EIRENG
CONSULTING ENGINEERS

FLOOD RISK ASSESSMENT & DRAINAGE STRATEGY

NEWLANDS ROAD BOGNOR

ENGINEERING
CONFIDENCE

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Description		PLANNING ISSUE			

CONTENTS:

1.0 INTRODUCTION

This report addresses the Flood Risk and Drainage Strategy for the proposed minor modifications to the existing warehouse shown in **Figure 1**.

The proposed works consist of removal of a pillar from the warehouse canopy, installation of new smoking shelter and installation of access gantries to the existing waste platform.

Proposals contained or forming part of this report represent the design intent and may be subject to alteration or adjustment in completing the detailed design for this project. Where such adjustments are undertaken as part of the detailed design and are deemed a material derivation from the intent contained in this document, prior approval shall be obtained from the relevant authority before commencing such works.

This report has been prepared in accordance with our client's instructions for their sole and specific use.

1.1 Site Location

The site address is north of Bognor just off the A29/A259 at postcode PO22 6NN, **See Figure 1**. Its National Grid Reference (NGR) is 494570E, 101850N.

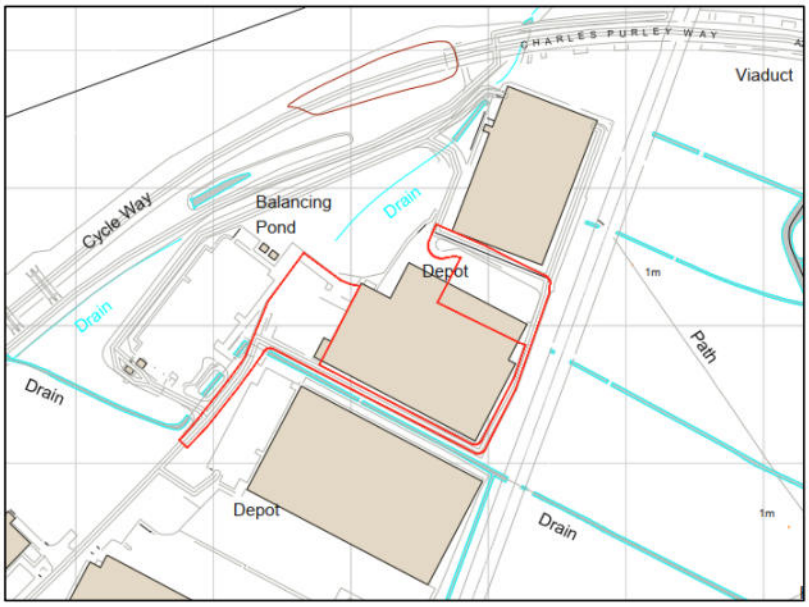


Figure 1 - Site Location

1.2 Site Description

The existing site consists of a warehouse and associated car parking, multi storey vehicle park and service yard hardstanding. The area included in this planning application is approximately 0.96Ha in size and comprises external hardstanding and a section of the main warehouse facility. See the existing site plan in **Appendix A**.

According to the site geotechnical report, the majority of the Site is underlain by superficial deposits of Raised Marine Deposits consisting of clay, silt, sand and gravel and River Terrace Deposits containing sand, silt, and clay.

The site is positively drained with existing surface water and foul drainage networks serving the site.

1.3 Development Proposals

The project scope is limited to the removal of a single pillar from an existing canopy, installation of new smoking shelter and installation of new access gantries to an existing waste platform. See the proposed site plan in **Appendix B**. The proposed works do not involve any alterations to the existing surface or foul water network, nor do they result in an increase in hardstanding areas.

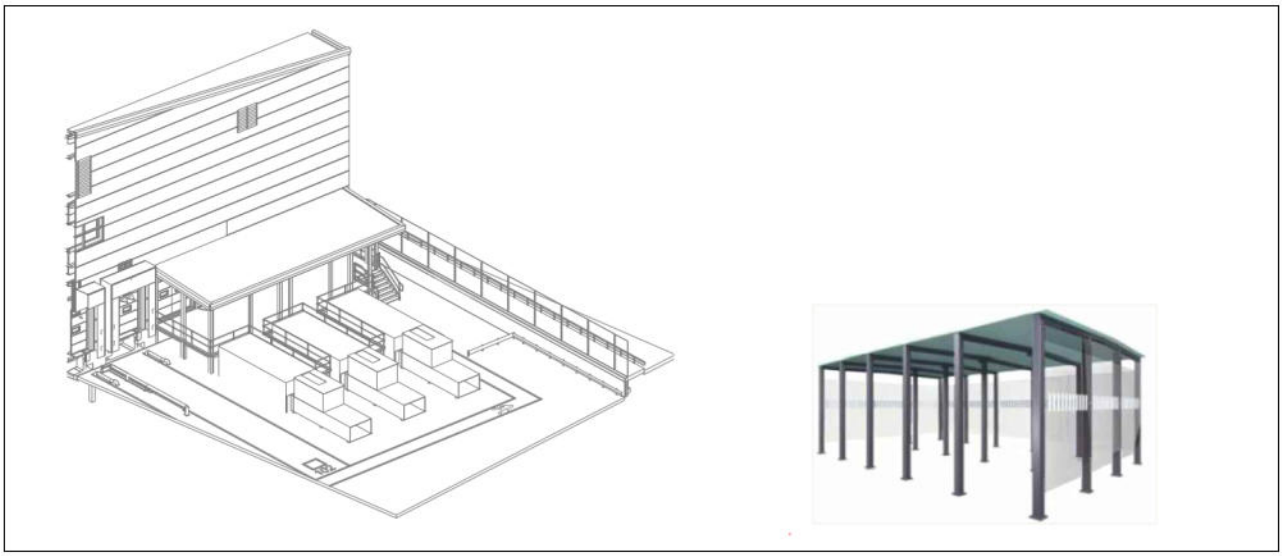


Figure 2 - Development Proposals – Waste Platform Gantries & Smoking Shelter

2.0 FLOOD RISKS

A Flood Risk Assessment was carried out by Delta Simons (now Lucion) for the main site prior to construction, reference report 20-1543.06 dated September 2021 and flood compensation works were provided as part of the construction works and in accordance with the main site planning consent, reference AL/87/21/PL.

The FRA report concluded that:

- The main potential source of flooding to the site is fluvial and combined fluvial and tidal flooding, the baseline flood risk from all other sources of flooding is considered **Low**.
- EA modelled flood data indicates that the site is within the extents of the 5% AEP flood event for both the fluvial and combined fluvial and tidal scenarios. Fluvial risk at the site is attributed to Oldlands Farm Ditch in the southwest and combined flood risk is derived from tidal and fluvial interactions between the on-site land drains and Lidsey Rife to the east of the site. The baseline fluvial / tidal flood risk at the Site is assessed to be **Moderate to High**.
- The identified flood risk will be mitigated by raising site levels to 4.15 m AOD, approximately 2.55 m above the maximum flood level expected during the 1% AEP + 35% CC flood event and 2.44 m above the 1% AEP +45% CC event. To ensure land raising does not increase flood risk elsewhere, it is proposed to provide like-for-like and level-for-level floodplain compensation within a parcel of land to the northwest of the site for the 1% AEP + 35% CC event.
- Overall, the proposed mitigation measures will reduce the fluvial / tidal risk at the Site and the impact of the development elsewhere to **Low**.

- The impact of the development on surface water risk will be managed with a surface water management scheme, which is designed to restrict flows to the greenfield rate and attenuate storms up to the 1 in 100 year + 40% CC event. Overall, the impact of the development on surface water risk and all other sources of risk is considered **Low**.

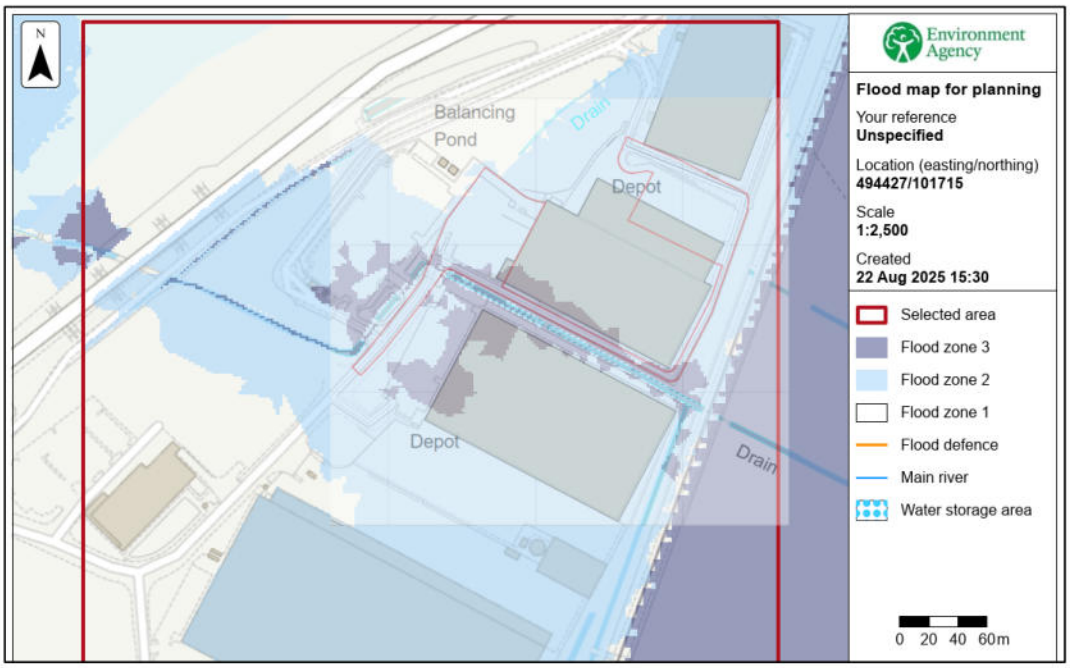


Figure 3 - EA Flood Map For Planning

2.1 Summary of Flood Risk

The main potential source of flood risk at the Site is fluvial and combined fluvial and tidal flooding with potential groundwater flooding during excavation. All other sources of flood risk are assessed as either **Low or Negligible.**

The EA modelled data shows the Site to lie within the extents of the 5% AEP fluvial and the 5% combined fluvial and tidal flood event and greater. The existing baseline fluvial /tidal risk at the Site is considered **Moderate to High**. The associated risk has been used to inform mitigation design, which will reduce the existing risk down to **Low**.

3.0 DRAINAGE

3.1 Foul Drainage

The proposed works do not involve any alterations to the existing foul drainage network.

3.2 Surface Water Drainage

The proposed works do not involve any alterations to the existing surface water network, nor do they result in an increase in hardstanding areas.

4.0 FLOOD RISK MANAGEMENT

The proposed works have been carefully assessed to ensure that they do not increase flood risk to the site or to off-site receptors. All design elements comply with current flood risk management policies, incorporating appropriate drainage provisions where required. As a result, the proposals are neutral with respect to flood risk and do not contribute to increased flooding potential.

5.0 CONCLUSION

The report is based on current available information and preliminary discussions.

The assessment has been undertaken in accordance with the standing advice and requirements of the Environment Agency (EA) for Flood Risk Assessments as outlined in the Communities and Local Governments Planning Policy Guidance to the National Planning Policy Framework (NPPF).

The report concludes that:

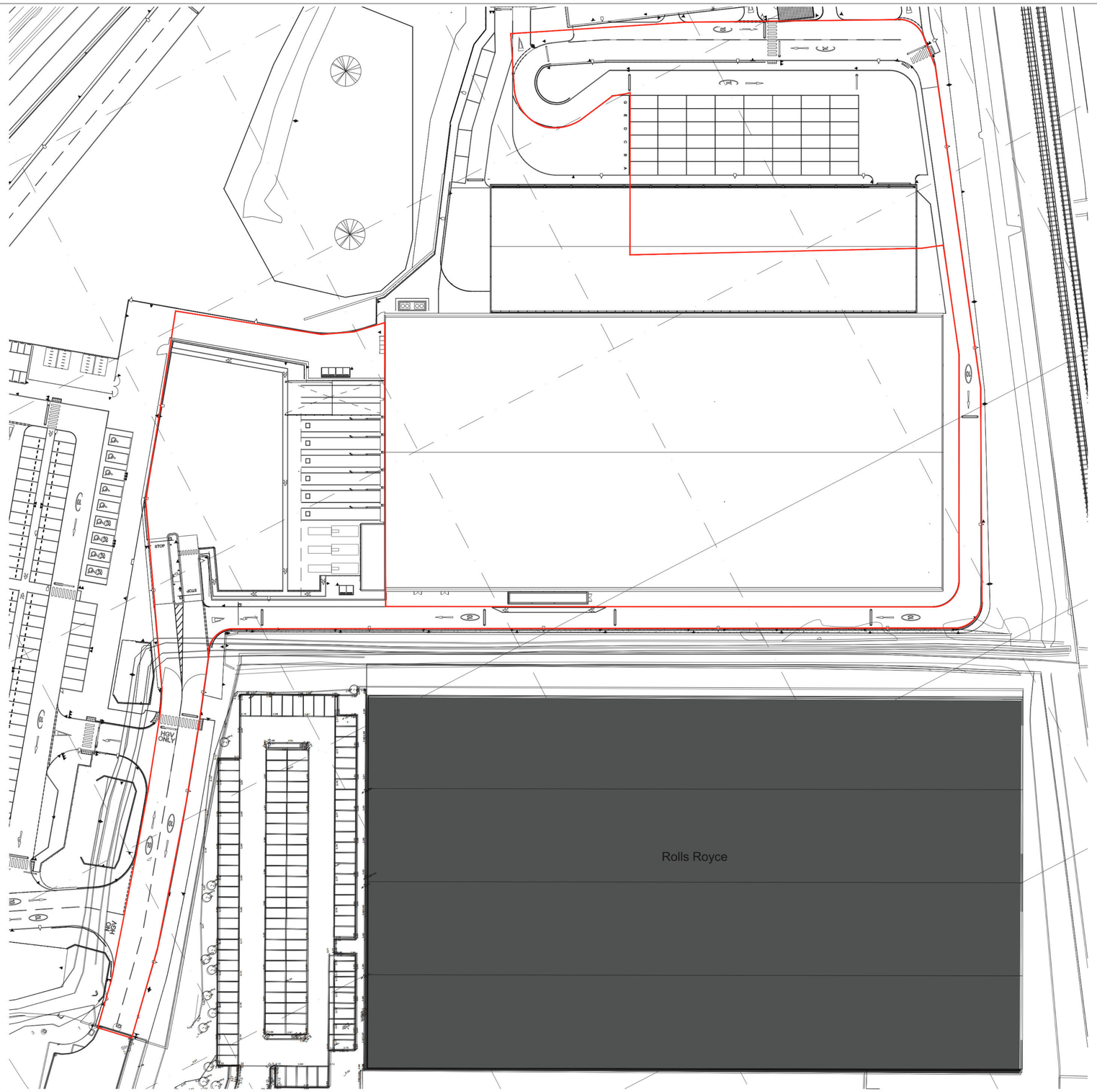
- The existing site is located within Flood Zone 3
- Following mitigation works associated with the planning consent for the main site, the risk of fluvial/tidal flooding, which is the main risk of flood, is now low
- The Environment Agency Surface Water flood map for the area indicates areas of fluvial/tidal flood risk, which is as per existing. The proposed works do not result in an increase in hardstanding areas or contribute to surface water flood risk.
- The proposals would not increase runoff nor increase flood risk to the site or offsite receptors, and no mitigation measures are deemed necessary.

APPENDIX A – EXISTING SITE PLAN

Scale Bar & North Arrow

0 10 20 30 40m

SCALE 1:500



EXISTING SITE PLAN
SCALE - 1:500

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Ashton Smith to be notified of discrepancies in figured dimensions
Contractors must check all dimensions from site
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NOTES:

Denotes Application Boundary 9664m² / 2.38 Acre / 0.96Ha

REV	DATE	DESCRIPTION	DRAWN BY	CHECK BY
P03	22/08/2025	Drawing amended following comments from DWD	KN	RR
P02	14/08/2025	Application Boundary altered following comments from DWD	KN	RR
P01	12/08/2025	Initial Issue	KN	RR

REVISIONS

PROJECT TITLE
SITE ALTERATIONS
NEWLANDS ROAD
BOGNOR REGIS PO22 9FJ

DRAWING TITLE
Existing Site Plan

RIBA STAGE	STATUS		DRAWN BY	CHECKED BY
N/A	PLANNING		KN	RR
SHEET	SCALE	DATE	SUITABILITY	REVISION
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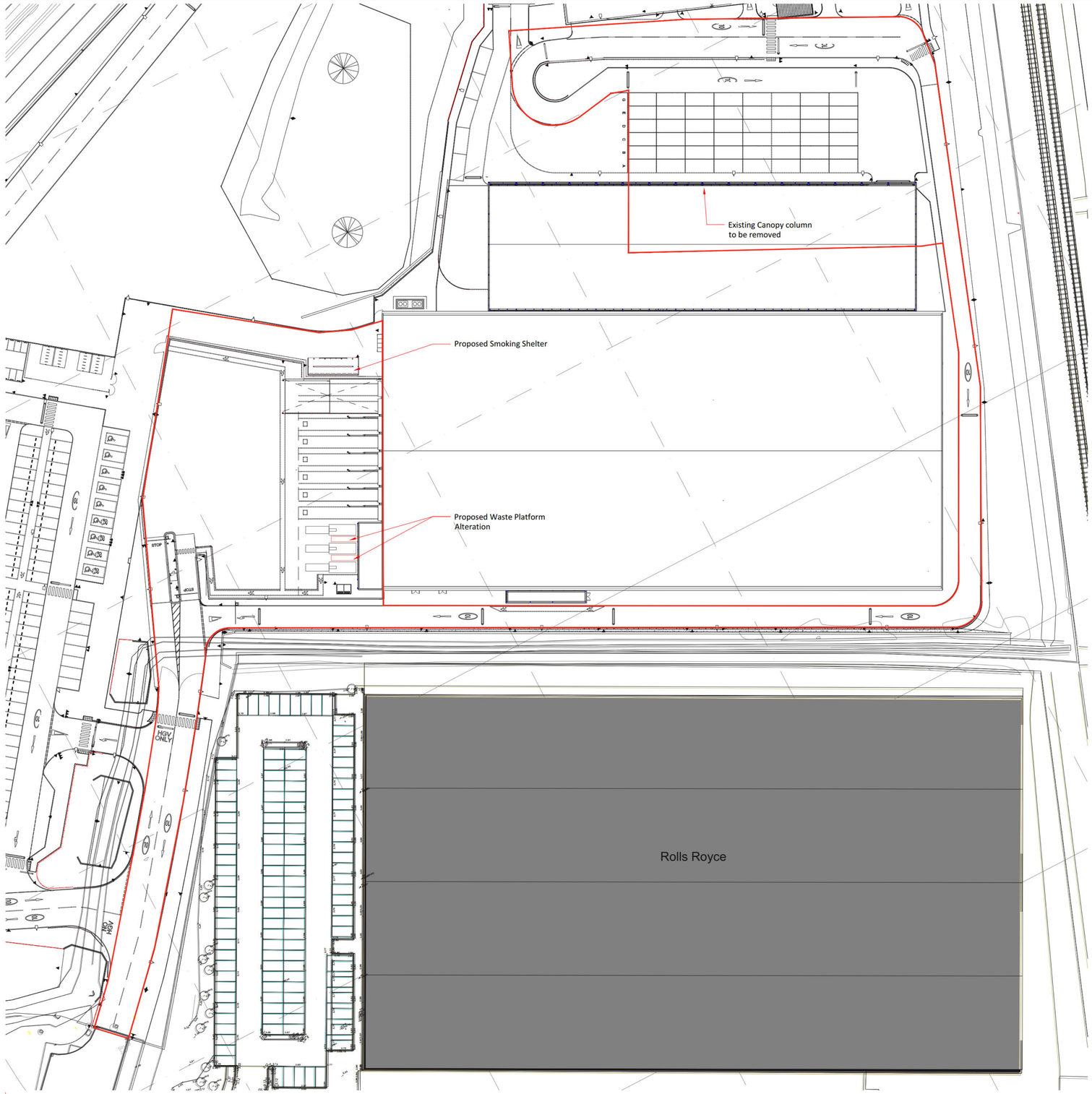
APPENDIX B – PROPOSED SITE PLAN

Scale Bar & North Arrow

0 10 20 30 40m

SCALE 1:500



PROPOSED SITE PLAN
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