



Works Approval

Works approval number	W2987/2025/1
Works approval holder	Eastern Metropolitan Regional Council
Registered business address	226 Great Eastern Highway, Belmont WA 6104
DWER file number	INS-0002987
Duration	05/09/2025 to 04/09/2028
Date of issue	05/09/2025
Premises details	Red Hill Waste Management Facility 1094 Toodyay Road, RED HILL WA 6056 Legal description - Lot 1 on Diagram 15239, Lot 2 on Diagram 68630, Lots 8, 9 and 10 on Deposited Plan 10872, Lot 11 on Diagram 69105 and Lot 12 on Deposited Plan 26468

Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i>)	Assessed design capacity
Category 67A: Compost manufacturing and blending	28,000 tonnes per annum

This works approval is granted to the works approval holder, subject to the attached conditions, on 5 September 2025 by:

Steve Checker

MANAGER, WASTE INDUSTRIES

APPROVALS – STATEWIDE DELIVERY

an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

Works approval history

Date	Reference number	Summary of changes
05/09/2025	W2987/2025/1	Works approval granted (APP-0026553).

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

Infrastructure and equipment

1. The works approval holder must:
 - (a) construct and/or install the infrastructure and/or equipment;
 - (b) in accordance with the corresponding design and construction / installation requirements; and
 - (c) at the corresponding infrastructure location; and
 as set out in Table 1.

Table 1: Design and construction / installation requirements

	Infrastructure	Design and construction / installation requirements	Infrastructure location
1.	Garden Organics (GO) hardstand	(a) Earthworks and filling to be conducted in accordance with AS 3798 and AS 1289. (b) Hardstand must comprise a minimum thickness of 300 mm of ferricrete. (c) The hardstand must achieve a permeability of less than 1×10^{-9} metres per second or equivalent. (d) To be sloped towards the perimeter leachate swale as depicted in Schedule 1, Figure 2. (e) Must be constructed and installed according to the specifications set out the <i>Technical Specification</i> . (f) Construction Quality Assurance (CQA) activities must be undertaken according to the <i>Construction Quality Assurance Plan</i> .	Schedule 1, Figure 2 (Drawing C-102-D of the submitted application) Schedule 1, Figure 3 (Drawing C-301-B of the submitted application)
2.	GO Leachate Pond	(a) Earthworks and filling to be conducted in accordance with AS 3798 and AS 1289. (b) The leachate pond must consist of the following: <ol style="list-style-type: none"> i). Minimum 500mm thick engineered attenuation layer. ii). 2 mm High Density Polyethylene (HDPE) Double Textured Geomembrane. (c) The lining system must achieve a permeability of less than 1×10^{-9} metres per second or equivalent. (d) Must provide a minimum operational storage capacity ¹ of 4,337 m ³ .	Schedule 1, Figure 2 (Drawing C-102-D of the submitted application)

	Infrastructure	Design and construction / installation requirements	Infrastructure location
		<p>(e) Designed to maintain a freeboard of no less than 500 mm.</p> <p>(f) A minimum vertical separation distance of 2.0 m must be maintained between the base of the leachate pond and the highest groundwater level (including seasonal perched aquifers).</p> <p>(g) Must be constructed and installed according to the specifications set out the <i>Technical Specification</i>.</p> <p>(h) Construction Quality Assurance (CQA) activities must be undertaken according to the <i>Construction Quality Assurance Plan</i>.</p> <p>Note 1: Operational storage capacity assumes that a 500 mm freeboard is maintained within the capacity of the pond.</p>	
3.	Leachate management system	<p>(a) Leachate drainage swales must comprise a base of 300 mm of ferricrete.</p> <p>(b) The leachate management system must achieve a permeability of less than 1×10^{-9} metres per second or equivalent.</p> <p>(c) Must be constructed and installed according to the specifications set out the <i>Technical Specification</i>.</p> <p>(d) Must be constructed and installed in accordance with Schedule 1, Figures 2, 3, 4 and 5.</p> <p>(e) Leachate drainage swales must connect to the Leachate Pond.</p>	<p>Schedule 1, Figure 2 (Drawing C-102-D of the submitted application)</p> <p>Schedule 1, Figure 3 (Drawing C-301-B of the submitted application)</p> <p>Schedule 1, Figure 4 (Drawing C-302-A of the submitted application)</p> <p>Schedule 1, Figure 5 (Drawing C-303-A of the submitted application)</p>

Compliance reporting

2. The works approval holder must within 30 calendar days of an item of infrastructure or equipment required by condition 1 being constructed and/or installed:
 - (a) undertake an audit of their compliance with the requirements of condition 1; and
 - (b) prepare and submit to the CEO an Environmental Compliance Report on that compliance.
3. The Environmental Compliance Report required by condition 2, must include as a minimum the following:
 - (a) certification by a suitably qualified civil engineer that the items of infrastructure or component(s) thereof, as specified in condition 1, have been constructed in accordance with the relevant requirements specified in condition 1;

- (b) as constructed plans and a detailed site plan for each item of infrastructure or component of infrastructure specified in condition 1;
- (c) photographs of the constructed and/or installed infrastructure and equipment; and
- (d) be signed by a person authorised to represent the works approval holder and contains the printed name and position of that person.

Time limited operations phase

Commencement and duration

4. The works approval holder may only commence time limited operations for an item of infrastructure identified in condition 1 where the Environmental Compliance Report as required by condition 2 has been submitted by the works approval holder for that item of infrastructure.
5. The works approval holder may conduct time limited operations for an item of infrastructure specified in condition 1 (as applicable):
 - (a) for a period not exceeding 180 calendar days from the day the works approval holder meets the requirements of condition 2 for that item of infrastructure; 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 5(a).

Infrastructure and equipment

6. During time limited operations, the works approval holder must ensure that the premises infrastructure and equipment listed in Table 2 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirement set out in Table 2.

Table 2: Infrastructure and equipment requirements during time limited operations

	Site infrastructure and equipment	Operational requirement	Infrastructure location
1.	GO Hardstand	(a) Hardstand must comprise a minimum thickness of 300 mm of ferricrete. (b) The hardstand must maintain a permeability of less than 1×10^{-9} metres per second or equivalent. (c) Bunded and maintained to contain leachate and drain it to the GO leachate pond via the leachate drainage swales. (d) Graded and maintained to prevent pooling of leachate and achieve drainage to the GO leachate pond.	Schedule 1, Figures 2 and 3
2.	GO Leachate Pond	(a) Must be lined with a 2 mm HDPE Double Textured Geomembrane. (b) The lining system must maintain a permeability of less than 1×10^{-9} metres per second or equivalent. (c) Must provide a minimum operational	Schedule 1, Figure 2

	Site infrastructure and equipment	Operational requirement	Infrastructure location
		<p>storage capacity¹ of 4,337 m³.</p> <p>(d) Managed such that a freeboard equal to or greater than 500 mm is maintained.</p> <p>(e) Weekly inspections by site personnel to assess and record freeboard measurements must be undertaken.</p> <p>(f) Infrastructure must be in place to pump excess leachate to the Class III leachate ponds.</p> <p>(g) Excess leachate is managed by pumping to the Class III leachate ponds.</p> <p>Note 1: Operational storage capacity assumes that a 500 mm freeboard is maintained within the capacity of the pond.</p>	
3.	Leachate management system	<p>(a) Leachate drainage swales must comprise a base of 300 mm of ferricrete.</p> <p>(b) The leachate management system must maintain a permeability of less than 1x10⁻⁹ metres per second or equivalent.</p> <p>(c) Leachate drainage swales must discharge to the GO Leachate Pond.</p> <p>(d) Must be kept clear of any debris to allow effective draining.</p>	Schedule 1, Figures 2, 3, 4 and 5

Waste acceptance

7. The works approval holder must only accept onto the premises waste of a type that:
- (a) does not exceed the rate at which that waste is received; and
 - (b) meets the relevant acceptance specification,
- as set out in Table 3.

Table 3: Waste acceptance criteria

Waste type	Rate at which waste is received	Acceptance specification
Garden Organics	28,000 tonnes per annual period	None specified

8. The works approval holder must ensure that where waste does not meet the waste acceptance criteria set out in condition 7, it is removed from the premises by the delivery vehicle or, where that is not possible, stored in a quarantined storage area or container and removed to an appropriately authorised facility within 72 hours.

Waste processing

9. The works approval holder must ensure that the waste types specified in Table 4 are only subjected to the corresponding process(es), subject to the corresponding process limits and/or specifications.

Table 4: Waste processing

Waste type	Process(es)	Process limits and/or specifications
Garden organics	Receipt, handling, storage and mulching or composting for on-site use, removal offsite or disposal	<ul style="list-style-type: none"> (a) GO is stored at the premises only for the purpose of mulching or composting for on-site use, or for removal from the premises. (b) Unprocessed GO must be stored on the GO processing hardstand. (c) All GO being composted and all Composting Products are stored and processed on the GO hardstand. (d) All GO, materials undergoing composting and Composting Products stored on the GO hardstand are stored in windrows. (e) Windrows of GO must be no more than 3 metres high and no more than 4 metres wide and separated by at least 4.5 metres of clear ground from any other row or from any other combustible waste. (f) Windrows of GO and materials undergoing composting are maintained in an aerobic state. (g) Windrows of GO and materials undergoing composting must be kept in a damp state and regularly inspected to check for any smoldering or smoke.

Monitoring during time limited operations

10. The works approval holder must record the total amount of waste accepted onto the premises as listed in Table 5, in the corresponding unit, and for each corresponding time period, as set out in Table 5.

Table 5: Monitoring of waste accepted on the premises

Waste	Unit	Time period
Garden organics	m ³ or tonnes	Each load arriving at the premises

11. The works approval holder must record the total amount of outputs removed from the premises, for each output type listed in Table 6, in the corresponding unit, and for each corresponding time period set out in Table 6.

Table 6: Monitoring of outputs removed from the premises

Waste	Description	Unit	Time period
Rejected loads	Waste types as defined in the Landfill Definitions	m ³ or tonnes	Each load rejected from the premises
Waste outputs			Each load leaving the premises
Recycled organic product quality	Mulch or compost		Each load leaving the premises

Recycled organic product quality

12. The works approval holder must ensure that all recycled organic products do not exceed the upper contaminant limits set out in Schedule 2, based on the monitoring undertaken in accordance with condition 14, before they are removed from the premises.
13. The works approval holder must ensure that any recycled organic products that exceed any upper contaminant limits in Schedule 2 are either:
- reprocessed in a manner that will treat or remove the non-conforming contaminants to concentrations that comply with the upper contaminant limits in Schedule 2, with reprocessing starting within 30 days of confirmation of the non-conformance; or
 - removed from the premises for disposal to an appropriately authorised facility within 30 days of confirmation of the non-conformance.

Product quality monitoring

14. The works approval holder must monitor recycled organic products for concentrations of the corresponding parameters listed in Table 7:
- using the corresponding sampling method;
 - using the corresponding analytical method; and
 - at no less than the corresponding frequency,
- as set out in Table 7.

Table 7: Recycled organic product quality sampling

Recycled organic product type	Parameter	Sampling method	Analytical method	Frequency
Mulch and soil improver	Arsenic, cadmium, boron, chromium (total), copper, lead, mercury, nickel, selenium and zinc	AS 4454 – Appendix A	AS 4454 – Appendix D	One sample per 10,000 tonnes of Recycled organic product
	DDT/DDD/DDE, aldrin, dieldrin, chlordane, heptachlor, HCB, lindane and BHC			
	PCBs			
	Chromium (VI)		Schedule B3 Section 7.5 of NEPM-ASCM (or an equivalent NATA-accredited method)	
	Glass, metal and rigid plastics >2 mm		AS 4454 – Appendix I	
	Plastics: light, flexible or film, including biodegradable and compostable types >5 mm			
	Viable plant propagules		AS 4454 – Appendix M	

15. The works approval holder must ensure that sample analysis undertaken to comply with condition 14 is undertaken by a holder of a current accreditation from the National Association of Testing Authorities (NATA) for the relevant parameters.

Compliance reporting

16. 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.
17. The works approval holder must ensure the report required by condition 16 includes the following:
- a summary of the time limited operations, including timeframes;
 - a summary of the environmental performance of all infrastructure as constructed or installed (as applicable);
 - a summary of monitoring in accordance with conditions 10 and 11;
 - a review of performance and compliance against the conditions of the works approval; and
 - 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.

Records and reporting (general)

- 18.** 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; and
 - (d) the complete details and dates of any action taken by the works approval holder to investigate or respond to any complaint.
- 19.** 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 1;
 - (b) any maintenance of infrastructure that is performed in the course of complying with condition 6;
 - (c) monitoring programmes undertaken in accordance with conditions 10 and 11; and
 - (d) complaints received under condition 18.
- 20.** The books specified under condition 19 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.

Definitions

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

Table 8: Definitions

Term	Definition
AS 1289	means the Australian Standard AS 1289 <i>Methods of testing soils for engineering purposes General requirements and list of methods</i>
AS 3798	means the Australian Standard AS 3798 <i>Guidelines on earthworks for commercial and residential developments</i>
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 <i>Environmental Protection Act 1986</i> Locked Bag 10 Joondalup DC WA 6919 info@dwer.wa.gov.au
Construction Quality Assurance Plan	means the document titled <i>Construction Quality Assurance Plan - Red Hill Waste Management Facility - GO Hardstand, Leachate Pond & Road Network Construction</i> , dated April 2025, Project Number: TC24042, Prepared for Eastern Metropolitan Regional Council by Talis Consultants.
CQA Consultant	has the same meaning given to that term under the relevant Construction Quality Assurance Plan.
Department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> 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 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	<i>Environmental Protection Act 1986</i> (WA).
EP Regulations	Environmental Protection Regulations 1987 (WA).
Garden organics	means waste that originates from flora and which does not contain or has not been treated or coated with, preserving

Term	Definition
	agents, biocides, fire retardants, paint, adhesives or binders
Landfill Definitions	means the document titled 'Landfill Waste Classification and Waste Definitions 1996' published by the CEO as amended from time to time
premises	the premises to which this licence applies, as specified at the front of this licence and as shown on the premises map (Figure 1) in Schedule 1 to this works approval.
prescribed premises	has the same meaning given to that term under the EP Act.
recycled organic product	means a fit-for-purpose product that has been produced from the substantial transformation of organic waste and feedstocks so that it is no longer waste.
suitably qualified civil engineer	means a person who: <ul style="list-style-type: none"> (a) holds a Bachelor of Engineering recognised by Engineers Australia; (b) has a minimum of five years of experience working in a supervisory area of civil or structural engineering; 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
Technical Specification	means the document titled Technical Specification - <i>Red Hill Waste Management Facility - GO Hardstand, Leachate Pond & Road Network Construction</i> , dated April 2025, Project Number: TC24042, Prepared for Eastern Metropolitan Regional Council by Talis Consultants.
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. The pink line shows the premises boundary.

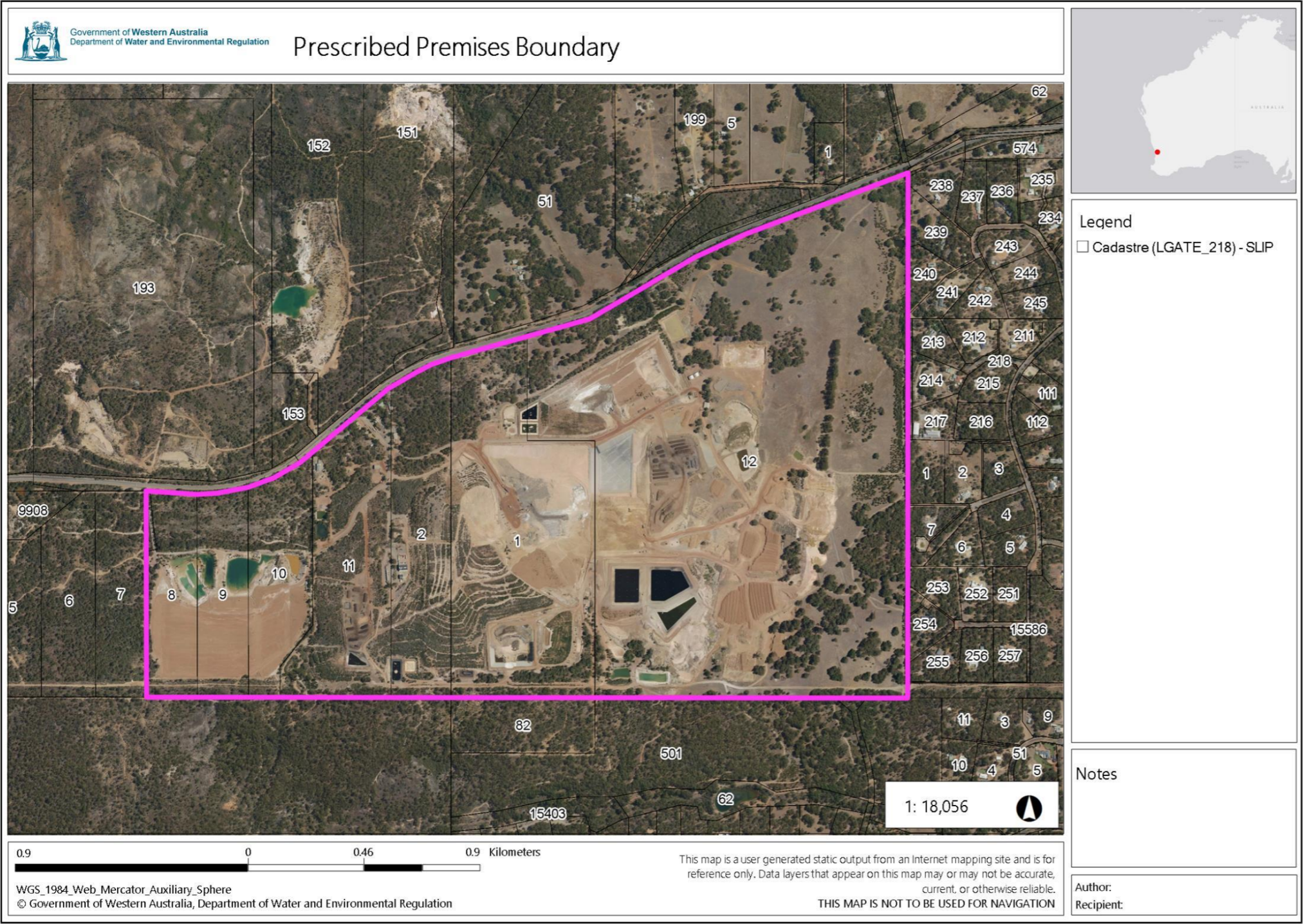




Figure 3: GO Hardstand Design (Drawing C-301-B)

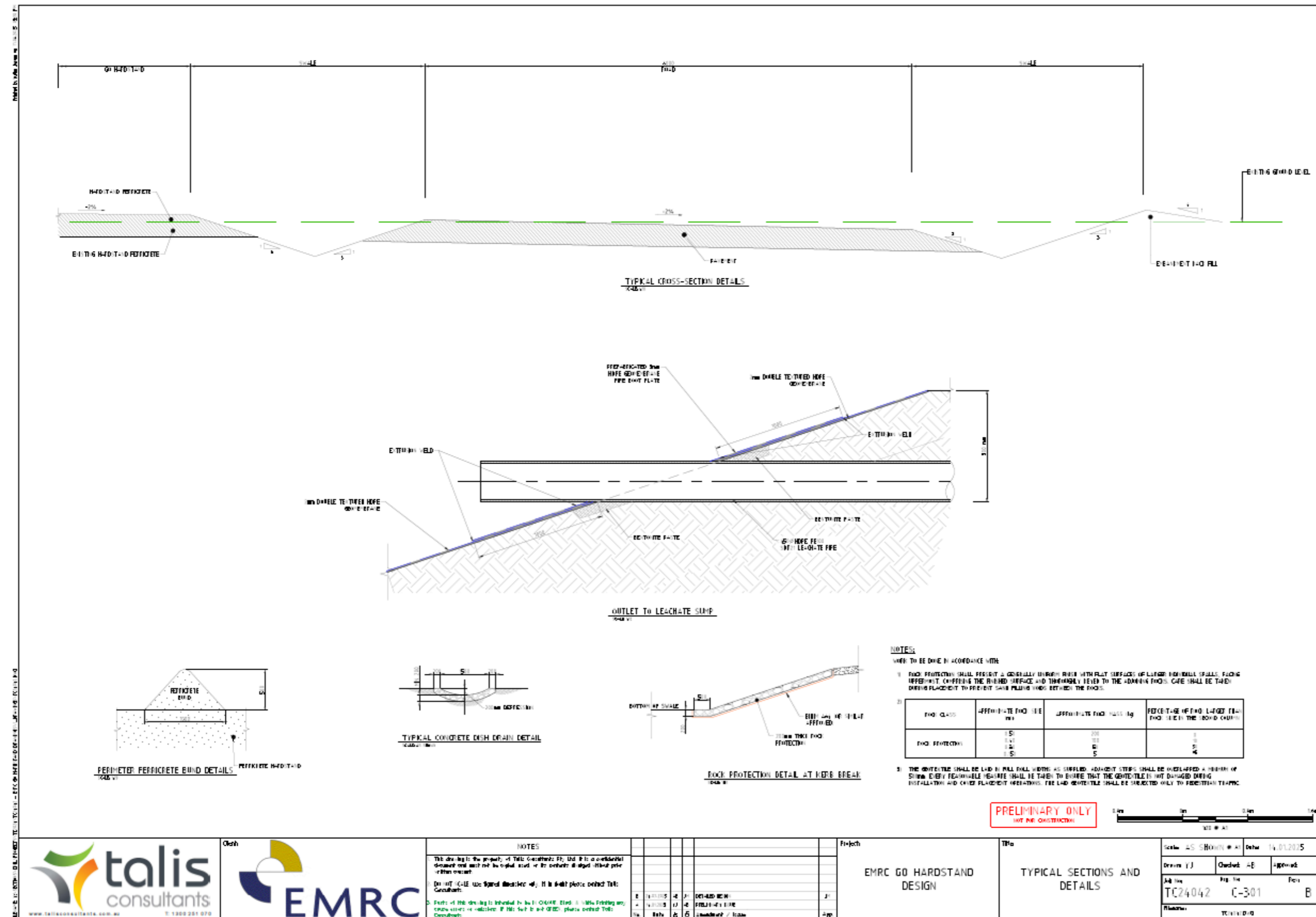
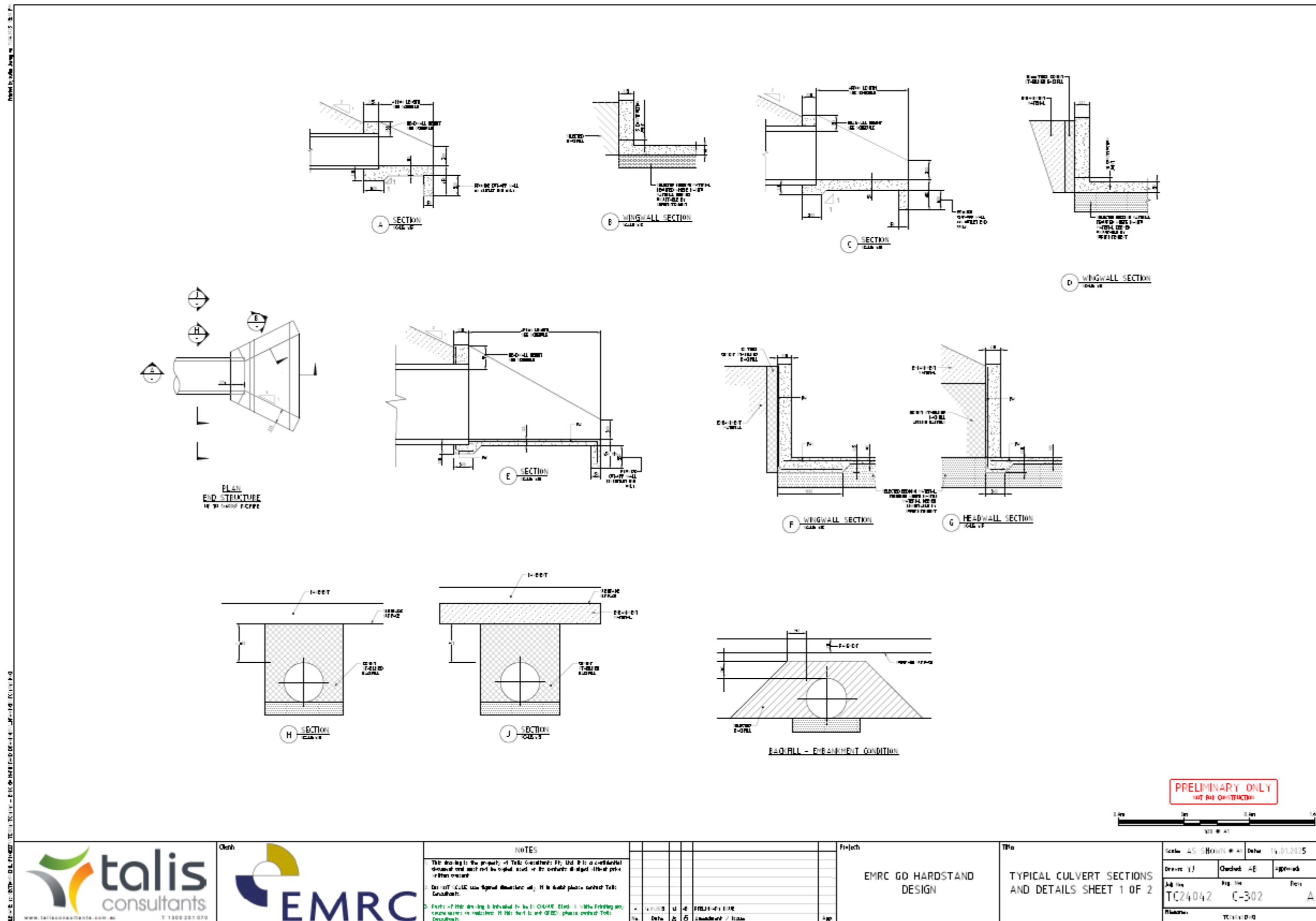




Figure 4: Culvert sections and details (Drawing C-302-A)



THESE RESULTS ARE IN ACCORD WITH THE FINDINGS OF OTHER STUDIES THAT HAVE SHOWN THAT THE USE OF A SINGLE-STEP PROCESS IS MORE EFFECTIVE THAN A TWO-STEP PROCESS IN IMPROVING STUDENT PERFORMANCE.



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		Job No: TC24042		Proj. No: C-303		Rev: A											
		Revision:		TC24042		C-303		A									

Schedule 2: Upper contaminant limits

Table 9: Recycled product quality upper contaminant limits

Recycled product quality type	Parameter	Upper limit
All recycled organic products	Arsenic	20 mg/kg
	Cadmium	1 mg/kg
	Boron	100 mg/kg
	Chromium (total)	100 mg/kg
	Copper	100 mg/kg
	Lead	150 mg/kg
	Mercury	1 mg/kg
	Nickel	60 mg/kg
	Selenium	5 mg/kg
	Zinc	200 mg/kg
	DDT/DDD/DDE	0.5 mg/kg
	Aldrin	0.02 mg/kg
	Dieldrin	0.02 mg/kg
	Chlordane	0.02 mg/kg
	Heptachlor	0.02 mg/kg
	HCB	0.02 mg/kg
	Lindane	0.02 mg/kg
	BHC	0.02 mg/kg
	PCBs	Not detectable (detection limit of 0.2 mg/kg)
	Glass, metal and rigid plastics (>2 mm)	0.5% dry matter w/w
	Plastics – light, flexible or film, including biodegradable and compostable types (>5 mm)	0.05% dry matter w/w
	Viable plant propagules	Nil germination after 21 days