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208 & 325 Wyatt Rd, Kagaru

Earthworks Strategy

Infrastructure Master Plan

To:	Richard Fulcher (Litoba Holdings)
From:	Dan Collins (Colliers Engineering and Design)
Project Name:	208 & 325 Wyatt Rd, Kagaru
Date:	27/08/2024
Our Reference:	22-0289-IMP-EWKS_2

1.Introduction

Colliers Engineering & Design Pty Ltd have been engaged by Litoba Holdings Pty Ltd for the purposes of preparing an Earthworks Strategy Infrastructure Master Plan in support of a Priority Development Area (PDA) Development Application to:

A. Support a context plan application: and
B. Support a future reconfiguration of lot application.

Over land located at 208 & 325 Wyatt Road, Kagaru described as Lot 27 on S311174, Lot 12 on S31468 and Lot 11 on SP310604 and as shown below.

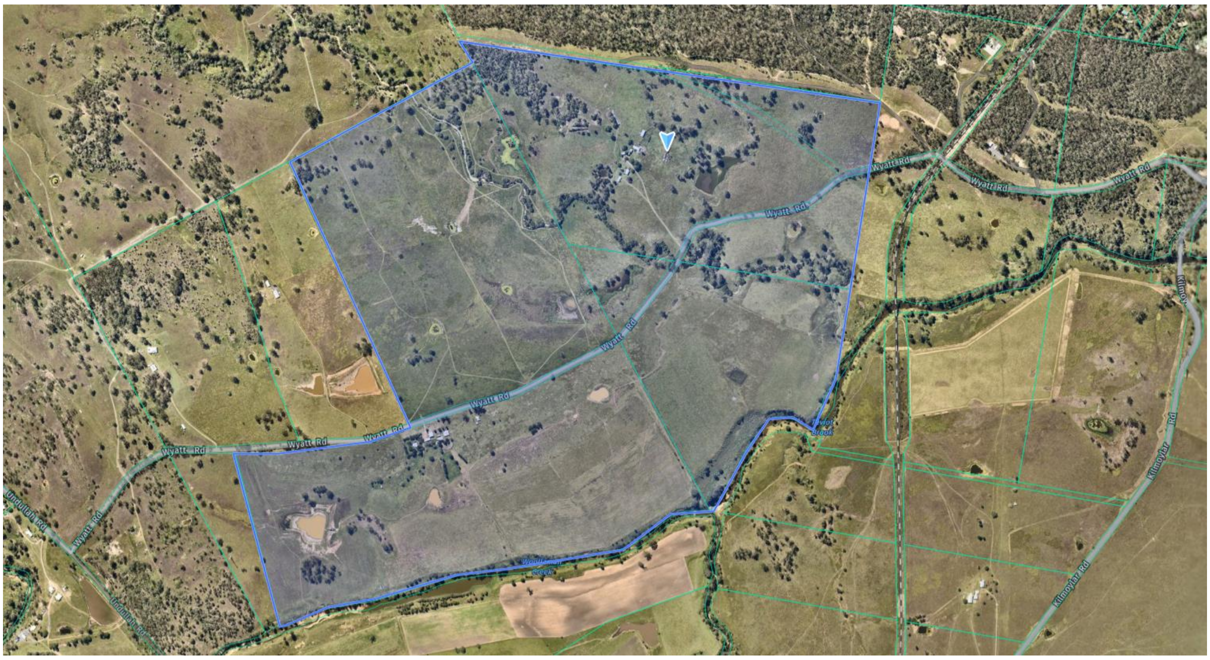

FIGURE 1: SITE LOCATION

1.1. Context Plan

The context plan (11560 P14 Rev R – CON01, dated 02/08/2024 prepared by Saunders Havill Group) that is proposed over the site can be found in **Attachment A**. This comprises:

- Fill locations for compensatory earthworks and various ARI flood levels;
- Proposed Wyatt Road Re-alignment including proposed signalized intersections;
- Development uses including parks and conservation corridors; and
- Potential school site location

1.2. Requirements of the Infrastructure Management Plan

This Infrastructure Management Plan will be assessed against:

- The provisions of the PDA Development Scheme in force at the date of Approval;
- The applicable EDQ Guideline(s) in effect at the date of the Approval; and
- Any further requirements set out in a condition of the Approval

An endorsed infrastructure master plan may be replaced by submitting for compliance assessment a new infrastructure master plan for endorsement, which is subsequently endorsed.

Where a context plan area strategy is inconsistent with an endorsed infrastructure master plan the amendment to the infrastructure master plan my be limited to address the inconsistency.

1.3. Definitions

Developer	means the owner and developer of a parcel of land within the Approved Land at the relevant time.
IFF	means the Infrastructure Funding Framework (July 2021) of the EDQ.
IFFCOA	means the Infrastructure Funding Framework, Crediting and Offset Arrangements (November 2018) of the EDQ.
ICOP	means the Infrastructure Charging and Offset Plan Greater Flagstone Urban Development Area (June 2020) of the EDQ.
LCC	means Logan City Council.
IMP	means Infrastructure Master Plan.
EDQ	means the Minster for Economic Development Queensland established under the *Economic Development Act 2012*, which supersedes the Urban Land Development Authority and repeals the *Urban Land Development Authority Act 2007 (Qld)*.
PDA Development Scheme	means the Greater Flagstone Urban Development Area Development Scheme (October 2011).
PDA Guidelines	means the EDQ guidelines in effect at the time of the Approval (with due regard given to EDQ guidelines subsequently adopted).
QUDM	means Queensland Urban Drainage Manual
Subject Land	means the parcel of land described as Lot 27 on S311174, Lot 12 on S31468 and Lot 11 on SP310604
Supporting Documents	means the documents contained in the attachments.

1.4. Standards

- All earthworks will be carried out in accordance with LCC's design and construction manual and standards, and all relevant Australian Standards.
- The earthworks strategy takes account of EDQ PDA Guideline No. 15 (May 2015) and is generally in accordance with Section 3.6 of Logan City Council's Planning Scheme Policy 5 – Infrastructure
- The design of any earth retaining structures will be generally in accordance with Section 3.3.6 of Logan City Council's Planning Scheme Policy 5 – Infrastructure and Section 3 of AS 4678:2002 - Earth Retaining structures and be designed for a design life of 60 years.
- Investigations and design will generally comply with AS3798-2007- Guidelines on Earthworks for Commercial and Residential Developments
- The proposed E&SC measures will be supported by an Erosion and Sediment Control Plan Checklist in accordance with "Best Practice Erosion and Sediment Control" published by the International Erosion Control Association (Australasia) November 2008, with relevant plans certified by an RPEQ engineer or a CPESC Professional.
- Prior to completion of Pre-Construction Certification, a quantitative assessment of the waterway stability objectives will be undertaken in accordance with the State Planning Policy July 2017.

1.5. Innovation and Flexibility

Earthworks delivery will optimise onsite cut to fill operations across the site. A bulk earthworks strategy for the site will be provided with the first application due to the slope constraints on the site. This provides flexibility and leaves open opportunities for the adoption of best practices and innovation in the future.

Whilst proposals are based on a conventional approach, the EDQ initiative to identify more cost-effective, sustainable and innovative strategies for consideration in Flagstone is strongly supported.

Phasing of the earthworks may be introduced and will be confirmed through the individual stage approvals process that will be informed by further detailed design.

2. Proposed Earthworks

2.1. Overall planning and delivery principles

The proposed development predominantly consists of benched residential allotments, which requires bulk earthworks and retaining structures to facilitate.

Civil earthworks for the proposed development will be undertaken generally in accordance with AS3798-2007 and the design objectives as follows:

- Earthworks to be undertaken to deliver saleable allotments and minimise cut and fill across the site.
- Roads to generally follow the natural topography to minimise cut and fill across the site.
- Lots to grade to the road where possible, unless required otherwise due to the natural topography.
- Maximum driveway earthworks grade of 1 in 4, with an ideal grade being 1 in 5, noting that final driveway(s) by others.
- All earthworks areas will be stabilised with sediment and erosion control measures in accordance with Council Standards
- Retaining wall heights to be generally up to 2.5m in height.
- Side retaining wall heights to be generally up to 1.5m in height, unless constrained by natural topography.
- Retaining walls facing external boundary of non-residential land to be wholly located within the lot and generally to a maximum height of 1.5m unless constrained by natural topography.
- Earthworks strategy to follow the requirements of the flood investigations provided by Water Technology that identifies the requirements for minimum flood levels to be achieved for adequate lot levels and interface batters to conservation zones. Additionally it is noted that the proposed filling does not cause any significant impacts without undertaking any compensatory earthworks.

2.2. Erosion Risk and Dispersive Soils

E&SC reference design plans, with relevant plans certified by an RPEQ engineer or a CPESC Professional, will be developed prior to completion of the Pre-Construction Certification will provide a site-based management approach for setting out maintenance and monitoring measures including monitoring of sediment basin releases. These plans will consider the following:

- proposed E&SC measures will be supported by an E&SC plan checklist in accordance with Chapter 5.10 of “Best Practice Erosion and Sediment Control" published by the International Erosion Control Association (Australasia) November 2008.
- scope of the E&SC measures as contained in the Supporting Documents including preliminary earthworks cut to fill plans
- how the areas of high-risk such as areas of dispersive soils shall be treated.
- Upon tendering of works, the Principal Civil Contractor will be responsible for the development of detailed E&SC plans and will include adaptive and contingency management measures for the site to ensure E&SC measures are effective, particularly during Context Area construction works and after wet weather.
- Prior to completion of Pre-Construction Certification, a quantitative assessment of the waterway stability objectives will be undertaken in accordance with the State Planning Policy July 2017.
- Gentle to moderate slopes adopted, with steeper slopes to have appropriate measures.
- Post construction the development will be covered with erosion resistant material (gravel/concrete, topsoil and turf etc.) that will cap the underlying material.
- Compaction or re-compaction of soil prior to rainfall (during construction) and stabilise completed earthworks areas with topsoil and seeding/grass as soon as possible.
- Various construction related staging and site management methods.

Sediment and erosion control will generally comprise clean and dirty water diversion drains, temporary sediment basin as appropriate, silt fences, early stabilisation of disturbed areas where possible and other control measures as appropriate and/or required to meet Logan City Council & EDQ requirements.

Prior to works commencing on site a Detailed Erosion and Sediment Control Plan & Dispersive Soils Management Plan certified by a Register Professional Engineer Queensland (RPEQ) or Certified Professional in Erosion and Sediment Control (CPESC) will be submitted to EDQ.

3. Concluding Remarks

This earthworks infrastructure master plan outlines the intended strategy for the earthworks of the overall development and summarises the planned reporting and design details to be provided as a part of future applications. This information has been prepared to support the context plan application.

4. Disclaimer

This report is prepared by Colliers Engineering & Design for exclusive use by its client only. No responsibility is accepted for the use of or reliance upon this report in whole or in part by any third party.

The sole purpose of this report and the associated services performed by Colliers Engineering & Design is to display information in accordance with the scope of services set out in the contract/quotation between Colliers Engineering & Design and its client. The scope of works and services were defined by the requests of the client, by the time and budgetary constraints imposed by the client, and by the availability of access to site/s and information.

This report is prepared with information supplied by the client and possibly others which is presumed to be accurate and complete. No responsibility is accepted for information that is withheld, incorrect or that is inaccurate, nor for changes to the conditions over the passage of time or from latent circumstance or conditions. No warranty or guarantee is made in relation to the data, findings and conclusions expressed in this report.

This report has been compiled at the level of detail specified in the report and no responsibility is accepted for interpretations made at more detailed levels than so indicated.

Attachments

Attachment A Context Plan

Attachments

~~Attachment A Context Plan~~

~~11560 P14 Rev R – CON 01~~

Refer to Endorsed Context Plan

AMENDED IN RED

By: Nicole Tobias

Date: 27 November 2025

Queensland Government