



# LANDSCAPE MANAGEMENT PLAN

August 2024



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Version	Date	Reviewer	Comments
16	18 <sup>th</sup> July 2019	Luke Pascot	General Review
17	14 <sup>th</sup> September 2020	Luke Pascot	Review following 2020 Triennial Independent Audit recommendations. No material changes.
18	17 <sup>th</sup> March 2021	Luke Pascot	Review and update following DPIE RFI and PKCT site separation for AIE site
19	13 <sup>th</sup> September 2022	Michael Curley	Annual review – no changes made.
20	21 <sup>st</sup> August 2023	Luke Pascot	Annual review – no material changes made. Updates to document I.D's where required.
21	14 <sup>th</sup> August 2024	Luke Pascot	Annual review – no material changes made. Updates to document I.D's where required.

## 1. INTRODUCTION

### 1.1 Purpose

The purpose of this Landscape Management Plan (LMP) is to outline the processes for managing Port Kembla Coal Terminal (PKCT)'s site environs, including flora and fauna in accordance with PKCT's policies, standards and legal obligations.

This LMP has been prepared to meet the Department of Planning, Industry and Environment's (DPIE) approval conditions (refer Section 5.1 herein) for a Landscape Management Plan, but also includes the related matters of landscape maintenance and pest and weed control. A specific landscaping project has been included in this LMP as it formed part of a PKCT commitment under the DPE approval. Once completed, further landscaping tasks and projects will be tracked through AEMR reporting and PKCT's project development processes.

### 1.2 Background

Port Kembla Coal Terminal (PKCT) provides a coal product receipt, storage and shipping loading service to its customers. PKCT is located on the northern side of the inner harbour and operates premises leased from NSW Ports (NSWP).

PKCT has been in operation since 1990 and operates under an Environment Protection Licence (EPL) No. 1625 in accordance with the *Protection of the Environment Operations Act 1997* (POEO Act).

Originally consisting of sand dunes, PKCT's site is highly disturbed. Construction of the facility involved considerable site works and imported fill materials. As part of this work, landscaped areas were installed at various locations onsite.

In June 2009, the DPE set new approval conditions for PKCT's operations as part of the development consent under Part 3A of the Environmental Planning & Assessment Act 1979 for PKCT's Existing Operations & Increased Road Receipt Hours Major Development application (08\_0009).

DPIE's requirement for PKCT to submit a Landscape Management Plan 12 months after the date of approval was revised by the DPIE, at PKCT's request, to the 31st July 2010 to enable financial year reporting for the Annual Environment Management Report (AEMR).

A Landscape Management Plan MP.HS.470 V4 was submitted to the DPE on the 27th July 2010 as part of the 0910 Annual Environment Management Report submission.

### 1.3 Scope

This LMP applies to PKCT's premises and activities associated with landscaping and estate management, with consideration to the flora and fauna contained within, as follows:

- The maintenance and improvement of landscaped areas containing native plants, together with weed control to prevent invasion by nuisance and noxious species.
- Preserving native fauna species, noting that vermin control is also necessary.

## 1.4 Objectives

The objectives of this LMP are to:

- Provide suitable hard and soft landscaping areas on the PKCT premises
- Provide a framework for managing landscaping, including identification of any improvement, repairs or rehabilitation works
- Ensure compliance with the DPIE Approval 08\_0009 conditions
- Prevent pest and weed infestation on the PKCT premises
- Monitor the success of this management plan and continually improve it based on results
- Provide landscaping, pest and weed control information for contribution towards the PKCT Annual Environmental Management Report.

## 2. RESPONSIBILITIES

The roles and responsibilities relevant to landscape management and this LMP at PKCT are defined in Table 1 below.

**Table 1 Environmental Management Roles and Responsibilities**

<b>Role</b>	<b>Responsibility</b>
PKCT employees, contractors and site personnel	All PKCT employees, contractors and other site personnel are responsible to comply with this Management Plan.  PKCT employees, contractors and other site personnel must take appropriate action detailed in this Management Plan in accordance with PKCT's legal and environmental obligations
Environmental Specialist	Is responsible to the HSER Superintendent for the coordination and implementation of this Management Plan to PKCT site operations.  The Environmental Specialist is responsible to the HSER Lead for the collection, storage and retention of data and monitoring of water management system performance.
Health Safety Environment and Risk (HSER) Lead	Is responsible to the General Manager for site monitoring and operation of environmental control systems.
Operations Manager	Is responsible for managing and supporting the shift and daywork teams to effectively and safely operate the business in line with customer, community and regulator expectations.
Maintenance Superintendent	Is responsible to the General Manager for work execution, ensuring environmental control equipment is maintained, reliable and effective.
Asset Manager	Is responsible for asset management and planning, ensuring environmental control equipment is fit for purpose, reliable and effective.
General Manager	Is accountable for PKCT's legal and environmental compliance.

### 3. LEGISLATIVE AND OTHER REQUIREMENTS

#### 3.1 NSW Biosecurity ACT 2015

Under the Biosecurity Act 2015 everyone has a General Biosecurity Duty to ensure that, so far as is reasonably practical, the biosecurity risk posed by priority weeds is prevented, eliminated or minimised. Under this LMP, landscaped areas are to prioritise native species and ensure regular weeding is carried out to prevent the spread of weeds.

#### 3.2 Department of Planning, Industry and Environment: 2009 Approval Conditions

On the 12<sup>th</sup> June 2009, the Minister for Planning approved a Project Application (08\_0009) that was submitted by Port Kembla Coal Terminal (PKCT) to change receival arrangements. The project approved by the minister was defined as the development described in the environmental assessment.

The project was approved with conditions, including a requirement for PKCT to prepare and implement a Landscape Management Plan. Table 2 below identifies the relevant condition details.

**Table 2: Condition details**

Condition Details	Area addressed in LMP
<p><b>16. The Proponent shall prepare and implement a Landscape Management Plan to the satisfaction of the Director-General. This Plan must:</b></p> <p>(a) <b>Be submitted to the Director-General for approval within 12 months from the date of this approval, or as otherwise agreed with the Director-General; and</b></p> <p>(b) <b>Include:</b></p> <p style="padding-left: 20px;"><b>I. Details of screening trees to be planted on the road receival earth bund and along the northern site boundary; and</b></p> <p style="padding-left: 20px;"><b>II. An implementation program.</b></p>	Section 1.2, 4, 6

#### 3.3 Policies and Standards

PKCT is managed by South32 (Illawarra Coal) and has a management system in place which operates in accordance with its Sustainable Development Policy (PO.003), Environment Policy (PO.002) and Quality Policy (PO.004). These policies are summarised in Table 3 below.

**Table 3 PKCT Policies and Standards**

Policy / Standard	Description
<b>Sustainable Development Policy</b>	<p>The sustainable development policy outlines the objectives PKCT undertake to ensure site operations are undertaken in a sustainable manner which considers the following key concepts:</p> <ul style="list-style-type: none"> <li>The health and safety values of PKCT staff, contractors and site personnel</li> </ul>



**Policy / Standard**

**Description**

- Set and achieve sustainable development targets with respect to energy and water efficiency targets which promotes the efficient use of resources and include reducing and preventing pollution throughout the lifecycle of PKCT products
- Develop partnerships that foster the sustainable development of our local communities, enhance economic benefits from our operations.
- Ongoing consultation with customers, employees, indigenous land owners and the local community.

**Environmental Policy**

The environmental policy outlines PKCT commitment to improved environmental performance and ensuring site operations are undertaken in an environmentally responsible manner which includes:

- Understanding and controlling impacts of site operations on the environment and community
- Maintain the highest possible standards of environmental management and monitoring
- Compliance with regulatory requirements, conditions of approval and licence conditions
- Ongoing consultation with customers, employees, indigenous land owners and the local community.

**Quality Policy**

PKCT Business Management System provides a framework for managing quality and establishing, achieving and reviewing quality objectives in compliance with the requirements of AS/NZS ISO 9001:2016 and ISO 14001:2015. PKCT staff, contractors and site personnel will fulfil the requirements detailed in the AS/NZS ISO 9001:2016 and ISO 14001:2015 and continually seek opportunities to improve system effectiveness

PKCT has an environment management system in place which is certified to ISO 14001:2015. The system includes documented policies and procedures, environmental aspects assessed and registered with processes for their control and continual improvement. The system is subject to audit and review including biannual surveillance visits by PKCT's external certifier (Lloyd's Register Quality Assurance Limited).



#### 4. EXISTING ENVIRONMENT

In accordance with the commitment made under the DPIE Approval 08\_0009 (refer Section 4.1), PKCT developed a Landscaping Layout and Planting Plan as per Appendix A, B and C of this LMP, focusing on PKCT's northern perimeter boundary.

The proposed works under this commitment are now complete, with implementation details as follows:

- During the 2009/10 reporting period, Stage 1 was completed adjacent to conveyor NC5. Refer to Planting Area A in Appendix A for details.
- During the 2010/11 reporting period, Stage 2 was completed in the area between Transfer Stations 3 and 4 (TS3 and TS4), including earthworks to establish a landscaping mound adjacent to Transfer Station 3 (TS3). Refer to Planting Area B in Appendices A and B for details.
- During the 2018/19 reporting period, Stage 3 was completed, which consisted of the planting of 600 trees and shrubs along the western berm of the Road Receival area. Existing grass was trimmed, jute matting applied and trees and shrubs were planted with grow bags. Mulch was applied around the new plantings and a watering system was installed to help establish the plants. Refer to Planting Area C in Appendix C for details.
- During 2022/2023 an additional ~600 trees and shrubs were planted in and around initial Stage 3 plantings. These trees and shrubs will further enhance the visual amenity of the Road Receival area and provide further habitat and biodiversity on the site.

## 5. SITE OPERATIONS

### 5.1 Operational Activities and Potential Issues

Soft landscaping at PKCT is in place to improve the appearance of the premises and, in some areas, provide screening of PKCT buildings and/or structures from external viewpoints. PKCT's site in general, and landscaped areas, requires maintenance including control of certain flora and fauna species.

Invasive noxious weeds have the ability to spread across the site, if unchecked. Weeds, such as bitou bush, are able to grow in the most inhospitable areas and spread rapidly. Bitou bush has been found to grow in slag without apparent need of soil or nutrients.

Similarly, pests such as rabbits, foxes, pigeons and rats are attracted to the site and threaten valued native species, which also seek onsite habitat.

### 5.2 AIE Site Interactions with PKCT

Australian Industrial Energy (AIE) is working to develop Australia's first liquefied natural gas (LNG) import terminal at PKCT's Berth 101. PKCT has reached a commercial agreement with NSW Ports and AIE to surrender the southern area of its lease for AIE to construct and operate the LNG import terminal. The date of surrender is 31/03/2021. The revised site boundary for PKCT, as shown in Figure 1, has resulted in a change in PKCT's site operations, infrastructure and environmental management strategies.

The changes include:

- Reduced lease area due to the surrender of the Bulk Products Area, Berth 101 and Seawall Road.
- The removal of five (5) collection ponds / sumps and two (2) wet weather discharge points from the PKCT Contaminated Water Collection Treatment System (CWCT), which include:
  - Pump 1 – Southern Pond (wet weather discharge point)
  - Pump 8 – T3 Pond (wet weather discharge point)
  - Pump 9 – Conveyor C7 Sump
  - Pump 16 – Berth 101 North Sump
  - Pump 17 – Berth 101 South Sump
- The addition of two (2) collection ponds / sumps and two (2) wet weather discharge points to the CWCT System, which include:
  - Pump 24 – TS8 Sump (wet weather discharge point)
  - Pump 25 – South Eastern Pond (wet weather discharge point)
- Amendment to the Air Quality Monitoring network which includes the relocation of the southernmost continuous dust monitor (nominated as C1).
- Traffic management and site access arrangements from the southern end of the revised PKCT site boundary.

PKCT and AIE will work collaboratively during the operation of the AIE site to ensure environmental obligations are met, site operations for PKCT and AIE can be run effectively and safely and any issues raised are dealt with in a timely manner.

**Figure 1: PKCT Site Layout**



## 6. MANAGEMENT STRATEGY

### 6.1 Environmental Aspects and Impacts

PKCT has an Environment Management Strategy providing direction for PKCT's Environment Management System (EMS). An Environmental Aspects and Impacts Register (RG.001). is in place. The register identifies the various aspects associated with PKCT's operations and activities that may affect the environment and the community.

Aspects pertaining to landscaping, pest and weed control are included in the register. The register includes a risk assessment, description of key controls and references to applicable legislation.

Where necessary, PKCT undertakes flora and fauna studies to assess the site to assist in determining landscaping requirements. Consideration is given to areas adjacent to PKCT's perimeter. An external consultant, Biosis Research, undertook a flora and fauna survey in April 2010. The study identified some pockets of noxious weeds requiring attention. Attention was also drawn to evidence of feral species such as foxes and rabbits. No new threatened species were found on PKCT's premises.

### 6.2 Landscape Maintenance and Controls

Landscaping and facilities maintenance activities are generally undertaken under contract. The Operations Manager shall ensure that contracts, including service level agreements (SLAs), are in place for suitably qualified and licenced contractors to carry out waste management, landscaping and vermin/ pest and weed control work in accordance with legal requirements, and that sufficient resources are allocated to maintain the site to the required standard.

Controls in place for vermin and weeds include the use of herbicides and pesticides. Contract scoping, work methods and PKCT monitoring/supervision shall be provided to ensure their proper use to avoid any unwanted environmental impacts. Products shall be used in accordance with legal requirements with reference to manufacturer's instructions, Safety Data Sheets and any other applicable requirement. Particular note shall be taken not to impact:

- (a) any Green and Golden Bell Frog habitats (refer to GGBF Management Plan MP.015); or
- (b) adjacent marine waterways.

The identification of weeds and pests shall occur during routine maintenance of the landscaped areas. Where necessary, advice from external experts shall be sought on the extent and nature of weed and pest infestation and recommendations on appropriate controls.

Records shall be kept of these activities and the environmental and OH&S impact shall be taken into account in the selection of chemicals in the tasks to be undertaken.

The effectiveness of the visual screening from tree planting, as required by the DPE Approval 08\_0009, will be monitored by PKCT. If screening is not suitably achieved by the proposed planting, PKCT will review options for the planting of additional trees. Should any of these tree(s) become diseased or die they will be replaced by a suitable specimen of the same species.



The controlled approach of weed and pest management and the use/advice of specialist contractors will ensure any potential impacts from these activities is minimised.

Other environmental impacts will be minimised by following these guidelines:

- In accordance with Waste Management Plan MP.0200, landscaping activities shall include recycling e.g., wood chipping and mulching to reduce weed growth and conserve water. Consideration must be given to the potential for asbestos or other contaminants when storing and stockpiling green waste. Stockpiles shall be mulched as soon as practical to reduce the fire risk and to minimise any potential for cross contamination with asbestos or other material.
- Landscaping activities shall be carried out in accordance with any water restrictions in force. If necessary, clarified water from the Settlement Lagoon may be recycled for the purposes of watering and irrigation
- Where replanting or establishing new plants, consideration shall be given to Australian natives and/or plants which have a low water requirement and tolerate PKCT's coastal location.

### **6.3 Management Strategy, Effectiveness and Improvement**

The effectiveness of the landscape maintenance shall be reviewed periodically in liaison with the landscape contractor. If any landscaping area becomes unkempt or untidy, the landscape contractor will be directed to focus on this location and instructed to rectify. The landscape contractor will inform PKCT of any soft landscape areas that require new planting or removal of dead vegetation. When this becomes necessary, the plant species will be considered to determine whether a different species or an alteration to the soft landscaping will improve the appearance of the PKCT premises.

If repairs to hard landscaped areas become necessary, the Asset Manager shall review the necessary scope of works and, if suitable, consider if any improvement to the landscaping is necessary or possible.

### **6.4 Improvements and Upgrades**

Improvements may be developed at an operational level but also strategically through management reviews and PKCT's business planning process and capital works program.

Inputs identifying the need for improvement may result from audits, reviews, risk assessments, site observations, complaints, events or improvement initiatives.

Management reviews are primarily undertaken as follows:

- Business Planning – 5-year strategic and annual business plans (financial year) developed identifying improvements projects
- Business Management System Reviews.

PKCT shall continue to consider opportunities for landscaping improvements, where viable, to improve the appearance of the premises and provide for a more pleasant environment for valued flora and fauna.



## 6.5 Reporting and Review

There is no requirement for a report specific to landscaping, pest and weed control. However, the information gathered from the implementation of this LMP will feed into PKCT's AEMR. PKCT will review this LMP and the results of its implementation on an annual basis.

## 7. COMPLAINTS RECORDING AND REPORTING

PKCT has a 24 hour, 7 day free call community hotline number (1800 111448) or e-mail [communitylinks@pkct.com.au](mailto:communitylinks@pkct.com.au) which is advertised on the PKCT website ([www.pkct.com.au](http://www.pkct.com.au)). This provides a mechanism by which complaints and general enquiries regarding environmental or community issues associated with operational activities can be directed.

PKCT has a Stakeholder Management Procedure (PR.055) in place that ensures complaints are recorded, registered and investigated. Where appropriate, corrective actions are developed and implemented.



## 8. REFERENCES

NSW DOP (2009) *Project Approval 08\_009*. New South Wales Government Department of Planning.

PKCT *Stakeholder Management Procedure PR.055*. Port Kembla Coal Terminal

PKCT *Sustainable Development Policy PO.003*. Port Kembla Coal Terminal.

PKCT *Quality Policy PO.004*. Port Kembla Coal Terminal.

PKCT *Emergency Management Plan MP.001*. Port Kembla Coal Terminal.

PKCT *Environmental Aspects and Impacts Register RG.001*. Port Kembla Coal Terminal.

PKCT *Environment Policy PO.002*. Port Kembla Coal Terminal.

PKCT *Green and Golden Bell Frog Management Plan MP.0015*. Port Kembla Coal Terminal.

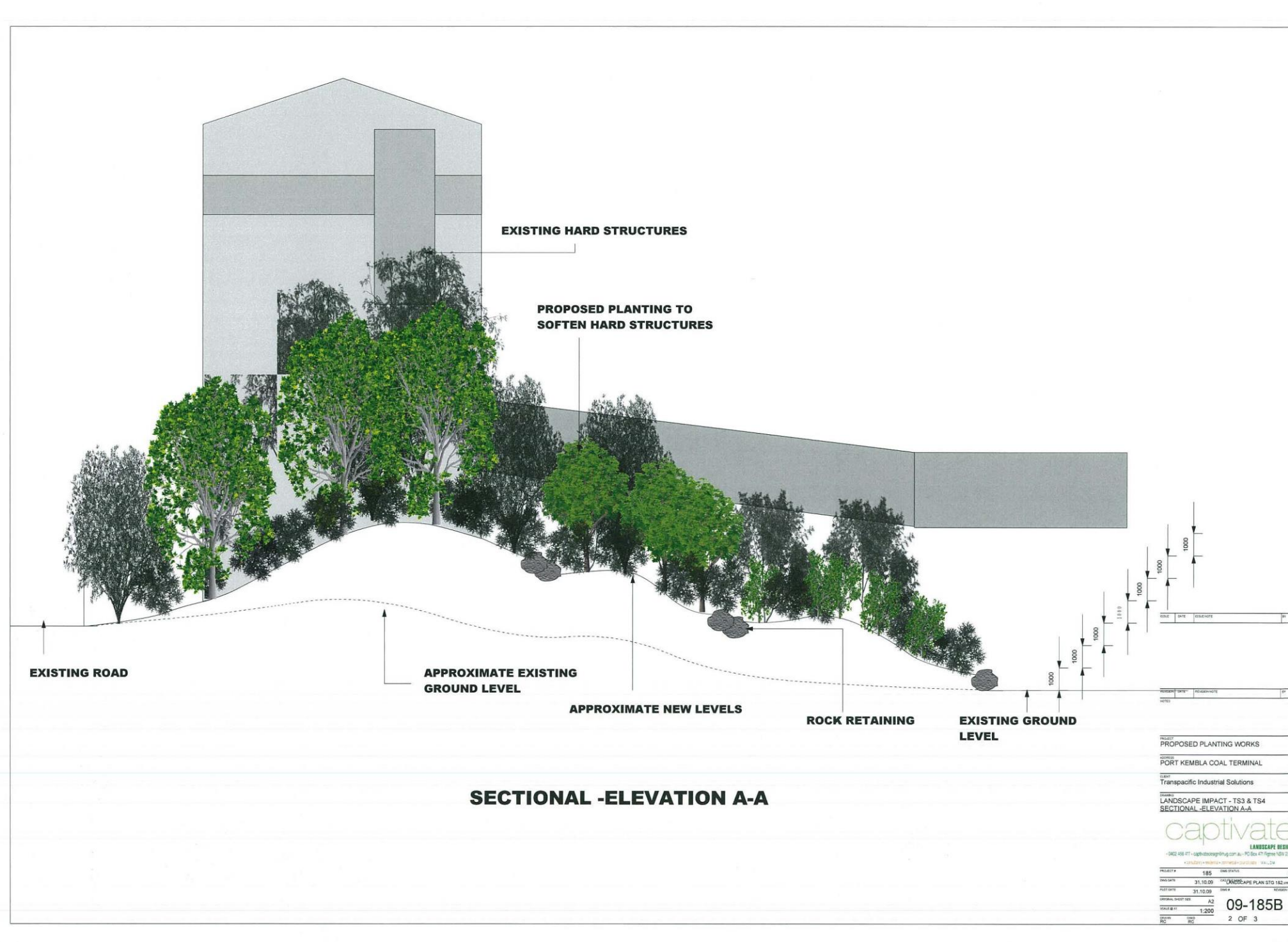
PKCT *Waste Management Plan MP.020*. Port Kembla Coal Terminal.



Appendix A: Landscaping Layout and Planting Plan – Plan View – TS3 and TS4



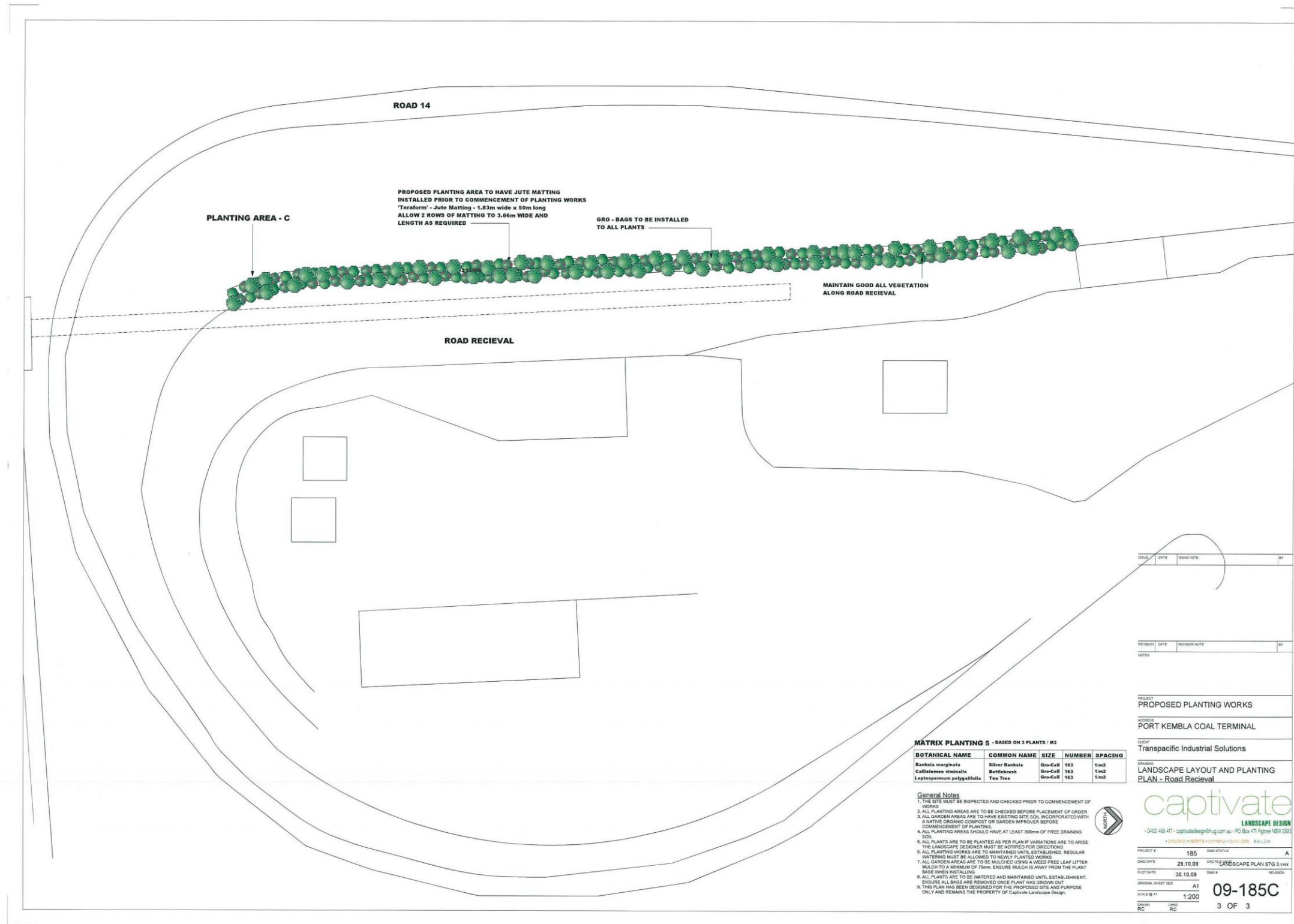
Appendix B: Landscaping Layout and Planting Plan – Sectional Elevation – TS3 and TS4







Appendix C: Landscaping Layout and Planting Plan – Road Recieveal



**MATRIX PLANTING 5 - BASED ON 5 PLANTS / M2**

BOTANICAL NAME	COMMON NAME	SIZE	NUMBER	SPACING
<i>Banksia marginata</i>	Silver Banksia	Gro-C&B	183	1m2
<i>Callistemon viminalis</i>	Bottlebrush	Gro-C&B	183	1m2
<i>Leptospermum polygalifolia</i>	Tea Tree	Gro-C&B	183	1m2

- General Notes**
1. THE SITE MUST BE INSPECTED AND CHECKED PRIOR TO COMMENCEMENT OF WORKS.
  2. ALL PLANTING AREAS ARE TO BE CHECKED BEFORE PLACEMENT OF ORDER.
  3. ALL GARDEN AREAS ARE TO HAVE EXISTING SITE SOIL INCORPORATED WITH A NATIVE ORGANIC COMPOST OR GARDEN BROWDER BEFORE COMMENCEMENT OF PLANTING.
  4. ALL PLANTING AREAS SHOULD HAVE AT LEAST 300mm OF FREE DRAINING SOIL.
  5. ALL PLANTS ARE TO BE PLANTED AS PER PLAN IF VARIATIONS ARE TO ARISE THE LANDSCAPE DESIGNER MUST BE NOTIFIED FOR DIRECTIONS.
  6. ALL PLANTING WORKS ARE TO MAINTAINED UNTIL ESTABLISHED. REGULAR WATERING MUST BE ALLOWED TO NEWLY PLANTED WORKS.
  7. ALL GARDEN AREAS ARE TO BE MULCHED USING A WOOD FREE LEAF LITTER MULCH TO A MINIMUM OF 75mm. ENSURE MULCH IS AWAY FROM THE PLANT BASE WHEN INSTALLING.
  8. ALL PLANTS ARE TO BE WATERED AND MAINTAINED UNTIL ESTABLISHMENT. ENSURE ALL BAGS ARE REMOVED ONCE PLANT HAS GROWN OUT.
  9. THIS PLAN HAS BEEN DESIGNED FOR THE PROPOSED SITE AND PURPOSE ONLY AND REMAINS THE PROPERTY OF Captivate Landscape Design.

NO.	DATE	REVISION	BY

PROJECT: PROPOSED PLANTING WORKS  
ADDRESS: PORT KEMBLA COAL TERMINAL  
CLIENT: Transpacific Industrial Solutions

ISSUED BY: LANDSCAPE DESIGN AND PLANTING PLAN - Road Recieveal

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PROJECT NO: 185  
DATE: 29.10.09  
JOB NO: LANDSCAPE PLAN STG 3-185  
SHEET NO: A1  
SCALE: 1:200  
DRAWN BY: RC  
CHECKED BY: RC

09-185C  
3 OF 3