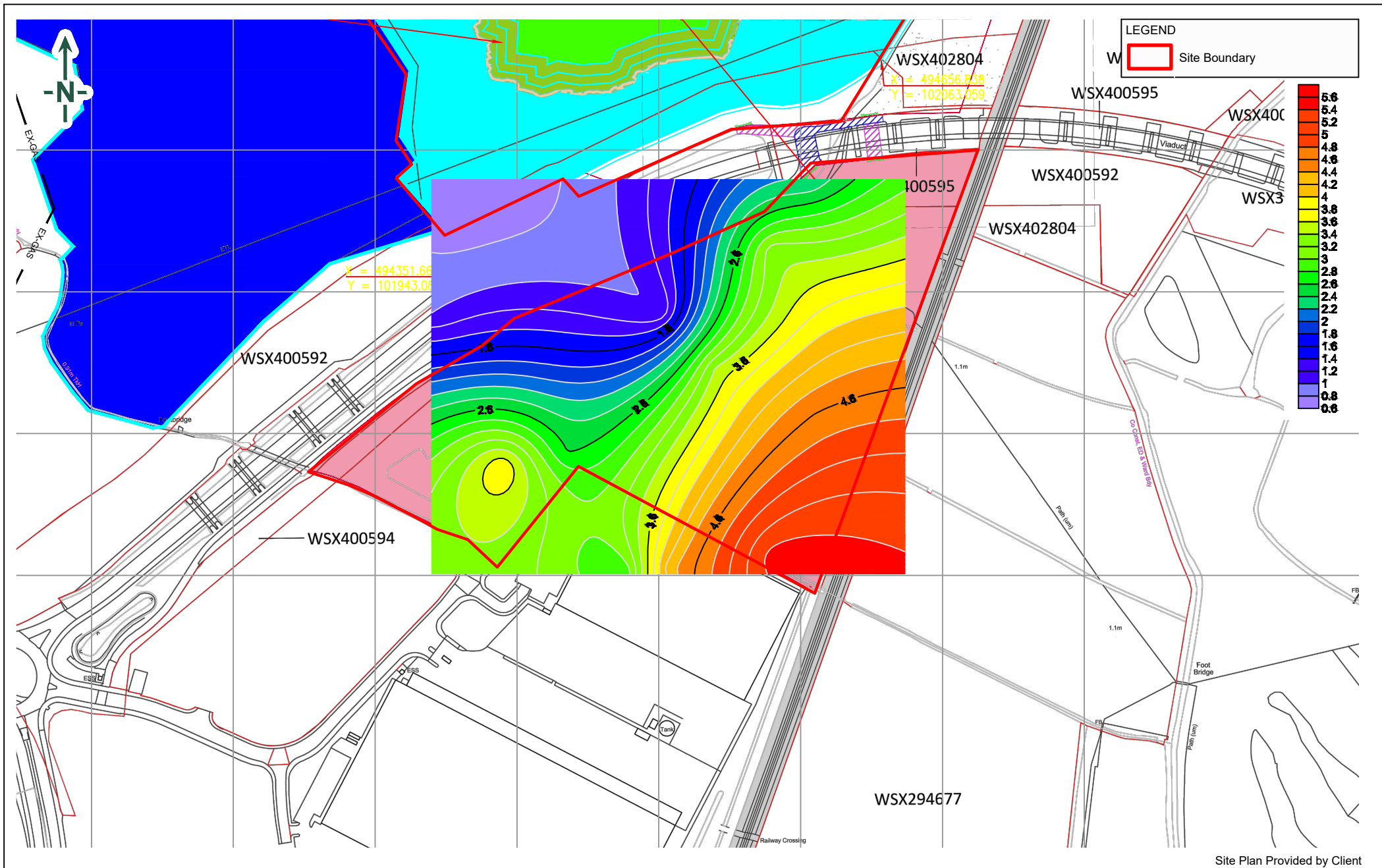
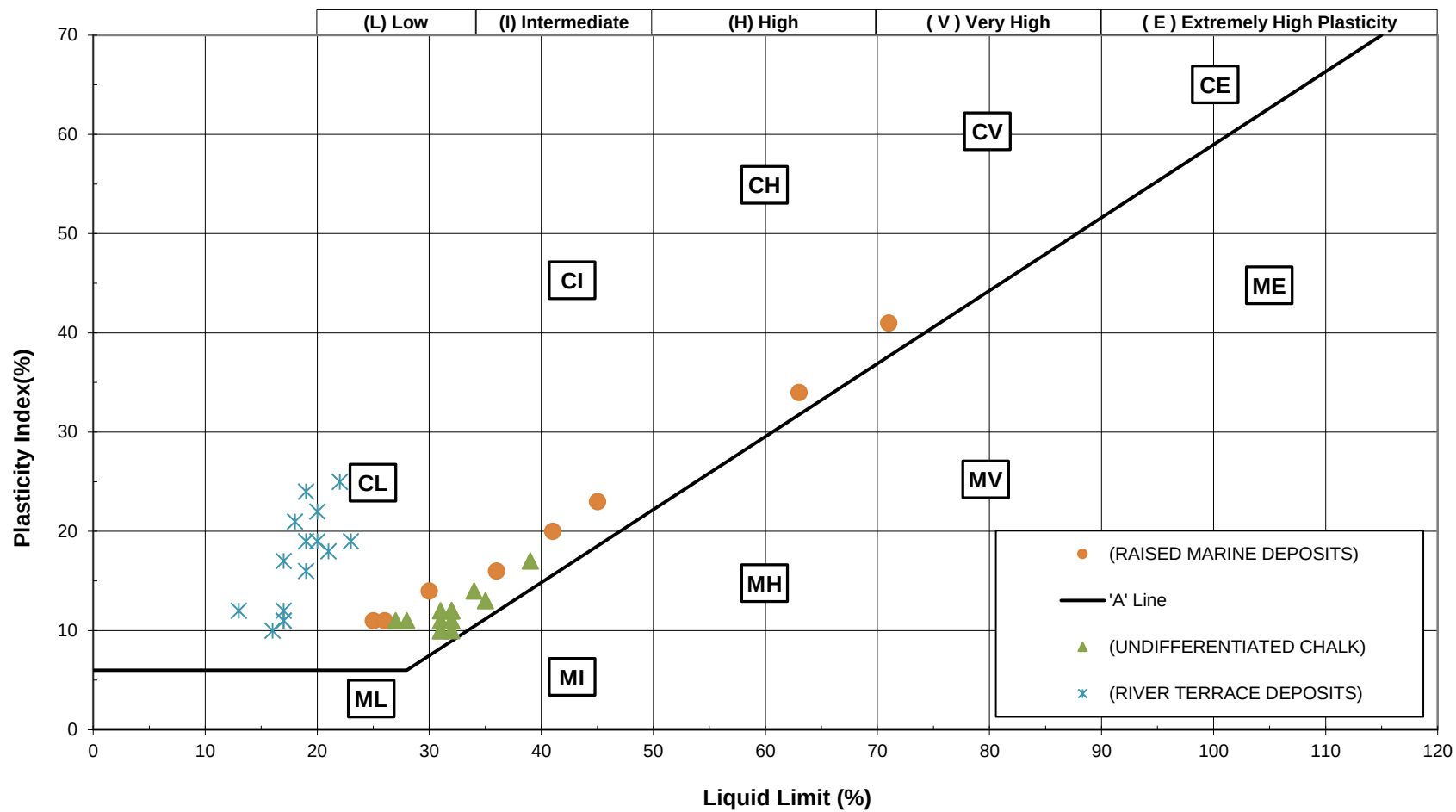






## Figure 6 – A- Line Plot



TITLE:

Plasticity Chart - All Soils  
Oldlands Farm, Bognor Regis

DWN:

MJ

DATE:

24 June 2021

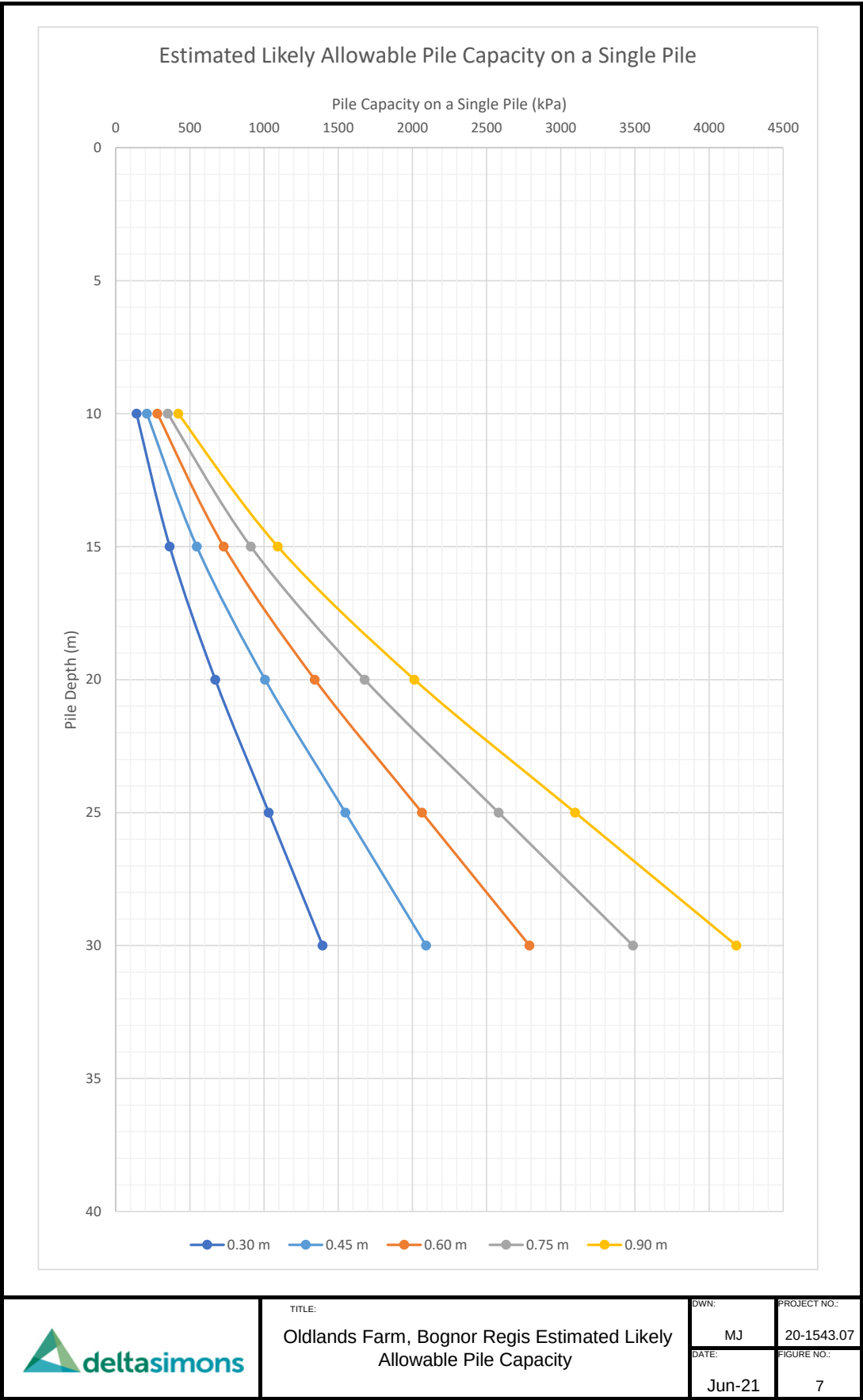
PROJECT NO:

20-1543.07

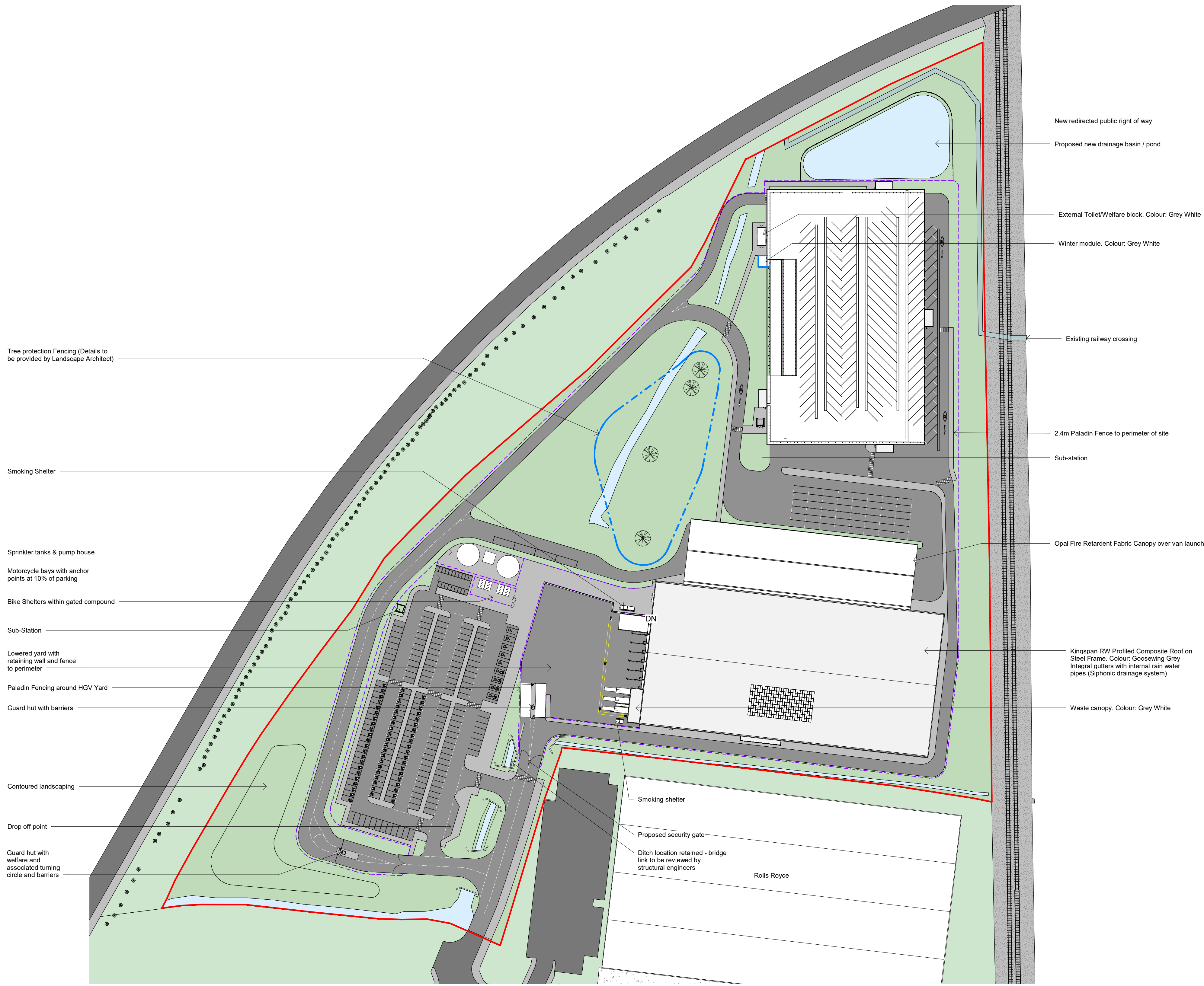
FIGURE NO:

6

## Figure 7 – Estimated Allowable Pile Capacity



## Drawing 1 – Flood Compensation Area, Proposed Area



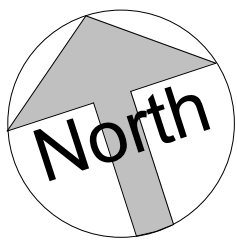
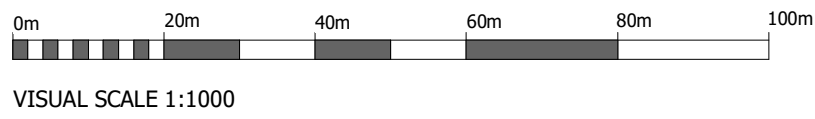
Proposed Site Plan  
1 : 1000

Scale for planning purposes only  
ashton smith to be notified of discrepancies in figured dimensions  
Contractors must check all dimensions from site  
This drawing is copyright and is for use on this site only  
For other information refer to the latest revision of any cross referenced drawing



LOCATION PLAN:

NOTES:



|    |            |                                                 |
|----|------------|-------------------------------------------------|
| P1 | 17/05/2021 | Updated following Planning Consultants comments |
| P2 | 21/05/2021 | Pond relocated to North of site                 |
| P3 | 27/05/2021 | Updated to DWG comments                         |

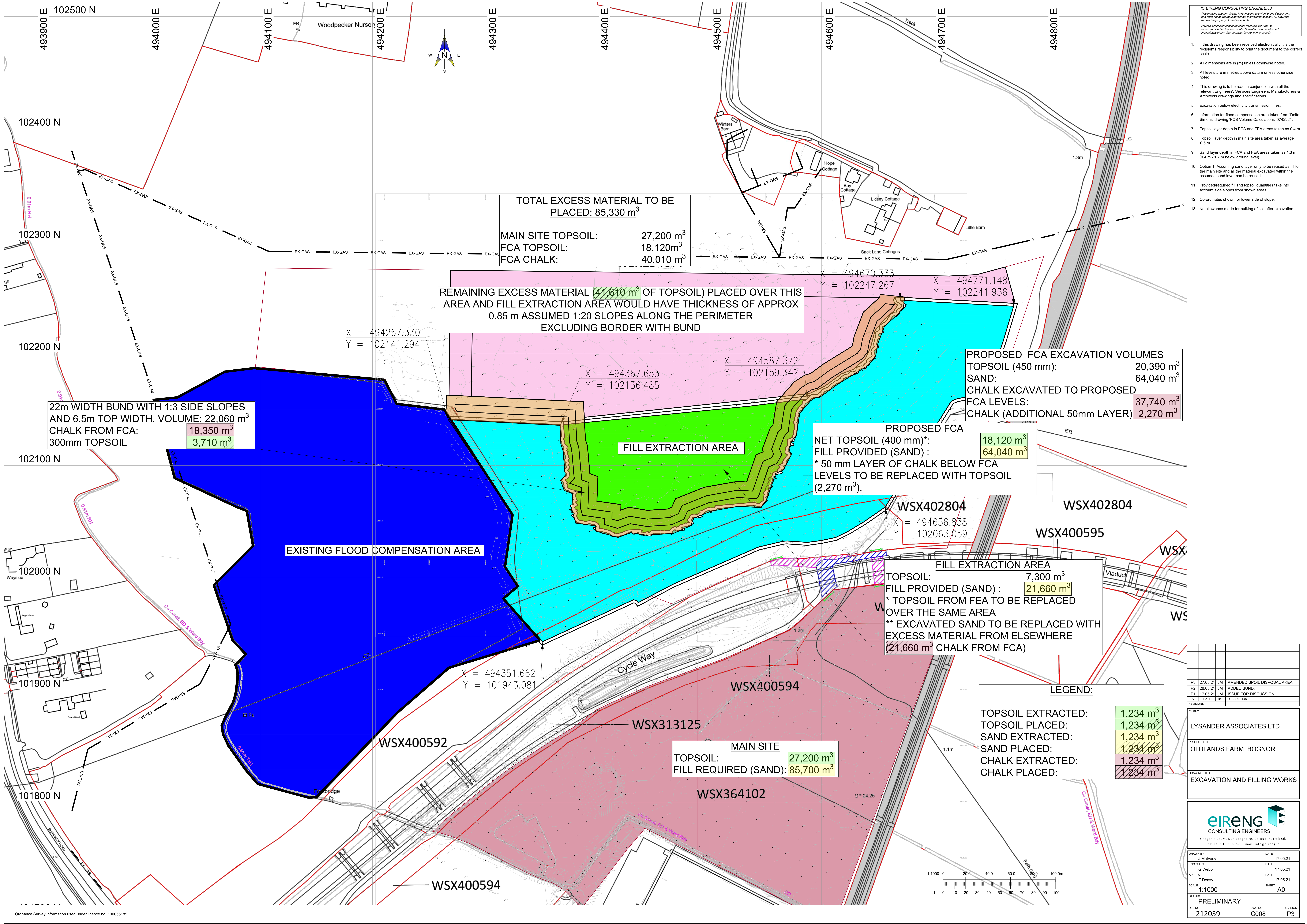
| REV | DATE | DESCRIPTION | DRAWN BY | CHECK BY |
|-----|------|-------------|----------|----------|
| DE  |      |             | DE       | GC       |
| DE  |      |             | DE       | GC       |

|                                                   |          |            |             |          |            |
|---------------------------------------------------|----------|------------|-------------|----------|------------|
| PROJECT TITLE                                     |          |            |             |          |            |
| Bognor Regis                                      |          |            |             |          |            |
| DRAWING TITLE                                     |          |            |             |          |            |
| Proposed Site Plan                                |          |            |             |          |            |
| RIBA STAGE                                        |          | STATUS     |             | DRAWN BY | CHECKED BY |
|                                                   |          | PLANNING   |             | DE       | GC         |
| SHEET                                             | SCALE    | DATE       | SUITABILITY | REVISION |            |
| A1                                                | 1 : 1000 | 30/04/2021 | S2          | P3       |            |
| DRAWING NO.                                       |          |            |             |          |            |
| 21023 - ASA - V0 - XX - DR - A - PL03 - (S2 - P3) |          |            |             |          |            |

CLIENT

Ashton Smith, Belvedere House, 2 Victoria Avenue, Harrogate, North Yorkshire, HG1 1EL  
Tel: 01423 522882 Fax: 01423 565104  
www.ashtonsmith.co.uk

## Drawing 2 – Proposed Formation Levels



## Appendix A – Limitations

## Limitations

The recommendations contained in this Report represent Delta-Simons professional opinions, based upon the information listed in the Report, exercising the duty of care required of an experienced Environmental Consultant. Delta-Simons does not warrant or guarantee that the Site is free of hazardous or potentially hazardous materials or conditions.

Due to the evolving regulatory climate specific to Per Fluoro Alkyl Substances (PFAS), the scope of works is not intended to be conclusive as it relates to the identification of any PFAS related issues. While Delta-Simons may advise its Client if Delta-Simons becomes aware of the use of PFAS at the subject property, Delta-Simons makes no representation nor accepts any liability that any or all PFAS issues have been identified and/or revealed to its client through its scope of work, as presented herein.

Delta-Simons obtained, reviewed and evaluated information in preparing this Report from the Client and others. Delta-Simons conclusions, opinions and recommendations has been determined using this information. Delta-Simons does not warrant the accuracy of the information provided to it and will not be responsible for any opinions which Delta-Simons has expressed, or conclusions which it has reached in reliance upon information which is subsequently proven to be inaccurate.

This Report was prepared by Delta-Simons for the sole and exclusive use of the Client and for the specific purpose for which Delta-Simons was instructed. Nothing contained in this Report shall be construed to give any rights or benefits to anyone other than the Client and Delta-Simons, and all duties and responsibilities undertaken are for the sole and exclusive benefit of the Client and not for the benefit of any other party. Delta-Simons does not intend, without its written consent, for this Report to be disseminated to anyone other than the Client or to be used or relied upon by anyone other than the Client. Use of the Report by any other person is unauthorised and such use is at the sole risk of the user. Anyone using or relying upon this Report, other than the Client, agrees by virtue of its use to indemnify and hold harmless Delta-Simons from and against all claims, losses and damages (of whatsoever nature and howsoever or whensoever arising), arising out of or resulting from the performance of the work by the Consultant.

## Appendix B – Preliminary UXO Assessment



# Preliminary UXO Risk Assessment

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|                         |                                                    |
|-------------------------|----------------------------------------------------|
| <b>Client</b>           | Delta-Simons                                       |
| <b>Project</b>          | Oldlands Farm, Bognor Regis                        |
| <b>Site Address</b>     | Oldlands Farm, Bognor Regis, West Sussex, PO22 9NN |
| <b>Report Reference</b> | EP12998-01                                         |
| <b>Date</b>             | 29/04/21                                           |
| <b>Originator</b>       | HW/CJ                                              |

## Assessment Objective

This preliminary risk assessment is a qualitative screening exercise to assess the likely potential of encountering unexploded ordnance (UXO) at the Oldlands Farm site in Bognor Regis. The assessment involves the consideration of the basic factors that affect the potential for UXO to be present at a site as outlined in Stage One of the UXO risk management process.

## Background

This assessment uses the sources of information available in-house to 1<sup>st</sup> Line Defence Ltd to enable the placement of a development site in context with events that may have led to the presence of German air-delivered or Allied military UXO. The report will identify any immediate necessity for risk mitigation or additional research in the form of a Detailed UXO Risk Assessment. It makes use of 1<sup>st</sup> Line Defence's extensive historical archives, library and unique geo-databases, as well as internet resources, and is researched and compiled by UXO specialists and graduate researchers.

The assessment directly follows CIRIA C681 guidelines "Unexploded Ordnance, a Guide for the Construction Industry". The document will therefore assess the following factors:

- Basic Site Data
- Previous Military Use
- Indicators of potential aerial delivered UXO threat
- Consideration of any Mitigating Factors
- Extent of Proposed Intrusive Works
- Any requirement for Further Work

It should be noted that the vast majority of construction sites in the UK will have a low or negligible risk of encountering UXO and should be able to be screened out at this preliminary stage. The report is meant as a common sense 'first step' in the UXO risk management process. The content of the report and conclusions drawn are based on basic, preliminary research using the information available to 1<sup>st</sup> Line Defence at the time this report was produced. It should be noted that the only way to entirely negate risk from UXO to a project would be to support the works proposed with appropriate UXO risk mitigation measures. It is rarely possible to state that there is absolutely 'no' risk from UXO to a project.



| Risk Assessment Considerations                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Site location and description/current use</p>                                              | <p>The site is located on the outskirts of Bognor Regis, within West Sussex.</p> <p>The site comprises two separate boundaries separated by Charles Purley Way; one located to the north of the road and one to the south.</p> <p>The northern boundary comprises entirely undeveloped agricultural land, and is bordered to the north, east and west by further open agricultural land, with Charles Purley Way in close proximity to the south of the site. Several farm properties are also located in close proximity to the north of this boundary.</p> <p>The southern boundary comprises undeveloped scrubland. It is bound to the north and west by Charles Purley Way. A multi-storey warehouse structure is located to the immediate south of the site boundary.</p> <p>The West Coastway Railway line traverses land approximately 25m east from both the boundaries.</p> <p>The site is approximately centred on the OS grid reference: <b>SU 9447501847</b>.</p>   |
| <p>Are there any indicators of current/historical military activity on/close to the site?</p> | <p>In-house records do not indicate that the site boundaries had any former military use. No features such as WWII defensive positions, encampments or firing ranges are recorded to have been located at or in the immediate vicinity of the site boundaries. In addition, no information or ordnance being stored, produced, or disposed of within the proposed site boundaries could be found.</p> <p>The closest indicator of a local Allied footprint were three anti-tank pimples and a Bofors anti-aircraft gun. These were situated approximately 1.2km to the south of the site boundaries, according to a combination of in-house geo-data records and anecdotal accounts and appear to have been placed in order to protect the Bognor Gas Works (also 1.2km to the south).<sup>1</sup> Given the distance however, these are not considered to be likely sources of UXO contamination.</p>                                                                                                                                                                                                                                                |
| <p>What was the pre- and post-WWII history of the site?</p>                                   | <p>Pre-war OS mapping dated 1912 shows the site boundaries were undeveloped, having been occupied by multiple fields. With the exception of a <i>Bognor Branch</i> railway line shortly to the east, and <i>Sack Barn</i> farm properties shortly to the north, the surrounding vicinity was also undeveloped. Wartime OS mapping dated 1940 did not record any significant changes either on-site or in the vicinity.</p> <p>Post-war OS mapping dated 1974-1983 did not record any significant changes either on or in the vicinity of the site.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

<sup>1</sup> <https://www.bbc.co.uk/history/ww2peopleswar/stories/77/a5068677.shtml>



|                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Was the area subject to bombing during WWII?                   | <p>During WWII the site boundaries were situated within the Chichester Rural District which sustained an overall low density of bombing with an average of 12.1 items of ordnance recorded falling per 1,000 acres according to official Home Office bombing statistics. This comprised 1,154 high explosive (HE) bombs, 38 parachute mines, 29 oil bombs, 15 phosphorous bombs, 2 'fire pots', and 10 V-1 flying bombs, culminating in 1,248 incidents across 102,765 acres.</p> <p>No bomb mapping or local written records were available for consultation at this preliminary stage, although such records are anticipated to be limited due to the rural nature of the district during WWII.</p> <p>The closest confirmed incidents to the site boundaries according to multiple anecdotal sources were dropped in the area around the Bongor gas works approximately 1.2km to the south of the southern boundary with the accounts specifying that <i>the main body of the aircraft fell on the gas-works, the bombs fell on the road, and the railway line was cut too.</i><sup>2</sup> Many bombed streets were named in these sources although none were situated in the area of the site – the vast majority having been further to the south along the coastline.<sup>3</sup></p> |
| Is there any evidence of bomb damage on/close to the site?     | Low-resolution WWII-era aerial imagery was available in house that covered the site boundaries. No obvious indicators of bomb damage, such as cratering, indentations in the ground, or scattered earth could be observed on or next to either boundary.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| To what degree would the site have been subject to access?     | Undeveloped expanses of land such as fields were typically not subjected to a frequent level of access. There is no strong evidence to indicate as to why either site boundary would have been an exception, although the nearby railway and farm properties may have provided the site with a degree of monitor.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| To what degree has the site been developed post-WWII?          | Neither site boundary have undergone major development since WWII. A road- Charles Purley Way -has been built in-between the two boundaries.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| What is the nature and extent of the intrusive works proposed? | Information provided by the client indicates that initial intrusive works in the southern boundary will comprise four 25m cable percussion boreholes and two 35m cable percussion boreholes. The proposed works in the northern boundary is unknown at this stage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

### Summary and Conclusions

During WWII the site boundaries were situated within the Chichester Rural District which sustained an overall low density of bombing with an average of 12.1 items of ordnance recorded falling per 1,000 acres according to official Home Office bombing statistics. The closest confirmed incidents to the site boundaries according to multiple anecdotal sources were dropped in the area around the Bongor Gas Works approximately 1.2km to the south. Many bombed streets were named in these sources although none were situated in the area of the site boundaries – the vast majority having been further to the south along the coastline.

The low bomb density and anticipated lack of local Luftwaffe activity correlates with the lack of typical bomb damage indicators such as cratering or indentations in the ground of each site, observable on available low-resolution WWII-era aerial imagery. It is considered unlikely that the site areas would have experienced frequent levels of access

<sup>2</sup> Ibid

<sup>3</sup> <https://www.bognorregispost.co.uk/2017/11/changing-times-town-suffered-deaths-injuries-war/>



throughout WWII due to their open nature and rural location. However, this factor is not considered to significantly elevate the risk of UXO contamination on this occasion, due to the lack of recorded bombing in the locality of both boundaries.

In summary, due to the lack of local bombing in the available source material and the lack of damage on available imagery, neither site boundary is considered to hold a significant risk of UXO contamination.

### Recommendations

Due to the open nature of the site during wartime and the lack of records available at this preliminary stage, it has not been possible to completely discount the risk from UXO on-site. However, preliminary research for this site has not indicated any significant cause for concern or highlighted any factors which would indicate that the risk of encountering UXO is elevated above the background level for this area of the country.

Whilst it would be possible to conduct a Detailed UXO Risk Assessment for this site, it is not anticipated that any further research would significantly alter the findings of this report. **It is therefore not recommended that any further action is taken for this site.**

If the client has any anecdotal or empirical evidence of UXO risk on site, please contact 1<sup>st</sup> Line Defence.

It should be noted that although the risk from unexploded ordnance on this site has been assessed as low/minimal, this does not mean there is 'no' risk of encountering UXO. This preliminary report has been undertaken with due diligence, and all reasonable care has been taken to access and analyse relevant historical information. By necessity, when dealing historical evidence, and when making assessments of UXO risk, various assumptions have to be made which we have discussed and justified within this report. Our reports take a common-sense and practical approach to the assessment of UXO risk, and we strive to be reasonable and pragmatic in our conclusions. As referenced, it would be possible to undertake further research into this site, but based on the evidence to hand, this is not deemed strictly necessary, and no reasonably justifiable requirement for proactive on-site mitigation has been identified.

It should however be stressed that if any suspect items are encountered during the proposed works, 1<sup>st</sup> Line Defence should be contacted for advice/assistance, and to re-assess the risk as necessary. Furthermore, we would recommend that ground personnel are always made aware of the potential for encountering UXO, what to look out for and what to do in the unlikely event that a suspect item is encountered, and that a UXO Risk Management Plan is put together for the proposed works. We would be happy to provide a template and guidance for this – contact us on 01992 245020. Should the scope of works change or additional works be proposed, 1<sup>st</sup> Line Defence should be contacted to re-evaluate the risk.



## Appendix C – Borehole Logs,