Lend Lease

4 MURRAY ROSE AVENUE, HOMEBUSH BAY

[PRELIMINARY]

Construction Management Plan

Including

Traffic & Pedestrian Management Plan
Stormwater & Erosion Control Plan
Noise & Vibration Management Plan
Asbestos & Hazardous Building Material Management Plan
Contaminated Soil & Water Management Plan
Construction Waste Management Plan
Dust Control Management Plan
Event Management Plan
Green and Golden Bell Frog Plan

DATE	REVISION	PURPOSE	APPROVED BY
20.01.14	A	Draft – Preliminary	-
05.05.14	B	Draft – Preliminary	-

AMENDMENTS SUMMARY

Amendments have been made to the following sections of the Draft Construction Management Plan (CMP) and are summarized below for ease of reference:

REVISION B Dated 8h May 2014 – Summary of Changes	
Sect 1.0	Amended to acknowledge that the CM Plan is now prepared on the basis the Murray Rose Avenue East extension will be completed by September 2014
Sect 1.3	Construction Manager Details changed
Sect 2.0	Amendment of primary access point to be from Murray Rose Avenue with only limited access from Parkview Drive. This responds to the earlier than expected forecast completion of the Murray Rose Avenue East extension by SOPA and the comments received from the stakeholders during the SSD assessment phase
Sect 2.1	- As per 2.0 above - Addition of 3 Murray Rose Avenue into surrounding sites - Inclusion of draft site plan to acknowledge Murray Rose Avenue as primary access point - Inclusion of note that discussion will need to be held with SOPA regarding access for occupants of 5 Murray Rose Avenue and the future 3 Murray Rose Avenue during event conditions for the Easter Show and V8 Super Car race. - Assumed period of excavation works amended to being later in the year at October 2014 through to February 2015
Sect 3.1	Amendments made to acknowledge potential of either B or A Class hoarding to South Side of Murray Rose Avenue in front of 4 Murray Rose
Sect 4.1	Amendments made to acknowledge 3 Murray Rose Avenue will be completed whilst 4 Murray Rose Avenue is under construction
Sect 4.2	As per 4.1
Sect 4.4	As per 4.1
Sect 10.1	Amended to acknowledge that access to the site during events and access for occupants of both 5 and 3 Murray Rose Avenue is expected to be from Murray Rose Avenue via Bennelong Road subject to discussion with SOPA

1.0 Construction Management Plan

1.0 Construction Management Plan

FOREWARD

The following plan is a Draft proposal for preliminary review purposes only- numerous assumptions surrounding the project, the project site, the surrounding context and the submission's conditions have been made at this early stage and are to be reviewed at a later date. At the time of writing this plan, a head contract was yet to be determined. The following report would therefore need to be validated by the Principal Contractor upon appointment, and resubmitted upon the application for a Construction Certificate.

The Plan is now based on the assumption that Murray Rose Avenue Eastern Extension will be complete by approximately September 2014 due to the advanced progress made by SOPA and their road contractor this year. The plans also assume that the adjacent 3 Murray Rose project will still be under construction, however occupation will occur whilst 4 Murray Rose is being constructed.

Some conditions of consent that were issued alongside 3 Murray Rose Avenue's EA approval have been adopted under the assumption that 4 Murray Rose will require similar conditions to be met.

1.1 Description of Project

The project comprises of a 5 Star NABERS Energy and 5 star Green star six-storey building (plus plant room) with a three storey below ground basement situated in the central commercial district of Homebush Bay.

1.2 Site Working Hours

All demolition and construction works will be undertaken between the hours of 7.00am and 6.00pm Monday-Friday and between 8.00am and 3.00pm on Saturdays. No work will be undertaken on Sundays, public holidays, or other special event days unless an extended working hours application has been approved by SOPA.

1.3 Contact Details

- Construction Manager: TBC

Mobile Number: TBC

- Site Manager: TBC

Mobile Number: TBC

1.4 Construction Timetabling

Refer to the Noise and Vibration Management Plan (Appendix 2).

1.5 Notification Procedures

LL will notify occupants of nearby building of construction activities that are likely to affect their amenity through noise and vibration, prior to the activity occurring.

1.6 Safety Information

- Lend Lease (LL) have a safety and environmental management system called "EH&S" (Environment, Health and Safety").

- All employees required to work on site must first complete the LL site induction.
- In addition, the Subcontractor must induct their employees into their safe work procedures and submit to LL a copy of the induction register.
- An EH&S meeting will be held weekly to deal with issues which may arise on site.
- The EH&S Meeting will be attended by one employee representative of each subcontractor and chaired by a representative of LL.
- LL will also periodically conduct its own internal safety audits. The audit team will consist of:
    - LL Safety Manager
    - Site Safety Officer
    - Subcontractor Representative
- An EH&S information board will be erected and a copy of the LL EH&S policy will prominently be displayed on the board
- A Subcontractor's start on site will be conditional on the submission and approval of an Environmental Health and Safety plan. The plan must be submitted one week prior to their start date to allow sufficient time for LL review

1.6 First Aid Facilities

- LL will provide First Aid Facilities as specified by legislative requirements. All Subcontractors are required to provide their own First Aid Facilities in addition to this.
- Subcontractors are to provide a First Aid Officer for their company works.
- A nominated first aider will be on site whenever work is being carried out. This will be either a LL or Subcontractor representative.

1.7 Approved plans to be on-site

LL will maintain a copy of the approved and certified plans, specifications and documents incorporating conditions of approval and certification on site at all times.

1.9 Pedestrian Management methods

- All pedestrians have the right of way, especially within the site.
- Pedestrian thoroughfares around exterior of site to be maintained and clearly marked
- All visitors will report to the LL site office to sign visitor register
- All visitors must sign out on leaving the site
- All visitors must be suitably attired to enter the site e.g. proper footwear, hardhat etc.
- An inducted person must accompany all visitors to the site
- No private car parking will be available within the site. Visitors will be advised to park in the surrounding public car parks
- The construction area will be suitably segregated from the public and adjoining pedestrian areas
- Access to, from and around the workface is to be via defined access routes detailed in the induction process

2.0 Traffic Management Plan

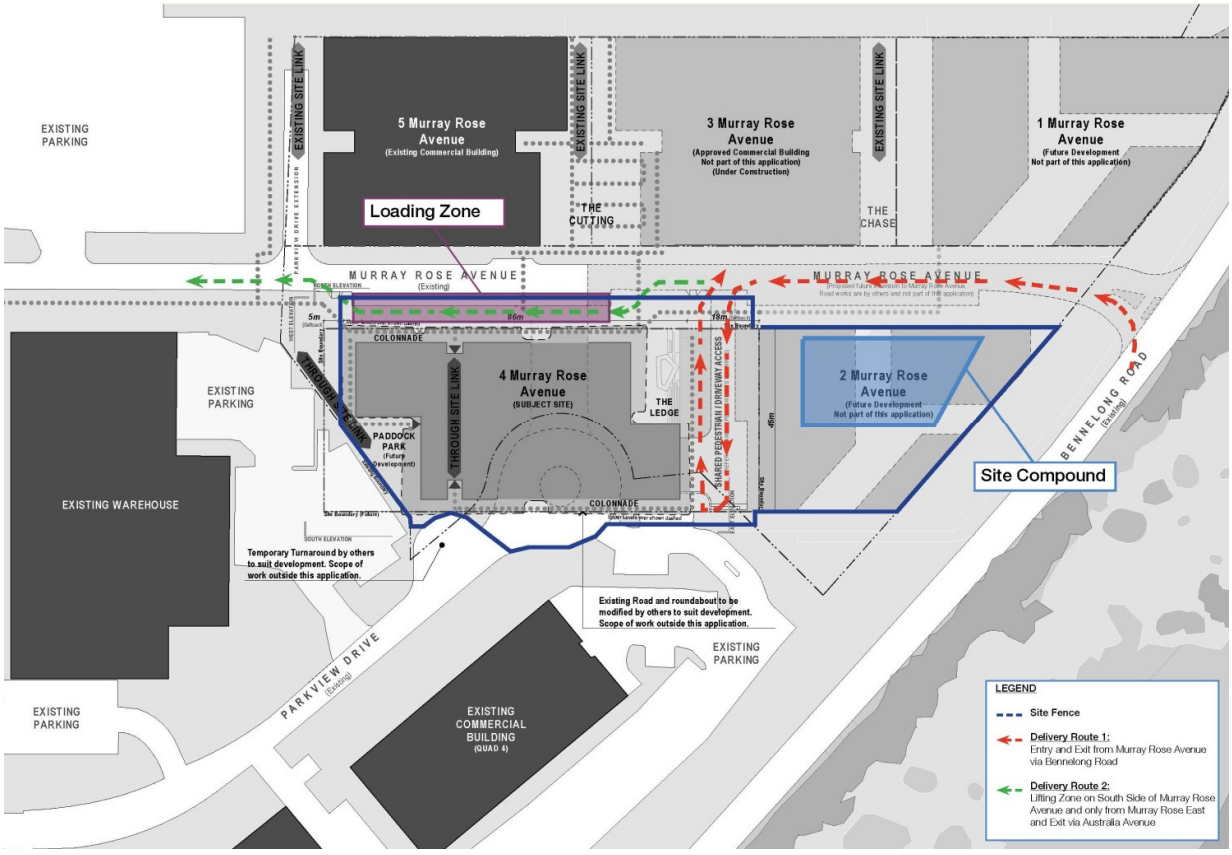
Following feedback received during the SSD Assessment period and due to the fact that there is now a degree of confidence that SOPA will have completed the Murray Rose Avenue East extension to Bennelong Avenue as early as September 2014. The primary point of access has been revised from Parkview Drive to now be from Murray Rose Avenue, with only limited deliveries from Parkview Drive.

Upon appointment of a traffic engineer the traffic management plan will be updated and included in the CMP. The below proposals are to be reviewed and updated by the head contractor.

2.1 Construction Vehicle Management

- An initial onsite meeting will be held with the Sydney Olympic Park Authority's Manager Development Operations i.e. Todd Kitson [phone 9714 7438 or mob 0419 975 479] to review the site set up and proposed construction vehicle movements.
- Regular joint inspection meetings are to take place with the Manager Development Operations to monitor ongoing vehicle management.
- The primary point of access will be from the Murray Rose Avenue East extension with limited deliveries Parkview Drive
- Discussion will need to be held with SOPA as to whether Murray Rose Avenue East extension is opened up to the public during the construction of 4 Murray Rose Avenue in periods other than the Easter Show and V8's, however the early completion of Murray Rose Avenue is expected to result in Parkview only being used for limited access, which will alleviate most of the surrounding stakeholders concerns

The draft site plan below indicates this amended access methodology:



The bulk of the truck movements will be during the estimated excavation period October 2014 – February 2015. Average and peak truck movements will be calculated by the head contractor at a later stage.

General vehicle Access Rules are as follows:

- Site Access times will be in accordance with the times as outlined in section 1.2 above.
- Based on the approval from SOPA we do not require any changes to any on-street parking as long as there is sufficient clearance between parked cars on Parkview Drive for trucks to safely pass each other, however Parkview Drive will only be used for a small number of deliveries as Murray Rose will be the primary access.
- All suppliers and subcontractors who will be delivering goods to site or removing material from site will be inducted into the agreed travel access requirements (to be stipulated in the Traffic Management Plan). LL will also include this in their tender and subcontract documentation.
- The site access is yet to be confirmed during SOPA Events such as the Easter Show and V8 Racing and as a general secondary means of access.
- Access to adjacent tenancies (such as tenants residing in 5 Murray Rose, 3 Murray Rose, Quad 4 and No 5 Parkview Drive) will be reviewed by the appointed Traffic Engineer and presented to SOPA prior to issuing with the final CMP.
- All vehicles are to be directed by appropriate contractor to the nominated work areas
- All vehicles prior to leaving site must be checked by a contractor representative for cleanliness and washed down if required
- Construction vehicles are not permitted on site without approval from LL
- All extracted material, such as excavation spoils or rubbish, is to be covered prior to leaving site
- Transportation of hazardous materials will be carried out in accordance with Authority Requirements, Contractor's Safety Plan and LL Safety Requirements
- The maintenance and cleaning of vehicles and construction plant will not be carried out in areas from where oil or washing may be discharged into a watercourse, street gutter or stormwater drainage system. Waste arising from such activities will be collected and disposed of off-site in a manner approved by the EPA
- A truck wheel washing facility will be maintained for the effective cleaning of wheels prior to trucks leaving site
- Fuelling of vehicles, earthmoving plants and mobile equipment will not be carried out without an operator or driver being in attendance at all times

3.0 Stormwater & Erosion Control

3.1 Compliance with SSD

LL will design the soil erosion and sediment control measures in agreement with the document *Managing Urban Stormwater – Soils & Construction* Volume 1 (2004) by Landcom.

These measures will include:-

- Construction of truck entry/exit points including truck cleaning facilities. The truck entry/exit points will be managed by a full time gate controller.
- The site will be fenced with an A Class Hoarding and a 2100mm high chain wire mesh fence with shade cloth, constructed in accordance with council requirements to control dust and prevent the public from entering the site. Silt fencing will be installed where appropriate to catch any silt laden runoff and prevent it from leaving the site. The silt fence is to be anchored at the base by either embedment or weighted down with sand bags. Silt fencing will also be installed to the fence surrounding the sedimentation pond.
- B Class hoarding will be provided in the event that any crane lifting from a public road is required; however, if a public walkway is removed during construction works (such as the South side of Murray Rose Avenue) than potentially only an A Class hoarding is required.
- Inspections and maintenance of the sediment fencing will be conducted on a weekly basis or after extreme weather and rainfall.
- All existing on-site stormwater drainage pits will be cleaned of rubbish and silt. All drainage grates shall then be covered with suitable geotextile fabric securely fixed in position.
- Ongoing dust suppression will be by use of a water spray.

4.0 Noise and Vibration Management Plan

4.1 Compliance with SSD Conditions

- In accordance with any assumed ("Hours of Work") conditions of consent, LL will comply with the hours of works and the conditions in which works may be undertaken outside these hours.
- LL will comply with the hours of works with specific activities causing excessive noise and vibration not being carried out within these hours from Monday to Friday.
- LL will seek dispensation for the use of rock excavations on Saturdays based on the proximity to residential neighbours. The closest neighbours are the tenants within 5 Murray Rose, i.e. Lion, Quad 4 (tbc), future tenants of 3 Murray Rose Avenue (completion expected end 2014 / early 2015), No 5 Parkview Drive (tbc) and the residents within Australia Tower. Based on previous experience on 5 Murray Rose which has the same shale that we anticipate on this project, we do not anticipate to have issues related to noise or vibration from neighboring residents on Saturdays.
- In accordance with assumed (Noise Control) conditions of consent LL will comply with AS 2436-2010 and the relevant provisions of the Protection of the Environment Operations Act 1997

4.2 Noise Receivers

The table below identifies potentially affected sensitive receivers and provides a brief assessment of the likely effect on that receiver:

Potential Noise Receiver	Proximity to Site	Type of Property	Sensitivity
Quad 4	Close	Commercial	Low
5 Murray Rose Avenue	Close	Commercial	Low
3 Murray Rose Avenue (completion expected late 2014 to early 2015)	Close	Commercial	n/a
5 Parkview Drive	Close	Commercial	n/a
UAC	Far	Commercial	Low
Australia Tower	Far	Residential	Low

As shown above, all the affected receivers (defined as close proximity to the site) are commercial properties and most are at a moderate to far distance from the site. The sensitivity for most of the receivers is therefore considered low.

4.3 Construction Noise Objective

LL Noise & Vibration Management Plan (Appendix 2), Assessment of Noise Levels (Appendix 3) and (to be completed by appointed acoustic consultant) Construction Noise and Vibration Management Plan (Appendix 4) identify activities potentially exceeding the objectives noise emissions and how they will be managed.

4.4 Noise and Vibration Objectives for Receivers

Potential Noise Receiver	Noise & Vibration Objective
Quad 4	Refer to Project 4 Murray Rose Avenue Noise & Vibration Management Plan (Appendix 2)
5 Murray Rose Avenue	Refer to Project 4 Murray Rose Avenue Noise & Vibration Management Plan (Appendix 2)
3 Murray Rose Avenue	Refer to 4 Murray Rose Avenue Noise and Vibration Management Plan (Appendix 2)
5 Parkview Drive	Refer to 4 Murray Rose Avenue Noise and Vibration Management Plan (Appendix 2)
UAC	Refer to Project 4 Murray Rose Avenue Noise & Vibration Management Plan (Appendix 2)
Australia Tower	Refer to Project 4 Murray Rose Avenue Noise & Vibration Management Plan (Appendix 2)

4.5 Noise and Vibration Monitoring, Reporting and Response Procedures

Refer to Noise and Vibration Management Plan (Appendix 2). A Construction Noise and Vibration Management Plan will be included in the final CMP, upon appointment of an acoustic consultant.

4.6 Assessment of Potential Noise & Vibration

Appendix 3, Page 20 provides a comprehensive list of the specific activities that may be carried out and an assessment of its effect on local receivers.

4.7 Proposed Mitigation Treatments, Management Methods & Procedures

The following mitigation treatments, management methods and procedures are proposed:

- Construction works will only commence unless a subcontractor has submitted and received approval for a schedule of equipment which describes the equipment types to be used, noise levels, expected time and duration of use, and any measures required to ensure the noise levels are acceptable
- No loading or unloading of any trade equipment or building materials associated with construction works will only take place inside the approved construction areas
- Personnel safety measures, such as ear muffs, ear plugs, shall be implemented wherever noise exceeds 85db (A)
- Operating noise limits are to be implemented to achieve the construction noise objective
- All subcontractors will be requested to use silenced equipment where applicable
- All subcontractors, as part of their site safety plans, are to ensure ear/eye protection is available for all employees on demand and monitor daily
- Bored piles have been used in lieu of driven piles

5.0 Asbestos (& Hazardous Building Material) Management

5.1 LL Asbestos (& Hazardous Material) Management Plan

See Appendix 5 for the LL Asbestos (& Hazardous Material) Management Plan.

6.0 Contaminated Soil & Water Management

6.1 LL Contaminated Soil & Water Management Plan

See Appendix 6 for the LL Contaminated Soil & Water Management Plan.

7.0 Construction Waste Management

7.1 Compliance with SSD Requirements

In accordance with assumed ("Removal of Waste Materials") conditions of consent, all excavated waste materials shall be classified and disposed of at an approved waste disposal facility.

In accordance with assumed ("Contamination"), contaminated material must not be reused within the development footprint without approval by the building developer and SOPA. Contaminated materials must not be reused within the development footprint on land that will be transferred to SOPA without written Consent of SOPA.

7.2 LL Waste Management Plan

See Appendix 7 for the LL Waste Management Plan. This will be updated upon appointment of a Head Contractor.

8.0 Stormwater and Erosion Control Management Plan

See Appendix 8 for LL Erosion and Sediment Control Plan.

9.0 Dust Control

See Appendix 9 for Dust Control Management Plan.

10.0 Event Management

In accordance with any assumed ("Event Management") conditions of consent, LL will establish set protocol to address the impact of SOP events impacting access to and around the site. This will be developed further by the head contractor in consultation with SOPA and finalised prior to the final issue of the CMP.

Proposed strategies are as follows:

LL will develop a communication protocol where we will issue a newsletter to SOPA and the local community advising of the works in the upcoming 3 weeks issued every 2 weeks. In addition SOPA and LL will meet once a month to communicate the works on a much larger scale including the interfacing works and future Events. SOPA issue notices of the Events in advance and highlight the impacts to the local area and the program timing of the Events. These include but are not limited to the V8 supercars and the Easter Show.

During major events it is expected that the Murray Rose Avenue Eastern extension to Benelong Road will provide access for occupants of both 5 and 3 Murray Rose Avenue and the construction site, which will need to be confirmed with SOPA. For all other stakeholders Parkview Drive remains open. LL and SOPA will liaise prior, during and after the Events to discuss impacts to both the project works and the added impacts to the community from project works.

11.0 Green and Golden Bell Frog Sub-Plan

See Appendix 11 for Green and Golden Bell Frog Sub-Plan.

Appendix 1

Visitor Register

Visitor Register					
Date	Name	Company	Security Pass No.	Signature In	Signature Out

Appendix 2

LL Noise & Vibration Management Plan

Project 4 Murray Rose

Noise Vibration Management Plan

Objectives

To minimise the generation of noise and vibration from construction activities occurring on site and its impact on site operations and workers.

To minimise the generation of noise and vibration from construction activities occurring on site and its impact on the rail tunnel, neighbouring residents, businesses and associated building structures.

Establish and maintain good relations with community and neighbouring sites.

Key Management Issues

Noise generated during construction of Project 4 Murray Rose will be primarily associated with vehicle movements, generators, heavy machinery (eg: Excavators) and hand-held machinery and tools. Some additional vehicle noise may be generated by the thoroughfare of vehicles using transport corridors to and from the site.

As the works will be conducted within the hours detailed by the condition of consent, potential noise impacts are predicted to be small and expected to pose a minor impact to the nearest residences adjacent to the site.

In view of this, the following management issues have been identified:

- Noise and vibration generated during construction and demolition works affecting nearby properties (Environmental Class P2 Risk).
- Vibration generated during construction and demolition works affecting surrounding structures/infrastructure (Environmental Class P1 Risk).
- Establish and maintain good relations with community and neighbouring sites.

A supplementary Noise and Vibration Management Plan will be supplied by the acoustic consultant upon appointment, prior to the final issue of this CMP.

Site Actions – Noise

All noisy construction or demolition activities are to be performed in accordance with hours stipulated by the conditions of consent as outlined below:

- 8:00am to 2:00pm Monday – Friday;
- 2:00pm to 5:00pm Mondays to Friday;;
- 9:00am to 12:00pm on Saturdays; and
- At no time on Sundays, public holidays or agreed SOPA event days.

Any noisy activities proposed outside the hours detailed above require prior written consent from SOPA.

Noise limits during the demolition and construction works are to meet the Maximum Allowable Noise Contribution as specified in the conditions of consent.

A Noise Monitoring Equipment Diagram will be prepared prior to site activity and Bulk Earthworks, detailing the locations and type of equipment.

No construction works shall commence unless the Subcontractor has submitted a Work Method Statement which details the schedule of demolition / excavation equipment which describes the equipment types to be used, noise levels these will generate, expected time and duration of use, and any measures required to ensure the noise levels are acceptable (such as screen mufflers).

LL will ensure traffic access to and from the site will be via designated entry/exit points.

Fit and maintain appropriate mufflers on construction and earth-moving equipment as required.

LL will utilise existing Noise Impact Assessment data, where required, to determine noise sources and confirm ambient background levels or will conducting baseline noise monitoring prior to construction work commencing and will engage an acoustic consultant to monitor construction noise level during its activities.

Personnel safety measures shall be implemented wherever noise exceeds 85dB(A).

All typical plant and equipment used during the construction and demolition works will be within the maximum noise levels specified (at 7 metres) refer to **Table 18.8.1**.

Site Actions – Vibration

When planning for construction work that will include vibration work LL will make all practical efforts to protect vibration sensitive buildings and the amenity of the occupiers of buildings. Follow the ANZECC guidelines *`Technical Basis for Guidelines to minimise Annoyance to Blasting Over pressure and Ground Vibration'*

During leisure hours, vibration disturbance from construction operation must be kept to a minimum. The basis for this vibration management strategy will be to limit the times that certain vibration producing activities may be carried out.

No pile driving or blasting will be performed as part of the proposed construction works program.

Table 18.8.1: Typical Noise Levels

ITEM	TYPICAL PLANT OR EQUIPMENT	MAX NOISE LEVEL (at 7 metres)
Bulldozer	Caterpillar D7, D9	88
Bulldozer	Caterpillar D10	93
Front End Loader	Wheeled	90
Jack Hammers	With silencing bags	85
Air Track Drill	800 CFM Compressor	96
Scraper	Caterpillar 631	89
Scraper	Caterpillar 651	85
Grader	Caterpillar 825	85

Compactor	Vibrating Plate	92
Vibratory Roller	10-12 Tonne	89
Water Cart		88
Dump Trucks	35 Tonne	96
Excavator	Kato 750	86
Rock Breaker	Hydraulic on Kato 750	86
Truck		80
Crane	Truck Mounted	85
Compressor	600 CFM	75
Compressor	1500 CFM	80
Backhoe		88
Spreader	Asphalt, Concrete	70
Asphalt Truck		92
Asphalt Paver		89
Tip Truck		83
Generator	Diesel	79
Spraying Machine		75
Mechanical Broom		75
Piling Hammer	For Piles and Casing	93
Concrete Truck		83
Concrete Pump		84
Concrete Vibrators		80
Drill	Air	85
Drill	Pneumatic	85
Welders		85
Concrete Saw		93
Concrete Leveller		90
Cherry Picker	On Truck	80

Training

Communication and education material on the noise and vibration controls and procedures will be part of the Site Environmental Awareness Program that will be incorporated into the site induction program.

Performance Measures

- Non exceedance of specified noise limits during monitoring event
- No noise or vibration complaints received from adjoining operations or from the community.
- The maximum noise level (LA max), when measured at a distance of 7 metres from any item of plant or equipment and must not exceed the following maximum noise level.
- Assessment of performance by number of complaints received from adjoining operations or from statutory Authorities.
- No warnings/notices received from statutory authorities for exceeding noise levels or work outside the approved work hours as set out in the conditions of consent.

Monitoring and Reporting

LL will put in place a vibration monitoring system to monitor vibration levels on the adjoining property for the duration of the works.

Bulk earthworks subcontractors shall submit noise monitoring compliance certificate or monitoring results for all major plant and equipment on the project within one month of use on site demonstrating conformance with operational licence.

Routine inspections of plant and equipment will include reference to acoustic performance. Subcontractors to provide details of acoustic performance of plant and equipment on site.

Any noise complaints or feedback from adjoining properties or from the operational facility on site to be recorded, reported and monitored.

The SM may require the Subcontractor to carry out additional noise monitoring if a complaint regarding construction noise is received.

The SM in consultation with the EM will advise the monitoring location and the monitoring required will be manned monitoring.

Corrective Actions

Non-conformances are to be recorded by way of the System Defects.

The Subcontractor (and EM/ CM/ SM if applicable) shall review and analyse the cause of detected non-conformance and develop a corrective action to prevent recurrence. Details of the non-conformance including any immediate corrective actions undertaken are to be recorded, reviewed and accepted by the CM.

It is the responsibility of the EM to immediately initiate corrective actions following approval. The non-conformance and corrective action must include details of the action proposed, desired performance target and action close out date. The system defects report should be signed, dated and filed.

All corrective and preventative action taken by the Subcontractor will be carried out by and at the cost of the Subcontractor.

If such corrective and preventative action leads to further non-conformance, any further action shall be subject to approval by the CM in consultation with the EM.

Appendix 3

Assessment of Noise Levels

Trade/Activity	Item	Maximum Noise Level LA Max dB (A) at 7m	Proximity to Receiver	Assessment of Effect
Civil Works	Bulldozer	88	5 Parkview Drive – Close	Moderate
	Bulldozer	93	5 Parkview Drive – Close	Moderate
	Front End Loader	90	5 Parkview Drive – Close	Moderate
	Air Track Drill	96	5 Parkview Drive – Close	Moderate
	Scraper	85	5 Parkview Drive – Close	Moderate
	Grader	85	5 Parkview Drive – Close	Moderate
	Compactor	85	5 Parkview Drive – Close	Moderate
	Compactor	89	5 Parkview Drive – Close	Moderate
	Compactor	92	5 Parkview Drive – Close	Moderate
	Water Cart	88	5 Parkview Drive – Close	Moderate
	Dump Trucks	96	5 Parkview Drive – Close	Moderate
	Excavator	86	5 Parkview Drive – Close	Moderate
	Backhoe	88	5 Parkview Drive – Close	Moderate
	Truck	80	5 Parkview Drive – Close	Moderate
	Spreader	70	5 Parkview Drive – Close	Moderate
Various	Crane	85	Moderate	Low
	Compressor	75	Moderate	Low
	Compressor	80	Moderate	Low
Asphalt	Asphalt Truck	92	Moderate	Low
Various	Tip Truck	83	Moderate	Low
	Jack Hammers	85	Moderate	Low
	Generator	79	Moderate	Low
Piling Concrete Works	Piling Hammer	93	Moderate	Low
	Mechanical Broom	83	Moderate	Low
	Concrete Truck	83	Moderate	Low
	Concrete Pump	84	Moderate	Low
	Concrete Vibrators	80	Moderate	Low
	Concrete Saw		Moderate	Low
Various	Drill	85	Moderate	Low
	Air Compressor	75	Moderate	Low
	Welders	85	Moderate	Low
	Cherry Picker, Truck Mounted	80	Moderate	Low

Appendix 4

Construction Noise and Vibration Management Plan

To be included upon the appointment of an Acoustic Consultant during the Design Development Phase

Appendix 5

LL Asbestos (& Hazardous Building Material) Management Plan

Lend Lease

Project 4 Murray Rose

Asbestos (& Hazardous Building Material) Management Plan

No asbestos or hazardous building materials have been identified on the proposed site. Demolition at this stage is limited to hardstand and surface fencing. Should this condition change prior to commencing on site, this report will endeavour to outline the following processes:

- To appropriately remove any asbestos or hazardous building materials in site buildings or structures to be refurbished, disturbed or demolished prior to site works.
- To appropriately store, transport and dispose of all potential asbestos and hazardous building materials to a licensed waste facility.
- To prevent any impact to air quality or site work areas and adjoining properties via inappropriate handling, removal or disposal of asbestos or other hazardous building materials.

Appendix 6

LL Contaminated Soil & Water Management Plan

(To be confirmed by head Contractor upon appointment)

Lend Lease

Project 4 Murray Rose

Contaminated Soil & Water Management Plan

Objectives

To identify and remove any contaminated soils and/ or groundwater within the proposed development area that may be encountered during the demolition or construction works.

To render any contaminated soils/groundwater within the footprint of the proposed redevelopment suitable for either re-use on site or for off-site in accordance with relevant state legislation, regulatory requirements and environmental guidelines.

To minimise potential future environmental and human health risks associated with any contaminated soils/ groundwater within the proposed redevelopment area.

Key Management Issues

The potential for soil and/ or groundwater contamination at the site is identified to exist due to previous industrial processes undertaken on the site which may have included the use of selected chemicals such as hydrocarbons.

A Detailed Contamination Assessment Report was completed by Douglas Partners in September 2013. This report detailed the following conclusions and recommendations:

The 22 soil samples analysed from the 11 test locations exhibited contaminant concentrations within the adopted assessment criteria for the site. This result differs from the two development sites to the north (3 and 5 Murray Rose Avenue) and is likely to be due to the fact that very little filling was encountered on 4 Murray Rose Avenue when compared to the other sites.

Asbestos was not observed in the boreholes nor detected in the laboratory samples analysed, although the possibility of asbestos being present on the site should not be discounted due to previous demolition activities that have been undertaken.

On the basis of the results of this Detailed Site Investigation, the soils that will remain on the site following bulk excavation works are considered suitable for the proposed commercial land-use.

For the purposes of this preliminary report, management procedures have been included and listed below:

Site Controls

The first step in the sequence of operations is to plan the contaminated land contingency measures and integrate these with the construction and demolition program via a Preliminary Contamination Assessment and a Waste Classification Assessment.

Planning

Conduct a Preliminary Contamination Assessment (PCA) on the proposed works areas. The PCA will determine the extent and nature of contamination (if any) and identify any associated potential for significant risk of harm to human health or the environment. If existing information is deemed to be inadequate, a Contamination Expert will be commissioned to obtain additional relevant information (e.g. further investigations). If contamination within this area is identified as being within relevant environmental (National Environment Protection Council) thresholds, standard environmental procedures and controls (as outlined in this EMP) will be followed.

Integral to the PCA is the preparation of a Preliminary Waste Classification. The waste classification will be used to determine the appropriate waste classification of any excavated spoil ear-marked for off-site disposal. Waste soils will be classified in accordance with relevant environmental guidelines. The waste classification will include details of waste volume, type and nominated licensed landfill to receive the waste.

A Contaminated Soil & Water Diagram will be prepared for the site that details the designated storage locations for all dangerous goods on the site including key areas where these materials are used. The diagram will also include a list of key buildings or structures noted to contain Hazardous Building Materials.

Site Preparation

Provisions will be made on-site for the temporary stockpiling of soils pending either waste classification testing or advice from the Client (GPT) on the desired option for remediation and re-use (if required), this will require approval from both GPT and SOPA. The stockpile storage areas will be segregated into soils pending off-site disposal (contaminated separate from non-contaminated), soils suitable for immediate re-use on site and soils earmarked for remediation with the client (GPT) approval.

Lend Lease Building will obtain all relevant approvals and permits where required prior to the excavation, handling, transport or disposal of contaminated soils or water.

A civil works contractor with relevant licenses for handling and transported contaminated soils and hazardous building materials (i.e. asbestos) will be used, should it be required (at this stage it is not anticipated).

Construction & Demolition

No construction or demolition activities will be performed on the site until a PCA and Preliminary Waste Classification (if required) has been performed to identify and assess any risks associated with potential soil and/or groundwater contamination within that location.

Construction activities within the areas where contamination is unexpectedly discovered shall cease temporarily whilst the extent and nature of the impact is assessed by an independent Contamination Expert.

Appropriate environmental monitoring will be performed where required (i.e. VOCs, asbestos or dust) to ensure safe working conditions are maintained during the works.

Sub contractors will supply all appropriate personal protective equipment to site workers that likely to become exposed to potentially contaminated materials.

Where practical, soils ear-marked for off-site disposal will be classified based on in-situ sampling and analytical results to minimise the need for stockpiling contaminated materials on-site.

Contaminated materials requiring stockpiling will be placed in a suitably prepared area of the site with appropriate environmental and human health controls in place. These stockpiles will be segregated, clearly identified by signs and covered to minimise potential exposure.

Contaminated groundwater or surface water removed from excavations will be pumped into a site storage facility and tested prior to determining the appropriate method of disposal. Any disposal of wastewater should be supported by relevant waste disposal documentation.

Off-site Disposal of Excavated Spoil

Materials ear-marked for off-site disposal will be accompanied by relevant Waste Classification “letter-style” Reports. The Reports will confirm waste types and volumes and be supported by relevant analytical results. The Reports will accompany all materials to be disposed off-site to an appropriately licensed landfill facility. In return, the landfill waste recept dockets will be retained with the site records for audit purposes.

Remediation of Contaminated Soil/ Groundwater

Where contamination exceeds the relevant Authority Guideline thresholds as identified in the PCA, the appointed Contamination Expert will be requested to provide options for remediation of the materials. Remediation decisions will consider not only the levels of contamination present, but also the feasibility of various remediation options and the capacity of the site for re-use of any materials.

Soil and/ or groundwater remediation will be only be performed by Lend Lease Building under the written approval of the client (GPT). All remediation works will be performed in accordance with relevant legislation, planning and regulatory requirements.

Training

Communication and education material on the contaminated land and schedule wastes will be part of the Site Environmental Awareness Program that will be incorporated into the site induction program.

Performance Measure

Preliminary Contamination Assessment performed by Lend Lease Building with support of a Contamination Expert (where required) and copied to the Client (GPT).

Preliminary Waste Classification Assessment performed by Lend Lease Building with support of a Contamination Expert (where required).

Approval obtained from the Client (GPT) prior to appointing Contamination Expert.

Approval obtained from the Client (GPT) prior to commencing any Remediation.

Validation certificates obtained for all materials following remediation/ pre-treatment.

Lend Lease Building review methodology statement for contaminated material removal (as required) from engaged environmental consultant.

Retain all copies of tipping and disposal documentation to be supplied to Lend Lease Building and filed with site records.

Validation of any remediation works or materials identified for re-use onsite by a Contamination Expert.

Corrective Actions

Non-conformances are to be recorded by way of the System Defects.

The Subcontractor (and EM/ CM/ SM if applicable) shall review and analyse the cause of detected non-conformance and develop a corrective action to prevent recurrence. Details of the non-conformance including any immediate corrective actions undertaken are to be recorded, reviewed and accepted by the CM.

It is the responsibility of the Environment Manager(EM) to immediately initiate corrective actions following approval. The non-conformance and corrective action must include details of the action proposed, desired performance target and action close out date. The system defects report should be signed, dated and filed.

All corrective and preventative action taken by the Subcontractor will be carried out by and at the cost of the Subcontractor.

If such corrective and preventative action leads to further non-conformance, any further action shall be subject to approval by the CM in consultation with the EM.

Contaminated Soil & Water Management Implementation Plan

Control	Timing	Methodology	Responsibility	Monitoring and Reporting	Performance Measure
Planning					
Preliminary Contamination Assessment (PCA).	During design/ prior construction.	Review existing data. Additional information to be obtained by Environmental Consultant.	CM/EM	PCA prepared. Copy of Report to GPT.	No works performed in areas without PCA first completed. Need for remedial works identified.
Preliminary Waste (Soil) Classification	During design/ prior construction.	Environmental consultant to prepare plan based on design plans.	CM/EM	Preliminary Waste (Soil) Classification Report Prepared. Copy of Report to GPT.	Soil classified for off-site disposal. Need for any remediation works identified.
Assessment of Remediation Options	If PCA confirms contaminated soils.	Liaison with Environmental Consultant & Lend Lease Building.	CM/EM	Feasibility assessment provided to GPT.	GPT consent obtained prior commencing with any remediation.

Control	Timing	Methodology	Responsibility	Monitoring and Reporting	Performance Measure
Site Preparation					
Prepare designated stockpile areas (sealed & bunded) with suitable environmental controls for contaminated soil.	Prior construction.	Contractor to prepare area based on specification.	CM/SM	Inspection of stockpile area prior commencing works.	Area suitable capacity for volumes indicated in Waste Assessment Report.
Obtain relevant waste remediation/ transport/ disposal permits.	Prior construction.	Contractor to obtain relevant permits.	CM	Review permits and approvals prior works.	Copies of valid permits and approvals in site file.
Construction & Demolition					
Ceasing site works when contaminated soils/water are encountered.	At any time	Contractor to seek advice from project Environmental Consultant.	SM/ Contractor/ EM	Monitoring of all excavations works for potential contaminated material.	No environmental incidents. Contaminated materials identified & managed.
Segregation of contaminated soils / water from other inert wastes.	At any time	Contractor to segregate. Consultant to identify level/type of contamination. and place signage on stockpile.	EM	Routine inspection of stockpile areas.	Correct waste classification. No cross contamination of wastes. Appropriate signage present.
Minimise exposure of site workers to contaminated materials.	At all times.	Contractor to supply appropriate PPE and SWMS. Lend Lease Building to provide training and induction.	EM	Daily inspection of works areas.	No elevated environmental monitoring events. No notifications for incorrect/ inadequate PPE. SWMS are followed.
Safe storage of contaminated soils/ groundwater pending off-site disposal or treatment.	During construction & demolition.	Contractor to prepare designated waste storage area with environmental controls.	EM	Inspection of storage area prior commencement of excavation/ demolition works.	No uncontrolled runoff from stockpiles. No cross contamination of wastes.
Safe transport of contaminated soils/groundwater to receiving waste facility.	During construction & demolition.	Construction traffic routes to be followed. Approved and licensed contractor used.	SM	Inspect contractor licenses and insurance.	Copies of license and insurance in site files. No use of unauthorised traffic routes.
Remediation & Pre Treatment of Waste					
Where feasible, treat contaminated groundwater/ soil for suitable re-use onsite or disposal as lower waste classification.	When required.	Environmental consultant to provide Remediation Testing Advice.	EM	Approvals for treatment obtained. Validation certificates of remediated materials.	Approvals obtained prior treatment. Validation certificate obtained at completion of treatment. No environmental incidents during

Control	Timing	Methodology	Responsibility	Monitoring and Reporting	Performance Measure
					treatment.
Re-use on site					
On site re-use treated soils/ groundwater that achieves acceptable clean-up targets.	When remediation successful.	Environmental consultant to confirm fit for purpose.	SM/ EM	Remediation testing report confirms materials fit for purpose. GPT consent to reuse materials.	No soil/ water re-used without GPT or SOPA consent. Validation certificate for all re-used wastes.
Off-site Disposal					
Landfill disposal of contaminated soils.	Where remediation and reuse onsite is not feasible.	Contractor to obtain disposal approvals and permits. Environmental consultant to provide Waste Report.	SM	Inspect permits and approvals prior to loading transport vehicles. Waste report attached to waste documents.	Waste report present. Waste dockets correspond to waste volumes/types. Licensed landfill used.
Off site disposal of contaminated groundwater.	Where remediation and reuse onsite is not feasible.	Contractor to obtain disposal approvals and permits. Licensed liquid waste contractor used.	SM	Inspect permits and approvals prior to loading transport vehicles. Waste report attached to waste documents.	Waste report present. Waste dockets correspond to waste volumes/types. Licensed liquid waste facility used.
Validation					
Validation of remediation excavations/ materials.	At completion of excavations.	Environmental consultant to perform and confirm validation.	EM	Validation report to confirm subject materials or area suitably remediated.	Remediated materials deemed suitable for re-use. Remediated areas deemed fit for purpose.

Appendix 7

LL Waste Management Plan

(To be confirmed by head Contractor upon appointment)

Project 4 Murray Rose

Waste Management Plan

Objectives

The objectives of the Waste Management Plan are based on the hierarchy of avoidance/reduce, re-use, recycle, treat and dispose as outlined in the National Waste Minimisation and Recycling Strategy.

To re-use and/or recycle a minimum of 80% of all Hard Waste Material, and Soft Waste Material generated on the construction site, thus achieving up to 80% reduction/avoidance in waste to landfill.

Best Practice should be adopted wherever possible, to achieve waste minimisation and reduction. Key areas that will be targeted in the Waste Management Plan are:

- To avoid, whenever possible, the generation of wastes
- Demolition Materials (including hazardous building materials i.e. asbestos)
- Construction Materials
- Excavated Fill Materials
- Domestic & Human Waste
- Wastewater
- Litter generation due to construction activities

In addition the project will:

- liaise with Subcontractors to identify areas where they can reduce waste and reuse materials in their respective trades;
- meet local, state and federal waste minimisation legislation and environmental standards;
- prevent pollution and damage to the environment; and
- protect the safety and health of our employees, site personnel and the public.

Key Management Issues

The waste management strategy has been developed from best practice models. Waste Materials generated on site are to be managed such that recycling is maximised and the volume of waste transported to landfill is minimised.

Construction waste minimisation requires early planning and establishment of “Waste minimisation Culture” by all participants in the Design, Construction and End User process. Waste minimisation is a key element in life cycle analysis, material selection and specification.

Materials selected must be fit for use. The use of building materials that is fully recycled and/or include recycled material in their production will be maximised where practicable.

All disposal documentation from construction processes should be supplied to LL and filed in the site records for verification purposes.

Site Controls

Planning

A Waste Management Contractor will be involved in the early stage of the project to ensure effective planning for the waste management.

Major Subcontractors will be asked to submit prior to commencement on site waste minimisation details including as a minimum the following:

- practical measures associated with their works to prevent waste entering on site;
- waste streams resulting from their works which can be recycled and will be actively managed as part of their waste reduction plan; and
- alternative products containing recycled material that could be utilised in their works, in place of more traditional materials, which conform and meet with the design specification.

All suppliers of building materials will be encouraged to nominate packaging minimisation and reuse initiatives, which have been implemented, as part of product supply to the project.

Bulk handling and reusable/returnable transport containers will be encouraged.

Site set up will include measures to prevent litter entering the stormwater drains and waterways feeding to the adjacent parks, roadways and waterways.

Waste Management will be addressed at the design coordination meetings.

A Waste storage and Handling Diagram Waste will be prepared for the site showing details of the designated storage locations of Segregated waste, water / washout waste etc.

Pre-Construction Phase

Demolition

Specialist subcontractors will be used to remove classified material identified in the Noel Arnold Hazardous Material Assessment Report. These materials will be removed separately first and disposed of in accordance with relevant Authority requirements.

Demolition of the remaining components of the existing pavements, etc., will be conducted in a manner to maximise material recycling.

Construction Phase

Excavated Fill Materials

Any fill materials identified as requiring excavation from within development footprints will, where suitable, be re-used on the site as part of the site engineering or landscape works.

In the event that excavated soils are deemed unsuitable for re-use on site, the excavated fill materials will require initial waste classification testing in accordance with relevant authorities. Depending on the outcome of the waste classification, a suitably licensed landfill will be chosen to receive and dispose of the soils. Appropriate waste documentation and permits will be maintained throughout this process.

Options for either re-use or off-site disposal of excavated soil materials will be assessed at the design stage of the project.

Refer to *Contaminated Soil & Water Management Plan* Waste Bins

The Subcontractors will be responsible for the daily cleaning of their respective work areas and placing of their waste in the bins.

Adequate number of litter bins will be made available within the construction site areas, including work and lunch areas. These bins will be regularly emptied.

The Subcontractors working on site will place all their waste in the bins on site.

Waste Water / Washout Areas

Washout processes and facilities for paint and/or finishing trades are to be minimised and water recycling for these activities are encouraged where possible.

Utilisation of LL guidelines/management plan for disposal of paint and associated wastes are to be implemented.

Finishing trades washout facilities will **NOT** be plumbed to any building services and will be of a stand-alone nature. The maintenance of these facilities should be the subcontractor's responsibility and should comply with all appropriate Environmental Legislation and local authority guidelines.

Packaging

All suppliers of building materials will be encouraged to nominate packaging minimisation and reuse initiatives, which have been implemented, as part of product supply to the project. Bulk handling and reusable transport containers will be encouraged.

Recycled Materials

Suppliers will be encouraged to nominate products that include a recycled component and ability/opportunity for recycling of unused components in accordance with the specified 80% waste reduction target. Product selection will include a selection factor associated with recyclability and percent of recycled product.

Domestic & Human Waste

All domestic waste including litter will be managed via a similar bin system that will be provided in the vicinity of designated eating areas, kiosks and kitchen. Materials collected for recycling will include:

- Paper/Cardboard
- Food waste
- Aluminium Cans
- Drink containers: Glass & co-mingled
- General waste

Construction and demolition waste bins and domestic waste bins will be located in separate designated areas on the site to ensure appropriately safe storage and collection of waste. Waste areas will be clearly signposted and colour coordinated to define acceptable waste types suited for each bin and secured where required. The location of the waste bins and recycling areas will be marked on the site waste management plans.

All human waste and associated waste water will be collected via the provision of portable toilet and sanitary systems during the construction and demolition period. Where practicable, temporary connection will be made to the existing sewer services on site. Where these facilities are too remote to

prevent connection, a licensed waste contractor will be appointed to manage the waste collection and disposal in addition to general maintenance and cleaning of the toilets.

Training

Communication and education material on the waste management system will be part of the Site Environmental Awareness Program that will be incorporated into the site induction program.

Additional third party training will be investigated when a waste contractor is nominated.

The responsibility to ensure that waste materials go into the correct bins will be with everyone on site.

Performance Measures

A Waste Management Contractor will be involved in the early stage of the project to ensure effective planning for the waste management.

The Waste Management Contractor will coordinate waste recycling, recovery and disposal of all waste during all stages of the project.

The waste system (bins / signage / training) is in place prior to any major waste generation works.

All waste transportation and disposal documentation to be maintained on-site and signed as received or disposed by the appropriate contractor or waste receiving facility.

Destination of all wastes to be approved by the receiving waste facility prior to the commencement of works.

Monitoring and Reporting

The Waste Management Contractor will be responsible for providing monthly reports to the SM: the number and size of bins taken away, tonnages and m^3 taken away and tonnage's and m_3 recycled. This will include the final destination of materials for recycling.

The Waste Management Contractor will be responsible for providing dockets to the SM for the removal and appropriate disposal of scheduled waste from the project.

The SM will produce monthly reports and other statistic information as per LL EH&S requirements.

The LL Project EH&S Manager will formally audit the progress on waste management from the above monthly reports to ensure waste reduction targets are met and appropriate waste documentation maintained.

Corrective Actions

Non-conformances are to be recorded by way of the System Defects.

The Subcontractor and LL SM/CM if applicable shall review and analyse the cause of detected non-conformance and develop a corrective action to prevent recurrence. Details of the non-conformance including any immediate corrective actions undertaken are to be recorded, reviewed and accepted by the CM.

It is the responsibility of the CM to immediately initiate corrective actions following approval. The non-conformance and corrective action must include details of the action proposed, desired performance target and action close out date. The system defects report should be signed, dated and filed.

All corrective and preventative action taken by the Subcontractor will be carried out by and at the cost of the Subcontractor.

If such corrective and preventative action leads to further non-conformance, any further action shall be subject to approval by the CM in consultation with the Project EH&S Manager.

Waste Management Implementation Plan

Control	Timing	Methodology	Responsibility	Monitoring & Reporting	Performance Measure
Waste Identification					
A Waste storage and Handling Diagram Waste will be prepared for the site showing details of the designated storage locations of Segregated waste, water / washout waste etc.	Prior to works commencing	In accordance with the Waste Management Plan.	CM/SM	Review of Diagram prior to works commencing.	Diagram Map prepared & containing all relevant details.
Hazardous building materials to be identified in Hazardous Materials Building Survey	Prior to demolition works commencing.	Independent surveyor to prepare a Hazardous Materials Register	CM	To be reviewed by PM and incorporated into WMP.	Preparation of functioning HazMat Register for building materials.
Project waste types to be identified and quantified	Prior to works commencing	Coloured bins will be supplied for the nominated waste streams in accordance with the Waste Management Plan.	CM/ PM	To be reviewed by PM and incorporated into Waste Management Plan	List of relevant waste streams and volumes from construction & demolition.
Waste Disposal					
Remove all hazardous building materials off-site.	Prior to demolition works.	Appropriately licensed contractor to remove and transport waste to license landfill	SM	Air quality monitoring daily. Clearance Survey by hygienist as required.	Non detect asbestos during ambient air monitoring. Landfill disposal dockets.
Segregation and storage construction/demolition and domestic waste prior offsite disposal.	At all times	Waste contractor to address and follow legislative requirements.	SM	Weekly inspection of Waste Collection Areas.	No cross contamination of wastes. No spillage or loss of wastes from collection containers in storage compound. Waste dockets.
Transport and handling of demolition/ construction waste and domestic waste by licensed	At all times	Only approved contractor to be used. Appropriate SWMS for transportation of	SM	Random inspection of waste transport licenses. Random inspection of waste transport	Correct covers and containers for waste transfer. No spillages/loss of

Control	Timing	Methodology	Responsibility	Monitoring & Reporting	Performance Measure
contractors.		waste		vehicles.	waste during transport.
Demolition / construction and domestic waste disposal to correct licensed waste receiving facilities	At all times	Only approved waste receiving facilities to be used.	SM	Waste classification reports. Inspect as required.	Waste disposal dockets correspond to waste types/volumes.
Disposal of excavated fill materials deemed for off-site disposal.	Prior Construction	Waste soils (if any) classified in accordance with relevant authority Guidelines (eg: DEC, EPA etc). Licensed waste contractor and landfill used	SM	Waste classification reports. Inspect as required.	Waste disposal dockets correspond to waste types/volumes
Collection and storage of wastewater from site operations (i.e. paint washing) or temporary facilities (i.e. toilets).	At all times	Design and installation of appropriate wastewater collection/storage system.	SM	Weekly inspection of bunds, drains and sumps.	No wastewater spills or uncontrolled discharges.
Appropriate disposal of all wastewater from site operations (i.e. paint washing) or temporary facilities (i.e. toilets).	At all times	Collection and disposal of wastewater by approved licensed contractor	SM	As Required	Waste disposal dockets correspond to waste types/ volumes.
Recycling					
Waste building or demolition materials (i.e. concrete, timber, steel, etc) to be segregated and stored in separate site bins.	At all times	Appropriately designed waste storage areas with designated recycling bins.	SM	Weekly inspection	Clean waste bin area. No cross contamination of waste types.
Segregated waste building/demolition materials are appropriately recycled.	At all times	Approved waste recycling contractor to collect bins for recycling.	SM (Environmental Manager if appropriate)	Established collection schedule. Audit actual recycling volumes compared to waste recycling targets (%).	Waste recycling dockets. Waste recycling targets are met.
Minimisation					
Excavated material to be reused or recycled where possible.	As required.	Independent contractor to test soils for environmental/ geotechnical parameters.	CM/SM	Soil testing reports to confirm suitability for re-use. Review by Environment Manager.	No contaminated soils re-used on site.
Any fill imported	As required.	Indentation of	CM/SM	Certificate of	Certificate

Control	Timing	Methodology	Responsibility	Monitoring & Reporting	Performance Measure
onto the site is to consist of certified clean material only		material.		suitability.	provided prior to bring to site.
Minimise packaging and maximise use of recycled products by contractors.	At all times	Review contractor materials and packaging proposals	CM/SM	Inspect material deliveries/ specifications.	Proven examples of minimal packaging and recycled materials.
Site Offices					
Recycling bins shall be provided with the site working area.	As required.	Coordinated with existing operational facility.	CM/SM	Ensure waste is disposed in accordance with existing operations.	Monthly EH&S Managers review.
Site amenities shall be provided on-site as required.	Prior to works commencing.	Coordinated with site population numbers.	CM/SM	Ensure waste is disposed in accordance with existing facilities requirements.	All waste disposed of appropriately.

Appendix 8

LL Stormwater & Erosion Management Plan

(To be confirmed by head Contractor upon appointment)

Lend Lease

Project 4 Murray Rose

Stormwater & Erosion Management Plan

Objectives

To avoid erosion, contamination and sedimentation occurring as a result of the construction or demolition activities associated with the redevelopment.

To control the quality of stormwater leaving the construction site such that no unacceptable impact occurs to adjoining natural watercourses or stormwater drains discharging into these water bodies.

Minimise disturbance to the hydrologic regime of the surrounding landscape and maximise opportunities for stormwater recycling on the site.

Key Management Issues

The construction and demolition works have the potential to adversely impact ecosystems and water quality within adjacent surface water bodies including Waterways via sediment loads and potential contaminants contained in runoff. Potential impacts to the site environment, including existing soils and groundwater also need to be considered as part of any stormwater and erosion management plan. Other physical impacts to be considered include the susceptibility of the site to potential flooding events.

The following activities are expected to be the key risk sources during construction:

Site clearing, spoil and material stockpiling.

The following management issues have been assumed and will be validated by the head contractor:

Sediment laden water from the construction site may potentially flow into the stormwater system and/or adjacent surface water bodies (Environmental Class P2 Risk);

Stormwater with excessively high or low pH values could run-off from the selected stockpiles stabilisation area (Environmental Class P3 Risk);

Stormwater collected in excavations and requiring disposal (Environmental Class P3 Risk);

Groundwater entering excavations and requiring disposal after dewatering (Environmental Class P1 Risk).

Site cut off drains eroding and increasing site water sediment loads (Environmental Class P3 Risk);

Vehicles leaving the construction site depositing dirt/mud on public roads after rain periods (Environmental Class P3 Risk);

Removal of bulk material off site escaping from vehicles and polluting roadways (Environmental Class P3 Risk); and

Debris and litter collecting along roads and in catch drains and consequently could affect nearby water bodies quality (Environmental Class P2 Risk).

Site contamination through the potential for an overflow of fuel/chemical storage containers and contamination from the equipment and plant repair area into the surrounding Waterways (Environmental Class P1 Risk

Stormwater runoff coming into contact with potential contaminated soils may potentially flow into the stormwater inlets and thus nearby Waterways, natural water courses could be affected and consequently reduce water quality (Environmental Class P2 Risk);

Site Actions

The prevention of soil erosion by water and wind and by sediment pollution are key components of the Stormwater and Erosion Management Plan for the site.

A Stormwater & Erosion Control Diagram will be prepared prior to site activity and Bulk Earthworks. The diagram will detail collection points, temporary drainage flows, sediment controls and general stormwater overflow management.

Construction stage water quality impacts shall be minimised by incorporation of appropriate erosion and sediment control measures in the detailed design, specification and contract arrangements and quality assurance inspection during construction.

Adopt best practice environmental management strategies in accordance with the principles outlined in the Department for Infrastructure, Planning & Natural Resources) document titled "Guidelines for Erosion & Sediment Control on Building Sites" and other key reference documents and legislation previously outlined.

Planning

Locate all stockpiled soils away from surface waters, potential watercourses and flood prone areas.

Limit land disturbance to the area needed, especially in the vicinity of existing stormwater drainage.

Cease works if excess dust is being generated and resolve the problem prior to recommencing works.

Restrict construction and demolition traffic to designated traffic routes that are well drained and all weather.

Annual weather patterns to be taken into account when planning general site operations and in particular during planned excavations or land disturbance activities.

Clearly identify, demarcate and fence off areas of vegetation or landscape on or near the boundaries of proposed excavation and demolition footprint to indicate these areas are not to be entered or disturbed.

Controls

Divert up slope runoff around disturbed areas;

Construct earth bunds and similar diversion drains to divert surface water runoff around the perimeter of the proposed demolition or construction areas. Where possible, seed all diversion channels to dissipate water velocity.

Install temporary sediment and erosion controls to prevent the erosion of soil from disturbed construction areas and stockpiles. Measures may include filter barriers (straw bails or silt fence), temporary covering or revegetation with hydro-mulching and native seeding.

Control access to construction areas by limiting entry and exit points. Ensure all approved access points shall be marked prior to the commencement of construction within that area.

Reduce the erosive energy (concentrated flow and velocity) of water using measures such as temporary storage, dissipaters, level spreaders and drain grass planting's.

Prevent deposition of sediment on the public road network due to truck / equipment movements to and from the site via a purpose built truck/wheel wash facilities at site exit point.

Collection of stormwater into temporary detention basins (refer to de-watering procedure)

Progressive landscaping and rehabilitation of disturbed areas in accordance with the DA Conditions and SOPA Guidelines.

Sediment Fences / Devices:

Sediment fences and devices will be used in areas where temporary sediment control is required. These relatively simple devices will dissipate stormwater velocity and collect moving solids.

Throughout the Pre-excavation and Post Road Construction period of excavation and construction, temporary sediment fences and devices will need to be positioned where erosion is most severe.

Sediment fences will be placed downstream of stockpiles and disturbed areas. It is important that sediment is collected adjacent to these areas to prevent loss of material downstream.

Sediment devices will be placed in areas where energy dissipation is required. When constructed these systems are commonly known as check dams and are placed in areas where a major flow path exists. Straw bales filter coarse sediments but tend to be less effective with fine sediments. For this reason all Straw bales will be lined on the upstream side with a geotextile filter fabric where appropriate. Straw bales will be secured with three stakes and positioned so the bale twine does not degrade due to direct sunlight.

Rehabilitation

On completion of works decommission sediment traps constructed as part of the temporary works by removing all silt material from the base of the trap, removing the trap wall and filling the trap with compacted fill. The diversion drains will be graded to match surface levels.

Temporary silt traps or sediment control devices will not be removed for landscape or streetscape works, but shall only be removed following stabilisation of disturbed areas.

For rehabilitated areas, maintenance will continue until vegetation is well established and can be managed as part of the Building Manager and SOPA.

Maintenance of Controls:

Perform routine maintenance inspections of the stormwater diversions and sediment and erosion controls, particularly after rainfall events or extremely windy conditions.

Where required, clean or repair diversion drains, storage basins, silt fences and other related control structures to ensure the continued effective operation of these over the duration of the construction and demolition period. Future management of these structures, if required, will be stipulated in the Landscape Management Plan for the site.

Stormwater Re-use:

Any stormwater entering the excavation or works areas will be collected and retained for re-use on-site for uses ranging from dust suppression on construction roads to landscape watering.

Controlled Discharges (Dewatering):

Lend Lease Building is committed to Stormwater Management during construction, and as such, operates without formal licences but in accordance with industry best practice for the management of stormwater and de-watering discharge. LLB and SOPA approval is required prior to each proposed discharge; discharge must be in accordance with criteria set out in SOPA Policy 13-4 – Stormwater Management and Water Sensitive Urban Design Policy.

All site waters during construction and landscaping shall be contained on site, and released only when suspended solids are less than 50mg/L (for storms less than 1 in 5 year time of concentration) in order to avoid pollutants entering the Council's stormwater drainage system.

The collection of stormwater/ground water on a project could be discharged to the stormwater system if it meets certain criteria. This would involve an analysis of the quality of receiving waterways and the collected water within the project boundary. This analysis would need to be carried out by a NATA accredited laboratory and the results and final report supplied to Lend Lease Building and be made available on request by SOPA.

The analysis would need to demonstrate that the collected water within the project boundary does not exceed the tested parameters and have no evidence of the following substances detected:

nutrients, from fertilisers;

herbicides and pesticides used in landscaping;

acids from washing;

building wastes and litter;

paint and paint wastes; and

oils, grease and fuel, from equipment operation and maintenance.

Note:

This initial analysis should be engaged by the Lend Lease Building site project team to an Environmental Consultant to prepare and interpreted the results for verification and acceptability before any pump-out work can commence.

An on site treatment with discharge to stormwater system could be implemented providing that there is no chemical contamination (as listed above) and water quality during construction must comply with any specific requirements of the Local Planning Authority. In addition to the schedule of analytes outlined below, the potential for contamination of the retained waters should also be determined and if required, additional analysis performed to meet criteria.

pH is between 8.5 and 6.5

suspended solids is less than 50 mg/L,

Note:

This site treatment should be sub contracted to an appropriate contractor and the test results supplied to Lend Lease Building and filed in the site records for verification purposes.

Treatment options could include the use of a mobile specialist plant for this procedure and may prove more cost effective than a procedure of pumping out and/or on site storage of this water.

Ongoing water quality monitoring would need to performed and the contractor engaged to do this work would need to provide a safe work method statement (SWMS) detailing the frequency of sampling and on site procedures to ensure discharge does not exceed the criteria.

Training

Communication and education material on the stormwater, erosion and sediment controls will be part of the Site Environmental Awareness Program that will be incorporated into the site induction program.

Performance Measures

Control structures constructed and operational prior to earthworks commencing in the nominated area.

All site cut-off drains unobstructed.

All major site drains adequately stabilised.

All controls maintained and functional.

All stockpiled material adequately stabilised and protected.

No de-watering stormwater/ground water discharge from the site in a 5 year ARI storm event have a suspended solid content of less than 50mg/L.

Appropriate parameters for any contaminants of concern (if present) meet the relevant ANZECC (2000) criteria.

No complaints concerning mud/organic debris on the surrounding public roads to the site.

Monitoring and Reporting

At least weekly, the Bulk Earthworks or Maintenance Subcontractor or nominated Stormwater/ Sediment Control contractors will inspect (and document) the site and, providing particular attention to the following matters:

Perform daily visual inspection of stormwater diversions and sediment/ erosion control devices ensuring they are operating effectively and at full capacity.

Maintain erosion and sediment control measures in a functioning condition until all earthwork activities are completed and the site is rehabilitated.

Devise and implement appropriate remedial measures where any controls or devices are not functioning effectively or are inappropriate.

Ensure rehabilitated lands have effectively reduced the erosion hazard and initiate upgrading or repair as appropriate.

The SM will maintain records and comments on the condition of existing erosion and run-off controls (drains, silt fences, catch drains etc.) de-watering procedures and test results, and any site instruction issued to Subcontractors to undertake remedial works.

Rainfall data will be filed on site by SM and discussed where reports of poor drainage areas occur.

Water quality parameters meet relevant discharge limits for either re-use on-site or via a controlled discharge.

All daily inspection reports, environmental incidents and controlled discharge records will be maintained and may be reviewed during any Environmental Audit performed on the site.

Corrective Actions

Non-conformances are to be recorded by way of the System Defects.

The Subcontractor (and EM/ CM/ SM if applicable) shall review and analyse the cause of detected non-conformance and develop a corrective action to prevent recurrence. Details of the non-conformance including any immediate corrective actions undertaken are to be recorded, reviewed and accepted by the CM.

It is the responsibility of the EM to immediately initiate corrective actions following approval. The non-conformance and corrective action must include details of the actions proposed, desired performance target and action close out date. The system defects report should be signed, dated and filed.

All corrective and preventative action taken by the Subcontractor will be carried out by and at the cost of the Subcontractor.

If such corrective and preventative action leads to further non-conformance, any further action shall be subject to approval by the CM in consultation with the EM.

Stormwater & Erosion Management Implementation Plan

Control	Timing	Methodology	Responsibility	Monitoring and Reporting	Performance Measure
Planning					
Prepare a Stormwater & Erosion Control Diagram outlining environmental safeguards.	Prior to works commencing	In accordance with the Stormwater & Erosion Management Plan.	CM/SM	Review of Diagram prior works commencing.	Diagram prepared & containing all relevant details.
Installation of Stormwater & Erosion environmental safeguards.	Prior to works commencing	In accordance with Stormwater & Erosion Management Plan & Civil Engineering consultant's documentation.	CM/SM	Weekly inspection	Pre-construction check and daily there after.
Stormwater & Erosion Controls					
Silt stop filter fences to be located below disturbed areas and across all potential runoff sites.	Prior to works commencing	In accordance with the Stormwater & Erosion Management Plan.and Civil Engineering consultant's documentation.	CM/SM	Daily visual inspection & Weekly documented inspection.	Pre construction check. Silt collected at base of fence. No breach of fence line
Truck wheel wash/ shake facility to be installed near construction access.	Prior to construction commencing	Detailed work method statement to be prepared by sub-contractor.	CM/SM	Pre-construction check and daily /weekly maintenance inspections.	Pre-construction check. No mud/silt tracked onto roadways.
Stockpiles located away from watercourses, sensitive ecosystems or flood prone areas.	Prior to construction commencing	Contractor to perform in accordance with the Stormwater & Erosion Management Plan.	CM/SM	Pre-construction check and daily /weekly maintenance inspections.	Pre-construction check. No mud/silt migration into waterways, ecosystems or off-site.
Stockpiles left for > one month to be temporarily seeded using sterile crops.	1 month after stockpile placement	In accordance with the Stormwater & Erosion Management Plan.	SM/EM	Weekly monitoring.	No erosion from stockpiles.
Stormwater inlet sediment traps to be installed.	Prior to construction commencing	In accordance with the Stormwater & Erosion Management Plan & Civil Engineering consultant's documentation	CM/SM	Weekly inspection	Sediment collected in traps.
All erosion controls to be maintained until potential for erosion and sedimentation passed.	At all times	In accordance with the Stormwater & Erosion Management Plan.	SM/ EM	Weekly inspection	Retaining all controls effective. No uncontrolled discharges of sediment off-site or into waterways.
Stormwater & Runoff					
Parking area and site	Prior to	In accordance with	CM/SM	Pre-construction	No sedimentation

Control	Timing	Methodology	Responsibility	Monitoring and Reporting	Performance Measure
facilities to be of aggregate material.	construction commencing	the Stormwater & Erosion Management Plan.		inspection	from parking/site facilities.
Collected stormwater to meet reuse onsite or discharge requirements.	Ongoing	In accordance with the Stormwater & Erosion Management Plan and WMS to be prepared by sub-contractor.	EM	Daily inspection and NATA test results.	No discharge to exceed controlling Authority criteria.
Install sediment control devices upstream of existing stormwater pits.	Prior to construction	In accordance with the Stormwater & Erosion Management Plan.and Civil Engineering consultant's documentation.	CM/ SM	Monitor for siltation and sedimentation at downstream locations.	Effective sediment traps.
Stormwater pipes and pits should be well maintained and kept clear of debris and sediment.	Ongoing	In accordance with the SEMP.	SM/ EM	Daily/weekly inspection	Free flowing pipes capable of discharging maximum flows. Monitor for potential blockages.
Sediment Retention					
Sedimentation basin size and construction to meet requirements of the publication mentioned in the Key legislation under key management issues.	Prior to construction	In accordance with the publication mentioned in the Key legislation under key management issues	CM	Daily/weekly inspection	Effective basin that is easily cleaned and maintained. Monitor for sediment build-up and litter collection.
Within 24hrs of a 1in 5 year ARI storm event, inspect the sediment/detention basin and stormwater treatment devices and remove any build up of debris.	As required by storm events	In accordance with the Stormwater & Erosion Management Plan.	EM	Daily/weekly inspection	Basin clear of storm debris.
Rehabilitation					
Stabilisation works & landscaping of batters, open drain etc will be given high priority to ensure that bare ground is rehabilitated.	As required	In accordance with the Stormwater & Erosion Management Plan & Landscape scope of works	CM/ SM/ EM	Daily/weekly inspection Project planning and design meetings.	Appropriate stabilisation of works.

Stormwater and Erosion Control plans will be developed further by the head contractor prior to issuing the final CMP.

Appendix 9

Dust Control Plan

(To be confirmed by Head Contractor upon appointment)

Project 4 Murray Rose

Dust Control Plan

Objectives

Construction and demolition must not prejudice air quality.

Maintain the current levels of local air quality during construction activities.

To minimise the generation of dust on the project site.

To implement appropriate controls to suppress dust and other suspended particulates in accordance with the consent conditions and risk management requirements.

To minimise all potential odour issues relating to contaminated soil or groundwater.

Key Management Issues

Major sources of air emissions from the proposed demolition and excavation works at the site are primarily associated with traffic movements (soil dust and diesel emissions), excavation /stockpiling and handling of soils on site (soil dust) and demolition of buildings and structures (building and materials dust)

The generation of dust, air emissions or odours from the site can be a major nuisance to adjacent land users, create unsafe working conditions on site and result in environmental degradation via the loss of topsoil and placement of dust onto sensitive ecosystems and adjacent water bodies. In view of this, the following management issues have been identified:

1. Dust generating from construction activities from the site affecting adjoining properties or public access (Environmental Class P2 Risk).
2. Dust generated on the construction site affecting site operations (Environmental Class P2 to P1 Risk).
3. Odours (i.e. volatile hydrocarbons) emitted from any disturbed contaminated soils/ groundwater affecting site workers or site personnel (Environmental Class P2 Risk).

Refer to *Asbestos (& Hazardous Building Materials) Management Plan.*

Site Controls

The minimisation of air-borne pollution is a key component for this environment management plan for the site. Construction and demolition phase air quality impacts shall be minimised or avoided by incorporation of appropriate air quality control measures.

Air Quality Monitoring Equipment Diagram will be prepared prior to site activity and Bulk Earthworks, detailing the locations and type of equipment eg dust gauges or dust loggers.

The installation and application of air quality controls during the construction phase shall be in accordance with the following principles:

Planning

4. Ensure that all equipment used and all facilities erected on site are designed and operated to control the emission of smoke, dust, fumes and any other air impurity into the atmosphere;
5. spray earthworks, roads and other surfaces as necessary with water;
6. seal temporary haul roads where appropriate which will be in use for prolonged periods;

Construction & Demolition Phase

7. Schedule the civil works program in a manner to minimise the length of time that excavations and stockpiles are left exposed.
8. Provide adequate truck washdown and wheel washing facilities on site to preventing tracking of muds/ sediment onto public roadways and generating dust.
9. Transport routes and traffic areas shall be clearly defined by marker posts or other suitable barriers to prevent unnecessary vehicle movement onto other areas. These roads shall operate under defined speed limits.
10. A water cart will be employed as required to dampen work areas and exposed soils to prevent the emission of excessive dust from the site.
11. Trucks transporting material from the site shall be covered immediately after loading to prevent windblown dust emissions and spillages. The covering must be maintained until immediately before unloading the trucks.
12. All access roads shall be surfaced in selected materials and where required, hard surfaced. Mud stone, clay stone and shale stone shall not be used.
13. Subcontractors will maintain all construction equipment to ensure exhaust emissions comply with the relevant Air Regulations issued under State Legislation.
14. All waste material will be removed from the site in a manner described in the Waste Management Plan.
15. No cleared vegetation, demolition materials and other waste material shall not be burnt on the site.
16. No excavation or similar works involving disturbance of large volumes of soil will be permitted during extremely windy conditions.
17. Progressively revegetate and landscape disturbed areas to minimise long durations of soils exposed to weathering. Seed stockpiles with local grasses.
18. Development and implementation of an Asbestos (& Hazardous Building Materials) Management Plan.

Training

Communication and education material on the dust controls and procedures will be part of the Site Environmental Awareness Program that will be incorporated into on site training and tool box talks.

Performance Measures

19. Achieve air quality monitoring targets.
20. No visible dust for more than 15 continuous minutes during construction activities.
21. No odour or dust complaints received from adjoining operations, nearby residents or from statutory Authorities.

Monitoring and Reporting

The SM will perform air quality monitoring to determine of the acceptable air quality thresholds are being met for each of the nominated monitoring parameters. This information will be used to determine the effectives of existing air quality mitigation measures and provide for any remedial actions if required.

The Site Manager will visually monitor levels of dust deposition and air quality, the effectiveness of dust emission controls and the construction site and the impacts of any nuisance on adjoining properties.

The SM may require the Subcontractor to carry out additional Air monitoring if a complaint regarding Air Quality is received.

The SM in consultation with the EM will advise the monitoring location and the monitoring required will be manned monitoring.

Corrective Actions

Non-conformances are to be recorded by way of the System Defects.

The Subcontractor (and EM/ CM/ SM if applicable) shall review and analyse the cause of detected non-conformance and develop a corrective action to prevent recurrence. Details of the non-conformance including any immediate corrective actions undertaken are to be recorded, reviewed and accepted by the CM.

It is the responsibility of the EM to immediately initiate corrective actions following approval. The non-conformance and corrective action must include details of the action proposed, desired performance target and action close out date. The system defects report should be signed, dated and filed.

All corrective and preventative action taken by the Subcontractor will be carried out by and at the cost of the Subcontractor.

If such corrective and preventative action leads to further non-conformance, any further action shall be subject to approval by the CM in consultation with the EM.

Air Quality Management Implementation Plan

Control	Timing	Methodology	Responsibility	Monitoring & Reporting	Performance Measure
Planning					
Prepare an Air Quality Management Diagram Detailing the locations and type of equipment being used at all stages of works.	Prior to works commencing. Review prior following works stages.	Hand Marked up diagram	SM	Review of Diagram prior to works commencing.	Diagram covers all key areas and site specific considerations. Detailing the locations and type of equipment eg. dust gauges or dust loggers.
Areas to be disturbed will be limited in order to minimise surface with potential to	Prior to works commencing.	In accordance with Air Quality Management Plan.	SM	Weekly inspection or as required.	No visible dust. Acceptable dust monitoring levels.

Control	Timing	Methodology	Responsibility	Monitoring & Reporting	Performance Measure
generate dust.					
Dust Controls					
Exposed surfaces and stockpiles to be kept moist by spraying with water or dust suppressant	Daily or as necessary when dry and windy weather conditions prevail.	In accordance with the Air Quality Management Plan.	SM	Daily inspection and monitor activities for dust generation.	No visible dust. No reported dust monitoring exceedances.
Exposed surfaces and stockpiles left for longer than 4 week to be stabilised by sealing, seeding or spraying with water or dust suppressant.	Four weeks from completion of activity.	In accordance with the Air Quality Management Plan	SM	Daily inspection and monitor moisture content of exposed areas.	No visible dust. No reported dust monitoring exceedances.
Avoid soil disturbance works during periods of high wind or other extreme weather conditions.	At all times	In accordance with Air Quality Management Plan.	SM	Monitoring of predicted meteorological conditions.	No works performed during high wind or rainfall events.
Immediate stabilisation works & landscaping batters of disturbed grounds undergoing rehabilitation.	As required	In accordance with the SEMP & landscaping works	CM/SM	Daily/weekly Inspection Project planning and design meetings.	Appropriate stabilisation of works. No areas left exposed for prolonged periods.
Appropriate stabilisation of works. No areas left exposed for prolonged periods.	Prior to construction commencing	Detailed work method statement to be prepared by subcontractor	CM	Pre-Construction inspection	No dust generated by traffic on leaving site.
Maintain clean traffic routes and 20km/hr speed limit within site and at site entrance/exist.	Ongoing	Appoint street sweeper and water kart.	SM	Weekly inspection of exterior roadways or immediately after rainfall events.	No complaints from public or authorities. No dust from exterior roads. No speeding vehicles.
All parking areas and roads to be sealed or constructed from gravel or non-dust generating materials	Prior to construction	In accordance with the Air Quality Management Plan	SM	Pre-Construction inspection.	No parking on unsealed areas. No parking off-site.
Truck transporting loose material to and from the site to be covered.	At all times.	In accordance with the Air Quality Management Plan.	SM	To be put into tenders for sub-contractors. Compulsory inspection at gate prior to entrance into site.	No visible loose material from trucks. No community complaints.

Control	Timing	Methodology	Responsibility	Monitoring & Reporting	Performance Measure
Appropriate controls during removal and handling of building materials containing asbestos or lead-based paints.	At all times.	In accordance with Asbestos (& Hazardous Building Materials) Management Plan.	CM/SM	Intensive air quality monitoring during and after works. Clearance by occupational hygiene officer.	Building & area cleared of hazardous dust. Non-detect asbestos/lead dust during monitoring.
Dust Quality Controls					
Minimise potentially contaminated dusts being generated from any contaminated site soils.	At all times	In accordance with Air Quality Management Plan.	SM	Dust monitoring to include parameters when contaminated soils encountered or disturbed.	No contaminants detected in dust monitoring samples.
Vapour & Emission Controls					
No elevated Volatile Organic Compound (VOC) vapours within work areas.	At all times.	In accordance with Air Quality Management Plan. Applied for HS&DG use or in contaminated areas.	CM/SM	Intensive air vapour monitoring (and personal air monitoring if required) during and after works by consultant.	No elevated VOCs detected during works. No works performed whilst elevated VOCs are detected in work areas.
Combustible waste material shall not be burnt on site.	At all times	Covered in site induction.	SM	Continuous monitoring. To be put into tenders for sub-contractors.	No fires or incineration on site form construction or demolition works.
Plant and equipment to be fitted with standard pollution/noise control devices.	Prior to construction commencing.	In accordance with the Air Quality Management Plan.	SM	Routine inspection. To be put into tenders for sub-contractors.	Copies of compliance certificates to be supplied. No complaints from site personnel or adjacent land users.

Appendix 10

Sydney 500 v8 Supercars Event

(To be provided by Homebush Motor Racing Authority as dates are confirmed)

Appendix 11

Green and Golden Bell Frog Sub-Plan

(To be provided by Ecology Consultant upon appointment)