Med-X Pty Ltd

Arndell Park Clinical Waste Management Facility

Operational Environmental Management Plan

Issue 2 | 18 December 2020

Job number 274648-00

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Glossary

Term	Definition
Clinical waste	Has the same meaning as the definition of the term in the Waste Classification Guidelines – Part 1: Classification of waste (NSW EPA, 2014)
CRM	Client Relationship Management system
CWMF	Med-X Clinical Waste Management Facility
DPIE	NSW Department of Planning, Industry and Environment
EIS	Environmental Impact Statement
EMP	Environmental Management Plan
EPA	NSW Environment Protection Authority
EP&A Act	*Environmental Planning and Assessment Act 1979* (NSW)
EP&A Regulation	Environmental Planning and Assessment Regulation 2000
EPL	Environment Protection Licence under the POEO Act
the facility	The Arndell Park Clinical Waste Management Facility
IMS	Integrated Management System
Incident	An occurrence or set of circumstances that causes or threatens to cause material harm and which may or may not be or cause a non-compliance Note: "material harm" is defined in this consent
kg	Kilograms
LEP	Local Environmental Plan
Med-X	Med-X Pty Ltd
Mitigation	Activities associated with reducing the impacts of the development prior to or during those impacts occurring
Monitoring	Any monitoring required under this consent must be undertaken in accordance with section 9.40 of the EP&A Act
MRV	Medium Rigid Vehicle
Non-compliance	An occurrence, set of circumstances or development that is a breach of this consent
OEMP	Operational Environmental Management Plan (this document)
Planning Secretary	Planning Secretary under the EP&A Act, or nominee
POEO Act	*Protection of the Environment Operations Act 1997* (NSW)
QEHS Policy	Quality Health Safety & Environment Policy
Related waste	Including cytotoxic, pharmaceutical and sharps waste. Has the same meaning as the definition of the term in the Waste Classification Guidelines – Part 1: Classification of waste (NSW EPA, 2014)
Response to Submissions report (RtS)	*Clinical Waste Management Facility, Arndell Park Response to Submissions and Amended Project Report for State Significant Development 6761* (Arup, 2020)
Sensitive receivers	A location where people are likely to work, occupy or reside, including a dwelling, school, hospital, office or public recreational area.
Site	The Arndell Park Clinical Waste Management Facility
SSD	State Significant Development
tpa	Tonnes per annum

Term	Definition
Waste	As per the definition in the POEO Act: 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, processing, recovery or purification by a separate operation from that which produced the substance, or (d) any processed, recycled, re-used or recovered substance produced wholly or partly from waste that is applied to land, or used as fuel, but only in the circumstances prescribed by the regulations, or (e) any substance prescribed by the regulations to be waste. A substance is not precluded from being waste for the purposes of this Act merely because it is or may be processed, recycled, re-used or recovered.

1 Introduction

1.1 Overview

Med-X Pty Ltd (Med-X) operate the Med-X Clinical Waste Management Facility (the facility) located within the Arndell Park Industrial Precinct at 9 Kenoma Place, Arndell Park (being Lot 14, DP 786328).

The facility has been approved to receive and process up to 2,300 tonnes per annum (tpa) of clinical and related wastes (including 2,000 tpa of clinical waste and 300 tpa of related wastes) between the hours of 7.00am and 7.00pm, Monday-Saturday (including any public holiday that falls on a Saturday). The waste will be collected and delivered to the facility by the collection fleet (8 MRVs and 8 vans) between the hours of 5am and 5pm.

All clinical waste undergoes non-thermal treatment before being collected and transported off-site to the Kemps Creek landfill site at 1725 Elizabeth Drive, Kemps Creek.

Related waste will be separated and stored on-site before being transferred by a waste contractor to a licenced incineration facility for thermal treatment. Currently related wastes are transferred to either Weston Thermal Solutions at 129 Mitchell Avenue, Kurri Kurri or Cleanaway Medical Waste Services, 2 Wiblin Street, Silverwater.

An associated site at 7 Vangeli Street, Arndell Park (being Lot 1005, DP 78815) (from this point on referred to as the parking depot) is used as a vehicle delivery depot and for the storage of clean sharp waste containers.

Development Consent for State Significant Development (SSD) 6761, comprising expansion of the facility, was granted by the NSW Department of Planning, Infrastructure and Environment (DPIE) on 28th September 2020 in accordance with Section 4.38 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The site is subject to operation in accordance with Environmental Protection Licence (EPL) 20233, issued by the NSW Environment Protection Authority (EPA) under the *Protection of the Environment Operations Act 1997* (POEO Act).

Med-X also hold Environmental Protection Licence (EPL) 12609 which provides a licence for the transport of category 1 and category 2 trackable waste.

This Operational Environmental Management Plan (OEMP) has been prepared to address the regulatory requirements for operation of the facility, and in the particular Conditions of the SSD 6761 Development Consent and the EPL.

1.2 Purpose, scope & objectives

The purpose of the OEMP is to ensure that there is appropriate and effective environmental management associated with operation of the facility and the parking depot. It is a practical, user-friendly document that provides clear direction for the Med-X staff responsible for its implementation.

The objectives of the OEMP are to:

- Provide an overview of the site operations
- Outline the Med-X environmental management framework
- Outline the relevant Conditions of Consent, the commitments made for the approved project, any other related legislative and compliance requirements, and how they will be met
- Provide an overview of the potential environmental impacts of the facility and the management and mitigation measures required
- Include the environmental risk assessment process that will be used to identify ongoing risks
- Identify the roles and responsibilities of personnel involved in environmental management
- Outline environmental training and awareness needs
- Provide a clear schedule of actions and processes that will be implemented to manage potential environmental impacts
- Document any environmental and compliance monitoring and reporting programs
- Include any strategies developed to drive continual environmental improvement
- Provide a guide for the interaction with relevant government authorities and other relevant stakeholders, including the community during the operational phase of the facility.

This OEMP is a live document. The management strategies and control measures detailed within it will be reviewed and updated, where necessary, to reflect changes introduced by the operational team, site specific outcomes, non-conformances and recommendations arising out of inspections, meetings and audits.

The OEMP audience is broad, and includes the participants identified in Figure 1.

Facility	Department	Stakeholders
•Med-X personnel •Contractors •Subcontractors	•Government agencies as required by the Conditions of Consent •Other regulators	•Clients •Community

Figure 1: The OEMP audience

1.3 Supporting environmental management plans

A series of supporting management plans have been developed in support of this OEMP. These plans are provided as Appendices to this OEMP as follows:

- Air Quality Management Plan (Appendix A)
- Waste Management Plan (Appendix B)
- Operational Traffic Management Plan (Appendix C)
- Environmental Pollution Incident Emergency Plan (Appendix D)
- Site Stormwater Plan (Appendix E).

1.4 OEMP reference guide

A quick find guide to key information contained in the OEMP is provided in Table 1.

Table 1: OEMP quick reference guide

Component	Section of the OEMP	Comments
Operational requirements	Sections 3.2.2 and 3.2.6	Outlines operational limits and hours of operation
Environmental mitigation measures and specific environmental conditions	Sections 3.5 and 3.6 (specifically Table 8)	Includes key actions required prior to commencement of operation, and a number of on-going actions for implementation during operation
Roles and responsibilities	Section 4.1	Outlines the roles and responsibilities of staff in relation to the OEMP
Environmental incident and emergency procedures	Section 4.3	Outlines actions to be implemented in the event of an environmental incident, emergency and/or event of non-compliance
Environmental management, reporting and auditing requirements	Section 4.6 (specifically Table 13 and Figure 8)	Outlines the environmental auditing and reporting schedule
Environmental monitoring programme	Sections 5.1	Outlines daily and other progressive monitoring required, that will provide a base for the environmental audits
Community and stakeholder engagement	Section 6	Overview of the external communication procedure

1.5 Supporting documentation

The following documents have been used to inform and support the OEMP and are outlined in Table 2 below.

Table 2 Supporting documentation

Document Title	Prepared by
Supporting Environmental Management Plans	
Air Quality Management Plan (AQMP)	Todoroski Air Sciences – Refer to Appendix A
Operational Traffic Management Plan (OTMP)	Arup – Refer to Appendix B
Waste Management Plan (WMP)	Arup – Refer to Appendix C
MXNSWEPL001 Environment Pollution Incident Emergency Plan	Med-X – Refer to Appendix D
MXNATQBCP001 Med-X Business Continuity Plan National	Med-X
Med-X Policies	
SXMXNATQPO2020017 Med-X National QEHS Policy	Med-X
SXMXNATPO2020044 Energy Conservation Policy	Med-X
SXMXNATPO2020051 Greenhouse Emissions Policy	Med-X
SXMXNATPO2020086 Waste Management Policy	Med-X
SXMXNATPO2020042 Emergency Management Policy	Med-X
SXMXNATPO2020053 Hazardous Chemicals Policy	Med-X
Med-X Integrated Management System (IMS) Procedures	
MXNATQMA110 Med-X IMS Manual	Med-X
MXNATQMA110 1 IMS Procedure Organisational Context	Med-X
MXNATQMA110 4 IMS Procedure Hazard Identification & Assessment	Med-X
MXNATQMA110 2 IMS Risks & Opportunities	Med-X
MXNATQMA110 9 IMS Procedure Competence & Awareness	Med-X
MXNATQMA110 19 IMS Procedure Emergency Situations	Med-X
MXNATQMA110 25 IMS Procedure Incident Investigation	Med-X
MXNATQMA110 26 IMS Procedure Continual Improvement	Med-X
MXNATQMA110 24 IMS Procedure Non-conformity & Corrective Action	Med-X
MXNATQMA110 20 IMS Procedure Customer Satisfaction	Med-X
MXNATQMA110.10 IMS Procedure Communication & Participation	Med-X
MXNATQMA110 21 IMS Procedure Data Analysis & Evaluation	Med-X
MXNATQMA110 22 IMS Procedure Internal Audits	Med-X
MXNATQMA110 6 IMS Procedure Objectives, Targets & Indicators	Med-X
Operational Procedures	
MXNATQPR314 Med-X Monitoring Treatment Facility Procedures	Med-X
Other	
Med-X Aspects National Register	Med-X

2 Regulatory requirements and policy context

This section of the OEMP identifies the regulatory and policy requirements that relate to the OEMP, including:

- Legislative, regulatory, and other requirements such as permits and licences
- Conditions of consent
- Med-X corporate environmental policy.

2.1 Legal compliance requirements

Table 3 below identifies the relevant legal and compliance requirements that relate to the OEMP.

Table 3: Relevant legal and compliance requirements

Relevant legislation and regulating authority	Licence / approval	Date of issue	Licence / approval details
Environmental Planning and Assessment Act 1979 **– Blacktown City Council**	Development Consent, SSD 6761	28 September 2020	Operation of a clinical waste management facility to process up to 2,000 tonnes per annum of clinical waste and store up to 300 tonnes per annum of related waste at 9 Kenoma Place, Arndell Park and use of 7 Vangeli Street, Arndell Park for a delivery vehicle depot and clean sharp waste container storage.
Protection of the Environment Operations Act 1997 **(POEO Act) - EPA**	Environmental Protection Licence (EPL) 20233	13 November 2020 (variation to original licence issued 3 September 2013 and licence transferred to Med-X on 11 October 2017)	Licence for the following activities: • Storage of clinical and related wastes as defined in Schedule 1 of the POEO Act • Waste processing (non-thermal treatment) of clinical and related wastes as defined in Schedule 1 of the POEO Act, excluding cytotoxic waste, Pharmaceutical waste, Radiological waste and Volatile and Semi-volatile organic compounds (including formaldehyde, phenol and mercury).
Protection of the Environment Operations Act 1997 **(POEO Act) - EPA**	Environmental Protection Licence (EPL) 12609	27 November 2006 (licence transferred to Med-X on 30 October 2017)	Licence for the following activities: • Transport of category 1 trackable waste • Transport of category 2 trackable waste.
Protection of the Environment Operations Act 1997 **(POEO Act) - NSW Ministry of Health**	Certificate of Approval – Clinical Waste Treatment Method	11 March 2019	Approval for the treatment of clinical waste by autoclave at 140ºC for a minimum of 50 minutes at a pressure of 310 Kpa, followed by shredding and disposal at landfill, subject to the condition in Schedule 1 of the POEO Act.

The OEMP has also been developed in the context of the following legislation relevant to the operation of this facility:

- *Environmental Planning and Assessment Act 1979*
- *Protection of the Environment Operations Act 1997*
- *Dangerous Goods (Road and Rail Transport) Act 2008*
- The Protection of the Environment Operations (Waste) Regulation 2014
- The NSW Health Clinical and Related Waste Management for Health Services 2017
- NSW EPA Waste Classification Guidelines Part 1: Classifying Waste 2014

2.2 Conditions of consent

The OEMP relates to the Conditions of Consent for SSD 6761 provided by DPIE on 28th September 2020 (Refer to Appendix G).

Part B of the Conditions of Consent contains Specific Environmental Conditions, which have been included in Section 3.6 of the OEMP.

Part C of the Conditions of Consent relates to Environmental Management, Reporting and Auditing. These conditions have been included in Section 5 of the OEMP.

Specifically, Condition C2 outlines the requirement for an OEMP, and Condition C1 provides details on how the OEMP is to be prepared. These are presented in Table 4 along with the sections of the OEMP which address each item.

Table 4: Conditions of Consent related to preparation of the OEMP

Reference ID	Contents	Document reference
C1 (condition of C2)	Management plans required under this consent must be prepared in accordance with relevant guidelines, and include:	Appendix A - D
	(a) detailed baseline data;	
	(b) details of:	
	(i) the relevant statutory requirements (including any relevant approval, licence or lease conditions);	Section 2.1, 2.2
	(ii) any relevant limits or performance measures and criteria; and	Appendix A - D
	(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 5.1, Appendix A - D
	(c) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria;	Section 3.5
	(d) a program to monitor and report on the:	
	(i) impacts and environmental performance of the development; and	Section 5.1
	(ii) effectiveness of the management measures set out pursuant to paragraph (c) above;	Section 5.2

Reference ID	Contents	Document reference
	(e) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible;	Section 3.8
	(f) a program to investigate and implement ways to improve the environmental performance of the development over time;	Section 4.4, 5.2
	(g) a protocol for managing and reporting any:	
	(ii) complaint;	Section 4.4, 4.3.3
	(iii) failure to comply with statutory requirements; and	Section 4,4, 4.3.1, 4.3.2
	(h) a protocol for periodic review of the plan	Section 4.4, 5.2
C2	The Applicant must prepare an Operational Environmental Management Plan (OEMP) in accordance with the requirements of condition C1 and to the satisfaction of the Planning Secretary.	See C1 above.
C3	As part of the OEMP required under Condition C2 of this consent, the Applicant must include the following:	
	(a) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;	Section 3.5, 4.1
	(b) describe the procedures that would be implemented to:	
	(i) keep the local community and relevant agencies informed about the operation and environmental performance of the development;	Section 4.6
	(ii) receive, handle, respond to, and record complaints;	Section 4.3.3
	(iii) resolve any disputes that may arise;	Section 4.3.4
	(iv) respond to any non-compliance;	Section 4.3.2
	(v) respond to emergencies; and	Section 4.3.1
	(c) include the following environmental management plans:	
	(i) Air Quality Management Plan (see Condition B3);	Appendix A
	(ii) Waste Management Plan (see Condition B11); and	Appendix B
	(iii) Operational Traffic Management Plan (see Condition B20).	Appendix C

2.3 Med-X management system

Med-X utilises a series of equipment and systems to manage, monitor and organise their internal systems, procedures and processes. The interactions between these systems is shown in Figure 2.

Central to Med-X's management system is the Integrated Management System (IMS). The IMS integrates all of the organisations systems and processes into a complete framework enabling Med-X to work as a single unit.

The IMS exists as part of a larger strategy to establish, document and implement processes and integrate policies and objectives. This includes the Quality, Environment, Health and Safety (QEHS) policy, as shown in Figure 2. Similarly shown in Figure 2 is the relationship between the IMS and the Logistics Management and CRM systems. The IMS collects and utilises data from the Logistics Management and CRM systems to

monitor and improve Med-X's procedures and processes as required. For more detail on the relationship between the IMS, the CRM and the Logistics Management systems refer to Section 4.1 in the WMP.

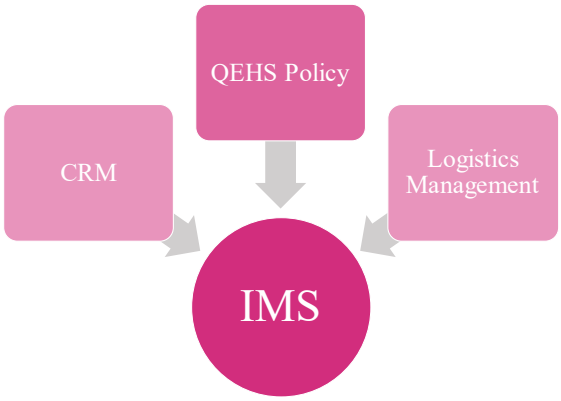

Figure 2: Relationship of Policies, IMS, and CRM.

2.4 Med-X environmental policy

The Med-X Quality, Health, Safety and Environment Policy sets to achieve the highest standards of quality, health and safety and environment and incorporate the principles of sustainable development throughout its nationwide business.

Med-X strives to conduct business in an environmentally responsible and sustainable way to ensure pollution is prevented and that Med-X operations protect the environment by minimising environmental impact.

To achieve this, Med-X are committed to:

- Implementing, maintaining, reviewing and continually improving the Med-X environmental management system to improve 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 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
- Reducing our environmental footprint by reducing greenhouse gas emissions
- Using environmentally sensitive products, practices and technologies where possible

- Being receptive to community concerns by engaging and listening to communities, customers, neighbours, industry groups and regulatory authorities to limit harm to the environment and people from our activities.

To achieve this, Med-X maintains a program for independent certification/ accreditation to the following standards:

- ISO 9001 Quality Management System
- ISO 45001 Occupational Health and Safety Management System
- ISO14001 Environmental Management System.

3 Facility overview

3.1 Site description

The Med-X Clinical Waste Management Facility consists of two sites in Arndell Park:

- 9 Kenoma Place (the facility / site), the location of the clinical waste management facility
- 7 Vangeli Street (the parking depot), used as a delivery vehicle parking depot and for storage of clean sharps waste containers.

Figure 3 shows the location of the two sites in relation to the surrounding area.

Both sites are zoned 'IN1 General Industrial' under the Blacktown Local Environmental Plan 2015 (Blacktown LEP) and are located within the established industrial precinct of Arndell Park. Surrounding land uses include other industrial and commercial businesses.

The site includes the following infrastructure:

- An enclosed and bunded building housing the warehouse (for the unloading, processing, handling, storage and treatment of waste and cleaning and storage of bins) and office facilities
- A 6m wide driveway entry providing heavy and light vehicle access from Kenoma Place
- Two distinct car parking areas providing 11 staff parking spaces in total, including one disabled space
- A hardstand area for operational vehicle servicing and manoeuvring
- A defined outdoor bin storage area adjacent to a stand-alone water tank and industrial radiator
- An LPG gas tank, with a guard rail and 6m exclusion zone marked in yellow paint and
- A bollard located adjacent to parking bay 11 to stop vehicles parking within the LPG gas tank exclusion zone
- A 75mm high and 455mm wide speed hump across the parking area (to provide a continuous bund).

The parking depot contains a warehouse building, a hardstand area accommodating parking for up to 19 vehicles and an enclosed storage shed for the storage of unused clinical sharps containers. Access between Vangeli Street and the parking depot is currently provided via an 8m wide access.

Figure 3: Location of facility and parking depot

3.1.1 Sensitive receivers

The key aspect for sensitive receivers is odour. Nine sensitive receivers were identified in the vicinity of the site, including six industrial receivers and three residential receivers (as shown on Figure 4). The closest waterway is Bungarribbe Creek, located 335 m to the north-east of the site.

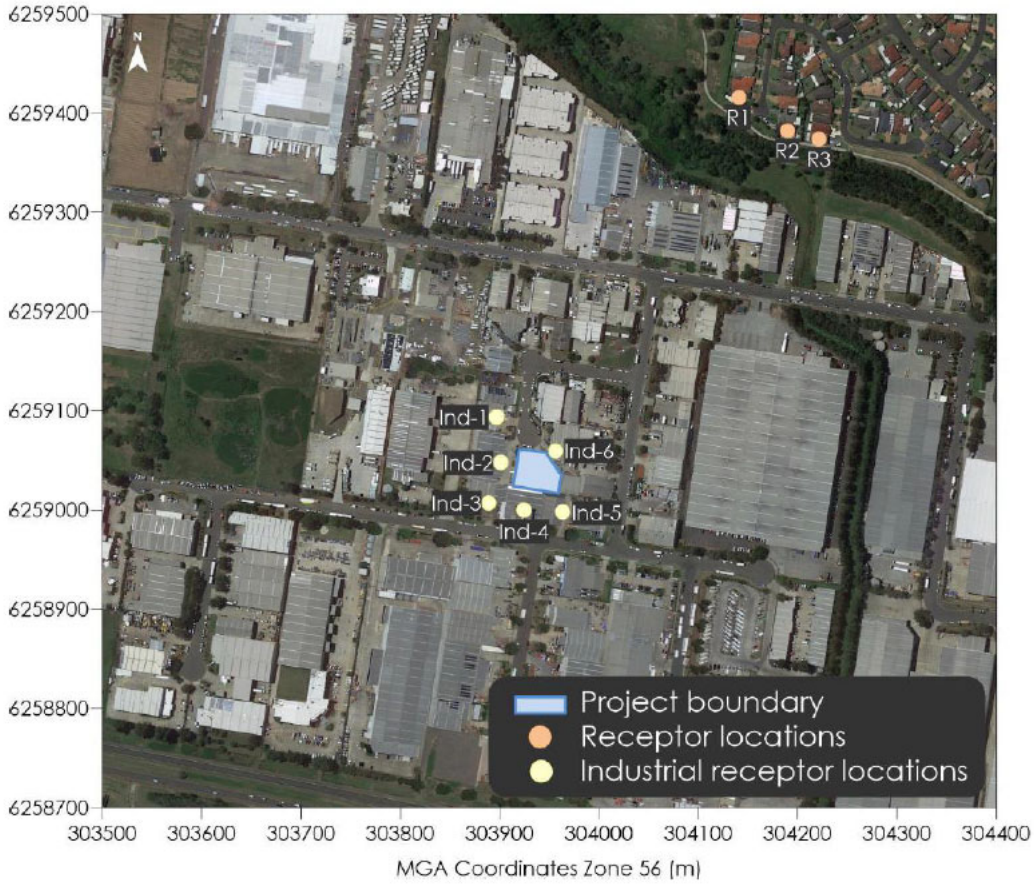

Figure 4: Nearest sensitive receivers

3.2 Operations overview

3.2.1 Waste types received

The type of wastes received at the facility includes:

- Clinical waste;
- Clinical sharps;
- Anatomical waste;
- Cytotoxic waste and; and,
- Pharmaceutical waste.

The site is currently permitted to store clinical and related wastes and undertake non-thermal treatment of clinical waste. Related waste[1] is not permitted to be treated on site and must be identified, separated and stored in a defined location, and then transported to an appropriate facility for further processing or disposal.

3.2.2 Hours of operation

The approved hours of operation are provided in Table 5.

Table 5: Hours of operation

Activity	Day	Time
Operation of Clinical Waste Management Facility at 9 Kenoma Place, Arndell Park	Monday – Saturday (including public holidays that fall on Saturday)	7 am – 7 pm
Operation of depot and storage facility at 7 Vangeli Street, Arndell Park	Monday – Saturday (including public holidays that fall on Saturday)	5 am – 7 pm

3.2.3 Vehicle movements

Med-X currently has its own collection vehicle fleet that collects clinical and related wastes. All Med-X vehicles and Med-X drivers hold current EPA transport licenses for clinical and related wastes as per the *Protection of the Environment Operations Act 1997 and Dangerous Goods (Road and Rail Transport) Act 2008.* All Med-X vehicles are driven by Med-X Drivers who are trained in the collection and transportation of clinical and related wastes. Personnel Digital Assistance (PDA) devices are used by all Med-X drivers to capture all relevant information for the generation of a transport certificate which is presented upon arrival to the Med-X treatment facility. This information is then captured by the Med-X Customer Relations Management System (CRM).

Table 6 below outlines the total number of delivery vehicles and vehicle movements for the facility. The maximum number of vehicles expected to arrive at the facility at once is two. Refer to the OTMP in Appendix C for details regarding the traffic management of the facility and refer to the WMP in Appendix B for details of the Med-X logistics system.

Table 6: Total staff and delivery numbers

Component	Total
Number of MRVs	8
Number of Vans	8
MRV waste deliveries per day	16
Van waste deliveries per day	16
Vehicle movements per day	32
Bulk bin collection per day	1

[1] In the context of this report related waste includes anatomical, cytotoxic, parametrical and clinical sharps waste

3.2.4 Waste Tracking

CRM and the associated tracking equipment[2] record's all relevant information from the point of collection to the final point of disposal. All clinical and related waste is tracked as per the EPA requirements and the *Protection of the Environment Operations (Waste) Regulation 2014.* Med-X uploads all relevant information from the Med-X CRM system to the EPA's online waste tracking system. For additional details regarding the Med-X waste tracking system and processes refer to Appendix B Waste Management Plan.

3.2.5 Waste receival and treatment process

Once the clinical and related waste is delivered to the site, operations consist of the following activities:

- Receipt of clinical and related wastes;
- Identification and separation of related waste;
- Cytotoxic, pharmaceutical and clinical sharps waste bins are transferred to their allocated storage areas;
- Anatomical waste is transferred to the allocated freezer for storage
- Non-thermal treatment within an autoclave followed by the shredding, compaction and storage of treated clinical waste;
- Contractor collection and transportation of treated clinical waste to an appropriate disposal facility;
- Contractor collection and transportation of related waste to an appropriate disposal facility;
- Washing and storage of waste bins; and
- Storage of clean, unused bins.

Clinical waste is treated in the autoclave, followed by shredding, this process is an approved treatment method by NSW Department of Health. The waste receival and waste treatment process is summarised in Figure 5 below. For more information regarding the waste receival and treatment process refer to the WMP in Appendix B.

[2] Including Personnel Digital Assistance (PDA) devices used by all Med-X drivers to scan bins collected and record all relevant information and weighing scales used at the treatment facility.

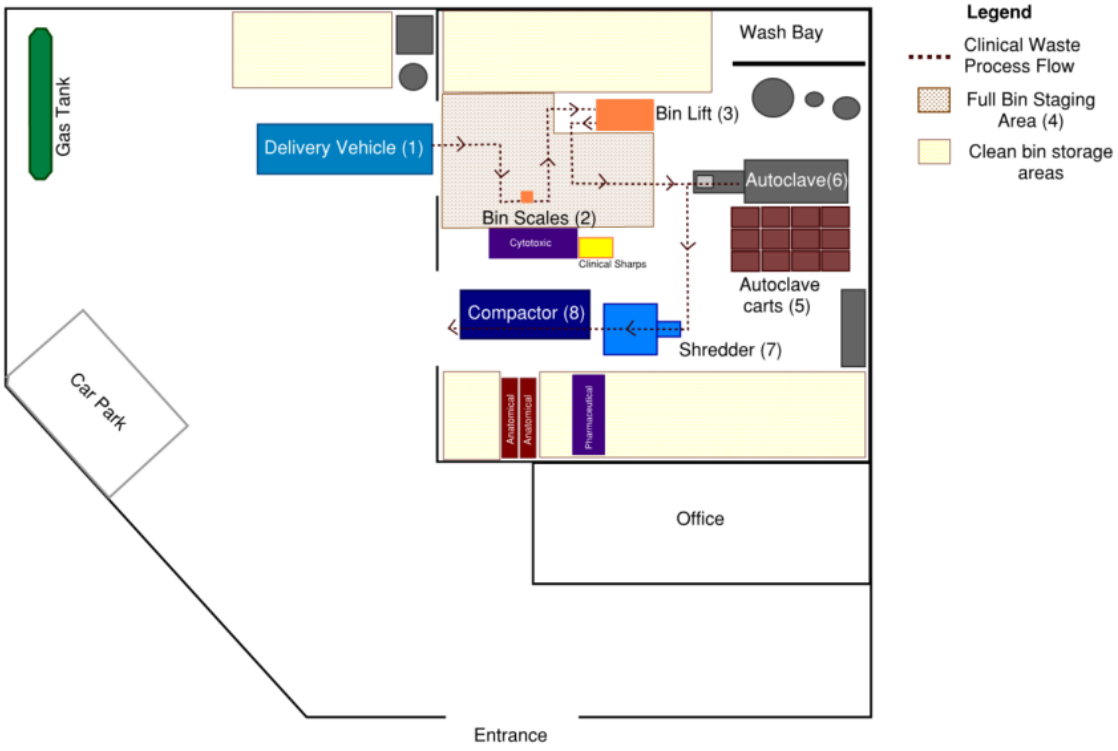

Figure 5: Waste receival and treatment process

3.2.6 Facility storage and processing limits

Table 7 outlines the maximum limits for processing and storing waste at the facility as per the conditions of consent and the revised EPL.

Table 7: Maximum operating limits[3]

Storage and/or Processing	Maximum limit
Receive and process clinical waste	2,000tpa
Receive and store related waste	300tpa
Clinical waste processing	648kg per operating cycle of autoclave
Storage of clinical waste outside of the approved hours of operation	450kg per day
Storage of DG class 6.2 PG III	1,200kg at any time
Storage of clinical and related waste, treated and/or untreated, at the premises`	8,000kg at any one time

3.3 Operational environmental impacts

An assessment of the operational activities was undertaken during preparation of the Environmental Impact Statement (EIS) and Response to Submissions (RtS) report for SSD 6761. This was supported by specialist environmental studies, along with consultation with key stakeholders, regulators and the community. The assessment considered potential impacts to the following environmental aspects during operation of the facility:

[33] Note: the mass is based on an average waste density of 120kg/m^3

- Waste management
- Traffic and access
- Air quality and odour
- Noise
- Stormwater and drainage
- Hazards and risks
- Socio-economic.

3.4 Key environmental risks

Based on the assessment for the EIS and RTS and the supporting specialist environmental studies, key environmental risks for the facility were identified and are summarised in the following sections. Noise, stormwater and drainage and socio-economic impacts are not considered key environmental risks for the facility given the location and context of the site operations and the management measures already applied at the site. Similarly, use of the parking depot is considered to have minimal environmental impacts. For additional information please refer to the EIS and the RTS.

3.4.1 Waste management

The key risks for waste management include the receipt of non-conforming wastes or receptacles, loss of containment of waste, exceedance of processing and storage allowances and inappropriate disposal of oil / solvent soaked materials.

3.4.2 Air quality and odour

The key risk for air quality and odour is the generation of odour from wastes received and generation of other emissions from waste processing are not contained and may impact nearby sensitive receivers.

3.4.3 Traffic and access

The key traffic and access risks include a lack of parking for staff, vehicle idling and parking outside of the facility and congestion within the site.

3.4.4 Hazards and risks

The key hazards and risks for the facility include a loss of containment of LPG storage tank, partial or total failure of sterilisation process and potential fires.

3.5 Environmental management measures

In response to the key risks, management and mitigation measures were identified in the EIS and RtS in order to minimise adverse environmental impacts and mitigate the environmental risks which could potentially arise during operation of the facility. These measures, as listed in Table 8 overleaf and Appendix 2 of the Conditions of Consent, form the environmental commitments made by Med-X for operation of the facility.

The implementation of the environmental management measures prior to and during operation is ultimately the responsibility of the Branch Manager with support from the Med-X leadership team as required.

Table 8: Management and mitigation measures

Aspect	Potential impact	Management and mitigation measure	Timing	Site
Air quality	Generation of odour and other emissions	An odour management plan is to be developed to include the following measures: • Keep building doors closed when not in use; • Avoid opening the doors after 5pm as much as practical, especially in the cooler times of the year; • Maintain an odour complaint logbook and in the event of a complaint conduct an immediate investigation of any odour sources, together with appropriate actions to eliminate any identified excessive odour; • Engines of on-site vehicles and plant switched off when not in use; • Vehicles and plant fitted with pollution control devices in accordance with manufacturer specifications; • Any waste requiring overnight storage is stored within a closed container inside the facility; • Additional controls to be implemented, if and as required. In addition, the odour management plan must include: • Key performance indicator(s) for emissions controls; • Monitoring method(s); • Location, frequency and duration of monitoring; • Record keeping; • Response mechanisms; and • Compliance reporting.	Prior to Operation / Operation	Facility (Kemona Place)
Air quality	Generation of odour and other emissions	• New vent pipe on the stand-alone tank to be installed extending at least 1 m above the roofline of the building to improve air dispersion and reduce impacts to receptors. The pipe must have a sampling plane that has been constructed with consideration of AS4323.1 1995.	Prior to Operation	Facility (Kemona Place)
Air quality	Generation of odour and other emissions	• The air quality (odour) model is to be validated within 12-months of project approval or as soon as practicable after receipt of a valid odour complaint that cannot be addressed by applying the controls identified in the odour management plan.	Operation	Facility (Kemona Place)

Aspect	Potential impact	Management and mitigation measure	Timing	Site
Noise	Noise emissions to nearby residential receivers	• Vehicles departing the Vangeli Street Parking Depot between 5am and 7am are to follow the designated route to the Great Western Highway, avoiding driving through residential areas	Operation	Parking Depot (Vangeli Street)
Surface water	Stormwater contamination	• The proposed stormwater management measures are to be installed prior to increase of the processing capacity at the site	Prior to operation	Facility (Kemona Place)
Hazards and risks	Fire	• An automatic fire detection system is the be installed inside the facility, with the alarm being signalled to a third-party central monitoring station	Prior to operation	Facility (Kemona Place)
Hazards and risks	Fire	• A 6m exclusion zone around the LPG tank is to be marked out in yellow paint prior to increase of the processing capacity at the site	Prior to operation	Facility (Kemona Place)
Hazards and risks	Fire	• The yellow lines defining the 6m exclusion zone around the LPG tank are to be regularly cleaned and repainted, as necessary	Operation	Facility (Kemona Place)
Hazards and risks	Fire and land and water contamination	• All bins stored outside the facility are to be kept within the defined outdoor storage area, as shown on the site plan	Operation	Facility (Kemona Place)
Traffic	General traffic management	• A traffic management plan is to be developed and implemented and is to include measures relevant to the management of traffic, as described in this report and supporting information.	Prior to Operation / Operation	Facility (Kemona Place) and Parking Depot (Vangeli Street)
Traffic	Traffic congestion at Kenoma Place	• Vehicle arrivals at the facility are to be closely monitored, to limit congestion and ensure waste delivery is evenly spaced across the daily operating hours. This includes use of the existing real-time vehicle tracking system, combined with additional monitoring of daily trends in arrivals.	Operation	Facility (Kemona Place)
Traffic	Traffic congestion at Kenoma Place	• Waste delivery and collection vehicles are to avoid idling in Kenoma Place and utilise the area on-site adjacent to the staff carpark where possible when waiting to unload.	Operation	Facility (Kemona Place)
Waste management	General waste management	• A waste management plan is to be developed and implemented and is to include measures relevant to the management of waste derived at the site.	Prior to Operation / Operation	Facility (Kemona Place)

Aspect	Potential impact	Management and mitigation measure	Timing	Site
Surface water	Stormwater management	• A stormwater management plan is to be developed and implemented and is to include measures relevant to the management of water and stormwater at the site.[4]	Prior to Operation / Operation	Facility (Kemona Place)
General	Community concerns	• The Med-X Communication, Consultation & Participation procedure is to be implemented to ensure any concerns raised by the community are appropriately recorded, reviewed and responded to.	Operation	Facility (Kemona Place) and Parking Depot (Vangeli Street)

[4] Refer to Site stormwater plan (Appendix E) and Environmental Pollution Incident Emergency Plan (Appendix D).

3.6 Specific environmental conditions

Additionally, Part B of the Conditions of Consent identifies Specific Environmental Conditions to manage any adverse environmental impacts. These conditions are presented in Table 9.

Table 9: Specific environmental conditions

Condition Ref	Condition	Timing	Comment/ notes
AIR QUALITY			
Air Quality Discharges			
B1	The Applicant must install and operate equipment in line with best practice to ensure that the development complies with all load limits, air quality criteria/air emission limits and air quality monitoring requirements as specified in the EPL applicable to the site.	Prior to operation / on-going	Refer to Appendix A
B2	Air from the standalone water tank must be discharged at least 1 metre above the roofline of the building. The ventilation stack must have a sampling plane that has been constructed with consideration of AS 4323.1-1995 Stationery Source Emissions – Selection of Sampling Positions.	On-going	
Air Quality Management Plan			
B3	Prior to the commencement of operation, the Applicant must prepare an Air Quality Management Plan (AQMP) to the satisfaction of the Planning Secretary. The AQMP must form part of the OEMP required by condition C2 and: a) be prepared by a suitably qualified and experienced person(s); b) be prepared in consultation with the EPA; c) detail and rank all emissions from all sources of the development, including odour; d) describe a program that is capable of evaluating the performance of the operation and determining compliance with key performance indicators; e) identify the control measures that that will be implemented for each emission source; and f) nominate the following for each of the proposed controls: (i) key performance indicator; (ii) monitoring method; (iii) location, frequency and duration of monitoring; (iv) record keeping; (v) complaints register; (vi) response procedures; and (vii) compliance monitoring.	Prior to operation	Refer to Appendix A
B4	The Applicant must: a) not commence operation until the AQMP required by condition B3 is approved by the Planning Secretary; and	Prior to operation / on-going	Noted.

Condition Ref	Condition	Timing	Comment/ notes
	b) implement the most recent version of the AQMP approved by the Planning Secretary for the duration of the development.		
Odour Management			
B5	The Applicant must ensure the development does not cause or permit the emission of any offensive odour (as defined in the POEO Act).	On-going	Refer to Section 5 of this OEMP and Appendix A for further details
B6	The Applicant must carry out an Odour Audit of the development no later than six months after the commencement of operation of the development. Division 9.4 of Part 9 of the EP&A Act applies to this audit which is for the purpose of auditing the development against the odour impact predictions of the development. The audit must: a) be carried out by a suitably qualified, experienced and independent person(s), whose appointment has been endorsed by the Planning Secretary; b) audit the development in full operation; c) include a summary of odour complaints and any actions that were carried out to address the complaints; d) assess the operation against odour impact predictions in the EIS and RtS; e) review design and management practices in the development against industry best practice for odour management; and f) include an action plan that identifies and priorities any odour mitigation measures that may be necessary to reduce odour emissions. *Note: The Odour Audit may be prepared so that it addresses the requirements of the conditions consent and the EPL for the development.*	6-months following commencement of operation	
B7	Within six months of commissioning of the Odour Audit required by condition B6, or otherwise agreed by the Planning Secretary, the Applicant must submit a copy of the Odour Audit report to the satisfaction of the Planning Secretary, together with the Applicant's response to any recommendations contained in the Odour Audit report.	Within six months of commissioning of the Odour Audit	
HAZARDS AND RISKS			
Emergency Plan			
B8	Prior to commencement of operation of the development, the Applicant must prepare and implement a comprehensive Emergency Plan. The Emergency Plan must include: a) consider the safety of all people outside of the development who may be at risk from the development and must be prepared in accordance with the *Department's Hazardous Industry Planning Advisory Paper No. 1, 'Emergency Planning'*; and b) detail emergency procedures for the development.	Prior to operation / on-going	Refer to Section 5 of this OEMP and Appendix D for further details

Condition Ref	Condition	Timing	Comment/ notes
Dangerous Goods			
B9	The Applicant must ensure that the quantities of dangerous goods stored and handled at the site or transported to and from the site are below the screening threshold quantities listed in the Department's *Applying SEPP 33* at all times, except for dangerous goods Class 6.2 Packing Group III infectious substances (DG Class 6.2 PG III).	On-going	Noted
Bunding			
B10	The Applicant must store all chemicals, fuels and oils used on-site in appropriately bunded areas in accordance with the requirements of all relevant Australian Standards, and/or EPA's *Storing and Handling of Liquids: Environmental Protection – Participants Manual* (Department of Environment and Climate Change, 2007).	On-going	Refer to Appendix E for further details
WASTE MANAGEMENT			
Waste Monitoring Program			
B11	Prior to the commencement of operation, the Applicant must prepare a Waste Monitoring Plan (WMP) for the development to the satisfaction of the Planning Secretary. The WMP must: a) be prepared by a suitably qualified and experienced person(s) prior to the commencement of operation; b) include suitable provision to monitor the: (i) quantity, type and source of waste received on site; (ii) quantity, type and quality of the outputs produced on site; (iii) freezer capacity on site for the storage of received anatomical waste; and c) ensure that: (i) all waste that is controlled under a tracking system has the appropriate documentation prior to acceptance at the site; (ii) sufficient capacity is available for the storage of all clinical and related wastes; and (iii) staff receive adequate training in order to be able to recognise and handle any hazardous or other prohibited waste including asbestos.	Prior to operation	Refer to Section 5 of this OEMP and Appendix B for further details
B12	The Applicant must: a) not commence operation until the WMP required by condition B11 is approved by the Planning Secretary; and b) implement the implement the most recent version of the WMP approved by the Planning Secretary for the duration of the development.	Prior to operation / on-going	Noted

Condition Ref	Condition	Timing	Comment/ notes
Waste Processing and Storage			
B13	The Applicant must unload the waste received at the site inside the processing building and at the designated loading dock to avoid spillage.	On-going	Refer to Section 3.2 of this OEMP and Appendix B for further details
B14	The Applicant must ensure the development does not store clean waste bins in the vehicle manoeuvring area except as shown in Figure 1 in Appendix 1 (of the Conditions of Consent).	On-going	
B15	All waste processing, and material handling activities must be undertaken in an enclosed processing building and within designated areas.	On-going	
B16	Clinical waste and related waste received on site must always be secured and maintained within designated waste storage areas shown on Figure 3 and Figure 4 in Appendix 1 (of the Conditions of Consent) and must not leave the site onto neighbouring public or private properties.	On-going	
Statutory Requirements			
B17	All waste materials removed from the site must only be directed to a waste management facility or premises lawfully permitted to accept the materials.	On-going	Refer to Section 3.2 and 5 of this OEMP and Appendix B for further details
B18	The Applicant must assess and classify all liquid and non-liquid wastes to be taken off site in accordance with the latest version of EPA's *Waste Classification Guidelines Part 1: Classifying Waste* (EPA, 2014) and dispose of all wastes to a facility that may lawfully accept the waste.	On-going	
B19	The Applicant must retain all sampling and waste classification data for the life of the development in accordance with the requirements of EPA.	On-going	
TRAFFIC AND ACCESS			
Operational Traffic Management Plan			
B20	Prior to the commencement of operation, the Applicant must prepare an Operational Traffic Management Plan (OTMP) for the development to the satisfaction of the Planning Secretary. The OTMP must form part of the OEMP required by condition C2 and must: a) be prepared by a suitably qualified and experienced person(s), b) detail the measures that are to be implemented to ensure road safety and network efficiency during operation; c) detail the measures that are to be implemented to ensure delivery vehicle arrival times are appropriately staggered including the use of an electronic tracking system; d) detail heavy vehicle routes, access and parking arrangements; and e) include a program to monitor the effectiveness of these measures.	Prior to operation	Refer to Appendix C
B21	The Applicant must:	Prior to operation / on-going	Noted

Condition Ref	Condition	Timing	Comment/ notes
	a) not commence operation until the OTMP required by condition B20 is approved by the Planning Secretary; and b) implement the most recent version of the OTMP approved by the Planning Secretary for the duration of the development.		
Parking			
B22	The Applicant must provide sufficient parking facilities on-site, including for heavy vehicles and for site personnel, to ensure that parking associated with the development does not utilise public and residential streets or public parking facilities.	Prior to operation / on-going	Refer to Section 3.2 of this OEMP and Appendix C for further details
Operating Conditions			
B23	The Applicant must ensure: a) internal roads, driveways and parking (including grades, turn paths, sight distance requirements, aisle widths, aisle lengths and parking bay dimensions) associated with the development are constructed and maintained in accordance with the latest version of *AS 2890.1:2004 Parking facilities Off-street car parking* (Standards Australia, 2004), *AS 2890.2:2018 Parking facilities Off-Street commercial vehicle facilities* (Standards Australia, 2018) and *AS 2890.2:2009 Parking facilities Off-street commercial vehicle facilities* (Standards Australia, 2009); b) the swept path of the longest vehicle entering and exiting the site, as well as manoeuvrability through the site, is in accordance with the relevant AUSTROADS guidelines; c) the development does not result in any vehicles queuing on the public road network; d) heavy vehicles and bins associated with the development are not parked on local roads or footpaths in the vicinity of the site; e) all vehicles are wholly contained on site before being required to stop; f) all loading and unloading of materials are carried out on-site; g) all trucks entering or leaving the site with loads have their loads covered and do not track dirt onto the public road network; and h) the proposed turning areas in the car park are kept clear of any obstacles, including parked cars, at all times.	Prior to operation / on-going	Refer to Section 3.2 of this OEMP and Appendix C for further details
SOILS, WATER QAULITY AND HYDROLOGY			
Discharge Limits			
B24	The development must comply with section 120 of the POEO Act, which prohibits the pollution of waters, except as expressly provided for in an EPL.	On-going	Noted

Condition Ref	Condition	Timing	Comment/ notes
NOISE			
Hours of Work			
B25	The Applicant must comply with the hours detailed in Table 1 (of the Conditions of Consent), unless otherwise agreed in writing by the Planning Secretary.	On-going	Refer to Section 3.2.2 of this OEMP for further details
B26	Operations outside of the hours identified in condition B25 may be undertaken in the following circumstances: a) works that are inaudible at the nearest sensitive receivers; b) for the delivery of materials required outside these hours by the NSW Police Force or other authorities for safety reasons; or c) where it is required in an emergency to avoid the loss of lives, property or to prevent environmental harm.	On-going	Noted

3.7 Environmental risk assessment framework

Additional environmental management measures may be identified to meet the facility's compliance obligations and through Med-X's ongoing environmental risk assessment and environmental monitoring. The assessment of any additional risk/s will be undertaken using a qualitative risk assessment methodology based on the guidance document AS/NZS ISO 31000:2009 Risk management—Principles and guidelines[5]. The assessment is based on the qualitative measure of likelihood of the events occurrence after control strategies have been put in place and of the consequences of the event occurring. Refer to Appendix F for additional details regarding the risk assessment framework.

3.8 Contingency plans

3.8.1 Air quality

In the event that an air quality performance indicator (refer to Section 6.2 of AQMP) has not been met or the air quality management criterion has been exceeded, Med-X will implement the following contingency plan:

- Report the non-compliance or incident if required per Section 4.3.2;
- Investigate and identify the cause of the non-compliance or incident;
- Consider options to manage the identified impacts; and
- Implement the appropriate course of action to ensure that the exceedance/incident ceases and does not reoccur to the satisfaction of the Planning Secretary

[5] Standards Australia 2009

For further information see the Air Quality Management Plan in Appendix A.

3.8.2 Waste management

Operations at the facility have the potential to be disrupted by various external and internal factors. Potential sources of disruption to the operation of the facility and the corresponding remedial measures are:

- To prevent backlog accumulating on site beyond safe storage limits and to ensure compliance with the Conditions of Consent and the conditions of the EPL, a risk- based decision is undertaken by the Branch Manager to divert the waste flow where required. If backlog of storage has occurred, all waste will be transported to an alternative licensed treatment facility for processing.

For further information see the Waste Management Plan (WMP) in Appendix B and MXNATQPR320 Med-X Backlog Contingency Procedure.

3.8.3 Traffic and access

To ensure all measures for the Operational Traffic Management Plan (OTMP) are implemented and to confirm they are having the desired impact, monitoring and management of this plan will be required. The monitoring program will collect the following information with regards to contingency:

- A log of all instances when contingency measures were required to manage queuing at the waste management facility. The cause of the congestion would need to be identified.

For further information see the Operational Traffic Management Plan OTMP in Appendix C.

4 Implementation of the OEMP

4.1 Roles and responsibilities

All operational staff are responsible for ensuring that their work complies with this OEMP. Figure 6 below provides an overview of the organisational structure for the facility. Table 10 outlines the roles, responsibilities, authority and accountability.

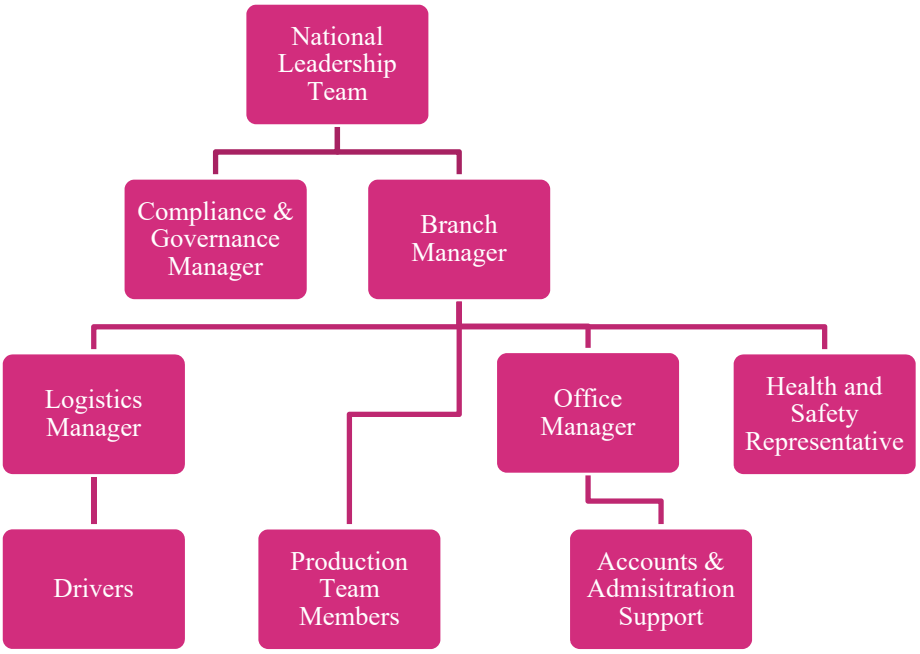

Figure 6: NSW Branch organisation chart

Table 10: Key personnel involved in the environmental management

Role	Responsibilities	Authority	Accountability
National Leadership Team	Responsible for: • Reporting on the operation of the management system; • Ensuring that environmental management improvement is taking place; • Ensuring that whenever there are changes to the IMS in regards to environmental managed changes are appropriately planned and implemented; • Ensuring the integrity of the IMS is maintained during changes; • Ensuring that responsibilities and authorities within the IMS in relation to environmental management are communicated and delegated.	Health and Safety Representative Compliance and Governance Manager Branch Manager	National Manager and General Manager
Health and Safety Representative	Responsible for: • Complying with relevant environmental requirements and this OEMP • Providing advice and information on health and safety matters to staff and others as applicable	All staff outside of National Leadership Team	National Leadership Team

Role	Responsibilities	Authority	Accountability
	• Identifying and assessing OH&S hazards and their risks • Increasing the OH&S competence and awareness of staff at all levels through the development of training and awareness and sharing of best practice.		
Compliance and Governance Manager	Responsible for: • Approve and implement the OEMP • Providing advice and information on compliance matters to staff and others as applicable • Coordinating compliance issues with employees • Identifying and assessing compliance, legislated and environmental aspects and their impacts • Ensuring operational controls are implemented and monitored • Engaging specialist services to support licensing • Liaise with the regulator or authority • Representation at Improvement or Industry Groups • Coordination of all audits and improvements • keep key staff apprised of any changes to a situation • assessment of regulatory & legislation impacts	All staff outside of National Leadership Team	National Leadership Team
Branch Manager	Responsible for: • Approve and implement the OEMP • Involvement in audit processes • Continual improvement activities • Implementation of policies, processes and systems • Planning and controlling the management system processes • Establishment and deployment of operational level objectives and provision of resources needed to implement and improve processes	All Operational Staff at the Facility[6]	National Leadership Team
Office Manager	Responsible for: • Ensures all CRM data is uploaded to the system and up to date	Accounts and Administration Support	Branch Manger
Logistics Manager	Responsible for: • Update of logistics management system (Verizon) • Final approval of collection routes • Management and coordination of all Med-X drivers • Responsible for communicating any changes to collection routes to drivers	Drivers	Branch Manager

[6] Including office manager, logistics manager, drivers, waster operators, accounts and administration support and contractors

Role	Responsibilities	Authority	Accountability
Driver	Responsible for: • Complying with relevant environmental requirements and this OEMP • Quality of their work • Implementation of Med-X policies and procedures • Identify and report any known or potential problems and recommend solutions • Participate and engage in occupational health and safety management processes • Cooperate and coordinate actions in a shared workspace to ensure safe practices • Workers responsible for product quality have the authority to stop production to correct quality problems	N/A	Branch Manager Logistics Manager
Waste Operator	See above	N/A	Branch Manager
Accounts and Administration Support	See above	N/A	Branch Manager Office Manager
Contractors	See above	N/A	Branch Manager

4.2 Training and awareness

Med-X operates a formal system to ensure that all employees within the organisation are adequately trained and aware, to enable them to perform their assigned duties. Each Manager and Supervisor is responsible for monitoring the abilities of all their workers and their responsibilities.

All employees receive training as identified by an initial training needs assessment. The training requirements of employees are assessed against wider organisational policies and objectives. Gaps in training, knowledge or competence are identified and filled. Appropriate training requirements are further identified through this process using the Competency Review Form. Table 11 below summarises the key staff training areas. For more details please refer to the Med-X MXNATQMA110 9 IMS Procedure Competence & Awareness document.

Table 11: Staff training

Employee	Training Type	Descriptions	Frequency
All Staff	Induction	Includes health, safety and environmental briefing.	Within the first month of employment
All Staff	Awareness Training	Appropriate to respective responsibilities. Is provided to ensure employees are aware of any significant impacts, actual or potential, of their work activities: • Responsibilities in achieving conformance with policies and procedures; • Relevant incidents and the outcomes of investigations;	On-going

Employee	Training Type	Descriptions	Frequency
		• Relevant hazards, Occupational Health and Safety (OH&S) risks and actions; • Ability to remove themselves from work situations they consider dangerous; • Contribution to the effectiveness of the management system; and, • Potential consequences of departure from specified operation procedures.	
Drivers	On-the-Job Training	Additional training to understand logistics management system, waste tracking procedures, identification of non-conforming receptables and loading & unloading procedures.	On-going during first six months of employment
Production Team Member	On-the-Job Training	Additional training to understand waste tracking procedures, identification of non-conforming receptables, identification of non-conforming waste, unloading procedures and equipment operation.	On-going during first six months of employment

4.3 Environmental incident and emergency response

4.3.1 Emergency procedures

The Med-X Pollution Incident Response Plan and Emergency Management Plan (see Appendix D) considers the safety of all people within and outside the facility who may be at risk from certain activities and includes the following:

- Contact details for emergency services[7]
- The location of on-site information on hazardous materials, including safety data sheets and spill containment materials[8]
- Procedures to minimise damage and to control an environmental incident or emergency[9]
- A process for notifying the Department, relevant government agencies, local councils and, if necessary, nearby residents[10].

The NSW Branch Manager is responsible to ensuring that procedures and practices for preventing and responding to emergency situations are implemented. The Chief Warden is in charge of overseeing and controlling all emergency response actions on site. Control can also be delegated to the Warden in the event that the Chief Warden is unavailable.

[7] Refer to Section 4.2 of the Pollution Incident Response Plan and Emergency Management Plan
[8] Refer to Spill Control and Contamination Plan in the Pollution Incident Response Plan and Emergency Management Plan
[9] Refer to Emergency Situations Procedure in the Pollution Incident Response Plan and Emergency Management Plan
[10] Refer to Section 4.6.2 and 4.6.3 of the Pollution Incident Response Plan and Emergency Management Plan

The Pollution Incident Response Plan and Emergency Management Plan is reviewed by the National Manager and the Compliance and Governance Manager once per year. Environmental incidents, near-misses and non-conformities with IMS procedures are documented and reported by staff that witness the issue to the Manager responsible to investigating the root cause of the problem.

4.3.2 Incident procedures

In the event of an incident, emergency and/or non-compliance occurring at the facility, the Planning Secretary must be notified in writing via the Major Projects website within seven days of an incident being identified. This notification is to include:

- The name and number of the development application
- Details of the incident:
    - Date
    - Time
    - Location
    - Brief description of what occurred
    - Why it is classified as an incident.
- How the incident was detected
- When Med-X became aware of the incident
- Actual or potential non-compliance with Conditions of Consent
- What immediate steps were taken
- Further action that will be taken
- Contact details for further communication regarding the incident.

Following the initial notification, an Incident Report is to be prepared and submitted to the Planning Secretary and other relevant public authorities within 30 days of an incident occurring (or as otherwise agreed by the Planning Secretary). This report will include:

- A summary of the incident
- Outcomes of the investigation into the incident, including identifying the cause
- A review of the emergency response performance
- Details of the corrective and preventive actions that have been or will be implemented to address the incident and prevent it occurring in the future
- Recommendations on methods or ways to improve the emergency response performance
- Details of any communications with other stakeholders regarding the incident.

4.3.3 Complaints

Customer and public complaints are received via corporate email inboxes. Complaints are continually monitored and measured to identify opportunities for improvement. In the incident of a complaint, DPIE will be notified immediately.

Customer complaints are collected using a customer feedback form and are processed by Management. All complaints are:

- Recorded and categorized to aid data analysis[11];
- Data is compiled by the Branch Manager; and
- Data is analysed and reviewed by the Management.

All documentation and records of complaints are retained and managed in accordance with the Control of Documented Information procedure and are recorded in a Complaint Log.

All public complaints received (either written or verbal) will be documented to record:

- Nature and extent of the complaint;
- Method by which the complaint was made;
- Name and address of the person lodging the complaint;
- Details of all related factors including location, dates, frequency, duration, site conditions and effects of the complaint; and
- Action taken to address the complaint including follow up contact with the complainant.

All complaints will be acknowledged as soon as practicable following receipt, and wherever possible within 24 hours. The Branch Manager, or their nominee, shall investigate and determine appropriate corrective/preventive actions to be taken to address complaints. The complainant will be informed in writing of the results of the investigation and action to be taken to rectify or address the matter(s). Where no action is taken the reasons why are to be recorded.

The Branch Manager will establish and maintain procedures for the collection, indexing, filing, storage and maintenance of site records. Archived complaints records will be kept in accordance with Med-X document control procedures.

4.3.4 Dispute resolution

In the event of a dispute with external parties[12], the following process will be undertaken:

- All communication is recorded and stored as per MXNATQMA110.10 IMS Procedure Communication & Participation;

[11] Information collected includes date of communication, name of person, address (if relevant), contact details, type of enquiry (e.g complaint), how communication was received and brief details of response.
[12] External parties can include Clients, HSE, EA, local authorities, or the general public.

- Consultation with subject specialists, insurance and/or legal representatives when determining position and legal standing if required;
- Communicate relevant information to the external party; and
- Log and maintain records of information released and subsequent action.

4.4 Corrective and preventative actions

In the event of an incident, emergency and/or non-compliance occurring at the facility, corrective and preventative actions will be taken to address those issues and minimise the risk of them occurring again in the future. Identifying opportunities for continual improvement outside of these incidents is also encouraged. The process used for continual improvement as mentioned in MXNATQMA110 26 IMS Procedure Continual Improvement includes:

- An analysis of what actions require improvement
- Implementation of changes to achieve improvement
- A review of the control and measurement changes and confirm alignment with Med-X policies, goals and requirements
- Adoption of or reaction to the changes made.

Consultation from customers (internal and external) and stakeholders, market research and analysis, staff feedback, audits and records of non-compliance will be used to identify areas requiring correction and improvement.

When an incident/emergency/non-compliance is identified, the Compliance and Governance Manager is to contain the issue, determine the root cause and decide on the appropriate corrective action to be undertaken. The Branch Manager is responsible for controlling the corrective action procedure in liaison with the process owners and the actions taken are to be recorded in the Med-X Compliance systems.

The process for implementing and reviewing corrective actions are summarised in Figure 7.

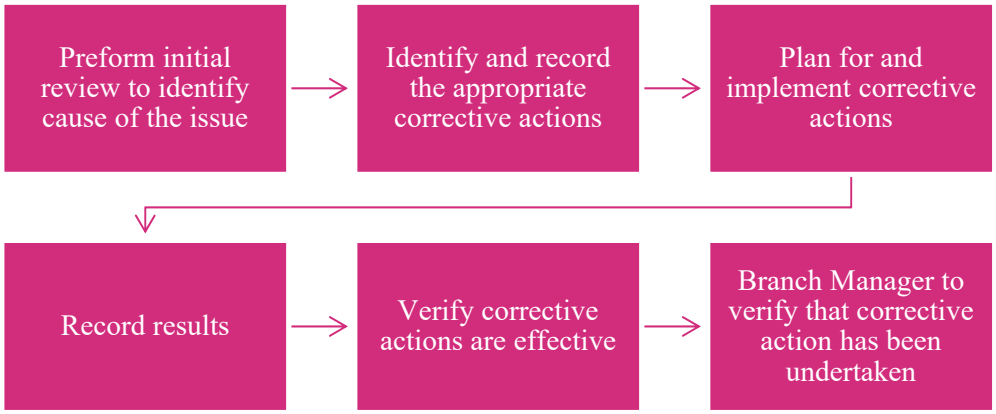

Figure 7: Implementation and review of corrective actions

4.5 Emergency contacts

Table 12 lists the Med-X emergency contacts for the facility.

Table 12: Med-X emergency contacts

Position	Name	Contact
Compliance and Governance Manager	Debbie Costin	p. 1300 747 339 ext. 127 m.0423 851 801 e. Debbie.Costin@shred-x.com.au
Branch Manager	John de Smit	p. 1300 116 339 m. 0400 324 005 e. John.deSmit@med-xsolutions.com.au

4.6 Environmental management, reporting and auditing

Part C of the Conditions of Consent identifies the Environmental Management, Reporting and Auditing requirements for SSD 6761. These conditions are presented in Table 13. The timeline for all reporting and auditing requirements is summarised in Figure 8.

Relevant agencies will be informed about the operation and environmental performance of the facility as per the reporting requirements. Med-X will also provide updates regarding the environmental performance of the facility via their publicly available website with updates as required and reviews completed every six months.

Table 13: Environmental Management, Reporting and Auditing requirements

Condition REF	Condition	Timing / frequency	Comments / notes
ENVIRONMENTAL MANAGEMENT			
OPERATIONAL ENVIRONMENTAL MANAGEMENT PLAN			
C2	The Applicant must prepare an Operational Environmental Management Plan (OEMP) in accordance with the requirements of condition C1 and to the satisfaction of the Planning Secretary.	Prior to operation	Refer to Section 2.2 of this OEMP for further details
C3	As part of the OEMP required under Condition C2 of this consent, the Applicant must include the following: a) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development; b) describe the procedures that would be implemented to: (i) keep the local community and relevant agencies informed about the operation and environmental performance of the development; (ii) receive, handle, respond to, and record complaints; (iii) resolve any disputes that may arise; (iv) respond to any non-compliance; (v) respond to emergencies; and c) include the following environmental management plans: (i) Air Quality Management Plan (see Condition B3); (ii) Waste Management Plan (see Condition B11); and (iii) Operational Traffic Management Plan (see Condition B20).	-	Refer to Section 3.5, 4.1, 4.3, 4.4 of this OEMP for further details Refer to Appendix A for AQMP Refer to Appendix B for WMP Refer to Appendix C for OTMP
C4	The Applicant must: a) not commence operation until the OEMP is approved by the Planning Secretary; and b) operate the development in accordance with the OEMP approved by the Planning Secretary (and as revised and approved by the Planning Secretary from time to time).	Prior to operation / on-going	Noted
REVISION OF STRATEGIES, PLANS AND PROGRAMS			
C5	Within **three months** of: a) the submission of a Compliance Report under condition C10; b) the submission of an incident report under condition C6; c) the submission of an Independent Audit under condition C12; d) the approval of any modification of the conditions of this consent; or	On-going / as specified	Noted

Condition REF	Condition	Timing / frequency	Comments / notes
	e) the issue of a direction of the Planning Secretary under condition A2(b) which requires a review, the strategies, plans and programs required under this consent must be reviewed, and the Planning Secretary must be notified in writing that a review is being carried out. If necessary, to either improve the environmental performance of the development, cater for a modification or comply with a direction, the strategies, plans and programs required under this consent must be revised, to the satisfaction of the Planning Secretary. Where revisions are required, the revised document must be submitted to the Planning Secretary for approval **within six weeks** of the review.		
REPORTING AND AUDITING			
Incident Notification, Reporting and Response			
C6	The Planning Secretary must be notified in writing via the Major Projects website immediately after the Applicant becomes aware of an incident. The notification must identify the development (including the development application number and the name of the development if it has one) and set out the location and nature of the incident. Subsequent notification requirements must be given, and reports submitted in accordance with the requirements set out in Appendix 3 (of the Conditions of Consent).	On-going, as required	Refer to Section 4.3 of this OEMP for further details
Non-Compliance Notification			
C7	The Planning Secretary must be notified in writing to the Major Projects website within **seven days** after the Applicant becomes aware of any non-compliance.	On-going, as required	Refer to Section 4.3 of this OEMP for further details
C8	A non-compliance notification must identify the development and the application number for it, set out the condition of consent that the development is non-compliant with, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.	-	
C9	A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.	-	
Compliance Reporting			
C10	Within **three months** after the first year of commencement of the development, and in the same month **each subsequent year** (or such other timing as agreed by the Planning Secretary), the Applicant must submit a Compliance Report to the Planning Secretary reviewing the environmental performance of the development to the satisfaction of the Planning Secretary. Compliance Reports must be prepared in accordance with the Compliance Reporting Post Approval Requirements (Department 2020) and must also: a) identify any trends in the monitoring data over the life of the development;	On-going, within three months after the first year of operation and in the same month every year after	

Condition REF	Condition	Timing / frequency	Comments / notes
	b) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and c) describe what measures will be implemented over the next year to improve the environmental performance of the development.		
C11	The Applicant must make each Compliance Report publicly available no later than **60 days** after submitting it to the Planning Secretary and notify the Planning Secretary in writing at least **7 days** before this is done.	60 days after submission of each Compliance Report	Noted
Independent Audit			
C12	Within **one year** of the commencement of the development, and every **three years** after, unless the Planning Secretary directs otherwise, the Applicant must commission and pay the full cost of an Independent Environmental Audit (Audit) of the development. Audits must: a) be prepared in accordance with the Independent Audit Post Approval Requirements (Department 2020) b) be led and conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Planning Secretary; and c) be submitted to the satisfaction of the Planning Secretary within three months of commissioning the Audit (or within another timeframe agreed by the Planning Secretary).	On-going, within one year after operation and every three years after	See AQMP (Appendix A), TMP (Appendix B) and WMP (Appendix C) for further Independent Auditing requirements
C13	In accordance with the specific requirements in the Independent Audit Post Approval Requirements (Department, 2020), the Applicant must: a) review and respond to each Independent Audit Report prepared under condition C12 of this consent; b) submit the response to the Planning Secretary and any other NSW agency that requests it, together with a timetable for the implementation of the recommendations; c) implement the recommendations to the satisfaction of the Planning Secretary; and d) make each Independent Audit Report and response to it publicly available no later **than 60 days** after submission to the Planning Secretary and notify the Planning Secretary in writing at least **7 days** before this is done.	60 days after submission of each Compliance Report	Noted
Monitoring and Environmental Audits			
C14	Any condition of this consent that requires the carrying out of monitoring or an environmental audit, whether directly or by way of a plan, strategy or program, is taken to be a condition requiring monitoring or an environmental audit under Division 9.4 of Part 9 of the EP&A Act. This includes conditions in respect of	-	Noted

Condition REF	Condition	Timing / frequency	Comments / notes
	incident notification, reporting and response, non-compliance notification, compliance reporting and independent auditing.		
ACCESS TO INFORMATION			
C15	At least **48 hours** before the commencement of operation, the Applicant must: a) make the following information and documents (as they are obtained or approved) publicly available on its website: (i) the documents referred to in condition A2 of this consent; (ii) all current statutory approvals for the development; (iii) all approved strategies, plans and programs required under the conditions of this consent; (iv) regular reporting on the environmental performance of the development in accordance with the reporting requirements in any plans or programs approved under the conditions of this consent; (v) a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs; (vi) a summary of the current stage and progress of the development; (vii) contact details to enquire about the development or to make a complaint; (viii) a complaints register, updated monthly; (ix) the Compliance Report of the development; (x) audit reports prepared as part of any Independent Audit of the development and the Applicant's response to the recommendations in any audit report; (xi) any other matter required by the Planning Secretary; and b) keep such information up to date, to the satisfaction of the Planning Secretary.	48 hours prior to commencement of operation	Noted

Figure 8: Reporting and auditing requirements timeline

5 Monitoring programmes and review of the OEMP

5.1 Environmental monitoring

Environmental monitoring of the facility will be undertaken to achieve the following:

- Verification the environmental impacts predicted for the operation of the facility
- Verification of the effectiveness of environmental controls
- Implementation of the OEMP.

All data, processes, procedures and checklists for monitoring and reporting are stored on the Med-X IMS, including the legal and compliance requirements procedure. All sampling and waste classification data for the life of the development is retained in accordance with the requirements of EPA.

The Branch Manager is responsible for monitoring the effectiveness of all waste management measures and equipment on site and ensuring the implementation of the monitoring programmes. The Compliance and Governance Manager is responsible for ensuring all monitoring programmes are compliant with relevant regulations and requirements.

Where relevant, the supporting management plans have included a monitoring program. These have been summarised in Table 14 below. For additional details refer to the Plan referenced.

Table 14: Monitoring program

Frequency	Aspect	Plan reference	Item	Type of inspection / Testing	Responsibility
Per treatment cycle	Waste	WMP	Autoclave Cart Limit	Waste Volumes – obtain records	Waste Operator Branch Manager
Daily – each clinical waste load tested	Waste	WMP	Autoclave	Processing Efficacy	Branch Manager
Daily	Traffic	OTMP	Delivery log	Obtain records	Driver Logistics Manager
Daily	Traffic	OTMP	Vehicle Shift Log	Obtain records	Driver
Daily	Traffic	OTMP	Contingency Log	Obtain records	Driver Logistics Manager
Daily	Waste	WMP	Shredder	Validation	Branch Manager
Daily	Waste	WMP	Daily Storage on Site	Waste Volumes – obtain records	Waste Operator Branch Manager
Daily	Waste	WMP	Daily Receival / Processing Limit	Waste Volumes – obtain records	Waste Operator Branch Manager
Daily	Waste	WMP	Weigh Bridge	Calibration	Branch Manager
Weekly	Waste	WMP	Weigh Bridge	Validation	Branch Manager
Weekly	Waste	WMP	Annual Receival/ Processing Limit	Waste Volumes – obtain records	Waste Operator Branch Manager
Each quarter for the first year of operation under this approval and every six months thereafter	Air quality	AQMP	Field Odour Surveys	Testing	Branch Manager
Minimum every six months	Waste	WMP	Autoclave	Calibration	Branch Manager
Annually	Air quality	AQMP	Stack Testing	Testing	Branch Manager
Annually – biological indicator testes by NATA	Waste	WMP	Autoclave	Processing Efficacy	Branch Manager
In the event of an incident	Traffic	OTMP	Incident register	Obtain records	Logistics Manager

5.2 OEMP review

Annual reviews of the OEMP and the environmental performance of the facility will ensure the suitability and effectiveness of the environmental management measures implemented.

The OEMP will also be reviewed within three months of:

- The submission of an Independent Audit
- The approval of any modification of the Conditions of Consent
- The issue of a direction of the Planning Secretary which requires a review.

The inputs to the OEMP review process will include (but not be limited to):

- Internal and external audits findings
- Incidents management and investigation of non-conformance events, incidents, near misses and management of all complaints received
- Implementation of all compliance and legislative changes as identified at a corporate level
- Trend analysis on operational data.

If revisions are made to the OEMP, or other environmental strategies, plans and programs, a copy of the revised document must be provided to the Planning Secretary within six weeks, that identifies the key inputs and outputs of the review as well as the subsequent steps to be undertaken in the event that changes are made to the OEMP.

The review process is shown in Figure 9.

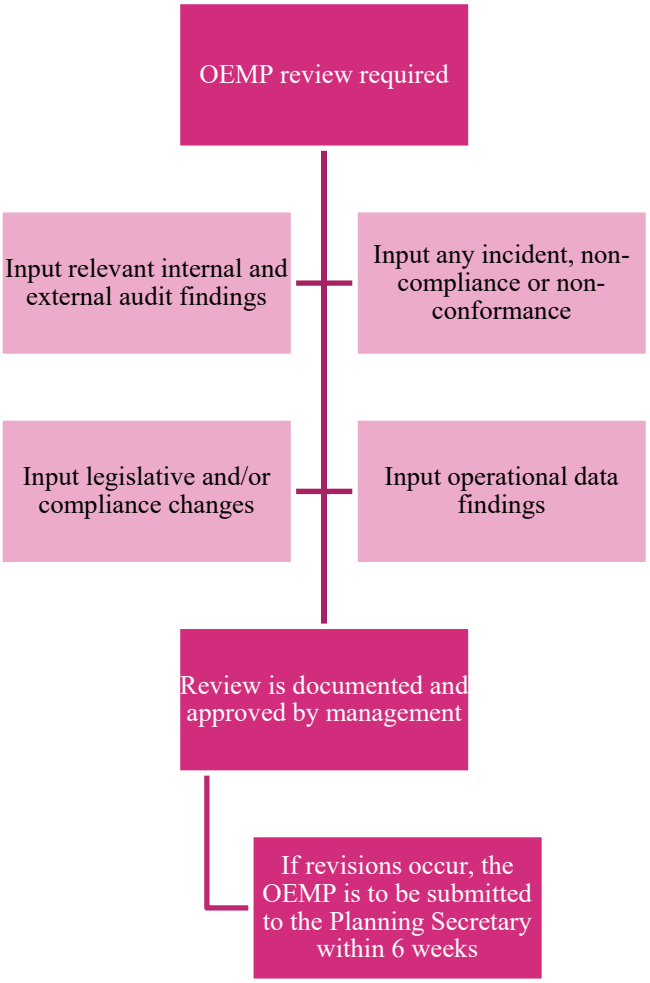

Figure 9: OEMP review process

6 Community and stakeholder engagement

Med-X is committed to meaningful stakeholder engagement and consulted with the following key stakeholders in relation to operation of the facility:

- DPIE (and the former DP&E)
- NSW Environment Protection Authority (EPA)
- NSW Roads & Maritime Services (RMS)
- NSW Health
- Blacktown City Council.

Consultation was also carried out with nearby commercial and industrial facilities as well as potentially sensitive residential receivers during preparation of the EIS for SSD 6761.

The Med-X Communication & Participation procedure aims to facilitate communication between Med-X and critical stakeholders, including the local community and relevant agencies.

Information about the environmental performance of the facility will be made available on the Med-X website. All communication with interested parties will be documented and recorded. Figure 10 below provides a systematic overview of this process.

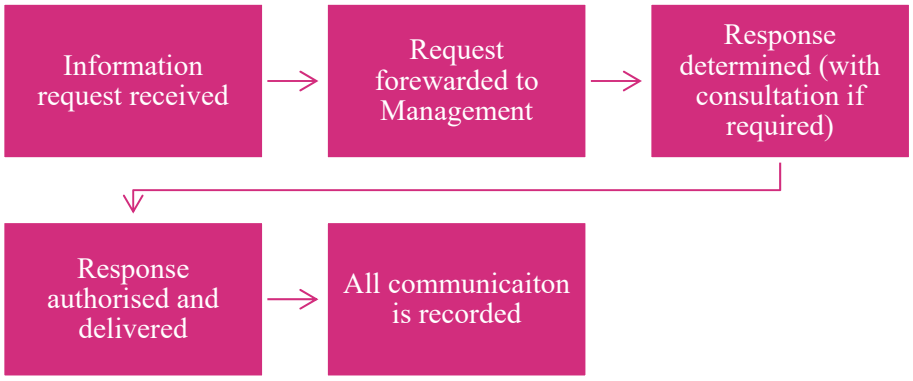

Figure 10: External communication procedure

Appendix A

Air Quality Management Plan

AIR QUALITY MANAGEMENT PLAN

MED-X CLINICAL WASTE MANAGEMENT FACILITY

Med-X Pty Ltd

17 December 2020

Job Number 20031098A

Prepared by
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Air Quality Management Plan

Med-X Clinical Waste Management Facility

DOCUMENT CONTROL

Report Version	Date	Prepared by	Reviewed by
DRAFT - 001	04/09/2020	K Trahair	P Henschke
DRAFT - 002	15/09/2020	K Trahair	A Todoroski
FINAL - 001	17/12/2020	K Trahair	
FINAL - 002	17/12/2020	K Trahair	

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1 INTRODUCTION

Med-X operate a Clinical Waste Management Facility at Arndell Park, New South Wales (NSW) (hereafter referred to as the Project). The Project site is located at 9 Kenoma Place, Arndell Park, approximately 3.4 kilometres (km) southwest of Blacktown and approximately 11.5km west of Parramatta (see **Figure 1-1**). The site is situated in an existing industrial precinct and is surrounded by other industrial and commercial businesses. The nearest residential receptors are located approximately 400 metres (m) to the northeast.

The operations of the Project include the storage of clinical and related wastes at the site and non-thermal treatment of clinical waste using an autoclave. Autoclaving is used to sterilise the waste by subjecting it to a high temperature (approximately 140 degrees Celsius) using pressurised steam. The autoclaving treatment process takes an average of 55 minutes to complete. At the end of the process, the pressurised steam is discharged via a condenser with the captured water cooled (condensed) and treated in a closed loop process. A small amount of residual steam from this process is directed via an over-roof pipe to a stand-alone tank located on the outside of the facility.

The approved hours of operation for the facility are 7:00am to 7:00pm, Monday to Saturday (including public holidays that fall on Saturday).

The throughput of clinical waste and related waste processed at the facility is 2,300 tonnes per annum (tpa) and the maximum quantity of waste on-site at any one time is 8,000 kilograms (kg).

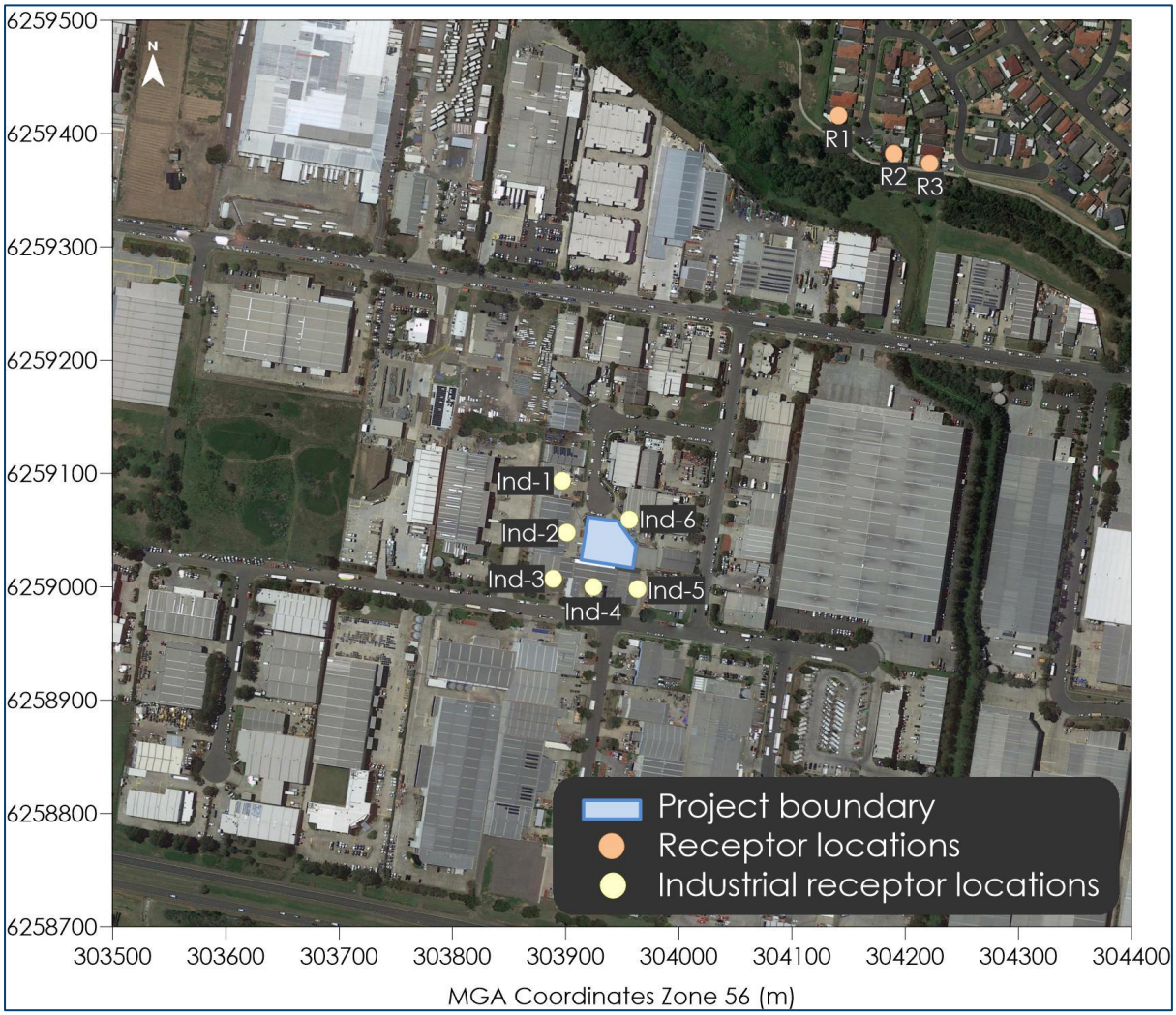

Figure 1-1: Project setting

1.1 Aims

This Air Quality Management Plan (AQMP) defines the best management practices applicable to the operation and details the management framework and mitigation actions to be taken when operating the Project to minimise the generation of air emissions.

1.2 Structure of this AQMP

This AQMP is structured as follows:

Section 2: Outlines the statutory requirements applicable to Project.
Section 3: Provides baseline data.
Section 4: Outlines the applicable air quality and performance indicators.
Section 5: Outlines the air quality management and control measures.
Section 6: Outlines the environmental performance.
Section 7: Outlines the review of the environmental performance.

2 STATUTORY REQUIREMENTS

This AQMP has been prepared in accordance with the development consent for SSD 6761. **Table 2-1** presents the consent conditions relative to the air quality management plan.

Table 2-1: Relevant consent conditions

Development Consent (SSD 6761)	AQMP Section
Air Quality Discharges	
B1. The Applicant must install and operate equipment in line with best practice to ensure that the development complies with all load limits, air quality criteria/air emission limits and air quality monitoring requirements as specified in the EPL applicable to the site.	Sections 4.1, 5 & 6.2
B2. Air from the standalone water tank must be discharged at least 1-metre above the roofline of the building. The ventilation stack must have a sampling plane that has been constructed with consideration of AS 4323.1-1995 Stationery Source Emissions – Selection of Sampling Positions.	Sections 4.1, 5.2 & 6.2
Air Quality Management Plan	
B3. Prior to the commencement of operation, the Applicant must prepare an Air Quality Management Plan (AQMP) to the satisfaction of the Planning Secretary. The AQMP must form part of the OEMP required by condition C2 and:	This report
(a) be prepared by a suitably qualified and experienced person(s);	AQMP prepared by TAS
(b) be prepared in consultation with the EPA;	Section 2.1
(c) detail and rank all emissions from all sources of the development, including odour;	Section 5.1
(d) describe a program that is capable of evaluating the performance of the operation and determining compliance with key performance indicators;	Section 6.2
(e) identify the control measures that that will be implemented for each emission source; and	Section 5.2
(f) nominate the following for each of the proposed controls: (i) key performance indicator; (ii) monitoring method; (iii) location, frequency and duration of monitoring; (iv) record keeping; (v) complaints register; (vi) response procedures; and (vii) compliance monitoring.	Sections 5.2, 6.1.1, 6.2 & 6.5
B4. The Applicant must: (a) not commence operation until the AQMP required by condition B3 is approved by the Planning Secretary; and (b) implement the most recent version of the AQMP approved by the Planning Secretary for the duration of the development.	Sections 7.1
Odour Management	
B5. The Applicant must ensure the development does not cause or permit the emission of any offensive odour (as defined in the POEO Act).	Sections 4.1, 5 & 6.2
B6. The Applicant must carry out an Odour Audit of the development no later than six months after the commencement of operation of the development. Division 9.4 of Part 9 of the EP&A Act applies to this audit which is for the purpose of auditing the development against the odour impact predictions of the development. The audit must: (a) be carried out by a suitably qualified, experienced and independent person(s), whose appointment has been endorsed by the Planning Secretary; (b) audit the development in full operation; (c) include a summary of odour complaints and any actions that were carried out to address the complaints; (d) assess the operation against odour impact predictions in the EIS and RtS; (e) review design and management practices in the development against industry best practice for odour management; and	Section 7.2.1

Development Consent (SSD 6761)	AQMP Section
(f) include an action plan that identifies and priorities any odour mitigation measures that may be necessary to reduce odour emissions. Note: The Odour Audit may be prepared so that it addresses the requirements of this consent and the EPL for the development.	
B7. Within six months of commissioning of the Odour Audit required by condition B6, or otherwise agreed by the Planning Secretary, the Applicant must submit a copy of the Odour Audit report to the satisfaction of the Planning Secretary, together with the Applicant's response to any recommendations contained in the Odour Audit report.	Section 7.2.1

2.1 Consultation

In accordance with Condition B3(b) of SSD 6761, this AQMP has been prepared in consultation with the NSW Environment Protection Authority (EPA).

3 BASELINE DATA

This section describes the existing baseline environment including the climate and meteorology in the area surrounding the Project.

3.1 Local climatic conditions

Long-term climatic data from the closest Bureau of Meteorology (BoM) weather station at Horsley Park Equestrian Centre Automatic Weather Station (AWS) (Site No. 067119) were analysed to characterise the local climate in the proximity of the Project. Horsley Park Equestrian Centre AWS is located approximately 7km south-southwest of the Project.

Table 3-1 and **Figure 3-1** present a summary of data from the Horsley Park Equestrian AWS collected over a 13 to 22-year period for the various meteorological parameters.

The data indicate that January is the hottest month with a mean maximum temperature of 30.1 degrees Celsius (ºC) and July is the coldest month with a mean minimum temperature of 5.8ºC.

Rainfall decreases during the middle of the year, with an annual average rainfall of 748.4 millimetres (mm) over 74.0 days. The data indicate that February is the wettest month with an average rainfall of 103.6mm over 7.1 days and July is the driest month with an average rainfall of 35.2 mm over 5.0 days.

Relative humidity levels exhibit variability over the day and seasonal fluctuations. Mean 9am relative humidity ranges from 61% in October to 81% in March. Mean 3pm relative humidity levels range from 42% in August and September to 55% in June.

Wind speeds during the warmer months have a greater spread between the 9am and 3pm conditions compared to the colder months. Mean 9am wind speeds range from 8.9 kilometres per hour (km/h) in March to 12.5km/h in October. Mean 3pm wind speeds range from 12.9km/h in June to 19.9km/h in December.

Table 3-1: Monthly climate statistics summary – Horsley Park Equestrian Centre AWS

Parameter	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann.
Temperature													
Mean max. temp. (ºC)	30.1	28.9	26.9	23.9	20.6	17.6	17.4	19.1	22.4	24.8	26.6	28.4	23.9
Mean min. temp. (ºC)	17.9	17.8	16.2	13.0	9.0	7.2	5.8	6.4	9.2	11.8	14.4	16.3	12.1
Rainfall													
Rainfall (mm)	75.6	103.6	83.3	70.3	41.9	74.7	35.2	36.8	37.6	57.6	76.1	63.6	748.4
No. of rain days	7.6	7.1	8.0	6.8	5.0	6.3	5.0	4.0	4.8	5.7	6.8	6.9	74.0
9am conditions													
Mean temp. (ºC)	22.0	21.5	19.4	17.5	13.8	11.1	10.3	12.0	15.6	18.1	19.2	20.9	16.8
Mean R.H. (%)	73	77	81	76	77	80	78	70	65	61	70	71	73
Mean W.S. (km/h)	10.1	9.7	8.9	10.5	10.7	10.3	10.8	11.7	12.2	12.5	11.8	10.7	10.8
3pm conditions													
Mean temp. (ºC)	28.2	27.1	25.3	22.2	19.2	16.6	16.1	17.8	20.8	22.5	24.2	26.5	22.2
Mean R.H. (%)	49	53	54	53	52	55	50	42	42	45	50	48	49
Mean W.S. (km/h)	19.4	17.0	14.8	14.4	13.0	12.9	13.9	16.1	18.1	19.8	19.5	19.9	16.6

Source: **Bureau of Meteorology (2020)**

R.H. – Relative Humidity, W.S. – wind speed

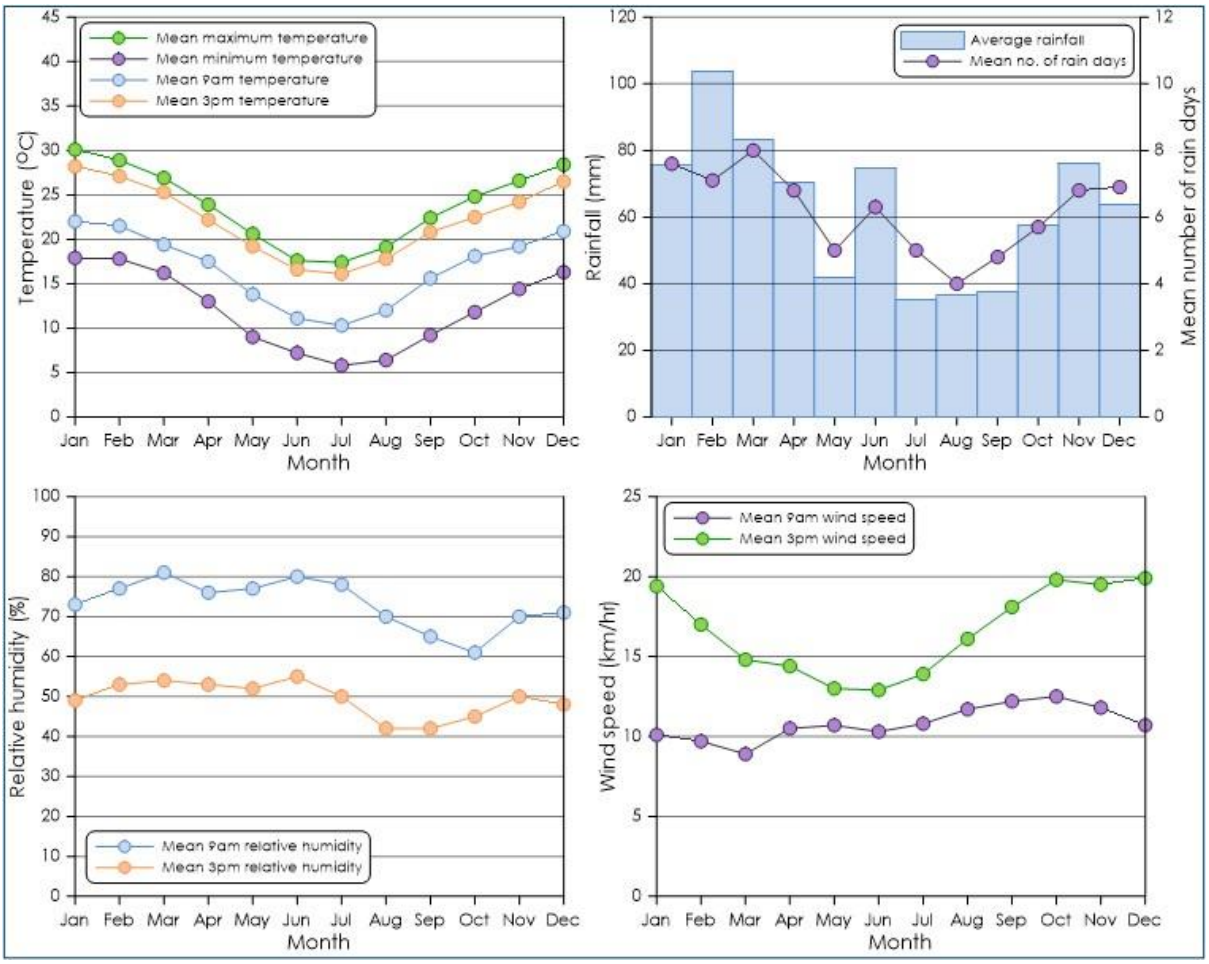

Figure 3-1: Monthly climate statistics summary – Horsley Park Equestrian Centre AWS

3.2 Local meteorological conditions

Annual and seasonal windroses for the Horsley Park Equestrian Centre AWS during the 2015 calendar period are presented in **Figure 3-2**.

On an annual basis, winds are generally varied and feature a predominant southwest wind. In summer, winds tend to occur from the southwest, east-northeast and the southeast quadrants. The autumn wind distribution is similar to the annual distribution with winds predominantly occurring from the southwest, and fewer winds from the northeast. In winter there are fewer winds originating from the east with winds occurring predominantly from the southwest and west-southwest. During spring the winds are varied from all directions with winds from the southwest most dominant.

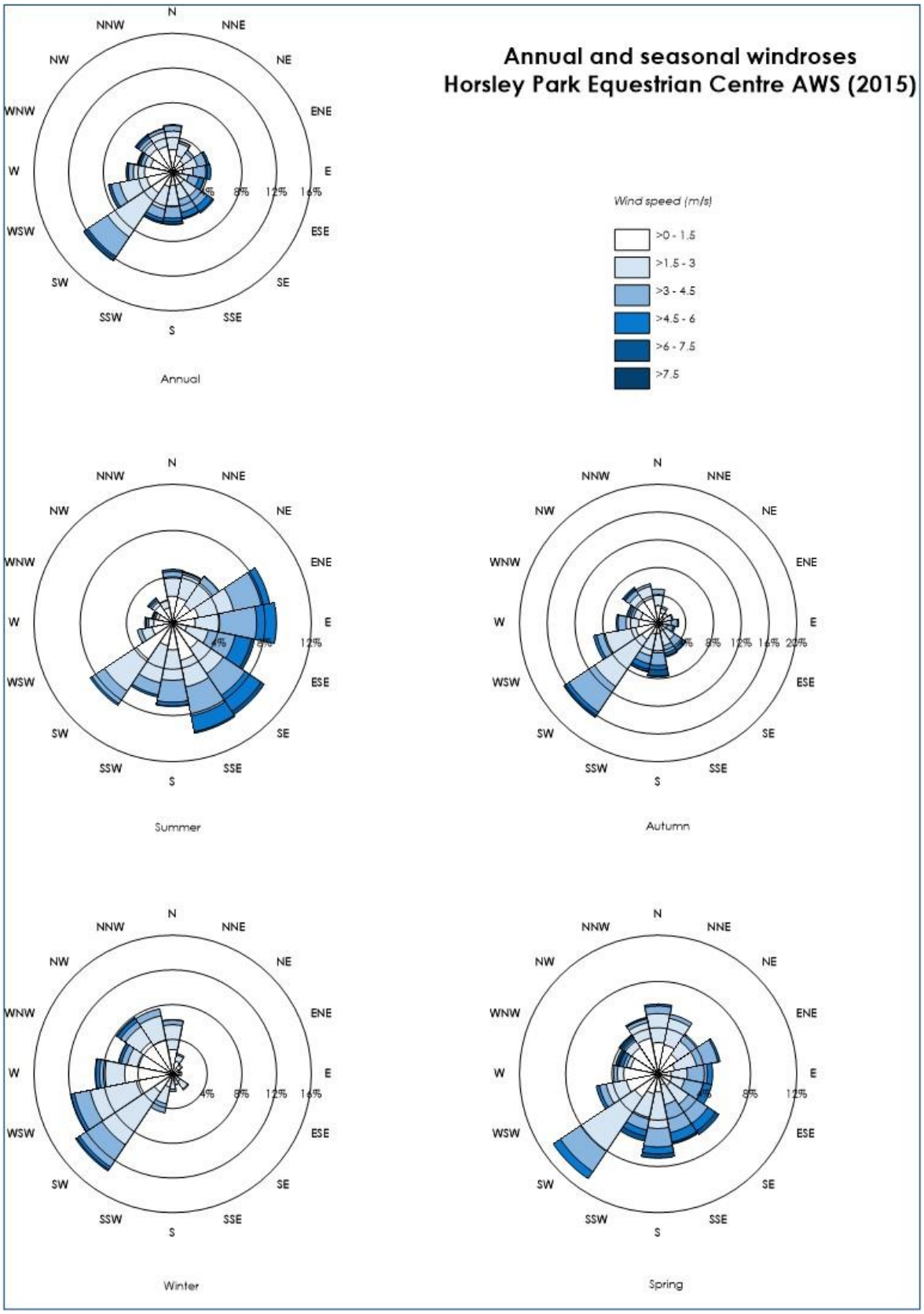

Figure 3-2: Annual and seasonal windroses – Horsley Park Equestrian Centre AWS (2015)

4 AIR QUALITY CRITERIA AND PERFORMANCE INDICATORS

4.1 Development consent operating conditions

The following operating conditions are required under the development consent:

- Condition B1 - The Applicant must install and operate equipment in line with best practice to ensure that the development complies with all load limits, air quality criteria/air emission limits and air quality monitoring requirements as specified in the EPL applicable to the site.
- Condition B2 - Air from the standalone water tank must be discharged at least 1-metre above the roofline of the building. The ventilation stack must have a sampling plane that has been constructed with consideration of AS 4323.1-1995 Stationary Source Emissions – Selection of Sampling Positions.
- Condition B5 - The Applicant must ensure the development does not cause or permit the emission of any offensive odour (as defined in the POEO Act).

4.2 Environment Protection Licence conditions

As per Environment Protection Licence (EPL) 20233 Condition L4, the licensee must not cause or permit emission of offensive odour beyond the boundary of the premises.

5 AIR QUALITY MANAGEMENT AND CONTROL MEASURES

The activities at the site will generate some amount of odour emissions, therefore it is prudent to take reasonable and practicable measures to prevent and minimise excessive generation of odour emissions which may affect the surrounding environment.

The effectiveness of air quality management and control measures will be assessed and continually improved through the plan review (**Section 7.1**).

5.1 Air pollutant sources

The following potential sources of odour are identified and ranked in order of greatest potential for emissions:

- Stand-alone tank – captures residual steam from the autoclave which is cooled and condensed to scrub out odour;
- Processed waste - waste which has been processed/sterilised by the autoclave and is stored within the building;
- Waste receival - receival of clinical and related wastes.

5.2 Control measures

The stand-alone tank is a control measure which acts to scrub out odour.

Med-X is committed to installing equipment in line with best practice. A pipe vent is to be installed on the stand-alone tank, extending at least 1m above the roofline of the building to improve air dispersion and reduce impacts to receptors. The pipe must have a sampling plane that has been constructed with consideration of AS4323.1 1995 Stationary Source Emissions – Selection of Sampling Positions.

5.3 Management practices

Med-X will operate equipment in line with best practice management to minimise the generation of air and odour emissions. Potential odour from waste receival and processed waste would be mitigated through management practices (such as handling and storing material within the building and keeping building doors closed to prevent fugitive emission of odour) rather than through the installation of specific control measures/equipment. The Project is to keep an annual compliance checklist of management practices to confirm they are being implementation.

The management practices to mitigate odour and other air emissions from the Project include:

- Keep building doors closed when not in use;
- Avoid opening the doors after 5pm, especially in the cooler times of the year;
- Ensure all sorting and receiving of waste to occur within the building;
- No open stockpiling of waste materials outside the building;
- Carefully co-ordinate waste delivery and dispatch schedules to avoid a queue of incoming or outgoing trucks for any extended periods of time;

- Spill management procedures to ensure immediate clean-up of any spill;
- Maintain an odour complaint logbook and in the event of a complaint conduct an immediate investigation of any odour sources, together with appropriate actions to eliminate any identified excessive odour (refer to **Section 6.5**);
- Engines of on-site vehicles and plant switched off when not in use;
- Vehicles and plant fitted with pollution control devices in accordance with manufacturer specifications;
- Maintain and service vehicles according to manufacturer's specifications;
- Ensure any waste left overnight is stored in a closed container within the building; and,
- Regular cleaning of all hard stand areas and lower parts of walls in contact with, or near proximity to waste (it is noted that this would already be required for hazard control).

5.4 Contingency plan

In the event that a performance indicator (refer to **Section 6.2**) has not been met or the air quality management criterion exceeded, Med-X will implement the following contingency plan:

- Report the non-compliance or incident if required per Sections 6.3 and 6.4 respectively;
- Investigate and identify the cause of the non-compliance or incident;
- Consider options to manage the identified impacts; and
- Implement the appropriate course of action to ensure that the exceedance/incident ceases and does not reoccur to the satisfaction of the Planning Secretary.

6 ENVIRONMENTAL PERFORMANCE

6.1 Monitoring

6.1.1 Stack testing

Annual stack testing of odour is to be conducted for the stand alone tank vent pipe by a suitably qualified person(s).

Discharge parameters to be measured include diameter, volumetric flow rate, velocity, temperature, and odour concentration. Velocity, volumetric flow rate and temperature are to be measured in accordance with Test Method 2 of the NSW EPA *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales* (2006). Odour is to be measured in accordance with AS 4323.3-2001 Stationary source emissions - Determination of odour concentration by dynamic olfactometry. The monitoring duration for each parameter is as specified by the relevant testing method/standard.

Records of stack testing results are to be kept for at least 4 years after the monitoring to which they relate took place.

6.1.2 Field odour surveys

Field odour surveys are to be conducted each quarter for the first year of operation and every six months thereafter.

Field odour surveys can be conducted by Med-X personnel. A suitable assessor should not be overly or underly sensitive to odour and must not be suffering from any illness or allergy which impairs the olfactometry sense.

Field odour surveys are to be conducted in the surrounding industrial and residential areas. Monitoring locations for each survey should be selected with consideration of publicly accessible areas and wind direction (such that locations are downwind of the Project). Locations should include at or as close as practical to the Project boundary, and at approximate distances of 50m, 100m and 200m from the Project, subject to accessibility. Field odour surveys should be conducted when wind speeds are less than 5m/s.

During the field odour survey, a measurement is taken at each location over a period of 10 minutes. Over the ten-minute interval, the assessor tests the ambient air at 10-second intervals and records their observation of the intensity of the odour and the odour characteristic every 10 seconds.

Table 6-1 and **Table 6-2** present the odour intensity rating scale and suggested odour characteristic descriptors, respectively, suitable to be applied for the field odour surveys. Note that additional odour type codes may be used in the event that there is a distinct other such odour present. Observations of odour character which relate to the Project are to be noted.

Records of field odour surveys are to be kept for at least 4 years after the monitoring to which they relate took place.

Table 6-1: Odour intensity rating scale

Rating	Intensity description
0	No odour
1	Very slight
2	Slight
3	Distinct
4	Strong
5	Very strong
6	Extremely strong

Table 6-2: Odour characteristic descriptors

Odour type code	Odour characteristic descriptor	Odour type code	Odour characteristic descriptor
1	Fragrant	9	Faecal, manure, sewer
2	Household gas	10	Fishy
3	Burnt smoky	11	Diesel/car fumes
4	Herbal, green, cut grass	12	Seaweed, mangroves
5	Oily, fatty	13	Compost
6	Rotten eggs, sulfide	14	Musty, earthy, mouldy
7	Sour, body odour	15	Other
8	Meaty		

6.2 Performance evaluation

There are no load limits, air quality criteria or air emission limits specified in the development consent conditions or EPL 20233.

Table 6-3 presents the air quality related key performance indicators that will be used to assess the performance of the Project.

Table 6-3: Key performance indicators

Measure	Key performance indicator
Implementation of the management practices	Annual compliance checklist shows that all management practices listed in this plan were implemented
Stand alone tank vent pipe design	Release height ≥1m above roof line Sampling plane consistent with AS4323.1 1995
Results of monitoring show plant equipment is operating at/within design specifications	Stand alone tank vent parameters: Diameter 0.06m Temperature 40°C ± 10°C Exit velocity 16.5m/s ±20%
Odour measurements are consistent with those applied in the air quality assessment	Stand alone tank: 8,200 OU ±25%
Field odour surveys	No offensive odour detected beyond the boundary
Validated odour complaints are minimised and appropriate management actions are implemented following receipt of a complaint	No validated odour complaints

6.3 Non-compliance

The Planning Secretary must be notified in writing via the Major Projects website within seven days after the Applicant becomes aware of any non-compliance.

A non-compliance notification is to set out the condition of consent that the development is non-compliant with, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.

A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.

6.4 Incident reporting

Incident procedures will be undertaken in accordance Section 4.3.2 of the OEMP. The Planning Secretary is to be notified in writing via the Major Projects website immediately after the Applicant becomes aware of an incident. The notification must identify the development (including the development application number and the name of the development if it has one) and set out the location and nature of the incident. Subsequent notification requirements must be given, and reports submitted in accordance with the requirements set out in Appendix 3 Incident Notification and Reporting Requirements of SSD 6761.

6.5 Complaints protocol

The Project operates email and telephone complaints lines for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises. Air quality complaints received by the Project will be recorded in a Complaints Register which will include the following details where available:

- the date and time of the complaint;
- the method by which the complaint was made;
- any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;
- the nature of the complaint;
- the action taken by Med-X in relation to the complaint, including any follow-up contact with the complainant; and
- if no action was taken by the Med-X, the reasons why no action was taken

Air quality related complaints will be investigated within 24 hours of receipt. For odour complaints, where practical, site personnel should visit the location of the complaint within a short time of receival to verify the nature of any off-site odour related to the Project. The cause of the complaint will be analysed and actions to resolve the complaint taken as soon as possible.

Handling of any air quality related complaints will be managed in accordance with the process outlined in Section 4.3.3 of the OEMP. The Branch Manager will record and manage all complaints in accordance with EPL No. 20233, the Consent Conditions and the Facilities reporting procedures.

The record of a complaint must be kept for at least 4 years after the complaint was made. The complaints register is to be made publicly available on the Project website, updated monthly.

Within six months of the commencement of the development, Med-X will consult with the local council to determine if there has been any material upturn in complaints from the local area received by council that could be related to the Project.

7 REVIEW AND IMPROVEMENT OF ENVIRONMENTAL PERFORMANCE

7.1 Plan review and continuous improvement

This plan will be reviewed within three months of:

- the submission of a Compliance Report;
- the submission of an incident report;
- the submission of an Independent Audit;
- the approval of any modification of the conditions of this consent; or
- the issue of a direction of the Planning Secretary which requires a review,

The Planning Secretary is to be notified in writing that a review is being carried out.

The review includes where relevant:

- Any changes to site operations with the potential for air quality impacts;
- Monitoring data trends;
- Incidents and non-compliances;
- Complaints records;
- Measures to be implemented to improve the environmental performance of the Project.

The most recent approved version of this AQMP is to be implemented. The most recent approved AQMP is to be made publicly available on the Project website.

7.2 Audits

The submission of an independent audit triggers a review of this air quality management plan as described in Section 7.1.

7.2.1 Odour audit

An Odour Audit is to be carried out no later than six months after the commencement of operation of the development. The audit must:

- be carried out by a suitably qualified, experienced and independent person(s), whose appointment has been endorsed by the Planning Secretary;
- audit the development in full operation;
- include a summary of odour complaints and any actions that were carried out to address the complaints;
- assess the operation against odour impact predictions in the Environmental Impact Statement (EIS) and Response to Submissions (RtS);

- review design and management practices in the development against industry best practice for odour management; and
- include an action plan that identifies and prioritises any odour mitigation measures that may be necessary to reduce odour emissions.

Within six months of commissioning of the Odour Audit required by Condition B6 of SSD 6761, or otherwise agreed by the Planning Secretary, the Applicant must submit a copy of the Odour Audit report to the satisfaction of the Planning Secretary, together with the Applicant's response to any recommendations contained in the Odour Audit report.

7.2.1.1 Odour modelling validation

As per Appendix 2 of the development consent, the odour modelling is to be validated within 12-months of project approval or as soon as practicable after receipt of a valid odour complaint that cannot be addressed by applying the controls identified in this air quality management plan.

Validation of odour modelling can be achieved through the fourth dot point of the Odour Audit which is to include an assessment of the operation against odour impact predictions in the EIS and RtS. Where the measured odour is less than modelled it can be confirmed that there would be no odour impact however if the odour levels are above that modelled, then it may be necessary to revise the modelling.

7.2.2 Independent audit

Within one year of the commencement of the development, and every three years after, unless the Planning Secretary directs otherwise, the Applicant must commission and pay the full cost of an Independent Environmental Audit of the development.

Audit reports prepared as part of any Independent Audit including the Applicant's response to the recommendations in any audit report are to be made publicly available on the Project website.

Appendix B

Waste Management Plan

Med-X Pty Ltd

Arndell Park Clinical Waste Management Facility

Waste Management Plan

Final | 8th October 2020

Job number 274648-00

Arup Pty Ltd ABN 18 000 966 165

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ARUP

Contents

Glossary

Term	Definition
AQMP	Air Quality Management Plan
Arup	Arup Pty Ltd
CRM	Customer Relations Management System
DPIE	Department of Planning, Industry, and Environment
EIS	Environmental Impact Statement
EP&A Act	Environmental Planning and Assessment Act 1979
EPA	Environmental Protection Agency
EPL	Environmental Protection Licence
GMOs	Genetically Modified Organisms
GPS	Global Positioning System
IMS	Integrated Management System
ISO	International Organization for Standardization
L	Litres
Med-X / the Applicant	Med-X Pty Ltd
MRV	Medium Rigid Vehicle
NATA	National Association of Testing Authorities, Australia
NSW	New South Wales
NSW Health Requirements	NSW Clinical and Related Waste Management for Health Services requirements
OEMP	Operational Environmental Management Plan
OH&S	Occupational Health and Safety
PDA	Personnel Digital Assistance
POEO Act	Protection of the Environment Operations Act 1997
RtS	Response to Submissions
SSD	State Significant Development
The Consent Conditions	Conditions of Development Consent
OTMP	Operational Traffic Management Plan
The Facility	Med-X Clinical Waste Management Facility
The Site	Arndell Park Industrial Precinct at 9 Kenoma Place, Arndell Park
tpa	Tonnes per Annum
WMP	Waste Management Plan
AQMP	Air Quality Management Plan

1 Introduction

1.1 Overview

Med-X Pty Ltd (Med-X) operate the Med-X Clinical Waste Management Facility (the Facility) located within the Arndell Park Industrial Precinct at 9 Kenoma Place, Arndell Park (being Lot 14, DP 786328).

The facility has been approved to receive and process up to 2,300 tonnes per annum (tpa) of clinical and related wastes (specifically 2,000 tpa of clinical waste and 300 tpa of related wastes) between the hours of 7.00am and 7.00pm, Monday-Saturday (including any public holiday that falls on a Saturday). The waste will be collected and delivered to the facility by the collection fleet (8 Medium Rigid Vehicle (MRVs) and 8 vans) between the hours of 5am and 5pm.

The Facility includes the following infrastructure:

- The enclosed clinical waste management facility building, with a bunded area with access for one vehicle to unload;
- The on-site car park adjacent to the facility building where a second vehicle waits to be serviced in the bunded area;
- The enclosed office building.

Development Consent for State Significant Development (SSD) 6761, comprising expansion of the facility, was granted by the NSW Department of Planning, Infrastructure and Environment (DPIE) on 28 September 2020 in accordance with Section 4.38 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

An Environmental Protection Licence (EPL) has been issued under the *Protection of the Environment Operations Act 1997* (POEO Act) by the Environment Protection Authority (EPA). This EPL has been updated following the approval of the Development Consent.

This Waste Management Plan (WMP) has been prepared to manage the received clinical waste and related waste at the Facility, in accordance with the requirements of the Conditions of Development Consent (the Consent Conditions) and the EPL issued for the Facility. The WMP details strategies to implement control strategies and mechanisms for the effective management of clinical and related waste, and details strategies for the lawful storage and/or processing of waste during operation.

1.2 Scope and Objectives

This WMP forms part of the Facilities Operational Environmental Management Plan (OEMP). The purpose of this WMP is to provide waste management procedures in accordance with Consent Conditions, EPL and relevant legislation.

- This WMP provides information on the key waste management requirements for the Facility, including the following:
- Details of the classification and quantity of waste that would be accepted, stored and processed;

- Details of the waste management measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria;
- Details of the waste monitoring programme;
- A program to investigate and implement ways to improve the environmental performance of the development over time;
- Details of the contingency plan and protocol for managing and reporting any incident, non-compliance, complaint, and failure to comply with statutory requirements; and
- A protocol for periodic review of the WMP.

1.2.1 Legal and other requirements

The following regulatory framework applies to this WMP:

- Environmental Planning and Assessment Act 1979;
- Development Consent issued under the Environmental Planning and Assessment Act 1979;
- Protection of the Environment Operations Act 1997 (POEO Act);
- Environment Protection Licence (EPL 20233) issued under the POEO Act by the EPA;
- Environmental Protection Licence (EPL 12609) issued under the POEO Act by the EPA;
- Certificate of Approval – Clinical Waste Treatment Method issued under the POEO Act by the New South Wales (NSW) Ministry of Health;
- The Protection of the Environment Operations (Waste) Regulation 2014;
- The NSW Health Clinical and Related Waste Management for Health Services 2017; and
- NSW EPA Waste Classification Guidelines Part 1: Classifying Waste 2014

1.2.2 Conditions of Development Consent

Development Consent for SSD 6761 was granted by the DPIE on 29th September 2020 in accordance with Section 4.38 EP&A Act. The conditions of the Development Consent include the provision of a Waste Monitoring Program for the facility as shown in Table 1 below.

Table 1 Waste Monitoring Development Consent Conditions

Condition		Section
B11. Prior to the commencement of operation, the Applicant must prepare a Waste Monitoring Plan for the development to the satisfaction of the Planning Secretary. The Waste Monitoring Plan must:		
(a)	be prepared by a suitably qualified and experienced person(s) prior to the commencement of operation;	Section 1.6

Condition		Section
(b)	include suitable provision to monitor the: (i) quantity, type and source of waste received on site; (ii) quantity, type and quality of the outputs produced on site; (iii) freezer capacity on site for the storage of received anatomical waste; and	Section 4.2, 4.3, 5.1
(c)	ensure that: (i) all waste that is controlled under a tracking system has the appropriate documentation prior to acceptance at the site; (ii) sufficient capacity is available for the storage of all clinical and related wastes; and (iii) staff receive adequate training in order to be able to recognise and handle any hazardous or other prohibited waste including asbestos.	Section 4.1.1, 4.1.2, 4.3, 4.4
B12. The Applicant must:		
(a)	not commence operation until the Waste Monitoring Plan required by condition B11 is approved by the Planning Secretary; and	Noted.
(b)	implement the most recent version of the Waste Monitoring Plan approved by the Planning Secretary for the duration of the development.	Noted.

The additional Consent Conditions relevant to this plan and the corresponding report references are shown in Table 2 below.

Table 2 Additional Development Conditions Development Consent Conditions related to waste management and monitoring

Relevant Condition	Requirement	Section Reference
Processing and Storage Capacity		
A6.	**The applicant must not:**	
(a)	receive or process more than 2,000 tonnes per annum of clinical waste;	Section 4.1 4.2 and 4.3
(b)	receive or store more than 300 tonnes per annum of related waste;	
(c)	process more than 648 kilograms of clinical waste per operating cycle of the autoclave;	
(d)	store more than 450 kilograms of clinical waste outside of the approved hours of operation;	
(e)	store any related waste outside of the approved hours of operation; and	
(f)	store more than 1,200 kilograms DG Class 6.2 PG III at all times	
Operation of Plan and Equipment		
A16.	**All plant and equipment used on site, or to monitor the performance of the development, must be:**	
(a)	maintained in a proper and efficient condition; and	Section 5.1, 5.2
(b)	operated in a proper and efficient manner.	

Relevant Condition	Requirement	Section Reference
Waste Processing and Storage		
B13.	The Applicant must unload the waste received at the site inside the processing building and at the designated loading dock to avoid spillage.	Section 4.1
B14.	The Applicant must ensure the development does not store clean waste bins in the vehicle manoeuvring area except as shown in Figure 1 in Appendix 1.	Noted.
B15.	All waste processing, and material handling activities must be undertaken in an enclosed processing building and within designated areas.	Section 4.1, 4.2, 4.3
B16.	Clinical waste and related waste received on site must always be secured and maintained within designated waste storage areas shown on Figure 3 and Figure 4 in Appendix 1 and must not leave the site onto neighbouring public or private properties.	Noted.
Statutory Requirements		
B17.	All waste materials removed from the site must only be directed to a waste management facility or premises lawfully permitted to accept the materials.	Section 4.1
B18.	The Applicant must assess and classify all liquid and non-liquid wastes to be taken off site in accordance with the latest version of EPA's *Waste Classification Guidelines Part 1: Classifying Waste* (EPA, 2014) and dispose of all wastes to a facility that may lawfully accept the waste.	Section 4.2.1, 4.3.2
B19.	The Applicant must retain all sampling and waste classification data for the life of the development in accordance with the requirements of EPA.	Section 4.1.1, 5.1

1.2.3 Mitigation measures

In addition, the operational mitigation measures contained in Appendix 2 of the Development Consent for waste management are presented in Table 3.

Table 3 Operational Mitigation Measures

Mitigation requirement		Section
Waste management	A WMP is to be developed and implemented and is to include measures relevant to the management of waste derived at the site.	This WMP

1.2.4 Environmental Protection Licence

Under the EPL No. 20233 the Facility is only licensed to store and process clinical and related wastes (as defined in Schedule 1 of the POEO Act).

Table 4 below details the EPL No. 20233 requirements relevant to this WMP.

Table 4 Environmental Protection Licence No. 20233 Requirements

Relevant Condition	Requirement	Section Reference
L2 Waste		
L2.1	The licensee must not cause, permit or allow any waste to be received at the premises, except the wastes expressly referred to in the column titled "Waste" and meeting the definition, if any, in the column titled "Description" in the table below. Any waste received at the premises must only be used for the activities referred to in relation to that waste in the column titled "Activity" in the table below. Any waste received at the premises is subject to those limits or conditions, if any, referred to in relation to that waste contained in the column titled "Other Limits" in the table below. This condition does not limit any other conditions in this licence.	Section 4.2, 4.3.1
L2.2	The maximum quantity of clinical and related waste, treated and/or untreated, at the premises must not exceed 8000 kilograms at any one time.	Section 4.3.1
O1 Activities must be carried out in a competent manner		
O1.1	Licensed activities must be carried out in a competent manner. This includes: a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity	Section 4
O4 Processes and management		
O4.1	The licensee must ensure that any liquid and/or non-liquid waste generated and/or stored and/or treated and/or processed and/or reprocessed at the premises is assessed and classified in accordance with the EPA Waste Classification Guidelines as in force from time to time.	Section 4.2.2, 4.3.2
O5 Waste management		
O5.1	Clinical and related wastes that are not allowed to process under this licence received at the premises, including cytotoxic waste, pharmaceutical waste and radiological waste, must be separated from all other waste and transported to a place where it can be lawfully received.	Section 4
O5.2	The licensee must ensure that the handling, labelling, containment, storage and disposal of clinical and related waste are carried out in accordance with the NSW Health's Waste Management Guidelines for Health Care Facilities as in force from time to time.	Section 4
O5.3	Without limiting to O5.2, the licensee must ensure that:	Section 4

Relevant Condition	Requirement	Section Reference
	a) Clinical and related wastes are stored or contained in a weatherproof secure location isolated from any other waste materials, and that the storage area is maintained in a condition which presents no threat to environment or human health b) The storage area for clinical and related wastes contain all necessary equipment required to clean and disinfect the area in case of spillage c) Bagged clinical and related waste are stored and transported in rigid containers which are leak proof, shatter resistant, washable and have security fitted lids to prevent spills at all times d) Bags and containers used for storage and transport of clinical and related waste are colour coded and clearly marked with the wording "Clinical Waste" along with biological hazard symbol in accordance with the requirements of the NSW Health. e) Containers used for clinical and related waste which are to be reused must be thoroughly cleansed and disinfected before being reused f) Where secondhand containers are used all other irrelevant marking shall be obliterated.	
O5.4	The licensee must ensure that waste identified for recycling is stored separately from other waste.	Section 4.3.2
O5.7	The licensee must ensure that all liquid materials including chemicals, fuels, oils, and waste materials are stored in a designated impervious bund that contains 110% of the largest container contained within the bund.	Section 4.3.1
O5.8	The bunded area (floor and walls) must be impervious to the liquid(s) in the containers. The bund wall must not contain drain valves.	Noted.
O5.9	The licensee must ensure that all waste materials covered under this licence, including empty containers are handled, loaded, unloaded and stored only within the building and within bunded area.	Noted.
O5.10	The licensee must ensure that all decanting, consolidating, or bulking of waste materials must be conducted wholly within the building and within bunded area.	Section 3.1, 4
O6 Other operating conditions		
O6.1	The licensee must always comply with the conditions as specified in the approval of the method of treatment of clinical waste issued by NSW Health (NSW Health Approval of a Method of Treatment of Clinical Waste Dated 20 June 2013 issued to State Waste Services Pty Ltd).	Noted.

Relevant Condition	Requirement	Section Reference
O6.2	The licensee must maintain a valid approval of the method of treatment of clinical waste issued by the NSW Health at all times (a) A copy of current NSW Health approval of the method of treatment of clinical waste must be kept on the premises at all times.	Noted.
M1 Monitoring records		
M1.1	The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.	Section 5
M1.2	All records required to be kept by this licence must be: a) in a legible form, or in a form that can readily be reduced to a legible form; b) kept for at least 4 years after the monitoring or event to which they relate took place; and c) produced in a legible form to any authorised officer of the EPA who asks to see them.	Section 5
M1.3	The following records must be kept in respect of any samples required to be collected for the purposes of this licence: a) the date(s) on which the sample was taken; b) the time(s) at which the sample was collected; c) the point at which the sample was taken; and d) the name of the person who collected the sample.	Section 5

1.3 Supporting documentation

The following documents have been used to inform and support the WMP and are outlined in Table 5 below.

Table 5 Supporting documentation

Document Title	Prepared by
Management Plans	
OEMP	Arup
Operational Traffic Management Plan (OTMP)	Arup
Air Quality Management Plan (AQMP)	Todoroski Air Sciences
Med-X Policies	
SXMXNATPO2020086 Waste Management Policy	Med-X

Document Title	Prepared by
SXMXNATPO2020042 Emergency Management Policy	Med-X
Med-X Integrated Management System (IMS) Procedures	
MXNATQMA110 Med-X IMS Manual	Med-X
MXNATQMA110 17 IMS Procedure Testing & Inspection	Med-X
MXNATQMA110 8 IMS Procedure Calibrated Equipment	Med-X
MXNATQMA110 21 IMS Procedure Data Analysis & Evaluation	Med-X
MXNATQMA110 5 IMS Procedure Legal & Compliance Requirements	Med-X
MXNATQMA110 18 IMS Procedure Non-conforming Outputs	Med-X
MXNATQMA110 24 IMS Procedure Non-conformity & Corrective Action	Med-X
MXNATQMA110 25 IMS Procedure Incident Investigation	Med-X
MXNATQMA110 26 IMS Procedure Continual Improvement	Med-X
MXNATQMA110 9 IMS Procedure Competence & Awareness	Med-X
MXNATQMA110.10 IMS Procedure Communication & Participation	Med-X
Operational Procedures	
MXNATQPR304 Med-X Spill Control Management Procedure	Med-X
MXNATQPR307 Med-X Weighing Waste Procedures	Med-X
MXNATQPR314 Med-X Monitoring Treatment Facility Procedure	Med-X
MXNATQPR315 Med-X Treatment Facility Maintenance	Med-X
MXNATQPR318 Med-X Equipment Validation	Med-X
MXNATQPR319 Med-X Calibration Equipment Treatment	Med-X
MXNATQWMP001 Med-X Operational Waste Management Plan	Med-X
MXNATQMA110.9 Competence and awareness procedure	Med-X
MXNATQPR320 Med-X Backlog Contingency Procedure	Med-X
MXNATQPR305 Med-X Handling Clinical and Quarantine Waste Procedures	Med-X
MXNATQPR306 Med-X Handling Cytotoxic Anatomical and Pharmaceutical Waste Procedures	Med-X
MXNATQPR311 Med-X Forklift Operations	Med-X
MXNATQPR310 Med-X Shredder Operation	Med-X
MXNATQPR308 Med-X Autoclave Operations	Med-X
MXNATQPR309 Med-X Boiler Operations	Med-X
Other	
Med-X Aspects National Register	Med-X

1.4 Qualifications of Author

The WMP has been reviewed and approved by the qualified persons as summarised in Table 6 below.

Table 6 Qualification of authors

Name	Role	Relevant Qualifications
Joyanne Manning	Approver	BE MEngSc, FIEAust CPEng EngExec NER APEC Engineer IntPE(Aus)

2 Goals of WMP

The goal of the WMP is to document the following operational components for the Facility:

- Overall Implementation of the WMP, including a waste monitoring programme;
- Operational Contingency Plan;
- Process for identification and procedure for managing non-conforming waste bins and receival of non-conforming waste;
- Process for monitoring daily and annual storage and processing limits; and
- Training and Communication programmes.

2.1 Roles and Responsibilities

Branch management is ultimately responsible to ensure that all staff are aware and trained in the Med-X procedures. Branch management must ensure that Drivers, Production Team Members and Facility Hands understand and implement the procedures in place to manage and monitor the quantity, type and source of waste received on-site as per this waste management plan. Table 7 below details the position responsible for implementing the key actions required to conform to the WMP.

Table 7 Allocation of Roles and Responsibilities

Action	Responsibility	Timing
Performance Reporting and Review	National Leadership Team	Annually
Overall Implementation of the WMP, including the waste monitoring programme	Branch Manager	On-going
Actioning the Operational Contingency Plan	Branch Manager	During operational failures
Identifying non-conforming waste bins	Driver	On collection of waste bins from collection points
Identifying non-conforming waste	Production Team Member	On receipt of waste not conforming with EPL or consent conditions
Monitoring daily and annual storage and processing limits	Branch Manager	On-going
Training and Communication	Health and Safety Representative Compliance and Governance Manager	On-going

3 Operations and Potential Impacts

3.1 Site Features and Operations

The Med-X Clinical Waste Management Facility is located within the Arndell Park Industrial Precinct at 9 Kenoma Place, Arndell Park (being Lot 14, DP786328) (the Site). The Site consists of an office building, staff car parking, external storage of empty bins and the processing building which contains all plant, equipment and full bins.

Med-X operates its own collection vehicle fleet that collects clinical and related wastes. Once the clinical and related wastes is delivered to the Site, operations consist of the following activities:

- Receipt of clinical and related wastes;
- Identification and separation of related waste;
- Non-thermal treatment and shredding of clinical waste;
- Storage of treated clinical waste and untreated related waste;
- Contractor collection and transportation of treated clinical waste to an appropriate disposal facility;
- Contractor collection and transportation of related waste to an appropriate disposal facility;
- Washing and storage of waste bins; and,
- Storage of clean, unused bins.

3.2 Wastes Types Received

The type of wastes received at the facility includes:

- Clinical waste;
- Clinical sharps;
- Anatomical waste;
- Cytotoxic waste and; and,
- Pharmaceutical waste.

The Site is currently permitted to store clinical and related wastes and undertake non-thermal treatment of clinical waste. Related waste[1] is not permitted to be treated on site and must be identified, separated and stored in a defined location, and then transported to an appropriate facility for further processing or disposal.

[1] In the context of this report related waste includes anatomical, cytotoxic, parametrical and clinical sharps waste

3.3 Predicated Waste Impacts

The principle potential waste impacts associated with the Facility operations include:

- Odour emissions from wastes received;
- Receipt of non-confirming wastes to site in contravene with the EPL;
- Receipt of non-confirming bins on site in contravene with the NSW Clinical and Related Waste Management for Health Services requirements (NSW Health Requirements);
- Loss of containment of wastes; and
- Inappropriate disposal of oil/solvent soaked materials (such as rags) as general waste.

The Environmental Impact Statement (EIS) and Response to Submissions (RtS) identified potential waste impacts and risks associated with the operation of the facility. Table 8 below lists these impacts and the corresponding risk assessment which informs the mitigation measures required for these impacts.

Table 8 Waste Impact Risk Rating

Issue	Potential Impact	Source	Risk Ranking	Section Reference
Waste Management	Odour emissions from wastes received	Handling and storage of large quantities of clinical and related wastes has the potential to result in emissions of odour if not properly managed.	Moderate	Refer to AQMP
	Receipt of non-confirming wastes to site	Waste which the EPL does not permit to be handled at the Facility is brought to the site.	Moderate	Section 4.2.2
	Receipt of non-conforming bins on site	Waste bins arrive to the site that are non-conforming with the NSW Health requirements.	Low	Section 4.1.1, 4.2
	Loss of containment of wastes	Loss of containment of wastes during handling inside the processing building.	Low	Section 4.3
	Inappropriate disposal of oil / solvent soaked materials	Materials contaminated with oil or solvents being disposed in general waste or recycling bins.	Low	Section 4.3.2

4 Waste Management Measures

4.1 Waste Management System

The fleet vehicles will collect and deliver waste to the treatment facility. The maximum number of vehicles expected to arrive at the facility at once is two. Only one vehicle will unload into the bunded area inside the Facility building at any one time. If a second vehicle arrives on site while a vehicle is already in the process of unloading it will park adjacent to the on-site car park while waiting to be serviced. For more information refer to the OTMP.

- All clinical and related wastes that are received at the Facility are processed; the process includes:
- Unloading from the collection vehicle inside bunded area within the enclosed processing building;
- Inspection of the waste;
- Manually recording the weight, waste type and source (facility where the waste was generated); and
- Separating clinical and related wastes.

All clinical waste is treated on-site via the autoclave system. The treated clinical waste is shredded and compacted prior to collection by a licensed waste collection contractor. Related waste is not permitted to be treated on-site and is instead separately stored until it is collected for disposal at an appropriate facility.

4.1.1 Waste Tracking of Inputs

Med-X utilises its own collection vehicle fleet to collect the clinical and related wastes from private hospitals and other medical facilities. Med-X vehicles are driven by Med-X Drivers who are trained in the collection and transportation of clinical and related wastes.

The process for monitoring the quantity, type and source of waste received on-site is summarised in Table 9 below. All sampling and waste classification data for the life of the development is retained in accordance with the requirements of EPA.

Table 9 Montioring process for wastes received

Step	Description
1. Bin inspection at collection point	All bins are inspected by Med-X personnel to ensure compliance with NSW Health requirements and Australian Standards. Any bins that are found non-compliant are not collected and the Client is notified. The following information is to be reported on the Med-X Personnel Digital Assistance (PDA)[2]: • Client details • Location and date of non-compliance • Description of non-compliance

[2] Personal Digital Assistance – handheld device that functions as an information manager

Step	Description
2. Information recorded at collection location	The type and quantity of the clinical and related waste bins is documented on a PDA at the collection location. The following is recorded by the Med-X driver using the PDA: • Client details • Date of collection • Location of collection • Each bin has a barcode. The PDA scans this barcode and the bin type, size (L) and quantity is recorded.
3. Client Sign-off	A service docket is generated by the PDA and is signed by the Client to confirm completion of the service.
4. Receival documentation	Upon arrival to the site the following documentation should be provided to the Production Team Member: • Client details • Driver route allocation sheet • Service Docket • Weight sheet
5. On-site Bin Inspection	All receptables are visually inspected. If anatomical, cytotoxic or pharmaceutical bags of waste are found to be incorrectly deposited into the clinical waste bins, the entire contents of the bin will be treated as anatomical, cytotoxic or pharmaceutical waste. Incidents of significant contamination will be recorded by the Production Team Member on the weight sheet.
6. Weighing of bins	Each receptable is weighed. The gross weight, bin size and bin type are recorded on the weight sheet by the Production Team Member.
7. Documentation	The following information is uploaded to the Customer Relations Management System (CRM) and logistics management system daily for each delivery by the Production Team Member: • Client Details • Total net weight of each waste type (recorded on weight sheet) • Number and size of containers weighed (recorded on weight sheet) • Drivers route allocation sheet • Service Docket

4.1.2 Waste Tracking of Outputs

Outputs in the context of this facility include the treated clinical waste and the sorted related waste which is stored in an allocated area within the facility.

The process for tracking treated clinical waste is summarised in Table 10 below.

Table 10 Monitoring process for treated clinical waste

Step	Description
1. Treated clinical waste is tested	Every load processed by the autoclave undergoes biological indicator testing to test the efficacy of the autoclave. This information is recorded and stored within the CRM system.
2. Treated clinical waste is weighed	All four autoclave carts are weighed after each treatment cycle. The results are recorded on a daily clinical waste treatment list, which is recorded by the numbers of cycles, with this data stored on the CRM system.

Step	Description
3. Treated clinical waste is compacted	All treated clinical waste is shredded. The shredded material is classified as "inert waste", which is then loaded into the bulk compactor bin.
4. Bulk compactor bin collected	The compactor is collected by a nominated waste collection contractor for disposal at an EPA licensed landfill facility.
5. Weight data recorded	The weight of each compactor collected is recorded by the nominated waste collection contractor. The net weight of each bulk compactor bin is recorded at the landfill weighbridge. The total material landfilled is provided to Med-X within a monthly invoice provided by the waste collection contractor. The following information is collated to Med-X and uploaded to the CRM system: • Date of collection • Net weight of material disposed to landfill per month • Disposal location

The process for tracking clinical sharps, cytotoxic and pharmaceutical waste is summarised in Table 11 below.

Table 11 Monitoring process for clinical sharps, cytotoxic and pharmaceutical waste

Step	Description
1. Bins are weighed and sorted	All clinical sharps, cytotoxic and pharmaceutical waste bins are weighed and data recorded (refer to Table 9 above).
2. Wastes are centrally stored	Wastes are decantated into bulk bins stored in an allocated area: • Cytotoxic waste is stored in 660L bins • Pharmaceutical waste is stored in 240L bins • Clinical sharps containers are stored in 900L bins
3. Wastes collected	The bulk clinical sharps, cytotoxic and pharmaceutical waste bins are collected daily by the nominated waste collection contractor for incineration at a licensed facility.
4. Weight data recorded	The weight of each bin type collected is checked against the total weight incinerated at the licensed facility. The following information is collated by Med-X and uploaded to the CRM system: • Date of collection • Weight of each bin collected • Size (L) and number of each of bin collected • Total weight of each stream incinerated • Disposal location (for each stream)

All anatomical waste is stored in a commercial grade freezer with a 90kg capacity. The process for tracking anatomical waste and the available freezer capacity is summarised in Table 12 below.

Table 12 Monitoring process for anatomical waste

Step	Description
1. Bins are weighed and sorted	All anatomical waste bins are weighed, and data recorded (refer to Table 9 above). A cumulative total of the anatomical waste being stored at the facility at any one time is recorded and monitored throughout the day.

Step	Description
2. Anatomical waste is decantated into freezer	Anatomical waste is transferred into the allocated storage freezer. The freezer is visually inspected throughout the day to determine if the freezer is nearing capacity. If the freezer is nearing capacity the anatomical waste is collected by the nominated waste contractor.
3. Anatomical wastes collected	The anatomical waste is collected daily by a suitable waste collection contractor for incineration at an EPA licensed facility.
4. Weight data recorded	The following data is collated by Med-X and uploaded to the CRM system: • Date of transfer to incineration facility • Weight of anatomical waste bins collected • Total number of bins collected • Disposal location

4.1.3 Information Systems and Equipment

Med-X utilises a series of equipment and systems to collect, store and monitor waste collection and storage. The interactions between these systems is shown in Figure 1 and descriptions of the equipment and systems are detailed in Table 13.

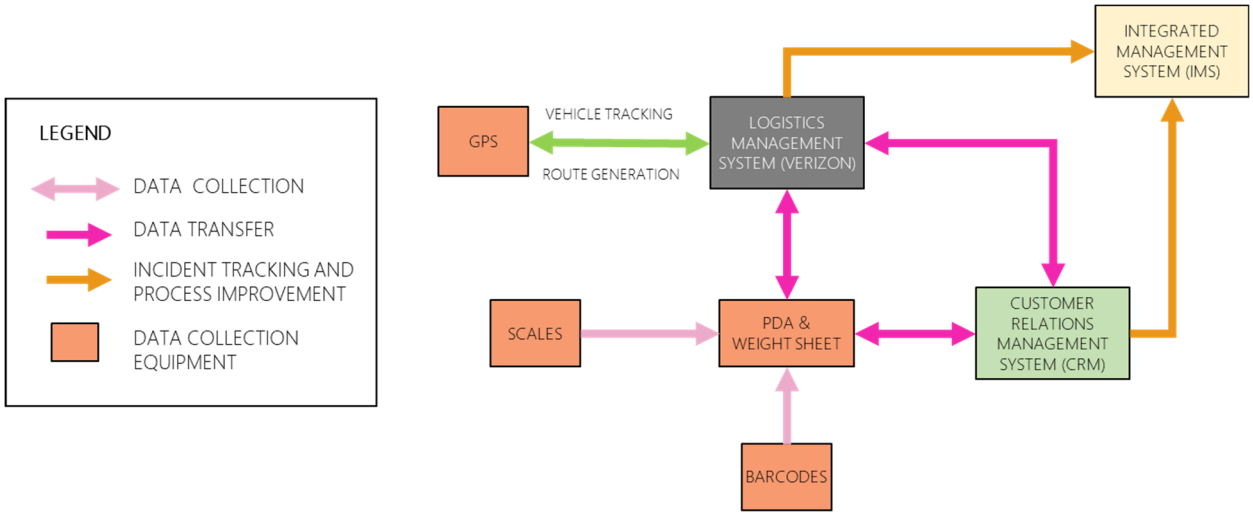

Figure 1 Interactions between Med-X systems

Table 13 Description of equipment and systems

Diagram Reference	Description	Interfaces
DATA COLLECTION EQUIPMENT		
GPS - Global Positioning System	All Med-X collection vehicles are equipped with a GPS. The GPS provides the routes for collection to the Med-X Drivers. The GPS tracks the location of vehicles undertaking collections in real time.	The Logistics Management System generates the collection routes and sends this information to the GPS. The driver's location is transferred to the logistics management system. The GPS is used to communicate to drivers that they need to slow down if the Facility is congested.
PDA – Personnel Digital Assistance	The PDA is a handheld device the Med-X Driver uses to: • Scan bin barcodes to record time and location of collection • Calculate the number, type and size of bins collected at each location • Retrieve client details • Store Driver route allocation sheet information	The PDA directly transfers the information to the CRM System.
BARCODES	All waste storage containers / bins provided to Clients must be labelled with a barcode.	The PDA scans the barcodes, this information is directly transferred to the CRM system.
SCALES	Electric scales are used to record the weight of each bin.	This information is directly transferred from the PDA to the CRM system.
INFORMATION SYSTEMS		
LOGISTICS MANAGEMENT SYSTEM (VERISON)	The Logistics Management System is used for: • Producing the Driver route allocation sheet • Vehicle Tracking • Maintenance Programs / Vehicle Diagnostics • Route Management and Improvement. • Route Analysis and Reporting • Driver Time Management	The Logistics Management System connects to the CRM system to generate collection routes and the weekly run sheets that provide: • Collection location and collection frequency • Services to be provided at each location The Logistics Management System connects to the GPS to provide Drivers the collection route in real time. Data collected in the Logistics Management System is used to inform the IMS and improve procedures and processes as required.
CUSTOMR RELATIONS MANAGEMENT SYSTEM - CRM	The CRM system is used for: • Collating and storing all client data (existing and potential)	The CRM system connects directly with the PDA to collect client information. The CRM system connects directly to the Logistics Management System.

Diagram Reference	Description	Interfaces
	• Checking Pricing, Weights, Container Size, Service Details, Rent jobs • Invoicing • Incidents of non-compliance	Data collected in the CRM system is used to inform the IMS and improve procedures and processes as required.
INTEGRATED MANAGEMENT SYSTEM - IMS	The IMS exists as part of a larger strategy that establish, document and implement processes, integrate policies and objectives, whilst satisfying the requirements of ISO 9001:2015, ISO 14001:2015 and ISO 45001:2018. The key process groups addressed in the IMS include: • Management and review processes • Operation and service processes • Support & assurance processes	Data collected in the Logistics Management and CRM systems is used to inform the IMS and improve procedures and processes as required.

4.2 Waste Classification and Sorting

4.2.1 Waste Classification

The type of wastes received at the facility include clinical waste, clinical sharps, anatomical waste, cytotoxic waste and pharmaceutical waste. These are described in Table 14 below as per the NSW Health Clinical and Related Waste Management for Health Services[3] and the NSW EPA Waste Classification Guidelines Part 1: Classifying waste[4].

Table 14 Waste streams received at the facility

Waste Stream	Definition
Clinical Waste	Clinical waste with the potential to cause injury, infection or offence: Unrecognisable human tissue (excluding hair, teeth, nails and anatomical waste) Bulk blood or other body fluids (or body substances) Material and equipment visibly stained by blood or body fluids (includes incontinence pads and disposable nappies that come from an infectious patient) Lab specimens, cultures or other waste from lab investigations Waste from medical or veterinary research Genetically Modified Organisms (GMOs)
Clinical sharps	Any clinical object capable of inflicting a penetrating injury which may or may not be contaminated with blood and or body substance. This includes needles, ampoules and any other sharp objects or instruments designed to perform penetrating procedures. May contain clinical material or GMO waste.
Anatomical waste	Identifiable human body parts such as limbs, organs, placenta and recognisable or large pathological specimens resulting from investigation or treatment of a patient. It does not include deceased bodies.
Cytotoxic Waste	Material contaminated with residues or preparations containing materials toxic or otherwise harmful to cells. This includes any residual cytotoxic drug or laboratory chemical and any discarded material or clinical waste associated with the preparation or administration or excretion of cytotoxic drugs. May include GMOs or tissues containing GMOs.
Pharmaceutical Waste	Pharmaceuticals or other chemical substances specified as regulated goods in the Poisons and Therapeutic Goods Act 2008. Includes any substance specified in a Schedule of the Poisons List under the Act, as well as any therapeutic good which is unscheduled. Includes expired or discarded pharmaceuticals, filters or other material contaminated by pharmaceutical products.

4.2.2 Screening and Recording

There are two main screening points for the identification of the type of waste received at the Facility:

[3] NSW Health (2017), *Clinical and Related Waste Management for Health Services*, https://www1.health.nsw.gov.au/pds/ActivePDSDocuments/PD2017_026.pdf
[4] NSW EPA (2014), *NSW EPA Waste Classification Guidelines Part 1: Classifying waste,* https://www.epa.nsw.gov.au/~/media/EPA/Corporate%20Site/resources/wasteregulation/140796-classify-waste.ashx

- **Driver bin inspection:** The Drivers inspect the waste bins at each collection point to ensure only bins with approved waste types are collected; and
- **Driver and/or Production Team Member in-bin visual inspection:** All bins are to be visually inspected to determine if non-confirming wastes are stored in the bin and to confirm the waste is stored in the correct bin.

Drivers will not collect any waste bin that is not compliant with NSW Health requirements and Australian Standards. Only clinical, clinical sharps, anatomical, pharmaceutical and cytotoxic waste receptables will be collected.

During the visual inspection, if anatomical, cytotoxic or pharmaceutical bags of waste are found to be incorrectly deposited into the clinical waste bins, the entire contents of the bin will be treated as anatomical, cytotoxic or pharmaceutical waste. If non-conforming waste is identified, the bin containing the waste is isolated and collection via an appropriate contractor is arranged.

Any incidences are recorded in a non-conformance Report and non-conformance Log by Med-X Staff as per the Med-X IMS Procedure – Non-conforming Outputs.

4.2.3 Waste Sorting

During the visual inspection process, the waste bins are sorted into clinical waste, clinical sharps, anatomical, pharmaceutical and cytotoxic waste. The clinical waste is transferred to the autoclave carts ready for treatment and the related wastes are stored in their allocated area as per Figure 2[5].

4.3 Waste Processing and Storage

The waste receival process consists of the following activities:

- A waste delivery vehicle arrives and reverses into the building through the door located at the back of the building;
- Full bins are unloaded directly into the full bin staging area inside the building and inspected;
- Bins are weighed;
- Clinical waste bins will be sorted into groups with a combined weight of approximately 162kg;
- Clinical waste is transferred via the bin lift or manually into autoclave carts;
- Each cart is to be weighed upon entry into the autoclave to ensure no more than 162kg is processed during any one cycle;
- Cytotoxic, pharmaceutical and clinical sharps waste bins are transferred to their allocated storage areas; and,
- Anatomical waste is transferred to the allocated freezer for storage.

Clinical waste is treated in the autoclave, followed by shredding, this process is an approved treatment method by NSW Department of Health.

[5] As per Appendix 1 Development Layout Plans Figure 3 in the Conditions of Consent.

If there is a loss of containment of wastes during the handling process inside the processing building, the spill will be contained according to the Med-X Spill Control Management Procedure (MXNATQPR304).

The waste receival and waste treatment process is summarised in Figure 2 below.

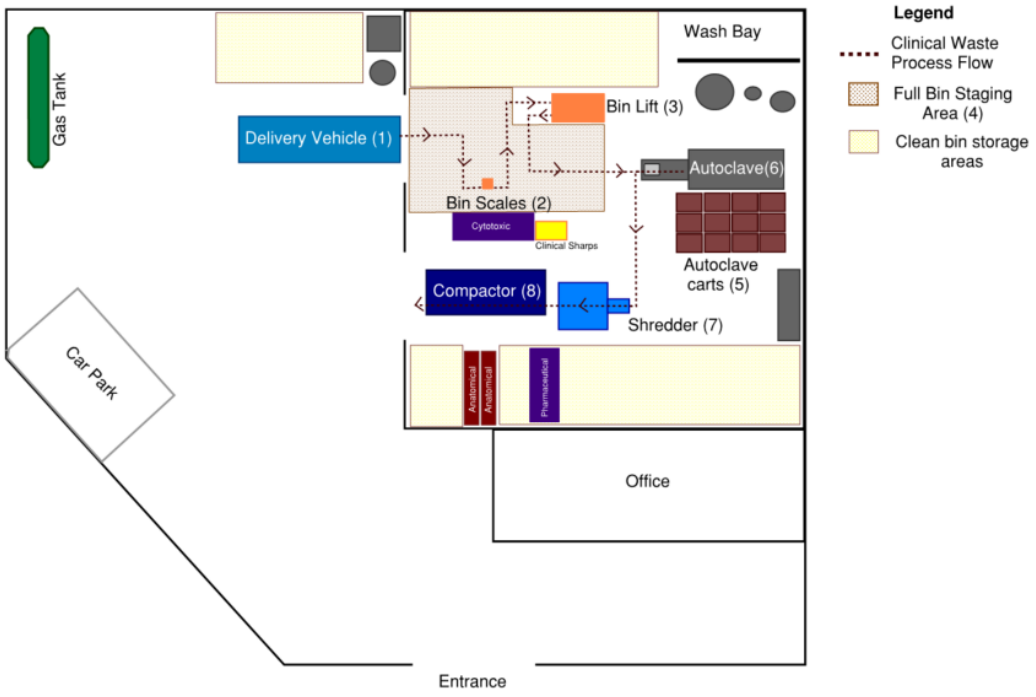

Figure 2 Waste receival and treatment process

The site plans for the internal and external areas of the Facility are provided in Figure 3 below.

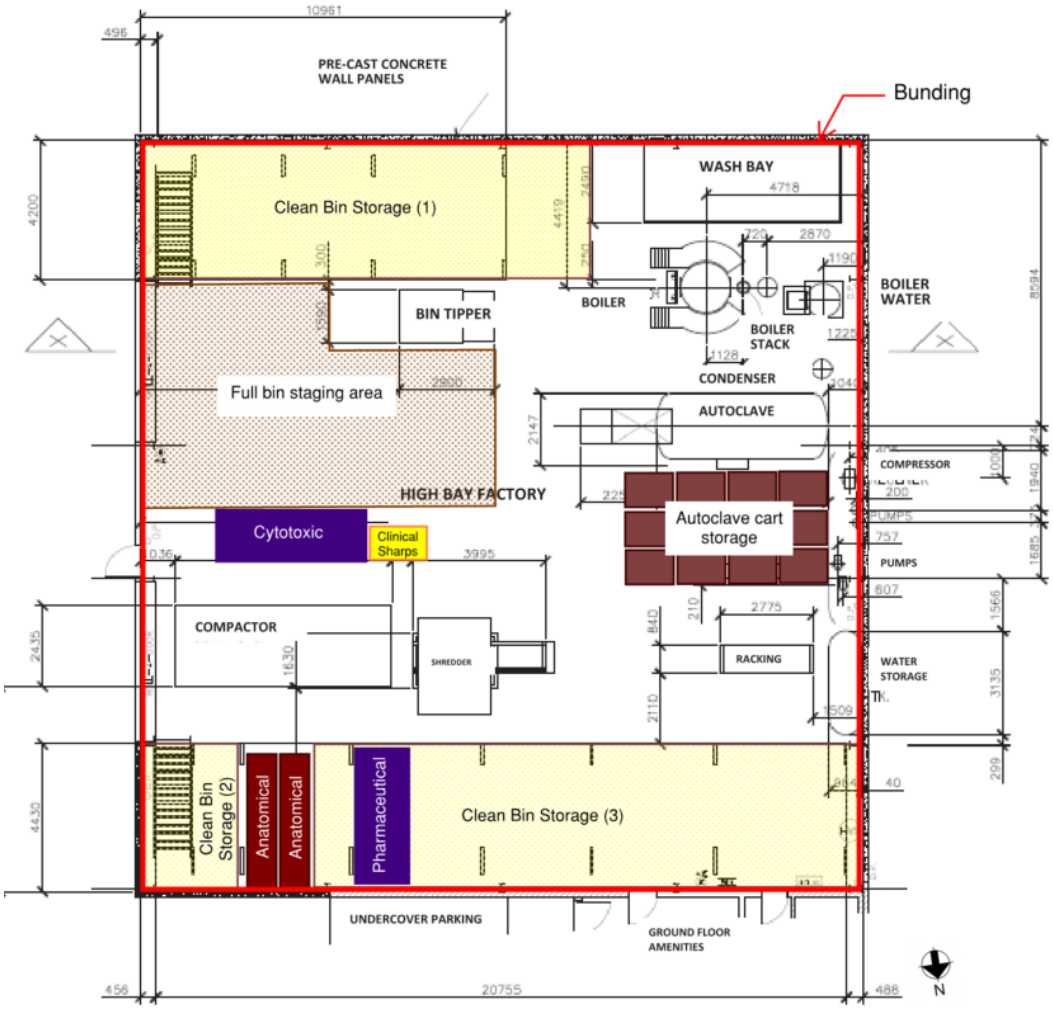

Figure 3 Internal site layout – ground floor storage areas

4.3.1 Facility Storage and Processing Limits

The facility is licensed to receive a maximum of 2,300 tonnes of clinical and related wastes per year. The limits apply to waste processing and storage and as such the Facility will not:

- Receive or process more than 2,000 tonnes per annum of clinical waste;
- Receive or store more than 300 tonnes per annum of related waste;
- Process more than 648 kilograms of clinical waste per operating cycle of the autoclave;
- Store more than 450 kilograms of clinical waste outside of the approved hours of operation;
- Store any related waste outside of the approved hours of operation;
- Store more than 1,200 kilograms DG class 6.2 pg iii at all times; and

- Store more than 8,000kg of clinical and related waste, treated and/or untreated, at the premises at any one time as per the EPL.

4.3.2 On-site Waste Generation and Management

Waste is generated on-site within the office building and during other site activities[6]. Appropriate waste bins are provided throughout the office building to enable the segregation of recyclables and general waste at the Facility. Waste bins are decanted into 240L bins and the small waste skip as appropriate.

The waste generated, the waste storage and collection frequency is summarised in Table 15 below.

Table 15 On-site Waste Management

Stream	Storage	Collection Frequency	Collection
General waste[7]	Small waste skip bin	Minimum of once per week	Collected by nominated waste collection contractor.
Comingled recyclables	1 x 240L located within office building	Three days per week	
Organics	2 x 240L located within office building	Three days per week	
Wooden Pallets	On-site storage Located adjacent to office building	As required	Pallets returned to supplier

4.4 Waste Training Programmes

Med-X operates a formal system to ensure that all employees within the organisation are adequately trained and aware, to enable them to perform their assigned duties. Each Manager and Supervisor is responsible for monitoring the abilities of all their workers and their responsibilities.

All employees receive training as identified by an initial training needs assessment. The training requirements of employees are assessed against wider organisational policies and objectives. Gaps in training, knowledge or competence are identified and filled. Appropriate training requirements are further identified through this process using the Competency Review Form. For more details please refer to the Med-X MXNATQMA110 9 IMS Procedure Competence & Awareness document.

Table 16 summarises the training provided to staff.

[6] Please also refer to MXNATQWMP001 Med-X Operational Waste Management Plan
[7] General waste is generated within the office building and from the other by-products from the use of certain products such as potentially oil contaminated cardboard boxes, dirty rags, plastics, empty containers etc.

Table 16 Training Programmes

Employee	Training Type	Descriptions	Frequency
All Staff	Induction	Includes health, safety and environmental briefing.	Within the first month of employment
All Staff	Awareness Training	Appropriate to respective responsibilities. Is provided to ensure employees are aware of any significant impacts, actual or potential, of their work activities: Responsibilities in achieving conformance with policies and procedures; Relevant incidents and the outcomes of investigations; Relevant hazards, Occupational Health and Safety (OH&S) risks and actions; Ability to remove themselves from work situations they consider dangerous; Contribution to the effectiveness of the management system; and, Potential consequences of departure from specified operation procedures.	On-going
Drivers	On-the-Job Training	Additional training to understand logistics management system, waste tracking procedures, identification of non-conforming receptables and loading & unloading procedures.	On-going during first six months of employment
Production Team Member	On-the-Job Training	Additional training to understand waste tracking procedures, identification of non-conforming receptables, identification of non-conforming waste, unloading procedures and equipment operation.	On-going during first six months of employment

Where required, awareness training is conducted in-house to allow the transfer of organisational knowledge but for more specialist skills, external seminars, trainers or courses are utilized. The effectiveness of awareness training is evaluated and recorded. The company induction includes an introduction to the organisation's policy statements and objectives. Future training needs are identified as part of the management review process.

4.5 Operational Contingency Measures

Operations at the facility have the potential to be disrupted by various external and internal factors. Potential sources of disruption to the operation of the Facility and the corresponding remedial measures are summarised in Table 17 below.

Table 17 Operational Contingency Plan

Factor	Potential Impact	Remedial Measure
Unexpectedly high volume of waste collected in a day	Potential daily or annual storage / processing exceedances	To prevent backlog accumulating on site beyond safe storage limits and to conform against conditions of licence of Environment Protection Orders, a risk-based decision with consideration of daily and annual limits is undertaken by the Branch Manager to divert the waste flow where required[8]. If backlog of storage has occurred, all waste will be transported to an alternative licensed treatment facility for processing. Clients will be notified as appropriate.
Major plant[9] planned or unplanned shutdown	Inability to process clinical waste at the Facility and resulting accumulation of waste within the Facility.	

[8] Please refer to MXNATQPR320 Med-X Backlog Contingency Procedure for additional information.
[9] Major plant refers to the Autoclave, Boiler and Shredder.

5 Waste Monitoring and Reporting

5.1 Monitoring Program

The key monitoring activities at the site include:

- Calibration of Equipment[10];
- Validation of Equipment[11];
- Monitoring of Processing Efficacy[12]; and,
- Monitoring of Waste Volumes and Compliance[13].

All data, processes, procedures and checklists for monitoring and reporting are stored on the Med-X IMS, including the legal and compliance requirements procedure[14]. All sampling and waste classification data for the life of the development is retained in accordance with the requirements of EPA.

The Branch Manager is responsible for monitoring the effectiveness of all waste management measures and equipment on site and ensuring the implementation of the monitoring programmes. Table 18 below summarises the key monitoring activities and frequency of monitoring at the Facility.

Table 18 Details of Monitoring Activities

Item	Type of monitoring	Description	Frequency
Weighbridge	Calibration	As part of start-up arrangements each day, the weighbridge must be zeroed and initialized.	Daily
Autoclave	Calibration	Autoclave operations (including chamber loading and heating), time and temperature recording equipment are to be calibrated by an accredited testing organization.	Minimum every six months
Weighbridge	Validation	Weighing of a 20kg standard weight will be undertaken to check the ongoing accuracy of the weighbridge.	Weekly
Shredder	Validation	The shredder is monitored daily to assess efficacy of the equipment. Periodical maintenance is performed on a quarterly basis with the shredder cutters typically replaced every 6 weeks.	Daily
Autoclave	Processing efficacy	Biological Indicator tests are undertaken by the National Association of Testing Authorities (NATA) approved Laboratory, to validate the autoclave sterilisation process.	Yearly
Autoclave	Processing efficacy	Every load processed by the autoclave must include biological indicator testing.	Daily

[10] Refer to MXNATQPR319 Med-X Calibration Equipment Treatment Facility for more information
[11] Refer to MXNATQPR318 Med-X Equipment Validation for more information
[12] Refer to MXNATQPR314 Med-X Monitoring Treatment Facility Procedures and MXNATQMA110 18 IMS Procedure Non-conforming Outputs for more information
[13] Refer to MXNATQPR307 Med-X Weighing Waste Procedures for more information
[14] Refer to MXNATQMA110 5 IMS Procedure Legal & Compliance Requirements.

Item	Type of monitoring	Description	Frequency
Autoclave Cart Limit	Waste Volumes	Autoclave carts are weighed before processing to ensure no more than 600kg is processed during any one cycle.	Per treatment cycle
Daily Storage on Site	Waste Volumes	The daily storage of all waste streams, including the freezer capacity to store anatomical waste, is monitored throughout operational hours.	Daily
Daily Receival / Processing Limit	Waste Volumes	The daily waste volumes processed and stored at the Facility must be recorded and collated on the Med-X CRM system and monitored daily.	Daily
Annual Receival/ Processing Limit	Waste Volumes	Weekly waste volumes must be recorded and stored on the Med-X CRM system and provided to the EPA as per legal and compliance requirements.	Weekly

5.2 Maintenance and Repairs

The basic equipment maintenance schedule for current and proposed operations is summarised in Table 19[15]. In addition to the proposed facility maintenance schedule below, the autoclave manufacturers from the U.S. inspect the autoclave and boiler every two years to confirm its integrity.

Table 19 Proposed facility maintenance schedule

Item	Daily	Weekly	Monthly	As Required
Autoclave		✓		
Filter check	✓			
Filter change				✓
Autoclave Seals				✓
Blow down tank – Autoclave			✓	
Autoclave Loading Bridge			✓	
Boiler		✓		
Blow down tank – Boiler			✓	
Shredder		✓		
Compressor Tank			✓	
Bin lifter	✓			
Inspect electrical connections			✓	
WP-N Platform	✓			

[15] Please refer to MXNATQPR315 Med-X Treatment Facility Maintenance and MXNATQPR308 – Med-X Autoclave Operations for more information

5.3 Performance Reporting and Review

To access the effectiveness, suitability and adequacy of the Facilities environmental management measures, environmental performance management reviews will occur annually. This review will include a performance assessment against the WMP goals. The review will consider reasonable measures that may improve the management of waste at the site, the outcome of the review will be a prioritisation of the implementations recommended.

The State Management Team and the National Leadership Team are ultimately responsible for performance reporting and review, with support from the Branch Manager.

All data is analysed and evaluated to ensure legal and compliance requirements as per the IMS procedure Data Analysis & Evaluation (MXNATQMA110 21) and Legal and Compliance Requirements (MXNATQMA110 5). The Facility will utilise monitoring data to review and identify any exceedances against the adapted goals with the appropriate corrective actions applied as per the IMS Procedure Continual Improvement (MXNATQMA110 26).

Further details of the reporting requirements are provided in the Conditions of Consent and the EPL No 20233 and Section 4.12 of the OEMP.

5.4 Exceedances and Corrective Actions

Handling of any waste related complaints will be managed in accordance with the process outlined in Section 4.3.3 of the OEMP. The Branch Manager, will record and manage all complaints in accordance with the EPL No. 20233, the Consent Conditions and the Facilities reporting procedures.

Incidence procedures will be undertaken in accordance Section 4.3.2 of the OEMP and the IMS Non-conformity & Corrective Action (MXNATQMA110 24). Details on the procedure for the investigation an incident can be found in IMS Procedure Incident Investigation (MXNATQMA110 25).

Notification, emergency response and reporting requirements relating to incidents are detailed in Section 4.3 and 4.4 of the OEMP.

Appendix C

Operational Traffic Management Plan

Med-X

Clinical Waste Management Facility

Operational Traffic Management Plan

Issue 1 | 8 October 2020

Job number 274648-00

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Document verification

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			Prepared by	Checked by	Approved by
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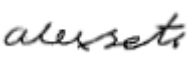
		Signature			
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1 Introduction

1.1 Overview

Med-X Pty Ltd (Med-X) operates the Arndell Park Clinical Waste Management Facility (the facility) located at 9 Kenoma Place, Arndell Park.

The facility has been approved to receive and process up to 2,300 tonnes per annum (tpa) of clinical and related wastes (including 2,000 tpa of clinical waste and 300 tpa of related wastes).

All clinical waste undergoes non-thermal treatment before being collected and transported off-site to the Kemps Creek landfill site at 1725 Elizabeth Drive, Kemps Creek. The collection of treated clinical waste will occur daily, Monday-Friday.

Related waste is separated and stored on-site before being transferred by a waste contractor to a licenced incineration facility for thermal treatment. The collection of related wastes will occur daily, Monday-Friday. Currently, related wastes are transferred to either Weston Thermal Solutions at 129 Mitchell Avenue, Kurri Kurri or Cleanaway Medical Waste Services, 2 Wiblin Street, Silverwater.

An associated site at 7 Vangeli Street, Arndell Park (from this point on referred to as the parking depot) is used as a vehicle delivery depot and for the storage of clean sharp waste containers.

The site is subject to operation in accordance with Environmental Protection Licence (EPL) 20233, issued by the NSW Environment Protection Authority (EPA) under the *Protection of the Environment Operations Act 1997* (POEO Act).

Med-X also hold Environmental Protection Licence (EPL) 12609 which provides a licence for the transport of category 1 and category 2 trackable waste.

Development Consent for State Significant Development (SSD) 6761, comprising expansion of the facility, was granted by the NSW Department of Planning, Infrastructure and Environment (DPIE) on 28 September 2020 in accordance with Section 4.38 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

This Operational Traffic Management Plan (OTMP) has been prepared to address the regulatory requirements for operation of the facility, and in particular Conditions B20 and C1 of the SSD 6761 Development Consent. The purpose of the plan is to outline the processes and measures required to manage the traffic movements at the facility and the associated parking depot, safely and efficiently.

1.2 Regulatory requirements

1.2.1 Conditions of Development Consent

Condition B20 of Part B Specific Environmental Conditions of the Development Consent relates to traffic management, specifically the requirement for an OTMP. Condition C1 of Part C Environmental Management, Reporting and Auditing provides the requirements for the OTMP.

The conditions of consent relevant to this OTMP are presented in Table 1, along with the sections of the report which address each point.

Table 1: Operational Consent Requirements

Condition		**Section**
B20. Prior to the commencement of operation, the Applicant must prepare an Operational Traffic Management Plan (OTMP) for the development to the satisfaction of the Planning Secretary. The OTMP must form part of the OEMP required by condition C2 and must:		
a)	Be prepared by a suitably qualified and experienced person(s),	Document Verification Sheet
b)	Detail the measures that are to be implemented to ensure road safety and network efficiency during operation;	Road safety - 4 Network efficiency – 3.6
c)	Detail the measures that are to be implemented to ensure delivery vehicle arrival times are appropriately staggered including the use of an electronic tracking system;	4.4
d)	Detail heavy vehicle routes, access and parking arrangements; and	4.1, 4.2 and 4.3
e)	Include a program to monitor the effectiveness of these measures.	5
C1. Management plans required under this consent must be prepared in accordance with relevant guidelines, and include:		
a)	detailed baseline data;	3.6, Appendix C
b)	details of: (i) the relevant statutory requirements (including any relevant approval, licence or lease conditions); (ii) any relevant limits or performance measures and criteria; and (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;	 3.6, 4 and 5 5 5
c)	a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria;	3.6, 4 and 5
d)	a program to monitor and report on the: (i) impacts and environmental performance of the development; and	 5

	(ii) effectiveness of the management measures et out pursuant to paragraph c) above	5
e)	a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible;	4.4 and 5
f)	a program to investigate and implement ways to improve the environmental performance of the development over time;	5
g)	a protocol for managing and reporting any:	
	(i) failure to comply with statutory requirements; and	5
	(ii) complaint;	5
	(iii) incident and any non-compliance (specifically including any exceedance of the impact assessment criteria and performance criteria);	5
h)	a protocol for periodic review of the plan	5

1.2.2 Mitigation measures

In addition, the operational mitigation measures contained in Appendix 2 of the Development Consent for traffic management are presented in Table 2.

Table 2: Operational Mitigation Measures

Mitigation requirement		**Section**
General traffic management	A traffic management plan is to be developed and implemented and is to include measures relevant to the management of traffic, as described in this report and supporting information.	This OTMP
Traffic congestion at Kenoma Place	Vehicle arrivals at the facility are to be closely monitored, to limit congestion and ensure waste delivery is evenly spaced across the daily operating hours. This includes use of the existing real-time vehicle tracking system, combined with additional monitoring of daily trends in arrivals.	4.4
Traffic congestion at Kenoma Place	Waste delivery and collection vehicles are to avoid idling in Kenoma Place and utilise the area on-site adjacent to the staff carpark where possible when waiting to unload.	4.4
Noise emissions to nearby residential receivers	Vehicles departing the Vangeli Street Parking Depot between 5am and 7am are to follow the designated route to the Great Western Highway, avoiding driving through residential areas.	4.1

1.3 Site description

The facility is located within the Arndell Park Industrial Precinct at the southern end of the Kenoma Place the cul-de-sac, as shown on Figure 1. The site is zoned 'IN1 General Industrial' under the Blacktown Local Environmental Plan 2015 (Blacktown LEP) and is surrounded by other industrial and commercial businesses. The nearest residences to the site are located on Mariko Place, Blacktown, approximately 400 m away.

The parking depot, an industrial property leased by Med-X, is situated on the eastern side of Vangeli Street, immediately south of the Kenoma Place intersection, as shown on Figure 1. The parking depot is also within the Blacktown LEP 'IN1 General Industrial' zone. The nearest residences to the parking depot are located at Mariko Place, Blacktown, around 300 m away.

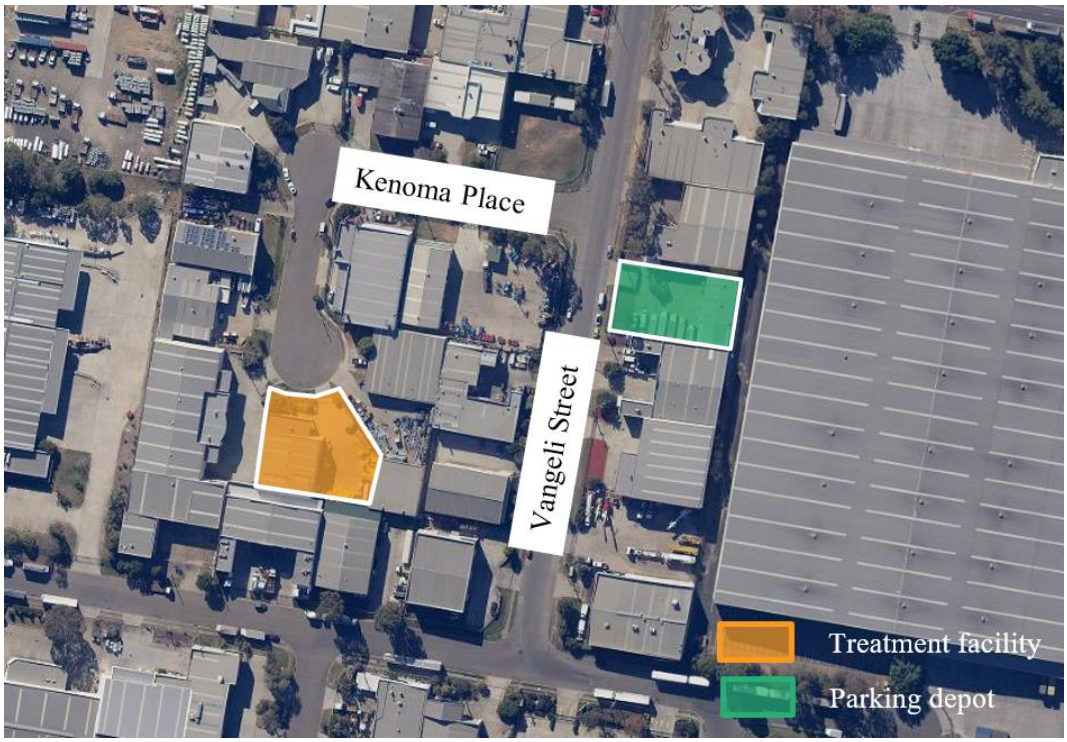


Figure 1: Site locations (Source: Sixmaps 2020)

2 Goals of the OTMP

2.1 Scope and objective

The objective of this OTMP is to provide traffic management procedures to form part of the Arndell Park Clinical Waste Management Facility Operational Environmental Management Plan (OEMP). It has been prepared to align with the SSD 6761 operational mitigation measures and commitments and the Conditions of Development Consent.

The objectives of the TMP are to describe the measures to ensure that:

- Traffic congestion and conflicts with other road users are minimised at both Kenoma Place and Vangeli Street
- The nominated routes are followed for vehicles departing the Vangeli Street Parking Depot between 5am and 7am to avoid driving through residential areas
- On-site movements are managed to ensure safety and efficiency; and
- Operations comply with regulatory requirements.

2.1.1 Roles and responsibilities

Table 3 outlines the roles and responsibilities associated with the OTMP.

Table 3: OTMP roles and responsibilities

Action	Responsibility	Timing
Overall implementation of the TMP	Facility Manager	Ongoing
Implementation of the monitoring program (as described in Section 5)	Facility Manager	Ongoing
Review of daily vehicle arrivals data	Facility Manager	Bi-monthly
Maintain internal records of monitoring	Facility Manager & Compliance and Governance Manager	As required
Authorised and confirm the implementation of any additional mitigation measures	Facility Manager & National Manager	As required
Facilitate external auditing (as described in Section 5)	Compliance and Governance Manager	As required

3 Existing environment and operational activities

This section explains the day to day operations and management at the facility and parking depot and the associated traffic movements.

3.1 Site infrastructure

3.1.1 Waste management facility

The layout of the waste management facility is presented on Figure 2. The facility includes the following infrastructure:

- An enclosed building housing the warehouse (for the unloading, processing, handling, storage and treatment of waste and cleaning and storage of bins) and office facilities
- A 6m wide driveway entry providing vehicle access from Kenoma Place
- Two distinct car parking areas providing 11 staff parking spaces in total, including one disabled space
- A hardstand area for operational vehicle servicing and manoeuvring
- A defined outdoor bin storage area adjacent to a stand-alone water tank and industrial radiator
- An LPG gas tank, with a guard rail and 6m exclusion zone marked in yellow paint and
- A bollard located adjacent to parking bay 11 to stop vehicles parking within the LPG gas tank exclusion zone
- A 75mm high and 455mm wide speed hump across the parking area (to provide a continuous bund).

Figure 2: Waste management facility site layout

3.1.2 Parking depot

The parking depot contains a single building within the eastern portion of the site, providing warehouse, ancillary office and covered awning spaces.

Access between Vangeli Street and the parking depot is currently provided via an 8m wide access.

The warehouse is serviced by two roller doors which connect to a large hardstand area. This accommodates an operational vehicle servicing / manoeuvring area and parking area, capable of accommodating up to 19 vehicles.

The parking areas comprise 90-degree angled rows, serviced by a central circulation / manoeuvring area. The parking and circulation areas have been designed in accordance with Part 1: Off-street car parking (AS2890.1-2004). All vehicles are able to enter and exit the facility in forward gear to ensure safety for drivers and other road users.

The layout of the site is presented in Figure 3.

Figure 3: Parking depot site layout

3.2 Operational processes

The facility processes clinical and related wastes collected from hospitals and other medical facilities across the Greater Sydney Metropolitan Area.

A simplified summary of the operational processes that occur are as follows:

- Med-X provide specially marked wheelie bins (SMBs) to hospitals and medical centres for the collection of clinical and related wastes;
- When full, the SMBs are collected by a Med-X service vehicle and a replacement bin is provided;
- The SMBs are transported to the waste management facility for processing;
- Each SMB delivered to the facility is weighed, recorded and processed;
- Clinical waste undergoes non-thermal treatment via an autoclave and the treated waste is then shredded and transferred to a compactor for storage;
- Once the compactor reaches capacity, it is loaded onto a Medium Rigid Vehicle (MRV) and transported off-site. The empty compactor is returned to the waste management facility;
- Related waste is stored appropriately on-site before being transferred off-site by a contractor;
- SMBs are washed and stored before being collected for redistribution by an empty operational vehicle; and
- Operational vehicles are stored within the parking depot overnight.

3.3 Vehicle fleet

Med-X operate and maintain a purpose-built fleet of vehicles that collect and deliver clinical and related wastes in SMBs from clients across the Greater Sydney Metropolitan Area . The composition of the fleet of vehicles and the number of deliveries per day is outlined in Table 4.

Table 4: Operational Vehicle Fleet

Vehicle type	No. vehicles	Deliveries per day
MRV	8	16
Vans	8	16
Total	**16**	**32**

Vehicles are maintained over and above industry standards in order to ensure that reliability of service is never compromised. Each Med-X vehicle is tracked using Global Positioning Systems (GPS) so the vehicle's exact location can be monitored.

All service vehicles are equipped with the following:

- Cabins separate from the carrying compartment. No clinical or cytotoxic waste is permitted to be carried in the cabin of the vehicle;
- Purpose built drains to contain spills within the vehicle;
- Spill kits and instructions for use;
- Emergency response plans;
- EPA licenses;
- Fire extinguishers inside the cabin and also attached to the outside of the vehicle;
- Purpose built bodies with:
    - Rails and carrying bars to hold bins in place securely;
    - Internal lighting;
    - Tailgate lifters to reduce manual handling of waste bins;
    - Internal surfaces that are inert and able to be cleaned with disinfecting agents;
    - Locks for secure transport of waste; and
    - Infectious waste placarding indicating clinical waste is being transported.

3.4 Operational hours and traffic movements

The approved operating hours of the waste management facility are:

- 07:00-19:00 Monday to Saturday (including public holidays that fall on Saturday).

Fleet vehicles arrive at the facility at a consistent rate throughout the vehicle receipt periods of 7:00am – 5:00pm, Monday to Saturday. The average time to unload and service a vehicle is 12.5 minutes. The maximum number of vehicles expected to arrive at the facility at once is two.

At the parking depot, operational vehicles are:

- Permitted to travel to and from the facility between 05:00-19:00 Monday to Saturday (including public holidays that fall on Saturday).

Controls have been placed on the routes of these vehicles to avoid residential areas in early hours (particularly before 7am). Further information regarding this is provided in Section 4.1.

The collection of the treated clinical waste from the compactor occurs daily, Monday-Friday. The collection of related wastes by a nominated contractor also occurs daily, Monday-Friday.

In addition to the vehicle fleet, the following operational vehicles visit the waste management facility and parking depot:

- Gas delivered to the facility once a week; and
- Clinical sharps containers are delivered to the parking depot once a week.

The largest vehicle accessing the sites is expected to be an MRV.

Vehicular access to and from the facility and parking depot currently operates safely with minimal conflicts with other road users. Drivers familiar with the waste management facility and parking depot layouts, provisions and arrangements further reduces the risk of vehicle conflicts or accidents.

3.5 Staff

3.5.1 Waste management facility staff

Staff numbers at the facility are outlined in Table 5.

Table 5: Waste management facility staff

	No. staff	Shift(s)
Floor staff	6 (3 per shift)	07:00-15:00 and 11:00-19:00
Administrative staff	5	Arrive from 06:15
Total	**11**	-

3.5.2 Drivers

Med -X contact drivers to operate the vehicle fleet outlined in Section 3.3, as outlined in Table 6.

Table 6: Fleet drivers

	No. staff	Shift(s)
Drivers	16	Arrive -05:00-09:00 Depart – 15:00-19:00

3.6 Predicted traffic impacts

The local road network surrounding the facility and the parking depot is comprised of:

- Kenoma Place - a local access road and cul-de-sac with one through lane of traffic in each direction and a speed limit of 50km/h.
- Vangeli Street - a minor collector road with one through lane of traffic in each direction, providing connectivity between a series of lower order industrial access roads.
- Holbeche Road - a major collector road between the Arndell Park industrial precinct and the surrounding regional road network. In the vicinity of Vangeli Street, Holbeche Road provides one through lane of traffic in each direction in conjunction with parallel parking along both kerb alignments.
- Doonside Road - a sub-arterial road providing a north-south connection between the Doonside residential precinct and the Huntingwood and Eastern Creek industrial precincts to the south (via Brabham Drive), and an intersection with the Great Western Highway.

The surrounding road network currently provides motorists with a reasonable level of service.

A Traffic Impact Assessment (TIA) was prepared by Stanbury Traffic Planning as part of the Response to Submissions and Amended Project Report for SSD 6761. The TIA assessed the potential impacts of the project on traffic and transport for an operational capacity at the facility of 2,300 tpa

At full operating capacity, the site is expected to generate 53 vehicle movements during the am and pm peak hours, as outlined in Table 7.

Table 7: Expected weekday peak hourly traffic generation

	Inbound movements	Outbound movements	Total movements
AM peak hour	31	22	53
PM peak hour	22	31	53

The TIA found that traffic projected as a result of the site operations is not anticipated to result in any noticeable impacts on the surrounding road network, including at Kenoma Place and Vangeli Street.

The intersection of Holbeche Road and Vangeli Street will be used by vehicles accessing both sites and was modelled in the TIA to estimate the likely impact of on this intersection. This intersection was assessed for the years of 2020 and 2030, assuming an annual traffic growth rate of 2%.

Traffic modelling outputs, shown in Table 8 indicate that the traffic generated by operation of the facility is not projected to have noticeable impacts on the operation of the intersection in 2020 or 2030. Only minor alterations to delay and degree of saturation are observed.

The full SIDRA modelling outputs for both models are included in Appendix C.

Table 8: 2020 and 2030 intersection level of service

SIDRA output – projected weekday peak hour performance with expanded operations				
	2020 Demands		**2030 Demands**	
	AM	**PM**	**AM**	**PM**
Vangeli Street Approach				
Delay	14.1	21.3	17.2	36.1
Degree of Saturation	0.14	0.44	0.18	0.64
Level of Service	A	B	B	C
Eastern Holbeche Road Approach				
Delay	5.6	5.6	5.6	5.6
Degree of Saturation	0.17	0.29	0.21	0.35
Level of Service	A	A	A	A
Western Holbeche Road Approach				
Delay	8.8	10.0	9.9	12.2
Degree of Saturation	0.32	0.24	0.37	0.30
Level of Service	A	A	A	A
Total Intersection				
Delay	14.1	21.3	17.2	36.1
Degree of Saturation	0.32	0.44	0.37	0.64
Level of Service	A	B	B	C

4 Traffic management measures

4.1 Heavy vehicle routes

Kenoma Place and Vangeli Street provide direct access to both the waste management facility and the parking depot. Operational vehicles accessing the site are expected to use:

- Great Western Highway;
- Reservoir Road;
- Holbeche Road; and
- Doonside Road.

These routes have been selected to avoid residential areas and drivers will be instructed to always use these routes. This is particularly important for vehicle movements that occur prior to 07:00.

The routes for all operational vehicles are outlined on Figure 4.

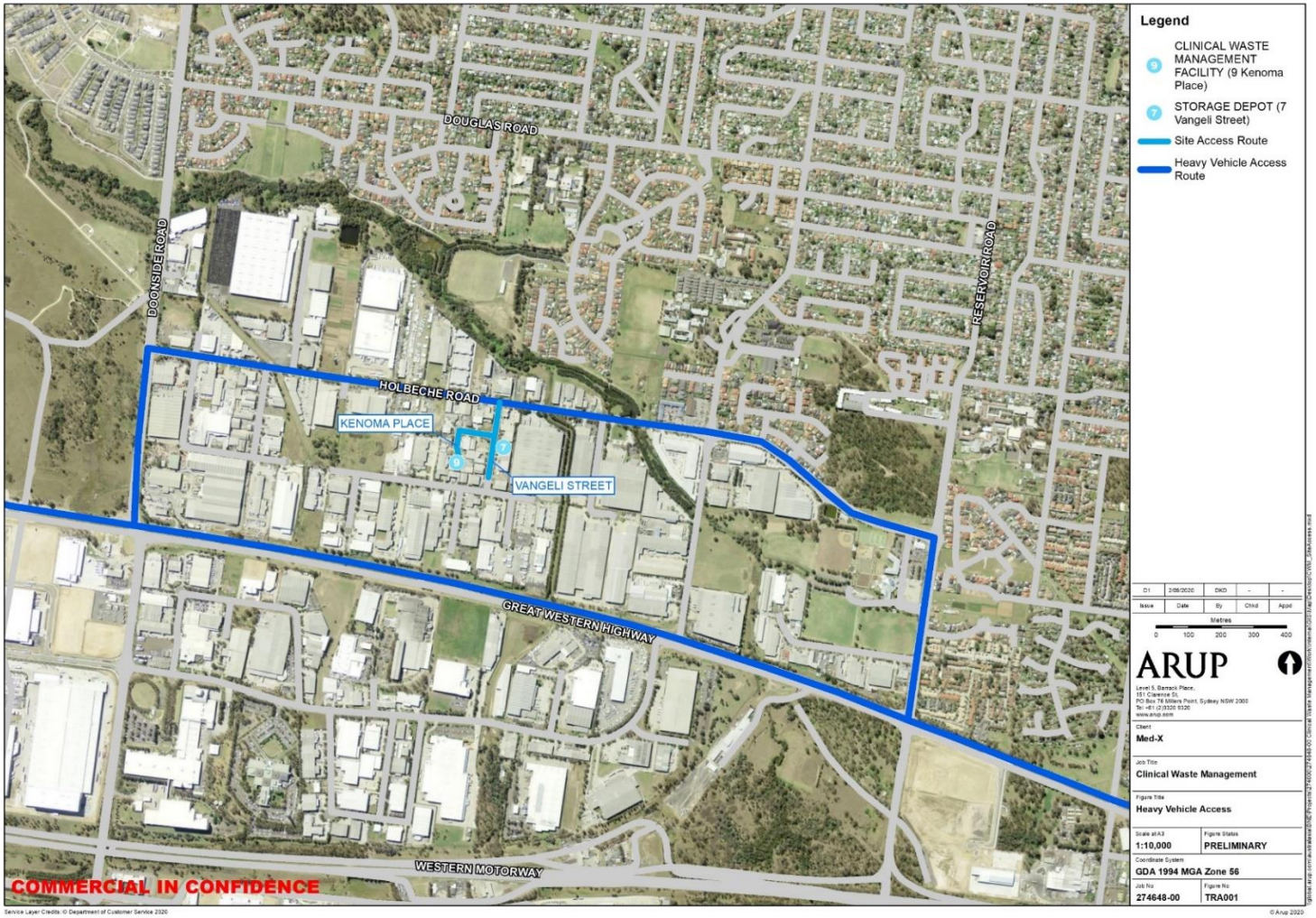


Figure 4: Heavy vehicle routes

4.2 On-site access

4.2.1 Waste management facility

Vehicles will enter and exit the in a forward direction, as shown in Figure 5.

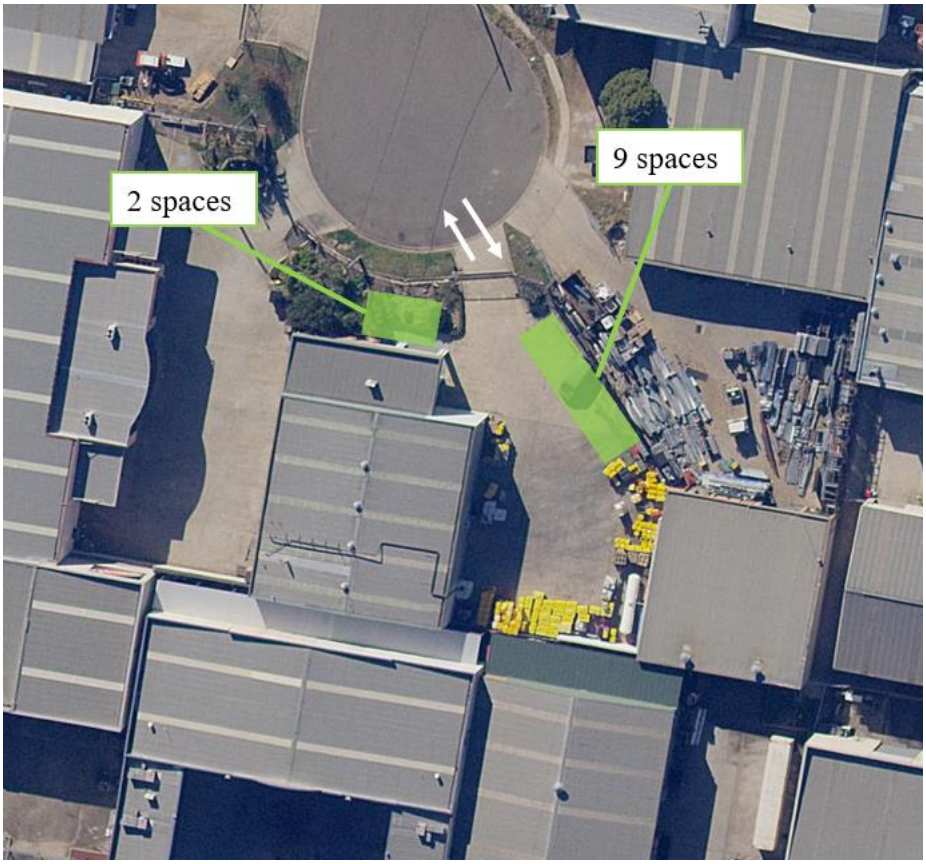


Figure 5: Waste management facility access and parking arrangement

Swept path diagrams prepared as part of the TIA by Stanbury Traffic Planning, (July 2020) demonstrate the ability of MRVs to enter and exit the waste management facility in a safe and efficient manner. These are included in Appendix A and will be followed during operations at the site.

A key risk for vehicle movements within the facility is the gas cylinder and associated 6m exclusion zone located in the south east corner of the site. Risks have been mitigated via the provision of infrastructure including a guard rail around the LPG tank and a bollard within the 6m exclusion zone.

Floor staff will supervise on-site vehicle movements as part of the loading and unloading process to mitigate any risk.

4.2.2 Parking depot

All vehicles will enter and exit the site in a forward direction, as shown in Figure 6.

Figure 6: Parking depot access and parking arrangements

Swept path diagrams prepared as part of the TIA by Stanbury Traffic Planning (July 2020) demonstrate the ability of MRVs to enter and exit the parking depot in a forward direction. These drawings are included in Appendix A and will be followed during operations at the site.

Vangeli Street is a low trafficked road reducing the likelihood of conflicts with other road users. There are sufficient sightlines for vehicles accessing and egressing the parking depot.

4.3 Parking arrangements

4.3.1 Waste management facility

The parking arrangement within the waste management facility is presented in Figure 7. A more detailed site plan drawing is provided in Appendix B.

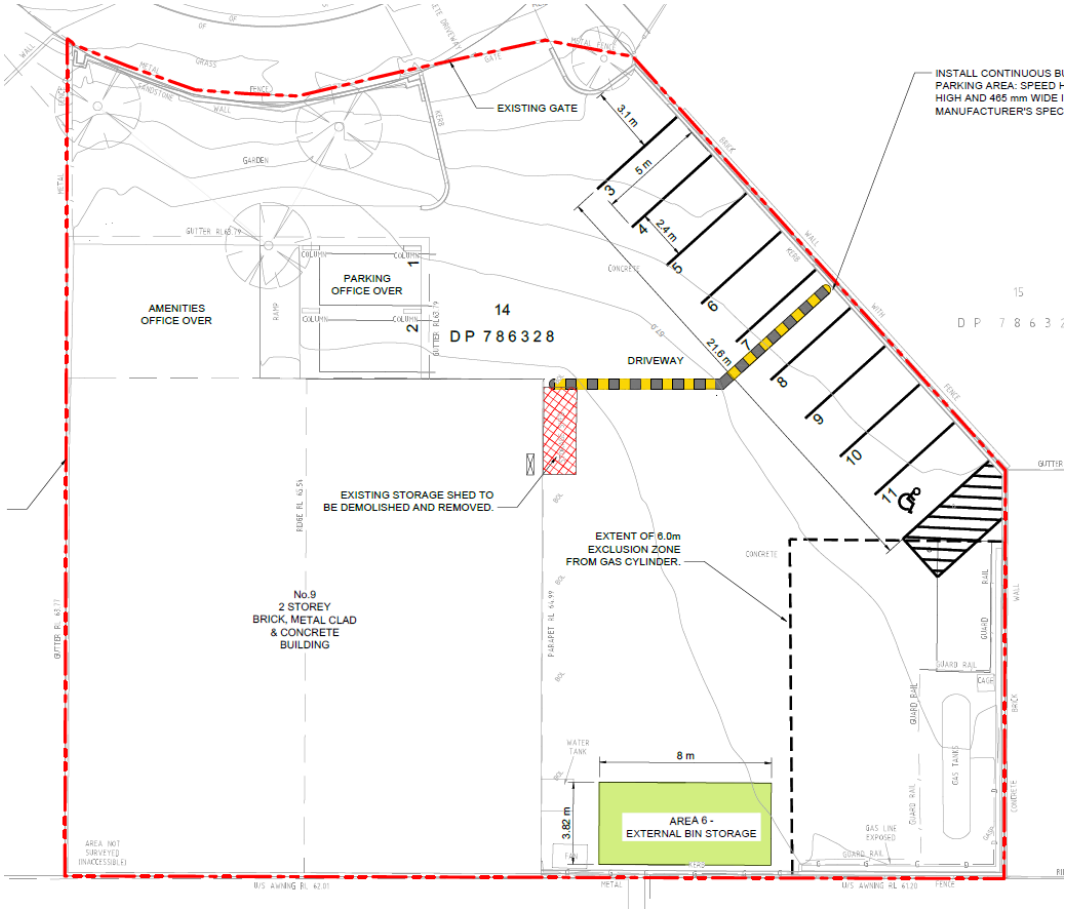


Figure 7: Waste management facility site plan

Parking within the facility site will be utilised by the eleven staff and any potential visitors. Due to the nature of the facility visitors are expected to be minimal. Staff will not park on Kenoma Place or surrounding streets.

Vehicles will be required to cross the LPG gas exclusion zone to access parking bay 11.

4.3.2 Parking depot

The site plan for the parking depot is presented in Figure 8 and a technical drawing is provided in Appendix B.

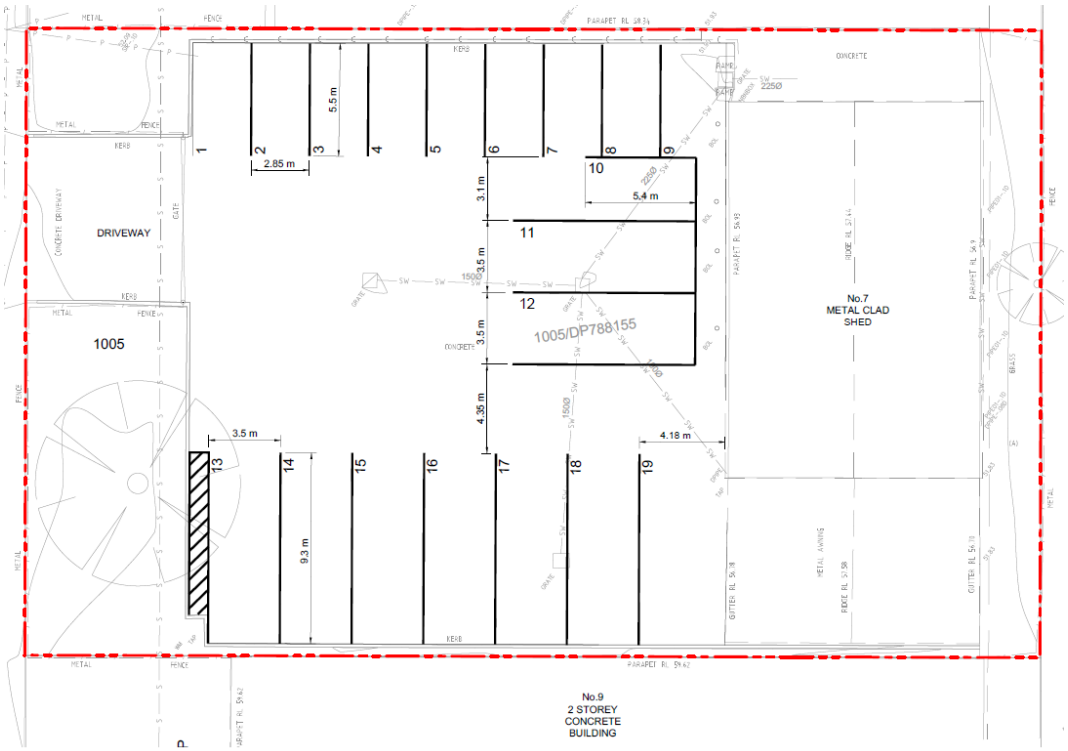


Figure 8: Parking depot site plan

At the start of the working day drivers will replace operational vehicles with their private vehicle using the marked bays. At the end of the day once drivers have finished their shift the process will be reversed.

Drivers will need to be made aware of the order in which vehicles need to be parked so all spaces can be utilised. Bays 10, 11 and 12 which are orientated east-west will need to be emptied first and filled last so swept paths into other bays on the northern and southern boundaries of the site are not restricted. This information will be included on the PDA provided to each driver. This document will outline the required checks a driver will need to undertake before starting the vehicle and departing.

New drivers will be provided with guidance on the processes outlined on the Pre-start checklist. Vehicles will not park on surrounding streets.

4.4 Delivery scheduling and queuing

The logistics operations for the facility is managed through the Verizon system. This draws from client information in the Client Relationship Management database and the GPS trackers attached to each fleet vehicle. The Verizon system generates route sheets for each driver at the start of their shift. This system can also be used dynamically to extend or change drivers' routes. Staff are able to override the system if required to adjust delivery schedules or driver routes. The interactions between the various Med-X systems are outlined on Figure 9.

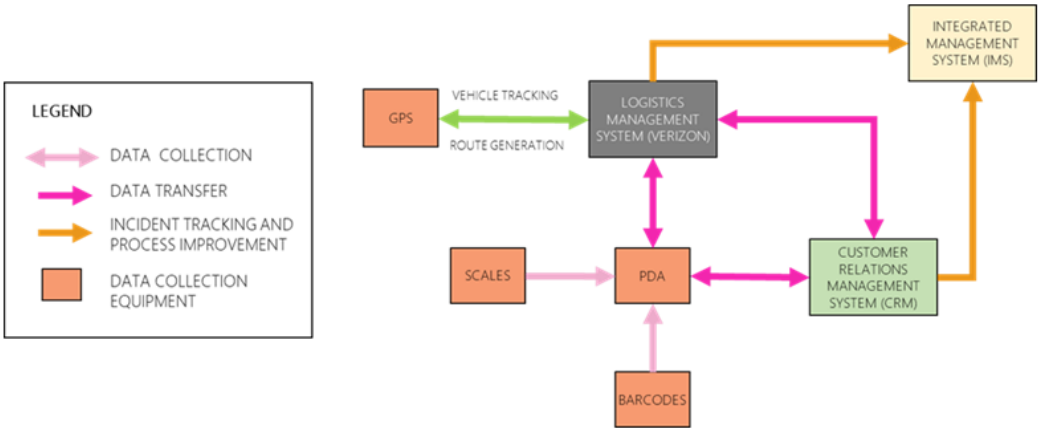


Figure 9: Interactions between Med-X systems

Several factors outside of the operator's control may affect vehicle arrival times:

- Traffic congestion;
- Unexpected delays during customer servicing; and
- Vehicle breakdown.

Vehicle arrivals at the facility will be closely monitored, to limit congestion and ensure waste delivery is evenly spaced across the daily operating hours. This includes the use of the GPS real-time vehicle tracking system, combined with additional monitoring of daily trends in arrivals. Data collected through daily monitoring will be reviewed bi-monthly.

It is expected that the maximum number of vehicles expected to arrive at the facility at once is two. The waste management facility has redundancy to accommodate one additional vehicle if more than two operational vehicles arrive at similar times.

To mitigate queuing and ensure vehicle deliveries are evenly spread across the vehicle receipt periods of 7:00am – 5:00pm, it is essential that the Verizon system is used by Logistics Manager to extend fleet vehicle routes to delay the time which they arrive at the waste management facility, if required.

While waiting to be serviced, vehicles will queue in the holding positions illustrated on the swept path diagrams in Appendix A.

Vehicles waiting to be serviced at the facility are not to:

- Access the parking depot site; and
- Idle or park on Kenoma Place or Vangeli Street.

4.5 Vehicle servicing at the facility

The waste management facility procedure for vehicles delivering clinical waste is as follows:

1. Operational vehicles enter the waste management facility from Kenoma Place in a forward direction and queue adjacent to the staff parking spaces;
2. The vehicles then use the manoeuvring area to reverse towards the southern warehouse roller door, where unloading activity occurs;
3. Following unloading, vehicles are repositioned to be parallel with the western warehouse building wall, where loading activity occurs. When a vehicle is located in the loading position a second vehicle is then able to manoeuvre into the unloading position so both processes can occur simultaneously; and
4. Upon completing loading, the vehicle can exit the waste management facility in forward gear.

Waste collection from the compactors occurs from the northern warehouse door. This involves MRVs manoeuvring to reverse towards the northern warehouse roller door. This manoeuvring can be undertaken when unloading activities are occurring at the southern warehouse roller door, however it cannot be undertaken simultaneously with loading activities.

Swept paths of these vehicle movements are presented in Appendix A.

Floor staff will supervise these movements to mitigate any risk.

5 Monitoring program

To ensure all measures are implemented and to confirm they are having the desired impact, monitoring and management of this plan will be required. Roles and responsibilities are outlined in Section 2.1.1.

The monitoring program will collect the following information:

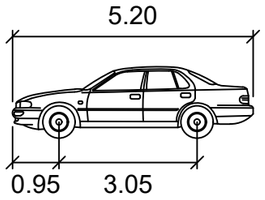
- A log of all deliveries including arrival, processing and departure times at the waste management facility. This can be used to identify causes of congestion and interrogate the effectiveness of the Verizon system;
- An incident register that adheres to the MXNATSPR004 – WHS Incident and Hazard Reporting Procedure. This will capture details such as the location of the incident, staff members involved, extent of injuries or damage and identified hazards. The register can be used as starting point for reviewing safety measures and refining protocols;
- A log of the start and end time of each fleet vehicles shift to confirm operational hours are being adhered to. This may be an output of the Verizon system;
- A log of all instances when contingency measures were required to manage queuing at the waste management facility. The cause of the congestion would need to be identified; and
- A record of any breaches of heavy vehicle routes including the cause of the breach.

Data collected through this monitoring program will be reviewed bi-monthly to identify and address any issues in a timely manner.

The monitoring program will be audited by an external consultant one year following commencement of the OTMP and every three years thereafter. This will be prepared in accordance with the Independent Audit Post Approval Requirements (DPIE 2020) and will be conducted by a suitably qualified team of experts. The external audit will be issued to the Planning Secretary within the 3 months of the audit being commissioned. This audit would review the data collected by the monitoring program and may involve an on-site review of traffic operations.

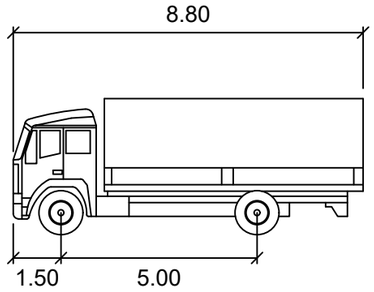
Appendix A

Vehicle Swept Paths



B99

	meters
Width	: 1.94
Track	: 1.84
Lock to Lock Time	: 6.0
Steering Angle	: 33.9



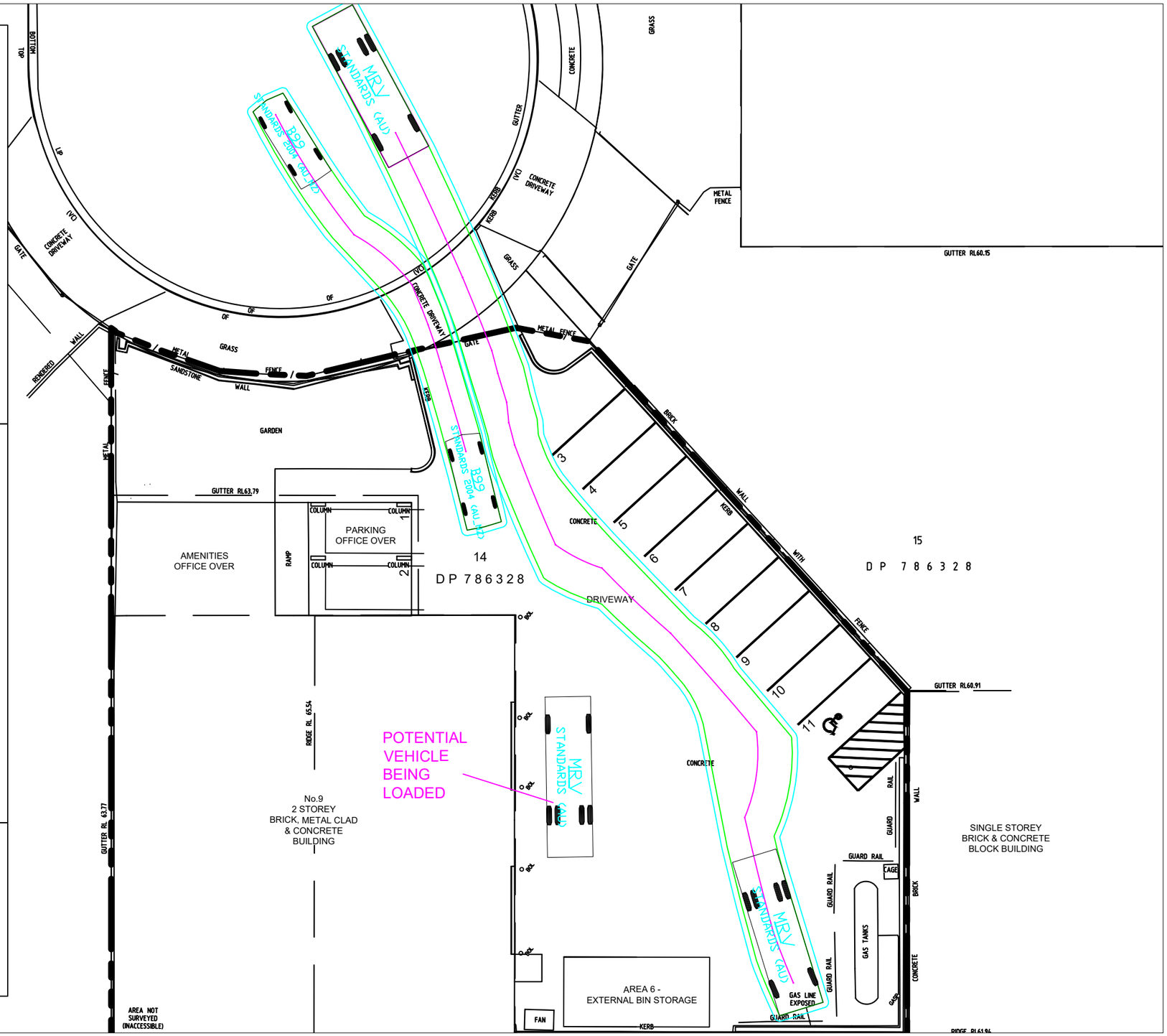
MRV

	meters
Width	: 2.50
Track	: 2.50
Lock to Lock Time	: 6.0
Steering Angle	: 34.0

LEGEND

VEHICLE BODY PATH (INCLUDING OVERHANG)

MANOEUVRING CLEARANCE (300mm)



STANBURY TRAFFIC PLANNING
TRAFFIC, PARKING & TRANSPORT CONSULTANTS

STANBURY TRAFFIC PLANNING
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PH: (02) 8971 8314
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WEBSITE: www.stanburytraffic.com.au

NOTES:

1. THIS PLAN IS BASED ON ARCHITECTURAL PLANS PREPARED BY ARUP GROUP.

2. THE SWEPT PATHS PROVIDED ON THIS PLAN HAVE BEEN GENERATED UTILISING AUTOTURN PRO VERSION 10 IN CONJUNCTION WITH B99 PASSENGER VEHICLE AND HEAVY RIGID VEHICLE MANOEUVRING SPECIFICATIONS IN ACCORDANCE WITH THE AUSTRALIAN STANDARD FOR PARKING FAICLITIES PART 1: OFF-STREET CAR PARKING (AS2890.1:2004) AND PART2: OFF-STREET COMMERCIAL VEHICLE FACILITIES (AS2890.2:2018), RESPECTIVELY.

STANBURY TRAFFIC PLANNING

PASSENGER VEHICLE AND MEDIUM RIGID VEHICLE SWEPT PATHS

SITE INGRESS / EGRESS MOVEMENTS

EXPANSION OF CLINICAL AND QUARANTINE WASTE MANAGEMENT FACILITY

9 KENOMA PLACE, ARNDELL PARK (TREATMENT FACILITY)

SCALE: 1:250 AT A3

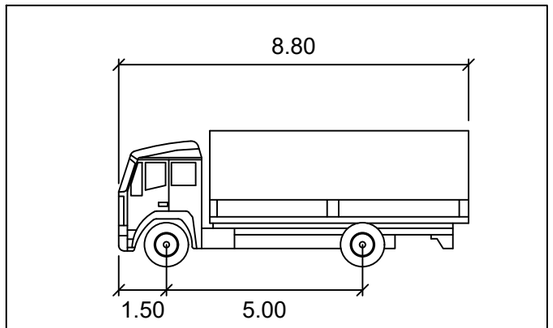
FILE: 16-031

SUPERSEDES SHEET/ISSUE -

DATE: 18/05/2020

ISSUE A

SHEET 1



MRV

	meters
Width	: 2.50
Track	: 2.50
Lock to Lock Time	: 6.0
Steering Angle	: 34.0

LEGEND

VEHICLE BODY PATH (INCLUDING OVERHANG)

MANOEUVRING CLEARANCE (300mm)

GRASS
KERB & GUTTER
CONCRETE
CONCRETE DRIVEWAY
METAL FENCE
GUTTER RL60.15
GATE
WALL
RENDERED
METAL FENCE
SANDSTONE WALL
GARDEN
GUTTER RL63.79
COLUMN
PARKING OFFICE OVER
AMENITIES OFFICE OVER
RAMP
14
DP 786328
15
DP 786328
BRICK WALL
CONCRETE
DRIVEWAY
MRV STANDARDS (AU)
POTENTIAL QUEUED VEHICLES
WITH FENCE
GUTTER RL60.91
RIDGE RL 65.54
No.9
2 STOREY
BRICK, METAL CLAD
& CONCRETE
BUILDING
POTENTIAL VEHICLE BEING LOADED
VEHICLE UNLOADING POSITION
SINGLE STOREY
BRICK & CONCRETE
BLOCK BUILDING
GUTTER RL 63.77
AREA NOT SURVEYED (INACCESSIBLE)
AREA 6 - EXTERNAL BIN STORAGE
FAN
GAS LINE EXPOSED
GAS TANKS
GUARD RAIL
CAGE
RIDGE RL 61.94

STANBURY TRAFFIC PLANNING
TRAFFIC, PARKING & TRANSPORT CONSULTANTS

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STANBURY TRAFFIC PLANNING

MEDIUM RIGID VEHICLE SWEPT PATHS

MANOEUVRING REQUIRED TO ACCESS VEHICLE UNLOADING POSITION

EXPANSION OF CLINICAL AND QUARANTINE WASTE MANAGEMENT FACILITY

9 KENOMA PLACE, ARNDELL PARK (TREATMENT FACILITY)

SCALE: 1:250 AT A3

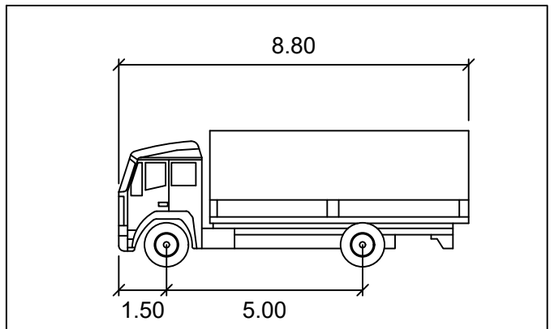
FILE: 16-031

SUPERSEDES SHEET/ISSUE -

DATE: 18/05/2020

ISSUE A

SHEET 2



MRV

	meters
Width	: 2.50
Track	: 2.50
Lock to Lock Time	: 6.0
Steering Angle	: 34.0

LEGEND

VEHICLE BODY PATH (INCLUDING OVERHANG)

MANOEUVRING CLEARANCE (300mm)

POTENTIAL QUEUED VEHICLES

VEHICLE LOADING POSITION

VEHICLE UNLOADING POSITION

GUTTER RL60.15

GUTTER RL63.79

GUTTER RL 63.77

RIDGE RL 65.54

GUTTER RL60.91

AMENITIES OFFICE OVER

PARKING OFFICE OVER

No.9 2 STOREY BRICK, METAL CLAD & CONCRETE BUILDING

SINGLE STOREY BRICK & CONCRETE BLOCK BUILDING

AREA 6 - EXTERNAL BIN STORAGE

AREA NOT SURVEYED (INACCESSIBLE)

14 DP 786328

15 DP 786328

GRASS, CONCRETE, CONCRETE DRIVEWAY, METAL FENCE, GATE, RENDERED WALL, METAL SANDSTONE WALL, FENCE, KERB, GUTTER, BOTTOM, TOP, LIP, OF, IVO, BRICK WALL, GARDEN, DRIVEWAY, COLUMN, RAMP, GUARD RAIL, CAGE, GAS TANKS, GAS LINE EXPOSED, FAN, RAIL, WALL

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MOB: 0410 561 848
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STANBURY TRAFFIC PLANNING

MEDIUM RIGID VEHICLE SWEPT PATHS

REQUIRED MANOEUVRING TO ACCESS VEHICLE LOADING POSITION

EXPANSION OF CLINICAL AND QUARANTINE WASTE MANAGEMENT FACILITY

9 KENOMA PLACE, ARNDELL PARK

SCALE: 1:250 AT A3

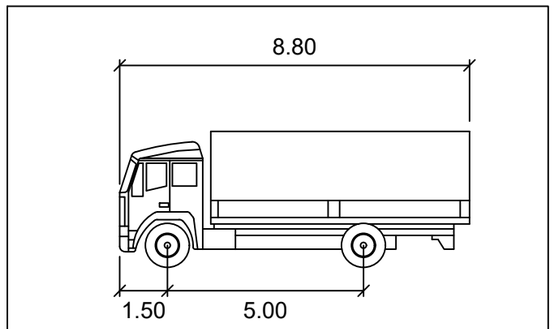
FILE: 16-031

SUPERSEDES SHEET/ISSUE -

DATE: 18/05/2020

ISSUE A

SHEET 3



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Width	: 2.50
Track	: 2.50
Lock to Lock Time	: 6.0
Steering Angle	: 34.0

LEGEND

VEHICLE BODY PATH (INCLUDING OVERHANG)

MANOEUVRING CLEARANCE (300mm)

POTENTIAL QUEUED VEHICLES

VEHICLE LOADING POSITION

POTENTIAL VEHICLE BEING UNLOADED

GUTTER RL60.15

GUTTER RL63.79

GUTTER RL60.91

RIDGE RL61.94

RIDGE RL 65.54

GUTTER RL 63.77

AMENITIES OFFICE OVER

PARKING OFFICE OVER

RAMP

No.9 2 STOREY BRICK, METAL CLAD & CONCRETE BUILDING

SINGLE STOREY BRICK & CONCRETE BLOCK BUILDING

AREA 6 - EXTERNAL BIN STORAGE

AREA NOT SURVEYED (INACCESSIBLE)

DRIVEWAY

CONCRETE DRIVEWAY

GARDEN

GRASS

CONCRETE

GAS TANKS

GAS LINE EXPOSED

FAN

CAGE

GUARD RAIL

METAL FENCE

RENDERED WALL

SANDSTONE WALL

BRICK WALL

KERB

GATE

14 DP 786328

15 DP 786328

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STANBURY TRAFFIC PLANNING

MEDIUM RIGID VEHICLE SWEPT PATHS

SITE EGRESS MOVEMENT

EXPANSION OF CLINICAL AND QUARANTINE WASTE MANAGEMENT FACILITY

9 KENOMA PLACE, ARNDELL PARK

SCALE: 1:250 AT A3

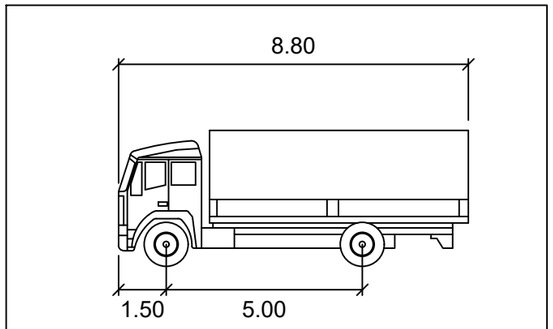
FILE: 16-031

SUPERSEDES SHEET/ISSUE -

DATE: 18/05/2020

ISSUE A

SHEET 4



MRV

	meters
Width	: 2.50
Track	: 2.50
Lock to Lock Time	: 6.0
Steering Angle	: 34.0

LEGEND

VEHICLE BODY PATH (INCLUDING OVERHANG)

MANOEUVRING CLEARANCE (300mm)

POTENTIAL QUEUED VEHICLE

POTENTIAL VEHICLE BEING UNLOADED

POTENTIAL QUEUED VEHICLE

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STANBURY TRAFFIC PLANNING

MEDIUM RIGID VEHICLE SWEPT PATHS

REQUIRED MANOEUVRING TO ACCESS COMPACTOR SERVICING POSITION

EXPANSION OF CLINICAL AND QUARANTINE WASTE MANAGEMENT FACILITY

9 KENOMA PLACE, ARNDELL PARK

SCALE: 1:250 AT A3

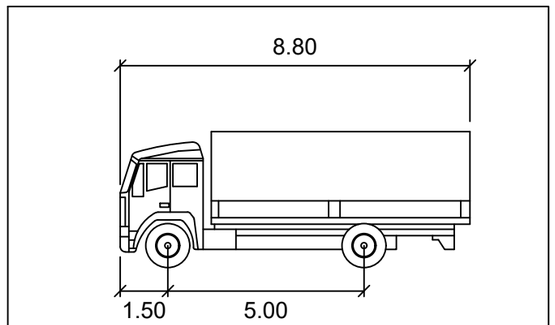
FILE: 16-031

SUPERSEDES SHEET/ISSUE -

ISSUE A

DATE: 18/05/2020

SHEET 5



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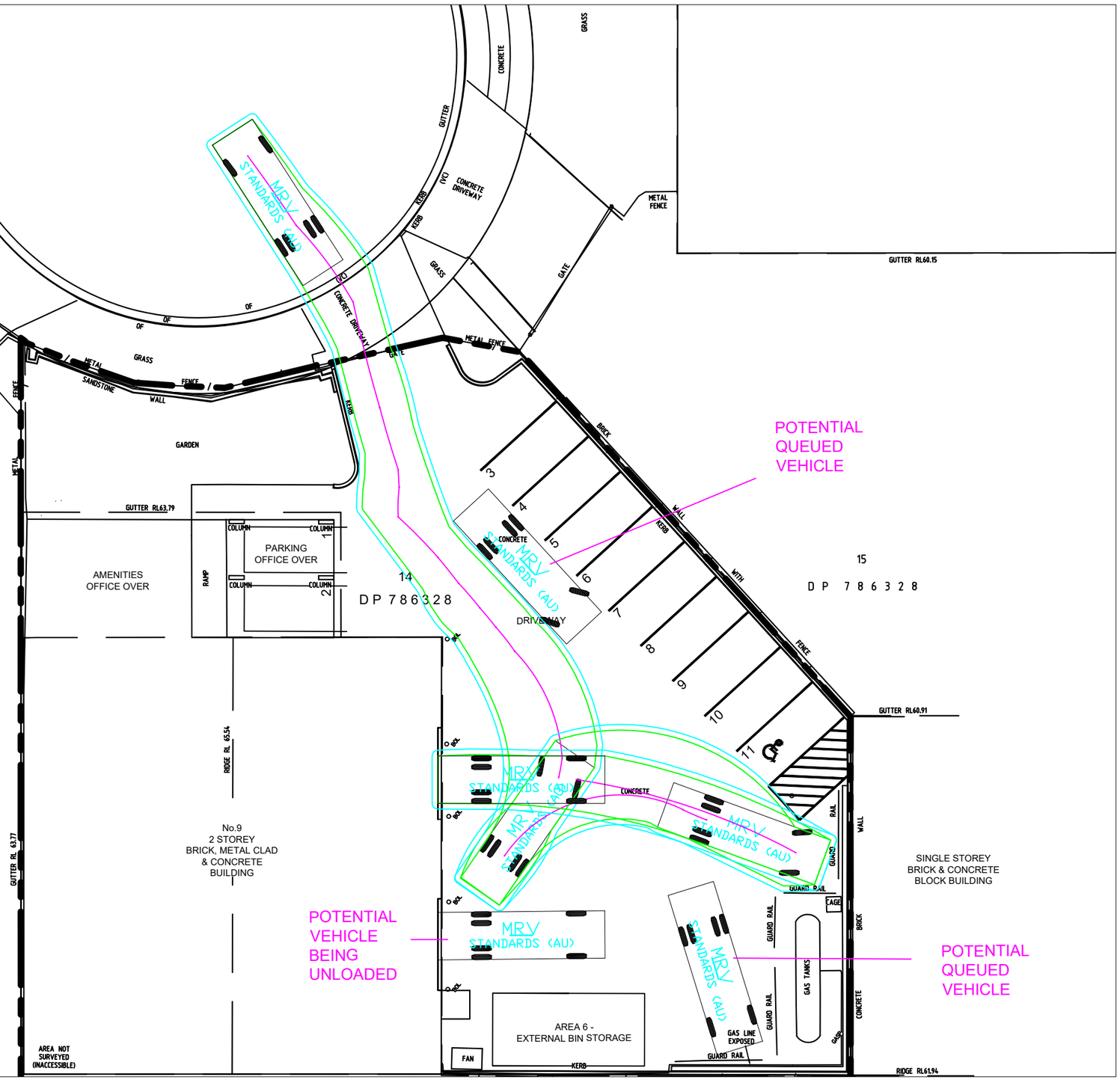
Track	: 2.50
Lock to Lock Time	: 6.0
Steering Angle	: 34.0

LEGEND

VEHICLE BODY PATH (INCLUDING OVERHANG)

MANOEUVRING CLEARANCE (300mm)



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STANBURY TRAFFIC PLANNING

MEDIUM RIGID VEHICLE SWEPT PATHS

COMPACTOR SERVICING POSITION EGRESS MOVEMENTS

EXPANSION OF CLINICAL AND QUARANTINE WASTE MANAGEMENT FACILITY

9 KENOMA PLACE, ARNDELL PARK

SCALE: 1:250 AT A3

FILE: 16-031

SUPERSEDES SHEET/ISSUE -

DATE: 18/05/2020

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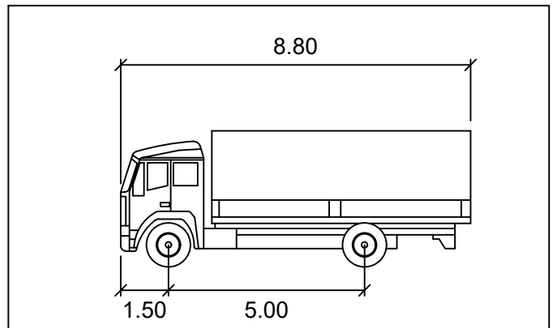
SHEET 6



MRV

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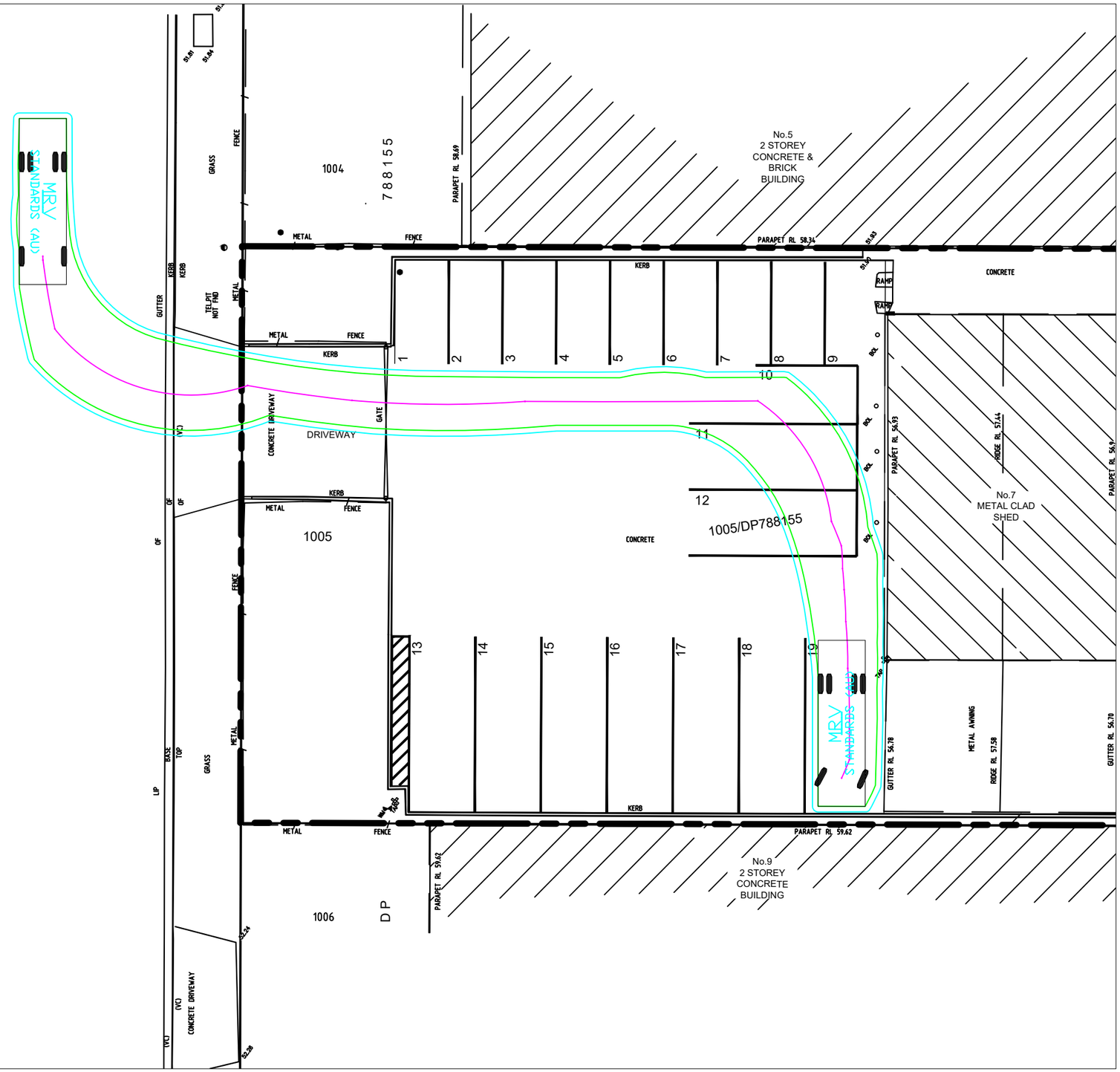
Width	: 2.50
Track	: 2.50
Lock to Lock Time	: 6.0
Steering Angle	: 34.0

LEGEND

VEHICLE BODY PATH (INCLUDING OVERHANG)

MANOEUVRING CLEARANCE (300mm)

VANGELLI STREET



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STANBURY TRAFFIC PLANNING

MEDIUM RIGID VEHICLE SWEPT PATHS

INTERNAL PARKING SPACE MANOEUVRING

EXPANSION OF CLINICAL AND QUARANTINE WASTE MANAGEMENT FACILITY

7 VANGELLI STREET, ARNDELL PARK (PARKING DEPOT)

SCALE: 1:250 AT A3

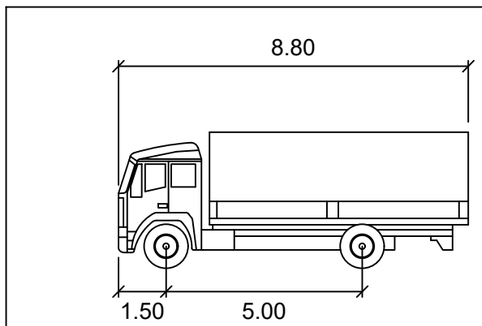
FILE: 16-031

SUPERSEDES SHEET/ISSUE -

DATE: 18/05/2020

ISSUE A

SHEET 7



MRV

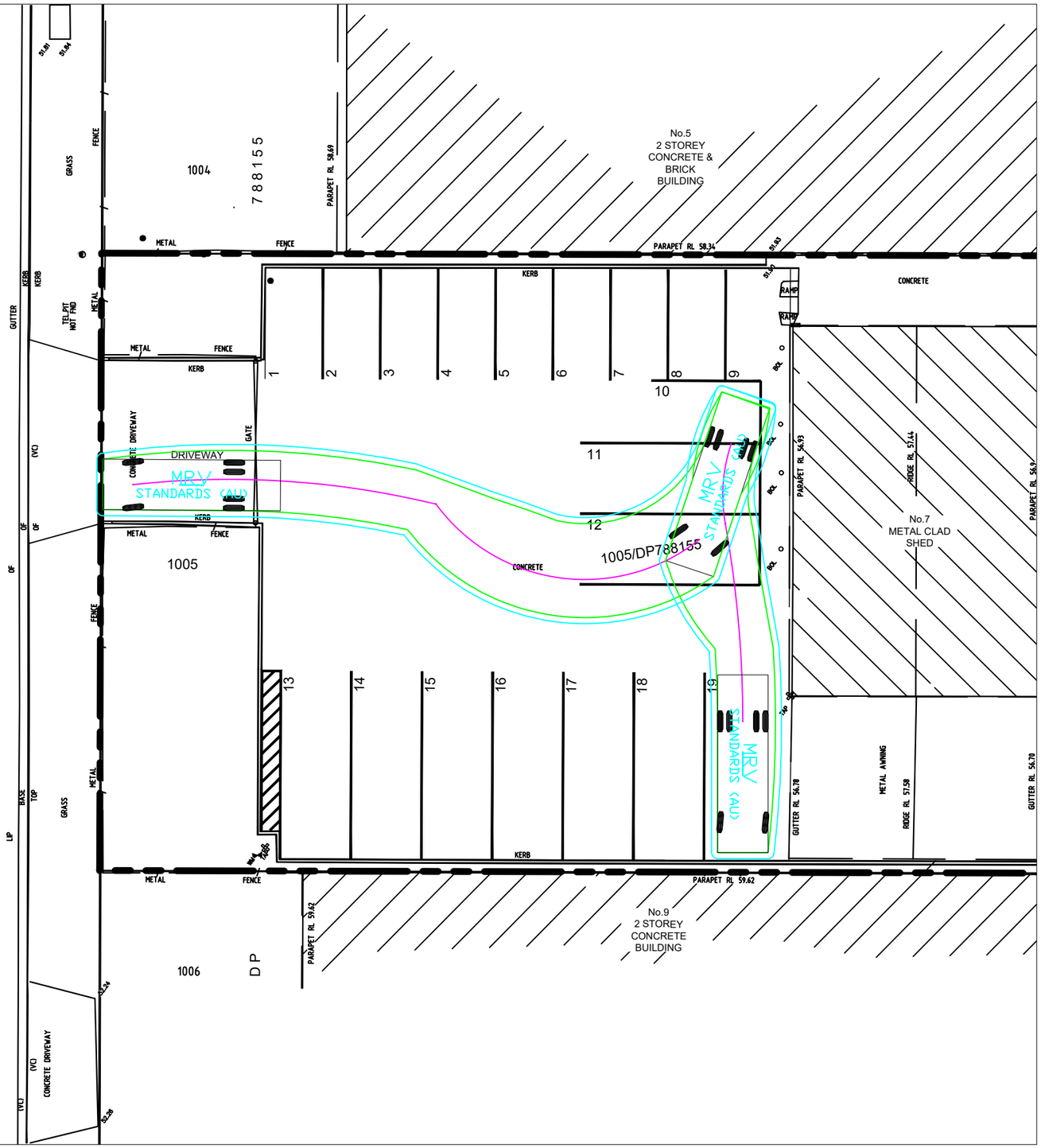
	meters
Width	: 2.50
Track	: 2.50
Lock to Lock Time	: 6.0
Steering Angle	: 34.0

LEGEND

VEHICLE BODY PATH (INCLUDING OVERHANG)

MANOEUVRING CLEARANCE (300mm)

VANGELLI STREET



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STANBURY TRAFFIC PLANNING

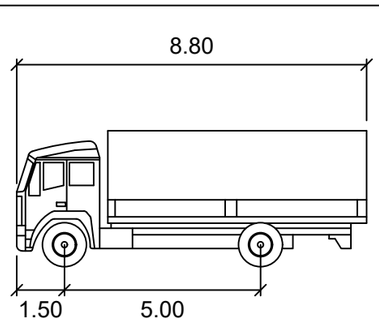
MEDIUM RIGID VEHICLE SWEPT PATHS

INTERNAL PARKING SPACE MANOEUVRING

EXPANSION OF CLINICAL AND QUARANTINE WASTE MANAGEMENT FACILITY

7 VANGELLI STREET, ARNDELL PARK (PARKING DEPOT)

SCALE: 1:250 AT A3		ISSUE A
FILE: 16-031	SUPERSEDES SHEET/ISSUE -	
DATE: 18/05/2020		SHEET 8



MRV

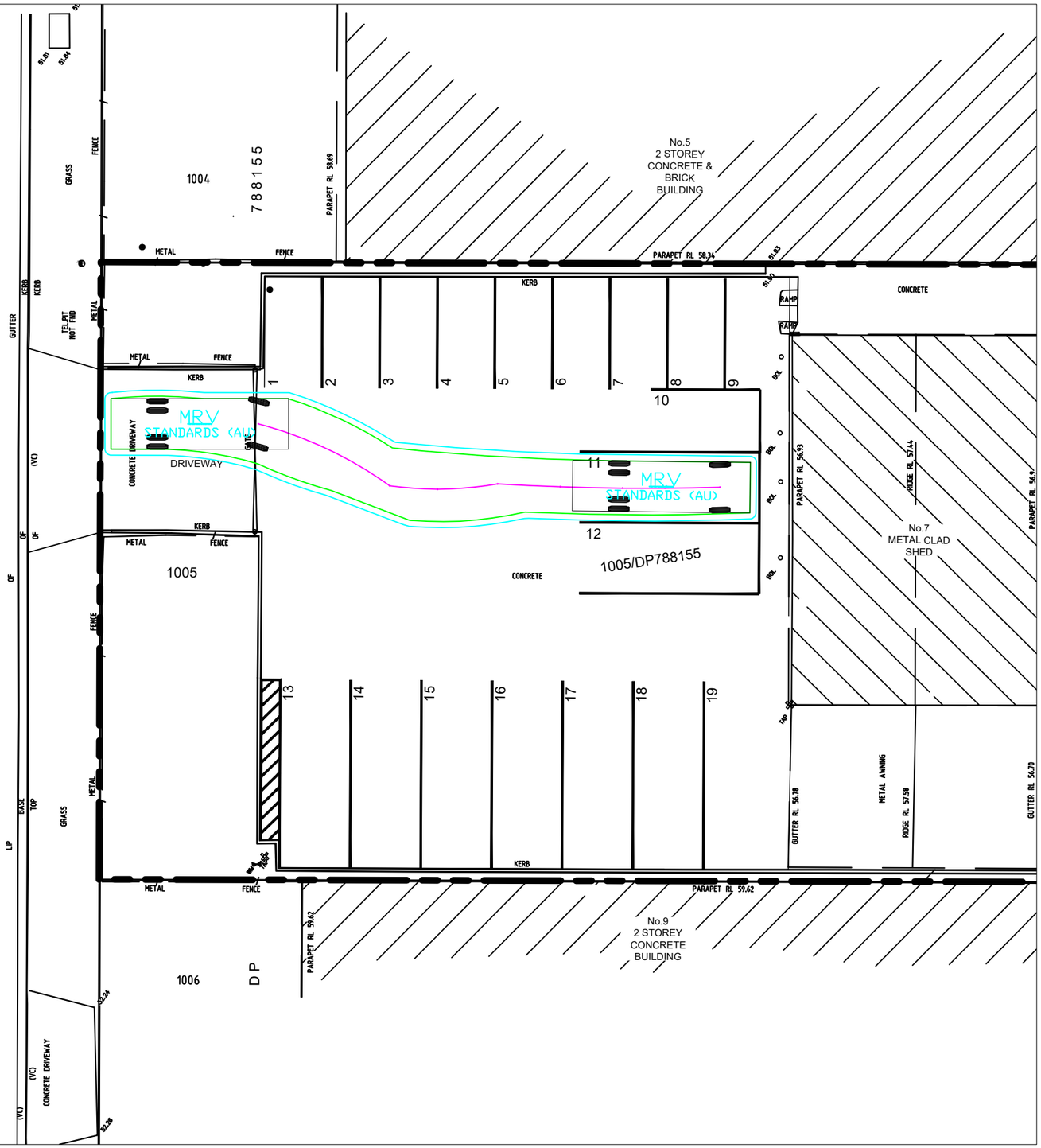
	meters
Width	: 2.50
Track	: 2.50
Lock to Lock Time	: 6.0
Steering Angle	: 34.0

LEGEND

VEHICLE BODY PATH (INCLUDING OVERHANG)

MANOEUVRING CLEARANCE (300mm)

7 VANGELLI STREET



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STANBURY TRAFFIC PLANNING

MEDIUM RIGID VEHICLE SWEPT PATHS

INTERNAL PARKING SPACE MANOEUVRING

EXPANSION OF CLINICAL AND QUARANTINE WASTE MANAGEMENT FACILITY

7 VANGELLI STREET, ARNDELL PARK (PARKING DEPOT)

SCALE: 1:250 AT A3

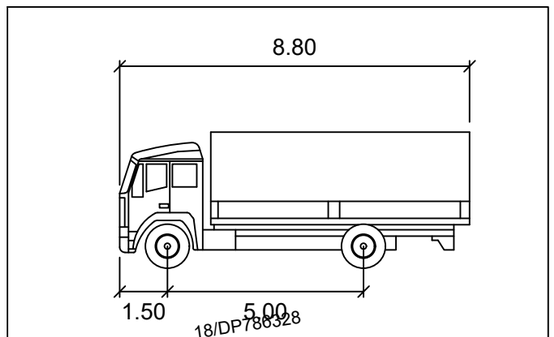
FILE: 16-031

SUPERSEDES SHEET/ISSUE -

DATE: 18/05/2020

ISSUE A

SHEET 9



MRV

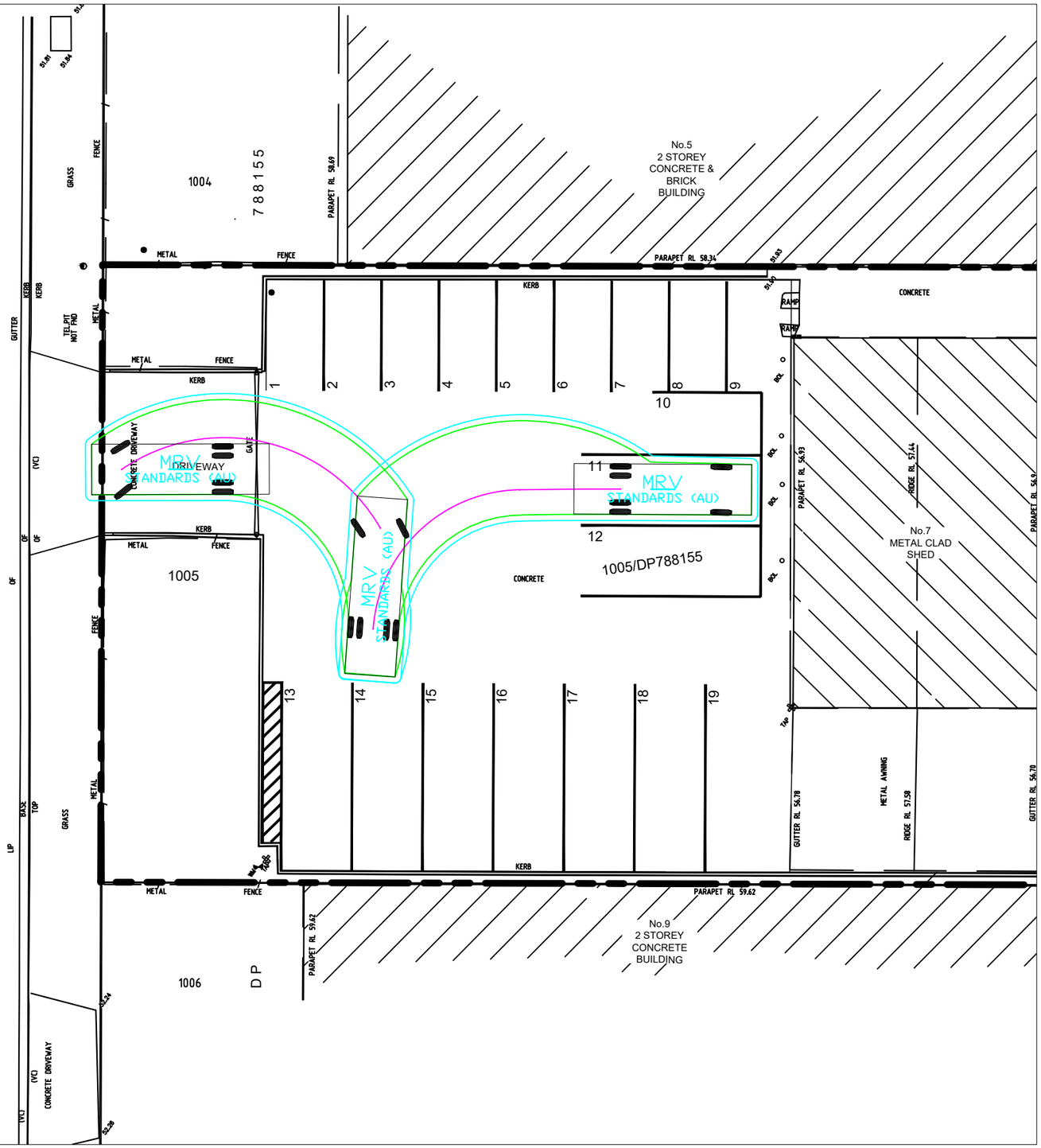
	meters
Width	: 2.50
Track	: 2.50
Lock to Lock Time	: 6.0
Steering Angle	: 34.0

LEGEND

VEHICLE BODY PATH (INCLUDING OVERHANG)

MANOEUVRING CLEARANCE (300mm)

VANGELLI STREET



STANBURY TRAFFIC PLANNING	NOTES:	STANBURY TRAFFIC PLANNING
ADDRESS: 302/166 GLEBE POINT RD, GLEBE	1. THIS PLAN IS BASED ON ARCHITECTURAL PLANS PREPARED BY ARUP GROUP.	MEDIUM RIGID VEHICLE SWEPT PATHS
PH: (02) 8971 8314	2. THE SWEPT PATHS PROVIDED ON THIS PLAN HAVE BEEN GENERATED UTILISING AUTOTURN PRO VERSION 10 IN CONJUNCTION WITH HEAVY RIGID VEHICLE MANOEUVRING SPECIFICATIONS IN ACCORDANCE WITH THE AUSTRALIAN STANDARD FOR PARKING FAICLITIES PART 2: OFF-STREET COMMERCIAL VEHICLE FACILITIES (AS2890.2:2018)	INTERNAL PARKING SPACE MANOEUVRING
MOB: 0410 561 848		EXPANSION OF CLINICAL AND QUARANTINE WASTE MANAGEMENT FACILITY
EMAIL: info@stanburytraffic.com.au		7 VANGELLI STREET, ARNDELL PARK (PARKING DEPOT)
WEBSITE: www.stanburytraffic.com.au		

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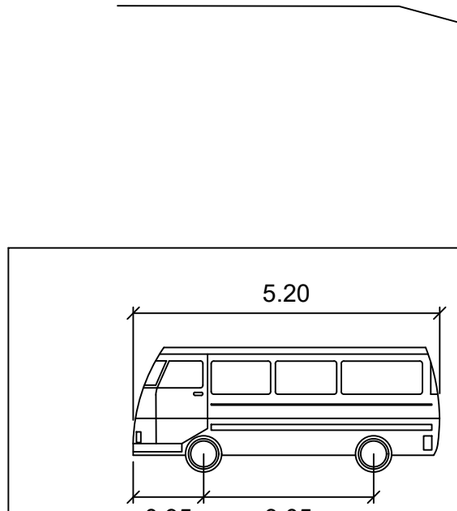
TRAFFIC, PARKING & TRANSPORT CONSULTANTS

SCALE: 1:250 AT A3		ISSUE A
FILE: 16-031	SUPERSEDES SHEET/ISSUE -	
DATE: 18/05/2020		SHEET 10



VAN

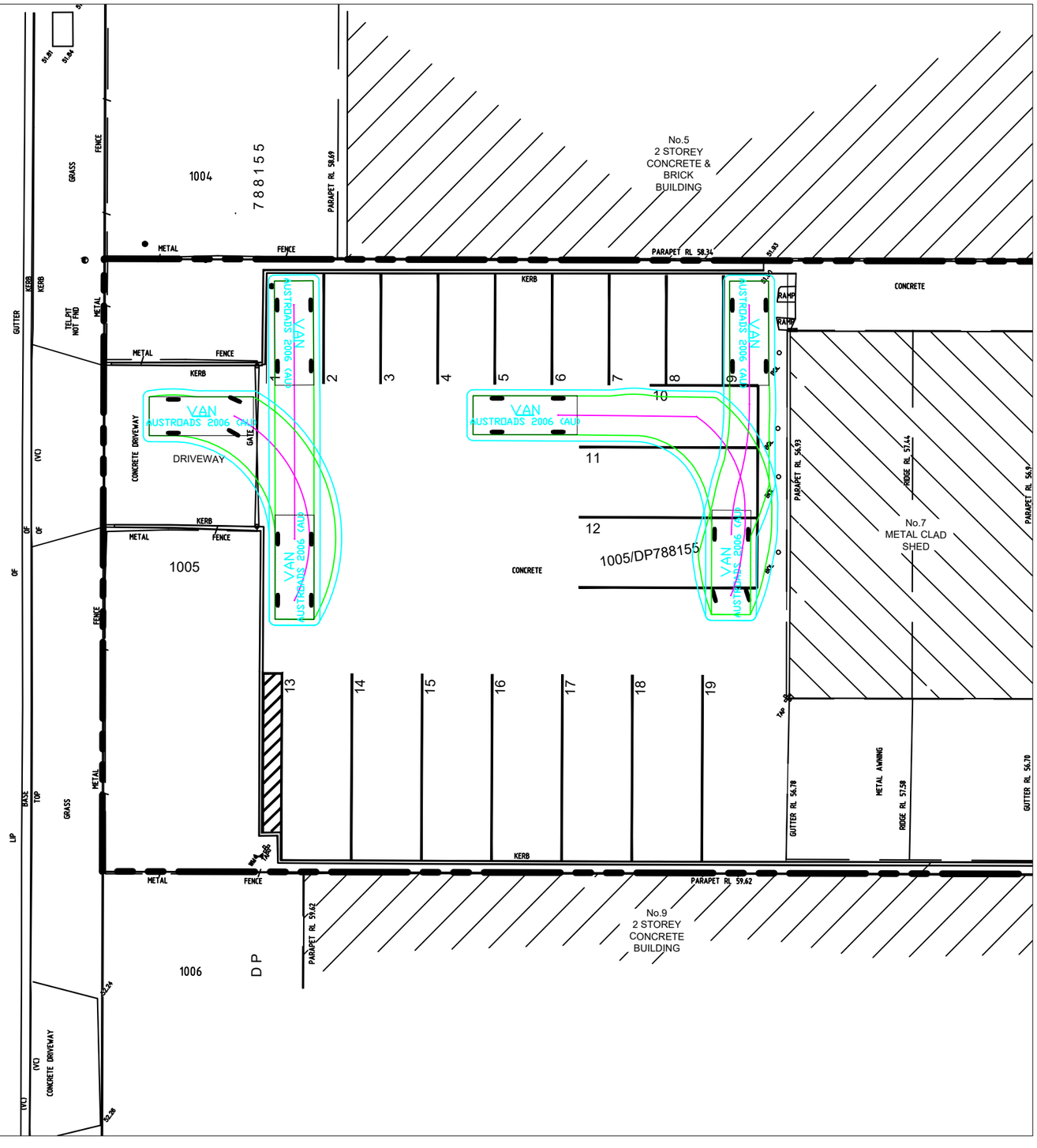
	meters
Width	: 1.94
Track	: 1.84
Lock to Lock Time	: 6.0
Steering Angle	: 33.5

LEGEND

VEHICLE BODY PATH (INCLUDING OVERHANG)

MANOEUVRING CLEARANCE (300mm)

VANGELI STREET



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STANBURY TRAFFIC PLANNING

SERVICE VEHICLE SWEPT PATHS

INTERNAL PARKING SPACE MANOEUVRING

EXPANSION OF CLINICAL AND QUARANTINE WASTE MANAGEMENT FACILITY

7 VANGELLI STREET, ARNDELL PARK (PARKING DEPOT)

SCALE: 1:250 AT A3

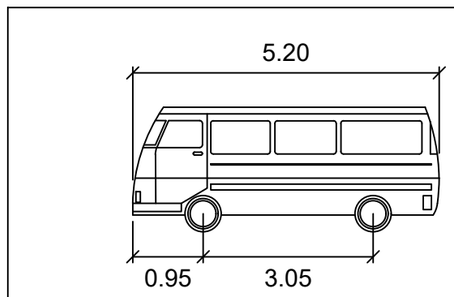
FILE: 16-031

SUPERSEDES SHEET/ISSUE -

ISSUE A

DATE: 18/05/2020

SHEET 11



VAN

	meters
Width	: 1.94
Track	: 1.84
Lock to Lock Time	: 6.0
Steering Angle	: 33.5

LEGEND

VEHICLE BODY PATH (INCLUDING OVERHANG)

MANOEUVRING CLEARANCE (300mm)

VANGELI STREET

STANBURY TRAFFIC PLANNING
TRAFFIC, PARKING & TRANSPORT CONSULTANTS

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STANBURY TRAFFIC PLANNING

SERVICE VEHICLE SWEPT PATHS

INTERNAL PARKING SPACE MANOEUVRING

EXPANSION OF CLINICAL AND QUARANTINE WASTE MANAGEMENT FACILITY

7 VANGELLI STREET, ARNDELL PARK (PARKING DEPOT)

SCALE: 1:250 AT A3

FILE: 16-031

SUPERSEDES SHEET/ISSUE -

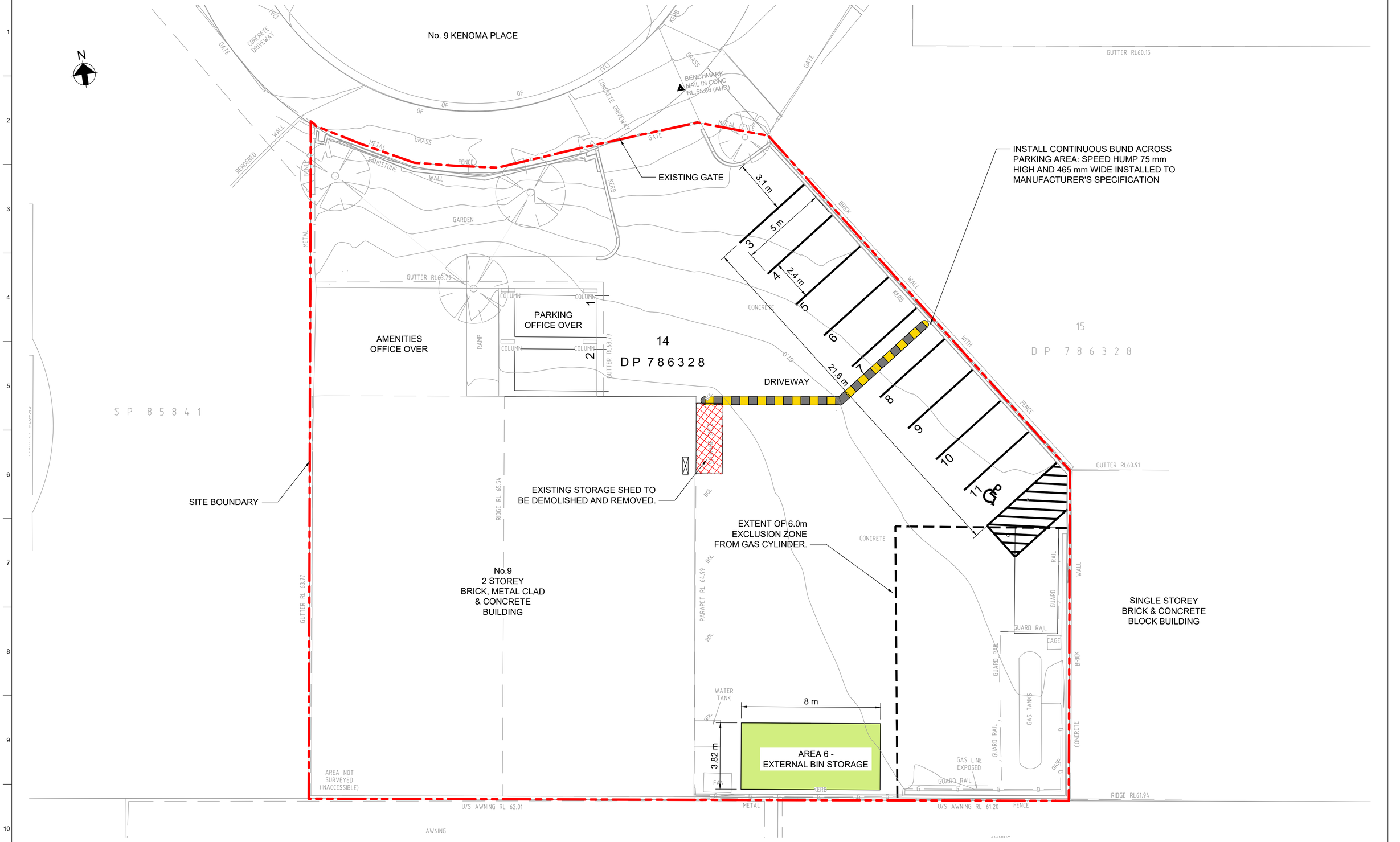
DATE: 18/05/2020

ISSUE A

SHEET 12

Appendix B

Site Plans



NOT FOR CONSTRUCTION

Scales

0 2.5 5m

A1 / A3
1:100 / 1:200

Design Model Version

Issue	Date	By	Chkd	Appd

Issue	Date	By	Chkd	Appd

Issue	Date	By	Chkd	Appd
1	14/05/2020	HNA	EM	LH
	FOR APPROVAL			
0	1/05/2020	HNA	EM	EM
	FOR INFORMATION			

Client

MED-X healthcare solutions

Engineering Certification (CEng)

Name: .....

Signature: ..... Date: .....

Job Title

CLINICAL WASTE
MANAGEMENT FACILITY
ARNDELL PARK

Scale at A1 1:100

Discipline CIVL

ARUP

Arup, Barrack Place, Level 5, 151 Clarence St
Sydney, NSW, 2000
Tel +61(02)9320 9320 Fax +61(02)9320 9321
www.arup.com.au

CONSULT AUSTRALIA
Member Firm
Arup Pty Ltd
ABN 18 000 966 165

Drawing Title

9 KENOMA PLACE
PROPOSED SITE
PLAN

Drawing Status

FOR APPROVAL

Job No	Drawing No	Issue
274648-00	**CICW-DRG-0111**	**1**

Do not scale

DRAWING COLOUR CODED - PRINT ALL COPIES IN COLOUR

A1

N

No.7 VANGELI STREET

1004

788155

1005

1005/DP788155

DRIVEWAY

No.5
2 STOREY
CONCRETE &
BRICK
BUILDING

No.7
METAL CLAD
SHED

No.9
2 STOREY
CONCRETE
BUILDING

MULTI-STOREY
CONCRETE &
METAL CLAD
BUILING

DP 883362

PARAPET RL 58.34
PARAPET RL 58.69
PARAPET RL 59.62
PARAPET RL 56.93
PARAPET RL 56.9
PARAPET RL 60.49
RIDGE RL 57.44
RIDGE RL 57.58
GUTTER RL 56.78
GUTTER RL 56.70
METAL AWNING

2.85 m
5.5 m
3.1 m
5.4 m
3.5 m
3.5 m
4.35 m
3.5 m
4.18 m
9.3 m

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

CHECK PRINT
Plot Date: 12 May 2020 16:25:16

	Initial Check SIGNED/DATE	Back Check SIGNED/DATE
CHECKER		
TECHNICIAN		
ENGINEER		
SENIOR TECHNICIAN		
SENIOR ENGINEER/APPROVER		

NOT FOR CONSTRUCTION

DRAWING IN PROGRESS

Scales
0 2.5 5m
A1 / A3
1:100 / 1:200

Design Model Version

Issue	Date	By	Chkd	Appd
0	7/05/2020	HNA	EM	EM
	FOR INFORMATION			

Client: MED-X healthcare solutions

Engineering Certification (CEng)
Name: .....
Signature: ..... Date: .....

Job Title
CLINICAL WASTE
MANAGEMENT FACILITY
ARNDELL PARK

Scale at A1 1:100

Discipline CIVL

ARUP
Arup, Barrack Place, Level 5, 151 Clarence St
Sydney, NSW, 2000
Tel +61(02)9320 9320 Fax +61(02)9320 9321
www.arup.com.au

Drawing Title
7 VANGELI STREET
PROPOSED SITE
PLAN

Drawing Status
FOR INFORMATION ONLY

Job No	Drawing No	Issue
274648-00	CICW-DRG-0211	0

Do not scale

DRAWING COLOUR CODED - PRINT ALL COPIES IN COLOUR

Appendix C

SIDRA modelling results

MOVEMENT SUMMARY

Site: [Holbeche Road & Vangeli Street]

Projected AM Peak
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Vangeli Street												
1	L2	57	5.0	0.048	6.7	LOS A	0.2	1.4	0.38	0.60	0.38	52.2
3	R2	54	5.0	0.143	14.1	LOS A	0.5	3.7	0.71	0.88	0.71	47.3
Approach		111	5.0	0.143	10.3	LOS A	0.5	3.7	0.54	0.74	0.54	49.7
East: Holbeche Road East												
4	L2	119	5.0	0.066	5.6	LOS A	0.0	0.0	0.00	0.58	0.00	53.4
5	T1	317	5.0	0.168	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
Approach		436	5.0	0.168	1.5	NA	0.0	0.0	0.00	0.16	0.00	58.0
West: Holbeche Road West												
11	T1	307	5.0	0.322	1.9	LOS A	1.9	13.7	0.41	0.23	0.45	56.3
12	R2	137	5.0	0.322	8.8	LOS A	1.9	13.7	0.41	0.23	0.45	54.4
Approach		444	5.0	0.322	4.0	NA	1.9	13.7	0.41	0.23	0.45	55.7
All Vehicles		991	5.0	0.322	3.6	NA	1.9	13.7	0.24	0.26	0.26	55.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: [Holbeche Road & Vangeli Street]

Projected PM Peak
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Vangeli Street												
1	L2	128	5.0	0.144	8.2	LOS A	0.6	4.0	0.53	0.75	0.53	51.4
3	R2	133	5.0	0.441	21.3	LOS B	2.0	14.3	0.84	1.02	1.16	43.3
Approach		261	5.0	0.441	14.9	LOS B	2.0	14.3	0.69	0.89	0.85	46.9
East: Holbeche Road East												
4	L2	34	5.0	0.019	5.6	LOS A	0.0	0.0	0.00	0.58	0.00	53.4
5	T1	544	5.0	0.288	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach		578	5.0	0.288	0.4	NA	0.0	0.0	0.00	0.03	0.00	59.5
West: Holbeche Road West												
11	T1	330	5.0	0.244	1.2	LOS A	0.9	6.3	0.23	0.09	0.24	57.8
12	R2	48	5.0	0.244	10.0	LOS A	0.9	6.3	0.23	0.09	0.24	55.8
Approach		378	5.0	0.244	2.3	NA	0.9	6.3	0.23	0.09	0.24	57.5
All Vehicles		1217	5.0	0.441	4.1	NA	2.0	14.3	0.22	0.23	0.26	55.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: [Holbeche Road & Vangeli Street (Site Folder: General)]

Projected 10 Year AM Peak (With Development)
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Vangeli Street														
1	L2	57	5.0	57	5.0	0.052	7.1	LOS A	0.2	1.5	0.42	0.63	0.42	52.1
3	R2	54	5.0	54	5.0	0.181	17.2	LOS B	0.6	4.6	0.78	0.91	0.79	45.4
Approach		111	5.0	111	5.0	0.181	12.0	LOS A	0.6	4.6	0.60	0.77	0.60	48.6
East: Holbeche Road East														
4	L2	119	5.0	119	5.0	0.066	5.6	LOS A	0.0	0.0	0.00	0.57	0.00	53.4
5	T1	387	5.0	387	5.0	0.205	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach		506	5.0	506	5.0	0.205	1.4	NA	0.0	0.0	0.00	0.14	0.00	58.2
West: Holbeche Road West														
11	T1	375	5.0	375	5.0	0.374	2.4	LOS A	2.5	17.9	0.42	0.22	0.53	56.0
12	R2	137	5.0	137	5.0	0.374	9.9	LOS A	2.5	17.9	0.42	0.22	0.53	54.1
Approach		512	5.0	512	5.0	0.374	4.4	NA	2.5	17.9	0.42	0.22	0.53	55.5
All Vehicles		1129	5.0	1129	5.0	0.374	3.8	NA	2.5	17.9	0.25	0.23	0.30	55.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: [Holbeche Road & Vangeli Street (Site Folder: General)]

Projected 10 Year PM Peak (With Development)
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Vangeli Street														
1	L2	128	5.0	128	5.0	0.171	9.2	LOS A	0.6	4.7	0.59	0.82	0.59	50.7
3	R2	133	5.0	133	5.0	0.644	36.1	LOS C	3.1	22.3	0.93	1.14	1.57	36.8
Approach		261	5.0	261	5.0	0.644	22.9	LOS B	3.1	22.3	0.76	0.98	1.09	42.5
East: Holbeche Road East														
4	L2	34	5.0	34	5.0	0.019	5.6	LOS A	0.0	0.0	0.00	0.58	0.00	53.4
5	T1	663	5.0	663	5.0	0.351	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.8
Approach		697	5.0	697	5.0	0.351	0.4	NA	0.0	0.0	0.00	0.03	0.00	59.4
West: Holbeche Road West														
11	T1	403	5.0	403	5.0	0.297	1.7	LOS A	1.3	9.2	0.26	0.08	0.31	57.3
12	R2	48	5.0	48	5.0	0.297	12.2	LOS A	1.3	9.2	0.26	0.08	0.31	55.3
Approach		451	5.0	451	5.0	0.297	2.9	NA	1.3	9.2	0.26	0.08	0.31	57.1
All Vehicles		1409	5.0	1409	5.0	0.644	5.4	NA	3.1	22.3	0.22	0.22	0.30	54.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Appendix D

Environment Pollution Incident Emergency Plan

MED-X HEALTHCARE SOLUTIONS
POLLUTION INCIDENT RESPONSE MANAGEMENT PLAN

9 Kenoma Place Arndell Park NSW 2148

RELEASED VERSION: 05 2020

Summary of Dangerous Goods held at the premises

Class	Description	Quantity
2.1	Flammable Gas	7500L
6.1, 6.2	Infectious Substances	<2.5T
3	Flammable Liquids	<40L

Table of Contents

EMERGENCY SERVICES INFORMATION PACKAGE

Site location:

Med-X Healthcare Solutions: 9 Kenoma Place Arndell Park (Main site- Processing and Operations).
Additional parking and storage site located at: 7 Vangeli Street, Arndell Park

Hours of Operation:

The normal hours of operation of the Site are between 7am to 7pm. Monday to Saturday.

Brief description of works:

Med-X Healthcare Solutions provides a waste collection and disposal service to health and allied health services industries and any other business that requires clinical and sharps waste disposal. The clinical wastes are treated by steam sterilisation process to destroy microbial organisms, rendering the waste harmless.

Cytotoxic and anatomical waste is collected and temporarily stored before being transported to another waste treatment facility to be incinerated.

Areas of the site that are potentially hazardous during a fire emergency have been determined to be the shredder, electrical equipment and the waste storage locations as well as the area around the LPG storage tank.

The potential for fire is an electrical fault or the shredder sparking and igniting combustible materials in the waste.

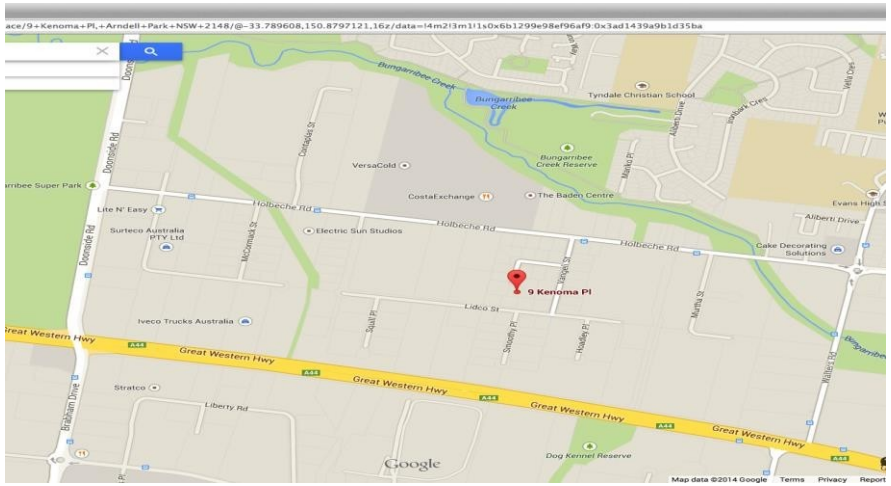
Clinical and related waste and cytotoxic waste is classified as **special waste** (Class 6.1 & 6.2) under the NSW EPA Waste Classification Guidelines. The main hazards associated with this waste are sharps injury and the infectious nature of the waste. The risk of these hazards depends on exposure.

There is a wash bay inside the building for cleaning of bins. This area is connected to the Sydney Water Tradewaste System.

- An industrial boiler running on LPG (Class 2.1) powers the autoclave. The capacity of the LPG tank, which is supplied by Supagas, is 7500L and the tank is situated in the corner of the yard with Hebel walls protecting the boundary fences against fire.

The nearest waterway is Bungarribee Creek that is located 500m to the north of the site. The building is bunded at all doorways to contain all spills and any contaminated firewater. There are two fire hose reels and fire extinguishers are installed throughout the facility.

Figure 1 Site Location - 9 Kenoma Place



The location of nearest fire services is:
Huntingwood Fire Station
42 Huntingwood Dr
Huntingwood NSW 2148

1. INTRODUCTION

This document describes the Pollution Incident Response Management Plan ("plan") for Med-X Healthcare Solutions (waste storage and treatment facility) at 9 Kenoma Place Arndell Park. For the purpose of this report, the facility will be known as "the site" from here onwards.

All personnel and contractors working at the site should be made aware of the general contents of this document and accompanying procedures.

It is a requirement that all those employees responsible for emergency response activities, as defined by this document, have a copy of this plan and receive the appropriate level of training needed to ensure the effective implementation of the respective emergency and pollution incident response procedures identified in this plan.

The plan is designed to cover all emergency and pollution incidents conditions that could be reasonably anticipated at the site.

1.1 DEFINITION OF AN EMERGENCY

An emergency situation can be defined as any abnormal or dangerous event that may adversely affect the safety or well-being of nearby persons, communities or the environment. Under these circumstances, the occupants of the said premises are called to immediately respond to the emergency situation in an effort to control, correct and return the dangerous situation to a safe condition.

If there is any doubt, an event should be treated as an emergency and the procedures stipulated by this plan should be followed. Note that all fires are to be treated as emergencies.

The three levels of emergency are defined as:

- **LOCAL ALERT:** Any emergency situation that threatens human lives, property or the environment at one location of the Site, but is not likely to spread to other areas of the Site or the property;

- **SITE ALERT:** Any emergency situation where effects may spread to other areas on the Site; and
- **EXTERNAL ALERT:** Any emergency situation where effects may spread and impact on people, property or the environment outside the site boundaries, such as a grass fire.

Each of these three levels of emergency may be further classified as follows:

- **MINOR EMERGENCY:** An emergency situation that can be handled entirely by the Site's emergency response personnel without the assistance of the respective public emergency services; and
- **MAJOR EMERGENCY:** An emergency situation that requires the assistance of the public emergency services i.e. ambulance, fire brigade or police services.

An EXTERNAL ALERT is automatically a MAJOR EMERGENCY, as action cannot be taken outside the site boundary independently of the public emergency services.

1.2 DEFINITION OF A POLLUTION INCIDENT

The Environmental Guidelines: Preparation of pollution incident response management plans (NSW EPA) 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."

Under the Section 148 of the POEO Act, pollution incidents causing or threatening material harm to the environment must be notified immediately to the relevant authorities.

"Material risk of harm to the environment" is defined under Section 147 of the POEO Act as:

(a) harm to the environment is material if:

(iii) It involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or

(iv) It results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding $10,000 (or such other amount as is prescribed by the regulations), and

(b) loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment.

1.3 POLLUTION INCIDENT RESPONSE MANAGEMENT

There is an obligation on holders of environmental protection licences to prepare and implement a pollution incident response management plan (PIRMP) for each licensed activity.

Med-X currently has two (2) environmental protection licences (EPL) under the POEO Act:

1. EPL No. 20233 for Waste storage and Non-thermal treatment of hazardous and other waste at 9 Kenoma Place Arndell Park; and,
2. EPL No. 12609 for transport of hazardous, industrial, Group A, Group B or Group C waste.

Requirements for pollution incident response management plans (PIRMP) include:

- Procedures to be followed in notifying a pollution incident and actions to be taken immediately after a pollution incident;
- The PIRMP must be kept at the premises to which the relevant EPL relates and be available on the website; and
- The PIRMP should be tested.

1.4 AIMS OF THE PLAN

The aims of this plan are to:

- Provide a clear understanding of how to handle and react to any emergency and pollution incidents that may occur at the site or during the transport of waste in the form of effective control structures, procedures and directives;
- Prevent or minimise the impact of an emergency on human life, the community and surrounding environment; and
- Facilitate a return to normal or safe operations as soon as possible.

The procedures contained in this plan have been designed to protect life and where possible prevent or minimise damage to the equipment, site and installations at the site. The procedures also aim to facilitate a return to normal operations by providing effective utilisation of the safety features, systems and equipment installed at the site to protect people from fire, pollution incidents and other emergencies.

1.5 SCOPE AND OBJECTIVES

This plan applies to all equipment, personnel and visitors under the control or management of MED-X HEALTHCARE SOLUTIONS whilst working or visiting the site.

The plan contains information and instructions that provide a basis for handling various types of emergency situations, such as a fire, medical emergency, spills and gas-leaks.

These instructions should not be regarded as rigid procedures to be followed, but rather as continually improving guidelines to be adapted to cope with unanticipated situations.

The objectives of this plan are:

- To protect human life and facilitate the rescue or evacuation of personnel affected by the emergency situation;
- To control or limit any effect that an emergency situation may have on the site, neighboring areas or on the community in the vicinity of the location of the emergency;
- To facilitate emergency response and to provide such assistance as is appropriate to the occasion;
- To ensure the quick and effective communication of all vital information to respective authorities;
- To facilitate the organisation and reconstruction activities so that normal operations can be resumed as soon as possible;
- To provide for emergency response training so that a high level of preparedness can be maintained at the facility;
- To provide the structure under which emergency procedures are revised and updated;
- To ensure timely and comprehensive communication of a pollution incident to staff, relevant authorities and all other stakeholders affected by the impacts of the pollution incident; and
- To identify risks and develop actions to minimise and manage these risks.

2. SUMMARY OF OPERATIONS, HAZARDS, AND SAFETY SYSTEMS

2.1 SUMMARY OF FACILITY OPERATIONS

The Site is located within an industrial area in Arndell Park and surrounded by industrial premises. The land area is 1,650 m2.

The site has one entrance and exit driveway from Kenoma Place. The site consists of an industrial warehouse; concrete driveways and open areas (refer to Figure 2-1). The adjoining land consists of industrial facilities.

The site provides treatment for clinical waste using an autoclave process. Wastes are transported to the site by Med-X vehicles across the Sydney metro and regional areas.

The clinical waste is delivered to the site in reusable yellow clinical waste bins by trucks. The waste includes sharps, infected material and human tissue. Cytotoxic (purple bins) and anatomical (yellow bins, orange lid) waste is also delivered to the site. However this waste is removed and incinerated off-site at another waste treatment facility.

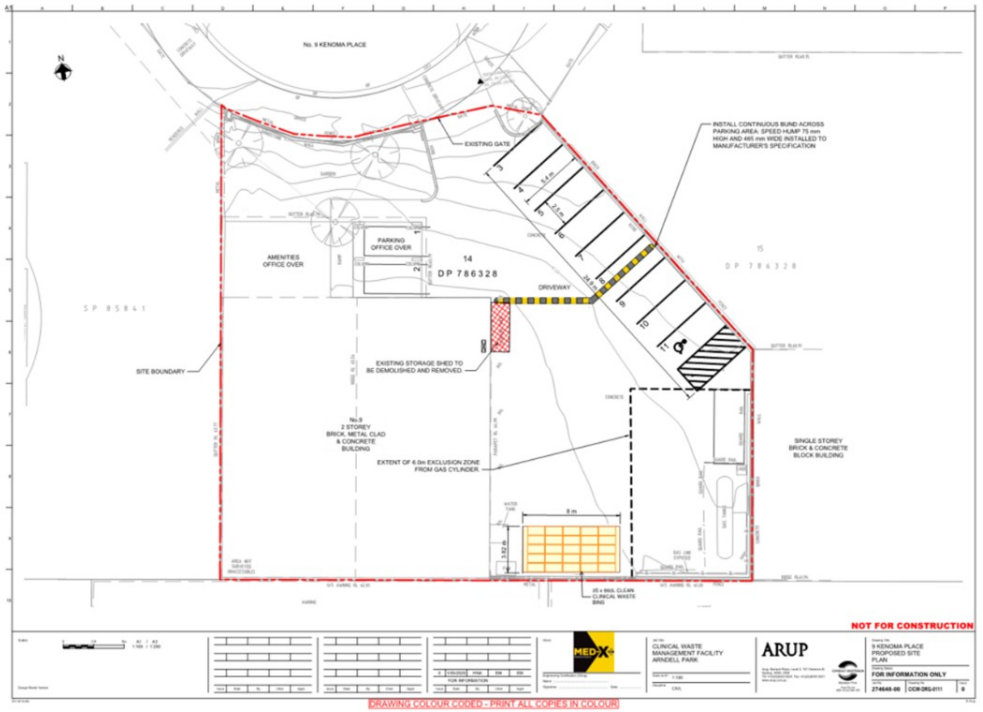


Figure 2-1: Site Layout

The autoclaving process involves the following steps:

- The clinical and related waste is weighed and emptied into an autoclave cart;
- The yellow bins are manually cleaned using disinfectant;
- The carts (4 at a time) are placed in the autoclave and cycled through a treatment process of pressure and steam;

- The steam reaches temperatures of 140C.
- The condensate and water used in the autoclave cooling process is collected in a 25,000 litre tank, cooled, filtered and re-used;
- After the steam sterilization process is complete, the autoclave chamber is opened and the carts removed;
- The treated waste is fed into a shredder using a forklift with attachment and the shredded waste is compacted and transferred to a compactor; and
- The compactor is transported by truck to landfill.

The locations of dangerous goods storage areas (refer figure 2-1) on site are provided in the following table. For flammable liquids, the containers are stored within a flammable/dangerous goods metal cabinet.

Table 2-1: Dangerous Goods Storage Details

Area	Chemical Name	UN No	DG Class	Quantity
1	LPG	1075	2.1	7500L
2	Clinical Waste	3291	6.2	<2.5T
3	Cytotoxic	2810	6.1	500kg
4	Flammable & Corrosive	Various	3	60L

Wastewater discharge to sewer is tested regularly in accordance with the Trade Waste agreement with Sydney Water.

2.2 SUMMARY OF TRANSPORT OPERATIONS

In addition to the licensed activities undertaken at the site, MED-X HEALTHCARE SOLUTIONS is licensed to transport waste of Category 1 and Category 2. Transport includes the following:

- Collection of wastes from clients around the Sydney and NSW regional areas, and then the transport of these wastes to the site;
- Transport of cytotoxic and anatomical waste from the site to Silverwater for incineration; and
- Transport of processed waste (after rendered harmless) from the site to landfill.

2.3 SUMMARY OF HAZARDS

The storing and handling of quantities of special waste on-site occurs as part of day-to-day operations. The main hazards are spillage and fire. A spillage may occur during unloading and handling. A fire may occur in the facility with the potential principal causes being:

- The potential for unknown substances within the collected waste to go through the shredding process and a spark causes an explosion or fire;
- Use of non-approved electrical devices; and
- Release of solvent.

Safeguards are in place to reduce the risk of a fire.

2.3.1 Dangerous Goods

Table 2-2: Classes of dangerous goods stored and handled at the Site

Class	Class Description	Major Hazards
2.1	Flammable Gas	• Flash fire • Unconfined vapour cloud explosion • Toxicity (under extreme concentrations)
3	Flammable Liquid	• Flash fire • Pool fire • Unconfined vapour cloud explosion • Potential toxic fumes (in the event of fire) • Potential water contamination (The flammable liquids are not part of the clinical waste processing and are stored separately).
6.2	Infectious Substances	• Can cause infectious disease in humans or animals • Capable of spreading disease when exposure to them occurs.

Table 2-2: Classes of dangerous goods stored and handled at the Site		
Class	Class Description	Major Hazards
		• Corrode metal and other materials • May ignite flammable/combustibles substances • React dangerously with other corrosive or incompatible substances

2.3.2 Special Waste

Clinical waste has the potential to cause injury, infection or offence. Some examples of clinical waste include:

- Body fluids or Blood;
- Materials or equipment that have been exposed to body fluids and or blood;
- Human tissue (excluding hair, nails, and teeth);
- Laboratory specimens/cultures; and
- Animal tissue/carcasses resulting from medical research.

This waste is put through a steam sterilisation process at the site, which renders the waste harmless.

Cytotoxic waste relates to any substance that may be contaminated with any residue or preparations that contains materials that are toxic to cells especially because of their ability to alter cell production. Some examples of cytotoxic waste may include:

- Drugs that are used to treat cancer, rheumatoid arthritis, multiple sclerosis;
- Equipment utilised in administering or preparation of cytotoxic materials; and
- Body fluids/blood that may still have cytotoxic properties.

Exposure can occur through skin absorption, skin contact, ingestion and sharp injuries, inhalation of aerosols and drug particles.

Cytotoxic, pharmaceutical and anatomical waste is stored at the site then incinerated off-site at another waste treatment facility.

Anatomical wastes are human/animal tissues, organs, body parts and pathological specimens.

Safety Data Sheets (SDS) for each chemical substance stored at the Site is kept at locations that are accessible to where each chemical is stored. It is noted that 240L of residual formaldehyde waste is stored at site & updated accordingly.

2.3.3 Process Related Hazards

Operations include the loading, unloading and storage of infectious and toxic wastes as well as the processing of infectious waste. The major operational related hazards associated with the site activities include:

- Damage to a waste bin during unloading from transport vehicle, causing a spill of a waste product;
- A pallet/bin collapses as a result of an unstable storage arrangement, causing possible injury to an employee and/or damage to bins;
- Injury to employees as a result of contact with a waste product (e.g. sharps injury);
- Spillage of waste bin during processing, transfer or equipment leak or the like;
- Release of vapours (toxic or flammable) during processing or as a result of a spill;
- A waste spill travels down a stormwater drain potentially causing environmental harm and/or human injury (off-site) due to direct or indirect contact with the substance;
- Fire caused by ignition of an unwanted substance such as flammable liquid or flammable gas most likely within the shredder; and
- Fire or explosion due to the storage of incompatible wastes or dangerous goods that are inadvertently brought onto site.

2.3.4 Potential Pollutants Stored on Site

Table 2-3: Potential Pollutants

Pollutant Name	**Storage location details**	**Maximum Quantity**
Wash water from bin wash bay.	Released to trade waste under Sydney Water TWA.	500L
Cytotoxic waste	Stored within purple bins in the facility	0.3T
Clinical waste	Stored within yellow bins in the facility	4.5T

Anatomical waste	Stored within yellow bins (orange lid) in the facility	0.2T
Waste inadvertently brought onto site.	Stored within the facility in a bunded area	Unknown (<0.5T)
Treated autoclave waste	Temporarily stored within bulk bin and removed off site every 2 days	4T

2.3.5 Risk Assessment

Risk can be evaluated using the template shown in Figure 2-2 as follows – Alignment to:

- HB 436:2004 Risk Management Guidelines Tables 6.3 – 6.8 reproduced with permission from SAI Global under licence 1210-c062.
- References: Safe Work Australia (2011) - Code of Practice: How to Manage Work Health and Safety Risks, ISO31000 -2018 Risk Management.

Figure 2-2: Risk Assessment Template

Step 3: Determine the risk score					
	Consequence				
Likelihood	**Insignificant**	**Minor**	**Moderate**	**Major**	**Catastrophic**
Almost certain	**3 High**	**3 High**	**4 Acute**	**4 Acute**	**4 Acute**
Likely	**2 Moderate**	**3 High**	**3 High**	**4 Acute**	**4 Acute**
Possible	**1 Low**	**2 Moderate**	**3 High**	**4 Acute**	**4 Acute**
Unlikely	**1 Low**	**1 Low**	**2 Moderate**	**3 High**	**4 Acute**
Rare	**1 Low**	**1 Low**	**2 Moderate**	**3 High**	**3 High**
Step 4: Record risk score on worksheet (**Note** – Risk scores have no absolute value and should only be used for comparison and to engender discussion.)					

Score	Action
4 A: Acute	**DO NOT PROCEED.** Requires immediate attention. Introduce further high-level controls to lower the risk level. Re-assess before proceeding.
3 H: High	**Review before commencing work**. Introduce new controls and/or maintain high-level controls to lower the risk level. Monitor frequently to ensure control measures are working.
2 M: Moderate	**Maintain control measures.** Proceed with work. Monitor and review regularly, and if any equipment/people/materials/work processes or procedures change.
1 L: Low	**Record and monitor**. Proceed with work. Review regularly, and if any equipment/people/materials/work processes or procedures change.

2.4 SUMMARY OF SAFETY SYSTEMS

A number of important safety features have been incorporated into the design and operation of the Site to reduce the potential for hazardous events as outlined above to occur, or to minimise their impacts in terms of potential effects on human life and the surrounding environment.

2.4.1 On-site Water Containment System

The facility is equipped with bunding, which would limit pollutant release in the event of a spill for which spill kits are not sufficient to limit the extent of the spill.

There is 120mm high bunding at all doorways to contain all spill and contaminated firewater within the building. All spills within the building will be treated and collected before ultimately being released to the sewer with no potential release to the stormwater system.

Med-X is investigating the option of stormwater isolation protection as an additional protective barrier.

2.4.2 Fire Services

The fire services available at the site are:

- 1 x 9kg CO2 Fire Extinguisher
- 3 x 9kg A:B(E) Powder Fire Extinguisher
- 2 x 36m fire hoses connected to hydrant water mains
- Fire Alarm

Services are inspected semi-annually.

Contaminated firewater would be treated with bleach at 10000ppm and the pH level tested and adjusted (should it be below pH7) before being released to sewer.

Med-X Emergency Response Personnel can be quickly contacted via the following communication methods:

- Using internal telephone system; and
- Mobile phones (if the person to be contacted is known to be outside the site).

2.4.3 Spill Control Equipment

In addition to the water containment measures, Med-X Healthcare Solutions maintain the following clinical waste spill kit items on site.

- Broom, a pan and scraper, mop and mop bucket;
- A large (10 litre) reusable plastic container or bucket with fitted lid;
- Clinical waste bags for the disposal of clinical waste;
- Disinfectant containing (1%) 10,000 ppm available chlorine or equivalent;
- Rubber gloves suitable for cleaning;
- Detergent, sponges / disposable cloths;
- Personal protective equipment including eye protection, an apron or long sleeve impervious gown, a face mask, heavy-duty gloves;
- Incident report form;

- Waste spill sign.

Cytotoxic spill kit should contain at least:

- Mop and mop bucket, a pan and scraper;
- A large (10 litre) reusable plastic container or bucket with fitted lid;
- Cytotoxic waste bags for the disposal of cytotoxic waste;
- 2 hooded overalls, shoe covers, long heavy-duty gloves, latex gloves, a face mask and eye protection;
- Absorbent toweling / absorbent spill mat;
- Incident report form;
- Waste spill sign.

2.4.4 Other

Personal Protective Equipment (PPE) available to employees includes:

- Safety footwear, headwear, and hi-viz clothing;
- Eye Protection and ear protection;
- Various gloves.

Additional PPE is provided in spill kits in case employees need to clean up clinical or cytotoxic waste.

A **Safety Data Sheet** (SDS) register is located in the facility at the chemical cabinets.

Waste audits are periodically conducted of waste collected from hospitals, laboratories and medical research centres with the results reported back to clients. Any incorrectly disposed waste type is highlighted and fed back into the client's waste segregation programs.

3. TYPES OF EMERGENCIES

The following types of emergencies covered by this plan are summarised in Table 3-1 below.

Table 3-1: Types of emergencies

Emergency Event	Emergency Type	Emergency Response Procedure
Fire/Explosion	Fire within property	Fire/Explosion; Gas Release
	Fire within shredder / waste bin	
Spills	Spills during material handling operations or transport	Dangerous Goods Emergency; Spill Control and Containment
	Collision of road vehicles	
	Bin damaged by forklift	
	Overflow causing release of contaminated wastewater	
	Bin containing infectious waste overturns during unloading, spilling contents	
Personal Injury	Work accident, such as heart attack, serious fall, severe injury or contact with chemical	Medical Emergency
Miscellaneous	Site Evacuation	Evacuation.

4. EMERGENCY CONTROL AND RESPONSE

The normal hours of operation of the Site are between 6am and 4pm, Monday to Friday.

4.1 PRINCIPLES OF EMERGENCY CONTROL AND RESPONSE

The principles of emergency response will be based on Prevention, Containment, Rescue and First aid. These have been summarised below:

Table 4-1: Emergency response principles	
Prevention	Inspection of all Site and dangerous goods storage facilities. Frequency of inspections are bi-annually.
	Regular emergency response drills to ensure site readiness.
Containment	Minimise any secondary damage.
	Immediate isolation of all electrical power to the affected area.
	Strict co-operation with any instructions provided by the Chief Warden.
Rescue	Only trained emergency personnel are to use emergency equipment where an emergency situation requires particular precautions (i.e., Spill Kits, Fire Fighting Equipment) or the use of specialised Personal Protection Equipment (PPE).
	Approved safety clothing to be worn.
	All emergency equipment would be located in relative areas of concern.
	Emergency equipment operations must never endanger the safety of personnel.
First Aid	First-aid officer to provide assistance.

4.2 EMERGENCY CONTROL ORGANISATION

The Emergency Control Organisation (Table 4-1) consists of a group of Site personnel who have the responsibility of providing first response actions in an emergency.

The Emergency Control Organisation tasks involve organising the necessary resources, communications, evacuation of personnel and implementing corrective actions that may be necessary to return the emergency situation back to normal.

Table 4-1: Emergency Control Organisation Member Summary

Team Member	Personnel	Internal Contact No
Chief Warden/First Aid	Patrick Liney	0433 881 655
Warden/Communication	Aaron Whitton	0447 559 860
Branch Manager	John de Smit	0400 324 005

All Emergency Control Organisation members clearly understand that they provide the first line of attack in an emergency situation, such as a fire.

4.3 PRINCIPLE ROLES AND RESPONSIBILITIES

The Chief Warden is in charge of overseeing and controlling all emergency response actions at the Site. In the case that the Chief Warden is unavailable at the time of the emergency, control will be delegated to the responsibility of the Warden.

4.3.1 Damage Control

All Emergency Control Organisation personnel shall be trained in the use of fire-fighting equipment, including the use of fire extinguishers and hose reels.

In the event of a Major Emergency, the role of the Emergency Control Organisation is to ensure that the damage or danger caused by the emergency situation is controlled or minimised until external aid arrives at the Site.

4.3.2 Rescue and First Aid

First Aid Officer/s will be required to render assistance in removing any injured personnel from the emergency area and to provide effective management of injuries until paramedics arrive on-site.

4.3.3 Communications

The Communications Officer will monitor and facilitate the effective exchange of information between the Site and the relevant State Emergency Services.

The Executive will be responsible for relaying information to the media and other public bodies. All staff will be instructed to not discuss such issues with any external bodies.

4.3.4 Evacuation

The Chief Warden will determine and control the evacuation of the Site. The Chief Warden will direct staff to evacuate the Site should the emergency grow beyond manageable proportions. To aid in the evacuation an employee checklist will be used by Chief Warden to mark names and ensure all employees working in the affected area have been safely evacuated. All staff sign in daily via the Bundy app on mobile and for timesheet purposes.

4.3.5 Traffic Control

A Traffic Control Officer, nominated by the Chief Warden will be responsible for ensuring the free flow of traffic around the Site. The task may also involve the removal of any vehicle that may obstruct the free flow of emergency vehicles in and out of the Site.

4.3.6 Emergency control Point

In the event of an emergency, the Chief Warden will co-ordinate the emergency response activities from the Emergency Control Point, which is located on the grassed area at the front of the site (if appropriate to emergency).

4.3.7 Movement of Vehicles

Vehicles shall not be removed from the car park area during an emergency requiring evacuation of the premises, unless authorised by the State Emergency Services Commander. This is to avoid local traffic congestion, and to protect employees in vehicles against possible injury.

4.4 FIRE DETECTION

Site personnel are the primary mechanism by which fires are detected. Site personnel would be able to quickly detect any leaks of flammable materials, which may lead to an increased fire risk, via visual or odour recognition. Once such situations are detected appropriate first response action would be taken.

An audible alarm is utilized throughout the Treatment facility. Smoke detectors are fitted throughout the facility.

4.5 RAISING ALARM

When an emergency situation has been identified, the Manager shall immediately be informed. If necessary, emergency services shall be contacted by calling 000.

4.5.1 Evacuation Initiation

The Chief Warden shall assess the extent and severity of the emergency situation and issue a complete site evacuation order if considered necessary.

If it is considered safe to do so, pre-selected personnel shall remain behind to ensure that the Site is brought to a safe or stable condition before proceeding to the Emergency Assembly Area.

All other personnel shall be evacuated immediately.
Where a clear danger exists, Site personnel may evacuate on their own initiative to safe areas or the emergency assembly area.

4.5.2 Personnel Accounting System

After evacuating, personnel shall assemble at their designated Emergency Assembly Area. The Chief Warden shall then conduct an attendance roll call to ensure that all persons are accounted for including any visitors and contractors working on-site.

Any missing persons shall be advised immediately to the State Emergency Service upon arrival. The Chief Warden will assess whether or not the on-site emergency response team has the capability or necessary equipment to safely undertake the search and rescue activity of the missing person or wait until the State Emergency Service personnel arrive on-site.

4.5.3 Adjacent Premises

The occupants of adjacent premises should be advised if endangered by the emergency. However, evacuation of those areas is the responsibility of the individual companies and the Emergency Services.

4.6 NOTIFICATION OF A POLLUTION INCIDENT

A pollution incident that occurs in the course of an activity (within the facility or during the transportation of waste) so that material harm to the environment is caused or threatened must be notified.

4.6.1 Notification of a Pollution Incident at the Facility

Under Section 148 of the POEO Act, holders of environmental protection licenses and anyone carrying on an activity or occupying licensed premises that become aware of a pollution incident are required to report it immediately.

Note that pollution incidents that warrant notification are defined under Section 1.3.

4.6.2 How to Notify?

If the incident presents an immediate threat to human health or property:

CALL 000

Fire and Rescue NSW, the NSW Police and the NSW Ambulance Service.

Then immediately contact the Chief Warden/Warden who will take over communication responsibilities.

If the incident does not present an immediate threat, or once the initial 000 call has been made, a decision on who to notify needs to be made. Where notifications are required then notify the relevant authorities in the following order:

NSW EPA – Environmental Direct Line

131 555

Blacktown City Council – (02) 9839 6000, A/H 1300-133-491
NSW Health (Public Health) – 1300 066 055
WorkCover on 13 10 50 (WorkCover will ask for the ABN)

4.6.3 What to Notify?

Section 150 of the POEO Act specifies relevant information about a pollution incident to be given as follows:

(a) the time, date, nature, duration and location of the incident, (b) the location of the place where pollution is occurring or is likely to occur,

(c) the nature, the estimated quantity or volume and the concentration of any pollutants involved, if known,

(d) the circumstances in which the incident occurred (including the cause of the incident, if known),
(e) the action taken or proposed to be taken to deal with the incident and any resulting pollution or threatened pollution, if known,
(f) other information prescribed by the regulations.

The above information is that known to the informant notifying the incident at the time it is notified. If further information becomes known after notification, this information needs to be notified immediately after it becomes known.

4.7 TERMINATING AN EMERGENCY

Once clearance is given by the Emergency Services that the emergency incident has been controlled, the Chief Warden will assume control of the site. In this event the following tasks shall be undertaken:

- The Chief Warden and Warden must undertake a full investigation and assessment of the area prior to allowing workers to return;
- The Chief Warden and Warden must ensure any clean up required is done so to ensure a safe work environment for all staff. In addition, ensure the safe handling, transport and storage of any waste materials is undertaken;
- All clean up material and contaminated items must be disposed of appropriately, according to the waste management procedure; and
- When the area is considered safe, workers can return to work.

4.8 WRITTEN REPORT ON EMERGENCY AND REVIEW OF EMERGENCY PLAN

After any emergency, the Site Manager and Chief Warden shall prepare an incident report providing the following information:

- Reason and cause of incident;
- Review of the emergency response performance;
- Recommendations on preventative strategies or additional safety systems that may be considered essential to avoid a recurrence of the incident; and
- Recommendations on methods or ways to improve the emergency response performance so that any future incidents can be dealt with in a more effective manner.

In the case of a pollution incident that was required to be notified under Section 148 of the POEO Act, written notification must be provided to all regulatory authorities that were notified within 7 days of the incident. Information required in the written notification is included in the site's Environment Protection Licence.

4.9 TRAINING

All personnel working at the Site shall be trained in the basic emergency response procedures. All personnel must undertake Induction Training at the commencement of their employment at the Site and be aware of standard operating procedures.

Competency would be recorded following the completion of the training program to ensure that the employee has acquired a satisfactory level of knowledge. Refresher training is programmed annually.

4.10 PREMPTIVE ACION

Above all it is pre-emptive actions that will mitigate against any risk of harm to human health or the environment include:

- Always follow the company standard operating procedures;
- Take personal responsibility for your safety and the safety of others;
- Ensure all containers and each load is secure and correctly labeled;
- Use the tailgate to load and unload vehicles;
- Carry a clinical waste and cytotoxic waste spill kit in all transport vehicles.

5. REVIEW AND TESTING OF THE PLAN

This plan needs to be reviewed once per year, or otherwise:

- Within one month of any emergency pollution incident that requires notification;
- Following any significant changes to the layout or operations on site.

Review and testing of the plan needs to ensure:

- Information in the plan is accurate and up to date; and
- The plan is capable of being implemented in a workable and effective manner (through drills).

Attachment 1: MED-X HEALTHCARE SOLUTIONS Site Risk Assessment Analysis.

Functional Area	Description of Hazard / Incident leading to hazard	Possible Consequences	Consequence	Likelihood	Risk Level	Control Measures / Corrective Action
1. Truck delivery	Damaged bin delivered to site.	Clinical and related waste products spill in delivery area.	Moderate	Possible	Moderate	All bins delivered to site are inspected, locked and secured at the waste generators premises before delivery to the site. The contents of any damaged bins would be repacked in a new bin and the damaged bin returned to the site, cleaned and disposed of.
	Bin dropped or damaged during unloading from truck.	Pathogens from the clinical and related waste released into the air.				The waste contained within the bins is typically sealed in plastic bags by the waste generator prior to placement in the bin. In the event of a bin being damaged the waste would be contained within the plastic bag.
		Employees come into contact with clinical and related waste and are exposed to pathogens.				All employees are trained in the handling of clinical and related waste and are provided with appropriate personal protective equipment (PPE).
		Clinical and related waste products enter the storm water system and flow off-site.				Employees are in attendance during all unloading operations and will implement spill control procedures and/or emergency response procedures in the event of a large spill.
						All unloading operations are conducted within the building, which is bunded to contain all spills. Any spills within the building drain to the site's drainage system, treated and ultimately released to the sewer with no potential release to the storm water system.

Functional Area	Description of Hazard / Incident leading to hazard	Possible Consequences	Consequence	Likelihood	Risk Level	Control Measures / Corrective Action
2. Bin empty area	Bin dropped or damaged during emptying into cart. Cart overfilled during bin emptying. Cytotoxic waste bin emptied into cart.	Clinical and related waste products spill in bin empty area. Pathogens from the clinical and related waste released into the air. Employees come into contact with clinical and related waste and are exposed to pathogens. Clinical and related waste products enter the storm water system and flow off-site. Cytotoxic waste mixed with clinical and related waste.	Moderate	Likely	Significant	All employees are trained in the handling of clinical and related waste and are provided with appropriate PPE. Employees are in attendance during all unloading operations and will implement spill control procedures and/or emergency response procedures in the event of a large spill. Cytotoxic waste bins are a distinctive purple colour as opposed to the yellow clinical waste bins; the purple bins are identified, inspected and removed to a designated staging area before being removed for waste treatment off-site. All unloading operations are conducted within the building, which is bunded to contain all spills. Any spills within the building drain to the site's drainage system, treated and ultimately released to the sewer with no potential release to the storm water system.

Functional Area	Description of Hazard / Incident leading to hazard	Possible Consequences	Consequence	Likelihood	Risk Level	Control Measures / Corrective Action
3. Pre-treatment storage area	Cart full of clinical and related waste is damaged or tipped over during transport from bin unloading area. Cart full of clinical and related waste is left outside pre-treatment storage area.	Clinical and related waste products spill in pre-treatment storage area. Pathogens from the clinical and related waste released into the air. Employees come into contact with clinical and related waste and are exposed to pathogens. Clinical and related waste products enter the stormwater system and flow off-site.	Moderate	Likely	Significant	All employees are trained in the handling of clinical and related waste and are provided with appropriate PPE. Employees are in attendance during all transport operations and will implement spill control procedures and/or emergency response procedures in the event of a large spill. All transport operations are conducted within the building, which is bunded to contain all spills. Any spills within the building drain to the site's drainage system, treated and ultimately released to the sewer with no potential release to the stormwater system.

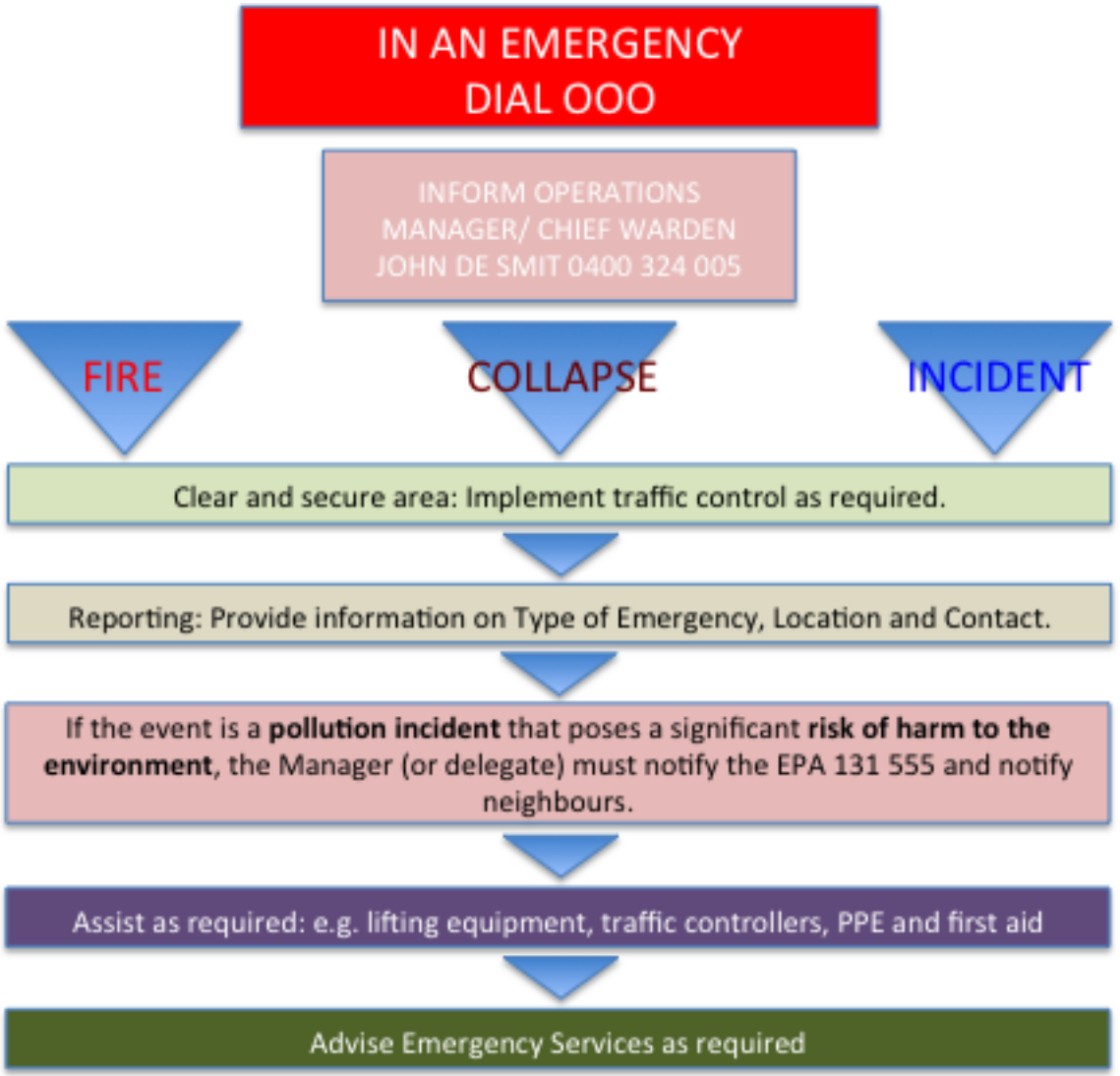
Functional Area	Description of Hazard / Incident leading to hazard	Possible Consequences	Consequence	Likelihood	Risk Level	Control Measures / Corrective Action
4. Autoclave	Autoclave chamber door not closed during sterilization.	Autoclave unable to hold chamber pressure causing an explosion.	Major	Unlikely	Moderate	Door of the autoclave is fitted with an outer locking ring system. The interlock system must be engaged for the autoclave sterilization process to commence.
	Autoclave chamber door opened before sterilization process finished. Autoclave chamber fails during sterilization.	Release of vapours that contain pathogens from unsterilized clinical and related waste.				Waste treatment guidelines require the temperature of the waste in the autoclave to the monitored and recorded. In the event that the temperature, pressure or time required fail to satisfy the requirement of the guidelines, the waste will remain sealed in the autoclave chamber until the sterilization cycle can be completed to satisfy the guidelines.
						Employees are trained in the autoclave operating procedures and are in regular attendance during all sterilization processes.
	Steam boiler fails during sterilization.	Release of condensate into stormwater system.				In the event of a failure of the steam boiler or steam control valve before the completion of the sterilization cycle, the waste will remain sealed in the autoclave chamber until the sterilization cycle can be completed to satisfy the guidelines.
		Sterilization process does not meet the requirements of NMHRC and NSW Health guidelines for treatment of clinical and related waste.				Condensate from autoclave is treated and released to sewer.
	Steam control valve fails open or closed.	Unsterilized clinical and related waste removed from the autoclave chamber and moved to the treated waste storage and shredder and sent to landfill.				Autoclave chamber can withstand pressures up to 250 psi, operating pressures are typically 75 psi. The autoclave is fitted with pressure relief valves, which are regularly inspected.

Functional Area	Description of Hazard / Incident leading to hazard	Possible Consequences	Consequence	Likelihood	Risk Level	Control Measures / Corrective Action
5. Treated waste storage area and Shredder	Cart full of treated waste is damaged or tipped over during transport from bin unloading area.	Treated waste products spill in pre-treatment storage area. Treated waste products enter the stormwater system and flow off-site. Release of vapours that contain pathogens from treated waste.	Moderate	Likely	Significant	The autoclave process destroys all pathogens and the treated waste is considered harmless. All employees are trained in the handling of clinical and related waste and are provided with appropriate PPE1. Employees are in attendance during all transport operations and will implement spill control procedures and/or emergency response procedures in the event of a large spill or fire. All transport operations are conducted within the building, which is bunded to contain all spills. Any spills within the building drain to the site's sewerage system, treated and ultimately released to the sewer with no potential release to the stormwater system.

Functional Area	Description of Hazard / Incident leading to hazard	Possible Consequences	Consequence	Likelihood	Risk Level	Control Measures / Corrective Action
6. Bin wash area	Clinical and related waste left in bin moved to bin wash area.	Clinical and related waste products spill in wash area. Pathogens from the clinical and related waste released into the air. Employees come into contact with clinical and related waste and are exposed to pathogens. Clinical and related waste and/or cleaning solution products enter the stormwater system and flow off-site.	Minimal	Almost Certain	Moderate	The waste contained within the bins is typically sealed in plastic bags by the waste generator prior to placement in the bin. All clinical and related waste products are removed from the bins in the bin empty area. All employees are trained in the handling of clinical and related waste and are provided with appropriate PPE. Employees are in attendance during all washing operations and will implement spill control procedures and/or emergency response procedures in the event of a large spill. All bin-washing operations are conducted within the building, which is bunded to contain all spills. Any spills within the building drain to the site's drainage system, treated and ultimately released to the sewer with no potential release to the stormwater system.

Functional Area	Description of Hazard / Incident leading to hazard	Possible Consequences	Consequence	Likelihood	Risk Level	Control Measures / Corrective Action
7. Transport of Medical Waste	Transport container fractures due to traffic accident. Transport container falls from truck spilling contents on driveway. Transport truck unloads at wrong location spilling contents outside designated area.	Spill is contained by truck operator or site personnel without any effect. Spill is not contained and finds its way into the stormwater system. Potential contamination of stormwater system with quarantine waste.	Major	Possible	Significant	Transport containers are of sturdy construction able to withstand significant impacts without fracturing. Transport containers are fully sealed so potential for spillage is negligible. There are no stormwater drains within the vicinity of the unloading area. Truck unloading procedure is always supervised by Site personnel who can provide guidance and assistance if required to do so. Truck driver and Site personnel have been trained in the correct spill clean-up procedure. Procedures and facilities for spillage control are maintained at the Site for effective response. Spill kits are available on each truck and within the facility. All medical waste transport operations undertaken within the requirements of the ADG Code and NSW Health guidelines. All medical waste transport operations are undertaken by Med-X trucks.

Attachment 2:
Emergency Flowchart.



Attachment 3: Emergency Procedures.

FIRE/EXPLOSION

A fire or explosion at the site can have severe repercussions in terms of loss of life and property damage. The site has been furbished with an array of manual fire fighting systems in the form of fire hose reels and fire extinguishers.

As part of the Employee Induction, it is recommended all employees go through a minimum level of emergency response training that includes basic fire-fighting skills using fire extinguishers and hose reels.

FIRST-RESPONSE ACTION ON DISCOVERY OF FIRE OR SMOKE (GENERAL)

1. Assist and remove any person from the danger area, only if safe to do so;
2. Raise the alarm;
3. Activate the nearest emergency stops or shutdown systems relevant to the affected area;
4. If safe to do so, isolate all electrical equipment in affected area;
5. Immediately notify the Chief Warden;
6. If safe to do so, use the nearest fire extinguisher to smother the fire;
7. Move to the designated Emergency Assembly Area, if instructed to do so by the Chief Warden.

CHIEF WARDEN/ WARDEN

When informed of the emergency:

1. Proceed to the emergency and establish the nature and location of the emergency;
2. Mobilise and co-ordinate Emergency Control Organisation personnel to take emergency response action;
3. Ensure that the correct Personal Protection Equipment is available to personnel;
4. Determine and carry out the most appropriate fire-fighting response action;

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. Ensure that personnel are safe.
7. Ensure First Aiders are notified.
8. Notify the Manager of status of emergency. In the event that the emergency poses a material risk of harm to the environment, the Manager shall initiate the notification of a pollution incident procedure.
9. Brief the State Emergency Services upon their arrival.
10. Ensure that no vehicles other than emergency services vehicles enter the site.

EMERGENCY CONTROL ORGANISATION

When informed of emergency:

1. Proceed to the Emergency Assembly Point for immediate preparation and activation of the fire-fighting equipment;
2. Proceed to the location of the emergency;
3. Report to the Chief Warden or personnel on location for further instructions;
4. Under the instruction of the Chief Warden, carry out the most appropriate fire-fighting response action;
5. Ensure that personnel are safe;
6. If instructed to do so by the Chief Warden, leave emergency location and proceed to Emergency Assembly Area.

GAS RELEASE

This section applies to a major release of gaseous substances into the ambient environment. The gases that can potentially be released at the site are the following:

1. LPG, which is a flammable gas.

FIRST-RESPONSE ACTION ON DISCOVERY OF MAJOR GAS RELEASE (GENERAL)

1. Assist and remove any person from the danger area, only if safe to do so;
2. Raise the alarm;
3. If safe to do so, isolate all electrical equipment in affected area- refer to main switchboard;
4. Immediately notify the Chief Warden and specify details of gas leak such as odour, location of leak and size of leak;
5. Move to the designated Emergency Assembly Area, if instructed to do so by the Chief Warden responsible for the affected area.

CHIEF WARDEN/ WARDEN

When informed of the emergency:

1. Proceed to the emergency and establish/confirm its nature and location;
2. Determine appropriate action to take;
3. Take into account the Material Safety Data Sheet information;
4. Ensure that all personnel are safe;
5. Mobilise and co-ordinate Emergency Control Organisation personnel to take emergency response action;
6. Initiate a partial or full evacuation, depending upon the location and severity of the gas leak;
7. 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;
8. Notify the Manager of status of emergency. In the event that the emergency poses a material risk of harm to the environment, the Manager shall initiate the notification of a pollution incident procedure;

9. Brief the State Emergency Services upon their arrival;
10. Ensure that no vehicles other than emergency services vehicles enter the site;
11. Consideration must be given to the notification of neighbouring buildings, particularly down-wind of the incident.

EMERGENCY CONTROL ORGANISATION

When informed of emergency

1. Proceed to the Emergency Control Point for immediate preparation and activation of emergency response equipment;
2. Proceed to the location of the emergency;
3. Report to the Chief Warden or personnel on location for further instructions;
4. Ensure that personnel are safe;
5. If instructed to do so by the Chief Warden, leave the emergency location and proceed to Emergency Assembly Area.

DANGEROUS GOODS EMERGENCY

This section applies to a major release or spill of a dangerous good substance in an uncontrolled or unconfined. The types of dangerous goods that can potentially be released or spilt at the site are the following:

- Class 2.1 Flammable Gas;
- Class 3 – Flammable Liquid

ACTION ON DANGEROUS GOODS EMERGENCY (GENERAL)

1. Assist and remove any person from the danger area, only if safe to do so;
2. Raise the alarm;
3. If safe to do so, isolate all electrical equipment in affected area;
4. Immediately notify the Chief Warden;
5. If safe to do so, use the nearest spill control equipment to clean up the spill; and
6. Move to the designated Emergency Assembly Area, if instructed to do so by the Chief Warden.

CHIEF WARDEN/ WARDEN

When informed of the emergency:

1. Proceed to the emergency and establish its nature and location;
2. Secure the area and barricade the area in the most suitable way;
3. Determine to appropriate action to take;
4. Take into account Safety Data Sheets;
5. Ensure that personnel are safe and clear of vapours, gases and fumes;
6. Maintain contact with the Chief Warden and First Aid personnel;
7. Mobilise and co-ordinate Emergency Control Organisation personnel to take emergency response action;

8. 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;
9. Notify the Manager of status of emergency. In the event that the emergency poses a material risk of harm to the environment, the Manager shall initiate the notification of a pollution incident procedure;
10. Brief the State Emergency Services upon their arrival;
11. If necessary, activate a partial or total evacuation procedure in consultation with the Chief Warden.42
12. When assessing the situation the following must be considered:
    - Is there a fire?
    - Is there a spill or leak, how large is it?
    - Is containment of the Dangerous Good necessary?
    - What are the weather conditions?
    - What is the area like?
    - What is the risk to: people, property or environment?
    - How significant is the risk, based on the situation?
    - The hazards of the product, Class and Sub Risk?
    - The degree of danger, based on the Packing Group?
    - Is public protection necessary: stay in place or evacuate?
    - What resources: human and equipment are required and how readily available are they?
13. Ensure that no vehicles other than emergency services vehicles enter the site;
14. Consideration must be given to the notification of neighbouring buildings, particularly down-wind of the incident.

EMERGENCY CONTROL ORGANISATION

When informed of emergency:

1. Proceed to the Emergency Control Centre for immediate preparation and activation of emergency response equipment and fire truck;
2. Proceed to the location of the emergency;

3. Report to the Chief Warden or personnel on location and implement emergency response strategy as instructed by the Chief Warden or provide assistance to State Emergency Service personnel as required;
4. Ensure that personnel are safe;
5. If instructed to do so by the Chief Warden, leave emergency location and proceed to Emergency Assembly Area; and
6. Ensure any spillage is cleaned up and disposal of resulting waste is in accordance with regulations.

SPILL CONTROL AND CONTAINMENT PLAN

The purpose of this procedure is to ensure the containment of all spills on the site and to prevent the entry of spilled materials/debris into stormwater systems and public waterways, reducing the risk of environmental pollution and exposure to breaches and penalties under environmental pollution legislation.

SPILL CONTROL INFORMATION

There is potential for a spillage of clinical or cytotoxic waste from the storage bins to occur and to a lesser extent, a dangerous goods spill. As there is only minor storage of dangerous goods, a spill of this waste is much less likely that spill of clinical waste.

The designated secure area for containers of flammable liquids and Corrosive materials are found in two cabinets which are next to each other. The blue cabinet is for Corrosive materials and the Yellow cabinet is for flammable liquids.

Where a spillage occurs, it is important to know what is spilt and access to the following information will be critical if control is to be effective:

- Name of material;
- Type of material (solid, liquid, granulated);
- Type of waste (if applicable). This can be identified by the colour of the storage bin. ie: purple for cytotoxic waste, yellow for clinical and related waste and yellow with an orange lid for anatomical waste; and
- Current Safety Data Sheet (SDS) Register kept on site and available from the Site Manager or in the Fire Manifest.

The SDS will provide information on:

- Ingredients of the spilt substance;
- Harmful properties of the substance and its ingredients e.g. evolution of toxic fumes, miscibility with water, effects on the skin and internal bodily systems etc;
- Requirements of personal protective equipment for safe handling of the spill e.g. impervious gloves, respiratory protection etc;

- Recommended method for containing the spill and preventing environmental damage. NB Emphasis is required on the necessity of containment of the spill rather than dispersal of it;
- The safest means of disposing of the spilled materials, e.g. use of approved/authorised waste disposal authorities; and
- Locations of the spill hardware (shovels, brooms, Hazspill Containers etc) and absorbent materials around the site.

The facility is fully bunded.

Spill kits for clinical and cytotoxic waste are located at the site and within all transport vehicles. These provide means of controlling minor spills and are located at appropriate locations at the facility. Contents of spill kits should include:

Clinical waste spill kit

- Broom, a pan and scraper, mop and mop bucket;
- A large (10 litre) reusable plastic container or bucket with fitted lid;
- 2 clinical waste bags for the disposal of clinical waste;
- Disinfectant containing (1%) 10,000 ppm available chlorine or equivalent;
- Rubber gloves suitable for cleaning;
- Detergent, sponges / disposable cloths;
- Personal protective equipment including eye protection, an apron or long sleeve impervious gown, a face mask, heavy duty gloves;
- Incident report form; and
- Wastes spill sign.

Cytotoxic spill kit

- Mop and mop bucket, a pan and scraper;
- A large (10 litre) reusable plastic container or bucket with fitted lid;
- 2 cytotoxic waste bags for the disposal of cytotoxic waste;
- 2 hooded overalls, shoe covers, long heavy duty gloves, latex gloves, a face mask and eye protection;
- Absorbent toweling / absorbent spill mat;

- Incident report form; and
- Waste spill sign

Any spill incidents are considered incidents warranting completion of the incident response procedure.

SPILL CONTROL PROCEDURE

- Take action to stop or reduce the source of the spill, or divert the flow to safe containment, to the extent that personal safety will permit;
- Contain the spillage to minimise spread of material using the contents of the spill kits available on site;
- Notify the shift supervisor;
- Report the spill incident, location, time of occurrence, type of spill, chemical involved and quantity to the Manager;
- Consult SDS (if available) for recommended clean-up procedure; and
- Dispose of material and all contaminated absorbents etc. as per Disposal Procedure outlined in SDS or in accordance with regulations.

SPILL CONTROL EQUIPMENT MAINTENANCE

- If emergency equipment is used or borrowed for any purpose it must be replenished or replaced immediately; and
- Spill kits are to be checked and maintained on a routine basis.

EVACUATION

GENERAL

The most likely reasons for a total or partial evacuation of staff are:

1. Fire, explosion; or
2. Major spill of special (clinical / cytotoxic) waste; or
3. Failure of an internal service or other internal emergency e.g. gas leak etc; or
4. External emergency.

Total evacuation is not the appropriate response for all of the emergencies likely to be encountered. Such an action should only be undertaken in extreme emergencies.

STAGES OF EVACUATION

There are three stages of evacuation for the site:

Stage 1 - The affected area.
Stage 2 - Certain other areas.
Stage 3 - Total evacuation of the site.

Stage 1: Partial Evacuation
The most likely response to an emergency is the partial evacuation of an area in response to a fire. The evacuation may be short term until: the emergency has been rectified, medium term, overnight, or long term if damage has been extensive, and reconstruction is required.

Stage 2: Certain other areas
In addition to the affected building, adjacent buildings may need to be evacuated.

Stage 3: Total site Evacuation

In the event of the whole site being untenable, even temporarily, total evacuation must be considered.48

EMERGENCY ASSEMBLY AREA

The Emergency Assembly Area is located at the front of the site. This may change at the discretion of the Chief Warden.

ACTION BY STAFF

Evacuation

1. When the signal to evacuate is given, all staff must evacuated immediately to the nearest Emergency Assembly Area;
2. The Chief Warden shall supervise evacuation to the nearest safe exit route and then to the Emergency Assembly Area and account for personnel.

CHIEF WARDEN/WARDEN

The Chief Warden is responsible for authorising the immediate evacuation of employees/contractors to each Emergency Assembly Area. The decision to evacuate can only be made by the Chief Warden or delegate.

The Chief Warden shall liaise with the Police, Ambulance and Fire Brigade officers present on the scene.

EVACUATION CHECKLIST

This is to be complete as a last check, to ensure that all documentation has been completed.

(Please circle)

YES NO N/A Have police / fire / ambulance been notified?
(Please circle the appropriate department)

YES NO N/A Has the visitor book been checked and person/s been accounted for?

YES NO N/A Has the Chief Warden – employee checklist been completed and all person/s accounted for?

YES NO N/A If person/s were found missing, has the search warden been notified and the Chief Warden checklist been completed?

YES NO N/A Once the emergency is over pass this document and all relating documents to the management systems co-ordinator.

CHECKLIST COMPLETED BY: _____

(Print and signature)

DATE: _____

EMERGENCY DRILL PROCEDURE AND LOG

The purpose of this procedure is to give clear instructions regarding how to undertake emergency and pollution response drills

METHOD

A drill should include/assess the following:

1. Regular monthly checks to ensure alarms - such as smoke alarms - are working;
2. Identifying where employees/contractors should gather after evacuation;
3. Regular monthly checks to ensure escape routes are clear of obstruction;
4. Appointing a warden to take a role call or register to ensure all employees/contractors are safe;
5. Ensuring safety equipment is in a sensible and easily accessible location and is in working order; and
6. Making sure the correct containment equipment is available.

Drill coordinator: John de Smit
Examples: Fire in the bulk bin; spillage in delivery area; spillage in building.

PROCEDURE

1. (Drill Coordinator) Raise alarm;
2. (Safety Wardens/Drill Coordinator) Assess situation, judgement call on whether evacuation is necessary as well as whether or not to contact emergency services;
3. (Safety Wardens/Drill Coordinator) Instruct all employees/contractors to evacuate via emergency exits and assemble at the assembly point;
4. (Safety Wardens) Final sweep and isolate premises only if safe to do so;
5. (Safety Wardens) Role call at assembly point to make sure all employees/contractors are accounted;
6. (Safety Wardens/Drill Coordinator) Judgement call on whether or not it is safe to recommence normal site operations;

7. (Safety Wardens/Drill Coordinator) facilitate a “Toolbox Meeting” to discuss the positive and negative aspects of the drill as well as possible improvements;
8. (Safety Wardens/Drill Coordinator) Record all drill information in the “Drill Log”.

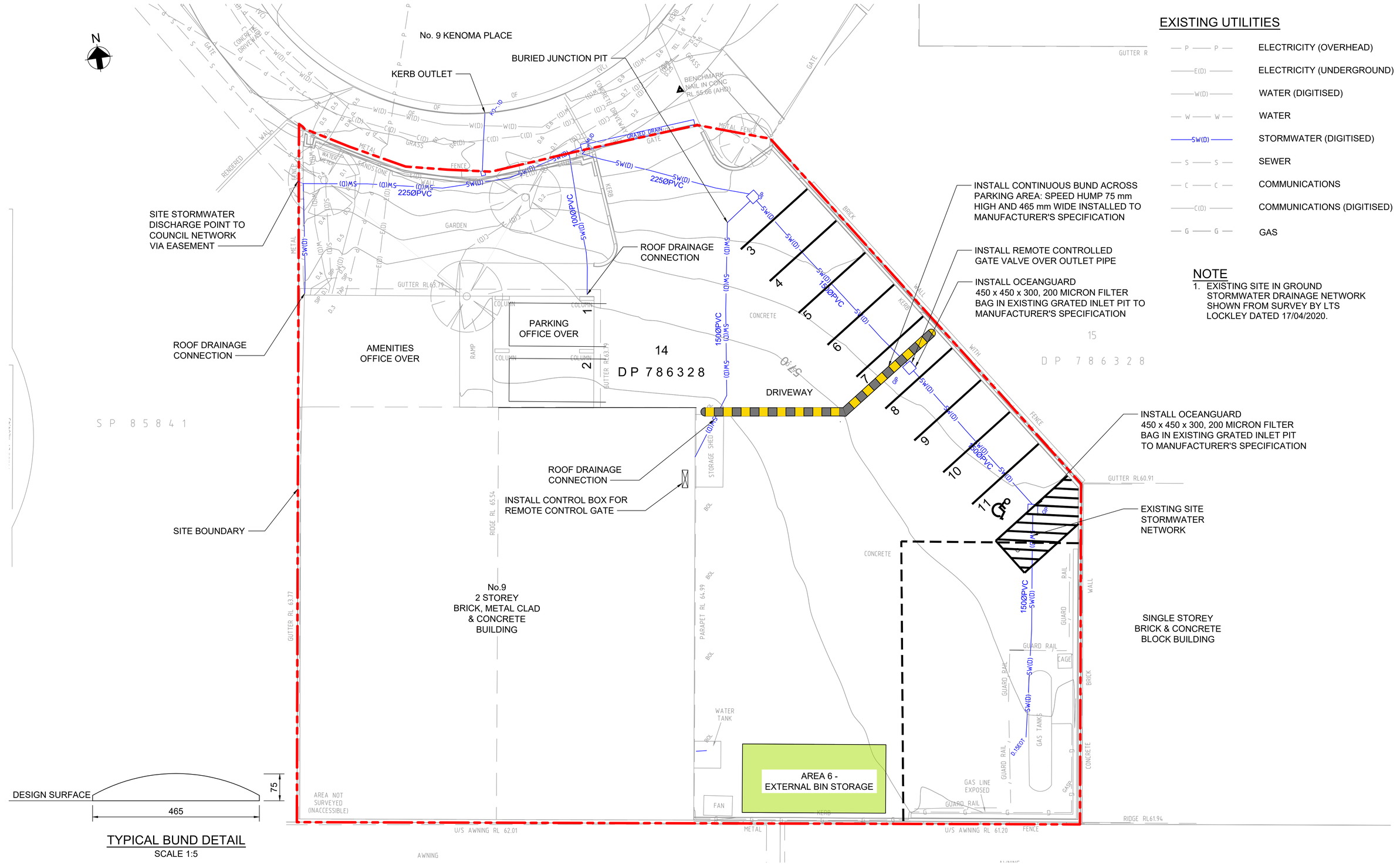
DOCUMENTATION

- It is important to document everything regarding your safety drills as it will aid WHS program training, help identify areas that might need further practice and to help identify maintenance issues, particularly with safety equipment.
- Discuss what went well during the drill and why?
- Discuss what could have been done better and why?
- Look at records of previous drills to see if you’re doing things better, are there any repeat mistakes?

Appendix E

Site stormwater plan

A1



EXISTING UTILITIES

- ELECTRICITY (OVERHEAD)
- ELECTRICITY (UNDERGROUND)
- WATER (DIGITISED)
- WATER
- STORMWATER (DIGITISED)
- SEWER
- COMMUNICATIONS
- COMMUNICATIONS (DIGITISED)
- GAS

NOTE

1. EXISTING SITE IN GROUND STORMWATER DRAINAGE NETWORK SHOWN FROM SURVEY BY LTS LOCKLEY DATED 17/04/2020.

TYPICAL BUND DETAIL

SCALE 1:5

NOT FOR CONSTRUCTION

Scales: 0 2500 5000mm — A1 / A3 — 1:100 / 1:200

Design Model Version

Issue	Date	By	Chkd	Appd
0	14/05/2020	HNA	EM	LH
		FOR APPROVAL		

Client: MED-X Healthcare Solutions

Engineering Certification (CEng)
Name: .....
Signature: ..... Date: .....

Job Title: CLINICAL WASTE MANAGEMENT FACILITY ARNDELL PARK

Scale at A1: 1:100

Discipline: CIVL

ARUP
Arup, Barrack Place, Level 5, 151 Clarence St
Sydney, NSW, 2000
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www.arup.com.au
CONSULT AUSTRALIA Member Firm
Arup Pty Ltd
ABN 18 000 966 165

Drawing Title: 9 KENOMA PLACE STORMWATER PLAN

Drawing Status: **FOR APPROVAL**

Job No	Drawing No	Issue
274648-00	CICW-DRG-0121	0

Do not scale

DRAWING COLOUR CODED - PRINT ALL COPIES IN COLOUR

Appendix F

Environmental risk assessment framework

Environmental risk assessment framework

The information below sets out a qualitative risk assessment methodology that can be applied to the identification of environmental risks associated with a wide range of projects. It is provided as an example of one approach to risk assessment. Further guidance on evaluating and managing risk can be found in AS/NZS ISO 31000:2009 Risk management—Principles and guidelines (Standards Australia 2009).

Assessment of any risks at the facility would consider:

- Relevant planning and legislation requirements
- The environmental context of the site
- Existing operational and management plans and procedures at the site
- The findings of the specialist environmental studies undertaken during the EIS and RTS.

Likelihood and consequence

The list of activities to be carried out, including any activities undertaken by subcontractors or other suppliers, together with the actual and potential environmental impacts associated with each activity, must form the basis of a risk assessment process. Each environmental risk should be assessed in terms of the likelihood and consequence criteria in the tables below.

Likelihood	**Qualitative measure of likelihood (how likely is it that this event/issue will occur after control strategies have been put in place)**
Highly likely	Is expected to occur in most circumstances
Likely	Will probably occur during the life of the project
Possible	Might occur during the life of the project
Unlikely	Could occur but considered unlikely or doubtful
Rare	May occur in exceptional circumstances

Consequent	Qualitative measure of consequences (what will be the consequence/result if this issue does occur rating)
Minor	Minor incident of environmental damage that can be reversed
Moderate	Isolated but substantial instances of environmental damage that could be reversed with intensive efforts
High	Substantial instances of environmental damage that could be reversed with intensive efforts
Major	Major loss of environmental amenity and real danger of continuing
Critical	Severe widespread loss of environmental amenity and irrecoverable environmental damage

Risk Rating

The risk rating is determined using the likelihood and consequence rating and the below risk matrix.

	Consequence				
Likelihood	**Minor**	**Moderate**	**High**	**Major**	**Critical**
Highly likely	Medium	High	High	Severe	Severe
Likely	Low	Medium	High	High	Severe
Possible	Low	Medium	Medium	High	Severe
Unlikely	Low	Low	Medium	High	High
Rare	Low	Low	Low	Medium	High

Appendix G

Conditions of Consent

Development Consent

Section 4.38 of the *Environmental Planning and Assessment Act 1979*

As delegate of the Minister for Planning and Public Spaces under delegation executed on 9 March 2020, I approve the Development Application referred to in Schedule 1, subject to the conditions specified in Schedule 2.

These conditions are required to:

- prevent, minimise, or offset adverse environmental impacts;
- set standards and performance measures for acceptable environmental performance;
- require regular monitoring and reporting; and
- provide for the ongoing environmental management of the development.

28/09/2020

Anthea Sargeant
Executive Director
Regions, Industry and Key Sites

Sydney 2020 File: SF19/34484

SCHEDULE 1

Application Number:	SSD 6761
Applicant:	Med-X Pty Ltd
Consent Authority:	Minister for Planning and Public Spaces
Site:	Lot 14 DP 786328, 9 Kenoma Place, Arndell Park NSW Lot 1005 DP 788155, 7 Vangeli Street, Arndell Park NSW
Development:	Operation of a clinical waste management facility to process up to 2,000 tonnes per annum of clinical waste and store up to 300 tonnes per annum of related waste at 9 Kenoma Place, Arndell Park and use of 7 Vangeli Street, Arndell Park for a delivery vehicle depot and clean sharp waste container storage

TABLE OF CONTENTS

DEFINITIONS

Applicant	Med-X Pty Ltd, or any person carrying out any development to which this consent applies
BCA	Building Code of Australia
Calendar year	A period of 12 months commencing on 1 January
Certifier	A council or an accredited certifier (including principal certifiers) who is authorised under section 6.5 of the EP&A Act to issue Part 6 certificates
Clinical Waste	Has the same meaning as the definition of the term in the Waste Classification Guidelines – Part 1: Classification of waste (NSW EPA, 2014)
Conditions of this consent	Conditions contained in Schedule 2 of this document
Construction	The demolition and removal of buildings or works, the carrying out of works for the purpose of the development, including bulk earthworks, and erection of buildings and other infrastructure permitted by this consent.
Council	Blacktown City Council
Day	The period from 7 am to 6 pm on Monday to Saturday, and 8 am to 6 pm on Sundays and Public Holidays
Department	NSW Department of Planning, Industry and Environment
Development	The development described in Schedule 1, the EIS and Response to Submissions, including the works and activities comprising the processing up to 2,000 tpa of clinical waste and storage of up to 300 tpa of related waste, as modified by the conditions of this consent
Development layout	The plans at Appendix 1 of this consent
EES	Environment, Energy and Science Group (former Office of Environment and Heritage)
EIS	The Environmental Impact Statement titled *Environmental Impact Statement State Waste Services (NSW) Pty Ltd 9 Kenoma Place Arndell Park*, prepared by National Integrated Creative Solutions dated 8 January 2019, submitted with the application for consent for the development
Environment	As defined in section 1.4 of the EP&A Act
EPA	NSW Environment Protection Authority
EP&A Act	*Environmental Planning and Assessment Act 1979* (NSW)
EP&A Regulation	Environmental Planning and Assessment Regulation 2000
EPL	Environment Protection Licence under the POEO Act
Evening	The period from 6 pm to 10 pm
Incident	An occurrence or set of circumstances that causes or threatens to cause material harm and which may or may not be or cause a non-compliance Note: "material harm" is defined in this consent
Land	Has the same meaning as the definition of the term in section 1.4 of the EP&A Act
Material harm	Is harm that: a) involves actual or potential harm to the health or safety of human beings or to the environment that is not trivial, or b) results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding $10,000, (such loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment)
Minister	NSW Minister for Planning and Public Spaces (or delegate)
Mitigation	Activities associated with reducing the impacts of the development prior to or during those impacts occurring
Monitoring	Any monitoring required under this consent must be undertaken in accordance with section 9.40 of the EP&A Act
Night	The period from 10 pm to 7 am on Monday to Saturday, and 10 pm to 8 am on Sundays and Public Holidays

Non-compliance	An occurrence, set of circumstances or development that is a breach of this consent
OEMP	Operational Environmental Management Plan
Operation	The carrying out of a clinical waste management facility processing up to 2,000 tpa of clinical waste and storage of up to 300 tpa of related waste as described in the EIS and RtS
Principal Certifier	The certifier appointed as the principal certifier for the building work under section 6.6(1) of the EP&A Act
Planning Secretary	Planning Secretary under the EP&A Act, or nominee
POEO Act	*Protection of the Environment Operations Act 1997*
Reasonable	Means applying judgement in arriving at a decision, taking into account: mitigation benefits, costs of mitigation versus benefits provided, community views, and the nature and extent of potential improvements.
Related Waste	Including anatomical, cytotoxic, pharmaceutical and sharps waste. Has the same meaning as the definition of the term in the Waste Classification Guidelines – Part 1: Classification of waste (NSW EPA, 2014)
Response to submissions	The Applicant's response to issues raised in submissions received in relation to the application for consent for the development under the EP&A Act and includes the document titled *Clinical Waste Management Facility, Arndell Park Response to Submissions and Amended Project Report for State Significant Development 6761*, prepared by Arup and dated 26 June 2020
Sensitive receivers	A location where people are likely to work, occupy or reside, including a dwelling, school, hospital, office or public recreational area.
Site	The land defined in Schedule 1.
tpa	tonnes per annum
Waste	Has the same meaning as the definition of the term in the Dictionary to the POEO Act
Year	A period of 12 consecutive months

SCHEDULE 2

PART A ADMINISTRATIVE CONDITIONS

OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT

A1. In addition to meeting the specific performance measures and criteria in this consent, all reasonable and feasible measures must be implemented to prevent, and if prevention is not reasonable and feasible, minimise, any material harm to the environment that may result from the construction and operation of the development, and any rehabilitation required under this consent.

TERMS OF CONSENT

A2. The development may only be carried out:

(a) in compliance with the conditions of this consent;

(b) in accordance with all written directions of the Planning Secretary;

(c) in accordance with the EIS and Response to Submissions;

(d) in accordance with the Development Layout in Appendix 1; and

(e) in accordance with the management and mitigation measures in Appendix 2.

A3. Consistent with the requirements in this consent, the Planning Secretary may make written directions to the Applicant in relation to:

(a) the content of any strategy, study, system, plan, program, review, audit, notification, report or correspondence submitted under or otherwise made in relation to this consent, including those that are required to be, and have been, approved by the Planning Secretary; and

(b) the implementation of any actions or measures contained in any such document referred to in condition A3(a).

A4. The conditions of this consent and directions of the Planning Secretary prevail to the extent of any inconsistency, ambiguity or conflict between them and a document listed in conditions A2(c) and A2(e). In the event of an inconsistency, ambiguity or conflict between any of the documents listed in condition A2(c) and A2(e), the most recent document prevails to the extent of the inconsistency, ambiguity or conflict.

LIMITS OF CONSENT

Lapsing

A5. This consent lapses five years after the date from which it operates, unless the development has physically commenced on the land to which the consent applies before that date.

Processing and Storage Capacity

A6. The Applicant must not:

(a) receive and process more than 2,000 tonnes per annum of clinical waste;

(b) receive and store more than 300 tonnes of related waste per annum;

(c) process more than 648 kilograms (kg) of clinical waste per operating cycle of the autoclave;

(d) store more than 450 kilograms of clinical waste outside of the approved hours of operation;

(e) store any related waste outside of the approved hours of operation; and

(f) store more than 1,200 kilograms DG Class 6.2 PG III at all times.

Note: *The mass is based on an average waste density of 120 kg/m^3.*

NOTIFICATION OF COMMENCEMENT

A7. The date of commencement of each of the following phases of the development must be notified to the Planning Secretary in writing, at least one month before that date, or as otherwise agreed with the Planning Secretary:

(a) construction;

(b) operation; and

(c) cessation of operations.

A8. If the construction or operation of the development is to be staged, the Planning Secretary must be notified in writing, at least one month before the commencement of each stage (or other timeframe agreed with the Planning Secretary), of the date of commencement and the development to be carried out in that stage.

SURRENDER OF EXISTING CONSENTS

A9. Within 12 months of the date of commencement of development to which this consent applies, or within another timeframe agreed by the Planning Secretary, the Applicant must surrender the existing development consents for the Site including No JRPP-11-1642 dated 3 August 2011 and modification consent S 9612/1451 dated 2 October 2012 in accordance with the EP&A Regulation.

A10. Upon the commencement of development to which this consent applies, and before the surrender of existing development consents or project approvals required under condition A9, the conditions of this consent prevail to the extent of any inconsistency with the conditions of those consents or approvals.

Note: *This requirement does not extend to the surrender of construction and occupation certificates for existing and proposed building works under Part 6 of the EP&A Act. The surrender should not be understood as implying that works legally constructed under a valid consent or approval can no longer be legally maintained or used.*

EVIDENCE OF CONSULTATION

A11. Where conditions of this consent require consultation with an identified party, the Applicant must:

(a) consult with the relevant party prior to submitting the subject document to the Planning Secretary for approval; and

(b) provide details of the consultation undertaken including:

(i) the outcome of that consultation, matters resolved and unresolved; and

(ii) details of any disagreement remaining between the party consulted and the Applicant and how the Applicant has addressed the matters not resolved.

STAGING, COMBINING AND UPDATING STRATEGIES, PLANS OR PROGRAMS

A12. With the approval of the Planning Secretary, the Applicant may:

(a) prepare and submit any strategy, plan or program required by this consent on a staged basis (if a clear description is provided as to the specific stage and scope of the development to which the strategy, plan or program applies, the relationship of the stage to any future stages and the trigger for updating the strategy, plan or program);

(b) combine any strategy, plan or program required by this consent (if a clear relationship is demonstrated between the strategies, plans or programs that are proposed to be combined); and

(c) update any strategy, plan or program required by this consent (to ensure the strategies, plans and programs required under this consent are updated on a regular basis and incorporate additional measures or amendments to improve the environmental performance of the development).

A13. If the Planning Secretary agrees, a strategy, plan or program may be staged or updated without consultation being undertaken with all parties required to be consulted in the relevant condition in this consent.

A14. If approved by the Planning Secretary, updated strategies, plans or programs supersede the previous versions of them and must be implemented in accordance with the condition that requires the strategy, plan or program.

COMPLIANCE

A15. The Applicant must ensure that all of its employees, contractors (and their sub-contractors) are made aware of, and are instructed to comply with, the conditions of this consent relevant to activities they carry out in respect of the development.

OPERATION OF PLANT AND EQUIPMENT

A16. All plant and equipment used on site, or to monitor the performance of the development, must be:

(a) maintained in a proper and efficient condition; and

(b) operated in a proper and efficient manner.

APPLICABILITY OF GUIDELINES

A17. References in the conditions of this consent to any guideline, protocol, Australian Standard or policy are to such guidelines, protocols, Standards or policies in the form they are in as at the date of this consent.

A18. However, consistent with the conditions of this consent and without altering any limits or criteria in this consent, the Planning Secretary may, when issuing directions under this consent in respect of ongoing monitoring and management obligations, require compliance with an updated or revised version of such a guideline, protocol, Standard or policy, or a replacement of them.

ADVISORY NOTES

AN1. All licences, permits, approvals and consents as required by law must be obtained and maintained as required for the development. No condition of this consent removes any obligation to obtain, renew or comply with such licences, permits, approvals and consents.

PART B SPECIFIC ENVIRONMENTAL CONDITIONS

AIR QUALITY

Air Quality Discharges

B1. The Applicant must install and operate equipment in line with best practice to ensure that the development complies with all load limits, air quality criteria/air emission limits and air quality monitoring requirements as specified in the EPL applicable to the site.

B2. Air from the standalone water tank must be discharged at least 1 metre above the roofline of the building. The ventilation stack must have a sampling plane that has been constructed with consideration of AS 4323.1-1995 Stationery Source Emissions – Selection of Sampling Positions.

Air Quality Management Plan

B3. Prior to the commencement of operation, the Applicant must prepare an Air Quality Management Plan (AQMP) to the satisfaction of the Planning Secretary. The AQMP must form part of the OEMP required by condition C2 and:

(a) be prepared by a suitably qualified and experienced person(s);

(b) be prepared in consultation with the EPA;

(c) detail and rank all emissions from all sources of the development, including odour;

(d) describe a program that is capable of evaluating the performance of the operation and determining compliance with key performance indicators;

(e) identify the control measures that that will be implemented for each emission source; and

(f) nominate the following for each of the proposed controls:

(i) key performance indicator;

(ii) monitoring method;

(iii) location, frequency and duration of monitoring;

(iv) record keeping;

(v) complaints register;

(vi) response procedures; and

(vii) compliance monitoring.

B4. The Applicant must:

(a) not commence operation until the AQMP required by condition B3 is approved by the Planning Secretary; and

(b) implement the most recent version of the AQMP approved by the Planning Secretary for the duration of the development.

Odour Management

B5. The Applicant must ensure the development does not cause or permit the emission of any offensive odour (as defined in the POEO Act).

B6. The Applicant must carry out an Odour Audit of the development no later than six months after the commencement of operation of the development. Division 9.4 of Part 9 of the EP&A Act applies to this audit which is for the purpose of auditing the development against the odour impact predictions of the development. The audit must:

(a) be carried out by a suitably qualified, experienced and independent person(s), whose appointment has been endorsed by the Planning Secretary;

(b) audit the development in full operation;

(c) include a summary of odour complaints and any actions that were carried out to address the complaints;

(d) assess the operation against odour impact predictions in the EIS and RtS;

(e) review design and management practices in the development against industry best practice for odour management; and

(f) include an action plan that identifies and priorities any odour mitigation measures that may be necessary to reduce odour emissions.

***Note**: The Odour Audit may be prepared so that it addresses the requirements of this consent and the EPL for the development.*

B7. Within six months of commissioning of the Odour Audit required by condition B6, or otherwise agreed by the Planning Secretary, the Applicant must submit a copy of the Odour Audit report to the satisfaction of the Planning Secretary, together with the Applicant's response to any recommendations contained in the Odour Audit report.

HAZARDS AND RISKS

Emergency Plan

B8. Prior to commencement of operation of the development, the Applicant must prepare and implement a comprehensive Emergency Plan. The Emergency Plan must include:

(a) consider the safety of all people outside of the development who may be at risk from the development and must be prepared in accordance with the *Department's Hazardous Industry Planning Advisory Paper No. 1, 'Emergency Planning'*; and

(b) detail emergency procedures for the development.

Dangerous Goods

B9. The Applicant must ensure that the quantities of dangerous goods stored and handled at the site or transported to and from the site are below the screening threshold quantities listed in the Department's *Applying SEPP 33* at all times, except for dangerous goods Class 6.2 Packing Group III infectious substances (DG Class 6.2 PG III).

Bunding

B10. The Applicant must store all chemicals, fuels and oils used on-site in appropriately bunded areas in accordance with the requirements of all relevant Australian Standards, and/or EPA's *Storing and Handling of Liquids: Environmental Protection – Participants Manual* (Department of Environment and Climate Change, 2007).

WASTE MANAGEMENT

Waste Monitoring Program

B11. Prior to the commencement of operation, the Applicant must prepare a Waste Monitoring Plan (WMP) for the development to the satisfaction of the Planning Secretary. The WMP must:

(a) be prepared by a suitably qualified and experienced person(s) prior to the commencement of operation;

(b) include suitable provision to monitor the:

(i) quantity, type and source of waste received on site;

(ii) quantity, type and quality of the outputs produced on site;

(iii) freezer capacity on site for the storage of received anatomical waste; and

(c) ensure that:

(i) all waste that is controlled under a tracking system has the appropriate documentation prior to acceptance at the site;

(ii) sufficient capacity is available for the storage of all clinical and related wastes; and

(iii) staff receive adequate training in order to be able to recognise and handle any hazardous or other prohibited waste including asbestos.

B12. The Applicant must:

(a) not commence operation until the WMP required by condition B11 is approved by the Planning Secretary; and

(b) implement the most recent version of the WMP approved by the Planning Secretary for the duration of the development.

Waste Processing and Storage

B13. The Applicant must unload the waste received at the site inside the processing building and at the designated loading dock to avoid spillage.

B14. The Applicant must ensure the development does not store clean waste bins in the vehicle manoeuvring area except as shown in Figure 1: in Appendix 1.

B15. All waste processing, and material handling activities must be undertaken in an enclosed processing building and within designated areas.

B16. Clinical waste and related waste received on site must always be secured and maintained within designated waste storage areas shown on Figure 3: and Figure 4: in Appendix 1 and must not leave the site onto neighbouring public or private properties.

Statutory Requirements

B17. All waste materials removed from the site must only be directed to a waste management facility or premises lawfully permitted to accept the materials.

B18. The Applicant must assess and classify all liquid and non-liquid wastes to be taken off site in accordance with the latest version of EPA's *Waste Classification Guidelines Part 1: Classifying Waste* (EPA, 2014) and dispose of all wastes to a facility that may lawfully accept the waste.

B19. The Applicant must retain all sampling and waste classification data for the life of the development in accordance with the requirements of EPA.

TRAFFIC AND ACCESS

Operational Traffic Management Plan

B20. Prior to the commencement of operation, the Applicant must prepare an Operational Traffic Management Plan (OTMP) for the development to the satisfaction of the Planning Secretary. The OTMP must form part of the OEMP required by condition C2 and must:

(a) be prepared by a suitably qualified and experienced person(s),

(b) detail the measures that are to be implemented to ensure road safety and network efficiency during operation;

(c) detail the measures that are to be implemented to ensure delivery vehicle arrival times are appropriately staggered including the use of an electronic tracking system;

(d) detail heavy vehicle routes, access and parking arrangements; and

(e) include a program to monitor the effectiveness of these measures.

B21. The Applicant must:

(a) not commence operation until the OTMP required by condition B20 is approved by the Planning Secretary; and

(b) implement the most recent version of the OTMP approved by the Planning Secretary for the duration of the development.

Parking

B22. The Applicant must provide sufficient parking facilities on-site, including for heavy vehicles and for site personnel, to ensure that parking associated with the development does not utilise public and residential streets or public parking facilities.

Operating Conditions

B23. The Applicant must ensure:

(a) internal roads, driveways and parking (including grades, turn paths, sight distance requirements, aisle widths, aisle lengths and parking bay dimensions) associated with the development are constructed and maintained in accordance with the latest version of *AS 2890.1:2004 Parking facilities Off-street car parking* (Standards Australia, 2004), *AS 2890.2:2018 Parking facilities Off-Street commercial vehicle facilities* (Standards Australia, 2018) and *AS 2890.2:2009 Parking facilities Off-street commercial vehicle facilities* (Standards Australia, 2009);

(b) the swept path of the longest vehicle entering and exiting the site, as well as manoeuvrability through the site, is in accordance with the relevant AUSTROADS guidelines;

(c) the development does not result in any vehicles queuing on the public road network;

(d) heavy vehicles and bins associated with the development are not parked on local roads or footpaths in the vicinity of the site;

(e) all vehicles are wholly contained on site before being required to stop;

(f) all loading and unloading of materials are carried out on-site;

(g) all trucks entering or leaving the site with loads have their loads covered and do not track dirt onto the public road network; and

(h) the proposed turning areas in the car park are kept clear of any obstacles, including parked cars, at all times.

SOILS, WATER QUALITY AND HYDROLOGY

Discharge Limits

B24. The development must comply with section 120 of the POEO Act, which prohibits the pollution of waters, except as expressly provided for in an EPL.

NOISE

Hours of Work

B25. The Applicant must comply with the hours detailed in Table 1, unless otherwise agreed in writing by the Planning Secretary.

Table 1 *Hours of Operation*

Activity	Day	Time
Operation of Clinical Waste Management Facility at 9 Kenoma Place, Arndell Park	Monday – Saturday (including public holidays that fall on Saturday)	7 am – 7 pm
Operation of depot and storage facility at 7 Vangeli Street, Arndell Park	Monday – Saturday (including public holidays that fall on Saturday)	5 am – 7 pm

B26. Operations outside of the hours identified in condition B25 may be undertaken in the following circumstances:

(a) works that are inaudible at the nearest sensitive receivers;

(b) for the delivery of materials required outside these hours by the NSW Police Force or other authorities for safety reasons; or

(c) where it is required in an emergency to avoid the loss of lives, property or to prevent environmental harm.

PART C ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

ENVIRONMENTAL MANAGEMENT

Management Plan Requirements

C1. Management plans required under this consent must be prepared in accordance with relevant guidelines, and include:

(a) detailed baseline data;

(b) details of:

(i) the relevant statutory requirements (including any relevant approval, licence or lease conditions);

(ii) any relevant limits or performance measures and criteria; and

(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;

(c) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria;

(d) a program to monitor and report on the:

(i) impacts and environmental performance of the development; and

(ii) effectiveness of the management measures set out pursuant to paragraph (c) above;

(e) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible;

(f) a program to investigate and implement ways to improve the environmental performance of the development over time;

(g) a protocol for managing and reporting any:

(i) incident and any non-compliance (specifically including any exceedance of the impact assessment criteria and performance criteria);

(ii) complaint;

(iii) failure to comply with statutory requirements; and

(h) a protocol for periodic review of the plan.

Note: *the Planning Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans*

OPERATIONAL ENVIRONMENTAL MANAGEMENT PLAN

C2. The Applicant must prepare an Operational Environmental Management Plan (OEMP) in accordance with the requirements of condition C1 and to the satisfaction of the Planning Secretary.

C3. As part of the OEMP required under Condition C2 of this consent, the Applicant must include the following:

(a) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;

(b) describe the procedures that would be implemented to:

(i) keep the local community and relevant agencies informed about the operation and environmental performance of the development;

(ii) receive, handle, respond to, and record complaints;

(iii) resolve any disputes that may arise;

(iv) respond to any non-compliance;

(v) respond to emergencies; and

(c) include the following environmental management plans:

(i) Air Quality Management Plan (see Condition B3);

(ii) Waste Management Plan (see Condition B11); and

(iii) Operational Traffic Management Plan (see Condition B20).

C4. The Applicant must:

(a) not commence operation until the OEMP is approved by the Planning Secretary; and

(b) operate the development in accordance with the OEMP approved by the Planning Secretary (and as revised and approved by the Planning Secretary from time to time).

REVISION OF STRATEGIES, PLANS AND PROGRAMS

C5. Within three months of:

(a) the submission of a Compliance Report under condition C10;

(b) the submission of an incident report under condition C6;

(c) the submission of an Independent Audit under condition C12;

(d) the approval of any modification of the conditions of this consent; or

(e) the issue of a direction of the Planning Secretary under condition A2(b) which requires a review,

the strategies, plans and programs required under this consent must be reviewed, and the Planning Secretary must be notified in writing that a review is being carried out.

If necessary to either improve the environmental performance of the development, cater for a modification or comply with a direction, the strategies, plans and programs required under this consent must be revised, to the satisfaction of the Planning Secretary. Where revisions are required, the revised document must be submitted to the Planning Secretary for approval within six weeks of the review.

Note: *This is to ensure strategies, plans and programs are updated on a regular basis and to incorporate any recommended measures to improve the environmental performance of the development.*

REPORTING AND AUDITING

Incident Notification, Reporting and Response

C6. The Planning Secretary must be notified in writing via the Major Projects website immediately after the Applicant becomes aware of an incident. The notification must identify the development (including the development application number and the name of the development if it has one) and set out the location and nature of the incident. Subsequent notification requirements must be given, and reports submitted in accordance with the requirements set out in Appendix 3.

Non-Compliance Notification

C7. The Planning Secretary must be notified in writing to the Major Projects website within seven days after the Applicant becomes aware of any non-compliance.

C8. A non-compliance notification must identify the development and the application number for it, set out the condition of consent that the development is non-compliant with, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.

C9. A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.

Compliance Reporting

C10. Within three months after the first year of commencement of the development, and in the same month each subsequent year (or such other timing as agreed by the Planning Secretary), the Applicant must submit a Compliance Report to the Planning Secretary reviewing the environmental performance of the development to the satisfaction of the Planning Secretary. Compliance Reports must be prepared in accordance with the Compliance Reporting Post Approval Requirements (Department 2020) and must also:

(a) identify any trends in the monitoring data over the life of the development;

(b) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and

(c) describe what measures will be implemented over the next year to improve the environmental performance of the development

C11. The Applicant must make each Compliance Report publicly available no later than 60 days after submitting it to the Planning Secretary and notify the Planning Secretary in writing at least 7 days before this is done.

Independent Audit

C12. Within one year of the commencement of the development, and every three years after, unless the Planning Secretary directs otherwise, the Applicant must commission and pay the full cost of an Independent Environmental Audit (Audit) of the development. Audits must:

(a) be prepared in accordance with the Independent Audit Post Approval Requirements (Department 2020)

(b) be led and conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Planning Secretary; and

(c) be submitted to the satisfaction of the Planning Secretary within three months of commissioning the Audit (or within another timeframe agreed by the Planning Secretary).

C13. In accordance with the specific requirements in the Independent Audit Post Approval Requirements (Department, 2020), the Applicant must:

(a) review and respond to each Independent Audit Report prepared under condition C12 of this consent;

(b) submit the response to the Planning Secretary and any other NSW agency that requests it, together with a timetable for the implementation of the recommendations;

(c) implement the recommendations to the satisfaction of the Planning Secretary; and

(d) make each Independent Audit Report and response to it publicly available no later than 60 days after submission to the Planning Secretary and notify the Planning Secretary in writing at least 7 days before this is done.

Monitoring and Environmental Audits

C14. Any condition of this consent that requires the carrying out of monitoring or an environmental audit, whether directly or by way of a plan, strategy or program, is taken to be a condition requiring monitoring or an environmental audit under Division 9.4 of Part 9 of the EP&A Act. This includes conditions in respect of incident notification, reporting and response, non-compliance notification, compliance reporting and independent auditing.

Note: *For the purposes of this condition, as set out in the EP&A Act, "monitoring" is monitoring of the development to provide data on compliance with the consent or on the environmental impact of the development, and an "environmental audit" is a periodic or particular documented evaluation of the development to provide information on compliance with the consent or the environmental management or impact of the development.*

ACCESS TO INFORMATION

C15. At least 48 hours before the commencement of operation, the Applicant must:

(a) make the following information and documents (as they are obtained or approved) publicly available on its website:

(i) the documents referred to in condition A2 of this consent;

(ii) all current statutory approvals for the development;

(iii) all approved strategies, plans and programs required under the conditions of this consent;

(iv) regular reporting on the environmental performance of the development in accordance with the reporting requirements in any plans or programs approved under the conditions of this consent;

(v) a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs;

(vi) a summary of the current stage and progress of the development;

(vii) contact details to enquire about the development or to make a complaint;

(viii) a complaints register, updated monthly;

(ix) the Compliance Report of the development;

(x) audit reports prepared as part of any Independent Audit of the development and the Applicant's response to the recommendations in any audit report;

(xi) any other matter required by the Planning Secretary; and

(b) keep such information up to date, to the satisfaction of the Planning Secretary.

APPENDIX 1 DEVELOPMENT LAYOUT PLANS

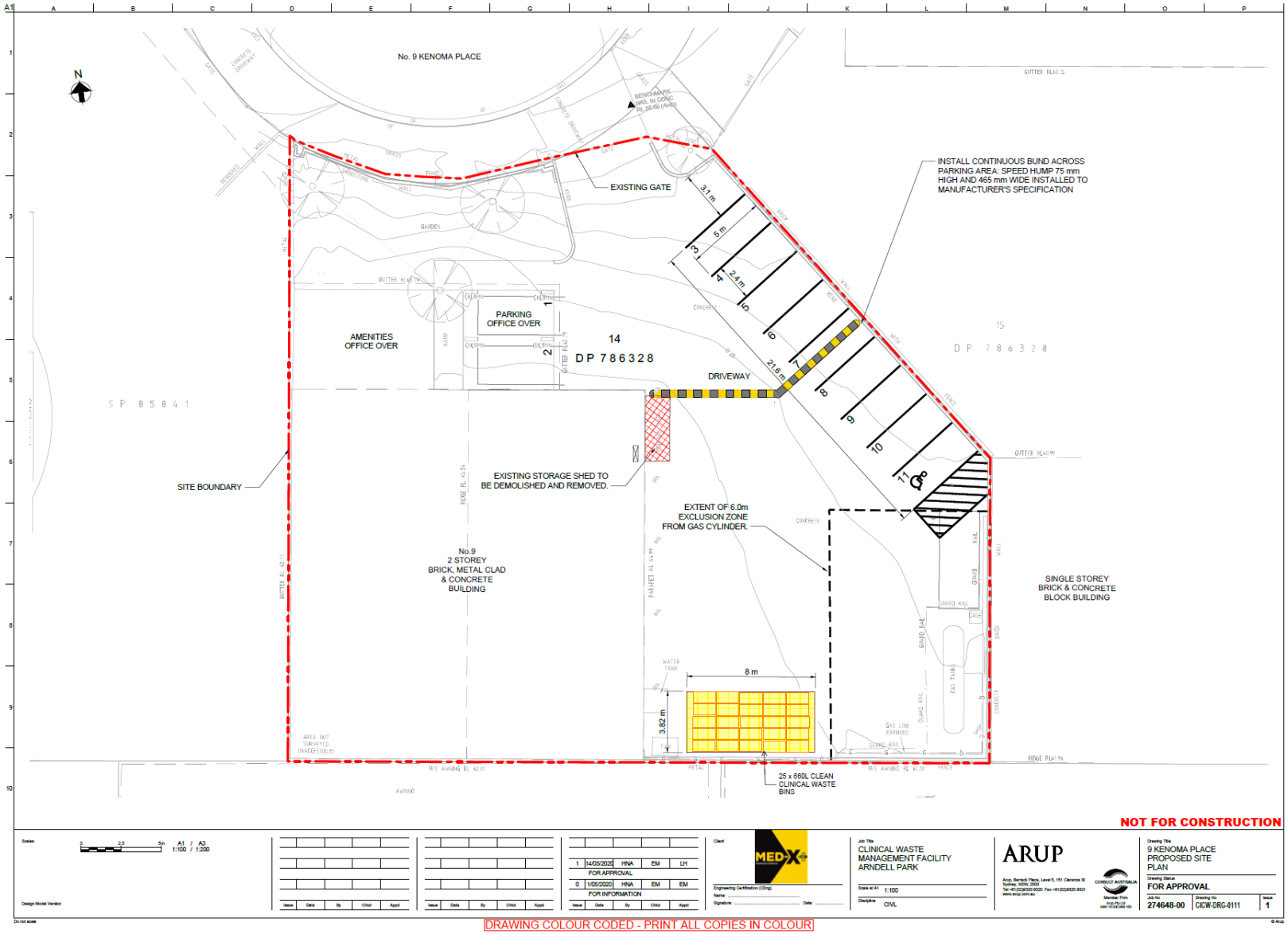

Figure 1: 9 Kenoma Place, Arndell Park Site Plan

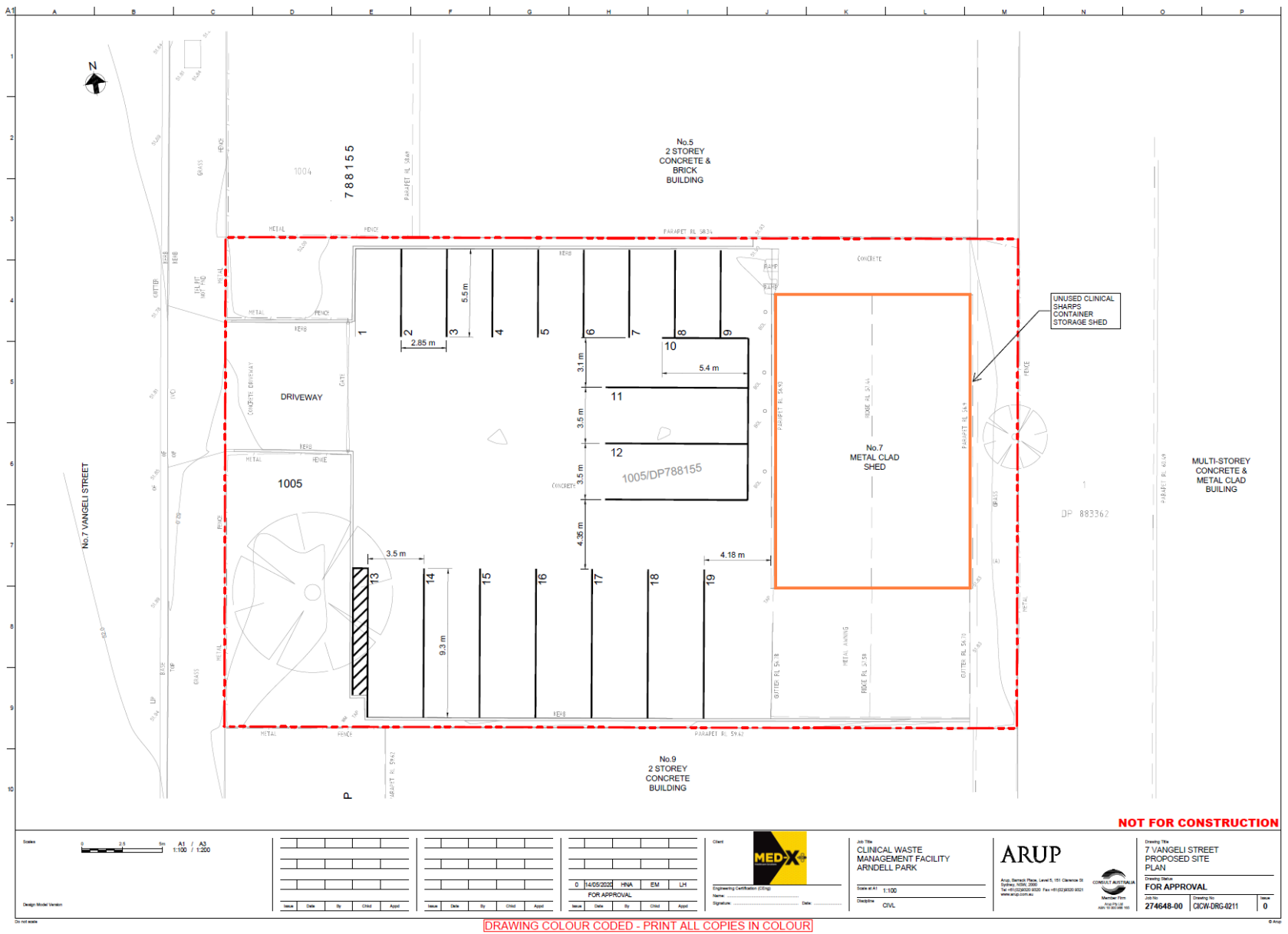

Figure 2: 7 Vangeli Street, Arndell Park Site Plan

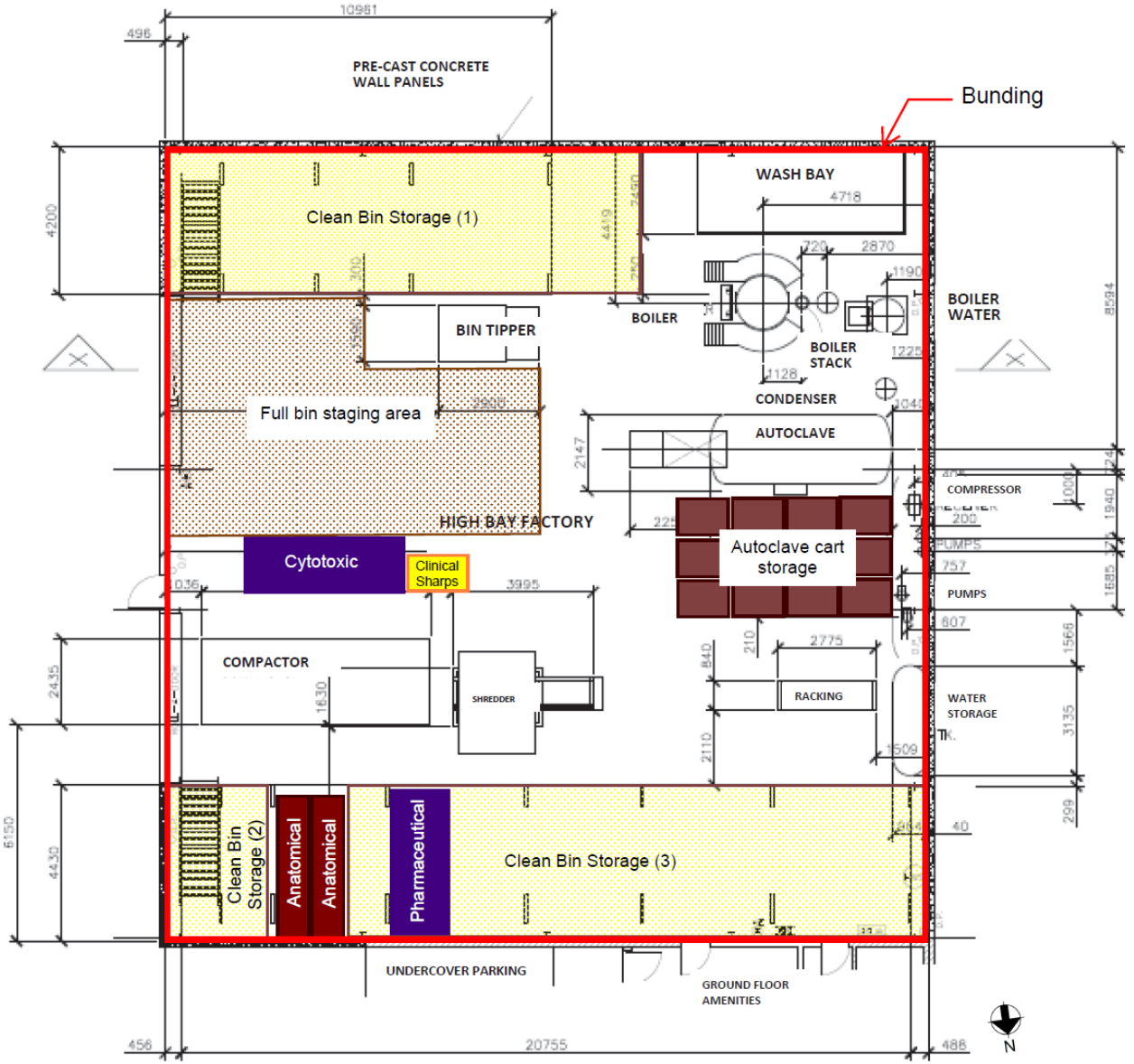

Figure 3: Storage Areas within the Processing Building Plan

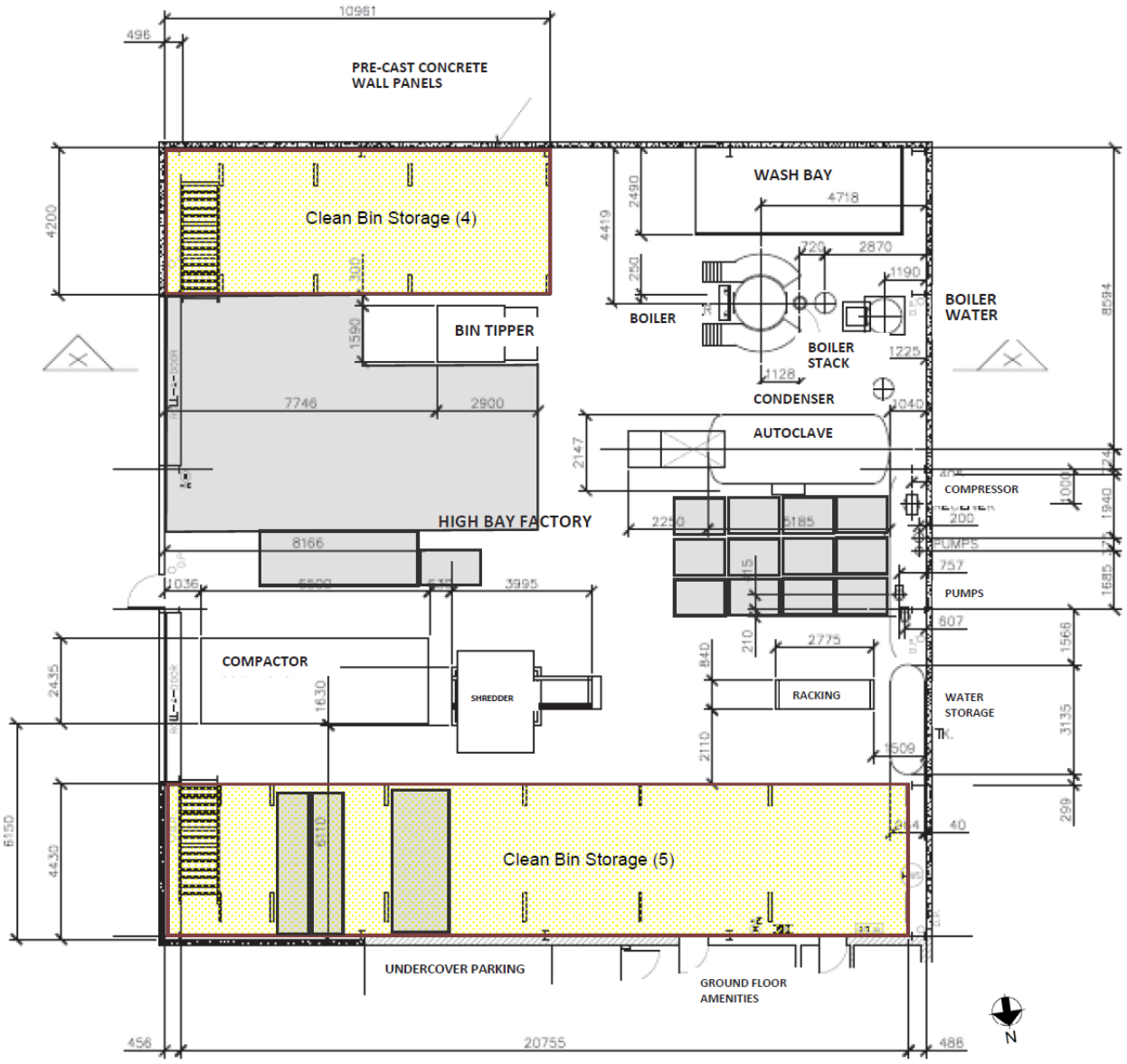

Figure 4: Storage Areas within the Processing Building Plan

APPENDIX 2 APPLICANT'S MANAGEMENT AND MITIGATION MEASURES

Aspect	Potential impact	Management and mitigation measure	Timing
Air quality	Generation of odour and other emissions	An odour management plan is to be developed to include the following measures: • Keep building doors closed when not in use; • Avoid opening the doors after 5pm as much as practical, especially in the cooler times of the year; • Maintain an odour complaint logbook and in the event of a complaint conduct an immediate investigation of any odour sources, together with appropriate actions to eliminate any identified excessive odour; • Engines of on-site vehicles and plant switched off when not in use; • Vehicles and plant fitted with pollution control devices in accordance with manufacturer specifications; • Any waste requiring overnight storage is stored within a closed container inside the facility; • Additional controls to be implemented, if and as required. In addition, the odour management plan must include: • Key performance indicator(s) for emissions controls; • Monitoring method(s); • Location, frequency and duration of monitoring; • Record keeping; • Response mechanisms; and • Compliance reporting.	Operation
Air quality	Generation of odour and other emissions	• New vent pipe on the stand-alone tank to be installed extending at least 1 m above the roofline of the building to improve air dispersion and reduce impacts to receptors. The pipe must have a sampling plane that has been constructed with consideration of AS4323.1 1995.	Prior to Operation
Air quality	Generation of odour and other emissions	• The air quality (odour) model is to be validated within 12-months of project approval or as soon as practicable after receipt of a valid odour complaint that cannot be addressed by applying the controls identified in the odour management plan.	Post-operation
Noise	Noise emissions to nearby residential receivers	• Vehicles departing the Vangeli Street Parking Depot between 5am and 7am are to follow the designated route to the Great Western Highway, avoiding driving through residential areas	Operation
Surface water	Stormwater contamination	• The proposed stormwater management measures are to be installed prior to increase of the processing capacity at the site	Prior to operation
Hazards and risks	Fire	• An automatic fire detection system is the be installed inside the facility, with the alarm being signalled to a third-party central monitoring station	Prior to operation
Hazards and risks	Fire	• A 6m exclusion zone around the LPG tank is to be marked out in yellow paint prior to increase of the processing capacity at the site	Prior to operation
Hazards and risks	Fire	• The yellow lines defining the 6m exclusion zone around the LPG tank are to be regularly cleaned and repainted, as necessary	Operation

Aspect	Potential impact	Management and mitigation measure	Timing
Hazards and risks	Fire and land and water contamination	• All bins stored outside the facility are to be kept within the defined outdoor storage area, as shown on the site plan	Operation
Traffic	General traffic management	• A traffic management plan is to be developed and implemented and is to include measures relevant to the management of traffic, as described in this report and supporting information.	Operation
Traffic	Traffic congestion at Kenoma Place	• Vehicle arrivals at the facility are to be closely monitored, to limit congestion and ensure waste delivery is evenly spaced across the daily operating hours. This includes use of the existing real-time vehicle tracking system, combined with additional monitoring of daily trends in arrivals.	Operation
Traffic	Traffic congestion at Kenoma Place	• Waste delivery and collection vehicles are to avoid idling in Kenoma Place and utilise the area on-site adjacent to the staff carpark where possible when waiting to unload.	Operation
Waste management	General waste management	• A waste management plan is to be developed and implemented and is to include measures relevant to the management of waste derived at the site.	Operation
Surface water	Stormwater management	• A stormwater management plan is to be developed and implemented and is to include measures relevant to the management of water and stormwater at the site.	Operation
General	Community concerns	• The Med-X Communication, Consultation & Participation procedure is to be implemented to ensure any concerns raised by the community are appropriately recorded, reviewed and responded to.	Operation

APPENDIX 3 INCIDENT NOTIFICATION AND REPORTING REQUIREMENTS

WRITTEN INCIDENT NOTIFICATION REQUIREMENTS

1. A written incident notification addressing the requirements set out below must be submitted to the Planning Secretary via the Major Projects website within seven days after the Applicant becomes aware of an incident. Notification is required to be given under this condition even if the Applicant fails to give the notification required under condition C6 or, having given such notification, subsequently forms the view that an incident has not occurred.
2. Written notification of an incident must:
   a. identify the development and application number;
   b. provide details of the incident (date, time, location, a brief description of what occurred and why it is classified as an incident);
   c. identify how the incident was detected;
   d. identify when the applicant became aware of the incident;
   e. identify any actual or potential non-compliance with conditions of consent;
   f. describe what immediate steps were taken in relation to the incident;
   g. identify further action(s) that will be taken in relation to the incident; and
   h. identify a project contact for further communication regarding the incident.

INCIDENT REPORT REQUIREMENTS

3. Within 30 days of the date on which the incident occurred or as otherwise agreed to by the Planning Secretary, the Applicant must provide the Planning Secretary and any relevant public authorities (as determined by the Planning Secretary) with a detailed report on the incident addressing all requirements below, and such further reports as may be requested.
4. The Incident Report must include:
   a. a summary of the incident;
   b. outcomes of an incident investigation, including identification of the cause of the incident;
   c. details of the corrective and preventative actions that have been, or will be, implemented to address the incident and prevent recurrence; and
   d. details of any communication with other stakeholders regarding the incident.