Government of Western Australia
Department of Water and Environmental Regulation

Works Approval

Works approval number	W6821/2023/1
Works approval holder	Tyrecycle Pty Ltd
ACN	085 545 053
Registered business address	30-56 Encore Avenue SOMERTON VIC 3062
DWER file number	DER2023/000376
Duration	18/01/2024 to 18/01/2029
Date of issue	18/01/2024
Date of amendment	12/11/2024
Premises details	Tyrecycle Wedgefield 22 Moorambine Street WEDGEFIELD WA 6721 Legal description - Lot 100 on Deposited Plan 61456 As defined by the coordinates in Schedule 2

Prescribed premises category description **(Schedule 1, *Environmental Protection Regulations 1987*)**	**Assessed production capacity**
Category 57 Used tyre storage (general): premises (other than premises within category 56) on which used tyres are stored.	48 tyres at any one time
Category 61A Solid waste facility: premises (other than premises within category 67A) on which solid waste produced on other premises is stored, reprocessed, treated, or discharged onto land.	12,000 tonnes per annum

This works approval is granted to the works approval holder, subject to the attached conditions, on 12 November 2024, by:

Abbie Crawford

Digitally signed by Abbie Crawford
Date: 2024.11.12 11:56:05 +08'00'

Abbie Crawford
Manager, Waste Industries
an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

Works approval history

Date	Reference number	Summary of changes
18/01/2024	W6821/2023/1	Works Approval granted
12/11/2024	W6821/2023/1	Works Approval amended to include commissioning.

Interpretation

In this works approval:

(a) the words 'including', 'includes' and 'include' in conditions mean "including but not limited to", and similar, as appropriate;

(b) where any word or phrase is given a defined meaning, any other part of speech or other grammatical form of that word or phrase has a corresponding meaning;

(c) where tables are used in a condition, each row in a table constitutes a separate condition;

(d) any reference to an Australian or other standard, guideline, or code of practice in this works approval:

(i) if dated, refers to that particular version; and

(ii) if not dated, refers to the latest version and therefore may be subject to change over time;

(e) unless specified otherwise, any reference to a section of an Act refers to that section of the EP Act; and

(f) unless specified otherwise, all definitions are in accordance with the EP Act.

NOTE: This works approval requires specific conditions to be met but does not provide any implied authorisation for other emissions, discharges, or activities not specified in this works approval.

Works approval conditions

The works approval holder must ensure that the following conditions are complied with:

Construction phase

Fire and emergency management

1. The works approval holder must implement a Fire and Emergency Management Plan prepared by a suitably qualified fire management consultant that is consistent with Australian Standard AS 3745. The plan must include, but is not limited to:

(a) how fires will be prevented, detected, responded to, suppressed, contained and controlled for all approved activities addressing all waste types and stages of the waste handling, sorting and storage process;

(b) in the event of a fire occurring within the approved activities, how impacts to the environment and human health will be mitigated;

(c) how staff will be trained in fire and emergency response on an ongoing, annual basis;

(d) the firefighting equipment and fire response capabilities and responsibilities;

(e) premises maps depicting:

(i) fire hose reels, hydrants, sprinklers and isolation points;
(ii) electrical isolation points;
(iii) drainage;
(iv) system shutdown points; and
(v) fire response crew entry points.

(f) facility plans depicting:

(vi) tyre stockpile locations and sizes; and
(vii) actual onsite separation distances.

(g) future engineering solutions for the containment of contaminated runoff within the premises boundary resulting from possible firefighting activities within the premises; and

(h) how the fire and emergency management requirements specified in Table 1 will be complied with.

Table 1: Standard activity fire and emergency management requirements

Item	Infrastructure and equipment	Fire and emergency management requirements
1.	Fire suppression system	(a) Installation designed in accordance with Australian Standard AS 2419.1. (b) The fire suppression system must have a minimum water supply and capacity that provides the maximum hydraulic demand for a minimum of four hours. (c) Portable fire extinguishers and a fire hose reel system shall be provided in accordance with Australian Standard AS 2444 and Australian Standard AS 2441.

Item	Infrastructure and equipment	Fire and emergency management requirements
2.	Firewater containment	(a) Firewater that occurs at the premises must be effectively contained within the capacity of a hardstand with a permeability of ≤1x10^{-9} m/sec. (b) The containment capacity for firewater must be calculated with the fire hydrant flow rates prescribed in Australian Standard AS 2419.1 and cumulatively the discharge densities prescribed in Australian Standard AS 2118.1 where automatic sprinklers are used: (i) for all fully-enclosed structures; and (ii) individually for each outside hardstand and low permeability catchment area. (c) The containment capacity for firewater, no less than the volumes calculated in Table 1, row 2, item (b), must be permanent or achieved automatically when the fire system is activated on the premises. (d) Where the storm water management system is part of the containment capacity for firewater, drains and discharge points must automatically close when the fire system is activated on the premises. (e) Bunding must be available to prevent fire water from entering other drains and discharge points. (f) Contingency arrangements must exist for the removal of firewater in excess of the containment capacity, by a carrier licensed under the *Environmental Protection (Controlled Waste) Regulations 2004*, to ensure firewater does not discharge to the environment.
3.	Spill management	(a) Spill kits are to be provided, be stocked and maintained. (b) Adequate spill management practices are to be conducted on an as needs basis.
4.	Signage	Signage maintained at the front of the premises that contains important information for first responders, including: (a) storm water drainage maps and identification of key drainage points and shut off valves; and (b) after hours details with the up-to-date names and phone numbers of contact people in case of emergency.
5.	Public notification system	Contact arrangements for neighbours and a system for alerting them of any fires.
6.	Site access points	Two site access points must be provided, unless otherwise approved from the Department of Fire and Emergency Services.

Infrastructure and equipment

2. The works approval holder must:

(a) construct and/or install the infrastructure and/or equipment;

(b) in accordance with the corresponding construction and installation requirements; and

as set out in Table 2.

Table 2: Construction and installation requirements

Item	Infrastructure and equipment	Construction and installation requirements
1.	Dome structure	• Construction of one 80 m x 30 m dome structure consisting of colourbond steel walls and roller doors and Armourtex fabric sheeting for the roof. • Concrete floor within the dome structure to be constructed to ensure a permeability of ≤1x10^{-9} m/s and be free of leaks and defects.
2.	Yard areas	• To be constructed from asphalt to ensure a permeability of ≤1x10^{-9} m/sec and be free of leaks and defects. • Bund along the northern and western boundary of the yard area to be constructed from asphalt to ensure a permeability of ≤1x10^{-9} m/sec and be free of leaks and defects. • Hump along the eastern and southern wall to be constructed of concrete and be free of leaks and defects.
3.	1 x MT Raptor	• Constructed and installed as per manufacturer's specifications.
4.	1 x MT Rex	• Constructed and installed as per manufacturer's specifications.
5.	Fire suppression system	• Constructed and installed to meet the requirements of condition 1 Table 1 item 1.
6.	Firewater containment system	• Constructed and installed to meet the requirements of condition 1 Table 1 item 2.
7.	Swale	• To be maintained to retain a 1 in 5-year ARI rainfall event with a 6 minute duration.

Compliance reporting

3. The works approval holder must within 30 calendar days of an item of infrastructure or equipment required by condition 2 being constructed and/or installed:

(a) undertake an audit of their compliance with the requirements of condition 2; and

(b) prepare and submit to the CEO an Environmental Compliance Report on that compliance.

4. The Environmental Compliance Report required by condition 3 must include as a minimum the following:

(a) certification by a suitably qualified structural engineer that the items of infrastructure or components thereof, as specified in condition 2, have been constructed in accordance with the relevant requirements specified in condition 2;

(b) as constructed plans and a detailed site plan for each item of infrastructure or component of infrastructure specified in condition 2 and

(c) be signed by a person authorised to represent the works approval holder and contains the printed name and position of that person.

Commissioning

Commencement and duration

5. The works approval holder may only commence environmental commissioning of the MT Raptor and MT Rex within the Dome structure, as listed in rows 1, 3 and 4 of Table 2 in condition 2, once the Environmental Compliance Report has been submitted for those items of infrastructure in accordance with condition 3 of this works approval.

6. Environmental commissioning activities undertaken for an item of infrastructure specified in Table 3 may only be carried out in accordance with the corresponding commissioning requirements and for the corresponding authorised commissioning duration as set out in Table 3.

Table 3: Environmental commissioning requirements

Infrastructure	Commissioning specification	Authorised commissioning duration
Dome	Internal fire suppression system to be disconnected. Ten (10) fire extinguishers are to be available within the Dome at all times. A limit of six (6) whole, unburnt, off-the-road tyres are permitted to be stored within the Dome at any one time. Cut rubber pieces are to be stored within a sea container or side-tipper truck, and securely held within the Dome.	For a period not exceeding 30 calendar days in aggregate.
1 x MT Raptor	A limit of six (6) whole, unburnt, off-the-road tyres are permitted to be processed per day. Operated as per manufacturer's specifications.	For a period not exceeding 30 calendar days in aggregate.
1 x MT Rex		For a period not exceeding 30 calendar days in aggregate.

Environmental commissioning report

7. The works approval holder must submit to the CEO an Environmental Commissioning Report within 30 calendar days of the completion date of environmental commissioning for each item of infrastructure specified in Table 3.

8. The works approval holder must ensure the Environmental Commissioning Report required by condition 7 of this works approval includes the following:

(a) a summary of the environmental commissioning activities undertaken, including timeframes and quantity of tyres processed;

(b) if each item of infrastructure or equipment as constructed or installed, has met the manufacturer's operational specifications; and

(c) where they have not been met, measures proposed to meet the manufacturer's operational specifications and the conditions of this works approval, together with timeframes for implementing the proposed measures.

Time limited operations phase

Commencement and duration

9. The works approval holder may only commence time limited operations for an item of infrastructure identified in condition 2:

(a) where the Environmental Compliance Reports, as required by condition 3, have been submitted by the works approval holder to the CEO for all items of infrastructure identified in condition 2; and

(b) where the item of infrastructure is authorised to undertake environmental commissioning under condition 6, the Environmental Commissioning Report for that item of infrastructure as required by condition 7 has been submitted by the works approval holder; and

(c) where the CEO has notified the works approval holder that the Environmental Compliance Report meets the requirements of condition 2; or

(d) where at least 30 business days have passed after the Environmental Compliance Reports were submitted to the CEO.

10. The works approval holder may conduct time limited operations:

(a) for a period not exceeding 180 calendar days from the day the works approval holder meets the requirements of condition 9; or

(b) until such time as a licence for that item of infrastructure is granted in accordance with Part V of the *Environmental Protection Act 1986*, if one is granted before the end of the period specified in condition 10(a).

Time limited operations requirements and emission limits

11. The works approval holder must only accept onto the premises waste of a waste type, which does not exceed the corresponding rate at which waste is received, and which meets the corresponding acceptance specification set out in Table 4.

Table 4: Waste acceptance

Waste type	Rate at which waste is received	Acceptance specification
Inert Waste Type 1 (Tyres)	48 tyres at any one time	Whole, unburnt, off-the-road tyres
Conveyor belts	3,000 tonnes per annum	Unburnt conveyor belts.

12. The works approval holder must ensure that the premises infrastructure and equipment listed in Table 5 is maintained and operated in accordance with the corresponding operational requirement set out in Table 5.

Table 5: Infrastructure and equipment requirements during time limited operations

	Infrastructure and equipment	Operational requirement
1.	Dome structure	• Concrete floor to be free of leaks and defects. • Concrete floor to be maintained to ensure a permeability of ≤1x10^{-9} m/sec. • Roller doors to be closed at all times during operation of the MT Raptor and MT Rex.
2.	External yard areas	• Asphalt floor to be free of leaks and defects. • Maintained to ensure a permeability of ≤1x10^{-9} m/sec. • Maintain graded yard to ensure stormwater is directed to the swale in the north western corner for infiltration. • Bund along the northern and western boundary of the yard area to be maintained to ensure a permeability of ≤1x10^{-9} m/sec and be free of leaks and defects. • Hump along the eastern and southern wall to be free of leaks and defects.
3.	1 x MT Raptor	• To be operated within the dome structure. • Maintained as per manufacturer's specifications.
4.	1 x MT Rex	• To be operated within the dome structure. • Maintained as per manufacturer's specifications.
5.	Fire suppression system	• Must be regularly serviced and maintained in good operational condition at all times.
6.	Firewater containment system	• Must be regularly serviced and maintained in good operational condition at all times.

13. The works approval holder must ensure that the waste types specified in Table 6 are only subjected to the corresponding processes and specifications set out in Table 6.

Table 6: Waste processing

Waste type	Process	Process specification
Inert Waste Type 1 (Tyres) and Conveyor belts	Receipt, handling, storage and shredding	Tyres and conveyor belts stored in the yard must be: (a) stored on a hardstand pad. (b) conveyor belts to be stored in a cradle. (c) individual tyre stacks or stacks of conveyor belt cradles do not exceed: (i) 3.7 metres in height; (ii) 12.5 tonnes in weight. (d) piles of tyre stacks or belt cradles: (i) do not exceed 50 tonnes; (ii) each individual stack of tyres or conveyor belt cradles within a pile is separated by a minimum of 2.5 metres; (iii) each pile of tyre stacks or belt cradles consist of only 4 individual tyre stacks or stacks of conveyor belt cradles; (iv) are separated from other groups of tyre stacks or belt cradles by a minimum of 6 metres; (v) a maximum of 3 piles of tyre stacks or conveyor belt cradles, or any combination thereof, are to be stored at the premises at any one time. (vi) are stored 18 metres away from the site boundary; (vii) are stored 6 metres away from the Dome structure or any other fixed infrastructure; and (viii) any combustible material is stored, or activities involving hot works are undertaken a minimum of 18 m from stored tyres and conveyor belts Tyres and conveyor belts stored in the Dome structure are: (a) limited to 4 whole tyres or 4 cradles of conveyor belts (2 on the machines and 2 on the floor awaiting reprocessing), or any combination thereof, at any one time. (b) must remain at least 1 metre clear from reprocessing equipment and the building walls. (c) reprocessed rubber pieces are to be loaded into a transport truck for short term storage prior to immediate off-site transportation. (d) transport truck to be sealed when full or when shredding activities cease.

14. The works approval holder must ensure that no waste is burnt on the premises

15. The works approval holder must immediately notify the CEO of:

    (a) any fire on the premises; and/or

    (b) any accident, malfunction, or emergency which results or could result in the discharge of fire-fighting washwater or other wastes from the premises.

16. The works approval holder must take all reasonable and practicable measures to prevent stormwater run-off becoming contaminated by the activities and operations undertaken at the premises.

17. The works approval holder shall immediately recover, or remove and dispose of, spills of fuel, oil, or other hydrocarbons or fire extinguisher foam, whether inside or outside an engineered containment system.

18. The works approval holder shall ensure that all material used for the recovery, removal, and/or disposal of spills is stored in an impermeable container prior to disposal at an appropriately authorised facility.

Monitoring during time limited operations

19. The works approval holder must record the total amount of waste accepted onto the premises and removed from the premises, in accordance with the requirements specified in Table 7.

Table 7: Waste inputs and outputs at the premises

Waste type	Unit	Time period
Inert Waste Type 1 (Tyres)	individual tyre	Each load arriving at the premises
Used conveyor belts	Tonnes	
Rubber pieces	Tonnes	Each load leaving the premises
Waste steel	Tonnes	

Records and reporting

20. The works approval holder must submit the Fire Management Plan required by condition 1 to the CEO:

(a) on or before 18 January 2025; or

(b) with an application for a licence to operate;

whichever occurs first.

21. The works approval holder must record the following information in relation to complaints received by the works approval holder (whether received directly from a complainant or forwarded to them by the Department or another party) about any alleged emissions from the premises:

(a) the name and contact details of the complainant, (if provided);

(b) the time and date of the complaint;

(c) the complete details of the complaint and any other concerns or other issues raised;

(d) regarding any alleged emission of noise, to investigate if the activities occurring at that time were in accordance with Australian Standard AS 2436; and

(e) the complete details and dates of any action taken by the works approval holder to investigate or respond to any complaint.

22. The works approval holder must maintain accurate and auditable books including the following records, information, reports, and data required by this works approval:

(a) the works conducted in accordance with condition 2;

(b) any maintenance of infrastructure that is performed in the course of complying with condition 12;

(c) monitoring programmes undertaken in accordance with condition 19; and

(d) complaints received under condition 21.

23. The books specified under condition 22 must:

(a) be legible;

(b) if amended, be amended in such a way that the original version(s) and any subsequent amendments remain legible and are capable of retrieval;

(c) be retained by the works approval holder for the duration of the works approval; and

(d) be available to be produced to an inspector or the CEO as required.

24. The works approval holder must submit to the CEO a report on the time limited operations within 30 calendar days of the completion date of time limited operations or 30 calendar days before the expiration date of the works approval, whichever is the sooner.

25. The works approval holder must ensure the report required by condition 24 includes the following:

(a) a summary of the time limited operations, including timeframes and amount of tyres and conveyor belts processed;

(b) a review of performance and compliance against the conditions of the works approval; and

(c) where the manufacturer's design specifications and the conditions of this works approval have not been met, what measures will the works approval holder take to meet them, and what timeframes will be required to implement those measures.

Definitions

In this works approval, the terms in Table 8 have the meanings defined.

Table 8: Definitions

Term	Definition
Australian Standard AS 2118.1	means Standards Australia *AS 2118.1 Automatic fire sprinkler system Part 1 General systems*
Australian Standard AS 2419.1	means Standards Australia *AS 2419.1 Fire hydrant installations Part 1: System design, installation and commissioning*
Australian Standard AS 3745	means Standards Australia *AS 3745 Planning for emergencies in facilities*
books	has the same meaning given to that term under the EP Act.
CEO	means Chief Executive Officer. CEO for the purposes of notification means: Director General Department administering the *Environmental Protection Act 1986* Locked Bag 10 Joondalup DC WA 6919 info@dwer.wa.gov.au
condition	a condition to which the licence is subject under section 62 of the *Environmental Protection Act 1986*
cradle	means a large, upright, metal frame designed to hold a spool of conveyor belt.
Department	means the department established under section 35 of the *Public Sector Management Act 1994* and designated as responsible for the administration of Part V Division 3 of the EP Act.
discharge	has the same meaning given to that term under the EP Act.
emission	has the same meaning given to that term under the EP Act.
Environmental Commissioning Report	means a report on any commissioning activities that have taken place and a demonstration that they have concluded, with focus on emissions and discharges, waste containment, and other environmental factors.
Environmental Compliance Report	means a report to satisfy the CEO that the conditioned infrastructure and/or equipment has been constructed and/or installed in accordance with the works approval.
EP Act	*Environmental Protection Act 1986* (WA).
EP Regulations	*Environmental Protection Regulations 1987* (WA).

Term	Definition
Fire and Emergency Management Plan	means a Fire and Emergency Management Plan that meets the requirements specified in condition 1 of this approval
fire management consultant	means a person who: (a) holds a Bachelor of Engineering recognised by Engineers Australia; and (b) has a minimum of five years of experience working in a supervisory area of fire control system design, installation and commissioning; and (c) is employed by an independent third party external to the works approval holder's business; or is otherwise approved in writing by the CEO to act in this capacity.
firewater	means water that, in the event of a fire, has been used to extinguish a fire, and all materials and combusting products dissolved or suspended within such water, and includes other fire suppressant substances such as foams.
off-the-road tyres	tyres originating from mining equipment.
premises	the premises to which this works approval applies, as specified at the front of this works approval, as shown on the premises map (Figure 1) and as listed in Table 9 of Schedule 1 to this works approval.
prescribed premises	has the same meaning given to that term under the EP Act.
suitably qualified structural engineer	means a person who: (a) holds a Bachelor of Engineering degree recognised by Engineers Australia; and (b) has a minimum of five years of experience working in a supervisory role in civil or structural engineering; and (c) s employed by an independent third party external to the Works Approval Holder's business; or is otherwise approved in writing by the CEO to act in this capacity.
time limited operations	refers to the operation of the infrastructure and equipment identified under this works approval that is authorised for that purpose, subject to the relevant conditions.
waste	has the same meaning given to that term under the EP Act.
works approval	refers to this document, which evidences the grant of the works approval by the CEO under section 54 of the EP Act, subject to the conditions.
works approval holder	refers to the occupier of the premises being the person to whom this works approval has been granted, as specified at the front of this works approval.

END OF CONDITIONS

Schedule 1: Maps

Premises map

The boundary of the prescribed premises is shown in the map below (Figure 1).

Figure 1: Map of the boundary of the prescribed premises

Premises layout

The layout of the prescribed premises is shown in the map below (Figure 2).

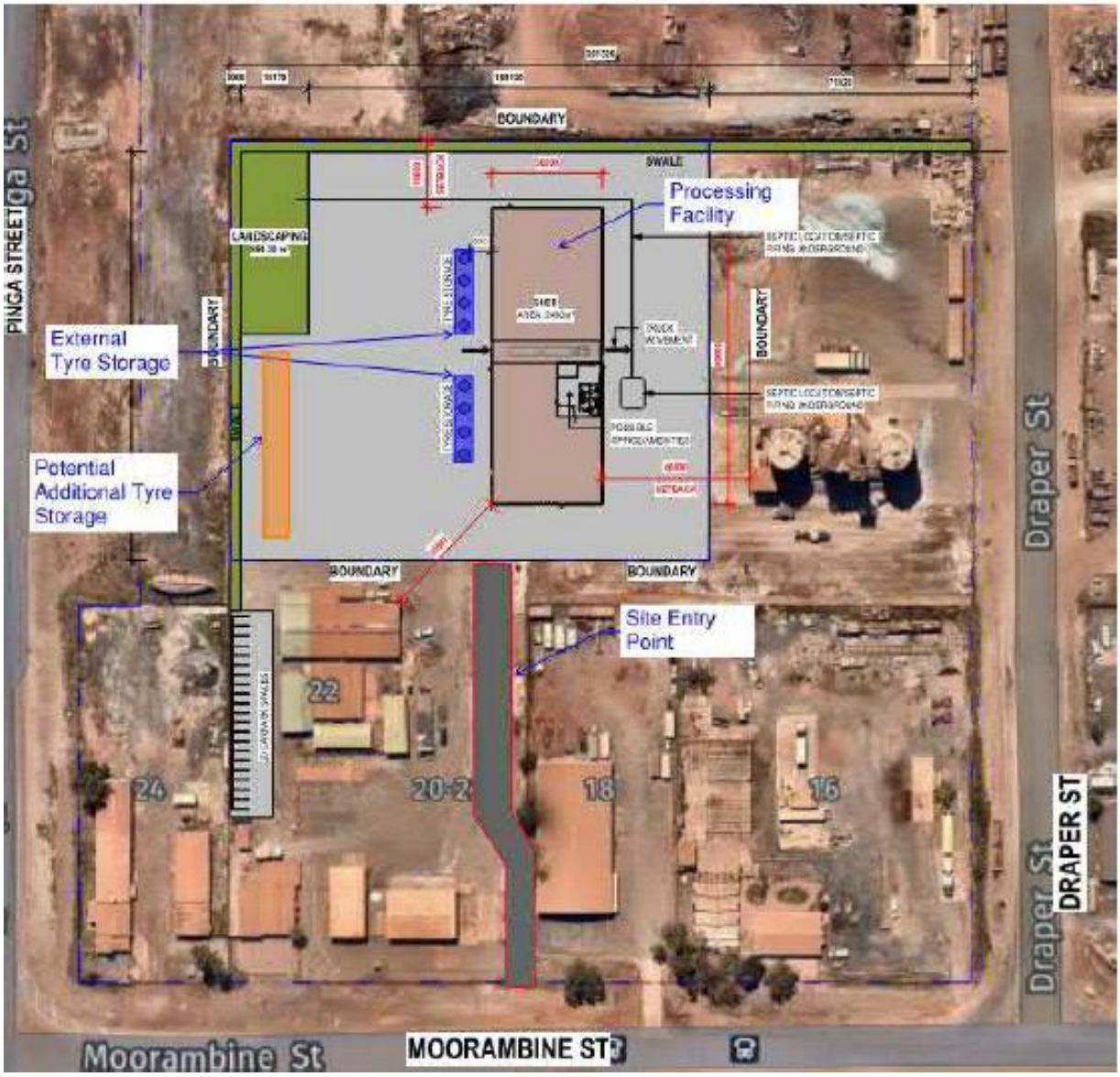

Figure 2: Premises layout plan

Schedule 2: Premises boundary

The corners of the premises boundary are the coordinates listed in Table 9.

Table 9: Premises boundary coordinates (GDA2020)

	Easting	Northing	Zone
1.	666187	7747351	50
2.	666186	7747239	50
3.	666055	7747240	50
4.	666056	7747353	50