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STRATEGY | INFRASTRUCTURE | COMPLIANCE | PROCUREMENT



Waste Minimisation and Management Plan Penrith Resource Recovery Facility Nassif Civil Pty Ltd

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We declare that:

This Waste Minimisation and Management Plan contains all available information that is relevant to the environmental assessment of the development, activity or infrastructure to which the statement relates, and the information contained in this plan is neither false nor misleading.

Report version	Authors	Date	Reviewer	Approved for issue	Date
Draft	R. Loemker, A. Johnston	18/06/24	A. Johnston	A. Johnston	31/07/24
Final	R. Loemker, A. Johnston	28/11/24	A. Johnston	A. Johnston	28/11/24

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1. Introduction

This Waste Minimisation and Management Plan (WMMP) has been developed to demonstrate how waste will be avoided or minimised, reused, recycled and disposed of lawfully during the construction and operation Nassif Civil's Penrith Resource Recovery Facility (RRF) at 29-37 Plasser Crescent North St Marys (Lots 15 & 16 DP263353). The RRF will have an annual waste throughput of up to 99,000 tonnes per annum. Waste received at the RRF will consist of construction and demolition (C&D) waste in skip bins collected from the Greater Metropolitan region.

This WMMP has been prepared to address Chapter C5 *Waste Management* of the *Penrith Development Control Plan* 2014 (Penrith DCP) and the Secretary's Environmental Assessment Requirements (SEARs) 1694, which was issued on 4 July 2022 by Mr Chris Ritchie, Director, Industry Assessments as a delegate of the Secretary. On 15 April 2024, Nassif Civil informed the Department of Planning, Housing and Infrastructure (DPHI) of its intent to increase waste processing capacity from 60,000 to 99,000 tonnes per annum and sought a two-year extension to the SEARs deadline, stating the 2022 Scoping Report was still adequate. On 18 June 2024, the Department granted the extension, confirming the continued relevance of the 2022 SEARs to the revised proposal and consulting NSW EPA and TfNSW for further input.

The *Waste Avoidance and Resource Recovery Act* 2001 (WARR Act) and the *Protection of the Environment Operations Act* 1997 (POEO Act) govern the issues of waste generation, reuse, recycling, transport and disposal and prioritise waste solutions according to how successfully they conserve natural resources. Priority is given to reducing the overall amount of waste, followed by the reuse and then recycling of any wastes that are unavoidably created, with disposal as a last resort. The aim is to extract the maximum practical benefits from the products and to manage waste in the best possible way.

1.1. The site

Nassif Civil propose to operate the best practice RRF within the existing warehouse buildings located over two lots at 29-37 Plasser Crescent, North St Marys (Lots 15&16 DP 263353).

The proposed development site is located in the E4 General Industrial zoned area of St Marys within the Penrith City Council region. The site is easily accessible from the Kurrajong Road to the North and Glossop Street to the West. The site is in the vicinity of a Low-Density Residential Zone to the North and Medium Density Residential Zone to the South. St Marys Public school is located at approximately 700 m north-west of the site.

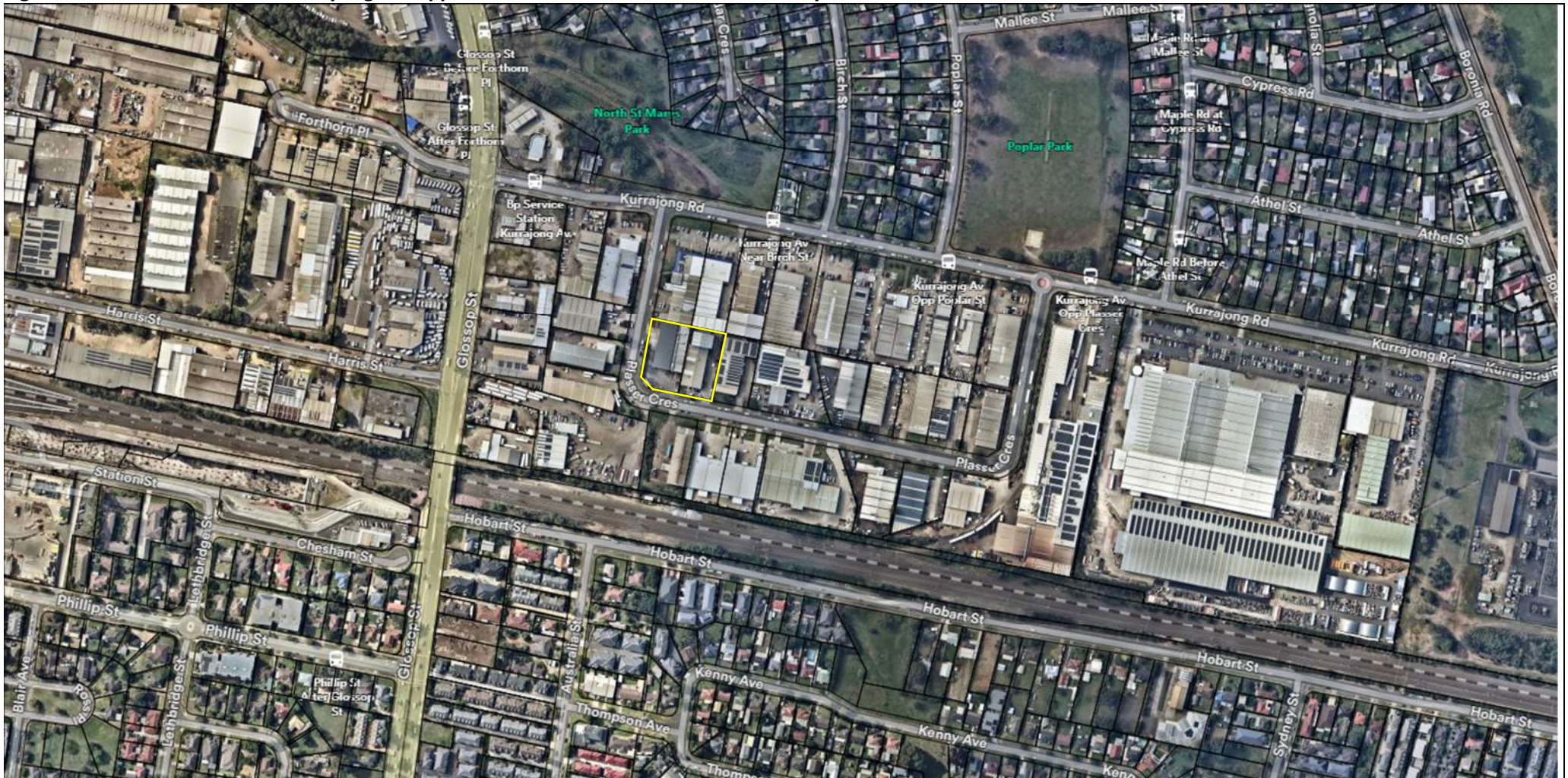
The total site area of the combines lots is 4295m², with Lot 15 making up approximately 2015m² and Lot 16 making up 2280m². Each lot has a shed with office facilities, bin storage areas, car parking area and truck parking area.

Concrete hardstand surrounds the sheds with some gravel areas and limited landscaping along the western fence line. A fence also borders the south and west site boundaries whilst buildings form the northern and eastern boundaries. A stormwater network consisting of down pipes, pits covered with grate filters and non-woven geotextile membrane and underground piping is connected to municipal stormwater network.

Additionally, 33-37 Plasser Crescent has a weighbridge and wheel wash system installed on-site for the existing operations of a 30,000 tonne/year RRF.

The aerial view of the site location and surrounding area is shown in Figure 1.1. An aerial view of the site is shown in Figure 1.2. The Penrith City Council's LEP zones are shown in Figure 1.3.

Figure 1.1. Aerial view of the nearby region. Approximate site boundaries are shown in yellow.



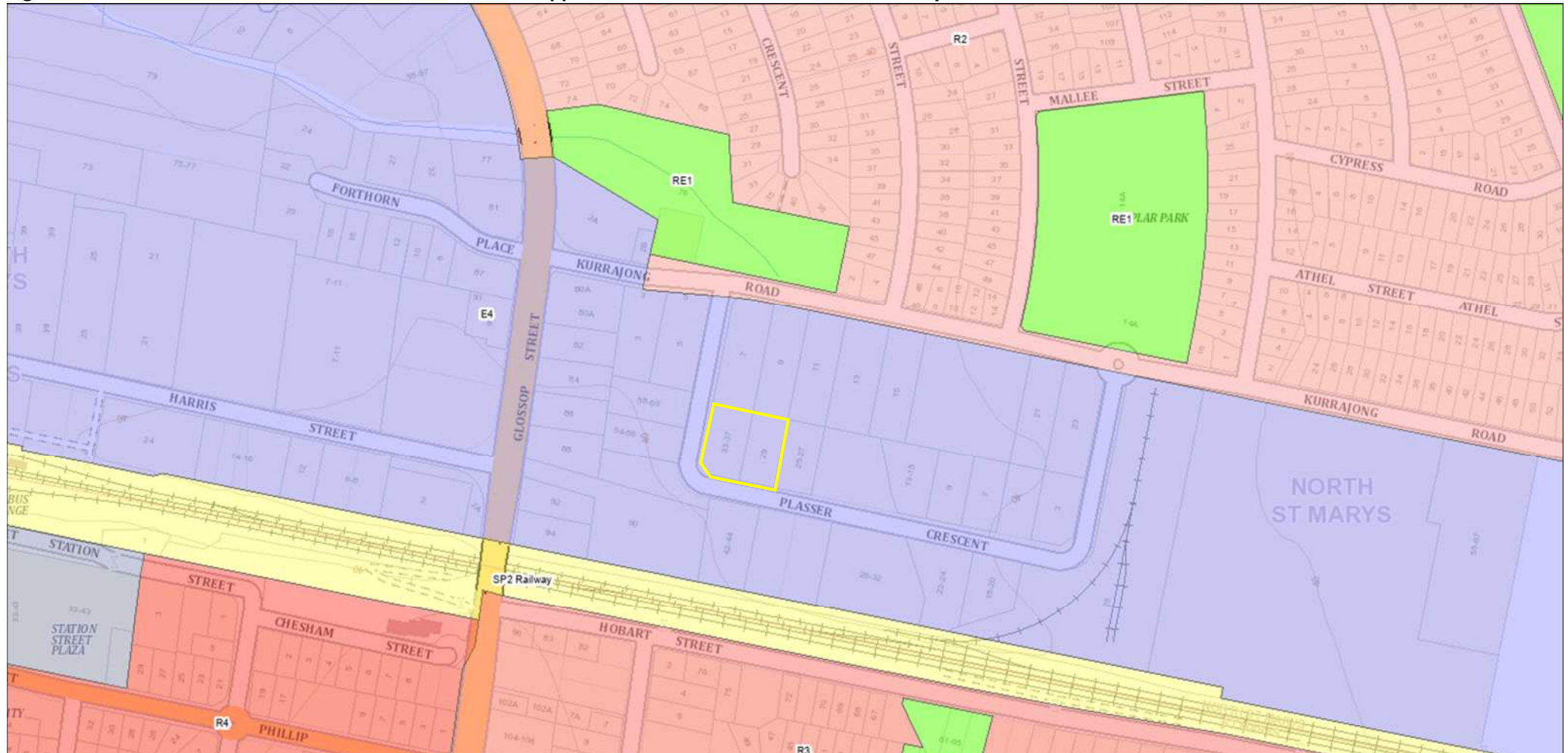
Date	Revision	Drawn By	Site description	Jackson Environment and Planning Pty Ltd	Client	Nassif Civil Pty Ltd
27/05/2024	Revision A	R. Loemker	29-37 Plasser Crescent, North St Marys (Lots 15 & 16 DP 263353)	Strategy Infrastructure Compliance Procurement A: Suite 102, Level 1, 25-29 Berry St, North Sydney NSW 2060 E: admin@jacksonenvironment.com.au T: 02 8056 1849 W: http://www.jacksonenvironment.com.au	Project	C&D Resource Recovery Facility
					Title	Aerial photo of site – region
					Scale	Not to Scale
					Source	Nearmap

Figure 1.2. Aerial view of the site. Approximate site boundaries are shown in blue.



Date	Revision	Drawn By	Site description	Jackson Environment and Planning Pty Ltd		Client	Nassif Civil Pty Ltd
27/05/2024	Revision A	R. Loemker	29-37 Plasser Crescent, North St Marys (Lots 15 & 16 DP 263353)	Strategy Infrastructure Compliance Procurement A: Suite 102, Level 1, 25-29 Berry St, North Sydney NSW 2060 E: admin@jacksonenvironment.com.au T: 02 8056 1849 W: http://www.jacksonenvironment.com.au	ENVIRONMENT AND PLANNING STRATEGY INFRASTRUCTURE COMPLIANCE PROCUREMENT	Project	C&D Resource Recovery Facility
						Title	Aerial photo of site
						Scale	Not to Scale
						Source	Nearmap

Figure 1.3. Aerial view of the site with Penrith LEP zones. Approximate site boundaries are shown in yellow.



Date	Revision	Drawn By	Site description	Jackson Environment and Planning Pty Ltd		Client	Nassif Civil Pty Ltd
27/05/2024	Revision A	R. Loemker	29-37 Plasser Crescent, North St Marys (Lots 15 & 16 DP 263353)	Strategy Infrastructure Compliance Procurement A: Suite 102, Level 1, 25-29 Berry St, North Sydney NSW 2060 E: admin@jacksonenvironment.com.au T: 02 8056 1849 W: http://www.jacksonenvironment.com.au		Project	C&D Resource Recovery Facility
						Title	Aerial photo of site
						Scale	Not to Scale
						Source	E-spatial Viewer, DoP

1.2. Background

To ensure that the development complies with contemporary standards for waste and transfer stations, a number of site upgrades are proposed as part of the development application. These include:

- Partial demolition of the existing structure on Lot 15, DP263353;
- Construction of a new shed on Lot 15, DP263353;
- Installation of an additional 20 m pit style weighbridge inside the site entrance of Lot 15, DP263353;
- Removal of the office and amenities fit out within the shed on Lot 16;
- Installation of processing equipment, including:
 - A vibratory finger screen;
 - Two elevated manual picking stations;
 - Density separator;
 - Magnetic separator; and
 - Timber shredder.
- Installation of conveyor belts to transfer materials between sorting equipment and storage bays;
- Conveyor belts will traverse both indoors and outdoors, and where outdoors, conveyors will be enclosed to avoid dust generation and reduce noise levels;
- Separate waste storage bays to separate and store sorted waste prior to being loaded onto trucks for off-site recycling and reuse;
- Upgrades to site office, lunchroom, and amenities for staff, truck drivers and visitors; and
- Improvements to landscaping provided to the site.

Nassif Civil proposes to operate the facility for 6am - 11pm Monday to Friday, and 7am - 3pm Saturday. There are no proposed operations on Sundays or public holidays.

Waste will be received in skip bins collected by Nassif Civil and other collection contractors servicing building sites. The general community will not have access to the Site and the facility will not accept waste from the public.

Skip bin deliveries will be scheduled throughout the day between 6am and 10pm¹ (Monday to Friday), and 7am to 2pm on Saturdays.

Bulk load out of processed waste materials will regularly during the week as bays / bins fill up and required off-site recovery or disposal. Bulk loadout of processed waste will be scheduled around collection runs to avoid congestion on site

All waste receipt and processing will occur inside the warehouse. There will be no outdoor storage of waste.

Site plans including internal and external are provided in Figure 1.4 and Figure 1.5 respectively. An artist impression of the Site is provided in Figure 1.6.

Detailed Site plans are provided in Attachment 3.

¹ The Site will remain open until 11pm however truck movements will cease after 10pm

Figure 1.4. Proposed site layout (external)



Date	Revision	Drawn By	Site description	Client	Nassif Civil Pty Ltd
28/11/2024	Revision A	R. Loemker	29-37 Plasser Crescent, North St Marys (Lots 15 & 16 DP 263353)	Project	C&D Resource Recovery Facility
				Title	Site layout (external)
				Source	Nassif Civil Pty Ltd

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CRESCENT

PLASSER

EXISTING WAREHOUSE

PROPOSED ADDITION

LOT 16 DP 263353
2280 m² (BY DEED)

No. 33-37 METAL FACTORY METAL ROOF

No. 29 STONE & METAL FACTORY METAL ROOF

DP

LOT 15 263353
2016 m (BY DEED)

GROUND FLOOR PLAN

1:250

Date	Revision	Drawn By	Site description	Client	Nassif Civil Pty Ltd
28/11/2024	Revision A	R. Loemker	29-37 Plasser Crescent, North St	Project	C&D Resource Recovery Facility
			Marys (Lots 15 & 16 DP 263353)	Title	Site layout (internal)
				Source	Nassif Civil Pty Ltd

W: <http://www.jacksonenvironment.com.au>



Figure 1.6. Artist impression



Date	Revision	Drawn By	Site description	Jackson Environment and Planning Pty Ltd
28/11/2024	Revision A	R. Loemker	29-37 Plasser Crescent, North St Marys (Lots 15 & 16 DP 263353)	Strategy Infrastructure Compliance Procurement
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Client	Nassif Civil Pty Ltd
Project	C&D Resource Recovery Facility
Title	Aerial photo of site – region
Scale	Not to Scale
Source	Nassif Civil Pty Ltd

1.3. Objectives

This WMMP has been prepared to address the objectives outlined in the Penrith DCP, namely:

- To facilitate sustainable waste management within the City of Penrith in accordance with the principles of Ecologically Sustainable Development;
- To manage waste in accordance with the 'Waste Hierarchy' to:
 - Avoid producing waste in the first place;
 - Minimise the amount of waste produced;
 - Re-use items as many times as possible to minimise waste;
 - Recycle once re-use options have been exhausted; and
 - Dispose of what is left, as a last resort, in a responsible way to appropriate waste disposal facilities;
- To assist in achieving Federal and State Government waste minimisation targets as set out in the *Waste Avoidance and Resource Recovery Act 2001* and *NSW Waste and Sustainable Materials Strategy 2041 - Stage 1: 2021–2027*;
- To minimise the overall environmental impacts of waste by:
 - Encouraging development that facilitates ongoing waste avoidance and complements waste services offered by both Council and/or private contractors;
 - Requiring on-site source separation and other design and siting standards which assist waste collection and management services offered by Council and/or the private sector;
 - Encouraging building designs and construction techniques that minimise waste generation;
 - Maximising opportunities to reuse and recycle building and construction materials as well as other wastes in the ongoing use of a premise; and
 - Reducing the demand for waste disposal.

1.4. Scope

This WMMP assesses how the waste generated during demolition, construction and operation will be dealt with in the most environmentally sustainable way and contains the following information:

- Relevant legislation and guidelines for waste management for the Facility;
- The systems, procedures and initiatives proposed to address the management of waste materials generated during the demolition, construction and operation phases of the Facility;
- Safeguards, mitigation measures and monitoring to manage waste impacts during demolition, construction, and operation;
- Roles and responsibilities of those involved in the design and implementation of waste management controls; and
- An effective monitoring, auditing, and reporting framework to assess the effectiveness of the controls implemented.

This WMMP will become a sub plan to the overall Environmental Management System (EMS) for the Facility.

1.5. Secretary's Environmental Assessment Requirements

The following agencies provided specific waste management issues that are to be addressed as part of SEARs 1694 issued on the 4 July 2022:

- NSW EPA; and
- Penrith City Council.

Table 1.1. outlines the information requirements related to waste management specified in SEAR 1694.

Table 1.1. Waste management related agency requirements for Nassif Civil’s Penrith Resource Recovery Facility.

Department	Requirement
Penrith City Council	The proposed waste collection infrastructure and collection arrangement is not permitted in its current configuration. The scoping report provided to Council staff provides insufficient information to assess for waste planning matters. The following matters shall be addressed:
	The relevant controls are contained within Chapter C5- Waste Management, and associated “Industrial, Commercial and Mixed-Use Waste Management Guidelines” under Penrith DCP 2014.
	Waste collection vehicles proposed to service commercial and industrial developments are to be designed in accordance with the vehicle specifications outlined in section 3.5 of the ‘Industrial, commercial and mixed-use waste management guideline’ document.
	<u><i>On-site Collection (section 2.2.1)</i></u>
	Waste collection vehicles proposed to service commercial and industrial developments are to be designed in accordance with the vehicle specifications outlined in section 3.5 of the ‘Industrial, commercial and mixed-use waste management guideline’ document.
	<u><i>Architectural Plans (section 2.2.2)</i></u>
	Scaled architectural plans are required to support the development application which demonstrate the site’s entry point, vehicle’s route of travel and manoeuvring comply with a standard waste collection vehicle (section 3.5).
	<u><i>Swept Path Models (section 2.2.3)</i></u>
	Swept path models to be provided illustrating how a standard waste collection vehicle (section 3.5) will enter, service and exit the site. A 0.5m unobstructed clearance is required from all obstructions for the vehicle’s ingress and egress manoeuvres. The model to provide on-street parking on both sides of the road adjacent to the development to demonstrate unobstructed access during a ‘business as usual’ configuration.
	<u><i>Service Clearances (section 2.2.4)</i></u>
	For rear loaded vehicles an additional 2m unobstructed loading zone is required behind the vehicle for the loading of 660L and 1,100L bins. Additionally, a 0.5m side clearance is required on either side of the vehicle for driver movements and accessibility.
	<u><i>Plan of Operations (2.2.6)</i></u>
	All development applications to be submitted with accompanying ‘Plan of Operations’, outlining proposed; Bin Infrastructure Sizes, Collection Frequency, Waste Collection Vehicle Dimensions, Hours of Collection and Access to Waste Collection Room.
	Waste collection infrastructure is to be provided in accordance with section 3.1 of the ‘Industrial, commercial and mixed-use waste management guideline’ document.
	Proposed generates rates are required to be provided to permit waste collection in accordance with section 3.3 of the ‘Industrial, commercial and mixed-use waste management guideline’ document.
	<u><i>Alternate Use (section 3.3.5)</i></u>
	Note: For commercial and industrial waste streams that are not outlined in section 3.3, supporting documentation is required to validate the proposed volumes for the respective waste streams.
	All developments are required to provide a waste collection room integrated wholly within the built form to permit a safe and efficient waste collection service. The room to incorporate infrastructure into its design in accordance with section 3.4 of the ‘Industrial, commercial and mixed-use waste management guideline’ document.
	Note: Provide an integrated on-site waste collection room within the respective built forms to permit a safe and efficient waste collection service.
	For further specific waste operational and infrastructure information refer to the ‘Industrial, commercial and mixed-use waste management guideline’ document attached:

Department	Requirement
	https://www.penrithcity.nsw.gov.au/images/documents/buildingdevelopment/planning-zoning/planningcontrols/Waste_Management_Guidelines_Industrial_Commercial_Mixed_Use.pdf
NSW EPA	<i>Waste and chemicals</i> • Provide details of the quantity and type of both liquid waste and non-liquid waste generated, handled, processed or disposed of at the premises. Waste must be classified according to the EPA's Waste Classification Guidelines 2014 (as amended from time to time). • Provide details of liquid waste and non-liquid waste management at each facility, including: a) The transportation, assessment and handling of waste arriving at or generated at the site; b) Any stockpiling of wastes or recovered materials at the site; c) Any waste processing related to the facilities, including reuse, recycling, reprocessing (including composting) or treatment both on- and off-site; d) The method for disposing of all wastes or recovered materials at the facilities; e) The emissions arising from the handling, storage, processing and reprocessing of waste at the facilities; and f) The proposed controls for managing the environmental impacts of these activities. • The mitigation measures proposed to be implemented to prevent and mitigate leaks and spills from the treatment plant and other project operations and activities. • Appropriate primary and secondary containment systems should be included as a part of the proposal. • Details of bunding, isolation, overflow prevention and other controls should be provided to demonstrate spill and leak related risks have been appropriately considered and addressed. • Provide details of spoil disposal with particular attention to: a) The quantity of spoil material likely to be generated; b) Proposed strategies for the handling, stockpiling, reuse/recycling and disposal of spoil; c) The need to maximise reuse of spoil material in the construction industry; d) Identification of the history of spoil material and whether there is any likelihood of contaminated; e) Material, and if so, measures for the management of any contaminated material; and f) Designation of transportation routes for transport of spoil. • Provide details of procedures for the assessment, handling, storage, transport and disposal of all hazardous and dangerous materials used, stored, processed or disposed of at the site, in addition to the requirements for liquid and non-liquid wastes. • Provide details of the type and quantity of any chemical substances to be used or stored and describe arrangements for their safe use and storage. Reference should be made to the guidelines: EPA's <i>Waste Classification Guidelines</i> 2014 (as amended from time to time).

These requirements have been addressed in this Waste Minimisation and Management Plan.

2. Legislative requirements

The key sources of waste management regulation in New South Wales include:

- The *Protection of the Environment Operations Act* 1997, which provides enforcement provisions, a licensing framework and other tools to protect human health and environment from the inappropriate use of waste;
- The *Protection of the Environment Operations (Waste) Regulation* 2014, which outlines the regulation of waste in NSW and the waste levy system;
- The *Protection of the Environment Operations (Clean Air) Regulation* 2022, which provides regulatory measures to control emissions from various sources including industry; and
- The *Waste Avoidance and Resource Recovery Act* 2001, which sets the waste hierarchy and the NSW Waste and Sustainable Materials Strategy 2041: Stage 1 – 2021-2027.

The requirements for classifying, handling and disposing of particular types of wastes is defined in the NSW EPA's *Waste Classification Guidelines*.

2.1. The 2018 National Waste Policy

The *2018 National Waste Policy: Less waste, more resources* provides the framework for collective action by businesses, governments, communities and individuals until 2030. The *2018 National Waste Policy* focuses on waste avoidance, improved material recovery and use of recovered materials.

Strategy 7 of the policy aims to increase industry capacity through identifying and addressing opportunities across municipal solid waste, commercial and industrial waste, and construction and demolition waste streams for improved collection, recycling and energy recovery, to deliver ongoing improvements in diversion from landfill, improved quality of recycled content and use of the waste hierarchy.

The proposal is aligned with the *2018 National Waste Policy* to increase industry capacity through identifying and addressing opportunities for improved collection and delivering improvements in diversion from landfill in the C&D waste industry.

2.2. NSW Waste and Sustainable Materials Strategy 2041

The *NSW Waste and Sustainable Materials Strategy 2041: Stage 1 – 2021-2027* is the approved waste strategy for NSW. It sets out the long-term vision for managing waste, planning for infrastructure, reducing carbon emissions, creating jobs, and refocusing the way NSW produces, consumes, and recycles products and materials. The strategy will be used to track, review and measure NSW's progress toward meeting the targets set out in the *National Waste Policy Action Plan* 2019. The targets are to:

- Reduce total waste generated by 10% per person by 2030;
- Have an 80% average recovery rate from all waste streams by 2030;
- Significantly increase the use of recycled content by governments and industry;
- Phase out problematic and unnecessary plastics by 2025;
- Halve the amount of organic waste sent to landfill by 2030.

In addition to the above targets, NSW has committed to:

- Introduce a new overall litter reduction target of 60% by 2030 and a plastic litter reduction target of 30% by 2025, as set out in the *NSW Plastics Action Plan* 2021;
- Set a goal to triple the plastics recycling rate by 2030, as set out in the *NSW Plastics Action Plan* 2021;
- Reaffirm our commitment to the goal of net zero emissions from organic waste by 2030, as laid out in the *NSW Net Zero Plan Stage 1: 2020–2030*;

- Establish new indicators to help us track our progress on infrastructure investment and the cost of waste services; and
- Develop a new measure of the emissions performance of our waste and materials management. This will help us to track our performance across the lifecycle of materials.

Nassif Civil Pty Ltd proposes to increase the sorting and recovering materials from up to 99,000 tonnes of C&D waste per annum. The activity is aligned with the *NSW Waste and Sustainable Materials Strategy* and will contribute to maximising the use of current infrastructure for a larger throughput.

2.2.1. Waste hierarchy

The way waste is to be managed in NSW is driven by the Ecologically Sustainable Development principles. Guidance in managing waste has been provided by the hierarchical chart below (Figure 2.1).

Figure 2.1. The waste hierarchy as published in the *NSW Waste and Sustainable Materials Strategy 2041: Stage 1 – 2021-2027*.



Waste avoidance means reducing the quantity of waste being generated. This is the simplest and most cost-effective way to minimise waste. It is the most preferred option in the Waste Management Hierarchy and is therefore ranked first.

Reusing occurs when a product is used again for the same or similar use with no reprocessing. Reusing a product more than once in its original form reduces the waste generated and the energy consumed, which would have been required to recycle.

Recycling involves the processing of waste into a similar non-waste product consuming less energy than production from raw materials. Recycling saves the environment from further degradation, saves landfill space, and saves resources.

Disposing involves removing waste from worksites, compounds and offices and disposal in a licensed landfill site, or other appropriately licensed facility.

2.3. Waste Classification Guidelines

Classifying waste into groups that pose similar risks to the environment and human health facilitates their management and appropriate disposal.

The following classes of waste are defined in clause 49 of Schedule 1 of the *Protection of the Environment Operations Act 1997* (POEO Act) and the NSW EPA's *Waste Classification Guidelines* (2014):

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

Where waste cannot be avoided, reused or recycled it will be classified and appropriately disposed of. The classification of waste is based on the *Waste Classification Guidelines* (NSW EPA, 2014). The guideline outlines how to assess waste, waste classification and sets out management options for the disposal of classified waste.

Waste classification will involve one or more of the following steps:

1. Establish if the waste should be classified as special waste;
2. If not special waste, establish whether the waste should be classified as liquid waste;
3. If not special waste or liquid waste, establish whether the waste is of a type that has already been pre-classified;
4. If the waste is not special waste, liquid waste or pre-classified, establish if it has certain hazardous characteristics and can therefore be classified as hazardous waste;
5. If the waste does not possess hazardous characteristics, it needs to be chemically assessed to determine what class of waste it is. If the waste is not chemically assessed, you must manage the waste as if it were hazardous waste; and
6. If the waste is chemically assessed as general solid waste, a further test is available to determine whether the waste is putrescible or non-putrescible. This test determines whether the waste is capable of significant biological transformation. If you do not wish to undertake this test, you must manage the waste as if it were general solid waste (putrescible).

The EPA's Waste Classification Guidelines provide a clear framework for accepting, testing and determining the management options for waste received to ensure human health and the environment are protected.

2.4. NSW Waste and Sustainable Materials Strategy: A guide to future infrastructure needs

The *NSW Waste and Sustainable Materials Strategy: A guide to future infrastructure needs* supplements the *NSW Waste and Sustainable Materials Strategy 2041*, which sets out the long-term vision for managing waste, planning for infrastructure, reducing carbon emissions, creating jobs, and refocusing the way NSW produces, consumes and recycles products and materials. This strategy is backed by \$356 million in funding to help deliver priority programs and policy reforms.

This strategy updates NSW's priorities for waste and resource recovery to reflect the *NSW Circular Economy Policy Statement*, the *Net Zero Plan Stage 1:2020–2030* and the *National Waste Policy Action Plan*.

The *NSW Waste and Sustainable Materials Strategy: A guide to future infrastructure needs* sets out the investment pathway required for NSW to meet future demand for residual waste management and recycling; and establish new

indicators to help the NSW governments to track progress on infrastructure investment and the cost of waste services. A need for additional investment in new or upgraded recovery and recycling facilities by 2030 has been identified to prevent shortfalls in keeping up with the increasing amounts of wastes generated.

Figure 2.2 provides a summary of the high-level resource recovery infrastructure needed to service NSW by 2030. Material Recovery Facilities (MRFs) are a priority for NSW with improvements to existing facilities a priority for Greater Sydney. Nassif Civil’s proposed Penrith RRF is aligned with the objectives and infrastructure needs identified in this strategy.

Figure 2.2. High level recovery infrastructure needs to service NSW by 2030

Structure Type	Greater Sydney	Rest of NSW
 Materials recovery facilities (MRFs)²²	● No new facilities required if pipeline facilities come online, only MRF upgrades to improve quality of sorted materials	● New MRF in non-levied area and capacity enhancements in the regional levy area
 Plastics	● Secondary processing facilities needed for pelletising and flaking of mixed plastics – could be aligned to MRF expansions in both Greater Sydney and regional areas	
 Paper/Cardboard	● Beneficiation and source separation facilities to address paper quality – can be achieved through MRF upgrades or standalone facilities in both Greater Sydney and regional areas	
 Glass	● No immediate priorities if pipeline glass facilities come online	● Targeted small-scale glass crushing and quality control
 Organics²³	● New facilities to process combined food and garden organics (FOGO) and some food-only processing (such as anaerobic digestion) ● New organics transfer stations to move material outside urban areas for processing and small-scale onsite solutions in high population areas and industry centres	● New FOGO processing facilities and minor food-only processing (anaerobic digestion) in the Shoalhaven and Hunter regions, and the NLA ● Additional small-scale onsite solutions across all regions
 E-waste	● New facilities for separating and sorting, removing contaminants and washing, flaking or pelletising plastics in e-waste ● New capacity for downstream processing of material fractions ● New facilities for repair and reuse	
 Tyres	● Significant new processing capacity required	
Legend ● Sufficient existing infrastructure or only minor improvements required by 2030. ● Some new infrastructure required to support policy or market changes by 2030. ● Significant new infrastructure required to meet demand by 2030.		

2.5. Net Zero Plan Stage 1: 2020-2030

The *Net Zero Plan Stage 1: 2020-2030* is the foundation for NSW's action on climate change and goal to reach net zero emissions by 2050. It outlines the NSW Government's plan to grow the economy, create jobs and reduce emissions over the next decade.

The plan aims to enhance the prosperity and quality of life of the people of NSW, while helping the state to deliver a 35% cut in emissions by 2030 compared to 2005 levels. The plan will support a range of initiatives targeting electricity and energy efficiency, electric vehicles, hydrogen, primary industries, coal innovation, organic waste and carbon financing.

As part of the plan, the NSW Government has set a target of net zero emissions from organic waste by 2030. To deliver on this goal, the NSW Government will establish world-leading landfill diversion policies to apply to the waste industry. It will:

- Support local councils to provide communities with best-practice food and garden waste management infrastructure;
- Ensure composts or other organic soils are of the highest quality for land application;
- Facilitate the development of 'waste to energy' facilities in locations that have strong community support, provided those facilities meet strict environmental standards; and
- Update regulatory settings to ensure residual emissions from the organic waste industry are offset.

These policies are designed to ensure opportunities for local processing are fully utilised and disposal costs for local councils and ratepayers are minimised.

2.6. Standards for Managing Construction Waste in NSW

The *Standards for Managing Construction Waste in NSW* commenced on 15 May 2019. The Standards have been implemented to:

- Minimise the risk of harm to human health and the environment from asbestos and other contaminants found in construction waste;
- Ensure operators of construction waste facilities implement appropriate processes and procedures to manage these risks; and
- Improve industry and community confidence in the quality of resources recovered from construction and demolition waste.

The Standards apply to all C&D waste facilities with an environment protection licence for waste storage, waste processing or resource recovery. The Standards require C&D waste facilities to:

- Implement a two-stage inspection process to ensure asbestos waste and other unpermitted wastes do not enter the facility;
- Implement sorting and waste storage requirements to improve the quality of recovered resources and avoid cross-contamination of materials;
- Ensure construction waste is only transported from the facility if it has been handled in accordance with the Standards on-site; and
- Ensure that all staff managing, supervising or undertaking tasks required by the Standards have been appropriately trained.

Where any load is found or reasonably suspected to contain unpermitted wastes, the entire load of waste must be rejected, and must be removed from the facility on the vehicle on which it arrived.

The Standards also include the following requirements:

- Construction waste must be sorted and classified into individual waste types;
- Sorted construction waste must not be mixed with any other type of waste;
- Each individual waste type must be stored separately, and storage areas must be clearly labelled;
- Stockpiles must be clearly delineated and separated by a minimum of three metres; and
- Stockpiles must be checked by staff every business day to ensure waste is correctly stored.

Compliance with the Standards is a mandatory licence condition for all construction and demolition waste facilities. Failure to comply with the Standards is a breach of section 64 of the *Protection of the Environment Operations Act 1997*.

2.7. Fire and Rescue NSW – Fire Safety Guidelines

In August 2019, *Fire and Rescue NSW – Fire Safety Guidelines* published guidelines that apply to waste facilities in NSW. These guidelines need to be considered for waste and resource recovery facilities seeking approval for upgrades or changes, and for new facilities. These guidelines were updated in February 2020.

The purpose of the document is to provide guidance on fire safety in waste facilities that receive combustible waste materials, including adequate provision for fire safety and facilitate safe fire brigade intervention to protect life, property and the environment. The guideline specially outlines the requirement of Fire and Rescue NSW for:

- a) Considering for safety during all stages of a waste facility, including site selection, planning, design, assessment and operation;
- b) Fire safety systems to be adequate to the special hazards identified within a waste facility and which also meet the operational needs of fire fighters;
- c) Safe storage and stockpiling of combustible waste material based on expected combustibility and maximum pile size;
- d) Workplace fire safety and fire safety planning, including procedures in the event of fire or an emergency incident.

An assessment of the facility with regards to the management of waste in accordance with the *Fire and Rescue NSW – Fire Safety Guidelines* has been carried out in preparing this WMMP.

3. Project description

3.1. Proposed infrastructure

To ensure that the development complies with contemporary standards for waste and transfer stations, a number of site upgrades are proposed as part of the development application. These include:

- Partial demolition of the existing structure on Lot 15, DP263353;
- Construction of a new shed on Lot 15, DP263353;
- Installation of an additional 20 m pit style weighbridge inside the site entrance of Lot 15, DP263353;
- Installation of processing equipment, including:
 - A vibratory finger screen;
 - Two elevated manual picking stations;
 - Density separator;
 - Magnetic separator; and
 - Timber shredder.
- Installation of conveyor belts to transfer materials between sorting equipment and storage bays;
- Conveyor belts will traverse both indoors and outdoors, and where outdoors, conveyors will be enclosed to avoid dust generation and reduce noise levels;
- Separate waste storage bays to separate and store sorted waste prior to being loaded onto trucks for off-site recycling and reuse;
- Upgrades to site office, lunchroom, and amenities for staff, truck drivers and visitors; and
- Improvements to landscaping provided to the site.

3.2. Operations

3.2.1. Waste deliveries

Waste deliveries will occur via skip bins delivered on 12.5m rigid trucks or hook lift trucks. Skip bin sizes will vary between 2m³ and 12m³ and hook lift bins between 15m³ and 30m³.

Vehicles will access the Site via Plasser Crescent on the western side of the existing building on Lot 16 DP263353. All trucks accessing the site do so via the traffic signal-controlled intersection of Glossop Street and Kurrajong Road. Therefore, vehicles will enter Plasser Crescent from the western intersection of Plasser Crescent and Kurrajong Road.

Vehicles will pass over the weighbridge for inspection of non-compliant waste and for assessing the net weight of materials before reversing into the warehouse via the western roller door for tipping of waste.

3.2.2. Waste tipping, spreading and inspection

Once inside the warehouse, vehicles will be directed to the dedicated “tip and spread area” and inspected for non-compliant waste in accordance with the *Standards For Managing Construction Waste In NSW* (NSW EPA, 2019)

Rejected waste will be re-loaded for off-site transport and disposal at an appropriate licensed facility.

Upon tipping of waste (or in the case of rejected load – after being re-loaded), vehicles will exit the warehouse and exit the site in a forward direction using the western driveway on the south side of the of the existing building on Lot 16 DP263353. Vehicles exiting the Site will turn right on to Plasser Crescent.

The waste will include the following:

- Concrete, brick and tile (CBT);
- Clean timber;
- Engineered/treated timber;
- Ferrous metals;
- Stainless steel;
- Aluminium;
- Copper;
- Plasterboard;
- Recovered fines (as GSW CT1); and
- Residual waste.

Residual waste consists primarily of plastic (4%), plasterboard/Hebel (40%); engineered/non-recyclable timber (30%) cement/grout (10%) and small portions of other various non-recoverable materials such as steel/greens/cardboard/carpets.

The following wastes will not be accepted at the Penrith RRF:

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

The waste types and quantities to be received at the facility are summarised in Table 3.1.

Table 3.1. Waste types and quantities to be received at the facility.

Bay	Materials	Waste Composition (% by weight)	Annual Incoming Weight (tonnes)	Annual Outgoing Recovered Product (tonnes)	Annual Outgoing Residual Waste (tonnes)
1	Cardboard	4%	3,960	3,960	
2	Gyproc, metal and/or other 2D	5%	4,950	4,950	
3	Timber (2D)	5%	4,950	4,950	
4	Residual Waste (2D)	5%	4,950	-	4,950
5	0-10mm fines	20%	19,800	19,800	
6	10-50mm lights	10%	9,900	9,900	
7	10-50mm heavies	15%	14,850	14,850	
8	Ferrous metals	5%	4,950	4,950	
9	Timber (3D) >50mm	5%	4,950	4,950	
10	CBT >50mm'	20%	19,800	19,800	
11	Residual Waste (3D)	5%	4,950	-	4,950
12	Non-ferrous metal	1%	990	990	
Totals		100%	99,000	89,100	9,900

3.2.3. Waste processing

Accepted waste will be stored in the mixed waste storage bay. This bay is used for the temporary storage of waste materials requiring further sorting and to ensure the “tip and spread area” remains clear for the next waste deliveries. An excavator will load waste into a feed hopper before entering a vibratory finger screen.

The vibratory finger screen will separate the 2-Dimensional (2D) wastes (flat waste) from the 3-dimensional (3D) wastes (bulky waste). Separated 2D waste will then be conveyed to a picking station elevated above designated storage bays. 2D waste will be manually separated and stored as follows:

- Bay 1 - Cardboard;
- Bay 2 - Other recovered materials such as gyprock and metals (ferrous and non-ferrous) as required;
- Bay 3 - Timber; and
- Bay 4 - Residual waste

3D waste from the finger screen will be conveyed to a density separator. The 3D conveyor will traverse from the existing building on Lot 16 DP263353 to the new shed on Lot 15 DP263353. The conveyor will be enclosed where it traverses externally between the buildings to mitigate noise and dust issues. The 3D waste will then be sorted by an elevated density separator with storage bays beneath. The elevated density separator will size separate materials and deposit in the corresponding storage bays as follows:

- Bay 5 - <10mm (recovered fines)
- Bay 6 - 10-50mm (lights)
- Bay 7 - 10-50mm (heavies)

Oversized materials (>50mm) which will predominantly include timber, masonry (concrete, brick and tile) and metals will then be conveyed to a second elevated picking station. The oversized materials conveyor will be enclosed where it traverses along the external back side of the new shed on Lot 15 DP263353 to mitigate noise and dust issues. The oversized materials conveyor will also contain a magnet to separate ferrous materials from the oversized portion. These ferrous materials will be stored in Bay 8 which is a 25m³ skip bin.

Within the picking station, oversized materials will be manually separated and stored as follows:

- Bay 9 - Timber;
- Bay 10 - Concrete, brick and tile;
- Bay 11 - Residual waste; and
- Bay 12 - Other recovered material waste such as metals (non-ferrous) or rigid plastics as required.

Clean, separated timber stored in Bay 3 and 9 may be further processed into mulch using a shredder within the existing building on Lot 15 DP263353 and stored in the designated mulch bay. An articulated loader will be used to transfer materials between the designated bays and will also be used for loading trucks with outgoing products and residual waste.

Separated waste materials are stored in the designated storage bays within the warehouse as shown in Figure 3.1.

3.2.4. Waste storage

Sorted waste / products will be stored in temporary bays throughout the RRF. When the bays are full, the bays will be emptied using an articulated loader. Two “large product storage bays” (each approximately 414 m³) will be utilised for storing waste / product as required so that designated bays retain sufficient capacity. Dividing walls may be used to separate different material types within these bays. The “large product storage bays” may also be used for temporarily storing product prior to loading out however, these bays will not be used for the storage of high hazard wastes such as plastic.

There are multiple storage bays located within the Facility as shown in Figure 3.1. Section 4 provides further information on the approximate daily storage quantities of sorted and recovered waste.

Sorted materials and residual waste will be transported off-site daily during operational hours, with loads removed when a sufficient volume has accumulated to maximise transport efficiency.

3.2.5. Sorted waste collection

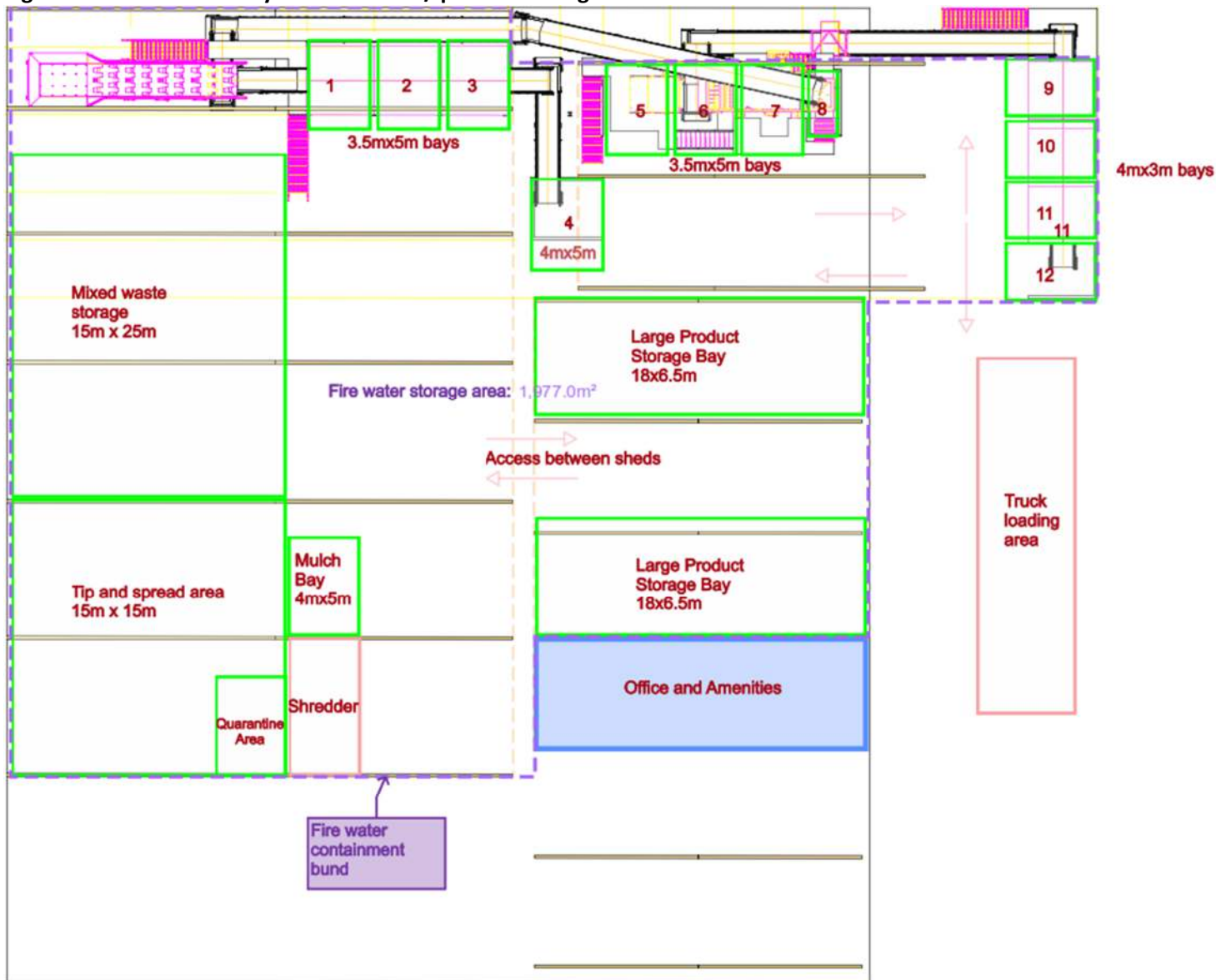
Sorted waste for further off-site processing / recovery will be collected regularly in 19m semi-trailers on a daily basis for lawful recovery / disposal at other NSW EPA licensed facilities. All waste loading will occur inside the warehouse within the “truck loading area”. Wastes that are compliant with applicable Resource Recovery Orders and Exemptions such as mulch, aggregates, and recovered fines will be transported to customers for on-sale or reuse. Retail sale of these products will not occur on the site.

Vehicles collecting sorted waste will access the Site via the eastern driveway on Plasser Crescent on the south side of the new shed on Lot 15 DP263353. All trucks accessing the site do so via the traffic signal-controlled intersection of Glossop Street and Kurrajong Road. Therefore, vehicles will enter Plasser Crescent from the western intersection of Plasser Crescent and Kurrajong Road.

After entering the Site, vehicles will reverse into the warehouse via the eastern roller door for loading of waste / products. After loading, vehicles will pass over the weighbridge for assessing net weight.

Upon being loaded with waste, vehicles will exit the warehouse through the eastern roller door in the forward direction and onto the weighbridge. Following weighing, vehicles will exit the Site in the forward direction and turn right on to Plasser Crescent.

Figure 3.1. Internal site layout and waste / product storage areas.



3.3. Operational hours

Nassif Civil proposes to operate the facility for 6am - 11pm Monday to Friday, and 7am - 3pm Saturday. There are no proposed operations on Sundays or public holidays.

Skip bin deliveries will be scheduled throughout the day between 6am and 10pm² (Monday to Friday), and 7am to 2pm on Saturdays.

No timber mulching is to occur after 6pm on weekdays and no truck movements are to occur after 10pm of weekdays.

Bulk load out of processed waste materials will regularly during the week as bays / bins fill up and required off-site recovery or disposal. Bulk loadout of processed waste will be scheduled around collection runs to avoid congestion on site.

3.4. Traffic

The development will result in an average of 222 truck movements (111 inbound and 111 outbound) per day from Monday to Friday (6 am - 11 pm) and 142 truck movements (71 inbound and 71 outbound) per day on Saturdays.

Incoming waste, delivered in skip bins on 12.5m heavy rigid vehicles, will account for an average of 196 truck movements (98 inbound and 98 outbound) per day on weekdays and 126 truck movements (63 inbound and 63 outbound) on Saturdays.

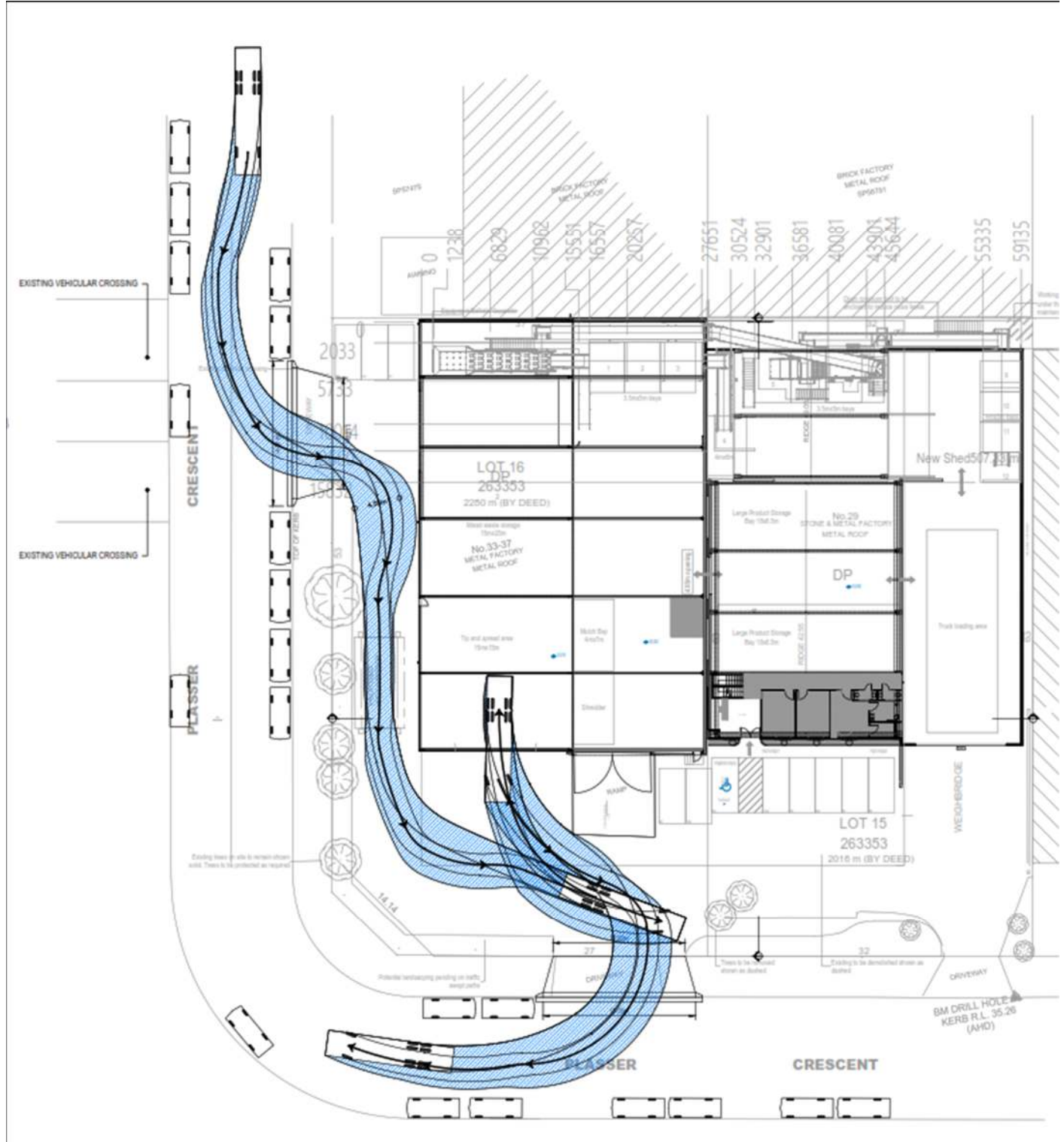
Waste sorted for off-site processing will be collected daily in 19m semi-trailers, accounting for an average of 26 truck movements (13 inbound and 13 outbound) per day on weekdays and 20 truck movements (10 inbound and 10 outbound) on Saturdays.

Up to 24 employee vehicles may access the site daily across two shifts, with 4 additional staff during the day and 2 during the evening shifts. Staff movements will occur primarily in the morning, with operational staff arriving before the first truck and departing after the last truck.

Figure 3.2. provides truck turning paths for incoming waste and Figure 3.3 and Figure 3.4 provides truck turning paths for outgoing products and residual waste (19m semi-trailer and truck and dog respectively).

² The Site will remain open until 11pm however truck movements will cease after 10pm

Figure 3.2. Truck turning paths for incoming waste.



Date	Revision	Drawn By	Site description	Client	Nassif Civil Pty Ltd
15/07/2024	Revision A	R. Loemker	29-37 Plasser Crescent, North St Marys (Lots 15 & 16 DP 263353)	Project	C&D Resource Recovery Facility
				Title	Truck turning paths for incoming waste
				Source	SECA

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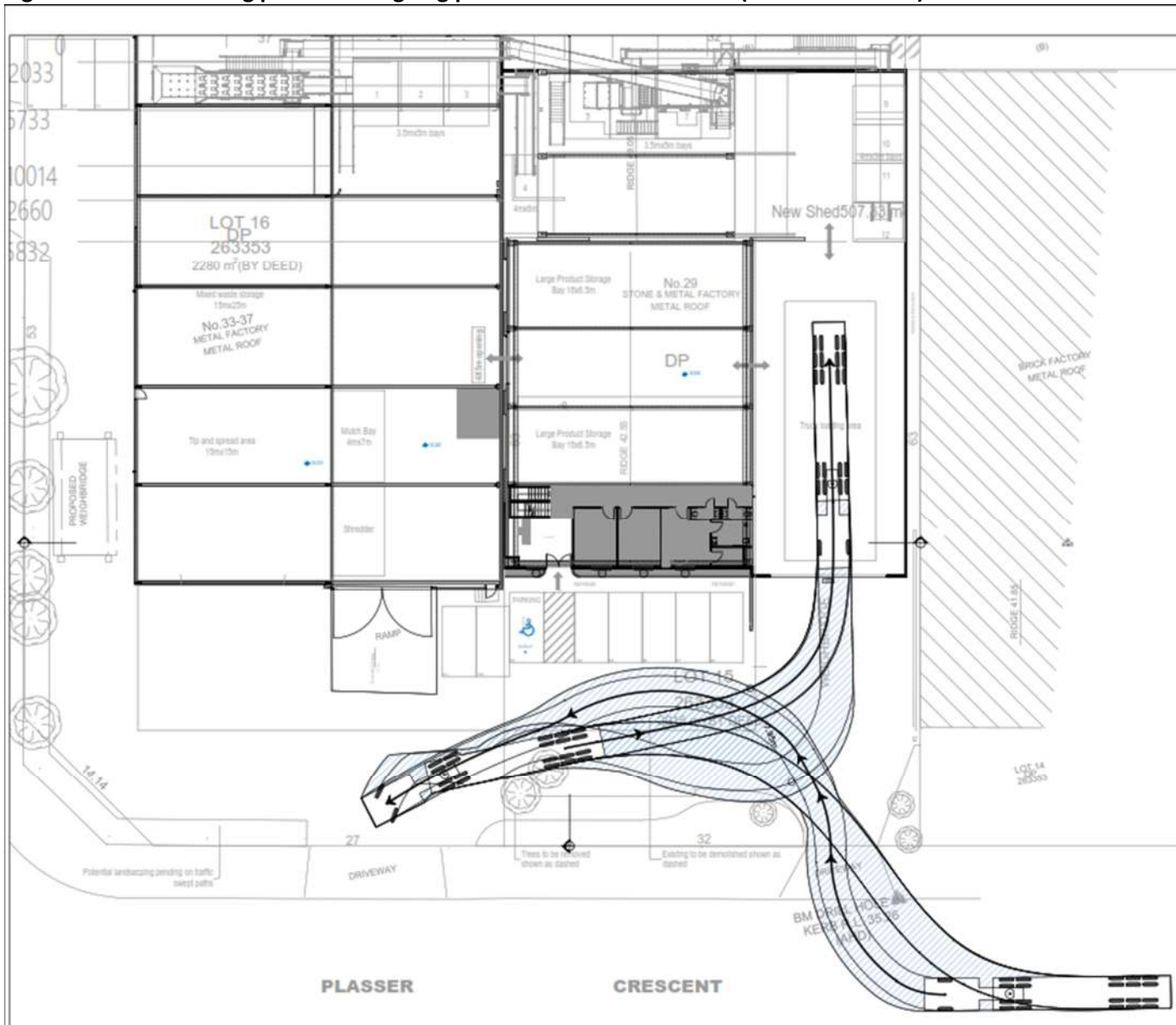
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E: admin@jacksonenvironment.com.au

T: 02 8056 1849

W: <http://www.jacksonenvironment.com.au>

Figure 3.3. Truck turning paths for outgoing product and residual waste (19m semi-trailer).



Date	Revision	Drawn By	Site description	Client	Nassif Civil Pty Ltd
15/07/2024	Revision A	R. Loemker	29-37 Plasser Crescent, North St Marys (Lots 15 & 16 DP 263353)	Project	C&D Resource Recovery Facility
				Title	Truck turning paths for outgoing product and residual waste (19m semi-trailer)
				Source	SECA

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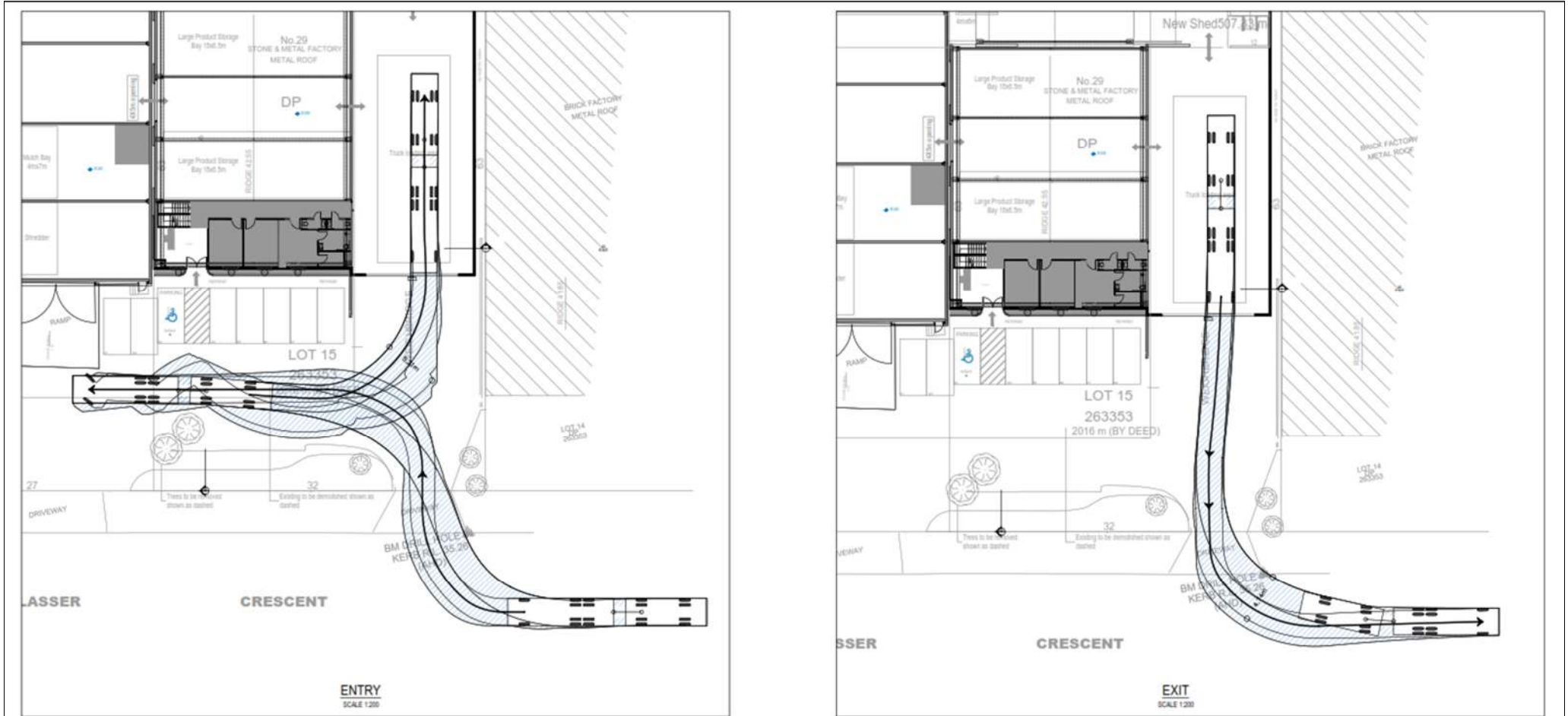
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W: <http://www.jacksonenvironment.com.au>

Figure 3.4. Truck turning paths for outgoing product and residual waste (truck and dog).



Date	Revision	Drawn By	Site description	Jackson Environment and Planning Pty Ltd	Client	Nassif Civil Pty Ltd
27/05/2024	Revision A	R. Loemker	29-37 Plasser Crescent, North St Marys (Lots 15 & 16 DP 263353)	Strategy Infrastructure Compliance Procurement A: Suite 102, Level 1, 25-29 Berry St, North Sydney NSW 2060 E: admin@jacksonenvironment.com.au T: 02 8056 1849 W: http://www.jacksonenvironment.com.au	Project	C&D Resource Recovery Facility
					Title	Truck turning paths for outgoing product and residual waste (truck and dog)
					Scale	Not to Scale
					Source	SECA

4. Waste management

This WMMP has been prepared in accordance with the NSW EPA's *Construction and Demolition Waste - A management toolkit* (NSW EPA 2020). This toolkit provides guidance to support lawful waste practices for waste generated from construction and demolition projects, including soil, contaminated soil and demolition waste. Figure 4.1 shows the flow of waste commonly generated at construction and demolition projects.

4.1. Demolition and site preparation

The demolition and site preparation phase will include the following works (as shown in Figure 4.2):

- Partial demolition of the existing structure on Lot 15, DP263353; and
- Removal of a 6m x 20m section of concrete hardstand in the south-east corner of the Site (for installation of the 20m pit style weighbridge).
- Removal of soil beneath the concrete hardstand in the south-east corner of the Site (for installation of the 20m pit style weighbridge).

Waste generated will be placed in skip bins to be temporarily stored on the concrete hardstand at the front of the Site and taken to an appropriately licensed facility for recycling.

Minor excavation is proposed for the installation of the 20 m pit style weighbridge. Any soil excavated from the pit will be classified in accordance with *Waste Classification Guidelines* (NSW EPA, 2014).

The waste streams and estimated volumes likely to be produced during the demolition and site preparation phase, as well as the reuse or disposal options for each stream, are summarised in Table 4.1.

4.2. Construction phase

The construction phases will include the following works:

- Phase 1 - Lot 15, DP263353:
 - Construction of a new shed;
 - Installation of an additional 20m pit style weighbridge inside the site entrance;
 - Upgrades to site office, lunchroom, and amenities for staff, truck drivers and visitors;
 - Installation of processing equipment, conveyor belts and dividing walls blocks for waste storage bays; and
 - Improvements to landscaping, fencing, and installation of a gate in driveway.
- Phase 2 - Lot 16, DP263353:
 - Removal of existing site office, lunchroom, and amenities;
 - Installation of processing equipment, conveyor belts and dividing walls blocks for waste storage bays; and
 - Improvements to landscaping and fencing.

The proposed construction works are shown in the architectural plans (Attachment 3).

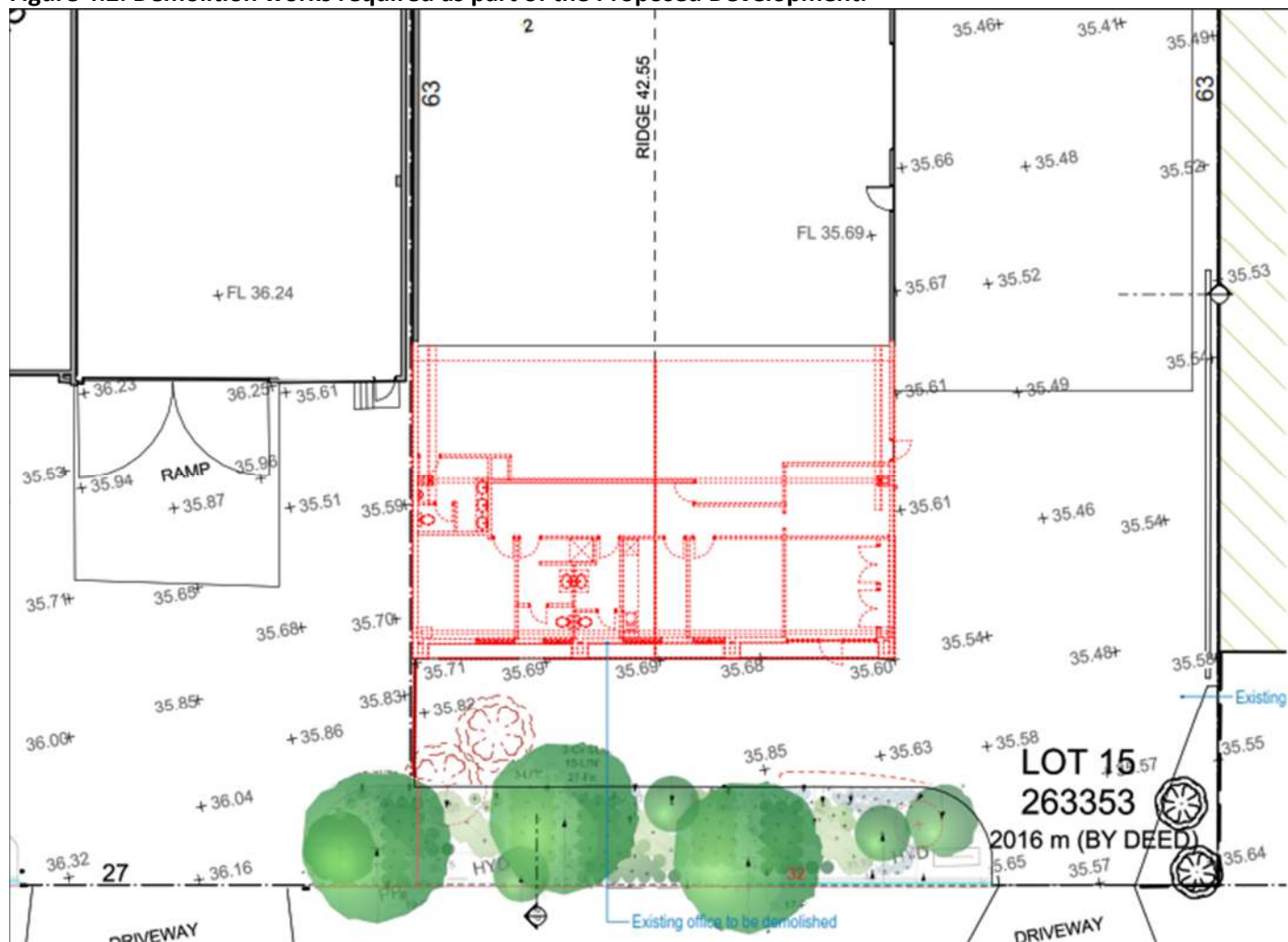
Minor amounts of concrete, timber, metal and plastics will be generated during the installation of the weighbridge, and while connecting various components of the development. These wastes will be segregated to maximise recycling, stored separately in hook lift bins, and will be transported off-site for recycling at a lawful facility.

The waste streams generated on site during the construction phase are summarised in Table 4.2 below.

Figure 4.1. Process flowchart for waste disposal identification and management standards.



Figure 4.2. Demolition works required as part of the Proposed Development.



Date	Revision	Drawn By	Site description	Client	Nassif Civil Pty Ltd
15/07/2024	Revision A	R. Loemker	29-37 Plasser Crescent, North St	Project	C&D Resource Recovery Facility
			Marys (Lots 15 & 16 DP 263353)	Title	Proposed demolition works
				Source	SECA

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Table 4.1. Estimated waste generation during the demolition phase.

Waste Stream	Waste Description	Segregation Areas / Containers	Waste Type (NSW EPA Pre-classified Waste)	Suggested Receiving Facility	Approximate amount (tonnes)
Concrete and brick (building demolition)	Concrete structures and external brickwork from building demolition	30m ³ skip bin in designated construction area or loaded directly onto truck	General waste (non-putrescible)	Brandown Lot 90 Elizabeth Drive , Kemps Creek, NSW, 2178 (EPL 5186)	200
Metals (building demolition)	Metal cladding, metal trusses and internal metal structures from building demolition	30m ³ skip bin in designated construction area or loaded directly onto truck	General waste (non-putrescible)	Sims Metal – St Mary 76 Christie Street, St Marys, NSW 2760 (EPL 6934)	100
Demolition waste (building demolition)	General building waste that cannot be segregated during demolition works	30m ³ skip bin in designated construction area or loaded directly onto truck	General waste (non-putrescible)	Greenlife Resource Recovery Facility 761 The Northern Road Bringelly NSW 2556 (EPL 11233)	100
Concrete (weighbridge)	Concrete structures and external brickwork from building demolition	30m ³ skip bin in designated construction area or loaded directly onto truck	General waste (non-putrescible)	Brandown Lot 90 Elizabeth Drive , Kemps Creek, NSW, 2178 (EPL 5186)	200
Soils (weighbridge)	Soils excavated from weighbridge pit	30m ³ skip bin in designated construction area or loaded directly onto truck	TBA – depending on waste classification	TBA – depending on waste classification	200
Non-recyclable residual waste	Plastics packaging and other non-recoverable waste materials	1m ³ skip bin designated demolition area or loaded directly onto truck	General waste (non-putrescible)	Blacktown Waste Services 25 Harris Avenue, Marsden Park NSW 2765 (EPL 11497)	1
Total					801

Table 4.2. Estimated waste generation during the construction phase.

Waste Stream	Waste Description	Segregation Areas / Containers	Waste Type (NSW EPA Pre-classified Waste)	Suggested Receiving Facility	Approximate amount (tonnes)
Metals	Metal from packaging materials and off-cuts	30m ³ skip bin in designated construction area or loaded directly onto truck	General waste (non-putrescible)	Sims Metal – St Mary 76 Christie Street, St Marys, NSW 2760 (EPL 6934)	15
Concrete	Concrete waste from spillage	30m ³ skip bin in designated construction area or loaded directly onto truck	General waste (non-putrescible)	Brandown Lot 90 Elizabeth Drive , Kemps Creek, NSW, 2178 (EPL 5186)	1
Timber	Timber from pallets, packaging materials and off-cuts	30m ³ skip bin in designated construction area or loaded directly onto truck	TBA – depending on waste classification	Greenlife Resource Recovery Facility 761 The Northern Road Bringelly NSW 2556 (EPL 11233)	2
Non-recyclable residual waste	Plastics packaging and other non-recoverable waste materials	1m ³ skip bin designated demolition area or loaded directly onto truck	General waste (non-putrescible)	Blacktown Waste Services 25 Harris Avenue, Marsden Park NSW 2765 (EPL 114971)	2
Total					20

4.3. Operational phase

The Penrith RRF will have an annual waste throughput of up to 99,000 tonnes per annum. Waste received at the RRF will consist of construction and demolition (C&D) waste in skip bins collected from the Greater Metropolitan region.

The waste will include the following:

- Concrete, brick and tile;
- Clean timber;
- Engineered/treated timber;
- Ferrous metals;
- Stainless steel;
- Aluminium;
- Copper;
- Plasterboard;
- Recovered fines (as GSW CT1); and
- Residual waste.

Residual waste consists primarily of plastic (4%), plasterboard/Hebel (40%); engineered/non-recyclable timber (30%) cement/grout (10%) and small portions of other various non-recoverable materials such as steel/greens/cardboard/carpets.

The following wastes will not be accepted at the Penrith RRF:

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

4.1. Products recovered

The facility will recover an estimated 90% of all incoming waste (or 89,100 tonnes per annum). The remainder of the waste received (9,900 tonnes per annum) will be disposed at a lawful landfill. The products recovered will be sorted and aggregated to be sent to the appropriate recycling facilities.

Table 4.3 provides a summary of the products / waste recycling forecasts during operations of the facility. Where recovered materials such as shredded (mulched) timber comply with a resource recovery order they may be sold and delivered directly to a retailer or customer for immediate reuse. Suggested receiving facilities demonstrate that suitable licensed facilities and available to receive these materials in the area. Actual receiving facilities are dependent on commercial arrangements and may change over time.

Table 4.3. Summary of the products / waste recycling forecasts during operations of the facility.

Bay	Materials	Waste Composition (% by weight)	Annual Incoming Weight (tonnes)	Waste Storage Bin / Bay Size (m ³)	Reuse / Recycling / Disposal Method	Suggested Receiving Facility	Recycling rate (%)
1	Cardboard	4%	3,960	49	Off-site recovery	Greenlife Resource Recovery Facility 761 The Northern Road Bringelly NSW 2556 (EPL 11233)	100
2	Gyproc, metal and/or other 2D	5%	4,950	49		Greenlife Resource Recovery Facility 761 The Northern Road Bringelly NSW 2556 (EPL 11233) Sims Metal – St Mary 76 Christie Street, St Marys, NSW 2760 (EPL 6934)	100
3	Timber (2D)	5%	4,950	49		Australian Native Landscapes 210 Martin Rd, Badgerys Creek NSW 2555 (EPL 4625) Greenlife Resource Recovery Facility 761 The Northern Road Bringelly NSW 2556 (EPL 11233)	100
4	Residual Waste (2D)	5%	4,950	80	Off-site disposal	Grasshopper Environmental 200 Walters Road Arndell Park NSW 2148 (EPL 21442) Blacktown Waste Services 25 Harris Avenue, Marsden Park NSW 2765 (EPL 11497)	0
5	0-10mm fines	20%	19,800	49	Off-site recovery	Greenlife Resource Recovery Facility 761 The Northern Road Bringelly NSW 2556 (EPL 11233)	100
6	10-50mm lights	10%	9,900	49		Brandown Lot 90 Elizabeth Drive , Kemps Creek, NSW, 2178 (EPL 5186)	100
7	10-50mm heavies	15%	14,850	49			100

Bay	Materials	Waste Composition (% by weight)	Annual Incoming Weight (tonnes)	Waste Storage Bin / Bay Size (m ³)	Reuse / Recycling / Disposal Method	Suggested Receiving Facility	Recycling rate (%)
8	Ferrous metals	5%	4,950	25		Sims Metal – St Mary 76 Christie Street, St Marys, NSW 2760 (EPL 6934)	100
9	Timber (3D) >50mm	5%	4,950	24		Australian Native Landscapes 210 Martin Rd, Badgerys Creek NSW 2555 (EPL 4625)	100
						Greenlife Resource Recovery Facility 761 The Northern Road Bringelly NSW 2556 (EPL 11233)	
10	CBT >50mm'	20%	19,800	24		Brandown Elizabeth Drive , Kemps Creek, NSW, 2178 (EPL 5186)	100
12	Non-ferrous metal or rigid plastic	1%	990	24		Sims Metal – St Mary 76 Christie Street, St Marys, NSW 2760 (EPL 6934)	100
11	Residual Waste (3D)	5%	4,950	24	Off-site disposal	Grasshopper Environmental 200 Walters Road Arndell Park NSW 2148 (EPL 21442)	0
						Blacktown Waste Services 25 Harris Avenue, Marsden Park NSW 2765 (EPL 11497)	
Totals		100%	99,000	495			-
Recovery Rate							90%

4.1. Waste storage, identification, and stockpile heights

Sorted waste / products will be stored in bays throughout the RRF. Two “large product storage bays” (each approximately 400m³) will be utilised for storing waste / product as required so that designated bays retain sufficient capacity. The large product storage bays may also be used for temporarily storing product prior to loading out. Table 4.4 summarises the individually sorted waste types and approximate quantities. Sorted and recoverable wastes will be collected daily to manage the quantity of waste stored on the Site.

4.1.1. Maximum amount of waste and product stored on site (authorised amount)

Under Clause 10B of the *Protection of the Environment Operations (Waste) Regulation 2014*, operators of licensed resource recovery facilities are required to not exceed the storage of a certain amount of waste and processed products (from waste) on site at any one point in time. This is referred to the ‘Authorised Amount’.

Exceedance of the Authorised Amount triggers the requirement for payment of the Waste and Environment Levy for tonnages of waste and product held on site (above the Authorised Amount). This regulatory measure encourages operators of resource recovery facilities to manage the inventory of waste and products held on site to avoid potential risks and hazards to the environment, public safety and human health.

An assessment of the storage capacity of the site based on designated areas for waste receipt, sorting, storage and manufactured products is given in the last column of Table 4.4.

The analysis found that the facility can safely store, in separate designated areas, up to a total of 935 tonnes of waste and processed products at any one point in time.

Table 4.4. Waste storage bay capacity and maximum amount of waste and product stored on site.

Bay	Materials	Storage Capacity (tonnes)
1	Cardboard	26.9
2	Gypoc, metal and/or other 2D	33.6
3	Timber (2D)	37.0
4	Residual Waste (2D)	26.9
5	0-10mm fines	63.0
6	10-50mm lights	50.5
7	10-50mm heavies	50.4
8	Ferrous metals	27.5
9	Timber (3D) >50mm	23.2
10	CBT >50mm'	28.8
11	Residual Waste (3D)	14.7
12	Non-ferrous metal or rigid plastic	26.4
13	Large product storage bay (fines)	351
14	Large product storage bay (3D)	163.8
Mulch Bay	Clean Timber - Shredded	11.5
Total		935

4.2. Office waste

The office operations associated with the Facility will generate waste from office administration and staff lunch activities. Whilst waste generation from these activities are considered minor, they need to be appropriately managed to ensure that waste is minimum and recycled in accordance with the waste hierarchy in the NSW Government's *NSW Waste and Sustainable Materials Strategy 2041: Stage 1 – 2021-2027* and the *Waste Avoidance and Resource Recovery Act 2011*.

The operation will generate minimal waste as part of the site office operations. However, a full co-mingled recycling system will be introduced into the office. Co-mingled recycling and general waste will be stored in separate bins in the waste storage area. An overview of waste generation and recycling estimates as part of the office operations is provided in Table 4.5. Waste generation and recycling estimates are from *Guidelines for Waste Management Plans* (City of Melbourne, 2021), *Better Practice Guidelines for Waste Management and Recycling in Commercial and Industrial Facilities* (NSW EPA, 2012) and *Data and Measurement Standard for Commercial Waste* (NABERS, 2020).

Table 4.5. Waste and recycling measures for waste generated by office operations.

Key Waste Stream	Waste Generation per day per 100m ² floor area (for offices) (L)	Weekly waste generation (based on a 6-day working week and office floor area of 220m ²) (L)	Bulk density (t/m ³)*	Estimated tonnages per year (tonnes)	Segregation Areas / Containers	Reuse / Recycling / Disposal Method	Waste Type (NSW EPA Pre-classified Waste)	Suggest Receiving Facility	Recycling rate (%)
Co-mingled recycling: plastic / glass containers / metal cans / paper and cardboard	10	132	0.06	0.41	360L recycling bin (emptied fortnightly)	Off-site recycling	General waste (non-putrescible)	Penrith City Council’s Commercial Waste Service	100%
General waste (residual waste)	10	132	0.105	0.72	240 L general waste bin (emptied weekly)	Off-site disposal	General waste (non-putrescible)		80%
Food waste	5	66	0.28	0.96	240 L organics waste bin (emptied weekly)	Off-site recycling	General waste (putrescible)		98%
TOTAL Amount of waste generated (tonnes)				2.09					
TOTAL Amount of waste recycled (tonnes)				1.93					
Overall recycling rate				86.65%					

5. Environmental Risk Assessment

A risk assessment has been undertaken to identify the level of risk that construction and operations activities may present to waste management.

The following points summarise the key activities identified in the risk assessment relevant to waste management for construction works and operation of the Facility:

- Litter (e.g. food waste, packaging) from the site reaching local waterways;
- Leakage of vehicles during establishment and operational works;
- Excess packaging material deliveries increasing waste generated;
- Inappropriate reuse or disposal of waste items which may be hazardous;
- Fuel and oil spills during plant and equipment use and storage; and
- The location and storage of waste on site prior to reuse or disposal.

5.1. Environmental control measures

Table 5.1 provides the environmental control measures and safeguards that will be implemented to minimise waste generated during the demolition, construction and operation phases of the facility.

Figure 5.1. Environmental control measures.

Mitigation Measures	Responsibility	Timing / Frequency
No materials or waste (as defined by the POEO Act) generated outside the Site will be received at the Site for storage, treatment, processing or reprocessing except as expressly permitted by the EPL.	Operations Management	On-going
The site will not receive or process more than 99,000 tonnes of waste per calendar year.	Operations Management	On-going
The site will record the amount of waste (in tonnes) received at the Site on a daily basis via weighbridge in place.	Operations Management	Daily
Subcontractors will be informed of site waste management procedures.	Operations Management	On-going
Waste received at the Facility is assessed and classified in accordance with the EPA's <i>Waste Classification Guidelines</i> as in force, from time to time	Operations Management	On-going
Waste management and minimisation will form part of the induction program (which includes environmental due diligence training). All Project and site personnel will be trained in the requirements of this document including minimising wastes, recognising which types of materials are recyclable and their obligations to use recycling facilities provided on site.	Prior to starting on site / Ongoing	Operations Manager
Clearly assign and communicate responsibilities to ensure that those involved in the construction are aware of their responsibilities in relation to the waste management plan	Prior to starting on site / Ongoing	Operations Manager
Engage and educate personnel on how the various elements of the waste management plan will be implemented	Prior to starting on site / Ongoing	Operations Manager
Specific locations for waste management (e.g. recycling bin locations, material stockpile locations) will be established on site and signposted appropriately.	Weekly checks	Operations Manager
Waste management areas will be adequately managed to prevent sediment runoff and dust generation.	Daily	Operations Manager
Packaging minimisation and reuse initiatives will be implemented as part of the procurement.	Ongoing	Operations Manager

Mitigation Measures	Responsibility	Timing / Frequency
Spill kit to be present on site in the case of any fuel leaks of plant and equipment during the construction phase of the development	Prior to start of construction	Operations Manager
Segregated waste disposal containers for the collection and recycling/disposal of all waste streams generated during the construction and operation phases will be provided onsite. Waste disposal containers will have clear signage and instructions for use to avoid cross-contamination. No rubbish shall be disposed of on site.	Daily	Operations Manager
Waste will be disposed to an appropriate licensed facility.	Daily	Operations Manager
All waste being transported off site must be covered. The transportation must be appropriately licensed to carry that material.	Daily	Operations Manager
Incompatible wastes will not be mixed.	Daily	Operations Manager
Storage areas would be located away from waterways and the stormwater system.	Daily	Operations Manager
Biodegradable products will be used wherever practicable.	Daily	Operations Manager
Regular collection of wastes will ensure air emissions are at a satisfactory level. Inappropriate waste and wastewater management systems will be regularly inspected and audited.	Daily	Operations Manager
Conduct regular litter patrols to ensure litter is effectively controlled on site.	Daily	Operations Manager

6. Training

All employees, contractors and utility staff working on site will undergo site induction training (which includes environmental due diligence training) and environmental training in relation to waste management issues. The induction will address:

- This management plan;
- Relevant legislation;
- Waste minimisation strategies;
- Waste recognition and recycling;
- Available recycling facilities; and
- Energy and water minimisation measures.

Records would be kept of all personnel undertaking the site induction and training, including the contents of the training, date and name of trainer/s.

Key staff will undertake more comprehensive training relevant to their position and/or responsibility. This training may be provided as “toolbox” training or specific training tailored by the Operation Manager.

7. Monitoring and review

7.1. Inspections and monitoring

Regular monitoring will be undertaken to track waste management on site. This will be through a series of formal and informal inspections at regular intervals (refer to Table 7.1).

Table 7.1. Waste monitoring and review schedule.

Activity	Resources	Responsibility	Frequency
Daily Site inspections (work area)	Site Diary	Site Manager	Daily Issues recorded in Site Diary (by exception) when onsite
Weekly Environmental Inspection	Environmental Site Inspection Checklist	Site Manager	Weekly
Waste removal activities off site	Monthly Register for Waste Materials	Site Manager	Monthly

7.2. Auditing

Audits will be undertaken to assess the effectiveness of environmental controls and compliance with this plan and other relevant guidelines.

A schedule for internal audits providing frequencies and responsibilities is to be determine by the Operations Manager as appropriate.

7.3. Environmental management review

The effectiveness and proper implementation of the WMMP will be reviewed every twelve months or sooner, as necessary. A review will be undertaken by the management team. The review will comprise:

- Reviewing the results of audits;
- Evaluation of the system, which improvements and corrective actions will be sought; and
- Evaluation of the operation of the WMMP.

7.4. Continual improvement

Continual improvement of this WMMP will be achieved by the continual evaluation of environmental management performance against environmental policies, objectives and targets for the purpose of identifying opportunities for improvement. The continual improvement process will:

- At least monthly (or as incidents occur):
 - Determine the root cause or causes of deficiencies;
 - Develop and implement a plan of corrective and preventative action to address deficiencies; and
 - Verify the effectiveness of the corrective and preventative actions.

Outcomes of these reviews shall be documented and retained for the duration of the project.

Attachment 1 – Procedure for managing incoming construction waste

Scope

The procedure only applies to loads of incoming construction waste.

Purpose of This Procedure

The purpose of this procedure is to:

- Comply with the *Standards for Managing Construction Waste in NSW* and to:
- minimise the risk of harm to human health and the environment from asbestos and other contaminants found in construction waste
- ensure operators of construction waste facilities implement appropriate processes and procedures to manage these risks
- improve industry and community confidence in the quality of resources recovered from construction and demolition waste.

Responsible Person

Operations Manager

Associated Internal Documents

Rejected Load Register and Rejected Load Certificate

External Reference Documents

Standards for Managing Construction Waste in NSW



NSW EPA *Waste Classification Guidelines 2014*



NSW Protection of the Environment Operations Act 1997

Training Requirements

The following training requirements must be completed by all personnel before undertaking any task required by this procedure, including the management or supervision of any such task:

- training on the requirements of the POEO Act and its regulations (including the Waste Regulation) applicable to the operations at the C&D waste facility;
- the requirements of the environment protection licence, with reference to the waste conditions and the wastes permitted to be received; and
- the requirements of these Procedure.

All records of the training undertaken for the purpose of this Standard must be kept at the C&D waste facility and made available to an authorised officer of the EPA if requested.

Step 1 – Visual inspection of incoming load

A visual inspection of the incoming load will be carried out before tipping the waste in the shed

When a load arrives, inspect the entire top of the load from an elevated position or by conducting a visual assessmt of the load or using a weighbridge camera to determine whether or not the contains asbestos and any other unpermitted waste (i.e. putrescible waste)



Where the load is identified as containing, or is reasonably suspected to contain, any asbestos waste, reject the entire load of waste by directing the driver to immediately leave the facility and record the information required in the **rejected loads register**



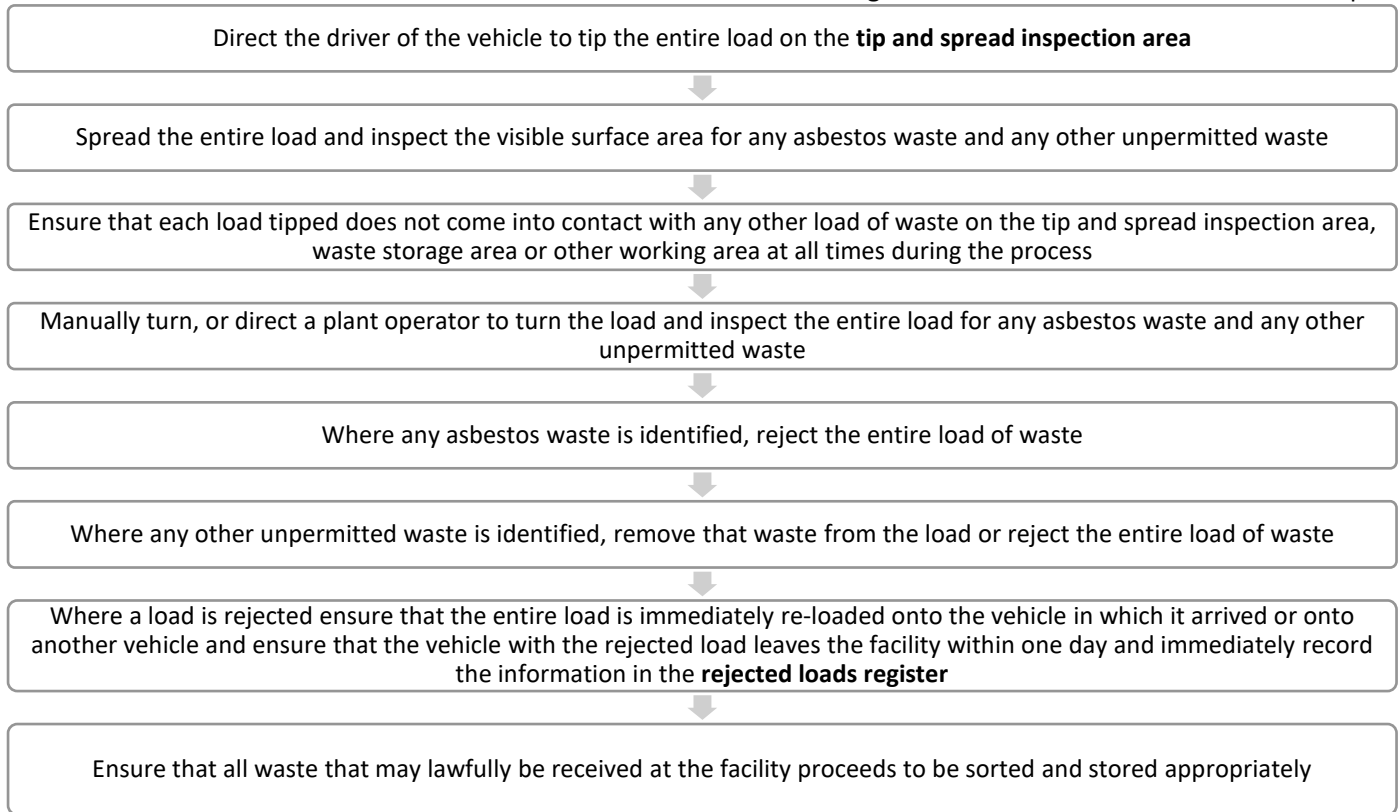
Where the load is not rejected, record the details as required and direct the driver to proceed directly to the sorting area for tipping the waste

Step 2 – Detailed inspection of the incoming wastes

The vehicle carrying the waste is then directed to the dedicated “tip and spread inspection area” located within the warehouse. This area is used solely for tipping, spreading, turning and inspecting each load of construction waste as required.

This tip and spread area must:

1. be large enough so that each load of construction waste can be tipped, spread, turned and inspected;
2. be clearly delineated from waste storage areas and other working areas; and
3. be a hardstand constructed from material that is:
 - a. clearly distinguishable from any waste being tipped onto the hardstand; and
 - b. capable of withstanding the tipping, spreading and scraping of waste, the load and frequency of incoming vehicles and machinery used.



Note:

A load of construction waste received at the facility can bypass Inspection Point 2 if, upon receipt, the load only contains waste that meets the requirements of a resource recovery order, as evidenced by a statement of compliance for that waste which has been provided and kept in accordance with the applicable resource recovery order and is current at the time of receipt. This load of waste must be immediately transferred to the appropriate waste storage area referred to in Step 4.

Step 3 – Sorting

Following completion of the visual inspection and the detailed inspection of each load of construction waste received, which has not been rejected, must be sorted and classified into individual listed waste types before being transferred to the **waste storage area** as referred to Step 4.

Note:

A load of construction waste that, upon receipt at the C&D waste facility, constitutes an individual listed waste type other than 'mixed waste' does not need to be sorted. This load of waste may be immediately transferred to the appropriate waste storage area referred to in Step 4 after being inspected in accordance with Step 1.

A load of construction waste that, upon receipt at the C&D waste facility, meets the requirements of a resource recovery order as evidenced by a statement of compliance does not need to be sorted.

This load of waste must be immediately transferred to the appropriate waste storage area referred to in Step 4.

Step 4 – Waste Storage Area

The “Waste Storage Area” is the dedicated area with clearly labelled or signposted stockpile areas (materials bays). All construction waste received that has been inspected and sorted in accordance with Step 1 and Step 2 must be stored in accordance with the following requirements:

Waste which has been classified into an individual listed waste type, waste which meets the requirements of a resource recovery order or waste which meets the recovered fines specifications must be stored in a separate storage area for that type of waste that is clearly labelled or signposted to indicate the individual type of waste being stored in that area



Each label or signpost must be legible and clearly visible



The labels or signposts at all waste storage areas containing waste intended to meet the requirements of a resource recovery order that is awaiting compliance test results, must also contain the words ‘awaiting validation’



Separate stockpiles containing the same listed waste type may touch at the base and are exempt from the three-metre separation requirement

Note:

Construction waste that has been inspected and sorted in accordance with Steps 1 and 2 are not to be mixed with any other construction waste unless the other waste has been inspected and sorted in accordance with Steps 1 and 2.

Step 5 – Inspection point 3

At the waste storage area, trained personnel must do the following on each business day:

Inspect each labelled or signposted storage area to determine whether waste is being stored in accordance with above requirements



If any waste, waste which meets the requirements of a resource recovery order or waste that meets the recovered fines specifications is found in a storage area labelled or signposted with another listed waste type, immediately cause the waste to be moved to the correctly labelled or signposted storage area



Record observations, including each incidence of waste being identified in the wrong storage area, along with the date, time, the role and name of trained personnel carrying out the inspection.

Records of each inspection carried out by trained personnel in accordance with Step 5 must be kept at the facility for a period of three years from the date of the inspection.

Step 6 – Transportation

Waste must not be transported from the facility unless it has been inspected, sorted and stored in accordance with these procedures and the load of waste transported from the facility consists solely of an individual listed waste type or waste that meets the requirements of a resource recovery order or the recovered fines specifications.

Note:

The step does not apply to waste that has been rejected from the facility at Steps 1 and Steps 2 and is being transported from the facility.

Attachment 2 – Procedure for non-conforming waste

1. Scope

The procedure only applies to loads of incoming construction waste.

2. Purpose of This Procedure

The purpose of this procedure is to:

To ensure that non-conforming waste (waste that does not meet the NSW EPA classification of general waste - non putrescible) is not received at the site

3. Responsible Person

Operations Manager

4. Associated Internal Documents

Rejected Load Register and Rejected Load Certificate



Asbestos Inspection Register



Pollution Incident Response Management Plan

5. External Reference Documents

Standards for Managing Construction Waste in NSW



NSW EPA Waste Classification Guidelines 2014

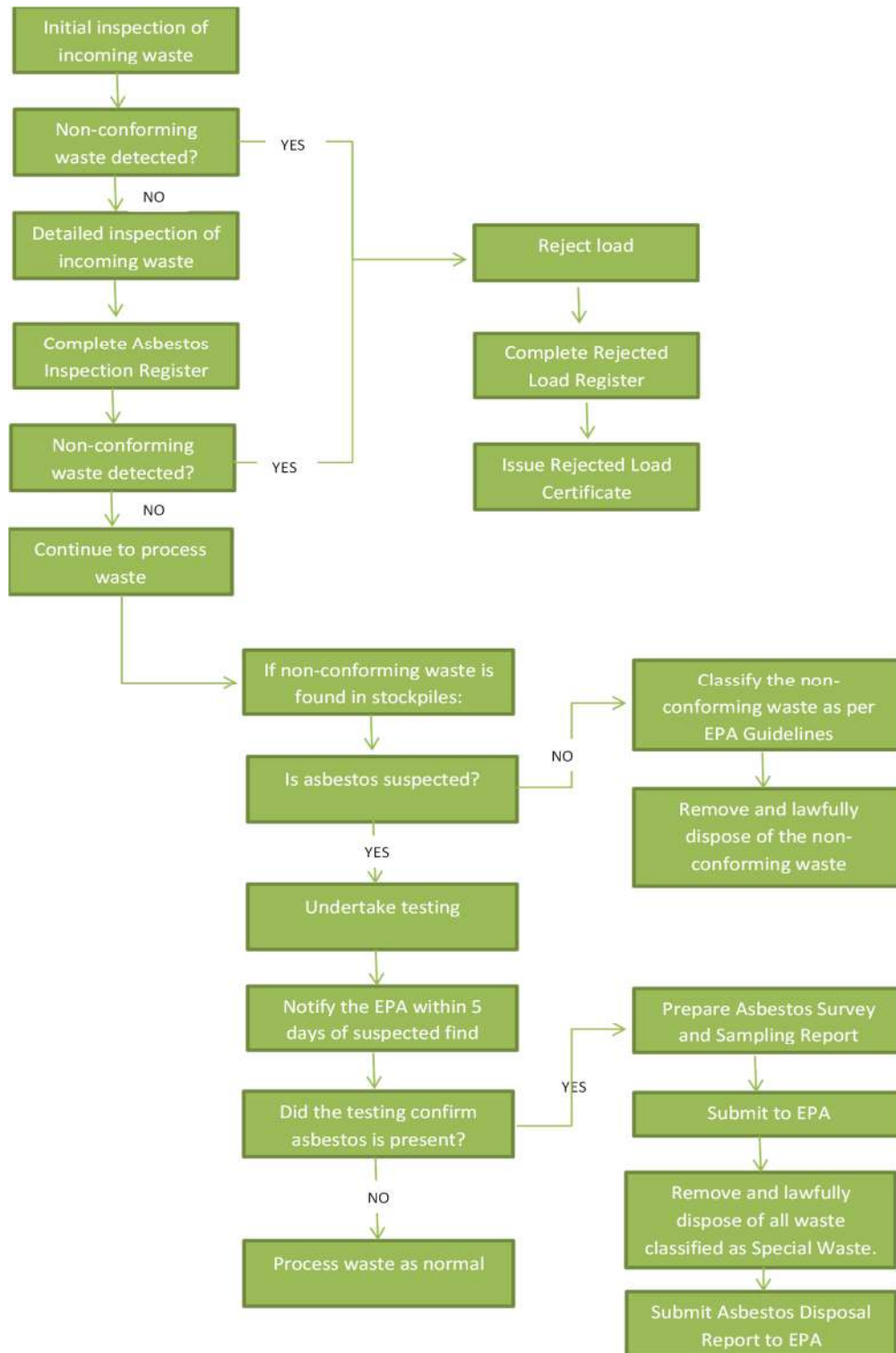


NSW Protection of the Environment Operations Act 1997

6. Steps to be undertaken for all incoming waste loads

Asbestos check is a mandatory requirement for all C&D wastes, to avoid any accidental risk of exposure and harm to human health. The figure below outlines this process to ensure human health safety.

Process to carry out asbestos contamination check in the C&D waste



7. Detail of each step in the procedure

7.1. Initial inspection of incoming waste

When a load arrives at the gate, check the top of the load to see if non-conforming waste is visible. Also check for smell of putrescible waste.



If non-conforming waste is visible or you can smell putrescible waste, reject the load (see *Rejection of non-conforming loads*)



If non-conforming waste is not suspected, allow provisional acceptance of the waste

7.2. Detailed inspection of incoming waste and Asbestos Inspection Register

Once the waste is tipped, spread and visually inspect the waste again for non-conforming materials.



If non-conforming waste is visible, reject the load (see *Rejection of non-conforming loads* below)



If asbestos is suspected, wet down the load immediately.



For each load that underwent a detailed inspection, fill out the Asbestos Inspection Register.



If non-conforming waste is not suspected, process the waste as normal.

7.3. Rejection of non-conforming loads

Inform driver that load is being rejected due to presence of non-conforming waste.



Record details of the rejected load in the Rejected Load Register.



Issue the driver with a Rejected Load Certificate and keep a copy on file.

7.4. Non-conforming waste suspected in stockpiles

If non-conforming material other than asbestos is found, don appropriate PPE and remove it from the stockpile, to a bunded area if necessary. Arrange lawful disposal based on classification in accordance with EPA Guidelines.



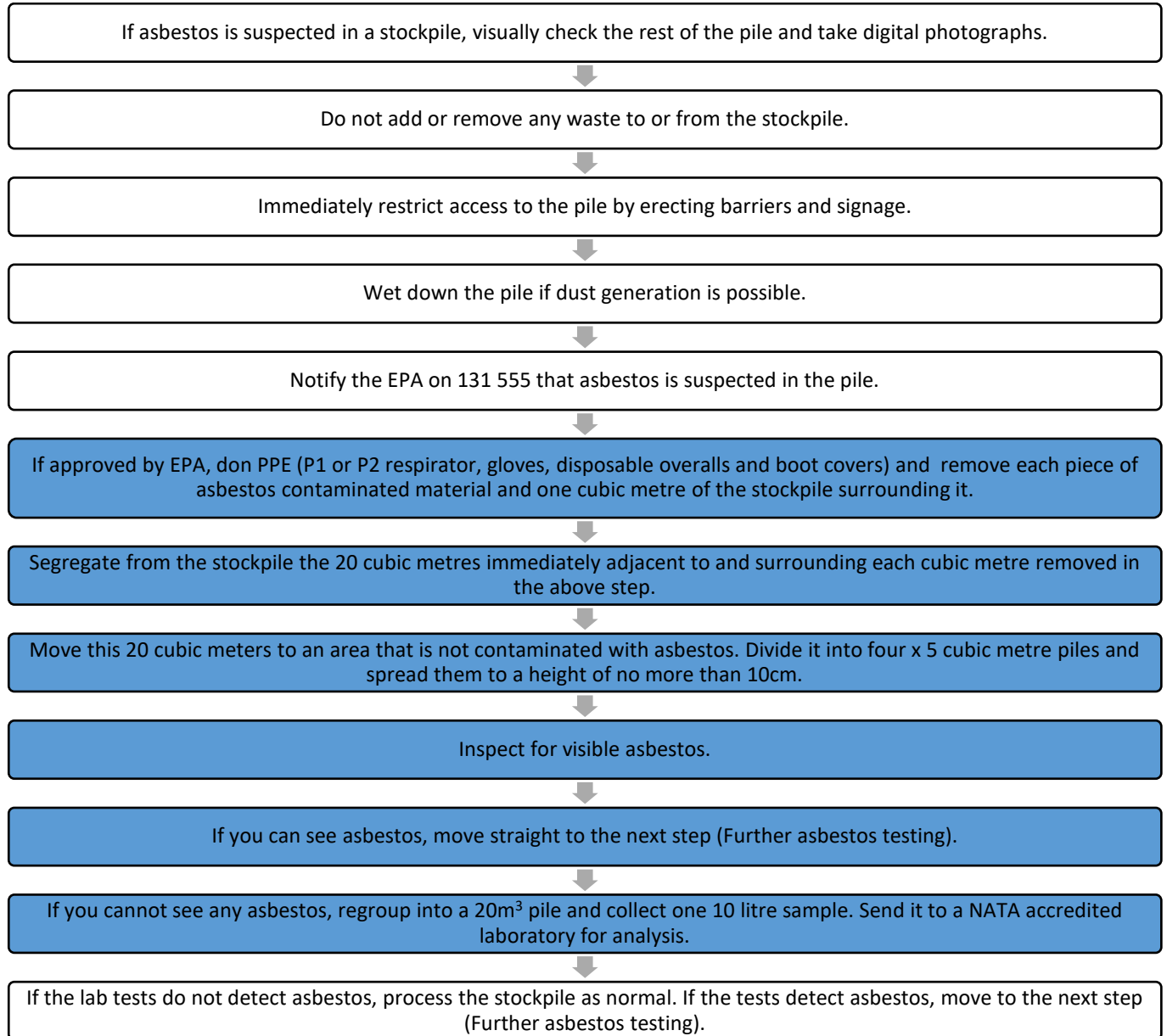
If asbestos is suspected in a stockpile, DO NOT attempt to pick it out either manually or with equipment.



If asbestos is suspected, implement the next steps below.

7.5. Asbestos testing and notification

NOTE: all blue steps must be undertaken by a suitably qualified expert who has previous experience in classifying waste in accordance with the NSW Guidelines. .



7.6. Further asbestos testing

NOTE: all blue steps must be undertaken by a suitably qualified expert who has previous experience in classifying waste in accordance with the NSW Guidelines.

If asbestos is found in the above step by visual inspection or by lab analysis, the 40m³ surrounding each 20m³ sampled above must be tested using the same procedures as the above step.



If asbestos is found in the 40m³ tested above, the step must be repeated on more adjacent 40m³ samples until it can be demonstrated that the waste material is free of asbestos.

7.7. Asbestos survey and sampling report

NOTE: all blue steps must be undertaken by a suitably qualified expert who has previous experience in classifying waste in accordance with the NSW Guidelines.

Once sampling and testing are finished, prepare an Asbestos Survey and Sampling Report.



Include a volumetric survey of the pile, indicating observed locations of asbestos.



Include all digital photographs taken.



Include details of all waste sources, and the name and contact details of known or possible generators and transporters of the waste in the pile.



Include details of any blending, processing or movement of the waste in the pile.



Include contact details of anyone who may have received waste from the pile



Include details of how the waste has been sampled.



Include waste classification reports and amount in m³ and tonnes of each waste type identified in the pile.



Include the current locations of the separated contaminated waste and other waste.



Include a proposed timeline for removal of the contaminated waste.



Include a list of steps will be taken to minimise future risk of asbestos contamination in stockpiles.



Submit the report to the EPA.

7.8. Removal of asbestos-contaminated waste

Once permission is granted by the EPA, arrange for lawful transport and disposal of all waste now classified as Special Waste (and any other waste identified to be removed) by trained personnel in accordance with the timelines in the Asbestos survey and sampling report.

7.9. Asbestos Disposal Report

Prepare an Asbestos Disposal Report



Include a signed, dated statement from Site Representative saying that you complied with the requirements of the NSW Draft Protocol for Managing Asbestos During Resource Recovery of Construction and Demolition Waste.



Include all the weighbridge dockets showing that the Special Waste (and any other waste required to be removed) was disposed to a facility that can lawfully receive it.

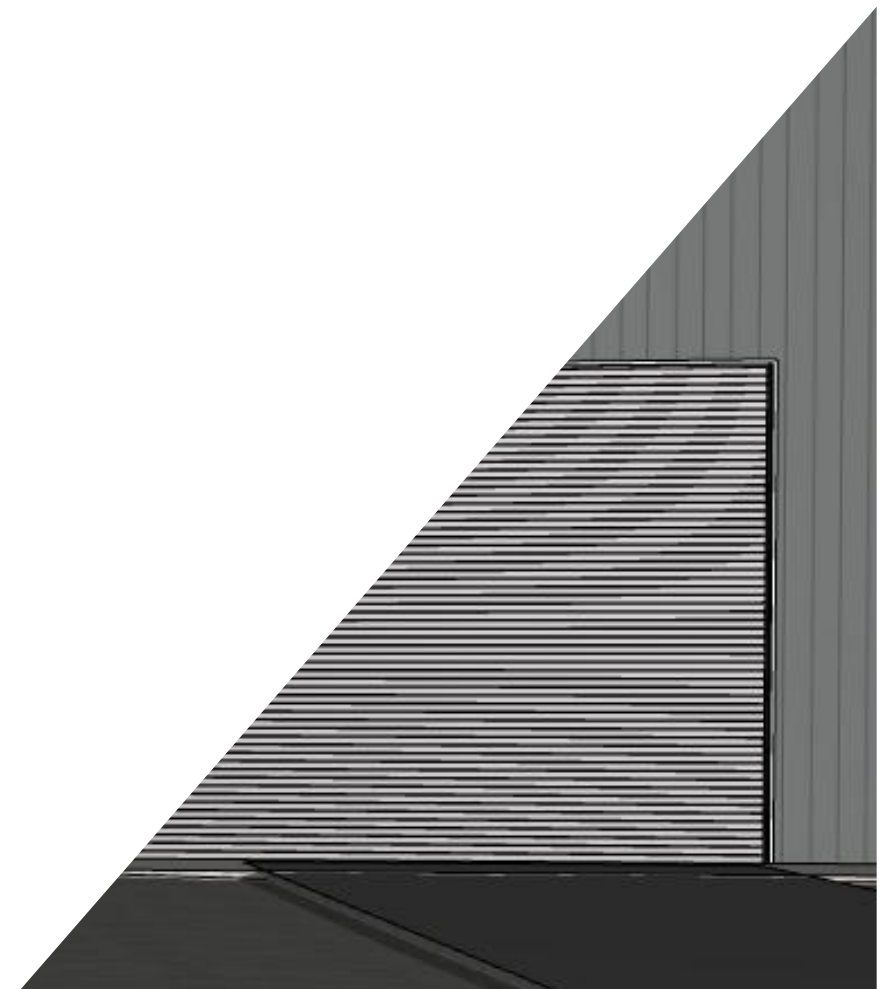


Include a signed and dated statement from the landfill that received the waste, confirming dates of receipt of waste, amounts received each day, and total amount received.



Provide the report to the EPA within 7 days of final disposal of Special Waste, or if removal takes more than a month, within 7 days after every month that waste is being disposed.

Attachment 3 – Architectural Plans





property: WASTE MANAGEMENT FACILITY

29, 33-37 PLASSER CRESCENT, NORTH ST MARYS

applicant: DESIGNCORP ARCHITECTS PTY LTD

client: NASSIF CIVIL

date: 19/11/2024

job no: 2022-110

PROPOSED WASTE MANAGEMENT FACILITY
@ 29, 33-37 PLASSER CRESCENT, NORTH ST MARYS
FOR NASSIF CIVIL
DEVELOPMENT APPLICATION

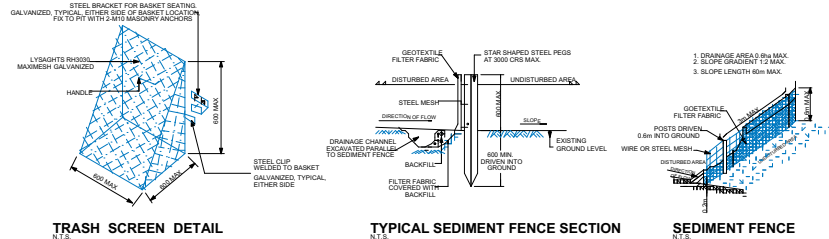
LOCATION MAP



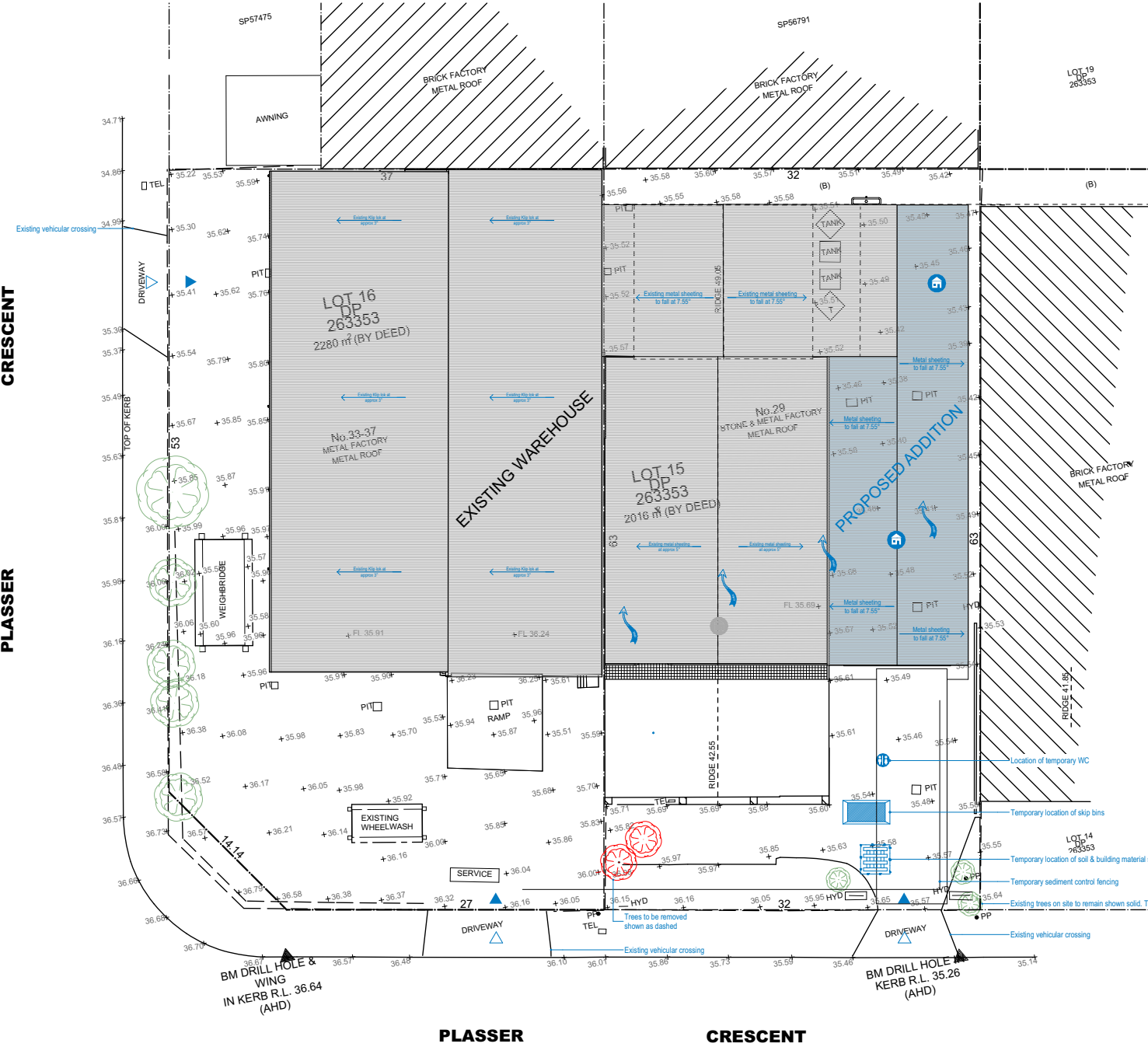
Issue k:	19/11/2024
Issue j:	05/03/2024
Issue i:	08/03/2023
Issue h:	24/01/2023
Issue g:	07/04/2022
Issue f:	Development Application
Issue e:	Client changes
Issue d:	Client changes
Issue c:	Client changes
Issue b:	Schematic
Issue a:	Pre - DA



SHEET SCHEDULE	
SHEET	TITLE
0	COVER SHEET
1	3D
2	COVER PAGE
3	ZONING
4	SITE ANALYSIS
5	GROUND FLOOR PLAN
5	GROUND FLOOR PLAN
6	FIRST FLOOR PLAN
7	OFFICE & AMENITIES PLAN
8	GROUND FLOOR PLAN - DEMOLITION PLAN
9	3D PERSPECTIVES
10	ELEVATIONS
11	ELEVATIONS 2
12	SECTIONS
13	MATERIALS & FINISHES



COMPLIANCE TABLE			
CONTROL	REQUIRED	PROPOSED	STATUS
Site Area (m ²)	-	2280	EXISTING
Front Setback	9m	19.875m	EXISTING
Secondary road frontages	5m	8.30m	EXISTING
Parking	1 space per 75 sqm of GFA or 1 space per 2 employees, whichever is the greater		PROPOSED
Landscaping		0	EXISTING
Deep Soil Zones	10% of the site area	0	EXISTING
Max Building Height	12m	13.55	EXISTING



ROOF/SITE ANALYSIS PLAN
1:500

drawing: COVER PAGE	project: PROPOSED WASTE MANAGEMENT FACILITY @ 29, 33-37 PLASSER CRESCENT, NORTH ST MARYS	client: NASSIF CIVIL	drawn: E.K.	scale: as shown	sheet size: A3	Council
			checked: J.E.	date: MAR24	ref: 2022-110	HCC

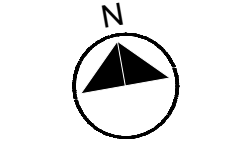
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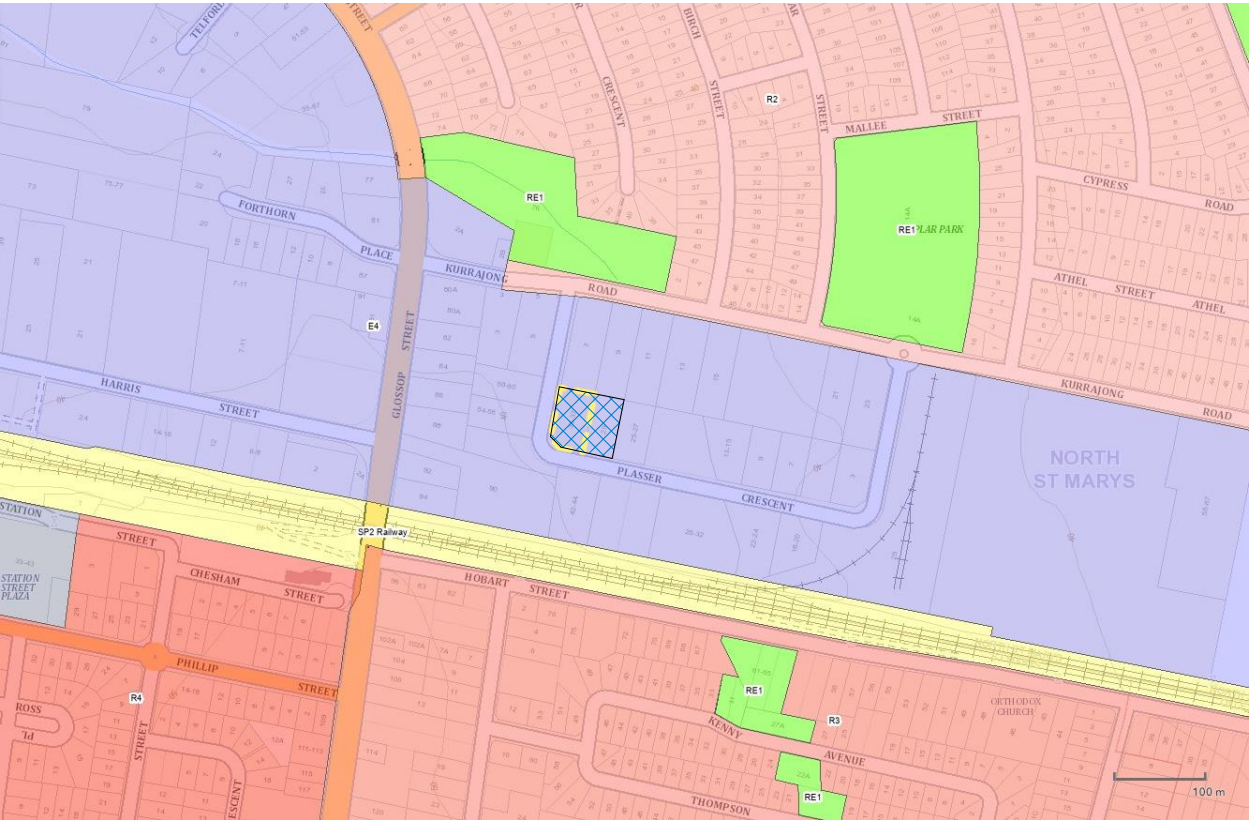
DESIGN CORP ARCHITECTS

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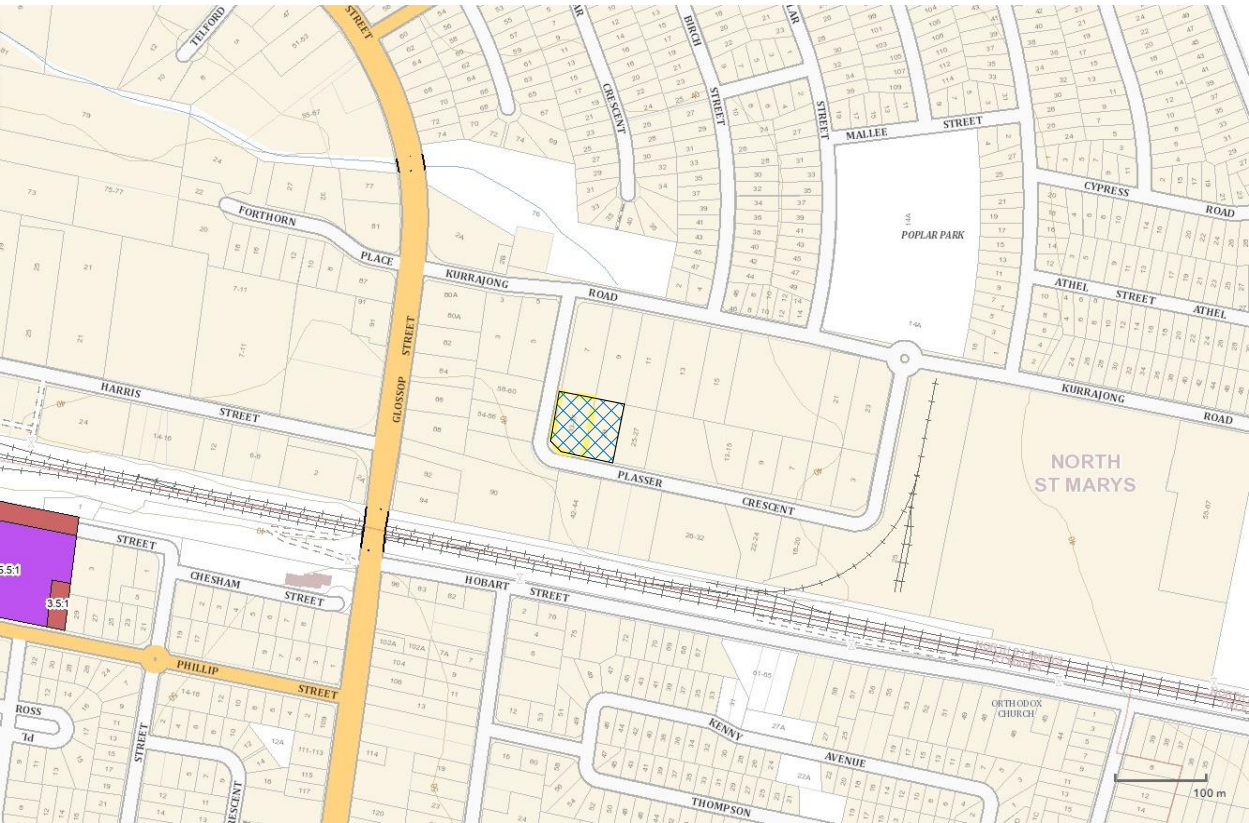
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ZONING - E4 GENERAL INDUSTRIAL



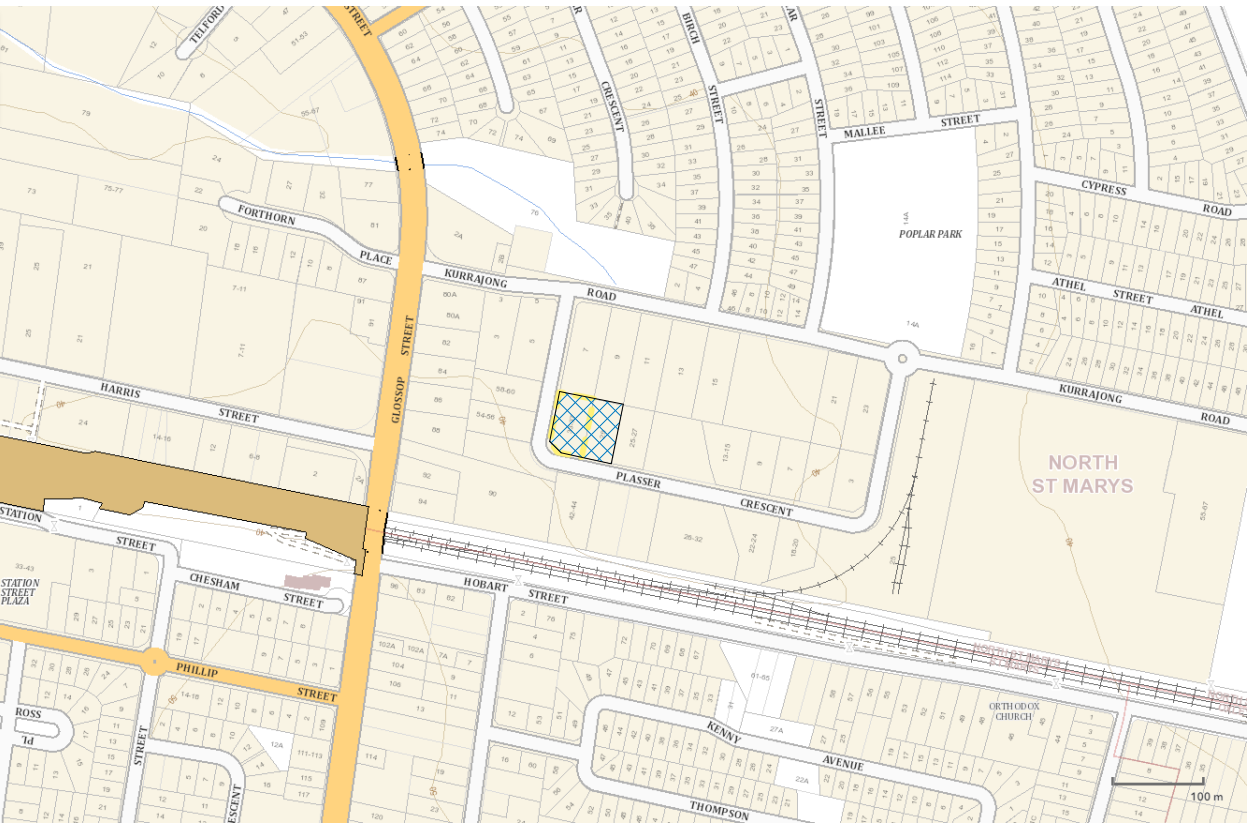
FSR - n/a



BUILDING HEIGHT - Max. 12m height



HERITAGE - n/a



Issue k:	19/11/2024
Issue j:	05/03/2024
Issue i:	08/03/2023
Issue h:	24/01/2022
Issue g:	07/04/2022
Issue f: Development Application	
Issue e: Client changes	
Issue d: Client changes	
Issue c: Client changes	
Issue b: Schematic	
Issue a: Pre - DA	

drawing: ZONING	scale: as shown	sheet size: A3	Council
project: PROPOSED WASTE MANAGEMENT FACILITY @ 29, 33-37 PLASSER CRESCENT, NORTH ST MARYS	date: MAR24	ref: 2022-110	HCC
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F3

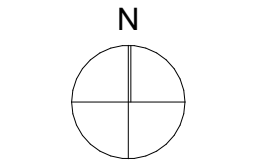


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SITE CONTEXT ANALYSIS

1:3000



LANDMARKS

Ⓐ Poplar Park

Bus Stop

..... Pedestrian links

Proposed development

DA for residential flat buildings

Sites being developed

ZONING

RE1 Public Recreation

RE2 Private Recreation

W1 Natural Waterways

E4 General Industrial

SP2 Special Purpose

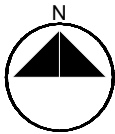
R2 Low Density Residential

R3 Medium Density Residential

R4 High Density Residential

Heritage

12m Max Height of Building



Issue k:		
Issue j:		
Issue i:		
Issue h:		
Issue g:		19/11/2024
Issue f:	Development Application	05/03/2024
Issue e:	Client changes	08/03/2023
Issue d:	Client changes	24/01/2023
Issue c:	Client changes	2/12/2022
Issue b:	Schematic	07/04/2022
Issue a:	Pre - DA	

drawing:	SITE ANALYSIS	scale:	as shown	sheet size:	A3	Council
project:	PROPOSED WASTE MANAGEMENT FACILITY @ 29, 33-37 PLASSER CRESCENT, NORTH ST MARYS	drawn:	E.K.	date:	MAR24	ref: 2022-110
client:	MASSIF CIVIL	checked:	J.E.			HCC

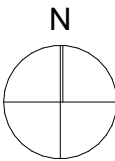
F 4



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GROUND FLOOR PLAN
1:250



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Issue k:	19/11/2024
Issue j:	05/03/2024
Issue i:	08/03/2023
Issue h:	24/01/2023
Issue g:	2/12/2022
Issue f:	07/04/2022

drawing: GROUND FLOOR PLAN

project: PROPOSED WASTE MANAGEMENT FACILITY @ 29, 33-37 PLASSER CRESCENT, NORTH ST MARYS

client: MASSIF CIVIL

drawn: E.K.

scale: as shown

sheet size: A3

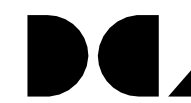
Council

checked: J.E.

date: MAR24

ref: 2022-110

HCC

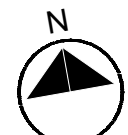


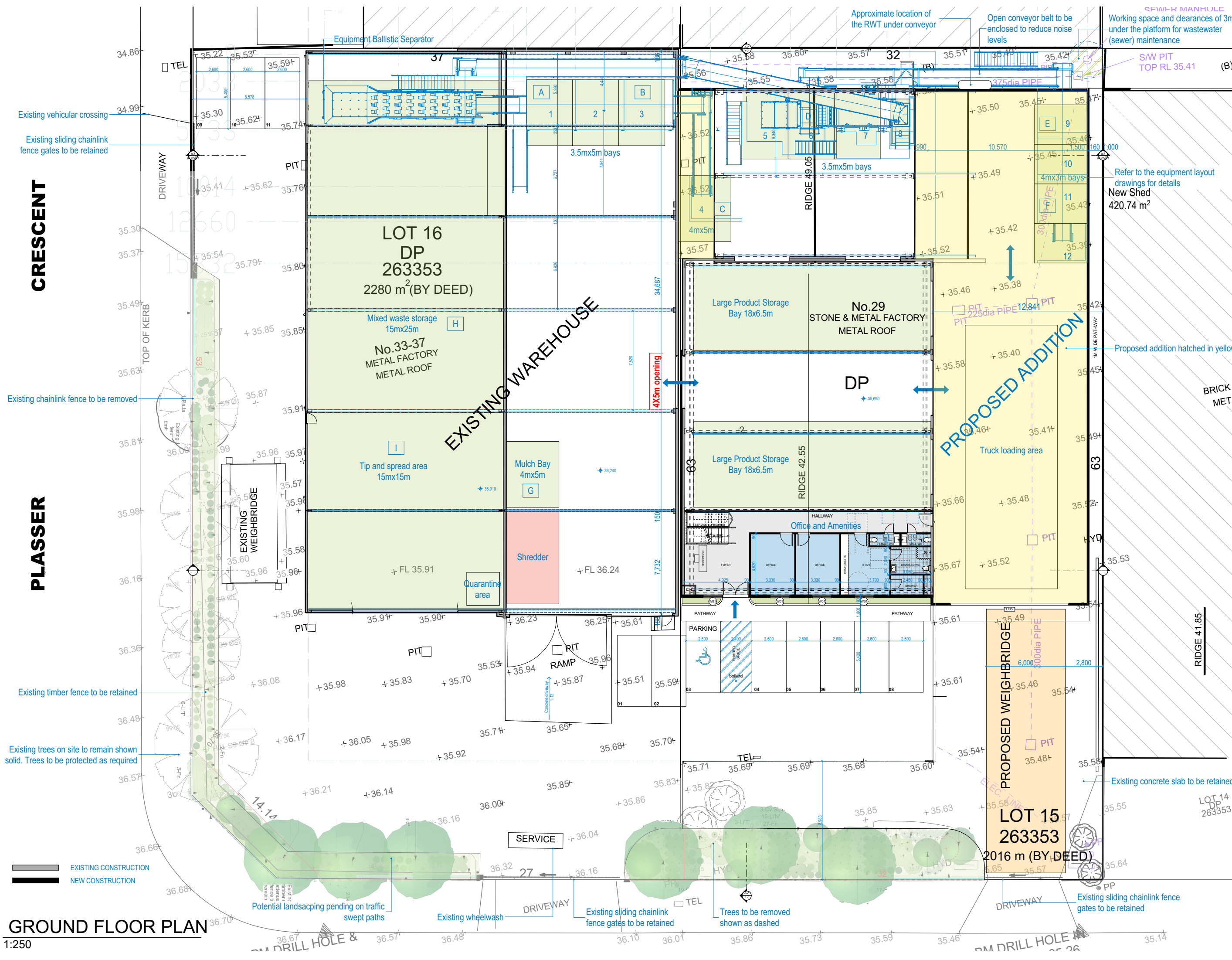
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GROUND FLOOR PLAN
1:250

CRESCENT
PLASSER



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Issue k:	19/11/2024
Issue j:	05/03/2024
Issue i:	08/03/2023
Issue h:	24/01/2023
Issue g:	07/04/2022
Issue f:	Development Application
Issue e:	Client changes
Issue d:	Client changes
Issue c:	Client changes
Issue b:	Schematic
Issue a:	Pre - DA

drawing: GROUND FLOOR PLAN

project: PROPOSED WASTE MANAGEMENT FACILITY @ 29, 33-37 PLASSER CRESCENT, NORTH ST MARYS

client: NASSIF CIVIL

drawn: E.K. scale: as shown sheet size: A3 Council

checked: J.E. date: MAR24 ref: 2022-110 HCC

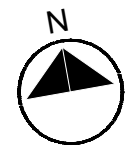
F5

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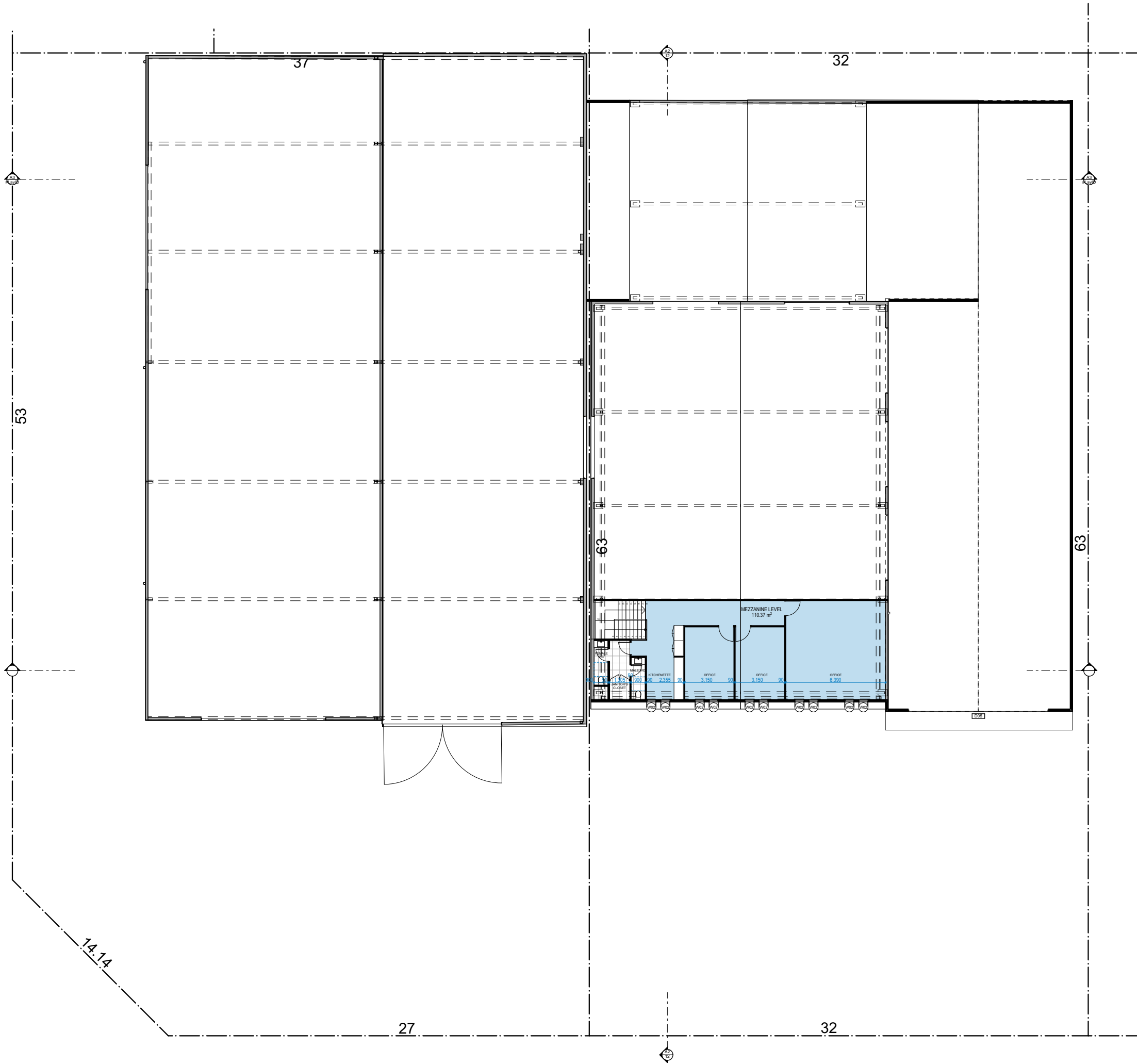
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EXISTING CONSTRUCTION
NEW CONSTRUCTION

FIRST FLOOR PLAN

1:250



issue k:	19/11/2024
issue j:	05/03/2024
issue i:	08/03/2023
issue h:	24/01/2023
issue g:	2/12/2022
issue f: Development Application	07/04/2022
issue e: Client changes	
issue d: Client changes	
issue c: Client changes	
issue b: Schematic	
issue a: Pre - DA	

drawing: FIRST FLOOR PLAN	project: PROPOSED WASTE MANAGEMENT FACILITY @ 29, 33-37 PLASSER CRESCENT, NORTH ST MARYS	client: MASSIF CIVIL	drawn: E.K.	scale: as shown	sheet size: A3	Council
checked: J.E.	date: MAR24	ref: 2022-110	HCC			

F6

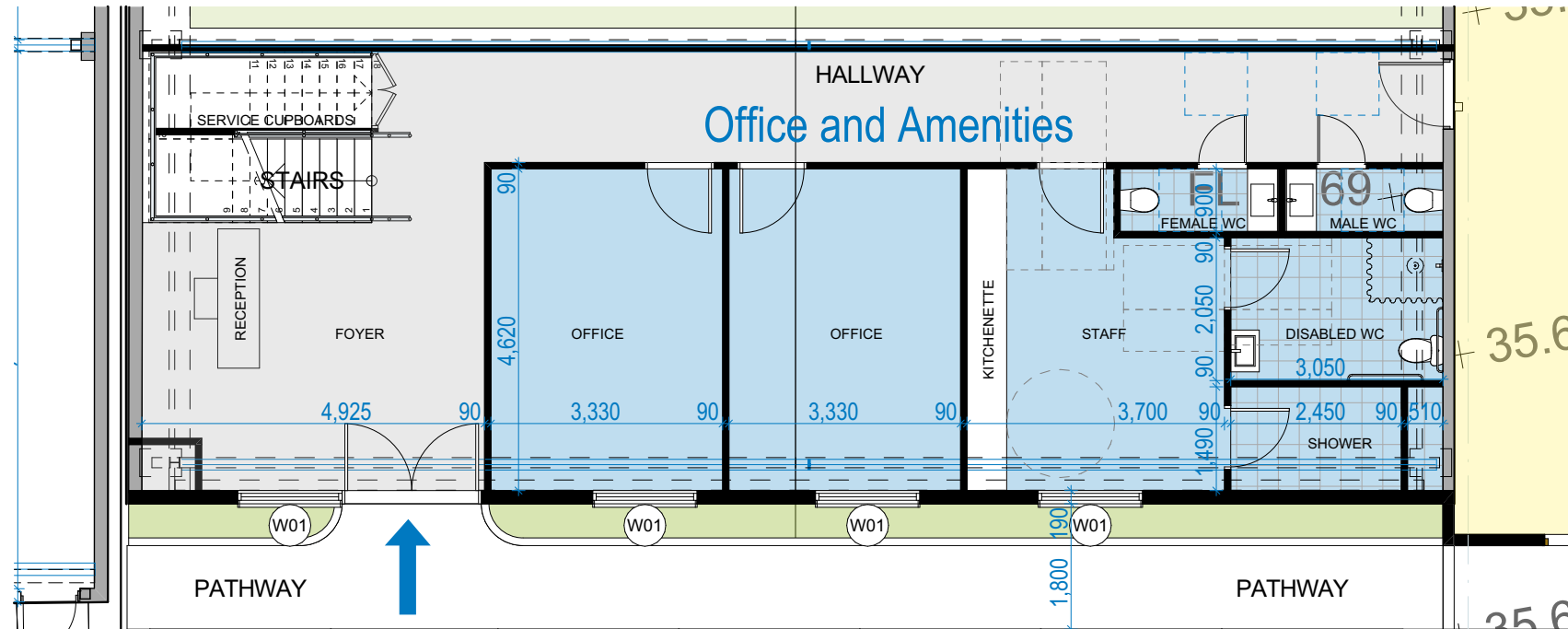


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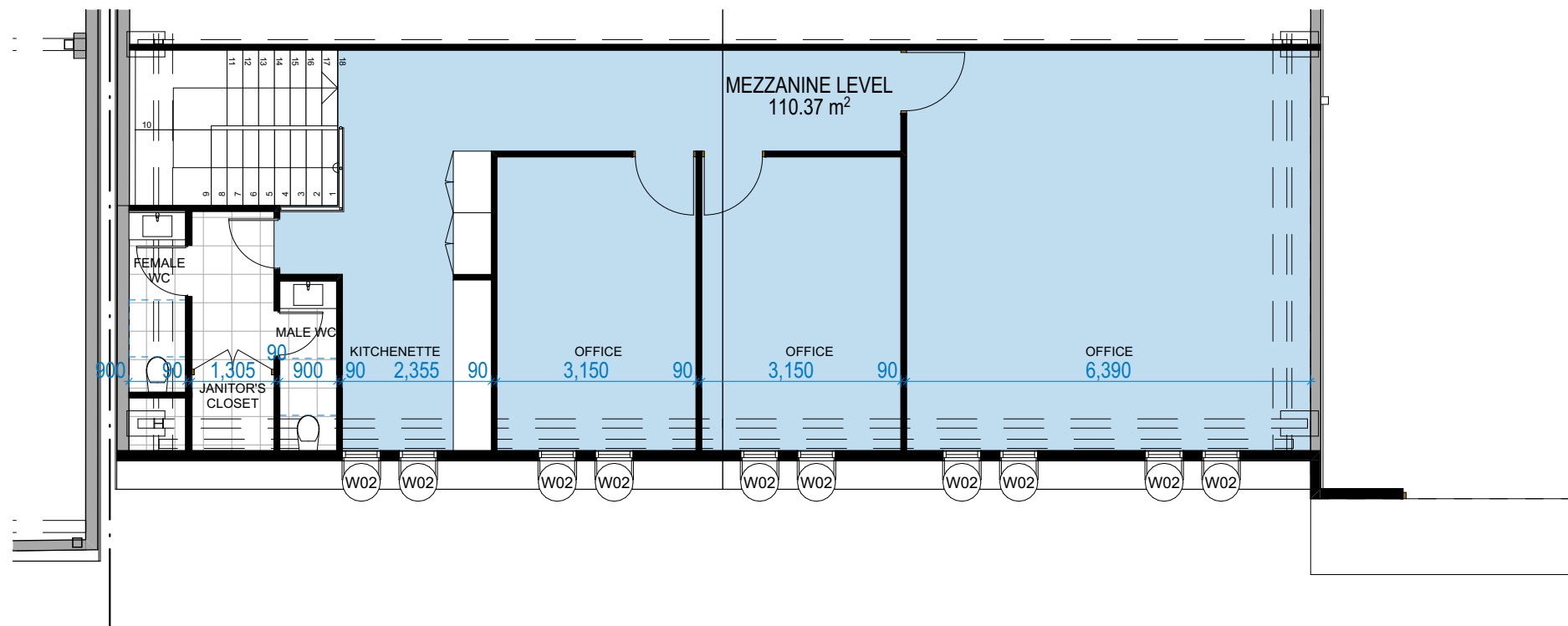
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GROUND FLOOR PLAN
1:100



FIRST FLOOR PLAN
1:100

EXISTING CONSTRUCTION
NEW CONSTRUCTION

issue k:	19/11/2024
issue j:	05/03/2024
issue i:	08/03/2023
issue h:	24/01/2023
issue g:	2/12/2022
issue f: Development Application	07/04/2022
issue e: Client changes	
issue d: Client changes	
issue c: Client changes	
issue b: Schematic	
issue a: Pre - DA	

drawing: OFFICE & AMENITIES PLAN	scale: as shown	sheet size: A3	Council
project: PROPOSED WASTE MANAGEMENT FACILITY @ 29, 33-37 PLASSER CRESCENT, NORTH ST MARYS	date: MAR24	ref: 2022-110	HCC
client: MASSIF CIVIL	drawn: E.K.	checked: J.E.	

F7



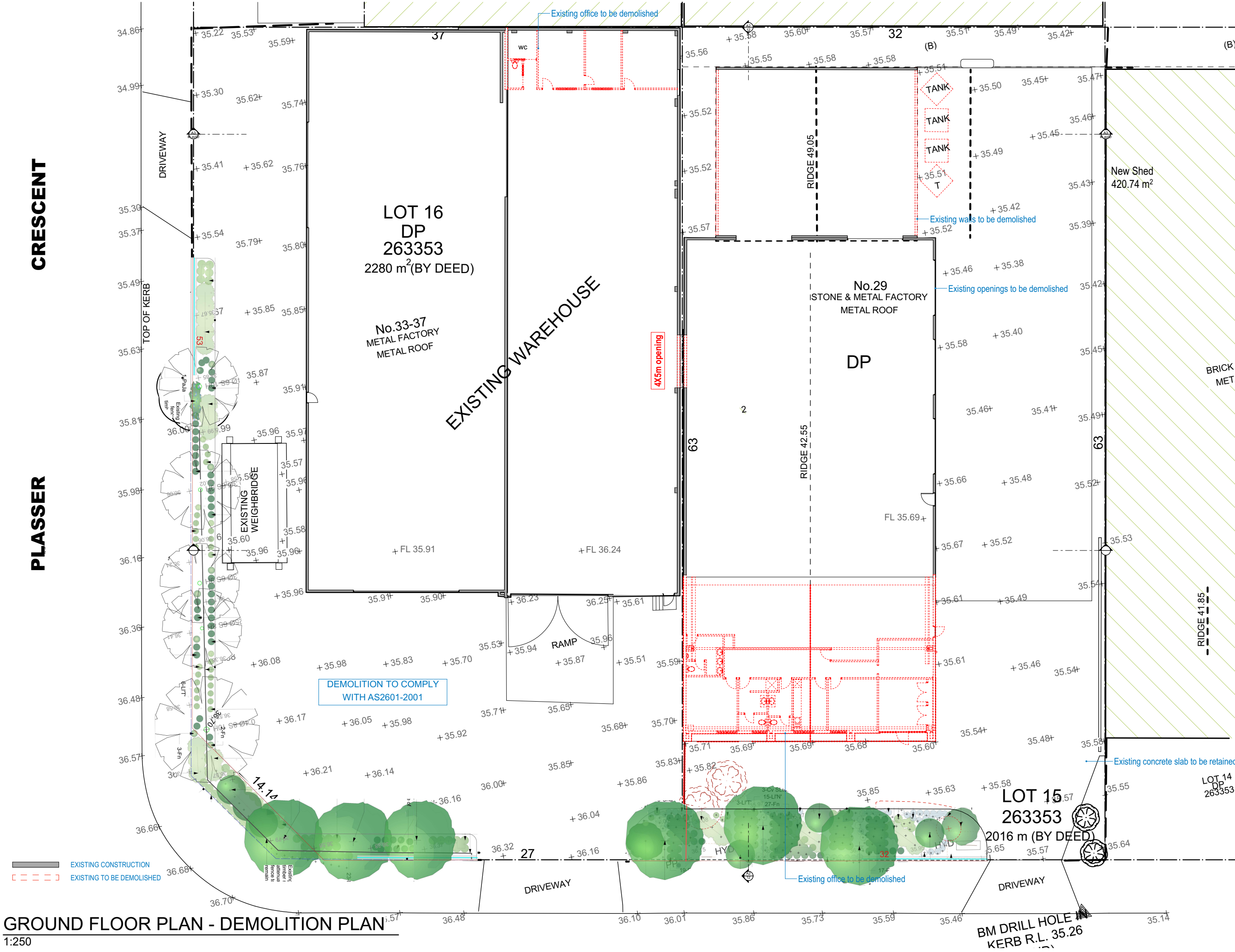
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GROUND FLOOR PLAN - DEMOLITION PLAN
1:250



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Issue k:	19/11/2024
Issue j:	05/03/2024
Issue i:	08/03/2023
Issue h:	24/01/2022
Issue g:	07/04/2022
Issue f:	Development Application
Issue e:	Client changes
Issue d:	Client changes
Issue c:	Client changes
Issue b:	Schematic
Issue a:	Pre - DA

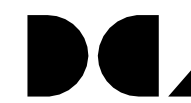
drawing: GROUND FLOOR PLAN - DEMOLITION PLAN

project: PROPOSED WASTE MANAGEMENT FACILITY @ 29, 33-37 PLASSER CRESCENT, NORTH ST MARYS

client: MASSIF CIVIL

drawn: E.K. scale: as shown sheet size: A3 Council

checked: J.E. date: MAR24 ref: 2022-110 HCC

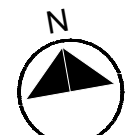


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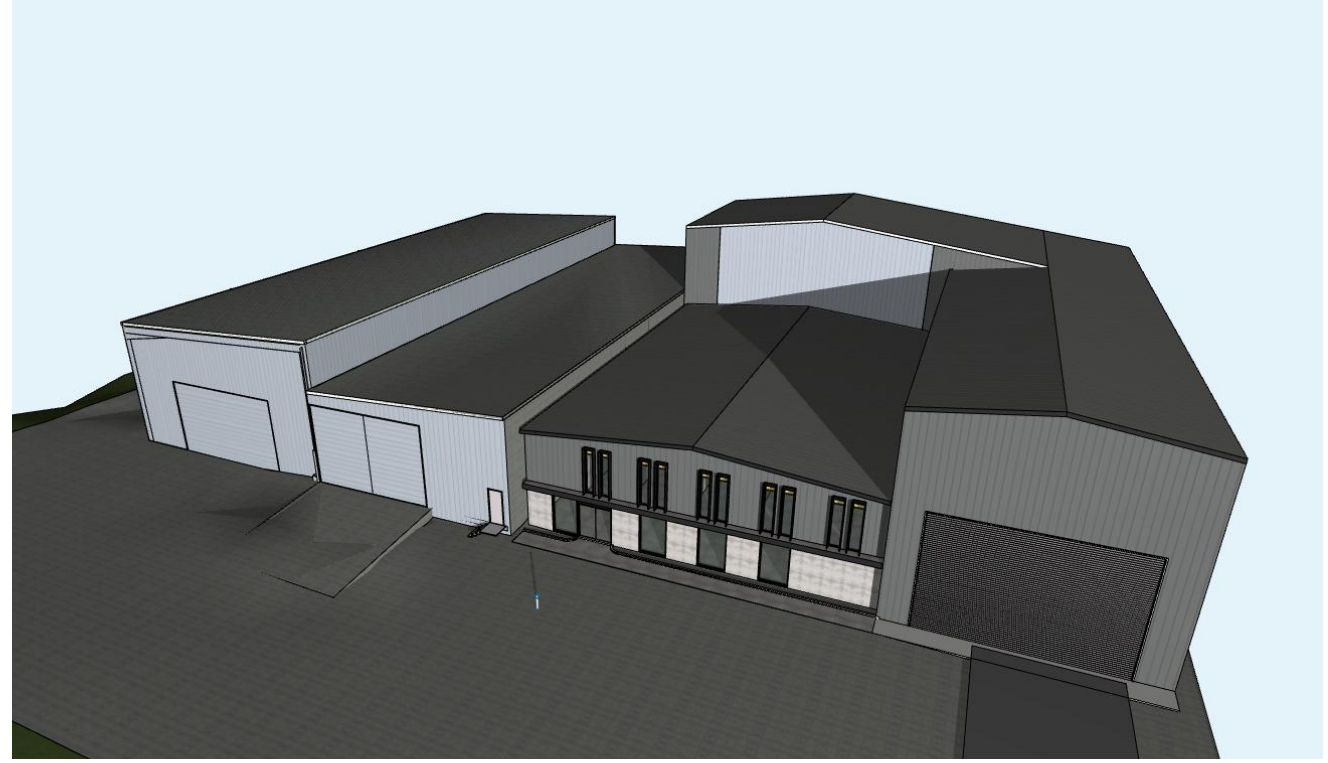
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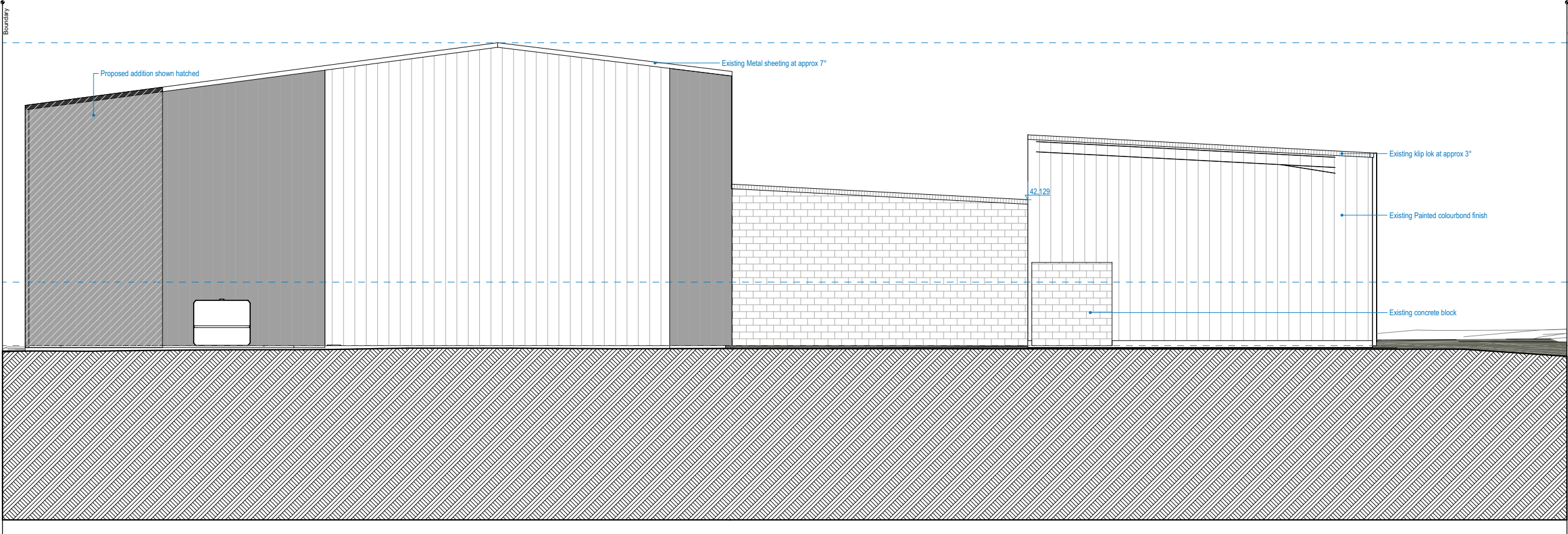
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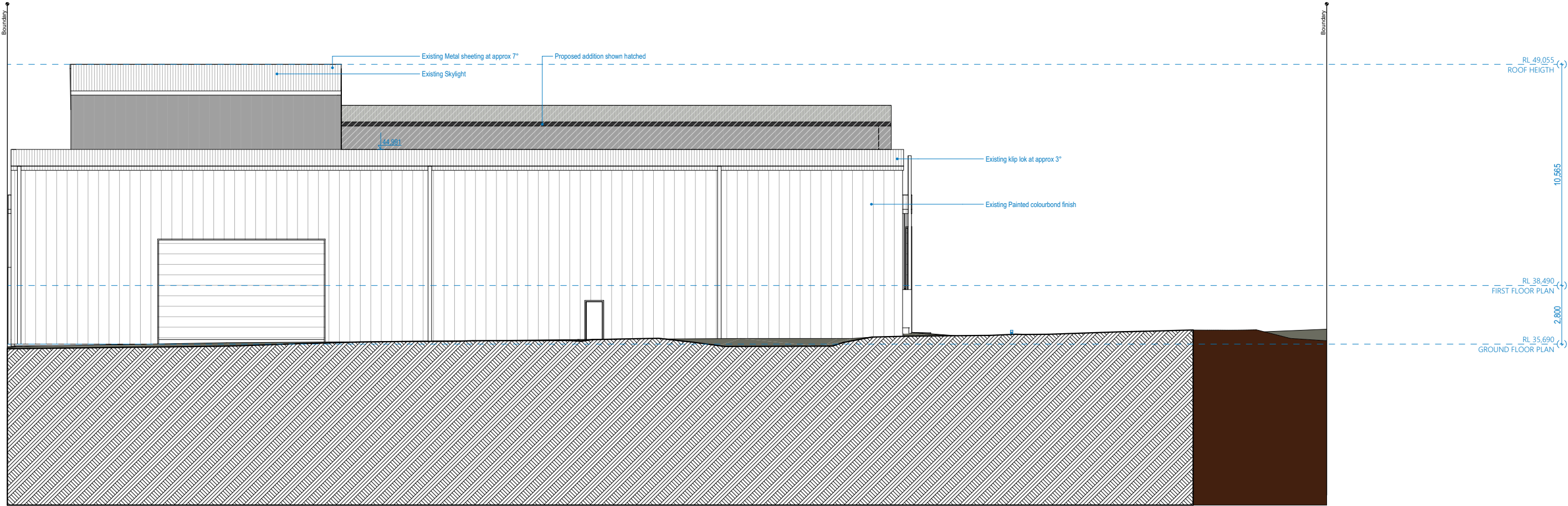


F8





NORTH ELEVATION
1:200



WEST ELEVATION
1:200

		Member Australian Institute of Architects	
Issue k:	Issue j:	Issue i:	Issue h:
Issue g:	Issue f:	Issue e:	Issue d:
Issue c:	Issue b:	Issue a:	Issue 0:
19/11/2024	05/03/2024	08/03/2023	24/01/2023
Development Application	Client changes	Client changes	Client changes
2/12/2022	07/04/2022	Pre - DA	DA

drawing: ELEVATIONS		project: PROPOSED WASTE MANAGEMENT FACILITY @ 29, 33-37 PLASSER CRESCENT, NORTH ST MARYS	
client: MASSIF CIVIL		scale: as shown	
drawn: E.K.		sheet size: A3	
checked: J.E.		date: MAR24	
		ref: 2022-110	
		Council: HCC	

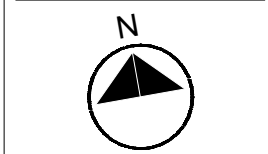
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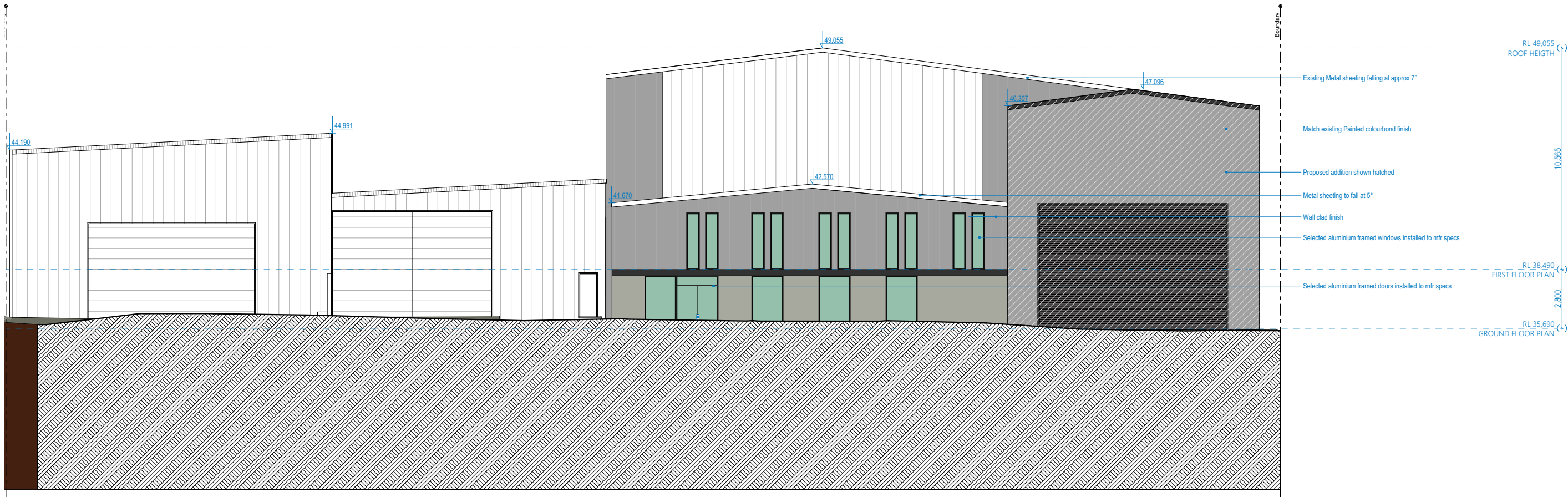


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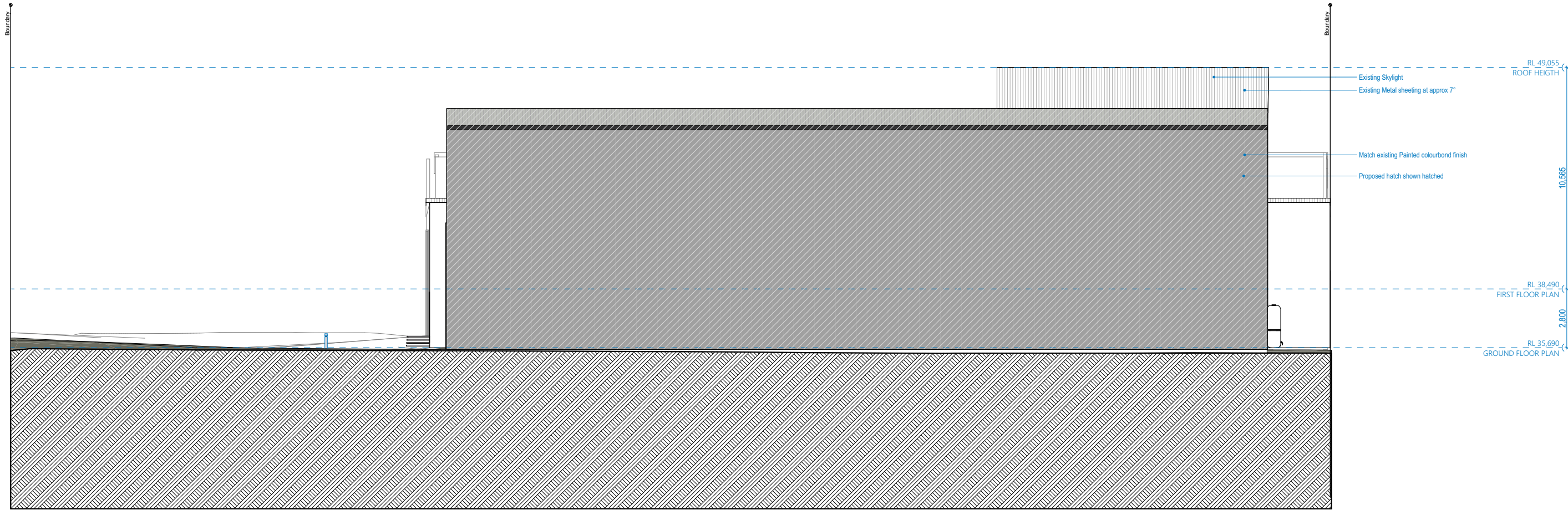
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SOUTH ELEVATION

1:200



EAST ELEVATION

1:200



Issue k:	19/11/2024
Issue j:	05/03/2024
Issue i:	08/03/2023
Issue h:	24/01/2022
Issue g:	27/12/2022
Issue f:	07/04/2022
Issue e:	
Issue d:	
Issue c:	
Issue b:	
Issue a:	

drawing:	ELEVATIONS 2	scale:	as shown	sheet size:	A3	Council
project:	PROPOSED WASTE MANAGEMENT FACILITY @ 29, 33-37 PLASSER CRESCENT, NORTH ST MARYS	drawn:	E.K.	date:	MAR24	HCC
client:	NASSIF CIVIL	checked:	J.E.	ref:	2022-110	

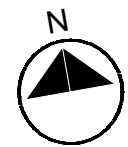
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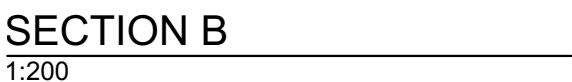
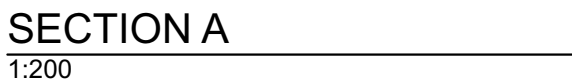
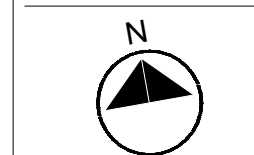
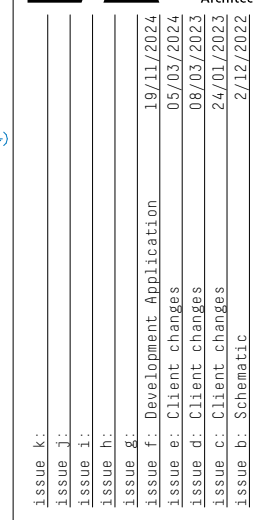


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MATERIALS & FINISHES SCHEDULE

@ 29, 33-37 PLASSER CRESCENT, NORTH ST MARYS



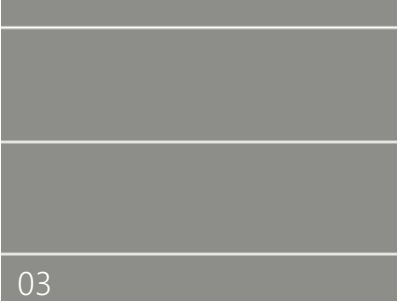
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CEMENT RENDER - DULUX RAKU



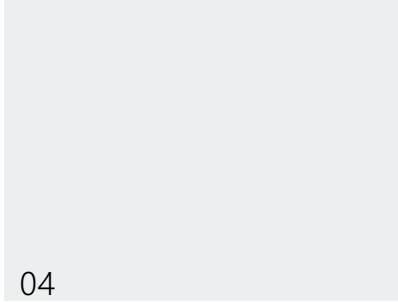
EXTERNAL RENDER 02
CEMENT RENDER - DULUX SILKWORT



EXTERNAL CLADDING
COLORBOND FINISH OR SIMILAR - DULUX STEPNEY



FASCIA & SOFFIT
PAINTED - DULUX WHITE ON WHITE



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issue j:	05/03/2024
issue i:	08/03/2023
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issue f: Development Application	07/04/2022
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issue d: Client changes	
issue c: Client changes	
issue b: Schematic	
issue a: Pre - DA	

drawing: MATERIALS & FINISHES	project: PROPOSED WASTE MANAGEMENT FACILITY @ 29, 33-37 PLASSER CRESCENT, NORTH ST MARYS	client: MASSIF CIVIL	drawn: E.K.	scale: as shown	sheet size: A3	Council
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