Technical design note

Project name	Land Adjacent Haldens Parkway, Thrapston, Northamptonshire		
Design note title	Site Condition Report to support a Deposit for Recovery Permit Application		
Document reference	Report Reference 23880-HYD-XX-XX-RP-GE-5001-S1-P01		
Author	Eric Cooper MSc C.Geol. SiLC		
Revision	02		
Date	8 August 2023	Approved	☐

1. Context and Objectives

Equites Newlands (Thrapston East) Limited (Newlands) intends developing an approximate 75 ha (185 acre) site, located to the north of the A14 on the eastern edge of Thrapston, Northamptonshire, for logistical warehousing. The earthworks required to create the development platform will involve the recovery of waste from the Rectory Farm Landfill (permit now surrendered) and its re-use to form landscaped bunds. These works will be carried out by Mick George Limited under contract to Newlands.

The works will be regulated under a Deposit for Recovery Permit (DfR) issued to Mick George Earthworks Limited by the Environment Agency (EA).

This Site Condition Report has been prepared to accompany an application by Mick George Earthworks Limited to the EA for the DfR permit required. More specifically it is submitted in response to Question 5b of Application Form Part B2 -General.

The presentation format accords with the template available at:

https://www.gov.uk/government/publications/environmental - permitting - h5 - site - condition - report.

2. Drawings

The following drawings are attached at Appendix A:

- 261190_DFR_5A-DfR Site Plan
- 18443-HYD-XX-ZZ-DR-GE-1001: Site Location Plan
- 18443-HYD-XX-ZZ-DR-GE-1003: Site Features Plan (undeveloped conditions)
- 18443-HYD-XX-ZZ-DR-GE-1028 Landscape Bund Layout (bund footprint is Deposit for Recovery Area)
- 18443-HYD-XX-ZZ-DR-GE-1034_S2-P01_Cross-sections_Bund
- HRT-pHp-01-XX-DR-A-4432-012-P18: Development Proposals (indicative masterplan for illustrative purposes only)

3. Site Condition Report (Completed Template)

1.0 SITE DETAILS	
Name of the applicant	Mick George Earthworks Limited
Activity address	Land Adjacent Haldens Parkway, Thrapston, Northamptonshire Titchmarsh Road Thrapston Northamptonshire NN14 4NJ
National grid reference	501800E, 278350N
Document reference and dates for Site Condition Report at permit application	Report Reference 23880-HYD-XX-XX-RP-GE-5001-S1-P01
Document references for site plans (including location and boundaries)	The following drawings are attached at Appendix A: » 18443-HYD-XX-ZZ-DR-GE-1001; Site Location Plan » 18443-HYD-XX-ZZ-DR-GE-1003 Site Features Plan: undeveloped (current) conditions » HRT- pHp-01-XX-DR-A-4432-012-P18 Development Proposals (masterplan) » 18443-HYD-XX-ZZ-DR-GE-1028 Landscape Bund Layout (bund footprint is Deposit for Recovery Area) » 18443-HYD-XX-ZZ-DR-GE-1034_S2-P01_Cross-sections_Bund

2.0 Condition of the land at permit issue	
Environmental setting including: » **geology** » **hydrogeology** » **surface waters**	**Geology** (Further details are presented in reports referenced at 2.0 (Supporting Information) below) The natural geology is glacial drift, including glacio-fluvial deposits (sand and gravel) overlying a stratified sequence of Jurassic strata. It was the sand and gravel that was exploited by the quarry to create the void that was backfilled with waste. The natural geological sequence in the area that is beneath and potentially within influential distance of the landfill is: » Glacial Till (Oadby Member), comprising grey or brown clay with subordinate lenses of sand and gravel; and » Glaciofluvial Deposits comprising sands and gravels. These superficial deposits overlie the solid geology, which comprises: » Oxford Clay Formation, comprising silicate mudstone with sporadic beds of limestone; over

2.0 Condition of the land at permit issue	
	» Kellaways Sand Member comprising silicate sandstone and siltstone, pale grey with interbeds of sandy and silty mudstone; over » Kellaways Clay Member outcropping in the south, centre and north-west of the site, comprising grey mudstone; over » Cornbrash Limestone Formation, comprising fine grained, bluish grey, weathering olive or yellow brown limestone; over » Blisworth Clay Formation, comprising silicate mudstone, grey with frequent fossils, rootlets and ironstone nodules; over » Blisworth Limestone Formation, comprising pale grey or off-white yellowish limestone; over » Rutland Formation, comprising grey mudstone and siltstone; over » Stamford Member, comprising grey to yellowish and white sandstone or siltstone. **Hydrogeology** (Further details are presented in reports referenced at 2.0 (Supporting Information) below) The Glaciofluvial Deposits, Kellaways Sand Member and the Cornbrash Formation are classified as 'Secondary A' aquifers. The Oadby Member is classified as a 'Secondary Undifferentiated' aquifer. The Blisworth Limestone Formation is classified as a 'Principal' aquifer. The Oxford Clay Formation, Kellaways Clay Member and Blisworth Clay Formation are classified as unproductive strata. Each of the other geological units are noted as 'Unproductive Strata'. The site is not within a Source Protection Zone and there are no active licensed groundwater abstractions within 1km of the site. There is unconfined groundwater present in the landfill as leachate, which was recorded by Hydrock at depths between 0.12m (64.31m OD) and 4.03m (55.58m OD) with a groundwater flow direction towards the north-east. Off the landfill site to the north east, groundwater is present in the more permeable Kellaways Sand formation, the Cornbrash Formation and the Blisworth Limestone Formation. These units are separated by lower permeability units comprising the Kellaways Clay and the Blisworth Clay. The concept is of a layered sequence of aquifers and aquicludes. **Surface Waters** A series of ditches are present in the land east and north east of the landfill, which coalesce to join Polopit Brook. Under current conditions these ditches are normally dry and only flow after rainfall and are not supported by noticeable baseflow. All flow eventually joins the river Nene.
Pollution history including: » **pollution incidents that may have affected land** » **historical land-uses and associated contaminants** » **any visual/olfactory evidence of existing contamination**	**Pollution incidents that may have affected land** Table 2.9 Section 2.11 of the desk study referenced below in Supporting Information notes: » no Local Authority Pollution Prevention and Controls within 500m of the site boundary; » there is a record of a minor pollution incident 81m south west of the site boundary; » there are no records of pollution incidents on the site itself. **Historical land-uses and associated contaminants**

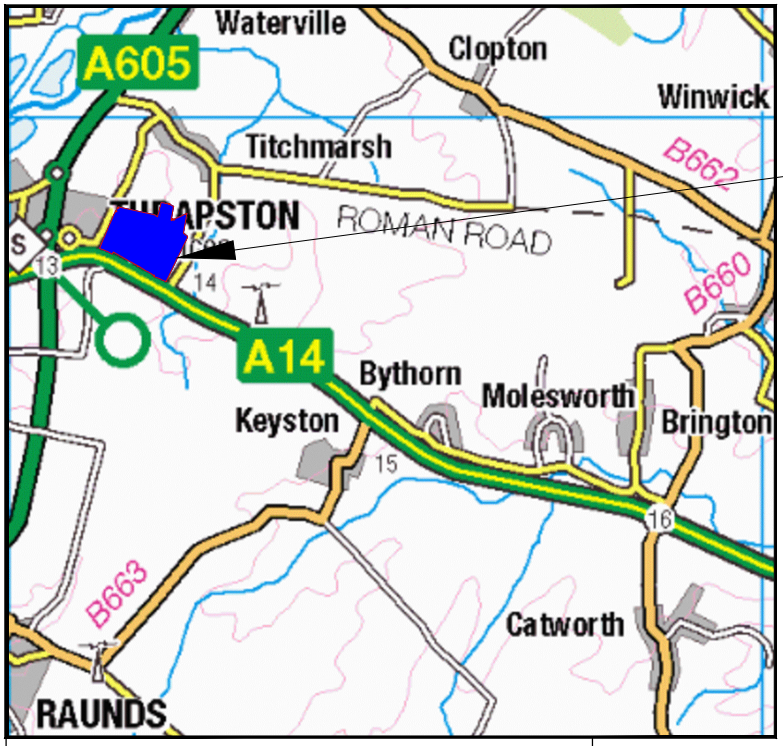
2.0 Condition of the land at permit issue	
» **evidence of damage to pollution prevention measures**	» the most significant potentially contaminative use is the Rectory Farm Landfill, the recovery of which is the subject of the DfR permit application to which this SCR relates; » most of the rest of the site is greenfield farm land with minor contaminative use associated with farm buildings and some very old stone pits. **Any visual/olfactory evidence of existing contamination** None **Evidence of damage to pollution prevention measures** There are no pollution prevention measures present at the site.
Evidence of historic contamination, for example, historical site investigation, assessment, remediation and verification reports (where available)	The Hydrock Ground Investigation Report. (Geo-environmental Interpretation) referenced below reports that, for the site as a whole, laboratory results recorded the majority of chemicals of potential concern (CoPC) at concentrations below the relevant GACs for a commercial land use. There are no remediation and verification reports applicable to the site.
Baseline soil and groundwater reference data	All relevant data are contained in: » Appendix C: Hydrock, 09 December 2023. Land adjacent Haldens Parkway, Thrapston. Ground Investigation Report. Geo-environmental Interpretation. Report. Ref 18443-HYD-XX-XX-RP-GE-1005.
Supporting Information	**Source information identifying environmental setting and pollution incidents** The following reports are attached as supporting information: » Appendix B: Hydrock, 31 January 2022. Land adjacent Haldens Parkway, Thrapston. Desk Study Report. Ref 18443-HYD-XX-XX-RP-GE-1002. » Appendix C: Hydrock, 09 December 2023. Land adjacent Haldens Parkway, Thrapston. Ground Investigation Report. Geo-environmental Interpretation. Report. Ref 18443-HYD-XX-XX-RP-GE-1005. » Appendix D: Hydrock 23 August 2022. Rectory Farm (Thrapston) Landfill (EPR/BT9879IY) Hydrogeological Risk Assessment Review. Report. Ref 23880-HYD-XX-XX-RP-GE-0003. **Historical Ordnance Survey plans** Included in Appendix C of Desk Study report referenced above. **Site reconnaissance** Presented in Section 2.3 of Desk Study report referenced above. **Historical investigation, assessment, remediation, verification reports** » Investigation

2.0 Condition of the land at permit issue	
	Ground Investigation Report referenced above » Assessment Ground Investigation Report referenced above » Remediation Not applicable » Verification Not applicable

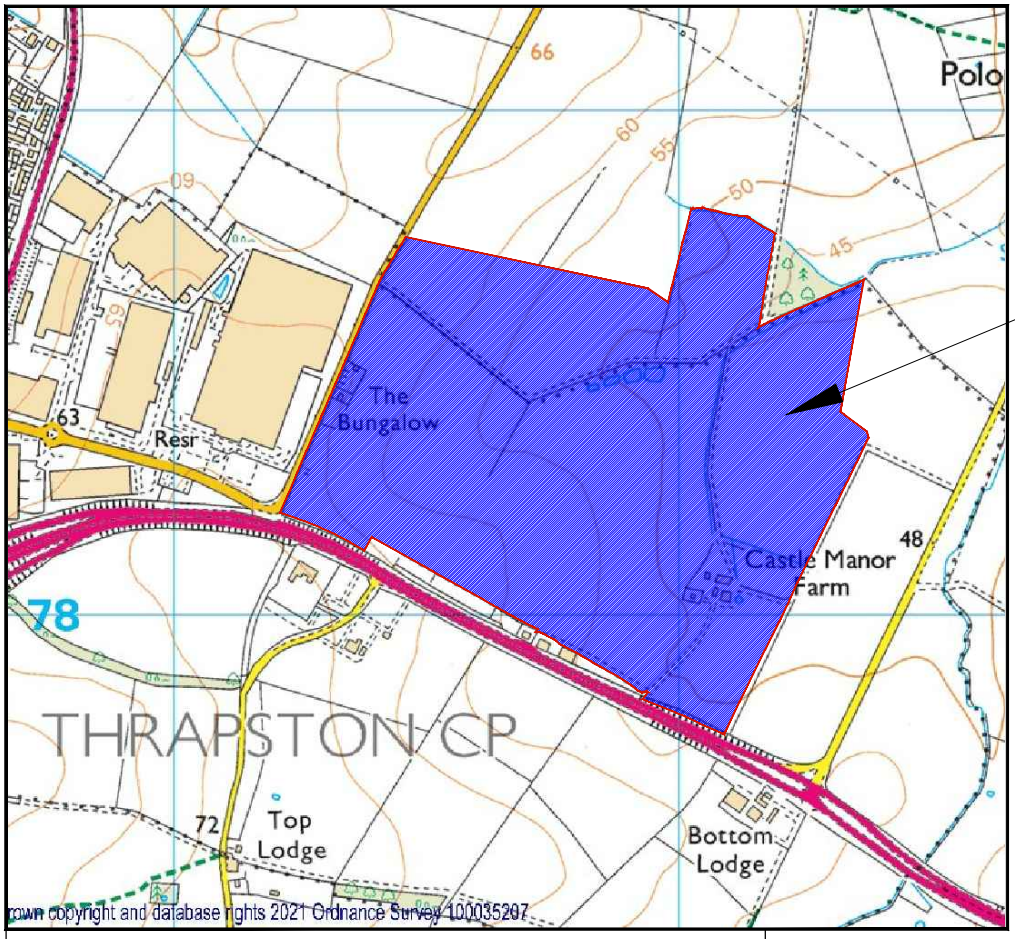
3.0 Permitted Activities	
Permitted activities	Bespoke, site-specific Deposit for Recovery permit, to allow the recovery and re-use of materials from the Rectory Farm Landfill to create landscape bunds in accordance with the planning permission for the development. Additionally, the permit will allow stabilisation/solidification, screening/blending and hand picking. Separately a Mobile Plant Permit will be deployed to excavate and segregate all Secondary Materials.
Non permitted activities to be undertaken	Primary and other non-waste materials will be re-used in accordance with a Materials Management Plan prepared in accordance with the DoWCoP
Document references for: » **plan showing activity layout; and** » **environmental risk assessment.**	**Plan** Drawing references: » 18443-HYD-XX-ZZ-DR-GE-1028 Landscape Bund Layout (bund footprint is Deposit for Recovery Area) at Appendix A; » 18443-HYD-XX-ZZ-DR-GE-1034_S2-P01_Cross-sections_Bund **Environmental Risk Assessment** » Hydrock Report reference 18443-HYD-XX-XX-RP-GE-1002-S2-P05; Land adjacent Halden's Parkway, Thrapston. Desk Study Report. » Hydrock Report reference 18443-HYD-XX-XX-RP-GE-1005-S2-P07; Land adjacent Halden's Parkway, Thrapston. Ground Investigation Report. Geo-environmental Interpretation. » Hydrock Report reference 18443-HYD-XX-XX-RP-GE-3003-S2-P01; Land adjacent Halden's Parkway, Thrapston. Detailed Quantitative Risk Assessment for Impact of Recovered Waste on Controlled Waters.

Appendix A Drawings

OS NORTH



THE SITE



THE SITE

REV						
P03	Client Name Updated					
	NT	15.12.21	NT	15.12.21	AB	15.12.21
P02						
	SD	08.11.21	NT	08.11.21	AB	08.11.21
P01	FIRST ISSUE					
	SD	16.08.21	NT	16.08.21	AB	16.08.21
REV	REVISION NOTES/COMMENTS					
	DRAWN BY	DATE	CHECKED BY	DATE	APPROVED BY	DATE

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or visit www.hydrock.com

CLIENT

Equites Newlands (Thrapston East) Limited

PROJECT

LAND ADJACENT HALDENS PARKWAY
THRAPSTON

TITLE

SITE LOCATION PLAN

HYDROCK PROJECT NO.	SCALE @ A4
C-18443-C	See Drawing

PURPOSE OF ISSUE	STATUS
SUITABLE FOR INFORMATION	S2

DRAWING NO. (PROJECT - ORIGINATOR-VOLUME-LEVEL-TYPE-ROLE-NUMBER)	REVISION
18443-HYD-XX-ZZ-DR-GE-1001	P03

Areas Schedule									Parking and docks - figures quoted are minimum, plots may allow additional.						Plot Areas
Plot No.	Warehouse GIA SQFT	Warehouse GIA SQM	Offices GIA SQFT	Offices GIA SQM	Hub Office SQFT	Hub Office SQM	Total GIA SQFT	Total GIA SQM	Car Parking @1/120sqm	HGV Parking	Docks	Level Access	cycles	PTW's	Plot Areas
1	500000	46451	25000	2323	10000	929	535000	49704	414	142	68	8	100	16	11.061 ha / 27.09 acres
2	360000	33445	15000	1394	5000	465	380000	35304	294	85	48	8	70	12	8.145 ha / 20.13 acres
3	594000	55184	25000	2323	10000	929	629000	58436	487	201	72	8	117	18	13.130 ha / 32.44 acres
4	550000	51097	25000	2323	10000	929	585000	54348	454	202	72	8	109	17	13.043 ha / 32.23acres
Total	2,004,000	186,177	90,000	8,363	35,000	3,252	2,129,000	197,790	1649	630	260	32	396	63	

Revisions:

P14	Permissive Routes added	04.01.22 RG
P15	Update to correct parking no. discrepancy	06.01.22 RG
P16	Status updated to Planning	17.01.22 RG
P17	Minor correction to rounding within Areas stated	31.01.22 RG
P18	Foul Pumping Station added.	03.02.22 RG

newlands developments

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www.peter-haddon.com

pHp architects

HUNTINGDON ROAD THRAPSTON

INDICATIVE MASTERPLAN AND PLOT 1 DETAILS

Status	PLANNING
Drawn by : RG	Checked by : RM
Date	01/04/2021

Document Number:

Project Code Zone Level-Info Type Role Job No. Drg No. Revison

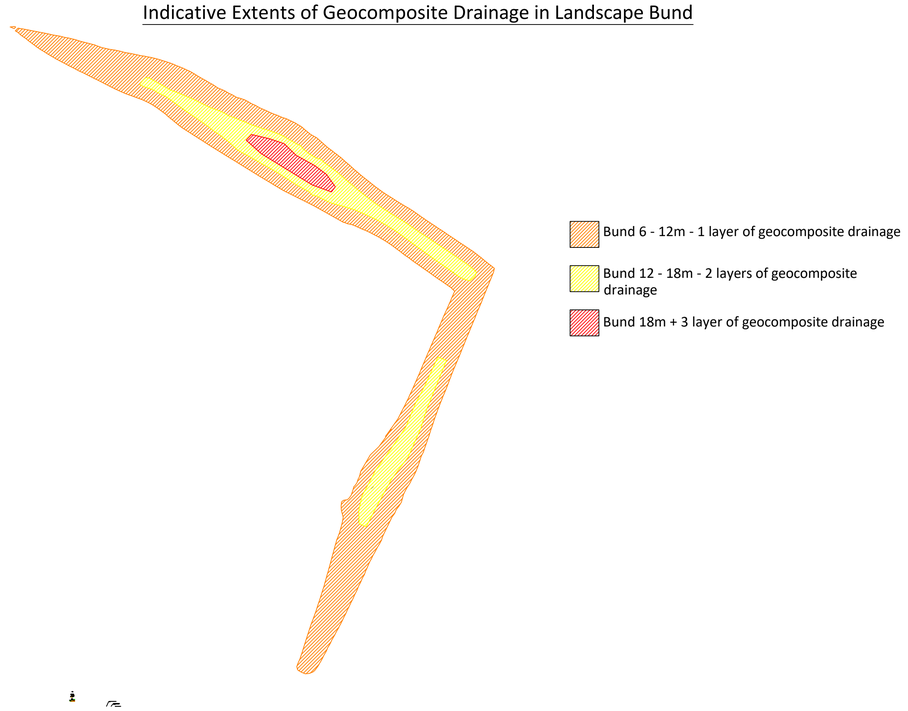
HRT-PHP-01-XX-DR-A-4432-012-P18

Scale@ A1 1:2000

0 50m 100m

OS NORTH

Indicative Extents of Geocomposite Drainage in Landscape Bund



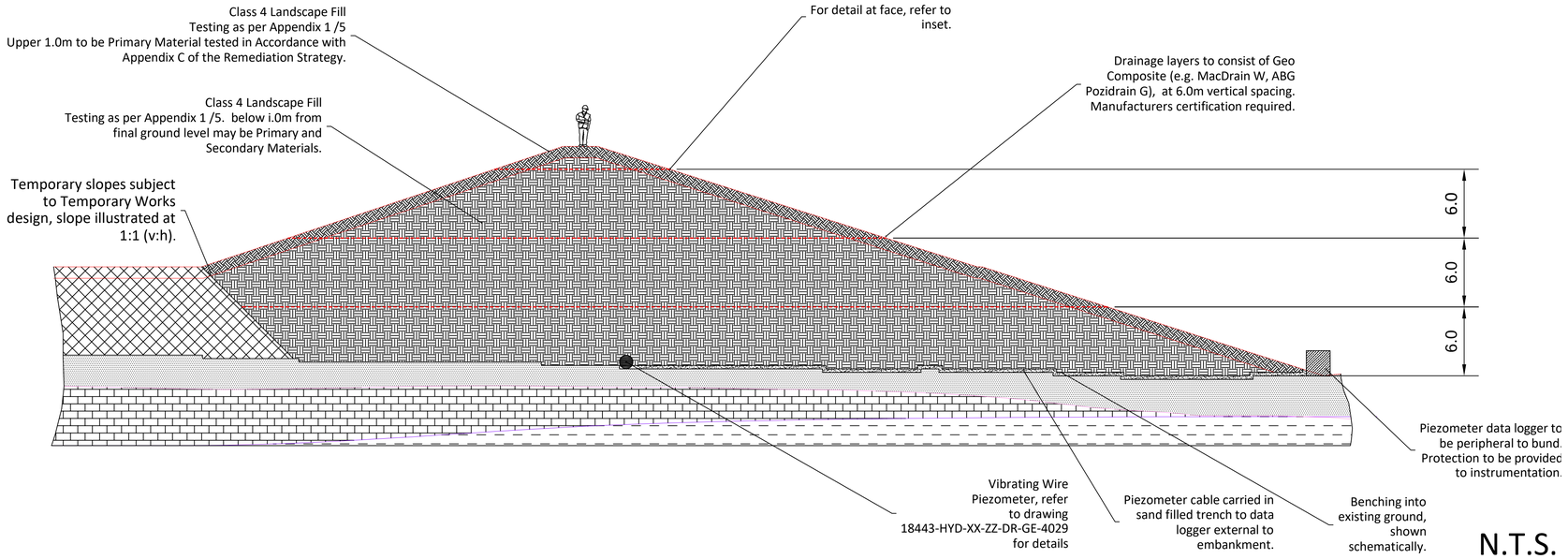
Bund 6 - 12m - 1 layer of geocomposite drainage

Bund 12 - 18m - 2 layers of geocomposite drainage

Bund 18m + 3 layer of geocomposite drainage

SCALE 1:4000

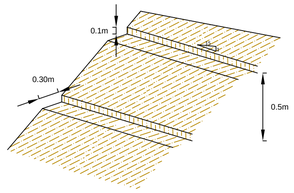
Schematic Landscape Bund Construction



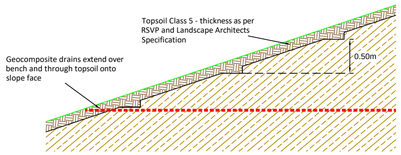
N.T.S.

Inset

Slope Benching / Scarifying Detail
To be undertaken before drainage installation and topsoiling



Finishing Detail



N.T.S.

KEY

- Class 4 Landscape Fill
- Class7 Selected Fill
- Glaciofluvial Deposits
- Blisworth Limestone
- Rutland Formation
- Geocomposite Drainage

NOTES

1. All dimensions are to be checked on site before the commencement of works. Any discrepancies are to be reported to the Architect & Engineer for verification. Figured dimensions only are to be taken from this drawing.
2. This drawing is to be read in conjunction with all relevant Engineers' and Service Engineers' drawings and specifications.
3. This drawing has been based on the following drawings and information: 11686a-0, Proposed Plateau and Bund Levels, 15/06/21.

REV.						
P1	FIRST ISSUE					
	RB	04/05/22	AB	04/05/22		
	REVISION NOTES/COMMENTS					
	DRAWN BY	DATE	CHECKED BY	DATE	APPROVED BY	DATE

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CLIENT: EQUITIES NEWLANDS (THRAPSTON EAST) LIMITED

PROJECT: HALDEN PARKWAY, THRAPSTON

TITLE: LANDSCAPE BUND CONSTRUCTION

HYDROCK PROJECT NO.	SCALE @ A1
18443	AS SHOWN

PURPOSE OF ISSUE	STATUS
SUITABLE FOR INFORMATION	S2

DRAWING NO. (PROJECT CODE-ORGINATOR-ZONE-LEVEL-TYPE-ROLE-NUMBER): 18443-HYD-XX-XX-DR-GE-1028

REVISION: P1

OS NORTH

Materials storage area

Field 2 (crops)

Field 3 (crops)

Drainage ditch heading northeast towards Thorpe Brook

Drainage ditch

Settlement ponds (Backfills)

Field 1 (grass)

KSM

Quarry/landfill

CB

KCM

Blisworth Clay

Drainage ditch

CB

Site entrance

Field 4 (crops)

Site entrance

OX

Concrete access track

Field 5 (crops)

Chicken barn (ACM roof)

Area 6 (grass)

AST

Overhead High Voltage cables

Pond

Farm buildings (offsite)

Residential property

Gravel track

Field 5 (crops)

AST (plastic)

Stone Pits

KEY

- Site Boundary (approximate)
- Landfill (approximate)
- Higher levels / Slope of contours / Lower levels
- Drainage ditch (direction of flow)
- Old Stone Pits (approximate) Historical 1885

NOTES

1. All dimensions are to be checked on site before the commencement of works. Any discrepancies are to be reported to the Architect & Engineer for verification. Figured dimensions only are to be taken from this drawing.
2. This drawing is to be read in conjunction with all relevant Engineers' and Service Engineers' drawings and specifications.
3. This drawing has been based on the following drawings and information:
3. This drawing has been based on the Stafsurv Drawing. 'Huntingdon Road, Thrapston. Topographic Survey'. Ref: 11521a-0, dated 10/03/21.

REV						
P03	CLIENT UPDATED					
	NT	15/12/21	AB	15/12/21	AB	15/12/21
P02	SITE BOUNDARY UPDATED					
	SD	08/11/21	NT	08/11/21	AB	08/11/21
P01	FIRST ISSUE					
	SD	16/08/21	NT	16/08/21	AB	16/08/21
REV.	REVISION NOTES/COMMENTS					
	DRAWN BY	DATE	CHECKED BY	DATE	APPROVED BY	DATE

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or visit www.hydrock.com

CLIENT: EQUITES NEWLANDS (THRPASTON EAST) LTD

PROJECT: LAND ADJACENT TO HALDEN PARKWAY, THRAPSTON

TITLE: SITE FEATURES PLAN

HYDROCK PROJECT NO.: C-18443

SCALE @ A0: 1:1500

PURPOSE OF ISSUE: SUITABLE FOR INFORMATION

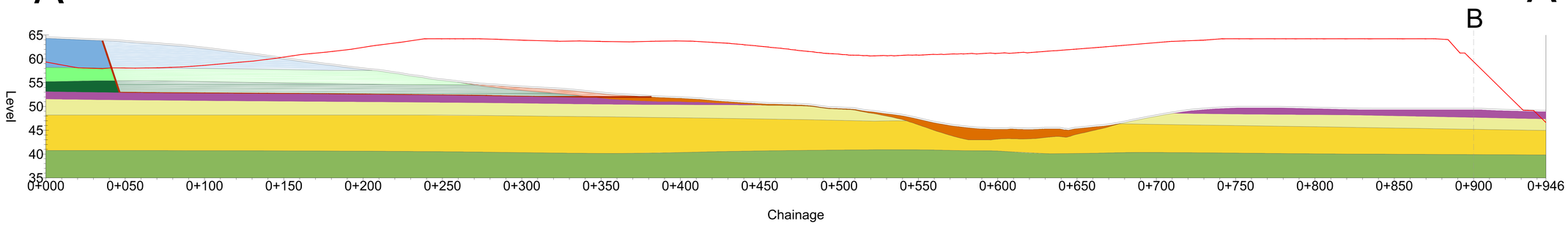
STATUS: S2

DRAWING NO. (PROJECT CODE-ORIGINATOR-ZONE-LEVEL-TYPE-ROLE-NUMBER): 18443-HYD-XX-ZZ-DR-GE-1003

REVISION: P03

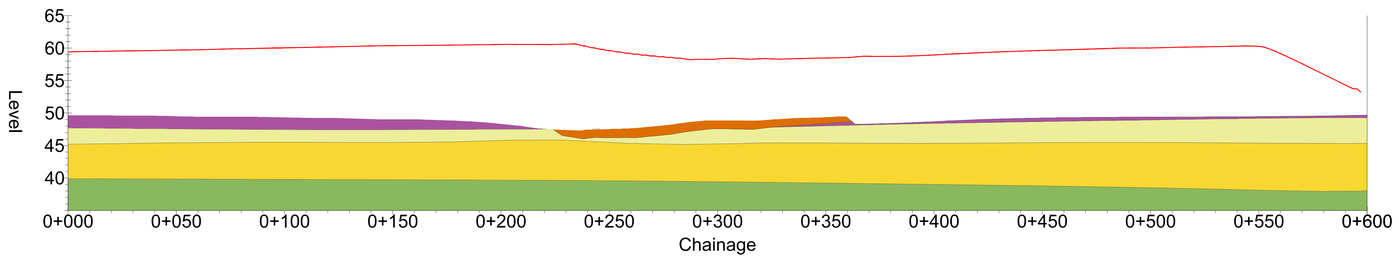
A

A'

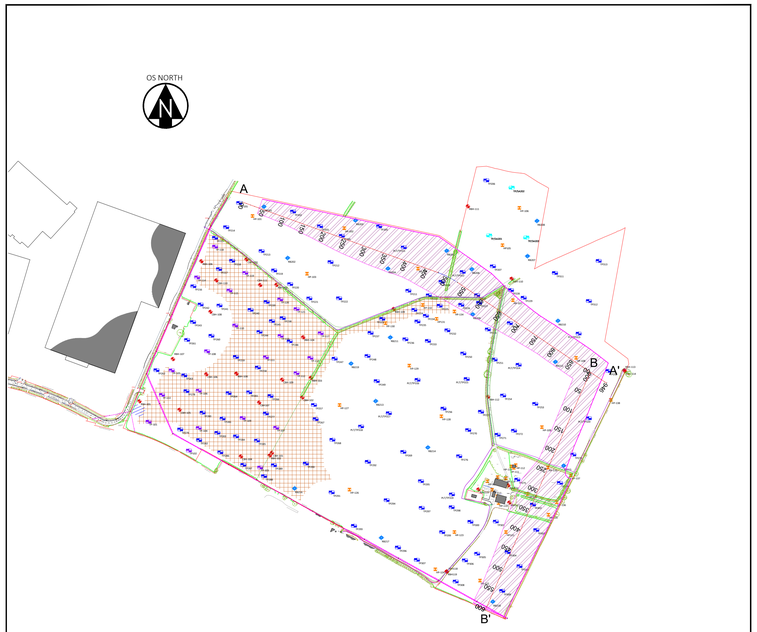


B

B'



3x vertical exaggeration



SCALE: 1:5000

Glacial Till +Glaciofluvial deposits

Kellaways Sand

Kellaways Clay

Cornbrash Limestone

Blisworth Clay

Blisworth Limestone

Rutland Formation

Head deposits

Made Ground

Proposed ground level

Overexcavation under landscape bund

KEY

Site Boundary (approximate)

TPXX Trial Pit

BHXX Cable Percussion Borehole

RBHXX Rotary Percussion / Core Borehole

HP## Hand Dug Excavation Pit

NOTES

1. All dimensions are to be checked on site before the commencement of works. Any discrepancies are to be reported to the Architect & Engineer for verification. Figured dimensions only are to be taken from this drawing.

2. This drawing is to be read in conjunction with all relevant Engineers' and Service Engineers' drawings and specifications.

3. This drawing has been based on the following drawings and information:
Stafsurv Drawing 'Huntington Road, Thrapston. Topography Survey'. Ref: 11521a-0, dated 10/03/21

4.Surfaces have been created using Hydrock Site Investigation data (July 2021 and December 2021). Levels and depths are accurate at investigation locations. Between investigation locations, levels and depths have been extrapolated and are indicative only.

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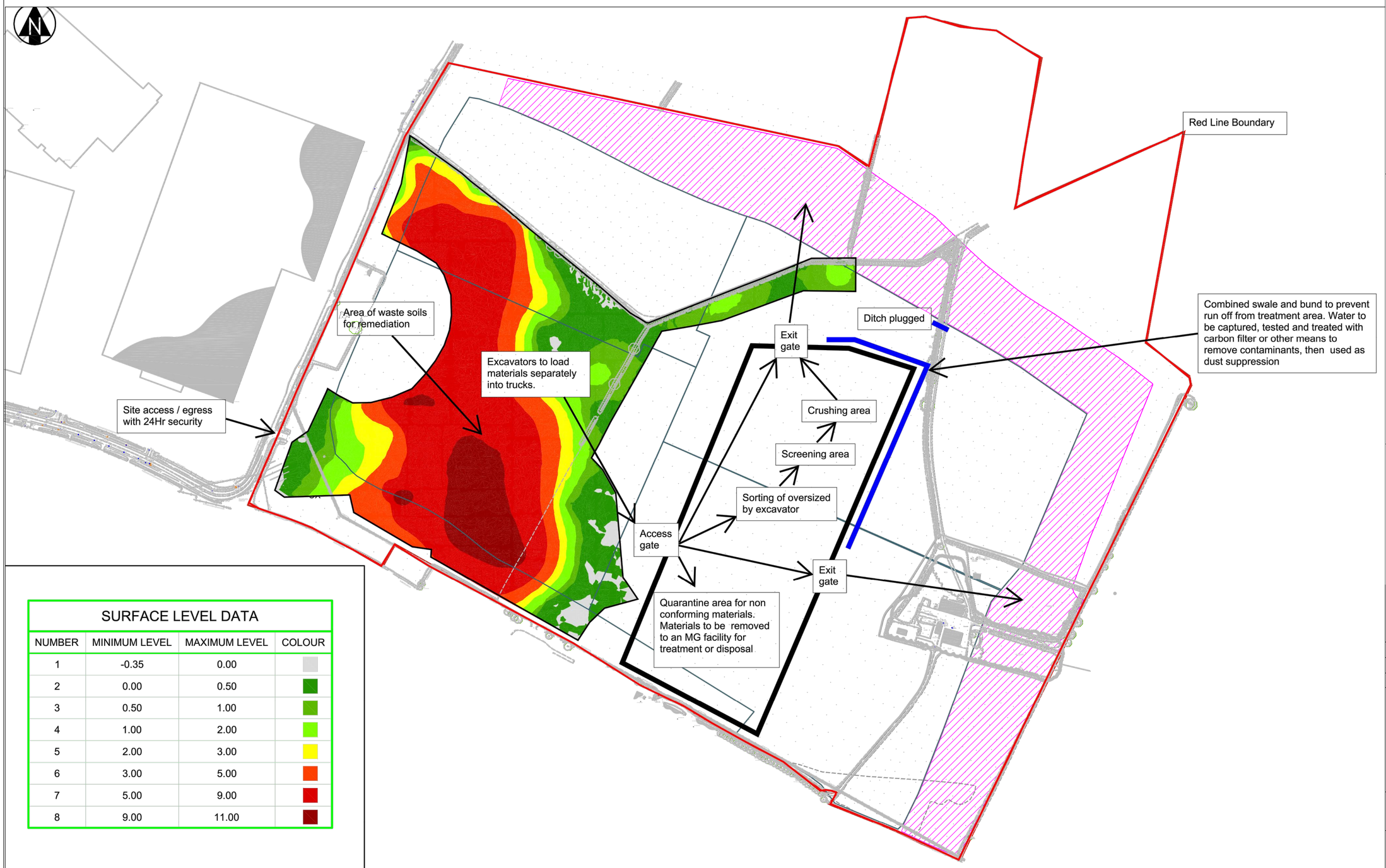
REV.	FIRST ISSUE					
P01	RT	30.08.22	CD	30.08.22	AB	30.08.22
	REVISION NOTES/COMMENTS					
	DRAWN BY	DATE	CHECKED BY	DATE	APPROVED BY	DATE

CLIENT: EQUITES NEWLANDS (THRAPSOTN EAST) LTD

PROJECT: LAND ADJACENT HALDENS PARKWAY THRAPSTON

TITLE: INDICATIVE CROSS SECTIONS
Deposit for Recovery Area

HYDROCK PROJECT NO.	SCALE @ A0
C-18443	1:1250 or as shown
PURPOSE OF ISSUE: SUITABLE FOR INFORMATION	STATUS: S2
DRAWING NO. (PROJECT CODE-ORIGINATOR-ZONE-LEVEL-TYPE-ROLE-NUMBER): 18443-HYD-XX-ZZ-DR-GE-1034	REVISION: P01



Legend

DFR Area

All waste to transit treatment area regardless of whether treatment is required

SURFACE LEVEL DATA			
NUMBER	MINIMUM LEVEL	MAXIMUM LEVEL	COLOUR
1	-0.35	0.00	
2	0.00	0.50	
3	0.50	1.00	
4	1.00	2.00	
5	2.00	3.00	
6	3.00	5.00	
7	5.00	9.00	
8	9.00	11.00	

Made Ground - Landfill waste management license

Total Volume = 597,530m^3

Rev	Date	Description
I2	02.08.23	For Information
I1	28.07.23	For Information

MICK GEORGE
6 LANCASTER WAY
ERMINE BUISNESS PARK
HUNTINGDON
CAMBRIDGESHIRE
PE29 6XU
Tel : 01480 498099 Fax : 01480 498077
www.mickgeorge.co.uk

Client:

Project Title:
Land Adjacent to Halden Parkway
Thrapston

Drawing Title:
DFR location plan

Drawn : MM - GC	Approved : GC	
Date : 28.07.23	Scale : NTS	
Drawing Number: 261190/DFR/5A	Paper size A1	Rev I2

Appendix B Desk Study Report. Ref 18443-HYD-XX-XX-RP-GE-1002

Appendix C Ground Investigation Report. Geo-environmental Interpretation. Report. Ref 18443-HYD-XX-XX-RP-GE-1005

Appendix D Hydrogeological Risk Assessment Review. Report. Ref 23880-HYD-XX-XX-RP-GE-0003