CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN FOR SUEZ RECYCLING & RECOVERY PTY LTD 20 DAVIS ROAD, WETHERILL PARK, NSW

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Benbow ENVIRONMENTAL

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GLOSSARY & ABBREVIATIONS

Term / Abbreviation	
Ancillary facility	Temporary
Audit	As defined in ISO 19011:2011, an audit is: "A systematic, independent and documented process for obtaining audit evidence and evaluating it objectively to determine the exte4nt to which the audit criteria are fulfilled."
CEMP	Construction Environmental Management Plan
Council	Fairfield City Council
CTMP	Construction Traffic Management Plan
CWMP	Construction Waste Management Plan
DCC	Development Consent Condition
DPI	Department of Primary Industries
DP&E	Department of Planning and Environment
Ecologically sustainable development	"Development that meets the need of the present generation without compromising the ability of future generations to meet their own needs."
EIS	Environmental Impact Statement
EMP	Environmental Management Plan
ERP	Emergency Response Plan
EPA	NSW Environment Protection Authority
Environmental aspect	An environmental aspect is defined in ISO14001, 3.6 as: *'An element of the organisation's activities, products or services which can interact with the environment.'* *NOTE: A significant environmental aspect has or can have a significant environmental impact.*
Environmental impact	An environmental impact is defined as: *'Any change to the environment whether adverse or beneficial, wholly or partially resulting from an organisation's activities, products or services'.*
Environmental incident	See: Pollution incident
Environmental objective	An environmental result the organisation aims to achieve.
Environmental policy	Statement of intention in regards to environmental performance by a company
EP&A Act	Environmental Planning and Assessment Act, 1979
EPL	Environment Protection Licence
ESCP	Erosion and Sediment Control Plan
FERP	Flood Emergency Response Plan
N/A	Not applicable
Non-compliance	Failure to comply with any licence, approval, legal or other requirements
Non-conformance	Failure to comply with requirements of this CEMP
NOW	NSW Office of Water
OEH	Office of Environment and Heritage
PIRMP	Pollution Incident Response Management Plan

Term / Abbreviation	
POEO Act	Protection of the Environment Operations Act, 1997
Pollution Incident	The Environmental Guidelines: Preparation of pollution incident response management plans defines a pollution incident as: "…an incident or set of circumstances during or as a consequence of which there is or is likely to be a leak, spill or other escape or deposit of a substance, as a result of which pollution has occurred, is occurring or is likely to occur. It includes an incident or set of circumstances in which a substance has been placed or disposed of on premises, but it does not include an incident or set of circumstances involving only the emission of any noise."
RMS	Roads and Maritime Services
SOP	Standard Operating Procedure
TWA	Trade Waste Agreement
WTS	Waste Transfer Station

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1. INTRODUCTION

This Construction Environmental Management Plan (CEMP) documents the environmental aspects, the associated mitigation measures and environmental management procedures for the excavation and construction of the proposed modifications of the Waste Transfer Station (WTS) at 20 Davis Road, Wetherill Park, NSW (the "subject site"). The proposed development includes the construction of hardstand areas for entry and exit ramps and additional truck and trailer parking, installation of new plant equipment and minor building modifications, additional stormwater infrastructure and an additional heavy vehicle exit from the main transfer building. This CEMP has been prepared in accordance with Conditions C1 and C2 of the Development Consent SSD 7267 from the Department of Planning and Environment (updated as per SSD 7267 MOD2) as follows:

C1. The Applicant must prepare a Construction Environmental management Plan (CEMP) to the satisfaction of the Secretary. The CEMP must:

- *a) be prepared to the satisfaction of the Secretary prior to commencement of Stage 1 construction and Stage 2 construction;*
- *b) identify the statutory approvals that apply to the Development;*
- *c) Unexpected finds protocol (see Condition B44);*
- *d) outline all environmental management practices and procedures to be followed during construction works associated with the Development;*
- *e) explain the controls that would be implemented to minimise dust emissions during construction of the Development;*
- *f) describe activities to be undertaken on the site during construction of the Development , including a clear indication of construction stages;*
- *g) detail how the environmental performance of the construction works will be monitored, and what actions will need to be taken to address identified adverse environmental impacts;*
- *h) describe the roles and responsibilities for all relevant employees involved in construction works associated with the Development; and*
- *i) include the management plans required under Condition C2 of this consent.*

C2. As part of the CEMP required under Condition 1 of this consent, the Applicant must include the following:

- *a) Flood Emergency Response Plan (FERP)*
- *b) Erosion and Sediment Control Plan*
- *c) Unexpected Finds Protocol (See Condition B44)*

SSD 7267 MOD1 – Amendment to the installation requirements of the meteorological station, and SSD 7267 MOD 2 – staged construction and increase in the processing capacity of general solid waste (putrescible) and amendment to site layout have been reviewed and incorporated into this CEMP.

The CEMP has been developed following the guidelines of: *AS/NZS ISO 14001, Environmental Management Systems: Specifications with guidance for use*; *AS/NZS ISO 14004, Environmental Management Systems: General guidelines on principles, systems and supporting techniques;* and *Environmental management Plan Guidelines* (Commonwealth of Australia, 2014).

1.1 OBJECTIVES OF THE CEMP

The objectives of the CEMP are:

- To ensure that all staff and contractors are aware of the environmental aspects and impacts related to the proposed works and that they are competent in implementing the specific environmental safeguards that apply to their activities; and

- To establish environmental management objectives and procedures in order to:
  - Achieve regulatory compliance;
  - Minimise any environmental harm on-site and off-site, resulting from the proposal; and
  - Improve environmental performance during the proposed works on site.

1.2 ENVIRONMENTAL MANAGEMENT DOCUMENTATION

Sub-plans are provided as Attachments and include:

B1: Construction Traffic Management Plan
B2: Erosion and Sediment Control Plan
B3: Flood Emergency Response Plan
B4: Construction Waste Management Plan
B5: Unexpected Finds Protocol

1.3 ENVIRONMENTAL PROCEDURES

A set of environmental construction procedures has been compiled into a manual and provided as Attachment A4. These procedures are a pragmatic way for construction staff and contractors to carry out activities in an environmentally responsible way and ensure this CEMP is adequately implemented during construction.

1.4 ENVIRONMENTAL POLICY

Values and environmental commitments have been formalised in the SUEZ Environmental Policy which is provided as Attachment A3. This policy is considered integral to the way the company does business and would be incorporated into all operations including during construction.

2. PROJECT DESCRIPTION

The construction works are part of the approved modifications to the existing Waste Transfer Station (WTS) operated by SUEZ Recycling & Recovery located at Wetherill Park. The development would result in an increased production capacity of the WTS from 100,000 tpa to 230,000 tpa and be achieved by increasing the throughput of general solid waste (putrescible) from 10,000 tpa to 140,000 tpa. The WTS will retain its existing capacity to accept 90,000 tpa of general solid waste (non-putrescible) and 10 m^3 of asbestos waste weekly.

To enable the expanded operations, the construction will take place in stages according to the attached plans in Attachment A5.

2.1 SITE LOCATION

The subject site is located at 20 Davis Road, Wetherill Park, legally described as Lot 402 in DP603454. An aerial photograph of the subject site is shown in Figure 2-1.

Figure 2-1: Location of Subject Site

Source: SIX Maps 2017

↑N	**Legend:** - Site boundaries	Benbow Environmental 25-27 Sherwood Street, Northmead NSW 2152

2.2 SITE FACILITIES

The site contains existing infrastructure including a main transfer building, weighbridge and weighbridge office, car park, administration and amenities area, surge pit and loading chute, collection tunnel with associated driveway and ramps to enter and exit.

The site occupies approximately 2 ha of land at the end of a cul-de-sac with access onto Davis Road. Existing buildings have a site coverage of approximately 25% with roadways, car parking, external storage and the weighbridge covering 40% of the site. The remaining land contains landscaping such as trees, grasses and bushes.

Construction would be undertaken in two stages and would include:

- Construction of hardstand areas for entry/exit ramps and additional truck and trailer parking;
- Installation of new plant equipment (plant conveyor in receival area);
- Construction of retractable fire compliant litter prevention curtain at receival area;
- An additional heavy vehicle exit (roller shutter) from the main transfer building to improve internal traffic flow;
- Construction of a retaining wall;
- Additional stormwater infrastructure; and
- Fire services upgrades.

Site Plans for the development are provided in Attachment A5.

2.3 EXPECTED WORKS

The proposal is expected to result in the following construction work activities shown in Table 2-1 to be undertaken in two stages.

Table 2-1: Construction activities

Component	Typical activities
STAGE 1	
Site Establishment	• Fencing of relevant construction areas of the site • Installation of erosion and sediment controls • Mobilisation of equipment
Clear and grub	• Removal of trees and grass • Grubbing of roots and stumps • Removal & disposal of organic matter off-site • Stripping & temporary stockpiling of top soil
Site Preparation	• Bulk earthworks including minor excavation • Placement of fill to create grade
Construction of Temporary Perimeter Access Road	• To be constructed in accordance with NSW FB Policy No. 4 – Guidelines for Emergency Vehicle Access

Table 2-1: Construction activities

Component	Typical activities
Installation of proposed retractable fire compliant litter prevention curtain	• Construction of support columns, steel frame and cladding • Installation of curtain
Installation of new equipment	• Installation works
Pavement and hardstand construction	• Placement and construction of the base and sub-base • Construction of kerbs, gutter and concrete barriers • Pouring of concrete
Stormwater	• Construction of additional stormwater conveyance systems under new pavement to tie into pit 13. The system would consist of two new stormwater pits and 500mm diameter stormwater pipe
Fire Services Upgrade	Sprinkler system installed in accordance with NCC and AS2118.1 Fire Hydrant System installed in accordance with NCC and AS2419.1
Finishing works	• Removal of temporary works • Site clean-up and disposal of surplus waste materials • Relocation of waste skip bins for use in stage 2 works.
STAGE 2	
Site Establishment	• Re-fencing of relevant construction areas of the site • Removal of temporary perimeter access road • Installation of erosion and sediment controls • Mobilisation of equipment
Site Preparation	• Bulk earthworks including minor excavation • Placement of fill to create grade
Pavement and hardstand construction	• Placement and construction of the base and sub-base • Construction of kerbs, gutter and concrete barriers • Pouring of concrete
Stormwater	• Construction of additional stormwater conveyance systems under new pavement as required
New roller shutter opening	• Construction of the opening and new roller shutter
Construction of retaining wall	Note: Retaining wall to be designed and addressed under a separate cover. Extent of works to be provided as an addendum to this CEMP.
Finishing works	• Removal of temporary works, waste skip bins etc. • Decommissioning of any construction facilities • Site clean-up and disposal of surplus waste materials

No demolition is required.

2.3.1 Timing

The construction works would be undertaken in two stages. Approximate timing for the construction works to be completed is:

Stage 1: 16 to 20 weeks
Stage 2: 6 to 12 weeks

2.3.2 Transfer Station Closure

During Stage 1 construction period, the Transfer Station would be closed to the general public for waste deliveries. The only areas remaining open will be the recycling area (operated by up to 3 SUEZ staff at a time, with approximately 24 deliveries per day by contractors). SUEZ would also accept asbestos drop off. The drop off is infrequent and by bookings only, and the customers would be supervised by SUEZ staff at all times under the asbestos handling SOP.

All deliveries to the recycling area would be by contractors rather than general public. SUEZ staff accessing the recycling area or contractors would use the exit weighbridge to weigh in and be directed to the recycling area. They will weigh out via the exit weighbridge as well. This would therefore delineate them from the Stage 1 construction zone.

2.3.3 Construction Equipment

Construction equipment would consist of dozers, graders and compaction equipment, backhoes, excavators, rollers, trucks, concrete-pumping equipment, air compressors, concrete vibrators and saws, mobile cranes and welders.

2.3.4 Ancillary Facilities

As the site is an established waste facility, the existing site amenities and offices would be used by contractors engaged for the duration of the construction works. No additional ancillary facilities are required.

2.3.5 Hours of Operation

As stated in Condition B32 of the development consent, the Applicant must comply with the following hours of work:

Earthworks and construction:

Monday – Friday: 7am to 6pm
Saturday: 8am to 1pm

3. PLANNING CONSIDERATIONS

The legal requirements that affect the operation of this site include any legislation which relates to activities or potential environmental impacts of the operations.

The following federal and state acts and associated regulations are key legislation pertaining to the environmental management of the site during construction:

- Protection of the Environment Operations Act, 1997 (POEO Act);
- Environmental Planning and Assessment Act, 1979 (EP&A Act);
- Waste Avoidance and Resource Recovery Act, 2001 (WARR Act); and
- Work Health and Safety Act, 2011 (WHS Act).

Note that changes to legislation or regulations during operations would require a corresponding change to the CEMP and specific procedures. Visit http://www.legislation.nsw.gov.au/ for further details.

All licences, permits and approvals required for construction works are also presented.

3.1 LEGAL REQUIREMENTS

A register of legal and other requirements for the project is provided in Attachment A1. Changes to legislation or regulations during construction may require a corresponding change to the CEMP.

Affected procedures would need to be modified accordingly.

3.2 LICENCES, PERMITS AND APPROVALS

Attachment A1 contains a list of licences, permits and approvals that are required for environmental aspects the construction phase of the project. This list needs to be maintained by the SUEZ Recycling and Recovery.

Note that any internal permits required for high risk work such as confined space permits need to be applied for under the Work Health and Safety framework. These permits are not part of this CEMP.

3.2.1 Development Consent Conditions

The development consent conditions (DCC) have been issued by the Minister for Planning on acceptance of the proposed modification under the EP&A Act, 1979. The DCCs that apply to construction at the site need to be fulfilled in order to comply with current environmental and planning legislation, policies and guidelines. Relevant DCCs are listed in Attachment A1.

3.2.2 Environmental Protection Licence: Licence No. 4548

The site is licensed under the Protection of the Environment Operations Act, 1997 for:

- Non-thermal treatment of hazardous and other waste
- Waste storage – hazardous, restricted solid, liquid, clinical and related waste and asbestos waste
- Waste storage – other types of waste

NSW EPA advised the construction works does not require a licence for scheduled development works.

3.2.3 Trade Waste Agreement

SUEZ hold a trade waste agreement with Sydney Water for the discharge of wastewater to the sewer. Construction works would not require wastewater to be discharged to Trade Waste.

3.3 Significant Environmental Aspects & Potential Impacts

A register of environmental aspects and potential impacts is provided as Attachment A2. A risk assessment was undertaken on each identified potential impact to determine its significance using a risk rating based on the likelihood and consequence descriptors.

Mitigation measures were considered in the register.

3.4 Environmental Objectives, Targets and Programmes

This section outlines general environmental objectives and targets that could be adopted during the proposed construction activities for the required environmental management of the site. The purpose of setting environmental objectives and targets is to achieve the internal performance criteria set by the proponents and to assist in correcting and preventing environmental issues identified during inspections on site. Recommended environmental objectives and targets for the site are presented in Table 3-1.

Table 3-1: Environmental Objectives and Targets

Objective	Target	Method of Achievement	Timeframe
Construct the project in accordance with approvals	Full compliance with development consent conditions	Weekly inspections Audits	Throughout construction phase
Compliance with all legal requirements	No regulatory non-compliances; No prosecutions No warnings	Weekly inspections Audits	Throughout construction phase
Implement the CEMP and procedures	Address non-conformances and implement corrective actions within adequate timeframes	Weekly inspections Management Reviews	Throughout construction phase
Engage with affected community	Record and respond to complaints within an adequate timeframe.	Complaints response / register	As required

Table 3-1: Environmental Objectives and Targets

Objective	Target	Method of Achievement	Timeframe
Ensure all environmental mitigation measures are adequately implemented	No incidents	Weekly inspections & monitoring	Throughout construction phase

4. IMPLEMENTATION AND OPERATION

Successful implementation of this CEMP requires knowledge, skills and training, as well as the appropriate allocation of resources, and the clear delegation of responsibilities. It is also important that appropriate communication is established with the various stakeholders involved (e.g. surrounding residential community and regulatory authorities).

This section discusses the following:

- The key environmental roles and responsibilities; and
- Environmental training and appropriate communication strategies/procedures.

4.1 ORGANISATIONAL STRUCTURE, ROLES AND RESPONSIBILITIES

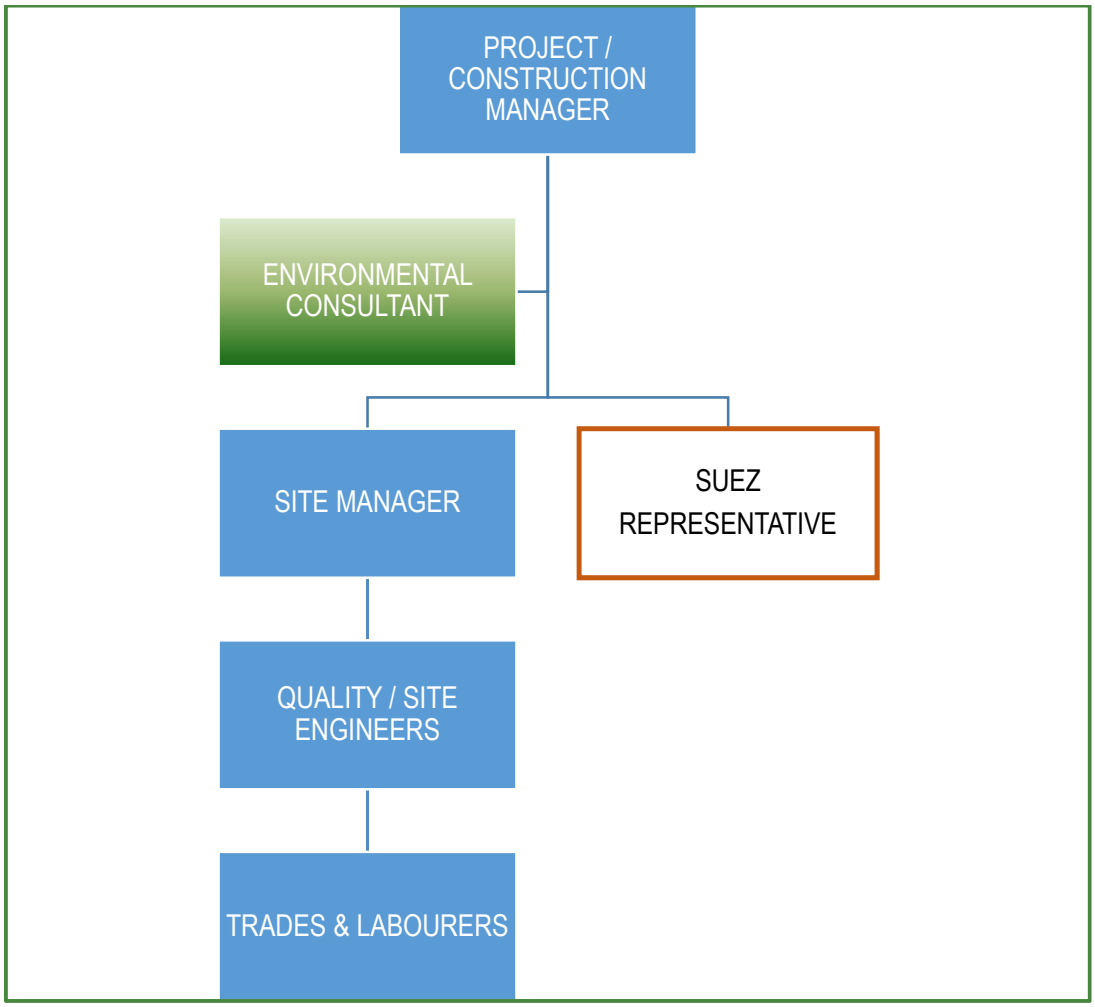
Key roles and responsibilities for protecting the environment and implementing environmental procedures during the construction phase are provided below. This description provides a guide to the roles the Principal Contractor's construction team would require during the project. The structure of these roles is provided in Figure 4-1.

Table 4-1: CEMP related Roles and Responsibilities

Role/Position	Responsibilities
Project / Construction Manager	• Ensure signs are installed that show the principal contractor's details • Ensure necessary resources are made available for implementation of the CEMP • Ensure construction work is being undertaken in accordance with the CEMP • Ensure construction workers have the required training and have completed the site induction prior to commencement of construction work at the site.
Site Manager	• Ensure that each person who is to carry out the construction work is made aware of relevant requirement and/or procedures • Coordinate environmental training required. • Make arrangements for ensuring compliance with the requirements for general construction site management • Manage any specific risks relating to WHS and environmental management such as waste disposal and unexpected finds
Quality / Site Engineers	• Ensure CEMP is implemented • Carry out daily inspections and monitoring required • Ensure all environmental mitigations measures and controls are installed and working efficiently

Role/Position	Responsibilities
All Workers (e.g. Machine Operators, Truck Drivers and Labourers) and any Sub-Contractors	• Responsible for carrying out construction activities in accordance with the CEMP and procedures • Responsible for informing the Principal Contractor of any issues with implementing the CEMP, or amendments needed as soon as practicable • Take reasonable care for own health and safety and that of others • Comply with any reasonable instruction, policy or procedure relating to WHS and environmental management at the construction site
Environmental Consultant	• An environmental consultant may need to be appointed for solving any environmental non-compliance at the construction site
SUEZ Representative	• Liaise with the Project / Construction Manager regularly to ensure construction work is being undertaken in accordance with the CEMP; • Evaluate and advise on compliance of the project with the SUEZ environmental policy and other environmental requirements.

Figure 4-1: Sample Organisational Structure Chart



4.2 ENVIRONMENTAL TRAINING

The Project / Construction Manager has the responsibility to ensure that environmental training is undertaken. The Site Manager will coordinate environmental training as set out below.

4.2.1 Site Induction

All workers must have successfully completed construction induction training prior to starting work at the site. A general construction induction training card or certification must be held. Construction induction training would contain an environmental component that would cover the following areas:

- Awareness of the purpose and objectives of the site CEMP;
- Awareness of legal requirements and individual accountability under environmental legislation applicable to the site, including penalties for offences under the POEO Act;
- Key environmental issues of the construction of the project including how the potential impacts are managed on site – management of dust and noise, daily site inspections;
- Understanding of the various roles and responsibilities, with relevance to procedures;

- Flood Emergency Response Plan (Sub Plan B3);
- Mitigation measures and controls; and
- Incident response and reporting requirements.

Contractors should be inducted by the Site Manager, who would provide a tour of the site. All staff and contractors must complete a sign-in and sign-out register and must sign a document stating that they understand and agree to abide by the site's procedures.

4.2.2 Weekly Toolbox Meetings

Site meetings would be undertaken usually at the commencement of the week's activities or on an as-needs basis at the discretion of the site manager. The agenda for the meetings could include:

- The week's activities;
- Safe work practices; and
- Environmental protection practices and control measures.

Details of all environmental training must be recorded, and should include, at the minimum: the date of when training was completed, the name of the person being trained, and the general content of the training program. Weekly toolbox meetings shall be recorded including the date and time the meeting took place, names of attendees and topics of discussion.

4.3 COMMUNICATION

The Project / Construction Manager and/or Site Manager would communicate with relevant stakeholders when required. Stakeholders may include community groups, sub-contractors, regulatory authorities, non-regulatory agencies and the State Government.

4.3.1 Community Relations

It is important to foster open communications with the other stakeholders of the site to ensure that an integrated approach is used to deal with issues which reflect on all stakeholders. Communications with adjacent facilities should be undertaken on an as needs basis to ensure any environmental management issues from either party are addressed promptly.

4.3.1.1 Complaints Response

All complaints or enquiries should be handled in a courteous manner. Every complaint is a potential opportunity for improvement in environmental management. A procedure for handling complaints is provided below:

- Record in Log Book and on a Complaint Response Form:
  - Name of Complainant;
  - Address;
  - Telephone Number; and
  - Details of Complaint: date, time of occurrence, precise location of event.

- Connect/refer caller to one of the following staff members who are authorised to discuss the complaint with the caller:
  - Project / Construction Manager;
  - Site Manager;
  - SUEZ Representative; or
  - Personnel with environmental responsibilities.

- Authorised staff member requests details of the complaint or information required by the caller and completes the Complaint Response Form and the Complaint Response Logbook Index (provided in the following pages).

- Complaint is investigated and discussed at a toolbox meeting to determine whether it warrants being added to the incident register and whether a more detailed investigation is required.

- If further investigation is required, an incident number is allocated and recorded on the Complaint Response Logbook & Incident Register. If no investigation is warranted, the complaint can be closed out.

- Any response, investigations and actions taken to rectify the issue are recorded in the incident register.

4.3.2 Regulatory Authorities

Communications with regulatory authorities, such as the local council, shall occur on an as-needed basis. All communication with regulatory authorities concerning environmental matters is to be noted and records of any subsequent actions appropriately filed.

4.3.3 Internal Communication

The site management is to establish simple yet effective communication channels for implementation of the CEMP. Typical methods of communication that may suit the size of the operation include the regular Site Meetings with formal records.

Document control and written communication would be necessary when new contractors or employees are trained or changes are made to the CEMP or any other matters that affect the holistic environmental management of the site during construction.

COMPLAINT RESPONSE **PAGE 1 OF 2**

REF: …… REV: 1

LOG BOOK REFERENCE NO: ……

DATE: .....TIME: ……..AM/PM

NAME OF PERSON WHO RECEIVED CALL: ……

NAME OF COMPLAINANT: ……TELEPHONE NO: ……

ADDRESS: .....

DETAILS OF COMPLAINT:

DATE OF OCCURANCE: ……TIME AM/PM: .....

TYPE OF INCIDENT:

NOISE	☐	STORMWATER	☐
AIR EMISSIONS	☐	ODOUR	☐
TRAFFIC/TRANSPORT	☐	FIRE	☐
EROSION/SEDIMENT	☐	WASTE	☐
OTHER	☐	DETAILS: ……	

PRECISE LOCATION OF INCIDENT: .....

PARTICULAR DETAILS RELATING TO THE INCIDENT: .....

.....

.....

COMPLAINT RESPONSE **PAGE 2 OF 2**

ACTION TAKEN:

COMPLAINANT TRANSFERRED TO:

MESSAGE TAKEN FOR: ……..

CORRECTIVE AND PREVENTATIVE ACTION:

INFORMATION BULLETIN SENT ☐

COMPLAINT INVESTIGATED BY: .....CPAR NO.....

RESULTS OF INVESTIGATION: .....

.....

.....

.....

ON COMPLETION OF CORRECTIVE AND PREVENTATIVE ACTION:

LETTER SENT TO COMPLAINANT YES NO N/A DATE: .....

WORK PRACTICE MODIFIED YES NO N/A DATE: .....

COMPLAINT RESPONSE COMPLETE: .....
PRINT NAME

SIGNATURE: .....

DATE: ..... TIME: .....AM/PM

COMPLAINT RESPONSE LOG BOOK INDEX

COMPLAINT NUMBER	DATE	COMPLAINANT	CALL DIRECTED TO:	COMPLAINT ACTION DETAILS INCIDENT REF NO. SIGN & DATE

4.4 INCIDENTS AND EMERGENCIES

Emergency and pollution incident situations shall be dealt with in accordance with SUEZ's existing Emergency Response Plan and Pollution Incident Response Management Plan that identify potential emergency situations that may have an impact on the environment and details how to respond to them. These are separate comprehensive plans that are the guiding documents for managing emergency and pollution incidents at the site.

As the ongoing operation of the site will still be undertaken while construction works are taking place, a separate Incident Response Team (IRT) needs to be established for the construction works. The IRT consists of a group of members that have the responsibility of providing first response action to an incident in terms of organising the necessary resources, communications, evacuation of personnel and implementing any corrective actions that may be necessary to return the situation back to normal The same applies for a pollution incident. Specific details of the IRT are provided in the following table:

Table 4-2: Members of the Incident Response Team for the construction works

Incident Response Team Member	Personnel Name	Identification in an Emergency	Internal Contact No
Chief Warden			
Deputy Chief Warden			
Occupational First Aiders			
Traffic Controller			

Note: Names and contact details need to be filled in prior to the commencement of construction.

4.4.1 Response Actions for Pollution Incidents

In the event of a pollution incident, the first response of personnel on site based on their initial assessment is to phone 000 in an emergency.

Initial assessment needs to be made by IRT members present on site. If safe to do so:

1. Remove all persons from immediate danger
2. Secure the area
3. Commence evacuation

Under Part 5.7 of the POEO Act, a pollution incident that occurs in the course of an activity so that material harm to the environment is caused or threatened must be notified immediately to relevant authorities.

If the incident presents an immediate threat to human health or property, call 000 immediately. If the incident does not require emergency services, notify the following regulatory bodies, in order of relevance, as follows:

1. Planning Assessment Commission (PAC) 9383 2100
2. NSW Environment Protection Authority 131 555
3. The Ministry of Health (Liverpool Office) 8778 0855; 9828 3000 After hours
4. SafeWork NSW 13 10 50
5. Fairfield City Council 9725 0222
6. Fire and Rescue NSW 1300 729 579

The existing SUEZ PIRMP provides a Notification Procedure for Pollution Incidents. This needs to be followed in the event of a pollution incident that has the potential to cause material harm to the environment.

Under Condition C9 of the development consent SSD 7267, the following must be undertaken following any incident or potential incident:

- *Within 24 hours of any incident or potential incident with actual or potential significant off-site impacts on people or the biophysical environment, a report shall be supplied to the Department outlining the basic facts.*

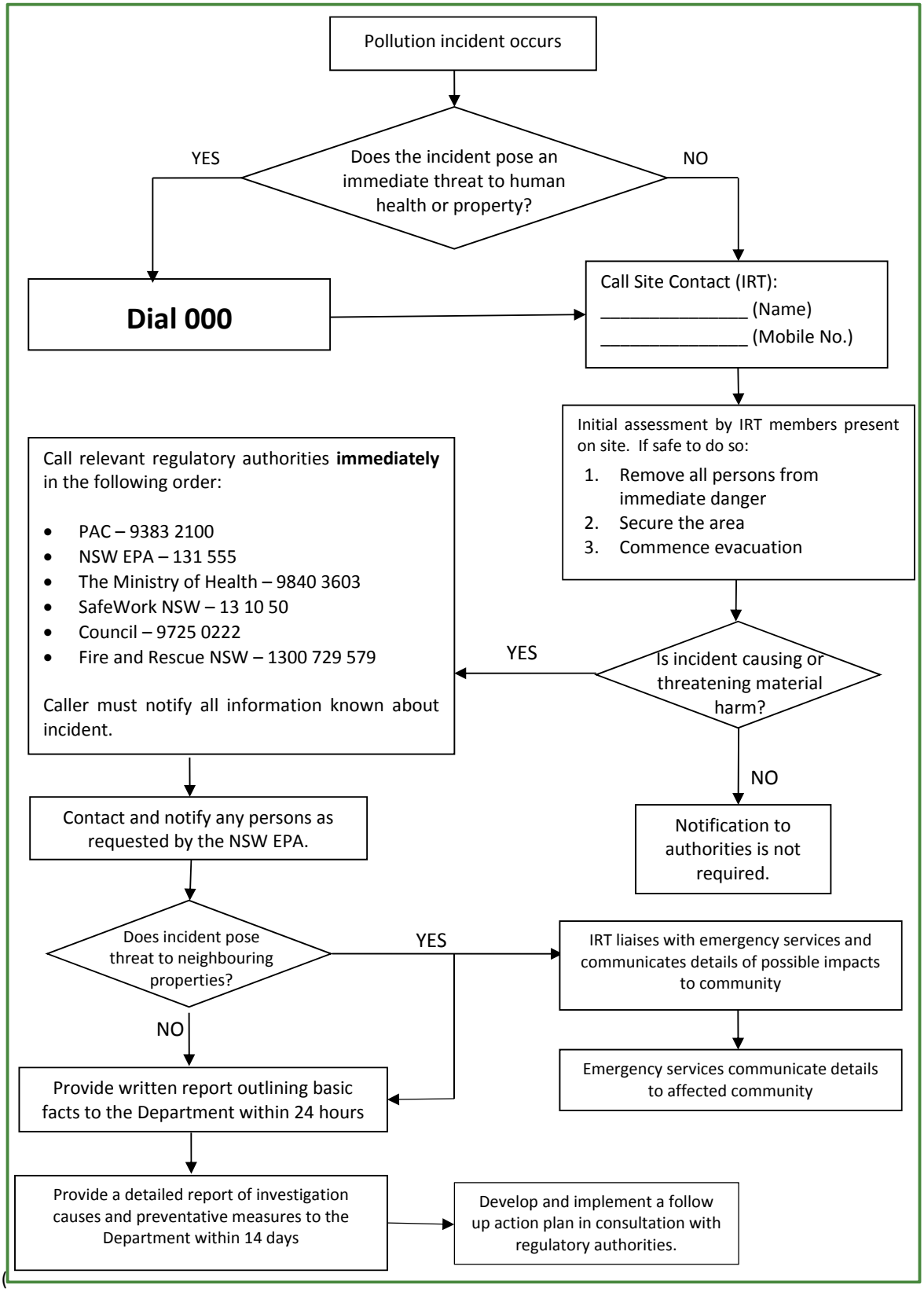
- *A further detailed report shall be prepared and submitted following investigations of the causes and identification of necessary additional preventive measures. That report must be submitted to the Secretary no later than 14 days after the incident or potential incident.*

Training in incident and emergency procedures shall be provided to all staff in the induction process. Construction workers would follow SUEZ procedures in this matter and training would be provided by SUEZ. This needs to include who to notify in the event of an emergency or a pollution incident with the potential to cause material harm to the environment.

Records of all incidents shall be maintained in the incident register detailed in Section 4.4.2.

A simple flowchart detailing how to respond in the event of a pollution incident is provided as Figure 4-2.

Figure 4-2: How to respond in the event of a Pollution Incident – To be updated



4.4.2 Incident Reporting

Any accident, incident or potential incident "*with actual or potential significant off-site impacts on people or the biophysical environment"* will be reported to the Department of Planning and Environment within 24 hours. The report shall provide the basic facts. An incident reporting form is provided overleaf to assist.

Following this, the Project / Construction Manager and delegates will conduct an investigation to assess all hazards and risks, review all documentation associated with the incident and formulate a report. This detailed report shall be submitted to the Secretary no more than 14 days after the incident or potential incident. The following details should be included in the report:

- Date and time of the incident;
- Cause, duration and specific location on site of the event/incident;
- The type, volume and concentration of every pollutant discharged or spilt as a result of the incident;
- Immediate action taken in relation to the event;
- The name, address and business hours telephone number those who witnessed the event;
- Any eyewitness accounts or additional reports resulting from the investigation into the incident;
- Major hazards and impacts as a result of the incident;
- Any remedial action taken in relation to the event including any follow up contact with complainants;
- Details of any actions to be taken or proposed to be taken to prevent or mitigate against a recurrence of such an event, who is responsible, and by when; and
- Any other relevant matters.

Records of any incident investigation reports and corrective actions (if required) must be maintained. An incident register is provided following the incident reporting form to assist.

INCIDENT REPORTING – BASIC FACTS	FORM

Date & Time of Incident: _____

Site Address: _____

Reference No. _____

Expected cause, duration & specific location of the event/incident:

The type, volume and concentration (if known) of every pollutant discharged or spilt as a result of the incident:

Immediate action taken in relation to the event:

The name, address and telephone number of any witnesses of the event:

Any other relevant matters:

I verify that all the information provided herein is a true and accurate of the events that have occurred.

Signed: _____

Name: _____

Date: _____

Table 4-3: Incident Register

Date	Reference No.*	Nature and cause of the incident	Verification of corrective / preventative actions
			I verify that all the nominated corrective and preventative actions have been implemented effectively. Signed: _____ Name: _____ Date: _____
			I verify that all the nominated corrective and preventative actions have been implemented effectively. Signed: _____ Name: _____ Date: _____
			I verify that all the nominated corrective and preventative actions have been implemented effectively. Signed: _____ Name: _____ Date: _____
			I verify that all the nominated corrective and preventative actions have been implemented effectively. Signed: _____ Name: _____ Date: _____
			I verify that all the nominated corrective and preventative actions have been implemented effectively. Signed: _____ Name: _____ Date: _____

* The reference number quoted would reference related incident reports with details of each incident.

5. MONITORING AND CORRECTIVE AND PREVENTATIVE ACTIONS

This section details the monitoring actions required for the proper implementation, maintenance and due diligence of the EMP. Corrective and preventative actions are also detailed to facilitate continuous improvement of environmental management across operations.

5.1 ENVIRONMENTAL INSPECTIONS

Regular inspections of the construction site would assess the adequacy of control measures implemented at the site, so that corrective and/or preventative action can be taken where required.

Daily inspections are recommended for the first week at the commencement of construction. Following good results, inspections are recommended to be completed weekly or as deemed necessary such as following a rain or storm event. An Inspection Checklist as a procedure is provided in Attachment A4. This covers air quality and dust, noise, sediment and erosion controls, litter and general management of the site.

5.2 ENVIRONMENTAL MONITORING

Environmental monitoring required during construction is described in detail in the procedures in Attachment A4 and accompanying sub-plans.

Visual monitoring is described in the Regular Site Inspection Procedure in Attachment A4.

Complaints or pollution incidents may trigger the need to undertake monitoring. This would be addressed on a case by case basis.

5.3 CEMP REVIEW

Throughout construction, certain circumstances may change and as a result, modifications and/or refinements to the project may be required. Therefore, a review of the CEMP is recommended to be undertaken following any project modifications.

The reviews shall be undertaken by the Project / Construction Manager and delegates and would need to consider the following:

- Changes to the works or program of works;
- Changes to legislation;
- Variations to licences, approvals, consents or permits;
- Any monitoring, inspection and audit results;
- Any pollution incidents or complaints; and
- The effectiveness of safeguards and controls.

Outcomes of the CEMP reviews may require modifications to the CEMP and related documentation.

5.4 CORRECTIVE AND PREVENTATIVE ACTIONS

This section of the CEMP details non-conformance with the CEMP, and corrective and preventative actions. Non-conformances include errors and deficiencies that can be identified through the Inspection Checklist and Site Dust Control Checklist, and/or from any complaints received in relation to daily works. Non-conformances should be effectively logged and promptly resolved. Non-conformances are to be reviewed by site management who will coordinate the appropriate corrective and preventative actions to address the respective non-conformances. Site management will then inform any staff or contractors who are affected by significant non-conformances about the subsequent required actions.

5.4.1 Request for Corrective Action

Corrective Actions are an ideal way to demonstrate and account for any issues and improvements to the CEMP. A Corrective Action Request (CAR) should be issued and processed using a CAR form. This form can be initiated by site management or staff, and should be passed to the appropriate staff or contractors responsible for the source of the non-conformance. Different events often initiate a CAR being raised, some typical ones follow:

- Council or other regulatory agency direction or request;
- Detection of non-conformances during site inspection;
- Audit verified non-conformance;
- Public complaints;
- Periodic meetings; and/or
- Opportunity for improvement process.

Site management shall ensure that CARs are actioned within a reasonable time frame. Records shall be maintained by the site management for all relevant corrective actions.

CORRECTIVE AND/OR PREVENTATIVE ACTION **PAGE 1 OF 1**

REF: …… REV: 1

☐ CORRECTIVE ACTION ☐ PREVENTATIVE ACTION

Name of personnel requesting corrective/preventative action:

_____

Signature:

_____

Personnel responsible for action:

_____

Date:

_____

Outline of the 'Initiating Event' and necessary corrective and/or preventative actions (to be filled out by those requesting action):

Actions taken to fulfil the requirement of the corrective and/or preventative action:

Corrective and/or preventative action complete:

Signature : **Date:**

5.5 RECORDS

Records relating to non-conformances, and their corrective and/or preventive action request forms, are to be maintained by site management. Reports and records concerning any monitoring results, incidents, regular inspections, staff training and correspondence with any regulatory authorities should also be maintained and archived.

All records are to be kept and complied in the office on site, as access to these records may occasionally be required by stakeholders and by regulatory authorities.

This concludes the report.

Linda Zanotto
Senior Environmental Engineer

R T Benbow
Principal Consultant

6. LIMITATIONS

Our services for this project are carried out in accordance with our current professional standards for site assessment investigations. No guarantees are either expressed or implied.

This report has been prepared solely for the use of SUEZ Recycling and Recovery Pty Ltd—Wetherill Park, as per our agreement for providing environmental services. Only SUEZ Recycling and Recovery Pty Ltd—Wetherill Park is entitled to rely upon the findings in the report within the scope of work described in this report. Otherwise, no responsibility is accepted for the use of any part of the report by another in any other context or for any other purpose.

Although all due care has been taken in the preparation of this study, no warranty is given, nor liability accepted (except that otherwise required by law) in relation to any of the information contained within this document. We accept no responsibility for the accuracy of any data or information provided to us by SUEZ Recycling and Recovery Pty Ltd—Wetherill Park for the purposes of preparing this report.

Any opinions and judgements expressed herein, which are based on our understanding and interpretation of current regulatory standards, should not be construed as legal advice.

ATTACHMENTS

Attachment A1: Legal Register

Attachment A1: Legal and Other Requirements

Table A1-1: Register of legal and other requirements

Legislation	Activity / Aspect	Section / Clause	Requirements	Comments
Environmental Planning and Assessment Act 1979	All	S4.33E	Comply with development consent conditions SSD 7267 (including MOD1 and MOD2) from the Planning Assessment Commission (Minister for Planning)	This CEMP covers all conditions listed.
Protection of the Environment Operations Act 1997	Environmental Harm	S115 S116 S117	The principal objective of the legislation is to avoid causing environmental harm. Harm is defined in the Act as being: ***"harm"**, in relation to the environment includes any direct or indirect alteration of the environment that has the effect of degrading the environment and, without limiting the generality of the above includes any act or omission that results in pollution.* ***"Pollution"** means:* *(a) water pollution, or* *(b) air pollution, or* *(c) noise pollution, or* *(d) land pollution.* Clause 115 relates to the offence for wilful or negligent disposal of waste likely to harm the environment. Clause 116 relates to offences for wilful or negligent causing leaks, spills or escapes of substances likely to harm the environment. Clause 117 relates to offences for wilful or negligent emission of ozone depleting substances likely to harm the environment.	The implementation of the CEMP would ensure that the environmental impacts of the activities taking place on site are minimised. Safeguards and procedures would ensure that site operations avoid causing environmental harm or pollution.

Legislation	Activity / Aspect	Section / Clause	Requirements	Comments
	Water Pollution	S120 S123	Clause 120 relates to the prohibition of pollution of waters: *A person who pollutes any waters is guilty of an offence.* Clause 123 details the maximum penalty for water pollution offences. Tier 2 penalties apply. *A person who is guilty of an offence under this Part is liable, on conviction.*	Applies. Responsibility extends to all employees. If found guilty of a water pollution offence, both the company and the individual can be held liable.
	Air Pollution and Odour	Part 5.4	Clause 124 relates to the operation of plant (other than domestic plant): *The occupier of any premises who operates any plant in or on those premises in such a manner as to cause air pollution from those premises is guilty of an offence if the air pollution so caused, or any part of the air pollution so caused, is caused by the occupier's failure:* *(a) to maintain the plant in an efficient condition, or* *(b) to operate the plant in a proper and efficient manner.* Clause 125 relates to maintenance work on plant. Clause 126 relates to dealing with materials. Clause 128 relates to standards of air impurities not to be exceeded. Clause 129 relates to the emission of odours from licensed premises. Clause 132 details the maximum penalty for air pollution offences. Tier 2 penalties apply. *A person who is guilty of an offence under this Division is liable, on conviction*	Potential for air pollution to occur is associated with excavation and removal of vegetation. An Air Quality Control procedure has been included in this CEMP to address potential air pollution issues (Attachment A4). Responsibility extends to all employees. If found guilty of an air pollution offence, both the company and the individual can be held liable.

Legislation	Activity / Aspect	Section / Clause	Requirements	Comments
	Noise Pollution	S139 S140 S141	Clause 139 relates to the operation of plant: *The occupier of any premises who operates any plant (other than control equipment) at those premises in such a manner as to cause the emission of noise from those premises is guilty of an offence of the noise so caused, or any part of it, is caused by the occupier's failure:* *(a) To maintain the plant in an efficient condition, or* *(b) To operate the plant in a proper and efficient manner.* Clause 140 relates to dealing with materials: *The occupier of any premises who deals with materials in or on premises in such a manner as to cause the emission of noise from those premises is guilty of an offence if the noise so caused, or any part of it, is caused by the occupier's failure to deal with those materials in a proper and efficient manner.* Clause 141 details the maximum penalty for noise offences. Tier 2 offences apply. *A person who is guilty of an offence under this Part is liable, on conviction.*	Applies. A Noise Management procedure has been included in this CEMP to address potential noise pollution issues (Attachment A4).
	Land Pollution	S142A	Clause 142A relates to the pollution of land. Tier 2 penalties apply. *A person who pollutes land is guilty of an offence.*	A separate Waste Management Plan that covers construction waste has been prepared for the proposed development (Sub-Plan B4). An Unexpected Finds Protocol to address potential land pollution issues is provided as Sub-Plan B5.

Legislation	Activity / Aspect	Section / Clause	Requirements	Comments
	Waste	S143 S144 S145	Waste needs to be disposed of in a manner which does not create or is likely to create environmental harm. Clause 143 relates to the unlawful transporting or depositing of waste: *If a person transports waste to a place that cannot lawfully be used as a waste facility for that waste, or causes or permits waste to be so transported:* *(a) the person, and* *(b) if the person is not the owner of the waste, the owner,* *are each guilty of an offence.* Clause 144 deals with the use of land as waste facility without lawful authority: (*1) A person who is the owner or occupier of any land and who uses the land, or causes or permits the land to be used, as a waste facility without lawful authority is guilty of an offence.* *(2) In any proceedings for an offence under this section the defendant bears the onus of proving that there is lawful authority to use the land concerned as a waste facility.* *All waste must be classified in accordance with the EPA's Waste Classification Guidelines.*	The generation of waste requires appropriate management. Any waste disposal required must be undertaken in accordance with the NSW EPA's *Waste Classification Guidelines*. The Waste Management Procedure identifies all the waste expected to be generated by the site activities and outlines its respective classification and management (i.e. recycled, disposed, etc.) (Attachment A4). All waste should be stored in an environmentally safe manner. False or misleading information regarding pollution incidents is an offence under the Act.

Legislation	Activity / Aspect	Section / Clause	Requirements	Comments
	Duty to notify pollution incidents	S148	Clause 148 *Pollution incidents causing or threatening material harm to be notified.* • *Kinds of incidents to be notified* *This Part applies where a pollution incident occurs in the course of an activity so that material harm to the environment is caused or threatened.* • *Duty of person carrying on activity to notify* *A person carrying on the activity must, immediately after the person becomes aware of the incident, notify each relevant authority of the incident and all relevant information about it.*	In the event of an incident, the duty to notify extends to all staff and contractors of the site. Staff and/or contractors are required to notify the employer. When management is not contactable, they are required to notify the relevant authorities. Refer to Reporting Requirements in Section 4.4.2 of the CEMP.
	Control equipment	S167	Clause 167 relates to the responsibility of the occupier of any premises to maintain and operate any control equipment installed at the premises in a proper and efficient manner.	Control equipment would include sediment and erosion control measures and other temporary controls installed for the construction phase. An inspection checklist has been provided in Attachment A4 to ensure control equipment is maintained properly and efficiently.
Protection of the Environment Operations (Waste) Regulation 2014	Waste and transport	Part 4 Part 5	Part 4 relates to the tracking of certain waste transported within, out of and into NSW. Part 5 relates to reporting on transportation of waste from NSW to an interstate waste facility if the waste has been generated in the metropolitan levy area.	The Waste Management Plan and Unexpected Finds Protocol would ensure this is complied with.
	Asbestos	Part 7	Relates to the requirements for transportation and management of asbestos waste.	Asbestos waste found during construction would be dealt with using the Unexpected Finds Protocol

Legislation	Activity / Aspect	Section / Clause	Requirements	Comments
Water Management Act 2000	Water access licence	S56 S60A S89 S91A	A licence may be required in the relevant water sharing plan area for the right to share available water from a particular water source. Water cannot be taken from a waterbody without a licence.	Does not apply
	Water management works	S90 S91B S91C S91D	Approval is required for construction and/or use of a water supply work, drainage work or flood work.	Does not apply
	Waterfront land	S91	A controlled activity approval is required for works on or under waterfront land.	Does not apply
Water Act 1912 Applies to water sources in NSW where water sharing plans have not commenced.	Surface water	S10	A licence or permit may be required for the taking and using of water from a stream or river, capture of water in a farm dam.	Does not apply
	Groundwater	S112	A licence may be required for extraction of groundwater.	Does not apply
Contaminated Land Management Act 1997	Reporting contamination	S60	Clause 60 relates to the duty of a person undertaking activities that have contaminated land and the land owner to report contamination.	Applies. Should contamination be found during the works, this clause would apply.
Noxious Weeds Act 1993	Weed control & reporting	S12 S15	Clause 12 relates to private occupiers of land responsibility to control noxious weeds on land. Clause 15 requires occupiers of land to notify local control authority of notifiable weeds.	Applies.
Biodiversity Conservation Act 2016 No 63	Protection of animals and plants	Part 2	Clause 2.1 relates to offences for harming animals that are a threatened species, part of a threatened ecological community or a protected animal. Clause 2.2 relates to offences for picking plants. Clause 2.3 and 2.4 relate to offences for damaging areas of outstanding biodiversity and habitat of threatened species or ecological community.	Applies.

Legislation	Activity / Aspect	Section / Clause	Requirements	Comments
	Clearing of native vegetation	S2.11	A biodiversity conservation licence is required for clearing of native vegetation	Does not apply.
Environment Protection and Biodiversity Conservation Act 1999 (Cth)	Flora and fauna conservation	Part 13	A permit is required for activities that will affect listed species and ecological communities within a commonwealth area.	Does not apply.
Heritage Act 1977	Heritage	S57 S139 S146	Clause 57 requires approval for work to any item to which an interim heritage order or listing on the state heritage register applies. Clause 139 requires that an excavation permit is required to disturb any land knowing or having reasonable cause to suspect disturbance may uncover a relic. Clause 146 requires that discovery of a relic must be notified to the Heritage Council.	Does not apply.
Aboriginal and Torres Strait Islander Heritage Protection Act 1984 (Cth)	Protection of places and objects	S20 S22	Clause 20 relates to reporting of any discovery of Aboriginal remains to the Minister. Clause 22 requires compliance with the provisions of any declaration in relation to a significant Aboriginal area or object.	Should Aboriginal remains be discovered, reporting is required.

Legislation	Activity / Aspect	Section / Clause	Requirements	Comments
Waste Avoidance and Resource Recovery Act, 2001	Waste	S3	The primary objectives of the act in relation to site activities are: • *to encourage the most efficient use of resources and to reduce environmental harm in accordance with the principles of ecologically sustainable development;* • *to provide for the continual reduction in waste generation;* • *to minimise the consumption of natural resources and the final disposal of waste by encouraging the avoidance of waste and the reuse and recycling of waste; and* • *To establish a hierarchy of resource management options:* 1. *avoidance of unnecessary resource consumptions,* 2. *Resource recovery (including reuse, reprocessing, recycling and energy recovery)* 3. *Disposal.*	These objectives have been considered and embedded in the Waste Management Procedure (Attachment A4).
Work Health and Safety Act 2011 and Regulation	General	Part 6	Part 6 of the WHS Regulation relates to construction work.	Applies
	Construction Induction Training	Part 6.5	Part 6.5 requires workers to be given general construction induction training.	Environmental elements of induction training are provided in Section 4.2.1 of the CEMP.
Dangerous Goods (Road and Rail Transport) Act 2008	Transport of dangerous goods	S9	Clause 9 requires transport of dangerous goods by road or rail to be in a safe manner.	Dangerous goods would be stored and used on site for existing operations whilst construction is taking place. DGs stored and used during construction include small quantities of fuel and gas.

Legislation	Activity / Aspect	Section / Clause	Requirements	Comments
National Greenhouse and Energy Reporting Act 2007 and Regulations 2008	Greenhouse Gas emissions	S13	Requirement for the accounting and reporting of greenhouse gases and energy consumed during construction if the project meets the thresholds in Clause 13.	Does not apply.
Fisheries Management Act 1994	Permits	S144 S201 S205 S219	Clause 144: Aquaculture permit Clause 201: Permit to carry out dredging or reclamation work Clause 205: Permit to cut, remove, damage or destroy marine vegetation on public water land or an aquaculture lease, or on the foreshore of any such land or lease. Clause 219: Permit to: (a) set a net, netting or other material, or (b) construct or alter a dam, floodgate, causeway or weir, or (c) otherwise create an obstruction, across or within a bay, inlet, river or creek, or across or around a flat	Does not apply

Table A1-2: Licences, Approvals and Permits

Type	Relevant Legislation	Required?	Agency
LICENCES			
Environment Protection Licence	Schedule 1 of the Protection of the Environment Operations Act 1997 – to undertake scheduled development works	No, existing licence covers scheduled development works	NSW EPA
Surface Water Licence	Water Act 1912	No	Office of Water
Groundwater Licence	Water Act 1912	No	Office of Water
Water Access Licence	Water Management Act 2000	No	Office of Water
PERMITS			
Permits under the Fisheries Management Act	Fisheries Management Act 1994	No	DPI Fishing and Aquaculture
Aboriginal Heritage Impact Permit	National Parks & Wildlife Act 1974	No	OEH
Permits under the Heritage Act 1977	Heritage Act 1977	No	OEH
APPROVALS			
Development Consent	**Environmental Planning and Assessment Act 1979**	**Yes**	**Planning Assessment Commission**
Alter or erect improvements within a mine subsidence district	Mine Subsidence Compensation Act 1961	No	Mine Subsidence Board
Consent for works and structures in a public road	Roads Act 1993	No	RMS
Sub-division or development of bush fire prone land	Rural Fires Act 1997	No	Commissioner of the NSW Rural Fire Service
Trade Waste Agreement	Sydney Water Act, 1994	Yes – Not relevant to construction work.	Sydney Water

Table A1-3: Development Consent Conditions related to construction

Condition	Requirement	Relevant CEMP Section
B2	The Applicant shall ensure any waste generated on the site during construction is classified in accordance with the EPA's Waste Classification Guidelines, 2014 or its latest version, and disposed of to a facility that may lawfully accept the waste.	Sub-Plan B4 – Construction Waste Management Plan
B10	The Applicant must implement all measures to minimise dust generated during construction and operation of the Development.	Attachment A4 – Air Quality Control Procedure, Regular Site Inspection Procedure
B11	During construction, the Applicant must ensure that: a) Exposed surfaces and stockpiles are suppressed by regular watering; b) All trucks entering or leaving the site with loads have their loads covered; c) Trucks associated with the Development do not track dirt onto the public road network; and d) Public roads used by these trucks are kept clean.	
B20	Prior to the commencement of construction, the Applicant must prepare a Flood Emergency Response Plan (FERP) for the Development in consultation with Council and to the satisfaction of the Secretary. The Plan must form part of the CEMP and OEMP required by Conditions C1 and C4 and must: a) Be prepared by a suitably qualified and experienced person(s); b) Address the provisions of the Floodplain Risk Management Guideline (OEH 2007); c) Include details of: i. The flood emergency responses for both construction and operation phases of the development; ii. Predicted flood levels; iii. Flood warning time and flood notification; iv. Assembly points and evacuation routes; v. Evacuation and refuge protocols; and vi. Awareness training for employees and contractors.	Sub-plan B3

<table>
<tr><th>Condition</th><th>Requirement</th><th>Relevant CEMP Section</th></tr>
<tr><td>B25</td><td>Prior to the commencement of Stage 1 operations and to the satisfaction of FRNSW, the Applicant must ensure:
(a) The sprinkler system is installed and maintained throughout the site in accordance with Specification E1.5 of the National Construction Code (Australian Building Codes Board, 2016) and in accordance with the latest version of AS2118.1-1999;
(b) The fire hydrant system is designed, installed and maintained and commissioned in accordance with Specification E1.3 of the National Construction Code (Australian Building Codes Board, 2016) and in accordance with the latest version of AS2419.1-2005; and
(c) The temporary perimeter access road and the permanent ring road is constructed in accordance with Policy No 4: Guidelines for Emergency Vehicle Access (NSW Fire Brigade, 2010).</td><td>Section 2.3</td></tr>
<tr><td>B27</td><td>Prior to the commencement of construction, the Applicant must install and maintain suitable erosion and sediment control measures on-site, in accordance with the relevant requirements in the latest version of the Managing Urban Stormwater: Soils and Construction Guideline and the Erosion and Sediment Control Plan included in the CEMP required by Condition C1.</td><td>Attachment A4 – Water Management and Sediment Control</td></tr>
<tr><td>B32</td><td>The Applicant must comply with the hours detailed in Table 2;

Table 2: Hours of Work
<table>
<tr><th>Activity</th><th>Day</th><th>Time</th></tr>
<tr><td>Earthworks and construction</td><td>Monday – Friday
Saturday</td><td>7 am to 6 pm
8am to 1 pm</td></tr>
<tr><td>Operation</td><td>Monday - Saturday</td><td>24 hours</td></tr>
</table></td><td>Section 2.3.3</td></tr>
<tr><td>B34</td><td>The Development must be constructed to achieve the construction noise management levels detailed in the Interim Construction Noise Guideline (Department of Environment and Climate Change, 2009). All noise mitigation measures must be implemented and any activities that could exceed the construction noise management levels must be identified and managed in accordance with the management and mitigation measures in the EIS.</td><td rowspan="3">Attachment A4 – Noise Management Procedure</td></tr>
<tr><td>B37</td><td>The Applicant must ensure that all its vehicles are fitted with a broadband reversing alarm.</td></tr>
<tr><td>B38</td><td>Vibration caused by construction at any residence or structure outside the site must be limited to:
a) For structural damage, German Standard DIN 4150 Part 3 Structural Vibration in Buildings. Effects on Structures; and
b) For human exposure, the acceptable vibration values set out in the Environmental Noise Management Assessing Vibration: A Technical Guidelines (Department of Environment and Conservation, 2006)</td></tr>
</table>

Condition	Requirement	Relevant CEMP Section
B44	Prior to commencement of Stage 1 construction, the Applicant must prepare an unexpected finds protocol to ensure that potentially contaminated material is appropriately managed, the protocol must form part of the CEMP required by Condition C1 and must ensure any material identified as contaminated must be disposed off-site with the disposal location and results of testing submitted to the Secretary, prior to its removal from the site.	Sub- Plan B5
B51	The Applicant must ensure that the easement area shall not be used for temporary storage of construction spoil, topsoil, gravel or any other construction material.	Attachment A4 – Water Management and Sediment Control
B52	The Applicant must ensure that no obstruction of any type shall be placed within 30 m of any part of a transmission line structure.	
C1	The Applicant must prepare a Construction Environmental management Plan (CEMP) to the satisfaction of the Secretary. The CEMP must:	This plan
	a) be prepared to the satisfaction of the Secretary prior to commencement of Stage 1 construction and Stage 2 construction;	
	b) identify the statutory approvals that apply to the Development;	Attachment A1 - Table A1-2
	c) Unexpected finds protocol (see Condition B44)	Sub-Plan B5
	d) outline all environmental management practices and procedures to be followed during construction works associated with the Development;	Attachment A4, Sub-plans
	e) explain the controls that would be implemented to minimise dust emissions during construction of the Development;	Attachment A4 – Air Quality Control Procedure
	f) describe activities to be undertaken on the site during construction of the Development, including a clear indication of construction stages;	Section 2.3
	g) detail how the environmental performance of the construction works will be monitored, and what actions will need to be taken to address identified adverse environmental impacts;	Section 5
	h) describe the roles and responsibilities for all relevant employees involved in construction works associated with the Development; and	Section 4.1
	i) include the management plans required under Condition C2 of this consent.	Sub-plans B2 & B3
C2	As part of the CEMP required under Condition 1 of this consent, the Applicant must include the following:	
	a) Flood Emergency Response Plan (FERP)	Sub-plan B3
	b) Erosion and Sediment Control Plan	Sub-plan B2
	c) Unexpected finds protocol (see Condition B44)	Sub-plan B5

Condition	Requirement	Relevant CEMP Section
C6	The Applicant must ensure that the environmental management plans required under Condition C1 and Condition C4 of this consent are prepared by a suitably qualified person or persons in accordance with best practice and include:	
	a) Detailed baseline data;	N/A
	b) A description of:	
	i. The relevant statutory requirements (including any relevant approval, licence or lease conditions);	Attachment A1 - Table A1-1 and Table A1-2
	ii. Any relevant limits or performance measures/criteria; and	Attachment A4
	iii. The specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the Development or any management measures;	Section 5
	c) A description of the management measures that would be implemented to comply with the relevant statutory requirements, limits or performance measures/criteria;	Attachment A4, Section 5
	d) A program to monitor and report on the:	Section 5
	i. Impacts and environmental performance of the Development; and	
	ii. Effectiveness of any management measures;	
	e) A contingency plan to manage any unpredicted impacts and their consequences;	Section 4.4
	f) A program to investigate and implement ways to improve the environmental performance of the Development over time;	Sections 5.3 and 5.4
	g) A protocol for managing and reporting any:	
	i. incidents;	Section 4.4
	ii. complaints;	Section 4.3.1.1
	iii. non-compliances with statutory requirements; and	Section 5.4
	iv. exceedances if the impact assessment criteria and/or performance criteria; and	Section 5.4
	h) A protocol for periodic review of the plan;	Section 5.3
C9	Within 24 hours of any incident or potential incident with actual or potential significant off-site impacts on people or the biophysical environment, a report shall be supplied to the Department outlining the basic facts. A further detailed report shall be prepared and submitted following investigations of the causes and identification of necessary additional preventive measures. That report must be submitted to the Secretary no later than 14 days after the incident or potential incident.	Section 4.4
C10	The Applicant shall maintain a register of accidents, incidents and potential incidents. The register shall be made available for inspection at any time by the Independent Hazard Auditor and the Department.	Section 4.4

Environmental Aspects Register

Environmental Aspects Register for Construction Works – Modifications to SUEZ Waste Transfer Station, Wetherill Park										
Activity or Aspect	Hazard / Threat	Potential Impacts on the Environment	Pre-Control Risk			Mitigation Measures (Physical, Procedures and Plans)	Post-Control Risk			
			Consequence	Likelihood	Raw Risk		Consequence	Likelihood	Residual Risk	
STAGE 1 – Pavement and works along eastern boundary, installation of new equipment and fire/litter curtain at receival area										
SITE ESTABLISHMENT	Installation of sediment control measures	Waste generation causing litter;	1	C	L	Designated waste storage areas & receptacles, Waste Sub-Plan B4	1	D	L	
		Noise	1	B	L	None required	1	B	L	
	Mobilisation of equipment	Noise from vehicles/excavators;	3	C	M	Noise management procedure, Traffic Sub Plan B1	1	C	L	
		Waste generation	1	C	L	Designated waste storage areas & receptacles, Waste Sub-Plan B4	1	D	L	
CLEAR AND GRUB	Removal of trees & grass, Grubbing of roots and stumps	Noise from vehicles/excavators, hand tools;	3	C	M	Noise management procedure	1	C	L	
		Waste generation causing litter;	2	C	M	Designated waste storage areas & receptacles, Waste Sub-Plan B4	1	D	L	
		Generation of dust	2	C	M	Air control procedure, dust suppressing using water	1	D	L	
	Removal and disposal of organic matter Stripping and stockpiling of top soil	Noise from vehicles/excavators;	3	C	M	Noise management procedure, Traffic Sub Plan B1	1	C	L	
		Sediment laden runoff	3	C	M	ESCP Sub plan B2, Erosion and sediment controls	1	B	L	
		Unexpected finds (contaminated soil released)	4	C	H	Unexpected finds protocol Sub Plan B5, Waste Sub Plan B4	2	D	L	
		Waste generation;	1	C	L	Designated waste storage areas & receptacles, Waste Sub-Plan B4	1	D	L	
		Wind erosion of stockpiles (dust)	2	C	M	Air control procedure, dust suppression using water, stabilised stockpile surface, restricted stockpile height	1	D	L	

Environmental Aspects Register for Construction Works – Modifications to SUEZ Waste Transfer Station, Wetherill Park										
			Pre-Control Risk				Post-Control Risk			
Activity or Aspect	Hazard / Threat	Potential Impacts on the Environment	Consequence	Likelihood	Raw Risk	Mitigation Measures (Physical, Procedures and Plans)	Consequence	Likelihood	Residual Risk
SITE PREPARATION	Bulk earthworks (minor excavation & stockpiling)	Noise from vehicles/excavators	3	C	M	Noise management procedure, Traffic Sub Plan B1	1	C	L
		Incorrect management of excavation waste;	1	C	L	Designated waste storage areas & receptacles, Waste Sub-Plan B4	1	D	L
		Unexpected finds (contaminated soil or asbestos material);	4	C	H	Unexpected finds protocol Sub Plan B5, Waste Sub Plan B4	2	D	L
		Sediment laden runoff;	3	C	M	ESCP Sub plan B2, Erosion and sediment controls	1	B	L
		Generation of dust from stockpiles	2	C	M	Air control procedure, dust suppression using water, stabilised stockpile surface, restricted stockpile height	1	D	L
	Placement of fill to create grade	Noise from vehicles/excavators;	3	C	M	Noise management procedure	1	C	L
		Excess fill waste;	1	C	L	Designated waste storage areas & receptacles, Waste Sub-Plan B4	1	D	L
		Sediment laden runoff;	3	C	M	ESCP Sub plan B2, Erosion and sediment controls	1	B	L
		Generation of dust	3	C	M	Air control procedure, dust suppression using water	2	D	L
CONSTRUCTION OF TEMPORARY PERIMETER ACCESS ROAD	Delivery of materials and temporary stockpiles	Wind erosion/dust;	2	C	M	Air control procedure, dust suppression using water, stabilised stockpile surface, restricted stockpile height	1	D	L
		Waste generation;	1	C	L	Designated waste storage areas & receptacles, Waste Sub-Plan B4	1	D	L
		Excessive vehicle noise	3	C	M	Noise management procedure, Traffic Sub Plan B1	1	C	L
		Sediment laden runoff	3	C	M	ESCP Sub plan B2, Erosion and sediment controls	1	B	L

Environmental Aspects Register for Construction Works – Modifications to SUEZ Waste Transfer Station, Wetherill Park										
			Pre-Control Risk				Post-Control Risk			
Activity or Aspect	Hazard / Threat	Potential Impacts on the Environment	Consequence	Likelihood	Raw Risk	Mitigation Measures (Physical, Procedures and Plans)	Consequence	Likelihood	Residual Risk
	Application and compacting of gravel or crushed rock	Unwanted vehicle noise;	3	C	M	Noise management procedure, Traffic Sub Plan B1	1	C	L
		Wind erosion/dust;	2	C	M	Air control procedure, dust suppression using water	1	D	L
		Tracking of sediment onto roads;	3	C	M	ESCP Sub plan B2, Erosion and sediment controls	1	B	L
		Generation of waste	1	C	L	Designated waste storage areas & receptacles, Waste Sub-Plan B4	1	D	L
INSTALLATION OF FIRE / LITTER CURTAIN & NEW EQUIPMENT	Installation works	Noise from vehicles/trucks & machinery and hand tools;	3	C	M	Noise management procedure, Traffic Sub Plan B1	1	C	L
		Generation of waste;	1	C	L	Designated waste storage areas & receptacles, Waste Sub-Plan B4	1	D	L
		Generation of dust	2	D	M	Air control procedure	1	D	L
PAVEMENT & HARDSTAND CONTRUCTION	Preparation of foundations Excavation of footings Formwork Pouring concrete	Noise from vehicles/trucks;	3	C	M	Noise management procedure, Traffic Sub Plan B1	1	C	L
		Generation of dust;	2	C	M	Air control procedure, dust suppression using water	1	D	L
		Release of sediment to waterways;	3	C	M	ESCP Sub plan B2, Erosion and sediment controls	1	B	L
		Waste.	1	C	L	Designated waste storage areas & receptacles, Waste Sub-Plan B4	1	D	L
	Establishment of sub-surface drainage & stormwater infrastructure	Generation of dust;	2	C	M	Air control procedure, dust suppression using water	1	D	L
		Waste generation;	1	C	L	Designated waste storage areas & receptacles, Waste Sub-Plan B4	1	D	L
		Unexpected finds (contaminated soil)	4	C	H	Unexpected finds protocol Sub Plan B5, Waste Sub Plan B4	2	D	L

Environmental Aspects Register for Construction Works – Modifications to SUEZ Waste Transfer Station, Wetherill Park										
Activity or Aspect	Hazard / Threat	Potential Impacts on the Environment	Pre-Control Risk			Mitigation Measures (Physical, Procedures and Plans)	Post-Control Risk		
			Consequence	Likelihood	Raw Risk		Consequence	Likelihood	Residual Risk
FINISHING WORKS	Site clean-up and disposal of waste	Littering on site and incorrect waste storage resulting in release of material and potential land contamination;	2	C	M	Designated waste storage areas & receptacles, Unexpected finds protocol Sub Plan B5, Waste Sub-Plan B4	1	D	L
		Sediment laden runoff from removal of stockpiles.	3	C	M	ESCP Sub plan B2, Erosion and sediment controls	1	B	L
STAGE 2 – Pavement and works along southern boundary, installation of new roller shutter opening, construction of retaining wall									
SITE ESTABLISHMENT	Installation of sediment control measures	Waste generation causing litter;	1	C	L	Designated waste storage areas & receptacles, Waste Sub-Plan B4	1	D	L
		Noise	1	B	L	None required	1	B	L
	Mobilisation of equipment	Noise from vehicles/excavators;	3	C	M	Noise management procedure, Traffic Sub Plan B1	1	C	L
		Waste generation	1	C	L	Designated waste storage areas & receptacles, Waste Sub-Plan B4	1	D	L
	Removal of temporary perimeter access road	Noise from vehicles/excavators	3	C	M	Noise management procedure, Traffic Sub Plan B1	1	C	L
		Generation of dust	3	C	M	Air control procedure, dust suppression using water	1	D	L
		Tracking of mud/sediment onto roads;	3	C	M	ESCP Sub plan B2, Erosion and sediment controls	1	B	L
		Waste generation	2	C	M	Designated waste storage areas & receptacles, Waste Sub-Plan B4	1	D	L
SITE PREPARATION	Bulk earthworks (minor excavation)	Noise from vehicles/excavators	3	C	M	Noise management procedure, Traffic Sub Plan B1	1	C	L
		Incorrect management of excavation waste;	1	C	L	Designated waste storage areas & receptacles, Waste Sub-Plan B4	1	D	L
		Unexpected finds (contaminated soil or asbestos material);	4	C	H	Unexpected finds protocol Sub Plan B5, Waste Sub Plan B4	2	D	L

Environmental Aspects Register for Construction Works – Modifications to SUEZ Waste Transfer Station, Wetherill Park										
			Pre-Control Risk				Post-Control Risk			
Activity or Aspect	Hazard / Threat	Potential Impacts on the Environment	Consequence	Likelihood	Raw Risk	Mitigation Measures (Physical, Procedures and Plans)	Consequence	Likelihood	Residual Risk
		Sediment laden runoff;	3	C	M	ESCP Sub plan B2, Erosion and sediment controls	1	B	L
		Generation of dust from stockpiles	2	C	M	Air control procedure, dust suppression using water, stabilised stockpile surface, restricted stockpile height	1	D	L
	Placement of fill to create grade	Noise from vehicles/excavators;	3	C	M	Noise management procedure, Traffic Sub Plan B1	1	C	L
		Excess fill waste;	2	C	M	Designated waste storage areas & receptacles, Waste Sub-Plan B4	1	D	L
		Sediment laden runoff;	3	C	M	ESCP Sub plan B2, Erosion and sediment controls	1	B	L
		Generation of dust	3	C	M	Air control procedure, dust suppression using water	1	D	L
PAVEMENT & HARDSTAND CONTRUCTION	Preparation of foundations Excavation of footings Formwork Pouring concrete	Noise from vehicles/trucks;	3	C	M	Noise management procedure, Traffic Sub Plan B1	1	C	L
		Generation of dust;	2	C	M	Air control procedure, dust suppression using water	1	D	L
		Release of sediment to waterways;	3	C	M	ESCP Sub plan B2, Erosion and sediment controls	1	B	L
		Waste.	1	C	L	Designated waste storage areas & receptacles, Waste Sub-Plan B4	1	D	L
	Establishment of sub-surface drainage & stormwater infrastructure	Generation of dust;	2	C	M	Air control procedure, dust suppression using water	1	D	L
		Waste generation;	1	C	L	Designated waste storage areas & receptacles, Waste Sub-Plan B4	1	D	L
		Unexpected finds (contaminated soil or asbestos material)	4	C	H	Unexpected finds protocol Sub Plan B5, Waste Sub Plan B4	2	D	L

Environmental Aspects Register for Construction Works – Modifications to SUEZ Waste Transfer Station, Wetherill Park										
			Pre-Control Risk				Post-Control Risk			
Activity or Aspect	Hazard / Threat	Potential Impacts on the Environment	Consequence	Likelihood	Raw Risk	Mitigation Measures (Physical, Procedures and Plans)	Consequence	Likelihood	Residual Risk
INSTALLATION OF NEW ROLLER SHUTTER OPENING	Installation works	Noise from vehicles/trucks & machinery;	3	C	M	Noise management procedure, Traffic Sub Plan B1	1	C	L
		Generation of waste;	1	C	L	Designated waste storage areas & receptacles, Waste Sub-Plan B4	1	D	L
		Generation of dust	2	C	M	Air control procedure	1	D	L
CONSTRUCTION OF RETAINING WALL	Excavation & base preparation Building the wall	Noise from vehicles/trucks and power tools;	3	C	M	Noise management procedure, Traffic Sub Plan B1	1	C	L
		Generation of dust	2	D	L	Air control procedure	1	D	L
		Release of sediment laden runoff to waterways.	3	C	M	ESCP Sub plan B2, Erosion and sediment controls	1	B	L
FINISHING WORKS	Site clean-up and disposal of waste	Littering on site and incorrect waste storage resulting in release of material and potential land contamination;	2	C	M	Designated waste storage areas & receptacles, Unexpected finds protocol Sub Plan B5, Waste Sub-Plan B4	1	D	L
		Sediment laden runoff from removal of stockpiles.	3	C	M	ESCP Sub plan B2, Erosion and sediment controls	1	B	L
	Removal and decommissioning of construction facilities	Noise from vehicles;	3	C	M	Noise management procedure, Traffic Sub Plan B1	1	C	L
		Waste Generation	1	C	L	Designated waste storage areas & receptacles, Waste Sub-Plan B4	1	D	L

Notes:

L = Low M = Medium H = High V = Very High

Land includes soil, groundwater and all issues related to habitat/biodiversity
Water includes surface water, mains water, stormwater runoff etc.
Waste includes solid, hazardous, inert waste, wastewater and tradewaste generated by the facility.
Air quality includes air emissions, odour etc

Raw risk is the risk of the identified potential impacts without controls in place
Residual risk is the risk assessed once controls and procedures are in place.

Risk assessment is undertaken following the methodology outlined below (Reference: Standards Australia, HB-203 2006 Environmental Risk Management – Principles and process)

1.1 RISK ASSESSMENT METHODOLOGY

The methodology described in the following sections was used in assessing the risks associated with construction activities.

1.1.1 Risk Criteria

The following sub-section defines the risk criteria used in this assessment.

1.1.1.1 Consequence Estimation

Consequence descriptor is used to quantify the potential on-site and off-site impacts in terms of environmental, health and financial impacts. Consequence is described in the following table.

Table 1: Consequence Table

Level	Descriptor	Consequences Or Impact Description
1	Insignificant	Confined on-site environmental impacts able to be promptly rectified. No injuries. Financial loss less than $2,000.
2	Minor	Confined environmental impacts requiring short term recovery with potentially little or no off-site impacts. First Aid treatment. Financial loss $2,000 to $20,000.
3	Moderate	Confined environmental impacts requiring medium term recovery both on-site and off-site. Medical treatment required. Financial loss $20,000 to $200,000,
4	Severe	Unconfined environmental impacts requiring long term recovery and leaving residual damage both on-site and off-site. Extensive injuries, loss of product capability. Financial loss $200,000 to $1M.
5	Catastrophic	Widespread environmental impact requiring long term recovery and leaving major damage both on-site and off-site. Death. Financial loss more than $1M.

1.1.2 Likelihood Estimation

This aspect involves determining how likely an event is to occur. Likelihood is the chance that something might happen and is defined for the purposes of this assessment in the following table.

Table 2: Likelihood Table

Level	Descriptor	Likelihood Description
A	Almost Certain	Very likely. The event is expected to occur in most circumstances.
B	Likely	Strong possibility. The event will probably occur in most circumstances.
C	Possible	The event might occur at some time.
D	Unlikely	Not expected. There is a slight possibility the event could occur at some time.
E	Rare	Highly unlikely. The event may occur only in exceptional circumstances.

1.1.3 Level of Risk

The level of risk is defined by the following table.

Table 3: Level of Risk Table

		Consequence				
		Insignificant 1	Minor 2	Moderate 3	Severe 4	Catastrophic 5
Likelihood	A (almost certain)	M (5)	H (10)	H (15)	V (20)	V (25)
	B (likely)	L (4)	M (8)	H (12)	H (16)	V (20)
	C (possible)	L (3)	M (6)	M (9)	H (12)	H (15)
	D (unlikely)	L (2)	L (4)	M (6)	M (8)	H (10)
	E (rare)	L (1)	L (2)	L (3)	L (4)	M (5)

The area shown in red indicates a very high level of risk (V) where mitigation measures are essential.

The area in orange is a high level of risk which is intolerable and where risk reduction is required.

The area shown in yellow indicates a moderate level of risk (M). Whilst the risk is not unacceptable, there should be practical measures taken to lower the risk. For risks where further mitigation is not economically viable, judgment needs to be exercised as to whether the level of risk is acceptable or not. While risk of an incident may be tolerable, steps still need to be taken to reduce the risk level to as low as reasonably practicable.

The area, shown in green, indicates a low level of risk (L) and is broadly considered to be acceptable. Further risk mitigation may not be required/appropriate. However, low and accepted risks should be monitored and routinely reviewed to ensure that they remain acceptable.

POLICY

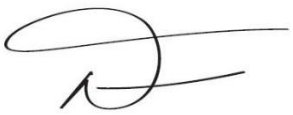
Environment

SUEZ provides waste, resource recovery and water management solutions across Australia and New Zealand that maintain, optimise and secure the resources essential to our future.

SUEZ strives to conduct business in an environmentally responsible and sustainable way to ensure pollution is prevented and our operations protect the environment by minimising our environmental impact. To achieve this we are committed to:

- Implementing, maintaining, reviewing and continually improving our environmental management system to improve our environmental performance and meet the needs and requirements of legislation, stakeholders and certifications
- Proactively identifying, eliminating, controlling and reducing the risk of environmental impact
- Complying with relevant environmental laws and other compliance requirements
- Setting objectives and targets to evaluate and continuously improve our environmental performance
- Promoting an environmentally aware workplace culture including taking pride in environmental care, performance and responsibility through effective communication, training, competency and supervision
- Implementing ongoing monitoring and inspection programs to prevent environmental damage
- Promoting innovation and the delivery of best practice waste and water management solutions
- Reducing our environmental footprint by reducing greenhouse gas emissions, whilst also preserving air quality, reducing noise, controlling odours and protecting and restoring the biodiversity across our activities
- Using environmentally sensitive products, practices and technologies where possible
- Being receptive to community concerns by engaging and listening to our communities, customers, neighbours, industry groups and regulatory authorities to limit harm to the environment and people from our activities
- Ensuring adequate resources are in place to implement this policy.

Excellence in positive environmental outcomes through compliance with this policy is the responsibility of all SUEZ workers and is achieved through the participation and cooperation of every worker.



Mark Venhoek

Chief Executive Officer

CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

ENVIRONMENTAL PROCEDURES MANUAL

SUEZ Recycling & Recovery Pty Ltd

20 Davis Road, Wetherill Park

Issued and Approved by:	Date:

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PROCEDURE NAME:	**AIR QUALITY CONTROL**	**DATE:**	**November 18**
PREPARED BY:	Benbow Environmental	**ISSUE NO.:**	1

1. AIR QUALITY CONTROL

1.1 PURPOSE

The purpose of this procedure is to set out the process relating to management and visual monitoring of air emissions.

1.2 DEFINITIONS

Air Emissions
Any particles or odour discharged to the local air amenity.

Air impurity
Includes smoke, dust (including fly ash), cinders, solid particles of any kind, gases, fumes, mists, odours and radioactive substances.

Air pollution
Means the emission into the air of any air impurity.

1.3 PROCEDURE

Dust is one of the main sources of complaint against construction; the following practices should be implemented to minimise dust emissions.

1.3.1 General Site Activities

- Monitor local weather conditions: cease excavations and earth moving operations when strong wind conditions result in visible dust emissions, either until implementation of mitigation measures is adequately controlling dust or until weather conditions improve.
- Retain existing vegetation on site, where possible.
- Stage works to minimise areas of disturbance at any one time.
- Install physical barriers as outlined in the *Erosion and Sediment Control Plan* (Sub-Plan B2). These include a sediment barrier fence around the site, as well as sediment barriers and sandbag sediment traps around stormwater pits and drains.
- Stabilise access point from Davis Road in accordance with the *Erosion and Sediment Control Plan*. Stabilised site access should be installed and maintained to prevent dust and dirt being transported by vehicles entering and exiting the site.
- Erection of wind breaks such as fences at the site boundary, where necessary, to reduce the possibility for particles to become airborne.

1.3.2 Earthworks and Excavation

- Minimise area of soil disturbance.
- Install temporary covers over areas of earthworks where possible.
- Minimise drop heights of materials.
- Stabilise disturbed areas as soon as practicable.
- Suppression of visible dust emissions from exposed surfaces by regular watering using water sprays or dust suppression surfactants.

1.3.3 Stockpiling

- Minimise the amount of time that materials/wastes are stockpiled on site.
- Limit stockpile height and size. Maximum height of stockpiles should not exceed 3 metres.
- Locate stockpile away from drainage paths, easement, kerb, or road surface, and near existing wind breaks such as trees and fences, in accordance with the Erosion and Sediment Control Plan and the Construction Waste Management Plan (Sub-Plan B4)
- Covering/tarping of stockpiles or wet suppression of stockpiled materials by regular watering, if required, to minimise dust emissions.

1.3.4 On-site Vehicle Traffic

- Minimise movement of construction traffic around the site by restricting vehicles to specific routes, preferring paved/hard surface routes when they become available.
- Enforce appropriate speed limits for vehicle on site. Recommended speed limit is <15 km/hr.
- Apply gravel or bitumen seal to unsealed trafficable areas of the site.
- Use wet cleaning methods such as regular watering to prevent the build-up of dusts on trafficked site surfaces.
- Ensure proper maintenance of vehicle engines.
- Limit idling time of vehicles – engines should be switched off.

1.3.5 Transport of Materials and Wastes

- Cover all loads entering and leaving the site.
- Provide a stabilised site access point to the construction area of the site to ensure that trucks do not track dirt onto public roads.
- Vehicles leaving the site to be cleaned of dirt and other materials to avoid tracking onto public roads, in accordance with the. For this purpose, a tap and hose should be provided behind the sediment barrier fence line.
- Ensure public roads used by construction vehicles are kept clean.

1.4 DUST MONITORING

A Checklist that addresses dust control as well as other environmental matters has been provided in the Regular Site Inspection Procedure to aid the implementation of air quality control measures on site. It is recommended that the proponent review this checklist once the specific details and works schedule of the construction phase are finalised.

Continual visual observation of dust levels is required by site workers in order to determine the appropriate measure of dust control necessary for the particular site activities being undertaken under the prevailing meteorological conditions. The checklist should be adjusted accordingly in

relation to dust where additional control measures are deemed necessary. If results of the inspections indicate visual emissions of dust are evident, more stringent controls should be enforced.

1.5 INSPECTION AND RECORDS

Results of the regular site inspections need to be maintained.

Any issues or non-conformances noted during workplace inspections must be recorded. Documentation for any corrective and preventative actions must also be maintained, as described in the *Corrective and Preventative Actions* section of the EMP. Any other relevant records must also be kept for inspection by regulatory authorities.

PROCEDURE NAME:	**NOISE MANAGEMENT**	**DATE:**	**November 18**
PREPARED BY:	Benbow Environmental	**ISSUE NO.:**	1

2. NOISE MANAGEMENT

2.1 PURPOSE

To effectively manage noise emissions from the site to minimise the occurrence of offensive and nuisance noise in the community.

2.2 DEFINITIONS

Offensive noise
Noise that by reason of its level, nature, character or quality, or the time at which it is made is harmful to (or likely to be harmful to) a person who is outside the premises or interferes unreasonably with (or is likely to) the comfort or repose of a person outside the premises.

2.3 PROCEDURE

Noise may be generated as a result of construction works and traffic movements on the site. In order to manage noise levels appropriately, use of equipment and truck movements should be carried out in a responsible manner, taking in consideration the associated off-site noise impacts at all times. Recommendations to reduce noise levels generated by this site include considerations for general site activities and equipment use as well as for vehicle movements.

The following conditions in relation to noise are required to be complied with during construction.

Condition	Requirement	Comment
B34	The Development must be constructed to achieve the construction noise management levels detailed in the Interim Construction Noise Guideline (Department of Environment and Climate Change, 2009). All noise mitigation measures must be implemented and any activities that could exceed the construction noise management levels must be identified and managed in accordance with the management and mitigation measures in the EIS.	The EIS established that construction noise levels would comply at all receptors. Construction works are to involve the equipment used in the Construction Nosie Assessment. No further noise mitigation measures were recommended.

Condition	Requirement	Comment
B37	The Applicant must ensure that all its vehicles are fitted with a broadband reversing alarm.	As per the Interim Construction Noise Guideline Strategy 1 Universal Work practices and Strategy 4 On Site, multi frequency alarms are recommended instead of beeper style alarms.
B38	Vibration caused by construction at any residence or structure outside the site must be limited to: a) For structural damage, German Standard DIN 4150 Part 3 Structural Vibration in Buildings. Effects on Structures; and b) For human exposure, the acceptable vibration values set out in the Environmental Noise Management Assessing Vibration: A Technical Guidelines (Department of Environment and Conservation, 2006)	The EIS contains a construction vibration assessment. The jackhammers and rock breakers are both predicted to generate vibration levels well below the German Standard and Human Exposure criteria at the nearest commercial and residential receivers.

As per the Noise Impact Assessment within the EIS, construction noise and vibration was predicted to comply with the relevant criteria at all considered receivers. Therefore, further noise and vibration control measures are not required beyond conditions B34, B37 and B38 to comply with the relevant criteria. Although not mandatory, the following recommendations 2.3.1 to 2.3.5 should be considered as best practices to further mitigate impacts beyond the predicted noise and vibration levels on the surrounding receivers.

2.3.1 General Site Activities

- Regular inspections shall be conducted in accordance with the Regular Site Inspection Procedure to identify areas of potential noise generation. Indicators may include:
  - Evidence of oil leaks or damage to equipment/vehicles;
  - Un-secured or damaged noise guards or equipment;
  - Noticeable, excessive or unusual sources of noise; and
  - General wear and tear of equipment.
- If problem areas of additional noise generation are identified, action should be taken to alleviate any additional noise as soon as practicable by the Director or Site Manager.
- Noise shall be included in the awareness training and induction of staff and contractors.

2.3.2 Equipment and Infrastructure

- Preventative maintenance of all noise generating equipment, such as pumps and air compressors shall be undertaken. Maintenance should be undertaken in accordance with manufacturer's specifications.
- To minimise noise levels, site management shall endeavour to position construction equipment behind structures that act as barriers, or at the greatest distance from residential areas and orientating equipment such that noise emissions are directed away from residential areas.
- Silencers are to be fitted and maintained on air compressors.

2.3.3 Vehicle Movements

- Liaise with contract drivers to ensure that they are aware of noise impacts on neighbouring receivers and that they adopt the recommended practices to minimise such problems.
- Limit material deliveries and other truck movements to day time only/outside noise sensitive times.
- Enforcing the following practices for on-site vehicle movements:
  - Low on-site speed limits (<15 km/h);
  - Minimise the use of truck exhaust brakes on site;
  - Minimising reversing distances and hence noise generated by reversing beepers;
- No extended periods of on-site revving/idling.

2.3.4 Work scheduling

- Scheduling activities to minimise impacts by undertaking all possible work during hours that will least adversely affect sensitive receivers;
- Scheduling noisy activities to coincide with high levels of neighbourhood noise so that noise from the activities is partially masked and not as intrusive;
- Planning deliveries and access to the site to occur quietly and efficiently and organising parking only within designated areas located away from the sensitive receivers;
- Optimising the number of deliveries to the site by amalgamating loads where possible and scheduling arrivals within designated hours; and
- Designating, designing and maintaining access routes to the site to minimise impacts.

2.3.5 Additional Noise Mitigation Measure

Where additional noise mitigation measures are required, adopt the following:

- Use temporary site buildings and material stockpiles as noise barriers. The latter can be created using site earthworks, however, uncovered stockpiles should not be located too close to residents and cause dust emissions; and
- Installing purpose built noise barriers, acoustic sheds and enclosures.

2.4 INSPECTION AND RECORDS

Results of the regular site inspections need to be maintained.

Any issues or non-conformances noted during workplace inspections must be recorded. Documentation for any corrective and preventative actions must also be maintained, as described in the *Corrective and Preventative Actions* section of the EMP. Any other relevant records must also be kept for inspection by regulatory authorities.

PROCEDURE NAME:	**STORAGE & HANDLING OF HAZARDOUS MATERIALS**	**DATE:**	**November 18**
PREPARED BY:	Benbow Environmental	**ISSUE NO.:**	1

3. STORAGE & HANDLING OF HAZARDOUS MATERIALS

3.1 PURPOSE

This procedure outlines the steps to be taken to manage fuel and oil storage for construction works.

3.2 HAZARDOUS MATERIALS STORED ONSITE

The management of hazardous chemicals is regulated under the Work Health and Safety (WHS) Regulation 2017. The regulation has two basic limits on storage quantities listed in Schedule 11; these are the Placarding quantity and the Manifest quantity. If the quantities of hazardous chemicals at the site exceed the Manifest quantity, notification to SafeWork NSW is required.

At the time of writing, small quantities of fuel and oil (up to 20 L of diesel, 20 L of petrol and 20 L of oil) are expected to be handled on site. Diesel, petrol and oil are classed as either flammable or combustible substances.

Due to the minor quantities expected to be stored, some basic instructions have been provided. Should quantities or chemical types stored on site for the purposes of construction change, this procedure may need to be updated.

3.3 PROCEDURE

3.3.1 Safety Data Sheet (SDS)

- A copy of safety data sheets on all chemicals used or stored for construction is to be maintained.

An SDS is a document that provides information on the identification, health hazards, precautions for use and the safe handling of specific chemical product, which complies with ASCC:2011 (1994).

These data sheets are obtained from the supplier and provide essential information required to allow safe handling of hazardous substances at work. Employers must ensure that all employees have access to SDS and must encourage employees to read the SDS's for all hazardous substances, which they may encounter in their work.

All SDS's include the following information:

- Product name and classification by UN No., GHS category, hazard statement and signal word;
- Product identification including physical and chemical properties;

- Health hazard information detailing acute effects and first aid advice;
- Precautions for use;
- Safe handling information including storage and transport, spills and disposal and fire explosion hazards;
- Recommend on the use of PPE; and
- Miscellaneous information.

The information in a SDS is very important and all members of staff must be familiar with the location of the SDS's and their contents. For new chemicals on site, an SDS must be provided from manufacturers and read by the staff.

3.3.2 Storage and Handling

- If spillage occurs, act ***immediately*** in accordance with the *Spill Procedure*. Ensure that all spilled materials and materials used for clean-up are disposed of safely.

- All personnel engaged in the handling of dangerous goods shall be aware of the hazards involved and be trained in the use of personal protective equipment, its care and maintenance, actions to be taken in various emergencies, the properties of hazards associated with, the substances handled.

- All containers of fuels and oils shall be clearly labelled in accordance with the Globally Harmonised System (GHS) of labelling.

- All installations in which flammable liquids are stored shall be implemented in accordance with AS 1940–2017, *The storage and handling of flammable and combustible liquids*.

- Smoking should be prohibited on site apart from designated areas which present no risk to storage of flammable and combustible liquids. Extreme caution shall be taken when transferring liquids as sparks caused by static may cause liquid to ignite. Earthing of the containers is essential.

3.3.3 Disposal of Fuels and Oils

- Fuels and oils that require disposal may be classified as hazardous waste and must be disposed of accordingly.

- Appropriate staff shall be designated with the responsibility for ensuring the safe disposal or recycling of empty containers.

- If required, a designated area for waste chemical containers is to be maintained for adequate storage and handling.

- Spills of hazardous waste should be handled in accordance with the Spill Procedure and any relevant safety data sheets.

3.4 INSPECTION AND RECORDS

Any issues or non-conformances noted during workplace inspections must be recorded. Documentation for any corrective and preventative actions must also be maintained, as described in the *Corrective and Preventative Actions* section of the EMP. Any other relevant records must also be kept of professional periodic inspections.

PROCEDURE NAME:	**WATER MANAGEMENT & SEDIMENT CONTROL**	**DATE:**	**November 18**
PREPARED BY:	Benbow Environmental	**ISSUE NO.:**	1

4. WATER MANAGEMENT AND SEDIMENT CONTROL

4.1 PURPOSE

This procedure serves to ensure the cleanliness of stormwater releases during construction and the control of sediment.

4.2 DEFINITIONS

The Environment
For the purpose of this procedure, the environment is defined to include air, soil, natural waterways, groundwater, surface water (including stormwater drainage system).

Stormwater
Rainwater runoff over hardstand or impermeable surfaces.

Sediment
Dust and particulate matter deposited in hardstand areas that during wind or rain may cause the release of these contaminants.

4.3 PROCEDURE

Protection of stormwater and erosion and sediment controls should be undertaken in accordance with the Erosion and Sediment Control Plan for Stages 1 and 2 provided in Sub Plan B2.

4.3.1 Stormwater Requirements

- Protect any existing stormwater drains using geotextile inlet filters
- Protect kerb inlets with sandbags.
- Keep the premises clean and tidy at all times.
- Locate temporary stockpiles away from stormwater drains and provide sediment fence to downstream end.
- Stormwater drains, once installed, should be inspected routinely for evidence of debris – any debris build-up must be removed.
- Any stormwater pollution control equipment must be maintained in optimum working condition.
- No waste or items of any description shall be tipped down stormwater drains.
- Once constructed, all hardstand areas shall be inspected and maintained to ensure the integrity of the hardstand surface be maintained, with any cracks repaired immediately.

- If contaminated stormwater has exited the site, or is strongly suspected to be contaminated but cannot be sampled, incident reporting should be undertaken and the Director shall notify all relevant authorities (i.e. local council, NSW EPA), and co-operate in the investigations clean-up process.

4.3.2 Erosion and Sediment Controls

Erosion and sediment control measures to be implemented during construction include a sediment barrier fence around the construction works site, as well as sediment barriers and sandbag sediment traps and geotextile inlet filters around stormwater pits and drains, and a stabilised access point. These physical barriers briefly explained below; they should be installed as described in the Erosion and Sediment Control Plan.

Sediment fencing
Install all sediment fencing at the base of any temporary stockpile and where required to prevent sediment leaving the construction site. Ensure that sediment fences are firmly trenched into the ground for their entire length and include small 'returns' to minimise the risk of water flowing along them rather than through them.

Geotextile Inlet Filters
These filters are made of geotextile or straw bales and are installed around existing stormwater pits within a trench using star pickets.

Sand bags
Sand bags can be used as a temporary sediment trap in the event of emergencies. Sand bags can also be used as temporary measures for the protection of kerb inlets.

Barrier fencing
Barrier fences are used to define access areas and to minimise unnecessary disturbance of vegetated or developed lands. They are used to restrict access to any areas that do not need to be disturbed and are used on an as-needs basis.

Stabilised entry and exit point.
A Stabilised Access Point (SAP) must be installed and maintained at the construction ingress/egress location prior to the commencement of any work. Single sized 40mm or larger aggregate placed 150mm deep, and extending from the street kerb/road shoulder to the land is recommended to be provided as a minimum.

4.3.3 Temporary Stockpiles

Temporary stockpiles would be needed to store excavated material and some green waste and other construction materials. Stockpiles would be located on the south western corner of the site and need to be appropriately managed as follows:

- Protect stockpiles by installing a sediment fence along the downstream end 1 to 2 metres downslope as required.
- Stockpiles should be located at least 2 metres away from existing vegetation, waterbodies, roads and other hazard areas.
- The side slopes of the stockpiles should be maintained at 2:1.

- Stabilise the surface of the stockpile using measures such as dampening with water, erosion control blankets or mulching.
- Earth banks are to be constructed on the upslope side of stockpiles to divert water around stockpiles.
- Maintain stockpiles to a height of no more than 2 metres.

4.3.4 Flooding

- In the event of a flood, the Flood Emergency Response Plan provided as Sub-Plan B3 must be followed.

4.4 INSPECTION AND RECORDS

Any issues or non-conformances noted during workplace inspections must be recorded. Documentation for any corrective and preventative actions must also be maintained, as described in the *Corrective and Preventative Actions* section of the EMP. Any other relevant records must also be kept for inspection by regulatory authorities.

PROCEDURE NAME:	**SPILL PROCEDURE**	**DATE:**	**November 18**
PREPARED BY:	Benbow Environmental	**ISSUE NO.:**	1

5. SPILL PROCEDURE

5.1 PURPOSE

The purpose of this procedure is to ensure the containment of all spills on the site to prevent the entry of spilled substances, materials or debris into stormwater systems and public waterways, reducing the risk of environmental pollution and exposure to breaches and penalties under environmental pollution legislation. The main risk in relation to the construction activities is the generation of washwater. There may also be a risk if chemicals are needed during construction.

5.2 DEFINITIONS

Emergency Evacuation Point
The Emergency Evacuation Point is located at the entry gate of the SUEZ Facility

The Environment
For the purpose of this procedure, the environment is defined to include air, soil, natural waterways, groundwater and surface water (including stormwater drainage system).

Environmental Incident/Release
An environmental incident/release is defined as any spillage, release, upset, out of limits operation, procedural violation, which potentially:

- *Harms human health;*
- *May cause environmental harm; and*
- *May result in non-compliance with regulations, permits and/or intervention of environmental authorities or results in penalties or fines.*

Minor Spillage
A minor spillage is one that can be contained quickly and efficiently using the provisions of the Spill Kits located at various points around the site. It is typically less than 50 L. A minor spill would not be expected to reach the stormwater system. If the minor spill does reach the stormwater system the same action as outlined for a major spill will need to be taken.

Major Spillage
A major spillage has the potential to leave the site and is characterised by the spillage of a quantity greater than 50 L. A spill of this size must be prevented from reaching the stormwater system, and requires the sealing of stormwater drainage pits and the stormwater outlets, which is necessary to isolate the site from surrounding waterways.

Safety Data Sheet (SDS)
A document that provides information on the identification, health hazards, precautions for use and the safe handling of specific chemical product, which complies with ASCC:2011 (1994).

These data sheets are obtained from the supplier and provide essential information required to allow safe handling of hazardous substances at work. Employers must ensure that all employees have access to SDS and must encourage employees to read the SDS's for all hazardous substances, which they may encounter in their work.

All SDS's include the following information:

- Product name and classification by UN No., GHS category, hazard statement and signal word;
- Product identification including physical and chemical properties;
- Health hazard information detailing acute effects and first aid advice;
- Precautions for use;
- Safe handling information including storage and transport, spills and disposal and fire explosion hazards;
- Recommend on the use of PPE; and
- Miscellaneous information.

The information in an SDS is very important and all members of staff must be familiar with the location of the SDS's and their contents. For new chemicals on site, an SDS must be provided from manufacturers and read by the staff.

Spill Kit
A kit consisting of spill equipment to contain and clean up spills. Spill kits must include at least the following items: shovels, brooms, chemically resistant boots and gloves, disposal bags for contaminated waste and portable containment barriers. There are spill kits specifically designed to clean up different substances including chemical spill kits for corrosive of unknown liquids, universal spill kits for water-based and non-corrosive liquids and oil spill kits.

5.3 PROCEDURES

Spill kits are required on site. Spill control equipment should be kept together at one location and communicated to all personnel. Signage should indicate the designated locations of the spill kits/spill control equipment.

If a spill occurs on the site the following procedure is to be followed:

5.3.1 For Minor Spillage <50L

<u>First-Response Action on Discovery of Minor Spill (General)</u>

1. Switch off all pumps using the automatic pump cut-off.
2. Assist and remove any person from the danger area, only if safe to do so.
3. Check that all potential sources of ignition have been shut down (if safe to do so).
4. Immediately notify the Chief Warden and specify details of the spill, such as location or source of release.
5. Follow instructions from the Chief Warden.

Chief Warden/Deputy Chief Warden Responsibilities

When informed of the spill:

1. Switch off all pumps using the automatic pump cut-off.
2. Mobilise and co-ordinate IRT personnel to take incident response action.
3. Assist and remove any person from the danger area, only if safe to do so.
4. Contain the spill using booms or other portable containment barriers from the Spill Kit to prevent the spill entering stormwater drains. Soak up as much of the spill as possible using adsorbents from the Spill Kit.
5. Check that all potential sources of ignition have been shut down (if safe to do so).
6. Advise the Director of the details of the spill.
7. Adsorbents used in the spill clean-up are likely to be classified as hazardous waste. Contact a licensed waste contractor to dispose of the adsorbents used in the spill clean-up.
8. It will remain the discretion of the Director whether or not to report details of the spill incident, location, time of occurrence, type of spill, chemical involved and quantity on a corrective/preventative action form.

5.3.2 For Major Spillage >50L

First-Response Action on Discovery of Major Spill (General)

1. Switch off all pumps using the automatic pump cut-off.
2. Assist and remove any person from the danger area, only if safe to do so.
3. Check that all potential sources of ignition have been shut down (if safe to do so).
4. Immediately notify the Chief Warden and specify details of the spill, such as location or source of release.
5. Follow instructions from the Chief Warden.

Chief Warden/Deputy Chief Warden Responsibilities

When informed of the spill:

1. Mobilise and co-ordinate IRT personnel to take incident response action.
2. Assist and remove any person from the danger area, only if safe to do so. If necessary, direct them to the emergency evacuation point.
3. Contain the spill using booms from the Spill Kit to prevent the spill entering stormwater drains. Soak up as much of the spill as possible using adsorbents from the Spill Kit.
4. Check that all potential sources of ignition have been shut down (if safe to do so).
5. If required, telephone the Fire Brigade and/or Police or Ambulance Services confirming the state of the emergency at the Site and requesting for additional assistance.
6. Advise the Director of the details of the spill;
7. Under the direction of the Director, and with the assistance of the emergency response crews (if required), clean up the spill;
8. Adsorbents used in the spill clean-up are likely to be classified as hazardous waste. Contact a licensed waste contractor to dispose of the adsorbents used in the spill clean-up;

Reporting a Major Spill

- Under section 148 of the Protection of the Environment Operations Act, 1997, there is a duty to report pollution incidents. The Director is responsible for notifying the relevant authorities.
- Relevant authorities include one or more the following, depending on the type and extent of the spill:

► Planning Assessment Commission (PAC)	9383 2100
► NSW Environment Protection Authority	131 555
► The Ministry of Health (Liverpool Office)	8778 0855; 9828 3000 After hours
► SafeWork NSW	13 10 50
► Fairfield City Council	9725 0222
► Fire and Rescue NSW	1300 729 579

- The following provides guidance on notifying pollution incidents:

  - ► Any pollution incident that causes or threatens material harm to the environment must be notified immediately.
  - ► A 'pollution incident' includes a leak, spill or escape of a substance, or circumstances in which this is likely to occur.
  - ► Material harm includes on-site harm, as well as harm to the environment beyond the premises where the pollution incident occurred.
  - ► Notification must be given immediately after the person becomes aware of the incident.

5.4 INSPECTION AND RECORDS

Any issues or non-conformances noted during workplace inspections must be recorded. Documentation for any corrective and preventative actions must also be maintained, as described in the *Corrective and Preventative Actions* section of the EMP. Any other relevant records must also be kept of professional periodic inspections.

PROCEDURE NAME:	**REGULAR SITE INSPECTION PROCEDURE**	**DATE:**	**November 18**
PREPARED BY:	Benbow Environmental	**ISSUE NO.:**	1

6. REGULAR SITE INSPECTION

6.1 PURPOSE

The purpose of this procedure is to ensure an adequate level of environmental management at the site is maintained. The procedure can help determine whether action needs to be taken, in order to rectify any identified issues with the potential to cause environmental harm.

6.2 DEFINITIONS

Site Inspections
Inspections conducted using the Site Inspection Checklist provided to ensure a good environmental standard of the construction area is maintained.

Environmental Harm
Any direct or indirect alteration of the environment that has the effect of degrading the environment and, without limiting the generality of the above includes any act or omission that results in pollution. (Ref: POEO Act)

Due Diligence
The systematic identification of the environmental risks and liabilities associated with an organisation's sites and operations.

6.3 PROCEDURE

- An Inspection Checklist is provided overleaf to be completed and recorded on a weekly basis. This information is used to ensure an adequate level of environmental management at the site is maintained. It is also used to determine whether action needs to be taken to rectify issues that have arisen that may have the potential to cause environmental harm.

- If any action is required, this should be decided at the discretion of the Site Manager.

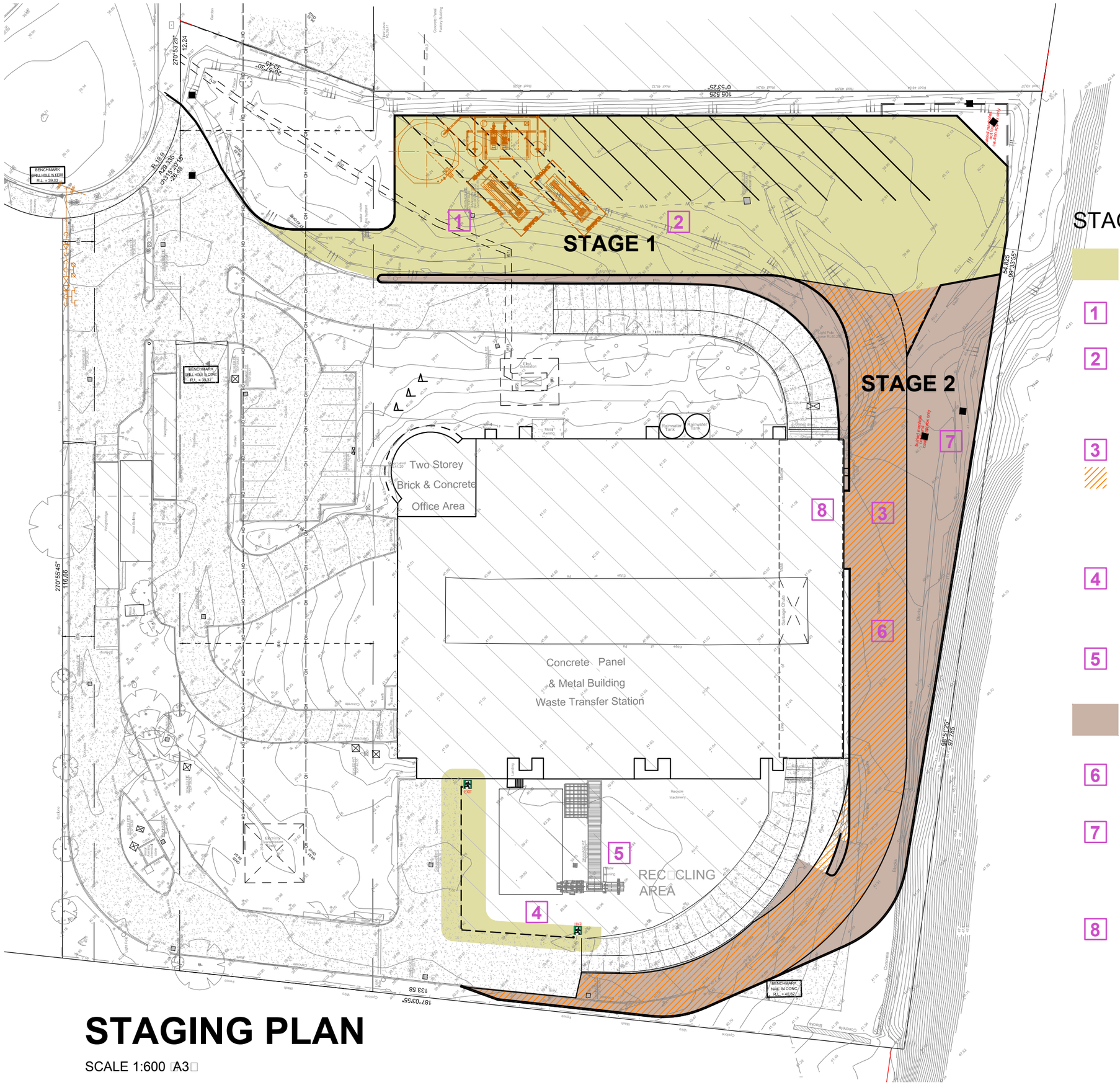
- Any issues or non-conformances noted during site inspections must be recorded. Documentation for any corrective and preventative actions (e.g. CAR forms) must also be maintained, as described in the *Corrective and Preventative Actions* section of the CEMP. Any other relevant records must also be kept for inspection by regulatory authorities.

CONSTRUCTION WEEKLY SITE INSPECTION CHECKLIST			EXAMPLE ONLY	
Inspected by:			Date & time:	
ITEM CHECKED	**YES**	**NO**	**ACTION REQUIRED**	**SIGN**
Is there any excessive noise from construction activities (or any noise complaints)?				
Is there any excessive or unusual dust emissions or odour (or any complaints regarding dust) from construction activities?				
Is dust from all exposed surfaces adequately suppressed using regular watering?				
Check all barrier fencing installed is being used for its intended purpose.				
Is the stabilised access point working adequately? Check whether any sediment build up (tracking from vehicles) is evident on the roadway leaving the site.				
Is there evidence of construction traffic tracking dirt onto adjoining public roads? Public roads need to be cleaned if there is evidence of dirt being tracked from the construction area.				
Is all on site traffic associated with construction following designated haul routes?				
Are trucks entering and leaving the site with loads adequately covered?				
Are temporary stockpiles: • Located clear of drainage paths, easements, kerbs and roadways? • Located below fence lines when within 5m of a fence? • Below a height of 2m? • Adequately protected using sediment fencing and earth banks? • Regularly watered to suppress dust or covered if on site for longer than one month?				
Are sediment fences installed at the base of all temporary stockpiles and around construction site? Check sediment fences are: • Firmly trenched into the ground for the entire length • Capturing sediment adequately • Filled with rubbish, sediment or debris and if they need replacing				
Check all existing stormwater pits are adequately fitted with geotextile inlet filters?. Check any sediment build up around filters indicating they need replacing / cleaning.				

CONSTRUCTION WEEKLY SITE INSPECTION CHECKLIST			EXAMPLE ONLY	
Inspected by:			Date & time:	
ITEM CHECKED	**YES**	**NO**	**ACTION REQUIRED**	**SIGN**
Are any signs out of place, obstructed or missing? • Speed limit site sign at entrance • Construction site sign at entrance				
Is there evidence of any spills including oil, fuel, chemicals or washwater on any area of the site?				
Check all waste is: • Stored within the correct bins and/or designated waste areas and not near waterways or stormwater pits • Not overflowing from bins • Within bins that are labelled correctly and adequately covered when not in use				
Is there any litter or windblown waste in the construction area?				
Washwater – Inspect bunded area and ensure no leakages or discharges				
Are all oils, fuels, lubricants and chemicals (and associated wastes) labelled and stored in appropriate receptacles/areas?				
Are there any other areas that have not been maintained?				

Comments:

Name:_____ Signature:_____ Date: _____



STAGING PLAN

SCALE 1:600 □A3□

STAGING LEGEND/PLAN

AREA DENOTES EXTENT OF STAGE 1 WORKS

1 FIRE SERVICES UPGRADES

2 CONSTRUCTION OF *"STAGE 1"* PERMANENT PAVING & LINEMARKING OF TRUCK PARKING 1-8□(AS INDICATED ON THE PLAN)

3 TEMPORAR□ PERIMETER ACCESS ROAD (BUILT TO E□TENT OF HATCHING AS INDICATED ON PLANS). ROAD TO BE CONSTRUCTED IN ACCORDANCE WITH NSW FB POLIC□ NO.4.

4 PROPOSED RETRACTABLE□ FIRE COMPLIANT LITTER PREVENTION CURTAIN TO FUTURE DETAILS

5 NEW PLANT E□UIPMENT

AREA DENOTES EXTENT OF STAGE 2 WORKS

6 REMOVAL OF TEMPORAR□ PERIMETER ACCESS ROAD

7 CONSTRUCTION OF *"STAGE 2"* PERMANENT PAVING□AND LINE MARKING OF TRUCK PARKING NO.9 (AS INDICATED ON THE PLAN)

8 REMOVAL OF CONCRETE PANEL AND NEW DOOR TO E□ISTING WASTE TREATMENT FACILIT□

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CC 01

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#64

CORNERSTONE CIVIL

PROPOSED ALTERATIONS TO WASTE TREATMENT FACILITY

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LOT 402 DP603454,
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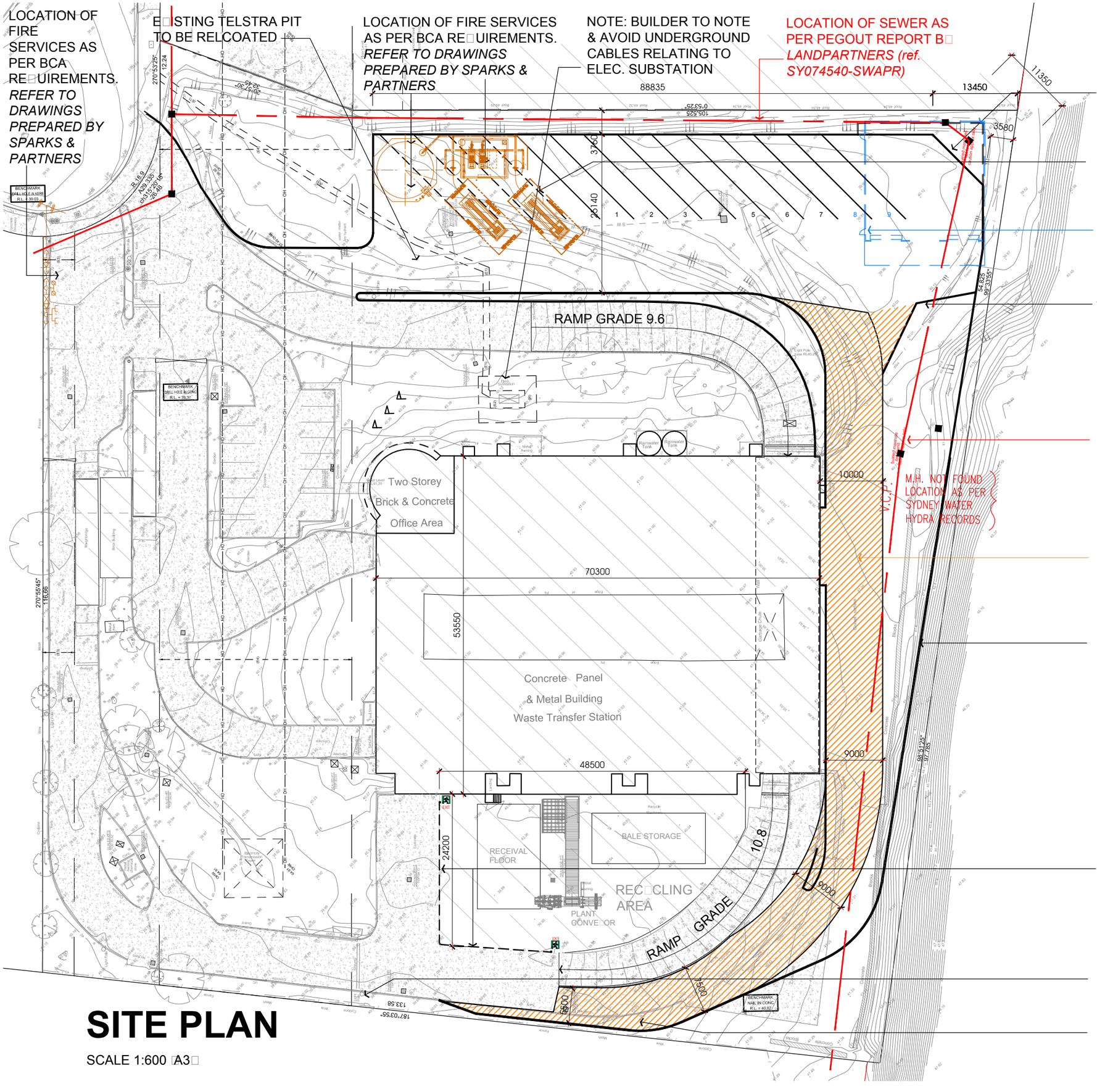

SITE PLAN

SCALE 1:600 □A3□

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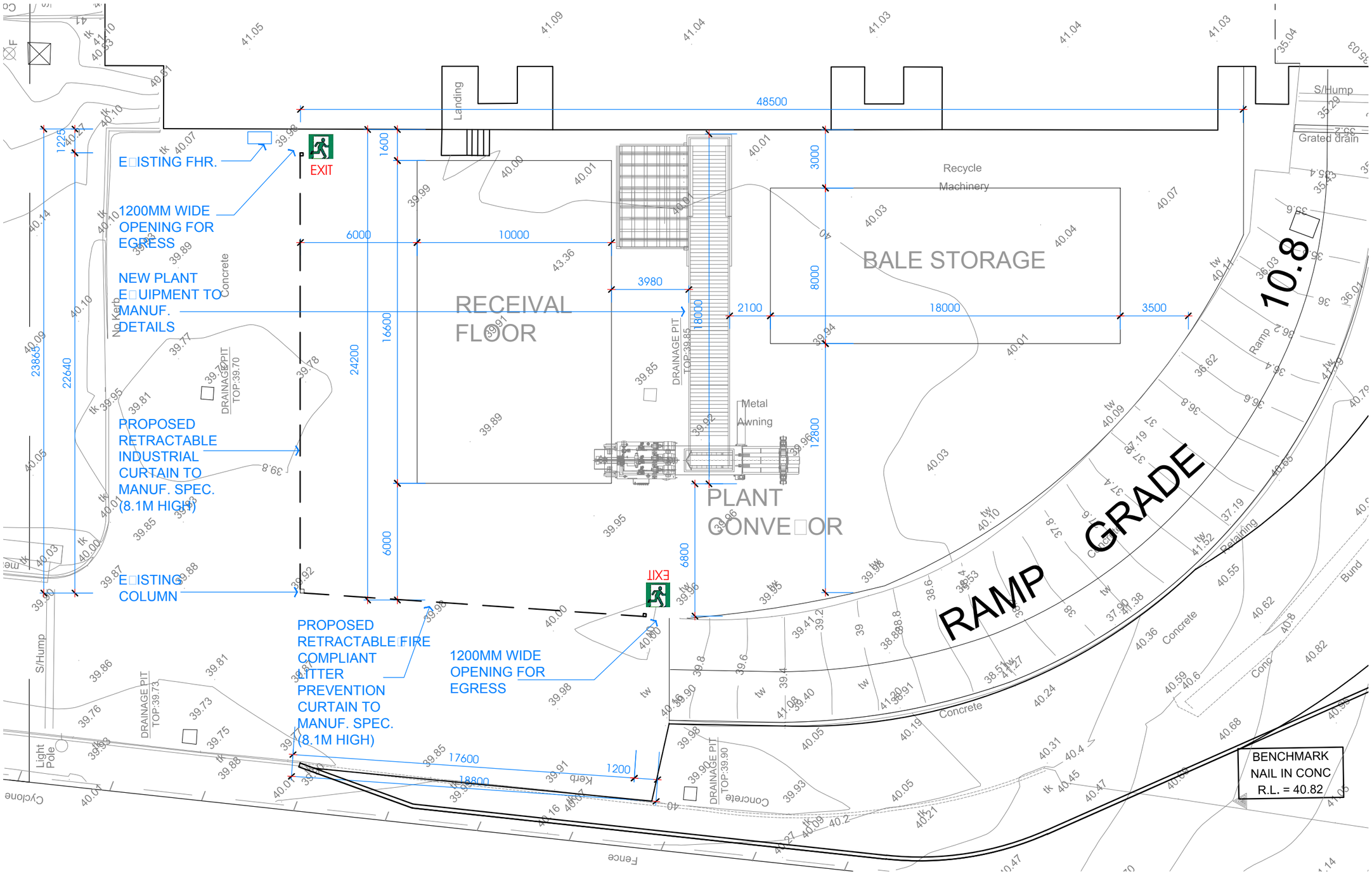

PART SITE PLAN

[RECYCLING AREA]

SCALE 1:200 (A3)

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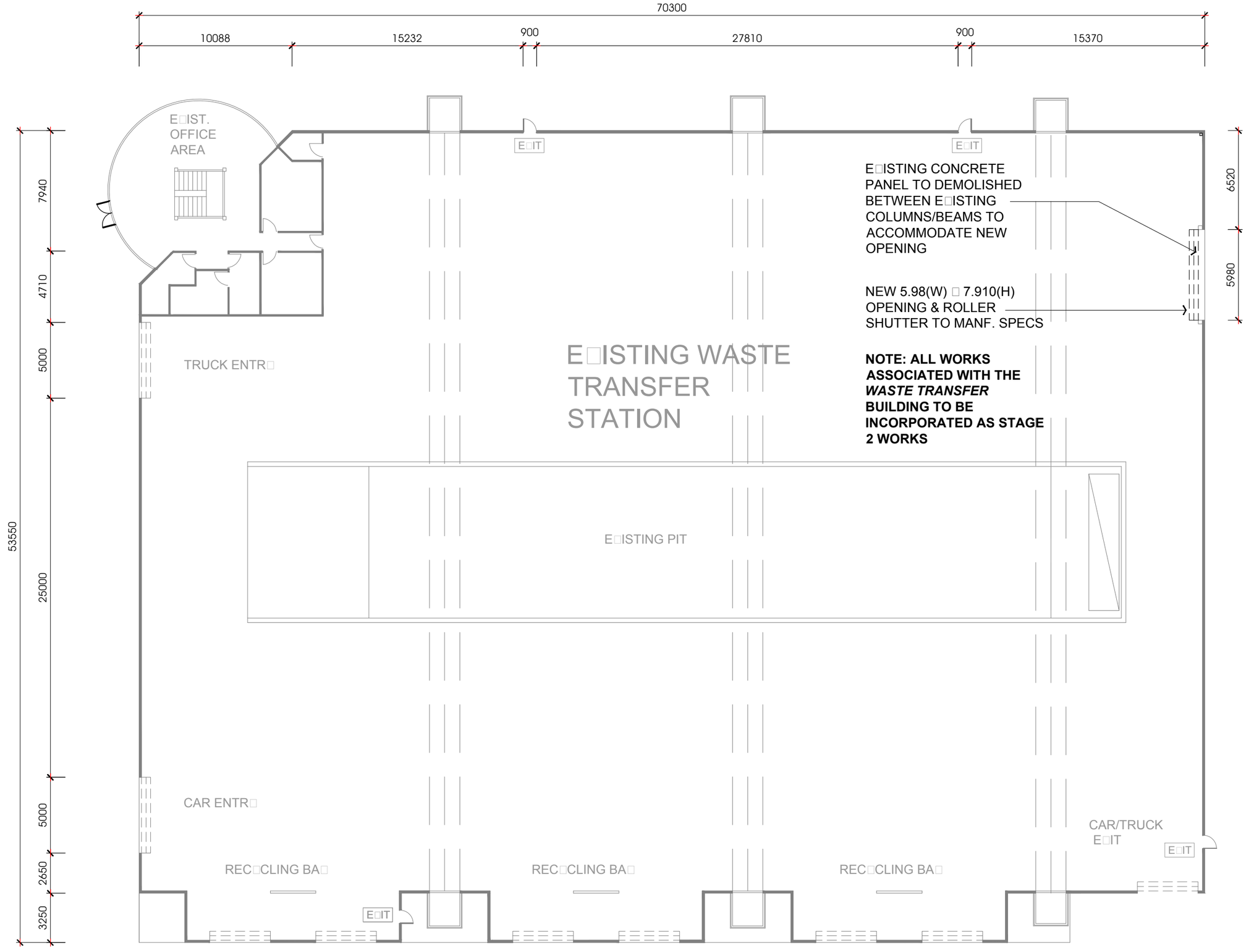

FLOOR PLAN

SCALE 1:250 A3

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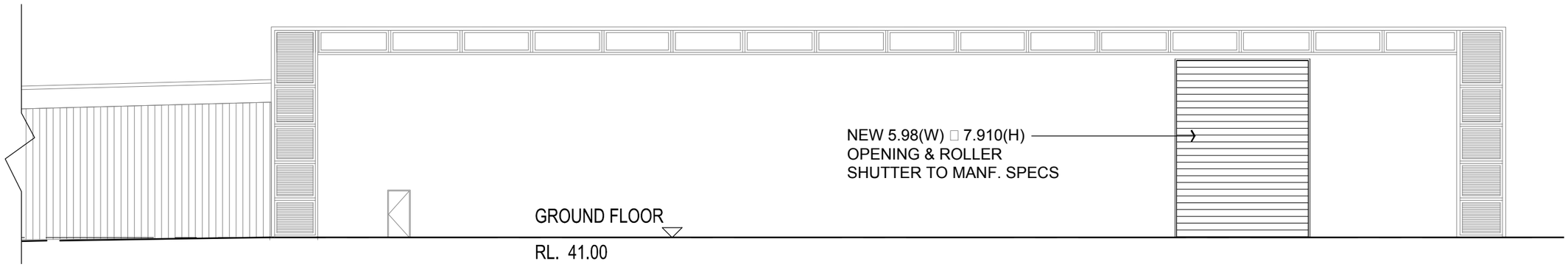
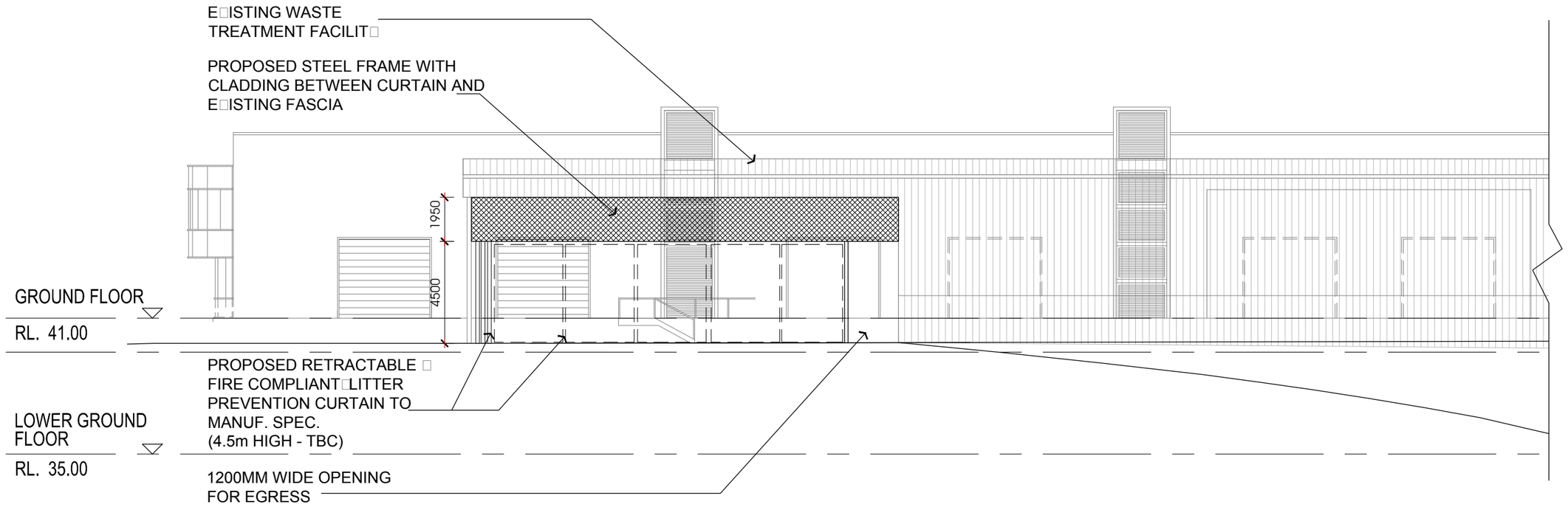


SOUTH ELEVATION

WASTE TRANSFER BUILDING

SCALE 1:200 □A3□



WEST ELEVATION

RECYCLING AREA

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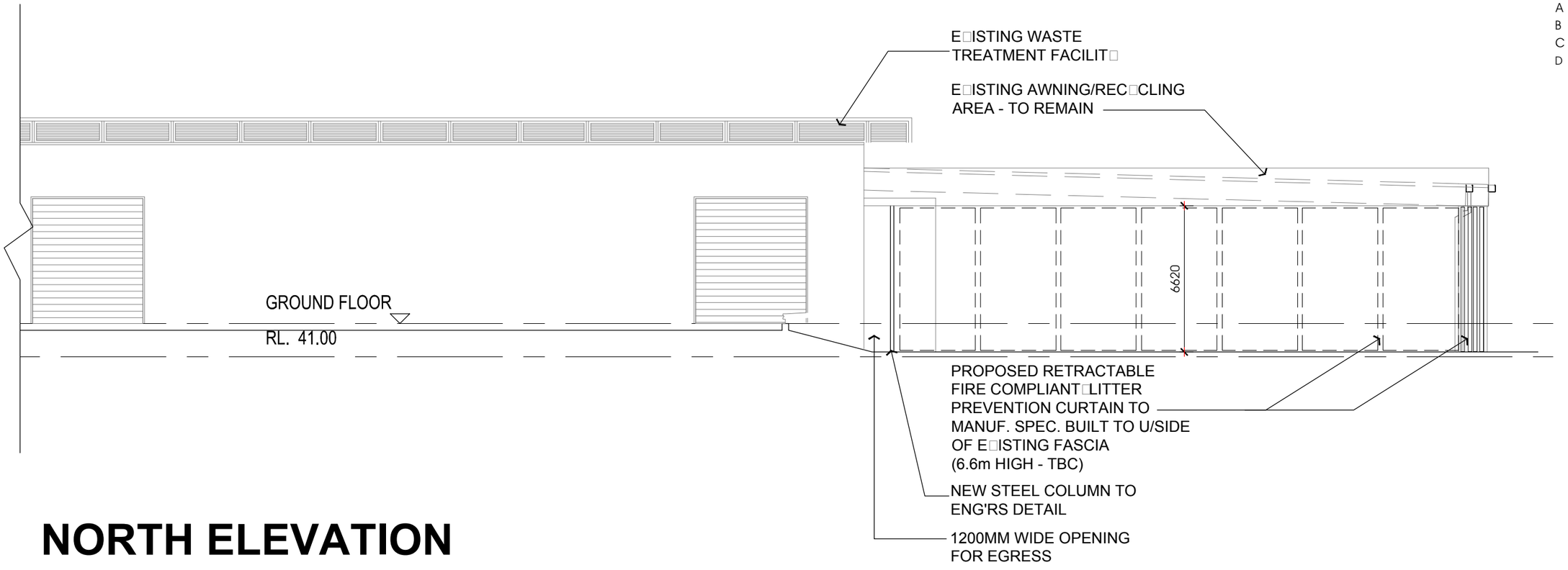

NORTH ELEVATION
RECYCLING AREA

SCALE 1:200 □A3□

SHEET NO.:
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PROJECT NO.:
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CORNERSTONE CIVIL

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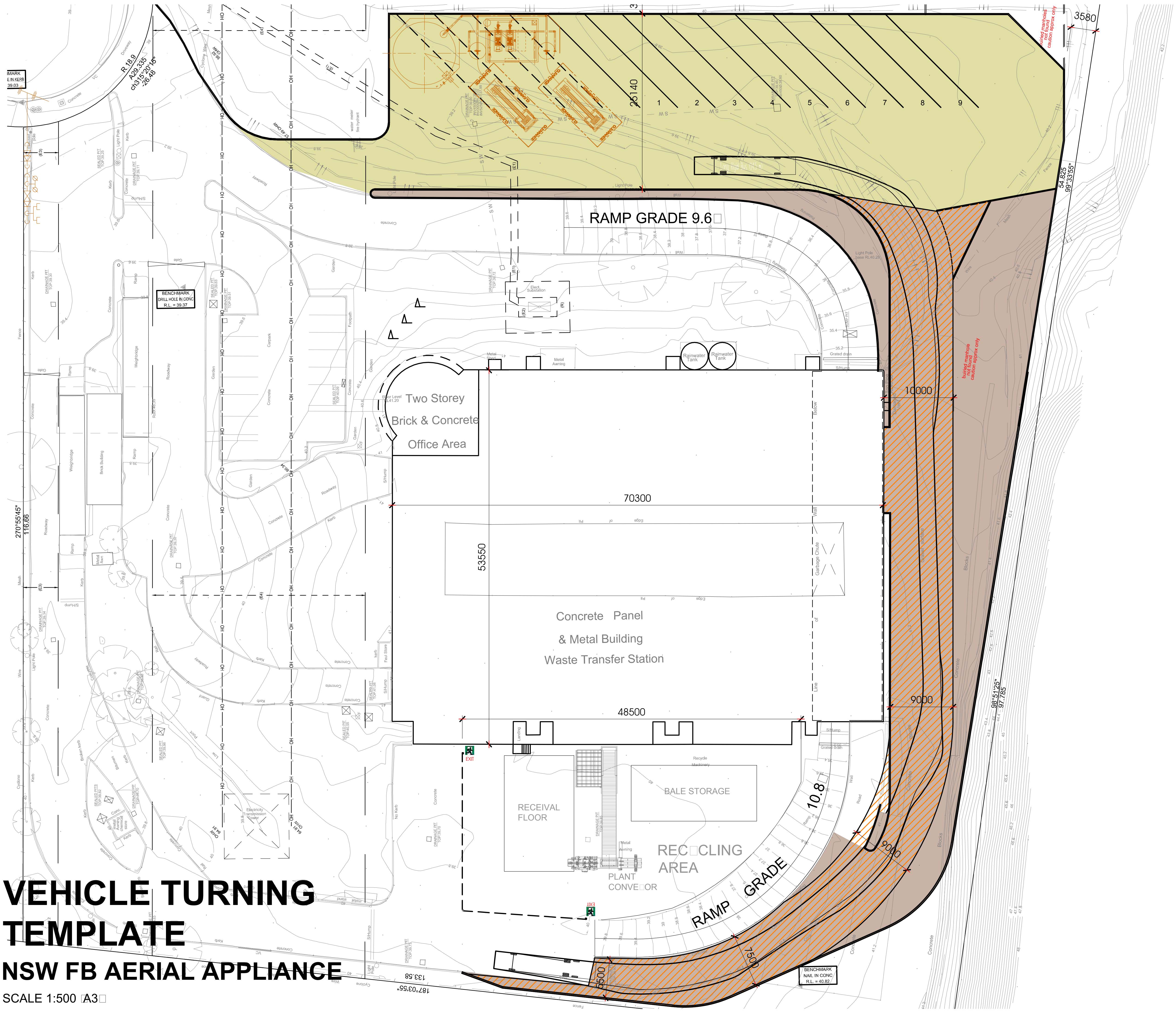

VEHICLE TURNING TEMPLATE

NSW FB AERIAL APPLIANCE

SCALE 1:500 □A3□

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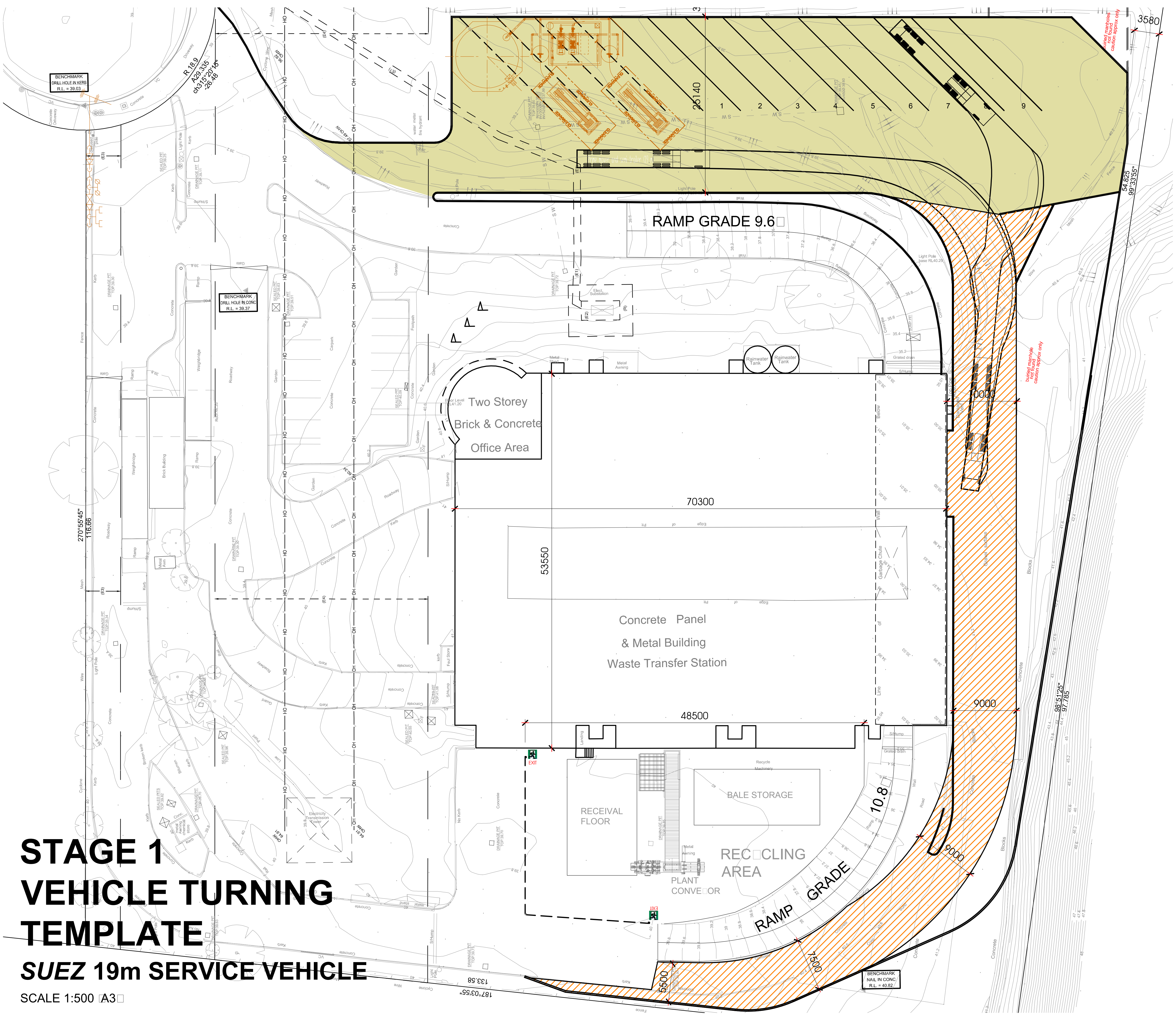
LOT 402 DP603454,
DAVIS ROAD, WETHERILL PARK



STAGE 1
VEHICLE TURNING TEMPLATE

SUEZ 19m SERVICE VEHICLE

SCALE 1:500 □A3□

ENVISION GROUP
0455 025 207
PO BOX 3371
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NSW, 2164
www.envisiongroup.com.au
projects@envisiongroup.com.au

FULL MEMBER
BUILDING DESIGNERS ASSOCIATION OF AUSTRALIA

AMENDMENTS:

A	PRELIMINARY ISSUE	02.08.18
B	PRELIMNARY ISSUE	04.08.18
C	ISSUED FOR SUBMISSION	22.08.18
D	REISSUED FOR SUBMISSION	28.08.18

SHEET NO.: CC 08

N

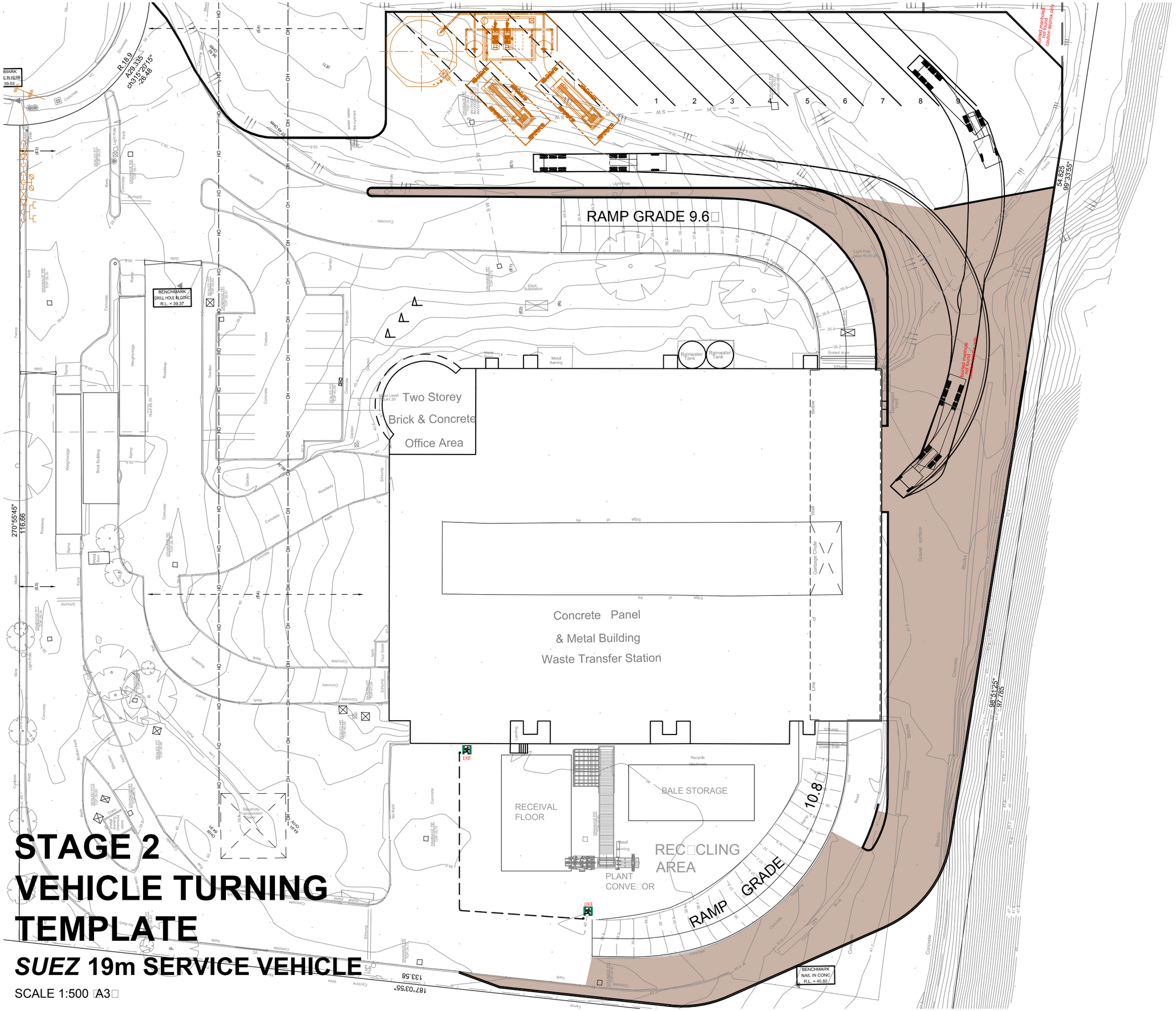
PROJECT NO.: #64

CORNERSTONE CIVIL

PROPOSED ALTERATIONS TO WASTE TREATMENT FACILITY

0 2m 4m

LOT 402 DP603454,
DAVIS ROAD, WETHERILL PARK



STAGE 2
VEHICLE TURNING TEMPLATE
SUEZ 19m SERVICE VEHICLE

SCALE 1:500 A3

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SHEET NO.:
CC 09

N

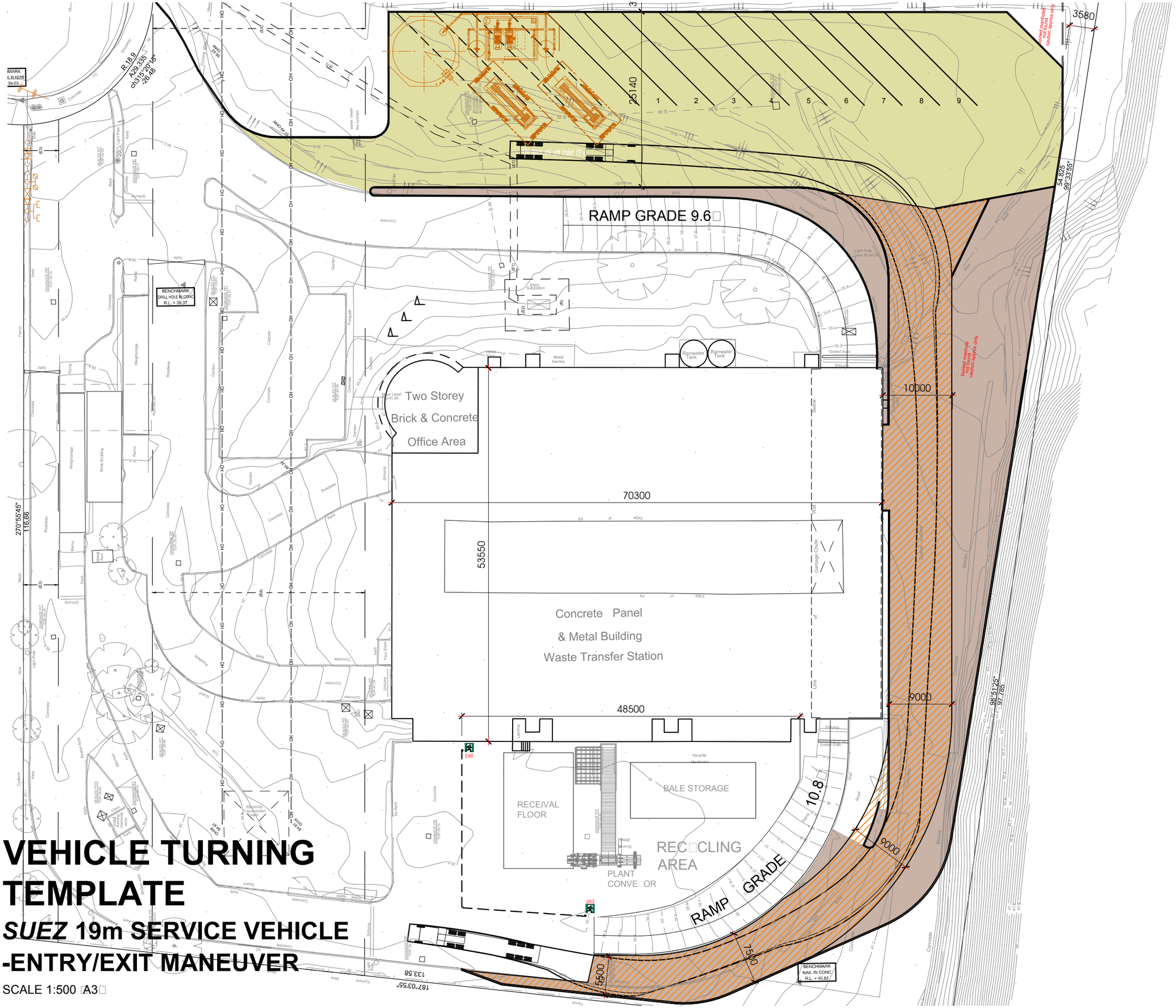
PROJECT NO.:
#64

CORNERSTONE CIVIL

PROPOSED ALTERATIONS TO WASTE TREATMENT FACILITY

0 2m 4m

LOT 402 DP603454,
DAVIS ROAD, WETHERILL PARK



VEHICLE TURNING TEMPLATE

SUEZ 19m SERVICE VEHICLE -ENTRY/EXIT MANEUVER

SCALE 1:500 □A3□

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SHEET NO.:
CC 10

PROJECT NO.:
#64

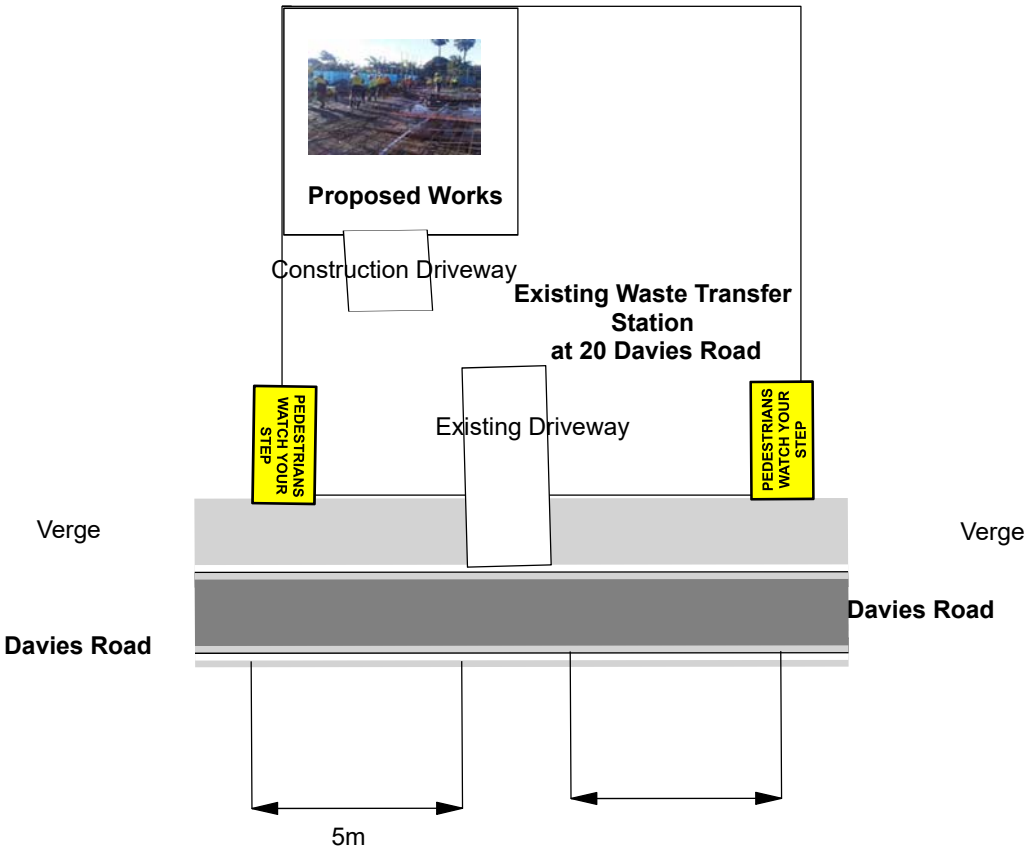
CORNERSTONE CIVIL

PROPOSED ALTERATIONS TO WASTE TREATMENT FACILITY

0 2m 4m

LOT 402 DP603454,
DAVIS ROAD, WETHERILL PARK

SUB-PLANS



ML Traffic Engineers	**Date:** 25/10/2018 **Author:** Benny Chen **Project:** 20 Davies Road
	Comments: Traffic Control Plan for Pedestrian Management on Davies Road Benny Chen (Certificate Number 2273010105)

CONSTRUCTION TRAFFIC MANAGEMENT PLAN

Construction of Alterations and Additions to a Waste transfer Station at 20 Davies Road in Wetherill Park

Prepared for: Benbow Environmental

A1815970N (Version 1b)

October 2018

1. INTRODUCTION

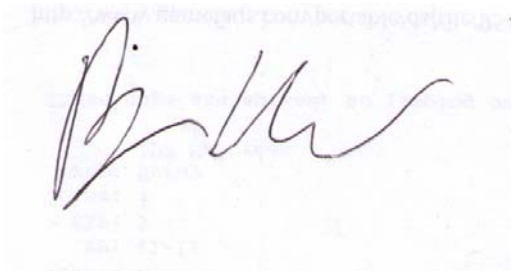
Motion Traffic Engineers was commissioned by Benbow Environmental for the preparation of a construction traffic management plan for alterations and additions to an existing waste transfer station at 20 Davies Road in Wetherill Park. The site has frontage to Davies Road only.

All of the alterations and additions will be undertaken within private property with no activity in public areas.

No works zone is required.

The following traffic control plans have been prepared:

- Pedestrian management plan to ensure that pedestrians are aware of the existing driveway



Benny Chen
Principal
(NER)

2. PARKING IMPACT OF WORKS

All construction workers and trucks will park within the waste transfer station. There will be no impacts upon on street parking on Davies Road.

3. TRAFFIC IMPACT OF WORKS

The construction activity will generate car trips (construction workers) and truck movements.

Most construction workers arrive on site before 8am and hence before the AM peak hour. Construction workers end work before 5pm and their return trips are largely outside of the PM peak hour.

Truck arrivals occur throughout the day with no define peak. Truck arrivals are no later than 4pm since the drivers themselves need to return to the depot or/and to make sure they arrive in time before the site closes and any material is unloaded or loaded in time. Table 1 present information on the number of workers and frequency of truck movements.

The vehicle trip generation will not affect the performance of the nearby intersections during the peak hours or throughout the day.

The construction entrance and exit driveway is within the existing SUEZ site and is therefore not accessible to pedestrians using Davis Road. Pedestrian management is provided at the existing driveway.

The impact on local traffic of construction traffic on the adjacent roads (such as Arnott Place) will be kept to a minimum. The following will be implemented to achieve this:

- The construction trucks travelling to the site will be using major roads that permit trucks and through traffic such as Prospect Highway/Widemere Road and M4
- The timing of the truck arrivals and departures will largely be outside of the commuter peak periods
- Warning signs will be placed warning pedestrians to walk across the existing driveway with care
- Truck movements will only occur during permitted construction periods on a weekday only
- The cars of the construction workers will park on site
- Vehicle access to neighbouring properties will be retained.

The entire frontage of the property will be fenced off with temporary fencing for security and safety in accordance with WorkSafe requirements.

All statutory safety and warning signs to be erected and maintained at all times.

No machinery or material will be stored on the footpath or verges or on public areas.

Pedestrians will be advised to watch their steps on days of truck movements across the existing driveway.

The loading/unloading of materials will occur within the site fencing of the construction site.

4. SITE CONDITIONS

The site is provided with adequate controls to ensure the safety and security of the construction site and to constrain environmental impacts. The following presents details of the safety, security and environmental controls provided on site.

Fencing

- A 1.8 metre fencing surrounds the site to prevent unauthorized personnel from accessing the site from entering the site. It provides a single entry point for authorised personal. Fencing also provides security and safety to the site and ensures that potential safety hazards are constrained to the site area.

Erosion and Sediment Control Fence

- An erosion and sediment control fence surrounds the site to prevent or minimise erosion while constraining loose soil to the site. The control fences will also aid in minimalizing the environmental impact on the surrounding flora and fauna.

Cattle Grid

- A cattle grid is placed within the site boundary at the site entrance to shake loose dirt and large materials such as, pebbles and rocks, off a vehicle as it drives over the cattle grid. Vehicles exiting the site are simultaneously washed off to capture air born soil particles discharged from the vehicle as a result of driving over the cattle grid.

Silt Arrestors

- Silt arrestors are placed along the gutter adjacent to the site entrance. These catch loose silts and dirt washed of the cattle grid and out of the site entrance.

Bins

- Designated waste areas would be established and maintained throughout the construction period. Due to the nature of the construction work, waste storage areas may need to be moved to different locations depending on the location and type of the works being undertaken each week. .

Waste bins would be located in a suitable area and consist of up to 3 x 5 m^3 skip bins for the following materials:

- Bin 1: Building and construction waste including concrete, formwork and offcuts;
- Bin 2: Scrap steel bin; and
- Bin 3: Packaging Waste.

Emergency Evacuation point

- The Emergency Evacuation Point is located at the entry gate of the SUEZ Facility..

Site Office

- As the site is an established waste facility, the existing site amenities and offices would be used by contractors engaged for the duration of the construction works. No additional ancillary facilities are required.
- This allows for convenient access and view of the construction site. First aid is located in the existing site office. The site office allows for visitors to engage in a site induction before having to travel to far through the site.

Noise

For noise management and control on the construction site, strict work time and periods are to be followed. By following noise management time frames, the impact on the neighbours and surrounding will be reduced. It is recommended to avoid the use of heavy machinery, large delivery vehicles and loud oscillating/ impacting tools like jack hammers in the initial and end of these periods of times where possible to further reduce the impact.

Construction activity will only occur during nominated hours.

A predicted noise level assessment has been undertaken and weighed against surrounding sites and potential sensitive land uses. Noise Management is addressed in the Construction Environmental Management Plan (CEMP).

Local neighbours and those most affected should be notified early on in the process of the construction times, should times of high noise levels be expected. A procedure is in place within the CEMP for the handling of any noise complaints regarding construction noise levels and other noise related issues.

5. TRUCK AND CAR MOVEMENTS

The details and frequency of the truck movements and the corresponding Traffic Control Plan are as follows in the following Table 1 and the appropriate traffic control plan in use and the frequency.

Phase	Duration	Workers Onsite	Largest Vehicle	Loading / Unloading Location	Truck Movements	TCPs Used & Frequency
Construction	52 weeks	25	Semi-trailer (15 metres long)	On site	10 / day	TCP 1: Pedestrian Management on Davies Road (all day)

Table 1: Summary of Truck Usage by Construction Phase and Traffic Control Plan Used

The number of truck movements on a daily basis is relatively low over a working day.

The inbound truck routes are as follows to the Davies Road construction driveway:

North

- Truck drivers coming from the North will travel on M7, The Horsely Drive, Victoria Street, Elizabeth Street, and Davies Road.

South

- Drivers from the South will travel on M7, The Horsely Drive, Victoria Street, Elizabeth Street, and Davies Road.
-

East

- Drivers from the East will travel on M4, Prospect Highway, Widemere Road and Davies Road

West

- Truck drivers coming from the West will travel on M4, Prospect Highway, Widemere Road and Davies Road

The outbound movement is to travel on Davies Road towards Widemere Road, left into Widemere Road, Prospect Highway and then turn left or right into M4 Interchange with Prospect Highway.

6. PARKING AND QUEUING AREAS

All trucks will be queued within the site. To minimise queuing on Davies Road, and the nearby roads, a schedule of construction vehicle deliveries will be prepared by the main contractor. This will minimise queuing into and out of the site and to ensure that once the construction vehicles arrive, the traffic controllers will be ready to manage the construction vehicles and the through traffic on Davies Road.

The expected frequency of construction vehicles are presented in Table 1. Most arrivals are pre-planned to within a time frame of 20 minutes.

7. TRAFFIC MANAGEMENT PLAN CHECKLIST

This section responds to the checklist in the document titled "Procedures for Use In the Preparation of a Traffic Management Plan (TMP)" prepared by the NSW RTA (now RMS) with the document dated 2001. The checklist is in Section C of the document.

	Traffic Management Plan Issues	Response
A	Description or detailed plan of proposed measures	Yes - see report
B	Identification and assessment of impacts of proposed measures	Yes - see report
C	Measures to ameliorate the impact of re-assigned traffic	Yes - alternative vehicle routes are available. See report
D	Assessment of public transport services affected	No - public transport not affected
E	Details of provisions made for emergency vehicles, heavy vehicles, cyclists and pedestrians	No change. Emergency vehicles and trucks have alternative access
F	Assessment of effect on existing and future developments with transport implications in the vicinity of the proposed measures	Construction works are short term
G	assessment of effect on traffic movements in adjoining areas	No. The impacts are local
H	Public Consultation Process	The public has been consulted during the EIS process

Table 2: Traffic Management Checklist

8. TRAFFIC CONTROL PLANS

This section discusses the preparation of traffic control plan managing both pedestrians and trucks entering and leaving the construction site and the occupancy of the kerbside lane.

The preparation of the Traffic Control Plans have been in accordance with Australian Standards AS1742.3 and the RTA Traffic Control at Work Sites (now the RMS).

Benny Chen is licensed and registered by the NSW Roads and Maritime Services to design and inspect traffic control plans (Certificate No. 2893016010).

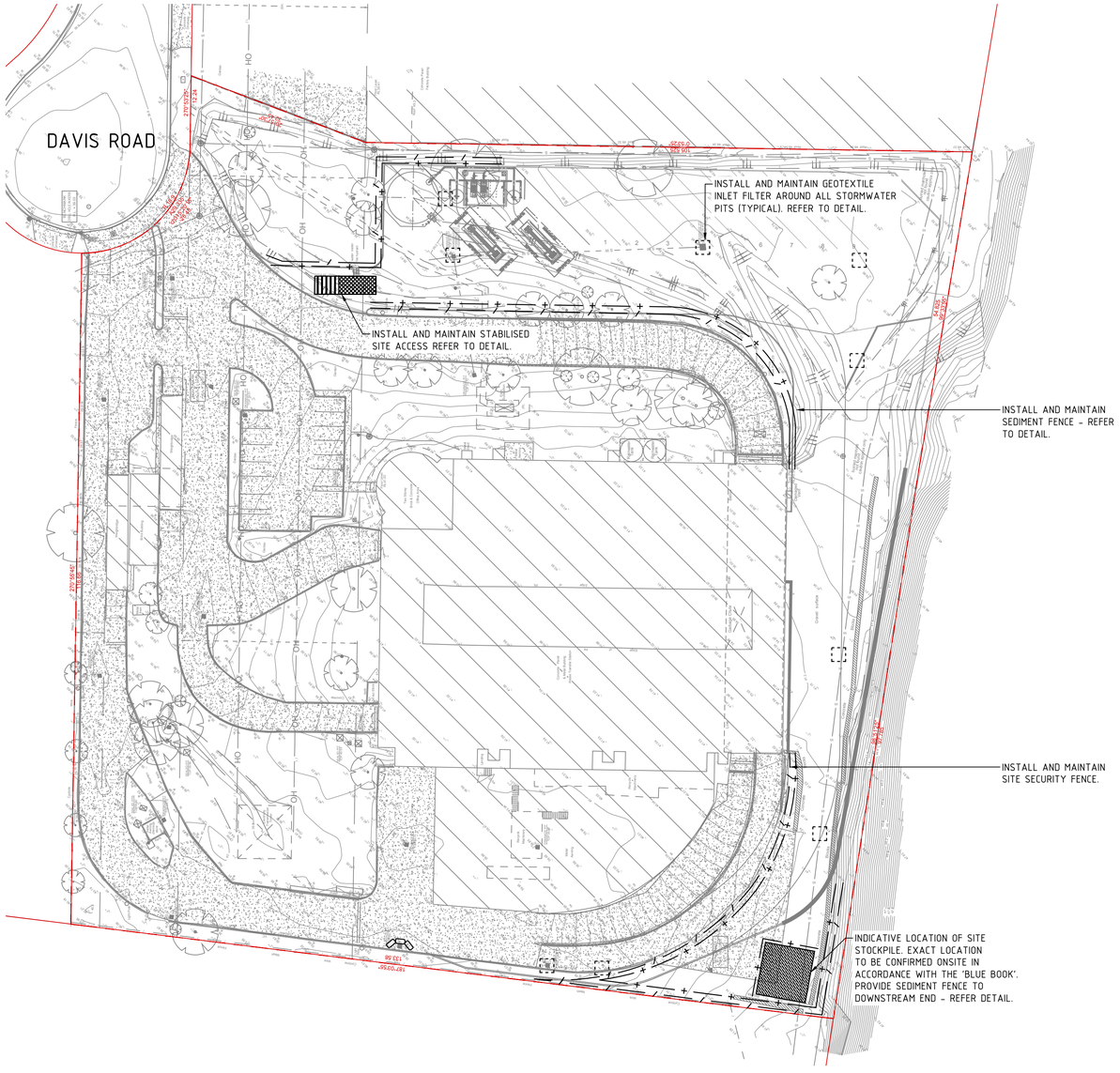
Table 1 presents the use of Traffic Control Plans according to each construction phase and the expected frequency of use per day.

The Traffic Control Plan is presented in a clear manner to allow for the plan to be implemented by the works supervisor. The placement of the signs is from a key identifier. The works supervisor will need to be RMS accredited. The Traffic Control Plans are presented in Appendix A.

Where there are two controllers require, radios will be used to communicate the implementation of the traffic control plan between controllers.

All barriers used in traffic control will need to be compliant with Australian Standards.

APPENDIX A – TRAFFIC CONTROL PLANS

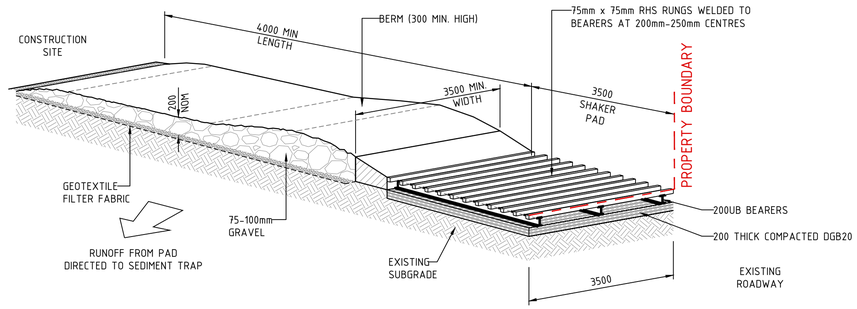


LEGEND

- SITE SECURITY FENCE
- SEDIMENT FENCE
- STABILISED SITE ACCESS
- SITE STOCKPILE
- MESH AND GRAVEL INLET FILTER
- GEOTEXTILE INLET FILTER

NOTES

1. REFER TO C1.01 FOR GENERAL NOTES & SPECIFICATIONS.

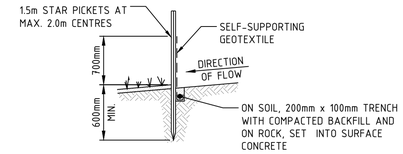


STABILISED SITE ACCESS

NOT TO SCALE

MAINTENANCE

- THE TEMPORARY ACCESS SHALL BE MAINTAINED IN A CONDITION THAT PREVENTS TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS OF WAY,
- THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL GRAVEL AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT,
- ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS OF WAY MUST BE REMOVED IMMEDIATELY.
- INSTALL BARRIER ON EITHER SIDE OF SHAKER PAD TO ENSURE VEHICLES ARE GUIDED ON TO THE PAD.
- INVERT OF SHAKER PAD TO BE DRAINED VIA AGRICULTURAL PIPE WRAPPED IN GEOTEXTILE FABRIC.



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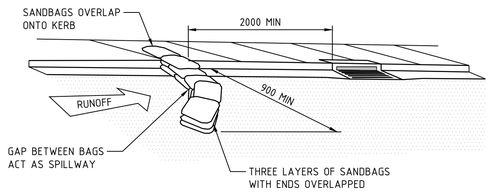
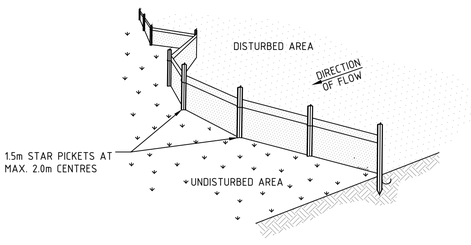
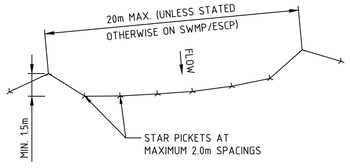


SEDIMENT TRAP FOR KERB INLET (ON GRADE - SANDBAG)

NOT TO SCALE





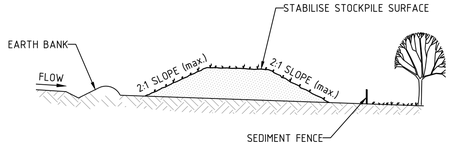
PLAN

SEDIMENT FENCE

NOT TO SCALE

NOTES:

1. CONSTRUCT SEDIMENT FENCES AS CLOSE AS POSSIBLE TO BEING PARALLEL TO THE CONTOURS OF THE SITE, BUT WITH SMALL RETURNS AS SHOWN IN THE DRAWING TO LIMIT THE CATCHMENT AREA OF ANY ONE SECTION. THE CATCHMENT AREA SHOULD BE SMALL ENOUGH TO LIMIT WATER FLOW IF CONCENTRATED AT ONE POINT TO 50L/s IN THE DESIGN STORM EVENT, USUALLY THE 10-YEAR EVENT.
2. CUT A 200mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
3. DRIVE 1.5m LONG STAR PICKETS INTO GROUND AT 2.0m INTERVALS (MAX) AT THE DOWNSLOPE EDGE OF THE TRENCH. ENSURE ANY STAR PICKETS ARE FITTED WITH SAFETY CAPS.
4. FIX SELF-SUPPORTING GEOTEXTILE TO THE UPSLOPE SIDE OF THE POSTS ENSURING IT GOES TO THE BASE OF THE TRENCH. FIX THE GEOTEXTILE WITH WIRE TIES OR AS RECOMMENDED BY THE MANUFACTURER. ONLY USE GEOTEXTILE SPECIFICALLY PRODUCED FOR SEDIMENT FENCING. THE USE OF SHADE CLOTH FOR THIS PURPOSE IS NOT SATISFACTORY.
5. JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP.
6. BACKFILL THE TRENCH OVER THE BASE OF THE FABRIC AND COMPACT IT THOROUGHLY OVER THE GEOTEXTILE.

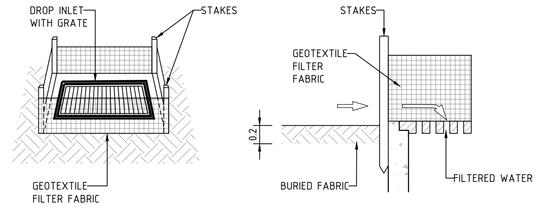


STOCKPILE

NOT TO SCALE

NOTES:

1. PLACE STOCKPILES MORE THAN 2 (PREFERABLY 5) METRES FROM EXISTING VEGETATION, CONCENTRATED WATER FLOW, ROADS AND HAZARD AREAS.
2. CONSTRUCT ON THE CONTOUR AS LOW, FLAT, ELONGATED MOUNDS.
3. WHERE THERE IS SUFFICIENT AREA, TOPSOIL STOCKPILES SHALL BE LESS THAN 2 METRES IN HEIGHT. 4. WHERE THEY ARE TO BE IN PLACE FOR MORE THAN 10 DAYS, STABILISE FOLLOWING THE APPROVED ESCP OR SWMP TO REDUCE THE C-FACTOR TO LESS THAN 0.10.
5. CONSTRUCT EARTH BANKS ON THE UPSLOPE SIDE TO DIVERT WATER AROUND STOCKPILES AND SEDIMENT FENCES 1 TO 2 METRES DOWNSLOPE.



GEOTEXTILE INLET FILTER DROP INLET SEDIMENT TRAP

NOT TO SCALE

NOTES:

1. FABRICATE A SEDIMENT BARRIER MADE FROM GEOTEXTILE OR STRAW BALES.
2. CUT A 200mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
3. DRIVE 1.0m LONG STAR PICKETS INTO GROUND AT THE FOUR CORNERS OF PIT WALLS. ENSURE ANY STAR PICKETS ARE FITTED WITH SAFETY CAPS.
4. FIX SELF-SUPPORTING GEOTEXTILE TO THE UPSLOPE SIDE OF THE POSTS ENSURING IT GOES TO THE BASE OF THE TRENCH. FIX THE GEOTEXTILE WITH WIRE TIES OR AS RECOMMENDED BY THE MANUFACTURER. ONLY USE GEOTEXTILE SPECIFICALLY PRODUCED FOR SEDIMENT FENCING. THE USE OF SHADE CLOTH FOR THIS PURPOSE IS NOT SATISFACTORY.
5. JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP.
6. BACKFILL THE TRENCH OVER THE BASE OF THE FABRIC AND COMPACT IT THOROUGHLY OVER THE GEOTEXTILE.

CONSTRUCTION CERTIFICATE

1. DO NOT SCALE OFF THIS DRAWING. USE DIMENSIONS & ARCHITECTURAL DRAWINGS ONLY
2. DRAWINGS TO BE READ IN CONJUNCTION WITH SPECIFICATION.
3. LEVELS ARE INDICATIVE ONLY AND ARE TO BE CHECKED PRIOR TO COMMENCEMENT OF ANY WORKS
4. AUTHORITIES MAINS AND/OR EXISTING SERVICES ARE TO BE LOCATED AND CHECKED PRIOR TO COMMENCEMENT OF ANY WORKS
5. COMPLETION OF THE QUALITY RECORD IS EVIDENCE THAT THE DESIGN AND DRAWING HAVE BEEN VERIFIED.

VERIFICATION
COMPLETION OF THE DRAWING STATUS IS EVIDENCE THAT THE DESIGN HAS BEEN VERIFIED AS CONFORMING TO THE REQUIREMENTS OF THE PROJECT QUALITY PLAN

DRAWING STATUS	INITIAL	DATE
PRELIMINARY		
FOR INFORMATION ONLY		
FOR CLIENT APPROVAL		
FOR TENDER		
FOR CONSTRUCTION		

CHECKED	DATE
APPROVED	DATE
PAGE A1	PLOT DATE October 5, 2018

NORTH POINT

SCALE 0 5 10 15 20 25 30 35 40 METERS

DATE	No	AMENDMENT	INIT	REV
15.01.18		ISSUED FOR REVIEW AND APPROVAL	MW	1
12.02.18		80% ISSUE	ZC	2
20.09.18		90% ISSUE	DD	3
12.10.18		CC ISSUE	DD	4

DATE	No	AMENDMENT	INIT	REV

suez

CLIENT: CORNERSTONE CIVIL

ARCHITECT: SBA ARCHITECTS
Suite 702, 83 Mount Street, North Sydney NSW 2060
T 02 9929 9988 F 02 9929 8899
E info@sbaarch.com.au W www.sbaarch.com.au

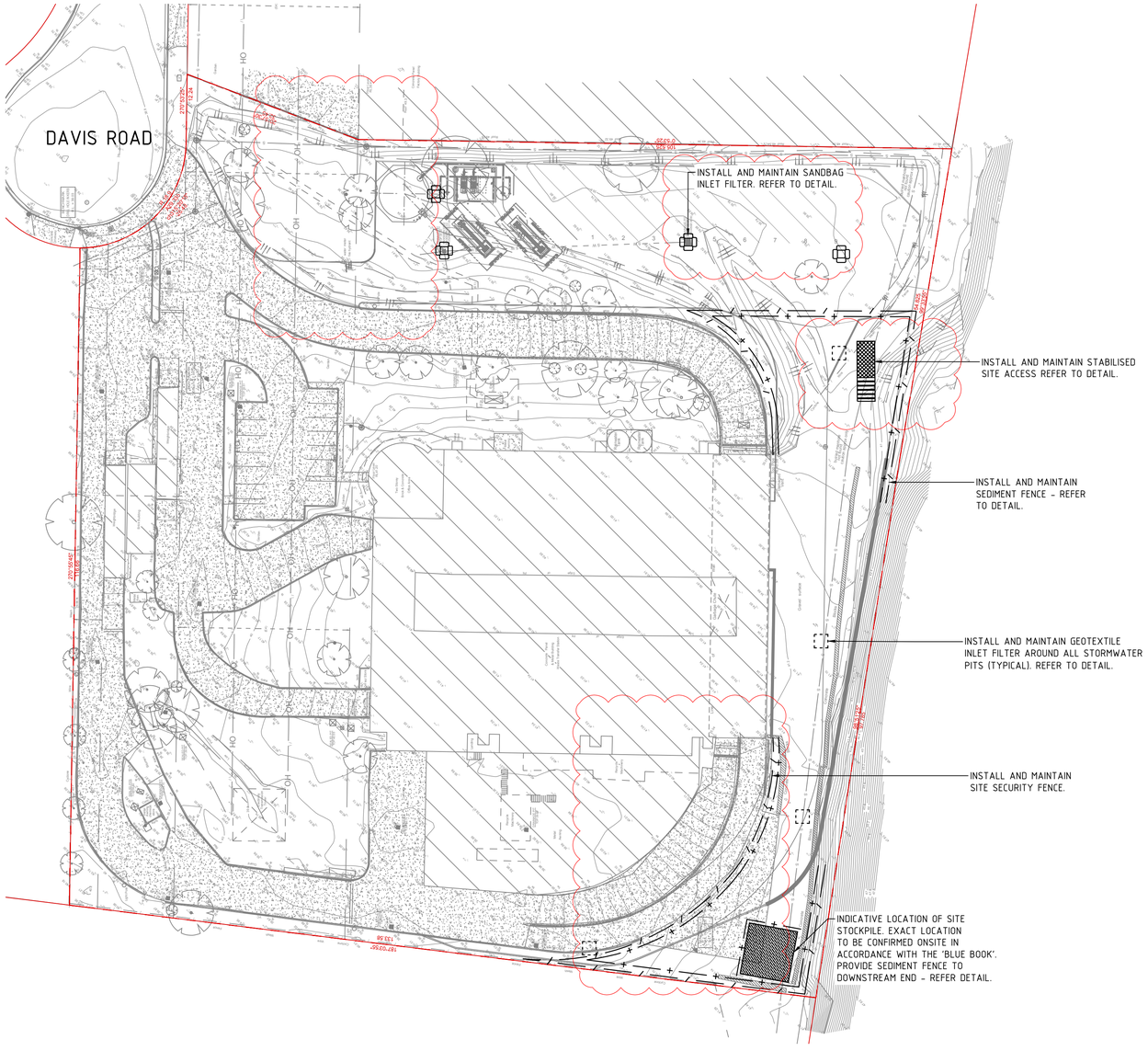
PROJECT: PROPOSED HARDSTAND AND STORMWATER WORKS SUEZ WETHERILL PARK

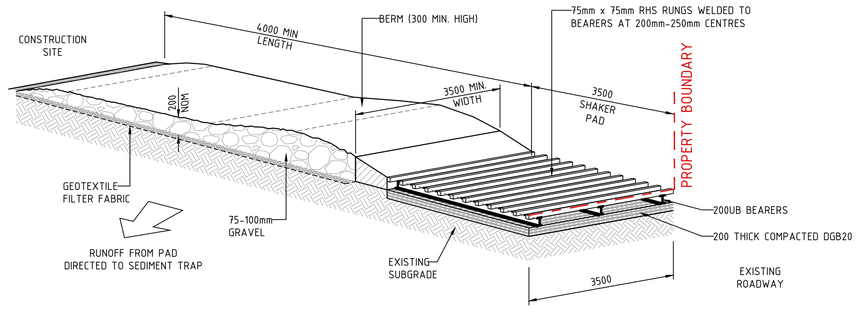
DRAWING TITLE: CIVIL DESIGN EROSION & SEDIMENT CONTROL PLAN - STAGE 1

SPARKS+PARTNERS CONSULTING ENGINEERS HYDRAULIC | CIVIL | FIRE
Level 1, 91 George Street | Parramatta | NSW 2150
P 02 9891 5033 | F 02 9891 3898 | E admin@sparksandpartners.com.au

DATE FEB 2018	DESIGNED DD		
SCALE 1:500	DRAWN DD		
JOB No 17265	DWG No C2.01	No IN SET OF	REV 4

AHSCA ASSOCIATION OF HYDRAULIC CONSULTANTS AUSTRALIA (NSW) Inc. CORPORATE MEMBER





STABILISED SITE ACCESS

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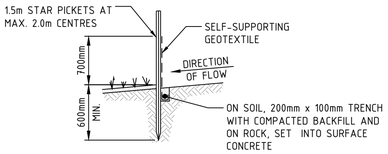

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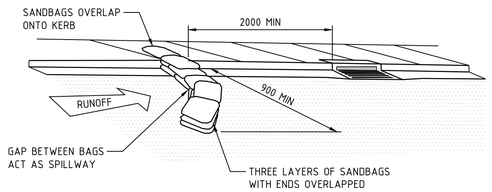
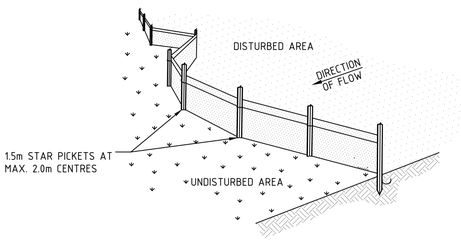
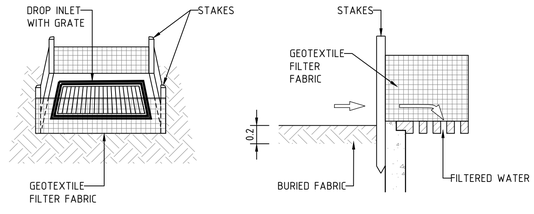


SEDIMENT TRAP FOR KERB INLET (ON GRADE - SANDBAG)

NOT TO SCALE



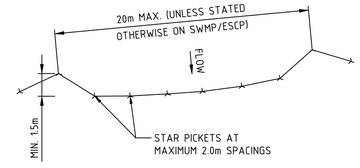


GEOTEXTILE INLET FILTER DROP INLET SEDIMENT TRAP

NOT TO SCALE

NOTES:

1. FABRICATE A SEDIMENT BARRIER MADE FROM GEOTEXTILE OR STRAW BALES.
2. CUT A 200mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
3. DRIVE 1.0m LONG STAR PICKETS INTO GROUND AT THE FOUR CORNERS OF PIT WALLS. ENSURE ANY STAR PICKETS ARE FITTED WITH SAFETY CAPS.
4. FIX SELF-SUPPORTING GEOTEXTILE TO THE UPSLOPE SIDE OF THE POSTS ENSURING IT GOES TO THE BASE OF THE TRENCH. FIX THE GEOTEXTILE WITH WIRE TIES OR AS RECOMMENDED BY THE MANUFACTURER. ONLY USE GEOTEXTILE SPECIFICALLY PRODUCED FOR SEDIMENT FENCING. THE USE OF SHADE CLOTH FOR THIS PURPOSE IS NOT SATISFACTORY.
5. JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP.
6. BACKFILL THE TRENCH OVER THE BASE OF THE FABRIC AND COMPACT IT THOROUGHLY OVER THE GEOTEXTILE.



PLAN

SEDIMENT FENCE

NOT TO SCALE

NOTES:

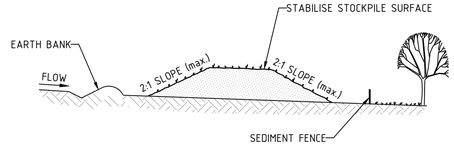
1. CONSTRUCT SEDIMENT FENCES AS CLOSE AS POSSIBLE TO BEING PARALLEL TO THE CONTOURS OF THE SITE, BUT WITH SMALL RETURNS AS SHOWN IN THE DRAWING TO LIMIT THE CATCHMENT AREA OF ANY ONE SECTION. THE CATCHMENT AREA SHOULD BE SMALL ENOUGH TO LIMIT WATER FLOW IF CONCENTRATED AT ONE POINT TO 50L/s IN THE DESIGN STORM EVENT, USUALLY THE 10-YEAR EVENT.
2. CUT A 200mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
3. DRIVE 1.5m LONG STAR PICKETS INTO GROUND AT 2.0m INTERVALS (MAX) AT THE DOWNSLOPE EDGE OF THE TRENCH. ENSURE ANY STAR PICKETS ARE FITTED WITH SAFETY CAPS.
4. FIX SELF-SUPPORTING GEOTEXTILE TO THE UPSLOPE SIDE OF THE POSTS ENSURING IT GOES TO THE BASE OF THE TRENCH. FIX THE GEOTEXTILE WITH WIRE TIES OR AS RECOMMENDED BY THE MANUFACTURER. ONLY USE GEOTEXTILE SPECIFICALLY PRODUCED FOR SEDIMENT FENCING. THE USE OF SHADE CLOTH FOR THIS PURPOSE IS NOT SATISFACTORY.
5. JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP.
6. BACKFILL THE TRENCH OVER THE BASE OF THE FABRIC AND COMPACT IT THOROUGHLY OVER THE GEOTEXTILE.

LEGEND

- SITE SECURITY FENCE
- SEDIMENT FENCE
- STABILISED SITE ACCESS
- SITE STOCKPILE
- MESH AND GRAVEL INLET FILTER
- GEOTEXTILE INLET FILTER

NOTES

1. REFER TO C1.01 FOR GENERAL NOTES & SPECIFICATIONS.



STOCKPILE

NOT TO SCALE

NOTES:

1. PLACE STOCKPILES MORE THAN 2 (PREFERABLY 5) METRES FROM EXISTING VEGETATION, CONCENTRATED WATER FLOW, ROADS AND HAZARD AREAS.
2. CONSTRUCT ON THE CONTOUR AS LOW, FLAT, ELONGATED MOUNDS.
3. WHERE THERE IS SUFFICIENT AREA, TOPSOIL STOCKPILES SHALL BE LESS THAN 2 METRES IN HEIGHT. 4. WHERE THEY ARE TO BE IN PLACE FOR MORE THAN 10 DAYS, STABILISE FOLLOWING THE APPROVED ESCP OR SWMP TO REDUCE THE C-FACTOR TO LESS THAN 0.10.
5. CONSTRUCT EARTH BANKS ON THE UPSLOPE SIDE TO DIVERT WATER AROUND STOCKPILES AND SEDIMENT FENCES 1 TO 2 METRES DOWNSLOPE.

1. DO NOT SCALE OFF THIS DRAWING. USE DIMENSIONS & ARCHITECTURAL DRAWINGS ONLY
2. DRAWINGS TO BE READ IN CONJUNCTION WITH SPECIFICATION.
3. LEVELS ARE INDICATIVE ONLY AND ARE TO BE CHECKED PRIOR TO COMMENCEMENT OF ANY WORKS
4. AUTHORITIES MAINS AND/OR EXISTING SERVICES ARE TO BE LOCATED AND CHECKED PRIOR TO COMMENCEMENT OF ANY WORKS
5. COMPLETION OF THE QUALITY RECORD IS EVIDENCE THAT THE DESIGN AND DRAWING HAVE BEEN VERIFIED.

VERIFICATION
COMPLETION OF THE DRAWING STATUS IS EVIDENCE THAT THE DESIGN HAS BEEN VERIFIED AS CONFORMING TO THE REQUIREMENTS OF THE PROJECT QUALITY PLAN

DRAWING STATUS	INITIAL	DATE
PRELIMINARY		
FOR INFORMATION ONLY		
FOR CLIENT APPROVAL		
FOR TENDER		
FOR CONSTRUCTION		

CHECKED | DATE
APPROVED | DATE
PAGE A1 | PLOT DATE October 12, 2018

NORTH POINT

SCALE 0 5 10 15 20 25 30 35 40 METERS

DATE	No	AMENDMENT	INIT	REV
20.09.18		90% ISSUE	DD	1
12.10.18		CC ISSUE	DD	2

DATE	No	AMENDMENT	INIT	REV

CONSTRUCTION CERTIFICATE

suez

CLIENT: CORNERSTONE CIVIL

ARCHITECT: SBA ARCHITECTS
Suite 702, 83 Mount Street, North Sydney NSW 2060
T 02 9929 9988 F 02 9929 8899
E info@sbaarch.com.au W www.sbaarch.com.au

PROJECT: PROPOSED HARDSTAND AND STROMWATER WORKS SUEZ WETHERILL PARK - STAGE 2

DRAWING TITLE: CIVIL DESIGN EROSION & SEDIMENT CONTROL PLAN - STAGE 2

SPARKS+PARTNERS CONSULTING ENGINEERS HYDRAULIC | CIVIL | FIRE
Level 1, 91 George Street | Parramatta | NSW 2150
P 02 9891 5033 | F 02 9891 3898 | E admin@sparksandpartners.com.au

DATE	DESIGNED
FEB 2018	DD
SCALE	DRAWN
1:500	DD
JOB No	DWG No
17265	C2.02

AHSCA ASSOCIATION OF HYDRAULIC CONSULTANTS AUSTRALIA (NSW) Inc. CORPORATE MEMBER

No IN SET OF | REV 2

FLOOD EMERGENCY RESPONSE PLAN (FERP)

for

SUEZ Resource Recovery Facility
20 Davis Rd, Wetherill Park NSW

as of

November 2018

Person in Charge of FERP: **Chief Warden**

FERP Team Members: **Deputy Warden**
Wardens
First Aiders

1. Introduction: This Flood Emergency Response Plan (FERP) has been established to clearly define actions that should be taken in the event of a pending flood event to our site. The plan is designed to proactively outline actions to be taken to prevent loss of life and physical injuries to persons on site, damage to buildings, machinery and equipment and stock /supplies at this site in order that we may resume operations as quickly as possible after the flood event is over. The FERP has been prepared with reference to the Flood Risk Management Guidelines (FRGM) (OEH 2017). The FERP considers the provisions of the FRGM with the applicable guideline being *Flood Emergency Response Planning Classification of Communities.* The development has been assessed against *Figure 1 – Preliminary Flow Chart for Flood Emergency Response Classification* to determine the FERP Response Classification of Communities, with the resultant classification being "High Trapped Perimeter Area" as noted in section 2 of this FERP. The FERP addresses the provisions of this classification which states "*Vehicle evac must be completed before routes close. After closure resupply insitu or transported by Air/Boat".* As the site is cut-off by the short duration overland flow flood event refuge on-site is proposed under Section 5 of this FERP, which also notes when the predicted safe evacuation of the site can be undertaken. This plan is to be updated every 5 years, as indicated in the Floodplain Development Manual.

2. Overview of flood threat: The SUEZ Resource Recovery Facility site is exposed to overland flooding from the west. Flood mapping created by Golder Associates (Refer Appendix A) shows the predicted overland flow passing from the western boundary through the northern east-west driveway of the site, then heading east along Davis Rd. The predicted depth of flow for the 100-year storm, a storm event with a likelihood of 1% to occur in a single year, is approximately 300mm along the Northern driveway, and a top water level of 40.40 is reached along the western

boundary of the site, decreasing to 39.20 at the north-eastern boundary. The maximum predicted depth of flow is 700mm along the Northern driveway in a Probable Maximum Flood (PMF) event, the largest likely flood event to occur (Refer Appendix A for flood depths). In this event, the top water level along the driveway will reach a level of 40.80. The finished floor level of the building is 41.00m, with the basement level being 35.00m. During a flood event the basement may be inundated with stormwater, whereas the ground floor should have sufficient freeboard of 600mm in a 100-year storm event. The site is determined to be a High Trapped Perimeter Area as per Figure 1 – Preliminary Flow Chart for Flood Emergency Response Classification the FRMG, as the only practical exit from the site is unavailable during a flood event, causing a high risk of safety for those who attempt to evacuate after flooding begins.

3. Flood Warning & Notification: Should a flood event occur peak flood flows are predicted to occur within 1 to 2 hours from the start of a storm event. The Chief Warden is to monitor alerts from the Bureau of Meteorology for severe storms. Should a severe storm commence the Chief Warden is to monitor the western and northern boundaries for the presence of overland flows and provide flood warning should the relevant depth of flow exceed 50mm in depth.

4. Monitoring Potential Flood Event: The Site Manager will advise the Chief Warden when flood conditions are possible. On notification of the impending storm, Chief Warden is to advise all workers of a 'Code Brown' (via two-way radio or other device) and signal instructions to take. The Chief Warden will assign personnel the responsibility to visually monitor the overland flow elevations every 15 minutes and record and report the findings to the Chief Warden. The Chief Warden or other designated Warden will monitor the following information sources and undertake the following:

i. Regional and Local Radio Stations
ii. Relevant Websites
iii. Bureau of Meteorology
iv. SES Reports

a. Liaise with local emergency services (e.g. SES).
b. Remove or relocate items and equipment expected to be impacted by the flood.
c. Consider the need of sandbagging and other protection methods for the site.
d. Consider the need of turning off the electricity and gas mains.
e. Relocate workers to building before the flood reaches hazardous levels, following Flood Evacuation Diagram (Appendix B). If outdoors, workers must take extra precaution to avoid hazards such as flooded roads, downed electrical power lines, utility poles and trees.

5. During the flood (Response Phase) – Assembly Points & Actions:

a. Due to the nature of the flood threat evacuation from the site will not be possible, therefore refuge on site is to be undertaken;
b. All personnel are to follow the flood evacuation diagram found in Appendix B and assemble in the main building;
c. DO NOT drive over any flooded roads, causeways or bridges;
d. DO NOT walk into the floodwater;

e. DO NOT attempt to wade across or swim through flood waters of any kind.
f. Liaise with Police and SES regarding road conditions and safe evacuation routes;
g. Be aware of possible contaminated water;
h. Be aware of animals, insects and parasites that may be present in or around flood waters;
i. Due to the predicted short duration of the flood peak, safe evacuation from the site should occur within 2-4hrs of the flood peak.

6. After the flood (Recovery Phase)

a. Assess site for any potential contamination issues.
b. Keep clear of any fallen trees, powerlines and contaminated waters. Continue to not enter remaining floodwaters (such as those in the basement of the building or waters blocking exit routes).
c. Remove remaining floodwater, mud and debris from the plant by using wash down hoses, brooms, squeegees, mops, sump pumps and clean-up supplies as is safe to do so. Ensure safety equipment is worn during this process and be cautious of native wildlife that may be present on the site seeking shelter.
d. Inspect equipment for damage, begin discard/removal of all non-salvageable equipment.
e. Contact qualified persons to inspect potentially damaged services (such as electricity and gas).
f. Remove sandbags, other items used to protect building exterior.
g. Begin cleaning/drying of all essential equipment.
h. Dehumidify/dry all damp/moist areas.
i. Preserve equipment/materials that might otherwise be lost.
j. Reclaim any salvageable supplies/business operating equipment.
k. Conduct safety walkthrough to inspect other safety hazards or damages to the site

For more information regarding recovery after a flood event, refer to the 'NSW SES Recovery Guide for Floods and Storms', found at:
https://www.ses.nsw.gov.au/media/2194/20140721-recovery-guide-print-ready.pdf.

7. Training: All workers that enter the site must be trained in this document as a part of the site induction. The FERP is to be read through and understood as a part of the 'Site Safety Rules' and the Induction Checklist.

Further FERP training must be undertaken by all wardens and safety officers for the site in accordance with the requirements of the 'Emergency Management Procedure'. The Chief Warden should continually read this FERP, approximately every 6 months in order to have a thorough understanding of the procedure to be undertaken in the case of a flood event. A flood drill should also be run as outlined in the SUEZ 'Emergency Response Plan' to ensure the Wardens and personnel are able to act quickly and responsibly in a real flood event.

The awareness training of this flood plan can be found in the 'Emergencies' section of the Site Safety Rules, which outlines that this document is to be read and understood

prior to working on the site. To read through this FERP is also a requirement on the Induction Checklist, to be ticked off prior to work on the site.
Following this plan helps reduce the risk of harm to all people on the site in the event of a flood.

Appendix A – Golder Associates Flood Depth Maps

1:100 Year ARI Flood Case

This map shows the flood depths of the site for the peak 100 Year flood event.

LEGEND

- 0.0m - 0.1m
- 0.1m - 0.3m
- 0.3m - 0.5m
- 0.5m - 1.0m
- >1.0m

PMF Flood Case

This map shows the flood depths of the site for the peak PMF event.

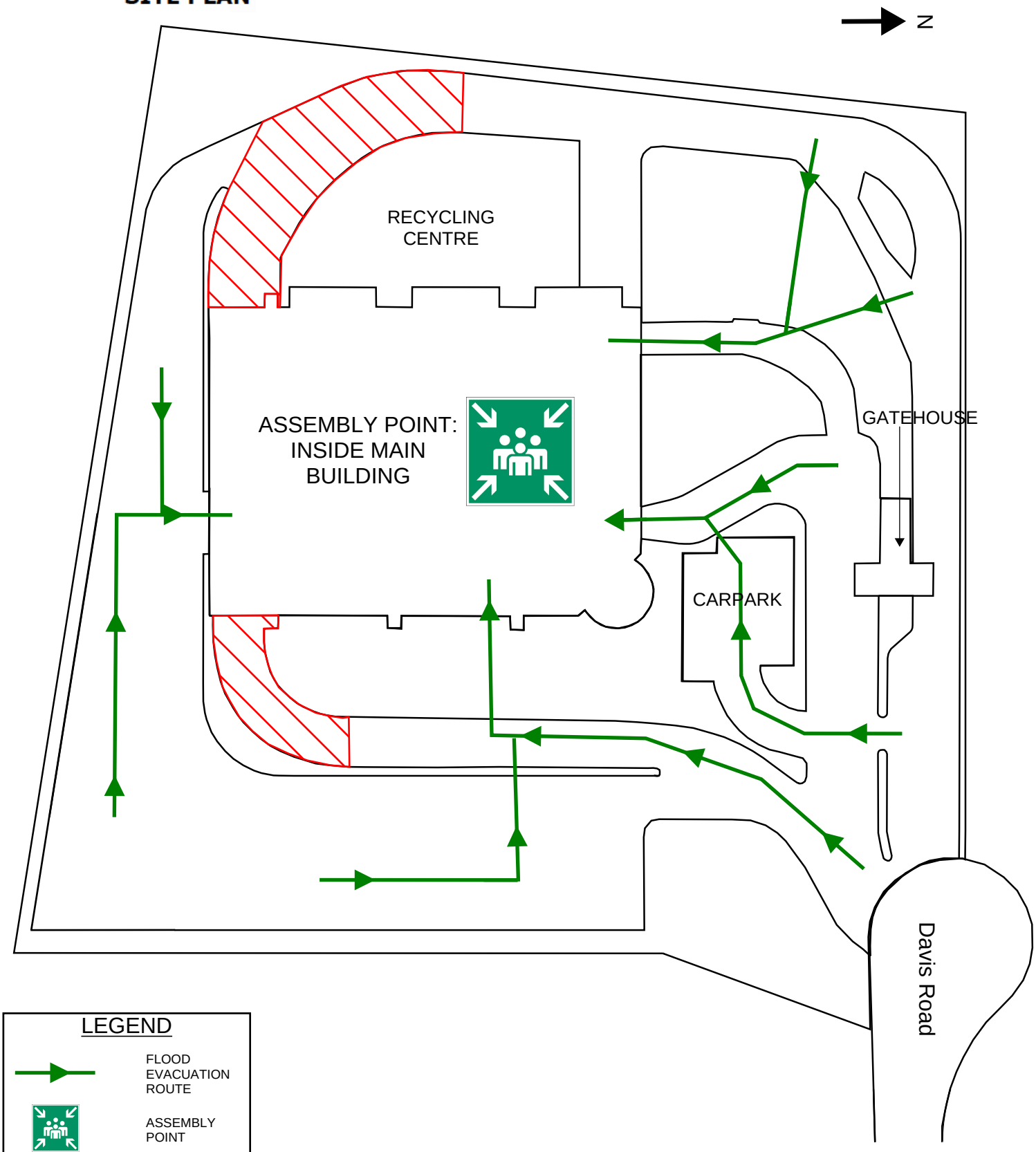
LEGEND

- 0.0m - 0.1m
- 0.1m - 0.3m
- 0.3m - 0.5m
- 0.5m - 1.0m
- >1.0m

Appendix B – Flood Evacuation Diagram

FLOOD EVACUATION DIAGRAM
SITA AUSTRALIA – WETHERILL PARK RESOURCE RECOVERY FACILITY

SITE PLAN



LEGEND

- FLOOD EVACUATION ROUTE
- ASSEMBLY POINT
- RAMP TO BASEMENT - TO BE AVOIDED

CONSTRUCTION WASTE MANAGEMENT PLAN
SUB-PLAN B4
FOR SUEZ RECYCLING & RECOVERY PTY LTD
20 DAVIS ROAD, WETHERILL PARK NSW

Prepared for: Elias F Maamari, Managing Director, Cornerstone Civil
SUEZ Recycling & Recovery Pty Ltd

Prepared by: Linda Zanotto, Senior Environmental Engineer
R T Benbow, Principal Consultant

Report No: SubPlan B4_171227_WMP_Rev4
June 2019
(Released: 24 June 2019)

Benbow ENVIRONMENTAL

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Approved by:	Position:	Signature:	Date:
R T Benbow	Principal Consultant		24 June 2019

DOCUMENT REVISION RECORD

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3	2-11-2018	Rev3	E Hansma	R T Benbow
4	24-06-2019	Rev4	L Zanotto	R T Benbow

DOCUMENT DISTRIBUTION

Revision	Issue Date	Issued To	Issued By
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2	18-10-2018	SUEZ Recycling and Recovery Pty Ltd—Wetherill Park	Benbow Environmental
3	2-11-2018	SUEZ Recycling and Recovery Pty Ltd—Wetherill Park	Benbow Environmental
4	24-06-2019	SUEZ Recycling and Recovery Pty Ltd—Wetherill Park	Benbow Environmental

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Contents

Tables

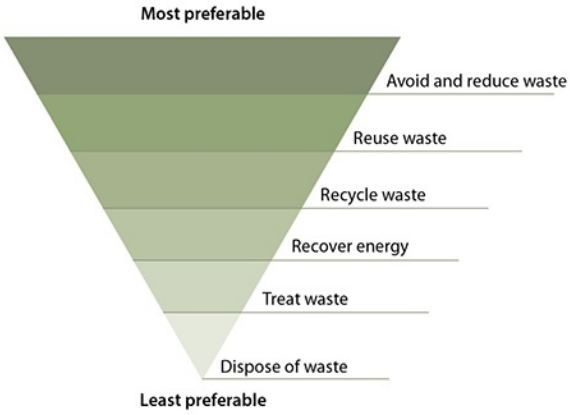
Appendices

1. INTRODUCTION

This Construction Waste Management Plan (CWMP) is a sub-plan that documents the procedures for classifying, managing and recycling or disposing of waste generated from the excavation and construction of the proposed modifications of the Waste Transfer Station (WTS) at 20 Davis Road, Wetherill Park, NSW (the "subject site").

This sub-plan forms part of the Construction Environmental Management Plan (CEMP) developed for the construction phase of the modifications to the subject site. The proposed development includes the construction of hardstand areas for entry and exit ramps and additional truck and trailer parking, installation of new plant equipment and minor building modifications, additional stormwater infrastructure and an additional heavy vehicle exit from the main transfer building.

This construction waste management plan encourages waste minimisation and resource recovery in line with the principles of Ecologically Sustainable Development (ESD) demonstrated in the following diagram:



1.1 DEFINITIONS

Waste includes:

a) any substance whether solid, liquid or gaseous that is discharged, emitted or deposited in the environment in such volume, constituency or manner as to cause an alteration in the environment; or

b) any discarded, rejected, unwanted, surplus or abandoned substance; or

c) any otherwise discarded, rejected, unwanted, surplus or abandoned substance intended for sale or for recycling, reprocessing, recovery or purification.

Waste must be classified in accordance with the NSW EPA Waste Classification Guidelines as follows:

- Special waste;
- Liquid waste;
- Hazardous waste;
- Restricted solid waste;
- General solid waste (putrescible); and
- General solid waste (non-putrescible).

Classification of waste enables the generator to determine the appropriate handling, transport and disposal requirements if the waste cannot be reused or recycled. Waste classes are defined as follows:

Special Waste
Special waste means any of the following:

- *Clinical and related waste*
- *Asbestos waste*
- *Waste tyres*

Liquid Waste
Liquid waste is waste that has an angle repose <5 degrees; waste that becomes free flowing at or below 60ºC and is not generally capable of being picked up by a spade or shovel.

Hazardous Waste
Hazardous waste is waste with a pH ≤ 2 or ≥12.5 and containers that have not been cleaned and contained dangerous goods within the meaning of the Australian Code for the Transport of Dangerous Goods by Road and Rail.

General Solid Waste (Putrescible)
General solid waste (putrescible) is waste from litter bins collected by local councils, food waste and grit or screenings from sewage treatment systems that have been dewatered so that the grit of screenings do not contain free liquids.

General Solid Waste (Non-Putrescible)
General solid waste (non-putrescible) is paper or cardboard, glass, plastic, rubber, plasterboard, ceramic, bricks, concrete or metal and containers previously containing dangerous goods as defined under the Australian Code for the Transport of Dangerous Goods by Road and Rail, from which residues have been removed by washing or vacuuming.

2. LEGAL AND OTHER REQUIREMENTS

2.1 LEGISLATION

Legislation relevant to waste include:

- Protection of the Environment Operations Act 1997;
- Protection of the Environment (Waste) Regulation 2014;
- Waste Avoidance and Resource Recovery Act 2001; and
- Contaminated Land Management Act 1997.

Provisions of the above legislation in relation to construction of the project are addressed in the Attachment A1 of the CEMP.

2.2 DEVELOPMENT CONSENT CONDITIONS

Development consent conditions relating to construction waste include:

B2: The Applicant shall ensure any waste generated on the site during construction is classified in accordance with the EPA's Waste Classification Guidelines, 2014 or its latest version, and disposed of to a facility that may lawfully accept the waste.

2.3 EPL CONDITIONS

An Environmental protection licence is required for the scheduled development works (construction). EPL conditions may therefore apply.

2.4 GUIDELINES AND OTHER WASTE DOCUMENTATION

Guidelines and other waste documentation that apply to the construction of the project include:

- Waste Classification Guidelines (EPA, 2014); and
- Waste Avoidance and Resource Recovery Strategy 2014-2021 (EPA, 2014).

3. MANAGEMENT OF CONSTRUCTION WASTE

Where waste generation during construction is unavoidable, waste will need to be classified, appropriately managed on site and then either reused, recycled or disposed of.

3.1 WASTE CLASSIFICATION

Waste is classified in accordance with the NSW EPA's *Waste Classification Guidelines Part 1: Classifying Wastes*. The six (6) waste classes include:

1. Special waste;
2. Liquid Waste;
3. Hazardous Waste;
4. Restricted Solid Waste;
5. General Solid Waste (Putrescible); and
6. General Solid Waste (Non-putrescible).

Definitions for these waste classes are presented in Section 1.1 of this CWMP.

The steps to classify wastes need to be followed in order until the waste classification is determined. Steps are summarised as follows:

Step 1: Is the waste special waste?

Special wastes include: Clinical and related wastes, waste tyres and asbestos. Definitions are provided in the guidelines. If the waste is special waste, no further assessment of the waste is required unless the waste is mixed with restricted solid or hazardous waste.

Step 2: Is the waste liquid waste?

If the waste is not special waste, determine whether the waste is liquid waste. To be defined as liquid waste, the waste must have an angle of repose of less than 5° above horizontal, becomes free-flowing at or below 60 Celsius and is generally not capable of being picked up by a spade or shovel.

If the waste meets this criteria, it is classified as liquid waste and no further assessment is required.

Step 3: Is the waste pre-classified?

If the waste is not special or liquid waste, is it listed under the guidelines as pre-classified? The EPA have classified some commonly generated waste types as hazardous, general solid waste (putrescible) and general solid waste (non-putrescible).

If a waste is pre-classified, no further assessment is required.

Step 4: Does the waste possess hazardous characteristics?

If a waste is not special, liquid or pre-classified, the waste is classified as hazardous if it is a dangerous good under the *Transport of Dangerous Goods Code*. These include:

- Class 1: Explosives;
- Class 2: Gases;
- Class 4.1: Flammable solids;
- Class 4.2 Substances liable to spontaneously combust;
- Class 4.3 Substances when in contact with water emit flammable gases;
- Class 5: Oxidising agents and organic peroxides;
- Class 6.1: Toxic substances; and
- Class 8: Corrosive substances.

Step 5: Determining a waste's classification using chemical assessment.

Where the waste cannot be classified under steps 1-4 above, the waste must be chemically assessed or classify the waste as hazardous. The testing of contaminants is set out in the guidelines.

Step 6: Is the waste putrescible or non-putrescible?

Where a waste has been classified as "general solid waste" in step 5, further assessment may be undertaken to determine whether the waste can be classified as 'general solid waste (putrescible)' or 'general solid waste (non-putrescible)'. If this assessment is not undertaken, the waste must be classified as 'general solid waste (putrescible)'

3.2 Resource Recovery Orders and Exemptions

Resource recovery orders and exemptions are issued by the NSW EPA under the Waste Regulation. Resource recovery orders apply to generators and processors of waste/resource and exemptions apply to consumers of the waste/resource. In relation to the project, the following could potentially apply to the construction works:

- The excavated natural material order 2014.

For material to be classified as excavated natural material (ENM), the order lists certain chemical concentrations that must not be exceeded. Excavated material encountered during the construction works could potentially be removed as ENM under the order.

3.3 Construction Waste Streams

The following waste is expected to be generated during the construction works. The expected waste classification and proposed management of each waste type is provided.

Table 3-1: Construction Waste Streams

Waste Name	Classification*	Storage	Management
Cleared vegetation	General solid waste (non-putrescible)	Stockpiles	Off site
Excavated material	To be classified	Stockpiles	Reuse as fill material on site. Any overburden to be removed in accordance with the Protection of the Environment Operations (Waste) Regulation 2014 and The Excavated Natural Material Order 2014.
Concrete waste	General solid waste (non-putrescible)	5 m^3 skip bin	A designated bin for building and construction waste shall be located in the construction works area. Waste collected in this bin can be sent to the on-site transfer station within the existing facility.
Wash water	Liquid waste	Bunded area	Taken off site. If required, a small temporary bunded area would be established where concrete trucks wash out. The liquid would evaporate, and sediment solidifies. Solids would be disposed of with general waste.
Formwork and offcuts	General solid waste (non-putrescible)	5 m^3 skip bin	A designated bin for building and construction waste shall be located in the construction works area. Waste collected in this bin can be sent to the on-site transfer station within the existing facility or another SUEZ waste facility.

Table 3-1: Construction Waste Streams

Waste Name	Classification*	Storage	Management
Steel and steel reinforcement offcuts	General solid waste (non-putrescible)	5 m^3 skip bin	A designated bin for building and construction waste shall be located in the construction works area. Waste collected in this bin can be sent to the on-site transfer station within the existing facility or another SUEZ waste facility.
Packaging including cardboard and plastic	General solid waste (non-putrescible)	5 m^3 skip bin	A designated bin for packaging waste shall be located in the construction works area. This waste can be sent to the on-site transfer station within the existing facility or another SUEZ waste facility.
Lunchroom waste	General solid waste (putrescible)	SUEZ Waste Bins	Disposed of in SUEZ waste bins.
Contaminated soil (if unearthed during excavation)	To be classified	Stockpiles segregated as per unexpected finds protocol.	Contaminated soil shall not be disturbed, removed or disposed offsite. If unearthed, the unexpected finds protocol (Sub-Plan B5) shall be followed.

* Waste classification according to *Waste Classification Guidelines* provided.

4. WASTE MANAGEMENT, REUSE, RECYCLING AND DISPOSAL

The following sections detail the on-site and off-site management of wastes expected to be generated during construction works.

4.1 MANAGEMENT OF WASTE

4.1.1 General Solid Waste

- All waste material must be stored away from waterways and stormwater drains in designated waste skip bins. Bins must be covered when not in use to prevent litter escaping during strong winds.
- Waste skip bins are to be labelled identifying the type and source of the waste.
- All wastes must be segregated wherever possible.
- Wherever possible to do so, wastes are to be reused or segregated and sent to the SUEZ transfer station on-site for recycling or further processing off-site.
- All non-recyclable waste materials shall be removed from site by a licensed waste contractor and sent to an appropriate waste disposal facility.
- A register of wastes removed from site should be maintained by the Site Manager. A sample spreadsheet is provided as Appendix 1 for recording waste management activities.
- Should wastes that have not been identified in the above table be generated at the site, the company has a responsibility to classify these wastes to ensure that management is in compliance with waste legislation.

4.1.2 Excavated Material, Spoil, Stockpiles

- Any on-site stockpiling of excavated material shall be undertaken in accordance with the procedure: Water Management and Sediment Control in Attachment A4 and the Erosion and Sediment Control Plan (Sub-Plan B2).
- Any excavated material that is to be removed off site must be classified by a suitably qualified person in accordance with the Waste Classification Guidelines and/or The Excavated Natural Material Order 2014.
- In the event of an unexpected find such as potentially contaminated soil, follow the Unexpected Finds Protocol in Sub-Plan B5.
- Sampling and analysis to determine classification shall be undertaken by a NATA certified laboratory.
- Appropriate disposal and management options of excavated material shall be determined based on its classification by a suitably qualified person. A licensed waste contractor would be able to assist.

- A licensed waste contractor shall remove all excavated material from site in a covered transport vehicle.

4.1.3 Hazardous Waste

- Although not expected, any hazardous waste generated, such as minor volumes of waste oils and lubricants are to be collected in the appropriate receptacles (original or equivalent) for the material. Any receptacles used must be labelled appropriately, including any dangerous goods class signs if relevant.

- Hazardous waste is to be kept on an undercover bunded pallet and stored in a secured area before removal by a licensed contractor.

- All spilled hazardous chemicals and materials used for clean-up are to be disposed of by a licensed contractor.

4.2 DESIGNATED WASTE AREAS

Designated waste areas would be established and maintained throughout the construction period. Due to the nature of the construction work, waste storage areas may need to be moved to different locations depending on the location and type of the works being undertaken each week. The following outlines the waste storage areas required:

Area 1: Waste Bins

Waste bins would be located in a suitable area and consist of up to 3 x 5 m^3 skip bins for the following materials:

- Bin 1: Building and construction waste including concrete, formwork and offcuts;
- Bin 2: Scrap steel bin; and
- Bin 3: Packaging Waste.

Once full, these bins would be processed within the transfer building at the existing facility on site or another SUEZ waste facility.

Area 2: Temporary Stockpiles

Temporary stockpiles would be established in the south western corner of the site. A sediment fence would be provided to stockpiles at the downstream end as required to prevent escape of sediment. Any unexpected finds material would be segregated in a separate stockpile in accordance with the unexpected finds protocol in Sub-Plan B5.

Lunchroom waste is considered to be minor. Waste receptacles would be provided for this waste type and disposed of in receptacles and then in the general waste bins provided for normal site operations.

4.3 MONITORING

Monitoring of waste generated during construction would be undertaken using the waste register in Appendix 1 and conducting regular site inspections in accordance with the Procedure: Site Inspection Checklist provided in Attachment A4 to the CEMP.

Visual inspection of the waste areas established during construction would be undertaken and include checking for litter and windblown waste, stockpiles, storage containers are covered and labelled correctly, storage containers are not overflowing and correct bin types are used.

5. REPORTING AND RECORDS

A Site Inspection Checklist (see Attachment A4 of the CEMP) has been prepared to assist staff in checking that all procedures and equipment used to control and mitigate potential pollution generated by site activities are functioning effectively. A sample waste register has been provided as Appendix 1 of this document to assist in recording of waste generation and management during construction.

Any issues or non-conformances noted during workplace inspections must be recorded. Documentation for any corrective and preventative actions must also be maintained, as described in the *Corrective and Preventative Actions* section of the CEMP. Any other relevant records must also be kept for inspection by regulatory authorities.

This concludes the report.

Linda Zanotto
Senior Environmental Engineer

R T Benbow
Principal Consultant

6. LIMITATIONS

Our services for this project are carried out in accordance with our current professional standards for site assessment investigations. No guarantees are either expressed or implied.

This report has been prepared solely for the use of SUEZ Recycling and Recovery Pty Ltd—Wetherill Park, as per our agreement for providing environmental services. Only SUEZ Recycling and Recovery Pty Ltd—Wetherill Park is entitled to rely upon the findings in the report within the scope of work described in this report. Otherwise, no responsibility is accepted for the use of any part of the report by another in any other context or for any other purpose.

Although all due care has been taken in the preparation of this study, no warranty is given, nor liability accepted (except that otherwise required by law) in relation to any of the information contained within this document. We accept no responsibility for the accuracy of any data or information provided to us by SUEZ Recycling and Recovery Pty Ltd—Wetherill Park for the purposes of preparing this report.

Any opinions and judgements expressed herein, which are based on our understanding and interpretation of current regulatory standards, should not be construed as legal advice.

APPENDICES

Appendix 1: Construction Waste Register

RECORD OF WASTE MANAGEMENT ACTIVITIES

Date	Waste Description	Form	Classification	Tracking Required	Consignment No.	Quantity Disposed	Destination
				YES / NO			
				YES / NO			
				YES / NO			
				YES / NO			
				YES / NO			
				YES / NO			
				YES / NO			
				YES / NO			
				YES / NO			
				YES / NO			
				YES / NO			
				YES / NO			
				YES / NO			
				YES / NO			
				YES / NO			
				YES / NO			
				YES / NO			

Notes: **Form** (Solid, Liquid, Sludge);
Classification (Waste Classification Guidelines: Special, Liquid, Hazardous, Restricted Solid Waste, General Solid Waste (Putrescible) or General Solid Waste (Non-Putrescible)));
Tracking Required (circle Yes/No). Tracking is required wastes shaded in the table;
Quantity Disposed (specify unit - m^3, kg, tonnes, Litres);
Destination (Recycling, disposal, reuse, specify contractor).

UNEXPECTED FINDS PROTOCOL
SUB-PLAN B5
FOR SUEZ RECYCLING & RECOVERY PTY LTD
20 DAVIS ROAD, WETHERILL PARK NSW

Prepared for: Elias F Maamari, Managing Director, Cornerstone Civil
SUEZ Recycling & Recovery Pty Ltd

Prepared by: Linda Zanotto, Senior Environmental Engineer
R T Benbow, Principal Consultant

Report No: SubPlan B5_171227_UFP_Rev1
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DOCUMENT CONTROL

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Contents

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1. INTRODUCTION

This Unexpected Finds Protocol is a sub-plan prepared for the excavation and construction of the proposed modifications of the Waste Transfer Station (WTS) at 20 Davis Road, Wetherill Park, NSW (the "subject site").

The purpose of the unexpected finds protocol is to facilitate the process of dealing with contamination or suspect material found on site during the excavation/construction phase. The procedures provided enable the identity of any suspect material or contamination to be confirmed and deal with any unexpected or non-conforming wastes such as asbestos.

This sub-plan forms part of the Construction Environmental Management Plan (CEMP) developed for the construction phase of the modifications to the subject site. The proposed development includes the construction of hardstand areas for entry and exit ramps and additional truck and trailer parking, installation of new plant equipment and minor building modifications, additional stormwater infrastructure and an additional heavy vehicle exit from the main transfer building.

1.1 SCOPE OF WORKS

The scope of this report is limited to the following:

- Define "unexpected find', "suspect material" and "contamination" and describe how this material is identified.
- Provide a detailed step by step procedure for handling, treatment, on-site management and testing (if required) of unexpected finds.
- Prepare a flowchart of the above procedure for ease of use and training purposes.

1.2 DEFINITIONS

The following definitions are of relevance:

Acid Sulfate Soil (ASS)
Acid sulfate soils (ASS) are those naturally occurring sediments and soils which contain sulfides, mainly iron sulfide and iron disulfide or their precursors. Exposure of these sulfides in the soil to oxygen – often as a result of drainage or excavation – can produce sulfuric acid, which may have a significant impact on the environment. (NSW EPA)

Asbestos
Asbestos is a group of naturally-occurring fibrous minerals that were used in many buildings during the 1980's. When disturbed, asbestos can generate fibres that are hazardous to human health. Breathing in asbestos fibres can lead to diseases such as asbestosis, lung cancer and mesothelioma. (NSW Government)

Contaminated Material
Materials that contain substances that are of sufficient concentration to potentially cause harm to human health or the environment. (EPA Act)

Potential Acid Sulfate Soils (PASS)
Potential ASS are soils that contain iron sulfides or sulfidic materials that have not been exposed to air and thus are not oxidised. (NSW EPA).

Unexpected finds
Suspect materials identified by unusual staining, odour, discolouration or inclusions such as building rubble, asbestos, ash material, animal material etc.(NSW EPA)

1.3 DEVELOPMENT CONSENT CONDITIONS

Development consent conditions relating to unexpected finds include:

B2: The Applicant shall ensure any waste generated on the site during construction is classified in accordance with the EPA's Waste Classification Guidelines, 2014 or its latest version, and disposed of to a facility that may lawfully accept the waste.

B44: Prior to commencement of Stage 1 construction, the Applicant must prepare an unexpected finds protocol to ensure that potentially contaminated material is appropriately managed, the protocol must form part of the CEMP required by Condition C1 and must ensure any material identified as contaminated must be disposed off-site with the disposal location and results of testing submitted to the Secretary, prior to its removal from the site.

C1: The Applicant must prepare a Construction Environmental management Plan (CEMP) to the satisfaction of the Secretary. The CEMP must:

a) be prepared to the satisfaction of the Secretary prior to commencement of Stage 1 construction and Stage 2 construction;
b) identify the statutory approvals that apply to the Development;
c) Unexpected finds protocol (see Condition B44);
d) outline all environmental management practices and procedures to be followed during construction works associated with the Development;
e) explain the controls that would be implemented to minimise dust emissions during construction of the Development;
f) describe activities to be undertaken on the site during construction of the Development , including a clear indication of construction stages;
g) detail how the environmental performance of the construction works will be monitored, and what actions will need to be taken to address identified adverse environmental impacts;
h) describe the roles and responsibilities for all relevant employees involved in construction works associated with the Development; and
i) include the management plans required under Condition C2 of this consent.

C2: As part of the CEMP required under Condition 1 of this consent, the Applicant must include the following:

a) Flood Emergency Response Plan (FERP)
b) Erosion and Sediment Control Plan
c) Unexpected Finds Protocol (See Condition B44)

2. UNEXPECTED FINDS

During the course of the construction works, inspections need to be undertaken of any disturbed material such as excavated soil.

An unexpected find includes:

> *Suspect materials identified by unusual staining, odour, discolouration or inclusions such as building rubble, asbestos, ash material, animal material etc.*

There could be many kinds of "suspect material" encountered during excavation works including:

- Buried wastes such as containers, drums, rubble, asphalt and other such items;
- Asbestos or other similar fibro material, gyprock or plasterboard;
- Contaminated soil – identified by discolouration, staining or odour; and
- Acid sulfate soils or Potential acid sulfate soils.

If such material is encountered at any stage of earthworks, site preparation or construction then the following steps should be taken:

1. Cease work immediately. Do not touch the suspect material.

2. Contact the Principal Contractor and inform of findings.

3. Set up temporary barricades (tape, bunting, or temporary fencing) to segregate the material and prevent access to the area.

4. Install erosion and sediment controls if necessary. Such controls include hay bales, geotextile fences and sediment barriers to prevent rainwater from transferring the suspect material off site.

5. Cover any stockpiled material containing the suspect material with tarps or plastic sheeting.

6. Arrange inspection by a suitably qualified person to confirm identification of the suspect material. Sampling and testing will be undertaken as recommended by this consultant.

7. If material is confirmed to be contaminated, a remedial action plan (RAP) may need to be prepared to deal with the material. The need for this report would be decided in consultation with the Department.

8. The RAP would need to be reviewed by the Department prior to any remediation works commencing.

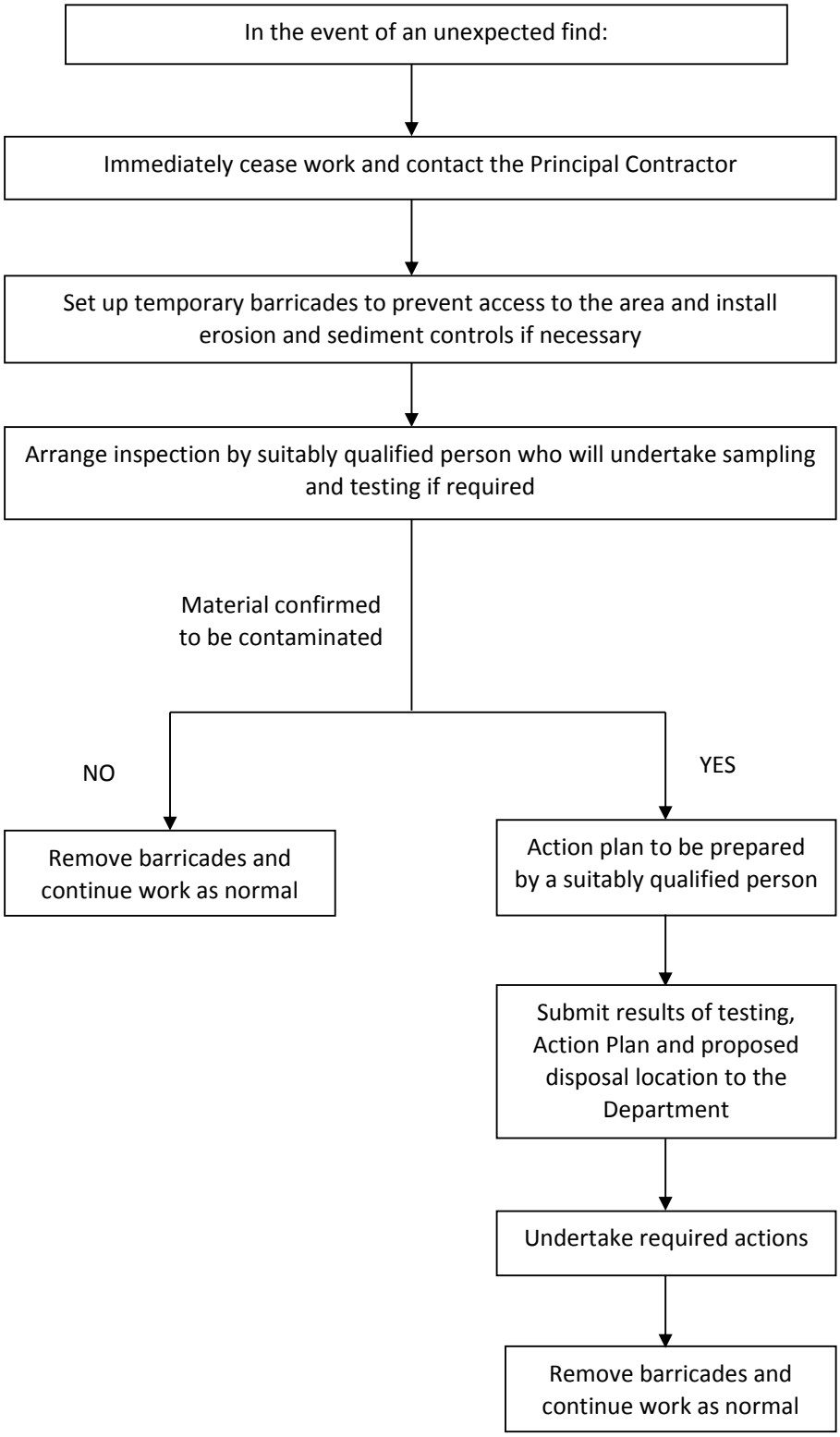
9. If the material is not contaminated and poses no threat to the human health or the environment, the barricades can be removed and work can continue as normal.

10. Record details of any unexpected find in the incident register.

A flowchart that includes the steps above has been provided for guidance in Section 2.1.

For specific instructions regarding the types of suspect material, information has been provided in the sub-sections following.

2.1 UNEXPECTED FINDS FLOWCHART



2.1.1 Identifying Asbestos

Personnel trained in identification of suspect asbestos must be on site during excavation activities to observe material being excavated and check for the presence of asbestos. Excavator operators often have been trained to identify asbestos fragments in the material as it is dug up.

The minimum training requirement for personnel at the site undertaking asbestos identification is an “asbestos awareness course”.

Where suspect asbestos is identified in buildings to be demolished, a licenced asbestos contactor shall be used for removal and disposal of asbestos.

Where suspect asbestos fragments are identified in excavated material, the material must immediately be wetted down and this unexpected finds protocol shall be followed.

Confirmation of asbestos containing material shall be undertaken by sampling and testing using a suitably qualified consultant.

Example photographs of unexpected finds of asbestos fragments are shown below:

Asbestos fragments found in excavated material

2.1.2 Buried Wastes

Buried wastes are usually associated with poor waste management and/or illegal disposal of waste to land undertaken historically on the land. Buried wastes can include:

- Buried demolition wastes such as concrete, rubble, asphalt, bricks, tiles, timber, glass, piping and plastics;
- Buried industrial wastes including chemical containers or drums, ash, scrap metal and paint; and
- Buried domestic wastes such as plastic bags, cans, cardboard, paper, fabrics and food wastes.

Example pictures of buried wastes are shown below:

Buried Wastes

2.1.3 Contaminated Soil

Contaminated soil can be identified by discolouration, staining and/or unpleasant or unusual odour. If these attributes are encountered during excavation, the Principal Contractor needs to be informed immediately upon the find and a decision needs to be made as to whether the issue requires further investigation.

Examples of potentially contaminated soils are provided in the photographs below:

Potentially contaminated soil – is discoloured and often has an unpleasant or unusual odour




2.1.4 Identifying actual and potential acid sulfate soils (PASS)

A search from the Atlas of Australian Acid Sulfate Soils database developed by the CSIRO shows that there is an extremely low probability of occurrence of acid sulfate soils on the subject site or within close proximity to the site. Nevertheless, precautions need to be taken should the presence of PASS be found during excavation works.

Potential acid sulfate soils (PASS) have the following characteristics:

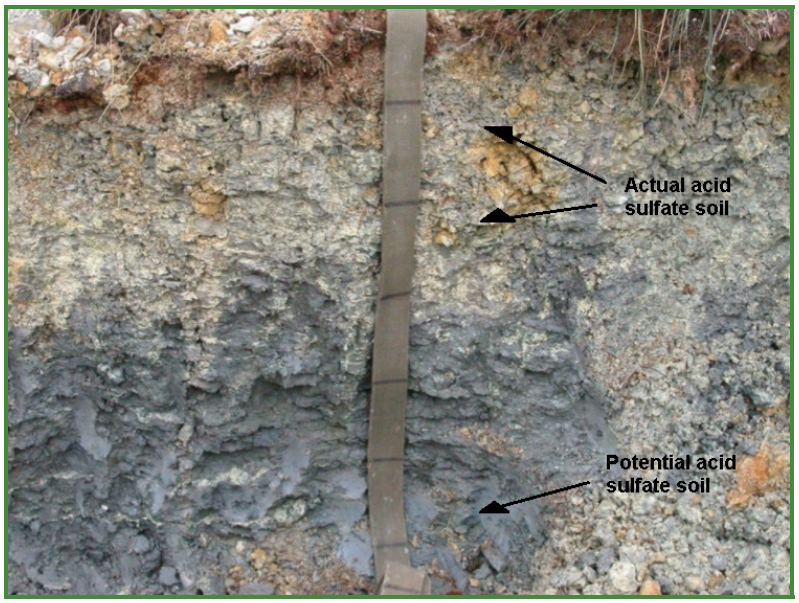
- Always wet, usually entirely saturated and not easy to walk on;
- Steely blue-grey in colour;
- May contain organic materials such as remnants of grass or plants;
- A strong smell of rotten eggs would be present.

Actual Acid sulfate soils (ASS) have the following characteristics:

- Dry with strong blocky structure;
- Dark to pale brown in colour;
- Will often contain yellow and orange mottling (spots blotches or streaks of colours that differ from the soil matrix colour).

Figure 2-1 provides a photographic example of potential acid sulphate soils and actual acid sulphate soils.

Figure 2-1: Potential and actual acid sulfate soils



Should the presence of the above characteristics be evident in the excavated material, works must cease immediately and the unexpected finds protocol must be followed.

2.2 SAMPLING AND TESTING

Any sampling and testing required for unexpected finds shall be undertaken in accordance with the following relevant guidelines and legislation:

- Sampling Design Guidelines (NSW EPA, September 1995);
- NEPC (2013), "National Environmental Protection (Assessment of Site Contamination Amended Measure (NEPM)", May 2013;
- AS 4482.1-2005 Guide to the investigation and sampling of sites with potentially contaminated soil;
- NEPC (2013) National Environmental Protection (Assessment of Site Contamination) Schedule B (1) Guideline on the Investigation Levels for Soil and Groundwater;
- lines for Consultants Reporting on Contaminated Sites NSW OEH (EPA) August 2011;
- Guidelines for the NSW Site Auditor Scheme (3rd Edition);
- NEPM Assessment of Site Contamination (NEPC, 1999);
- Acid Sulfate Soils Assessment Guidelines in 'Acid Sulfate Soils Manual 1998' (ASSMAC);
- Waste Classification Guidelines, Part 1: Classifying Waste, (NSW EPA); and
- Compliance with the Environmental Planning and Assessment Regulation 2000.

Analysis of samples shall be undertaken by a NATA accredited laboratory.

2.3 INSPECTION AND RECORDS

Any unexpected find must be recorded in an incident register. The following information shall be recorded:

- Date and time of the incident/unexpected find;
- Details of the type of material found such as description of material, any discolouration, odour or other information;
- Location of the suspect material;
- Immediate action taken in relation to the find;
- Name and contact information for the suitably qualified person undertaking any required investigations;
- Copy of any sampling and testing results or reports to confirm the identification of the suspect material;
- Copy of any remedial action plan prepared;
- Correspondence with Penrith City Council concerning the unexpected find;
- Details of actions undertaken; and
- Any other relevant matters.

Documentation for any testing, corrective and preventative actions must also be maintained, as described in the *Corrective and Preventative Actions* section of the CEMP.

The results of any testing undertaken and proposed disposal location must be submitted to the Department prior to removal of material off site.

This concludes the report.

Linda Zanotto
Senior Environmental Engineer

R T Benbow
Principal Consultant

3. LIMITATIONS

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