Construction Environmental Management Plan

Project Name:	Sydney Metro City & Southwest Demolition		
Client Name:	Transport for New South Wales		
Project Address:	Delta will demolish nominally 58 buildings across the following sites: 1. Chatswood; 2. Crows Nest; 3. Victoria Cross (comprising Victoria Cross 1 and Victoria Cross 2); 4. Pitt Street; 5. Waterloo; 6. Marrickville.		
Project Description/Scope:	Delta Pty Ltd (Delta) is responsible for the full structural demolition of existing structures including removal of all hazardous materials, across Work Packages A and C of the Sydney Metro City & Southwest Demolition Project. Delta is responsible for the full design and certification including any investigation work of temporary shoring measures to enable safe demolition below ground levels.		
Prepared By:	Name: Martin Hicks	Signature:	Date: 17/03/2017
Authorised By (Project Director):	Name: Ben Shum	Signature:	Date: 17/03/2017

Contents

List of Abbreviations

CEMP	Construction Environmental Management Plan
CMP	Construction Management Plan
CoA	Minister for Planning and Environment's Conditions of Approval
DEMP	Delta Environmental Management Plan
EIS	Environmental Impact Statement
EMS	Environmental Management System
ER	Environmental Representative
IMS	Integrated Management System
ISO	International Standards Association
PIR	Preferred Infrastructure Report
QF	Delta Quality Form
SEF	Delta Safety and Environmental Form
SER	Summary Environmental Report
SMR C	Sydney Metro Requirements – Stakeholder and Community Liaison- Demolition
SMR E	Sydney Metro Requirements – Environment - Demolition
SMR PA	Sydney Metro Requirements – Project Administration – Demolition
SPIRP	Spill Pollution Incident Response Plan
SOP	Delta Standard Operating Procedure
SWMS	Safe Work Method Statement
SWTC	Scope of Works and Technical Criteria

1 AUTHORISATION AND CONTROL

1.1 Authorisation

This Plan is authorised by the Project Director. All project personnel are to ensure that their work activities and those of Project Consultants, Contractors and Suppliers are carried out in accordance with the requirements of this Plan.

1.2 Distribution

This Plan is a Controlled Document and must be distributed and revised under the guidance of the Project Manager. People who hold Controlled copies are responsible for maintaining their copies up-to-date.

1.3 Revision

The Project Director will monitor the implementation of this Plan and review the need for change or improvements having due regard to:

- Change in work scope, client comments etc.;
- Internal and external audits;
- Suggestions and comments from project personnel;
- Incidence and frequency of non-conformance;
- Necessity for corrective or preventative action;
- Legal Update and Requirements;
- Review by Delta Groups Management team; or
- Annual Review.

All changes must be formally approved by the Project Director. Changes to the recent revision will be highlighted.

The following table provides a record of amendments made to this document.

Rev	*Date*	*Description*	*Page*	*Developed By*	*Approved By*
0	24/01/2017	Draft – Issued for comment	All	Martin Hicks	Ben Shum
1	30/01/17	Issued for Submission to TfNSW	All	Martin Hicks	Ben Shum
2	14/03/17	Revised following ER comments	All	Martin Hicks	Ben Shum
3	17/03/17	Revised following additional ER comments	All	Martin Hicks	Ben Shum
4	21/04/17	Revised following additional DPE comments	All	MH & MS	Ben Shum
5	28/04/17	Revised following additional DPE comments	All	Matt Stephenson	Ben Shum

Distribution Register			
Rev No.	***Date of Issue***	***Name of Recipient***	***Position / Organisation***
0	***24/01/2017***	***Ben Shum***	***Project Director/ Delta***
1	***31/1/17***	***Craig Tucker***	***Environmental Manager/ TfNSW***
2	***06/03/17***	***Craig Tucker***	***Environmental Manager/ TfNSW***
3	***17/03/17***	***Peter Oleary***	***Snr Project Manager/ TfNSW***

2 INTRODUCTION

2.1 Purpose

This Plan is in support of overarching Contract Management Plan (CMP).

This Construction Environmental Management Plan (CEMP) and sub plans have been prepared by Delta Pty Ltd. (Delta) to comply with the Minister for Planning and Environment's Conditions of Approval (CoA) for the demolition phase of the Sydney Metro City & Southwest Project.

Delta has been engaged to carry out the demolition of buildings and structures across six Portions described in Section 2.5. The demolition of these buildings and structures is defined in this CEMP as "the Project".

This CEMP and its associated Sub Plans provide specific management measures to ensure that Delta's demolition works have minimal environmental impact and, where possible, enhanced environmental outcomes.

Implementing the CEMP and Sub Plans effectively will ensure that the Project meets regulatory and policy requirements in a systematic manner and continually improves its performance.

The CEMP and Sub Plans:

- Capture environmental issues and mitigation measures already identified and assessed through environmental assessments and Conditions of Approval relating to the Project;
- Incorporate these measures into a comprehensive framework to facilitate and ensure their appropriate management throughout the project;
- Include management measures, procedures, monitoring, auditing, and reporting, and allocate responsibilities to manage environmental risks and opportunities;
- Fulfil the requirement of the CoAs for Sydney Metro City & Southwest (SSI 15_7400).

2.2 Conditions of Approval

The CoAs relevant to the CEMP are identified in Table 1. A reference is included to indicate where and how the CoA is addressed in this CEMP or other project management documents.

Table 1 CoAs relevant to the CEMP

No.	Relevant requirement	Where addressed
A1	The CSSI must be constructed generally in accordance with the description of the CSSI in the EIS as amended by the description in the PIR and the terms of this approval.	Noted.
A8	Without limitation, all strategies, plans, programs, reviews, audits, report recommendations, protocols and the like required by the terms of this approval must be implemented by the Proponent and in accordance with all requirements issued by the Secretary from time to time in respect of them.	Noted.
A16	Ancillary facilities that are not identified by description and location in the EIS as amended by the PIR must meet the following criteria, unless otherwise approved by the Secretary: (a) the facility is development of a type that would, if it were not for the purpose of the CSSI, otherwise be exempt or complying development; or (b) the facility is located as follows: i. at least 50 metres from any waterway unless an erosion and sediment control plan is prepared and implemented so as not to adversely affect	Described on Page 211 of the EIS. There are no additional Ancillary Facilities required for the Project.

No.	Relevant requirement	Where addressed
	water quality in the waterway in accordance with Managing Urban Stormwater series; ii. within or adjacent to land upon which the CSSI is being carried out unless it can be demonstrated that performance criteria established in this approval can be met and that there will be a reduction in impact at other sites and a reduction in the construction program; iii. with ready access to a road network; iv. to prevent heavy vehicles travelling on local streets or through residential areas in order to access the facility, except as identified in the EIS and amended by the PIR; v. on level land; vi. so as to be in accordance with the Interim Construction Noise Guideline (DECC 2009) or as otherwise agreed in writing with affected landowners and occupiers; vii. so as not to require vegetation clearing beyond the extent of clearing approved under other terms of this approval except as approved by the ER as minor clearing; viii. so as not to have any impact on heritage items (including areas of archaeological sensitivity) beyond the impacts identified, assessed and approved under other terms of this approval; ix. so as not to unreasonably interfere with lawful uses of adjacent properties that are being carried out at the date upon which construction or establishment of the facility is to commence; x. to enable operation of the ancillary facility during flood events and to avoid or minimise, to the greatest extent practicable, adverse flood impacts on the surrounding environment and other properties and infrastructure; and xi. so as to have sufficient area for the storage of raw materials to minimise, to the greatest extent practicable, the number of deliveries required outside standard construction hours.	
A18	Minor ancillary facilities comprising lunch sheds, office sheds, and portable toilet facilities, that are not identified in the EIS as amended by the PIR and which do not satisfy the criteria set out in Condition A16 of this approval must satisfy the following criteria: (a) have no greater environmental and amenity impacts than those that can be managed through the implementation of environmental measures detailed in the CEMP required under Condition C1 of this approval; and (b) have been assessed by the ER to have: i. minimal amenity impacts to surrounding residences and businesses, after consideration of matters such as compliance with the Interim Construction Noise Guideline (DECC 2009), traffic and access impacts, dust and odour impacts, and visual (including light spill) impacts; ii. minimal environmental impact with respect to waste management and flooding; and iii. no impacts on biodiversity, soil and water, and heritage items beyond those already approved under other terms of this approval.	CEMP Section 4.5.
A19	Boundary fencing that incorporates screening must be erected around all ancillary facilities that are adjacent to sensitive receivers for the duration of construction unless otherwise agreed with Relevant Council(s), and affected residents, business operators or landowners.	CEMP Section 4.5.

No.	Relevant requirement	Where addressed
A20	Boundary screening required under Condition A19 of this approval must minimise visual, noise and air quality impacts on adjacent sensitive receivers.	CEMP Section 4.5.
A23	Works must not commence until an ER nominated under Condition A22 of this approval in respect of such works has been approved by the Secretary.	Noted. Works will not commence until such time.
A26	Any activities generating noise and vibration in excess of the Noise Management Level derived from the Interim Construction Noise Guideline must not commence until an AA, nominated under Condition A25 of this approval, has been approved by the Secretary.	Noise and Vibration Management Sub Plan.
A28	A Compliance Tracking Program to monitor compliance with the terms of this approval must be prepared, taking into consideration any staging of the CSSI that is proposed in a Staging Report submitted in accordance with Condition A12 and Condition A13 of this approval.	The Principal will prepare and submit the Compliance Tracking Program to the Secretary. The CEMP will be updated following the finalisation of the Staging Report.
A31	A Pre-Construction Compliance Report must be prepared and submitted to the Secretary for information no later than one month before the commencement of construction or within another timeframe agreed with the Secretary.	The Principal will co-ordinate with Delta on the preparation of the Pre-Construction Compliance Report and be the single point of contact with the Secretary.
A37	An Environmental Audit Program for independent annual environmental auditing against the terms of this approval must be prepared in accordance with AS/NZS ISO 19011:2014 - Guidelines for Auditing Management Systems and submitted to the Secretary for information no later than one month before the commencement of construction or within another timeframe agreed with the Secretary.	The Principal will provide Delta with the date the Environmental Audit Program is submitted to the Secretary, and any other timeframe relevant to this condition.
A41	The Secretary must be notified as soon as possible and in any event within 24 hours of any incident.	Pollution Incident Response Management Sub Plan. Delta will provide adequate information in a timely manner to enable the Principal to comply with this condition.
A42	Notification of an incident under Condition A41 of this approval must include the time and date of the incident, details of the incident and must identify any non-compliance with this approval.	Pollution Incident Response Management Sub Plan.
A43	Any requirements of the Secretary or Relevant Public Authority (as determined by the Secretary) to address the cause or impact of an incident reported in accordance with Condition A41 of this approval, must be met within the timeframe determined by the Secretary or relevant public authority.	Pollution Incident Response Management Sub Plan.
A44	If statutory notification is given to the EPA as required under the POEO Act in relation to the CSSI, such notification must also be provided to the Secretary for information within 24 hours after the notification was given to the EPA.	Delta will provide adequate information in a timely manner to enable the Principal to comply with this condition.
B3	The Community Communication Strategy must be submitted to the Secretary for approval no later than three months from the date of this	Delta will not commence demolition prior to approval of

No.	Relevant requirement	Where addressed
	approval or one (1) month before commencement of any work, whichever is the latter.	the Community Communication Strategy.
B4	Work for the purposes of the CSSI must not commence until the Community Communication Strategy has been approved by the Secretary, or within another timeframe agreed with the Secretary.	Delta will not commence demolition prior to approval of the Community Communication Strategy.
B13	The Community Complaints Commissioner will: (a) review the Proponent's unresolved disputes between the project and members of the public if the procedures and mechanisms under Condition B2(g)(iii) do not satisfactorily address complaints; and (b) make recommendations to the Proponent to satisfactorily address complaints, resolve disputes or mitigate against the occurrence of future complaints or disputes.	Delta will undertake any actions required by the Principal to satisfactorily address complaints, resolve disputes or mitigate against the occurrence of future complaints or disputes.
B15	A website providing information in relation to the CSSI must be established before commencement of works and maintained for the duration of construction, and for a minimum of 12 months following the completion of construction or other timeframe as agreed with the Secretary. The following up-to-date information (excluding confidential, private and commercial information) must be published prior to the relative works commencing and maintained on the website or dedicated pages: (d) a copy of any Environment Protection Licence required and obtained in relation to the CSSI; and (e) a current copy of each document required under the terms of this approval and any endorsements, approvals or requirements from the ER and Secretary, all of which must be published before the commencement of any works to which they relate or before their implementation as the case may be.	CEMP Section 5.5.
C1	A Construction Environmental Management Plan (CEMP) must be prepared in accordance with the Construction Environmental Management Framework (CEMF) included in the PIR and the Department's Guideline for the Preparation of Environmental Management Plans to detail how the performance outcomes, commitments and mitigation measures specified in Chapter 11 of the PIR will be implemented and achieved during construction.	This Construction Environmental Management Plan.
C2	(a) a description of activities to be undertaken during construction (including the scheduling of construction)	CEMP Section 2.6.
	(b) details of environmental policies, guidelines and principles to be followed in the construction of the CSSI;	CEMP Section 3.3
	(c) a schedule for compliance auditing;	CEMP Section 4.15.6
	(d) a program for ongoing analysis of the key environmental risks arising from the activities described in subsection (a) of this condition, including an initial risk assessment undertaken before the commencement of construction of the CSSI;	CEMP Section 4.1 Risk Management Plan
	(e) details of how the activities described in subsection (a) of this condition will be carried out to: i. meet the performance outcomes stated in the EIS as amended by the PIR; and ii. manage the risks identified in the risk analysis undertaken in subsection (d) of this condition;	CEMP Sections 7 to 16. Noise and Vibration Management Sub Plan. Heritage Management Sub Plan.

No.	Relevant requirement	Where addressed
		Construction Traffic Management Plans. Waste Management and Recycling Sub Plan. Sustainability Management Sub Plan.
	(f) an inspection program detailing the activities to be inspected and frequency of inspections;	CEMP Section 4.15.5.
	(g) a protocol for managing and reporting any: i. incidents; and ii. non-compliances with this approval and with statutory requirements;	CEMP Section 4.12. Pollution Incident Response Management Sub Plan.
	(h) procedures for rectifying any non-compliance with this approval identified during compliance auditing, incident management or at any time during construction;	CEMP Section 4.14.
	(i) a list of all the CEMP sub-plans required in respect of construction, as set out in Condition C3. Where staged construction of the CSSI is proposed, the CEMP must also identify which CEMP sub-plan applies to each of the proposed stages of construction;	CEMP Section 4.3. Appendix C.
	(j) a description of the roles and environmental responsibilities for relevant employees and their relationship with the ER;	CEMP Section 4.14.1.
	(k) for training and induction for employees, including contractors and sub-contractors, in relation to environmental and compliance obligations under the terms of this approval;	CEMP Section 4.11. Training Management Plan.
	(l) for periodic review and update of the CEMP and all associated plans and programs.	CEMP Section 4.2. Contract Management Plan.
C3	The following CEMP sub-plans must be prepared in consultation with the relevant government agencies identified for each CEMP sub-plan and be consistent with the CEMF and CEMP referred to in Condition C1. The Construction Traffic Management Plan must also be prepared in accordance with the Construction Traffic Management Framework as required by Condition E81. (a) Noise and vibration (g) Heritage (h) Construction Traffic	CEMP Section 4.3. Noise and Vibration Management Sub Plan. Heritage Management Sub Plan. Construction Traffic Management Plans.
C4	The CEMP sub-plans must state how: (a) the environmental performance outcomes identified in the EIS as amended by the PIR as modified by these conditions will be achieved; (b) the mitigation measures identified in the EIS as amended by the PIR as modified by these conditions will be implemented; (c) the relevant terms of this approval will be complied with; and (d) issues requiring management during construction, as identified through ongoing environmental risk analysis, will be managed."	CEMP Section 4.3. Refer to the relevant Sub Plans.
C5	The CEMP sub-plans must be developed in consultation with relevant government agencies. Where an agency(ies) request(s) is not included, the Proponent must provide the Secretary justification as to why. Details of all information requested by an agency to be included in a CEMP sub-plan as a result of	CEMP Section 3.5. Refer to the relevant Sub Plans.

No.	Relevant requirement	Where addressed
	consultation and copies of all correspondence from those agencies must be provided with the relevant CEMP sub-plan.	
C6	Any of the CEMP sub-plans may be submitted to the Secretary along with, or subsequent to, the submission of the CEMP but in any event, no later than one (1) month before commencement of construction.	Delta will provide adequate information in a timely manner to enable the Principal to comply with this condition.
C8	Construction must not commence until the CEMP and all CEMP sub-plans have been approved by the Secretary. The CEMP and CEMP sub-plans, as approved by the Secretary, including any minor amendments approved by the ER, must be implemented for the duration of construction. Where the CSSI is being staged, construction of that stage is not to commence until the relevant CEMP and sub-plans have been approved by the Secretary.	Noted. Works will not commence until the CEMP and all CEMP sub-plans have been approved by the Secretary.
C9	The following Construction Monitoring Programs must be prepared in consultation with the relevant government agencies identified for each Construction Monitoring Program to compare actual performance of construction of the CSSI against predicted performance. (a) Noise and Vibration.	Refer to the Noise and vibration Management Sub Plan. Noise and Vibration Monitoring Program.
C12	The Construction Monitoring Programs must be developed in consultation with relevant government agencies as identified in Condition C9 of this approval and must include, to the written satisfaction of the Secretary, information requested by an agency to be included in a Construction Monitoring Programs during such consultation. Details of all information requested by an agency including copies of all correspondence from those agencies, must be provided with the relevant Construction Monitoring Program.	Refer to the Noise and vibration Management Sub Plan. Noise and Vibration Monitoring Program.
C14	Construction must not commence until the Secretary has approved all of the required Construction Monitoring Programs, and all relevant baseline data for the specific construction activity has been collected.	Delta will not commence construction until the relevant approvals are received.
C15	The Construction Monitoring Programs, as approved by the Secretary including any minor amendments approved by the ER, must be implemented for the duration of construction and for any longer period set out in the monitoring program or specified by the Secretary, whichever is the greater.	Noted.
E4	Dangerous goods, as defined by the Australian Dangerous Goods Code, must be stored and handled strictly in accordance with: (a) all relevant Australian Standards; (b) for liquids, a minimum bund volume requirement of 110% of the volume of the largest single stored volume within the bund; and (c) the Environment Protection Manual for Authorised Officers: Bunding and Spill Management technical bulletin (EPA, 1997).	CEMP Section 4.11.
E5	In addition to the performance outcomes, commitments and mitigation measures specified in PIR, all reasonably practicable measures must be implemented to minimise the emission of dust and other air pollutants during the construction and operation of the CSSI.	CEMP Section 15.
E10	The Proponent must not destroy, modify or otherwise physically affect any Heritage item not identified in documents referred to in Condition A1.	Refer to the Heritage Management Sub Plan.

No.	Relevant requirement	Where addressed
E15	The Proponent must salvage items of heritage value from heritage listed buildings and structures to be demolished before demolition, and assess options for its sympathetic reuse (including integrated heritage displays) on the project or other options for repository, reuse and display. Suitable repository locations must be established in consultation with Relevant Council(s). Any State listed items or elements suitable for salvage must be determined in consultation with the Heritage Division of the OEH.	Refer to the Heritage Management Sub Plan.
E19	An Unexpected Heritage Finds Procedure must be prepared: (a) to manage unexpected heritage finds in accordance with any guidelines and standards prepared by the Heritage Council of NSW or OEH; and (b) by a suitably qualified and experienced heritage specialist. The procedure must be included in the Archaeological Assessment Research Design Report and must be implemented for the life of the project.	The Principal will comply with this condition. Delta will implement the Unexpected Heritage Finds Procedure as provided by the Principal. Refer to the Heritage Management Sub Plan.
E21	In the event that a Relic is discovered, relevant construction must cease in the affected area and the Excavation Director must be notified and assess the finds, identify their significance level and provide mitigation advice according to the significance level and the impact proposed. Depending on the significance of the find, the Excavation Director must attend the site.	Refer to the Heritage Management Sub Plan. Delta will notify the Principal immediately in the event of an unexpected heritage find and will cease work in the affected area until the Principal notifies Delta that work may recommence.
E28	The Proponent must ensure that vibration from construction activities does not exceed the vibration limits set out in the British Standard BS 7385-2:1993 Evaluation and measurement for vibration in buildings. Guide to damage levels from ground borne vibration	Noise and Vibration Monitoring Program.
E29	Owners of properties at risk of exceeding the screening criteria for cosmetic damage must be notified before construction that generates vibration commences in the vicinity of those properties. These properties must be considered in the Noise and Vibration management sub plan required by Condition C3.	Refer to the Noise and Vibration Monitoring Program. Delta will provide adequate information in a timely manner to enable the Principal to comply with this condition.
E30	The Proponent must conduct vibration testing before and during vibration generating activities that have the potential to impact on heritage items to identify minimum working distances to prevent cosmetic damage. In the event that the vibration testing and monitoring shows that the preferred values for vibration are likely to be exceeded, the Proponent must review the construction methodology and, if necessary, implement additional mitigation measures.	Refer to the Noise and vibration Monitoring Program.
E31	The Proponent must seek the advice of a heritage specialist on methods and locations for installing equipment used for vibration, movement and noise monitoring of heritage-listed structures.	Refer to the Noise and vibration Management Sub Plan and Noise and Vibration Monitoring Program.
E33	Construction Noise and Vibration Impact Statements must be prepared for each construction site before construction noise and vibration impacts commence and include specific mitigation measures identified through consultation with affected sensitive receivers.	Refer to the Noise and vibration Management Sub Plan and Noise and Vibration Monitoring Program.

No.	Relevant requirement	Where addressed
E34	Noise generating works in the vicinity of potentially-affected community, religious, educational institutions and noise and vibration-sensitive businesses and critical working areas (such as theatres, laboratories and operating theatres) must not be timetabled within sensitive periods, unless other reasonable arrangements to the affected institutions are made at no cost to the affected institution or as otherwise approved by the Secretary.	Refer to the Noise and vibration Management Sub Plan and Noise and Vibration Monitoring Program.
E36	Construction, except as allowed by Condition E48 (excluding cut and cover tunneling), must only be undertaken during the following standard construction hours: (a) 7:00am to 6:00pm Mondays to Fridays, inclusive; (b) 8:00am to 1:00pm Saturdays; and (c) at no time on Sundays or public holidays.	CEMP Section 6.1.
E37	The Proponent must identify all receivers at Crows Nest, Victoria Cross, Barangaroo, Martin Place, Pitt Street and Central likely to experience internal noise levels greater than $L_{eq(15\ minute)}$ 60 dB(A) inclusive of a 5 dB penalty, if rock breaking or any other annoying activity likely to result in regenerated (ground-borne) noise or a perceptible level of vibration is planned (including works associated with utility adjustments), between 7am – 8pm.	Noise and vibration Management Sub Plan.
E38	The Proponent must consult with all receivers identified in accordance with Condition E37 with the objective of determining appropriate hours of respite so that construction noise (including ground-borne noise), does not exceed internal noise levels of: (a) $L_{eq(15\ minute)}$ 60 dB(A) inclusive of a 5 dB penalty if rock breaking or any other annoying activity likely to result in ground-borne noise or a perceptible level of vibration is planned between 7am – 8pm for more than 50 percent of the time; and (b) $L_{eq(15\ minute)}$ 55 dB(A) inclusive of a 5 dB penalty if rock breaking or any other annoying activity likely to result in ground-borne noise or a perceptible level of vibration is planned between 7am – 8pm for more than 25 percent of the time, unless an agreement is reached with those receivers. This condition does not apply to noise associated with the cutting surface of a TBM as it passes under receivers.	Noise and vibration Management Sub Plan.
E39	The Proponent must consult with proponents of other construction works in the vicinity of the CSSI and take reasonable steps to coordinate works to minimise cumulative impacts of noise and vibration and maximise respite for affected sensitive receivers.	CEMP Section 5.2. Noise and vibration Management Sub Plan.
E40	The Proponent must ensure all works (including utility works associated with the CSSI where undertaken by third parties) are coordinated to provide the required respite periods identified in accordance with the terms of this approval.	Noise and vibration Management Sub Plan.
E41	The Proponent must ensure that residential receivers, located in non-residential zones, likely to experience an internal noise level exceeding $L_{eq(15\ minute)}$ 60 dB between 8pm and 9pm or $L_{eq(15\ minute)}$ 45 dB between 9pm and 7am (inclusive of a 5 dB penalty if rock breaking or any other annoying activity likely to result in regenerated noise, or a perceptible level of vibration is planned (including works associated with utility adjustments)) must be offered additional mitigation in accordance with the Sydney Metro City and South West Noise and Vibration Strategy referenced in Condition E32.	Noise and vibration Management Sub Plan.

No.	Relevant requirement	Where addressed
E42	The Proponent must ensure that residential receivers in residential zones likely to experience an internal noise level of or $L_{eq(15\ minute)}$ 45 dB or greater between 8pm and 7am (inclusive of a 5 dB penalty if rock breaking or any other annoying activity likely to result in ground-borne noise, or a perceptible level of vibration is planned (including works associated with utility adjustments)) must be offered additional mitigation in accordance with the Sydney Metro City and South West Noise and Vibration Strategy referenced in Condition E32.	Noise and vibration Management Sub Plan.
E43	At no time can noise generated by construction exceed the National Standard for exposure to noise in the occupational environment of an eight-hour equivalent continuous A-weighted sound pressure level of $L_{Aeq\ 8h}$, of 85dB(A) for any employee working at a location near the CSSI.	Project Health and Safety Management Plan.
E44	Notwithstanding Condition E36 construction associated with the CSSI may be undertaken outside the hours specified under those conditions in the following circumstances: (a) for the delivery of materials required by the NSW Police Force or other authority for safety reasons; or (b) where it is required in an emergency to avoid injury or the loss of life, to avoid damage or loss of property or to prevent environmental harm; or (c) where different construction hours are permitted or required under an EPL in force in respect of the construction; or (d) construction that causes LAeq(15 minute) noise levels within that specified in the CoA: (e) where a negotiated agreement has been reached with a substantial majority of sensitive receivers who are within the vicinity of and may be potentially affected by the particular construction, and the noise management levels and/or limits for ground-borne noise and vibration (human comfort) cannot be achieved. All agreements must be in writing and a copy forwarded to the Secretary at least one (1) week before the works commencing; or (f) construction approved through an Out of Hours Work Protocol referred to in Condition E47, provided the relevant council, local residents and other affected stakeholders and sensitive receivers are informed of the timing and duration	CEMP Section 6.2.
E46	Notwithstanding Conditions E44 and E48, rock breaking and other particularly annoying activities are not permitted outside of standard construction hours, except at Central, unless the noise management level derived from the Interim Construction Noise Guideline can be achieved at sensitive receivers.	Noise and vibration Management Sub Plan.
E48	Notwithstanding Condition E36 of this approval and subject to Condition E47, the following activities may be undertaken 24 hours per day, seven (7) days per week: (e) haulage and delivery of spoil and materials.	Noted.
E58	The CSSI must be designed and constructed with the objective of minimising impacts to, and interference with, third party property and infrastructure, and that such infrastructure and property is protected during construction.	CEMP Section 5.7.
E59	Before commencement of construction, all property owners of buildings identified as being at risk of damage must be offered a building condition survey. Where an offer is accepted a structural engineer must undertake	CEMP Section 4.7.

No.	Relevant requirement	Where addressed
	the survey. The results of the surveys must be documented in a Building Condition Survey Report for each building surveyed. Copies of Building Condition Survey Reports must be provided to the owners of the buildings surveyed, and if agreed by the owner, the Relevant Council within three (3) weeks of completing the Survey Report and no later than one (1) month before the commencement of construction.	
E60	Within three (3) months of the completion of construction, all property owners of buildings for which a building condition survey was carried out in accordance with Condition E59 must be offered a second building condition survey. Where an offer is accepted, building condition surveys must be undertaken by a structural engineer. The results of the surveys must be documented in a Building Condition Survey Report for each building surveyed. Copies of Building Condition Survey Reports must be provided to the owners of the buildings surveyed within one (1) month of the survey being completed.	CEMP Section 4.7.
E65	All reasonably practicable erosion and sediment controls must be installed and appropriately maintained to minimise any water pollution. When implementing such controls, any relevant guidance in the Managing Urban Stormwater Series must be considered.	CEMP Section 14.
E78	The Proponent must undertake supplementary analysis and modelling as required by the TTLG to demonstrate that construction and operational traffic can be managed to minimise disruption to traffic network operations, public including changes to and the management of pedestrian, bicycle and public transport networks transport services, pedestrian and cyclist movements. Revised traffic management measures, must be incorporated into the Construction Traffic Management Plan(s), Interchange Access Plan(s) and Station Design and Precinct Plan(s).	Traffic Management Plan.
E79	The Proponent must consult with the Relevant Road Authority regarding the use of any weight restricted road by heavy vehicles.	Traffic Management Plan.
E80	The Proponent must minimise truck movements during peak periods within commercial centres. Peak periods are 7am to 10am and 4pm to 7pm Monday to Friday.	Traffic Management Plan.
E82	Construction Traffic Management Plans (CTMPs), consistent with the CTMF required in Condition E81, must be prepared for each construction site in consultation with the TTLG(s), and submitted to the RMS for approval following Sydney Coordination Office endorsement before construction commences at the relevant construction site.	Traffic Management Plan.
E83	Where construction results in a worsening of the matters identified in Condition E81(a)-(o), the Proponent must review the measures identified in the CTMPs in consultation with the TTLG(s), as relevant. Any changes to the CTMPs must be submitted to the RMS for approval following Sydney Coordination Office endorsement and implemented.	Noted.
E85	Heavy vehicle haulage must not use local roads unless no feasible alternatives are available.	Traffic Management Plan.
E86	During construction, measures must be implemented to maintain pedestrian and vehicular access to, and parking in the vicinity of, businesses and affected properties. Alternative pedestrian and vehicular access, and parking arrangements must be developed in consultation with affected businesses. Such arrangements must be outlined in the Business Management Plan required in Condition E64 and implemented	Traffic Management Plan.

No.	Relevant requirement	Where addressed
	as required. Adequate signage and directions to businesses must be provided before, and for the duration of, any disruption.	
E88	Details of haulage routes and heavy vehicle sizes to transport material to and from any construction site must be specified in the Construction Traffic Management Plan(s) and be approved by the RMS following endorsement by Sydney Coordination Office and the Relevant Roads Authority.	Traffic Management Plan.
E89	The Proponent must implement traffic and transport management measures with the aid of a truck marshalling and logistics facility located within close proximity to the Sydney and North Sydney CBDs. The facility must be operational in advance of tunnel spoil generation. Details of the facility must be documented in the Ancillary Facilities Management Plan required by Condition A16.	Traffic Management Plan.
E99	The CSSI must be constructed in a manner that minimises visual impacts of construction sites, including, providing temporary landscaping where appropriate to soften views of the construction sites, minimising light spill, and incorporating architectural treatment and finishes within key elements of temporary structures that reflect the context within which the construction sites are located.	CEMP Section 5.6.
E106	Waste generated during construction and operation is to be dealt with in accordance with the following priorities: (a) waste generation is to be avoided and where avoidance is not reasonably practicable, waste generation is to be reduced; (b) where avoiding or reducing waste is not possible, waste is to be re-used, recycled, or recovered; and (c) where re-using, recycling or recovering waste is not possible, waste is to be treated or disposed of.	CEMP Section 16. Waste and Recycling Management Sub Plan.

2.3 Desired Performance Objectives

The environmental performance outcomes presented in the EIS as amended by the PIR have been reviewed to assess the relevance of each to the demolition works. **Table 2** provides those environmental performance outcomes relevant to the Project along with Delta's objectives and targets for each.

Table 2 Desired Performance Outcomes

Relevant Secretary's Environmental Assessment Requirements Desired Performance Outcomes	Environmental Objectives and Targets
Construction traffic and transport • Network connectivity, safety and efficiency of the transport system in the vicinity of the project are managed to minimise impacts. • The safety of transport system customers is maintained. • Impacts on network capacity and the level of service are effectively managed. • Works are compatible with existing infrastructure and future transport corridors.	• Addressed in Delta's Construction Traffic Management Plans and Traffic Control Plans. • Access provision and environmental risk discussed in toolbox talks and pre-starts.
Construction noise and vibration	• Addressed in Delta's Construction Noise and Vibration Management Sub Plan.

Relevant Secretary's Environmental Assessment Requirements Desired Performance Outcomes	Environmental Objectives and Targets
• Construction noise and vibration is effectively managed to minimize adverse impacts on acoustic amenity and the structural integrity of buildings and items environmental heritage.	• No noise complaints for works outside standard hours. • Compliance with CoA. • Timely close out of ER requirements.
Business impacts • The project minimises adverse social and economic impacts and capitalises on opportunities potentially available to affected communities. • The project minimises impacts to property and business and achieves appropriate integration with adjoining land uses, including maintenance of appropriate access to properties and community facilities, and minimisation of displacement of existing land use activities, dwellings and infrastructure.	• Addressed in Construction Traffic Management Plan and Property Management Plan. • Compliance with CoA. • Timely close out of ER requirements. • Property and business impacts discussed in toolbox talks and pre-starts.
Non-Aboriginal heritage • The construction of the project avoids or minimises impacts, to the greatest extent possible, on the heritage significance of environmental heritage.	• Addressed in Heritage Management Sub Plan. • Unexpected finds procedure followed. • Compliance with CoA. • Discussed in toolbox talks and pre-starts.
Soils, contamination and water quality • Risks arising from the disturbance and excavation of land and disposal of soil are minimised, including disturbance to acid sulfate soils and site contamination.	• Erosion and sediment controls are effective. • No notifiable pollution incidents. • Compliance with CoA. • Discussed in toolbox talks and pre-starts.
Biodiversity • The project design considers all feasible measures to avoid and minimise impacts on terrestrial and aquatic biodiversity.	• Unexpected fauna/flora finds procedure followed. • Trees trimmed in accordance with Tree Report. • Compliance with CoA. • Discussed in toolbox talks and pre-starts.
Air quality • There were no Secretary's environmental assessment requirements relevant to air quality.	• No noise complaints. • Discussed in toolbox talks and pre-starts.
Waste Management • All wastes generated during the construction of the project are effectively stored, handled, treated, reused, recycled and/or disposed of lawfully and in a manner that protects environmental values.	• Recycling targets achieved. • Wastes tracked in accordance with WMSP. • Compliance with CoA. • Discussed in toolbox talks and pre-starts.

Relevant Secretary's Environmental Assessment Requirements Desired Performance Outcomes	Environmental Objectives and Targets
Sustainability • The project reduces the NSW Government's operating costs and ensures the effective and efficient use of resources. • Conservation of natural resources is maximised.	• Sustainability targets achieved. • Energy, emissions, water, and waste tracked in accordance with SMSP. • Compliance with CoA. • Discussed in toolbox talks and pre-starts.

2.4 Sydney Metro Requirements

The environmental requirements for demolition under contract with Transport for NSW are provided in Schedule D1 of the contract titled Sydney Metro Requirements – Environment - Demolition (SMR E). SMR E includes Sydney Metro's Construction Environmental Management Framework, as amended by Annex A of SMR E.

This CEMP is aligned to each element of the CEMF as required under SMR E. The requirements the CEMF as amended are met through inclusion or reference in this CEMP and will be implemented through adherence to the relevant management measures.

2.5 Scope

This CEMP addresses environmental issues and risks associated with the Project, and impacts that are influenced by demolition methodologies and external factors such as sensitive receptors. It covers all areas where physical works will occur, or areas that may be impacted by the works, and is applicable over the full duration of the Project.

This CEMP and the environmental sub-plans will be staged according to each relevant Package and Portion of demolition.

This plan forms part of the project management documentation that has been prepared in accordance with the requirements of the Contract. The Project will be guided by Delta's Integrated Management System (IMS). Delta's IMS is certified as meeting the requirements of:

- AS/NZS4801 Occupational Health and Safety Management Systems;
- ISO14001 Environmental management; and
- ISO9001 Quality Management Systems.

Sub-plans to address specific significant environmental issues associated with the project and specific conditions of approval are discussed further in Section 3.

All Delta staff and subcontractors are required to comply fully with the requirements of this CEMP and the various sub-plans.

2.6 Project Description

2.6.1 Overall

The Principal requires the demolition of approximately 60 buildings within and outside the Sydney CBD to make way for development of the Sydney Metro City & Southwest. The successful and timely completion of Delta's activities is required to facilitate works by the Tunnels and Stations Excavation Contractor (TSE Contractor) at the station locations and at the northern and southern dive sites.

The types of buildings to be demolished include high-rise commercial buildings and a mixture of low-rise residential, retail, commercial, mixed-use, and industrial buildings.

This CEMP addresses the demolition of buildings within Scope of Work Packages A and C described within Section 3 of the SWTC. Delta notes that the Project must be carried out generally in accordance with the description provided in the EIS as amended by the PIR and the Conditions of Approval.

This CEMP also addresses the findings of the SER titled Decommission of S.1642 Edinburgh Murray and Augmentation of Existing Network Distributors.

Sydney Metro are currently preparing a Staging Report for submission to Department of Planning and Environment which will provide guidance on how this CEMP fits into the overall context of approval requirements and which entity is responsible for various post approvals requirements. The CEMP will be updated following the finalisation of the Staging Report.

The proposed Chatswood and Sydenham alignment and the locations of proposed stations and operational ancillary infrastructure is shown in **Figure 1**.

2.6.2 Work Package A

Work Package A includes sites north of the harbour in Chatswood, Crows Nest, and North Sydney. The Demolition Sites associated with Work Package A are:

- Chatswood Dive, located on Pacific Highway and Bryson Street, Chatswood - Demolition Site CH;
- Crows Nest Station, located on Pacific Highway and Clarke Street, Crows Nest- Demolition Site CN;
- Victoria Cross Station north, located on Miller Street, North Sydney - Demolition Site VC1; and
- Victoria Cross Station south, located on Miller and Berry Street, North Sydney - Demolition Site VC2.

2.6.3 Work Package C

Work Package C includes sites in the City and south of the City at Waterloo and Marrickville. The Demolition Sites associated with Work Package C are:

- Pitt Street Station North, located on Pitt, Castlereagh, and Park Streets, Sydney - Demolition Site PS;
- Waterloo Station, located on Botany Road and Cope Street, Waterloo - Demolition Site WA; and
- Marrickville Dive, located on Sydney Steel and Edinburgh Roads, and Murray Street, Marrickville - Demolition Site MA.

The indicative locations of the Work Package A and C Demolition Sites are provided in **Figure 2** to **Figure 7** inclusive.

Figure 1 Chatswood to Sydenham Alignment

Source: Sydney Metro Chatswood to Sydenham Submissions and Preferred Infrastructure Report.

Figure 2 Demolition Site CH

Figure 3 Demolition Site CN

Figure 4 Demolition Sites VC1 and VC2

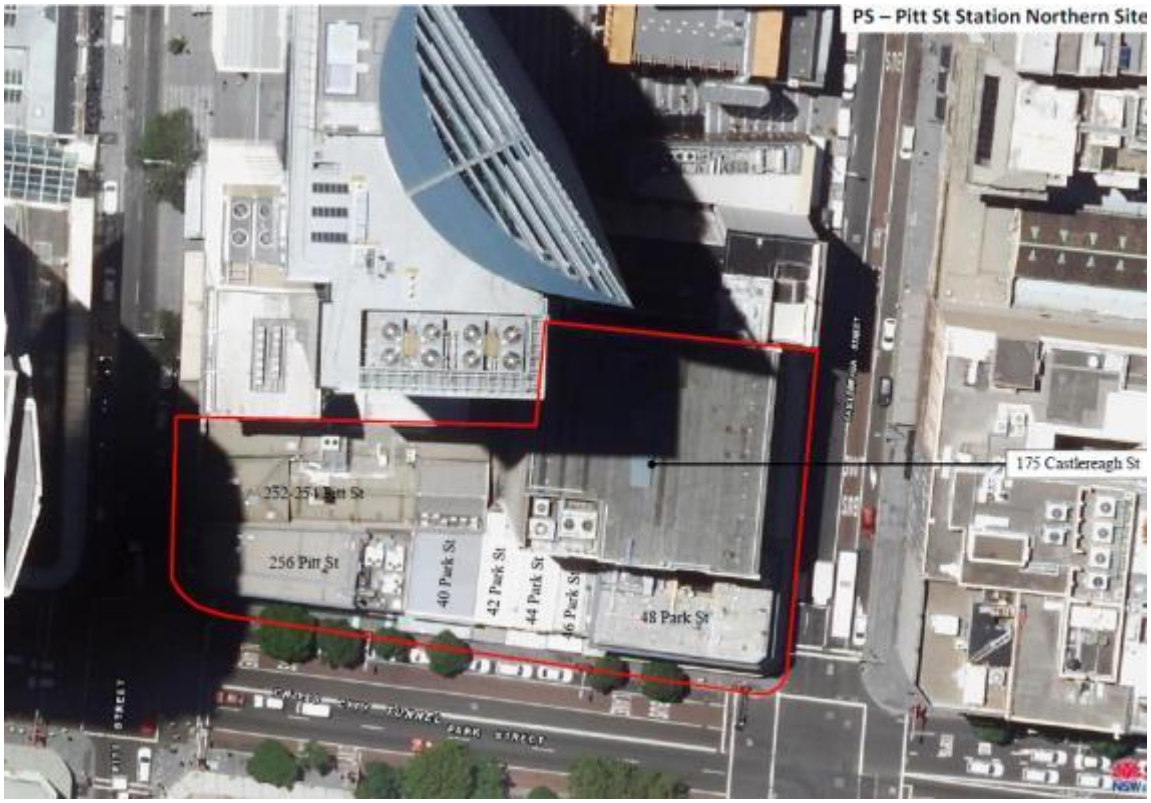

Figure 5 Demolition Site PS

Figure 6 Demolition Site WA

Figure 7 Demolition Site MA

2.6.4 Project Schedule

Project start dates and durations are subject to change

2017									2018					
April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
	Victoria Cross 2 - South site -10months													
	General Demo Order: 155 - 181 – 189 Miller Street													
	Pitt Street -Stage 1 (175 Castlereagh) - 10 months													
	Steg 2 Pitt street TBC													
			Chatswood - 5 months											
					Waterloo- 5months									
					Marrickville- 5months									
					Crowsnest - 7 months									

2.6.5 AusGrid Substations

The Principal also requires the decommissioning of four AusGrid substations at the Marrickville Dive Site. The details of the substations are:

- AusGrid Substation S.1642 located at 29 Edinburgh Road, Marrickville; and
- AusGrid Substations S.65230, S.65233, and S.4560 located at 1A, 1B, and 1C Sydney Steel Road, Sydenham.

The substation decommissioning scope of works is:

1. Decommission and remove existing kiosk substation S.65230 and return to AusGrid.
2. Decommission and remove existing kiosk substation S.65233 and return to AusGrid.
3. Decommission and remove existing ground substation S.4560 and return to AusGrid.
4. Decommission and remove the existing chamber substation S.1642 and return to AusGrid.
5. Construct 9 x HV jointing bays.
6. Supply and install AusGrid approved cable, seals, and joints.

2.6.6 Site Compounds

Site compounds required by the Project comprise lunch sheds, office sheds, and portable amenities as required by WHS legislation and Codes of Practice. Delta will also provide a demountable office space at each Portion as required in the Scope of Works and Technical Criteria (SWTC) for the exclusive use of the Principal during Delta's Activities. Site compounds are identified in the EIS.

When establishing each site compound, Delta will consider:

- The location of noise intensive works and activities in relation to noise sensitive receivers;
- The location of site access and egress points in relation to noise and light sensitive receivers;
- The use of site features to shield noisy activities from receivers;
- The use of noise barriers and / or acoustic sheds where feasible and reasonable for sites proposed to be regularly used outside of daytime hours; and
- Minimising the need for reversing of heavy vehicles.

Boundary fencing will be erected around all ancillary facilities that are adjacent to sensitive receivers for the duration of construction unless otherwise agreed with council and affected residents, business operators, or landowners. Boundary fencing will provide security and safety as well as minimising visual, noise and air quality impacts on adjacent sensitive receivers.

3 LEGISLATIVE AND OTHER REQUIREMENTS

3.1 Environmental Approvals

Sydney Metro City and Southwest is classified as State Significant Infrastructure and was approved in early 2017 in accordance with Section 115ZB of the *Environmental Protection and Assessment Act 1997*. The approval is listed as:

- SSI 15_7400 Sydney Metro City & Southwest Chatswood to Sydenham (9 January 2017).

The Conditions of Approval that are relevant to the Project are provided in Table 1 above.

3.2 Key Legislative Requirements

The key NSW environmental legislative requirements and their application to the Project are identified in Table 3 below. Delta regularly reviews its legislative requirements in accordance with its Integrated Management System (IMS).

Table 3 Commonwealth and NSW Legislative Requirements

Legislation and Administering Authority	Aims of the Legislation	Application to the Project
Commonwealth Requirements		
Environment Protection and Biodiversity Conservation Act 1999 Department of Environment and Energy	Approval of the Commonwealth Minister is required for actions that may have a significant impact on Matters of National Environmental Significance (NES).	As the proposed works have been determined to have no impact on matters of NES, approval from the Commonwealth Minister is not required.
National Greenhouse and Energy Reporting Act 2007 Department of Environment and Energy	To establish a framework for reporting of greenhouse gas emissions, abatement actions, energy consumption and production data.	Delta will report on greenhouse gas and energy usage data as required by the Act.
NSW Requirements		
Contaminated Land Management Act 1997 NSW Environment Protection Authority (EPA)	Provides a process for the investigation and remediation of contamination where it presents a significant risk of harm to human health or the environment.	Delta will comply with the requirements of the Act where contaminated land is identified.
Dangerous Goods (Road and Rail Transport) Act 2008 EPA / SafeWork NSW	To ensure that dangerous goods are stored and transported in a safe manner.	Delta will obtain a licence where storage of dangerous goods would exceed licensable quantities.
Environmental Planning and Assessment Act 1979 Department of Planning and Environment (DP&E)	Provides a framework for effective environmental impact assessment and management of development to promote social and economic welfare and a better environment.	Delta will comply with the relevant conditions of approval for the Project.
Heritage Act 1977 NSW Office of Environment and Heritage (OEH)	To conserve the State's heritage and provide for the identification and registration of items of State heritage significance.	Delta will comply with the requirements of the Act where items of heritage significance are identified. The Project does not require approvals under Part 4 or permits under section 139.
Noxious Weeds Act 1993 Department of Primary Industries	To prevent the introduction of new weeds and restrict the spread of existing weeds.	Delta will control weeds on land under its management.
Protection of the Environment Operations Act 1997 EPA	To prevent environmental pollution.	An Environmental Protection Licence is not required for Delta's works.
Roads Act 1993 Roads and Maritime Service	To regulate the carrying out of various activities on public roads.	Delta will obtain consent under section 138 where required for carrying out work in, on or over a public road, or digging up or disturbance of the surface of the road.
Waste Avoidance and Resource Recovery Act 2001 EPA	To reduce the generation of waste and increase reuse and recycling options.	Delta will implement strategies to reduce waste volumes and report on waste generated.

Legislation and Administering Authority	Aims of the Legislation	Application to the Project
Water Management Act 2000 NSW Office of Water	To protect, enhance and restore water sources, their associated ecosystems, ecological processes and biological diversity and their water quality.	The Project is exempt from obtaining water use approval under section 89, a water management work approval under section 90 or an activity approval (other than an aquifer interference approval) under section 91.

3.3 Standards and Guidelines

A number of environmental standards, codes of practice and guidelines are relevant to the Project. These are provided in Table 4.

Table 4 Relevant Environmental Standards, Guidelines, and Procedures

Standards and Guidelines	Authority	Application to the Project
ISO14001 Environmental Management System – Requirements with Guidelines for Use (2004)	-	Delta manages all of its projects in accordance with ISO 14001
Interim Construction Noise Guidelines. Department of Environment and Climate Change (2009)	EPA	Requirements within the Noise and Vibration Management Plan
Managing Urban Stormwater: Soil and Construction. Landcom. (2008)	EPA	Spoil management and soil and water management requirements within the CEMP
Environment Protection Manual for Authorised Officers: Bunding and Spill Management Technical Bulletin. NSW EPA (1997)	EPA	Mandates the requirements for the on-site storage of dangerous liquids.
Waste Classification Guidelines. Department of Environment, Climate Change and Water (2008)	EPA	Requirements within the Waste and Recycling Management Sub Plan
Framework Construction Traffic Management Plan Revision 1. Sydney Metro (2016)	Sydney Metro	Requirements within the Traffic Management Plan
Carbon Estimation and Reporting Tool Guidelines. Transport for New South Wales. Transport for New South Wales (2015)	TfNSW	Requirement within the Sustainability Management Sub Plan
Air Emission Data Collection Workbook. Transport for New South Wales (9TP-FT-439)	TfNSW	Requirement within the Sustainability Management Sub Plan
Relevant Sydney Metro Procedures		
NWRL ES-PW-310	Out of Hours Works Assessment Procedure	
SM ES-ST-204	Sydney Metro Construction Environmental Management Framework	
SM ES-ST-210	City and Southwest Construction Noise and Vibration Strategy	
SM ES-ST-214	Sydney Metro City & Southwest Principal's General Specification G10 Traffic and Transport Management	
SM ES-PW-303	Environmental Incident Classification and Reporting Procedure	
SM ES-PW-309	Water Discharge and Reuse Procedure	
SM ES-PW-314	Planning Approval Consistency Procedure	
SM ES-FT-420	Sydney Metro City & Southwest Sustainability Reporting Template	

Standards and Guidelines		Authority	Application to the Project
SM ES-FT-421	Sydney Metro City & Southwest Environmental Reporting Template		
SM ES-ST-460	Sydney Metro City & Southwest Road Occupancy License		
SM RM-ST-201	TfNSW Sydney Metro Risk Management Standard		
SM RM-ST-202	TfNSW Audit and Compliance Standard		
SM SE-MM-102	Environment & Sustainability Policy		
SM	Pre-construction Minor Works Approval		

3.4 Environment Protection Licence Requirements

The Project is not a scheduled activity as defined in Schedule 1 of the *Protection of the Environmental Operation Act 1997* and as such Delta does not require an Environment Protection Licence.

3.5 Consultation

Consultation in development of the CEMP will include relevant State Government Departments and Local Government Agencies including:

- Noise and vibration: relevant Councils;
- Heritage: Heritage Council, and relevant Councils; and
- Traffic: relevant Road Authorities, Roads and Maritime Services, and Sydney Coordination Office.

The Principal has designated itself as responsible for compliance with a number of the Minister's CoAs and for preparing documentation and schedules and communicating those to Delta. The Principal will consult with Delta following completion of those documents and Delta will review and comment where applicable in order to generally comply with the Principal's requirements. The CEMP will be updated following the finalisation of such documentation.

4 ENVIRONMENTAL MANAGEMENT REQUIREMENTS

4.1 Environmental Management System

4.1.1 Integrated Management System

Delta operates a corporate Integrated Management System certified as meeting the requirements of ISO 14001:2004, ISO 9001: 2008, and AS/NZS 4801: 2001. The model in AS/NZS 4581 Management System Integration and the guidelines in Standards Australia Hand Book Guidance on Integrating the Requirements of Quality, Environment and Health and Safety Management Systems form the basis for the Delta IMS.

Delta's Environment Policy and a list of Delta's procedures and standard operating forms under its IMS is provided in **Appendix A**. Evidence of the currency of Delta's EMS is provided in **Appendix B**.

Delta's IMS includes a separate Environmental Management Plan, Quality Management Plan, and WHS Management Plan.

The Delta Environmental Management Plan (DEMP) identifies environmental hazards and risks that the Delta Group business and personnel may be exposed to during the course of work. The plan details the control measures to be implemented to regulate these environmental hazards and risks. The risk management process involves the use of policies and procedures compliance, forms and checklists, education, training and supervision, and continual improvement in all areas required of the environment.

The DEMP is authorised by Delta's Director of Operations and National QSE Manager. Delta Group senior management acknowledges the importance of meeting customer, statutory and regulatory requirements. Generally, all project personnel are expected to ensure that their work activities and those of project consultants, contractors and suppliers are carried out in accordance with the requirements of the DEMP.

4.1.2 Project-specific Risk Management

Delta has prepared a Risk Management Plan to identify hazards throughout the Project, assess those hazards against the risk criteria, calculate risk ratings, and assign meaningful control measures to eliminate risks or reduce their ratings to an acceptable level. The Project Risk Management Plan may be provided to NSW Government Agencies on request.

Delta has adopted the TfNSW Risk Criteria and Matrix provided in the Sydney Metro Risk Management Standard a means of assigning a risk ratings to Delta's activities according to consequence and likelihood ratings. The defined risk management response provides a basis within which to further consider, assess, and validate the So Far As Is Reasonably Practical (SFAIRP) principle.

The TfNSW Risk Matrix provides a thorough risk assessment process where Delta's activities are linked via the Delta IMS SEF 43D HIRAC-Risk Assessment – Demolition and the TfNSW Risk Matrix to create a Risk Register for each site and, in turn, provide the basis by which to prepare requisite Work Method Statements.

This approach is described in full in the Risk Management Plan.

4.2 Construction Environmental Management Plan

This CEMP outlines the environmental management practices and procedures that are to be followed during the Project. It provides the overall framework for the system and procedures to ensure environmental impacts are minimised and legislative and other requirements are fulfilled. The implementation of this CEMP is supported by the Delta IMS.

The CEMP and its Sub Plans will be reviewed by the Principal and must be reviewed and endorsed by the ER prior to submission to the Secretary of the Department of Environment and Planning for approval no later than one month before the commencement of construction or within another timeframe agreed with the Secretary. The CEMP will also be reviewed, and revised if required, within three months of commencement, and six monthly thereafter. Construction will not commence until the CEMP and all CEMP Sub Plans have been approved. The CEMP and CEMP sub-plans, as approved by the Secretary, and including any minor amendments approved by the ER, will be implemented for the duration of Delta's works.

The environmental management measures defined in this CEMP have been developed with consideration of the CoA and safeguards and revised environmental management measures presented in the Preferred Infrastructure Report.

This CEMP is consistent with:

- The Sydney Metro Construction Environmental Management Framework;
- Guideline for the Preparation of Environmental Management Plans (DIPNR, 2004); and
- AS/NZS ISO 14001:2004.

Relevant sections, procedures, and Sub Plans included in the CEMP are consistent with the relevant environmental standards, guidelines, and procedures provided in **Table 3**.

The CEMP will be reviewed and revised in response to the management reporting requirements of Section 7 of the Contract Management Plan. The monthly management report includes aspects of the project managed under the CEMP, including community issues, complaints received by Delta, the status of audit activities, and environmental risks and opportunities. Minor revisions may be made by the Environmental and Sustainability Manager, however, must be formally approved by the Project Director and endorsed by the ER. The Environment and Sustainability Manager will monitor the implementation of this CEMP and its sub plans and procedures and review the need for change or improvements having due regard to:

- Changes in work scope, client requirements etc.;
- Internal and external audits;
- Suggestions and comments from project personnel;
- Incidence and frequency of non-conformances;
- Necessity for corrective or preventative actions;
- Legal updates;
- Review by Delta Group's management team; and
- Annual review.

4.3 Construction Environmental Management Sub Plans

A number of Sub Plans have been prepared to support the CEMP as required by CoA C3. Each Management Sub Plan has been prepared to demonstrate how:

- The environmental performance outcomes identified in the EIS as amended by the PIR as modified by these conditions will be achieved;
- The mitigation measures identified in the EIS as amended by the PIR as modified by these conditions will be implemented;
- The relevant terms of the approval will be complied with; and
- Issues requiring management during construction, as identified through ongoing environmental risk analysis, will be managed.

Appendix C provides a diagrammatic overview of Delta's overall management plan structure, including the CEMP and Sub Plans.

Delta's CEMP includes the following issue-specific environmental sub plans:

- Construction Noise and Vibration Management Sub Plan (**Appendix D** to the CEMP);
- Heritage Management Sub Plan (**Appendix E** to the CEMP);
- Pollution Incident Response Management Sub Plan (**Appendix F** to the CEMP);
- Sustainability Management Sub Plan (**Appendix G** to the CEMP); and
- Waste Management and Recycling Sub Plan (**Appendix H** to the CEMP).

The requirement to write management plans for Groundwater, Soil and Water, Biodiversity, and Air Quality is specifically excluded from Delta's scope through Annexure A of SMR E. Delta will comply with the requirements of Sydney Metro's environmental management plans in so far as they are relevant to Delta's aspects and impacts.

The Construction Traffic Management Plan may be considered a Sub Plan of the CEMP. However, Delta has prepared a site-specific Construction Traffic Management Plan for each it its six Portions, with relevant Traffic Control Plans, and has separated these plans from the CEMP to ensure all documents remain functional at the worksite level.

4.4 Environmental Procedures

Delta's CEMP includes the following activity specific environmental procedures that are included within **Appendix I** to the CEMP:

- Erosion and sediment control plans: development and implementation of erosion and sediment control plans (ESC Plans) is described within Section 29 of the DEMP, which is a component of the Delta IMS. Section 29 of the DEMP is provided in **Appendix I**. ESC Plans will be developed for each Portion and included within each Site Environmental Control Map;
- Flora or Fauna: the protection of existing flora and fauna on Delta's sites is managed in accordance with Section 36 of the DEMP. Section 36 of the DEMP is provided in **Appendix I** with an amendment to cover the demarcation and protection of retained vegetation;
- Flora or Fauna: A procedure for dealing with unexpected Threatened Ecological Communities (TEC) or threatened species identified during demolition will be prepared by the Principal. In accordance with Schedule D1 - SMR E of the contract, Delta is not required to prepare such a procedure, but is required to adopt the Principal's procedure when available. Delta will comply with the Principal's Unexpected TEC and Threatened Species Procedure;
- Air quality: a management plan that includes air quality and dust monitoring requirements and mitigation measures will be prepared by the Principal in accordance with Schedule D1 - SMR E; and

- The maintenance of outward facing elements of site hoarding or noise barriers, including the removal of graffiti and weeds, and checking the health of retained vegetation around site boundaries, and direction of any site lighting is discussed in Section 4.13 of the CEMP .

Environmental aspects and impacts of Delta's works will be identified and assessed for each site using Delta's IMS forms:

- SEF 006 Environmental Aspects and Impacts Assessment; and
- SEF 068 Environmental Aspects and Impacts Assessment Action Register.

Each Project Manager will ensure that environmental aspects and impacts identified in the CEMP and Sub Plans are assessed for relevance at his or her specific site, and controlled, monitored, and documented in accordance with the CEMP and Sub Plans. Where an environmental aspect of a particular task is identified, the Project Manager will ensure that the SWMS is updated to include that environmental aspect and the relevant environmental control measures. Delta will not prepare separate Environmental Work Method Statements.

4.5 Environmental Control Maps

Delta will prepare and implement site based progressive Environmental Control Maps (ECMs). ECMs are progressive documents that depict the current representation of each site. They will indicate which environmental procedure, environmental approval, or licence is applicable at each site, illustrate the site showing significant structures, work areas and boundaries, and show the environmental control measures and environmentally sensitive receivers relevant at each site.

The current Environmental Control Maps are provided in **Appendix I**. Each will be updated progressively as site information and work methods for each become available.

4.6 Additional Environmental Assessments

Where a requirement for additional environmental assessments has been identified, the assessment will be carried out prior to commencement of works. Delta will prepare Construction Noise and Vibration Impact Statements (CNVIS) for noise intensive construction sites or activities to ensure the adequacy of adopted noise and vibration mitigation measures. CNVISs will be prepared by Delta where works are proposed to be undertaken outside of standard construction hours.

The principal issues addressed within each CNVIS include:

- Identification of noise sensitive receivers near to each site;
- Prediction of the level of noise and vibration impact on these sensitive receivers from construction activities including assessment of predicted compliance with Project-imposed Noise and Vibration Management Levels;
- Details of the plant and equipment to be used on site; and
- Details of sound mitigation measures to be employed to reduce noise impacts on adjacent noise sensitive receivers.

CNVIS are provided as appendices to the Construction Noise and Vibration Management Plan (CNVMP) in **Appendix D**.

4.7 Consistency Assessments

Proposed changes to the Project will be subject to review and assessment to ensure the proposed change is consistent with existing planning approvals.

Review and assessment will be carried out in accordance with Sydney Metro's Planning Approval Consistency Procedure (SM ES-PW-314).

4.8 Condition Surveys

Delta will offer pre- construction Building Condition Surveys as per the requirements of the Contract. Building condition surveys will be undertaken by a suitably qualified structural engineer of the List of Properties Requiring Condition Assessment considered to be the minimum required under the Contract. Delta proposes to contact a number of additional properties to offer a building condition survey.

The results of the surveys will be documented in a Building Condition Survey Report for each building surveyed, and provided to the building owner in accordance with CoA E59. Follow-up surveys will be carried out within three months of the completion of the works, documented in a Building Condition Survey Report, and provided to the building owner in accordance with CoA E60.

Condition assessments proposed by Delta at are additional to those required of the Contract are described in Table 5.

Table 5 Proposed Additional Condition Assessments

Portion	Roads and Properties
CH	• Nelson Street, Pacific Highway, and Mowbray Road adjacent to CH site • 8 Bryson Street • 569 Pacific Highway • 575-589 Pacific Highway
CN	• Pacific Highway, Clarke Lane, Hume Street, and Oxley Street adjacent to CN site • 473 Pacific Highway
VC	• Miller Street in front of VC1 site • Miller Street, Berry Street and Denison Street adjacent to VC2 site • 65 Berry Street
PS	• Castlereagh Street AND Pitt Street immediately adjacent to PS site • 150 Pitt Street • 169 Castlereagh Street
WA	• Botany Road, Raglan Street, Cope Street and Wellington Street adjacent to WA site
MA	• Sydney Steel Road and Edinburgh Road immediately adjacent to MA site • Reservoir adjacent to 1C Sydney Steel Road

4.9 Register of Hold Points

The following environmental Hold Points will be implemented by Delta throughout the Project, beyond which approval is required to proceed. Initial Hold Points are provided in Table 6, based risk assessments and legislative requirements for stop work. Additional Hold Points may be required based on further risk assessments or changes in legislative requirements and will be included in any updates to the CEMP.

Table 6 Initial Environmental Hold Points

Hold Point	Release of Hold Point	Released by
Pre-construction Minor Works	Minor Works Approval	Environmental and Sustainability Manager
Out of hours works	Approved OOHW permit signed by the AA and ER	Environmental and Sustainability Manager
Use of local roads by heavy vehicles	Road Dilapidation Report	Appropriate nominated Professional
Works identified to affect buildings	Building Condition Survey	Appropriate nominated Professional
Urban design and visual impact of temporary works	Design approved by TfNSW	Environmental and Sustainability Manager

Unexpected non-indigenous heritage find	Written consent of the ER	Environmental and Sustainability Manager
Unexpected indigenous heritage find	Written consent of the ER	Environmental and Sustainability Manager
Unexpected human remains find	NSW Police report	Environmental and Sustainability Manager
Heritage salvage	Salvage approved by Sydney Metro	Environmental and Sustainability Manager
Unexpected threatened species or threatened ecological community find	Written consent of the Principal	Environmental and Sustainability Manager
Unexpected asbestos find	Asbestos Clearance	Health and Safety Manager

4.10 Unexpected Finds Procedure - Asbestos or Contaminated Land

All works on Delta sites must be carried out in accordance with Delta's Procedures, SOPs, SWMS, and SEFs under the Delta IMS. Relevant IMS documents are:

- Procedure 01 Asbestos Management and Removal;
- Procedure 37 Unexpected (Asbestos) Find;
- SOP 49 Unexpected Find (Asbestos);
- SOP 57 Exploratory Works Under Precautionary Asbestos Conditions;
- SWMS Demo - Demolition with Asbestos Contractors or Materials;
- SWMS Demo - Removal and Disposal of Asbestos Waterproof Membrane in Concrete Rubble;
- SWMS Demo - Removal of Asbestos Conduit;
- SWMS Civil – Contaminated Soil;
- SEF 002 Asbestos Exposure Letter; and
- SEF 025 Register - Asbestos Control Register.

In the event of an unexpected find of asbestos containing building materials (ACBM), potential ACBMs, or potentially contaminated soil, Delta will:

- Cease work immediately;
- Notify the immediate Supervisor and the Site Manager and describe the suspected material (potential asbestos or other soil contamination);
- Site Manager to notify any other parties relevant to the activity (Work Health and Safety Manager, Hygienist);
- Barricade the unexpected find area. All fans and air-conditioners will be turned off, and all ducts and vents will be sealed to prevent the spread of dust. Water sprays will be used to wet down the unexpected find (for asbestos);
- Move at least 10 metres away from the affected area, where possible, but do not leave the area; and
- Do not move around site to common areas such as toilets, change rooms, lunch rooms etc.

Clothing that may have been affected by airborne particles will be removed and placed in a 200 micron plastic bag marked asbestos waste. The bag will be goose-neck wrapped ahead of disposal to an appropriately licensed facility.

- Remove work clothes and boots and put on a disposable coverall suit provided;

- Leave work clothes and boots in the work area inside the plastic bags that are provided;
- Delta will establish a decontamination unit/area – worker will proceed to decontamination;
- Delta Site Manager to send for a new issue of clothing to be brought to the site for the workers affected;
- Do not remove contaminated work clothes from the area unless test results are negative for asbestos;

No Delta personnel or contractor may remove clothing contaminated with asbestos from the workplace.

The Site Manager will arrange for sampling of the material by a competent person and analysis at a National Association of Testing Authorities (NATA) accredited laboratory.

If test results are positive for asbestos then licensed asbestos removalists will be engaged to remove the asbestos and the contaminated clothing bag during the asbestos removal process. Work cannot continue in the contaminated area until a clearance certificate has been issued by a qualified hygienist.

If tests are positive for other contamination, Delta will inform the Principal and arrange for the removal and validation of the removal by a specialist contaminated sites consultant, with the approval of the Principal. Work cannot continue in the contaminated area until a clearance certificate has been issued by a specialist contaminated sites consultant.

Delta will notify the Principal's Representative by telephone within two (2) hours of an unexpected contaminated soils, ACBM, or potential ACBM find. TfNSW notification processes will be followed as relevant.

4.11 Training, Awareness and Competence

4.11.1 Training Needs Analysis

Delta's training, awareness, and competencies are managed under the Delta IMS and in accordance with the following Procedures:

- Procedure 03 Competency Induction and Training;
- SEF 055 Training Record;
- SEF 056 Training Request; and
- QF 032 Training Feedback.

IMS Procedure 03 Competency, Induction and Training requires that all persons (permanent and temporary employees and contractors) who undertake work on a Delta Group site must as a minimum hold a current:

- Generic Construction Industry OHS Induction;
- Delta Group induction;
- Client induction (as required);
- SWMS, toolbox, and SOP inductions;
- Site Management Plan/s induction; and
- Site specific inductions.

Training analysis and skills requirements will be identified through reviewing monitoring outputs against the EMP as well as consultation between division and operational personnel. A Training Needs Analysis will be conducted by managers and supervisors responsible for personnel under their control. The TNA will identify the need between the standard performance being achieved and the standard of performance required. The Delta national ticket register (training matrix) will be reviewed to identify gaps in employee skills and appropriate training that will improve those skills. Details are provided in the Delta Training Management Plan.

4.11.2 Environmental Management System Training

Delta ensures that all employees undergo training in our Environmental Management System as part of their initial employment induction and their ongoing training. This training is both general environmental management training and training related to achievement of environmental management standards in the particular tasks carried out by each employee. Delta confirms that all personnel are trained and competent to perform their work in accordance with the requirements of the contract.

Delta Group ensures all personnel able to influence environmental performance have the necessary education, skills, experience and knowledge. This includes training all personnel, ensuring they are kept informed about changes, risks/opportunities, their roles and required procedures, and generally ensuring they are able to meet environmental management requirements.

Delta maintains an electronic data base for training and competency which is updated as training is completed. The electronic ticket register system is available on the Delta Intranet. Subcontractors must provide Delta with evidence of training and competency for their employees prior to their staff being permitted on Delta's work sites.

4.11.3 Management Plan Training

Management Plan training will be carried out prior to personnel commencing work on the Project. Management Plan training will include the provisions of the Delta CEMP and Sub Plans.

Refresher training will be carried out after six months following commencement of the Project, and as required when site inspections, audits, task observations and the like uncover work practices not in accordance with the Plan.

Management plan training/updates will also be carried out when changes to CEMP and or sub plans occur this will be carried out through site environmental daily pre -start briefings.

4.11.4 Site Induction Training

Induction training is oriented in assisting personnel to be aware of their environmental and compliance obligations to ensure that an environmental product or service is delivered and that an appropriate communication and reporting system is maintained to allow verification of all facets of work produced. Records of induction and training sessions are recorded and can be reviewed by the client's Environmental Manager on request.
All site personnel and sub-contractors will undertake site-specific induction training and must be deemed competent prior to commencing works on the site. Personnel must be competent in the tasks they carry out and the use of plant and equipment to carry out those tasks. Delta will ensure its personnel have the specific training for each task by referring to its IMS training register and the task specific Verifications of Competency required.

Before commencing work on the site, all contractors and temporary employees will supply documentary evidence of competencies required to carry out their assigned tasks. Competencies must be held in the appropriate State and must be validated by Delta, authorised, and a copy placed on file. Validation must provide proof that demonstrates the person has been trained and assessed as competent against the appropriate standards.

It is the responsibility of the Project Manager to ensure that all training documentation required is complete and submitted to the Work health and Safety Manager for review prior to any personnel undertaking work or operating equipment on a Delta site. Following successful review of task specific competency and training documents the Work health and Safety Manager will provide approval to the Site Manager to authorise that person to operate or work on the site.

Competency must be proven prior to commencing works on the site. No induction equals no entry to the work site and no work.

Delta's Site Induction training will include:

- The purpose of the training, its objectives, and key issues to be covered;
- Delta's environmental policy and key environmental performance indicators;
- Due diligence, duty of care, and responsibilities;
- Environmental and compliance obligations under the terms of the approval;
- Site specific issues and controls;
- Reporting of environmental hazards and incidents; and
- Communication protocols.

4.11.5 Pre-starts

Pre- Start briefings will be carried out for all work and at all sites undertaken on the Sydney Metro Project. Daily pre-starts will be held prior to the commencement of work on each shift and during the course of the work day where the work group is transferred to a new task or location. Pre-starts allow site personnel to keep track of the rapidly changing nature of on-site works.

Pre-starts will include the opportunity for personnel to provide input, and will be led by the Site Manager, or other designated person that has successfully completed the Sydney Metro Frontline Leadership program.

4.11.6 Toolbox Talks

Delta's Site Managers for each Portion will carry out weekly toolbox talks addressing safety, health, environmental, and quality issues on site, and to provide a Project-wide or Portion update. A record of toolbox talks will be retained on-site.

Environmental & Sustainability Manager will participate in the weekly toolbox talks as required, to emphasise particular aspects of environmental management or to provide updates when there are changes to legislation, work methods, or scope.

4.11.7 Topic Specific Environmental Training

Topic specific environmental training, such as erosion and sediment control training, will be undertaken for relevant Delta personnel as determined by the Delta Project Director through Training Needs Analysis. Details are provided in the Delta Training Management Plan.

Supervisory staff including Site Managers and Project Managers will be competent in the following additional training:

- Legislative Awareness;
- Site induction;
- Training in the operation of the site to the company Management system covering Safety, Environment and Quality;
- Incident and Accident Investigation;
- Attend Training Courses I.e. Asbestos A and B, Plant and Equipment, First Aid and IMS Training;
- Behavioural Management Training; and
- Audit training.

Elected Site Health and Safety Representatives are required to undergo training that is consistent with recognised competencies, including:

- OHS training as defined in state regulations;
- Risk Management;
- Incident and Accident Investigation SEF 010a and SEF 010b; and
- Safety Communications (Supervisory Skills).

4.12 Environmental Incident Response

Delta has defined an environmental incident using the definition provided by Transport for NSW in its Environmental Incident Classification Procedure. An environmental incident is:

"An occurrence or set of circumstances, as a consequence of which pollution (air, water, noise, and land) or an adverse environmental impact has occurred or is likely to occur".

An adverse environmental impact includes contamination, harm to flora and fauna (either individual species or communities), damage to heritage items, or adverse community impacts.

Delta's Pollution Incident Response Management Plan is provided in **Appendix F,** and a copy of the Transport for NSW Environmental Incident Classification Procedure is provided in **Appendix K**. The PIRMP has been developed in accordance with the requirements of the *Protection of the Environment Operations Act 1997* and the Environmental Incident Classification Procedure. The PIRMP includes:

- The procedures to be followed in notifying a pollution incident to:
    - the owners or occupiers of premises in the vicinity; and
    - the local authority for the area; and
    - any persons or authorities required to be notified;
- A detailed description of the action to be taken immediately after a pollution incident to reduce or control any pollution; and
- The procedures to be followed for co-ordinating, with the authorities or persons that have been notified, any action taken in combating the pollution caused by the incident and, in particular, the persons through whom all communications are to be made.

A copy of the PIRMSP will be kept at each site office for the duration of the Project. The procedures within the plan will be tested through a program of emergency tests at each Project site. At a minimum, each site will:

- Carry out a simulated emergency exercise within one month of the commencement of work at that site;
- Carry out a follow-up emergency exercise every six months thereafter; and
- Measure the effectiveness of the emergency exercise and identify improvements using SEF 045 Site Emergency Evacuation Checklist.

Emergency and incident response procedures within the PIRMP are consistent with relevant TfNSW procedures and include:

- Categories for environmental emergencies and incidents;
- The nomination of a project contact person who has authority to stop or direct works and is available 24 hours a day, 7 days a week; Notification protocols for each category of environmental emergency or incident, including notification of TfNSW and notification to owners and occupiers in the vicinity of the incident, including contact details;
- Identification of personnel who have the authority to take immediate action to shut down any activity, or to affect any environmental control measure;
- A process for undertaking appropriate levels of investigation for all incidents and the identification, implementation and assessment of corrective and preventative actions; and
- The requirement for Delta or TfNSW to notify the EPA, DP&E or OEH as appropriate based on the nature of the incident.

The nominated contact person is the Project Director, Ben Shum. The Project Director has the authority to stop or direct works and is available on 0423 796 946 24 hours a day and seven days a week.

Delta will inform all workers and Subcontractors of the PIRMP and their responsibilities under the plan during the Site Induction and during toolbox talks.

Sydney Metro's Environmental Incident Classification and Reporting Procedure (SM ES-PW-303) will be used to ensure a consistent approach when classifying and reporting an environmental incident or non-compliance.

4.13 Dangerous Goods

Dangerous goods, as defined by the Australian Dangerous Goods Code, will be stored and handled in accordance with:

a) All relevant Australian Standards;

b) For liquids, a minimum bund volume requirement of 110% of the volume of the largest single stored volume within the bund; and

c) The Environment Protection Manual for Authorised Officers: Bunding and Spill Management technical bulletin (EPA, 1997).

Dangerous goods on Delta's Project sites will be limited to small portable stores. The management of dangerous goods is described under Chemical Management in the Delta Project Health and Safety Management Plan.

Dangerous liquids will be stored within a bunded area of a minimum bund volume of 110% of the volume of the largest single stored volume and in accordance with the Environment Protection Manual for Authorised Officers: Bunding and Spill Management technical bulletin (EPA, 1997).

Material Data Sheets of all hazardous materials will be kept on file in the site office, the MSDS will be regularly reviewed through environmental inspections. All hazardous materials will be kept in locked containers, positioned away from vehicle movements and have access to clean and dry spill kits.

All drains and waterways are protected prior to work commencing, Delta's SPRIP (see appendix A) is stuck to all spill kit bins and training on SPRIP is provided via tool box.

4.14 Roles and Responsibilities

Delta Group personnel at all levels are accountable legally and otherwise for environmental performance, within the scope of their defined and inferred roles and responsibilities, including in supporting the Environmental Management System.

4.14.1 Roles and Responsibilities of Key Personnel

The roles and responsibilities of Delta's key personnel during the Project are provided in the following section. An Organisational Chart showing the management relationship for all personnel from the level of Foreman and above is provided in **Appendix J** of the CMP.

Table 7 Key roles and responsibilities relevant to environmental management

Project Role	Responsibilities
Project Director	The Project Director will be engaged full-time across each and all Packages and Portions throughout Delta's Activities to ensure that Delta meets all Contract obligations. He will be Delta's primary contact with the Principal's Representative on all aspects of the Project, including community consultation and stakeholder engagement. The Project Director will interface: • with the Principal through monthly progress meetings, the Monthly Report, and ad hoc meetings as and when required; • With the Sydney Metro Change Control Sub Committee as and when required; • With the Environmental Representative as and when required; and

Project Role	Responsibilities
	• With the Independent Certifier as and when required.
Project Manager	Responsible for environmental issues at the workplace, including: • Implementing and maintaining the CEMP; • Undertake a detailed review of the project documentation and prepare a schedule of scope deliverables which forms the environmental management plan; • Organisation of on-site personnel with regard to their responsibilities within the IMS; • Identify key environmental management risks and opportunities to ensure high environmental management outputs; • Communicating with the principal contractor to reduce environmental management risks; • Being a part of the planning and design stages of trade activities; • Ensure that all staff under their control have adequate training and experience for the for the work in conjunction with operations supervisor; • Ensure that all staff under their control has adequate equipment to carry out the works in conjunction with operations supervisor; • Periodic audits of their environmental control processes; • Manage non-conformances and initiate corrective action as required; • Manage defects on site to reduce the number of defects at completion; • Leading by example and promoting sound environmental management practices at every opportunity; • Reviewing environmental management reports and inspections, and following up on recommendations; and • Regular attendance at on-site meetings to ensure environmental management related issues are raised for review. The Project Manager will interface: • With the Principal through monthly progress meetings and ad hoc meetings as and when required; • With the Sydney Metro Change Control Sub Committee as and when required; • With the Independent Certifier as and when required; and • With the Environmental Representative during ER site inspections and in addressing ER correspondence or enquiries.

Project Role	Responsibilities
Demolition Site Manager	Responsible for environmental management at the workplace, including: • Implementing the CEMP; • Understanding the requirements of the contract and ensuring the works are delivered in accordance with the contract; • Ensuring that ITPs are being carried out properly and nominated Hold Points are verified prior to works proceeding; • Providing advice and assistance on environmental matters to employees; • Deciding when training is required; • Undertaking inspection of the contracted or planned works to ensure that environmental control measures are implemented and effective; • Managing personnel and sub-contractors; • Ensuring that all defects and incidents are identified, actioned and closed out; • Leading by example and promoting sound environmental practices at every opportunity; • Carrying out weekly toolbox talks; • Attending other on-site meetings to ensure environmental issues are raised for review; • Assisting in developing SWMS for all tasks and ensuring the work is monitored throughout. If required, amending SWMS to reflect work activity changes; • Taking all reasonable care to maintain a high standard of care and workmanship; • Ensuring Site Inductions are conducted for all workers and Subcontractors; • Managing the Site Folder on and ensuring all QSE documents are correctly completed – including consultation, communication checklist and registers; • Recording all daily site activities in a site diary; • Other environmental related duties as directed by the Project Manager. The Site Manager will interface: • With the Principal through attendance at collaborative site inspections and surveillance activities, and *ad hoc* meetings; • With the Independent Certifier as and when required; and • With the Environmental Representative during ER site inspections and in addressing ER correspondence or enquiries.
Environment and Sustainability Manager	Responsible for environmental management at the workplace, including: • Conducting internal audits and inspections of the site and compliance with the CEMP and Sub Plans; • Participating in Principal-led site audits; • Assisting in the implementation of the CEMP; • Updating the CEMP as required, and preparing Consistency Assessments in accordance with the Sydney Metro Planning Approval Consistency Assessment Procedure, as required; • Understanding the requirements of the contract; • Providing advice and assistance on environmental management matters to employees; • Advising when training is required; • Attending toolbox meetings and inductions; • Ensuring that all environmental defects and incidents are identified, actioned and closed out; • Leading by example and promoting sound environmental management practices at every opportunity;

Project Role	Responsibilities
	• Attending on-site meetings to ensure environmental management related issues are raised for review; • Other environmental management related duties as directed by the Project Manager. The Environment and Sustainability Manager will interface: • With the Principal through attendance at collaborative site inspections and surveillance activities, Consistency Assessments, and *ad hoc* meetings; • With the Acoustic Advisor when preparing Consistency Assessments and as and when required; • With the Sydney Metro Change Control Sub Committee when preparing Consistency Assessments; and • With the Environmental Representative during ER site inspections and in addressing ER correspondence or enquiries.
Acoustic Advisor	The Acoustic Advisor will be: • Available to the Principal's Representative's, with the Contractor, on community stakeholder acoustic and vibration matters; • Responsible for all noise and vibration compliance matters associated with the Delta's activities; and • Responsible for and have the authority to develop and implement the noise and vibration monitoring and mitigation strategy.
Work Portion QSE Advisors	Responsible for quality, safety, and environmental management at the workplace, including: • Conducting internal audits and inspections; • Assisting in the implementation of the QSE documentation at the site; • Understanding the requirements of the contract; • Assisting in toolbox meetings and inductions; • Providing advice and assistance to personnel and subcontractors; • Leading by example and promoting sound practices at every opportunity; • Attendance at all on-site meetings to ensure QSE is raised for review; and • Other QSE related duties as directed by the Project Manager. QSE Advisors will interface with the Environmental Representative during ER site inspections.
Environmental Representative	From commencement of construction until completion of construction, the approved ER must: (a) Receive and respond to communications from the Secretary in relation to the environmental performance of the CSSI; (b) Consider and inform the Secretary on matters specified in the terms of this approval; (c) Consider and recommend any improvements that may be made to work practices to avoid or minimise adverse impact to the environment and to the community; (d) Review all documents required to be prepared under the terms of this approval, ensure they address any requirements in or under this approval and if so, endorse them before submission to the Secretary (if required to be submitted to the Secretary) or before implementation (if not required to be submitted to the Secretary);

Project Role	Responsibilities
	(e) Regularly monitor the implementation of all documents required by the terms of this approval for implementation in accordance with what is stated in the document and the terms of this approval; (f) Notify the Secretary of an incident in accordance with Condition A41 of this approval; (g) As may be requested by the Secretary, help plan, attend or undertake Department audits of the CSSI, briefings, and site visits; (h) If conflict arises between the Proponent and the community in relation to the environmental performance of the CSSI, follow the procedure in the Community Communication Strategy approved under Condition B3 of this approval to attempt to resolve the conflict, and if it cannot be resolved, notify the Secretary; (i) Review any draft consistency assessment that may be carried out by the Proponent, and provide advice on any additional mitigation measures required to minimise the impact of the work; (j) Consider any minor amendments to be made to the CEMP, CEMP sub-plans and monitoring programs that comprise updating or are of an administrative nature, and are consistent with the terms of this approval and the CEMP, CEMP sub-plans and monitoring programs approved by the Secretary and, if satisfied such amendment is necessary, approve the amendment. This does not include any modifications to the terms of this approval; (k) Assess the impacts of minor ancillary facilities as required by Condition A18 of this approval; and (l) Prepare and submit to the Secretary and other relevant regulatory agencies, for information, a monthly Environmental Representative Report detailing the ER's actions and decisions on matters for which the ER was responsible in the preceding month (or other timeframe agreed with the Secretary). The Environmental Representative Report must be submitted within seven (7) days following the end of each month for the duration of works and construction of the CSSI, or as otherwise agreed with the Secretary. The Environmental Representative will interface with the Environment and Sustainability Manager during ER site inspections and in addressing ER correspondence or enquiries. The Environment and Sustainability Manager will seek the endorsement of the ER for management plans, consistency assessments, and minor amendments to be made to the CEMP and its Sub Plans.

4.15 Environmental Monitoring, Inspections and Auditing

4.15.1 Noise and Vibration Monitoring

Delta will carry out noise and vibration monitoring as described in the Construction Noise and Vibration Management Sub Plan (CNVMSP) (**Appendix D**). Monitoring will be detailed in the Noise and Vibration Monitoring Program that will be developed based on the control measures and monitoring required of the CNVMSP.

Real-time noise and vibration monitoring will be carried out by a specialist using permanent monitoring installations at key sensitive receivers around each site. An automated monitoring system will be used, and data will be instantly and automatically uploaded to a central server. Data will be accessible by way of an online gateway where users can log on to the system and view monitoring in real-time, as well as call up a full history of results for each location. Delta will grant access to the online monitoring gateway to relevant stakeholders. Where complaints are received, data can be interrogated for the specific location of complaint.

Unattended long term monitoring will be supplemented with 15 minute attended monitoring to validate the estimates of structure borne noise and vibration, determine relationships between permanent monitor locations and other affected receivers, and conduct additional monitoring at the specific location where complaints are received.

Where vibration-intensive works are planned to occur in close proximity to sensitive receivers, and works are expected to approach the limits for cosmetic damage, monitoring equipment shall be equipped with visual and/or audible alarms that are triggered when the levels of vibration exceed the control criteria provided in Table 26 of **Appendix D**.

Proposed permanent monitor locations are detailed in Appendix B of the CNVMP. The number and location of monitoring points shall be reviewed after an initial period of 2 - 3 months. Where noise and vibration levels are negligible and, in consideration of the works still to be completed, those levels are not expected to increase for the remainder of the project, consideration shall be given to the removal of redundant monitoring points.

A summary of the Environmental Monitoring Program is provided in **Appendix L**.

4.15.2 Waste Monitoring

Delta will carry out waste monitoring as described in the Waste and Recycling Management Sub Plan (WMSP) (**Appendix H**).

All materials dispatched from site will be tracked from site to final destination. A record of trucks, their destination, and the materials they are carrying will be maintained on site using IMS QF 029 Material Disposal Running Sheet. Delta's internal Transport Group will then correlate the running sheet with tipping dockets and receipts from the recycling facility or landfill destination.

The Delta Transport Group will review waste tracking documentation to ensure that that the running sheet correlates with disposal receipts. Where there is a discrepancy, the Delta Transport Group will investigate by contacting firstly the disposal location to review their records, and then the trucking company.

The Project Manager will review waste tracking documentation to ensure that the Gateman is completing his or her responsibilities under the WMSP, that waste and recyclable materials are being dispatched to licensed facilities, and that materials that can be reused, recycled, or reprocessed are not being disposed of to landfill.

A summary of the Environmental Monitoring Program is provided in **Appendix L**.

4.15.3 Sustainability

Delta will monitor sustainability targets in accordance with the requirements of the Sustainability Management Sub Plan (SMSP) provided in **Appendix G**. Delta's targets focus on:

- Carbon and energy management;
- Water efficiency; and
- Waste and materials.

Electricity supplies to temporary offices and compounds that is metered and invoiced will be tracked. A manual data collection scheme will be adopted to track the use of diesel and other liquid and gaseous fuels within the Project. Delta will use the Transport for NSW Carbon Estimate and Reporting Tool (CERT) to enter data on its energy usage and types.

Potable water from standpipes and temporary offices and compounds that is metered and invoiced by Sydney Water will be tracked. A manual data collection scheme will be adopted to track the use of non-potable water within the Project.

Delta will use CERT to enter data on its materials usage and waste generation. Delta will distinguish inert waste (such as concrete, metals, and glass etc.), timber and vegetation waste, and mixed waste (i.e. a mix of concrete, timber, bricks etc.) to allow CERT to account for emissions from degradation in landfill, where those materials have been disposed of via landfill.

A summary of the Environmental Monitoring Program is provided in **Appendix L**.

4.15.4 Principal's Environmental Monitoring

The Principal will carry out monitoring as required by CoA C9 to compare actual performance of construction of the Project against predicted performance. The Principal will carry out:

- Air quality monitoring;
- Blasting monitoring;
- Water quality monitoring; and
- Groundwater monitoring.

4.15.5 Environmental Inspections

Delta will carry out surveillance of environmental mitigation measures in accordance with Procedure 24 Inspection, Monitoring and Measurement in the Delta IMS. Daily Pre-starts are carried out by the Site Foreman, and recorded on Safety and Environmental Form SEF 047 Site Diary - Daily pre-start.

Regular site inspections are carried out by the Site Manager, and recorded on SEF 049 Site Inspection Report. Site inspections cover the whole of the Portion, including the site perimeter, and assess safety and environmental aspects of the project. Environmental aspects include checking waste storage facilities, the condition of any erosion and sediment controls, noise barriers, site hoarding, the need for graffiti or weed removal, the health of retained vegetation, and the direction of any site lighting.

Periodic environmental inspections by Delta's Environmental and Sustainability Manager (or delegate) will be carried out to verify the adequacy of all environmental measures as stipulated in the CEMF. This will be documented in SEF 049 Site Inspection Report.

Delta's Environment and Sustainability Manager will participate in regular site inspections by the Environment Representative (ER) and TfNSW representatives at a frequency to be agreed with the Principal's Representative.

A timetable of site inspections is provided in Table 8 below.

Table 8 Site Inspection Timetable

Inspection	Frequency	Content
Daily Pre-start	Daily	Safety, environment, quality
Site Inspection	Weekly	Safety, environment
Environmental Inspection	Weekly	Environment
ER Inspection	Weekly	Environment

4.15.6 Environmental Audits

Delta carries out routine safety, environmental, and quality audits of all of its projects. Environmental audits will be carried out in accordance with Delta's IMS Procedure AUD 005 Audit Environmental and as a component of Delta's HSEQ audits.

Where Delta performs compliance audits of its systems and procedures, the Principal will be invited to participate in the audit planning and oversee conduct of the audit. Delta will later provide a copy of the audit report to the Principal.

Where sub-contractors are employed to deliver aspects of the Project, Delta will require its audit and surveillance requirements are maintained by the sub-contractor, and provide evidence that the sub-contractor's activities are being effectively overseen by Delta. If requested by the Principal, Delta will provide evidence of the effective implementation of management systems and procedures by its sub-contractors.

An independent annual environmental audit program will be established by the Principal in accordance with AS/NZS ISO 19011:2014 - Guidelines for Auditing Management Systems. The Environmental Audit Program will be implemented for the duration of the project. Delta will participate in all independent annual environmental audits carried out of its works.

Delta's management plans, systems, and processes will be subject to audit and surveillance by the Principal to gain assurance that Delta has established effective management systems and processes to meet the requirements of the Contract. The Principal may utilise its own auditors and surveillance officers to perform these activities, supported by subject matter experts where relevant.

The audit and surveillance activities may include risk-based compliance testing, desktop review of documentation, inquiry and observation of activities, or review of developing processes or activities.

Delta will be cooperative in assisting the Principal's auditors and surveillance officers in undertaking their duties. This will include providing safe access to sites, systems and documentation, providing facilities to perform audits and surveillance, and the participation of Delta and Subcontractor representatives as required.

Delta recognizes that a number of other parties, such as Regulators and Authorities, are required to or have an interest in auditing Delta's systems and processes established for the Project. A collaborative audit program will be established by the Principal to coordinate third party audit activities across the project and to provide timely and cost effective assurance that aligns and standardises the planning, conduct and reporting of audits.

The Principal will establish an Audit Working Group to manage the collaborative audit program. The Working Group will be comprised of representatives from the Principal, Delta, and other parties that may have an interest in the project. The Audit Working Group will collaboratively develop, agree, and implement a risk based audit program covering all aspects of Delta's activities. Delta will attend the Audit Working Group meetings. These will be held on a monthly basis, or as requested by the Principal.

Key components of the collaborative audit program are:

- The Principal will conduct audits on Delta's compliance with the requirements of Delta's quality management system.
- The Principal may conduct audits on the Delta's compliance with the Contract and its Management Plans.
- Audit findings will be reported in accordance with the Principal's Audit and Compliance Standard SM QM-ST-202, which includes a rating of audit findings based on an assessment of risk and priority for action. These records may be used by the Principal for any purpose.
- Delta will implement systems and procedures to ensure audit recommendations and corrective actions are actioned in a timely and agreed manner. The status of audit action implementation will be reported by Delta to the Principal on a monthly basis.
- Delta will periodically provide evidence that audit actions have been implemented to allow the Principal to verify the effectiveness of the audit action implementation and reporting process.

A timetable of site audits is provided in Table 9 below.

Table 9 Site Audit Timetable

Inspection	Frequency	Content
Internal HSEQ Audit	Monthly	Safety, environment, quality
Internal Project Audit	Monthly	Project objectives Project specific management plans and procedures
Principal's Audit	TBA	Project management plans, systems, and processes
Independent Environmental Audit	Annually	Environment
Collaborative Audit Program	TBA	TBA

4.16 Environmental Non-compliances

Delta will document and detail any non-compliances arising out of the monitoring, inspection and audit regime. The Principal and the ER will be made aware of all non-compliances in a timely manner. The Principal or the ER may also raise non-compliances against environmental requirements.

Non- compliances will be investigated, closed out, and evidence provided using the Environment Incident & Corrective Action Report (**appendix A**). Details of the non-compliance will be recorded in the Action Register SEF 024. The Action Register will be updated and made available to the Principal whenever a non-compliance notice is generated.

NB: where non-conformities (N-C) are witnessed whilst environmental monitoring as per appendix L , N-C and corrective action to be recorded on Environment Incident & Corrective Action Report. Once corrective action has been carried out, monitoring is to be repeated to ensure compliance and completed CAR to be sent to the Environment Manager and filed on the Delta Server.

The Project Manager and/or QSE personnel are responsible for issuing CARs to the relevant management representative and closing out non-compliances.

On receipt of a CAR, the management representative will;

- Assess the non-conformance to determine how the non-conformance occurred;
- Develop, where possible, a revised method of carrying out works to ensure that the same non-conformance does not re-occur;
- Regularly check operational methods following the implementation of corrective action to ensure revised methods of works are effective; and
- Submit all details of corrective actions implemented for all non-conformances to the Client's Environmental Manager or nominated representative.

A Non-conformance Report (SEF 052) will be raised and issued to the Principal for information.

Records of all corrective and preventative actions taken by Delta under the Contract and audits of such actions will be reported to the Principal in the Monthly Report in accordance with SMR PA. The implementation status of corrective actions (open and overdue) will be reported, along with justification for overdue actions.

Corrective and preventative actions will be reported to the ER during the regular ER Site Inspection.

4.17 Environmental Records and Compliance Reporting

Delta will retain records of all reporting activity in the site files relevant to each Portion and in accordance with its IMS Procedure 05. Reports will be made available in a timely manner to the Principal (or their representative) as required in the Contract or on request.

Delta will meet the Principal's reporting requirements by maintaining appropriate records of:

- Site inspections, audits, monitoring, reviews or remedial actions;
- Documentation as required by performance conditions, approvals, licences, and legislation;
- Modifications to site environmental documentation; and
- Other records as required by the CEMF.

Records will be retained onsite for the duration of works, and will be retained by Delta for a period of at least seven (7) years following completion of the Project.

Compliance reports detailing the outcome of any environmental surveillance activity, including internal and external audits will be prepared by Delta's Environmental and Sustainability Manager (or delegate). These reports will be submitted to the Principal as required.

5 STAKEHOLDER AND COMMUNITY INVOLVEMENT

5.1 Overview

Delta will comply with the Minister's Conditions of Approval and the requirements of SMR C in relation to Stakeholder and Community Involvement. Delta will:

- Undertake any actions required by the Principal to satisfactorily address complaints, resolve disputes or mitigate against the occurrence of future complaints or disputes;
- Support the overall management and coordination of stakeholder and community liaison, consultation and notification in relation to the delivery of the Project and Delta's related Activities;
- Ensure the timeframes in SMR C and resources for document development, consultation, approval and notification are incorporated into project planning and Delta's Program;
- Ensure that the Principal Manager Project Communications, stakeholders and the community are provided with adequate notification of planned demolition activities and project milestones;
- Ensure that the Principal Manager Project Communications is included in team meetings and forums that provide information about ongoing work including weekly meetings;
- Ensure its employees, subcontractors and agents are aware of and comply, initially with the Draft and subsequently with the Final versions of the Community Communications Strategy and the broader requirements of SMR C;
- Be proactive in providing the Principal Manager Project Communications with accurate and adequate information on the status of Delta's Activities and any associated impacts;
- Make available appropriate senior personnel to attend meetings with the community or other stakeholders, as required;
- Consult the Principal Manager Project Communications prior to taking any unilateral action that may impact on the stakeholders or the community;
- Ensure that the Principal Manager Project Communications is informed of all issues raised by an Authority in relation to Delta's Activities and is invited to all meetings, presentations and site visits attended by any Authority in accordance with the Contract;

- Ensure that the Principal Manager Project Communications is continuously informed of all issues raised directly with Delta by stakeholders and the community;
- Ensure that the Principal Manager Project Communications is contacted immediately in relation to planned or unplanned community protests that may arise during the performance of Delta's Activities; and
- Comply with all reasonable suggestions and requests of the community as agreed with the Principal Manager Project Communications.

5.2 Communication and Consultation Strategy

Delta will provide information as requested to assist the Principal'sProject Communication team to finalise and implement the Communication and Consultation Strategy. Information required for the Community Communication Strategy will include:

- Issues to be managed prior to and during construction, including proposed strategies to manage these issues and mitigate impacts to the community and stakeholders;
- Details of Delta's nominated 24 hour contact for assisting in the management of complaints and enquiries;
- Policies and procedures for Incident management and reporting;
- A schedule for the start and finish of demolition activities, milestones, associated impacts to the community, and the proposed strategy for minimising impacts to the community; and
- Policies and procedures for ensuring Subcontractors comply with the communications requirements of the Contract.

Delta will seek out to consult with proponents of other works in the vicinity of each Portion with a view to coordinating works where reasonable and feasible to minimise the cumulative impacts of noise and vibration and maximise respite for affected sensitive receivers.

The Principal has designated itself as responsible for compliance with a number of the Minister's CoAs and for preparing documentation and schedules and communicating those to Delta. Delta will review and comment where applicable, and generally comply with the Principal's requirements through coordination with Sydney Metro. The CEMP will be updated following the finalisation of such documentation.

This includes decommissioning of the four electrical substations. Prior to decommissioning, the Principal will determine the requirements for access to, diversion protection, and/or support by liaising with AusGrid. The Principal will ensure that disruption to any service is minimised and that affected local residents and businesses are advised before any planned disruption of service.

5.3 Key Stakeholders

The Principal is responsible for the preparation and implementation of the Communication and Consultation Strategy. For Delta, the key stakeholders relevant to this CEMP are:

- Transport for NSW Sydney Metro;
- Transport for NSW Roads and Maritime Services;
- Department of Planning and Environment;
- NSW Environment Protection Authority;
- Sydney Metro Change Control Sub Committee;
- City of Sydney Council, Inner West Council, North Sydney Council, Willoughby Council;
- Businesses and residences around the demolition sites;
- The Environmental Representative;
- The Acoustic Advisor; and
- The Independent Certifier.

Interfaces between these stakeholders and Delta personnel are provided in Section 4.13.

Communication between key stakeholders and Delta will be carried out in accordance with the requirements of SMR PA and as provided in Table 10.

Table 10: Project Communication

Stakeholder	Communication Methods
The Principal	Meetings, correspondence, and email. The Prescribed Electronic Portal will be used for all formal correspondence.
Sydney Metro Change Control Sub Committee	Co-ordination meetings, correspondence, email, and the Prescribed Electronic Portal.
Department of Planning and Environment	Managed by the Principal. Co-ordination meetings and/or correspondence as required.
NSW Environment Protection Authority	Managed by the Principal. Co-ordination meetings and/or correspondence as required.
Roads and Maritime Services	Managed by the Principal. Co-ordination meetings and/or correspondence as required.
Councils	Managed by the Principal. Co-ordination meetings and/or correspondence as required.
Businesses and residences	Managed by the Principal.
Environmental Representative	Site meetings, inspections, correspondence, and email.
Acoustic Advisor	Site meetings, inspections, correspondence, and email.
Independent Certifier	Site meetings, inspections, correspondence, and email.

5.4 Complaints Handling

The Principal has established a Sydney Metro City and Southwest project 24-hour telephone contact number, postal address and email address to which enquires and complaints will be received.

Delta will:

- Assist the Principal to respond and resolve enquiries and complaints in accordance with the Community Communication Strategy;
- Ensure that its personnel and its Subcontractors' personnel direct the community and stakeholders to the project 24-hour telephone number, postal address, and email address should they be approached directly;
- Provide a person that is available for contact by the Principal at all times to assist the Principal to answer complaints or enquires in relation to Delta's Activities; and
- Aim to provide feedback to requests for information from the Principal in relation to responses to complaints within 2 hours of the request and responses to general enquiries within 4 hours of the request.

Where a member of the public is not satisfied by the Principal's response to a complaint, the independent Community Complaints Commissioner will follow up. Any member of the public that has lodged a complaint which is registered in the Principal's Complaints Management System may ask the Community Complaints Commissioner to review the response. Delta will assist the Community Complaints Commissioner where required.

Where there is a conflict between Delta and the community in relation to environmental performance, the ER will attempt to resolve the conflict in accordance with the Community Communication Strategy and, if the conflict cannot be resolved, notify the Secretary. Delta will assist the ER to resolve complaints where required.

5.5 Project Website

Delta will establish a Project page on its own Delta Group website prior to the commencement of works to provide information in relation to the Project. The page will be maintained for the duration of Delta's works, and for a minimum of 12 months afterwards.

The website will provide information in relation to the Project that includes a current copy of each document required under the terms of the Minister's Approval and any endorsements, approvals, or requirements from the ER and Secretary.

5.6 Urban Design of Temporary Works

The design of all temporary works will require approval from the Principal in relation to urban design and visual impacts. Delta will issue the design to TfNSW for approval prior to installation. This approval is a Hold Point within the Project CEMP.

Delta will regularly inspect and maintain construction hoardings, scaffolding, and acoustic sheds. These will be kept clean and free of dust and dirt. Graffiti on construction hoardings, scaffolding, or acoustic sheds will be removed or painted over promptly.

The principles of *Crime Prevention Through Environmental Design* (CPTED) will be applied to all works, including temporary works, that have a public interface. The CPTED principles that may be applicable to minimise the opportunity for crime are surveillance, access control, territorial reinforcement, and space management.

Delta will provide CPTED through the following means:

- Maintenance of clear sightlines between public and private places;
- Effective lighting;
- Site security, in accordance with the Security Management Plan;
- Restricted access to internal areas and high-risk areas through the use of physical barriers;
- Access control signage;
- Clear transitions and boundaries between public and private spaces;
- Clear signage for passing motorists and pedestrians;
- Removal of litter and waste materials from within the site;
- Rapid repair of vandalism and graffiti; and
- The removal or repair of decayed physical elements such as construction hoardings, scaffolding, and acoustic sheds.

5.7 Business and Property Impacts

Delta will provide information regarding any potential impact that its activities may have on the community in accordance with SMR C for inclusion in the Principal's Communications Management Control Group (CMCG) meetings, and for the production of public communication material. Delta will provide:

- A summary of current and upcoming Activities, likely impacts, and mitigation measures;
- An update on any current or emerging issues and/or any promotional opportunities; and
- Information requested by the Principal Manager Project Communications.

Delta will carry out the Project with the objective of minimising impacts to, and interference with, third party property and infrastructure, and to protect such infrastructure and property during the works.

6 GENERAL SITE WORKS

6.1 Working Hours

Project works will be carried out between the standard working hours of 7am to 6pm on weekdays and 8am to 1pm on Saturdays. No works may be carried out on Sundays or public holidays.

Works may be undertaken outside of these standard construction hours without any further approval where:

- Those works have been described in the environmental assessment as being required to take place 24/7;
- Works have been determined to comply with the relevant Noise Management Level at sensitive receivers;
- The delivery of materials outside of approved hours is required by the Police or other authorities for safety reasons;
- The works are emergency works required to avoid the loss of lives or property and / or to prevent environmental harm; or
- Written agreement has been reached with all affected receivers.

6.2 Out of Hours Work Protocol

Works that are intended to be carried out outside standard work hours will be subject to an Out of Hours Works (OOHW) application and approval process that is applicable to all construction methods and sites. A detailed Construction Noise and Vibration Impact Statement will be prepared to support the OOHW application.

The timing and duration of works approved through the Out of Hours Work Protocol will be communicated to the relevant council, local residents, and other affected stakeholders and sensitive receivers.

The Out of Hours Works Protocol is provided in the Construction Noise and Vibration Management Plan. It will be managed in accordance with Transport for NSW procedures and Forms:

- NWRL ES-PW-310 Out of Hours Works Assessment Procedure; and
- NWRL ES-FT-410 Out of Hours Works (OOHW) Approval Form (Non-EPL).

The OOHW application must be provided to the Principal's Representative and/or the ER at least 15 days prior to commencement of the subject works.

6.3 Site Layout

Discussion of the site layout is included in Section 2.5 Project Description.

Site layouts are provided as Site Establishment Plans in **Appendix I**.

6.4 Road Dilapidation Report

In accordance with CoA E90, a Road Dilapidation Report will be prepared for local roads proposed to be used by heavy vehicles for the Project prior to commencement. The report will be prepared by Sydney Metro. Copies of the report will be submitted to relevant stakeholders within the periods prescribed by CoA E90.

6.5 Reinstatement

Reinstatement of each Portion will be carried out to the extent possible following demolition works. Delta will:

- Clear and clean all working areas and accesses at project completion;
- Remove all plant, temporary buildings or vehicles from the site after the completion of works;
- Restore all temporarily occupied roadways, footpaths, loading facilities or other land to their pre-existing condition or better; and
- Reinstate any community spaces, infrastructure, and services as soon as possible after the completion of works.

7 SPOIL MANAGEMENT

Project works include the demolition and removal of all building elements and infrastructure including basement levels, but excluding concrete slabs on the ground and sections of basement walls that are acting as retaining structures to the surrounding ground.

Delta's activities do not include excavation and are not expected to generate spoil.

However, Delta will generate demolition wastes including concrete, brick, steel, and other materials. These will be managed in accordance with the Waste and Recycling Management Sub Plan provided in **Appendix H**.

8 GROUNDWATER MANAGEMENT

Delta's activities are unlikely to impact on groundwater resources. However, Delta will adopt the following groundwater management objectives throughout the duration of the Project:

- Reduce the potential for drawdown of surrounding groundwater resources;
- Prevent the pollution of groundwater through appropriate controls; and
- Reduce the potential impacts of groundwater dependent ecosystems.

The management, discharge, and reuse of excess water on the Project will be carried out in accordance with Sydney Metro's Water Discharge and Reuse Procedure (SM ES-PW-309).

9 CONSTRUCTION TRAFFIC MANAGEMENT

The construction traffic management requirements of SMR E and the CEMF are provided in the Construction Traffic Management Sub Plan included as **Appendix C** to this CEMP. The Construction Traffic Management Sub Plan has been developed in accordance with the Sydney Metro General Specifications G10 - Traffic and Transport Management (SM ES-ST-214).

Environmental management measures from the Construction Traffic Management and Recycling Sub Plan are provided in Section 17.

10 CONSTRUCTION NOISE AND VIBRATION MANAGEMENT

The construction noise and vibration management requirements of SMR E and the CEMF are provided in the Construction Noise and Vibration Management Sub Plan included as **Appendix D** to this CEMP. The Construction Noise and Vibration Management Sub Plan has been developed in accordance with the City and Southwest Construction Noise and Vibration Strategy (SM ES-ST-210).

Environmental management measures from the Construction Noise and Vibration Management and Recycling Sub Plan are provided in Section 17.

11 HERITAGE MANAGEMENT

The heritage management requirements of SMR E and the CEMF are provided in the Heritage Management Sub Plan included as **Appendix E** to this CEMP.

11.1 Unexpected Heritage Finds Procedure

Unexpected archaeological finds will be managed under the Project Unexpected Finds Procedure developed within the Sydney Metro City & Southwest Chatswood to Sydenham Historical Archaeological Assessment and Research Design.

In the first instance, Delta will verbally notify the Sydney Trains Nominated Representative to seek advice as soon as possible after Delta becomes aware of the unexpected find. Works in the vicinity of the unexpected find will cease

immediately. If human skeletal remains are found during the Project, works will cease immediately across the whole of the site.

If human skeletal remains are identified any archaeological investigation would be undertaken by the Principal in accordance with the Skeletal Remains: Guidelines for Management of Human Skeletal Remains (Heritage Council of NSW, 1998). An Exhumation Policy for the Project will be developed by the Principal, where necessary, and will be adhered to by Delta.

The unexpected finds procedure will apply to the areas nominated in the Historical Archaeological Assessment and Research Design provided in Appendix B of the Heritage Management Sub Plan.

Environmental management measures from the Heritage Management Sub Plan are provided in Section 17.

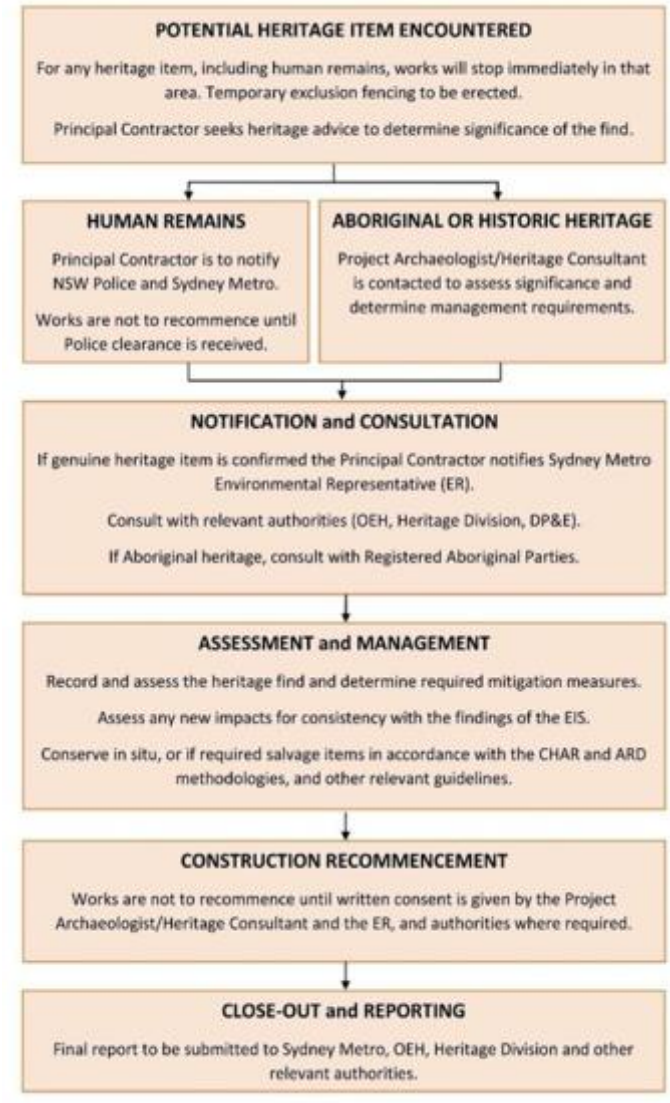

Figure 8 Unexpected Finds Procedure

Source: Sydney Metro City & Southwest Chatswood to Sydenham Historical Archaeological Assessment and Research Design.

12 FLORA AND FAUNA MANAGEMENT

Project works have the potential to impact on surrounding and nearby flora and fauna. Delta will adopt the following flora and fauna management objectives throughout the duration of the Project. Delta will:

- Minimise impacts on flora and fauna;
- Design site drainage crossings and modifications to incorporate best practice principles;
- Retain existing fauna and flora habitat wherever possible; and
- Manage the spread of weeds and pathogens.

To meet these objectives a number of environmental management measures are provided in Section 17.

12.1 Tree Retention

The City and South West project will be designed to retain as many trees as possible and provide replacement trees such that there a net increase in the number of trees. In accordance with CoA E6, the Principal will commission an independent, experienced, and suitably qualified arborist to prepare a comprehensive Tree Report before removing any trees, as detailed in the EIS, as amended by the PIR and the terms of approval.

Delta will comply with the findings of the Tree Report, following consultation and approval from the Principal. However, it should be noted that tree removal is not within Delta's scope of works. A number of trees will require trimming to allow for removal or aerial cabling and installation of hoardings, but Delta will not remove any trees. Delta will only undertake tree trimming for the purpose of hoarding installation and will undertake all such works in compliance with the requirements of the Tree Report. Trimming will be carried out by an arborist and will be restricted to the extent required for the works.

Trees on each site that may be impacted by vehicle and plant movements during demolition works will be protected using barrier mesh to delineate no-go zones. These are shown in the Site Establishment Plans in **Appendix I**.

12.2 Microbats

There is some potential for threatened and non-threatened microbat species to inhabit features at the Waterloo and Marrickville sites. A number of buildings within the construction areas at Waterloo Station and Marrickville Dive Sites provide roof cavities, which may be used as roost habitat for microbats. The following measures will be implemented to mitigate potential impacts to non-threatened microbats during demolition.

Where practical, sections of roofing material at Waterloo Station will be removed one day prior to demolition to allow light to penetrate into the roof cavities. This will significantly reduce the habitat value and allow any microbats present to vacate the roof cavity overnight.

All workers undertaking demolition works of buildings will be informed of the potential for microbats to be present within roof cavities. If any microbats are encountered works will cease and a suitably qualified zoologist will be contacted. Works would recommence based on the advice and/or actions of the zoologist.

At the Marrickville Dive Site, Delta will facilitate access where required for targeted surveys to confirm the presence or otherwise of roosting habitat for threatened species in the area highlighted in yellow in **Figure 10**.

Buildings and features with potential microbat habitat are shown in the following figures.

Figure 9 Waterloo Station Microbat Habitat Features

Source: Biosis Microbat Habitat Preliminary Inspection Report, 6 February 2017.

Figure 10 Marrickville Dive Site Microbat Habitat Features

Source: Biosis Microbat Habitat Preliminary Inspection Report, 6 February 2017.

Decommissioning of the four substations has been assessed in SER Decommission of S.1642 Edinburgh Murray and Augmentation of Existing Network Distributors. The decommissioning works are not likely to have a significant impact on biodiversity resources and therefore no specific construction controls are required.

12.3 Unexpected Ecological Finds Procedure

Unexpected threatened ecological communities or species finds will be managed under the Project Unexpected Finds Procedure to be developed by Sydney Metro.

In accordance with Schedule D1 - SMR E of the contract, Delta is not required to prepare such a procedure, but is required to adopt the Principal's procedure when available. Delta will comply with the Principal's Unexpected TEC and Threatened Species Procedure.

13 MATERIALS MANAGEMENT

Delta's works have the potential to draw on scarce resources and those with a high life-cycle cost. Delta will adopt the following materials management objectives to the project. Delta will:

- Reduce material use throughout the Project life-cycle where reasonable and feasible;
- Consider embodied impacts in materials selection;
- Use recycled materials where reasonable and feasible;
- Recycle and reuse materials onsite; and
- Influence subcontractors and materials suppliers to adopt sustainability objectives in their works and procurement.

Delta's materials management procedures, along with the requirements of SMR E and the CEMF, are provided in the Waste Management and Recycling Sub Plan included as Appendix H to this CEMP.

14 SOIL AND WATER MANAGEMENT

Delta's works have the potential to impact on soil and water resources in the vicinity of the Project. Delta will adopt the following soil and water management objectives throughout the duration of the Project. Delta will:

- Minimise pollution of surface water through appropriate erosion and sediment control;
- Maintain existing water quality of surrounding surface drainage; and
- Source construction water from non-potable sources, where feasible and reasonable.

To meet these objectives a number of environmental management measures are provided in Section 17.

All reasonably practicable erosion and sediment controls will be installed and appropriately maintained to minimise water pollution from Delta's sites.

The management, discharge, and reuse of excess water on the Project will be carried out in accordance with Sydney Metro's Water Discharge and Reuse Procedure (SM ES-PW-309). Erosion and sediment controls relevant to each Portion will be carried out in accordance with Managing Urban Stormwater: Soil and Construction (Landcom, 2008) – the "Blue Book".

Decommissioning of the four substations is not likely to have a significant impact on soil and water resources and therefore no specific construction controls are required. Any excavation adjacent to RMS road infrastructure will meet the requirements of RMS Technical Direction (GTD 2012/0001) Excavation adjacent to RMS infrastructure.

15 AIR QUALITY

Project works such as demolition, stockpiling, and transport of materials have the potential to impact on surrounding air quality. Delta will adopt the following air quality management objectives throughout the duration of the Project. Delta will:

- Minimise gaseous and particulate pollutant emissions from the works where feasible and reasonable; and
- Identify and control potential dust and pollutant sources.

Decommissioning of the four substations has been assessed in an SER. The decommissioning works are not likely to have a significant impact on air quality. Potential impacts would be managed appropriately with construction controls to prevent dust and fumes leaving the worksite.

To meet these objectives a number of environmental management measures are provided in Section 17. All reasonably practicable measures will be implemented to minimise the emission of dust and other air pollutants during the Project.

16 WASTE MANAGEMENT

The waste management requirements of SMR E and the CEMF are provided in the Waste Management and Recycling Sub Plan included as **Appendix H** to this CEMP.

A recycling target of at least 90% will be adopted for all sites. Waste generated during construction will be dealt with in accordance with the following priorities:

- Waste generation will be avoided and where avoidance is not reasonably practicable, waste generation will be reduced;
- Where avoiding or reducing waste is not possible, waste will be re-used, recycled, or recovered; and
- Where re-using, recycling or recovering waste is not possible, waste will be treated or disposed of.

Environmental management measures from the Waste Management and Recycling Sub Plan are provided in Section 17.

17 ENVIRONMENTAL MANAGEMENT MEASURES

Table 11 Compilation of Environmental Management Measures

Measure	Commitment	Responsibility	Timing
General Works			
GW01	Carry out works between the standard working hours of 7am to 6pm on weekdays and 8am to 1pm on Saturdays only. No works may be carried out on Sundays or public holidays.	Site Manager	Demolition
GW02	Works may be undertaken outside of these standard construction hours without any further approval where: • Those works have been described in the environmental assessment as being required to take place 24/7; • Works have been determined to comply with the relevant Noise Management Level at sensitive receivers; • The delivery of materials outside of approved hours is required by the Police or other authorities for safety reasons; • The works are emergency works required to avoid the loss of lives or property and / or to prevent environmental harm; or • Written agreement has been reached with all affected receivers.	Project Manager	Demolition
GW03	Works to be carried out outside standard work hours will be subject to an Out of Hours Works application and approval process.	Environment & Sustainability Manager	Demolition
Traffic Management			
TM01	The CEMP will be updated when the TMP becomes available.	Project Director	Pre-demolition
Noise and Vibration			
NVM01	Conduct a site induction addressing the requirements of the CNVMP for all new personnel undertaking site activities.	Environment & Sustainability Manager	Pre-demolition
NVM02	Educate staff on noise and the impacts of workers activities on the noise environment.	Site Manager	Pre-demolition / Demolition
NVM03	Develop a complaints handling procedure and respond to complaints.	TfNSW / Environment & Sustainability Manager	Pre-demolition / Demolition

Measure	Commitment	Responsibility	Timing
NVM04	Conduct regular toolbox talks to reiterate the appropriate noise and vibration management methodologies.	Site Manager	Demolition
NVM05	Turn off machinery when not in use.	All personnel	Demolition
NVM06	Conduct regular noise measurements in the vicinity of the site to assess compliance with criteria.	Environment & Sustainability Manager	Demolition
NVM07	Minimise the number of equipment operating simultaneously.	Site Manager	Demolition
NVM08	Operate and maintain equipment according to manufacturers' specifications.	All personnel	Demolition
NVM09	Do not use crane whistles, amplified external telephone ringers/ horns or alarms (excluding emergencies).	All personnel	Demolition
NVM10	Preference the use of the following in lieu of hydraulic hammers at all times so far as is practical: • Hydraulic concrete shears; • Hydraulic concrete pulverisers; • Saw cutting and lifting.	Site Manager	Demolition
NVM11	Placement of plant (i.e. generators) at areas not adjoining neighbours where practical.	Site Manager	Demolition
NVM12	Sequencing of demolition work to retain noise shields (walls, etc.) as long as possible ie floor by floor leaving the perimeter wall where practical.	Project Manager	Demolition
NVM13	Positioning of load out areas and dump chutes away from neighbouring walls and enclosing dump chutes where practical.	Site Manager	Demolition
NVM14	Install temporary hoardings around the site.	Project Manager	Demolition
NVM15	Use site offices, sheds as noise barriers during demolition works where practical.	Site Manager	Demolition
NVM16	Use equipment appropriately sized for each task.	Site Manager	Demolition
NVM17	Use a rock breaker with a maximum sound power level of 111 dBA.	Site Manager	Demolition
NVM18	Use a noise reduction kit on the jack hammer to limit its sound power level to 115 dBA.	Site Manager	Demolition
NVM19	Use smart broadband reversing alarm on mobile equipment where possible.	Site Manager	Demolition
NVM20	Removal of any points of contact between the buildings where practical.	Site Manager	Demolition
NVM21	Installation of carpet/ply on scaffold at level of demolition where practical.	Site Manager	Demolition
NVM22	Operate during standard work hours.	Site Manager	Demolition
NVM23	Introduce respite periods and/or take smoke and lunch breaks when noisy equipment is operating close to the site boundaries.	Site Manager	Demolition
NVM24	Demolition excavator works to be undertaken between 8am and 5pm, Monday to Friday (excluding breaks and respite periods).	Site Manager	Demolition
NVM25	Delta will not undertake noisy works during 7am – 8am providing a respite period.	Site Manager	Demolition
NVM26	No hard demolition works (unless required for safety measures) between 5pm and 6pm.	Site Manager	Demolition

Measure	Commitment	Responsibility	Timing
NVM27	Noise and vibration monitoring shall be undertaken using permanent installations at the nearest representative sensitive receivers around the demolition site to ensure ongoing compliance.	Environment & Sustainability Manager	Demolition
NVM28	Where complaints are received, additional monitoring may be conducted at the specific location of complaint.	Environment & Sustainability Manager	Demolition
Heritage Management			
H01	Retain and protect identified heritage buildings adjacent to the demolition works.	Site Manager	Pre-demolition
H02	Carry out vibration monitoring at sites identified in the Noise and Vibration Management Sub Plan.	Environment & Sustainability Manager	Pre-demolition
H03	Provide Sydney Metro and its contractors with safe access for photographic recordings and identification of heritage items.	Site Manager	Pre-demolition
H04	Engage a suitably qualified heritage salvage specialist to salvage the items identified by Sydney Metro at 187 Miller Street North Sydney, and at any other location nominated by Sydney Metro.	Environment & Sustainability Manager	Pre-demolition
H05	Implement an unexpected finds procedure for the unexpected discovery of indigenous and non-indigenous heritage items and human remains.	Site Manager	Demolition
H06	Implement the Environmental Incident Response procedure in the event of any damage to a heritage item resulting from Delta's activities.	Site Manager	Demolition
Flora and Fauna Management			
FF01	If a threat to an animal is evident onsite, the Site Manager and the Environment and Sustainability Manager must be notified immediately. Works may need to cease until the animal has been relocated.	Site Manager / Environment & Sustainability Manager	Pre-demolition / Demolition
FF02	Where practical, sections of roofing material at Waterloo Station will be removed one day prior to demolition to allow light to penetrate into the roof cavities to allow any microbats present to vacate the roof cavity overnight.	Site Manager	Pre-demolition
FF03	Inform all workers of the potential for microbats to be present within roof cavities.	Site Manager	Pre-demolition / Demolition
FF04	If microbats are encountered works will cease and a suitably qualified zoologist will be contacted. Works will only recommence based on the advice and/or actions of the zoologist.	Site Manager	Demolition
FF05	Facilitate access where required for targeted microbat surveys.	Site Manager	Demolition
Soil and Water Management			
SW01	Install and maintain erosion and sediment controls to minimise pollution of stormwater.	Site Manager	Pre-demolition / Demolition
SW02	Carry out management, discharge, and reuse of excess water in accordance with Sydney Metro's Water Discharge and Reuse Procedure.	Site Manager	Pre-demolition / Demolition
SW03	Carry out erosion and sediment control in accordance with the Blue Book.	Site Manager	Pre-demolition / Demolition

Measure	Commitment	Responsibility	Timing
SW04	Sediment controls will be cleaned out as necessary but no more than 5 days after rain in accordance with the Blue Book.	Site Manager	Demolition
SW05	Any bales (e.g. straw) used onsite are to be weed-free.	Site Manager	Demolition
SW06	Sediment controls will be installed around stormwater inlet pits where appropriate and where they won't cause or exacerbate flooding.	Site Manager	Pre-demolition / Demolition
SW07	All vehicles leaving site will be required to ensure tyres, guards and drawbars are clear of excess sediment. Brushes and hoses will be provided at site gates, along with appropriate signage.	Site Manager	Demolition
SW08	Wherever possible, truck loading circuits will be stabilised to minimise the amount of sediment picked up on tyres.	Site Manager	Demolition
SW09	Conduct regular monitoring of vehicle egress points.	Site Manager	Demolition
SW10	Cover loads prior to exiting site.	Site Manager	Demolition
SW11	Stockpiles will be positioned within the project boundary and away from any drainage areas or locations likely to receive run-off wherever possible.	Site Manager	Demolition
SW12	Stockpiles will be constructed to no more than 2m in height and battered down to no steeper than 2:1 (H:V) where space permits.	Site Manager	Demolition
SW13	Hazardous substances will be stored onsite in lockable containers, in their original receptacles only.	All personnel	Demolition
SW14	All hazardous substances will be clearly labelled and will have Safety Data Sheets affixed or available nearby.	All personnel	Demolition
SW15	The use of any hazardous substance that could result in a spill will be undertaken away from drainage or stormwater lines and, wherever possible, within defined bunds.	All personnel	Demolition
SW16	Any refuelling undertaken on site will be undertaken in designated areas only and well away from stormwater system inlets.	Site Manager	Demolition
SW17	All spills or leakages will be immediately contained and absorbed.	All personnel	Demolition
SW18	In the event of a spill the Spill Management Procedure included in Appendix F will be implemented.	All personnel	Demolition
SW19	Any excavation adjacent to RMS road infrastructure will meet the requirements of RMS Technical Direction (GTD 2012/0001) Excavation adjacent to RMS infrastructure.	Project Manager	Demolition
Air Quality			
AQ01	Remove materials that have a potential to produce dust from site as soon as practical.	Site Manager	Demolition
AQ02	Ensure effective water suppression is used during demolition operations, using non-potable water where possible.	All personnel	Demolition
AQ03	Avoid dry sweeping of large areas.	All personnel	Demolition
AQ04	Where practicable, only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems.	All personnel	Demolition
AQ05	Where possible, use enclosed chutes and conveyors and covered skips.	Site Manager	Demolition
AQ06	Impose and signpost a maximum speed limit of 20 km/h on surfaced and unsurfaced haul roads and in work areas.	Site Manager	Pre-demolition / Demolition

Measure	Commitment	Responsibility	Timing
AQ07	Ensure vehicles carrying demolition materials leaving sites are covered to prevent escape of materials during transport.	Site Manager	Demolition
AQ08	All construction plant and equipment must be maintained and operated to minimise emissions. Visible emissions should not be emitted for any period greater than 10consecutive seconds.	Site Manager	Demolition
AQ09	Where dust emissions are observed leaving the site, works will cease or otherwise be adjusted to reduce or eliminate those emissions.	Site Manager	Demolition
Waste and Recycling			
WR01	Classify wastes in accordance with the Waste Classification Guidelines.	Site Manager	Demolition
WR02	Carry out waste management activities in accordance with the waste minimisation hierarchy.	All personnel	Demolition
WR03	Minimise the amount of material brought to the site that will generate waste.	All personnel	Demolition
WR04	All personnel and subcontractors will undergo site induction training.	All personnel	Demolition
WR05	All materials dispatched from site will be tracked from site to final destination. Waste types, dispatch details, including trucking company name and vehicle registration, and arrival and departure times for each load will be recorded in QF 029 Material Disposal Running Sheet.	Site Manager	Demolition
Monitoring Measures			
NVM06	Conduct regular noise measurements in the vicinity of the site to assess compliance with criteria.	Environment & Sustainability Manager	Demolition
NVM27	Noise and vibration monitoring shall be undertaken using permanent installations at the nearest representative sensitive receivers around the demolition site to ensure ongoing compliance.	Environment & Sustainability Manager	Demolition
NVM28	Where complaints are received, additional monitoring may be conducted at the specific location of complaint.	Environment & Sustainability Manager	Demolition
H02	Carry out vibration monitoring at sites identified in the Noise and Vibration Management Sub Plan.	Environment & Sustainability Manager	Pre-demolition
FF05	Facilitate access where required for targeted microbat surveys.	Site Manager	Demolition
SW09	Conduct regular monitoring of vehicle egress points.	Site Manager	Demolition
WR05	All materials dispatched from site will be tracked from site to final destination. Waste types, dispatch details, including trucking company name and vehicle registration, and arrival and departure times for each load will be recorded in QF 029 Material Disposal Running Sheet.	Site Manager	Demolition
AQ09	Where dust emissions are observed leaving the site, works will cease or otherwise be adjusted to reduce or eliminate those emissions.	Site Manager	Demolition
MM01	Weekly site inspections will be carried out across the site, including the site perimeter, to assess waste storage facilities, the condition of any erosion and sediment controls, noise barriers, site hoarding, the need for graffiti or weed removal,	Site Manager	Demolition

Measure	Commitment	Responsibility	Timing
	the health of retained vegetation, and the direction of any site lighting.		

18 ENVIRONMENTAL RISK ANALYSIS

An environmental risk analysis was undertaken in accordance with the principles of the Australian and New Zealand standard AS / NZS ISO 31000:2009 Risk Management – Principles and Guidelines, and published in the EIS.

The risk analysis was revised for Delta's works and in accordance with the risk criteria and risk ratings provided in the Project Risk Management Plan. Consequence criteria are provided in Section 5.1 of the Risk Management Plan, and likelihood criteria in Section 5.2. A risk rating for each potential impact was determined as a product of likelihood and consequence using the risk matrix in Section 5.3.

An environmental risk analysis for the Project is provided in Table 12. The risk analysis identifies risks that were identified in the EIS that are relevant at the demolition stage. It also identifies the residual risk rating following the application of mitigation measures provided in this CEMP.

19 LICENCE AND APPROVALS

APPROVAL	FREQUENCY	RESPONSIBLE PERSON
Early works	Prior to starting works on site.	Environment Manager
Road closures	Prior to structural demolition	Project Manager
Path closures	Prior to structural demolition	Project Manager
Asbestos/HazMat removal	Prior to structural demolition	Environment Manager
Out of Hours work	Throughout project	Environment Manager

Please note: No further requirements apply to the project (e.g. voluntary agreements or stakeholder agreements)

Table 12 Environmental Risk Analysis

Potential impact	Unmitigated consequence	Unmitigated likelihood	Unmitigated risk rating	Proposed mitigation	Residual consequence	Residual likelihood	Residual risk rating
Construction traffic and transport							
• Diversions of pedestrians and cyclists. • Reduced pedestrian and cyclist access or flows. • Pedestrian and cyclist safety.	Moderate	Likely	B	Section 9 Construction Traffic Management	Minor	Possible	C
• Deterioration of traffic performance on surrounding road network due to construction vehicles. • Loss of parking spaces or loading zones. • Impacts on access to private property.	Minor	Likely	B	Section 9 Construction Traffic Management	Moderate	Possible	C
• Altered access to businesses during demolition. • Impacts on businesses during demolition (due to loss of amenity).	Major	Likely	B	Section 9 Construction Traffic Management	Moderate	Possible	C
• Increased trade for food and beverage during demolition.	Positive						
Construction noise and vibration							
• Unacceptable airborne noise impacts from demolition during standard construction hours.	Major	Likely	B	Section 10 Construction Noise and Vibration Management	Moderate	Possible	C
• Vibration from surface works exceeds human comfort or damage levels.	Major	Likely	B		Minor	Possible	C
Non-aboriginal heritage							
• Impacts on unidentified heritage items during demolition.	Major	Unlikely	C	Section 11 Heritage Management	Minor	Unlikely	C
• Impacts on identified heritage items during salvage.	Major	Unlikely	C	Section 11 Heritage Management	Minor	Unlikely	C
Aboriginal heritage							
• Impacts on unidentified Aboriginal heritage items during trenching.	Major	Unlikely	C	Section 11 Heritage Management	Minor	Unlikely	C
Landscape character and visual amenity							
• Adverse visual impacts due to the presence of demolition activities and compounds.	Moderate	Likely	B	Section 5.6 Urban Design of Temporary Works	Moderate	Possible	C
Soils, contamination, and water quality							

Potential impact	Unmitigated consequence	Unmitigated likelihood	Unmitigated risk rating	Proposed mitigation	Residual consequence	Residual likelihood	Residual risk rating
• Erosion of soils resulting in offsite sedimentation during demolition and trenching.	Major	Likely	B	Section 14 Soil and Water	Moderate	Possible	C
• Contamination of groundwater due to spills and leaks during demolition and trenching. • Contamination of land due to spills and leaks during demolition and trenching.	Major	Likely	B	Section 14 Soil and Water	Moderate	Possible	C
• Water quality impacts on nearby watercourses due to runoff from the project site resulting in sedimentation to waterways during demolition and trenching. • Water quality impacts on nearby watercourses due to contamination or spills.	Major	Likely	B	Section 14 Soil and Water	Minor	Possible	C
Social impacts and community infrastructure							
• Impacts on community facilities due to changes to access during demolition.	Moderate	Likely	B	Section 9 Construction Traffic Management	Moderate	Likely	C
• Potential impacts associated with demolition noise.	Moderate	Unlikely	B	Section 10 Construction Noise and Vibration Management	Minor	Unlikely	C
Biodiversity							
• Impacts on threatened ecological communities outside of the demolition footprint. • Impact on native vegetation (non-threatened ecological communities) outside of the demolition footprint. • Significant impacts on threatened flora species. • Impacts on previously unidentified threatened flora species.	Moderate	Rare	D	Section 12 Flora and Fauna Management	Minor	Unlikely	D
• Significant impacts on threatened fauna species.	Moderate	Possible	C	Section 12 Flora and Fauna Management	Minor	Unlikely	D
Air quality							
• Impacts on local air quality due to demolition plant and equipment and increase in vehicle movements.	Minor	Likely	C	Section 15 Air Quality	Minor	Unlikely	D

Potential impact	Unmitigated consequence	Unmitigated likelihood	Unmitigated risk rating	Proposed mitigation	Residual consequence	Residual likelihood	Residual risk rating
• Impacts on local air quality due to dust generation from demolition, exposed surfaces, stockpiles, or haulage.							
Hazard and risk							
• Transport and storage of hazardous substances and dangerous goods during demolition.	Major	Unlikely	C	Section 4.12 Dangerous Goods	Major	Almost unprecedented	D
Waste management							
• Impacts associated with the management of waste during demolition.	Moderate	Likely	B	Section 16 Waste Management	Minor	Unlikely	D
Sustainability							
• Emissions of greenhouse gases from demolition and trenching activities.	Minor	Almost certain	B	Appendix G Sustainability Management Sub Plan	Insignificant	Almost certain	D
• Impact of climate change on personnel comfort.	Moderate	Likely	B	Appendix G Sustainability Management Sub Plan	Moderate	Likely	B
• Increased demand on electricity and water supply during demolition.	Minor	Unlikely	D	Appendix G Sustainability Management Sub Plan	Minor	Unlikely	D
• Increased diesel use during demolition.	Minor	Almost certain	B	Appendix G Sustainability Management Sub Plan	Insignificant	Almost certain	D

20 Appendices

APPENDIX A
DELTA ENVIRONMENT POLICY AND SELECTED FORMS

DELTA GROUP AUSTRALIA WIDE

DELTA PTY. LTD. A.B.N. 67 007 069 794

DEMOLITION
ASBESTOS REMOVAL
CONCRETE RECYCLING
CIVIL AND LANDSCAPING
STEEL RECYCLING

CIVIL CONSTRUCTION
EARTHWORKS
SITE RETENTION
TIMBER RECYCLING OUTLET
DELTA RENT & DELTA QUIP

Environmental Policy

Our goal is to improve the environments in which we operate.

This goal is not limited to minimising the environmental impact of our operations but includes taking active steps to reduce our energy usage, to reduce waste, to recycle everything we can and to be rigorous about safe disposal of any residual contaminants in strict compliance with regulatory requirements. This is at the heart of our business.

To achieve our goal, we will:

- Maintain an Integrated Management System which meets the requirements of AS/NZS ISO14001
- Constantly challenge the system for better ways of doing things
- Apply our philosophy of "Right First Time" but when we don't get it right we will learn from our mistakes
- Set objectives and targets to measure and improve our environmental performance
- Strive to prevent pollution, reduce waste and recover and recycle with the aim of exceeding all relevant regulatory standards

Signed

Jason Simcocks
Director of Operations
Delta Group

25/06/2016

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INTEGRATED MANAGEMENT SYSTEM

Asbestos Management and Removal

Procedure 01

Contents

1. Scope

This procedure is to provide guidance on the management and removal of asbestos in the workplace, to ensure that asbestos and synthetic mineral fibres are controlled and managed so as to prevent harmful effects to personnel from short-term irritation to long-term health effects.

2. Key Requirements

This procedure shall apply to all operations performed on Demolition/Civil sites where Delta has contractual responsibility for the management of removal of asbestos or is undertaking the activity.

3. Definitions

Asbestos-containing material (ACM)	Any material, object, product or debris that contains asbestos.
Bonded ACM	Asbestos containing material containing a bonding compound reinforced with asbestos fibers.
Un-bonded ACM	Asbestos containing material that does not contain a bonding compound reinforced with asbestos fibers.
Friable ACM	Un-bonded asbestos containing material that, when dry, is or may become crumbled pulverized or reduced to powder by hand pressure
Fixed	Where it has been attached or secured in position (e.g. asbestos cement sheet screwed or nailed).
Foreman Supervisor Project manager	Also means contractor and sub-contractor
Installed	Where it has been specifically placed for a purpose (e.g. asbestos containing refractory bricks placed on top of each other or loose asbestos containing insulation blown into a ceiling space).
Removal	Asbestos removal work requires the appointment of a Principal Contractor. Asbestos removal work is a high risk construction activity.
Asbestos Material Report	A report by an appropriately qualified person which states: • Where and what the types of materials that were found; • The form of the materials. • The condition of the material (i.e. friable, poorly bonded, unstable). • The potential health risks to building occupants.
Asbestos Register	A register that must be kept by the owner of the building and which must: • Contain information, including any changes/updates, from the Asbestos Material Report. • Be available for inspection by any person requiring inspection. • Be available to all maintenance/building contractors. • Be available to any contractors.
Competent person	A competent person is a person who possesses adequate qualifications, such as suitable training and sufficient knowledge, experience or skill, to perform a specific task safely.
Hygienist	A person having attained training and experience to undertake Occupational Hygiene services to the Asbestos removal industry

4. Authority

Group General Manager

- Approve this procedure
- Approve Computer Access

National QSE Manager

- Approve this document
- Review this document

IMS Manager

- Develop and assure compliance
- Document Controller

5. Asbestos Management Procedure

Subject	Action Steps	Responsible
Notification	Legislation requires notification to the relevant state regulator in writing prior to asbestos removal. 5 days notices for asbestos removal 24hrs notice for less than 10m2 of bonded asbestos Within 24hrs of an unexpected find	Project Management
Site Management	Ensure all required documentation is obtained from the sub-contract company prior to start. This will include: ○ Approved sub-contractor management plan ○ Asbestos Control Plan ○ SWMS ○ Evidence of A/B class licenses ○ Evidence of notification of Authority	Project Manager
Asbestos Control Plan	Where Delta is removing Asbestos, Asbestos Control Form is to be completed. Where subcontractors have been engaged an Asbestos Control Plan must be provided by the engaged company. Information that is required to be included in an asbestos control plan includes but is not limited to: a. The location of the ACM. b. Whether the ACM is friable or non-friable. c. The type and condition of the ACM d. The quantity of ACM proposed to be removed. e. A record to indicate that the notification requirements have been met and that required documentation is kept at the workplace where the asbestos removal work is being performed. f. Work methodology. g. The type of personal protective clothing and personal/respiratory protective equipment to be used. h. Proposed risk control measures to be used to prevent release of airborne asbestos fibers from the area where the asbestos removal work is being performed. i. If the area where the asbestos removal work is being performed in a negative air enclosure, details regarding smoke testing and negative air units.	Project Manager Project Manager

	Details of decontamination procedures for: a. persons performing the asbestos removal work b. tools and equipment used for the asbestos removal work c. non-disposable personal protective clothing and personal protective equipment. Method of disposal of: ○ asbestos waste ○ disposable personal protective clothing and personal protective equipment ○ (as applicable) Details of the structure used to enclose the areas where the asbestos removal work is being performed. ○ Methods of cleaning following asbestos removal work. The names of persons engaged by the license holder or person who commissioned the work (as applicable) to conduct air monitoring (if any) and to conduct the clearance inspection.	
Unknown ACM	Where ACM is located on a site outside of any known ACM containing areas, an Asbestos Management Plan (AMP) (i.e. Unexpected Finds Protocol) will be developed by Delta to manage: ○ Containment. ○ Disposal. ○ Site information (i.e. Site Induction, Consultative Forum) The Plan will be developed by the Project Manager/Engineer and provided to the Site Foremen. The information contained in the Plan must be provide to subcontract employees via: ○ Site Induction (new contractors) ○ Toolbox Talk or equivalent) existing worker) ○ Subcontract Agreement attachment (by Project Manager or Contracts Administrator) Refer Emergency Response Plan or Unexpected Finds	Project Manager
Atmospheric testing	Appropriate atmospheric tests are to be completed by a competent person to determine the atmospheric or contaminate levels and recommended work methodology. Such testing is conducted if there is uncertainty as to whether the exposure standard has been exceeded.	Hygienist
Clearance Certificate	A clearance inspection verifies that an asbestos work area is safe to be returned to normal use after work involving the disturbance of asbestos containing material has occurred. A clearance inspection must be conducted by a competent person who is **independent of the company completing the ACM removal work**. The inspection must be obtained where the asbestos removal work involves the removal of: ○ Any quantity of friable asbestos. ○ $10m^2$ or more of bonded asbestos material.	Foreman Supervisor Project manager

	A person who is suitable to conduct a clearance inspection should have: ○ Working knowledge of the asbestos removal industry, the asbestos management code and asbestos removal code ○ The ability to identify what is, or what may be, asbestos containing material ○ The ability to thoroughly inspect the area for suspected material ○ Experience in asbestos removal work, inspection of asbestos removal areas or audits of workplaces for asbestos containing material. ○ A copy of the Clearance Certificate must be maintained on site.	
Environment management	The removal of ACM from a construction site is subject to : ○ Transport and final disposal being conducted in a manner, which prevents the release of fibres. ○ Waste being disposed of at an approved waste disposal facility, under a permit from the relevant local authority and/or EPA. ○ Identifying that the transport of such waste is subject to the Australian Dangerous Goods Code. ○ Noting that the transport of non-domestic waste in quantities of more than 250kg in a load is an Environmentally Relevant Activity and requires that the transport vehicle be licensed by a regulatory authority (i.e. EPA). ○ Ensuring that subcontractor competing the works, provides verification to Delta (by return receipt of waste disposal receipt) that the material has been disposed of at an approved waste disposal facility.	Foreman Supervisor Project manager
Exclusion zone	Where total enclosure of the removal area is not practicable, an exclusion area of **at least 10 metres around the work area must be implemented**. ○ The boundary of the exclusion area should be defined by barrier, rope or rails. ○ Signage, indicating that the area is an asbestos removal area, must be erected. **Note: Friable asbestos removal requires a solid barricade to be used.**	Foreman Supervisor Project manager
Containment barriers	Must be used in fully enclosed removal areas, and: ○ Must be erected before any removal work can commence. ○ Must be capable of stopping exposure to a concentration of airborne fibres greater than 0.02 fibres/ml. ○ Must use 0.2 mm plastic sheeting, and ○ overlap joins by 200 mm; ○ double-tape joins; ○ cover floors with a double layer of plastic sheeting, fixed by adhesive tape to prevent movement between layers; ○ ensure that wall-floor joins should have a 300 mm turn-up; ○ at completion of job, treat plastic sheeting as asbestos waste.	Foreman Supervisor Project manager
Exhaust extraction – fully enclosed areas	○ The removal area should be maintained under a negative air pressure to ensure that particles do not become airborne. ○ Air expulsion should only be via a decontamination unit.	Foreman Supervisor

	○ Extracted air should pass through a HEPA (High Efficiency Particulate Air) filter which must comply with 99.97 % efficiency requirements. ○ Regular inspection and the installation of a static pressure alarm will assist with the integrity of the system.	Project manager
Services identification and isolation	DELTA is required to provide subcontract workers (or companies) with information relating to the location of possible services within the work area. This information can be provided through "As Built" or "Dial before you Dig" documentation. In addition, the subcontractor is to be advised whether the services are live or isolated. This information should be provided in written format from the service provider.	Project manager
Supervision	The Subcontractor completing the works is required to ensure competent supervision of the activity at all times. No person is permitted to complete ACM works while working alone. The Subcontractor responsible for the work must define (within their OHS documentation) their measures for ensuring dual working relationships	Foreman Supervisor Project manager
Inspections	Daily and on-going inspections of work areas, Plant, work practices (etc.) must be undertaken by persons involved in the works. Such check include: ○ Openings and elevated edges are appropriately protected. ○ All partly demolished elements are stabilized and surrounded by an exclusion zone. ○ Temporary bracing, shoring or propping is tight, stable and secure. ○ Fire and safety services are operational. ○ Other services to the area have been properly disconnected. ○ Plant, equipment, PPE and RPE is fully functional. ○ Signage is located to warn other persons of the hazards. ○ The work area is clear of all persons other than those completing the works. ○ Lines of communication to are clear and operational.	Foreman Supervisor Project manager

Asbestos Removal Procedure

Subject	Action Steps	Responsible
Preparation of Documentation	Ensure all required documentation is available prior to start. This will include: ○ Asbestos Control Plan ○ SWMS ○ Evidence of A/B class licenses ○ Evidence of notification of Authority ○ All other relevant permits, isolations and service sign offs. All asbestos removal operations shall only be performed by trained and qualified personnel who hold current state Regulatory Authority Asbestos removal training certificates.	Project manager

Pre start	Pre Start Meetings - Documented using Site Diary or Toolbox Meeting attended by Designated Work Groups and site personnel. Minimum Agenda is to include: ○ Required rectification work (make safe) before work commences ○ Instructions of work for the day ○ Confirm Site Hazards ○ Issue required permits ○ Ensure appropriate SWMS for task ○ Raise any concerns Ensure all employees understand the permits and any special requirements imposed by them, and the requirements for access egress to and from the contaminated area. Prior to commencement, workers shall check all plant, equipment, vehicles and tools planned for the work for safe operational condition and suitability. Plant and Equipment register shall be completed and maintained for the duration of the removal work. Confirm all electrical equipment is in a safe and operational condition with current test tags attached and logged in the electrical equipment register, or Electrical Logbook provided by company that completes the test and tag. All barricades, warning signs and containment measures are to be in place before removal work begins. Where a risk assessment concludes that background air monitoring is required, this shall be carried out prior to the commencement of asbestos removal work.	Foreman Supervisor Project manager
Enclosures	Enclosures, cubicles, other temporary structures and fixtures used for the asbestos removal process shall be constructed to a standard to suit the work, pass all necessary containment tests and be maintained. All barricading and warning signs shall be installed and maintained for the duration of the work. The removal of Asbestos materials must be carried out by methods that will prevent the release of airborne asbestos fibres into the atmosphere, both during and after the removal operation. Where possible, Asbestos materials that are friable should be removed using wet methods. The choice of method is determined by the nature, condition, quantity and location of the Asbestos materials and any other health or safety hazards present. The removal of Asbestos materials that are friable should be done within an enclosure.	Foreman Supervisor Project manager
Monitoring	If air monitoring devices are required, arrangements for the timely analysis of results protocol needs to be communicated. In the event of readings above acceptable limits, the supervisor shall take immediate action to identify the source and rectify the problem. The monitoring of personnel entering the contaminated area is to be controlled by the use of Asbestos Entry and Exit Register.	Project manager
Disposal	Asbestos removal, transport and disposal must comply with State/Territory legislative requirements. These requirements will also require the licensing/registration of transport vehicles for the transport and disposal.	Project manager
Work Completion	Once the supervisor is satisfied that the removal work is completed the hygienist will inspect the removal area to ensure that the area is free of asbestos.	Foreman Supervisor

	The supervisor is to obtain a clearance from the hygienist that declares the area is free of asbestos and suitable for occupation All removal tools and electrical equipment are to be vacuumed thoroughly and wiped down with a wet cloth. Where decontamination of equipment is not possible, the equipment is to be wrapped and sealed appropriately and only opened at another removal site. When the removal area has been cleared of equipment, the containment plastic can be removed. All plastic must be folded and placed into asbestos labelled bags ready for disposal. The plastic must not be reused.	Project manager
Decontamination Unit Decontamination of tools.	In many instances, the only satisfactory method of providing appropriate changing facilities is by the provision of a mobile or specially constructed on-site decontamination unit. The decontamination unit should be sited immediately adjacent to, and joined to, the enclosed asbestos work area. This unit should be divided into three distinct areas: *1. DIRTY DECONTAMINATION AREA* *2. CLEAN DECONTAMINATION AREA* *3. CLEAN CHANGING AREA* These areas should be separated by means of a suitable airlock or buffer zone. Normally this airlock would consist of spring loaded doors or two or more overlapping sheets of plastic sheet positioned so as to define the boundary between each segment of the decontamination unit, whilst allowing personnel access and airflow towards the asbestos work area. To ensure a sufficient airflow through the decontamination unit, where doors are used to segment the decontamination regions of the unit, large openings with a hinged flap to operate as a one-way valve should be provided. The DIRTY DECONTAMINATION AREA should have provision for: a) Vacuum cleaning or hosing down of contaminated clothing and footwear. b) Storage of contaminated clothing and footwear. c) Labelled waste bags/bins for disposable protective clothing. d) A shower area with an adequate supply of warm water. The CLEAN DECONTAMINATION AREA should have provision for: a) Storage of individual respirators in containers or lockers. b) Airflow towards the dirty decontamination area. c) A shower area with an adequate supply of warm water. The CLEAN CHANGING AREA should have provision for: a) Storage of clean clothing. b) Separate storage of clean and dirty towels. c) Airflow towards the clean decontamination area. d) All water from the decontamination facility should pass through a high efficiency particulate filter or other trap before it passes into sewer mains. The filer or trap must be capable of capturing particles down to 5μm. Workers must not smoke, eat or drink in any part of the decontamination unit.	Foreman Supervisor Project manager Foreman Supervisor Project manager

Decontamination of tools, continued,,,,	All tools and equipment used during the removal task should be decontaminated using either the wet or dry decontamination procedures described above, before they are removed from the asbestos work area. The method chosen should depend on its practicality and the presence of any electrical hazards. If tools and equipment cannot be decontaminated in the asbestos work area, or are to be reused at another asbestos work area, they should be tagged to indicate asbestos contamination and double bagged in asbestos waste bags before being removed from the asbestos work area. This equipment and tools must remain sealed until decontamination or the commencement of the next asbestos maintenance or service task where the equipment can be taken into the work area and reused under full control conditions. PPE should be worn when opening the bag to clean or re-use the equipment or tools, and decontamination should only be performed in a controlled environment.	Foreman Supervisor Project manager

6. Health Monitoring

Monitoring of Asbestos Removal Personnel	Asbestos workers are required to have a medical examination which includes lung function and chest X ray prior to commencing work and annually and bi annually thereafter. Chest X-ray every 2 years Lung Function Tests yearly Records are to be held by the QSE department for a period of 30 years	QSE Department
Delta Employees	The following actions will be implemented for employees who may have been exposed to lead or asbestos as a result of construction activities on a project site: • After becoming aware of the potential exposure, they will be required to attend a screening medical at a nominated occupational health medical facility • Where required or advised by an Occupational Medical Practitioner, they will be required to attend further screening every 2 years. • If required, a "Report Only" Workers Compensation application form will be completed and lodged with the applicable state-based workers compensation authority for possible future reference. Refer to **"Procedure Management of Health Issues"** for additional information.	Project manager/RTW Coordinator
Asbestos exposure	Details of persons exposed to asbestos at the workplace will be registered with the Australian Government Asbestos Safety and Eradication Agency. http://www.asbestossafety.gov.au/	RTW Coordinator

7. Reference

Applicable Acts and Regulations for the states and Territories of Australia
Australian Standard 1319: 1994 Safety Signs for the Occupational Environment
Australia/New Zealand Standard 1715: 1994 Selection Use and Maintenance of Respiratory Protective Devices. Australia/New Zealand Standard 1716: 2003 Respiratory Protective Devices. Australian Standard 3544: 1988 Industrial Vacuum Cleaners for Particulates Hazardous to Health. Australian Standard 4260: 1997 High Efficiency Particulate Air (HEPA) Filters – Classification, Construction and Performance
WorkSafe Australia - Code of Practice for the Safe Removal of Asbestos NOHSC: 2002 (2005).
WorkSafe Australia - Code of practice for the Management and Control of Asbestos in Workplaces [NOHSC: 2018 (2005)] AS 2601-2001 Demolition of Structures

INTEGRATED MANAGEMENT SYSTEM

COMPETENCY INDUCTION and TRAINING

Procedure 03

1. Scope

This procedure is to:

a) Provide for a balanced and nationally consistent framework to secure the health and safety of Delta workers and workplaces'.
b) Determine the necessary competency, skills and qualification levels for personnel performing work for Delta Group
c) Ensure that there is a standard approach to company induction for new employees across the Group
d) Ensure that there is a standard approach to Site Induction for all employees and contractors across the Group
e) Have a documented process for ensuring all employees and workers have appropriate certification, licences, permits to work, and training and are familiar with any Safe Work Method Statements (SWMS) relevant to the work being undertaken.
f) Have a process for providing training and ensuring competency in the knowledge of health and safety, environmental legislation and QSE management principles and practices, for senior managers, site managers and supervisors.
g) Have a documented process to ensure that any new or unforeseen workforce requirements are assessed to determine the needs for additional Safety training for workers.
h) Have a documented process to ensure that as employees are promoted, or placed in supervisory positions during the course of a project, they are provided with suitable training to manage their Quality, Safety and Environmental responsibilities.
i) Have a documented process to ensure training provided to employees is recorded.
j) Have a documented process to evaluate the effectiveness of training delivered, including how the evaluations are used to select future training

Scope of this procedure applies to all personnel engaged by Delta Group Divisions.

Key Requirements: To ensure that Delta Group provide adequate instruction, development, guidance, supervision, leadership and support to its employees and contractors so that Safety, Environmental and Quality objectives are met.

2. Definitions

In this training procedure, unless the contrary intention appears:
"National Competency Standard" - means national standard of competency applicable across all Australian States and Territories
Competent person – A person who has acquired through training, qualification, experience or a combination of these, the knowledge and skills necessary for the task/s.
Manager/Supervisor - An employee with supervisory responsibilities.
Trainee - The person who undertakes training.
Training - The development of skills, knowledge and behaviours through instruction or practice.
Site – refers to any Delta Group controlled location e.g. yards, offices or project sites.
QSE – Quality Safety Environment
IMS – Integrated Management System

3. Authority

National QSE Manager

a) Develop and assure compliance
b) Review this document/ Document Controller

4. Skills Development

Division managers are responsible and accountable for the skills selection, skills development and critical thinking skills of their division personnel. The pathway for development is to be followed in this procedure.

5. Training Accountability

Divisional Manager is accountable for:

a) The provision of funds for training and development;
b) Review of training development needs;
c) Approval of training expenditure;
d) Consultation on matters of training and development

Site Managers Operations Managers and Supervisors are accountable for:

a) Ensuring new and transferred employees receive general and site specific induction training;
b) Ensuring the National QSE Manager is given documented requests for all training;
c) Ensuring that employees under their control receive training to adequately perform their task;
d) Ensuring only qualified and experienced personnel are engaged in all facets of the operations;
e) Ensuring that training has been effective by observing competence and behaviour;
f) Ensuring that employees and subcontractors are being supervised on new tasks until they are competent in complying with the JHA/SWMS for each task.

The National QSE Manager is accountable for:

a) Reviewing training needs and training plans;
b) Arranging for the delivery of training i.e. RTO or VOC;
c) Providing input on Quality, Safety and Environment course providers and assist in developing training programs.

Employees are accountable for:

a) Actively participating in training programs;
b) Ensuring they complete the training to adequately perform their role;
c) Participate in induction programs;
d) Apply the principles of training where appropriate;
e) Participate in appropriate information and instruction sessions and follow any reasonable instructions aimed at protecting their health and safety while at work;
f) Seek additional training if required to protect their health and safety.
g) Training

General training provides the means by which persons may be:

a) Inducted to a site
b) trained so that they can carry out their duties without endangering their own safety and the safety of others;
c) tested to assess their competence;
d) Competency verified during the course of their employment;
e) Authorised as operators or persons competent to undertake specified duties.

The requirements of the training represent only the minimum basis for training and may be exceeded at the discretion of their relevant manager.
All general training (e.g. computer training, business skills etc.) will be driven by the National Competency Standard. Responsibilities as stated within procedure

6. Position Requirements

Yearly reviews of all personnel will identify future Personal Development of individuals and allow individuals a forum to discuss their requirements as they relate to further training.

7. Roles and Responsibilities

PROJECT MANAGER is responsible for training requirements at the workplace and these include:

- Organisation of on-site personnel with regard to their responsibilities within the training needs;
- Identify key risks and training opportunities to ensure high quality training outputs;
- Being a part of the planning and training needs of trade activities;
- Ensure that all staff under their control have adequate training and experience for the work in conjunction with operations supervisor;
- Ensure that all staff under their control has adequate equipment training to carry out the works in conjunction with operations supervisor;
- Periodic audits of site personnel training needs;
- Leading by example and promoting sound training practices at every opportunity;
- Reviewing competency reports and inspections, and following up on training recommendations;
- Regular attendance at on-site meetings to ensure training related issues are raised for review.

OPERATIONS SUPERVISOR shares the responsibility for training requirements at the workplace and these include:

- Work with the Site Foreman, and ensure that no unnecessary training and induction delays occur;
- Assist in planning the daily training work procedures, resourcing and allocation of labor;
- Assist in ensuring training and induction procedures are adhered to;
- Ensure training needs are maintained between the subcontractor representative/s and Delta operations;
- Be responsible for providing appropriately trained personnel for the project and the hiring and expulsion of personnel;

SITE FOREMAN is responsible for induction and site training and these include:

- Training into the Quality, Safety and Environmental Management Plans;
- Training employees in the requirements of the contract and ensuring the works are delivered in accordance with the contract;
- Providing advice and assistance on training matters to employees;
- Deciding when training is required;
- Undertaking inspection of the contracted or planned works to ensure that training requirement are implemented and effective;
- Ensure that all training incidents are identified, actioned and closed out;
- Leading by example and promoting sound training practices at every opportunity;
- Regular attendance at on-site meetings to ensure training related issues are raised for review;
- Train the workforce in the HIRAC risk assessment methodology and assist in developing SWMS for all tasks and ensuring the work is monitored throughout. If required, amend the SWMS to reflect work activity changes;
- Ensure Site Inductions are conducted for all workers and Subcontractors;
- Managing the Site Folder on and ensuring all QSE documents are correctly completed – including consultation, inductions, communication checklist, training requests (SEF056) and registers (SEF055);
- Recording all daily training needs in a site diary SEF047;
- The site foreman will in communication with the site HSR and the site first aid officer review the site first aid requirements (SEF007) in accordance with relevant legislation, codes of practice and Australian standards.
- Other training related duties as directed by the Project Manager.

QSE ADVISOR is responsible for assisting operational training requirements including:

- Conduct internal audits and inspections of training needs
- Assist in the implementation and training of the Quality, Safety and Environmental Management Plans;
- Assist in arranging training for site personnel;

- Providing advice and assistance on training matters to employees;
- Advise when training required;
- Leading by example and promoting sound training assistance at every opportunity;
- Regular attendance at on-site meetings to ensure induction and training related issues are raised for review;
- Lead the process of ensuring training needs are reviewed periodically
- Other training related duties as directed by the Project Manager.

WORKSHOP MANAGEMENT is responsible for supervising and assisting the workshop personnel including:

- Explaining and assisting in the development of the task requirements
- Being available near or around the workshop area for task assistance
- Approve supervisory needs to complete the task
- Offering any assistance beyond the buddy system

8. Induction

All persons (permanent and temporary employees and contractors) who undertake work on a Delta Group site must as a minimum hold a current:

a) Generic Construction Industry Induction (as required);

b) Delta Group Induction, http://www.inductme.com.au/deltagroup/ ;

c) Client Induction (as required);

d) SWMS, Toolbox and SOP induction

e) Site Management Plan/s induction and
f) Site specific induction SEF012 and SEF 013

Emergency Management Personnel (Reference Emergency Preparedness and Response Plan) Designated emergency personnel for a project must be inducted into site-specific emergency procedures/plans and be suitably qualified or formally trained as to fulfil the role.

Site inductions including visitors

Site inductions should be conducted 7am so as to not disturb the workflow. The site induction should be conducted by the site HSR, site supervisor or a designated person. Visitors and consultants who are escorted at all times, or will not undertake work outside the office area will be treated as visitors and do not need to undergo an induction.

Site Familiarisation

Before commencing work on site, workers will also be given a familiarisation with the assigned work area and job. The duration of the work area familiarisation training for workers must be adequate to address the risks encountered and to address the site's duty of care.
Records of site inductions and authorisations to operate equipment or conduct specific activities for the site must be kept in accordance with this training procedure.

Operating Procedures (OP)

Before commencing work on a site, workers must be given training in the relevant Delta Group Operating Procedures:

a) the Delta Group Induction program and
b) other site or external based training programs

An inductee must receive refresher training in all aspects of the induction at intervals of no more than two years, except where there has been an operational change to the Procedure, when refresher training will take place as required.

Standard of Training

Where there is a relevant site specific competency standard for a task, then that standard will be the minimum training standard for undertaking that task on a Delta Group site. This requirement may be met in one of the following ways:

i. Where no existing competency is held then training must be conducted in accordance with the Site Competency Standards

ii. Where an existing National Competency Standard is held, then a comparison must be made between the completed components of that existing competency and the relevant components of the Site Specific Competency Standard. Where a gap is identified, then only the additional relevant components of the Site Specific Competency standard would need to be trained and/or assessed, conditional upon the attendance of the National Competency Standard training attendance not exceeding 2 years.

Where there is no relevant Site Specific Competency standard applicable for a task, but the task requires a National Competency Standard, then this requirement will be the minimum accepted standard.

For all remaining tasks, the site-training program will be appropriate to meet the needs of this training scheme. Training will only be provided by nationally accredited trainers and organisations. (RTO) Persons will be re-assessed (refresher training) at intervals not exceeding two years.

9. Training Needs Analysis

Training analysis and skills requirements will be determined by division managers in consultation with operations. A training needs analysis must be conducted by managers and supervisors responsible for personnel under their control. The TNA MUST identify the need between the standard performance being achieved and the standard of performance required. The national ticket register (training matrix) should be viewed to confirm any gaps in employee skills to perform work within legislation.

8.1 Training Request Process

a) It is the responsibility of each employee to identify their personal need for specific training and to make a training request to their immediate supervisor.
b) Training identified - A Training Request Form (SEF 056) is to be completed by applicant's supervisor or manager. Note multiple applicants must not appear on the same training request form, one applicant per form.
c) Completed form/s to be handed to QSE Advisor who will arrange Training Booking and liaise with applicants to confirm details and any necessary preparation
d) All documents relating to the booking and any subsequent invoices to be filed in I:\9. Training. Training requests under the corresponding month the by QSE advisor
e) QSE administrator to update spreadsheet with details and process payment of invoices.

Supervisory staff as determined in the management structure documentation or the project plan is expected to attain the following additional competencies:

a) Legislative Awareness
b) Site induction
c) Training in the operation of the site to the company Management system covering Safety, Environment and Quality.
d) Incident and Accident Investigation
e) Attend Training Courses I.e. Asbestos A and B, Plant and Equipment, First Aid and IMS Training
f) Behavioural Management Training
g) Audit training

8.2 Senior Management, Project Manager and Site Supervisor OHS/WHS and IMS Training

Delta Group will provide information, instruction and training to employees to enable those persons to perform their work in a way that is safe and without risks to health. Delta will further exercise due diligence to comply with the Act thereby ensuring the provision of training and instruction to workers about work health and safety.

8.3 Health and Safety Representatives

Elected Site Health and Safety Representatives are required to undergo training that is consistent with the Recognised Competencies, namely but not limited to:

a) OHS training as defined in state regulations (OHS/WHS)
b) Risk Management
c) Incident and Accident Investigation SEF 010a and SEF 010b)
d) Safety Communications (Supervisory Skills)

8.4 Contractors and Temporary Employees

Before commencing work on the site, all contractors and temporary employees must supply documentary proof that any competencies as required under this training scheme have been identified, are held where required and have been validated, authorised and a copy placed on file.

Validation must provide proof that demonstrates the person has been trained and assessed to the standards described in this training scheme.

It is the responsibility of the Project Manager to ensure that all training documentation as required by this training scheme is complete and submitted to the QSE Advisor for review prior to any personnel undertaking work or operating equipment on a Delta Group site. Upon a successful review of task specific competency and training documents the QSE Advisor will give approval to the Site Manager or their representative to then authorise that person to operate or work on the site, however:

a) Authorisation must include discrimination between models of equipment, current competency to operate to the same standard as permanent employees on a Delta Group site.

10. Training Records

Training records (SEF055), including personnel trained, the qualifications of the trainer and details of the training content are to be maintained in company records, I:\9. Training (National)

A person should be designated by the site management structure for each Delta Group site with responsibility to maintain training records at that site

Training records and conformation of training will be maintained in one of the following locations

a) The Database in use at the time. (Delta National Ticket register on the Delta intranet http://dgpmsp:81/TicketRegister/Lists/Tickets/AllItems.aspx and I:\9. Training (National)
b) On paper, in files, (SEF055) and the electronic version is kept on the Delta intranet

Reviews

A review of the effectiveness and completeness of the training program is to occur annually as part of the review process. Additional training needs identified must be included on the Training Matrix where deficiencies have been identified.

11. Safety Specific

All site personnel must receive the necessary safety specific training relevant to the task they are performing. Such safety training must conform to OHS/WHS requirements. It is the responsibility of the
Project Manager to identify and arrange the appropriate training (certificate) for persons engaged in

hazardous processes. Work will not commence until the designated worker force have successfully completed the necessary competencies pertaining to hazardous processes.

Evaluate OHS&E Training

Site managers will use behavioural observations and verification of competency forms to evaluate the effectiveness of OHS&E training.
Training will be evaluated against predetermined outcomes in consideration of:

a) competency assigned by the training provider

b) achievement of the learning objectives

c) feedback provided as part of performance management

d) observation of intended behaviour and work practices

Action Steps

1 Managers are to budget for Training and Development programs for their staff at the beginning of the budget cycle.
2 Managers are to formulate staff Training and Development plans to meet the present and future needs of the Company.
3 Managers are to arrange for employees to attend relevant courses at the appropriate time and at the appropriate venue.
4 The request and details of the Training and Development that is being undertaken should then be recorded.

12. HIRAC Training

Employees must complete the Delta e-learning induction which explains the Delta Risk Management Methodology http://www.inductme.com.au/deltagroup/ Induction Read-out (SEF012) item 31 explains the HIRAC SWMS risk assessment methodology for high risk work.

Delta Management

Senior managers, site managers and foremen must complete the online induction training which explains their OHS/WHS obligations/due diligence, and the Delta OHS management system requirements relevant to their role.

13. HSR Representatives

An election process will be undertaken to establish health and safety representatives or committees allowing workers to choose and be informed of who will represent them on OHS matters.
Project: A site toolbox will be held to discuss project requirements.
Agenda is to include:

i. Nomination and Election of a HS Representative
ii. Election to form a Safety Committee or stand alone
iii. Communicate who is Delta Group Management Representative
iv. Consultation arrangements for workers onsite
v. Documented using Toolbox Minutes SEF054

Site Personnel are to nominate a suitable representative based on their perceived ability to perform the role, any experience/qualifications in role, attitude and approach to safety – each nominated candidate must have a second support vote.
Following all nominations received and seconded, a vote will take place, and vote will be taken by show of hands or ballot.

Where required, Site Foreman or Project Manager can be used to facilitate process. Upon request each elected personnel will be booked into next available appropriate OHS training course. Project Organisational Chart is to be updated and posted in common areas. Project Key Personnel must be noted in Site Induction and on Site Key Contacts (SEF051 Wall notice
.

Elected OHSE Representative will perform duties as defined in Site Safety Management Plan and other relevant procedure. If a HSR is not elected then Delta site management will consult daily with the DWG about safety matters relating to the site,
OHSE Representative will fill position for duration of project unless voted out by peers or leaves project due to other means.
Designated Work Area – Delta workshops, recycling, transport etc. A HSR will fill position for 24 months for OHS and 36 months for WHS unless the HSR is voted out by his/her peers or he/she leaves the project due to other means, at which time a new Nomination/Election process may occur.

14. How to apply for training and development

If an employee wishes to undertake training they should discuss details with their Supervisor. Details of course type, alternative courses, start dates, employee's objectives, the Group's business needs and the ways the acquired knowledge can be applied should be discussed. If training is to progress, then the "Training Request" form (SEF056) must be completed and forwarded to the QSE Department before training occurs. The QSE department must obtain a minimum of two (2) quotes before the training can proceed.

The applicant's supervisor/manager must complete the training request form and return it to the QSE Department for processing. Divisional Manager decides if the application is to be approved after confirming that the course has been included in the budget. If a course has NOT been included in the budget the Manager must obtain approval from the General Manager that the employee may still attend the course.

The Divisional Manager then informs the applicants supervisor/manager of his/her decision if the training has been approved and sends the completed Training Request Form to the National QSE Manager. The National QSE Manager books the course and then informs the relevant persons of the course provider, dates and location. The approved training request form is then uploaded into i drive under "TRAINING" and costs are tracked by the QSE Administrator.

If the application is rejected, the Manager discusses the reasons for this with the employee and suggests alternatives for the employee. Managers can decide at any time if employees would benefit from training and request that they attend a particular course. Managers do not need to wait for an employee to request training.

15. Environmental training

Environmental awareness training includes General Environmental Awareness, Environmental Legislation, Regulations and Guidelines, Environmental Protection Authority (EPA), Guidance in the Development of Environmental Management Plans, Potential Environmental Impacts, Potential Environmental Risks in Civil Construction Projects, Control Techniques and Systems and Environmental Emergencies. Refer to section 10 of this procedure to apply

16. Documents

Training Records (Ticket register)
Verification of Competency (Ticket register)
Training Qualification Matrix (Ticket register)
Personnel Qualifications and Ticket Register

17. Reference

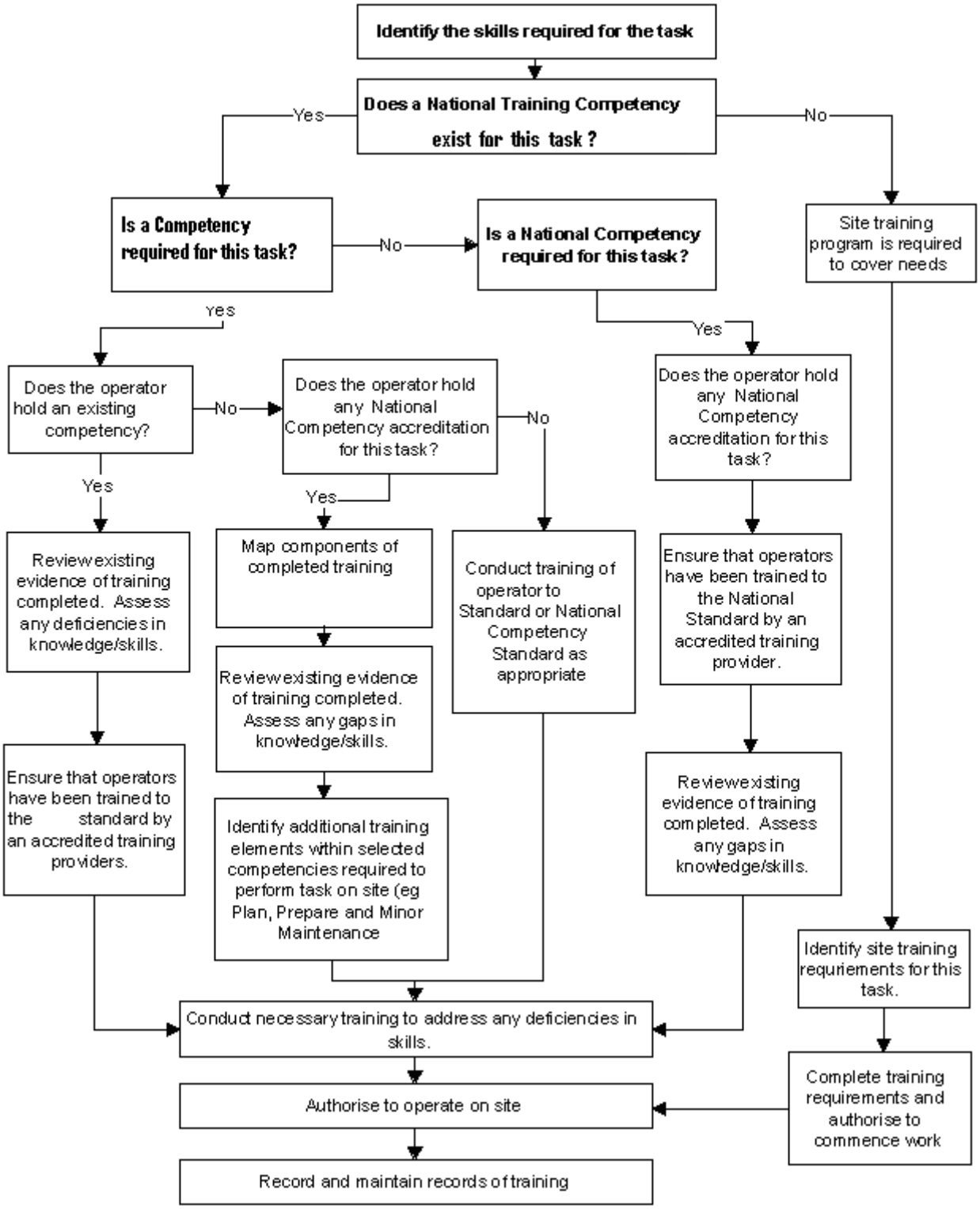
- ✓ AS4801 ISO18001 clause 4.4.2
- ✓ ISO9001 Clause 6.2.1, 6.2.2
- ✓ ISO 14001clause 4.4.2
- ✓ National Competency Standard
- ✓ Delta Group Risk Management Procedure 31

Definitions in the OHS/WHS/OSH Act and the OHS/WHS/OSH Regulation

Terms defined in the Act or the Regulation and not defined in this training procedure however they shall have the same meaning as in the Act or the Regulation as the case may be.

Delta Group Quality, Safety and Environment will provide general guidelines on relevant legislation and standards through this procedure and through its website.

However, each site/section/unit needs to identify and document the relevant legislation and Standards for training in the work environment that is applicable to their workplace



INTEGRATED MANAGEMENT SYSTEM

INSPECTION, MONITORING & MEASUREMENT

Procedure 24

Contents

1. Scope

This procedure is to:

- Ensure Delta has established implemented and maintained documented procedures to monitor and measure on a regular basis the key characteristics of its operations and activities that can cause injury, illness, environmental impact, impact performance or delivery of customer requirements.
- To ensure Delta has identified those situations where employees health and environmental impact surveillance is required and implemented appropriate systems
- As Specified by legislation, is the health of employees exposed to specific hazards or environmental impact monitored and recorded – *asbestos exposure, industrial deafness, chemical release, storage tanks water sampling, soil sampling, noise of machines, etc.*

2. Key Requirements

To monitor the effectiveness and implementation of the management system and to identify areas of improvement, measured against the core values and objectives & targets. Driving continual improvement.

3. Definitions

Term	Definition
Advisory Standards	Published standards and codes of practice that give practical advice on ways to be used to identify and manage exposure to risk for workplace health and safety.
AS/NZS ISO	Australian Standards, New Zealand Standards and International Standards Organization, respectively, AS4801, ISO14001 and ISO9001.
Stewardship	Stewardship is an ethic that embodies the responsible planning and management of resources. The concepts of stewardship can be applied to the environment

4. Authority

National QSE Manager

- Assist all level of implementation and accountability.
- Approve this procedure

IMS Manager

- To assure documentation and compliance

5. Site Inspections

Subject	Action Steps	Responsible
a) OHS/WHS Performance reports and inspections	Prior to commencement the QSE Advisor is responsible for the overall OHS/WHS compliance for each project. Consideration must be given to the scope of works when developing the site file documents SEF050. Delta QSE Advisors performance will be monitored and measured by the National QSE Manager. The National QSE Manager will maintain the QSE Advisor reports in the Delta intranet i drive, which are reported to the SLT meeting monthly.	QSE Advisor QSE Manager
b) OHS/WHS Performance reports and inspections	***Site/ Work Area Pre Start Inspection (SEF049)*** 1. Prior to commencing works , an inspection of the site/ work area will be undertaken to determine if site is secure, controls are intact (e.g. hoardings, silt socks) confirmation of client requirements and identify any corrective action is to be recorded (SEF005). Delta Site Diary (SEF 047), Pre Start Inspection 2. Prior to the end of shift the afternoon checklist is to be completed and documented in the site diary 3. Items that are able to be corrected immediately should be delegated and closed out prior to work shift commencing, corrective items that don't pose an immediate risk are to be recorded in Action Risk Register (SEF 024) 4. All records are to be kept in relevant Site Folder	Project Manager QSE Advisor Site Foreman

Subject	Action Steps	Responsible
	Site Inspections	
	1. Is a physical inspection of the work environment including activities such as observing, questioning, measuring, examining, testing or gauging and hazard identification • monitors workplace changes, the effectiveness of control measures, and compliance with legislation, statutory requirements, work procedures & site safety rules (SEF 060) • subcontractor performance and compliance • confirms compliance with any statutory requirements for inspection, e.g. plant and equipment • encourages input & participation from workers in the area being inspected • ensures that competent persons have assessed the suitability, location and accessibility of emergency equipment • ensures that emergency equipment, exit signs, paths of travel and alarm systems are inspected, tested and maintained at regular intervals • Site Inspections focus on 100% sample of activities 2. Participants of worksite inspections shall include OHS Representatives, OHS Committees (when formed), employees and subcontractors when required. 3. Site inspections are to be recorded on Site Inspection Form 4. Identified hazards will be immediately rectified where possible within the competency of the persons conducting the inspection. Where not immediately rectified that hazard will be isolated and be placed on the Action Register for further action. 5. Site Inspection minutes and actions will be communicated through Site Toolbox. 6. Site risk assessment (SEF 043 C or D) may need to be reviewed, dependant on results/reports from inspection. 7. Site Inspections will also form, a part of Site Audits as per Audit Planner 8. All records are to be kept in relevant Site Folder	HSR-OHS Site Foreman
	Safe Work Observation 1. Is an observation of a task being undertaken according to the documented control measures in a SWMS or Right 1st time Program 2. This is conducted in conjunctions with the weekly site inspection and is to be documented on *Site Inspection Report (SEF 049)*	
	Safety Walks (Management) As part of the Delta Right First Time behavioural Safety Program management must engage with employees about tasks they are involved in. They must: • Model the 5 Safety Essentials • Must see everyone on that site/workplace • May only ask questions • Ask the person for their opinion – how do they think safety can be improved? *1.* Implement any immediate action required and document findings on the report form and submit to the QSE department for analysis.	Foreman and above

6. Quality Inspections

Subject	Action Steps	Responsible
ITP (QF013)	Prior to undertaking works, determine the level of ITP's required. • Identify client specifications. • Identify appropriate standards, plans and product • Identify verification, hold & witness points • Develop ITP (QF013) • ITP register (QF014) must be used for multiple ITP's in use • Complete works and obtain evidence of ITP implementation at various stages. Review if procedure or conditions change	Project Manager

7. Monitor and Record

Subject	Action Steps	Responsible
Recording and reporting of Safety, Quality and Environment	The National QSE Manager will record and monitor performance of both positive and lag indicators for safety and environmental harm and near miss events. The National QSE Manager will report outcomes to the National Senior Leadership Team on a monthly basis. Including but not limited to 1. Frequency Rates - measured by: $\frac{\text{the number of occurrences (hrs.) *1000,000}}{\text{hrs worked}}$ *As per AS 1885.1-1990* FAFR – First Aid Frequency Rate MTIFR – Medical Treatment Injury Frequency Rate LTIFR – Lost Time Injury Frequency Rate TRIFR – Total Recordable Injury Frequency Rate 2. Safe Work Observations Conducted 3. Audit Performance 4. Consultation Arrangements 5. Training Undertaken 6. Delta Carbon Footprint 7. Unscheduled repairs and Maintenance, Breakdowns 8. Safety Walks	1-6 +8 National QSE Manager

8. Reference

- Relevant OHS/WHS Act in State Legislation
- AS/NZS 4801:2001, ISO18001:2007, clause 4.5.1.1 and 4.5.1.2
- ISO 9001:2008 7.5.1, 7.5.2, 7.5.3, 7.5.5, 8.2.4
- ISO AS/NZS 14001:2004 4.5.1
- Delta Group Right 1st Time Program

INTEGRATED MANAGEMENT SYSTEM

UNEXPECTED (ASBESTOS) FIND

Procedure 37

Contents

1. Scope

This procedure is to provide advice to an unidentified and unexpected (situation) find/s in the workplace, to ensure that unexpected finds (e.g. asbestos) are controlled and managed so as to prevent harmful effects to personnel from short-term irritation to long-term health effects.

2. Key Requirements

This procedure shall apply to all operations performed on Demolition/Civil sites where Delta has responsibility for unexpected finds.

3. Definitions

Asbestos-related	Any material, object, product or debris that contains asbestos.
Foreman - Supervisor Project manager	Also means contractor and sub-contractor
Asbestos Removal	Asbestos removal work requires the appointment of a Principal Contractor. Asbestos removal work is a high risk construction activity.
Asbestos Material Report	A report by an appropriately qualified person which states: • Where and what the types of materials that were found; • The form of the materials. • The condition of the material (i.e. friable, poorly bonded, unstable). • The potential health risks to building occupants.
Asbestos Register	A register that must be kept by the owner of the building and which must: • Contain information, including any changes/updates, from the Asbestos Material Report. • Be available for inspection by any person requiring inspection. • Be available to all maintenance/building contractors. • Be available to any contractors.
Bonded ACM (B class)	When asbestos fibres are bonded in another material, such as cement or resin binder, it is known as bonded ACM. Bonded ACM cannot be crumbled, pulverised or reduced to a powder by hand pressure when dry. Asbestos cement (AC) sheeting is the most common form of bonded ACM in buildings.
Friable ACM (A class)	Some materials containing asbestos are potentially more hazardous than others. These materials are described as friable which means they crumble easily and have the potential to release asbestos fibres into the air. When dry, friable ACM can be crumbled, pulverised or reduced to powder by hand pressure. It is this friability that releases asbestos fibres into the atmosphere and increases the risk of exposure. For example, sprayed-on fireproofing is considered a friable ACM as it is very easily crumbled to a powder.
Competent person	A competent person is a person who possesses adequate qualifications, such as suitable training and sufficient knowledge, experience or skill, to perform a specific task safely.
Unidentified and or Unexpected find	A sudden unexpected event, (unidentified material) including work required by non-routine failures of equipment, that may result in persons being exposed to unidentified or hazardous materials including airborne asbestos fibres. Unexpected also means unidentified and vice versa

4. Authority

National QSE Manager

- Approve this procedure
- Oversee this procedure

5. Unexpected Find Procedure

Subject	Action Steps	Responsible
Procedural steps to follow when an unexpected find occurs	In an unexpected situation, the demolisher must cease work in the immediate vicinity of the unexpected find and report their findings to their supervisor. The unexpected find area should be barricaded off until the unexpected find sample can be verified. Turn off fans and air-conditioners and seal ducts and vents to prevent the spread of any dust, use water spray to dampen the unexpected find clothing considered affected by airborne particles should remove their outer clothing and place clothing in a 200 micron thick plastic bag marked asbestos waste, the bag should be goose-neck wrapped for disposal to an asbestos approved collection site. An employer or self-employed person must not remove from a workplace protective clothing contaminated with asbestos unless the clothing is— (a) disposed of— (i) as soon as is reasonably practicable; and (ii) in an appropriate manner that eliminates the release of airborne asbestos fibres; and (iii) at a waste disposal site licensed by the Environment Protection Authority; or (b) laundered at a commercial laundry and for that purpose the clothing is contained so as to eliminate the release of airborne asbestos fibres and the exterior of the container— (i) is decontaminated before being removed from the work area; and (ii) indicates the presence of asbestos before the clothing is transferred to the laundry. Sampling should be arranged for a competent person to take a sample of the material and have it analysed by a National Association of Testing Authorities (NATA) accredited laboratory.	Project Manager
Procedural steps to follow when an unexpected find occurs, continued	In an unexpected find situation the contractor involved in the work must not later than 24 hours after identifying the asbestos removal work, notify the Authority of the unexpected find. A notification must be in writing and include the information below: 1. The name, registered business name, Australian Business Number, licence number and contact details of the licence holder. 2. The name of the supervisor who will oversee the asbestos removal work and the supervisor's contact details. 3. The client name and contact details. 4. The name, including registered business or corporate name, and address of the workplace and type of workplace where the asbestos removal work will be performed including the specific location if it is a large workplace. 5. The date of notification.	Project Manager Operations Manager

Subject	Action Steps	Responsible
Procedural steps to follow when an unexpected find occurs, continued	6. The commencement date and estimated duration of the asbestos removal work. 7. Whether the asbestos is friable asbestos-containing material or non-friable asbestos-containing material. 8. If friable asbestos-containing material is to be removed, details of the way that the area where the asbestos removal work is to be performed will be enclosed. 9. The type of asbestos-containing material. 10. The estimated quantity of asbestos to be removed. 11. The number of employees who will perform the asbestos removal work. 12. Details of training and experience of those individual employees, if different to the information notified previously. 13. The date of any asbestos register or employer's asbestos register used to prepare the asbestos control plan. The Authority may vary the notification requirements by including a specific condition in a licence with respect to the notification. Additionally the Project Manager and the Operations Manager must inform the National QSE Manager	Project Manager Operations Manager
Limited asbestos removal work without licence permitted	An employer or self-employed person may perform asbestos removal work in relation to non-friable asbestos-containing material if— (a) the area of asbestos-containing material to be removed does not exceed 10 square metres in total; and (b) the total time over which asbestos removal work is performed in any period of 7 days does not exceed 1 hour.	Project Manager
Duty to inform	An employer at a workplace must, before asbestos removal work commences at the workplace, inform employees in the immediate and adjacent areas of the workplace of the proposed removal work.	Project Manager
Identification of asbestos-related activities	An employer must identify whether an asbestos-related activity is being carried out at the employer's workplace.	Project Manager
Uncertainty as to presence of asbestos	If there is uncertainty (based on reasonable grounds) as to whether an activity is an asbestos-related activity, the employer must— • assume that asbestos is present; or • arrange for analysis of a sample to be undertaken	Project Manager
Asbestos register must be obtained	If any asbestos-related activities are carried out at an employer's workplace, the employer must obtain— • a copy of the asbestos register in relation to the activities; or • if there are other employers at the workplace where the activities are carried out, a copy of the employer's asbestos register of each of those other employers The relevant asbestos-related activities are: • research involving asbestos • sampling or analysis involving suspected asbestos	Project Manager

Subject	Action Steps	Responsible
	• the enclosing or sealing of asbestos • hand drilling and cutting of asbestos-containing material • any other activity that is likely to produce airborne asbestos fibres • any other activity determined by the Authority	
Specific measures to control risk	1. An employer must ensure that any risk associated with an asbestos-related activity is eliminated so far as is reasonably practicable. 2. If it is not reasonably practicable to eliminate a risk associated with an asbestos-related activity, an employer must ensure that the risk is reduced so far as is reasonably practicable by— • isolation; or • using engineering controls; or • combination of both 3. If an employer has complied with the (1) and (2) so far as is reasonably practicable and a risk associated with an asbestos-related activity remains, the employer must, so far as is reasonably practicable, use administrative controls to reduce the risk. 4. If an employer has complied with (1), (2) and (3) so far as is reasonably practicable and a risk associated with an asbestos-related activity remains, the employer must reduce the risk by providing personal protective equipment to employees at risk.	Project Manager
Specific measures to control risk, continued	5. If an employer provides personal protective equipment under measurement (4), the employer must ensure that— • the person carrying out the asbestos-related activity is provided with— ○ appropriate personal protective clothing that is suitable for the activity being carried out ○ appropriate respiratory protective equipment that is suitable for the activity being carried out; and • the clothing and equipment provided are correctly fitted	Project Manager
Review of risk control measures	An employer must ensure that any measures implemented to control a risk associated with an asbestos-related activity are reviewed and, if necessary, revised: a) before any alteration is made to systems of work related to the activity that is likely to result in any increased risk to health or safety; or b) after any incident occurs that involves an asbestos-related activity; or c) if, for any other reason, the risk control measures do not adequately control the risks; or d) after receiving a request from a health and safety representative A health and safety representative may make a request if the health and safety representative believes on reasonable grounds that— • any of the circumstances above (a, b, and c) exists; or • the employer has failed— ○ to properly review risk control measures ○ to take account of any of the circumstances above (a, b, c) in conducting a review of, or revising, the risk control measures	Project Manager
Work area to be separate and signed	An employer must ensure that the work area used for an asbestos-related activity— • is kept separate from any other work area • so far as is reasonably possible, has appropriately placed signs and barricades that indicate the area where the activity is being carried out	Project Manager

Subject	Action Steps	Responsible
Work area to be kept clean	An employer must, so far as is reasonably practicable, ensure that the work area used for an asbestos-related activity is kept clean. An employer must ensure that the methods used to clean the work area— • do not create a risk to health • do not have the potential to spread airborne asbestos fibres beyond the work area	Foreman Supervisor Project Manager
Medical examinations Medical examinations, continued	Following exposure to an unexpected find and before arranging a medical examination Delta will await the hygienist report results of the substance. If asbestos is confirmed the employer then has 30 days to arrange an appropriate medical examination to be conducted by a registered medical practitioner for each employee who is considered to have been exposed to ACM dust (airborne particulate) and or, employees engaged in ongoing asbestos-related activities if there is a risk of exposure to airborne asbestos fibres above one half of the asbestos exposure standard. Direction for this task is administered through the National QSE Manager. The purpose of the medical examination is to monitor the employee's health for the purpose of identifying changes in the employee's health status to occupational exposure to asbestos due to an unexpected find (or other). Respiratory protective equipment must not be considered in establishing whether there is a risk of exposure to airborne asbestos fibres above one half of the asbestos exposure standard. An employer must ensure that atmospheric monitoring at the workplace is provided if there is uncertainty (based on reasonable grounds) as to whether a medical examination may be required under this Division. An employer must ensure that medical examinations are provided to an employee— • at intervals of not more than 2 years • within 30 days after the employee has ceased an asbestos-related activity (unexpected find), unless the employee has had a medical examination within the preceding year The duties of an employer in relation to medical examinations extend to an independent contractor.	QSE Supervisor Project Manager
Results of atmospheric monitoring to be made available	An employer must ensure that copies of the results of atmospheric monitoring are accessible to the health and safety representative of any affected designated work group and to the affected employees.	Supervisor Project manager
Notice of medical practitioner	The employer must notify the Authority in writing within 7 days of the name and contact details of the registered medical practitioner the employer has engaged to undertake medical examinations.	Supervisor Project manager
Exposure to asbestos	Details of persons exposed to asbestos at the workplace will be registered with the Australian Government Asbestos Safety and Eradication Agency http://www.asbestossafety.gov.au/	RTW Coordinator
Results of medical examination	An employer must ensure that a summary of results of a medical examination indicating whether an asbestos-related disease exists and the employee's fitness for asbestos-related activities is provided to the employer by the registered medical practitioner. The employer must retain a copy of the summary of results: • a period (not exceeding 30 years) determined by the Authority	Supervisor Project manager

Subject	Action Steps	Responsible
	• if no period has been determined by the Authority, 30 years	
Decontamination facilities Decontamination facilities, continued	An employer carrying out an asbestos-related activity must ensure that a person does not remove personal protective clothing or personal protective equipment that is likely to be contaminated with asbestos from the work area used for the asbestos-related activity unless the clothing or equipment is decontaminated or contained before its removal. An employer carrying out an asbestos-related activity must ensure that any equipment (other than personal protective equipment) that is used for the asbestos-related activity and that is likely to be contaminated with asbestos is— • decontaminated before removal from the work area used for the asbestos-related activity • placed in a sealed container, the exterior of which is decontaminated before the container is removed from the work area used for the asbestos-related activity	Supervisor Project manager
Waste containment	An employer carrying out an asbestos-related activity must ensure that— • any asbestos derived from or associated with the activity, and that is no longer required in connection with the activity, is contained so as to eliminate the release of airborne asbestos fibres • the exterior of the container— ○ is decontaminated before being removed from the work area used for the activity ○ indicates the presence of asbestos	Foreman Supervisor Project manager
Disposal of asbestos waste	An employer carrying out an asbestos-related activity must ensure that asbestos waste is— • disposed of as soon as is reasonably practicable • disposed of in an appropriate manner that eliminates the release of airborne asbestos fibres • disposed of at a waste disposal site licensed by the Environment Protection Authority	Foreman Supervisor Project manager
Laundering of clothing contaminated with asbestos	An employer carrying out an asbestos-related activity must provide for the laundering of personal protective clothing that is used for an asbestos-related activity and that is likely to be contaminated with asbestos and that is not contained and disposed. If the employer arranges for personal protective clothing that is likely to be contaminated with asbestos to be laundered at a commercial laundry, the employer must ensure that— • the clothing is contained so as to eliminate the release of airborne asbestos fibres; and • the exterior of the container— ○ is decontaminated before being removed from the work area; and ○ indicates the presence of asbestos before the clothing is transferred to the laundry	Project manager
Provision of information to job applicants	An employer must provide each applicant who applies for employment with the employer to carry out an asbestos-related activity with information about the nature of the hazard and the risks associated with exposure to airborne asbestos fibres.	Project Manager

Subject	Action Steps	Responsible
Training record	An employer must make a record of training provided in relation to carrying out asbestos-related activities and retain that record for so long as it is applicable	QSE Manager Project Manager

6. Notification

A sudden, unexpected find, including work required by non-routine failures of equipment, that may result in persons being exposed to airborne asbestos fibres; or
an unexpected breakdown of an essential service (including gas, water, sewerage, electricity and telecommunications) that requires immediate rectification to enable continuance of that service. In an unexpected situation, the asbestos licence holder must, not later than 24 hours after commencing asbestos removal work, notify the Authority of the removal work in accordance with legislation.

7. Reference

OHS/OSH/WHS Act - OHS/OSH/WHS Regulations
Australian Standard 1319: 1994 Safety Signs for the Occupational Environment
Australia/New Zealand Standard 1715: 1994 Selection Use and Maintenance of Respiratory Protective Devices
Australia/New Zealand Standard 1716: 2003 Respiratory Protective Devices
Australian Standard 3544: 1988 Industrial Vacuum Cleaners for Particulates Hazardous to Health
Australian Standard 4260: 1997 High Efficiency Particulate Air (HEPA) Filters – Classification, Construction and Performance
WorkSafe Australia - Code of Practice for the Safe Removal of Asbestos NOHSC: 2002 (2005).
WorkSafe Australia - Code of practice for the Management and Control of Asbestos in Workplaces [NOHSC: 2018 (2005)] AS 2601-2001 Demolition of Structures
Environmental Protection Act
Environmental Protection Regulations
Planning and Development Act
Public Health Act
Managing Asbestos in Workplaces Compliance Code (VWA)
Removing Asbestos in Workplaces Compliance Code (VWA)
Coveralls used for Asbestos Removal (VWA)
Asbestos-A Handbook for Workplaces (VWA)
Asbestos Removal Application Package (VWA)
Notification of Asbestos Removal (VWA)
COP for the safe removal of asbestos (NOHSC)
COP for the management & control of asbestos in workplaces (NOHSC)
COP How to safely remove asbestos in the workplace (QLD)
COP How to safely remove asbestos (NSW)
COP How to manage and control asbestos in the workplace (SA)

National QSE Manager: 0409 754 114

Environmental Inspection checklist

AUDIT SCHEDULE. Audit Criteria: AS4801:2001, ISO14001:2004, ISO9001:2008 - Delta Group IMS AS 2601-2001 The demolition of structures. AS/NZS ISO 14010-1996 Guidelines for environmental auditing – General Principles. Environmental Policy-Environmental Aspects-Legal and other Requirements-Objectives, targets and programmes-Resources, roles, responsibility and authority-Competence, training and awareness-Communication-EMS Documentation-Document Control-Operational Control-Emergency preparedness and response-Monitoring and measurement-Evaluation and compliance-Non-conformance and corrective and preventive action-Control of records-Internal Audit-Management Review-On site system compliance	
SEF 073	Pre audit environment assessment completed (site walk) YES ☐ NO ☐
Site name and address/Date:	
Site manager and supervisor name/s and signature/s	
Site first aider name/s (level 2) and signature	
Safety representative/s (HSR's) signature	
Approximate number of (Delta) employees onsite	
Attendance at time of audit. (names)	
Auditors name and details	
Name and signature/s of subcontractor attendance	
Site address and details.	

Process: *To ensure environmental/sediment controls remain effective throughout the life of the project.*

Procedure: *This audit is to be completed by either a member of the QSE team or the area supervisor/foreman on a regular basis during the life of the project.*

Any identified issue/s should be rectified using the corrective action class in this document If the identified issue/s cannot be rectified immediately, discuss with the supervisor/project manager about any work around options available whilst ensuring the integrity of the site environmental/sediment controls are not compromised.

Corrective Action (C-A) **Class A:** Immediate **|** **Class B:** Within 48 hours **|** **Class C**: Within 7 days		**Complies**		**N/A**	**Score**	(C-A) A / B / C
		Yes	**No**			
Work Site Conditions						
1	Has a specific person has been assigned to maintain the project EMP (Generally the PM)?				**1**	
2	Has the EMP been signed by all site personnel and approved by the Project Manager?				**1**	
3	Has an Environmental Aspects and Impacts Assessment been completed (SEF 006)?				**1**	
4	Has a risk assessment been completed to include environmental hazards (SEF 043)?				**1**	
5	Has the site risk assessment been reviewed not exceeding 6mth?				**1**	
6	Are all geotech fabrics in good condition? (installed correctly, not torn or ripped) (Visual)?				**1**	
7	Do all the pits have required protection? (geotech fabric, sandbags, hay bales) (Visual)?				**1**	
8	Does external hoarding have protection in place to prevent run-off into public areas? (Visual)?				**1**	
9	Are all construction access tracks appropriately located? (Check in relation to native vegetation, heritage sites, flora and fauna)				**1**	
10	Are all temporary and permanent drainage works and sediment control structures being maintained? (Visual)				**1**	
11	Are emergency protection measures available and ready for use? (geotech fabric, sandbags, hay bales) (Ask/Visual)				**1**	
12	Are fully stocked spill kits onsite and in the appropriate locations?				**1**	
13	Are dangerous goods/hazardous substances stored correctly? (fuels, oils and coolants in bunded area and containers)				**1**	
14	Are dust control measures working and in place (Visual)				**1**	
15	Are the site amenities maintained in a tidy condition?				**1**	
16	Is the site environment free of fluid leaks? (oil/coolant/fuel that could come from a machine or vehicle or leaking barrels/drums)				**1**	
17	Are noise control measures in place?				**1**	
18	Are relevant MSDS 's located on-site?				**1**	
19	Are relevant vehicle loads covered?				**1**	
20	Is the site clean and tidy? (e.g. litter free, housekeeping)				**1**	
21	Have any community complaints been responded to appropriately?				**1**	
22	Is the public road access area maintained and kept clear of site debris? (Street sweeper)				**1**	
23	Are u-channels and manholes free of silt and sediment?				**1**	
24	Are all permits current, reviewed and up to date?				**1**	
Total Score (/24)						

ADDITIONAL COMMENTS: Opportunity for improvement
If question 10 is no, inform Project Manager immediately and do not disturb the materials or start works in the affected area.

GENERAL COMMENTS	
Does the site pass the Quality Audit Review YES / NO	If no, set a review date:
Did the site personnel co-operate YES / NO	
Has a return visit been scheduled YES / NO Date:	
Note: The Audit report should be completed by either a QSE member or the applicable Site Manager/Supervisor. Each non-conformance should be addressed with a Corrective Action Report CAR. A copy of the audit and CAR's must be loaded into the QSE system under AUDITS. The "Corrective Action" must be used by the Auditor, Project Manager and/or Site Manager to indicate what corrective action has been implemented. The completed corrective action list must be submitted back to the Auditor within the specified time frame.	

Number of non-conformance/s itemised	#	Audit summary including observations and opportunity for improvement
Non-conformance found did not to comply with either AS4801:2001 (OHSMS), ISO14001:2004 (EMS), ISO9001:2008 (QMS) or Delta Group's IMS procedure". Note: Each N C must be addressed using the *Corrective Action Report* form. Each CAR number must be logged into the Audit Action Register		

Item	Person responsible (Respondent) including subcontractors	CAR No.	Review Date

SITE PHOTOS: Please attach

Environmental Incident and Non-Compliance Report Template

Record only factual information that you know to be correct. Do not make assumptions, be succinct and avoid speculation.

Section 1: General Details			
Contractor:			
Site:			
TfNSW ID Code: (If known)		**Contractor reference:** (If known)	
Date of incident/ non-compliance:		**Time of incident/ non-compliance:**	
Date of notification:		**Time of notification:**	
Method of notification:			
Notification received by – Name:			
Notification received by – Position:			
Incident Classification:		**Duration**	
☐ Non-compliance only (complete Section 6 and 7 only)	☐ Class 3	☐ Short term (less than 1 week)	☐ Medium term (less than 3 months)
☐ Class 2	☐ Class 1	☐ Long term (greater than 3 months)	☐ Permanent
Incident Properties: (Tick as many as appropriate, where significant off-site impacts on people or the biophysical environment occurs this incident is also notifiable to DP&E)	☐ **Notifiable event** (also complete Section 4)		
	☐ **Non-compliance** (also complete Section 6)		

Incident type (choose one):		
☐ **Air & Dust** (e.g. dust or odour emission, excessive exhaust from plant or equipment)	☐ **Unauthorised Works** (e.g. work being carried out prior to approval or permits being obtained)	☐ **Noise & Vibration** (e.g. exceedances of noise and vibration limits)
☐ **Flora and Fauna** (damage/harm to species /habitat/ecological community)	☐ **Water Pollution** (e.g. discharge to any onsite or offsite waterway)	☐ **Traffic, Transport & Access** (e.g. Issues regarding the management of traffic flow)
☐ **Land Contamination** (e.g. events where harmful materials escape into soil)	☐ **Community** (e.g. events causing impacts on community amenity/property)	☐ **Waste & Hazardous Materials** (e.g. disposal causing environmental harm)
☐ **Systems & Documentation** (e.g. Non-Compliance with project approval, or a CEMP requirement)	☐ **Heritage** (e.g. damage/disturbance to heritage item/object/place)	

Section 2: Circumstances and Corrective Actions	
Exact location: (address, chainage, nearest cross street, landmarks etc., attach sketch if appropriate.)	
Circumstances: (Outline the circumstances of the incident leading up to the event and detail the activity being conducted)	
Corrective Actions: (Actions taken immediately to prevent or minimise environmental harm)	

Section 3: Other Relevant Information (pollution events only)			
Pollutant:			
Quantity or volume:		**Concentration:**	
Location of Pollution: (If different from the exact location of the event, also describing the extent of the pollution)			
Section 4: Notification to Relevant Authorities (notifiable events only)			
Relevant Authorities to be notified: (relevant information to be given in this notification is contained within this form)	**Incident Observer immediate verbal notification made to:** ☐ Sydney Metro Nominated Representative ☐ Environmental Representative **Sydney Metro Nominated Representative Immediately notify:** ☐ Local Authority (Council) ☐ EPA (through the Pollution Hotline on 131 555) ☐ Ministry of Health ☐ WorkCover Authority **As soon as possible following immediate notification requirements:** ☐ Sydney Metro Nominated Representative ☐ Environmental Representative		
Notification made by – Name:			
Notification made by – Position:			
Date of notification:		**Time of notification:**	
Sydney Metro Manager, Environment to be notified:	**Has the Environmental Representative determined significant off-site impacts on people or the biophysical environment?** ☐ Yes – Verbally notify Sydney Metro Manager, Environment as soon as possible ☐ No – Provide this incident report to the Manager, Environment within 24 hours		

Section 5: Investigation and Preventative Actions	
Investigation Details: (Actions taken immediately to prevent or minimise environmental harm)	☐ Report Only (Class 3 Incidents Only) ☐ Minor Investigation (Class 3 and 2 Incidents Only) ☐ Major Investigation (Any Class of Incident)

Preventative Actions
(Actions taken after an investigation to minimise the risk of the event re-occurring)

Due Date	Allocated to	Action

Section 6: Non-Conformance (leave blank if unsure)			
Description of non-compliance:			
Relevant approval:		**Relevant condition:**	
Action required for closure: (Where an individual is assigned an action to close a non-compliance they must notify the Sydney Metro Manager, Environment once this is achieved)			
Assigned to:		**Status:**	☐ Open ☐ Close immediately

Section 7: Signoff	
Signature:	
Name:	
Position:	

Environmental Training Register

Training Needs Analysis

Target Audience	Course	Qualification/Competencies	Duration	Expiry	Provider	Expected Numbers	Start/Finish

Complaints register

Complaints Register						
Date of complaint	*Complainant*	*Nature of complaint*	*External notification required*	*Status (tick stages completed)*	*Date actioned*	*Notes*
	☐ Service user		☐ No	☐ Being investigated		
	☐ Staff member		☐ Yes	☐ Resolution proposed		
	☐ Volunteer		Date of notification:	☐ Resolved		
	☐ Governance body member		.../... /...	☐ Remains unresolved		
	☐ Member					
	☐ Family/carer					
	☐ Other agency					

APPENDIX B DELTA EMS CERTIFICATION

DELTA GROUP
AUSTRALIA WIDE

eQual® assurance

CERTIFICATE OF CONFIDENCE

This is to certify that

Delta Pty Ltd

577 Plummer Street, Port Melbourne Victoria 3207, Australia
15 Geelong Street, Fyshwick Canberra ACT 2609, Australia
83 Bourke Road, Alexandria NSW 2015, Australia
Unit 2/133 Lavarack Avenue, Eagle Farm QLD 4009, Australia
Unit 1/32 Ledgar Road, Balcatta WA 6021, Australia

conforms to the requirements of

ISO 14001:2004

Environmental management systems

The provision of project management, site supervision, civil and building demolition works, removal of prescribed and toxic waste, asbestos removal, civil construction including bulk earthworks, and civil and landscaping works and equipment.

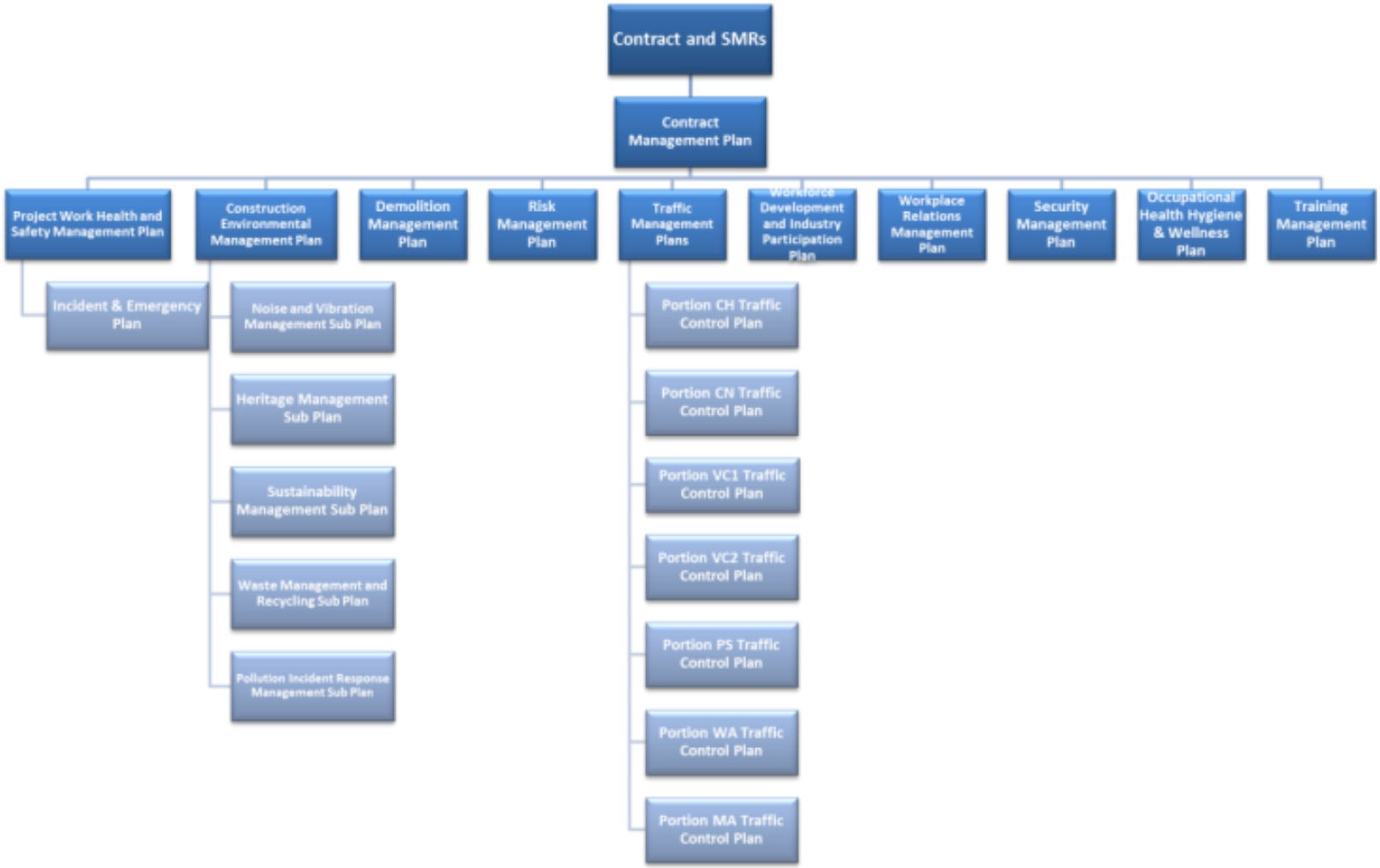
Certificate number:	DGP001-CCE03	**Certified date:**	19 December 2013
Approval date:	4 September 2014	**Expiry date:**	15 August 2017

Approving Officer:

Leon Michailidis
MIEAust CPEng AIMM FSO
Assurance Manager
Equal Assurance

ISO 14001 certified Equal Assurance

APPENDIX C DELTA PROJECT MANAGEMENT PLANS AND SUB PLANS


Contract and SMRs
Contract Management Plan
Project Work Health and Safety Management Plan
Construction Environmental Management Plan
Demolition Management Plan
Risk Management Plan
Traffic Management Plans
Workforce Development and Industry Participation Plan
Workplace Relations Management Plan
Security Management Plan
Occupational Health Hygiene & Wellness Plan
Training Management Plan
Incident & Emergency Plan
Noise and Vibration Management Sub Plan
Heritage Management Sub Plan
Sustainability Management Sub Plan
Waste Management and Recycling Sub Plan
Pollution Incident Response Management Sub Plan
Portion CH Traffic Control Plan
Portion CN Traffic Control Plan
Portion VC1 Traffic Control Plan
Portion VC2 Traffic Control Plan
Portion PS Traffic Control Plan
Portion WA Traffic Control Plan
Portion MA Traffic Control Plan

APPENDIX D CONSTRUCTION NOISE AND VIBRATION MANAGEMENT SUB PLAN

APPENDIX E HERITAGE MANAGEMENT SUB PLAN

APPENDIX F POLLUTION INCIDENT RESPONSE MANAGEMENT SUB PLAN

APPENDIX G SUSTAINABILITY MANAGEMENT SUB PLAN

APPENDIX H WASTE MANAGEMENT AND RECYCLING SUB PLAN

APPENDIX I ADDITIONAL ENVIRONMENTAL PROCEDURES

PROCEDURE: SOIL AND WATER CONTROL

1. SCOPE

This document details the procedure for soil and water control during demolition as carried out by Delta Group.

The scope of this procedure applies to all demolition control aspects and to all Delta personnel and sub-contractors.

Soil and water will be managed in accordance with sound environmental practices to minimise erosion and to prevent sedimentation of artificial drainages or natural waterways.

Erosion and Sediment Control Plans (ESC Plans) will be prepared in accordance with the Blue Book Volumes 1 and 2D (Landcom, 2004 and DECC, 2008) for each specific stage or parcel of work prior to commencing works in consultation with demolition staff. ESCP Plans will be incorporated into the Site Establishment Plans and updated as required.

2. AUTHORITY

National QSE Manager

- Approve this document; and
- Review this document.

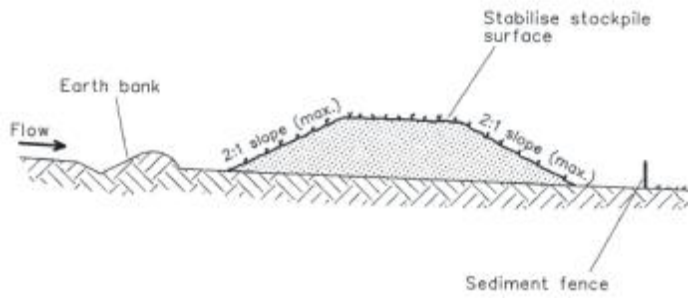
IMS Manager

- Develop and assure compliance; and
- Document Controller.

3. PLACEMENT AND MANAGEMENT OF STOCKPILES

Demolition material may need to be stockpiled temporarily while awaiting dispatch from a Delta site. All demolition stockpiles will be progressively removed from the site, and managed to minimise sedimentation and dust generation.

Any batters which are created will be cut at a minimum angle as to reduce the risk of slope failure and erosion. Where necessary control devices will be used to stabilise and control erosion and sedimentation generated from stockpiles.



4. SEDIMENT TRAPS

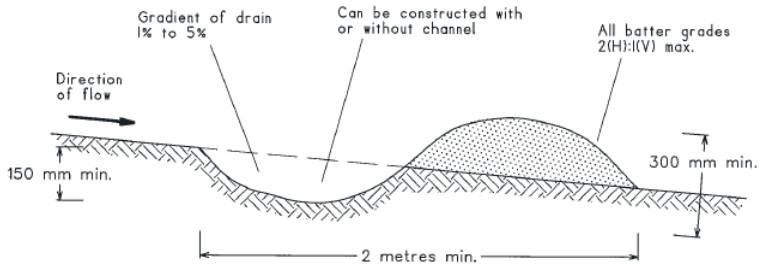
Sediment traps can be formed by excavating or constructing an earthen embankment across a waterway or low drainage area allowing settlement in a containment area of the water course. The remaining water can be discharged through a stabilized spill way (rock ballast).

5. COFFER DAMS

An enclosure may be constructed of an earth embankment within the surface runoff or water course to allow water to be displaced from the area to create a dry work zone.

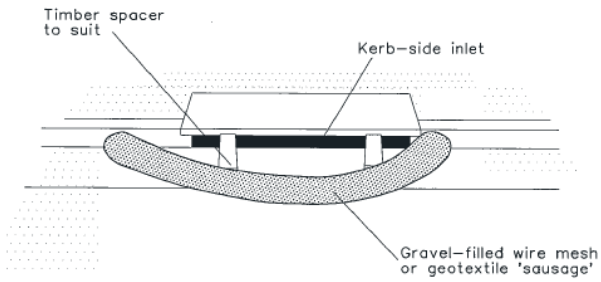
6. DIVERSION DRAINS

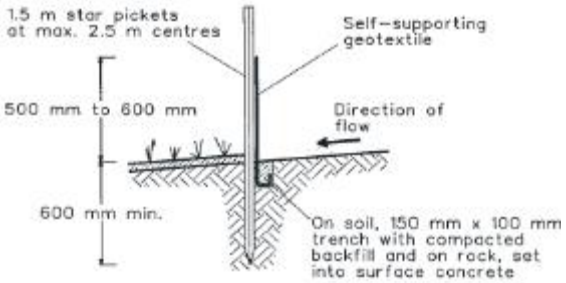
Diversion drains can be constructed to divert clean surface runoff away from site amenities and work areas, such as stockpiles and excavations. A typical low flow diversion is illustrated below, where the gradient is less than 5%.



7. SEDIMENT CONTROL DEVICES

Sediment controls, including filter rolls and sediment fences, may be required where erosion controls are not practical, and sediment must be captured to ensure it does not leave the site or enter the stormwater system. Sediment control devices will be installed in accordance with the Blue Book.





8. NO-GO AREAS

Areas where construction work is taking place will be blocked off to all vehicles including construction vehicles using bunting and barriers.

9. WASH DOWN AND RUMBLE GRIDS

Trucks wash down and / or cattle grate/ rumble strip may be utilized to minimised and avoid soil and dirt being transported out onto public roads by vehicle leaving the construction site.

10. SOIL AND WATER CONTROL MEASURES

Delta will:

- Carry out soil and water management in accordance with the Blue Book;
- Install and maintain erosion and sediment controls around stockpiles, where stockpiles are to remain on site for longer than five days;
- Position stockpiles within the Project boundary and away from any drainage areas or locations likely to receive run-off, wherever possible;

- Construct stockpiles to no more than 2m in height and battered to no steeper than 2:1 (H:V) as shown below, where space permits;
- Inspect and where necessary maintain sediment controls no more than five days following a significant rain event and in accordance with the Blue Book;
- Ensure that any bales used onsite for sediment control are weed-free;
- Install sediment controls around stormwater inlet pits where appropriate and where they won't cause or exacerbate local flooding;
- Ensure that all vehicles leaving site are clear of excess sediment. Brushes and hoses will be provided at site gates, along with appropriate signage;
- Ensure that, where possible, truck loading circuits are stabilised to minimise the amount of sediment picked up on tyres;
- Conduct regular monitoring of vehicle egress points to check for tracking of material off the site;
- Ensure that vehicle loads are covered prior to the vehicle exiting the site;
- Ensure that hazardous substances are stored onsite in lockable containers and in their original receptacles only;
- Ensure that hazardous substances are clearly labelled with Safety Data Sheets affixed or available nearby;
- Ensure that hazardous substances that could result in a spill are stored and used away from drainage or stormwater lines and, wherever possible, within pre-defined bunded areas;
- Ensure that on site refuelling is undertaken in designated areas only and well away from drainage or stormwater lines; and
- Ensure that spills or leakages are immediately contained and absorbed.

Environmental Control Plan (ECP)

Portion CH – Chatswood

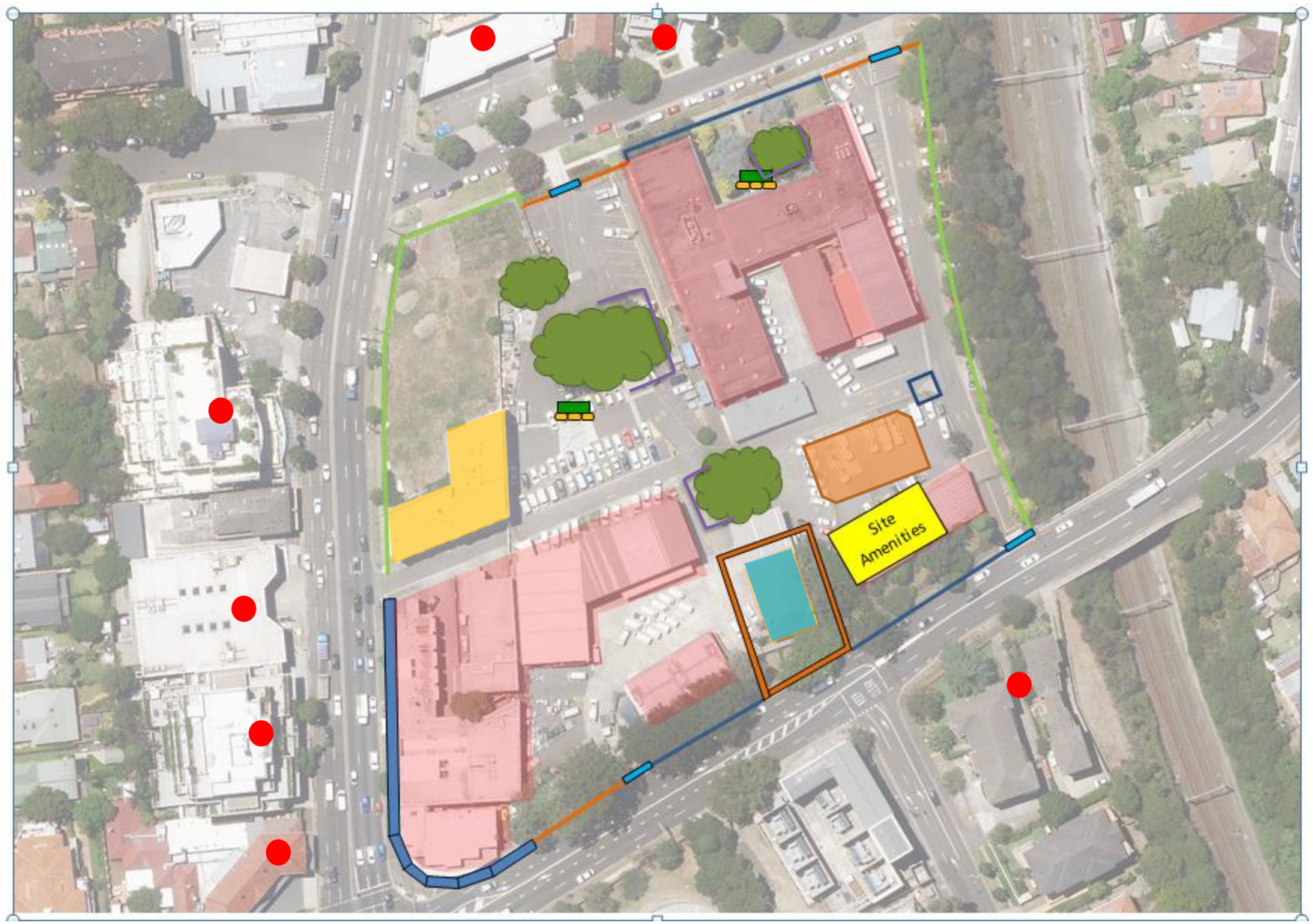
This ECP has been prepared in accordance with:

The Conditions of Approval for the Sydney Metro City & Southwest Chatswood to Sydenham Project; and

The Delta Construction Environmental Management Plan.

LEGEND

- Vehicular Access Gate
- Pedestrian Access Gate
- Existing fence
- Sand bag/ geofab to cover drains
- Shade cloth
- A Class Hoarding
- B Class Hoarding
- Barrier mesh
- Trees to be retained
- To be demolished
- To be retained
- Heritage resource
- Sensitive receivers
- Indicative parking area



STOP-THINK-ACT **Print Date:** 1/05/2017 6:22 PM

Environmental Control Plan (ECP)

Portion CN – Crows Nest

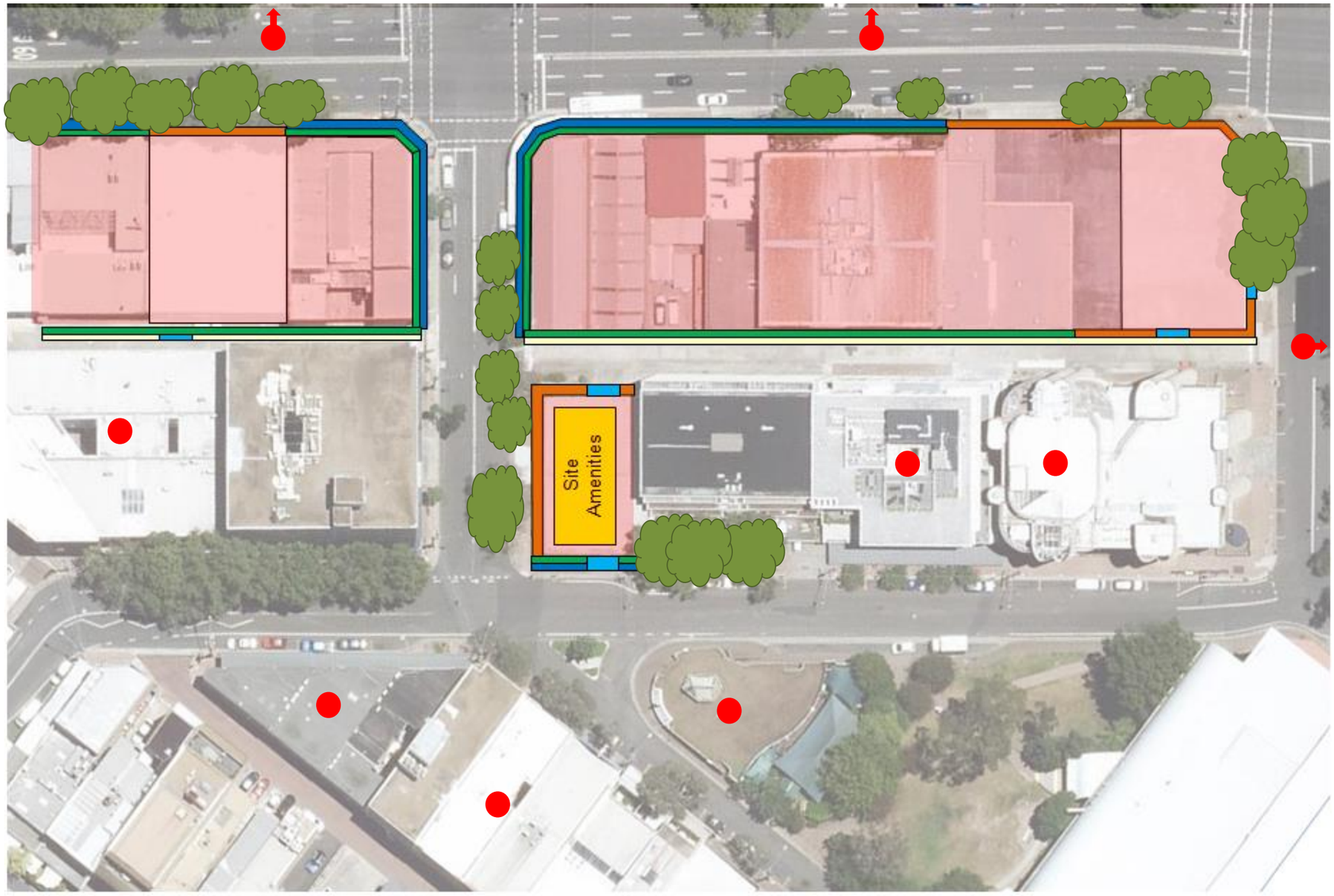
This ECP has been prepared in accordance with:

The Conditions of Approval for the Sydney Metro City & Southwest Chatswood to Sydenham Project; and

The Delta Construction Environmental Management Plan.

LEGEND

- Vehicular Access Gate
- Pedestrian Access Gate
- Existing fence
- Sand bag/ geofab to cover drains
- Shade cloth
- A Class Hoarding
- B Class Hoarding
- Barrier mesh
- Trees to be retained
- To be demolished
- To be retained
- Heritage resource
- Sensitive receivers



Environmental Control Plan (ECP)

Portion VC1 – Victoria Cross 1

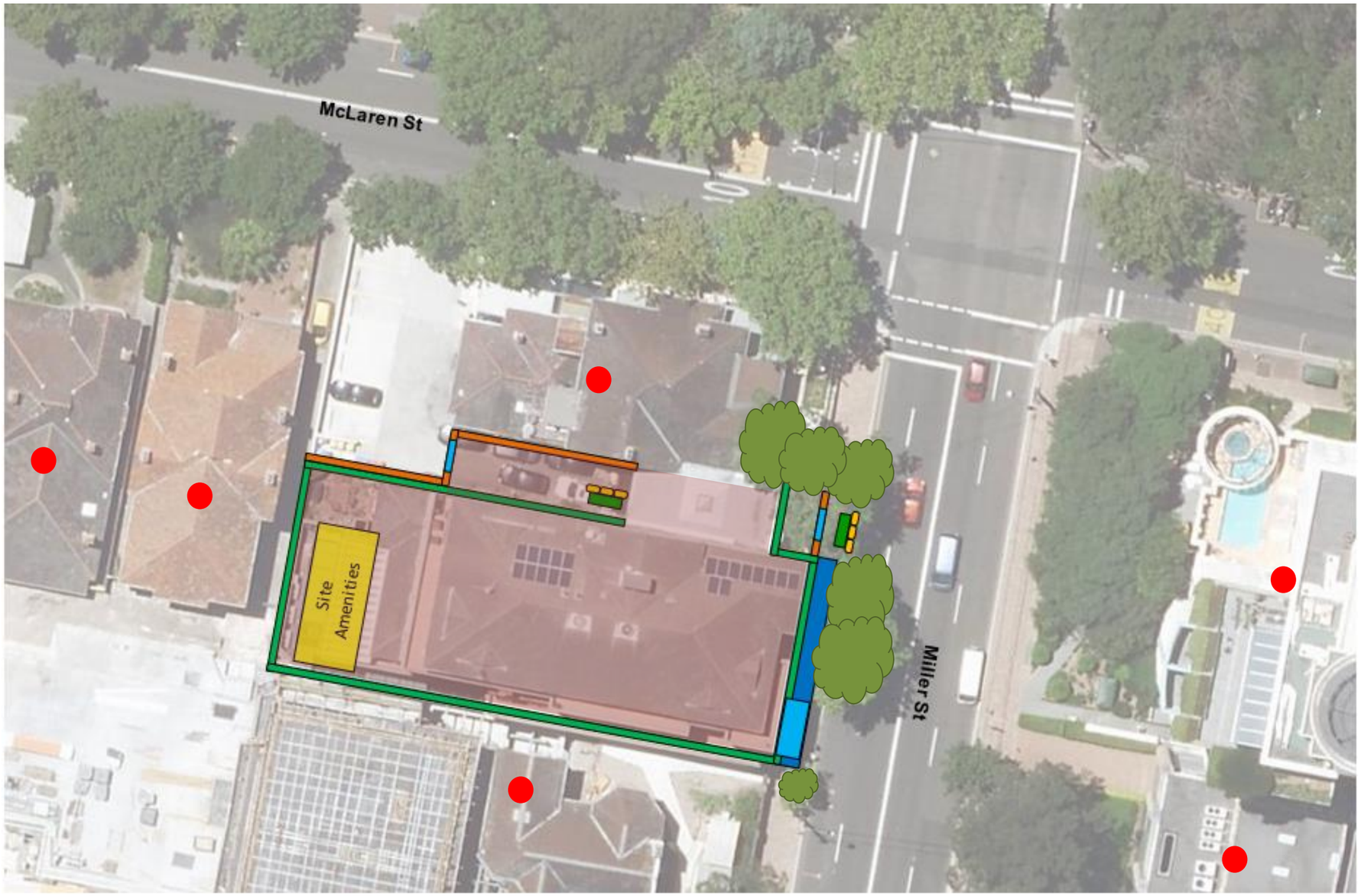
This ECP has been prepared in accordance with:

The Conditions of Approval for the Sydney Metro City & Southwest Chatswood to Sydenham Project; and

The Delta Construction Environmental Management Plan.

LEGEND

- Vehicular Access Gate
- Pedestrian Access Gate
- Existing fence
- Sand bag/ geofab to cover drains
- Shade cloth
- A Class Hoarding
- B Class Hoarding
- Barrier mesh
- Trees to be retained
- To be demolished
- To be retained
- Heritage resource
- Sensitive receivers



Environmental Control Plan (ECP)

Portion VC2 – Victoria Cross 2

This ECP has been prepared in accordance with:

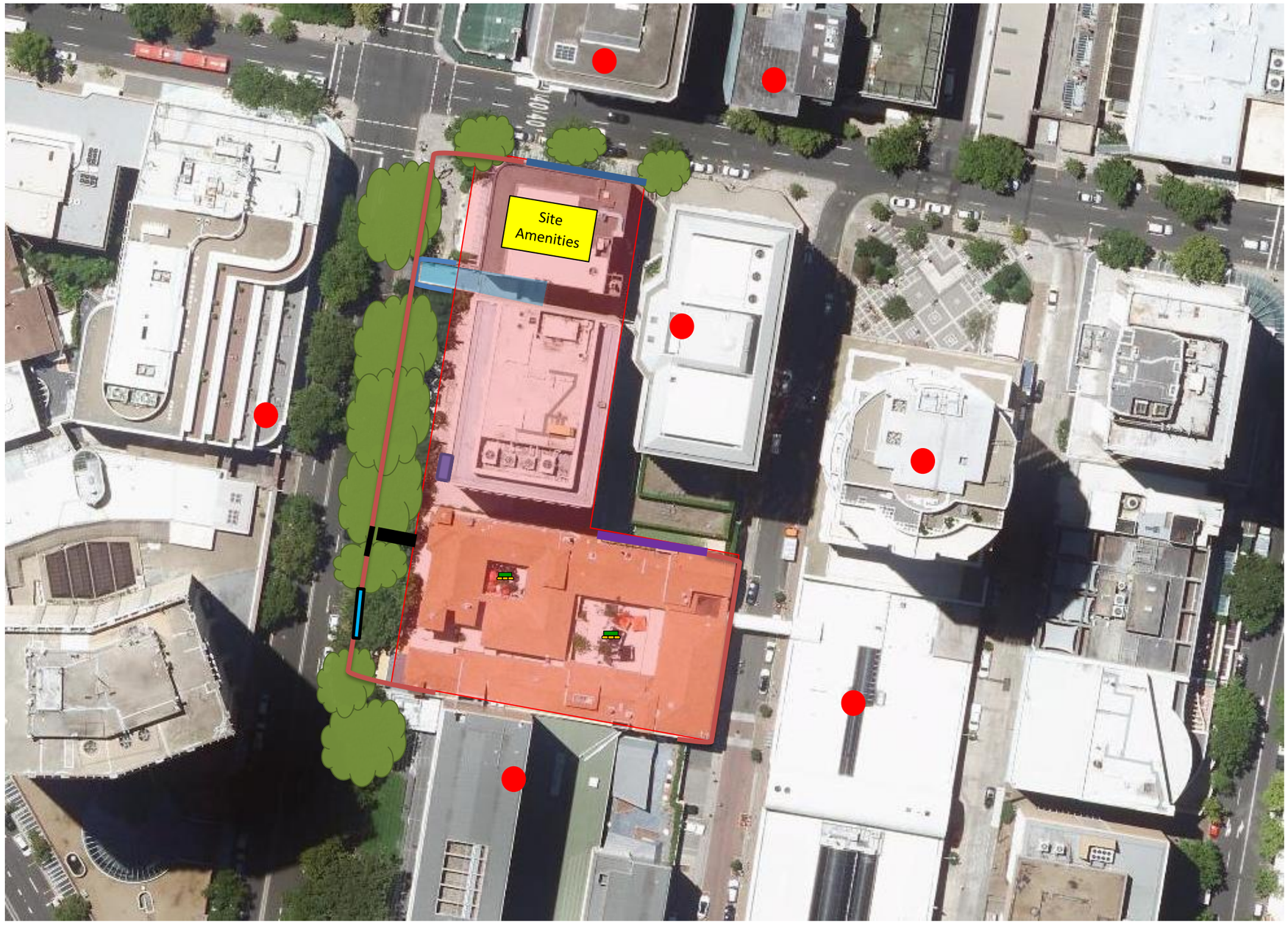
The Conditions of Approval for the Sydney Metro City & Southwest Chatswood to Sydenham Project; and

The Delta Construction Environmental Management Plan.

LEGEND

- Vehicular Access Gate
- Pedestrian Access Gate
- Existing fence
- Sand bag/ geofab to cover drains
- Shade cloth
- A Class Hoarding
- B Class Hoarding
- Barrier mesh
- Trees to be retained
- To be demolished
- To be retained
- Heritage resource
- Sensitive receivers
- Locked Fuel storage

parking area in basement of 189



Environmental Control Plan (ECP)

Portion PS – Pitt Street

This ECP has been prepared in accordance with:

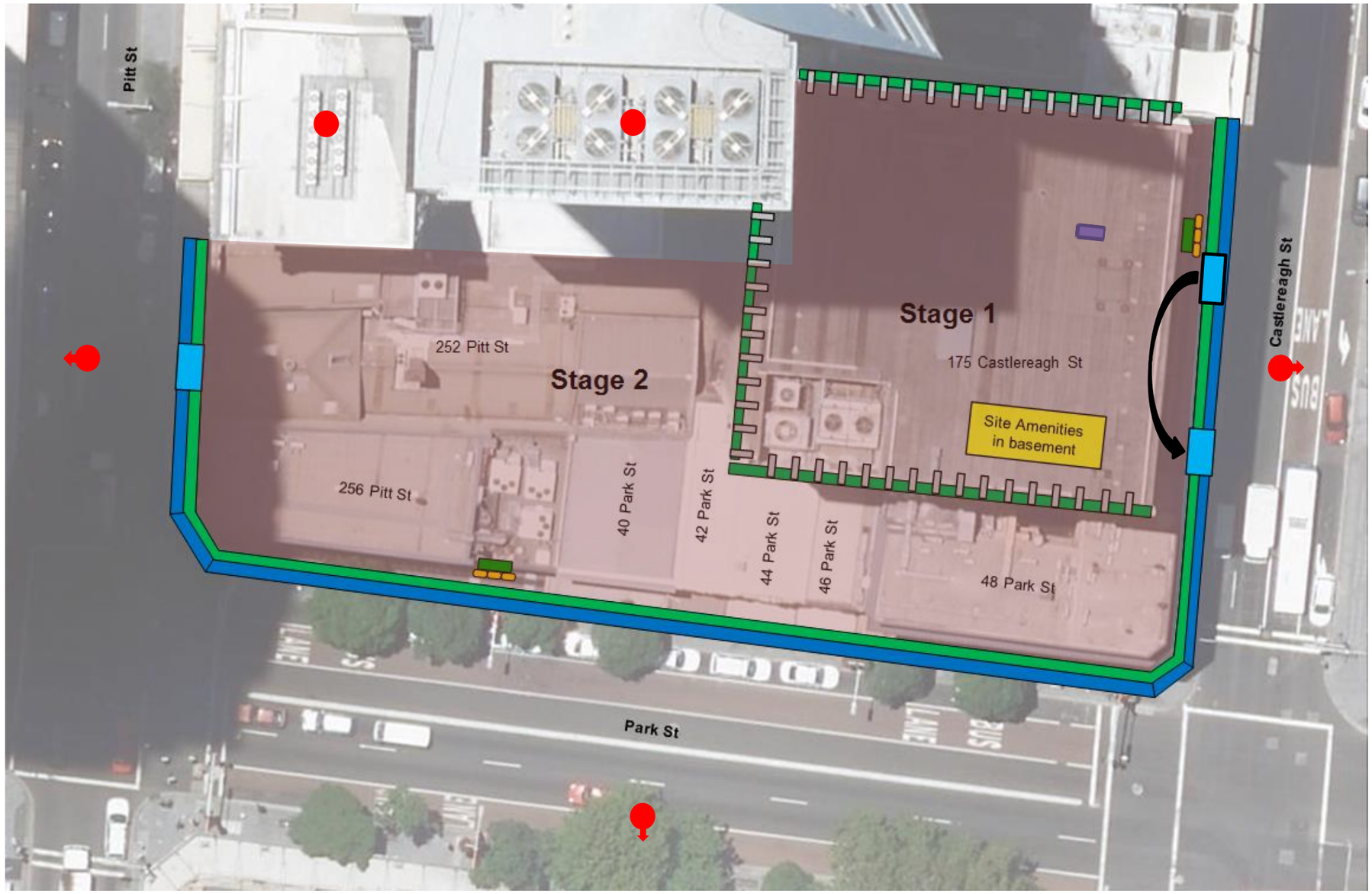
The Conditions of Approval for the Sydney Metro City & Southwest Chatswood to Sydenham Project; and

The Delta Construction Environmental Management Plan.

LEGEND

- Vehicular Access Gate
- Pedestrian Access Gate
- Existing fence
- Sand bag/ geofab to cover drains
- Shade cloth
- A Class Hoarding
- B Class Hoarding
- Barrier mesh
- Trees to be retained
- To be demolished
- To be retained
- Heritage resource
- Sensitive receivers
- Locked Fuel storage in basement

parking area in basement of 175 Castlereagh



Environmental Control Plan (ECP)

Portion WA – Waterloo

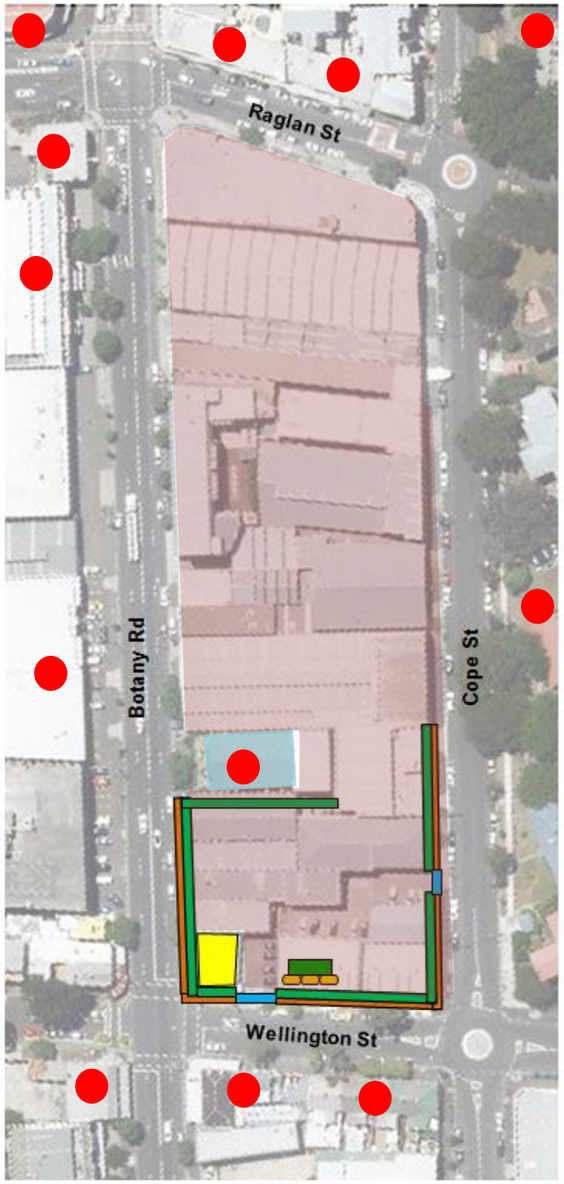
This ECP has been prepared in accordance with:

The Conditions of Approval for the Sydney Metro City & Southwest Chatswood to Sydenham Project; and

The Delta Construction Environmental Management Plan.

LEGEND

- Vehicular Access Gate
- Pedestrian Access Gate
- Existing fence
- Sand bag/ geofab to cover drains
- Shade cloth
- A Class Hoarding
- B Class Hoarding
- Barrier mesh
- Trees to be retained
- To be demolished
- To be retained
- Heritage resource
- Sensitive receivers



Environmental Control Plan (ECP)

Portion MA – Marrickville

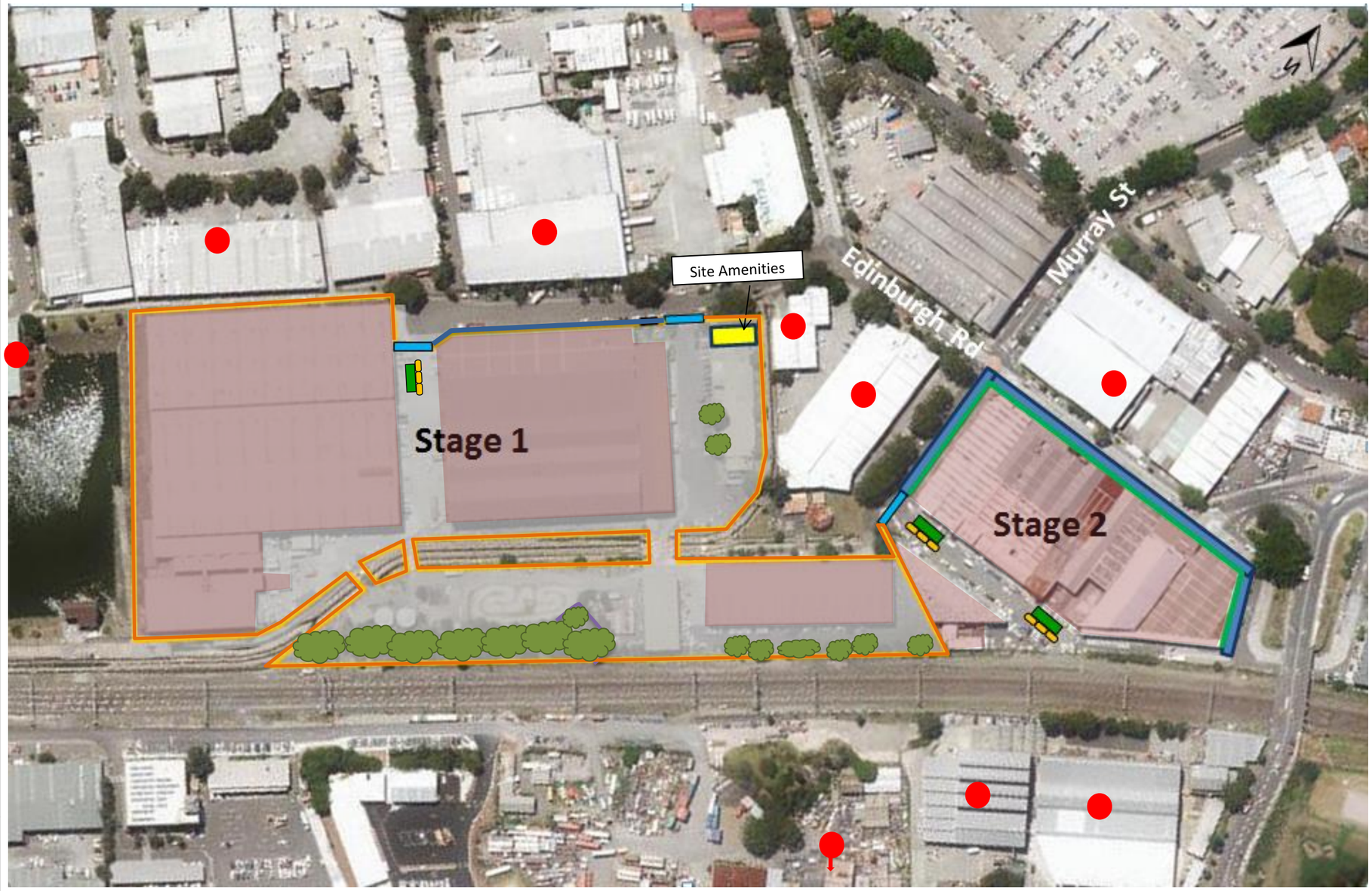
This ECP has been prepared in accordance with:

The Conditions of Approval for the Sydney Metro City & Southwest Chatswood to Sydenham Project; and

The Delta Construction Environmental Management Plan.

LEGEND

- Vehicular Access Gate
- Pedestrian Access Gate
- Existing fence
- Sand bag/ geofab to cover drains
- Shade cloth
- A Class Hoarding
- B Class Hoarding
- Barrier mesh
- Trees to be retained
- To be demolished
- To be retained
- Heritage resource
- Sensitive receivers



PROCEDURE: PROTECTION OF EXISTING FLORA AND FAUNA

1. SCOPE

This document details the procedure for the protection of existing flora and fauna during demolition as carried out by Delta Group. The scope of this procedure applies to all demolition control aspects and to all Delta personnel and sub-contractors.

Environmental Control Plans will be prepared for each specific stage or parcel of work prior to commencing works in consultation with demolition staff. Environmental Control Plans will be incorporated into the Site Establishment Plans and updated as required.

2. AUTHORITY

National QSE Manager

- Approve this document; and
- Review this document.

IMS Manager

- Develop and assure compliance; and
- Document Controller.

3. GENERAL

All significant flora and fauna on and adjacent to the site must be protected unless otherwise permitted. Any removal of flora and fauna will be dealt with through the relevant authorities and with the relevant permits.

4. DEMARCATION

No-go zones are marked on the Site Establishment Plans. Vegetation within the footprints of the six Project sites has not been identified to Delta as including either threatened species or Threatened Ecological Communities. However, all vegetation outside and adjacent to the demolition footprint will be demarcated and protected using barrier mesh or similar and will be communicated to site personnel as a no go zone.

5. FLORA AND FAUNA CONTROL MEASURES

Delta will:

- Ensure that if there is a threat to an animal onsite, the Site Manager and the Environment and Sustainability Manager are notified immediately. Works may need to cease until the animal has been relocated;
- Ensure that where practical, sections of roofing material at Waterloo Station are removed one day prior to demolition to allow light to penetrate into the roof cavities to allow any microbats present to vacate the roof cavity overnight;
- Inform all workers of the potential for microbats to be present within roof cavities;
- Cease works immediately if microbats are encountered and contact the Principal and a suitably qualified zoologist;
- Recommence works only following the advice and/or actions of the zoologist; and
- Facilitate access to the Principal and the Principal's contractor where required for targeted microbat surveys.

PROCEDURE: AIR QUALITY MANAGEMENT

1. SCOPE

This document details the procedure for property management and maintenance during demolition as carried out by Delta Group. The scope of this procedure applies to all demolition control aspects and to all Delta personnel and sub-contractors.

Environmental Control Plans will be prepared for each specific stage or parcel of work prior to commencing works in consultation with demolition staff. Environmental Control Plans will be incorporated into the Site Establishment Plans and updated as required.

2. AUTHORITY

National QSE Manager

- Approve this document; and
- Review this document.

IMS Manager

- Develop and assure compliance; and
- Document Controller.

3. AIR QUALITY CONTROL MEASURES

Delta will:

- Remove materials that have a potential to produce dust from site as soon as practical.
- Ensure effective water suppression is used during demolition operations, using non-potable water where possible.
- Water down unsealed roads and dumping areas to prevent dust generation.
- Avoid dry sweeping of large areas.
- Where practicable, use non-powered hand tools or portable power tools that incorporate dust suppression or dust extraction attachments.
- Use enclosed chutes and conveyors and covered skips.
- Erect screens and hoardings on the perimeters of the site.
- Impose and signpost a maximum speed limit of 20 km/h on surfaced and unsurfaced haul roads and in work areas.
- Cease dust generating works when there is a risk that dust or wind-blown materials may leave the site.
- Ensure trucks used for transport of demolition materials are enclosed sided vehicles such as tippers.
- Ensure vehicles carrying demolition materials leaving sites are covered to prevent escape of materials during transport.
- Maintain and operate construction plant and equipment to ensure that visible emissions are not emitted for more than 10 consecutive seconds.
- Regularly inspect emissions control fitted to plant and equipment to ensure they are operating efficiently and not creating excessive exhaust fumes.
- Turn off engines when not in use and where occupational hygiene allows.

PROCEDURE: PROPERTY MANAGEMENT

1. SCOPE

This document details the procedure for property management and maintenance during demolition as carried out by Delta Group. The scope of this procedure applies to all demolition control aspects and to all Delta personnel and sub-contractors.

Environmental Control Plans will be prepared for each specific stage or parcel of work prior to commencing works in consultation with demolition staff. Environmental Control Plans will be incorporated into the Site Establishment Plans and updated as required.

2. AUTHORITY

National QSE Manager

- Approve this document; and
- Review this document.

IMS Manager

- Develop and assure compliance; and
- Document Controller.

3. CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN

The principles of Crime Prevention through Environmental Design (CPTED) will be applied to all works that have a public interface, including temporary works. The CPTED principles that may be applicable to minimise the opportunity for crime are surveillance, access control, territorial reinforcement, and space management.

4. EFFECTIVE LIGHTING

Sufficient lighting will be installed where required, to ensure adequate illumination of the site. Lighting will be placed to reduce light spill outside the site, and directed to avoid impacting on neighbouring properties.

5. SITE VEGETATION

Vegetation in and around the site will be protected with a combination of barrier mesh or similar and will be communicated to site personnel as a no go zone.

6. ACCESS CONTROL SIGNAGE

Standardised warning signage will be employed by Delta at the site access and egress points and around the site perimeter to warn of construction site dangers and prohibit unauthorised access.

7. VANDALISM AND GRAFFITI

Delta will regularly inspect and maintain construction hoardings, scaffolding, and sheds. These will be kept clean and free of dust and dirt. Graffiti on construction hoardings, scaffolding, or buildings will be removed or painted over promptly.

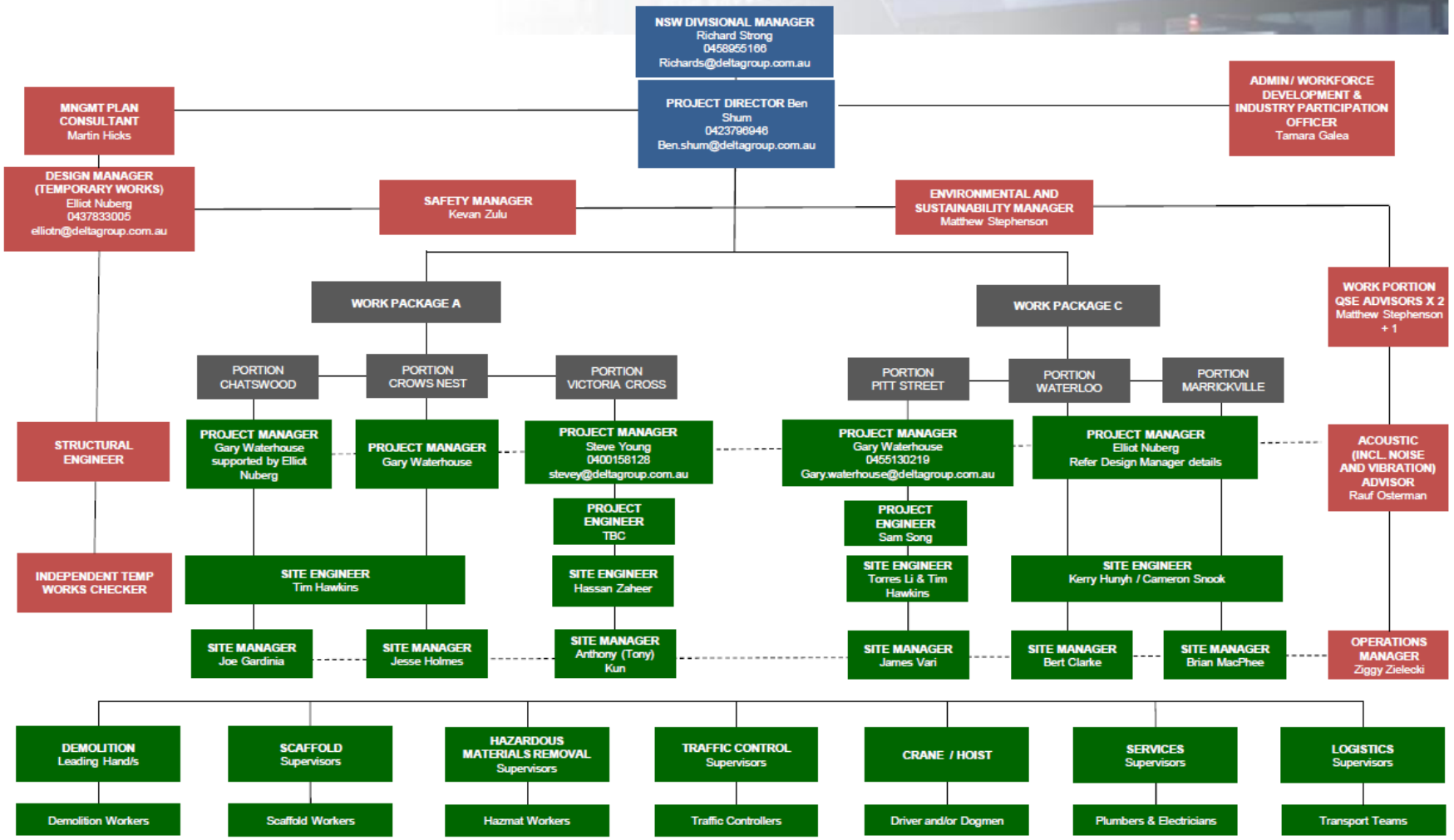
Decayed physical elements of construction hoardings, scaffolding, and sheds will be removed or repaired as required.

8. TEMPORARY WORKS

The design of all temporary works will require approval from the Principal in relation to urban design and visual impacts. Delta will issue the design to Sydney Metro for approval prior to installation. This approval is a Hold Point within the Project Construction Environmental Management Plan.

APPENDIX J PROJECT ORGANISATIONAL CHART

PROJECT ORGANISATIONAL CHART – SYDNEY METRO



NOTE: Nominated project personnel is based on current workflow projections.

APPENDIX K ENVIRONMENTAL INCIDENT CLASSIFICATION PROCEDURE

APPENDIX L ENVIRONMENTAL MONITORING PROGRAM

Potential Impact	Location	Parameter	Frequency	Technique	Reporting	Responsibility	Timing
Noise	As per Noise & Vibration Management Sub Plan	LA10 (15min), RBL - dB(A)	Monthly	Attended noise meter	Monthly Report	Environment & Sustainability Manager	Demolition
Vibration	As per Noise & Vibration Management Sub Plan	Vibration velocity (mm/s)	As required	Vibration meter	Monthly Report	Environment & Sustainability Manager	Demolition
Noise complaints	Specific location of complaint	Source of noise	As required	Attended noise meter	Monthly Report	Environment & Sustainability Manager	Demolition
Dust	All portions	Visible dust	At all times	Visual inspection	Monthly Report	Site Manager	Demolition
Biodiversity	Waterloo portion	Microbats	As required	Targeted survey by ecologist	As required	Environment & Sustainability Manager	Pre-demolition
Heritage	339 Mowbray Road Artarmon	Condition	Weekly	Visual inspection	SEF 049 Site Inspection Report	Site Manager	Demolition
Heritage	103 Botany Road Waterloo	Condition	Weekly	Visual inspection	SEF 049 Site Inspection Report	Site Manager	Demolition
Spoil	All portions	Presence of spoil material at vehicle egress	Daily	Visual inspection	SEF 049 Site Inspection Report	Site Manager	Demolition
Waste / spoil	All portions	Waste types, vehicle details, and arrival and departure times	Each load	Visual inspection	QF 029 Material Disposal Running Sheet	Gateman	Demolition
Waste storage	All portions	Condition / maintenance	Weekly	Visual inspection	SEF 049 Site Inspection Report	Site Manager	Demolition
Erosion and sediment controls	All portions	Effectiveness	Weekly	Visual inspection	SEF 049 Site Inspection Report	Site Manager	Demolition
Noise barriers / site hoarding	All portions	Condition	Weekly	Visual inspection	SEF 049 Site Inspection Report	Site Manager	Demolition
Graffiti and weeds	All portions	Presence / need for removal	Weekly	Visual inspection	SEF 049 Site Inspection Report	Site Manager	Demolition
Retained vegetation	All portions	Health	Weekly	Visual inspection	SEF 049 Site Inspection Report	Site Manager	Demolition

Potential Impact	Location	Parameter	Frequency	Technique	Reporting	Responsibility	Timing
Site lighting	All portions	Direction	Weekly	Visual inspection	SEF 049 Site Inspection Report	Site Manager	Demolition
Electricity Water	All portions	Usage	Monthly	Purchase records	Monthly Sustainability Report	Environment & Sustainability Manager	Demolition
Recycling	All portions	Proportion recycled	Monthly	Disposal records	Greenhouse Gas Inventory Report	Environment & Sustainability Manager	Demolition
Greenhouse gases	All portions	Emissions generated	Monthly	Carbon Estimation and Reporting Tool	Greenhouse Gas Inventory Report	Environment & Sustainability Manager	Demolition
Diesel	All portions	Litres used	Monthly	Purchase records	Diesel Inventory Report	Environment & Sustainability Manager	Demolition

NB: Non- compliances will be investigated, closed out, and evidence provided using the Environment Incident & Corrective Action Report (appendix A). Details of the non-compliance will be recorded in the Action Register SEF 024.all CAR to be sent to the Environmental Manager for distribution and filing.