade and foundations)	3
6 & 7	Merchandise Store, Employee Bottle Shop, Bright Beer Cellar & Former DAS Plant (excluding slab on grade and foundations)	3
8	Security (excluding slab on grade and foundations)	3
9	Engineers Office and Packaging (excluding slab on grade and foundations)	3
10c, d & e	Sales Office, Orders & Distribution Departments (including ground slabs and footings – excluding piles)	4
11a, b & c	Former sugar store and canteen dining room (including ground slabs and footings – excluding piles)	4 & 2b
12	EPD Centre, Recreation and canteen (including ground slabs and footings – excluding piles)	4
13a, b, c & d	Carpenters workshop, garage, driveway and Kensington Street Remnant Wall (including ground slabs and footings – excluding piles)	2b
15	Plumbers Store (including ground slabs and footings – excluding piles)	2b
16	Fire Services Compound (including ground slabs and footings – excluding piles)	2b
17 a & b	Main station and façade wall (including ground slabs and footings – excluding piles)	2b
18	Toilet Block (including ground slabs and footings – excluding piles)	2b
19	Capacitator Tank (including ground slabs and footings – excluding piles)	2b
20	Brew House (including ground slabs and footings – excluding piles)	2a

Building No.	Description	Stage
21	Fermentation Building (excluding slab on grade and foundations)	2a
24	Grain Hopper (including ground slabs and footings – excluding piles)	2a
28	Security (including ground slabs and footings – excluding piles)	2a
29	Cellar No 2 (including ground slabs and footings – excluding piles)	2a
31	New Boiler House (including ground slabs and footings – excluding piles)	2a
32	Barley Store (including ground slabs and footings – excluding piles)	2a
33	Carlton Street Maltings (including ground slabs and footings – excluding piles)	2a
34	Old Hops Store (including ground slabs and footings – excluding piles)	2a
35a	Bright Beer Plant (including ground slabs and footings – excluding piles)	2a
35b	Refrigeration Block (including ground slabs and footings – excluding piles)	2a
35c	Laboratory Building (including ground slabs and footings – excluding piles)	2a
35d	CO2 Block(including ground slabs and footings – excluding piles)	2a
35e	Toilet Block (including ground slabs and footings – excluding piles)	2a
37a	Redundant Equipment Store (including ground slabs and footings – excluding piles)	2a
37b	Redundant Equipment Store (including ground slabs and footings – excluding piles)	2a
39	Great Western Hotel (including ground slabs and footings – excluding piles)	2a
43	Warehouse 48 O'Connor Street (including ground slabs and footings – excluding piles)	2a
44	Warehouse 54 - 62 O'Connor Street (including ground slabs and footings – excluding piles)	2a
45	Warehouse 64 - 70 O'Connor Street (including ground slabs and footings – excluding piles)	2a
50	Garage, 50-58 Kensington Street (including ground slabs and footings – excluding piles)	4
52	Irving Street Brewery Yard (Hard standing to be demolished)	2a
53a	Present Yard Component (off Wellington Street) (Hard standing to be demolished)	2b
53b	Original Kent Brewery Yard (undeveloped) (Hard standing to be demolished)	2b

Building No.	Description	Stage
56	Vacant lot on Broadway (Hard standing to be demolished)	2a
57	Main Avenue (south of Ovoid Drain) (Hard standing to be demolished)	2b
58	Vacant lot on Broadway (Hard standing to be demolished)	2a
60	Carlton Street (Laneway) (Hard standing to be demolished)	2a
63	Yard (off Irving & Abercrombie Streets) (Hard standing to be demolished)	2a

4.2 Buildings / structures to be retained

The following buildings / structures are to be retained:

- Building 10 a & b: Administration Building
- Building 10e: Covered Gateway
- Building 14: Castle Connell Hotel (builder's store)
- Building 22: Filtration Building
- Building 23: Malt Silo Building
- Building 25: Staircase Block
- Building 26: Gas Receiving Station
- Building 27: Energy Australia Substation (not part of this application)
- Building 30: Old Boiler House
- Building 36: Chimney Stack
- Building 38: Country Clare Hotel
- Building 40: Australian Hotel
- Building 42a, b & c: Terrace, 8 – 12 Abercrombie Street
- Building 51: Main Entrance Gateway former Tooths Kent Brewery
- Building 59: Balfour Street Streetscape
- Building 61: Irving Street
- Building 67: Ovoid Drain

A plan (Enstruct drawing ST-002.03) showing the location of the above structures is included at **Appendix C**. The buildings on the eastern side of Kensington Street which are owned by Frasers Broadway Pty Ltd are excluded from this application with the exception of Building No. 50.

4.3 Recycling of Materials & Sustainability Goals

Frasers Broadway Pty Ltd is targeting a 6 Star rating under the Green Building Council's Green Star Rating Tool. In order to reach this target, Frasers Broadway, in conjunction with Elton Consulting and UTS is preparing a Sustainability Management Strategy (SMS) which seeks to:

- Identify initiatives which go beyond minimum conditions of consent;
- Develop an integrated community communications, consultation and sustainability education program;
- Develop an innovative long-term monitoring, reporting and evaluation framework; and
- Provide a comprehensive sustainability management framework which can be applied to future Frasers' projects.

As part of targeting a 6 Star rating, the SMS states that demolition contractors will need to go beyond the existing consent conditions for recycling and reprocessing of site materials and as such the demolition of existing buildings and structures at Frasers Broadway will constitute one of the biggest recycling projects ever undertaken in Sydney. Approximately 90% of the weight of waste materials will be collected and recycled including an estimated:

- 50,000 tonnes of concrete;
- 8,700 tonnes of brick;
- 3,900 tonnes of steel; and
- 50 tonnes of timber.

All crushable materials will be taken off-site for re-processing as specified raw materials for reuse as concrete and road-base. Metals will be processed on site and will then be on-sold from the site to scrap merchants. Timber will be processed on site and either on-sold from the site or re-used.

In addition to the above, measures to reduce energy consumption during the demolition phase will also be investigated.

Sustainability commitments and targets will be monitored at key project milestones to ensure effective delivery of sustainability initiatives. A progress review will be undertaken on a monthly basis in the demolition and recycling process to establish whether the sustainability commitments and targets have been achieved.

The above recycling goals and other sustainability goals of Frasers Broadway will be specified within every Contractors contract to ensure that the Frasers Broadway site leads as an example of sustainability in Sydney.

4.4 Capital Investment Value

The estimated Capital Investment Value (CIV) of the scope of works is approximately $9.98 million (excluding GST. Refer to Quantity Surveyor's Statement at **Appendix E**. For the purposes of calculating the CIV the following definition has been used:

> *"the **capital investment value** of development includes all costs necessary to establish and operate the development, including the design and construction of buildings, structures, associated infrastructure and fixed or mobile plant and equipment (but excluding GST, as defined by A New Tax System (Goods and Services Tax) Act 1999 of the Commonwealth, and land costs)"*

4.5 Job Generation

The proposed demolition and recycling works are expected to generate 50 – 60 full time jobs over a year. For the purposes of determining this, the following definition of employment has been used:

> *"the **employment** of people by development means the average number of workers (calculated on a full-time equivalent basis) that will be employed to operate the development in any one year (other than construction workers employed to establish the development)"*

5.0 Assessment of Planning Issues

5.1 Director-General's Requirements

The following is our assessment of the environmental effects of the proposed development as described in the preceding sections of this report. A copy of the Director Generals Requirements is included at **Appendix F**. The key planning issues identified by the Director-General are as follows:

Table 2 – Director Generals Requirements

Key Planning Issue	Relevant Section of Report and Appendices
Quantity Surveyors Report	Section 4.4 and **Appendix E**
Consistency with SEPP 55 – Remediation of Land	Sections 3.2, 5.2 and **Appendix G**
Consistency with SEPP 63 – Major Transport Project	Sections 3.3 and 5.3
Consistency with the Frasers Broadway Concept Plan	Sections 3.4 and Section 5.4
Heritage and archaeology	Section 5.5 and **Appendix D**
Remediation of Site	Section 5.6
Waste management	Section 5.8, **Appendix G** and **Appendix P**
Traffic	Section 5.11 and **Appendix I**
Noise and vibration	Section 5.12 and **Appendix J**
Air Quality	Section 5.9 and **Appendix G**
Water Quality	Section 5.10 and **Appendix G**
Infrastructure (Electricity/ Communications)	Section 5.13 and **Appendix H**
Infrastructure (Hydraulics)	Section 5.13 and **Appendix K**
Staging	Section 5.14 and **Appendix L**
Statement of Commitments	Section 6.0
Community Consultation	Section 5.15
Agency Consultation	Section 5.16
Existing Site Survey Plan	**Appendix B**
Site Analysis Plans	Section 2.0 and **Appendix A**
Locality/Context Plans	Section 2.0 and **Appendix A**
Demolition Plan	Section 4.0 and **Appendix C**
Stormwater Concept Plan	Section 5.10 and **Appendix K**
Erosion & Sediment Control Plan	Section 5.10 and **Appendix K**

5.2 SEPP 55 - Contaminated Land

SEPP 55 provides that a consent authority must not consent to the carrying out of development on land unless it has considered whether the land is contaminated, and if the land is contaminated, it is satisfied that the land is suitable for the purpose for which the development is proposed to be carried out. Further, it requires that where remediation is required to make the land suitable for a proposed use, the consent authority must be satisfied that the land will be remediated before the land is used for that purpose.

The proposed demolition works are being undertaken to prepare the site for future investigation works. At this stage permission is only sought for demolition of existing buildings and structures to the footings and removal of some concrete slabs. Site remediation and bulk excavation works will form the subject of subsequent applications and do not form part of this proposal.

Notwithstanding the above, URS in their Construction Environmental Management Plan (CEMP) (**Appendix G**) were asked to consider the issue of contaminated land in respect to the proposed demolition works. Although the works do not involve extensive excavation, it is anticipated that limited intrusive works will be required when footings are removed and as such the following measures and protocols will be undertaken when the isolated excavation of soils is proposed:

- Prior to intrusive works a review of available environmental data will be undertaken to assess potential contamination issues;
- Appropriate protective clothing will be worn and hygiene protocols will be adopted;
- Excavated soils, associated with the removal of footings and slabs, will be stockpiled and appropriately bunded and labelled;
- Soils will not be disposed offsite until sampled, analysed and classified by an environmental consultant in accordance with *"Environmental Guidelines: Assessment, Classification and Management of Liquid & Non-Liquid Wastes" (2004)*

Should demolition and recycling works proceed such that the open excavations will be left open for an extended period of time (greater than 3 months) from a health and safety and an environmental prospective a temporary cover or surface seal will be placed over the open excavations.

If potential chemical contamination is encountered when slabs are removed, work in the immediate vicinity will stop and the Demolition Contractor Project Manager (DCPM) will be informed. If the DCPM believes that contamination is present a suitably qualified environmental consultant will be contacted and engaged to assess the findings, take samples to characterise and delineate the extent of the potential contamination and define appropriate remediation actions. Further, if necessary, the contamination will be removed for disposal at a suitable licenced facility in accordance with *"Environmental Guidelines: Assessment, Classification and Management of Liquid & Non-Liquid Wastes" (2004)* and the resultant excavation will be validated by the environmental consultant.

With the above in mind it is considered that satisfactory measures are in place to deal with contaminated soils if encountered. Again it is noted that bulk excavation and remediation of the site will be the subject of a separate application and that Remediation Action Plans will be prepared for future stages of the redevelopment of the site.

Auditing of the site, by an acredited site auditor, at this stage is not necessary as the demolition works will be immediately followed by further testing, bulk excavation and remediation works.

5.3 SEPP 63 – Major Transport Projects

RailCorp have identified that a corner of the site falls within the Redfern-Chatswood Rail Link Corridor as identified in SEPP 63 – Major Transport Projects. As the project involves localised excavation generally less than 3m below existing ground level and no deep / bulk excavation is proposed at this stage there will not be any impact on:

- The practicability and cost of carrying out development for the purposes of the rail expansion project concerned on the land in the future, and
- The structural integrity or safety of, or ability to operate the project, and
- The land acquisition costs and the cost of the construction, operation or maintenance of the project.

The proposal is therefore compliant with Clause 11 of the SEPP. The SEPP and its provisions will be more relevant for subsequent applications where deep excavation and redevelopment of the site is proposed.

5.4 Frasers Broadway Concept Plan

The Frasers Broadway Concept Plan outlines the key objectives upon which the redevelopment of Frasers Broadway will be based, and the key built form and open space elements which provide the framework for the long term development and management of the site.

This application forms the first stage of the redevelopment of the Frasers Broadway site and involves the clearing of the site for future remediation and construction works. The proposal will facilitate future implementation of the concept plan and its key development objectives.

The Concept Plan also included a Statement of Commitments (SoC). The Concept Plan SoC impose a number of requirements on the applicant to carry out further work and /or to deliver certain outcomes at or prior to the timing of the first Project Application or the Project Application for demolition work. Those which are relevant to the demolition works are included in **Table 3**.

Table 3 – Relevant Concept Plan commitments

No.	Commitment	Timing	Consistency
8	The landowner will ensure that any project applications or other applications will have regard to the Heritage Council endorsed Conservation Management Plan, prepared by Noel Bell Ridley Smith and Partners with Executive Report and Heritage Impact Statements by Godden Mackay Logan and the Expert Advisory Panels Report released on the 30 August 2006. Prior to demolition the existing buildings will be recorded in accordance with NSW Heritage Council Guidelines.	To be addressed by the proponent at the Project Application Stage.	GML have assessed the proposed demolition methodology and have recommended mitigative measures. Refer to **Appendix D** and Section 5.5 of this report. Recording of the existing buildings on the site has already commenced and will be completed on a building by building basis.

No.	Commitment	Timing	Consistency
9	Any impacts on items or places of archaeological significance will be managed under the relevant legislation and the Archaeological Assessment and Research Design prepared by Golden MacKay Logan. If any archaeological relics are discovered during construction, the proponent will cease work on that part of the site and the Heritage Council will be notified in accordance with section 146 of the Heritage Act. If required by the Heritage Council, the remains will be recorded by a suitable qualified archaeologist prior to the recommencement of works.	To be addressed by the proponent at the Project Application Stage	GML have assessed the proposal in relation to potential archaeological impacts, refer to **Appendix D** and Section 5.5 of this report.
18 (c)	Electricity All overhead power through the site will be removed and replaced with underground cabling.	Addressed as part of relevant Project Applications.	Webb Australia has identified the location of existing electrical infrastructure on the site which will be removed during the proposed demolition works (refer to **Appendix H** and Section 5.13 of this report). Underground cabling of the site will be detailed in future PAs relating to construction works.
18 (d)	Waste A Waste Management Plan will be prepared prior to construction. The Waste Management Plan will set a target of at least 80% (by weight) recycling or reuse of waste materials. A feasibility study on the possibility of using co-generation/tri-generation (organic waste) to heat, cool or provide electricity will be carried out prior to any application proposing the erection of new building(s).	Addressed as part of relevant Project Applications.	This project will form one of the biggest recycling projects in Sydney with a target of recycling 90% of the weight of the total waste materials on the site and 100% of steel, iron and timber waste. Details of the proposed waste management are included at **Appendix G** and discussed in Section 5.8 of this report.

No.	Commitment	Timing	Consistency
19	A Construction Management Plan will be prepared prior to any project application that proposes works.	Addressed as part of relevant Project Applications.	URS have prepared a Construction Environmental Management Plan which is included within **Appendix G** and discussed in various sections below.

It is also noted that an application to amend the Statement of Commitments was made in August 2007 which related to the timing of delivering some of the commitments. A copy of the application is included at **Appendix O**. The application mainly refers to Commitment 14 which requires a public art strategy for the whole site to be prepared by a public art consultant with reference to the City of Sydney Public Art Policy and Public Art Developer Guidelines. The Commitment requires that the Public Art Strategy is submitted with the first Project Application. It is proposed that this will be submitted with the first application for public domain and / or built form works. The reason for this amendment is that a public art strategy is normally undertaken as part of the detailed design phase of a project when a more meaningful outcome can be made.

5.5 Heritage and Archaeology

The site has a long history over a period of more than 170 years however most of the infrastructure existing on the site today relates to its more recent use as a Brewery.

Godden Mackay Logan (GML) has prepared a Heritage Impact Statement (HIS) relating to the proposed demolition and recycling works at Frasers Broadway (**Appendix D**). The HIS follows on from previous heritage studies which have been prepared for the site, including:

- Conservation Management Plan prepared by Noel Bell Ridley Smith and Partners in May 2005; and
- Heritage Impact Statement prepared by Godden Mackay Logan in October 2006 (2006 HIS).
- The 2006 HIS was a detailed assessment prepared during the formulation of the concept plan for the site which identified heritage and archaeological items on the site which are to be retained and made recommendations for future development on the site. The principle areas of significant aesthetic contribution on the site include:
- Main Entry Portal Gateway (Item 51)
- Interwar Hotels on Broadway (Item 40)
- Castle Connell Hotel (14)
- Kensington Street Terraces (47A and B, 48A-J and 49A and B)
- Kensington Street Streetscape (Item 64)
- Irving Street Brewery group (10A and B)
- Administration Building (10A and B)
- Interiors of Administration Building, Suite of Administration Rooms (including Boardroom) on second floor.
- Kensington Street Store (former Motor Garage Building) (Item 46A)
- Key Views

There is also considered to be a potential for archaeological relics which may reveal more evidence of the evolution of the site. The only archaeological heritage item listed on the site is the Ovoid Drain, although two other wells are known to exist.

The overall impacts of the redevelopment of the site were assessed previously in the 2006 HIS. The purpose of this heritage assessment is to assess the impact of the proposed demolition and recycling works as outlined in the Demolition and Hoarding Plan and Work Method Statements. The assessment also evaluates compliance with the Concept Plan, including recommendations and mitigative measures identified in the 2006 HIS.

Potential Impacts

In their assessment of the proposed demolition and recycling works, GML has identified the following actions as having the potential to impact on heritage items that are to be retained on the site:

- Demolition of existing buildings across the site which involves:
  - moving and operating machinery and equipment across the site;
  - vibration; and
  - the demolition of buildings immediately adjacent to heritage buildings.
- Removal of ground slabs, suspended slabs, basements and footings which causes ground disturbance and may involve:
  - collapsing of ground sections adjacent to the exterior of basement walls and other subground elements;
  - excavation/battering of areas adjacent to basement or other subground elements following demolition for safety; and
  - ground disturbance and exposition of areas with archaeological material.
- Decommissioning of existing services and infrastructure and installation of new connections to existing services, including temporary connections which will involve localised excavation.
- Internal strip out of all buildings and removal of external services and fixtures which may involve localised damage or exposure of significant fabric.
- The introduction of temporary stabilising elements and structures which may involve localised damage to significant fabric.
- Remediation works and removal of hazardous materials which may involve localised damage to significant fabric or exposure of archaeologically sensitive areas.

Mitigative Strategies

GML consider that if careful planning is undertaken and appropriate methodologies, that consider the heritage values of the site and the sensitivity of significant fabric are adopted on the site, then potential impacts will be minimised or avoided. In order to ensure that this occurs, mitigative strategies have been recommended (refer to Section 6.0 of the GML report at **Appendix D**) and include the following:

- Installation of appropriate barriers and stabilising elements around heritage buildings that are being retained;
- Preparation of Work Method Statements (WMS) for the removal of internal and external fixtures during the soft strip of the heritage buildings. Items to be salvaged will be identified prior to the soft strip commencing and will be catalogued once removed or protected if they are to remain insitu;
- Preparation of WMS for all demolition and recycling works in the immediate vicinity of heritage buildings. The works will be overseen by a suitably qualified engineering consultant and/or an heritage expert, where required. In particular the WMS will address the interface between the following buildings:
  - Buildings 30 and 35B (including the removal of the 'pumphouse' addition on the western façade of Building 30);

- Building 22 and the bridge connecting to Building 20;
- Buildings 23 and 24
- Buildings 10B and 10C;
- Buildings 14 and 15;
- Building 8 and Item 51 (main entrance gateway);
- Buildings 35B and 35D and Item 36 (chimney stack);
- Buildings 42A-C and Buildings 37A/B; and
- Building 10E, 10D and 11A.

- Preparation of a WMS to guide the demolition of Building 13A (Carpenters workshop), including the removal of footings and ground slabs and the movement of vehicles over this area, to ensure that the brick tank beneath this building is protected during and following these demolition works. The WMS will also address any proposed excavation in this area and in particular any works within the 'zone of sensitivity';
- Works which have the potential to cause ground disturbance (i.e. removal of footings & hardstanding surfaces, excavation, remediation etc) will be undertaken in conjunction with or preceded by an appropriate archaeological investigation and recording by a suitably qualified archaeologist. These works will be undertaken in accordance with the recommended methodologies and research framework identified in the Archaeological Assessment and Research Design prepared by Godden Mackay Logan in October 2006;
- Excavation or other works will be excluded from the 'zone of sensitivity' surrounding the Blackwattle Creek stormwater channel that extends across the site unless a WMS is in place which identifies how potential impacts of damage to the element will be avoided or mitigated;
- If areas with archaeological potential remain exposed following demolition of built structures or ground slabs, these areas will be protected / stabilised prior to the commencement of the archaeological work; and
- Archival recording of heritage buildings to be demolished will be prepared.

Archaeology

An Archaeological Assessment and Research Design Report was prepared by Godden Mackay Logan in October 2006. In this assessment areas with high archaeological potential were identified and mapped. See **Figure 3.3** of the GML report at **Appendix D**.

The following archaeological features are known to exist on the site:

- The ovoid drain (Item 67);
- An underground brick water tank located below Building 13C (Carpenters workshop);
- A well discovered in 2004 beneath Item 58; and
- A well in the basement of Building 10A.

As mentioned above, WMSs will be prepared in order to protect these known archaeological items where the items are to be retained. In the event that an area of archaeological potential is to remain exposed for the period between completion of site preparation works and the commencement of site investigation or construction works, the areas will be stabilised and protected. Conservation advice will be sought to determine the nature and extent of stabilising works that would be required in the specific circumstances.

If the Minister determines that the *Heritage Act 1977* applies to this stage of the project, approval will be sought from the Heritage Office within the Department of Planning for an excavation permit under Section 139 of the *Heritage Act.*

As the proposed demolition and recycling works are unlikely to cause ground disturbance that would affect areas of Aboriginal archaeological potential (note that the site has be classified as having low potential to contain intact evidence of Aboriginal occupation), it is unlikely that an application for ground disturbance needs to be made to the Department of Environment and Climate Change (DECC). However, if the Minister does determine that the *National Parks and Wildlife Act 1974* (NSW) applies to this stage of the project, approval will be sought from DECC under Section 87 of the NPW Act, prior to undertaking the ground disturbance works (i.e. prior to Stage 2 works commencing).

Retention of moveable items of heritage significance

Prior to the soft strip of buildings a survey will be undertaken by a suitably qualified heritage practitioner who will identify elements that should be retained for interpretive/public art purposes. The items to be salvaged will be catalogued and stored in an appropriate repository until such time as an appropriate decision can be made about future use or storage.

Conclusion

The overall impacts of the redevelopment of the site were assessed previously in the 2006 HIS. GML considers that the proposed demolition and recycling works are consistent with that assessment and that the mitigative measures proposed will minimise or avoid the extent of potential impacts that may occur. Permits will be sought where necessary to undertake the proposed demolition works and eventually further archaeological investigation.

5.6 Remediation of the Site

No site remediation is proposed as part of this application. The demolition of existing buildings on the site will allow access to carry out further site investigations in regards to the specific locations of contaminated soils on the site and whether or not there is any migration occurring on the site. This will be carried out in accordance with a Management & Audit Plan and will be signed off by an accredited site auditor. Following these investigations Remediation Action Plans will be prepared and will be submitted with a subsequent application for bulk excavation works. Again these will be reviewed and signed off by an accredited site auditor once completed.

5.7 Demolition Management

A Construction Environmental Management Plan (CEMP) has been prepared by United Resource Management (URS) for the proposed demolition works at Frasers Broadway (**Appendix G**). The CEMP establishes environmental management procedures and controls to be followed by the project team during demolition.

The demolition of existing structures will be undertaken in accordance with *Australian Standard AS2601:1991-The demolition of structures*, the *Occupational Health and Safety Act* and in accordance with current Work Cover requirements.

A Demolition Contractor Project Manager (DCPM) is to be appointed to ensure that any person working on site follows all health and safety procedures, and to make daily checks of the site. During the demolition, the site will be fenced to ensure that only relevant staff and contractors have access to the demolition and earthworks zone areas.

In addition to the DCPM being appointed, a Project Manager (PM) and an Environmental Management Representative (EMR) will be employed. All three employees will form the CEMP management team and will meet on a monthly basis. They will be responsible for overseeing the day to day running of the site and will review formal on-site audits which will assess performance against the CEMP. They will also be responsible for making sure that corrective actions are acted upon in a timely manner. This forms one of the Statement of Commitments made in **Section 6.0** of this report.

5.8 Waste Management

The types of waste expected at Frasers Broadway include:

- Concrete;
- Brick;
- General rubbish;
- Steel;
- Timber;
- Plastic;
- PCB light capacitators; and
- SMF.

A detailed Waste Management Plan (WMP) will be prepared by the Demolition Contractor once appointed. The WMP will be compliant with *"Environmental Guidelines: Assessment, Classification & Management of Liquid and Non-Liquid Wastes"* (NSW, EPA 2004) and the various commitments made in this report. The WMP will incorporate the following principles and work methods described below.

Recycling

The demolition works will see a significant amount of materials being recycled. It is proposed that all crushable materials will be broken down to a transportable size on the site and then transferred for processing into a suitable form to be reused as concrete and road base.

Metals will be processed on site and then be on-sold from the site to scrap metal merchants and timber will be processed on site and then either sold or re-used on site.

A range of strategies will be implemented during the demolition and recycling works to avoid, reduce and recycle general and non-hazardous waste material. These strategies include:

- use of designated on site recycling bins and skip bins;
- encouraging suppliers of materials to reduce and reuse package materials;
- encouraging use of bulk handling and reusable transport containers;
- use of licensed waste contractors to dispose of and recycle waste appropriately; and
- staff education and site induction program to ensure correct use of bins and disposal of waste.

The demolition contractor will coordinate the recycling, recovery and disposal of all waste during all stages of work and be responsible for providing reports to the Site Manager. The demolition contractor will provide a regular monthly report regarding the progress of ongoing waste management, which will be reported to and monitored by the Project Manager (PM).

Waste Quantities

The waste/recyclable materials will mostly be removed from the site by Truck and Trailer (Truck & Dog – 30 tonne). An estimate of the likely waste/ recyclable materials generated on the site is outlined in **Table 4** below. The likely traffic movements required to transport the waste is discussed further in **Section 5.11** of this report.

Table 4 – Waste Quantity and Removal

Type of Material	Amount in Tonnes
Rubbish	3,100
Concrete/Brick	136,000
Timber	500
Steel	3,000
Scrap Metal	200
Total	**142,800**

Source: Jamieson Foley & Associates

Hazardous Waste

A hazardous materials survey has been undertaken and is included at **Appendix P**. The dismantling and removal of all hazardous materials from the site will be completed prior to the demolition of buildings and will be in accordance with the Demolition Contractor's Work Plan and Safe Work Method Statements for the identification of hazardous materials.

Methods for dismantling hazardous materials are described in the Hazardous Materials Plan in Section 9.6 of the CEMP. These works will be carried out in accordance with the relevant guidelines and legislation relating to the removal of Hazardous Materials.

Asbestos will be removed by a licensed removal subcontractor and will be taken to an off-site EPA licenced facility.

Air monitoring and clearance certificates will be issued by an Occupational Hygienist (Airsafe) upon removal of all Hazardous materials.

5.9 Air Quality

An air quality assessment has been prepared by URS in accordance with *Approved Methods for Modelling and Assessment of Air Pollutants in NSW* (EPA) refer to Section 9.3 of the CEMP (**Appendix G**).

Where stockpiles are to be kept on site and have the potential to generate dust, the contractor will be responsible for ensuring that they are covered. Trucks removing such materials from the site will also be covered. Dust emissions may also be controlled by the use of water spraying when required. Works may also be scheduled to avoid particularly dry or windy weather conditions.

In order to control dust and soil emissions from the site being transported, vehicle washing and removal of mud and soil from the wheels and bodies of vehicles will be undertaken. Vehicular paths will also be established to minimise the capture of soil and dust on vehicles whilst on site.

In order to reduce the impact of exhaust emissions from vehicles and other motorised equipment all vehicles will have their engines turned off whilst parked on site and machinery/plant equipment will not be left running idle when not in use for extended periods of time. All machinery will be operated in a proper, efficient manner and will be regularly maintained. There will not be any burning of combustibles on the site.

- Air quality monitoring for asbestos fibres will be undertaken at site boundaries during the asbestos removal works.
- In order to control / minimise odour impacts the following techniques will be used:
- Spray irrigation of water or as required odour suppressants over the affected material as required;
- Minimisations of exposed areas that may have the potential to generate dust or odour; and
- Use of appropriate covering techniques, such as plastic sheeting, PVA sprays or non-odorous soil to cover excavation faces and unsealed surfaces.

5.10 Water Quality and Stormwater Management

The proposed demolition and recycling works have the potential adversely affect the quality of the waterway by way of sedimentation runoff, stormwater runoff, spillage of hazardous chemicals etc. In order to protect waterways from such adverse affects it is proposed to undertake the following soil and surface run-off water management:

- Implementation of Sedimentation and Erosion Control Plan (S&ECP) in accordance with the procedures outlined in Landcom's publication 'Managing Urban Stormwater: Soils and Construction' (2004) (Refer to **Appendix K**),
- Installation of silt fences, sand bags and/or hay bales where required down gradient of disturbed areas, base of embankments, existing drainage lines, earthworks and stockpiles as required. These will be inspected daily and after rainfall,
- Divert clean runoff around disturbed areas, where practicable, and
- Use defined roadways,

The proposed sedimentation and erosion control measures are shown on drawings 07S628C-08 Rev B and Drawing 07S628C-09 Rev B which are included with the Hydraulic Infrastructure Decommissioning report at **Appendix K**.

Stormwater Management

Provisions for stormwater and flood management during the demolition works are provided on drawing 07S628-C07 Rev B at **Appendix K**. The existing overland path will be maintained during demolition works. When buildings or roadways that form part of, or are adjacent to, the overland flow path are to be demolished or regraded, bunding will be used to maintain the overland flow path.

5.11 Traffic Management

Jamieson Foley & Associates has prepared a Construction Traffic Management Plan (**Appendix I**) to identify the potential traffic impacts during the demolition works. The report recommends a number of requirements to be adopted in the Transport Management Plan (TMP), which are outlined below and included in the Statement of Commitments. The types of heavy vehicles used for transport of the demolition / recycling material will mostly comprise truck and trailer with a capacity of 30 tonnes.

Traffic Impacts and Access

The proposed demolition traffic access to and from the site is shown on the Demolition Traffic Management Plan (see **Figures 12 & 13**). All routes shown on the plans will be available for hazardous materials except for the Eastern Distributor.

Vehicles arriving at and exiting the site to transport demolition/recycling materials will either use the:

- Abercombie Street Gates (routes to and from shown in blue);
- Kensington Street gates (routes to and from shown in red); and/or

Balfour Street gates (routes to and from shown in orange).

Traffic lights will be required at the Kensington Street gates for outbound trucks and at Balfour Street to provide a right turn access from Broadway. However, the Abercrombie gates at Irving Street are currently used for decommissioning truck access and can be used for continued access for demolition and recycling traffic. Accordingly, access to the site for demolition and recycling does not depend on signalisation.

Notwithstanding the above, Frasers Broadway will make it a priority to have lights installed at the Kensington Street gates and the Balfour Street gates so that the demolition works can be undertaken more efficiently.

All the routes proposed are suitable for a truck & trailer with a capacity of 30 tonnes. Should specific access requirements be needed for specialised vehicles, such as oversize transporters, the relevant permit will be obtained separately by the contractor or the operator.

Figure 12 – Proposed demolition truck routes - inbound

Source: Jamieson Foley & Associates

Figure 13 – Proposed demolition truck routes - outbound

Source: Jamieson Foley & Associates

Truck Movements

The anticipated number of truck movements to and from the site is detailed in **Table 5** below. Two-way truck volumes will average 37 truck movements per day or 3.7 truck movements per hour, although peak loads may occur from time to time. The types and frequency of vehicle movements are considered appropriate for the site and its surrounds and can be readily absorbed with no noticeable impact on the adjacent main road network.

Table 5 – Summary of truck movements

Material	Destination[1]	Route[1]	Quantity (tonnes)	Total No of Trucks[2] Required	Average Daily Truck Volume (Two-Way)[3]	Max Hourly Volume (Two-Way)[4]
Rubbish	Erskine Park Landfill	Northwest (Anzac Bridge) or West (Parramatta Rd)	3,100	160	1	0.1
Concrete/ Brick	Metropolitan Demolitions, St Peters	South (Botany Rd)	136,000	6,800	35	3.5
Timber	Metropolitan Demolitions, St Peters	South (Botany Rd)	500	30	0	0.0
Steel	Sell & Parker Scrap Metals, Waterloo	South (Botany Rd)	3,000	150	1	0.1
Scrap Metal	Sell & Parker Scrap Metals, Waterloo	South (Botany Rd)	200	10	0	0.0
Total			**142,800**	**7,150**	**37**	**3.7**

Notes
1) Destinations and route may vary depending on the demolition contractor and the transporter
2) Truck volumes at 30tonne per truck and 50% load factor
3) 22 months construction period for all four stages combined
4) 10 hours per day on average

Source: Jamieson Foley & Associates

Bus Operations

A large majority of the State and Regional roads in and around the Sydney CBD are used for access by public transport. The proposed truck routes utilise the same roads which are designed to cater for large heavy vehicles. The capability of the proposed routes and the estimated number of truck movements will result in there being little to no impact on the operation of bus services around the Frasers Broadway site. However the contractor will confirm with the RTA and the Council the need for peak period access restrictions prior to the commencement of works.

The STA has indicated that they have concerns regarding the use of hoardings along Broadway and the relocation of traffic signals on Broadway from Jones Street to Balfour Street. In order to overcome this concern a commitment has been made which requires consultation with the STA prior to the installation of hoardings along Broadway and Regent Street (Refer to **Section 6.0**). The STA will also be consulted in regard to the design of the relocation of traffic signals from Jones Street to Balfour Street.

Pedestrian Safety

For the five year period ending June 2005, the RTA pedestrian crash records show that there is an adverse crash history along Broadway and at Railway Square and to a lesser extent along Abercrombie Street, Wattle Street, Harris Street and Regent Street.

As detailed studies to determine the cause of these incidents have not been undertaken it is not appropriate to impose undue restrictions on the proposed demolition operations. However, it will be appropriate for contractors to be aware of the history of such crashes and to monitor the truck movements to and from the site. This forms one of the commitments made at **Section 6.0** of this report.

Staff Parking

On-site parking will be provided for staff throughout the proposed demolition phase of works.

5.12 Noise and vibration

Acoustic Logic Consultancy was commissioned to prepare a Demolition and Recycling Vibration and Noise Management Plan (**Appendix J**) for the proposed demolition and recycling works. The relevant guidelines and standards for the proposed demolition works as outlined below have been considered in Acoustic Logic's assessment.

- EPA Noise Control Manual Construction Noise and Vibration Guideline;
- Australian Standard 2436-1981 "Guide to Noise Control on Construction Maintenance and Demolition Site"; and
- "Assessing Vibration: A Technical Guideline", DEC NSW Feb 2006

Noise Assessment

Noise generated by plant and equipment throughout the duration of the project will be managed to generally comply with the background noise level + 10dB(A) criterion and where that is exceeded noise will be managed in strict compliance with AS 2436. Acoustic Logic Consultancy consider that a background + 10dB(A) criterion is a reasonable noise goal due to the size of the site, and the fact that impacts at any one sensitive receiver are unlikely to occur for a period greater than 6 months, even if the total demolition period is longer.

The location of the noise receivers and noise measurement locations are shown in **Figure 14**. The measured existing day background noise levels and the corresponding noise goals are shown in **Table 6** below and the list of the nearest residential receivers is included in **Table 7**.

Figure 14 – Noise receiver and noise measurement locations

Source: Acoustic Logic Consultancy

Table 6 – Measured daytime background noise and corresponding noise goals

No.	Location / receiver	Day Background Noise Level dB(A)L_{90}	Construction Noise Goal dB(A)L_{10}
a	Abercrombie St façade of No. 21	64	74
b	O' Connor St	52	62
c	Wellington St	48	58
d	Kensington St façade of Regent Apartment Building	56	66
e	External of Block 10A	56	66
f	General Office of 1st Floor Block 10A	44	54
g	General Office of 1st Floor Block 10B	44	54
h	External of The Clare Hotel	62	72
i	Ground Floor of The Clare Hotel	55	65
j	External of UTS Building	64	74
k	External of No.513-519 Wattle St Building	65	75
l	Broadway façade of Australian Hotel	67	77
m	Ground Floor of Australian Hotel	54	64

Source: Acoustic Logic Consultancy

Table 7 – Location of nearest residential receivers

Receiver Number	Description
1	Four storey residential building at No. 21 Abercrombie St with openable windows facing the project site.
2	Four storey residential building at No. 27-39 Abercrombie St with openable windows facing the project site
3	Two storey residential buildings located at No.41 to No.65 Abercrombie St with front yard facing the project site.
4	Two storey residential buildings located at No.65 to No.75 O' Connor St with openable windows facing the project site.
5	Two storey residential buildings located at No.30 to No.40 Dick St.
6	Two storey residential buildings located at No.13 to No.17 Wellington St with openable windows facing the project site.
7	Multi storey residential building Regent Apartment at No.71 to No.75 Regent St with balconies facing the project site.
8	Multi storey residential /commercial mixed use building at No. 69 Regent St with balconies facing the project site.
9	Residential buildings in Dwyer Street
10	5 storey Hotel located at No. 1 Dwyer St with openable windows
11	Multi storey residential apartments located at No.513 to No.519 Wattle St with balconies facing the project site.
12	Administration Building located at Block 10A and 10B of the project site
13	The Clare Hotel located at Block 38 of the project site.
14	The Australian Hotel located at Block 40 of the project site.
15	Railway Infrastructure located across Regent St.

Source: Acoustic Logic Consultancy

Demolition equipment will vary from hand tools, to larger plant, such as an excavator. The proposed machinery includes (Sound Power Levels dB(A) are shown in brackets):

- Excavator (114)
- Bulldozer (114)
- Scraper (116)
- Bobcat (105)
- Truck (108)
- Angle Grinders (114)
- Electric Saw (111)
- Drilling (94)
- Hammering (120)
- Crane (105)
- Electric Hoist (92)
- Impact Drill (105)

- Concrete Crusher (112)
- Air Compressor (86)

Once the potential receivers were established, and the works to be undertaken were assessed, noise predictions were made by Acoustic Logic Consultancy. These indicated that in the worst case situations, the residences measured on Abercrombie Street, O'Connor Street, Balfour Street, Dick Street, Wellington Street and Regent Street and the Hotel at Dwyer Street would be affected by the demolition and recycling activities which would exceed the noise goal at the nearest residences. However it was noted that many of the noise sources would be present over a small period of the day or may be present for a few days with a significant intervening period before the activity occurs again.

The residences located on Dwyer and Wattle Streets and the administration building are not expected to be affected by demolition and recycling noise. The Clare and Australian Hotels are also likely to remain substantially unaffected.

Noise Mitigation Measures

In the cases where noise generation is likely to exceed the nominated noise goal, the noise emissions will be minimised by adopting the process indicated in the "Control of Noise Flow Chart" prepared by Acoustic Logic Consultancy to ensure that noise emissions are managed and mitigated. Mitigation measures that may be implemented include:

- Acoustic Barriers
- Silencing Devices
- Material Handling (e.g. installation of rubber mats)
- Treatment of specific equipment to reduce sound levels emitted
- Work practices to reduce noise generation
- Strategic positioning of processes on site
- A combination of the above

Site manages will be made aware of noise and vibration limits, applicable control measures and methods. They will also be responsible for ensuring that all agreed noise and vibration measures are carried out by employees and sub-contractors.

Proposed hours of demolition and recycling works

The proposed hours of demolition/recycling work are:

- 7 am – 6 pm, Monday to Friday
- 8 am – 5 pm, Saturday

No work Sundays and Public Holidays (NB. In emergency situations where work is required to ensure safety is maintained the emergency work may occur outside of these hours.)

With the exception of 1pm to 5pm on Saturdays, the proposed hours are within the EPA recommended construction times. However, the proposed hours of demolition works are in accordance with the Standard Condition often imposed by the City of Sydney for construction works in the CBD. Acoustic Logic Consultancy consider that the additional hours are not incompatible with the urban setting of the site and would allow the overall demolition period to be shorted.

Vibration impacts and monitoring

The demolition and recycling works have the potential to generate significant ground vibration as the following activities will be carried out:

- Dropping of heavy structures;
- Demolition of floor slabs by hammering with excavator mounted hydraulic hammers; and
- Demolition of footings and other masonry walls by hammering with excavator mounted hydraulic hammers.

As many of the surrounding properties are separated from the site by local streets, Acoustic Logic Consultancy expect that they are unlikely to be impacted by vibration from the above activities. Notwithstanding this, Frasers Broadway Pty Ltd will commission dilapidation surveys on those properties in close proximity to the site prior to Stage 2 works commencing. The properties to be surveyed will be determined by Frasers based on the recommendations of Acoustic Logic.

In addition to the above properties which surround the site there are also heritage buildings which will be retained on the site which need to be protected during demolition works, these too will be subject to a dilapidation survey. The buildings will also be subject to an assessment of vibration impacts and, where necessary, safeguards will be recommended to protect the structures.

The following safe separation distances have been recommended by Acoustic Logic:

- Very highly sensitive structures – 50m
- Highly sensitive structures – 30m
- Sensitive structures – 20m
- Other non-sensitive or modern structures – 5m

If works generating vibration are carried out within these distances then the assessment of likely vibration will be carried out and measures applied to prevent vibration levels exceeding the safe levels established.

Vibration monitoring will be used on the site:

- at the commencement of a new activity near a sensitive structure to establish and confirm safer working distances from sensitive structures (attended monitoring);
- when an activity identified as producing a significant ground vibration is occurring within the safe working distance established. An unattended monitor with an alarm will be used which will sound when vibration limits are being approached; and
- when operating very close to sensitive structures (attended monitoring).

A monitoring regime has been prepared by Acoustic Logic Consultancy's and is included in **Table 8** below. The likely susceptibility ratings for structures on the site and surrounding the site are shown in **Table 9**.

If an alarm sounds from an unattended vibration monitor all vibration producing works in the vicinity of the alarm will stop immediately and the cause of the exceedence will be investigated. The Monitors will be downloaded at a maximum 2 week interval, and more often if exceedances of the alarm level occur or complaints are received.

Table 8 – Vibration Zones for Various Susceptibility Ratings

Vibration Susceptibility of Structure	Zone	Distance (m)	Monitoring Required	
			Attended Monitoring	Unattended Monitoring and Logging
1	A	>50	None	None
	B	5-50	At commencement of vibration producing activity	Yes with alarm level set to 75% or maximum permissible level
	C	0-5	Continuous	Yes with vibration level monitored by specialist
2	A	>25	None	None
	B	5-25	At commencement of vibration producing activity	Yes with alarm level set to 75% or maximum permissible level
	C	0-5	Continuous	Yes with vibration level monitored by specialist
3	A	>5	None	None
	B	0-5	At commencement of vibration producing activity	Yes with alarm level set to 75% or maximum permissible level

Source: Acoustic Logic Consultancy

Table 9 – Likely building susceptibility ratings

Building Number (refer Figure 2)	Building	Susceptibility Rating
n/a	Terrace and Older Residential Buildings Around the Site	1
n/a	Modern Residential Buildings Around the Site	2
n/a	Mortuary Station	1
n/a	Older Commercial Buildings Around the Site	2
n/a	Modern Commercial Buildings Around the Site	2
14	Castle Connel Hotel	1
10A and B	Offices	1
22, 23, 25, 26, 30, 36	Misc Previous Industrial Buildings	1
40	Australian Hotel	1
42A, 42B, 42C	Terrace houses	1
38 and adjacent gate	Clare Hotel	1
27	Energy Australia Substation	2
n/a	Underground services to be retained	3

Source: Acoustic Logic Consultancy

The implementation of the vibration and noise management plan prepared by Acoustic Logic Consultancy will help to ensure that all work is carried out in a highly controlled and predictable manner, thereby minimising emissions and protecting the amenity of sensitive receivers surrounding the site.

5.13 Infrastructure

The existing services on the site include electrical services, communications services, sewer services, potable water services, gas services and stormwater services.

Electrical Services

Webb Australia has identified the location of existing electrical infrastructure on the site and has suggested a strategy for the demolition (**Appendix H**). Drawing ESK – 01 within that strategy shows the location of the existing High Voltage Network Reticulation and drawing ESK – 02 outlines the position of the existing Low Voltage Network Reticulation.

Most of the existing infrastructure will be removed from the site during the different stages of demolition. However, the cabling associated with Energy Australia Substation no. S102 which services the area outside the site will be maintained during demolition works, along with the lead-in cables to the HV switching station 5008 until the consent of the supply authority is obtained.

Where required, permission will be sought from Energy Australia for removal of existing infrastructure and for the introduction of temporary power supplies where necessary.

One issue that will need to be addressed is the ongoing supply to the buildings which will be occupied throughout the duration of the demolition works. The buildings which will be occupied are generally located within the Stage 3 and Stage 4 areas of the site and require the maintaining of the HV switch Station EA 5008, metering and Substation 1. An alternative method is to supply these buildings via an external supply off the street or utilise an existing LV service. This is currently being investigated as this will give free access to the entire electrical system.

Communication Services

The majority of communications infrastructure on the site is owned by Telstra, However Nextgen networks, Optus/Uecomm and Verizon Business all have an interest on the site.

The main Site Distributor (referred to as Campus Distributor by WEBB Australia) is located within Building 10A of the Administration block. As this building is to be retained and the route of the lead-in cables are to be retained there will be no direct impact on the Site Distributor. However, in-direct impacts will arise from the need to isolate communications devices that feed buildings which will be demolished.

Where buildings are to be retained which are currently connected to the Site Distributor, they will be disconnected and communications will be established from the adjoining street.

Hydraulic Infrastructure

Hughes Trueman were commissioned to advise on the location and decommissioning of hydraulic infrastructure. Their report is included at **Appendix K**. The existing hydraulics infrastructure on the site are shown on Drawing 07S628C-C02 and include:

- Potable water;
- Sewer;
- Stormwater; and
- Gas.

All local building services related to the buildings which are to be demolished will be removed as part of the demolition works. All existing site connections to existing mains will be decommissioned in accordance with the relevant guidelines and requirements of service providers. Where required approval will be sought from the service provider prior to decommissioning that particular service.

The existing trunk and other mains on the site will need to be retained and protected during the demolition and recycling works, although it is noted that, in the long term, it is likely that these will be decommissioned and replaced with new infrastructure. A specific listing of services to be retained and protected is provided in Section 3.2.5 of the Hughes Trueman report at **Appendix K**.

As part of their assessment, Hughes Trueman has identified constraints which result from the existing site conditions. One particular constraint acknowledged is the age of the sewer mains and in particular the ovoid drain. This will need to be considered through all stages of the development.

Sydney water has required a dilapidation survey and report for all services which are to be retained including water, sewer and stormwater. It is proposed that this be required prior to Stage 2 works (mechanical demolition) commencing. An undertaking reflecting this is provided in the Statement of Commitments at **Section 6.0** of this report. A protection plan will also be prepared in relation to the Ovoid drain.

Emergency Services

A temporary water supply will be installed for dust and fire control during the demolition works and to supply water for saw cutting operations.

5.14 Staging of the Demolition / Recycling Works

Clause 17 of Central Sydney LEP states the following:

"17 Consent for demolition

Explanatory note

Premature demolition of buildings on land within Central Sydney has resulted in unsightly gaps in the built fabric and 'holes in the ground' which negatively affect surrounding businesses and seriously detract from the City's amenity. Accordingly, particular regard will be given to the timing of demolition approval relative to the progress of approval for replacement buildings.

(1) Consent must not be granted to development proposing the demolition of a building unless:

a. the application also proposes the comprehensive redevelopment of the site after the demolition has been carried out, or

b. a consent is in force for the comprehensive redevelopment of the site, or

c. a consent is at the same time granted to the comprehensive development of the site proposed by another development application.

(2) Consent must not be granted for demolition of a building unless the consent authority has compared the likely environmental impact of any replacement building proposed to be erected on the site when the site is redeveloped with the environmental impact of the building it would replace."

The Minister for Planning granted Concept Plan in February 2007 for the redevelopment of the Frasers Broadway site. This approval provides for the overall redevelopment of the Frasers Broadway site and sets many of the built form controls, including maximum building heights, floor plates and FSR. The DoP has therefore already considered the likely environmental impact of the replacement development and has considered that the impact is acceptable and granted conditional consent accordingly.

With regard to the long term redevelopment of the site a Design Excellence Strategy is currently being formulated by Frasers Broadway Pty Ltd which will involve international and local designers preparing building design proposals for the whole Frasers Broadway Site. The Design Excellence Strategy, and eventual brief, will seek high quality and sustainable designs that take into account the Concept Plan approval, existing heritage buildings on the site and the surrounding context. Frasers Broadway Pty Ltd hope to start this process before the end of the year and to have a result in mid February next year.

Frasers Broadway Pty Ltd also have thought about an indicative time line for the submission of future applications outlining the detailed design of the buildings that are to be erected on the site. An indicative time frame for the submission of future detailed applications is given at **Appendix L**.

The DoP and the City of Sydney therefore have comfort that there is a consent in place which allows for the redevelopment of the site and that processes are in motion to ensure that once the buildings are demolished, the site does not remain vacant for a long period of time.

5.15 Community Consultation

Elton Consulting have been commissioned by Frasers Broadway to oversee the community consultation process and to facilitate community awareness about the processes that will be undertaken during the course of the redevelopment of the site. A Community Awareness Plan (CAP) has been prepared by Elton Consulting and is included at **Appendix M.**

The main principles underpinning the CAP are:

- Community awareness and neighbourliness;
- Maintaining the tidy appearance of the site;
- Anticipating impacts and mitigating where possible/feasible;
- Ensuring the safety of members of the public in the vicinity of the site and the workforce directly involved in the project;
- Adhering to the Construction Environmental Management Plan (CEMP) particularly truck routes and parking in designated areas;
- Ensuring compliance with environmental management systems; and
- Identifying opportunities to deliver tangible community benefits e.g. employing local people, sourcing goods and services from local providers and making available educational opportunities for students at nearby universities and colleges.

The priority stakeholders identified by Elton Consulting are:

- Residents and businesses within the zone of influence
- Operators and residents of the Clare and Abercrombie hotels located on the site
- University of Technology (UTS), Sydney Institute of Technology (SIT) and Notre Dame University: engaging at student/staff level as well as property management departments
- Blackfriars Childcare Centre
- St Benedict's Church, Broadway

Other stakeholders identified by Elton Consulting include:

- Stakeholders in the broader Chippendale area and parts of Ultimo, as part of regular communication process
- Liaison with agencies such as Integral Energy, RTA, Sydney Buses and Sydney Water Corporation will also occur as part of the overall process and be undertaken by the project manager and consultant team..

Although mitigative strategies outlined in previous sections of this report will be in place through out the duration of the demolition and recycling works there will be instances when impacts cannot be fully mitigated. In these instances the project manager will:

- Establish in consultation with affected parties reasonable and fair expectations regarding the redevelopment process
- Provide regular, accessible and open channels of communication with stakeholders
- Genuinely respond to the needs of affected parties where issues arise
- Ensure accountability through fully documenting issues raised, actions taken and formally closing out matters with relevant parties.

The community will be kept informed of the work program through two levels of external communication. The first of these will be to continue to provide general community information and stakeholder engagement, similar to that which has already been undertaken i.e. site tours and information sessions, newsletters, website etc.

The second of these levels will be at a much greater intensity and will involve those residents and businesses in close proximity to the site who have a greater potential to be influenced by the proposed works. Consultation at this level will involve a higher level of communication including where appropriate face to face meetings and the provision of more regular information.

It is also intended that a number of mechanisms for the community to provide feedback will be provided. One of these will be a nominated 1800 number for information/complaints which will be staffed during construction hours and whenever out of hours work is commencing. The site manager and their delegated community relations officer will assume the primary role in liaising with nearby stakeholders and responding to issues. A protocol will be developed for receiving, responding and closing out on all complaints and suggestions received.

5.16 General Consultation

In response to the DG's requirements the agencies listed in **Table 10** below were contacted and consulted prior to submission of the Project Application. The purpose of the consultation was to determine if there were any outstanding issues that needed to be addressed prior to submission of the Project Application and before the agencies respond to the Environmental Assessment. A copy of correspondence sent by Incoll is included at **Appendix N**.

Table 10 – Stakeholder Consultation

Agency	Contact	Date	Time	Nature of Consultation	Comments Received
DECC	Daniel Large	12 October 2007		Telephone Call and Email	Advised that DECC do not normally provide comments prior to the formal submission of the Project Application.
City of Sydney	Col Warne (Traffic)	21 September 2007	N/A	Face to Face meeting	Minutes of this meeting are included as Appendix E of the Demolition and Recycling Transport Management Plan which is located at **Appendix I** of this report.
RTA (Parramatta)	Phaee Sellathurai & Leigh Pickard	21 September 2007	N/A	Face to Face meeting	Minutes of this meeting are included as Appendix E of the Demolition and Recycling Transport Management Plan which is located at **Appendix I** of this report.
RTA Transport Management Centre	Robert Marshford	26 September 2007	N/A	Face to Face meeting	Minutes of this meeting are included as Appendix E of the Demolition and Recycling Transport Management Plan which is located at **Appendix I** of this report.
MoT	David Hartmann & Stephen Timpbrell	9 October 2007		Email	Relevant emails are included as Appendix E of the Demolition and Recycling Transport management Plan which is located at **Appendix I** of this report.
STA	Brian Mander	9 October 2007		Email	Relevant emails are included as Appendix E of the Demolition and Recycling Transport management Plan which is located at **Appendix I** of this report.
NSW Heritage Office	Vincent Sicari	25 September 2007		Telephone Call	The Heritage Office understood that the main heritage issues had been resolved during the assessment of the Concept Plan but that the Heritage Office may be able to offer input at other stages to assist with the process.
Rail Corporation	Greg Fackender	12 September 2007	3.27pm	Email	A letter was issued to Rail Corporation on 11 September 2007 (See **Appendix N**), outlining Frasers proposal to lodge a Project Application for demolition works at Frasers Broadway. Incoll received the following advice from Rail Corporation via email on the 12 September 2007: ▪ The application will be reviewed by the Property Section of RailCorp. ▪ The site is marked over future tunnel alignments and will be sent to Rail Development for their comments.

Agency	Contact	Date	Time	Nature of Consultation	Comments Received
Rail Corporation	Greg Fackender	14 September 2007	3.27pm	Telephone call	Rail Corporation verbally advised that any conditions of consent imposed by Rail Corporation are likely to be standard in nature, with no requirement for an Access Deed and approval, as a condition of commencement. However, until such time as the Project Application has been lodged with the DoP, and Rail Corporation has reviewed the Project Application, they are unable to confirm exact requirements in this regard.
Energy Australia	Craig Platts	17 September 2007 through to 2 October 2007		Telephone Calls and emails	Copies of correspondence between Webb Australia and Energy Australia are included at the end of the Webb Australia Infrastructure Decommissioning Report which is located at **Appendix H** of this report.
Sydney Water	Various				A table showing the numerous contacts that were made with Sydney Water is provided as an Appendix to the Hydraulic Infrastructure Decommissioning Report at **Appendix K**.
NSW Police Force	Superintendent Paul Carey	10 September 2007	3.30pm	Telephone call	The NSW Police Force advised that issues of concern in relation to demolition of the site would include safety and security of the site and of pedestrian movements around the site. Impact upon the surrounding road network would also need to be considered. Incoll confirmed that a brief overview of the demolition stage of the project would be provided and also sent to Sargent Lockrey, NSW Police Force, Traffic Office (refer letter dated 11 September 2007). Following issue of Incoll letter dated 11 September 2007 (See **Appendix N**), there has been no further contact with the NSW Police Force.

6.0 Statement of Commitments

Table 11 below outlines the proposed commitments for the demolition works at Frasers Broadway

Table 11 – Table of Project Application Commitments

Subject	Commitment	Timing
Demolition & Hoarding Management Plan	1. The demolition and recycling works will be carried out in accordance with Demolition and Recycling – Demolition and Hoarding Plan prepared by Enstruct Group Pty Ltd and Incoll Management Pty Ltd (**Appendix C**). If required the plan will be updated by the demolition contractor.	Prior to, and throughout, demolition / recycling works.
Construction Environmental Management Plan	2. Noise, vibration, dust, soil and erosion arising from the proposed demolition works will be managed in accordance with the Environmental and Construction Management Plan (CEMP) prepared by URS (**Appendix G**). The CEMP will be updated by the demolition contractor once appointed.	Prior to, and throughout, demolition / recycling works.
	3. The necessary approvals and permits required will be obtained prior to demolition works commencing on a stage by stage basis	Prior to works commencing for each stage as relevant.
Site Management	4. Monthly audits will be carried out which assess performance against the CEMP.	Throughout the duration of the demolition / recycling works.
	5. A Management Team comprising a Project Manager (PM), Environmental Representative (EMR) and Demolition Contract manager (DCPM) will be employed to oversee the demolition works and will meet monthly to review on-site audits and take any corrective action that is required.	Throughout the duration of the demolition / recycling works.
	6. Where corrective action is required it will be completed within 1 week of issue. If this does not occur, stop work orders will be issued by the PM and work will not resume until the appropriate action has been completed and approved by the PM.	Throughout the duration of the demolition / recycling works.
	7. 24 hour security will be present on the site.	Throughout the duration of the demolition / recycling works.
Waste Management	8. All waste on the premises will be classified according to the EPA *"Environmental Guidelines: Assessment, Classification and Management of Liquid & Non-Liquid Wastes" (2004)* prior to waste being removed from the site.	As required throughout demolition / recycling works
Heritage	9. A photographic recording of all heritage buildings and structures to be demolished on the site will be prepared by a qualified and experienced heritage practitioner.	Prior to demolition works commencing on a stage by stage basis.

Subject	Commitment	Timing
	10. Inspection / dilapidation reports will be prepared for all heritage buildings and structures that are being retained on the site.	Prior to Stage 2 works commencing.
	11. Work Method Statements (WMS) will be prepared for the removal of internal and external fixtures during the soft strip. Items to be salvaged will be identified prior to the soft strip commencing and will be catalogued once removed and stored in a suitable safe place or protected if they are to remain insitu.	Prior to soft strip commencing.
	12. Work Method Statements (WMS) will be prepared for the demolition of buildings adjacent to heritage buildings to be retained, to ensure that these buildings are protected during and following demolition and recycling works.	Prior to Stage 2 works commencing.
	13. Appropriate protection measures will be implemented around heritage items located on the site as outlined in the Demolition and Hoarding Report at **Appendix B**, the Heritage Impact Statement at **Appendix D** and the CEMP at **Appendix G.**	Prior to, and throughout, demolition / recycling works.
	14. All ground disturbance works will be undertaken in accordance with the archaeological requirements outlined in the Heritage Impact Statement at **Appendix D**. An appropriately qualified and experienced heritage practitioner or archaeologist will be engaged to oversee the removal of footings and any other subsurface work.	As required throughout demolition / recycling works
	15. Inspections during and post works will be carried out to ensure that the heritage structures remain in a sound state.	As required throughout demolition / recycling works and post demolition / recycling works.
Transport	16. Demolition works will be undertaken in accordance with the Construction Traffic Management Plan (TMP) prepared by Jamieson Foley Pty Ltd (**Appendix I**). The TMP will be adjusted if any of the actual operations vary significantly from those assumed in the preparation of the TMP.	Throughout the duration of the demolition / recycling works.
	17. Demolition trucks will follow the routes provided for in the TMP and where required the contractor will seek specific permits for oversized vehicles or the like. There are route restrictions for the transport of hazardous materials. The contractor and the transporter will develop and adhere to a route plan that meets the legal limitations.	Throughout the duration of the demolition / recycling works.

Subject	Commitment	Timing
	18. New traffic signals will be installed as a priority at the Kensington Street Gates and at the Balfour Street gates. The plans for the signalisation of the two intersections will conform to standard industry practice and RTA requirements. STA will be consulted during the design process. The design must include alternate bus access at both Broadway/Wattle Street and at Wattle Street/Thomas Street. RTA requires a letter from Council to support the closure of Jones Street.	The process of preparing signal design plans and seeking approvals from the relevant authorities is to be instigated as a priority starting immediately, due to the long lead times.
	19. Main Avenue (Kent Road) will not be used for demolition traffic access at any time.	Throughout the duration of the demolition / recycling works.
	20. Class A and Class B hoardings will be provided along footpaths to provide continuous and safe pedestrian passage along each frontage of the site where required. Hoardings in Kensington Street and Wellington Street will be placed to the kerb, noting that no useable footpaths are available in these streets along the site frontage and pedestrians already walk on the road in a generally low speed and low volume traffic environment. STA will be consulted prior to installation of hoardings along Broadway and Regent Street, to ensure safe and convenient bus operations and passenger access.	Throughout the duration of the demolition / recycling works as appropriate. The STA will be consulted prior to hoarding installation along Broadway and Regent Street.
	21. The demolition contractor will have in place an incident recording and management plan for crashes, near crashes and other incidents for demolition trucks with pedestrians and general traffic, both on public roads and within the works site. Where required the contractor will take immediate action to prevent the incident occurring again.	Throughout the duration of the demolition / recycling works.
	22. The weight capacity limit of Balfour Street will be investigated as priority.	Prior to Stage 2 works commencing.
Acoustic amenity	23. Noise mitigation measures as outlined by Acoustic Logic Consultants (Refer **Appendix J**) will be implemented. The report will be updated if required.	Throughout the duration of the demolition / recycling works.
	24. Hours of demolition works will be limited to 7am - 6pm, Monday to Friday and 8am – 5 pm Saturday.	Throughout the duration of the demolition / recycling works.
	25. Noise and vibration will be monitored on site as per the recommendations of the Acoustic Assessment at **Appendix J**.	Throughout the duration of the demolition / recycling works.
	26. A complaints hotline will be set up by Frasers Broadway and the surrounding community will be given prior notification of specific events which have the potential to cause temporary disruption.	Throughout the duration of the demolition / recycling works.

Subject	Commitment	Timing
Stakeholder consultation	27. Further consultation and information sessions will be held as necessary to communicate the redevelopment process and to ensure all stakeholders have the opportunity to keep up to date on the progress of the demolition works and the redevelopment of Frasers Broadway.	Throughout the duration of the demolition / recycling works.
Decommissioning of the Site	28. The cabling associated with Energy Australia Substation no. S102 which services the area outside the site will be maintained during demolition and recycling works, along with the lead-in cables to the HV switching station 5008 until the consent of the supply authority is sought.	Throughout the duration of the demolition / recycling works unless consent is granted by the supply authority for their removal.
	29. A dilapidation survey and report for all services which are to be retained including water, sewer and stormwater will be undertaken and provided to Sydney Water prior to Stage 2 works commencing.	Prior to Stage 2 demolition and recycling works commencing.
Stormwater Management & Quality	30. The existing overland flow path with be maintained during demolition works. When buildings or roadways that form part of, or are adjacent to, the overland flow path are to be demolished or regraded, bunding will be used to maintain the overland flow path.	Throughout Stage 2, 3 & 4 demolition works.
	31. The works relating to sediment and erosion control measures on the site will be implemented in accordance with *"Managing Urban Stormwater – Soils and Construction"* (Department of Housing/ Landcom 2004) and the Sediment and Erosion Control Plan.	Throughout the duration of the demolition / recycling works.
	32. Demolition and recycling works will be carried out so that no demolition debris fall, flows or is carried into Sydney's stormwater system.	Throughout the duration of the demolition / recycling works.
Air Quality	33. All operations and actions occurring on the site will be carried out in a manner that will minimise the emissions of dust from the site.	Throughout the duration of the demolition / recycling works.
Sustainability	34. All demolition works will be undertaken in accordance with best practice methods possible. Where possible waste materials will be recycled and emissions will be reduced.	Throughout the duration of the demolition / recycling works.
	35. Receipts of waste quantities removed from the site and recycled will be provided by the Demolition Project Manager.	Throughout the duration of the demolition / recycling works.
	36. The demolition contractor will provide a regular monthly report regarding the progress of ongoing waste management, which will be reported to and monitored by the Project Manager (PM).	Throughout the duration of the demolition / recycling works.

Subject	Commitment	Timing
Remediation works / contaminated land	37. Prior to intrusive works a review of available environmental data will be undertaken to assess the potential contamination that could be intercepted. Should unexpected contamination be encountered, work in the immediate vicinity will stop and the Demolition Contractor Project Manager (DCPM) will be informed. If the DCPM believes that contamination is present a suitably qualified environmental consultant will be contacted and engaged to assess the findings, take samples to characterise and delineate the extent of the potential contamination and define appropriate remediation actions. Soils excavated during the demolition and recycling stage of the program should be stockpiled, bunded and appropriate environmental controls implemented. On completion of the excavation works, the excavated soils are to be re-instated into the excavation.	Throughout the duration of the demolition / recycling works as appropriate.
	38. Furthermore detailed RAPs will be prepared for future stages of the redevelopment of Frasers Broadway.	To be submitted with project application proposing remediation works or bulk excavation.

7.0 Conclusion

The demolition works form the initial preparation works for the redevelopment of Frasers Broadway. The proposed site will constitute one of the largest recycling projects ever seen in Sydney, with up to 90% of the weight of the total waste material to be recycled.

This environmental assessment report has demonstrated that:

- Mitigation measures will be implemented to ensure that there is no adverse environmental impact on the existing air and water quality of the site or surrounding land and water;
- Adequate protection measures will be implement to ensure that the demolition works will not affect any listed heritage items located on or adjacent to the site;
- Mitigation measures will be implemented to ensure that there is no adverse environmental impact on the amenity of neighbouring occupiers;
- That the transport movements generated by the demolition works will be minimal and will have negligible impact on the operation of the surrounding road network; and
- Adequate monitoring and communication measures will be implemented should corrective measures be required.

An assessment of the proposal has shown that it is generally in accordance with the relevant planning legislation and the approved Frasers Broadway Concept Plan. In light of the above and the detailed assessment of the proposal herein, we have no hesitation in recommending that the Department consider the application favourably.