



Independent planning cost review

Heathrow Expansion Programme
Covering the period 2016 and 2017

Report dated November 2018



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Executive summary

Background and context

In October 2016 the UK Government announced its decision to support a third runway at Heathrow Airport to expand the UK's air capacity. As the UK's specialist aviation regulator, the Civil Aviation Authority (CAA) has a role in overseeing the third runway's timely and cost efficient delivery, including the planning process which is currently underway.

In support of the CAA's oversight role, Heathrow Airport Limited (HAL) is required to provide an annual statement (the "Statement") in accordance with CAA policy documents CAP1513 and CAP1651. The Statement sets out the Category B costs (planning costs) HAL has incurred in the prior year/s with sufficient detail to allow for effective scrutiny.

The CAA guidance CAP 1651 includes the identification and definition of cost categories, which are set out in Table 1 and used throughout this report.

Table 1 – Cost categories

Category A costs	<p>These costs are costs which were incurred by HAL during the Airports Commission process, or before Heathrow was named as the preferred location for new runway capacity on 25 October 2016.</p> <p>These costs are not generally recoverable.</p>
Category B costs	<p>Capacity expansion costs that are, in general, incurred by HAL after the Government policy announcement on its preferred location for new capacity on 25 October 2016 and are associated solely with seeking planning permission for the delivery of new runway capacity at Heathrow, as defined in Cap 1513.</p> <p>These costs are generally recoverable.</p>
Category C costs	<p>Those costs incurred by HAL in connection with implementation and construction of new capacity, up to entry-into-operation. The majority of these costs will typically be incurred after planning permission is granted.</p> <p>These costs are generally recoverable.</p>

A summary of the Statement produced by HAL is included Table 2.

Table 2 – The Statement as provided by HAL in £m to 3 decimal places

	a	b	c	d	e
HAL Work Breakdown Structure (WBS) £m	2016 Statement / Opex Schedules ¹	2017 Budget ²	2017 Statement / Opex Schedules ³	2017 Variance (b – c)	2016 and 2017 Statement (a + c)
Colleague costs	1.421	15.012	14.186	0.826	15.607
Programme Leadership	-	8.616	4.321	4.295	4.321
Future Heathrow	0.827	3.087	5.835	(2.748)	6.662
Consents	0.304	8.795	4.735	4.060	5.038
Community and Stakeholder	0.062	1.222	0.393	0.829	0.455
IT	-	4.339	1.949	2.390	1.949
Ground Investigation	-	-	-	-	-
Regulation and Strategy	-	1.900	1.060	0.840	1.060
Integrated Design and DCO Team (IDT)	1.985	44.335	42.490	1.845	44.476
Total Category B Statement costs (Capex)	4.600	87.306	74.969	12.337	79.569
Opex costs as included in the Opex Schedules ⁴	6.069	-	2.811	(2.811)	8.880
Total Category B costs (Capex + Opex)	10.669	87.306	77.780	9.526	88.449

1 2016 Statement: Cat B 2017 Statement pack (300418).xlsx and 2016 Opex Schedule: 1.2 Detail Breakdown of 2016 Cat A_Cat B_Cat C.xlsx

2 2017 Budget: Cat B 2017 Statement pack (300418).xlsx

3 2017 Statement: Cat B 2017 Statement pack (300418).xlsx and 2017 Opex Schedule: 2017 Cat A_B and C spend_8_6_18_detail breakdown.xlsx

4 Opex costs have not been formally submitted as part of the Statement. The costs provided in the above referenced files have been included and are shown in full in Table 6 and Table 7. Collectively these are known as, “the Opex Schedules”

Scope and purpose

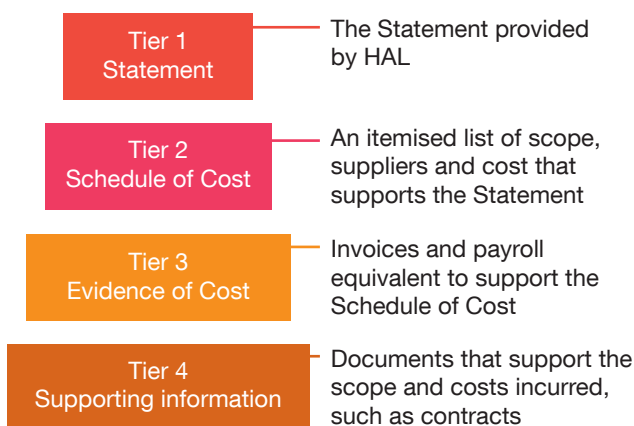
PwC was engaged by the CAA under an Order Form dated 23 April 2018. The scope of this commission was to independently review the 2016 and 2017 statement (the “Statement”) provided by HAL, and assess the extent to which Category B costs have been correctly incurred and apportioned in accordance with CAA guidance. In order to undertake this review, we agreed a set of Agreed upon Procedures (AUPs) with the CAA, focussing on three key areas as part of our assessment of the Statement and Opex Schedules provided by HAL:

1. Are the costs included within the Statement and Opex Schedules provided by HAL supported by appropriate evidence?
2. Are the costs presented in the Statement and Opex Schedules correctly categorised as Category B?
3. Is there evidence to indicate that costs included within the Statement and Opex Schedules have been incurred in an efficient manner?

Approach

Our planned approach was to establish an overview of the Expansion Programme through interviews, a review of the Statement and Opex Schedules and associated supporting Schedules of Cost, to allow us to identify areas for detailed analysis. The detailed analysis phase was planned to include interviews, analytical review of the Schedules of Cost, sampling of Evidence of Cost (such as invoices and payroll equivalent) and review of other supporting information, such as contracts. The document hierarchy we expected to be in place that would support our proposed approach is summarised in Figure 1.

Figure 1 – Document hierarchy and tiers of information



We had to adapt our approach in response to the quality and completeness of the information that was made available by HAL on the designated Sharepoint site. We have provided further details below on our approach to addressing each of our three areas of focus.

Are the costs included within the Statement and Opex Schedules provided by HAL supported by appropriate evidence?

We requested supporting schedules for the Statement and Opex Schedules, termed Schedules of Cost, with a view to verifying such costs through sampling to source documentation (e.g. Invoices, payroll records etc). We did not receive a series of Schedules of Costs that reconciled to the Statement and Opex Schedules or provided a full breakdown of the costs included therein. As a result, we requested Evidence of Cost by way of invoices and other source accounting records for all of the costs included within the Statement and Opex Schedules.

The evidence provided by HAL included:

- A total of 942 invoices for 2016 and 2017, split between:
 - 527 invoices that were filed in named folders that corresponded to each WBS component of the Statement and Opex Schedules
 - 415 unallocated invoices provided in an unstructured folder that included invoices attributed to multiple HAL WBS components.
- An Excel spreadsheet to substantiate HAL staff costs that detailed anonymised staff costs.

The folders included duplicate invoices and referencing/naming inconsistencies, which made invoice allocation challenging. In order to allow an assessment of the invoices we developed and applied a method of allocation to define whether: they related to the Expansion Programme and; were within the time period subsequent to the government announcement in 2016 up to the end of 2017. For example, if the invoice was dated in 2018 and did not specify that it related to work undertaken in 2017, it was excluded from the Evidence of Cost. The full set of criteria applied is included subsequently in this report. We requested that HAL clarified the allocation of the invoices included in the unstructured folder but HAL declined to do so.

Are the costs presented in the Statement and Opex Schedules correctly categorised as Category B?

In order to assess whether the costs included in the Statement and Opex Schedules as Category B costs were (i) incurred by HAL after the Government announcement on 26 October 2016, and (ii) solely associated with seeking planning permission for the delivery of new runway capacity we:

- interviewed 25 key individuals from the Expansion Programme, including the seven Directors, or their delegated representative. The interviews covered, where applicable, the work undertaken in 2016 and 2017 and how this related to the Statement and Opex Schedules, the relevant Schedule of Cost and other key documentation provided by HAL which included:
 - Heathrow Expansion 2017 Category B & C Costs dated August 2017
 - Masterplan Scheme Development Manual dated May 2017
 - Heathrow Expansion High Level Schedule dated 04/10/17.
- requested a sample of supporting information to supplement the above, based on the value (£), nature of the scope and the delivery period for work undertaken to assess whether it fitted the description of Category B costs. The supporting information included a sample of:
 - contracts
 - service pack agreements
 - Task Orders.

Is there evidence to indicate that costs included within the Statement and Opex Schedules have been incurred in an efficient manner?

In order to make an assessment as to whether the work undertaken has been delivered in an efficient manner, we reviewed key documentation, interviewed relevant individuals and assessed the effectiveness of HAL's response to our information requests in order to make an assessment. Areas considered as part of our review included:

- **Baseline:** Is there a clear and consistent baseline that sets out the scope, cost, schedule and risk up to approval of the Development Consent Order (DCO)?
- **Baseline governance:** Is there an established and appropriate governance process in place to manage the baseline?
- **Progress and performance:** Is progress and performance clearly and consistently reported, including the consequential impact of delay?
- **Provision of information:** Was information provided relevant, complete and in a timely manner?

Key findings

Our key findings for each of the three key areas of focus are provided below.

Are the costs included within the Statement and Opex Schedules provided by HAL supported by appropriate evidence?

We identified a delta of £27.917m (35%) between the total Statement balance of £79.569m and the Evidence of Cost (invoices and payslips) provided by HAL (£51.652m). With the inclusion of the Opex Schedules (£8.880m) this delta increases to £35.144m (40%) against a total balance of £88.449m.

HAL provided supporting Schedules of Cost which contained varying degrees of granularity in support of the Statement and Opex Schedules, albeit these Schedules of Cost were not comprehensive and did not reconcile to the Statement and Opex Schedules, with an overall delta of £8.788m.

A summary of the variances between the Statement and Opex Schedules against the Schedules of Cost and Evidence of Cost is included in Table 3.

Table 3 – Delta between the Statement and Opex Schedules and Evidence of Cost

	a	b	c	d
Category B Costs (£m)	the Statement / Opex Schedules	Schedule of Cost	Evidence of Cost	Delta (c – a)
Colleague costs (2016)	1.421	-	-	(1.421)
Colleague costs (2017: Internal)	14.186	8.092	-	(10.217)
Colleague costs (2017: External)		6.121	3.969	
Non-IDT Suppliers	19.486	18.293	13.516	(5.970)
<i>Programme Leadership</i>	4.321	4.321	2.281	(2.040)
<i>Future Heathrow</i>	6.662	5.835	5.411	(1.251)
<i>Consents</i>	5.038	4.735	3.941	(1.097)
<i>Community and Stakeholder</i>	0.455	0.393	0.210	(0.245)
<i>IT</i>	1.949	1.949	0.751	(1.198)
<i>Ground Investigation</i>	-	-	-	-
<i>Regulation and Strategy</i>	1.060	1.060	0.922	(0.138)
IDT	44.476	44.344	34.167	(10.309)
Total Category B Statement costs (Capex)	79.569	76.850	51.652	(27.917)
Opex costs	8.880	2.811	1.653	(7.227)
Total Category B costs (Capex + Opex)	88.449	79.661	53.305	(35.144)

With reference to Table 3, there are a number of WBS components that warrant further commentary:

- **Colleague costs (2016) – £1.421m:** No Schedule of Cost that detailed the Purchase Order (PO), supplier, invoice number, staff costs, or Evidence of Cost was provided for Colleague costs incurred in 2016.
- **Colleague costs (2017) – £14.186m:** HAL provided a Schedule of Cost by way of an anonymised Excel spreadsheet of staff costs for 2017 which totalled £14.236m. We identified some minor errors which resulted in a revised balance of £14.213m for the Schedule of Cost. For internal colleague costs, HAL did not provide any source evidence, such as actual payroll records, to demonstrate individuals were part of the Expansion Programme team and to evidence payment. For external colleague costs HAL provided Evidence of Cost, by way of invoices which totalled £3.969m. Overall this resulted in a delta of £10.217m between the Evidence of Cost and the Statement.
- **Non-IDT supplier costs – £19.486m:** Non-IDT supplier costs include the WBS components of:
 - Programme Leadership (£4.321m)
 - Future Heathrow (£6.662m)
 - Consents (£5.038m)
 - Community and Stakeholder (£0.455m)
 - IT (£1.949m)
 - Ground Investigation (£-m)
 - Regulation and Strategy (£1.060m).We were not provided with a Schedule of Cost for 2016. The Schedule of Cost for 2017 totalled £18.293m, however within this Schedule of Cost, £3.227m did not have a PO number and, of the costs without a PO, £2.343m had no supplier specified and £0.986m had a description as 'Other'. HAL provided Evidence of Cost, by way of invoices, which totalled £13.516m. Overall this resulted in a delta of £5.970m between the Evidence of Cost and the Statement.
- **IDT costs – £44.476m:** IDT costs are for external suppliers that form the Integrated Design and DCO Team (IDT). HAL provided a Schedule of Cost that totalled £44.344m which left a minor delta of £0.132m to the Statement, however this did not

contain PO or invoice numbers nor a description of services. HAL provided two further Schedules of Cost which contained PO and invoice numbers along with a description of services which totalled £32.574 and £32.818m.

We combined these two files to facilitate the allocation and reconciliation of invoices provided by HAL. HAL provided Evidence of Cost, by way of invoices, which totalled £34.167m. Overall this resulted in a delta of £10.309m between the Evidence of Cost and the Statement.

- **Opex costs – £8.880m:** Opex costs have not been included as part of the Statement. HAL advised us that they are seeking to recover these costs as Category B and have included them in separate schedules, referred to as the Opex Schedules.

These Opex costs are for external suppliers who have provided additional security, consultancy services, IT, CAA costs, and a proportion of the Colleague Costs incurred before the Government announcement in 2016. Two schedules form the Opex Schedules, one for 2016 and one for 2017.

The schedule for 2016 contained summary costs only, it did not contain details of POs or invoices. The schedule for 2017 contained further detail of costs with a brief description but did not contain details of POs or invoices.

HAL provided Evidence of Cost, by way of invoices, which totalled £1.653m. Overall this resulted in a delta of £7.227m to the Opex Schedules, of which £6.014m relates to 2016 costs.

Other observations

- **Accruals:** CAP1651 requires that only accruals which exceed £100k are referenced in the Statement and Opex Schedules. HAL has not specified the total accrual value and hence we are unable to determine how much of the overall delta between the Statement and Opex Schedules balances, Schedule of Cost and Evidence of Cost provided is attributable to accrual balances.

Are the costs presented in the Statement and Opex Schedules correctly categorised as Category B?

We were unable to verify £27.917m (35%) of the £79.569m Statement costs and £35.144m (40%) of £88.449m including Opex costs to Evidence of Cost (source documentation). As a result, we are unable to comment on whether these costs were incurred in relation to the Expansion Programme, or for other activities.

Of the remaining Statement costs of £51.652m (plus £1.653m of Opex costs), for which we have Evidence of Cost, we were provided with evidence that £51.452m (appropriate evidence for Opex costs was not provided) has been correctly categorised as Category B costs. The evidence to support this statement has been collected through a number of means including interviews with at least 25 individuals across the Expansion Programme and review of associated documentation and other evidence including:

- Heathrow Expansion 2017 Category B & C Costs dated August 2017
- Masterplan Scheme Development Manual dated May 2017
- Heathrow Expansion High Level Schedule dated 04/10/17.

We requested a sample of supporting information, based on the value (£), nature of the scope, and the delivery period for work undertaken to confirm if it was for the purpose of the Expansion Programme. The supporting information included a sample of contracts, service pack agreements and task orders.

In undertaking the above we have identified that:

- HAL has created an Expansion Programme organisation structure which has evolved during 2017
- HAL has engaged with key suppliers for the sole purpose of the planning of the Expansion Programme, such as those suppliers who comprise the IDT and other Non-IDT suppliers, through the use of Expansion Programme specific contracts and Task Orders

- HAL has undertaken work after the government policy announcement in October 2016 and during 2017 that is consistent with the scope and masterplanning process defined in key documentation, albeit we have not been provided with a clear and definitive integrated baseline plan (see section 4) that we can use to reference the work undertaken.

Minor exceptions that require further information

Of the £51.652m Statement costs and £1.653m Opex Schedules costs, we were unable to verify that £0.200m of Statement costs (0.4%) and £1.653m of Opex costs (100%) have been correctly categorised as Category B costs, and further information is required. Specifically these are:

- £0.200m for four £0.050m contract changes (Compensation Events) which were implemented as a contribution towards the PCP's mobilisation activities incurred prior to the Government policy announcement
- £0.968m for additional security that HAL verbally confirmed are for Expansion Programme specific security matters, such as removing protestors who are protesting about the proposed Expansion Programme. We have not however, been provided with a signed contract that details the scope of the services or other evidence to confirm this
- £0.685m of CAA costs. The description for these costs is "CAA costs transferred", invoices received cover a range of services and years and there is a distinction between "Runways LHR" and "H7". We have allocated the relevant "Runways LHR" invoices which total £0.685m. No further information has been provided. Therefore, we have not been able to determine whether these costs are solely associated with seeking planning permission for the delivery of new runway capacity.

Points to note for those costs not supported by Evidence of Cost

We were unable to verify £27.917m (35%) of the £79.569m Statement costs, and £35.144m (40%) of £88.449m including Opex costs to Evidence of Cost (source documentation). Regardless of our inability to verify these costs, through our review of the Statement and Opex Schedules, conducting interviews, and reviewing other relevant documentation, we have identified a number of points to note.

Costs which do not appear to be correctly categorised as Category B

Of the £35.144m Statement and Opex Schedules costs we were unable to verify, we have identified some Opex costs which do not appear to be correctly categorised as Category B:

- £5.286m of the 2016 Opex costs submitted as part of the Opex Schedules are reported to be incurred prior to the Government policy announcement (Category A) and do not appear to be consistent with the principles included in the CAA guidance documents 1513 and 1651.

Other specific areas of note

Other specific areas to note of the £35.144m that require further information are:

Colleague Costs

- £1.421m of HAL Colleague costs are included in the Statement for 2016. However, HAL has not provided any further information on these costs to confirm whether they are solely associated with seeking planning permission for the delivery of new runway capacity.
- £1.169m of HAL staff costs relating to 2016 are included in the Statement in 2017. The detail of staff costs relating to 2016 was not made available and further information is required to confirm whether these costs are solely associated with seeking planning permission for the delivery of new runway capacity.

Non-IDT Supplier Costs

- A total of £1.193m is included in the Statement in 2016. However, HAL has not provided any further information on these costs to confirm whether they are solely associated with seeking planning permission for the delivery of new runway capacity.
- A total of £3.227m did not have a PO listed in the Schedule of Cost, and of that £2.343m had no supplier listed and £0.986m referenced the services as 'Other.' HAL has not provided any further information on these costs to confirm whether they are solely associated with seeking planning permission for the delivery of new runway capacity.
- £0.991m has been allocated for accommodation costs for the Expansion Programme team, specifically the leasing of the Compass Centre. Whilst it appears that these costs are solely associated with seeking planning permission for the delivery of new runway capacity, we have not been able to confirm whether these costs are incremental to other HAL, non-Expansion Programme costs.

Is there evidence to indicate that costs included within the Statement and Opex Schedules have been incurred in an efficient manner?

This review is retrospective and covers the period 2016 and 2017 when the Expansion Programme was in the early lifecycle stages, having been rapidly mobilised following the government announcement in October 2016.

As the Expansion Programme matures and develops greater certainty of scope, cost, schedule and risk, a number of thematic opportunities exist for HAL to operate in a more efficient manner as set out below.

- **Establishing a single baseline:** It appears that HAL does not have a clear and singular integrated baseline plan to approval of the DCO that aligns requirements and scope with the associated time, cost and risk. Whilst HAL does have multiple documents that relate to scope, time, cost and risk, the alignment and dependencies between these documents is not clear and they do not establish a robust baseline position from which to measure and manage performance, and control delivery. Further areas for development were identified for the following baseline components:
 - **Deliverables to DCO approval:** HAL has not provided evidence which definitively sets out the baseline scope and deliverables required in 2016, 2017 or up to DCO approval. Whilst HAL does have a number of documents containing varying levels of scope detail, these do not establish a robust baseline of scope from which to direct and manage delivery of the programme.
 - **Integrated schedule:** HAL has developed a number of schedule documents to record and monitor activities, from Level 0 (high level programme) to Level 2 (2000+ activities). Our review found that Level 2 schedules are still in development with 41% of activities having no logic links to other activities. Furthermore, the various schedules are not systematically integrated, meaning high level management information (Level 0) is not being informed by detailed schedules. As HAL develops their schedule management process there is an opportunity to improve systems and processes, which in turn will support efficiency.
- **Core controls:** During our review of cost we identified a number of core programme controls processes that were not in place, including:
 - **Change control:** HAL does not operate a programme level change process for the Expansion Programme to manage the baseline scope, cost, schedule and risk.
 - **Timesheet system:** HAL does not have a timesheet system that records internal staff time on the Expansion Programme. Whilst this system will support the overall allocation of time to the programme, it will also enable analysis of planned time versus actual time to indicate deliverability of key activities.
 - **Cost information:** We were unable to undertake our review of cost as planned as a result of the quality and timely availability of appropriate cost information to support the Statement and Opex Schedules. Accurate and timely cost data is key to establishing robust management information and making informed decisions, which in turn will support efficient use of resources.
- **Finance reporting:** We have identified a number of inconsistencies in the reporting of forecast cost data. HAL's cost baseline (Purple Book v0.063) sets out the total cost to DCO approval in 2014 prices as £265.866m, including £34.447m finance risk allocation. This is different to the forecast cost reported in the Statement. The Statement reports forecast cost to DCO approval as £268.900m, excluding risk, at 2014 prices. This represents a £37.481m delta to HAL's baseline of £231.491m when the finance risk allocation is excluded.
- **2017 progress:** There is evidence to indicate that activities undertaken in 2017 were delivered late, for example Consultation 1 was delivered 5 months late as referenced in document 'Pre-Construction Delivery High Level Programme for Target 2017 Impacts'. In terms of cost the Expansion Programme underspent by £12.337m in 2017 when comparing the actual costs to the budget in the Statement. However, the consequential impact of these factors on the overall schedule and cost forecast to DCO approval is unclear.



Section 1

Introduction, context
and approach



1.1 Introduction

This purpose of this section is to provide an introduction and context to the review. It will provide an overview of the Statement and Opex Schedules, describe the approach adopted and outline the subsequent sections of the report.

1.2 Background and context

In October 2016 the UK Government announced its decision to support a third runway at Heathrow Airport to expand the UK’s air capacity. As the UK’s specialist aviation regulator, the Civil Aviation Authority (CAA) has a role in overseeing the third runway’s timely and cost efficient delivery, including the planning process which is currently underway.

In support of the CAA’s oversight role, Heathrow Airport Limited (HAL) is required to provide an annual statement in accordance with CAA policy documents CAP1513 and CAP1651. The Statement sets out the Category B costs (planning costs) HAL has incurred in the prior year/s with sufficient detail to allow for effective scrutiny.

The CAA guidance CAP 1651 includes the identification and definition of cost categories, which are set out in Table 4 and used throughout this report.

Table 4 – Cost categories

Category A costs	<p>These costs are costs which were incurred by HAL during the Airports Commission process, or before Heathrow was named as the preferred location for new runway capacity on 25 October 2016.</p> <p>These costs are not generally recoverable.</p>
Category B costs	<p>Capacity expansion costs that are, in general, incurred by HAL after the Government policy announcement on its preferred location for new capacity on 25 October 2016 and are associated solely with seeking planning permission for the delivery of new runway capacity at Heathrow, as defined in Cap 1513.</p> <p>These costs are generally recoverable.</p>
Category C costs	<p>Those costs incurred by HAL in connection with implementation and construction of new capacity, up to entry-into-operation. The majority of these costs will typically be incurred after planning permission is granted.</p> <p>These costs are generally recoverable.</p>

1.3 Scope and purpose

PwC was engaged by the CAA under an Order Form dated 23 April 2018. The scope of this commission was to independently review the 2016 and 2017 statement provided by HAL, and assess the extent to which Category B costs have been correctly incurred and apportioned in accordance with CAA guidance. In order to undertake this review, we agreed a set of Agreed upon Procedures (AUPs) with the CAA focussing on three key areas as part of our assessment of the Statement provided by HAL:

1. Are the costs included within the Statement and Opex Schedules provided by HAL 1 supported by appropriate evidence?
2. Are the costs presented in the Statement and Opex Schedules correctly categorised as Category B?
3. Is there evidence to indicate that costs included within the Statement and Opex Schedules have been incurred in an efficient manner?

1.4 Overview of the Statement

CAP1513 and CAP1651 set out the requirements for the annual Statement of actual cost incurred, which must be provided with sufficient detail and supporting information to allow for effective scrutiny.

HAL provided the Statement on the 01 May 2018 which totalled £79.569m for 2016 and 2017 and is summarised in Table 5. The Statement was structured in accordance with the mandated template from CAP1651 and included costs split according to HAL's Work Breakdown Structure (WBS).

In addition to the Statement, HAL provided two schedules containing £6.069m of costs for 2016 and £2.811m for 2017 which are shown in full in Table 6 and Table 7, known collectively as "the Opex Schedules". For clarity, the Opex Schedules included in Table 6 and Table 7 do not form part of the Statement but, HAL has communicated that they anticipate these costs to be treated and recovered in the same manner as the Category B costs provided in the Statement. As a result, and at the request of the CAA, they have been included as part of the overall costs of this review which total £88.449m.

Table 5 – The Statement as provided by HAL with Opex costs included below the line. In £m to three decimal places

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IT	-	4.339	1.949	2.390	1.949
Ground Investigation	-	-	-	-	-
Regulation and Strategy	-	1.900	1.060	0.840	1.060
Integrated Design and DCO Team (IDT)	1.985	44.335	42.490	1.845	44.476
Total Category B Statement costs (Capex)	4.600	87.306	74.969	12.337	79.569
Opex costs as included in the Opex Schedules ⁴	6.069	-	2.811	(2.811)	8.880
Total Category B costs (Capex + Opex)	10.669	87.306	77.780	9.526	88.449

Table 6 – 2016 Category B Opex Costs⁵

Category (£m)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Additional Security	-	-	-	-	-	-	-	-	-	-	0.548	0.235	0.783
Colleague Costs	0.155	0.187	0.208	0.105	0.151	0.154	0.160	0.175	0.098	0.180	-	-	1.573
Other	0.076	0.008	-	-	-	-	-	-	-	-	-	-	0.084
Consultancy	0.505	0.410	0.579	0.656	0.490	0.757	0.278	0.003	(0.049)	-	-	-	3.629
<i>Sustainability</i>	<i>0.200</i>	<i>0.253</i>	<i>0.171</i>	<i>0.252</i>	<i>0.118</i>	<i>0.109</i>	<i>0.037</i>	<i>0.004</i>	<i>(0.045)</i>	-	-	-	<i>1.099</i>
<i>NPS</i>	<i>0.044</i>	<i>0.038</i>	<i>0.160</i>	<i>0.075</i>	<i>0.081</i>	<i>0.132</i>	<i>0.066</i>	<i>0.004</i>	<i>(0.001)</i>	-	-	-	<i>0.599</i>
<i>Passenger</i>	<i>0.145</i>	<i>0.019</i>	<i>0.188</i>	<i>0.240</i>	<i>0.228</i>	<i>0.238</i>	<i>0.055</i>	<i>(0.005)</i>	<i>(0.003)</i>	-	-	-	<i>1.105</i>
<i>Airspace</i>	<i>0.040</i>	<i>0.015</i>	-	-	-	<i>0.039</i>	-	-	-	-	-	-	<i>0.094</i>
<i>Surface Access</i>	<i>0.021</i>	-	-	-	-	<i>0.204</i>	<i>0.072</i>	-	-	-	-	-	<i>0.297</i>
IDT	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cost and schedule</i>	<i>0.055</i>	<i>0.085</i>	<i>0.06</i>	<i>0.089</i>	<i>0.063</i>	<i>0.035</i>	<i>0.048</i>	-	-	-	-	-	<i>0.435</i>
2016 Category B Opex Total	0.736	0.605	0.787	0.761	0.641	0.911	0.438	0.178	0.049	0.180	0.548	0.235	6.069

1 Statement: Cat B 2017 Statement pack (300418).xlsx and 2016 Opex Schedule: 1.2 Detail Breakdown of 2016 Cat A_Cat B_Cat C.xlsx

2 2017 Budget: Cat B 2017 Statement pack (300418).xlsx

3 2017 Statement: Cat B 2017 Statement pack (300418).xlsx and 2017 Opex Schedule: 2017 Cat A_B and C spend_8_6_18_detail breakdown.xlsx

4 Opex costs have not been formally submitted as part of the Statement. The costs provided in the above referenced files have been included and are shown in full in Table 6 and Table 7. Collectively these are known as, “the Opex Schedules”

5 1.2 Detail Breakdown of 2016 Cat A_Cat B_Cat C.xlsx

Table 7 – 2017 Category B Opex Costs¹

Supplier	Description	Amount (£m)
[REDACTED]	Security	0.084
[REDACTED]	Security	0.097
[REDACTED]	Security	0.065
[REDACTED]	Security	0.083
[REDACTED]	Security	0.079
[REDACTED]	Security	0.079
[REDACTED]	Security	0.079
[REDACTED]	Security	0.079
[REDACTED]	Security	0.079
[REDACTED]	Security	0.079
[REDACTED]	Security	0.079
[REDACTED]	Security	0.079
[REDACTED]	Security	0.079
[REDACTED]	Security	0.079
[REDACTED]	Security	0.079
[REDACTED]	Security	0.068
[REDACTED]	Security	0.028
Security Total		1.296
CAA costs transferred	CAA fees	0.267
CAA costs transferred	CAA fees	0.099
CAA costs transferred	CAA fees	0.191
CAA costs transferred	CAA fees	0.410
CAA costs transferred	CAA fees	0.118
CAA costs transferred	CAA fees	0.239
CAA costs transferred	CAA fees	0.191
CAA Fees Total		1.515
2017 Category B Opex Total		2.811

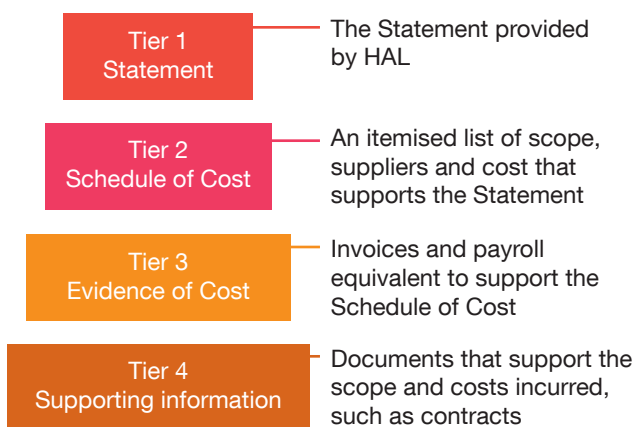
¹ 2017 Cat A_B and C spend_8_6_18_detail breakdown.xlsx

1.5 Approach to the review

1.5.1 Planned approach

Our planned approach was to establish an overview of the Expansion Programme through interviews, review of the Statement and associated supporting Schedules of Cost, to allow us to identify areas for detailed analysis. The detailed analysis phase was planned to include interviews, analytical review of the Schedules of Cost, sampling of Evidence of Cost (such as invoices and payroll equivalent) and review of other supporting information, such as contracts. The document hierarchy we expected to be in place that would support our proposed approach is summarised in Figure 2.

Figure 2 – Document hierarchy and tiers of information



We had to adapt our approach in response to the quality and completeness of the information that was made available by HAL on the designated Sharepoint site. We have provided further details below on our approach to addressing each of our three areas of focus.

1.5.2 Areas of focus

We met with the CAA on the 12 June 2018 and 24 July 2018 and agreed that three key areas of focus would be considered as part of our assessment of the Statement provided by HAL:

1. Are the costs included within the Statement and Opex Schedules provided by HAL supported by appropriate evidence?
2. Are the costs presented in the Statement and Opex Schedules correctly categorised as Category B?
3. Is there evidence to indicate that costs included within the Statement and Opex Schedules have been incurred in an efficient manner?

We have provided further details below on our objectives and approach to each of these areas of focus.

Are the costs included within the Statement and Opex Schedules provided by HAL supported by appropriate evidence?

We requested supporting schedules for the Statement and Opex Schedules, termed Schedules of Cost, with a view to verifying such costs through sampling to source documentation (e.g. Invoices, payroll records etc). We did not receive a series of Schedules of Costs that reconciled to the Statement or provided a full breakdown of the costs included therein. As a result, we requested Evidence of Cost by way of invoices and other source accounting records for all of the costs included within the Statement and Opex Schedules.

The evidence provided by HAL included:

- A total of 942 invoices for 2016 and 2017, split between:
 - 527 invoices that were filed in named folders that corresponded to each WBS component of the Statement and Opex Schedules
 - 415 unallocated invoices provided in an unstructured folder that included invoices attributed to multiple HAL WBS components.
- An Excel spreadsheet to substantiate HAL staff costs that detailed anonymised staff costs.

The folders included duplicate invoices and referencing/naming inconsistencies, which made invoice allocation challenging. In order to allow an assessment of the invoices we developed and applied a method of allocation to define whether: they related to the Expansion Programme and were within the time period subsequent to the government announcement in 2016 up to the end of 2017. For example, if the invoice was dated in 2018 and did not specify that it related to work undertaken in 2017 it was excluded from the Evidence of Cost. The full set of criteria applied is included subsequently in this report. We requested that HAL clarifies the allocation of the invoices included in the unstructured folder but HAL declined to do so.

Are the costs presented in the Statement and Opex Schedules correctly categorised as Category B?

In order to assess whether the costs included in the Statement and Opex Schedules as Category B costs were (i) incurred by HAL after the Government announcement on 26 October 2016, and (ii) solely associated with seeking planning permission for the delivery of new runway capacity we:

- Interviewed 25 key individuals from the Expansion Programme, including the seven Directors, or their delegated representative. The interviews covered, where applicable, the work undertaken in 2016 and 2017 and how this related to the Statement and Opex Schedules, the relevant Schedule of Cost and other key documentation provided by HAL which included:
 - Heathrow Expansion 2017 Category B & C Costs dated August 2017
 - Masterplan Scheme Development Manual dated May 2017
 - Heathrow Expansion High Level Schedule dated 04/10/17.
- Requested a sample of supporting information to supplement the above, based on the value (£), nature of the scope and the delivery period for work undertaken to assess whether it fitted the description of Category B costs. The supporting information included a sample of:
 - contracts
 - service pack agreements
 - Task Orders.

Is there evidence to indicate that costs included within the Statement and Opex Schedules have been incurred in an efficient manner?

In order to make an assessment as to whether the work undertaken has been delivered in an efficient manner, we reviewed key documentation, interviewed relevant individuals and assessed the effectiveness of HAL's response to our information requests in order to make an assessment. Areas considered as part of our review included:

- **Baseline:** Is there a clear and consistent baseline that sets out the scope, cost, schedule and risk up to approval of the DCO?
- **Baseline governance:** Is there an established and appropriate governance process in place to manage the baseline?
- **Progress and performance:** Is progress and performance clearly and consistently reported, including the consequential impact of delay?
- **Provision of information:** Was information provided relevant, complete and in a timely manner?

1.6 Structure of this report

The remainder of this report is structured as detailed in Table 8.

Table 8 – Structure of this report

Section	Areas of focus	Sub-sections
Section 2	Are the costs included within the Statement and Opex Schedules provided by HAL supported by appropriate evidence?	<ul style="list-style-type: none"> • Colleague costs • IDT costs • Non-IDT supplier costs • Opex costs
Section 3	Are the costs presented in the Statement and Opex Schedules correctly categorised as Category B?	<ul style="list-style-type: none"> • Where Evidence of Cost has been provided, are these costs solely associated with seeking planning permission for the delivery of new runway capacity? • Regardless of provision of Evidence of Cost, are the costs presented in the Statement and Opex Schedules solely associated with seeking planning permission for the delivery of new runway capacity?
Section 4	Is there evidence to indicate that costs included within the Statement and Opex Schedules have been incurred in an efficient manner?	<ul style="list-style-type: none"> • Baseline • Governance • Progress and performance • Provision of information

1.7 Notes

- In this report, where costs or cost types are referred to they relate to Category B Costs unless otherwise stated.
- All figures in this report are in £m unless otherwise stated.
- All tables in this report include values in £m to 3 decimal places unless otherwise stated.
- All information referred to and included within this report was received by us between the 01 May 2018 and 03 August 2018.
- Throughout this report there are specific references which HAL has identified as commercially sensitive and require redaction. These redactions are represented as a black box: [REDACTED]



Section 2

Are the costs included within the Statement and Opex Schedules provided by HAL supported by appropriate evidence?

2.1 Summary

2.1.1 Introduction

In this section of the report we set out our findings on whether the costs included within the Statement and the Opex Schedules, and are summarised in Table 9, are supported by appropriate Evidence of Cost.

2.1.2 Approach

We requested supporting schedules for the Statement and Opex Schedules, termed Schedules of Cost, with a view to verifying such costs through sampling to source documentation (e.g. Invoices, payroll records etc). We did not receive a series of Schedules of Costs that reconciled to the Statement and Opex Schedules or provided a full breakdown of the costs included therein. As a result, we requested Evidence of Cost by way of invoices and other source accounting records for all of the costs included within the Statement and Opex Schedules.

The evidence provided by HAL included:

- A total of 942 invoices for 2016 and 2017, split between:
 - 527 invoices that were filed in named folders that corresponded to each WBS component of the Statement and Opex Schedules.
 - 415 unallocated invoices provided in an unstructured folder that included invoices attributed to multiple HAL WBS components.
- An Excel spreadsheet to substantiate HAL staff costs that detailed anonymised staff costs.

The folders included duplicate invoices and referencing/naming inconsistencies, which made invoice allocation challenging. In order to allow an assessment of the invoices we developed and applied a method of allocation to define whether: they related to the Expansion Programme; and were within the time period subsequent to the government announcement in 2016 up to the end of 2017. For example, if the invoice was dated in 2018 and did not specify that it related to work undertaken in 2017, it was excluded from the Evidence of Cost. The full set of criteria applied is included subsequently in this report. We requested that HAL clarifies the allocation of the invoices included in the unstructured folder but HAL declined to do so.

2.1.3 Key findings

The overall delta between the Statement and Opex Schedules compared to the Evidence of Cost totals £35.144m or 40%. Further detail of the specific areas which this delta relates to are detailed in Table 9.

HAL provided supporting Schedules of Cost which contained varying degrees of granularity in support of the Statement and the Opex Schedules, albeit these Schedules of Cost were not comprehensive and did not reconcile to the Statement, with the overall delta being £8.788m.

Further detail is provided in the following sub sections:

- **Section 2.2:** Colleague Costs
- **Section 2.3:** Non-IDT Supplier Costs
- **Section 2.4:** IDT Supplier Costs
- **Section 2.5:** Opex costs

Table 9 – Overall delta between the Statement, Opex Schedules, Schedule of Cost and the Evidence of Cost

	2016				2017				Total
	a	b	c	d	e	f	g	h	i
Category B Costs (£m)	Statement / Opex Schedules	Schedule of Cost	Evidence of Cost	Delta (c – a)	Statement / Opex Schedules	Schedule of Cost	Evidence of Cost	Delta (g – e)	Total delta (d + h)
Colleague costs	1.421	-	-	(1.421)	14.186	14.213	3.969	(10.217)	(11.638)
Non-IDT suppliers	1.193	-	0.206	(0.988)	18.293	18.293	13.310	(4.982)	(5.970)
<i>Programme Leadership</i>	-	-	-	-	4.321	4.321	2.281	(2.040)	(2.040)
<i>Future Heathrow</i>	0.827	-	0.013	(0.814)	5.835	5.835	5.398	(0.437)	(1.251)
<i>Consents</i>	0.304	-	0.193	(0.111)	4.735	4.735	3.749	(0.986)	(1.097)
<i>Community and Stakeholder</i>	0.062	-	-	(0.062)	0.393	0.393	0.210	(0.183)	(0.245)
<i>IT</i>	-	-	-	-	1.949	1.949	0.751	(1.198)	(1.198)
<i>Ground Investigation</i>	-	-	-	-	-	-	-	-	-
<i>Regulation and Strategy</i>	-	-	-	-	1.060	1.060	0.922	(0.138)	(0.138)
IDT	1.985	1.798	-	(1.985)	42.490	42.546	34.167	(8.324)	(10.309)
Total Category B costs (Capex)	4.600	1.798	0.206	(4.394)	74.969	75.052	51.446	(23.523)	(27.917)
Opex costs	6.069	-	0.086	(5.983)	2.811	2.811	1.567	(1.244)	(7.227)
Total Category B costs (Capex + Opex)	10.669	1.798	0.292	(10.377)	77.780	77.863	53.013	(24.767)	(35.144)

2.2 Colleague costs

2.2.1 Introduction

Colleague costs are those costs that relate to the employment of individuals who are fulfilling an Expansion Programme role. Colleague Costs include the cost of individuals on the Expansion Programme that are:

- directly employed by HAL (including salary, allowances, pension and National Insurance contributions, as well as any performance bonus)
- a Programme Client Partner (PCP) filling an Expansion Programme role
- a temporary resource, provided by an agency, ██████████, filling an Expansion Programme role.

2.2.2 Approach

In line with our intended purpose we sought to verify that Colleague Costs included within the Statement were supported by appropriate evidence, specifically that:

- direct employee costs reconciled to a Schedule of Cost and Evidence of Cost (source payroll data)
- PCP and temporary resource costs reconciled to a Schedule of Cost and Evidence of Cost (invoices).

We were not provided with a comprehensive Schedule of Cost in a timely manner that enabled the validation of Evidence of Cost for direct employees. For PCP and temporary resources we requested Evidence of Cost by way of invoices.

The invoices provided by HAL contained a mixture of both Expansion Programme costs and costs that did not relate to Expansion Programme activities. Therefore we sought to allocate the invoice costs in the following manner:

- **PCP invoices:** We included the invoiced cost as Evidence of Cost where the PO reference or invoice description referenced a Compensation Event (CE) that mapped to an Expansion Programme PO/CE in supporting files¹ provided by HAL. Any invoices dated 2018 were not included as Evidence of Cost unless there was a clear description that the costs related to 2017.

1 ARUP Heathrow PCP.xlsx, CH2M Heathrow PCP.xlsx, MACE Heathrow PCP.xlsx, T&T Heathrow PCP.xlsx.

- ██████████: We included the invoiced cost of the individuals identified by HAL in the file “████████ resource invoices”. Of the individuals identified by HAL in the file “████████ resource invoices”, we cross referenced the named individuals with organograms provided by HAL², which identified two individuals who did not appear on any organogram, and therefore are excluded from the Evidence of Cost.

Table 10 sets out the total Colleague Costs included in the Statement compared to the supporting Schedules of Cost and the Evidence of Cost provided. The deltas between each tier of cost are subsequently addressed in this section of the report, broken down for 2016 and 2017 respectively.

2.2.3 Reconciliation between the Statement, Schedule of Cost and Evidence of Cost

2016 Colleague costs – £1.421m

Schedule of Cost: HAL did not provide a Schedule of Cost for 2016 Colleague Costs. HAL did provide a document, “1.2 Detail Breakdown of 2016 Cat A_Cat B_Cat C” on the 04 July 2018, which set out a high level summary of the Colleague costs for 2016. This summary identified the total Colleague Costs as £1.553m during November and December 2016, which is £0.132m higher than the Statement and hence did not reconcile. HAL did not provide a breakdown of whether these costs were as a result of directly employed, PCP or temporary resource.

Evidence of Cost: HAL did not provide any supporting invoices or payroll data for 2016, hence it has not been possible to verify the £1.421m Colleague costs included in the Statement or the £1.553m Colleague costs identified in the high level summary document “1.2 Detail Breakdown of 2016 Cat A_Cat B_Cat C” provided by HAL.

2017 Colleague costs – £14.186m

Schedule of Cost: Initially we were provided with a Schedule of Cost, reference “Oct to Dec 17 Payrol Summary table – 4 Jul.xlsx” on the 04 July 2018 containing information for Q4 only which totalled £4.130m (£1.130m lower than the Q4 Colleague cost included in the Statement). No information was submitted for Q1, Q2, and Q3.

2 With the exception of two individuals as they did not appear on any organogram or resource list provided by HAL.

In reviewing the file “Oct to Dec 17 Payrol Summary table – 4 Jul.xlsx” we identified a number of errors such as: the inclusion of estimates rather than actuals; overstated actuals; and the incorrect treatment of credits. As a result we returned “Oct to Dec 17 Payrol Summary table – 4 Jul.xlsx” to HAL with clarifications, and HAL redacted this document.

On the 01 August 2018 HAL submitted a new and complete Schedule of Cost for the full year (“CatB Colleague Costs”) which was supported by a number of other schedules³ for Colleague Costs and totalled £14.236m. This Schedule of Cost was £0.050m higher than the Statement. We identified some minor errors

(-£0.024m) in the Schedule of Cost relating to cost centre allocations which resulted in a revised Schedule of Cost balance of £14.213m of Colleague Costs for 2017. This does not reconcile to the Statement balance of £14.186 with a minor delta of £0.027m.

The breakdown of the internal and external Colleague Costs identified in the complete 2017 Schedule of Cost is set out in Table 11.

Table 10 – Colleague Cost delta between the Statement, Schedule of Costs and Evidence of Cost

	2016				2017				Total
	a	b	c	d	e	f	g	h	i
Colleague Costs (£m)	Statement	Schedule of Cost	Evidence of Cost	Delta (c – a)	Statement	Schedule of Cost	Evidence of Cost	Delta (g – e)	Total Delta (d + h)
Colleague Costs	1.421	-	-	(1.421)	-	-	3.969	3.969	2.548
Q1	-	-	-	-	1.899	3.788	-	(1.899)	(1.899)
Q2	-	-	-	-	2.849	3.248	-	(2.849)	(2.849)
Q3	-	-	-	-	4.174	3.792	-	(4.174)	(4.174)
Q4	-	-	-	-	5.264	3.385	-	(5.264)	(5.264)
Total Category B costs (Capex)	1.421	-	-	(1.421)	14.186	14.213	3.969	(10.217)	(11.638)

Table 11 – Colleague Cost Types from Schedule of Cost

Colleague Cost Type (£m)	2017
Internal: Direct Employees	7.432
Internal: Transfers	0.660
Internal Subtotal	8.092
External: PCP	5.130
External: ██████████	0.991
External Subtotal	6.121
Total Category B Colleague Costs (Capex)	14.213

³ Folder: “Payroll Calculations” containing 12 spreadsheets detailing 12 months of redacted payroll reports.
Folder: “PCP” containing 4 spreadsheets (one for each PCP) detailing capitalised resource costs.
Folder: “██████████” containing 2 spreadsheets detailing the resource costs and the accrual capitalisation.

Evidence of Cost: HAL has not provided any Evidence of Cost, such as payslips or access to source payroll systems, in order to verify the internal Colleague Costs which totalled £8.092m in the Schedule of Cost. For external Colleague Costs, we were able to verify costs of £3.969m against £6.121m included in the Schedule of Cost. The breakdown of this, including details for each external supplier, is shown in Table 12.

Table 12 – 2017 Colleague Costs Evidence of Cost

	a	b	c	d
Colleague Cost Type (£m)	Statement	Schedule of Cost	Evidence of Cost	Delta (c – a)
Internal: Direct Employees		7.432	-	
Internal: Transfers		0.660	-	
Internal Subtotal		8.092	-	
External: █████		5.130	3.302	
█████	14.186	1.238	0.837	(10.217)
█████		1.020	0.475	
█████		1.732	1.759	
██████████████		1.140	0.230	
External: █████		0.991	0.667	
External Subtotal		6.121	3.969	
Total Category B Colleague Costs (Capex)		14.213	3.969	(10.217)

It is acknowledged that a proportion of the delta between the Statement value and the sum of the invoices could be due to accruals, although from the information provided by HAL this cannot be determined.

2.3 Non-IDT supplier costs

2.3.1 Introduction

Non-IDT supplier costs are those costs that relate to services provided by an external supplier but exclude the Integrated Design and DCO Team (IDT), and Colleague Costs. Non-IDT supplier costs include the HAL WBS components included in Table 13.

HAL has not provided a definitive description of the scope covered for each WBS component. Based on a review of the Schedule of Cost, Evidence of Cost and supporting information such as contracts, our interpretation of the key scope items for each WBS component is included in Table 13.

Table 13 – Non-IDT Supplier HAL WBS and scope

HAL WBS component	Scope
Programme Leadership	<ul style="list-style-type: none"> • Estimating Service Pack • Schedule Management Service Pack • Procurement Service Pack • Finance support • Accommodation: Compass Centre • Other: Other, stakeholder management, and supply chain mapping
Future Heathrow	<ul style="list-style-type: none"> • Airspace design • DCO consultation support • LIDAR • Innovation • Surface access modelling • Other
Consents	<ul style="list-style-type: none"> • Legal • Property land referencing • Consultation • Environment • Planning • Other
Community and Stakeholder	<ul style="list-style-type: none"> • Legal • Property land referencing • Consultation • Environment • Planning • Other
IT	<ul style="list-style-type: none"> • Programme: Service provision; Software, and Equipment • Other: IT masterplan studies & technology roadmaps, future IT strategy & masterplan consultancy, and other
Ground Investigation	<ul style="list-style-type: none"> • No Category B costs recorded for ground investigation in 2016 or 2017
Regulation and Strategy	<ul style="list-style-type: none"> • Independent Fund Surveyor • Slot strategy • Consultancy studies • Other



2.3.2 Approach

In line with our intended purpose, we sought to validate that the Non-IDT supplier costs included within the Statement were supported by appropriate evidence. We sought to reconcile the Statement costs to a Schedule of Cost, and verify that costs within the Schedule of Cost were supported by appropriate Evidence of Cost by way of invoices.

As referenced in section 2.1, we were not provided with a comprehensive Schedule of Cost in a timely manner that enabled the verification of Evidence of Cost for Non-IDT supplier costs. Consequently we requested that all available Evidence of Cost be made available and grouped by HAL WBS component.

We were provided with a range of invoices. Some were filed as per the WBS component and others were not. The folders included duplicate invoices and referencing/naming inconsistencies, which made invoice allocation challenging. In order to allow an assessment of the invoices we developed and applied a method of allocation to define whether: they related to the Expansion Programme and were within the time period subsequent to the government announcement in 2016 up to the end of 2017. We requested that HAL allocate the unfiled invoices to the relevant WBS Component which they did not do, therefore we allocated based on the following set of criteria:

- **For invoices dated 2016:** We included the invoiced costs as Evidence of Costs where:
 - the invoice was filed on Sharepoint within a named folder that referenced a HAL WBS component such as Consents or Future Heathrow
 - the invoice was dated 2016 after the Government policy announcement
 - the invoice was dated 2017 and there was a clear description that the invoiced costs related to works undertaken in 2016 (after the government announcement).
- **For invoices dated 2017:** We included the invoiced costs as Evidence of Costs where the invoice¹ PO number mapped to the Schedule of Cost.
- **For invoices dated 2018:** We included the invoiced costs as Evidence of Costs where the invoice PO number mapped to the Schedule of Cost and there was a clear description that the invoiced costs related to work undertaken in 2017.

Table 14 sets out the total Non-IDT Costs included in the Statement compared to the supporting Schedule of Cost and the Evidence of Cost provided. The deltas between each tier of cost are subsequently addressed in this section of the report, broken down for 2016 and 2017 respectively.

¹ With the exception of one invoice for the sum of £1.715m for LIDAR, where the PO did not map to the Schedule of Cost but was clearly itemised on the Schedule of Cost.



Table 14 – Non-IDT Supplier Cost delta between the Statement, Schedule of Costs and Evidence of Cost

	2016				2017				Total
	a	b	c	d	e	f	g	h	i
Non-IDT Supplier Costs (£m)	Statement	Schedule of Cost	Evidence of Cost	Delta (c – a)	Statement	Schedule of Cost	Evidence of Cost	Delta (g – e)	Total Delta (d + h)
Programme Leadership	-	-	-	-	4.321	4.321	2.281	(2.040)	(2.040)
Future Heathrow	0.827	-	0.013	(0.814)	5.835	5.835	5.398	(0.437)	(1.251)
Consents	0.304	-	0.193	(0.111)	4.735	4.735	3.749	(0.986)	(1.097)
Community and Stakeholder	0.062	-	-	(0.062)	0.393	0.393	0.210	(0.183)	(0.245)
IT	-	-	-	-	1.949	1.949	0.751	(1.198)	(1.198)
Ground Investigation	-	-	-	-	-	-	-	-	-
Regulation and Strategy	-	-	-	-	1.060	1.060	0.922	(0.138)	(0.138)
Total Non-IDT Supplier Costs	1.193	-	0.206	(0.988)	18.293	18.293	13.310	(4.982)	(5.970)

2.3.3 Reconciliation between the Statement, Schedule of Cost and Evidence of Cost

2016 Non-IDT costs – £1.193m

Schedule of Cost: HAL did not provide a Schedule of Cost for Non-IDT Supplier Costs in 2016 that detailed the PO, supplier or invoice number. HAL provided a document, “1.2 Detail Breakdown of 2016 Cat A_Cat B_Cat C” which set out a high level summary but did not itemise the costs. This document identified the Non-IDT Supplier Costs as £1.107m, which was £0.086m lower than the Statement.

Evidence of Cost: HAL provided invoices totalling £0.285m for 2016, of which £0.078m was dated prior to November 2016 and therefore have been excluded as Evidence of Cost. As a result, £0.206m has been included as Evidence of Cost in Table 14 which is £0.987m lower than in the Statement.

2017 Non-IDT costs – £18.293m

Schedule of Cost: HAL provided a Schedule of Cost, “20180601 2017 Expansion Capex Detail by PO v0.1” which detailed the PO number, supplier, description of services and the costs for 2017. This Schedule of Cost identified the Non-IDT supplier costs as £18.293m. However, £3.227m of the costs within the Schedule of Cost did not have a PO number referenced and, of those costs without a PO referenced £2.343m did not have a supplier specified and £0.986m had a description as ‘Other’. This is set out in Table 15. HAL has subsequently advised that this schedule included costs that were aggregated and as such did not include a PO number referenced.

The largest cost item without a PO reference was for ‘Internal accommodation charge (Compass Centre)’, included as part of Programme Leadership, and totalled £0.991m. We requested further detail from HAL, and following our discussions were provided with a number of iterations of a cost schedule for the Compass Centre. None of the cost schedule totals provided reconciled to the value included in the Schedule of Cost.

We have provided a description of the information and costs received relating to the Compass Centre in Table 16 and Table 17. These tables compare how the information evolved between the version received on 09 July 2018¹ which totalled £0.922m, and the final version received on 03 August 2018² which totalled £1.116m. HAL has subsequently advised that the version received on 09 July 2018 was based on an estimated/budgeted cost and the version received on the 03 August 2018 was based on actual invoices.

Evidence of Cost: We were able to verify £13.491m from the Evidence of Cost provided by HAL. This was £4.801m lower than the £18.293m in the Statement and the Schedule of Cost for 2017. Table 14 shows how this is split across the HAL WBS components.

As £3.227m of costs in the Schedule of Cost did not have a PO and due to the process adopted to allocate invoices, any invoices that were provided in relation to £3.227m would not be included as Evidence of Cost. However, the sum of the filed invoice cost that we have been unable to categorise is less than £0.250m.

It is acknowledged that a proportion of the delta between the Statement value and the sum of the invoices could be due to accruals and the process of allocating invoices, although from the information provided by HAL this cannot be determined.

1 Table 11 – Colleague Cost Types from Schedule of Cost
2 Exp Acc Cost Validaton.xls

Table 15 – 2017 Schedule of Cost without a PO referenced

Category	Supplier	PO#	Description	PO not listed (£m)	Description is 'Other' (£m)	Supplier is Other or N/A (£m)
Programme Leadership: Accommodation	N/A	N/A	Internal accommodation charge (Compass Centre)	0.991		0.991
Programme Leadership: Other	N/A	N/A	Other	0.569	0.569	0.569
Future Heathrow: Airspace Design / DCO consultation support	Other	N/A	Other	0.111	0.111	0.111
Future Heathrow: Other	Other	N/A	Other	0.051	0.051	0.051
Airline Strategy: Other	Other	N/A	Other	0.010	0.010	0.010
Consents: Legal		N/A	Other	0.033	0.033	
Consents: Legal	Other	N/A	Support on Heathrow Expansion Programme including advice on air quality	0.128		0.128
Consents: Legal	Other	N/A	Other	0.041	0.041	0.041
Consents: Property – Land Referencing	Other	N/A	Other	0.020	0.020	0.020
Consents: Environment		N/A	Security Support for HAL Ecological Surveys	0.027		
Consents: Environment	N/A	N/A	Other	0.026	0.026	0.026
Consents: Planning		N/A	Heathrow Strategic Planning Group	0.172		
Consents: Other	Other	N/A	Other	0.051	0.051	0.051
IT: Service Provision		N/A	Supply of IT Consultancy Services for the Expansion project including security support	0.234		
IT: Service Provision		N/A	Service pack for IT resource including	0.154		
IT: Software		N/A	Expansion	0.161		
IT: Software		N/A	Expansion Office	0.066		
IT: Software		N/A	Expansion	0.037		
IT: Software	Other	N/A	Other	0.055	0.055	0.055
IT: Equipment	Other	N/A	Expansion Laptops/Desktops	0.097		0.097
IT: Equipment	Other	N/A	Expansion Monitors	0.011		0.011
IT: Equipment	Other	N/A	Expansion Other peripherals	0.041		0.041
IT: Other	Other	N/A	IT Project Services	0.068		0.068
Community and Stakeholder: Community Engagement Board	N/A	N/A	Community Engagement Board	0.055		0.055
Community and Stakeholder: Other	N/A	N/A	Other	0.020	0.020	0.020
Total				3.227	0.986	2.343

Table 16 – Description of Compass Centre schedules

Cost Categories in schedules (Table 17)	Information in support of schedule dated 09 July 2018	Information in support of schedule dated 03 August 2018
Rent	Lease agreements which detailed the rent as [REDACTED] pa for Meridian, East and West block. No invoices were provided.	
Rates	No supporting cost information was provided. Costs reduced by [REDACTED] between the two versions.	
Insurance	Invoice provided was for the period April 2017 to March 2018 and was for the sum of [REDACTED]. Costs reduced by £0.046m between the two versions.	
Facilities Management	A signed contract for the Compass Centre and Heathrow Academy was provided. The contract listed fees of [REDACTED] and schedules of rates for call off items. HAL did not provide any record of use for call off items. Nor was an explanation provided for the delta between the contract cost and the [REDACTED] listed.	The Compass Centre schedule includes items for Projects, Stationary and Maintenance but we have not been provided with any supporting cost information. The cost reduced by [REDACTED] to [REDACTED], and includes a reduction of 7.6% to allow for the omission of the costs for the Heathrow Academy.
Dilapidation	Dilapidation Liability Assessment report provided which identified the total potential claim as [REDACTED]. Dilapidation accrual stated as [REDACTED].	Dilapidation calculation provided which estimated the dilapidation accrual as [REDACTED], [REDACTED] lower than in V2.
Stamp Duty	Cost category not included in schedule.	No supporting cost information provided for £0.089m.
Utilities (Gas, Electric and Water)	Cost category not included in schedule.	No supporting cost information provided for £0.417.
Catering Subsidy	Cost category not included in schedule.	No supporting cost information provided for £1.100m.
Overflow car park (Rent, Rates, Stamp Duty)	Cost category not included in schedule.	No supporting cost information provided for £0.965m.
Total Costs	£9.053	£11.162
Total Users (People)	HAL did not provide the basis of 1400 estimate.	HAL did not provide the basis of 1400 estimate but a reference was made to a Mitie report in February 2018 which counted the number of desks as 1804. This is 404 higher than the number used in the schedule.
Expansion Headcount	Headcount in the schedule averaged 142.6 per month. We note that this is 23.6 higher than the headcount included in the Statement pack which is 119.	HAL confirmed that this was based on a count of desks and reduces the number of desks to 140. Note that this is 21 higher than the headcount included in the Statement pack which is 119.
Category B Costs	£0.922	£1.116

Table 17 – Compass Centre schedules

	Schedule dated 09 July 2018				Schedule dated 03 August 2018				Delta.
	a	b	c	d	e	f	g	h	i
Compass Centre (£m)	Schedule of Cost	Compass Centre schedule	Evidence of Cost	Delta (c – a)	Schedule of Cost	Compass Centre schedule	Evidence of Cost	Delta (g – e)	Total Delta (f – b)
Programme Leadership – Accommodation	0.991	-	-	N/A	0.991	-	-	N/A	-
Rent (Meridian, East and West Block)	-	■	-	N/A	-	■	-	N/A	-
Rates	-	■	-	N/A	-	■	-	N/A	■
Insurance	-	■	■	N/A	-	■	■	N/A	■
Facilities Management	-	■	-	N/A	-	■	-	N/A	■
Dilapidation	-	■	-	N/A	-	■	-	N/A	■
Stamp Duty	-	-	-	N/A	-	■	-	N/A	■
Utilities (Gas, Electric and Water)	-	-	-	N/A	-	■	-	N/A	■
Catering Subsidy	-	-	-	N/A	-	■	-	N/A	■
Overflow car park (Rent, Rates, Stamp Duty)	-	-	-	N/A	-	■	-	N/A	■
Total Compass Centre costs		9.053	0.174	-		11.162	0.174	-	2.109
Total Users (People)	-	1,400	1,400	N/A	-	1,400	1,400	N/A	-
Cost per User (£)	-	6,467	125	N/A	-	7,973	125	N/A	1,506
Expansion Headcount (Av. Monthly People)	-	142.6	142.6	N/A	-	140.0	140.0	N/A	(2.600)
Category B Cost for Compass Centre	0.991	0.922	0.018	(0.975)	0.991	1.116	0.017	(0.973)	0.194

2.4 Integrated Design and DCO Team costs

2.4.1 Introduction

Integrated Design and DCO Team (“IDT”) costs are those costs that relate to designers, consultants and architects responsible for the development of master plan options for the planning and consents process. The contracted organisations are:

- Grimshaw Architect Limited (“Grimshaw”)
- Quod Limited (“Quod”)
- Amec Foster Wheeler Environment & Infrastructure UK Limited (“Amec Foster Wheeler”)
- Mott MacDonald Limited (“Mott MacDonald”)
- Ove Arup & Partners Limited (“Arup”)
- Atkins Limited (“Atkins”)
- Jacobs UK Limited (“Jacobs”)

Prior to October 2016, only Mott MacDonald, Amec Foster Wheeler and Quod had been contracted for the planning and design services associated with the Expansion Programme campaign.

Following the Government announcement in October 2016 HAL required an immediate start for planning, masterplanning, architectural and design services. With the exception of Grimshaw, who were procured through a competitive tender process, the remainder of the organisations were mobilised under existing competitively tendered frameworks and were contracted under Expansion Programme specific Task Orders.

The Statement categorises IDT Costs into a number of workstreams which relate to the Task Order grouping structure used to manage the IDT, as shown Table 18. Responsibility for Principal Designer for each workstream has been allocated to different IDT suppliers (bold in Table 18) with support provided by the general IDT and/or specific IDT suppliers.

Table 18 – IDT Workstream, 2017 Task Order and supplier mapping

IDT Workstream	2017 Task Orders	Q3-Q4 IDT Suppliers
Leadership and Management	Q1/2: TO 1.1 and 1.2.3, Q3/4: TO 1.1 and 1.2	
DCO	Q1/2: TO 1.4, Q3/4: TO 1.4	
Masterplan	Q1/Q2: TO 1.3, 1.5 and 3.6, 3/Q4: TO 1.5	
Airfield	Q1/Q2: TO 2.1 and 7.3, Q3/Q4: TO 2.1	
Terminals	Q1/Q2: TO 3.1, 3.2 and 3.7, Q3/Q4: TO 3.1	
Connectivity	Q1/Q2: TO 1.2.2, 3.3, 3.4 and 3.5, Q3/Q4: TO 3.4	
Roads	Q1/Q2: TO 4.2 and 4.3, Q3/Q4: TO 4.6	
Surface Access	Q1/Q2: TO 4.1, 4.4 and 4.5, Q3/Q4: TO 4.7	
Rivers	Q1/Q2: TO 5.1 and 5.2, Q3/Q4: TO 5.1	
EIA	Q1/Q2: TO 5.3, Q3/Q4: TO 5.3	
Land Use	Q1/Q2: TO 6.1 and 6.2, Q3/Q4: TO 6.0	
Surveys	Q1/Q2: TO 1.2.1 and 7.1, Q3/Q4: TO 7.0	
Utilities	Q1/Q2: TO 7.2, 8.2, 8.3, 8.5 and 8.6, Q3/Q4: TO 8.0	
Other	Q1/Q2: None, Q3/Q4: TO 9.0 and 10.0	Unknown

2.4.2 Approach

In line with our intended purpose, we sought to validate that the IDT supplier costs included within the Statement were supported by appropriate evidence. We sought to reconcile the Statement costs to a Schedule of Cost, and verify that costs within the Schedule of Cost were supported by appropriate Evidence of Cost by way of invoices.

As referenced in section 2.1, we were not provided with a comprehensive Schedule of Cost in a timely manner that enabled the verification of Evidence of Cost for IDT supplier costs. Consequently we requested that all available Evidence of Cost be made available and grouped by HAL WBS component.

We were provided with a range of invoices in an unfiled structure. The folder included duplicate invoices and referencing/naming inconsistencies, which made invoice allocation challenging. In order to allow an assessment of the invoices we developed and applied a method of allocation to define whether: they related to the Expansion Programme; and were within the time period subsequent to the government announcement in 2016 up to the end of 2017. We requested that HAL allocate the unfiled invoices to the relevant WBS Component which they did not do, therefore we allocated based on the following set of criteria:

- **For invoices dated 2016:** There were no invoices for 2016 provided.
- **For invoices dated 2017:** We included the invoiced costs as Evidence of Costs where the invoice PO number or invoice number mapped to the Schedule of Cost.¹
- **For invoices dated 2018:** We included the invoiced costs as Evidence of Costs where the invoice PO number or invoice number mapped to the Schedule of Cost and there was a clear description that the invoiced costs related to work undertaken in 2017.

Table 14 sets out the total Non-IDT Costs included in the Statement compared to the supporting Schedules of Cost and the Evidence of Cost provided. The deltas between the Statement, Schedule of Cost and Evidence of Cost are subsequently addressed in this section of the report, detailed for 2016 and 2017 respectively.

Due to the level of information provided and that multiple suppliers provide services across the IDT subcategories (see Table 18) we have been unable to map the invoices to the subcategories identified in the Statement. As such, we have grouped the IDT invoice costs by Supplier, this is shown in Table 19.

Table 19 – IDT Supplier Cost delta between the Statement, Schedule of Costs and Evidence of Cost

	2016				2017				Delta.
	a	b	c	d	e	f	g	h	i
IDT Costs (£m)	Statement	Schedule of Cost	Evidence of Cost	Delta (c – a)	Statement	Schedule of Cost	Evidence of Cost	Delta (g – e)	Total Delta (d + h)
IDT	1.985	-	-	(1.985)	42.490	-	-	(42.490)	(44.476)
	-	0.304	-	-	-	8.250	5.971	5.971	5.971
	-	0.309	-	-	-	6.303	4.689	4.689	4.689
	-	0.173	-	-	-	5.157	4.484	4.484	4.484
	-	0.202	-	-	-	5.412	4.624	4.624	4.624
	-	0.299	-	-	-	5.392	4.404	4.404	4.404
	-	0.433	-	-	-	10.085	8.247	8.247	8.247
	-	0.077	-	-	-	1.947	1.660	1.660	1.660
Other	-	-	-	-	-	-	0.088	0.088	0.088
Total Category B costs (Capex)	1.985	1.798	-	(1.985)	42.490	42.546	34.167	(8.324)	(10.309)

¹ See Table 20

2.4.3 Reconciliation between the Statement, Schedule of Cost and Evidence of Cost

2016 – IDT costs £1.985m

Schedule of Cost: HAL did not provide a Schedule of Cost which detailed the PO, supplier and IDT costs for 2016. HAL did provide the document “IDT Payment Certificate Summary 16-17” which identified the total IDT Costs as £1.798m, £0.187m less than the Statement. Although the costs were itemised it would not have allowed reconciliation to invoices, had they been provided, as there were no PO or invoices numbers.

Evidence of Cost: HAL did not provide any supporting invoices for 2016 IDT Costs.

2017 – IDT costs £42.490m

Schedule of Cost: HAL provided three files which could be considered as a Schedule of Cost. Each file had varying details, information and totalled to different values – these are summarised in Table 20. We consolidated files 1 and 2, identifying the unique IDT POs for 2017 which totalled £33.069m, £9.421m lower than the Statement in 2017, and used this consolidated file to allocate the invoiced cost. File 3 totalled £42.546m for 2017, £0.056m higher than the Statement, but could not be used to allocate or sample invoices as there was no PO or invoice numbers included.

Evidence of Cost: We were able to verify £34.167m from the Evidence of Cost provided by HAL. This is £8.324m lower than the Statement for 2017 and £8.379m lower than Schedule of Cost (File 3 as referenced in Table 20). Table 19 shows how this is split across the IDT suppliers.

£0.088m of the IDT invoiced cost was not provided by one of the seven IDT suppliers. However, given that the PO referenced did directly map to the consolidated Schedule of Cost (Files 1 and 2), these costs are included as Evidence of Cost and included as ‘Other’ costs in Table 19.

It is acknowledged that a proportion of the delta between the Statement value and the sum of the invoices could be due to accruals and the process of allocating invoices, although from the information provided by HAL this cannot be determined.

Table 20 – 2017 IDT Schedule of Cost Summary

Ref and Filename	Information contained	2017 Total (£m)
1: IDT 2017 Expansion related invoices charged to capital account.xlsx	Contains PO numbers, invoice amount and number along with a description of services. Appears to contain IDT costs related to May, June, August, September, October, November 2017	32.574
2: IDT Purchase Orders 11 July 2018.xlsx	Contains PO numbers, invoice amount and number along with a description of the services. Overall sheet contains costs across 2017 and 2018 and total £59.675m. The 2017 costs total £34.073m, accounting for Non-IDT costs this reduces to £32.982m.	32.982
3: IDT Payment Certificate Summary 16-17.xlsx	Contains costs per month from November 2016 until December 2017 for IDT Suppliers summarised on a monthly basis however, there are no PO numbers, invoice numbers or description of services. Overall sheet contains costs for 2016 that total £1.798m and for 2017 total £42.546m	42.546

2.5 Opex costs

2.5.1 Introduction

In addition to the Statement, HAL provided two schedules containing Category B Opex costs for 2016 and 2017 which are shown in full in Table 6 and Table 7, known collectively as “the Opex Schedules”. For clarity, the Opex Schedules included in Table 6 and Table 7 do not form part of the Statement but HAL has communicated that they anticipate these costs to be treated and recovered in the same manner as the Category B costs included in the Statement. As a result, and at the request of the CAA, they have been included as part of this review.

The 2016 Category B Opex costs presented are included in full in Table 6, summarised in Table 22 and include the following cost types:

- A proportion of the Colleague Costs incurred prior to the Government announcement in October 2016
- IT (described as Other (IT) in supporting information)
- Consultancy services
- Additional security incurred after the Government announcement in October 2016.

The 2017 Category B Opex costs presented are included in full in Table 7, summarised in Table 23 and include the following cost types:

- Security
- CAA costs transferred.

2.5.2 Approach

In line with our intended purpose, we sought to validate that the Opex costs included within the Opex Schedules were supported by appropriate evidence. We sought to reconcile the Opex Schedules cost to a Schedule of Cost, and verify that costs within the Schedule of Cost were supported by appropriate Evidence of Cost by way of invoices.

As referenced in section 2.1, we were not provided with a comprehensive Schedule of Cost in a timely manner that enabled the verification of Evidence of Cost for Opex costs. Consequently we requested that all available Evidence of Cost be made available.

We were provided with invoices for security and CAA costs only. Table 21 sets out the total Opex costs included in the Schedules of Cost compared to the supporting Schedule of Cost and the Evidence of Cost provided. The deltas between each tier of cost are subsequently addressed in this section of the report, broken down for 2016 and 2017 respectively.

Table 21 – Opex Cost delta between the Opex Schedules, Schedule of Costs and Evidence of Cost

	2016				2017				Delta.
	a	b	c	d	e	f	g	h	i
OPEX Costs (£m)	the Opex Schedules	Schedule of Cost	Evidence of Cost	Delta (c – a)	the Opex Schedules	Schedule of Cost	Evidence of Cost	Delta (g – e)	Total Delta (d + h)
Additional Security	0.783	-	0.086	(0.697)	-	-	-	-	(0.697)
Colleague Costs	1.573	-	-	(1.573)	-	-	-	-	(1.573)
Other	0.084	-	-	(0.084)	-	-	-	-	(0.084)
Consultancy	3.629	-	-	(3.629)	-	-	-	-	(3.629)
Additional Security: ██████████	-	-	-	-	1.200	1.200	0.882	(0.318)	(0.318)
Additional Security: ██████████	-	-	-	-	0.068	0.068	-	(0.068)	(0.068)
Additional Security: ██████████	-	-	-	-	0.028	0.028	-	(0.028)	(0.028)
CAA Costs	-	-	-	-	1.515	1.515	0.685	(0.830)	(0.830)
Total Category B costs (Opex)	6.069	-	0.086	(5.983)	2.811	2.811	1.567	(1.244)	(7.227)

2.5.3 Reconciliation between the Opex Schedules, Schedule of Cost and Evidence of Cost

2016 Opex costs- Opex £6.069m

Schedule of Cost: HAL did not provide a Schedule of Cost with details of PO, suppliers and costs for 2016 Opex costs. HAL provided a document, “1.2 Detail Breakdown of 2016 Cat A_Cat B_Cat C” which summarised the Opex costs for 2016 and forms part of the Opex Schedules. It is included in full in Table 6 and is summarised in Table 22 outlining how this cost is split: £5.286m incurred up to and including October 2016 and £0.783m in November and December 2016.

Evidence of Cost: HAL provided four invoices in support of the Opex costs in 2016 which all related to Additional Security and totalled £0.086m. As shown in Table 21, this was £5.983m lower than the total of the Opex Schedules.

2017 Opex costs – £2.811m

Schedule of Cost: HAL provided a Schedule of Cost document, “2017 Cat A_B and C spend_8_6_18_detail breakdown” which detailed the supplier, a brief description and the costs. It forms part of the Opex Schedules and is included in full in Table 7 and has been summarised in Table 23.

Evidence of Cost: HAL provided invoices for security and CAA costs which collectively totalled £1.567m for 2017. As shown in Table 21, this is £1.244m lower than the Opex Schedules.

In support of the costs related to security we have been provided with 14 invoices, itemised in Table 24, the total of which, £0.882m, is £0.318m less than the Opex Schedules.

In support of the CAA Costs HAL provided six invoices and an invoice schedule. These documents covered a range of services for the years 2016, 2017 and 2018. The relevant 2017 invoices are summarised in Table 25 and total £0.685m, £0.830m lower than the balance of the Opex Schedules.

Table 22 – 2016 Opex Cost summary

2016 Opex costs (£m)	Jan – Oct	Nov	Dec	Total
Additional Security	-	0.548	0.235	0.783
Colleague Costs	1.573	-	-	1.573
Other	0.084	-	-	0.084
Consultancy	3.629	-	-	3.629
Total Category B costs (Opex)	5.286	0.548	0.235	6.069

Table 23 – 2017 Opex costs Summary

2017 Opex costs (£m)	Total
Security	1.296
CAA Costs	1.515
Total Category B costs (Opex)	2.811

Table 24 – 2017 security cost invoices

Invoiced Security Costs (£m)	2017	
	Invoice No	Value
January 2017 – Fixed Fee	■■■■ INV-00054	0.081
January 2017 – "Upscale"	■■■■ INV-00054	0.002
February 2017 – Fixed Fee	■■■■ INV-00058	0.081
February 2017 – "Upscale"	■■■■ INV-00058	0.002
March 2017 – Fixed Fee	■■■■ INV-00059	0.081
March 2017 – "Upscale"	■■■■ INV-00059	0.002
April 2017 – Fixed Fee	■■■■ INV-00060	0.079
May 2017 – Fixed Fee	■■■■ INV-00061	0.079
June 2017 – Fixed Fee	■■■■ INV-00062	0.079
July 2017 – Fixed Fee	■■■■ INV-00065	0.079
August 2017 – Fixed Fee	■■■■ INV-00066	0.079
September 2017 – Fixed Fee	■■■■ INV-00067	0.079
October 2017 – Fixed Fee	■■■■ INV-00068	0.079
November 2017 – Fixed Fee	■■■■ INV-00071	0.079
Total 2017 Security Costs (Opex)	-	0.882

Table 25 – 2017 Invoiced CAA costs

Invoiced 2017 CAA Costs (£m)	Invoice No	Value
January 2017 – March 2017	MIS0111086	0.099
January 2017 – March 2017	MIS0111087	0.288
Schedule only: Covered (i) Runways LHR, (ii) H7 16/17 and (iii) 17/18. Note only value of (i) excluding VAT included in this Table	MIS0114557	0.099
October 2017 – December 2017: (i) Runways and (ii) H7. Note only value of (i) excluding VAT included in this Table.	MIS0114946	0.200
Total 2017 CAA Costs (Opex)	-	0.685



Section 3

Are the costs presented in the Statement and Opex Schedules correctly categorised as Category B?

3.1 Introduction, approach and key findings

3.1.1 Introduction

CAA guidance documents CAP 1513 and CAP 1651 provide guidance on the categorisation of cost into three categories, which are summarised in Table 26. Table 27 sets out the total costs for each category as reported by HAL for 2016 and 2017.

Table 26 – Cost categories

Category A costs	These costs are costs which were incurred by HAL during the Airports Commission process, or before Heathrow was named as the preferred location for new runway capacity on 25 October 2016. These costs are not generally recoverable.
Category B costs	Capacity expansion costs that are, in general, incurred by HAL after the Government policy announcement on its preferred location for new capacity on 25 October 2016 and are associated solely with seeking planning permission for the delivery of new runway capacity at Heathrow, as defined in Cap 1513. These costs are generally recoverable.
Category C costs	Those costs incurred by HAL in connection with implementation and construction of new capacity, up to entry-into-operation. The majority of these costs will typically be incurred after planning permission is granted. These costs are generally recoverable.

Table 27 – Summary of Category A, B and C costs

Cost Categories (£m)	2016	2017	2016 + 2017 ¹
Category A	10.184	-	10.184
Category B Capex – The Statement	4.600	74.969	79.569
Category B Opex – The Opex Schedules	6.069	2.811	8.880
Category C	0.348	6.890	7.238
Total Cost Category Costs	21.201	84.670	105.871

¹ Category A and C costs 2016: “2016 Cat A_B and C spend_8_6_18.xlsx” – Note that this document lists the Category B Capex costs as £4.401m.
Category A and C costs 2017: “2017 Cat A_B and C spend_8_6_18.xlsx” – Note that this document lists the Category B Capex costs as £75.000m.

3.1.2 Approach

In order to assess whether the costs included in the Statement and Opex Schedules as Category B costs were (i) incurred by HAL after the Government announcement on 26 October 2016, and (ii) solely associated with seeking planning permission for the delivery of new runway capacity we:

- Interviewed 25 key individuals from the Expansion Programme, including the seven Directors, or their delegated representative. The interviews covered, where applicable, the work undertaken in 2016 and 2017 and how this related to the Statement and Opex Schedules, the relevant Schedule of Cost and other key documentation provided by HAL which included:
 - Heathrow Expansion 2017 Category B & C Costs dated August 2017
 - Masterplan Scheme Development Manual dated May 2017
 - Heathrow Expansion High Level Schedule dated 04/10/17.
- Requested a sample of supporting information to supplement the above, based on the value (£), nature of the scope and the delivery period for work undertaken to assess whether it fitted the description of Category B costs. The supporting information included a sample of:
 - contracts
 - service pack agreements
 - Task Orders.

3.1.3 Key findings

We were unable to verify £27.917m (35%) of the £79.569m Statement costs and £35.144m (40%) of £88.449m including Opex costs to Evidence of Cost (source documentation). As a result, we are unable to comment on whether these costs were incurred in relation to the Expansion Programme, or for other activities.

Of the remaining Statement costs of £51.652m (and £53.305m including Opex Costs), for which we have Evidence of Cost, we were provided with supporting information that £51.452m (and £51.452m including Opex Costs) have been correctly categorised as Category B costs. The evidence to support this statement has been collected through a number of means including interviews with at least 25 individuals across the Expansion Programme and review of associated documentation and other evidence including:

- Heathrow Expansion 2017 Category B & C Costs dated August 2017
- Masterplan Scheme Development Manual dated May 2017
- Heathrow Expansion High Level Schedule dated 4 October 2017.

We requested a sample of supporting information, based on the value (£), nature of the scope, and the delivery period for work undertaken to confirm if it was for the purpose of the Expansion Programme. The supporting information included a sample of contracts, service pack agreements and task orders.

In undertaking the above we have identified that:

- HAL has created an Expansion Programme organisation structure which has evolved during 2017
- HAL has engaged with key suppliers for the sole purpose of the planning of the Expansion Programme, such as those suppliers who comprise the IDT and other Non-IDT suppliers, through the use of Expansion Programme specific contracts and Task Orders
- HAL has undertaken work after the government policy announcement in October 2016 and during 2017 that is consistent with the scope and masterplanning process defined in key documentation, albeit we have not been provided with a clear and definitive integrated baseline plan (see section 4) that we can use to reference the work undertaken.

Minor exceptions that require further information

Of the £51.652m Statement costs and £1.653m Opex Schedules costs, we were unable to verify that £0.200m of Statement costs (0.4%) and £1.653m of Opex costs (100%) have been correctly categorised as Category B costs and further information is required. Specifically these are:

- £0.200m for four £0.050m contract changes (Compensation Events) as a contribution towards the PCP's mobilisation activities incurred prior to the Government policy announcement
- £0.968m for additional security that HAL has verbally confirmed are for Expansion Programme specific security matters, such as removing protestors who are protesting about the proposed Expansion Programme. We have not however been provided with a signed contract that details the scope of the services or other evidence to confirm this
- £0.685m of CAA costs. The description for these costs is "CAA costs transferred", invoices received cover a range of services and years and there is a distinction between "Runways LHR" and "H7". We have allocated the relevant "Runways LHR" invoices which total £0.685m. No further information has been provided. Therefore we have not been able to determine whether these costs are solely associated with seeking planning permission for the delivery of new runway capacity.

Points to note for those costs not supported by Evidence of Cost

We were unable to verify £27.917m (35%) of the £79.569m Statement costs and £35.144m (40%) of £88.449m including Opex costs to Evidence of Cost (source documentation). Regardless of our inability to verify these costs, through our review of the Statement and Opex Schedules, conducting interviews, and reviewing other relevant documentation, we have identified a number of points to note.

Costs which do not appear to be correctly categorised as Category B

Of the £35.144m Statement and Opex Schedules cost we were unable to verify, we have identified some Opex costs which do not appear to be correctly categorised as Category B:

- £5.286m of the 2016 Opex costs submitted as part of the Opex Schedules are reported to be incurred prior to the Government policy announcement (Category A) and do not appear to be consistent with the principles included in the CAA guidance documents 1513 and 1651.

Other specific areas of note

Other specific areas to note of the £35.144m that require further information are:

Colleague Costs

- £1.421m of HAL Colleague costs are included in the Statement for 2016. However, HAL has not provided any further information on these costs to confirm whether they are solely associated with seeking planning permission for the delivery of new runway capacity.
- £1.169m of HAL staff costs relating to 2016 are included in the Statement in 2017. The detail of staff costs relating to 2016 was not made available and further information is required to confirm whether these costs are solely associated with seeking planning permission for the delivery of new runway capacity.

Non-IDT Supplier Costs

- A total of £1.193m is included in the Statement in 2016. However, HAL has not provided any further information on these costs to confirm whether they are solely associated with seeking planning permission for the delivery of new runway capacity.
- A total of £3.227m did not have a PO listed in the Schedule of Cost, and of that £2.343m had no supplier listed and £0.986m referenced the services as 'Other.' HAL has not provided any further information on these costs to confirm whether they are solely associated with seeking planning permission for the delivery of new runway capacity.
- £0.991m has been allocated for accommodation costs for the Expansion Programme team, specifically the leasing of the Compass Centre. Whilst it appears that these costs are solely associated with seeking planning permission for the delivery of new runway capacity, we have not been able to confirm whether these costs are incremental to other HAL, non-Expansion Programme costs.

Further detail is provided in the following sub-sections:

- **Section 3.2:** Where Evidence of Cost has been provided, are these costs solely associated with seeking planning permission for the delivery of new runway capacity?
- **Section 3.3:** Points to note for those costs not supported by Evidence of Cost.
- **Section 3.4:** Allocation of costs between Category B and Category C.

3.2 Where Evidence of Cost has been provided, are these costs solely associated with seeking planning permission for the delivery of new runway capacity?

We were unable to verify £27.917m of the £79.569m Statement costs (and £7.227m of £8.880m of the Opex Schedule costs) to Evidence of Cost. As a result, we are unable to comment on whether these costs were incurred in relation to the Expansion Programme, or for other activities.

Of the remaining Statement costs of £51.652m (plus £1.653m of Opex Schedules cost), we were provided with evidence that £51.452m of the Statement costs (appropriate evidence for Opex costs was not provided) have been correctly categorised as Category B costs. The evidence to support this statement has been collected through a number of means including interviews with at least 25 individuals across the Expansion Programme and review of associated documentation and other evidence as set out below.

3.2.1 Evidence of cost solely associated with seeking planning permission for the delivery of new runway capacity

HAL has demonstrated the creation of an Expansion Programme organisation structure that is dedicated to the delivery of the Expansion Programme, albeit with a few minor exceptions subsequently detailed in this chapter of the report. There is evidence that HAL has engaged with key suppliers, such as those who comprise the IDT and Non-IDT suppliers, using Expansion Programme specific contracts and Task Orders.

Expansion Programme team established

HAL has provided several organograms that evidence the creation and evolution of the Expansion Programme team established to deliver Expansion specific scope. The organograms show the mix of HAL staff, PCP and temporary resources within the team. We met with a representative from the People team to review the organograms which were dated as follows:

- March 2017
- May 2017
- October 2017
- November 2017.

HAL has confirmed that a dedicated area of the Compass Centre is used by the Expansion Programme team, and that the costs for leasing this part of the Compass Centre are included as part of the Statement (see section Non-IDT suppliers below and section 2.3.3, Table 16 and Table 17 for further details).

Expansion Programme specific contracts

We reviewed a number of contracts and Task Orders for a range of Expansion Programme suppliers. The contracts and Task Orders reviewed are set out in Table 28 along with commentary regarding interviews conducted and any other relevant documentation.

Table 28 – Expansion specific contracts

Sample	Comments
Non-IDT suppliers £5.835m Future Heathrow: £3.837m [REDACTED]	We were provided with contracts between HAL and [REDACTED] which included deliverables specifically associated with the Expansion Programme. Hence, it appears to be associated with seeking planning permission for the delivery of new runway capacity.
Non-IDT suppliers £4.321m Programme Leadership: £1.508m [REDACTED]	We were provided with proposal documents [REDACTED] for Heathrow Expansion Programme: specifically for March (£0.336m) and for June 2017 (£1.314m). These documents make explicit reference to services provided for the Expansion Programme and the scope is consistent with that described in the interview with the Head of Estimating. The [REDACTED] referenced were agreed as Compensation Events (CE). The CE register that we were provided only includes a high level summary of the scope for each CE, hence we were not able to isolate these specific costs but have been advised that they form part of CE7 (£0.866m) and CE9 (£2.376m). Hence, it appears to be associated with seeking planning permission for the delivery of new runway capacity.
Non-IDT suppliers £4.321m Programme Leadership: £0.404m [REDACTED]	We were provided with a proposal document for [REDACTED] £0.761m covering the period April – June 2017. This document makes explicit reference to the Expansion Programme and the scope is consistent with that described in the interview with the Delivery Director. The services identified in [REDACTED] were agreed under CE 4, which has a consistent high level scope description. Additionally the overarching Professional Services contract, dated 1 December 2016 with a forecast cost of £0.050m outlines the output as: <ul style="list-style-type: none"> • A detailed integrated schedule of activities to deliver the start of the DCO Consultation Stage 1 in April 2017. Hence, it appears to be associated with seeking planning permission for the delivery of new runway capacity.
Non-IDT suppliers £4.735m Consents: £1.517m [REDACTED]	We held an interview with the Director of Consents who advised us of a framework agreement implemented for the Single Integrated External Legal Team (SIELT) formed to support Heathrow Expansion Programme.
Non-IDT suppliers £4.735m Consents: £0.873m [REDACTED]	The Schedule of Cost references SIELT and invoices seen specifically reference the Expansion Programme activities. Hence, it appears to be associated with seeking planning permission for the delivery of new runway capacity.
IDT £3.600m TO 1.1: Leadership and Management.	
IDT £1.800m TO 2.1 Runways and taxiways.	We were provided with evidence that the IDT was established to deliver Expansion Programme scope and are contracted through Expansion Programme Task Orders.
IDT £3.600m TO 3.1 Terminals, Satellites and Aprons.	HAL has provided a number of Task Orders for review and an Excel spreadsheet detailing IDT deliverables, all of which appear associated with seeking planning permission for the delivery of new runway capacity.
IDT £7.600m TO 4.1 Surface Access Strategy and Modelling.	We met with the IDT Development Director, IDT Delivery Director and Head of Design who described the focus of their work during 2017, and how it related to key activities such as Consultation 1 and development and evaluation of the Masterplan options. Hence, it appears to be associated with seeking planning permission for the delivery of new runway capacity.
IDT £7.900m TO 5.3: Environmental Impact Assessment and Sustainability.	

3.2.2 Minor exceptions that require further information

Of the £51.652m Statement costs and £1.653m Opex Schedules costs for which we were provided with Evidence of Cost, we were unable to verify that £0.200m of Statement costs and £1.653m of Opex costs had been correctly categorised as Category B costs. Further information is required for these costs to clarify their correct categorisation. These specific areas are set out below.

2016 Non-IDT suppliers – £0.200m

We were informed by HAL that a contract variation (Compensation Event) was agreed for each of the Programme Client Partners (PCP) to the sum of £0.050m as a:

“contribution towards the mobilisation activities including the planning and preparation of the team for the P0 roles.”

Of the four PCPs (Turner & Townsend, Mace, Arup and CH2M) we have seen evidence that a Compensation Event (reference CE1) was agreed for Mace and Turner & Townsend for £0.050m.

These costs do not appear to be consistent with the principles included in the CAA guidance documents 1513 and 1651 for categorisation of Category B costs given the costs appear to be for work completed prior to the government announcement on the 25 October 2016, although further information is required from HAL to confirm this.

Opex costs additional security -£0.968m

From the information made available we are unable to determine whether £0.968m of additional security costs are correctly categorised as Category B, or whether they should be categorised as either Category A or Category C, or whether they may relate to non-Expansion Programme activities. Therefore we have not been able to determine whether these costs are solely associated with seeking planning permission for the delivery of new runway capacity.

Opex costs CAA costs – £0.685m

From the information made available we are unable to determine whether £0.685m of the CAA costs are correctly categorised as Category B, or whether they should be categorised as either Category A or Category C, or whether they may relate to non-Expansion Programme activities.

The description provided by HAL for all items is “CAA costs transferred”, see Table 7, and the invoices received cover a range of services and years, see section 2.5.3, and there is a distinction between “Runways LHR” and “H7”. We reviewed the available invoices and were able to categorise £0.685m as being attributed to “Runways LHR”. No further information has been provided, therefore we have not been able to determine whether these costs are solely associated with seeking planning permission for the delivery of new runway capacity.

3.3 Points to note for those costs not supported by Evidence of Cost

3.3.1 Colleague costs – £15.607m

The total Colleague costs for 2016 and 2017 included in the Statement are £15.607m. Regardless of provision of Evidence of Cost, there are specific areas that warrant referencing and require further information. These specific areas are set out below.

2016 Colleague costs – £1.421m

A total of £1.421m of HAL Colleague costs are included in the Statement in 2016. However HAL has not provided any further information on these costs to confirm whether they are solely associated with seeking planning permission for the delivery of new runway capacity.

2017 HAL staff costs relating to 2016 – £1.169m

HAL provided information in the Schedule of Cost which included staff costs relating to 2016 for Expansion Programme staff which totalled £1.169m paid in March 2017. We were unable to isolate the Category B proportion of the staff costs relating to 2016. A summary is included in Table 29.

Overall Category B Expansion Programme Colleague costs increased from £0.788m in February to £2.478m in March 2017. This increase was due 31 new HAL staff (including 2 temporary staff) being allocated to the Expansion Programme and the payment of staff costs relating to 2016 in March 2017.

Table 29 – 2017 staff costs relating to 2016

Cost Item	Total (£m) Category B, C and Opex	Total (£m) Category B
Total Payment for March 2017 – Direct Employees	1.891	1.629
of which relates to ██████████	1.145	Unable to isolate
of which relates to ██████████	0.005	
of which relates to ██████████	0.019	
Total staff costs relating to 2016 paid in March 2017	1.169	Unable to isolate

The detail of staff costs relating to 2016 was not made available therefore it is unclear whether costs paid were accrued from the previous year (when some staff did not appear to be working on the Expansion Programme), and whether staff costs relating to 2016 were for the full year, or part of the year attributable to the Expansion Programme. However, given the average staff costs relating to 2016 was £0.024m it is assumed that this is the former, therefore it appears that these costs are not solely associated with seeking planning permission for the delivery of new runway capacity, although further information is required.

2017 Colleague costs – £Undetermined ¹

Due to the anonymised nature of the Schedule of Cost for Colleague Costs we have been unable to determine, at an individual level, whether the costs presented in the Schedule of Cost align to the organograms provided.

From our analysis and through interviews with the Expansion Programme team, a number of Director roles have responsibilities that include other HAL activities in addition to that of the Expansion Programme. Specifically these are:

- Future Heathrow Director: This role has responsibility for 20 team members that are not part of the Expansion Programme
- Finance Director, Expansion and Investment: This role has responsibility for a team undertaking the Q6 investment case
- People Director Expansion: This role has responsibility for 3 team members responsible for the Heathrow Academy
- PMO Director: Transitioning to 100% Expansion programme during 2018.

¹ Transparency of cost not available but likely to be a percentage of the identified role's costs for 2017

CAP1651 required that all costs attributable to both the Expansion Programme and other HAL activities were specifically referenced in the Statement pack, but these individuals were not named in the “Shared Cost with Business” section of the Statement pack. Any cost that may have been incorrectly categorised is likely to be minor in monetary value but is inconsistent with CAA guidance.

3.3.2 Non-IDT supplier costs – £19.486m

The total Non-IDT supplier costs for 2016 and 2017 included in the Statement are £19.486m. Regardless of provision of Evidence of Cost, there are specific areas that warrant referencing and require further information. These specific areas are set out below.

2016 Non-IDT supplier costs – £1.193m

A total of £1.193m of Non-IDT supplier costs are included in the Statement in 2016. However, HAL has not provided any further information on these costs to confirm whether they are solely associated with seeking planning permission for the delivery of new runway capacity.

2017 costs with no PO referenced – £3.227m

A total of £3.227m did not have a PO listed in the Schedule of Cost, and of that £2.343m had no supplier listed and £0.986m referenced the services as ‘Other.’ HAL has not provided any further information on these costs to confirm whether they are solely associated with seeking planning permission for the delivery of new runway capacity.

Accommodation costs (Compass Centre) – £0.991m

The Compass Centre is the main office space used by HAL for both the Expansion Programme and other non-Expansion Programme activities. HAL has confirmed that a dedicated area of the Compass Centre is used by the Expansion Programme team, and that the costs related to leasing this dedicated section of the Compass Centre are included as part of the Statement (included in Programme Leadership – Accommodation, see section 2.3.3, Table 18 and Table 19 for further details). Whilst it appears that these costs are solely associated with seeking planning permission for the delivery of new runway capacity, we have not been able to confirm whether these costs are incremental to other HAL, non-Expansion Programme costs.

3.3.3 IDT costs – £44.476m

The total IDT costs for 2016 and 2017 included in the Statement are £44.476m. Regardless of provision of Evidence of Cost, there are specific areas that warrant referencing and require further information. These specific areas are set out below.

2016 IDT costs – £1.985m

A total of £1.985m of IDT costs are included in the Statement in 2016. However, HAL did not provide any Evidence of Cost to confirm whether they are solely associated with seeking planning permission for the delivery of new runway capacity.

3.3.4 Opex costs – £8.880m

The total Opex costs for 2016 and 2017 included in the Opex Schedules are £8.880m. Regardless of provision of Evidence of Cost, there are specific areas that warrant referencing and require further information. These specific areas are set out below.

2016 Opex costs – £6.069m

HAL has included £6.069m of Category B Opex costs in the Opex Schedules for 2016. As set out in Table 30 £5.286m of these costs are reported to be incurred between January and October 2016 and therefore do not appear to be consistent with the principles included in the CAA guidance documents 1513 and 1651, which requires that costs are incurred after the government announcement on the 25 October 2016.

HAL verbally confirmed that the £5.286m claimed as Category B costs relate to the preparation of 13 briefing notes for the Department for Transport (DfT) and subsequent clarifications. The briefing note titles and dates are set out in Table 31. No further detail, Evidence of Cost or documentation (as referenced in Section 2.5.3) was provided by HAL to substantiate the classification or inclusion of these costs as Category B. Furthermore, the £5.286m of costs are reported to span the period between January and October 2016 (see Table 30 and in full in Table 6), yet the dates for the briefing notes are stated as being either March or April 2016 as set out in Table 31.

Table 30 – 2016 Opex costs Summary

2016 Opex costs (£m)	Jan – Oct	Nov	Dec	Total
Additional Security	-	0.548	0.235	0.783
Colleague Costs	1.573	-	-	1.573
Other	0.084	-	-	0.084
Consultancy	3.629	-	-	3.629
Total Category B costs (Opex)	5.286	0.548	0.235	6.069

Table 31 – Briefing documents prepared for the DfT

Ref	Date	Title
001	March 2016	Surface Access
002	April 2016	Noise Insulation Schemes
003	April 2016	Noise
004	April 2016	Airspace Change
005	March 2016	Jobs, Skills & Apprenticeships
006	March 2016	Support
007	April 2016	Property Compensation
008	April 2016	Strategic Partnerships
009	April 2016	Community Engagement
010	April 2016	Carbon
011	April 2016	Domestic Connectivity
012	May 2016	Air Quality
013	April 2016	Night Flights

3.4 Allocation of cost between Category B and Category C

A total of £7.238m of Category C costs have been incurred in 2016 and 2017, compared to a total of £79.569m Category B costs (plus £8.880m of Opex costs).

Expansion Programme leadership team 'undetermined' and accommodation – £0.991m

The Expansion Programme leadership team and £0.991m of accommodation costs have been allocated as 100% Category B, with no cost attributed as Category C. HAL has advised that this is because of the nature of the work undertaken after the government announcement in 2016 and during 2017 primarily related to activities associated with masterplanning, preparing for Consultation 1 and other activities associated with achieving planning permission. However, during 2016 and 2017 £7.238m of Category C costs were incurred (6.8% of the £105.871m total Expansion Programme Category A, B and C costs). Therefore, there appears to be a proportion of Programme Leadership and £0.991m accommodation costs currently categorised as Category B that could be categorised as Category C.

Further accommodation costs

In 2017 £0.370m for refurbishment of the Expansion Programme area in the Compass Centre was categorised as Category C and was not included in the Statement. In document, "2017 Cat A_B and C spend_8_6_18_detail breakdown" HAL has indicated that this was "in error and should be recategorised as Cat B" however, HAL has not provided an updated Statement with this cost recategorised. Further clarification is required from HAL.

Ground Investigation

The Statement does not include any costs for ground investigations in 2016 or 2017 despite the inclusion of a WBS category within the Statement. There was however £1.950m for ground investigation works included as Category C in 2017. HAL has advised that whilst ground investigation costs have been categorised as Category C in 2017, from 2018 onwards these costs will be categorised as Category B.

1 Schedule of Cost for Colleague Costs is anonymised.



Section 4

Is there evidence to indicate that costs included within the Statement and Opex Schedules have been incurred in an efficient manner?

4.1 Introduction, approach and key findings

4.1.1 Introduction

CAA guidance documents CAP 1513 and CAP 1651 note that costs may be considered efficiently incurred when:

1. The programme which they are attributable to has been set up to succeed in the early planning stages.
2. Performance and progress are meaningfully measured to enable management intervention.
3. An environment is created which proactively identifies opportunities to improve.

4.1.2 Approach

In order to provide an assessment of whether works have been undertaken in an efficient manner, we reviewed key documentation, interviewed relevant individuals and assessed the effectiveness of HAL's response to our information requests in order to make an assessment.

Areas considered as part of our review included:

- **Baseline:** Is there a clear and consistent baseline that sets out the scope, cost, schedule and risk up to approval of the DCO?
- **Governance:** Is there an established and appropriate governance process in place to manage the baseline?
- **Progress and performance:** Is progress and performance clearly and consistently reported, including the consequential impact of delay?
- **Provision of information:** Was information provided relevant, complete and in a timely manner?

4.1.3 Key findings

This review is retrospective and covers the period 2016 and 2017 when the Expansion Programme was in the early lifecycle stages, having been rapidly mobilised following the government announcement in October 2016.

As the Expansion Programme matures and develops greater certainty of scope, cost, schedule and risk, a number of thematic opportunities exist for HAL to operate in a more efficient manner. Our themes are supported by detailed analysis set out in the remainder of this section.

- **Establishing a single baseline:** It appears that HAL does not have a clear and singular integrated baseline plan to approval of the DCO that aligns requirements and scope with the associated time, cost and risk. Whilst HAL does have multiple documents that relate to scope, time, cost and risk, the alignment and dependencies between these documents is not clear and they do not establish a robust baseline position from which to measure and manage performance, and control delivery.

Further areas for development were identified for the following baseline components:

- **Deliverables to DCO approval:** HAL has not provided evidence which definitively sets out the baseline scope and deliverables required in 2016, 2017 or up to DCO approval. Whilst HAL does have a number of documents containing varying levels of scope detail, these do not establish a robust baseline of scope from which to direct and manage delivery of the programme.
- **Integrated schedule:** HAL has developed a number of schedule documents to record and monitor activities, from Level 0 (high level programme) to Level 2 (2000+ activities). Our review found that Level 2 schedules are still in development with 41% of activities having no logic links to other activities. Furthermore, the various schedules are not systematically integrated, meaning high level management information (Level 0) is not being informed by detailed schedules. As HAL develops their schedule management process there is an opportunity to improve systems and processes, which in turn will support efficiency.

- **Core controls:** During our review of cost we identified a number of core programme controls processes that were not in place, including:
 - **Change control:** HAL does not operate a programme level change process for the Expansion Programme to manage the baseline scope, cost, schedule and risk.
 - **Timesheet system:** HAL does not have a timesheet system that records internal staff time on the Expansion Programme. Whilst this system will support the overall allocation of time to the programme, it will also enable analysis of planned time versus actual time to indicate deliverability of key activities.
 - **Cost information:** We were unable to undertake our review of cost as planned as a result of the quality and timely availability of cost information to support the Statement. Accurate and timely cost data is key to establishing robust management information and making informed decisions, which in turn will support efficient use of resources.
- **Finance reporting:** We have identified inconsistency number of inconsistencies in the reporting of forecast cost data. HAL's cost baseline (Purple Book v0.063) sets out the total cost to DCO approval in 2014 prices as £265.866m, including £34.447m finance risk allocation. This is different to the forecast cost reported in the Statement. The Statement reports forecast cost to DCO approval as £268.900m, excluding risk, at 2014 prices. This represents a £37,481m delta to HAL's baseline of £231.491m when the finance risk allocation is excluded.
- **2017 progress:** There is evidence to indicate that activities undertaken in 2017 were delivered late, for example Consultation 1 was delivered 5 months late as referenced in document 'Pre-Construction Delivery High Level Programme for Target 2017 Impacts'. In terms of cost the Expansion Programme has underspent by £12.337m in 2017 when comparing the actual costs to the budget in the Statement. However, the consequential impact of these factors on the overall schedule and cost forecast to DCO approval is unclear.

Further detail is provided in the following sub-sections:

- **Section 4.2:** Is there a clear and consistent baseline that sets out the scope, cost, schedule and risk for the planning and consents process to approval of the DCO?
- **Section 4.3:** Is there an established and appropriate governance process in place to manage the baseline?
- **Section 4.4:** Is progress and performance clearly and consistently reported, including the consequential impact of delay?
- **Section 4.5:** Was information provided relevant, complete and in a timely manner?

4.2 Is there a clear and consistent baseline that sets out the scope, cost, schedule and risk up to approval of the DCO?

HAL did not provide a clear and singular baseline plan, which defines the scope and activities required for the Expansion Programme planning and consents process up to approval of the DCO. HAL has provided multiple documents that relate to scope, schedule, cost, and risk. Table 32 outlines the documents that have consistently been referenced during interviews with the Expansion Programme team.

Table 32 – Baseline documentation

Scope	Masterplan Scheme Development Manual – May 2017
	Document Production Timeline for Con 1
	2017 Cat B and Cat C Overview
Schedule	Heathrow Expansion High Level Schedule dated 04/10/17
	Level 0 - Heathrow Expansion - High Level Programme, January 2017
	Level 1 - HEP_DEVELOPMENT_as at Dec 2017.pdf
	Level 2+ - Expansion Q4 2017 Strategic Schedule.xer
Cost	Purple Book v0.63 for overall Expansion Programme
	Letter dated 31 January 2017 from HAL setting out indicative 2017 budget
Risk	Various extracts of risk registers provided for each workstream
Assumptions	None provided

4.2.1 Scope

HAL did not provide evidence that definitively sets out the baseline scope and deliverables required in 2016, 2017 or up to DCO approval. HAL has provided multiple documents which contain varying levels of detail of the scope. The key scope documentation are summarised, along with an overview of their content, in Table 33.

4.2.2 Schedule

HAL did not provide evidence that definitively sets out a single baseline schedule for 2016, 2017 or up to DCO approval. HAL has provided a number of high level and detailed schedules which set out the plan to DCO approval. Key schedule documents are summarised in Table 34.

Table 33 – Scope baseline documentation

Document	Overview of content
Masterplan Scheme Development Manual (dated May 2017)	Sets out HAL's "process and methodology for identifying and evaluating scheme options and selecting the scheme that will be the subject of an application for development consent under the Planning Act 2008." Includes a summary of high level deliverables expected at each Gateway in Appendix 3. However, does not provide detail of the deliverables required.
Document Production Timeline for Con 1 (date unknown)	Provides a schedule of deliverables required for Consultation 1, and includes the dates for draft and final documents and review of the documents. Provided by the PMO Director. The document includes a more detailed breakdown of deliverables.
Heathrow Expansion 2017 Category B & C Costs (dated 30th August 2017)	Includes Category B and C budget for 2017, an overview of the key activities driving spend, and other relevant context and issues relating to the Expansion Programme.

HAL communicated that their approach to developing and managing the Expansion Programme schedule in 2017 as being:

“In Q1 2017, the Strategic Schedule for Expansion was in the early stages of development. The approach taken towards planning and scheduling by the Programme team for the pre-DCO works was as follows:

- The teams needed an easy-to-use, basic planning tool, that everyone could use to plan their own work. Smartsheets was selected.
- The programme activities for 2017 did not need to be coordinated via a complex, integrated schedule tool (P6). This would (a) not be cost efficient and (b) not drive the right behaviour through the teams.
- Instead, the strategy was for teams to plan their own work in Smartsheets and this was then coordinated with other teams facilitated by a much smaller pre-construction focused Planning team, through practical workshops, with a gradual development within P6.”

“A high level strategic schedule to DCO consent was created, identifying major milestones and gateways understood at the time. This subsequently evolved throughout 2017, as our understanding of the DCO planning process, the requirements of the draft National Policy Statement (NPS), and stakeholder engagement requirements improved. In addition, we had a better understanding of the impact of the General Election and subsequent delay in NPS. This was presented and discussed at the Joint Expansion Board (JEB) as it developed (first JEB meeting in late March 2017 was the start of formal airline/airport governance of Heathrow Expansion).”

Table 34 – Baseline schedule documentation

Document	Overview of content
Heathrow Expansion High Level Schedule (dated 04/10/17)	HAL high level schedule which sets out the masterplan gates and the high level activities for the National Policy Statement, the Masterplan, the Environmental Impact Assessment, Airspace change and Consultation. When asked to confirm the baseline schedule HAL has referred to this document.
Level 0 – Heathrow Expansion – High Level Programme (dated January 2017)	High level programme through to 2036 that includes design and delivery of the Expansion Programme subsequent to DCO.
Level 1 – HEP_DEVELOPMENT_as at Dec 2017.pdf (dated December 2017)	Includes a number of high level schedules and a table of deliverables required for DCO submission, together with forecast or achieved dates.
Level 2+ – Expansion Q4 2017 Strategic Schedule.xer (dated Q4 2017)	Detailed schedule with a total of 2092 activities. The level of maturity of the level 2+ file is evolving – when the P6 file (HEP-PC-ST) is run through Acumen Fuse software, a total of 855 (41%) of activities do not have logic links to other activities.
Smartsheets for Development and Consents (both dated December 2017)	Both Smartsheets have been provided as pdf files and therefore cannot be interrogated. The Consents Smartsheet includes activities rolled up to a high level. For example “Consultation” is subsequently broken down to a further sub-set of activities such as “Consultation period”, with no further breakdown visible. The Development Smartsheet shows a greater level of detail for some key milestones, but the remainder of the document is not visible.

4.2.3 Cost and risk

HAL provided evidence which definitively sets out the baseline cost and risk for the planning and consents process through to DCO approval in the ‘Purple Book v0.063’. The Purple Book v0.063 includes a baseline cost estimate of £265.866m at 2014 prices for the ‘Development Consent Order’ as shown in Table 35.

The scope detailed for the ‘planning and consents’ item in the Purple Book v0.063 is for:

“Effort associated with the Consultation, Preparation, Collation and Submission of all necessary Notices and Statutory Documentation required to support all necessary Planning Consents required to deliver an expanded Heathrow.”

The ‘Purple Book v0.63’ does not include any detail or assumptions relating to the calculation of the ‘Finance Risk Allocation’ or ‘Finance Adjustment’. We requested further details on these items and received the following statements from the Head of Estimating for the Expansion Programme:

1. On Finance Risk Allocation¹:

“Finance Risk Allocation is purely a disaggregation of risk from the master risk allowances (contained in P182/183 of the PB v0.63) and allocated to the individual assets.”

HAL has provided the following details regarding the Finance Risk Allocation in the estimate:

- “The Finance Risk Adjustment is 14.88% of the total Consents base cost (£175.000m + £56.419m).”

Table 35 – Cost estimate

Cost estimate	Value (£m)	% of Total
Direct Costs	175.000	65.8
Finance Risk Allocation	34.447	13.0
Finance Adjustment	56.419	21.2
Total	265.866	100.0

Table 36 – Inflation indices

£m	Actuals		Budget forecast			Total
	2016	2017	2018	2019	2020	
Statement 2014 prices	4.477	70.449	107.378	67.403	19.144	4.477
Statement 2017 prices	4.600	74.969	117.953	75.985	22.303	4.600
Equivalent Inflation indices	1.0274	1.0641	1.0985	1.1273	1.1650	

1 Email from Head of Estimating, Expansion Programme dated 03 August 2018.

- “The third runway (3R) scope contained within the Purple Book has a P50 risk allowance of 14.88% of the total 3R works, which is the result of a 3R Quantitative Risk Analysis (QRA).”
- “The non- Expansion Programme scope (2R) was subject to a separate QRA and the result was 13.66%, so you will see both lines below, but Consents is related to 3R not 2R, hence why 14.88% is applicable.”
- “The total P50 value for 3R works of £1,969.528m (i.e. 14.88% of the total 3R works) was then allocated to each of the scope nodes contained within the estimate. Hence 14.88% of the cost was allocated to Consents, and therefore the Finance Risk Allowance of £34.447m is applied as the pro rata risk allowance for Consents.”

2. On Finance Adjustment²:

“There was a 2% efficiency challenge across the entire masterplan. As it would be confusing for a efficiency challenge to be allocated to either rates or scope quantity when the rates are benchmarked and the scope quantities are still very high level in terms of development, the only clean way to factor such an adjustment was in a separate line against each asset. Note the majority of finance adjustments are negative (cost reductions) although where it was felt that the original estimate was insufficient (based on improved knowledge at a later point in time) the adjustment was positive (Consents and Property being notable one of these examples).”

Inflation

In the Statement HAL has included a cost estimate of £268.900m at 2014 prices, which increases to £295.8m at outturn prices. The equivalent inflation indices that this represents are included in Table 36.

Comparison to the Statement

The Statement identifies that risk is excluded from the cost forecast to 2020 (reference the ‘Baseline’ tab in the Statement pack, which sets out the Latest Budget Category B MBP18 Budget to 2020 as £268.900m at 2014 prices excluding risk), which is inconsistent with the cost estimate included in the Purple Book v0.63, which identifies that risk is included.

The cost estimate provided in the Statement pack for work up to DCO approval is forecast to exceed the budget by £3.000m at 2014 prices, with a revised forecast of £268.900m at 2014 prices. This forecast excludes any forecast cost in 2021 which is the year when DCO approval is scheduled for.

4.3 Is there an established and appropriate governance process in place to manage the baseline?

HAL does not operate a programme level change process for the Expansion Programme to manage the baseline scope, cost, schedule and risk. HAL does not operate a timesheet system that records internal staff time on the Expansion Programme.

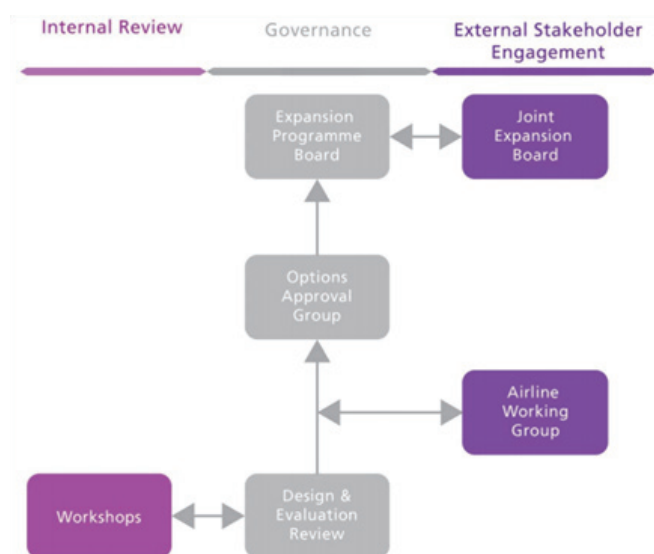
We have been provided with information which sets out how the governance structure has been established for the Expansion Programme and interfaces with the overall Heathrow governance structure. An overview of this structure is provided in Appendix C.

Table 37 – Masterplan Gateway descriptions

Masterplan gateway	Description included in the Masterplan Scheme Development Manual
Stage 1: Strategic Definition – Concludes as M1 Gateway	The purpose of this stage is to ensure that key inputs into the masterplan scheme development process have been produced and issued to the design teams. The types of documents include both the strategic vision of an expanded airport (such as the Strategic Brief) and data inputs.
Stage 2: Component Options Development – Concludes as M2 Gateway	The masterplan is a complex inter-relationship of operational and non-operational functions or components. For each component, all options will be identified, the poor performing ones will be parked by the application of “discontinuation rules” and an evaluation then carried out on the remaining short-listed options against defined evaluation criteria. The preferred option(s) for each component will be identified and taken forward to Stage 3. The intent is to undertake Stage 2 before Stage 1 Consultation (‘consultation one’) so that strategic choices have been identified early in the programme and can be consulted upon.
Stage 3: Masterplan Assembly – Incorporates M3 Gateway, and concludes as M4 Gateway	Further analysis and assessment and feedback received during consultation one, together with the ongoing engagement with stakeholders, will be used to review, improve and endorse preferred component options for inclusion in masterplan assembly and to identify and develop the masterplan options. A similar process to Stage 2 will then be applied where poor performing masterplan options will be parked by applying discontinuation rules and the remaining shortlist will be evaluated in more detail against defined evaluation criteria. A preferred masterplan will be selected at the end of this stage.
Stage 4: Masterplan Finalisation – Concludes as M5 Gateway	The preferred masterplan scheme selected in Stage 3 will be developed further, supported by further stakeholder engagement, ready to be consulted at Stage 2 Consultation (‘consultation two’) along with the alternatives considered. The preferred masterplan will be refined in the light of consultation two feedback and on-going environmental assessment and mitigation work, before submission of the DCO application.

HAL has provided the Masterplan Scheme Development Manual that details the process established to develop and evaluate the masterplan options. This approach requires completion of all activities associated with a given stage prior to commencement of the next stage. The main gates are identified, with a summary of each from the Masterplan Scheme Development Manual, in Table 37. Additionally the Masterplan Scheme Development Manual details the governance approach established to evaluate the masterplan options as shown in Figure 3.

Figure 3 – Governance structure for evaluation of masterplan options¹



In order to confirm adherence to the masterplanning process we requested an example of an option being reviewed under the masterplanning process. HAL has provided evidence to support the development and evaluation of options for a scope example, specifically the runway length, in a ‘Scheme Development Report – Conclusion of Stage 2 dated January 2018’. The report includes a number of options set out and evaluated at Materplan Gate 2.

HAL has advised that development and evaluation of masterplan options is carried out at workshops that include the attendance of a range of stakeholders including the IDT and airlines. We have not been provided with evidence of the outputs of these workshops but HAL has advised that airlines are engaged throughout the option development process and are offered an opportunity to feedback on key proposals as an assessor of the Draft Evaluation Report, Component Evaluation Report, and the Draft Masterplan Options evaluation Report ².

¹ Scheme Development Report, Page 19

² Reference: Masterplan Scheme Development Manual, 5.2.10, 5.2.15, and 5.3.19

4.4 Is progress and performance clearly and consistently reported, including the consequential impact of delay?

It has been a challenge to review programme progress and performance as there is no clear and singular reference point (baseline) to measure against. There is evidence to indicate that activities undertaken in 2017 were delivered late. For example Consultation 1 was delivered 5 months late as referenced in document 'Pre-Construction Delivery High Level Programme for Target 2017 Impacts', and that the programme underspent by £12.337m in 2017 when comparing the actual costs to the budget in the Statement. However, the consequential impact of these factors on the overall schedule and cost forecast to DCO approval is unclear.

4.4.1 Progress and performance against the schedule

Milestone forecast at Q1 and Q4

We requested schedules from HAL for Q1 and Q4 2017 to enable a comparison of planned and achieved milestones, and to determine the maturity of schedule logic at each point.

HAL provided a document 'Pre-Construction Delivery High Level Programme for Target 2017 Impacts' that contained multiple programmes used to complete 'what-if' scenarios in July 2017. A comparison of the delta in forecast completion dates is included in Table 38. The schedule provided for Q4 includes some additional milestones that are not comparable to the Q1 schedule, and are included in italics for completeness.

HAL has advised the reasons for schedule delay in 2017 were due to:

- revised General Election – the general election was called at short notice for June 2017 in response to Brexit. This resulted in a delay to the Transport Select Committee response
- the NPS designation date changed to April 2018, and requires a second consultation
- optioneering evaluation, governance, and airline engagement have all taken longer than anticipated or grown in complexity
- HAL and the airline community failed to agree on runway options for input into Consultation 1.

Table 38 – Milestone forecast completion dates

Milestone	Q1 2017 Forecast	Q4 2017 Forecast	Change to Forecast (months)
NPS Designation	Jan 18	Apr 18	+3
<i>Con 1 Ready</i>	-	Dec 18	
Con 1	Aug 17	Jan 18	+5
Masterplan Select for Con 2	May 18	Jul 18	+2
<i>Con 2 Ready</i>	-	Dec 18	
Con 2	Aug 18	Jan 19	+5
DCO Submit	Jun 19	Nov 19	+5
DCO Consent	Dec 20	May 21	+5

Monthly Performance Reports

HAL has provided seven Expansion Programme Monthly Status Reports (MSR) for the months of June to December 2017. The MSRs are produced for review at the Joint Expansion Board (JEB) and are a dashboard format including:

- workstream headlines
- commercial summary
- commercial commentary
- cumulative cash flow
- high level workstream schedule
- next deliverables due
- key events
- major milestones
- top 10 risks.

When analysing the MSRs we have found examples of milestone due dates changing between months, specifically changing the baseline date to the prior month's forecast date, resulting in a schedule variance of zero. Examples are included in Table 39. A number of these variances occur in the month of August 2017, and could be due to a re-baselining exercise although HAL has not advised of such an exercise. It is our understanding that changes to the MSRs are not controlled under a programme level change process.

Table 39 – Reported variance compared to actual variance against original baseline (days)

Milestone	Key ¹	June	July	Aug	Sept	Oct	Nov	Dec	Comments
CAA Section 16 Report issued to Secretary of State	(i)	-1	28	0	0	149	-	-	Baseline Date amended to revised forecast date in August resulting in 0 variance
	(ii)	-1	28	70	70	219	-	-	
NPS Designation	(i)	0	103	0	0	0	0	0	Baseline Date amended to revised forecast date in August & October resulting in 0 variance
	(ii)	0	103	103	103	149	149	149	
M3 Gateway – Masterplan options shortlisted	(i)		91	0	-23	0	0	23	Baseline Date amended to revised forecast date in August resulting in 0 variance
	(ii)		91	91	68	68	68	91	
Masterplan Con1 final draft content review by Consents team	(i)		143	0	0	31	31	70	Baseline Date amended to revised forecast date in August resulting in 0 variance
	(ii)		143	143	143	174	174	213	
Publish Airspace Strategy	(i)		130	0	0	0	0	0	Baseline Date amended to revised forecast date is August resulting in 0 variance
	(ii)		0	130	130	130	130	130	

¹ (i) – denotes the reported variance between the Baseline and Forecast completion dates in the respective MSRs.
(ii) – denotes the actual variance if the original baseline date is used as the reference point.

IDT deliverables

HAL has provided a document entitled 'IDT Cost and Deliverable.xlsx' that details the deliverables required from each IDT work package during Q3 and Q4 of 2017, and includes actual completion dates for the deliverables against the baseline completion date. IDT deliverables are classified and for the purposes of this report we have only included deliverables classified as 'A' or 'B'.

There were 171 deliverables categorised as A¹ or B² and due for completion in Q3 or Q4 in 2017. Of the 171 deliverables 13% were delivered prior to the baseline date (early), 23% on the baseline date (on time) and 64% were delivered after the baseline due date (late), this shown in Table 40.

Table 40 – IDT delivery

IDT Sub Category	Deliverables			
	Early	On time	Late	Total
Leadership and Management	-	-	1	1
DCO	2	4	8	14
Masterplan	3	2	5	10
Airfield	-	6	10	16
Terminals	1	1	1	3
Connectivity	1	6	5	12
Roads	-	-	-	-
Surface Access	1	11	15	27
Rivers	1	-	7	8
EIA	4	1	24	29
Land Use	2	4	22	28
Surveys	1	1	2	4
Utilities	7	3	6	16
Other	-	-	3	3
Total	23	39	109	171
% of Total	13%	23%	64%	100%

Table 41 – Actual cost incurred compared to stated budgets

Source	2016 (£m)	2017 (£m)	Total (£m)
Budget: Letter dated 31 January	Not incl.	94.413	94.413
Actual costs: Statement	4.600	74.969	79.569
Budget (letter) less actual costs	(4.600)	19.444	14.844
Budget: Statement	Not incl.	87.306	87.306
Actual costs: Statement	4.600	74.969	79.569
Budget (Statement) less actual costs	(4.600)	12.337	7.737

1 Cat A Primary Deliverables, as agreed in the master list for handover.

2 Cat B Supporting Outputs, as agreed in the master list for handover.

4.4.2 Comparison of actual cost to the budget

HAL has underspent by £19.444m and £12.337m respectively when comparing the actual costs included in the Statement to the budgets stated in (1) a letter between HAL and the CAA¹ and (2) the Statement, and as set out in Table 41. We have not been provided with a budget for 2016. For clarity this does not include Opex costs.

1 Dated 31 January 2017

4.5 Was information provided relevant, complete and in a timely manner?

The information provided by HAL to support the Statement and Opex Schedules was not provided in a timely manner and was at times incomplete with outstanding clarifications and further supporting evidence required.

The original deadline date for HAL to provide all of the information was the 06 July 2018, but this was extended by approximately one month because information was

not provided, with the final information deadline on the 03 August 2018. A timeline of the information provided by HAL and a full schedule of all documents provided is included in Appendices B and C respectively.

The Schedule of Cost information, which enabled a basic understanding of the scope, suppliers and cost that supported the Statement and Opex Schedules was provided at various points throughout our engagement as set out in Table 42. Furthermore, on the 10 May 2018 we requested that HAL provide a description of the work undertaken for each WBS component, to help us in our understanding, but this was never provided.

When we requested the invoices to enable a definitive reconciliation to the Statement and Opex Schedules, they were provided in two batches as set out in Table 43.

Table 42 – Schedule of Cost received

HAL WBS component	Schedule of Cost requested	Schedule of Cost received
Colleague costs	10 May 2018	01 August 2018
Programme Leadership		
Future Heathrow		
Consents		
Community and Stakeholder	10 May 2018	01 June 2018
IT		
Ground Investigation		
Regulation and Strategy		
Integrated Design and DCO Team (IDT)	10 May 2018	File ref 1: 26 June 2018 File ref 2: 11 July 2018 File ref 3: 27 June 2018
Opex costs	10 May 2018	2016: 4 July 2018 2017: 25 June 2018

Table 43 – Invoices received

Reference	Invoices requested	Invoices received
Invoices requested	14 June 2018	-
Batch #1 provided	-	692 invoices (74%) on 06/08/09/12 July 2018
Batch #2 provided	-	249 invoices (27%) on 02/03 August 2018



Appendices

Appendix	Content
A: Information Provided	Tabulated list of information and date requested by PwC and date supplied by HAL. Timeline of tabulated list.
B: People we met	Tabulated list of people we met.
C: Annual Statement	Annual Statement provided by HAL
D: Governance Structure	Expansion Governance Heathrow/Airline Governance
E: Gateway and Development Process	Gateway and Development Process



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