

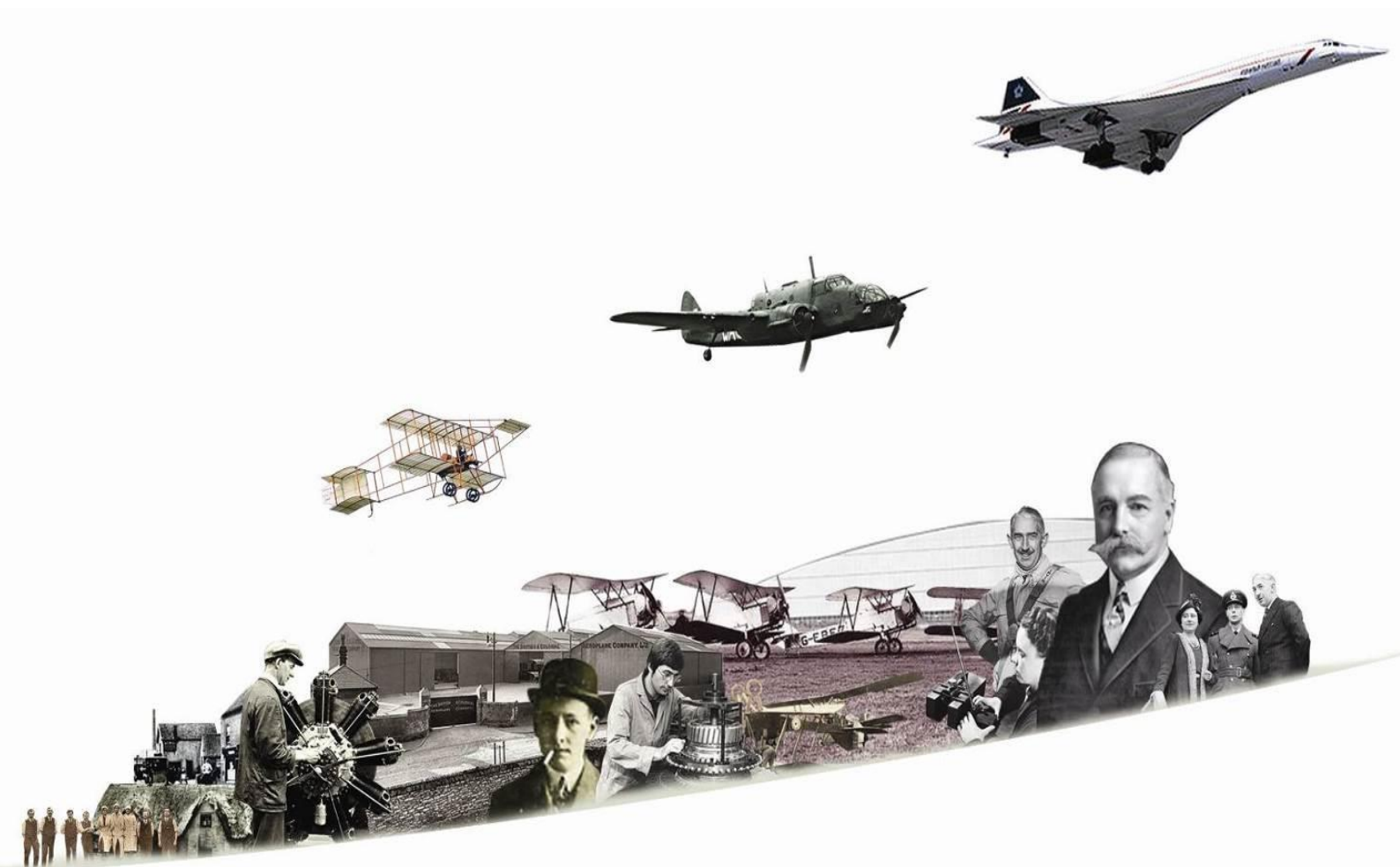
## Aerospace Bristol

Manual Interactives and Manual Activities

Document Nine

Exhibition Fit-out (For Information)

January 2017



## Focus Offices

### Nottingham

Focus House  
Millennium Way West  
Phoenix Park  
Nottingham  
NG8 6AS  
Tel: 0115 976 5050  
E-mail: [enquiries@focus-consultants.com](mailto:enquiries@focus-consultants.com)  
Website: [www.focus-consultants.co.uk](http://www.focus-consultants.co.uk)

### Leicester

4 Merus Court  
Meridian Business Park  
Leicester  
LE19 1RJ  
Tel: 0116 275 8315  
E-mail: [leicesterenquiries@focus-consultants.com](mailto:leicesterenquiries@focus-consultants.com)  
Website: [www.focus-consultants.co.uk](http://www.focus-consultants.co.uk)

### Lincolnshire

Focus House  
Resolution Close  
Endeavour Park  
Boston  
Lincolnshire  
PE21 7TT  
Tel: 01205 355 207  
E-mail: [bostonenquiries@focus-consultants.com](mailto:bostonenquiries@focus-consultants.com)  
Website: [www.focus-consultants.co.uk](http://www.focus-consultants.co.uk)

### London

88 Kingsway  
Holborn  
London  
WC2B 6AA  
Tel: 0203 4022166  
E-mail: [londonenquiries@focus-consultants.com](mailto:londonenquiries@focus-consultants.com)  
Website: [www.focus-consultants.co.uk](http://www.focus-consultants.co.uk)

### Client:

Bristol Aero Collection Trust  
PO Box 77  
Bristol  
BS99 7AR

**Client Lead:** Lloyd Burnell, Project  
Director

**Tel:** 0797 412 6448

**Email:** [lloyd.burnell@bristolaero.com](mailto:lloyd.burnell@bristolaero.com)

### Prepared By:

Focus Consultants  
Focus House  
Millennium Way West  
Phoenix Park  
Nottingham  
NG8 6AS

**Focus Contact:** Steven Fletcher, Partner

**Tel:** 0115 976 5050

**Email:** [enquiries@focus-consultants.com](mailto:enquiries@focus-consultants.com)

**Project:** Aerospace Bristol

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Information)

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**Authorised By:** Steven Fletcher, Partner

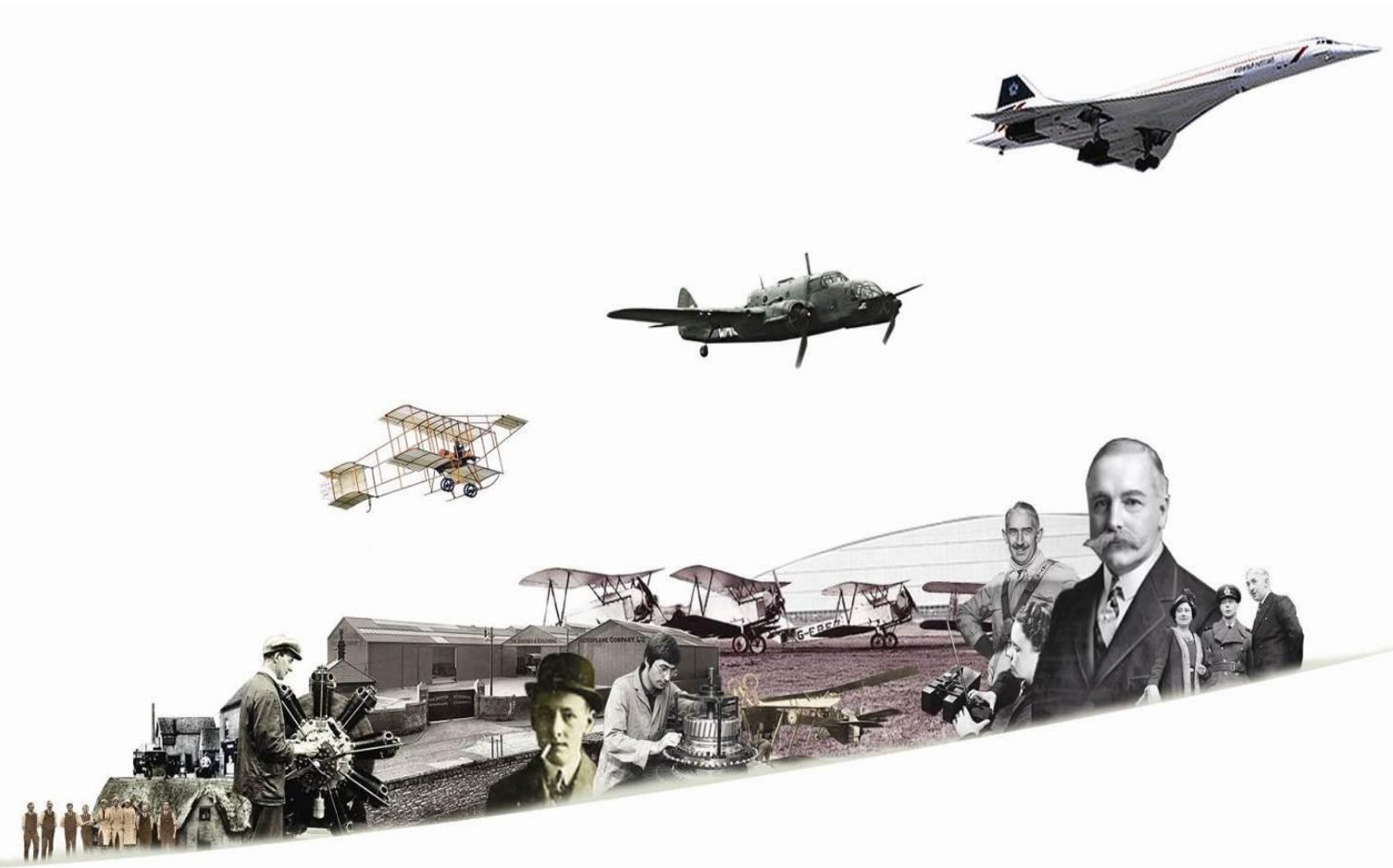
**Signature:**



## Bristol Aerospace Centre

### Exhibition Fit-out Contractor Project Information

March 2016



## Focus Offices

### Nottingham

Focus House  
Millennium Way West  
Phoenix Park  
Nottingham  
NG8 6AS  
Tel: 0115 976 5050  
E-mail: [enquiries@focus-consultants.com](mailto:enquiries@focus-consultants.com)  
Website: [www.focus-consultants.co.uk](http://www.focus-consultants.co.uk)

### Leicester

101 Princess Road East  
Leicester  
LE1 7LA  
Tel: 0116 275 8315  
E-mail: [leicesterenquiries@focus-consultants.com](mailto:leicesterenquiries@focus-consultants.com)  
Website: [www.focus-consultants.co.uk](http://www.focus-consultants.co.uk)

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PE21 7TT  
Tel: 01205 355 207  
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Website: [www.focus-consultants.co.uk](http://www.focus-consultants.co.uk)

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Tel: 0203 4022166  
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**Signature:**



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## APPENDICES

Appendix 1 – Site Location Drawings

Appendix 2 – Exhibition Design Drawings

## 1.0 Introduction

Bristol Aero Collection Trust (BACT) is inviting Pre-Qualification Questionnaires for the Exhibition Fit-Out package of the Bristol Aerospace Centre Project.

Event Communications Ltd. has been appointed by BACT as Exhibition Designers for the exhibition works and will be preparing the tender package in conjunction the Project Managers, Contract Administrators and Project QS; Focus Consultants on behalf of BACT.

The Exhibition Fit-Out works are located in 8 distinct era galleries in two buildings; the historic Hangar 16S and new build Concorde Hangar. The eras are as follows:

- ERA ONE: Pioneers 1903 - 1910 (first flights) onwards
- ERA TWO: First World War and beyond c.1914 - 1920
- ERA THREE: The Growth of Flight 1920s-1930s
- ERA FOUR: World War Two (before and after) c.1935 - 1945
- ERA FIVE: Bigger, Faster, Further 1945 - 1960
- ERA SIX: Ocean Floor to Outer Space 1960 - 1981
- ERA SEVEN: Working Across the World 1982 – Today
- CONCORDE: Display next to the aircraft

## 2.0 Project Background

The north of Bristol around Filton Airfield is one of the few centres in the world with a history of excellence in aerospace production dating back over a century. Today it is home to Rolls-Royce, Airbus, BAE Systems, GKN Aerospace and numerous other aerospace-related companies which continue to make an enormous contribution to the UK's economy.

Importantly, Bristol is home to the UK's most iconic aircraft, Concorde - a symbol of the UK's ambition, innovation, collaboration and technological achievement. Concorde was largely designed and built at Filton, with the first British flight taking off in 1969 and the fleet's final supersonic flight landing at the airfield in 2003.

Bristol Aero Collection Trust is a charity and company limited by guarantee, whose vision is the creation of a major aerospace industrial museum and learning centre at Filton which inspires, entertains and informs present and future generations through their understanding of, and engagement with, the stories and collections of Bristol's aerospace industry – past, present and future.

The overall aims of the project are:

- To enable a wide range of people to participate in, and learn about, the region's aviation heritage.
- To advance learning, skills and training, particularly in science, technology, engineering and design, as well as heritage conservation skills.
- To conserve the heritage for present and future generations to experience, appreciate and enjoy.
- To celebrate the world class achievements of the aerospace industry and the people who made it possible.

A 9.5 acres serviced site on Filton Airfield has been secured and detailed planning permission granted.

In November 2014 the Trust was awarded £4.9m by the Heritage Lottery Fund (HLF) as part of the £18.5m overall project budget, with the balance being secured through corporate sponsorship, statutory funding, trusts and foundations and major donors

The site includes two World War One, Grade Two listed hangars providing c. 5,000m<sup>2</sup> of accommodation which will be refurbished to provide a first class aviation heritage museum, catering and retail facilities, learning spaces, workshops and stores. A new building of c.3200 m<sup>2</sup> footprint will house Concorde, related exhibitions, technology centre, corporate facilities and archive store.

Construction works commenced on site in September 2015 and the new Bristol Aerospace Centre is due to open to the public in early summer 2017.

### 3.0 Project Overview

The Bristol Aerospace Centre tells:

- A story of technical innovation, business vision and engineering brilliance in a single place.
- A story of human endeavour, individual genius and shared creativity, adapting to world conditions for over 100 years, including the two World Wars.
- A story of how a rural community was transformed into a centre of the aerospace industry with continuing global reach.

An informal chronology provides a narrative spine for the interpretation which is supported in each era by the themes outlined below. The last 100+ years is divided into a set of easily identified 'aeronautical eras' each marked by a gateway object and supported by varied and interesting displays of key objects, archive material, interactives and media. The eras are:

- ERA ONE: Pioneers 1903 - 1910 (first flights) onwards
- ERA TWO: First World War and beyond c.1914 - 1920
- ERA THREE: The Growth of Flight 1920s-1930s
- ERA FOUR: World War Two (before and after) c.1935 - 1945
- ERA FIVE: Bigger, Faster, Further 1945 - 1960
- ERA SIX: Ocean Floor to Outer Space 1960 - 1981
- ERA SEVEN: Working Across the World 1982 – Today
- CONCORDE: Display next to the aircraft

Our interpretive approach revolves around five Filton and... themes that weave through the displays.

#### **Filton and... people:**

Filton's history story is made up of ordinary people doing extraordinary things. This theme looks at the story through the eyes of local people, the workforce, managers, innovators and the community. This may include oral history accounts, written material, sound and video, a digital archive of photographs and film, and places where visitors could leave their memories or comments.

### **Filton and... the day's work:**

A combination of skilled engineering, experimentation, business acumen and entrepreneurial genius was needed to create Bristol Aeroplane Company and its successors. This success is due as much to the expertise and skill of the workers and managers as to the engineers and entrepreneurs. Design is a key component as is vision. Training and skills as well as organisation of the workforce and workflows became ever more important to running the industry. This theme compares and contrast experience of different skills and trades from the drawing board to the ground crew at the airfield.

### **Filton and... the challenge of flight:**

Bristol Aerospace Centre holds significant collections and archival material relating the pioneering days of flight as well as collections that contribute to our understanding of the history of aerospace design and manufacturing over time. The story of Filton is a story of ideas, practical skills, human ingenuity and solving problems through design and engineering. It's about the process of innovation more than scientific phenomena. This theme will offer the chance for visitors to explore how these challenges were overcome, problems solved and skills and technologies adapted as part of Filton's developing story, and the roles played by Bristol people in cracking the challenges. It will use a series of hands-on and interactive elements so visitors can explore and experiment with key engineering and technology challenges. In each case they will see how Filton people in the past set about solving the problems and appreciate their skill and innovation.

### **Filton and... Community and place:**

This site and its communities have changed over time in response to the work done here. The most recent changes are part of this evolution. The theme explores the continuous narrative of the place and aims to map history and key stories onto the physical geography of Filton. Visitors can explore how the community of the company and the wider community of Filton and surrounding areas has grown and changed over time and responded to challenges of war, recession and booming success.

### **Filton and... Flight & the world:**

The technology of flight, its rapid development and the ubiquity with which it was taken up around the globe not only 'shrunk' the world, but changed human perceptions of time, speed, distance and environment. Flying affected the way the world saw itself – it influenced fashion and design, featured in film and literature and became a dominant feature of modern war and communications. In recent times flight has served the evolution of satellite communication and spaceflight, which has impacted on media communications and our knowledge of the solar system and beyond.

## 4.0 Outline Scope of Works

The Exhibition Fit Out Contractor scope of works shall include but not be limited to the following:

- 4.1 Act as Main Contractor for the coordinated fabrication and installation of the exhibition displays with full responsibility for the fit-out programme and coordinating and liaising with interfacing exhibition contractors and the Building Works Contractor in line with the overall project programme.
- 4.2 Compliance with all statutory and local Health and Safety Regulations including performing the role of Principal Contractor for the Exhibition Fit Out Phase.
- 4.3 Detailed development, structural design, component design and installation of the Works, (noting the exclusions).
- 4.4 Supply and installation of stud walls and partitions including decoration
- 4.5 Supply and installation of all display furniture i.e. metal framing, timber plinths and benches etc.
- 4.6 Supply and installation of all integral exhibit light fittings as per lighting schedule, with the exception of the showcase light fittings, which are by the showcase contractor.
- 4.7 Power and data cabling and cable management from local power and data points, provided by others, through setwork components to exhibit lighting and AV Hardware.
- 4.8 The artwork, production and installation of graphics as per the graphics schedule. Note signage and wayfinding graphics are by others. The artwork of illustrative graphics has been completed by others.
- 4.9 Supply and installation of barriers and protective elements
- 4.10 The Contractor shall approach the works as a complete project, understanding that the client's requirements are for a complete and cohesive system, across the two buildings.
- 4.11 The Contractor shall take responsibility for taking the design intent and developing a display that has fully compatible component parts that are easily and securely fit together.
- 4.12 The Contractor shall be responsible for the final design and performance of all structural and non-structural members, joining techniques, mechanical operations and structural stability of the elements of the components and their interface with each other.
- 4.13 The Contractor shall be responsible for all structural members, connectors and mechanical fixings.
- 4.14 The works shall include site management, project management, design development, fabrication, installation, commissioning, documentation and user training.

## 5.0 Exclusions from Scope

The following is excluded from the scope of the Exhibition Fit Out Contractor:

- 5.1 Showcase Manufacture and installation.
- 5.2 Showcase Fitting Manufacture and installation.
- 5.3 Showcase internal light fittings.
- 5.4 Object Mounts Manufacture and installation.
- 5.5 AV hardware and show controls
- 5.6 Software
- 5.7 Structural / Engineered Mounts
- 5.8 On-vehicle mounts
- 5.9 Manual and hybrid interactives
- 5.10 Object Installation.
- 5.11 Heavy Object Installation.
- 5.12 Building Services including cleaning services, fire alarm.
- 5.13 Emergency Lighting provision.

## 6.0 Budget

The budget for these elements of works is £800,000.

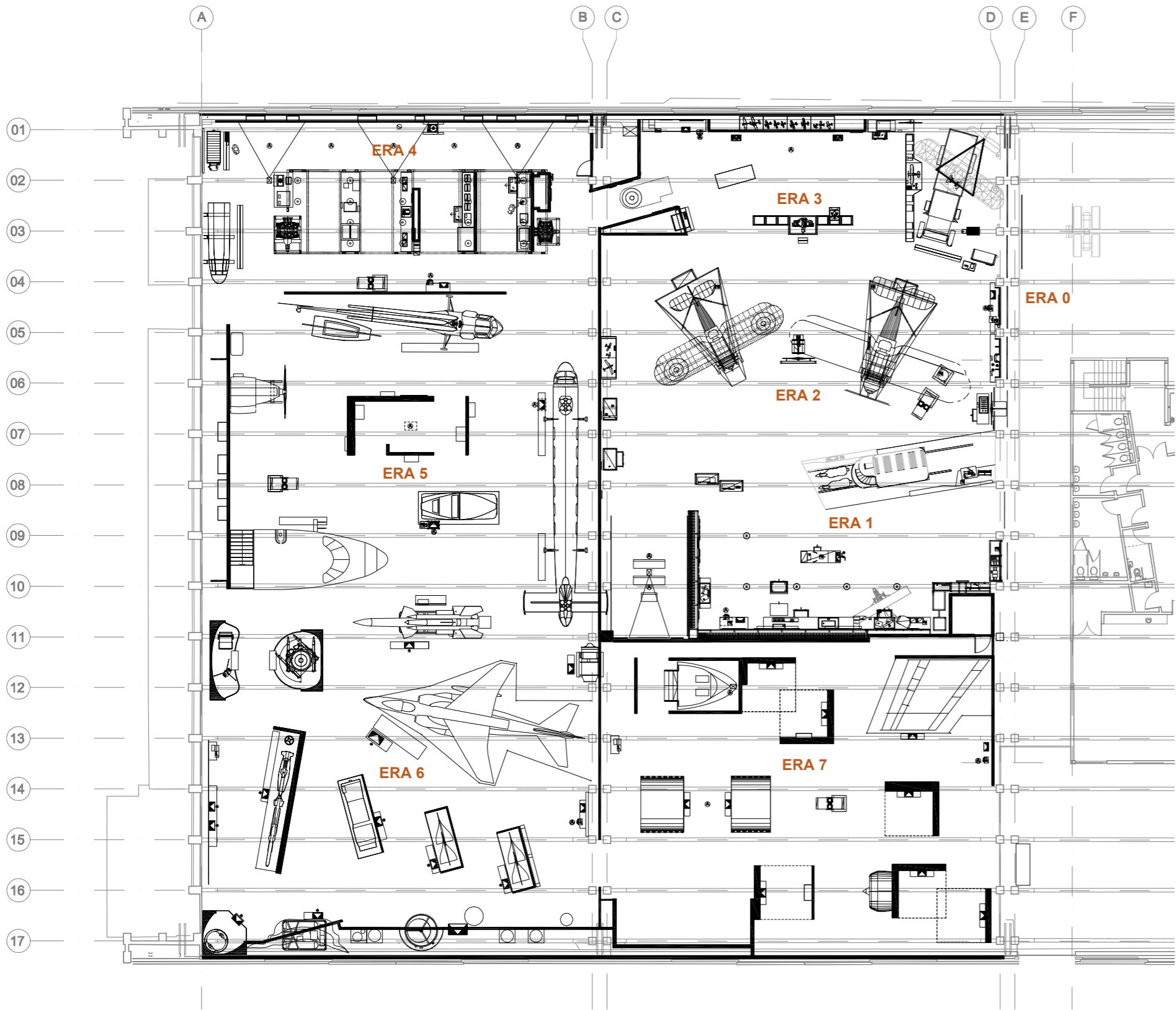
## 7.0 Indicative Programme

Milestone	Completion Date	Period
Issue PQQ	29 <sup>th</sup> March 2016	-
PQQ Return	10 <sup>th</sup> May 2016	30 days
Assess PQQ's and Identify Tender Shortlist	31 <sup>st</sup> May 2016	15 days
Issue ITT	3 <sup>rd</sup> June 2016	-
Tender Return	15 <sup>th</sup> July 2016	30 days
Assess Tender Returns and identify preferred contractor	5 <sup>th</sup> August 2016	15 days
10 day stand down period	19 <sup>th</sup> August 2016	10 days
Mobilisation and off site production	27 <sup>th</sup> January 2017	23 weeks
Start on Site Hangar 16S	30 <sup>th</sup> January 2017	-
Start on Site Concorde Hangar	13 <sup>th</sup> March 2017	-
Complete Hangar 16S	12 <sup>th</sup> May 2017	15 weeks
Complete Concorde Hangar	19 <sup>th</sup> May 2017	11 weeks
Complete exhibition fit-out	19 <sup>th</sup> May 2017	-

## 8.0 PQQ Return Instructions

Please return a completed version of this document, in electronic format, to:

<b>Named procurement officer</b>	Jenny Howells
<b>Contact e-mail address</b>	Jenny.howells@bristolaero.org
<b>Postal address</b>	Building 15F, Northway, Filton, Bristol, BS34 7QH
<b>Deadline for receipt of PQQ (UK date and time)</b>	10 <sup>th</sup> May 2016 12 Noon



HANGER 16s GA  
SCALE 1:150

Project Stage: 4.2 Production Design

Drawing Status: FOR INFORMATION

KEY

/ First Issue		00/00/00
Rev	Notes	Date Issued

event

Event Communications Ltd  
India House  
45 Curlew Street  
London  
SE1 2ND  
T: +44(0)20 7378 9900  
E: info@eventcomm.com  
www.eventcomm.com

Disclaimer:

Contractors must check all dimensions and levels etc. on site prior to commencing any work or shop drawings. Do not scale from this drawing. Use figured dimensions only. The designers must be informed immediately of any discrepancy between the drawings and site conditions. This drawing is to be read in conjunction with the specifications provided.

Project:

Bristol Aerospace Centre

Drawing Title:

Hanger 16s - GAI

Scale: A1	Date:	Drawn by
1:150	070316	RS

Drawing Number	Revision
3970_16s_GA_010	/

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