

AUTHORISATION UNDER SECTION 53 OF THE PLANNING ACT 2008

APPLICANT	Heathrow Airport Limited
PROPOSED DEVELOPMENT	The proposed Nationally Significant Infrastructure Project (NSIP) for the expansion of Heathrow Airport (Third Runway)
LAND	The land shown edged in green on the plan A5 at Annex 1, forming part of Land Registry Title Numbers MX128014, MX86808 and MX189007 and one parcel of unregistered land.
DATE OF APPLICATION FOR SECTION 53 AUTHORISATION	4 December 2017 (the £1,500 fee payable in respect of the Authorisation Request was received by the Planning Inspectorate (the Inspectorate) on 5 December 2017)

AUTHORISATION

1. The terms used in this Authorisation and its Annexes are defined in Annex 2.
2. In exercise of the power conferred by section 53(1) of the Planning Act 2008, the Secretary of State authorises the Applicant and any Authorised Persons to enter the Land in order to carry out the Activities.
3. This Authorisation is granted:
 - (1) for the Authorisation Period;
 - (2) subject to compliance with the Conditions (which are necessary to protect the Landowner's and Occupier's legitimate interests); and
 - (3) solely for the purpose of undertaking the Activities in connection with the proposed application for the Proposed Development.
4. This Authorisation to enter the Land does not obviate the need for the Applicant to obtain any other statutory licences or consents or to comply with any other statutory requirements in relation to the Activities.

The Planning Inspectorate

For and on behalf of the Secretary of State for Housing, Communities and Local Government

17 May 2018

STATEMENT OF REASONS

This Authorisation has been given in response to a request to enter the land under section 53 (s53) of the Planning Act 2008 (as amended) (PA2008). The request was made by Heathrow Airport Limited (the Applicant) in respect of a proposed Nationally Significant Infrastructure Project (NSIP), expansion of Heathrow Airport (Third Runway) (the Proposed Development). This authorisation supplements the original authorisation dated 7 March 2018, since it relates to access to land parcels 5A-5C via land parcel 5D and the issues surrounding this that were highlighted in that authorisation.

Authorisation to enter the Land forming part of Land Registry Title numbers MX128014, NGL152266, MX86808, NGL553710, MX189007, NGL335279, NGL152266 and including one parcel of unregistered land (the Land) was requested in a letter from the Applicant dated 4 December 2017. The Land (excluding the unregistered parcel 5D) is owned by The Mayor and Burgesses of the London Borough of Hillingdon (freehold) (the Landowner), United Kingdom Oil Pipelines Limited and Total UK Limited are tenants of the land relating to underground pipelines, which are managed by British Pipeline Agency Limited and over which Southern Electric Power Distribution plc and SSE Telecommunications Limited have rights, and together these parties are the occupiers, (the Occupiers) of the Land. The Applicant has made attempts to establish the land ownership of land parcel 5D and has been unable to obtain this information. London Borough of Hillingdon confirmed that it did not know the ownership of the land, however it did control the access to land parcel 5D through a locked gated (the purpose of which is to prevent fly-tipping) and is therefore also an Occupier in respect of Land Parcel 5D.

The Proposed Development includes the expansion of Heathrow Airport to enable at least 740,000 air traffic movements per annum and including a new runway to the north-west of the existing airport; supporting airfield, terminal and transport infrastructure; works to the M25, local roads and rivers; temporary construction works, mitigation works and other associated development. The Applicant has stated that the Proposed Development is an NSIP as it meets the following tests set out in s23 of the PA2008 for airport development:

- the Proposed Development will constitute alteration of an airport as it includes the construction of a runway at the airport (s23(1)(b) and s23(6)(a) of the PA2008);
- the airport is in England (s23(4)(a) of the PA2008); and
- the alteration is expected to have the effect of increasing by at least 10 million per year the number of passengers for whom the airport is capable of providing air passenger transport services (s23(5)(a) of the PA2008).

The Applicant requested entry to carry out intrusive investigations to determine what infrastructure may be placed in this location, given the existence of landfills on the Land. The Applicant also requested entry for the purposes of ecological surveys. The Applicant sought rights of entry for a period of 24 months due to the duration of intrusive surveys

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exceeding the usual 12 month period, should follow up groundwater and gas monitoring surveys be necessary following the initial geophysics and intrusive works.

In determining the Applicant's request for authorisation under s53 of the PA2008, the Secretary of State has had regard to the relevant legislation, guidance, advice and the recommendation made by the Inspectorate, in addition to the Applicant's Authorisation Request and the exchange of correspondence between the Inspectorate and the relevant parties. The Secretary of State previously authorised access under s53 for the purposes of ecological surveys. This authorisation deals solely with authorisation for the purposes of intrusive survey works.

The Secretary of State considers that s53(1)(b) applies in respect of the Authorisation Request in that it relates to "*a proposed application for an order granting development consent*" and that the Applicant has satisfied s53(2) of the PA2008, in that the Applicant is considering a distinct project of real substance. The Secretary of State is also satisfied that entry to Land Parcels 5A, 5B,5C via Land Parcel 5D is genuinely required for the purpose of surveying and taking levels or in order to facilitate compliance with the provisions mentioned in subsection s53(1A) of the PA2008 (implementing Council Directive 2011/92/EU (as amended) on the assessment of the effects of certain public and private projects on the environment) including those provisions amended by Council Directive 2014/52/EU, in line with s53(1A)(c).

The Secretary of State considers the Applicant has demonstrated reasonable efforts to obtain permission to enter the Land by agreement with the Landowner, and has been unsuccessful in agreeing the necessary rights of entry to undertake the proposed activities.

The unregistered parcel of 5D (known as Accommodation Lane) which provides access to the remainder of the Land, is registered on the London Borough of Hillingdon's Definitive Map and Statement for Public Rights of Way as a Byway Open to All Traffic (BOAT). As such, the Inspectorate should not need to grant authorisation to use the lane however, the London Borough of Hillingdon has confirmed that it controls the access via a locked gate arrangement. The Secretary of State considers that the Applicant has demonstrated reasonable efforts to obtain permission to enter Land Parcel 5D by agreement with the London Borough of Hillingdon and has been refused such access. The Occupiers did not respond with comments on the Application.

In accordance with s53(1), entry to Land Parcels 5A, 5B 5C and 5D is authorised for the purposes of intrusive surveys on 5A,5B and 5C provided that any actions undertaken in connection with the Activities will not constitute an offence in themselves; and subject to all necessary consents (if any) in relation to carrying out the activities having first been obtained.

While authorisations would in most cases be expressed to expire 12 months after the date of the authorisation, the Secretary of State is persuaded that in light of the scale and nature of the Proposed Development and the scope of Activities, access is required over a

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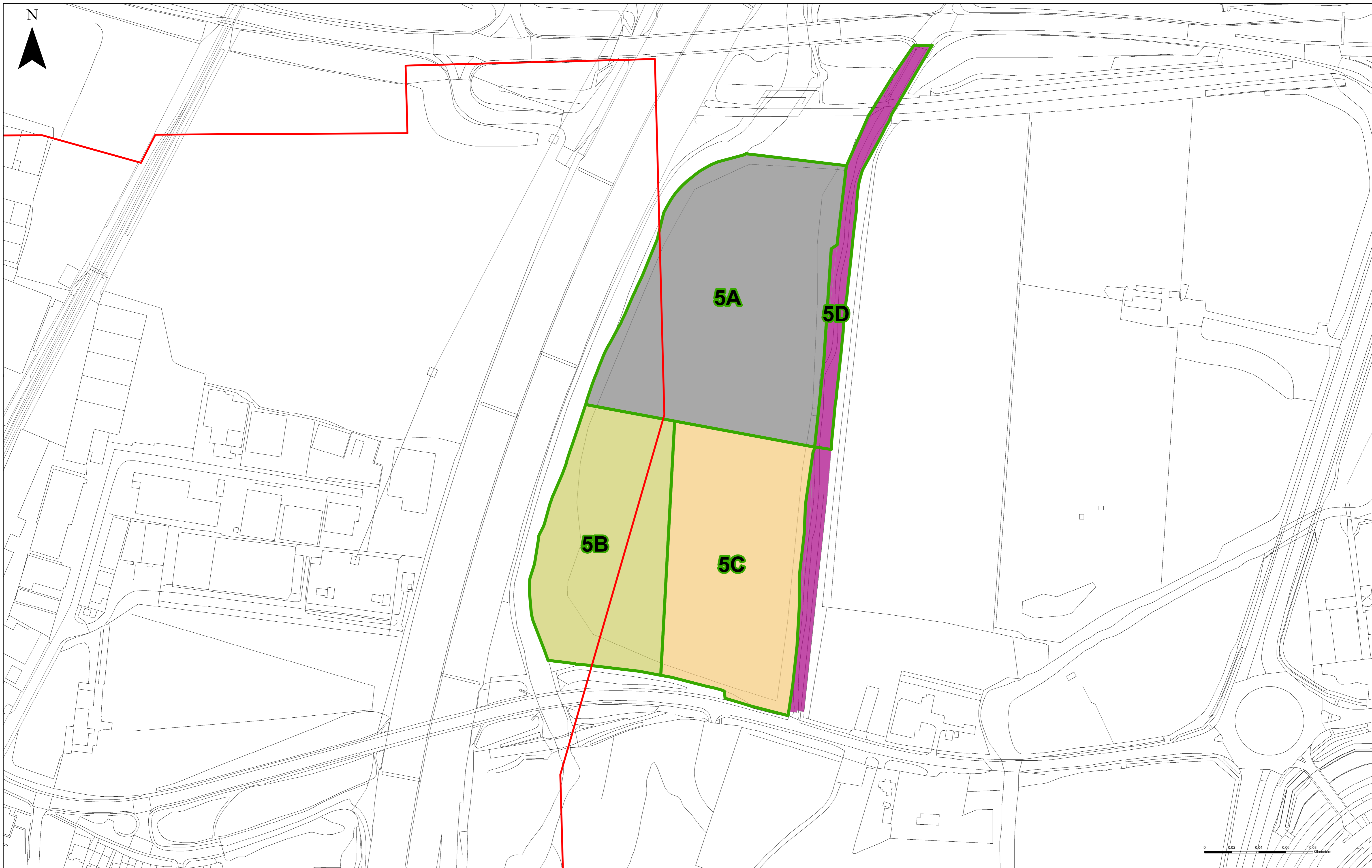
longer duration than 12 months. This Authorisation Request is therefore granted for the period of 24 months. The right to enter the Land under this Authorisation will cease at the point where the Applicant submits an application for development consent (if this pre-dates the expiry of the 24 month period of the Authorisation).

The Planning Inspectorate

For and on behalf of the Secretary of State for Housing, Communities and Local Government

17 May 2018

ANNEX 1 TO THE AUTHORISATION – THE LAND

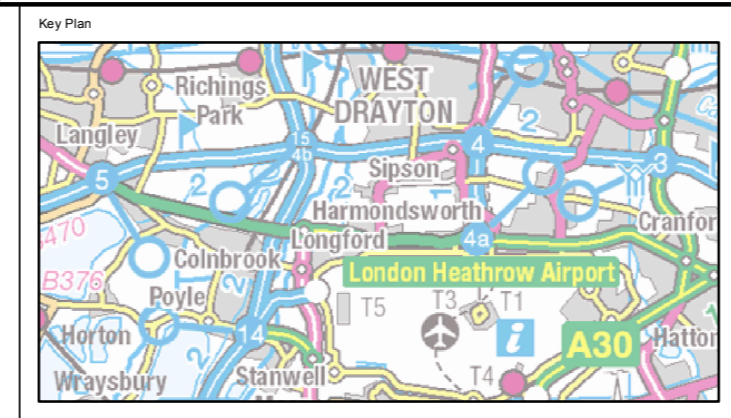


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Legend
 Proposed Development
 Land to which access is sought

Title Number

MX128014	MX86808
MX189007	Unregistered



Ver	Date	Description Of Change	Title
1	30/11/2017	FOR INFORMATION	

A 3

s.53
Plan A5
 Scale = 1:1,250

Heathrow
Making every journey better

Project Name
 HAL Runway 3 Land Referencing

Company	Drawn By	Checked/Approved	Drawn Date	Status
WSP	LM	SW	30/11/2017	

Location-Level/Subsystem Identifier
 70037522-171130-WSP-PLN-AAA-003-LM-4

ANNEX 2 TO THE AUTHORISATION – TERMS AND DEFINITIONS

Interpretation

1. The following words and expressions shall, unless otherwise stated, have the following meanings

"Activities"	means the activities described in Annex 4 of the Authorisation.
"Applicant"	means Heathrow Airport Limited (Company Registration Number 01991017) whose registered office is at The Compass Centre, Nelson Road, Hounslow, Middlesex, TW6 2GW
"Application"	means the application pursuant to section 53 of the PA2008 (as amended) made by the Applicant in respect of the Land in a letter dated 5 December 2017 to the Planning Inspectorate.
"Authorisation"	means the authorisation granted by the Secretary of State pursuant to the Application.
"Authorisation Date"	the date of the Authorisation.
"Authorisation Period"	A period of 24 months from the Authorisation Date to the Expiry Date (both dates inclusive).
The "Authorisation Request"	<p>The authorisation request comprises the documents supplied by the Applicant in its Application [APL-001], supplemented by the following further information (which formed part of the authorisation dated 7 March 2018):</p> <ul style="list-style-type: none">• The Applicant's Search of the Index Map result dated 7 December 2017 [APL-002];• The Applicant's letter dated 5 January 2018 [APL-003];• The Applicant's letter dated 1 February 2018 [APL-004];• The Applicant's letter dated 26 February 2018 [APL-005];• The Applicant's email dated 27 February 2018 [APL-006]; and• The Applicant's email dated 28 February 2018 [APL-007]

As well as the following information that was provided subsequent to the authorisation dated 7 March 2018:

- The Applicant's email dated 14 March 2018 [APL-008];
- The Applicant's email dated 3 April 2018 [APL-009]; and
- The Applicant's email dated 30 April 2018 [APL-010].

"Authorised Persons"

means the Applicant and any persons authorised by the Applicant to carry out the Activities.

"Conditions"

means the conditions set out Annex 3 of the Authorisation.

"Existing Leases and Easements"

in respect of Land Parcel 5A, a Lease dated 12 October 1970 made between (1) Greater London Council and (2) United Kingdom Oil Pipelines Limited; a Deed dated 8 November 1984 made between (1) The Mayor and Burgesses of the London Borough of Hillingdon and (2) The Southern Electricity Board; a Deed dated 7 November 2007 made between (1) The Mayor and Burgesses of the London Borough of Hillingdon and (2) Southern Electric Power Distribution plc as varied by a Deed dated 5 October 2011 made between (1) The Mayor and Burgesses of the London Borough of Hillingdon and (2) Southern Electric Power Distribution plc;

in respect of Land Parcel 5B, a Deed dated 8 November 1984 made between (1) The Mayor and Burgesses of the London Borough of Hillingdon and (2) The Southern Electricity Board; a Lease dated 24 January 1986 made between (1) The Mayor and Burgesses of the London Borough of Hillingdon and (2) Elf Oil (G.B.) Limited; and

in respect of Land Parcel 5C, a Lease dated 12 October 1970 made between (1) Greater London Council and (2) United Kingdom Oil Pipelines Limited; a Lease dated 13 June 1978 made between (1) The Mayor Aldermen and Burgesses of the London Borough of Hillingdon and (2) Gulf Oil (Great Britain) Limited; a Deed dated 7 November 2007 made between (1) The Mayor and Burgesses of the London Borough of Hillingdon and (2) Southern Electric Power Distribution plc as varied by a Deed dated 5 October 2011 made between (1) The Mayor and Burgesses of the London Borough of Hillingdon and (2) Southern Electric Power Distribution plc

in respect of Land Parcel 5D, a Deed dated 5 October 2011

made between (1) The Mayor and Burgesses of the London Borough of Hillingdon and (2) Southern Electric Power Distribution plc

“Expiry Date”

17 May 2020 or, if earlier, the date of submission of an application for development consent for the Proposed Development pursuant to s37 of PA2008.

“Intrusive Activities”

means those ground investigation surveys, ground water and ground gas monitoring surveys, the drilling of boreholes and wells and any other activities that are intrusive in their nature (such as works to search and bore) but for the avoidance of doubt such term excludes any walkover surveys or surveys including the taking of measurements and levels by non-intrusive equipment and methods and the taking of photographic records.

“the Land”

means the land and buildings shown edged in green on Plan A5 included in Annex 1 of the Authorisation comprising part of the land registered at the Land Registry with title absolute under title numbers MX128014, MX86808 and MX189007 accessed and the area of unregistered land known as Land Parcel 5D.

“Landowner”

means The Mayor and Burgesses of the London Borough of Hillingdon in respect of Land Parcels 5A, 5B and 5C.

“Notice”

not less than 14 days written notice of any intended entry to carry out an Activity or any lesser period that may from time to time be agreed in writing by the person on whom the Notice is to be served.

“Occupiers”

means the Landowner, their successors in title and any such other person as may be notified to the Applicant as being in occupation of the Land or any part thereof including:

- Total UK Limited, 183 Eversholt Street, London, NW1 1BU;
- United Kingdom Oil Pipelines Limited, 5-7 Alexandra Road, Hemel Hempstead, Hertfordshire, HP2 5BS;
- British Pipeline Agency Limited, 5-7 Alexandra Road, Hemel Hempstead, Hertfordshire, HP2 5BS;
- Southern Electric Power Distribution plc, No. 1 Forbury Place, 43 Forbury Road, Reading, RG1 3JH;
- SSE Telecommunications Limited, Inveralmond House, 200 Dunkeld Road, Perth, PH1 3AQ;

- The Mayor and Burgesses of the London Borough of Hillingdon, Civic Centre, High Street, Uxbridge, Middlesex, UB8 1UW.

“Proposed Development” means the proposed Nationally Significant Infrastructure Project, being the Expansion of Heathrow Airport (Third Runway).

“PA2008” The Planning Act 2008 (as amended).

“Working Day” means any day from Monday to Friday (inclusive) which is not Christmas Day, Good Friday or a statutory Bank Holiday.

“Working Hours” means the period 8am to 6pm.

ANNEX 3 TO THE AUTHORISATION – SCHEDULE OF CONDITIONS

Interpretation

1. In these Conditions unless the context otherwise requires:
 - (a) *any gender includes any other gender;*
 - (b) *the singular includes the plural and vice versa;*
 - (c) *references to persons include natural persons, firms, companies, corporations;*
 - (d) *the headings are for convenience only and do not affect interpretation; and*
 - (e) *any reference to a statutory provision includes any modifications, re-enactment or extension to it and any subordinate legislation from time to time*

General

2. Entry onto the Land is authorised only:
 - (a) *for the Activities;*
 - (b) *for the purposes of surveying and taking levels of land on Land Parcels 5A-5C, including to search and bore for the purposes of ascertaining the nature of the subsoil or the presence of minerals or other matter in it, and to facilitate compliance with the Environmental Impact Assessment Directive¹, the Habitats Directive² or any European Union instrument or UK legislation which replaces all or any part of these Directives;*
 - (c) *on Working Days;*
 - (d) *during Working Hours (unless for the purpose of carrying out Activities to assess the presence of bats and common birds); and*
 - (e) *for the Authorisation Period.*
3. No Authorised Persons shall enter the Land otherwise than in accordance with the Authorisation and the Conditions.
4. The Authorised Persons' right of entry onto the Land pursuant to the Authorisation shall immediately cease forthwith if any Authorised Persons are in breach of the Authorisation or any of these Conditions subject to which the Authorisation is given.

¹ Council Directive 85/337/EEC of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment, as amended from time to time.

² Council Directive 92/43/EC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora, as amended from time to time.

5. These Conditions, subject to which the Authorisation is given, are in addition to the provisions of section 53 of the PA2008 and for the avoidance of doubt if there is any conflict between the Conditions and the section 53 provisions the latter shall prevail.
6. The Occupiers retain control, possession and management of the Land and no Authorised Persons have the right to exclude the Occupiers from the Land. However, when the Land is in use for the purposes of the Activities, access to the Land by the Occupiers may be temporarily restricted for health and safety reasons.
7. Entry onto the Land is authorised only:
 - (a) *provided any actions undertaken in connection with the Activities will not constitute an offence in themselves; and*
 - (b) *subject to all necessary consents (if any) in relation to carrying out the Activities having first been obtained.*

Notice of entry

8. Before entering onto the Land to carry out an Activity the Authorised Persons must give Notice to the Occupiers, such Notice to include the following:
 - (a) *details of the type of Activity to be carried out;*
 - (b) *the proposed location of any borehole or well (if applicable);*
 - (c) *the type and nature of any equipment and apparatus to be left on the Land (if applicable);*
 - (d) *the contact details (including telephone number) of a named individual of the Authorised Persons who will have management responsibilities for undertaking the Activity;*
 - (e) *the date or dates when access is required to carry out the Activity; and*
 - (f) *the period of time for which access is required.*

Carrying out the Activities

9. In undertaking the Activities the Authorised Person shall:
 - (a) *cause as little damage as is possible and shall upon completion of the final Activity, or if earlier, on the expiry of the Authorisation Period make good any damage caused to the reasonable satisfaction of the Landowner or if the damage cannot reasonably be made good pay compensation in accordance with section 53(7) of the PA2008;*
 - (b) *remove any apparatus and equipment taken on to the Land by the Authorised Person in connection with the Activities on completion of the final Activity;*
 - (c) *not do any act, matter or thing which would or might constitute a breach of any law (including without limitation common law) statute, regulation, rule, order, byelaw or notice which would or might vitiate in whole or in part any insurance effected by or on behalf of the Occupiers in respect of the Land from time to time;*
 - (d) *at all times to take all measures as are reasonably necessary to maintain the same level of security in respect of the Land which would exist but for the*

undertaking of the Activities including leaving all gates as found and, in respect of the part of the Land known as Land Parcel 5D, to observe any reasonable security measures previously notified by the London Borough of Hillingdon to the Authorised Persons in writing provided that such measures shall not prevent the carrying out of the Activities;

- (e) not to cause any nuisance, disturbance, annoyance, inconvenience or unreasonable interference to Occupiers or to adjoining and/or neighbouring property and/or to the owners, occupiers or users of such adjoining and/or neighbouring property or users of the public right of way along the part of the Land known as Land Parcel 5D other than to the extent reasonably necessary to carry out the Activities;*
- (f) prior to carrying out any Intrusive Activities prepare a pre-entry photographic record of condition and provide a copy to the Occupiers;*
- (g) not display any signs or notices at the Land other than those required pursuant to statute;*
- (h) not interfere with the existing use of the Land other than to the extent reasonably necessary to carry out the Activities;*
- (i) contact the Occupiers when leaving the property;*
- (j) observe the Occupiers' reasonable health and safety policies and site rules previously notified to the Authorised Persons in writing provided that such policies and rules shall not prevent the carrying out of the Activities;*
- (k) observe the Occupiers' reasonable working methods and exclusion zones as notified to the Authorised Persons in writing by the Occupiers; and*
- (l) comply with the terms of the Existing Leases and Easements.*
- (m) not less than 14 days prior to entering with vehicles onto the part of the Land known as Land Parcel 5D inform the London Borough of Hillingdon of the names of the Authorised Persons who will be carrying out the Activities.*

Equipment

10. Authorised Persons may leave monitoring apparatus and equipment in place until completion of the Activities or if earlier the expiry of the Authorisation Period and shall forthwith thereafter remove any such apparatus or equipment.

Insurance

11. The Applicant shall:
- (a) subject to provision of written evidence of such requirements, pay on demand the reasonable and proper cost of any additional insurance premiums payable by the Occupiers which may have become payable as a result of the Authorisation; and*
 - (b) ensure that those who work on its behalf hold suitable and adequate insurance in respect of public and third party liability and, if requested by the Occupiers, provide proof of said insurance to the Occupiers prior to carrying out the Activities.*

ANNEX 4 TO THE AUTHORISATION –SCHEDULE OF ACTIVITIES

The schedule of activities appended to this Authorisation is the full schedule of activities for all land parcels to which the Applicant has sought access. The schedule identifies the specific activities that apply to each land parcel. This Authorisation only relates to the intrusive activities identified for Land Parcels 5A-C and access via the gate onto Land Parcel 5D in order to access 5A-C.

Heathrow Airport Limited: Application pursuant to s53 of the Planning Act 2008

Schedule of Authorised Activities

Detailed Ground Investigation Survey Requirements

Parcel Number	Survey Type	Duration Days	Provisional Dates	Activities	Survey Methodology Description	Surveyors
1	Ground Investigation	Up to 15 days for geophysics followed by up to 20 days for intrusive works.	Between March and June 2018	Geophysics, 8 trial trenches, 4 trial pits, 2 CPTs and 10 borehole pairs with associated groundwater and landfill gas wells (10 of each) installed.	Geophysics to allow accurate mapping of landfill boundary, base and any cell walls. Trial trenches and trial pits are used to validate results of geophysics and to physically inspect the landfill cap and side construction. Boreholes are used to investigate the nature of the waste material for geotechnical and land quality purposes. CPTs are used to as the geotechnical properties of the ground.	Plant requirements are 2 drilling rigs (cable percussion, barrel, solid stem or dynamic sampler), 1 CPT rig and 1 excavator. This combined would typically require up to 25 personnel at any one time who would also require mobile welfare vans and waste disposal facilities (skips).
2	Ground Investigation	Up to 15 days for geophysics followed by up to 20 days for intrusive works.	Between March and June 2018	Geophysics, 5 trial trenches, 3 trial pits and 9 borehole pairs with associated groundwater and landfill gas wells (9 of each) installed.	Geophysics to allow accurate mapping of landfill boundary, base and any cell walls. Trial trenches and trial pits are used to validate results of geophysics and to physically inspect the landfill cap and side construction. Boreholes are used to investigate the nature of the waste material for geotechnical and land quality purposes. CPTs are used to as the geotechnical properties of the ground.	Plant requirements are 2 drilling rigs (cable percussion, barrel, solid stem or dynamic sampler). This combined would typically require up to 25 personnel at any one time who would also require mobile welfare vans and waste disposal facilities (skips).
4A	Ground Investigation	Up to 15 days for geophysics followed by up to 10 days for intrusive works	Between March and June 2018	Geophysics, 6 trial pits, 9 CPTs and 9 borehole pairs with associated groundwater and landfill gas wells (9 of each) installed.	Trial pits are used to assess shallow ground conditions and confirm the presence/absence of made ground. Boreholes are used to confirm the ground conditions to greater depths for geotechnical and land quality purposes. CPTs are used to as the geotechnical properties of the ground.	Plant requirements are 2 drilling rigs (cable percussion, barrel, solid stem or dynamic sampler), 1 CPT rig and 1 excavator. This combined would typically require up to 15 personnel at any one time who would also require mobile welfare vans and waste disposal facilities (skips).
	Groundwater and ground gas monitoring	Monthly rounds for up to 12 months. This may be reduced if results within the first 3 months indicate that the site constitutes a low risk from a land quality perspective	Commences following Intrusive surveys	Collection of groundwater samples using a pump and gas measurements using a landfill gas meter.	To assess groundwater conditions and the landfill gas regime at the site due to its location adjacent to a landfill site.	2-3 technicians collecting samples and taking measurements. One complete sampling round will take approximately 1 day
5A	Ground Investigation	Up to 5 days for geophysics followed by up to 6 days for intrusive works.	Between March and June 2018	Geophysics, 3 trial trenches, 1 trial pit and 4 boreholes with associated groundwater and landfill gas wells (4 of each) installed.	Geophysics to allow accurate mapping of landfill boundary, base and any cell walls. Trial trench and trial pits are used to validate results of geophysics and to physically inspect the landfill cap and side construction. Boreholes are used to investigate the nature of the waste material for geotechnical and land quality purposes.	Plant requirements are 2 drilling rigs (cable percussion, barrel, solid stem or dynamic sampler) and 1 excavator. This combined would typically require between 8-12 personnel at any one time who would also require mobile welfare vans and waste disposal facilities (skips).

Parcel Number	Survey Type	Duration Days	Provisional Dates	Activities	Survey Methodology Description	Surveyors
	Groundwater and ground gas monitoring	Monthly rounds for up to 12 months. This may be reduced if results within the first 3 months indicate that the site constitutes a low risk from a land quality perspective.	Commences following Intrusive surveys	Collection of groundwater samples using a pump and gas measurements using a landfill gas meter.	To assess groundwater conditions and the landfill gas regime at the site due to its location adjacent to a landfill site.	2-3 technicians collecting samples and taking measurements. One complete sampling round will take approximately 1 day.
5B	Ground Investigation	Up to 5 days for geophysics followed by up to 4 days for intrusive works.	Between March and June 2018	Geophysics, 1 trial trench and 2 boreholes with associated groundwater and landfill gas wells (2 of each) installed.	Geophysics to allow accurate mapping of landfill boundary, base and any cell walls. Trial trench and trial pits are used to validate results of geophysics and to physically inspect the landfill cap and side construction. Borehole is used to investigate the nature of the waste material for geotechnical and land quality purposes.	Plant requirements are 1 drilling rig (cable percussion, barrel, solid stem or dynamic sampler) and 1 excavator. This combined would typically require between 6-10 personnel at any one time who would also require mobile welfare vans and waste disposal facilities (skips).
	Groundwater and ground gas monitoring	Monthly rounds for up to 12 months. This may be reduced if results within the first 3 months indicate that the site constitutes a low risk from a land quality perspective.	Commences following Intrusive surveys	Collection of groundwater samples using a pump and gas measurements using a landfill gas meter.	To assess groundwater conditions and the landfill gas regime at this historical landfill	2-3 technicians collecting samples and taking measurements. One complete sampling round will take approximately 5 hours.
5C	Ground Investigation	Up to 2 days for geophysics followed by up to 3 days for intrusive works.	Between March and June 2018	Geophysics, 1 trial trench, 2 trial pits and 2 boreholes with associated groundwater and landfill gas wells (2 of each) installed.	Geophysics to allow accurate mapping of landfill boundary, base and any cell walls. Borehole is used to investigate the nature of the waste material for geotechnical and land quality purposes.	Plant requirement is 1 drilling rig (cable percussion or dynamic sampler). This would typically require between 6-10 personnel at any one time who would also require mobile welfare vans and waste disposal facilities (skips).
	Groundwater and ground gas monitoring	Monthly rounds for up to 12 months. This may be reduced if results within the first 3 months indicate that the site constitutes a low risk from a land quality perspective.	Commences following Intrusive surveys	Collection of groundwater samples using a pump and gas measurements using a landfill gas meter.	To assess groundwater conditions and the landfill gas regime at this historical landfill.	2-3 technicians collecting samples and taking measurements. One complete sampling round will take approximately 3 hours.

Detailed EIA Survey Requirements

All methods described below have been discussed and agreed as appropriate with Natural England and the Environment Agency where required.

Parcel Number	Survey Type	Method	Reason	Survey Area	Schedule	Night Working
1 2 3 4A and 4B 5A, 5B and 5C 6 7	Extended Phase 1 survey	Walk-over survey using observation only. Results recorded in field note books/maps or using a tablet device	This survey provides the ecology baseline that will form the central element of the Ecological Impact Assessment. It also enables the value to be determined for the biodiversity offsetting process and informs the need for further specialist surveys.	Entire area within the identified land parcel(s).	Single visit lasting approximately ½ a day.	No
1 2 3 4A and 4B 5A, 5B and 5C 7	Reptile survey	Distribution of artificial refugia and direct observation within all habitat suitable for reptiles (as identified during the Extended Phase 1 habitat survey). Regular visits (up to 20) made to monitor the artificial refugia. Reptile records kept within a field note book/map or on a tablet device.	This survey work will inform the baseline that will be the subject of the Ecological Impact Assessment. It will also enable the planning of sufficient mitigation measures to ensure future population viability and legal compliance.	All areas of suitable habitat (e.g. rough grassland, scrub, hedgerow bottoms)	Up to 22 visits (between late March and mid-October) -minimum 9 visits and maximum 22 visits dependent on results of the first 7 survey visits. No reptiles found within 7 survey visits will negate the need for further survey. Breakdown - 1 mobilisation visit (i.e. placement of artificial refugia), 1 demobilisation visit (i.e. collection of artificial refugia) and up to 20 survey visits. Length of a single visit is determined by how many artificial refugia are required (maximum 1 day)	No
1 2 3 4A and 4B 5A, 5B and 5C 7	Common Bird Census	Walk-over survey using observation and aural detection only (requirement determined by Extended Phase 1 habitat survey). Results recorded in field note books/maps or using a tablet device.	This survey work will inform the baseline that will be the subject of the Ecological Impact Assessment.	Entire area within the identified land parcel(s).	Six visits conducted between mid-March and June. Visits are scheduled to be approximately 2 weeks apart wherever possible. Length of visit is determined by extent and complexity of habitat. However, each visit will last no more than ½ a day.	No – however surveys tend to start early in the morning (around dawn).
1 2 3	National Vegetation Classification and Hedgerow Regulation Survey	Walk-over survey using observation only (requirement determined by Extended Phase 1 habitat survey). Results recorded in field note books/maps or using a tablet device.	This survey work will inform the baseline that will be the subject of the Ecological Impact Assessment. It also enables the value to be determined for the biodiversity offsetting.	Certain habitat types (e.g. those identified during the	Vegetation: A single visit lasting approximately ½ a day. Different habitats are best surveyed at different times. Woodland is typically visited in April, with other more open habitats	No

Parcel Number	Survey Type	Method	Reason	Survey Area	Schedule	Night Working
4A and 4B 5A, 5B and 5C 7				Phase 1 habitat survey as potentially qualifying as Habitats of Principle Importance in England) and hedgerows.	visited in June/July. Hedgerows: Single visit between July and September. Duration depends on length of hedgerow but approximately ½ day.	
1 2	Otter / Water Vole Survey	Walk-over survey using observation only (requirement determined by Extended Phase 1 habitat survey). Samples of otter spraints or water samples may be collected for DNA analysis.	This survey work will inform the baseline that will be the subject of the Ecological Impact Assessment. It will also enable the planning of sufficient mitigation measures to ensure future population viability and legal compliance (including licensing).	Any rivers, ponds, lakes or ditches present in the land parcel(s).	Four survey visits across a full 12 month period.	No
1 2	Great Crested Newt eDNA survey	Water sample (less than 0.5 litres) collection from suitable ponds and ditches (requirement determined by Extended Phase 1 habitat survey).	This survey work will inform the baseline that will be the subject of the Ecological Impact Assessment. It will also enable the planning of sufficient mitigation measures to ensure future population viability and legal compliance (including licensing).	Suitable ponds and ditches only.	Two survey visits – one in April and one in June.	No
1 2 3 4A and 4B 5A, 5B and 5C 6 7	Bat Activity Surveys (hand held detectors)	Walk-over survey using hand held bat detection equipment (requirement determined by Extended Phase 1 habitat survey). Results recorded in field note books/maps and as digital sound files (recording echo location frequencies).	This survey work will inform the baseline that will be the subject of the Ecological Impact Assessment. It will also enable the planning of sufficient mitigation measures to ensure future population viability and legal compliance (including licensing).	Suitable habitat (e.g. woodland edges, hedgerows, watercourse etc.).	Monthly visits between March and October. Each visit lasting approximately ½ a day.	Yes – surveys either begin around dusk or finish around dawn.
1 2 3 4A and 4B 5A, 5B and 5C 6	Bat Activity Surveys (Static detectors)	Placement of static bat detectors (size of a small lunch box, attached to trees/fences etc. using cable ties) in strategic locations (requirement determined by Extended Phase 1 habitat survey). These detectors automatically record bat echo location calls.	This survey work will inform the baseline that will be the subject of the Ecological Impact Assessment. It will also enable the planning of sufficient mitigation measures to ensure future population viability and legal compliance (including licensing).	Suitable habitat (e.g. woodland edges, hedgerows, watercourse etc.).	Visits every two weeks between March and October to change batteries and download data.	No

Parcel Number	Survey Type	Method	Reason	Survey Area	Schedule	Night Working
7						
1 2 3 4A and 4B 5A, 5B and 5C 6 7	Bat Tree Roost Surveys	<p>Observation of trees from ground level or via climbing using binoculars and/or an endoscope (requirement determined by Extended Phase 1 habitat survey).</p> <p>Follow up surveys, as required, with hand held bat detectors and infra-red cameras to determine emergence or re-entry of bats.</p>	<p>This survey work will inform the baseline that will be the subject of the Ecological Impact Assessment. It will also enable the planning of sufficient mitigation measures to ensure future population viability and legal compliance (including licensing).</p>	<p>Suitable trees (determined by size and structure)</p>	<p>Up to two visits to each suitable tree for ground or climbing inspections.</p> <p>Follow up emergence/re-entry surveys may include up to three further visits dependent on the results of the inspection.</p>	<p>Inspections take place during the day.</p> <p>Emergence / re-entry surveys take place around dawn and dusk.</p>
7	Recreation & Amenity	Walkover making observations only.	<p>To verify by direct observation the existence of the resources identified by desk studies, assess the condition and context of the parcel, make observations about public use.</p>	<p>Identified areas of public interest, amenity and open space.</p>	<p>Single visit lasting up to ¼ day.</p>	<p>No.</p>
1 2 5A, 5B and 5C	Water Framework Directive Assessment	Walkover making observations only.	<p>Make observations to understand the baseline conditions of the watercourse environment in this area, which will inform the assessment and establish the potential nature and extent of enhancement measures which may be required to offset any impacts of the proposed scheme.</p>	<p>Areas of riverbank adjacent to relevant watercourses.</p>	<p>Single visit lasting up to ¼ day.</p>	<p>No.</p>