



NAVIGATOR QUARTER, LAND ADJACENT TO SOUTHAMPTON AIRPORT

MINERAL RESOURCE ASSESSMENT

HYBRID PLANNING APPLICATION

MAY 2025

**blocwork (Eastleigh) LLP
&
Southampton International Airport Ltd**





Mineral Resource Assessment

Navigator Quarter - Land Adjacent to
Southampton Airport

Blocwork (Eastleigh) LLP and Southampton
International Airport Limited (SIAL)

Document Reference: 491/1—R1.2 – MRA



Minerals
Waste
Environment

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Site / Project: Navigator Quarter – Land Adjacent to Southampton Airport
Client: Blocwork (Eastleigh) LLP and Southampton International Airport Limited (SIAL)

Document Versions

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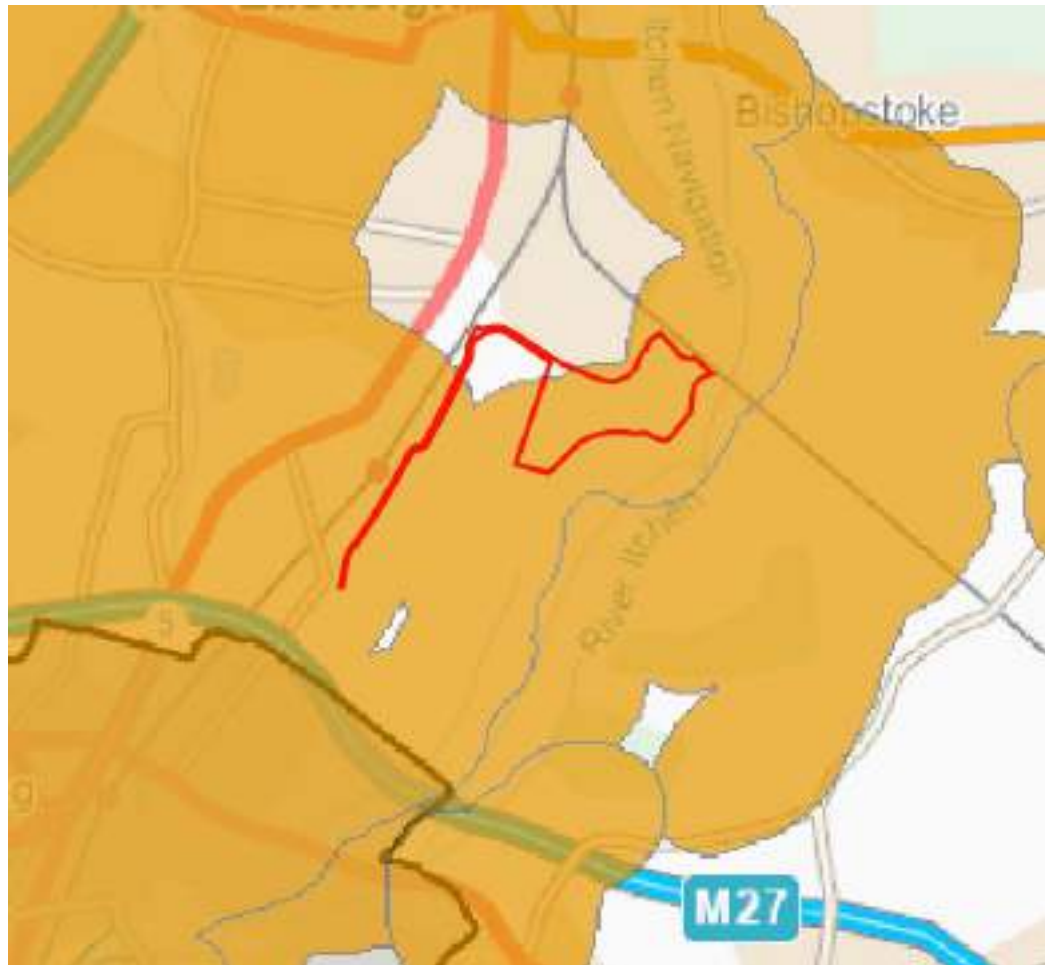
Prepared by:	MS
Checked by:	CH
Approved by:	CH

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1.0 Introduction

- 1.1 MPG have been commissioned by Blocwork (Eastleigh) LLP and Southampton International Airport Limited (SIAL) to carry out a Mineral Resource Assessment / Mineral Sterilisation Appraisal for a proposed commercial / light industrial development on land known as Navigator Quarter, adjacent to Southampton Airport, Hampshire ('The Site').
- 1.2 The Site's location is shown in Appendix 1. As shown, access to The Site would be from the west, utilising existing access routes through the existing airport and parking infrastructure. The proposed (draft) site layout is shown in Appendix 2.
- 1.3 The proposals will be considered primarily against Policies 15 and 16 of the Hampshire Minerals and Waste Plan (2013) (MWP), which relates to the safeguarding of mineral resources as identified on the policies map. The Site is predominantly located within a Mineral Safeguarding Area, with parts of the access largely excluded, as shown in the drawing below.



Mineral safeguarding area from policies map, with The Site (approximate location) outlined in red and the safeguarding area in orange.

2.0 Site Description

2.1 The Site is located to the northeast of, and immediately adjacent to, Southampton Airport. For context, the site boundary is approximately 175m east of the runway. The Site access wraps around the northern aspect of the runway.

2.2 The Site currently consists of open grassland, divided in places by strips of vegetation. There are two fields, dissected by an area of trees approximately 45m wide (expanding to some 100m wide), which is the location of a former

railway line and junction. The total site area is approximately 34ha. The northern field (to the north of the former railway) is approximately 6.5 – 7ha, and the southern field is 18.5 – 19ha. The remaining areas are heavily vegetated or form the access route. A radar tower is located on the southern boundary of The Site.

- 2.3 The Site is bounded to the west by Southampton Airport, and to the east by other agricultural areas, though these do not look heavily used on recent aerial imagery and are becoming naturalised, particularly where they border the River Itchen (approximately 135m east of the site boundary). The northern boundaries feature a railyard and rail line, which separates The Site from a civil engineering yard, further trees and agricultural land. To the west of the northern field are residential properties and a play area. The northern, eastern and southern boundaries all feature linear areas of trees.
- 2.4 A search of Defra's Magic Map online service was carried out to confirm environmental designations on The Site and its surrounds. The Site itself has very limited environmental designations, with small areas of priority habitat (deciduous woodland) in the former rail line area, as well as some small pockets on the northern and southern boundaries. In terms of hydrogeology, the superficial deposits at The Site are designated as a Secondary (undifferentiated) aquifer and the bedrock is a Secondary A Aquifer.
- 2.5 To the east / southeast is a SSSI and SAC (the River Itchen), the boundaries of which generally abut the eastern site boundary. The SSSI / SAC area is also a Country Park (Itchen Valley). The SSSI / SAC area is topographically lower than The Site by 2 – 5m, and therefore hydraulically down-gradient.

2.6 Geology and Hydrogeology

- 2.6.1 BGS mapping shows The Site to be underlain by the London Clay Formation in the west, and the Wittering Formation (sand, silt and clay) in the east. Superficial deposits are reported as being river terrace deposits of clay and silt. Immediately to the east, the SSSI / SAC area is reported as alluvium (clay, silt, sand and gravel).
- 2.6.2 An intrusive investigation was carried out by *Geo2*, including the provision of boreholes and trial pits (see Appendix 3). The purpose of this investigation was to assess ground conditions and / or contamination; it was not an exploratory exercise to assess the potential for mineral extraction. Therefore, the distribution of boreholes / trial pits is not even across the entire site, with trial pits in the northern field limited to its southwestern corner, and only four trial pits in the southern field. The majority of boreholes / trial pits are across the access track. Nevertheless, the results present an overview of the subsurface lithologies and hydrogeology across most of The Site, and given the similar results across each borehole / trial pit, are considered to be generally representative of The Site's geology. For additional geological information and details of ground conditions, please see the *Geo2* (25/4362.A.1 / 24/4362.A.2.PSSR) reports which are separate from this document.
- 2.6.3 There are no publicly available borehole logs on The Site itself, and though there are several to the east of The Site, these are not considered to be truly representative of The Site as they are in an area mapped as different lithologies (the alluvium). For the purposes of this assessment therefore, only the trial pits and boreholes on site have been used.

- 2.6.4 Eight of the boreholes / trial pits are within the access area, all of which report made ground. Those not within the access route typically report quartzite gravel beneath approximately 1m of silts. This gravel is typically reported to the base of the trial pits (3 – 3.5m). Where the trial pits / boreholes go beyond the sand and gravel, the Wittering Formation, in this locality reported as silts and clays, is recorded.
- 2.6.5 Where gravel is reported, it is sometimes clayey and often sandy. The silts above the gravel are also commonly described as sandy and / or clayey.
- 2.6.6 As stated, there are only three trial pits in the northern field, limited to the southwestern corner. These only extend to just over 1m below surface, and report only made ground and silts.
- 2.6.7 Water strikes are only reported in the trial pits, and are typically between 2.6 and 3.2m below surface, though not always reported.
- 2.6.8 In summary, it can be concluded that in the southern field, there is likely to be approximately 2 – 2.5m of sand and gravel, beneath at least 1m of silt, and likely followed by further silts of the Wittering Formation from approximately 3.5m below surface. The water table is variable, but likely to be some 2.6 to 3.2m below surface. In the northern field, there is no information regarding sand and gravel, but it is reasonable to extrapolate information from the southern field, though at least in the southwest corner, there may also be made ground present.
- 2.6.9 However, the above is based on limited borehole and trial pit data (particularly for the northern field), and some additional variability is probable across The Site. Caution should therefore be applied to the geological and

hydrogeological data, though it is considered sufficient for the purposes of this assessment. Although not reported in the trial pits, made ground cannot be ruled out in areas of the northern and southern fields. Notably, the *Geo2* report(s) references two historic quarries within The Site, in the northwestern and southeastern corners, with one of these known to be infilled, though there are no details as to with what.

- 2.6.10 In addition, hydrocarbons from the railyard to the north are known to be leaching into The Site. Details of this issue are not considered in this report, though should be kept in mind for how these could impact the quality and end-uses of any minerals extracted, should this happen in the future.

3.0 Proposed Development

- 3.1 The proposals are for a hybrid application, consisting of an outline application for up to 92,000 sqm (GIA) within Use Classes E(g) (ii & iii), B2 and B8 with ancillary offices and areas for service yards, car parking, landscaping, ancillary buildings and associated activities, and access from Wide Lane (all matters reserved except for access), and, a full application for initial infrastructure works and construction of new access road including site levelling and other engineering works.

- 3.2 As the layout would not be finalised until the reserved matters stage, it is not considered here in relation to the known geology of The Site.

4.0 Policy 15 Appraisal

- 4.1 Policy 15 of the MWP relates to the safeguarding of mineral resources, which

aims to protect important minerals from being sterilised (unable to be extracted) by other forms of development. Safeguarding areas are designated on the policies map, and are based on mapped areas of mineral deposits. In this case, The Site is safeguarded for sand and gravel. Where mitigating circumstances do not exist, and where minerals are present, they should be extracted before a non-minerals development is created, which is known as prior extraction. Sometimes, it is not possible or not appropriate to carry out prior extraction. Policy 15 provides situations where this is the case:

“Development without the prior extraction of mineral resources in the Mineral Safeguarding Area may be permitted if:

- a. It can be demonstrated that the sterilisation of mineral resources will not occur; or*
- b. It would be inappropriate to extract mineral resources at that location, with regards to the other policies in the Plan; or*
- c. The development would not pose a serious hindrance to mineral development in the vicinity; or*
- d. The merits of the development outweigh the safeguarding of the mineral”*

4.2 Note that the addition of ‘or’ between each clause, means that only one of these needs to be demonstrated for the proposed development to be in accordance with the policy.

4.3 Buildings would, of course, make it impossible to extract sand and gravel from The Site and therefore, it cannot be concluded that part c) could be met, as whilst the proposals may not prevent nearby minerals (should extraction be viable) from being extracted, it would of course preclude extraction within The Site itself. Whilst it may be possible to demonstrate part d), this document will

focus on parts a) and b).

4.4 For part a), it is considered likely that the minerals beneath The Site are not present in an economically suitable volume or do not have the necessary properties to make it viable to extract them. This is primarily for three reasons:

- The majority of The Site has in excess of 1m of overlying silts before gravel is reached
- The gravel reported is often clayey or silty and would require additional processing (eg. washing)
- There is typically less than 2m thickness of gravel in total / above the water table

4.5 The three elements above, when combined, mean that it would not be economically viable to extract the sand and gravel. The silts above the sand and gravel would lead to a more than 50% overburden ratio, and would not be readily saleable. Not only would the silts therefore require storage somewhere on-site (where there may not be suitable space), but the associated cost of extracting and storing the silts would be high, relative to the value of the mineral below. Equally, the level of additional processing would further reduce profit margins of the sand and gravel present.

4.6 Finally, if an average of 1.8m thickness of sand and gravel is used for The Site, once approximate stand-offs and removal of the access track is incorporated (leaving some 15ha), the yield would be only 270,000 tonnes¹. For a site of this

¹ Note that this is an approximate figure based on 100m stand-offs from potential receptors / boundaries and an approximated thickness based on the limited geological information. MPG are not mineral surveyors and this figure is for illustrative purposes only.

surface area, this is a small yield, and this is before taking into account weight lost to washing clay and silt from the sand and gravel.

- 4.7 Further to the above, to enable the development to proceed, a quarry would have to be restored through infilling (without which the development could not be constructed). This would typically be done using waste, and would likely require a minimum of 1m stand-off from the water table. This would reduce the yield even further, before taking into account the potential for liners or geotextile barriers.
- 4.8 A final consideration that would likely reduce the yield is the presence of utilities at The Site. MPG have not been furnished with the location of these, though it is understood that both a water main and high-pressure gas pipeline cross The Site. The utilities and the requirements of infilling would likely reduce the estimated 270,000 tonnes to a significantly lower figure.
- 4.9 Therefore, it is concluded that no economically viable mineral exists at The Site to make prior extraction appropriate, and therefore, sterilisation would not occur.
- 4.10 For part b) of Policy 15, it is considered that mineral extraction would be inappropriate at this location, when considering policies 3 and 10 of the MWP. Policy 3 relates to the protection of habitats and species. The Site is immediately adjacent to a SSSI and SAC (Itchen River). The Site is topographically above the SSSI / SAC. Any surface water run-off may contain large amounts of suspended solids, especially given the high clay and silt content reportedly at The Site. This could have unacceptable impacts upon the SSSI and the watercourses within it. Other impacts on habitats and

species within the SSSI may occur as a result of noise and dust emissions, given the close proximity.

- 4.11 The restoration of The Site, likely to require waste, could also pose unacceptable risks to the SSSI / SAC. Whilst it is likely that only inert wastes would be used and controlled through an Environmental Permit, there remains a risk that 'rogue loads' of waste, containing potentially hazardous substances, could be deposited at The Site, which could leach into groundwater. Given the topography of The Site relative to the SSSI / SAC, groundwater flow is likely to be towards the east, allowing these (potential) pollutants to travel into groundwater (and then watercourses) within the SSSI / SAC.
- 4.12 Whilst the above would ultimately be matters for the Environment Agency in relation to an Environmental Permit for The Site, and may be able to be overcome, it is considered that the risk remains high. It is also noted that a potentially significant removal of priority habitat woodland would be necessary for mineral extraction, though the same may also be true of other developments (though could more readily be avoided and / or mitigated).
- 4.13 In any event, it is considered that Policy 10 would also be relevant. Residential properties are only 100m from the site boundary (Campbell Road), with a children's play area separated only from The Site boundary by the railway line. Whilst it is accepted that these locations are already subject to noise from the airport and the railway line / yard, there may be a cumulative impact from mineral extraction.
- 4.14 Whilst sand and gravel extraction (without on-site processing) does not produce significant amounts of dust relative to other types of mineral extraction, it is possible that dust could be mobilised and affect both the

residential properties and the railway line, and potentially more importantly, the airport's runway in terms of both visibility and deposition (obscuring runway markings for example)².

- 4.15 Further to the above, Policy 10 requires that minerals and waste developments should not endanger aircraft through risk of bird strike. Whilst it is unlikely that large open water areas would be created should any mineral extraction take place (assuming a stand-off from groundwater), some lagoons are likely to be necessary for use, for example, in dust suppression. Therefore, there is a moderate risk of birds utilising the quarry, increasing the risk of bird strikes.
- 4.16 Again, it may be possible to mitigate these issues, but nonetheless, it is concluded that there is an increased risk factor should a mineral extraction operation be located at The Site in relation to Policy 10.
- 4.17 Should the Council not be minded to agree with the analysis of Policies 3 and 10 (as no specific studies have been carried out to corroborate the conclusions above), and that point b) of Policy 15 cannot be met, it is considered that point a) has been demonstrated in any case. An assessment of both is included here for completeness, and to emphasise that when taken in combination especially, prior extraction should not take place.

5.0 Policy 16 consideration

- 5.1 Policy 16 relates to minerals and waste infrastructure, which is safeguarded against sterilisation, or, developments that would prejudice or jeopardise its

² Government guidance on Airport Public Safety Zones and development, and DfT Circular 01/2010 do not specifically mention dust, or developments that may cause dust, though it is a consideration nonetheless.

use. There are a number of safeguarded sites, primarily to the north of The Site.

- 5.2 It is not considered that the proposed development would, or could impact these safeguarded sites. The proposals are not in close proximity to the safeguarded sites, especially when considered relative to existing residential, commercial and industrial developments, which are situated between The Site and the safeguarded sites. Therefore, the proposals are not 'incompatible development' as per Policy 16, and therefore points a) to d) of the policy do not require consideration or assessment.

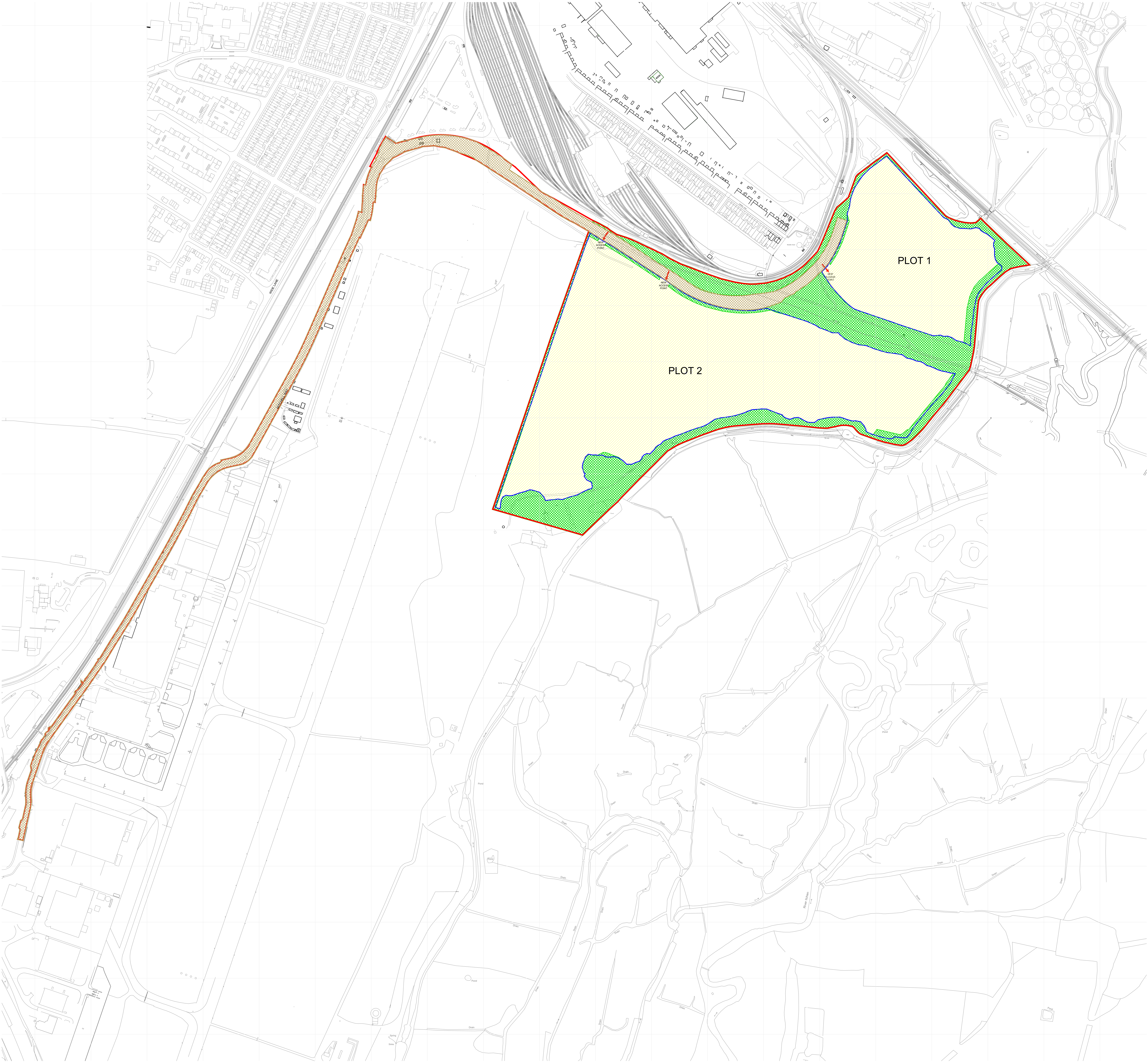
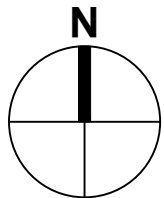
6.0 Summary and Conclusions

- 6.1 This document assesses a proposed commercial / light industrial development on land to the northeast of Southampton Airport in terms of Policies 15 and 16 of the MWP. These policies relate to the safeguarding of mineral resources and mineral infrastructure respectively.
- 6.2 Policy 15 contains points a) to d) providing situations where prior extraction of minerals before the proposed development is started is not required / appropriate. Whilst it is only necessary to demonstrate one of these instances, it is considered that points a) and b) can be demonstrated.
- 6.3 Sand and gravel is safeguarded at The Site. However, geological evidence from trial pits / boreholes shows that there is a limited gravel resource beneath The Site, with significant clay content, and significant volumes of silt overburden. Even if the gravel were to be extracted, there would be a relatively low yield, especially considering the geographical size of The Site. It

is therefore concluded that sterilisation would not occur, as an economically viable mineral does not exist, demonstrating point a).

- 6.4 Point b) can also be demonstrated, as there is a significant risk to the adjacent SSSI / SAC in terms of pollution from The Site, from both mineral extraction (suspended solids) and waste infilling (rogue loads and / or leaching of potentially harmful substances through groundwater).
- 6.5 It is considered that in isolation, both points a) and b) can be demonstrated, though in combination especially, it is clear that prior extraction could and should not be carried out at The Site.
- 6.6 Policy 16 seeks to protect safeguarding minerals infrastructure. The proposals would not sterilise or prejudice the operation of any safeguarded mineral infrastructure and is not 'incompatible development' in relation to the infrastructure.
- 6.7 Overall, therefore, it is concluded that the proposed development would not sterilise viable minerals or minerals infrastructure, that prior extraction is not appropriate, and that the proposals are compliant with policies 15 and 16.
- 6.8 However, it is recommended that, when excavations take place for construction at The Site (for example, foundations / pilings / landscaping), any sand and gravel encountered should be set aside and used in the construction of the wider development or removed from The Site for sale if it is suitable and the planning permission allows.

Appendix 1: Site Location Plan



LEGEND:

PROPOSED NEW ROAD LAYOUT TAKEN FROM
BURROWS GRAHAM DRAWING NO.
30228-BGL-XX-XX-XR-C-00014 P04
DATED: 0804.25

GROSS SITE BOUNDARY TAKEN FROM TITLE PLAN
HP082317 & DRAWING EASTLEIGH - REDLINE
DATED: 27.04.22

KEY

AREA WITHIN WHICH STRATEGIC LANDSCAPING WILL BE PROVIDED.

DEVELOPMENT AREA (LANDSCAPING, ACCESS, PARKING, DRAINAGE AND ALL ASSOCIATED INFRASTRUCTURE) ZONE.

PROPOSED ROAD ALIGNMENT

PLOT ACCESS POINTS

Use Classes E(g)(ii) Research and Development, E(g)(iii) Industrial Processes, B2 and B8 Warehouse and Distribution.

Maximum Building Heights (To Ridge): 21.8m +/- 250mm (Max. Building Height: 34.8m AOD +/- 250mm)

Maximum Floor area (GIA): 92,000 sqm

SITE AREAS

North Plot	6.09 Ha / 15.04 Acres
Plot 2	17.02 Ha / 42.05 Acres
Road	4.33 Ha / 10.71 Acres
Total Planning Redline	34.14 Ha / 84.37 Acres

Layout of the development to include buildings, service yards, car parking as well as soft and hard landscape, examples as shown on the following drawing:
Illustrative Site Plan NQ-MSA-SI-XX-DR-A-2003

PL02	08/04/25	Red Line & road boundary updated.	SD	MT
PL01	08/11/24	Red Line updated	SD	MT
DR01	10/10/24	Final Issue	SD	MT
REV	DATE	NOTES	DRAWN	CHECKED

11 PLATO PLACE ST DIONIS ROAD LONDON SW6 4TU
020 7736 6162 WWW.MSA-ARCHITECTS.CO.UK

PROJECT TITLE
NAVIGATOR QUARTER

MSA JOB No: **31794**

CLIENT
BLOCKWORK (EASTLEIGH) LLP & SIAL

DOCUMENT TITLE
PARAMETERS PLAN

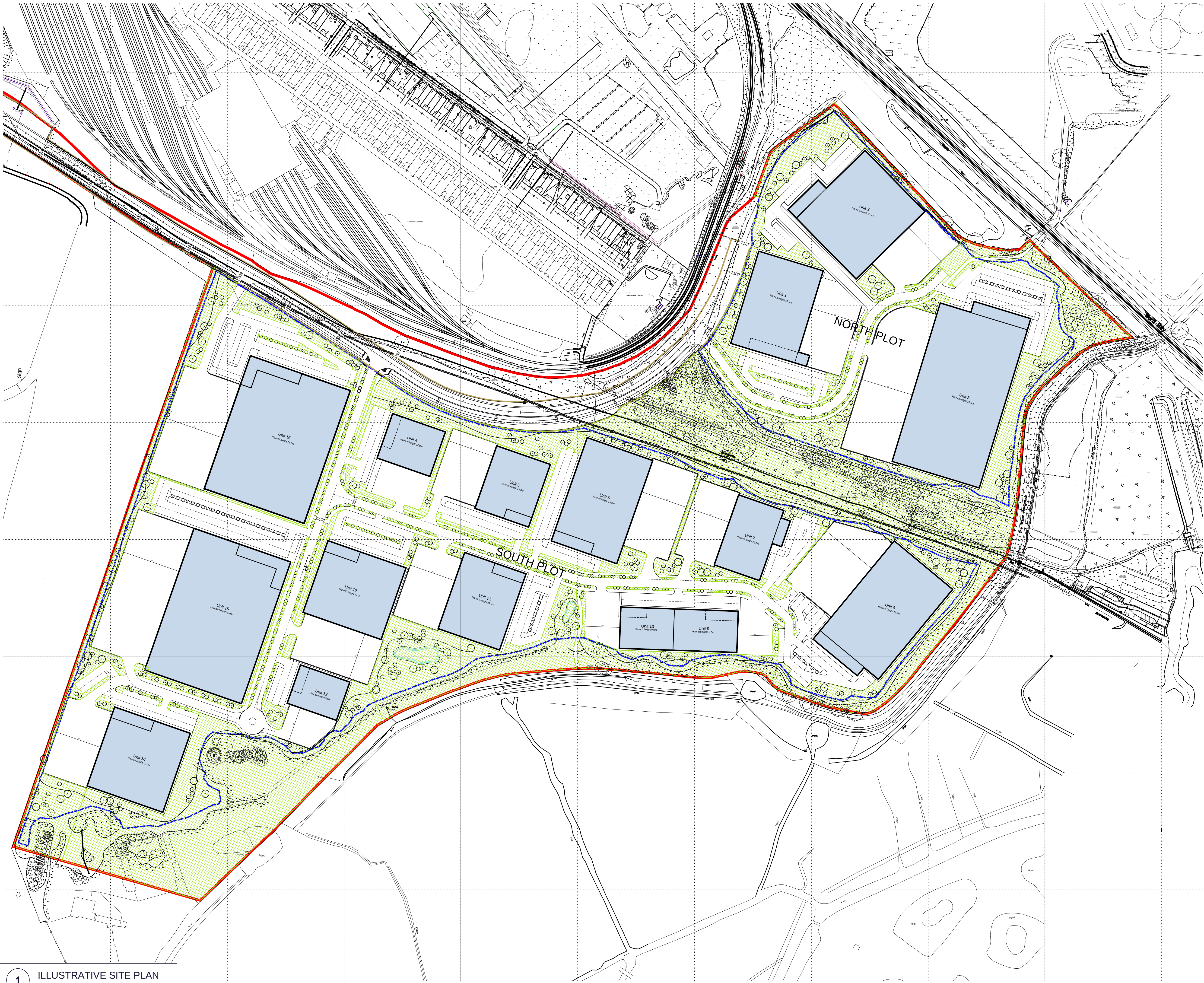
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10/10/24

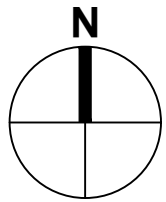
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NQ-MSA-SI-XX-SDR-A-2001

STATUS	REV
PLANNING	PL02

Appendix 2: Indicative Site Layout Plan



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LEGEND:

- GROSS SITE BOUNDARY
- PLOT BOUNDARIES

PROPOSED NEW ROAD LAYOUT TAKEN FROM
BURROWS GRAHAM DRAWING NO:
30228-BGL-XX-XX-XR-C-00014 P04
DATED: 08.04.25

GROSS SITE BOUDNARY TAKEN FROM TITLE PLAN
HP882317 & DRAWING EASTLEIGH - REDLINE
DATED: 27.04.22

PL01	09/04/25	First Issue	sd	mt
REV	DATE	NOTES	DRAWN	CHECKED



11 PLATO PLACE ST DIONIS ROAD LONDON SW6 4TU
CHARTERED ARCHITECTS 020 7736 6162 WWW.MSA-ARCHITECTS.CO.UK

PROJECT TITLE

NAVIGATION QUARTER,
SOUTHAMPTON

CLIENT

BLOCKWORK (EASTLEIGH) LLP & SIAL

DOCUMENT TITLE

ILLUSTRATIVE SITE LAYOUT PLAN

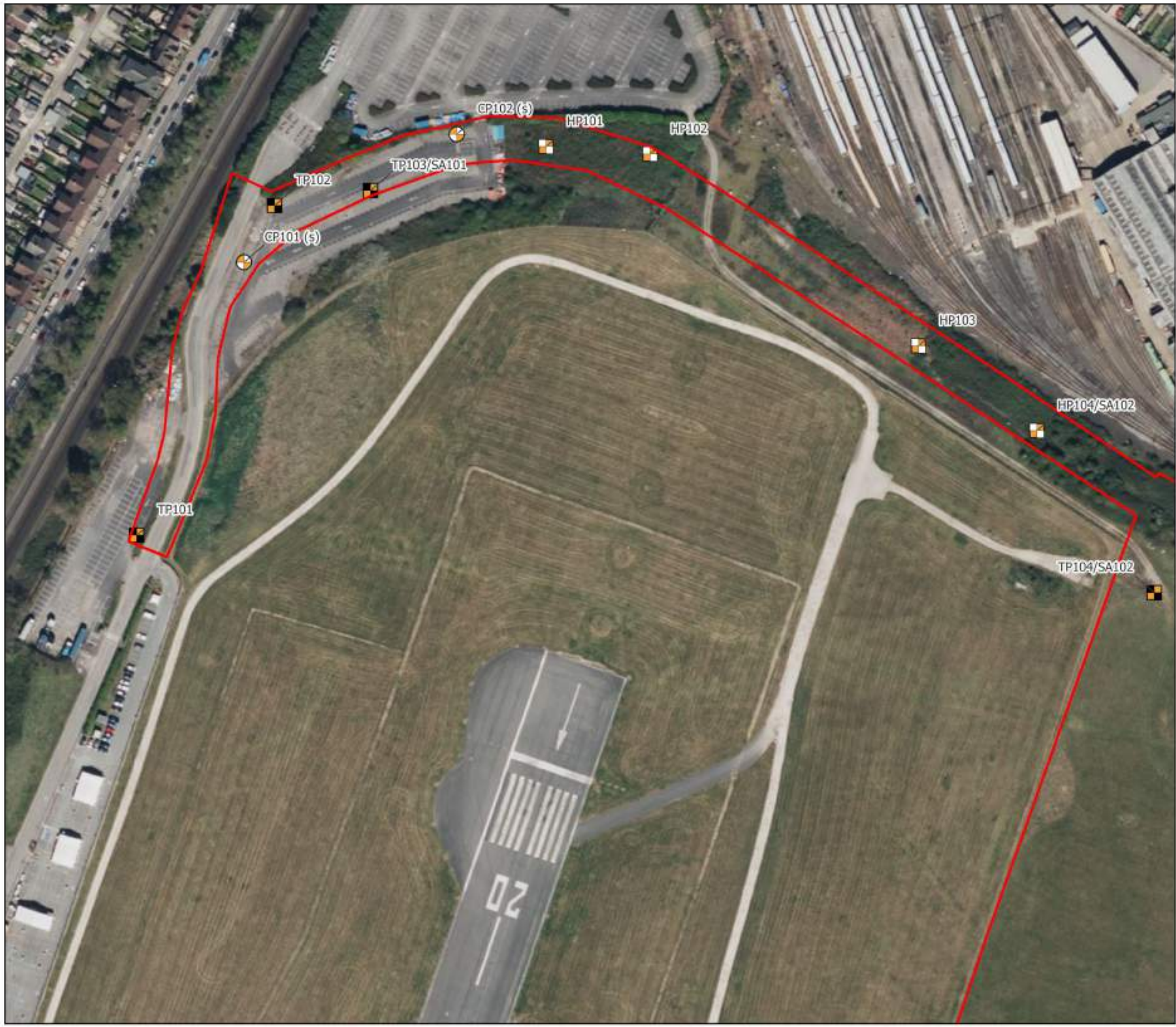
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	CHECKED	MT

DOCUMENT NUMBER

NQS-MSA-SI-XX-DR-A-2002

STATUS	PLANNING	REV	PL01
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Appendix 3: Borehole and trial pit logs



Legend

- Site Boundary
- SI Locations
 - CP - Cable Percussion Borehole
 - (s) - Standpipe Installation
 - TP - Trial Pit
 - HP - Hand Dug Pit

0 10 20 30 40 50 m



Figure Intrusive Location Plan		
Job Navigator Quarter, Southampton		
Client Blocwork (Eastleigh) LLP and AGS Airports Group Limited		
Figure No. 2A	Revision 1	Date 07 February 2025
Drawn by JCR	Checked by TH	Scale 1:1,500
Job No. 4362		





Legend

- Site Boundary
- SI Locations
 - CP - Cable Percussion Borehole
 - (s) - Standpipe Installation
 - TP - Trial Pit
 - HP - Hand Dug Pit

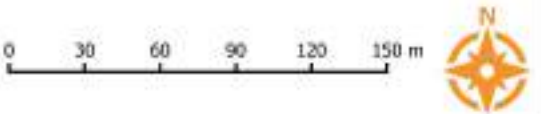


Figure Intrusive Location Plan		
Info Navigator Quarter, Southampton		
Client Blocwork (Eastleigh) LLP and AGS Airports Group Limited		
Figure No. 2B	Revision 1	Date 07 February 2025
Drawn by JCR	Checked by TH	Scale 1:3,000
Job No. 4362		





Cable Percussion Log

CP101
Sheet 1 of 1

Hole Type CP	Easting 445412.60	Northing 117940.70	Ground Level (m) 14.30	Scale 1:50
Project Name Navigator Quarter, Southampton	Project No. 4362	Start Date 2025-02-03	End Date 2025-02-03	

Client Blocwork (Eastleigh) Ltd and AGS Airports Group Limited	Contractor SE Drilling Ltd	Consultant MOK/JCR
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Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (m)	Strata		
		Depth (m)	Type/ Ref	Results			Legend	Description	
		0.00 - 0.30	B			(0.30)		MADE GROUND: Greyish brown sandy angular to sub-angular fine to coarse limestone GRAVEL. Sand is fine to coarse. Geotextile membrane at base.	
		0.50 - 0.60	ES 1		14.00	0.30		MADE GROUND: Dark greyish brown slightly sandy SILT with rare angular to sub-angular fine to medium gravel of concrete, quartzite and brick. Sand is fine to coarse.	0.5
		0.50 - 1.00	B			(1.00)			1.0
		1.20	SPT	N=6 (1,1/1,1,2,2)	13.00	1.30	x x	Brown slightly clayey sandy SILT. Sand is fine to medium. Rare angular to sub-angular fine to medium quartzite gravel. [RIVER TERRACE DEPOSITS]	1.5
		1.20 - 1.65	D			(0.40)	x x		
		1.50 - 2.00	B		12.60	1.70	x x	Brown slightly sandy gravelly SILT. Sand is fine to coarse. Gravel is angular to sub-angular fine to coarse quartzite. [RIVER TERRACE DEPOSITS]	2.0
					12.30	(0.30)	x x		
		2.00	SPT	N=10 (1,2/2,2,3,3)		2.00		Medium dense light brown sandy angular to sub-angular fine to coarse quartzite GRAVEL. Sand is fine to coarse. [RIVER TERRACE DEPOSITS]	2.5
		2.00 - 2.45	D						3.0
		2.00 - 2.50	B						3.5
									4.0
		3.00	SPT(C)	N=16 (4,4/4,4,4,4)					4.5
		3.00 - 3.45	D						5.0
		3.00 - 3.50	B			(2.70)			5.5
									6.0
		4.00	SPT(C)	N=10 (3,4/3,2,2,3)	9.60	4.70	x x	Grey slightly clayey sandy SILT. Sand is fine to medium. [LONDON CLAY FORMATION]	6.5
		4.00 - 4.45	D				x x		7.0
		4.00 - 4.50	B				x x		7.5
							x x		8.0
		5.00	D				x x		8.5
		5.50 - 5.95	U	Blows: 70, Recovery: 60%			x x		9.0
							x x		9.5
		6.00	D				x x		10.0
		6.50 - 7.00	B			(3.80)	x x		
							x x		
		7.00	SPT	N=35 (2,2/5,10,10,10)			x x		
		7.00 - 7.45	D				x x		
							x x		
		8.00	D				x x		
		8.50 - 8.95	U	Blows: 100, Recovery: 0%	5.80	8.50	x x	Grey slightly sandy clayey SILT. Sand is fine to medium. [LONDON CLAY FORMATION]	
		8.50 - 9.00	B				x x		
							x x		
						(1.50)	x x		
							x x		
							x x		
							x x		
		10.00	SPT	N=52 (2,3/7,11,11,23)	4.30	10.00	x x		
		10.00	D					End of Borehole at 10.00m	

Remarks 1. Logged in general accordance with BS 5930:2015+A1:2020. 2. Area spot cleared for services prior to excavation by a specialist third-party contractor. 3. No olfactory or visual evidence of contamination noted. 4. SPT Hammer Ref. SEDS7, Energy Ratio 74 %. 5. Borehole terminated at 10.00 m bgl at target depth. 6. Borehole installed with a 50 mm HDPE standpipe, gas bung and raised cover to 6.00 m bgl.	Method, Plant, Stability, Dimensions 0.00 - 10.00m CP Dando 2000	Logger CS/MOK
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Cable Percussion Log

CP102
Sheet 1 of 1

Hole Type CP	Easting 445493.45	Northing 117992.43	Ground Level (m) 13.93	Scale 1:50
Project Name Navigator Quarter, Southampton	Project No. 4362	Start Date 2025-02-03	End Date 2025-02-03	

Client Blocwork (Eastleigh) Ltd and AGS Airports Group Limited	Contractor SE Drilling Ltd	Consultant MOK/JCR
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Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (m) (thickness)	Strata	
		Depth (m)	Type/ Ref	Results			Legend	Description
		0.40 - 0.90	B		13.63	(0.30) 0.30		MADE GROUND: Greyish brown sandy angular to sub-angular fine to coarse limestone GRAVEL. Sand is fine to coarse. Geotextile membrane at base.
						(1.00)		MADE GROUND: Greyish brown slightly sandy SILT with rare angular to sub-angular fine to coarse gravel of quartzite and mudstone. Sand is fine to medium.
		1.20 - 1.65 1.30	U D	Blows: 100, Recovery: 70%	12.63	1.30 (0.20)	x x	Light brown slightly clayey sandy SILT. Sand is fine to medium. Rare angular to sub-angular fine to medium quartzite gravel. [RIVER TERRACE DEPOSITS]
		1.70	D		12.43	1.50		Dense light orangish brown sandy angular to sub-angular fine to coarse quartzite GRAVEL. Sand is fine to coarse. [RIVER TERRACE DEPOSITS]
		2.00 2.00 - 2.45 2.00 - 3.45	SPT(C) D B	N=50 (5,7/13,15,23 for 50mm)				
		3.00 3.00 - 3.50 3.00 - 4.45	SPT(C) D B	N=40 (5,6/7,10,10,13)		(3.30)		
		4.00 4.00 4.00 - 4.50	SPT B D	N=45 (5,7/13,13,9,10)				
		5.00 5.00 - 5.50	D B		9.13	4.80	x x x	Light grey sandy SILT. Sand is fine to medium. [LONDON CLAY FORMATION]
		5.50 5.50 - 5.95	SPT D	N=15 (1,2/3,3,4,5)				
		7.00 7.00 - 7.30	D U	Blows: 100, Recovery: 80%		(5.20)		
		7.35	D					
		8.00	D					
		8.50 8.50 - 8.95	SPT D	N=28 (2,4/5,7,9,7)				
		9.00	D					
		10.00 10.00 - 10.45	D U	Blows: 100, Recovery: 0%	3.93	10.00		End of Borehole at 10.00m

Remarks 1. Logged in general accordance with BS 5930:2015+A1:2020. 2. Area spot cleared for services prior to excavation by a specialist third-party contractor. 3. No olfactory or visual evidence of contamination noted. 4. SPT Hammer Ref. SEDS7, Energy Ratio 74 %. 5. Borehole terminated at 10.00 m bgl at target depth. 6. Borehole installed with a 50 mm HDPE standpipe, gas bung and raised cover to 6.00 m bgl.	Method, Plant, Stability, Dimensions 0.00 - 10.00m CP Dando 2000	Logger CS/MOK
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Cable Percussion Log

CP103
Sheet 1 of 1

Hole Type CP	Easting 445838.76	Northing 117773.64	Ground Level (m) 12.86	Scale 1:50
Project Name Navigator Quarter, Southampton	Project No. 4362	Start Date 2025-02-04	End Date 2025-02-04	

Client Blocwork (Eastleigh) Ltd and AGS Airports Group Limited	Contractor SE Drilling Ltd	Consultant MOK/JCR
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Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (thickness) (m)	Strata		
		Depth (m)	Type/ Ref	Results			Legend	Description	
		0.00 - 0.30	B		12.56	(0.30)		Grass over brown slightly sandy SILT with rare angular to sub-angular fine to medium quartzite gravel. Sand is fine to medium	0.5
		0.30 - 0.80	B			0.30		Brown lightly sandy SILT with rare angular to sub-angular fine to medium quartzite gravel. Sand is fine to medium [RIVER TERRACE DEPOSITS]	
		1.20 1.20 - 1.65 1.20 - 1.70	SPT D B	N=50 (1,2/2,3,3,4 for 10mm)	11.86	1.00		Light brown slightly gravelly sandy SILT. Gravel is angular fine to coarse quartzite. Sand is fine to coarse. [RIVER TERRACE DEPOSITS]	1.0
		2.00 2.00 - 2.45 2.00 - 2.50	SPT(C) D B	N=50 (5,10/13,14,18,5)	11.36	1.50		Medium dense sandy angular to sub-angular fine to coarse quartzite GRAVEL. Sand is fine to coarse. Slight hydrocarbon odour within wet arisings. [RIVER TERRACE DEPOSITS]	1.5
		3.00 3.00 - 3.45 3.00 - 3.50	SPT(C) D B	N=24 (5,7/7,8,6,3)	9.46	3.40		Greyish brown slightly clayey sandy angular to sub-rounded fine to coarse quartzite GRAVEL. Sand is fine to coarse. Slight hydrocarbon odour within wet arisings. [RIVER TERRACE DEPOSITS]	3.5
		4.00 4.00 - 4.45 4.20 - 4.70	SPT D B	N=10 (3,4/3,2,2,3)					
		5.00	D		8.66	4.20		Dark grey friable clayey SILT with fine sand laminations. [LONDON CLAY FORMATION]	4.5
		5.50 - 5.95	U	Blows: 100, Recovery: 80%					5.5
		6.00	D						
		7.00 7.00 - 0.16 7.00	SPT D D	N=19 (2,2/3,4,5,7)		(5.80)			7.0
		8.00	D						
		8.50 8.50 - 8.95	SPT D	N=22 (2,3/4,5,6,7)					8.5
		9.00	D						
		10.00 10.00	SPT D	N=29 (3,3/4,6,7,12)	2.86	10.00		End of Borehole at 10.00m	10.0

Remarks 1. Logged in general accordance with BS 5930:2015+A1:2020. 2. Area spot cleared for services prior to excavation by a specialist third-party contractor. 3. Slight hydrocarbon odour noted within wet arisings at water table. 4. SPT Hammer Ref. SEDS7, Energy Ratio 74 %. 5. Borehole terminated at 10.00 m bgl at target depth. 6. Borehole installed with a 50 mm HDPE standpipe, gas bung and raised cover to 4.00 m bgl.	Method, Plant, Stability, Dimensions 0.00 - 10.00m CP Dando 2000	Logger CS/MOK



Cable Percussion Log

CP104
Sheet 1 of 1

Hole Type CP	Easting 445986.46	Northing 117712.65	Ground Level (m) 12.63	Scale 1:50
Project Name Navigator Quarter, Southampton	Project No. 4362	Start Date 2025-02-04	End Date 2025-02-04	

Client Blocwork (Eastleigh) Ltd and AGS Airports Group Limited	Contractor SE Drilling Ltd	Consultant MOK/JCR
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Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (m)	Strata		
		Depth (m)	Type/ Ref	Results			Legend	Description	
		0.50 - 1.00	B		12.43	(0.20) 0.20		Grass over brown slightly sandy SILT with rare angular fine to medium quartzite gravel. Sand is fine to medium	
								Brown lightly sandy SILT with rare angular to sub-angular fine to medium quartzite gravel. Sand is fine to medium [RIVER TERRACE DEPOSITS]	0.5
		1.20 - 1.65	U	Blows: 50, Recovery: 50%		(1.20)			1.0
		1.40 - 1.90	B		11.23	1.40		Light brown slightly gravelly sandy SILT. Gravel is angular fine to coarse quartzite. Sand is fine to coarse. [RIVER TERRACE DEPOSITS]	1.5
		1.70	D		10.93	(0.30) 1.70		Dense to medium dense orangish brown sandy angular to sub-angular fine to coarse quartzite GRAVEL. Sand is fine to coarse. [RIVER TERRACE DEPOSITS]	2.0
		2.00	SPT(C)	N=39 (3,4/9,9,10,11)					2.5
		2.00 - 2.45	D						3.0
		2.00 - 2.60	B						3.5
		3.00	SPT(C)	N=29 (3,4/6,7,7,9)					4.0
		3.00 - 3.45	D						4.5
		3.00 - 4.45	B			(3.70)			5.0
		4.00	SPT(C)	N=26 (2,4/6,7,7,6)					5.5
		4.00 - 4.50	D						6.0
		4.00 - 5.95	B						6.5
		5.50	U	Blows: 40, Recovery: 30%	7.23	5.40		Dark grey friable clayey SILT with fine sand laminations. [LONDON CLAY FORMATION]	7.0
		6.00 - 7.00	D						7.5
		6.50	B			(2.60)			8.0
		7.00 - 7.95	D						8.5
		7.50	SPT	N=16 (1,2/2,3,5,6)					9.0
		7.50	D						9.5
		8.00 - 8.95	D		4.63	8.00		Dark grey friable clayey sandy SILT. Sand is fine to medium. [LONDON CLAY FORMATION]	10.0
		8.50	SPT	N=22 (2,2/4,5,6,7)					
		8.50	D						
		9.00	D			(2.00)			
		10.00	SPT	N=25 (2,3/4,5,7,9)	2.63	10.00			
		10.00	D						
								End of Borehole at 10.00m	

Remarks 1. Logged in general accordance with BS 5930:2015+A1:2020. 2. Area spot cleared for services prior to excavation by a specialist third-party contractor. 3. No olfactory or visual evidence of contamination noted. 4. SPT Hammer Ref. SEDS7, Energy Ratio 74 %. 5. Borehole terminated at 10.00 m bgl at target depth. 6. Borehole installed with a 50 mm HDPE standpipe, gas bung and raised cover to 5.50 m bgl.	Method, Plant, Stability, Dimensions 0.00 - 10.00m CP Dando 2000	Logger CS/MOK
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Hand Pit

HP101
Sheet 1 of 1

Hole Type HP	Easting 445536.93	Northing 117988.29	Ground Level (m) 14.31	Scale 1:25
Project Name Navigator Quarter, Southampton	Project No. 4362	Start Date 2025-02-04	End Date 2025-02-04	

Client Blocwork (Eastleigh) Ltd and AGS Airports Group Limited	Contractor FW Pammenter & Son	Consultant MOK/JCR
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Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (m) (thickness)	Strata		
		Depth (m)	Type/ Ref	Results			Legend	Description	
		0.50 - 0.60	ES 1		14.01	(0.30)		MADE GROUND: Grass over light brown slightly gravelly sandy SILT. Sand is fine to coarse. Gravel is angular to sub-angular fine to coarse quartzite.	0.5
						0.30		MADE GROUND: Dark greyish brown slightly gravelly sandy SILT. Sand is fine to coarse. Gravel is angular to sub-angular fine to coarse brick, quartzite, wood and rare glass.	
					13.11	(0.90)			1.0
						1.20		End of Trial Pit at 1.20m	
									1.5
									2.0
									2.5
									3.0
									3.5
									4.0
									4.5
									5.0

Remarks 1. Logged in general accordance with BS 5930:2015+A1:2020. 2. Area spot cleared for services prior to excavation by a specialist third-party contractor. 3. No olfactory or visual evidence of contamination noted. 4. Backfilled with arisings.	Method, Plant, Stability, Dimensions		Logger MOK
	0.00 - 1.20m	HP L = 0.30m W = 0.40m	



HP102

Sheet 1 of 1

Hole Type	Easting	Northing	Ground Level (m)	Scale
HP	445574.15	117984.30	14.53	1:25
Project Name	Project No.		Start Date	End Date
Navigator Quarter, Southampton	4362		2025-02-04	2025-02-04

Client	Contractor	Consultant
Blocwork (Eastleigh) Ltd and AGS Airports Group Limited	FW Pammenter & Son	MOK/JCR

[illegible]

Remarks

1. Logged in general accordance with BS 5930:2015+A1:2020. 2. Area spot cleared for services prior to excavation by a specialist third-party contractor. 3. No olfactory or visual evidence of contamination noted. 4. Backfilled with arisings.

Method, Plant, Stability, Dimensions

0.00 - 1.20m	HP	Hand Tools
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$L = 0.40\text{m}$

$$W = 0,30\pi$$

Logger

MOK



HP103
Sheet 1 of 1

Hole Type	Easting	Northing	Ground Level (m)	Scale
HP	445670.01	117920.17	13.74	1:25
Project Name	Project No.		Start Date	End Date
Navigator Quarter, Southampton	4362		2025-02-04	2025-02-04

Client Blocwork (Eastleigh) Ltd and AGS Airports Group Limited	Contractor FW Pammenter & Son	Consultant MOK/JCR
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[illegible]

Remarks	Method, Plant, Stability, Dimensions	Logger
1. Logged in general accordance with BS 5930:2015+A1:2020. 2. Area spot cleared for services prior to excavation by a specialist third-party contractor. 3. No olfactory or visual evidence of contamination noted. 4. Backfilled with arisings.	0.00 - 1.20m HP Hand Tools	JCR


$$W = 0.40m$$



HP104

Sheet 1 of 1

Hole Type	Easting	Northing	Ground Level (m)	Scale
HP	445700.17	117900.96	14.20	1:25
Project Name	Project No.		Start Date	End Date
Navigator Quarter, Southampton	4362		2025-02-04	2025-02-04

Client	Contractor	Consultant
Blocwork (Eastleigh) Ltd and AGS Airports Group Limited	FW Pammenter & Son	MOK/JCR

Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (thickness) (m)	Strata		
		Depth (m)	Type/ Ref	Results			Legend	Description	
		0.50 - 0.55	ES 1			(1.20)		MADE GROUND: Dark brown to black clayey gravelly fine to coarse SAND. Gravel is angular to sub-rounded fine to coarse quartzite, wood, plastic, flint, metal and rare textile. Ash present.	
					13.00	1.20		End of Trial Pit at 1.20m	

Remarks

1. Logged in general accordance with BS 5930:2015+A1:2020. 2. Area spot cleared for services prior to excavation by a specialist third-party contractor. 3. No olfactory or visual evidence of contamination noted. 4. Backfilled with arisings.

Method, Plant, Stability, Dimensions

0.00 - 1.20m	HP	Hand Tools
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$L = 0.40\text{m}$

$W = 0.40\text{m}$

Logger

JCR



Hand Pit

HP105
Sheet 1 of 1

Hole Type HP	Easting 446198.72	Northing 117747.72	Ground Level (m) 12.85	Scale 1:25
Project Name Navigator Quarter, Southampton	Project No. 4362		Start Date 2025-02-05	End Date 2025-02-05

Client Blocwork (Eastleigh) Ltd and AGS Airports Group Limited	Contractor FW Pammenter & Son	Consultant MOK/JCR
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Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (m)	Strata		
		Depth (m)	Type/ Ref	Results			Legend	Description	
		0.40 - 0.60	B 1					MADE GROUND: Black gravelly fine to coarse ash SAND with low cobble content. Gravel is angular fine to coarse brick, concrete, slate and rare metal. Cobbles are angular whole bricks and concrete.	0.5
		0.70 - 0.75	ES 1			(1.10)			
		1.10 - 1.15	ES 2		11.75 11.65	1.10 (0.10) 1.20		Orangish brown slightly clayey sandy SILT. Sand is fine to medium. [RIVER TERRACE DEPOSITS]	1.0
								End of Trial Pit at 1.20m	
									1.5
									2.0
									2.5
									3.0
									3.5
									4.0
									4.5
									5.0

Remarks 1. Logged in general accordance with BS 5930:2015+A1:2020. 2. Area spot cleared for services prior to excavation by a specialist third-party contractor. 3. No olfactory or visual evidence of contamination noted. 4. Backfilled with arisings.	Method, Plant, Stability, Dimensions		Logger JCR
	0.00 - 1.20m	HP Hand Tools	
		W = 0.40m	



Hand Pit

HP106
Sheet 1 of 1

Hole Type HP	Easting 446233.50	Northing 117723.27	Ground Level (m) 12.18	Scale 1:25
Project Name Navigator Quarter, Southampton	Project No. 4362	Start Date 2025-02-05	End Date 2025-02-05	

Client Blocwork (Eastleigh) Ltd and AGS Airports Group Limited	Contractor FW Pammenter & Son	Consultant MOK/JCR
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Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (m) (thickness)	Strata		
		Depth (m)	Type/ Ref	Results			Legend	Description	
		0.30 - 0.50	B 1		11.98	0.20		Grass over brown slightly sandy clayey SILT with rare angular to sub-rounded fine to medium quartzite gravel. Sand is fine to medium.	
		0.50 - 0.55	ES 1			(1.00)		Orangish brown slightly clayey sandy SILT. Sand is fine to medium [RIVER TERRACE DEPOSITS]	0.5
					10.98	1.20		End of Trial Pit at 1.20m	1.0
									1.5
									2.0
									2.5
									3.0
									3.5
									4.0
									4.5
									5.0

Remarks 1. Logged in general accordance with BS 5930:2015+A1:2020. 2. Area spot cleared for services prior to excavation by a specialist third-party contractor. 3. No olfactory or visual evidence of contamination noted. 4. Backfilled with arisings.	Method, Plant, Stability, Dimensions		Logger JCR
	0.00 - 1.20m	HP Hand Tools	



Trial Pit

TP103
Sheet 1 of 1

Hole Type TP	Easting 445465.96	Northing 117969.39	Ground Level (m) 14.16	Scale 1:25
Project Name Navigator Quarter, Southampton	Project No. 4362	Start Date 2025-02-04	End Date 2025-02-04	

Client Blocwork (Eastleigh) Ltd and AGS Airports Group Limited	Contractor FW Pammenter & Son	Consultant MOK/JCR
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Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (thickness) (m)	Strata		
		Depth (m)	Type/ Ref	Results			Legend	Description	
		1.20 - 1.30	ES 1		13.76	(0.40)		MADE GROUND: Greyish brown sandy angular to sub-angular fine to coarse limestone GRAVEL. Sand is fine to coarse. Geotextile membrane at base.	
						0.40		MADE GROUND: Grey slightly sandy SILT. Sand is fine to medium. Rare angular to sub-rounded fine to medium brick and quartzite gravel.	0.5
		2.70 - 2.90	B 1			(1.10)			1.0
					12.66	1.50		Light brown slightly sandy SILT. Sand is fine to medium. [RIVER TERRACE DEPOSITS]	1.5
						(0.40)			
					12.26	1.90		Light brown slightly clayey sandy angular to sub-rounded fine to coarse quartzite GRAVEL. Sand is fine to coarse. [RIVER TERRACE DEPOSITS]	2.0
						(0.50)			
					11.76	2.40		Light greyish brown sandy angular to sub-rounded fine to coarse quartzite GRAVEL. Sand is fine to coarse. [RIVER TERRACE DEPOSITS]	2.5
						(0.50)			
					11.26	2.90		End of Trial Pit at 2.90m	3.0
									3.5
									4.0
									4.5
									5.0

Remarks 1. Logged in general accordance with BS 5930:2015+A1:2020. 2. Area spot cleared for services prior to excavation by a specialist third-party contractor. 3. No olfactory or visual evidence of contamination noted. 4. Trial Pit remained dry upon completion. 5. Trial Pit remained stable upon completion. 6. Trial pit converted into a BRE365 infiltration test (SA101), gravel between 2.00 m bgl and 2.90 m bgl.	Method, Plant, Stability, Dimensions 0.00 - 2.90m TP JCB 3CX L = 1.70m W = 0.60m	Logger MOK
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Trial Pit

TP104
Sheet 1 of 1

Hole Type TP	Easting 445787.53	Northing 117795.96	Ground Level (m) 12.81	Scale 1:25
Project Name Navigator Quarter, Southampton	Project No. 4362	Start Date 2025-02-04	End Date 2025-02-04	

Client Blocwork (Eastleigh) Ltd and AGS Airports Group Limited	Contractor FW Pammenter & Son	Consultant MOK/JCR
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Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (thickness) (m)	Strata		
		Depth (m)	Type/ Ref	Results			Legend	Description	
		0.20	ES 1		12.51	0.30		Grass over dark brown slightly gravelly sandy SILT. Gravel is angular to sub-angular fine to coarse quartzite. Sand is fine to coarse.	
		0.60 - 0.80	B 1			0.30		Light brown slightly sandy SILT. Rare angular to sub-angular fine to coarse quartzite gravel. Sand is fine to coarse. [RIVER TERRACE DEPOSITS]	0.5
		1.00 - 1.40	B 2		11.81	1.00		Brown slightly clayey sandy angular to sub-rounded fine to coarse quartzite GRAVEL. Sand is fine to coarse. [RIVER TERRACE DEPOSITS]	1.0
					11.21	1.60		Light greyish brown sandy angular to sub-rounded fine to coarse quartzite GRAVEL. Sand is fine to coarse. [RIVER TERRACE DEPOSITS]	1.5
		2.00 - 2.20	B 3		10.41	2.40			2.0
								End of Trial Pit at 2.40m	2.5
									3.0
									3.5
									4.0
									4.5
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Trial Pit

TP105
Sheet 1 of 1

Hole Type TP	Easting 445857.22	Northing 117764.12	Ground Level (m) 13.16	Scale 1:25
Project Name Navigator Quarter, Southampton	Project No. 4362	Start Date 2025-02-05	End Date 2025-02-05	

Client Blocwork (Eastleigh) Ltd and AGS Airports Group Limited	Contractor FW Pammenter & Son	Consultant MOK/JCR
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Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (thickness) (m)	Strata		
		Depth (m)	Type/ Ref	Results			Legend	Description	
		0.50 - 0.80	B 1		12.96	0.20		Grass over brown slightly sandy SILT. Sand is fine to medium.	
						(1.00)		Light brown slightly sandy SILT. Sand is fine to medium. [RIVER TERRACE DEPOSITS]	0.5
									1.0
									1.5
									2.0
									2.5
									3.0
									3.5
									4.0
									4.5
									5.0
		1.60 - 1.80	B 2		11.96	1.20		Brown slightly clayey sandy angular to sub-angular fine to coarse quartzite GRAVEL. Sand is fine to coarse. [RIVER TERRACE DEPOSITS]	
						(0.40)			
		2.80 - 2.90	B 3		11.56	1.60		Greyish brown sandy angular to sub-rounded fine to coarse quartzite GRAVEL. Sand is fine to coarse. [RIVER TERRACE DEPOSITS]	
						(1.45)			
		3.10	PID	0.40	10.11	3.05		Light brownish grey clayey SILT. [RIVER TERRACE DEPOSITS]	
		3.10 - 3.20	ES 1		9.96	3.20			
								End of Trial Pit at 3.20m	

Remarks	Method, Plant, Stability, Dimensions	Logger
1. Logged in general accordance with BS 5930:2015+A1:2020. 2. Area spot cleared for services prior to excavation by a specialist third-party contractor. 3. Slight hydrocarbon odour noted in groundwater and slight sheen on water surface. 4. Groundwater identified at 3.00 m bgl. 5. Trial Pit terminated at 3.20 m bgl due to collapsing sides following groundwater ingress.	0.00 - 3.20m TP JCB 3CX L = 1.90m W = 0.60m	MOK



Trial Pit

TP106
Sheet 1 of 1

Hole Type TP	Easting 445883.13	Northing 117750.38	Ground Level (m) 12.78	Scale 1:25
Project Name Navigator Quarter, Southampton	Project No. 4362	Start Date 2025-02-05	End Date 2025-02-05	

Client Blocwork (Eastleigh) Ltd and AGS Airports Group Limited	Contractor FW Pammenter & Son	Consultant MOK/JCR
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Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (thickness) (m)	Strata	
		Depth (m)	Type/ Ref	Results			Legend	Description
		0.50 - 0.70	B 1		12.58	0.20		Grass over dark brown slightly gravelly sandy SILT. Gravel is angular to sub-angular fine to coarse quartzite. Sand is fine to coarse.
						(1.30)		Light brownish grey clayey sandy SILT. Sand is fine to medium. [RIVER TERRACE DEPOSITS]
		2.10 - 2.20	B 2		11.28	1.50		Light brown slightly gravelly sandy SILT. Gravel is angular to sub-rounded fine to medium quartzite. Sand is fine to medium. [RIVER TERRACE DEPOSITS]
					11.08	1.70		Light brown slightly clayey sandy angular to sub-rounded fine to coarse quartzite GRAVEL. Sand is fine to coarse. [RIVER TERRACE DEPOSITS]
					10.78	2.00		Orangish brown sandy angular to sub-rounded fine to coarse quartzite GRAVEL. Sand is fine to coarse. [RIVER TERRACE DEPOSITS]
						(1.20)		
					9.58	3.20		End of Trial Pit at 3.20m

Remarks	Method, Plant, Stability, Dimensions	Logger
1. Logged in general accordance with BS 5930:2015+A1:2020. 2. Area spot cleared for services prior to excavation by a specialist third-party contractor. 3. No olfactory or visual evidence of contamination noted. 4. Groundwater identified at 3.10 m bgl. 5. Trial Pit terminated at 3.20 m bgl due to collapsing sides following groundwater ingress.	0.00 - 3.20m TP JCB 3CX L = 1.70m W = 0.60m	MOK



Trial Pit

TP107
Sheet 1 of 1

Hole Type TP	Easting 445904.49	Northing 117739.23	Ground Level (m) 12.66	Scale 1:25
Project Name Navigator Quarter, Southampton	Project No. 4362	Start Date 2025-02-05	End Date 2025-02-05	

Client Blocwork (Eastleigh) Ltd and AGS Airports Group Limited	Contractor FW Pammenter & Son	Consultant MOK/JCR
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Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (thickness) (m)	Strata		
		Depth (m)	Type/ Ref	Results			Legend	Description	
		0.10 - 0.20	ES 1		12.46	(0.20) 0.20		Grass over dark brown slightly gravelly sandy SILT. Gravel is angular to sub-angular fine to coarse quartzite. Sand is fine to coarse.	
		0.60 - 0.80	B 1			(0.60)		Light brown slightly sandy SILT. Rare angular to sub-angular fine to coarse quartzite gravel. Sand is fine to coarse. [RIVER TERRACE DEPOSITS]	0.5
					11.86	0.80		Brown slightly sandy gravelly SILT. Sand is fine to coarse. Gravel is angular to sub-rounded fine to coarse quartzite. [RIVER TERRACE DEPOSITS]	1.0
		1.60 - 1.80	B 2		11.46	1.20		Light greyish brown sandy angular to sub-rounded fine to medium quartzite GRAVEL. Sand is fine to coarse. [RIVER TERRACE DEPOSITS]	1.5
	(1.70)						2.0		
								2.5	
									3.5

Remarks 1. Logged in general accordance with BS 5930:2015+A1:2020. 2. Area spot cleared for services prior to excavation by a specialist third-party contractor. 3. Slight hydrocarbon odour noted in groundwater and slight sheen on water surface. 4. Groundwater identified at 2.90 m bgl. 5. Trial Pit terminated at 2.90 m bgl due to collapsing sides following groundwater ingress.	Method, Plant, Stability, Dimensions 0.00 - 2.90m TP JCB 3CX L = 1.80m W = 0.60m	Logger MOK
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Trial Pit

TP109
Sheet 1 of 1

Hole Type TP	Easting 446328.16	Northing 117562.61	Ground Level (m) 10.83	Scale 1:25
Project Name Navigator Quarter, Southampton	Project No. 4362	Start Date 2025-02-05	End Date 2025-02-05	

Client Blocwork (Eastleigh) Ltd and AGS Airports Group Limited	Contractor FW Pammenter & Son	Consultant MOK/JCR
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Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (m) (thickness)	Strata	
		Depth (m)	Type/ Ref	Results			Legend	Description
		1.70 - 1.90	B 1		10.53	0.30		Grass over dark brown slightly gravelly sandy SILT. Gravel is angular to sub-angular fine to coarse quartzite. Sand is fine to coarse.
						0.30		Light brown slightly sandy SILT. Rare angular to sub-angular fine to coarse quartzite gravel. Sand is fine to coarse. [RIVER TERRACE DEPOSITS]
						(1.00)		
					9.53	1.30		Light brown sandy angular to sub-rounded fine to coarse quartzite GRAVEL. Sand is fine to coarse. [RIVER TERRACE DEPOSITS]
						(0.40)		
					9.13	1.70		Greenish grey fine to medium SAND. [WITTERING FORMATION]
						(0.70)		
					8.43	2.40 (0.10)		Bluish grey clayey fine to medium SAND. [WITTERING FORMATION]
					8.33	2.50		Bluish grey fine to medium SAND. [WITTERING FORMATION]
						(1.00)		
		3.30 - 3.40	B 2		7.33	3.50	End of Trial Pit at 3.50m	

Remarks 1. Logged in general accordance with BS 5930:2015+A1:2020. 2. Area spot cleared for services prior to excavation by a specialist third-party contractor. 3. No olfactory or visual evidence of contamination noted. 4. Groundwater seepage noted at 2.40 m bgl. 5. Trial Pit remained stable upon completion.	Method, Plant, Stability, Dimensions 0.00 - 3.50m TP JCB 3CX L = 1.90m W = 0.60m	Logger MOK
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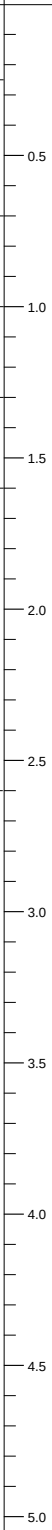


Trial Pit

TP110
Sheet 1 of 1

Hole Type TP	Easting 446027.69	Northing 117619.96	Ground Level (m) 12.02	Scale 1:25
Project Name Navigator Quarter, Southampton	Project No. 4362	Start Date 2025-02-05	End Date 2025-02-05	

Client Blocwork (Eastleigh) Ltd and AGS Airports Group Limited	Contractor FW Pammenter & Son	Consultant MOK/JCR
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Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (m) (thickness)	Strata			
		Depth (m)	Type/ Ref	Results			Legend	Description		
		1.80 - 1.90	B 1		11.77	(0.25)		Grass over brown slightly sandy SILT. Sand is fine to medium.		
						0.25		Light brown slightly sandy SILT. Sand is fine to medium. [RIVER TERRACE DEPOSITS]		
						(0.45)				
						11.32	0.70			Brown slightly gravelly sandy SILT. Sand is fine to coarse. Gravel is angular to sub-rounded fine to coarse quartzite. [RIVER TERRACE DEPOSITS]
						(0.30)				
						11.02	1.00			Light greyish brown clayey sandy angular to sub-rounded fine to coarse quartzite GRAVEL. Sand is fine to coarse. [RIVER TERRACE DEPOSITS]
						(0.30)				
						10.72	1.30			Light greyish brown sandy angular to sub-rounded fine to coarse quartzite GRAVEL. Sand is fine to coarse. [RIVER TERRACE DEPOSITS]
						(0.30)				
						10.42	1.60			Light greyish brown sandy angular to sub-angular fine to coarse quartzite GRAVEL. Sand is fine to coarse. [RIVER TERRACE DEPOSITS]
		1.80 - 1.90	B 1		9.42	(1.00)				
										
										
										
										
										
										
										
										
										
End of Trial Pit at 2.60m										

Remarks 1. Logged in general accordance with BS 5930:2015+A1:2020. 2. Area spot cleared for services prior to excavation by a specialist third-party contractor. 3. No olfactory or visual evidence of contamination noted. 4. Trial Pit terminated at 2.60 m bgl due to collapsing sides following water ingress at 2.60 m bgl.	Method, Plant, Stability, Dimensions		Logger MOK
	0.00 - 2.60m	TP JCB 3CX	



Trial Pit

TP111
Sheet 1 of 1

Hole Type TP	Easting 445668.19	Northing 117339.20	Ground Level (m) 10.35	Scale 1:25
Project Name Navigator Quarter, Southampton	Project No. 4362	Start Date 2025-02-05	End Date 2025-02-05	

Client Blocwork (Eastleigh) Ltd and AGS Airports Group Limited	Contractor FW Pammenter & Son	Consultant MOK/JCR
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Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (thickness) (m)	Strata	
		Depth (m)	Type/ Ref	Results			Legend	Description
		0.50 - 0.60	ES 1		10.15	(0.20) 0.20 (0.50)		MADE GROUND: Grass over dark brown slightly gravelly sandy SILT. Gravel is angular to sub-angular fine to coarse quartzite. Sand is fine to coarse. MADE GROUND: Light brown slightly clayey sandy angular to sub-angular fine to coarse quartzite and brick GRAVEL. Sand is fine to coarse.
					9.65	0.70 (1.10)		Orangish brown mottled light grey sandy angular to sub-angular fine to coarse quartzite GRAVEL. Sand is fine to coarse. Rare angular quartzite cobbles. [RIVER TERRACE DEPOSITS]
		1.80 - 2.90	B 1		8.55	1.80 (0.50)		Dark grey slightly gravelly sandy CLAY. Gravel is angular to sub-rounded fine to coarse quartzite. Sand is fine to coarse. [RIVER TERRACE DEPOSITS]
		2.30 - 2.40	B 2		8.05	2.30 (1.20)		Greenish grey very sandy SILT. Sand is fine to medium. [WITTERING FORMATION]
		3.50 - 3.60	B 3		6.85 6.75	3.50 (0.10) 3.60		Bluish grey fine to medium SAND. [WITTERING FORMATION]
								End of Trial Pit at 3.60m

Remarks	Method, Plant, Stability, Dimensions	Logger
1. Logged in general accordance with BS 5930:2015+A1:2020. 2. Area spot cleared for services prior to excavation by a specialist third-party contractor. 3. No olfactory or visual evidence of contamination noted. 4. Groundwater identified at 3.60 m bgl. 5. Trial Pit remained stable upon completion.	0.00 - 3.60m TP JCB 3CX L = 1.90m W = 0.60m	MOK

