LOT 1 (NO. 115) FURNISS ROAD
DARCH
WESTERN AUSTRALIA

(STAGES 1 AND 2)

SITE MANGEMENT PLAN
FOR
FUTURE LANDOWNERS

FOR
CELL 6 LAND COMPANY PTY LTD

NOVEMBER 2024
Ref: J020-003.08_SMP_rev1

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Status of Report: SMP Report
Reference: J020-003.08_rev1
Date: November 2024

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1 Executive Summary

Ace Environmental Pty Limited (Ace) was commissioned by Cell 6 Land Company Pty Ltd (the client) to prepare a Site Management Plan (SMP) for the development of Stages 1 and 2 of the residential development that has been constructed across Lot 1 (No. 115) Furniss Road, Darch, Western Australia (the site).

This SMP specifically applies to the membrane (protection barrier) installed under the Lots where inert landfill remains at depth following remediation.

For the purposes of this SMP, the site refers to the Stages 1 and 2 area and the area to which this SMP applies is referred to as the 'SMP Area'. The overarching purpose of this SMP is to ensure the protection of the membrane (protection barrier) and the subsurface constraints (inert landfill material) within the site are identified, maintained and managed in perpetuity.

A membrane (protection barrier) has been installed beneath the residential Lots (potential building parcel on the land) to divert ground gases away from the future buildings and therefore no digging below 2.2 m from the finished Lot level is permitted. In addition, irrigation bores are not permitted and building on the bio-windows/passive venting zones (front and back of building envelope) is also prohibited. If the membrane in the future is damaged, this SMP provides the framework for dealing with this and the responsible parties.

This SMP has been prepared upon completion of the soil remediation and is applicable in perpetuity or as long as the inert landfill material remains within the SMP Area and therefore requires ongoing management in accordance with this SMP. This SMP shall be implemented where the following scenario applies:

- Where subsurface disturbance coincides with the installed membrane within the SMP Area, which results in the damage of the membrane integrity.

It is not the intention of this management plan to prescribe task specific safety procedures for subsurface access within the SMP Area, but rather to identify potential hazards and provide a management framework of issues and subsequent strategies to be considered. It is the expectation of this SMP, that future landowners will understand the constraints of their property and protect the integrity of the membrane (protection barrier) and/or know who to call if the membrane is subsequently damaged by them or a third party.

2 Introduction

Ace Environmental Pty Limited (Ace) was commissioned by Cell 6 Land Company Pty Ltd (the client) to prepare this Site Management Plan (SMP) for the development of Stages 1 and 2 of the residential development that has been constructed across Stages 1 and 2 of Lot 1 (No. 115) Furniss Road, Darch.

Title details for Lots within Stages are as follows:

Stage 1 on Deposited Plan 429176: Proposed Lots 30 to 45.
Stage 2: Proposed Lots 46 to 64 and Lot 29.

This SMP specifically applies to the membrane (protection barrier) installed under the Lots where inert landfill remains at depth following remediation.

For the purposes of this SMP, the 'site' refers to the Stages 1 and 2 area and the specific area to which this SMP applies is referred to as the 'SMP Area', which are both shown on **Figure 1**. A membrane (protection barrier) has been installed beneath the residential Lots (potential building parcel on the land) to divert ground gases away from the future buildings and therefore no digging below 2.2 m is permitted. In addition, irrigation bores are not permitted and building on the bio-windows/passive venting zones (front and back of building envelope) is also prohibited. If the membrane in the future is damaged, this SMP provides the framework for dealing with this and the responsible parties.

2.1 Purpose of this Plan

The overarching purpose of this SMP is to ensure the subsurface constraints (membrane and inert landfill material at depth) within the site are identified, maintained and managed in perpetuity. The objectives of this SMP are to:

- Outline measures to ensure the integrity of the membrane (protection barrier for ground gases) is maintained and the responsibilities of the future land holders if the membrane is damaged and/or suspected of being damaged.
- Satisfy regulatory requirements for the preparation and implementation of a SMP given the future classification of 'Remediated - Restricted Use' for Stages 1 and 2 in accordance with the Contaminated Sites Act 2003 (classification of site is pending).

2.2 Scope

This SMP comprises the following information:

- An abridged summary of the site history and remedial works.
- The depth of inert landfill material that remains within the site at the completion of the remediation.
- Identification and location of the membrane (protection barrier for ground gases).
- Identification of the duties and responsibilities of site users in implementing the SMP.

2.3 Applicability of this Management Plan

This SMP has been prepared at the completion of the soil remediation and is applicable for the SMP area in perpetuity, or as long as inert landfill material is present within the SMP Area and therefore requires ongoing management in accordance with this SMP.

The SMP Area is identified as proposed residential Lots within Stages 1 and 2 on (Stage 1 on DP 429176) of Lot 1 (No.115) Furniss Road, Darch (the entire site). This SMP shall be implemented where the following scenario applies:

- Where subsurface disturbance coincides with the installed membrane within the SMP Area, which results in the damage of the membrane integrity.

2.4 Regulatory Framework

The pending classification for the entire site (including Stages 1 and 2) under the Contaminated Sites Act 2003 is 'Remediated for restricted use', which pertains to a membrane (protection barrier) under the Lots. As such, the implementation of this SMP is a legislative requirement for the site.

2.5 Contaminated Sites Auditor

The Contaminated Sites Auditor (CSA) accredited by the Department of Water and Environmental Water Regulation (DWER) engaged to review the contaminated site investigations and remediation and to ultimately prepare a Mandatory Auditors Report (MAR) is Justin Lumsden of Senversa.

3 Site Description

3.1 Site Identification

Lot 1 fronts onto Furniss Road and is bound to the east and south by Lot 2 and to the west by Driver Road. The site is rectangular in shape and is approximately 11.9531 hectares in size and historically been used for sand mining and as a licensed waste operation facility.

This Site Management Plan covers Stages 1 and 2 only, which is located on the western boundary of the Lot adjacent to Driver Road.

A site locality map is presented in **Figure 1** and the staging plan is included as **Appendix A**.

3.2 Summary of Remediation Completed

Various contaminated site investigations were completed prior to development and identified that ground gases (CH_4 and CO_2) were present at low concentrations across the subject area. Protection measures needed to be adopted and implemented to remediate and minimise the risk in regards to the ground gases found at the subject site.

Remediation of the development area has been undertaken to ensure that the area is suitable for residential development consistent with the requirements of the Remediation Action Plan (RAP) (Ace Environmental, 2022) reviewed and endorsed by the Contaminated Sites Auditor.

The ground gas protection measures were designed and implemented by Core Environmental Projects (formerly the Environmental Protection Group (Aust) Pty Ltd (EPG)) and included the following works:

- Development Specific Landfill Gas Risk Assessment and Concept Design.
- Landfill Gas Generation Assessment.
- Technical Specification for Gas Risk Mitigation System.
- Gas Risk Mitigation System Construction and Verification Plan

The Gas Risk Mitigation System (GRMS) comprised three main components, as follows (from top down):

- A Cushion Geotextile;
- A Geomembrane;
- A Separation Geotextile.

The Geomembrane formed the gas barrier below the site buildings and was laid between two geotextile layers to help protect the membrane from damage. The GRMS components noted above was constructed upon an interbedded stone and geogrid raft (the Raft) and was overlain with 2.2 m of clean (verified contaminant-free) sandy soil (the Sand Cap).

The Geomembrane was not continuous below the entire site footprint, with spaces of:

- 0.75 m along rear Lot-to-Lot boundaries.
- 2 m from the front boundary.

These spaces will create bio-windows allowing for preferential release of any gas that may accumulate below the Geomembrane at individual Lots and will allow the ingress of oxygen to help promote the oxidation of methane.

3.3 Current Sub-surface Profile

Inert landfill material remaining below the raft remains in-situ and was compacted in place prior to being filled.

3.4 Post Remediation Subsurface Constraints

In general, inert landfill material that remains within the SMP comprises material that was not required to be removed as it was not considered to represent a risk to site workers, site users or the environment, so long as it was adequately capped (membrane protection barrier beneath the Lots) and managed appropriately in the future. Soil above 2.2 m does not pose a risk to human health and/or the environment at the site and therefore does not require management.

3.5 Subsurface Management Strategy

The subsurface management control measures detailed in subsequent sections of this SMP therefore apply to responsibilities of the future landholders in the event that the membrane beneath their property is damaged.

The types of exposure management controls and site-specific examples of these controls are outlined below:

- Elimination – No digging below 2.2 m from the finished Lot level in the location of the membrane (protection barrier for ground gases).

- Administrative controls - Memorial on the certificate of title that identifies the presence of contamination via the pending classification of 'Remediated – Restricted Use' in accordance with the Contaminated Sites Act 2003.

- Development and implementation of this SMP.

4 Stakeholders, Roles and Responsibilities

4.1 Stakeholders

Stakeholders for this SMP include:

- Future Land Holders
- Cell 6 Land Company Pty Ltd (Developer)

Contact details: Alex Noble on 0438 631 282 or alex@noblehodge.com.au

4.2 Roles and Responsibilities

Future land Holders

- Must not dig and/or allow contractors to dig below 2.2 m from the finished Lot level within their property boundaries. Contractors should be advised to contact the developer before undertaking any intrusive works on residential Lots.
- Must report any known and/or suspected damage of the membrane to the developer, Cell 6 Land Company Pty Ltd.

Cell 6 Land Company Pty Ltd

- Must repair any damage to the membrane (protection barrier) and/or provide details of a company that are qualified to do so for future maintenance requirements.

Excavations below the membrane (protection barrier) should be avoided.

5 References

Ace Environmental. November 2022. Remediation Action Plan. Lot 1 (No. 115) Furniss Road, Darch. For Cell 6 Land Company Pty Ltd. J020-003.5_Draft.

Construction Quality Assurance Plan for Gas Risk Mitigation System Former Landfill, Lot 1, 26 Driver Road, Darch WA. Reference 211137-GRMS-CQAP-F. Core Environmental Projects Pty Ltd. Dated May 2023.

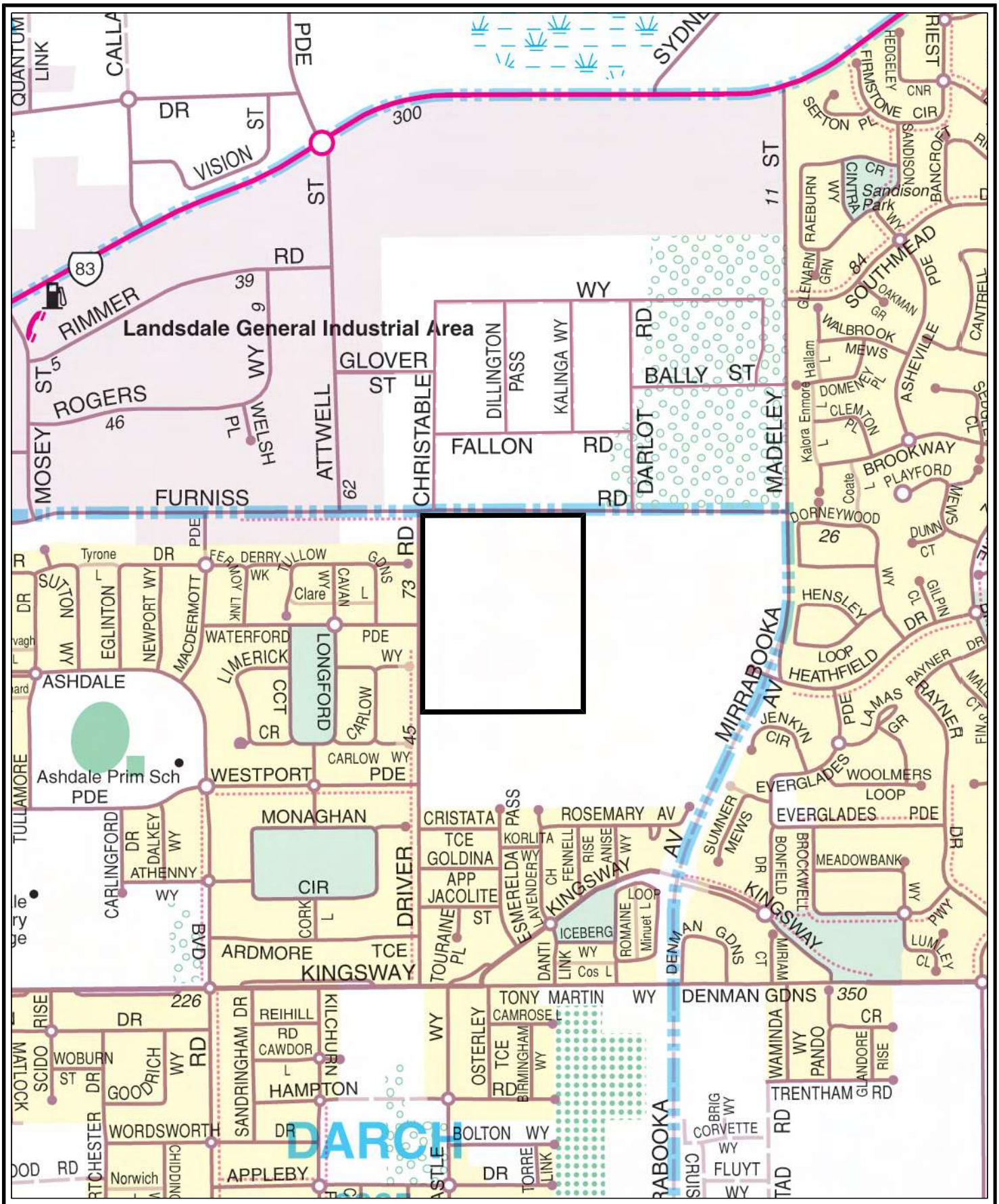
Development Specific Landfill Gas Risk Assessment and Concept Design. Former Landfill, Lot 1, 26 Driver Road, Darch WA. Reference 211137-DSLFGRA-F. Core Environmental Projects Pty Ltd. Dated May 2023.

Gas Risk Mitigation System Construction and Verification Plan Former Landfill, Lot 1, 26 Driver Road, Darch WA. Reference 211137-GRMS-CVP-D. Core Environmental Projects Pty Ltd. Dated May 2023.

Landfill Gas Generation Assessment. Former Landfill, Lot 1, 26 Driver Road, Darch WA. Reference 211137-LFGG-F. Core Environmental Projects Pty Ltd. Dated May 2023.

Technical Specification for Gas Risk Mitigation System. Former Landfill, Lot 1, 26 Driver Road, Darch WA. Reference 211137-GRMS-TS-F. Core Environmental Projects Pty Ltd. Dated May 2023.

FIGURES



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NORTH

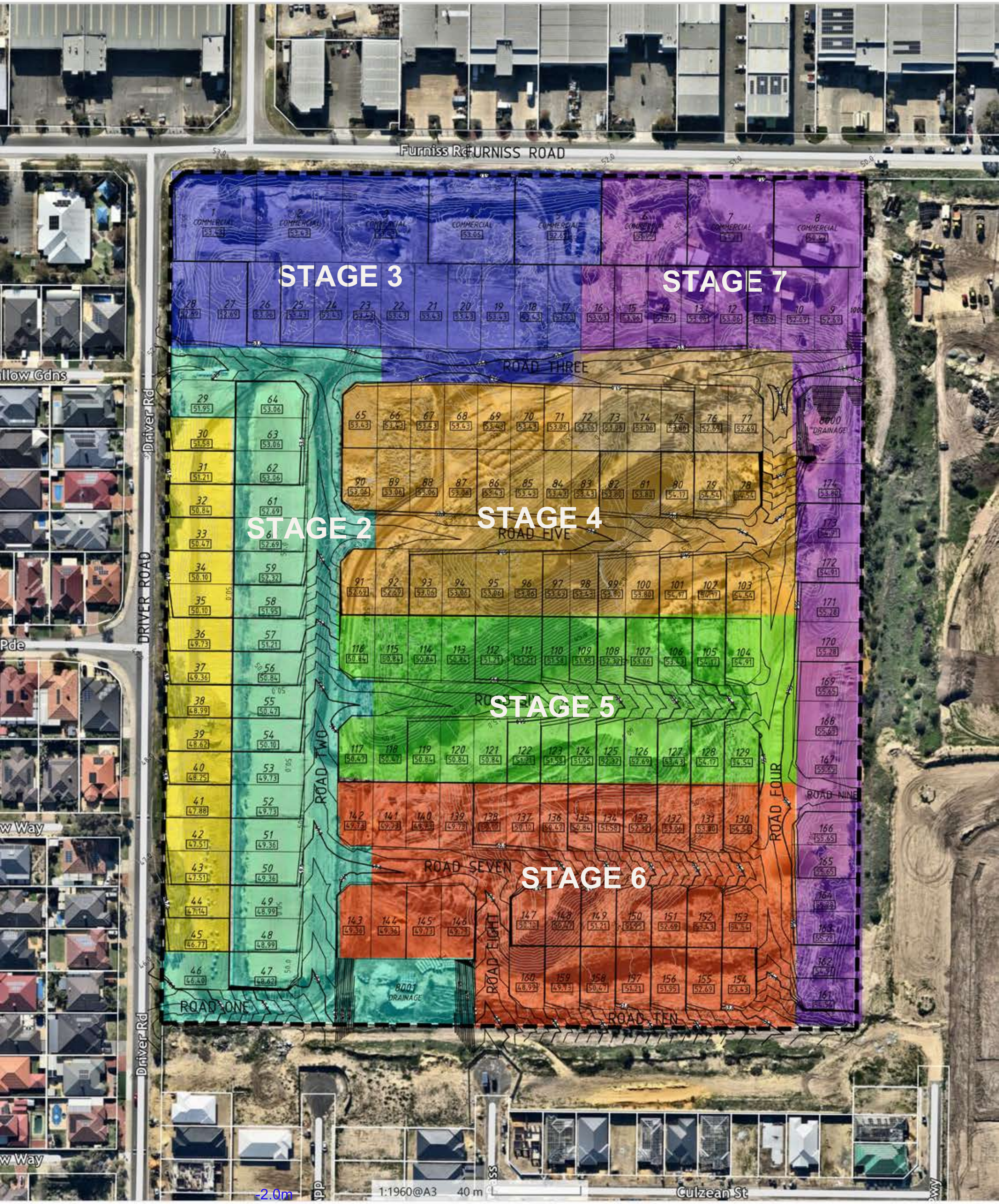
0 100 200 300 400 500m

SCALE 1:10 000
DATE: 23.09.2021
ORIGINAL PLAN SIZE: A4
JOB No. J020-003

FIGURE 1
SITE LOCATION

LOT 1 (No. 115) FURNISS ROAD
DARCH
for Newsquare Nominees
ATF The Driver Road Trust

APPENDIX A


Furniss Rd
FURNISS ROAD
STAGE 3
STAGE 7
STAGE 2
STAGE 4
STAGE 5
STAGE 6
ROAD THREE
ROAD FIVE
ROAD ONE
ROAD TWO
ROAD SEVEN
ROAD EIGHT
ROAD TEN
ROAD FOUR
ROAD NINE
8000 DRAINAGE
8001 DRAINAGE
DRIVER ROAD
Driver Rd
Culzean St
1:1960@A3
40 m
-2.0m
-2.5m
-3.0m
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