



**Lucas Consulting Engineers
Pty Limited**

**PROPOSED RESIDENTIAL DEVELOPMENT
STAGES 2 & 3
SITE 3 AUSTRALIA AVENUE
SYDNEY OLYMPIC PARK**

SITE and WASTE MANAGEMENT PLAN

Prepared for **Site 3 Development Company Pty Ltd**

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Review and Approval Record

Rev	Date	Description of Release	Prepared By	Reviewed By	Approved By
A	29/03/11	Revision 1	EL	DC	EL

Details of Application

Site Address: No. 1-11 Australia Avenue, Sydney Olympic Park

Applicants Name: Site 3 Development Company Pty Ltd

Applicants Address: No.5 Bay Drive, Meadowbank NSW 2114

Applicants Phone: 8878 2888

Description of buildings and other structures currently on the site to be demolished:

This Plan of Management has been prepared for the proposed construction of Stages 2 and 3 of Site 3 at Sydney Olympic Park.

Stages 2 and 3 are the final stages of the implementation of a Masterplan for the development of Site 3 in Australia Avenue at Sydney Olympic Park. The last of 4 high rise towers to be constructed, Stages 2 and 3 incorporates 588 one, two and three bedroom units accommodated in two high rise towers, T1 and T2, ranging in height from 25 to 30 storeys. Parking is provided in four basement levels under the building.

The site is currently vacant but has a large fig tree which is to be relocated to the southern end of the site and contains two stormwater quality improvement devices and associated infrastructure, together with access roads and temporary offices being currently used for the construction of Stage 1. These will be retained but slightly modified to allow the construction of the new development.



Plate 1 – Site Aerial Photo

SITE AND WASTE MANAGEMENT PLAN

1. GENERAL

For the purposes of the Development Application a Site and Waste Management Plan (the Plan) has been prepared. The Plan will be amplified during construction. The selected contractor will be contractually required to provide a project specific plan taking into account its resources and methodology.

The objectives of the Plan are to ensure safety on site and to minimise disruption to the local neighbourhood and minimise the generation of waste in accordance with the following principles:

- waste avoidance;
- waste reuse;
- waste recycling; and
- waste removal (*only if the first three options are not possible*).

Sources

Wastes generated during demolition and construction shall primarily consist of:

- cleared vegetation;
- spoil;
- concrete and bitumen;
- soil and water from bunded areas, sedimentation basins, etc;
- oils, greases and lubricants;
- sanitary wastes and rubbish from construction; and
- building materials including timber, glass and metal.

Procedure

Waste minimisation and recycled materials have been incorporated into the design wherever possible.

The management and disposal of wastes during demolition and construction shall be in accordance with the EPA Guidelines for Assessment, Management and Classification of Liquid and Non-Liquid Wastes (1999), Protection of the Environment Operations Act 1997 and the Waste Avoidance and Resource Recovery Act 2001.

All material from the demolition of structures or buildings is to be recycled as far as practical (this includes excavated concrete and bitumen which shall be crushed and used as backfill or base; bricks which shall be cleaned and reused or crushed; timber which shall be cleaned and reused or ground and recycled; doors, windows and fittings which shall be cleaned and reused by selling to second hand market; glass which is to be crushed and recycled; metals which shall be recycled; carpets which shall be reused as mulch or landscaping and trees which shall be relocated to the maximum extent possible).

Paper generated in a site office shall be reused where practicable and recycled by placement in an appropriate segregated bin for removal from site to an approved recycling depot.

Domestic waste (*including food scraps, aluminium cans, bottles, tins, paper and cardboard packaging and plastic bottles*) generated from the activities of site staff during construction shall be collected by the municipal waste collection contractor. Contractor's staff and sub-contractors shall be encouraged to recycle appropriate waste material by making available a separate recycling bin.

Effluent from the amenities for which the Contractor is responsible shall be discharged into the local sewerage system. Otherwise, portable self-contained toilets of suitable capacity may be used subject to acceptable arrangements for disposal of the effluent. Pit toilets are not permitted.

The relevant contractors shall remove all waste oils and fuels from the site, where practical.

Any waste oils and fuels that remain on site shall be collected and processed by an approved oil recycler.

Contaminated soil shall be transported to an approved waste facility.

Contaminated water shall be contained on-site and either treated or disposed by pump-out tankers to an approved facility.

All vegetation waste (*excluding weeds*) shall be mulched and used on site, where practical.

A site plan showing stockpile areas and site access will be provided by the Contractor when appointed, prior to commencement of construction.

References

- ❑ Local Government Act 1993
- ❑ Environmental Planning and Assessment Act, 1979 Australian Standards
- ❑ Construction Safety Act 1912
- ❑ Occupational Health and Safety Act 1983
- ❑ Work Cover Authority
- ❑ Department of Environment and Climate Change (DECC)

The Contractor shall:

- ❑ Notify Council, SOPA and Work Cover Authority (NSW) before commencement and obtain all necessary approvals.
- ❑ Erect protective fencing 1.8m high to the boundary of the site.
- ❑ Ensure that all on site personnel are properly attired with the correct protective clothing, footwear, gloves, hard hats, etc.
- ❑ Ensure that all necessary procedures are taken to protect and support adjacent properties.

- ❑ All vehicular traffic will enter and exit the site in accordance with SOPA's instruction.
- ❑ Ensure that all equipment used on the site shall meet the manufacturer's and DECC guidelines for noise levels.
- ❑ Warning signs shall be positioned where appropriate.

2. RESTRICTED WORKING HOURS AND COUNCIL REQUIREMENTS

Working Hours

Building and demolition work shall only be carried out between the hours of 7:00am to 5:00pm Mondays to Fridays inclusive and 7:00am to 1:00pm on Saturdays. These hours are to be verified with the SOPA prior to commencing work. No work shall be carried out on Sundays or Public Holidays. Safety inspections are permitted at 7:00am on work days. These restrictions do not apply to the maintenance of site cranes nor to the use of mobile cranes which stand and operate from a public road, provided that a permit has been obtained from the Council's Engineer's Department for the use of a mobile crane.

In addition, special note shall be taken of the following:

The building and demolition work shall comply with the Council's Code for the Control and Regulation of Noise on Building Sites and Australian Standard 2436-1981 "Guide to Noise Control on Construction, Maintenance and Demolition Sites". Approved hours for building and demolition works shall be prominently displayed at all times on the building site. Consent does not extend to the use of appliances which emit noise of a highly intrusive nature (such as pile-drivers and hydraulic hammers) or those prohibited by the Local Council Building Sites Noise Code. A separate application for approval to use any of these appliances must be made to the Local Council.

3. HEALTH PROTECTION SAFETY

Occupational Health and Safety Act

The Contractor shall implement all requirements of the Occupational Health and Safety Act, 1983 as amended, for all matters relating to the contract for the works.

The Contractor shall take all precautions necessary to protect the health of persons where demolition works may expose workmen and other persons on or within the vicinity of the site to conditions which are dangerous to health, including the noxious effects of fumes, dust, liquids, infection, fire, explosion, radiation or other hazards.

Take suitable precautions where the following are encountered:

- ❑ Asbestos insulation or sprayed asbestos coatings
- ❑ Fibreglass or rockwool insulation
- ❑ Flammable or explosive liquids or gases
- ❑ Toxic, infective or contaminated materials, noxious or explosive chemicals.

The Contractor shall provide protective devices appropriate to the type of hazardous materials and conditions encountered (such as protective clothing, masks, screens, shielding, decontaminating equipment, seals, coverings and the like) and ensure that they are used correctly while such works are in progress and while health risks remain.

Prohibited

Smoking is not permitted on site or any part of the works which have been given over to the possession of the Principal and similarly alcohol shall not be brought to or consumed on the site.

Safety Requirements

In addition to the requirements of the Occupational Health and Safety Act, 1983, and all associated acts or regulations which require employers to ensure the health, safety and welfare of employees, the following conditions shall apply:

Safety Helmets

Ensure helmets to ASIBOI are worn by all Contractor's employees, agents or visitors on site.

Accident Reports

Immediately advise the Superintendent of:

- ☐ All accidents involving death or personal injury.
- ☐ All accidents involving loss of time or incidents with accident potential such as equipment failure, slides, cave-ins and the like.
- ☐ If requested, furnish a written report.

Safety Coordination Committee

In the absence of an Occupational Health and Safety (OHS) Workplace Committee, the Superintendent may direct the establishment of a Safety Coordination Committee. Such a committee will be chaired by the Superintendent or nominee and shall comprise representatives of the Principal Contractor, Sub-Contractors and workers. If so directed, the Contractor shall carry out recommendations of the Committee.

4. SITE CLEARING PROCEDURE

The work plan relates to the combination of manual and mechanical clearing of the site in general, removal and replanting of the fig tree and ground works, with works to be sequential and generally in reverse order to procedures adopted for the original method of construction. Tree guards shall be installed around the fig tree until it is prepared and ready for removal.

The Contractor shall discuss the location of water runoff control measures with the consulting engineers.

Utilise dust suppression measures by spraying water over the whole site throughout the whole demolition procedure.

Ground work, including excavation, during high winds which is causing dust to spread beyond the site boundaries must cease until wind abates.

Controlled crushing of demolished access roads shall be conducted on site and the demolition materials stockpiled for cartage off site. Demolished material shall be transported off site in compliance with regulations.

After completion of the clearing of the site and the removal of all demolished materials and all debris, a final inspection will be done to ascertain that all materials have been removed and the site left clean.

5. CONSTRUCTION VEHICLES

Construction vehicles are proposed to access the site. Access will be restricted to a single point of entry and exit opposite Figtree Drive.

6. CONSTRUCTION REFUSE

Removal

Regularly clear and remove all construction refuse from site as it accumulates and on completion. Keep site tidy at all times and minimise safety hazards associated with building rubbish. During demolition/building work the public way shall not be obstructed by building materials, refuse skips or in any way whatsoever.

Skips

Building waste containers (skips) shall not be placed on the roadway or footway under any circumstances. Non compliance with this condition will result in the issue of a Notice by Council to stop all work on the site until the 'skip' is removed.

Due to the liability of old buildings to infestation by rats and vermin, ensure that food scraps are not allowed to accumulate. Provide adequately sealed receptacles and empty when full.

7. DISPOSAL OF CONTAMINANTS AND REFUSE

Generally

Remove from the site all contaminants and refuse, and dispose of in a lawful manner meeting all the requirement of the NSW Department of Environment and Climate Change and the NSW Waste Rectification and Processing Service.

Ensure all workers directly involved in dust removal use protective equipment conforming to AS 1716 Respiratory Protection and be sufficiently trained in their use.

Personal decontamination procedures are to be followed and will involve spraying down of disposable suits with a PVA solution in the ceiling space.

Non-recyclable and hazardous materials shall be transported, to comply with regulations, to a licensed waste depot, to be nominated by the demolition contractor. Prior to leaving the site, all loads shall be covered to prevent materials falling off.

8. PROTECTION OF MATERIALS AND WORK/DUST CONTROL

Store

All perishable materials, all fragile materials, fittings and fixtures and specially plated, glazed, vitreous, and enameled surfaces shall be effectively stored, handled and protected from damage through any cause including vandalism and theft during the progress of the works.

Covers

Temporary covers of sufficient extent and strength shall be used to protect finishing materials, etc. in position on the works from damage of any kind through any cause.

Protection

Contractor to provide all necessary protection, wire enclosures, dust coverings to scaffolding, in accordance with the relevant Authorities requirements, and as directed on site by the Superintendent.

Protect where necessary all undisturbed stonework, and all other building features specified to remain insitu.

Provide and fix protection for on-going masonry work from weather or damage and staining from timbers, stone dust, oil, washings from steelwork or scaffolding and other injurious by disfiguring substances.

Ensure that temporary coverings are made where roof sheeting is removed, outside walls are removed or openings made in roof and walls. These coverings are to be installed at close of work and to be in place at all times outside building hours or when inclement weather may reasonably be expected.

Dust Control

Restrict dust caused by demolition works to a minimum. Do not throw or drop dust-creating materials in a manner which releases dust. Provide approved material handing chutes or hoisted containers for handling such materials. Spray chutes, containers, materials and affected areas with water as necessary to control dust.

9. POISONS AND OTHER INJURIOUS SUBSTANCES

Precautions

Take proper precautions to keep poisons and other injurious substances in places secured against access by unauthorised persons.

Poisons and hazardous substances are to be stored, handled and managed to meet the requirements of Work Cover Authority draft "Code of Practice for Control of Workplace Hazardous Substances". (This draft includes provision of Safety Data Sheets for hazardous substances on site.)

10. SOIL AND WATER MANAGEMENT DURING CONSTRUCTION

Generally

Erosion and sediment control measures are to be implemented on site for the project. These works are to be maintained and/or varied as specified during the Contract period. The Contractor is to undertake these works before any demolition, cleaning, scrub removal, bulk earthworks and excavation for services. comply with the NSW Clean Water Act, Soil Conservation Act and other relevant legislation.

Reference Document

"Soil and Water Management for Urban Development" (2004) by the NSW Department of Housing.

Erosion Control

Prevent erosion of soil from any lands used or occupied in the execution of the work under the control as specimen.

10.1 THE SOIL AND WATER MANAGEMENT PLAN

Soil and Water Management Plan

A soil and water management plan has been prepared for the site. The Contractor shall undertake these works prior to any clearing, bulk earthworks and excavation for services.

Geofabric Silt Fencing

Construction "silt fencing" where shown on the approved Soil and Water Management Plan.

Repair 'silt fencing' when required or directed. Replace damaged sections, straighten and/or redrive pickets and retie when the mesh or fabric comes adrift.

Temporary Straw Bale Bunds

In accordance with the approved Soil and Water Management Plan straw bale may be used in temporary situations, i.e. whilst installing control measures or when a control measure has been partially or fully dismantled to permit building works to proceed.

Use only bales bound with wire and place lengthwise in twin rows with straws parallel to the ground surface. Lay the bale flat and embed 100mm minimum into the downslope side. Secure each bale by driving two wooden stakes or steel pickets through the centre. The soil immediately upslope from the bale is to be compacted to prevent piping. Replace bales where deterioration or straw loss occurs.

11. MONITORING

All resource management procedures will be undertaken continuously during the demolition and construction phases of the project. Waste materials shall be monitored through the use of the Waste Management Plan forms annexed in Appendix A.

12. REPORTING

Reporting of resource management issues shall be recorded on an Environmental Site Inspection Form. Actual amounts of waste materials generated and disposed of shall be recorded on the following Waste Management Plan forms. A copy of the forms shall be presented to the site supervisor/superintendent.

12. DEMOLITION & EXCAVATION

DEMOLITION & EXCAVATION STAGE		DESTINATION		
		REUSE AND RECYCLING		DISPOSAL
MATERIAL	ESTIMATED WASTE	ON-SITE	OFF-SITE	
	WEIGHT (T)	SPECIFY PROPOSED REUSE OR ON-SITE RECYCLING METHODS	SPECIFY CONTRACTOR AND RECYCLING OUTLET	SPECIFY CONTRACTOR AND LANDFILL SITE
Concrete	600 T	N/A	Option A and B	Billbergia P/L & Camellia
Road base and gravel	150 T	N/A	Option A and B	Billbergia P/L & Camellia
Fig Tree	80 T	Replanted on site as directed in Stage 1 reports	N/A	N/A
Grass/Topsoil	4,200 T	Reuse topsoil for new landscape beds and pocket park	N/A	N/A
Clay/Shale	23,000 T	N/A	Clay/shale to be taken off site and recycled - Envirogard	Billbergia P/L – Wetherill Park
Rock	53,000 T	N/A	Option A	Billbergia P/L – selected sites

OPTIONS

- A Remainder will be taken to crushing/recycling plant. B Removed from site and recycled off site.
 C Any leftovers to be disposed of by appropriate contractor. D All waste taken to metal recyclers.
 E Taken to Landfill. Contractor and appropriate landfill/transfer station to be identified on appointment of site operator.

13. ESTIMATING CONSTRUCTION WASTE

Estimating Construction Waste		
material	average % waste	tonnes per m /cube
bricks	5%	2.6 tonnes
concrete	10 %	0.9 tonnes
plasterboard	10 %	0.8 tonnes
roof tiles	5 %	1.8 tonnes
general site waste	20 %	1.5 tonnes
paper/cardboard	15 %	1.6 tonnes
steel – roofing	5 %	0.5 tonnes
steel – structural	2 %	7.2 tonnes
steel – reinforcing	2 %	7.2 tonnes
timber	5 %	1.2 tonnes

14. ON-GOING WASTE MANAGEMENT –RESIDENTIAL PROPERTIES

ON-GOING WASTE MANAGEMENT				
TYPE OF WASTE TO BE GENERATED	EXPECTED VOL. PER WEEK	PROPOSED ON-SITE STORAGE AND TREATMENT FACILITIES	DESTINATION	DESCRIBE HOW YOU INTEND TO ENSURE ONGOING MANAGEMENT OF WASTE ON-SITE (EG LEASE CONDITIONS, CARETAKER MANAGER ON SITE)
PLEASE SPECIFY EG FOOD, WASTE, GLASS, PAPER, METAL, OFF-CUTS, ETC	LITRES OR M/CUBE	EG WASTE STORAGE AND RECYCLING ARE, GARBAGE CHUTE, ON-SITE COMPACTING, COMPACTING EQUIPMENT	RECYCLING, DISPOSAL, SPECIFY CONTRACTOR	
FOOD	15 m ³	2m ³ Garbage wheelie bins	Disposal /Council contractor	Unit Manager
PAPER	6 m ³	2m ³ Recycling wheelie bins	Recycling/Council contractor	Unit Manager
GLASS	2 m ³	2m ³ Recycling wheelie bins	Recycling/Council contractor	Unit Manager
GREEN WASTE	2 m ³	Green waste bins and landscape contractor to remove off site at time of carrying out work	Council sites	Unit Manager