
Site 4, Norwich Airport

Greater Norwich Local Plan
Regulation 18 Consultation

Responses on behalf of Regional and City Airports
(Norwich Airport Ltd)

March 2018

Site 4, Norwich Airport

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Prepared by:	Victoria Yeandle	Victoria Yeandle
Checked by:	Gareth Wilson	Gareth Wilson
Authorised by:	Gareth Wilson	Gareth Wilson

Barton Willmore
St Andrews House
St Andrews Road
Cambridge
CB4 1WB

Tel: 01223 345 555

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1.0 INTRODUCTION

1.1 These representations are submitted by Barton Willmore LLP (“Barton Willmore”) on behalf of Regional and City Airports, in respect of land known as Site 4, Norwich Airport. A site location plan is provided at Appendix 1. These representations are provided in response to the Greater Norwich Local Plan Regulation 18 Consultation (January 2018). The aim of this document is to assist the Greater Norwich Development Partnership (GNDP) in formulating their Local Plan, having particular regard to the provision of suitable employment land. These representations should be read in conjunction with the attached initial Objective Evidence Report (Appendix 2).

1.2 The documents provided in the Regulation 18 consultation by GNDP are:

- Growth Options Document;
- Site Proposals Document; and
- Interim Sustainability Appraisal for the Greater Norwich Local Plan.

1.3 The structure of the Report comprises the following:

- Chapter 2 – Site Location and Context: This describes Site 4;
- Chapter 3 – Employment Land Availability: This chapter considers the employment land supply in Greater Norwich and the importance of Site 4 as an unrestricted strategic employment site;
- Chapter 4 – Policy and Economic Considerations: This chapter details the policy context and Site 4’s economic considerations.
- Chapter 5 – Objective Evidence – Aviation Uses: This section summarises the objective evidence presented by York Aviation.
- Chapter 6– Growth Options Document: Section 4: The Strategy: Response to the questions posed by the GNDP in Section 4;
- Chapter 7 – Growth Options Document: Section 6: Topic Policies: Response to the questions posed by the GNDP in Section 6;
- Chapter 8 – Growth Options: This Chapter considers the six Growth Options proposed by the GNDP; and
- Chapter 9 – Conclusions: The chapter concludes the representations and sets out why Site 4 should be allocated in the emerging Greater Norwich Local Plan as an unrestricted strategic general employment site.

2.0 SITE LOCATION AND CONTEXT

Site Description

- 2.1 Site 4 is approximately 46 ha in size and is located to the north-east of Norwich Airport, within its operational boundary. The Site is located approximately 7km north of Norwich city centre. To the east, west and north lie predominantly agricultural land and villages. To the south of the Airport is the Airport Industrial Estate (NAIE) and other commercial land uses.
- 2.2 The Site is classed as 'brownfield' land. It comprises managed grass, disused taxiway and apron. To the west of the apron, there is a fire training ground, which is proposed to be relocated to another location in the airport. Along the western boundary of the Site there are a number of buildings and structures, comprising Petans Offshore Fire Training and Britannia Fire Limited, which are accessed via Bullock Hill to the north.
- 2.3 The Site is located within the administrative boundaries of Norwich City Council (NCC) and Broadland District Council (BDC).

Planning History

- 2.4 In 2013, NCC and BDC granted permission for the following development:

“(1) Full Planning Permission for development of the Northern Apron to include detailed planning permission to provide 15,035 sqm of Aviation related B1(c), B2 and B8 floorspace including associated access to Holt Road, Security Hut, Storage Building, Parking and Landscaping and

(2) Outline Planning Permission for up to 80,000 sqm of Aviation related B1(b), B1(c), B2, B8 and D1 use floorspace with permission for access sought in detail and all other matters reserved.)”

- 2.5 The pre-let occupier (Maintenance, Repair, Overhaul, MRO, company, Air Livery) that formed the first phase of the development and which was required to enable the upfront site-wide infrastructure, subsequently pulled out.

- 2.6 In 2016, permission was amended to change the point of access to the site from the NDR and remove the pre-let detail. A new permission was granted but without an aviation occupier / enabler. The site therefore remains undeveloped.

Vision for the Site

- 2.7 Regional and City Airports is seeking to provide around 100,000 sqm of high quality general employment floorspace (B1(c), B2, B8, D1 with ancillary, A1-A3 Use Classes) to serve the growing East Anglia economy with direct access from the new NDR.
- 2.8 The Airport has struggled to attract occupiers to the Site due to an aviation-related occupier restriction which has left it undeveloped and underused.
- 2.9 A more flexible allocation is sought that would allow general employment uses to come forward, without precluding potential aviation occupiers, that benefit from the NDR and to bring Site 4 back in to economic use. The employment offer would provide a unique opportunity for businesses that wish to be located close to the airport or that benefit from direct access onto the NDR. Whilst there is not considered to be a need for aviation related development on Site 4 given the considerable land available to the south of the runway, it has been determined by Aviation specialist York Aviation (Appendix 2) that a strip of land to the south of approximately 20% of the total site area should be set aside for future airport related expansion.
- 2.10 The flexibility between aviation and non-aviation uses is sought so that it is an employment destination for occupiers that benefit from:
- Direct access onto the NDR and the wider strategic network; or
 - A strategic location suitable for regional distribution that requires a certain size of plot and building combined with strategic highway access; and/or
 - Close proximity to the airport for business convenience / travel requirements; and /or
 - Synergistic clustering (that may or may not be aviation-related) with other businesses that are on the Site or close by.
- 2.11 The Site benefits from an outline planning permission which has established the principle for employment development on the site, albeit for aviation-related uses. It has direct access off the NDR, which is due to be fully opened in March 2018, increasing connectivity to the wider Greater Norwich region. The Site is large enough to accommodate strategic

B2 and B8 Uses (warehouse and distribution) for which there is a proven demand and a lack of comparable space in the region (Appendix 2).

3.0 EMPLOYMENT LAND AVAILABILITY

- 3.1 As part of the 'Call for Sites' submission in 2017, strategic employment sites were reviewed. These were either allocated sites, in Norwich, Broadland and South Norfolk Councils' allocation plans or submitted to the Greater Norwich Development Partnership as part of the 'Call for Sites'.
- 3.2 Land agents Bidwells and Roche have examined the existing land employment availability in the region. They have concluded that the availability of employment floorspace over the past five years has nearly halved and that the land available is mainly out-dated for the occupiers' current and future needs. They have demonstrated that future demand will have to be satisfied on new build schemes where new units can be provided or land purchased.
- 3.3 There has been an increased demand for delivery and logistics companies following the increase in internet shopping. For delivery and logistics companies, like DHL, accessibility to major roads is essential. These companies need large distribution warehouses to accommodate the increased demand.
- 3.4 The following employment sites are considered further:

Table 3.1: Business Park / Development Schemes in Norwich

ADDRESS	SIZE	PLANNING	COMMENTS
Sweet Briar Park, Norwich	Up to 10.04 acres	Employment allocation	<ul style="list-style-type: none"> • New scheme to the west of the City centre • Plots sold to Wickes, Pendragon & Viking Storage • Estate road & services in place
Broadland Gate, Norwich	Up to 13.89 acres	Outline permission	<ul style="list-style-type: none"> • New business park situated at junction of A47 & NDR • 6 acres under offer to Jaguar Land Rover • Estate road & services to be in place by end of 2017
Broadland Business Park, Norwich	Up to 18.7 acres	Outline permission	<ul style="list-style-type: none"> • Established business park to the east of Norwich • Developer will also offer Freehold and Leasehold Design and Build packages • Site situated to rear of park, opposite Hewlett Packard data centre
Longwater Park, Norwich	Up to 16 acres	Outline permission	<ul style="list-style-type: none"> • Established industrial area to the west of Norwich • Leasehold Design and Build packages only available • Rent likely to be no less than £8.50 per sq ft
St Andrews Northside,	12.6 acres	Detailed planning for	<ul style="list-style-type: none"> • Situated to the east of Norwich, adjacent to Broadland Business Park

ADDRESS	SIZE	PLANNING	COMMENTS
Norwich		137,240 sq ft of offices	<ul style="list-style-type: none"> Owner will only consider a sale of the whole plot
Browick Interchange, Wymondham	Up to 26.4 acres	Employment allocation	<ul style="list-style-type: none"> New business park situated adjacent to A11 at Wymondham Developer will also offer Freehold and Leasehold Design and build packages To be serviced

- 3.5 Bidwells and Roche note that most of these sites could only offer a small amount of suitable employment space. The majority of these sites would not be suitable for B2/B8 uses, i.e. for a logistics and distribution warehouse. These locations are also not situated on the region's main trunk roads, unlike Site 4, which is accessed from the NDR.
- 3.6 The largest scheme is Browick Interchange, but this is only a quarter of the size of Site 4 and is situated in Wymondham, approximately 15km to the south-west of Norwich.
- 3.7 Other employment sites that were examined as part of the 'Call for Sites' and existing allocations include land North-West of Norwich Airport, which was allocated in BDC's site allocations plan for an employment site of 35ha. The promoter through the 'Call for Sites' has reduced the size to just over 9ha. This means that the site will not be suitable for B2/B8 uses and certainly not of a scale that could be accommodated by Site 4.
- 3.8 Analysis of the employment land has shown that there is a lack of good quality, modern employment floorspace that has direct access to the strategic road network in the region.
- 3.9 Existing floorspace is too antiquated and situated in business parks which are too small to accommodate B2/B8 uses. These business parks are often not located in easy access to the region's major roads.
- 3.10 Site 4 would give potential investors in the Greater Norwich Region the opportunity to have bespoke plots that are suitable for their needs. Importantly, this unique site contributes to the attractiveness of the region for strategic level investment.

4.0 POLICY AND ECONOMIC CONSIDERATIONS

Policy Context

- 4.1 The Site is identified in the current adopted Development Plan, the Greater Norwich Joint Core Strategy, under the Norwich City and Broadland District Development Management Policies as employment land. It is currently restricted to aviation uses under the Norwich City Development Management Policy DM27.
- 4.2 NPPF Paragraph 7 emphasises an economic role in building a strong, responsible and competitive economy, by ensuring that sufficient land of the right type is available in the right places and at the right time to support growth and innovation.
- 4.3 The draft Airport Masterplan has concluded that Site 4 is remote from the main Airport and, with the exception of retaining the required fire training facilities, is not required for future airport operations or expansion.
- 4.4 Hybrid planning permission for aviation-related employment floorspace at Site 4 was approved in August 2013. The detailed element of the permission was secured for an aircraft re-spraying business called Air Livery Ltd. Subsequently, Air Livery terminated the agreement on viability grounds. Since the granting of planning permission in 2013 and the withdrawal of Air Livery, a suitable aviation occupier for the site has not come forward. The main reasons for this is understood to relate to a lack of demand for aviation uses, the cost of the required infrastructure necessary to serve the Site in order to enable a potential aviation user and the principal aviation infrastructure cluster being situated south of the runway.

Economic Considerations

- 4.5 NCC and BDC have both adopted a Community Infrastructure Levy (CIL). The potential CIL payments from a comprehensive employment scheme on Site 4 would total up to £1,019,640. The CIL evidence base includes provision for the construction of the Northern Distributor Road.
- 4.6 Full development of 46ha of Site 4 for general employments uses could generate up to 3,298 jobs.

- 4.7 The net GVA that could be created from the development at Site 4 ranges from £55,273,787 to £106,507,238.
- 4.8 The Government has made considerable investment in strategic infrastructure to serve Greater Norwich which will unlock development and economic opportunities for the region, driving demand for skilled workers and services.
- 4.9 Site 4 is a key strategic employment site with direct access to the primary road network. It is the largest site of its kind and unique in its offer, in particular to the strategic employment, storage and distribution sector. The site should not be artificially restricted to specialist uses for which there is no proven need or demand, to the detriment of key services and economic growth. Such restrictions are considered likely to prevent development coming forward on the site for the foreseeable future meaning the economic benefits outlined above may not be realised.

5.0 OBJECTIVE EVIDENCE – AVIATION USES

- 5.1 The full initial objective evidence for the derestriction of the site is provided at Appendix 2. The Objective evidence presented by York Aviation is summarised below.
- 5.2 The land to the south of the runway has been compared with a selection of other UK airports which demonstrates that there is more than sufficient land to accommodate at least 4 mppa of commercial passenger traffic alongside the requirements of all the other airport based operations, including expansion of existing hangarage.
- 5.3 Land available south of runway is much larger than the comparable airports for these activities, further endorsing the view that even if the Airport were to reach 4 mppa later this century, there will still be sufficient land available for all other uses.
- 5.4 Long-term passenger growth scenario beyond 2045 suggests that Norwich Airport could reach 3.0 to 3.5 mppa towards the latter parts of the century and even up to 4.0 mppa. Within the growth scenario, offshore rotary is not expected to grow beyond current levels. Freight traffic will not require additional facilities on site and GA traffic is likely to see only modest growth beyond current levels.
- 5.5 The MRO sector enjoys a high-quality presence at Norwich Airport with two principal players supported by a strong local skills base. However, in spite of the prospect that some UK and European demand for MRO may return to operators in the UK and Europe, Norwich will face stiff competition to attract significant additional new hangar development, over and above the expansion of existing facilities.
- 5.6 Whilst some of this may be attracted to Norwich, the report at Appendix 2 demonstrates that these potential MRO uses can largely be accommodated to the south of the runway. York Aviation has advised that a strip of land, approximately 20% of Site 4, could be retained for aviation-related purposes. This would constitute three times the size of the Monarch hangar at Birmingham Airport.

Objective Evidence – General Employment

- 5.7 Objective evidence in respect of general employment demand and site suitability has been prepared by regional and local agents Bidwells and Roche. The full report is provided at Appendix 2 and summarised below.

- 5.8 It is essential that Norwich has a large-scale scheme which can deliver good quality modern units and prime employment land over the medium to long term.
- 5.9 The largest current scheme is Browick Interchange, but this only offers in the order of a quarter, in terms of both land and accommodation to be developed, of what Site 4 could offer. Site 4 also offers occupiers the opportunity for both virtual freehold and leasehold plots and is large enough to accommodate a variety of uses, including B2/B8 uses.
- 5.10 Site 4 offers the largest single commercial development site in and around Norwich and therefore has the potential for large scale light industrial, manufacturing and warehousing, which no competing site does. At 46 ha in size, it is four times as large as the next biggest site. It is essential that Norwich has a unique site of this nature for the long-term prospects of the local and wider economy.
- 5.11 Site 4 will offer occupiers further choice. The other sites are located to the east and west of Norwich, with the land at Wymondham being to the south. Site 4, being to the north of the city gives another option from a geographical perspective, especially taking account of the present location of existing businesses in this area of Norwich. Modern premises are imperative for businesses that want to expand and grow, compared with the older style premises which are not fit for purpose. Not all businesses will be able to afford higher rent, but it is essential to provide them with a wide range of options.
- 5.12 Some of the other business park alternatives are not prepared to sell land or buildings on a freehold basis. The availability of virtual freeholds at Site 4 will assist in satisfying companies' requirements to purchase property.
- 5.13 Site 4 has the potential to provide a long-term supply of prime employment land which could last for 10 to 15 years or more. Importantly, it is located in close proximity to a number of housing allocations which will come forward under the emerging Greater Norwich Local Plan offering opportunity for sustainable employment with potential for cycling to work and importantly without the need to traverse the city centre.
- 5.14 Site 4 offers an alternative to the traditional Northern Industrial Estates. It will not provide direct competition due to the different types of product, but will provide occupiers with a greater choice.
- 5.15 Importantly, the proposed 20% of the site identified for aviation uses would be assisted by the development of the wider site for general employment, providing the critical infrastructure and servicing required by aviation occupiers that need a location to the

south of the site that would otherwise be too remote and therefore considered unviable (Appendix 3).

Conclusion

- 5.16 Site 4 is a key strategic employment site for Norwich and the wider region.
- 5.17 The current aviation-related uses policy has proven to be prohibitively restrictive and has prevented the site from being brought into economic use. It currently benefits from direct access to the NDR, but remains undeveloped and underused supporting the assertion from York Aviation that there is insufficient demand now and in the future for any more than 20% of Site 4 to be set aside for aviation related uses.
- 5.18 Should the current policy position prevail, not only is the site likely to remain undeveloped, but key employment and economic opportunities will not be realised to the detriment of the Greater Norwich region.
- 5.19 Indeed, development of Site 4 for general employment floorspace would serve to benefit the airport and its associated services from the considerable new direct / indirect employment opportunities and gross added value generated.

6.0 GROWTH OPTIONS DOCUMENT: SECTION 4: THE STRATEGY

6.1 Section 4 of the Growth Options Document concerns delivering jobs, homes and infrastructure in the region. The Document states that the Plan (up to 2036) will support the delivery of:

- 45,000 new jobs;
- 42,865 new homes in total; and
- Sites for the allocation of 7,200 new homes.

6.2 The Document states that the Plan will help enable development of strategic employment sites around employment locations in the city centre, which include Norwich Airport. It adds that the Site will maximise urban brownfield site capacity and that the majority of the planned growth is focused in and around Norwich itself.

6.3 This Chapter answers the questions presented by Section 4 in the Growth Options Document.

Question 2: Do you support the broad strategic approach to delivering jobs, homes and infrastructure?

6.4 The broad strategic approach to delivering jobs, homes and infrastructure is supported. Site 4 supports the Plan's vision to enable development of strategic employment locations around Norwich. However, Site 4 must not be restricted to aviation-related uses. The site is brownfield land and benefits from direct access to the strategic road network. Retaining the current aviation uses restriction is preventing the Site from being developed and being brought into economic use. Leaving the Site undeveloped would mean the region would not benefit from up to 3,298 jobs, up to £1,019,640.82 in CIL and up to £106,507,238 net GVA that would be realised from a general employment scheme of 46 ha. Its proximity to strategic infrastructure in the region, such as the NDR and the Airport make it an ideal location for a strategic employment site.

Question 3: Which option do you support for jobs growth?

6.5 Site 4 supports, up to a certain extent, Option JT1 which states:

“Plan to deliver forecast jobs growth plus additional growth.”

- 6.6 This is the GNDP's preferred option. Regional and City Airports supports this option as it complies with the evidence that GNDP has at its disposal, namely the East of England Forecasting Model (EEFM) and the impact of the Greater Norwich City Deal. However, GNDP has not considered the number of jobs that will be created due to the Cambridge Norwich Technology Corridor. The Study, Delivering the Economic Growth Potential of the A11 Corridor, undertaken by Bruton Knowles, highlighted the potential for the Corridor to deliver 6,100 net additional jobs by 2031, of which at least 3,000 high value jobs would be in the agri-tech and environmental sciences sectors. These sectors benefit from the University of East Anglia (UEA) and are situated in the Norwich Research Park, in the Greater Norwich Area. The 3,000 jobs should be taken into account when forecasting the potential jobs growth over the plan period. Therefore, the potential number of additional jobs should be nearer to 48,000. Therefore, there needs to be a sufficient amount of suitable employment floorspace, of all use classes, to accommodate these new additional jobs.

Question 5: Do you agree that the plan should provide for a 10% delivery buffer and allocate additional sites for around 7,200?

- 6.7 The GNDP has acknowledged that there has been an undersupply of housing delivery over the past few years. In addition, the Greater Norwich Area also has one of the worst affordability ratios in the country (over eight times more than the average salary). Therefore, a 10% buffer should be applied to the region, increasing the total amount of housing required over the planning period to 42,887.
- 6.8 The GNLDP should be allocating enough land for 7,200 new dwellings after taking account of the existing commitments as of April 2017.
- 6.9 This significant growth for Greater Norwich adds considerable weight to the need to ensure the region has sufficient strategic employment land suitable for large-scale B2 and B8 uses situated with direct access to the strategic highway network.

Question 7: Are there any infrastructure requirements needed to support the overall scale of growth?

- 6.10 Whilst not essential for Site 4, the completion of the 'Western Link' would connect the NDR with the A47, thereby creating an outer ring road for the city. This would improve the connectivity of the region and prevent congestion in the city centre. It is positive that Highways England has committed over £300 million to improve the A47, including the A47/A11 Thickthorn interchange. These improvements will prevent congestion and

increase connectivity in the region. The road improvements will also contribute to the overall growth of the region including job increases.

7.0 GROWTH OPTIONS DOCUMENT: SECTION 6: TOPIC POLICIES

- 7.1 The Section of the Growth Options Document considers how the Plan can best support economic growth in the Greater Norwich Area. It states that the Plan will have to “continue to provide a wide-ranging approach to supporting development and growth”.

The Supply of Employment Land

- 7.2 The Plan states that there is around 340 ha of undeveloped employment land that has either been allocated or granted planning permission. It adds that the Employment, Town Centres and Retail Study calculated that the overall need for employment land is significantly less at 114ha. It has a table of larger allocations of undeveloped land, which includes Site 4, but in this table, it is named the ‘Aeropark’.
- 7.3 The Plan states that there is no evidence to justify increasing the overall supply of employment land and that there is potential for smaller employment sites to be reallocated for residential uses.
- 7.4 It is essential that strategic sites located with direct access to the strategic highway network are appropriately allocated and not artificially restricted to specialist uses without clear evidence that such a restriction would lead to viable future development. Indeed, such a restriction should be fully tested with objective evidence to demonstrate the Site would not be at risk of being left undeveloped or that a critical site that would otherwise contribute to the substantial growth of the region is not realised.

Question 27: Which option do you support?

- 7.5 Option EC2 in the Growth Options Document (significantly reduce the overall level of supply while still maintain choice and flexibility) is supported, which states:

“As the principle of development is already established, employment land could be re-allocated for other uses (such as housing), rather than de-allocated. This is considered to be a reasonable alternative.”

Question 28: Which allocated or existing employment sites should be identified as strategic sites and protected?

- 7.6 It is imperative that Site 4, Norwich Airport, is allocated for employment use that is unrestricted. A flexible allocation will allow the market to determine the appropriate mix of employment uses, which will maximise the chances of the Site being brought into economic use that provides a critical strategic employment site to serve the growing population of the region.
- 7.7 The Site is unique in its offer in terms of size, location, ownership and with existing consent that established the principle of development. It is large enough (at 46.5 ha) to be described as a "strategic" site and would be large enough for B8 uses, such as distribution and logistics centres. It would contribute to the Plan's aim of making Greater Norwich a "key employment location."

Question 29: Are there employment areas that should be identified as suitable for release for residential uses?

- 7.8 Regional and City Airports supports the principle of reviewing the employment land availability and identifying existing employment sites that are suitable for housing that could be reallocated for residential use to support the considerable need for new homes in the region.

Question 34: Are there any specific transport improvements the GNLP should support?

- 7.9 The Western Link should be seen as one of the region's priorities along with the existing commitments for the Norwich-London rail connection and improvements to the A47. These improvements will improve the connectivity and sustainability of the region with East Anglia and the rest of the UK.

8.0 GROWTH OPTIONS DOCUMENT: GROWTH OPTIONS

8.1 The GNDP has identified six potential growth options for the Greater Norwich Area over the Plan period. These are:

1. Urban concentration (close to Norwich);
2. Transport corridors;
3. Supporting the Cambridge-Norwich Tech Corridor, including a new settlement in the Cambridge-Norwich Tech Corridor;
4. Dispersal – High level of dispersal to villages, while putting a limited amount of growth in the Norwich fringe parishes and the A11 corridor;
5. Dispersal plus new settlement – This diverts some on the village growth to a new settlement in a transport corridor; and
6. Dispersal plus urban growth – Higher levels of dispersal to villages while putting significant growth in the Norwich fringe parishes, particularly in the north-east and west fringes.

8.2 The allocation of Site 4 for general unrestricted employment uses (B1c, B2, B8) with an element no more than 20% safeguarded for aviation development is essential to all growth options outlined for reasons set out earlier in this document, namely:

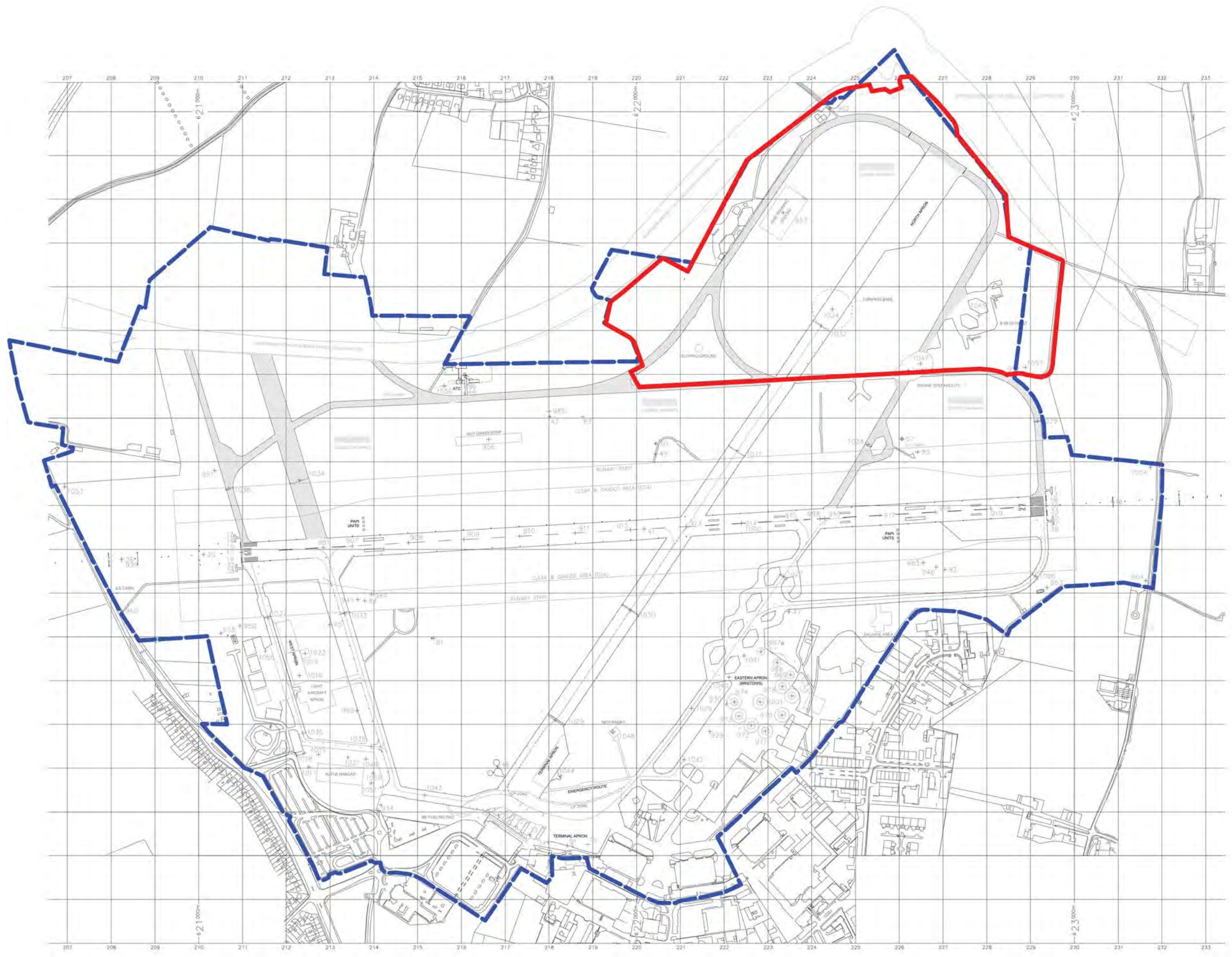
- 46.5 ha in size, being the largest site in the region suitable for employment;
- Direct access to the NDR;
- Proximity to the Airport;
- Principle of development established through outline consent;
- Single ownership and ability to deliver early in the Plan period; and
- Proven demand for B1(c), B2, B8 employment uses to support growth.

9.0 CONCLUSIONS

- 9.1 Site 4 is considered to be an appropriate “strategic employment” site and should therefore be allocated in the emerging Greater Norwich Local Plan with a maximum aviation restriction of 20% of site area as supported by the attached objective evidence.
- 9.2 This allocation of Site 4 presents the opportunity to reallocate other less suitable employment sites for residential use to ensure the region has an adequate supply of housing land.
- 9.3 This allocation would allow the market to determine the amount of employment uses instead of artificially restricting development to a specialist use where there is no proven need or demand.
- 9.4 Site 4 is the largest employment site in the region and suitably arranged and located to provide critical employment, manufacturing and strategic distribution services. If restricted, evidence suggests the site would remain undeveloped for the foreseeable future and all economic benefits outlined in this report not realised. This would be a significant missed opportunity for the region.

APPENDIX 1

Site Location Plan



APPENDIX 2

Initial Objective Evidence Report

Land at Norwich Airport, (Site 4)

Project Assessment and Objective Evidence

March 2018

**Land at Norwich Airport,
(Site 4)**

Project Assessment and Objective Evidence

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Prepared by:	Victoria Yeandle	Victoria Yeandle	Victoria Yeandle
Checked by:	Gareth Wilson	Gareth Wilson	Gareth Wilson
Authorised by:	Gareth Wilson	Gareth Wilson	Gareth Wilson

Barton Willmore
St Andrews House
St Andrews Road
Cambridge
CB4 1WB

Tel: 01223 345 555

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1.0 INTRODUCTION

- 1.1 Norwich Airport Ltd has prepared an Airport draft Masterplan that considers the future growth of the airport over a 30-year period. This Airport draft Masterplan has identified that land to the north of the runway known as 'Site 4's' likely to be surplus to aviation operational requirements due to its proximity from the core Airport operations environment located south of the runway, the availability of land across the wider airport holding, and technical constraints associated with the movement of goods and vehicles across the runway.
- 1.2 The Airport draft Masterplan has been the subject of detailed passenger and commercial forecasting. This objective evidence has been prepared to reinforce the assumptions made in the Airport draft Masterplan and to provide wider analysis of the key issues. The report also considers Site 4 as a general employment site and assesses its suitability and position in the wider employment land portfolio for Greater Norwich.
- 1.3 The structure of this report is as follows:

Section 2 – Site Analysis and Planning Context

Section 3 – Economic Considerations

Section 4 – Greater Norwich Local Plan Predicted Growth Context

Section 5 – Summary of Future Passenger Forecasts and Airport Growth Context

Section 6 – Existing and Predicted Core Airport Infrastructure Requirements

Section 7 – Existing and Predicted Operational Requirements

Section 8 – Review of Greater Norwich Employment Land Availability

Section 9 – General Employment Demand and Future Opportunities

Section 10 – Summary

2.0 SITE ANALYSIS AND PLANNING CONTEXT

Site Description

- 2.1 The Site extends to 46ha and is located in the north-eastern corner of Norwich Airport, within its operational boundary. It benefits from a new access from the Northern Distributor Road, which opened in March 2018.
- 2.2 The Site lies within both the Norwich City Council (NCC) and Broadland District Council (BDC) administrative areas. The land in question is defined in planning terms as 'brownfield' having previously been used as airport taxiway, apron, runway and associated fire safety training.
- 2.3 Both the taxiway and runway within the Site are now decommissioned. Current operations present on site include a fire training facility, Petans (a professional safety training facility) and Britannia Fire & Rescue, which are both accessed via Bullock Hill to the north. The airport fire training facility is programmed to be relocated further south east of Site 4. Occupiers Petans and Britannia Fire & Rescue are not an airport operational use but benefit from their proximity to the airport. Britannia Fire & Rescue is due to vacate its premises imminently.

Planning Context

- 2.4 The Site is identified in the current adopted Development Plan, the Greater Norwich Joint Core Strategy, under the Norwich City and Broadland District Development Management Policies as follows:
- 2.5 Norwich City – Development Management Policy DM27

“Within the airport boundary falling within Norwich city, as defined on the Policies map, development will be permitted where it is for:

- a) airport operational purposes;**
- b) uses ancillary to the function of the airport; and**
- c) facilities providing improved transport links.**

and where proposals would not conflict with the overall sustainable development criteria set out in policy DM1 of this plan or the requirements of policy DM28 in relation to sustainable travel. Where necessary, development must include mitigation measures to reduce impact on neighbouring uses. Development for alternative uses will not generally be supported in advance of the endorsement of an agreed masterplan for the airport, including a Travel Plan and Sustainable Access Strategy, or it is otherwise demonstrated by objective evidence that land is not required for operational Airport use."

2.6 Broadland District Council – Policy TS5 Airport Development

"Development related to Norwich International Airport will be assessed against the long term operational needs of the airport taking into account national aviation policy and guidance."

National Planning Policy Framework – Paragraph 7

- 2.7 In terms of national policy, of note is Paragraph 7 which emphasises an economic role in building a strong, responsible and competitive economy, by ensuring that sufficient land of the right type is available in the right places and at the right time to support growth and innovation.

Site Analysis

- 2.8 The Site is situated within Flood Zone 1 and is therefore at low probability of flooding. Site drainage is expected to be via infiltration. There is a strategic gas main crossing the north of the Site, with a no development easement within 2m either side of the centre line.
- 2.9 The Site is generally level at 30m AOD but falls away gently to the east and west. The Northern Distributor Road (NDR) is located to the north of the Site. The whole NDR is due to be opened in March 2018 but this part of the NDR including the construction of the roundabout providing access to the Site was completed and opened in December 2017. Beyond the NDR to the north, east and west there is predominantly agricultural land and the villages of Horsham St Faith, Horsford and Spixworth, with residential properties

interspersed. Quaker Farm is the nearest residential property, located approximately 460m to the east. To the south of the Site are associated airport operational uses, including the runway and terminal. To the south of the Airport lies the Norwich Airport Industrial Estate (NAIE) and other commercial uses.

- 2.10 There are no statutory environmental or historic designations within or immediately adjacent to the Site, including Listed Buildings and Conservation Areas.

Norwich Airport Masterplan

- 2.11 In July 2017, Norwich Airport published its draft Masterplan which outlined the Airport's growth aspirations for the next 30 years. This draft Masterplan was subject to a period of consultation for 16 weeks where various stakeholders were invited to comment on the draft, including Norwich City and Broadland District Councils.
- 2.12 The draft Masterplan concluded that Site 4 is remote from the main Airport and, with the exception of retaining the required fire training facilities, is not required for future airport operational or expansion.

Planning History

- 2.13 In 2013 Norwich Airport Ltd applied to both Norwich City Council and Broadland District Council for hybrid planning permission for aviation-related employment floorspace. This was approved in August 2013. The detailed element of the permission was secured for an aircraft re-spraying business called Air Livery Ltd. This detailed element was designed alongside Air Livery to meet their specific operational requirements. Subsequently, Air Livery terminated the agreement on viability grounds.
- 2.14 In 2016, the permission was amended to reflect the removal of Air Livery from the masterplan and to update the new access arrangements from the NDR. A new outline permission was granted in September 2016.

Table 2.1: Planning History

Application Nos:		Description of Development	Permission Granted
NCC	BDC		
13/00520/O	20130363	Development of northern apron to include detailed planning permission to provide 15,035sqm of aviation related B1(c), B2	9 August 2013

		and B8 floorspace including associated access to Holt Road, security hut, storage building, parking and landscaping and outline planning permission for up to 80,000sqm of aviation related B1(b), B1(c), B2, B8 and D1 use floorspace with permission for access sought in detail and all other matters reserved.	
16/00965/VC	20161133	Variation of condition 1, 2, 4, 5, 6, 7, 8, 9, 15, 17, 21, 23, 24, 25 and 29 of planning permission (part detailed/part outline permission for up to 95,035sqm of aviation related employment floorspace) to change the detailed elements of the planning permission so that they remain as reserved matters, and inclusion of a new access from the Northern Distributor Road	30 September 2016

- 2.15 Since the granting of planning permission is 2013 and the withdrawal of Air Livery Ltd, the current owner has been unable to attract suitable aviation occupiers to the Site. The main reasons for this relates to a lack of demand and the cost of the required infrastructure necessary to serve the Site in order to enable a potential aviation user.
- 2.16 However, the granting of planning permission establishes the principle of employment development on the Site. The application was considered to have a “positive economic impact” on the Greater Norwich area. All Parish Councils either supported the application or offered no objection. Norwich City Council’s Economic Development expressed “strong support” for the proposals, recognising that the development will support business and jobs growth in knowledge-intensive sectors and will contribute to increasing the economic development of the region.

3.0 ECONOMIC CONSIDERATIONS

Community Infrastructure Levy

- 3.1 NCC and BDC have both adopted a Community Infrastructure Levy (CIL). The potential CIL payments from a comprehensive employment scheme on Site 4 would total up to £1,019,640. This would contribute towards the cost of the construction of the Northern Distributor Road.
- 3.2 CIL payments are provided below based on an indicative mixed of potential general employment uses at Site 4.

Table 3.1: Indicative CIL Rates

Use Class Proposed	Indicative Planning Use m ²	Average Cost of NCC & BDC 2018 CIL Charging Rates per sqm	Indicative CIL Rate
A1-A5, D2 and sui generis	2,640	£34.93	£92,215.20
B1(b), B1(c), B2, and B8	132,869	£6.98	£927,425.62
Air Ambulance (sui generis)	800	£0	£0
Total			£1,019,640.82

Potential Jobs Creation

- 3.3 The potential number of jobs that could be created through the development of Site 4 is provided at Table 3.2. The Homes and Communities Agency (HCA's) Employment Density Guide: 3rd Edition, which was published in November 2015, has been applied. These figures were calculated using an indicative site layout.
- 3.4 These calculations show the minimum number of direct, Full-Time Equivalent (FTE) workers for each type of development. For the purposes of this calculation, the following HCA densities were used:
- Max FTE Use Class A1-A5, D2 and sui generis: 15 FTE per sqm
 - Min FTE Use Class A1-A5, D2 and sui generis: 20 FTE per sqm
 - Max FTE Use Class B1(b), B1(c), B2, B8: 40 FTE per sqm
 - Min FTE Use Class B1(b), B1(c), B2, B8: 77 FTE per sqm

Table 3.2: Potential Jobs Creation

Potential Use Class Proposed	Approx. m ²	Min FTE Jobs	Max FTE Jobs
A1-A5, D2 and sui generis	2,640	100	142
B1(b), B1(c), B2, and B8	132,869	1,639	3,156
Totals		1,739	3,298

- 3.5 For the 2013 application, it was calculated that the hybrid application was predicted to create 113 direct FTE jobs generated from Phase 1 (the proposed development for Air Livery Ltd). Given that no specific employment densities exist for aviation-related employment three scenarios were used. 1,195 jobs would be the maximum number calculated from the average amount of direct FTEs for 80,000 sqm of B1(c), B2 and B8 floorspace. The amount of FTE jobs, the aviation-related development could produce totalled 1,308.
- 3.6 This demonstrates that Site 4 would create at least 431 more FTE than if the Site were restricted to aviation-related uses and potentially 1,990 more if the maximum number of FTEs were created.

Potential Gross Value Added (GVA)

- 3.7 Based on the floorspace and FTE range provided at Tables 3.1 and 3.2, the net GVA that could be created from the development at Site 4 is £55,273,787 to £106,507,238.
- 3.8 These initial calculations demonstrate that Site 4 has the potential to increase the region's net GVA significantly over the emerging Plan period. This is subject to all the development being let. If the Site were restricted to solely aviation-related use, then it is probable that these employment spaces will remain vacant, thus reducing the potential net GVA for the region.

Conclusion

- 3.9 Successful development of Site 4 could provide the following economic benefits to the region:
- £1,019,640.82 in CIL payments;
 - Up to 3,298 FTE created; and
 - Up to £106,507,238 net GVA.

4.0 GREATER NORWICH LOCAL PLAN PREDICTED GROWTH CONTEXT

- 4.1 Current planning policy (Policy 5 of the Joint Core Strategy) targets the creation of 27,000 additional jobs throughout the plan period (2008-2026). In 2013, the Norwich City Deal was signed into effect by the Government, giving Greater Norwich increased freedom to help businesses grow and create economic growth. The Deal aims to bring an additional 13,000 jobs and 3,000 homes (above the Joint Core Strategy requirements) to the Greater Norwich area.
- 4.2 The Greater Norwich Development Partnership (GNDP) is currently working towards producing a joint Local Plan, consisting of three Councils: NCC, BDC and South Norfolk (SNC), which will inform development in the region up to 2036. It has collated an evidence base in order to inform the number of houses needed over the plan period and the potential number of jobs that will be created. The Partnership has published a Growth Options Document in January 2018 for its Regulation 18 consultation.
- 4.3 In order to calculate the potential number of new jobs throughout the plan period for the Growth Options Document, the GNDP took account of the East of England Forecasting Model (EEFM), which estimates the jobs growth over the Local Plan period. Using these estimations and the revised impact of the City Deal (i.e. more than the originally planned 13,000 jobs), 45,390 new jobs will be created throughout the plan period.
- 4.4 The Cambridge Norwich Technology Corridor study by Bruton Knowles in June 2016 highlighted the potential for the Corridor to deliver 6,100 net additional jobs by 2031, of which at least 3,000 high value jobs would be in the agri-tech and environmental sciences sectors.
- 4.5 Therefore, in total there is potential for the creation of at least 48,000 net additional jobs in the Greater Norwich Area over the emerging Greater Norwich Plan period. There will be a need in the Greater Norwich Area to have suitable and sufficient general employment floorspace to support this large net increase.

Investment in Greater Norwich

Housing Infrastructure Fund

- 4.6 In July 2017, the Government introduced the Housing Infrastructure Fund, up to £2.3 billion to “help ensure the right infrastructure in place to unlock the high quality new

homes” to address the current housing shortage. The Government gave Local Authorities a chance to apply for funding. This amount of money was increased by the Chancellor at the budget in November 2017 to £5 billion. Norwich City Council applied the Government, seeking a £20 million investment to bring forward two sites: Anglia Square and Deal Ground.

- 4.7 Anglia Square was selected by the Government as one of the winning bids and was awarded £12,226,223 to help the delivery of social housing.
- 4.8 This is one of the largest payments allocated to a specific site by the Government, which demonstrates the Government’s commitment to Greater Norwich.

Strategic Road Infrastructure

Northern Distributor Road

- 4.9 There have been significant road improvements in and around Norwich including the dualling of the A11. The Northern Distributor (NDR) road, linking the A142 to the east of the city to the A1067 to the north-west is due to fully open in March 2018. The NDR is funded by the Department for Transport, the Community Infrastructure Levy (CIL), Norfolk County Council, New Anglia LEP and Growth Point funds.

Thickthorn Junction

- 4.10 Highways England has committed £300 million to improve the A47, with work set to commence on six improvements in 2020. In 2017, Highways England published its preferred route announcement for the A47/A11 Thickthorn junction, costing £90.1 million. This junction connects two major roads in the region – the A47 (connecting Norwich and King’s Lynn) and the A11 (connecting Norwich to Cambridge and beyond to London). The scheme is planned to re-route strategic traffic away from the existing junction through underpasses, reducing congestion during peak periods.
- 4.11 The other improvements that Highways England has committed to include:
- Dualling the A47 at North Tuddenham to Easton (cost: £138 million);
 - Dualling the A47 Bloefield to North Burlingham (cost: £83.05 million);
 - Dualling the A47 Wansford to Sutton (cost: £79 million);
 - Improvements to Guyhirn Junction (cost: £11.3 million); and

- Improving the A47 Great Yarmouth junctions (cost: £29 million).

4.12 These improvements are part of the £300 million commitment by Highways England. Highways England has published guidance on the preferred route announcements for all of these schemes and is about to undertake the statutory consultation process.

Conclusion

4.13 Considerable Government investment into housing and strategic infrastructure, set out in this section, will contribute to the economic growth of the region, and the demand of new jobs and services.

4.14 Strategic employment sites with immediate access to the primary road network should be considered objectively and not held back or unnecessarily restricted to the detriment of economic growth.

5.0 SUMMARY OF FUTURE PASSENGER FORECASTS AND AIRPORT GROWTH CONTEXT

Introduction

5.1 This section reproduces data provide in the Norwich Airport draft Masterplan, for context and completeness. The chapter of the draft Masterplan is at Appendix 1. It details the future passenger forecasts for Norwich Airport from 2015 to 2045. Forecasts have been updated for an extended period to 2090.

Forecasts for Future Growth to 2030 and 2045

5.2 In 2013, the Department for Transport (DfT) published UK Aviation Forecasts that concluded that there would be an increase of 225 million passengers over the next 40 years.

Department for Transport Forecasts for Norwich Airport

5.3 The DfT forecasts Norwich Airport passenger traffic reaching 400,000 passengers by 2020, rising to 1 million by 2050.

5.4 In its UK Aviation Forecasts, the DfT forecasts stronger than average growth for the Eastern Region in the period from 2011 to 2041 of 30%. However, this does include London Stansted Airport.

5.5 The passenger traffic forecasts have been produced by a market-led bottom-up approach to 2030 based on:

- Growing underlying traffic demand for Norwich Airport's catchment from a base of 2015 in line with the DfT's 2013 Aviation Growth Rates;
- Applying market capture performance to potential new routes to test which of these may be sustainable going forward, including eligible routes in the forecast;
- Applying aircraft size and load factor estimates to these routes to estimate the final passenger demand which may be handled;
- Considering stimulation, market share gain and the impact of onward connecting passengers on hub routes and adding adjustments to the route level forecasts to determine the final forecast.

- 5.6 Beyond this, to 2045, the forecasts switch from a bottom-up capacity and demand-led approach to an overall market size approach, taking into account overall market share growth from the first 15-year period, and how this may continue going forward to reach a revised level of overall market share to estimate the forecast. Some reduction in demand associated with an expected decline in the offshore sector over time has also been factored in.
- 5.7 Given the long-term nature of these forecasts, they reflect a long-term growth rate. Although it is anticipated that, as a small regional airport, growth will necessarily be delivered in step changes over time and will not be linear throughout the period to 2045.
- 5.8 The adverse economic environment since mid-2008 has led to a significant reduction of air travel and passenger numbers at all UK airports, though more recently growth in demand has accelerated across the UK and returned to a level of normalised growth on the longer term, and the use of DfT growth rates reflects this aspect of the market where downturns are followed by accelerated growth.

Underlying Traffic Demand

- 5.9 The underlying traffic demand has been taken from the Civil Aviation Authority (CAA) for 2015. As Norwich Airport has not been surveyed by the CAA, the estimates of the passenger profile for services from the Airport have been estimated as follows:
- For Edinburgh, Manchester and Aberdeen, the surveys from the other end of the route have been used with consideration of the 'destination' to inform the surface origin around Norwich. For airports surveyed prior to 2015, the passenger profile has been applied to the 2015 overall passenger demand;
 - For the Amsterdam route, survey data from Aberdeen and Humberside to Amsterdam has been used to estimate the profile of demand, and then the catchment data associated with the domestic routes has been applied to this pro-rata to estimate the surface origins; and
 - For the charter services, it has been assumed that all passengers are travelling for leisure purposes and their surface origin has been established by considering the levels of demand from the core and secondary catchment districts on similar routes served from London Stansted where a survey was conducted, with the catchment proportions allocated pro-rata to the overall passenger levels carried from Norwich in 2015.

- 5.10 Separately, Norwich Airport commissioned a survey in 2015 to identify the demographic characteristics within the catchment area and this was used to provide a cross-check on the results from the 2015 adjusted data outlined above.
- 5.11 The 2015 CAA survey provides traffic data, broken down by:
- Type of service – i.e. Charter or Scheduled;
 - Origin airport;
 - Final destination (and interim connecting points if not a direct itinerary);
 - District of surface origin (or final destination) in the catchment area;
 - Purpose of travel (business or leisure); and
 - Nationality of passenger (UK or foreign).
- 5.12 In 2015, it is estimated that there were 1.85 million air journeys with a surface origin or destination in the core catchment area. Of these, around 21% of passengers were travelling on business. When taking into account of the secondary catchment districts, the total air market from which Norwich Airport drew passengers was just over 7 million in 2015.

Growth of Oil and Gas

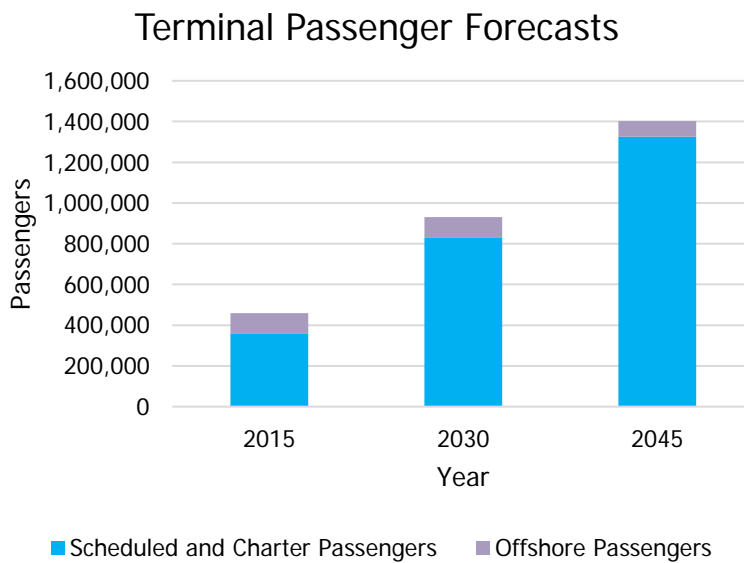
- 5.13 The offshore sector and the helicopter operations supporting this represent a significant proportion of the passengers at Norwich Airport. In 2015, over 22% of all terminal passengers at the Airport were travelling to and from the offshore gas platforms. Furthermore, the sector also generates significant travel on key scheduled routes, including Aberdeen (74% of all passengers) and Amsterdam (69% of all point to point business passengers).
- 5.14 Gas production in the Southern North Sea region is an important market for Norwich Airport. Despite a decline in production, movements and passengers have been increasing at Norwich Airport, as it has claimed a larger share of the market against Humberside, climbing from 47% of the helicopter movements in 2005 to 67% in 2015. The overall helicopter market has also grown, from around 10,500 movements across the two airports in 2005, to 20,500 in 2015, driven by an increase in the number of individual oil fields (and associated platforms) and a diversification of the number of oil and gas operating companies requiring transport for its operatives, albeit each field produces less gas individually than seen historically.

- 5.15 Based on reserved data published by the UK Government Oil and Gas Authority and estimated production rates, the gas reserves in the region could expire by 2030, although this does not take account of future exploration and discoveries. It is not deemed prudent to assume there will be no further discoveries in the region and that production will end. Furthermore, as the offshore wind and platform decommissioning sectors continue to grow, it is likely that there will be some switch of operations to support these activities.
- 5.16 Consultations with existing operators confirm that they may expect some decline in operations over time, but with some uncertainty of scale and timeframe. With this uncertainty around gas reserves, exploration, production rates and offshore wind development, the offshore sector forecasts have been driven off this simple assumption that numbers will be consistent with 2015 levels in 2030, reducing to 75% of 2015 levels by 2045. This equates to around 13,750 movements and 103,000 passengers in 2030, falling to 10,300 movements and 77,000 passengers by 2045. This does not mean that numbers will not increase in the meantime, but that it is assumed over time they will fall from any peak in demand.

Norwich Airport's Passenger Forecast to 2030 / 2045

- 5.17 From a base of around 460,000 passengers in 2015, it is forecast that passenger numbers will grow to around 930,000 by 2030, increasing again to 1.4 million by 2045. These represent compound annual growth rates (CAGR) of 4.9% to 2030 and 2.8% thereafter to 2045. This pattern, is, however, influenced by the decline in passengers projected in the offshore market segment to 2045. The CAGR for scheduled and charter passengers is actually 5.9% to 2030 and 3.2% to 2045. These are above the DfT's growth rates for the underlying market as a result of step changes in market capture as new services are delivered.
- 5.18 Scheduled and charter passengers are projected to increase from 77% of all passengers in 2015 to 89% (828,000) by 2030 and to 95% (1,326,000) by 2045 as offshore operations decline. It is anticipated that airlines will need to base new aircraft at the Airport, including a year-round basing of a charter aircraft.
- 5.19 By 2030, it is forecast that the Airport will increase its share of the core catchment market to 34.2%, up from 18% currently, with further market share gain to over 36% by 2045.

Figure 5.1: Terminal Passenger Forecasts for 2030 and 2045



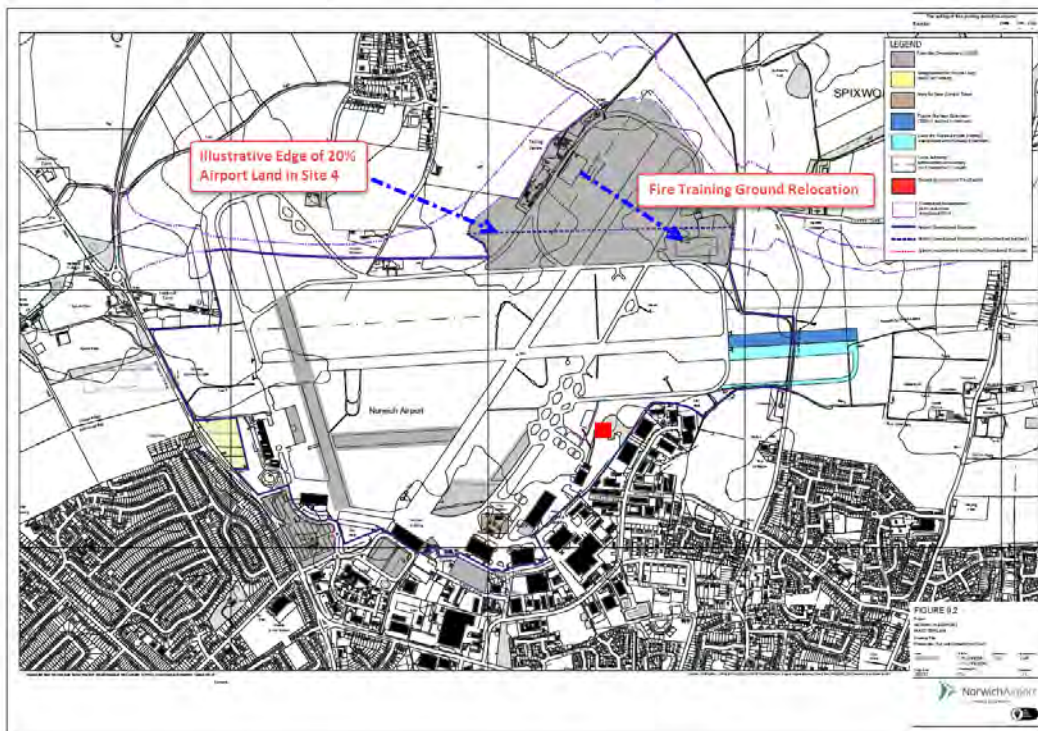
Air Traffic Movement (ATMs) Forecasts

- 5.20 ATM forecasts have been developed on a detailed analysis of routes considering indicative aircraft types suitable for the range of the route and the operator envisaged.
- 5.21 The aircraft mix is predicted to be made up of primarily 70-80 seat type aircraft for short haul international and domestic routes. Larger 120-190 seat aircraft are assumed on the leisure routes into Europe. As traffic increases, it is likely that there will be a continual upward shift in aircraft sizes. As a result, ATMs will grow at an overall slower rate than the passenger figures as more passengers will be carried on each movement.
- 5.22 In the Planning Forecast, passenger related ATMs are forecast to rise to around 13,500 by 2030, up from around 9,000 in 2015. This represents a 450% increase in movements against a 137% increase scheduled and charter passengers. The overall passengers per passenger related ATM is, therefore, forecast to reach 61 by 2030, up from 39 in 2015.
- 5.23 By 2045, ATMs are forecast to grow further to around 16,900 with average passengers per ATM of 78.
- 5.24 In overall ATM terms (passenger and offshore), it is projected that movements will increase from around 23,000 movements in 2015 to 27,000 by 2030. As a result of the decline in offshore helicopter movements offsetting growth in the passenger sector over the period to 2045, it is projected that movements will remain around 27,000 by 2045.

Growth of Business Aviation

- 5.25 There has been strong demand for Business Aviation services at Norwich Airport through Norwich-based operators such as SaxonAir. The demand reflects national and international growth in business traffic as individuals and corporations have increased usage of business aviation and air taxis.
- 5.26 SaxonAir has developed General Aviation and charter handling services at the Airport since 2007 and has invested £7,000,000 in bespoke hangars, handling apron and office facilities from 2010 onwards. They have provided three separate hangars and high-quality offices on three floors in the Business Aviation Centre to the south-west of the runway. SaxonAir operates its own fleet of 10 small to medium sized business jet and turboprop aircraft and arranges and handles charter flights for local and regional high worth individuals and businesses.
- 5.27 Norwich Airport forecasts that this market will continue to grow and that a number of operators will base aircraft at the Airport reflecting the economic growth and development of the region.
- 5.28 In its draft Masterplan, Norwich Airport produced a Plan for growth from 2030 to 2045, which highlighted a suitable strip for potential aviation-related hangar development with airside access. The relocation of the Fire Training Ground is expected prior to 2030 but is shown in the Plan. The plan is shown below in Figure 5.2.

Figure 5.2: Norwich Airport Draft Masterplan: Development from 2030-2045



5.29 Preserving land for three hangars of the scale of the Monarch facility at Birmingham (and more than the MRO hangars at Manchester) and some ancillary services, would require a strip of land to be retained for this use. However, in reality, the demand many never need all of this area as previously highlighted.

Projection up to 2090

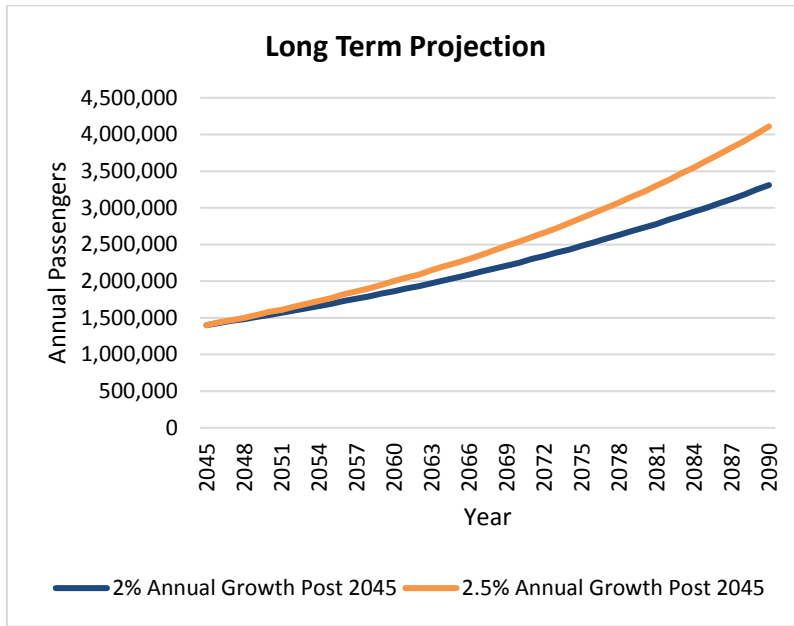
5.30 From the starting point of the 2045 projections, York Aviation ran two scenarios for a further 45-year period to 2090:

- 1) Applying a long-term growth rate of 2% per annum to all non-offshore helicopter passengers; and
- 2) Applying a long-term growth rate of 2.5% per annum to all non-offshore helicopter passengers.

5.31 The assumed number of offshore passengers would remain at around 80,000 as mentioned above. There is unlikely to be significant growth in the offshore helicopter market.

5.32 The results are shown in the chart below.

Figure 5.3: Long Term Projection of Passengers up to 2090



5.33 In summary:

- At 2% annual growth – the Airport would reach 3 million passengers per annum (mppa) around 2085 and would not reach 3.5 mppa even by 2090; and
- At 2.5% annual growth – The Airport would reach 3 mppa around 2077, 3.5 mppa by 2084 and 4 mppa by 2090.

5.34 These are indicative figures only to provide an indication of a realistic long-term potential for which land would need to be safeguarded for purely aviation-related uses. At the upper end of the scale, Norwich Airport would be comparable with Leeds Bradford today.

6.0 EXISTING AND PREDICTED CORE AIRPORT INFRASTRUCTURE REQUIREMENTS

6.1 This section determines whether Norwich Airport will have sufficient land for airport infrastructure requirements. It considers how much land is used to support operations at a selection of other UK airports that have a throughput in the 2.0 to 4.5 mppa range and compare this with the size of Norwich Airport. The airports selected are Aberdeen, Belfast City, Leeds Bradford and Southampton. This was prepared by York Aviation and a copy of the full Report is at Appendix 2.

Benchmarking Available Airport Land

6.2 The areas that have been measured are approximate and, for consistency, have used 'Google Earth' as a basis for the area measurements. The figures are set out in the table below and the areas for the four benchmark airports have been divided into three categories:

- Total site area excluding the runway and associated 300m wide runway strip;
- Area of apron and taxiway used for commercial aircraft parking; and
- The area occupied by the terminal, forecourt, access roads and car parking.

6.3 The comparator for Norwich has been obtained using a CAD drawing file with the same categories or area, except the area of apron and taxiway is the potential available area between the terminal and the runway strip and, thus, includes the apparent available undeveloped area described earlier as a potential expansion zone for such activities. As a cross check, the total site area for Norwich Airport south of the runway strip in 'Google Earth' has been measured to derive a figure of 804,000m², a very close match to the more accurate measurement of 807,000m² in CAD. This then provides reasonable confidence that the areas measured for the benchmark airports using 'Google Earth' are sufficiently accurate to make comparisons.

6.4 The table also combines the total area of the 'Terminal, Forecourt, Access Roads and Car Parking' with the 'Commercial Apron and Taxiway' in the right-hand column.

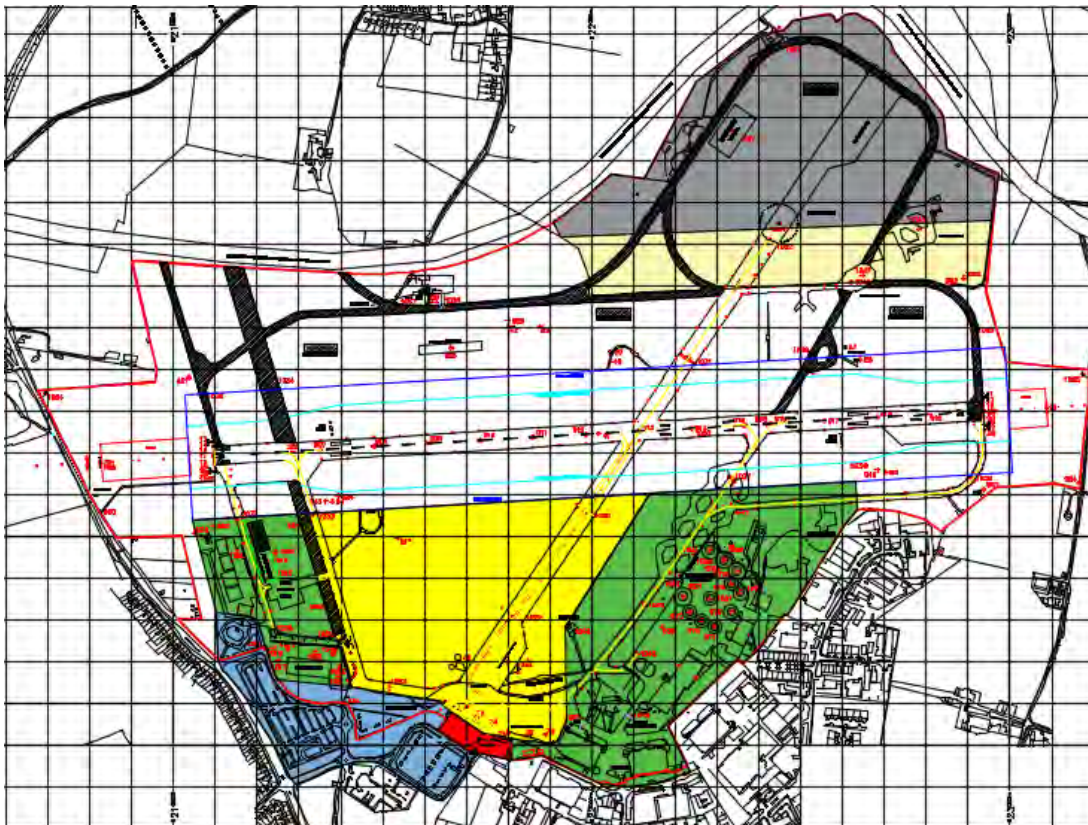
Table 6.1: Benchmark Airport Site Areas

Benchmark Airport Site Areas (m ²)					
Airport	Mppa (2016)*	Total Site Area	Commercial Apron and Taxiway Site Area	Terminal, Forecourt, Access Roads and Car Parking Site Area	Combined Apron and Terminal Totals
Aberdeen	3.0	575,000	97,500	103,000	200,500
Belfast City	2.7	187,000***	50,000	137,000	187,000
Leeds Bradford	3.6	454,000	165,000	147,000	312,000
Southampton	2.0	305,000	54,000	91,000	145,000
Norwich	0.5	807,000	191,000**	111,000	302,000
Source: York Aviation using Google Earth *CAA Airport Statistics 2016 **Potential available land at NWI between Terminal and Runway Strip ***Excludes extensive site of Bombardier Aerospace complex					







- 6.5 It should be noted that the Norwich Airport's total site area is only for land south of the 300m runway strip and therefore excludes any of the Site 4 land.
- 6.6 What is striking is how large Norwich Airport's site is at 807,000 m² compared with the other airports. Aberdeen with its significantly larger off-shore rotary and fixed wing operation and associated MRO and a commercial passenger throughout of 3.0 mppa is smaller at 575,000 m². Leeds Bradford at 410,000 m² is around half the size of Norwich with a throughout of 3.6 mppa, although it does not have a significant MRO and General Aviation (GA) operation.
- 6.7 Belfast City Airport's commercial area of the airport is only 187,000 m². It is a very compact airport. On the opposite side of the runway is the extensive Bombardier Aerospace complex covering an area of 770,000 m². Whilst some of this has direct access to the airport, the vast majority of it is landside. This has been excluded from benchmarking as the scale and nature of this operation is unique at a British commercial airport. The Southampton Airport site at 305,000m² is split between two compact areas for commercial and other activity including GA.
- 6.8 Norwich Airport's combined area of 302,000m² comprising the 191,000m² of potential airside area and the 111,000m² of the terminal, car parking and forecourt zones is very similar to the combined 312,000m² at Leeds Bradford Airport, which handles 4.5 mppa and has plans to grow to 6.4 mppa by 2030. Leeds Bradford is anticipated to handle in the region of at least 5 mppa through its site without the need to encroach too much on to land used by non-passenger related activities. There may be a requirement to relocate some car parking activity onto new sites outside the current airport boundary.

- 6.9 This would suggest that the 302,000m² of available space for passenger-related and other operations at Norwich Airport could support of 4 mppa with this 302,000 m² of area for directly operational uses. This area excludes the use of any part of Site 4 reserved for aviation-related uses which would be available in addition to support growth in the other market sectors to the extent required.
- 6.10 Below is a 'block plan' of the Norwich Airport site that has shaded in different colours key zones of the operation or activity, including Site 4 to the north. The 'yellow' area on the plan is the potential airside area for commercial apron and taxiways, as discussed earlier. At its south is the 'red' terminal zone including the proposed extension recognised in Norwich Airport's draft Masterplan. Adjacent to this is a 'blue' zone covering the car parking, forecourt and access roads. The 'green' zones to the east and west cover the various MRO, Off-shore, GA, Air Taxi and Flying school activities, along with other engineering and operational accommodation in support of airport activities. To the north is Site 4 in two colours. The 'beige' strip along its southern edge is the strip of land (equating to approximately 20% of Site 4) proposed to be reserved for airport related activities and the remaining 'grey' area being for the non-aviation related developments. This Plan is also shown at Appendix 3.

Figure 6.1: Norwich Airport Site Block Plan

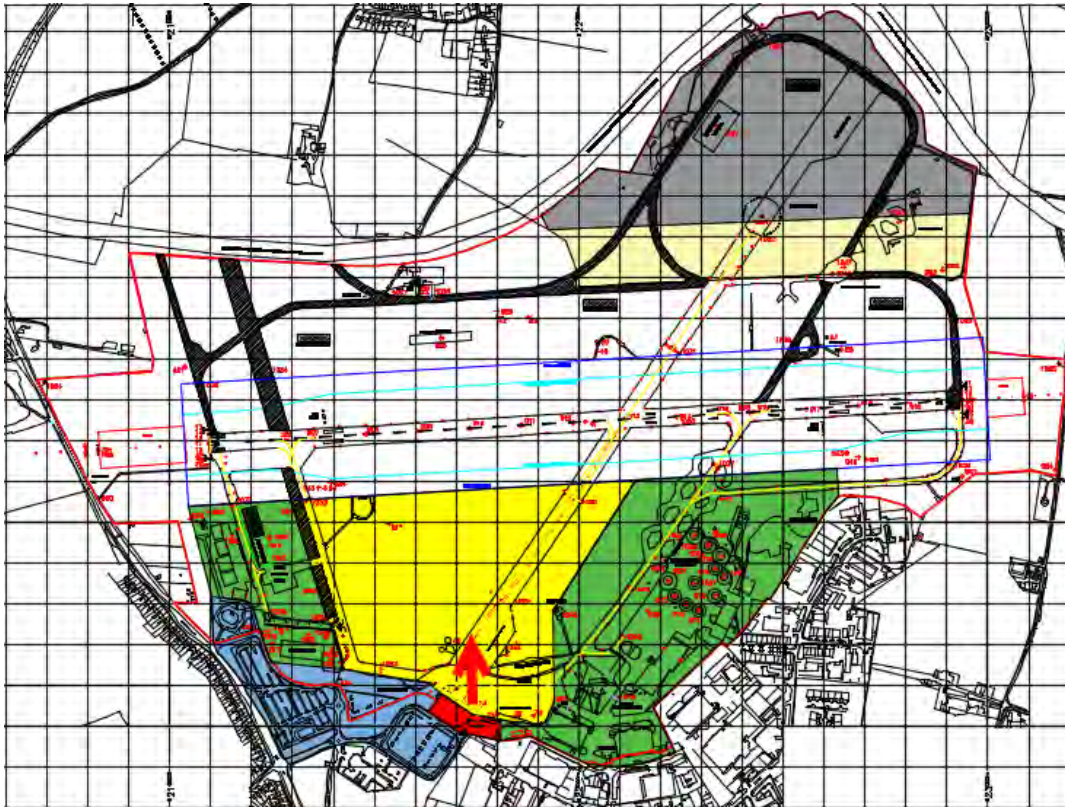


Norwich Airport Site Block Plan Key:

	Potential airside area for commercial apron and taxiways
	Terminal zone including proposed Masterplan extension
	Car parking, forecourt and access roads
	East and West zones for MRO, Off-shore, GA, Air Taxi, Flying Schools, Operational support, etc.
	Site 4 - 20% for Airport related activities
	Site 4 - 80% for non-aviation related developments

- 6.11 This strip of land that constitutes the potential aviation-related activities located along the southern edge of Site 4 will be in the 'line of sight' of the Control Tower located to the west of Site 4 on the northern side of the runway. Any MRO, and other airport-related development, together with its associated aprons and taxiways, will likely be south facing in any event. Any important localised areas that need to be observed in detail by the Control Tower can be resolved by the use of CCTV coverage, as is normal practice at all airports.
- 6.12 The two 'green' zones cover an area that is much larger than currently occupied by the various non-commercial related aviation activities and, as such, effectively provide significant space for these to grow and develop in the very long-term without impeding the growth of the core commercial aviation activity.
- 6.13 The 'yellow' zone is substantial with large areas undeveloped, even if all of Norwich Airport's draft Masterplan proposals to 2045 are implemented and the 'red' terminal and 'blue' car parking and roadway zones are fully developed. In order that terminal and associated car parking (over and above draft Masterplan proposals) and forecourt capacity can be enhanced beyond 1.4 mppa then more land area will be required.
- 6.14 Figure 6.2 below has the same 'block plan' with a 'red' arrow indicating that the terminal could be expanded northwards in to part of the current commercial apron area, with the commercial apron area shifting northwards and expanded accordingly in to part of the very large 'yellow' area to the north. This is also shown at Appendix 4.

Figure 6.2: Norwich Airport Site Block Plan – Terminal Zone Expansion Northwards



- 6.15 Similarly, the 'blue' area could be expanded northwards in to the 'yellow' zone to create additional car parking and associated road capacity.
- 6.16 This will still support the 3.5 mppa to 4 mppa very long-term growth potential of Norwich Airport given that it is the combined 'Yellow, Red and Blue' areas that make up the 302,000 m² of available space.
- 6.17 It should be noted that the boundaries between all these areas to the south of the runway are not fixed. The 'yellow' commercial airfield zone could stretch east and west if required and if the 'green' non-commercial areas do not grow significantly beyond the zones they currently occupy.
- 6.18 The MRO KLM UK Engineering (KLMUKE) and Air Livery expansion and proposed replacement apron for KLMUKE will form part of the eastern 'green' zone on the block plan. This expansion will only utilise part of the spare land available within this zone.

Conclusion

- 6.19 The land to the south of the runway has been compared with a selection of other UK airports which demonstrates that there is more than sufficient land to the south of the runway to accommodate at least 4 mppa of commercial passenger traffic alongside the requirements of all the other airport-based operations, including expansion of existing hangarage.
- 6.20 Indeed, the 'green' areas to the east and west for non-commercial operations are much larger than that currently used at Norwich for these activities, further endorsing the view that even if the Airport were to reach 4 mppa later this century, there will still be sufficient land available for all other uses.
- 6.21 With the Engine Run-Up Bay, a proposed relocation of the Fire Training Ground in the vicinity of Site 4 and a potential consolidation of the Air Ambulance operation in Site 4, there remains substantial areas of land within the remainder of the strip for additional hangars, or perhaps Flying School and GA activities, over and above the areas already highlighted in 'green' to the south of the runway.
- 6.22 In overall terms, the existing aviation site south of the runway and a reservation of up to 20% will be more than sufficient to enable Norwich Airport to fulfil its realistic aviation potential. Whilst not required, the inclusion of a strip of safeguarded land to the south of Site 4 will allow the assumptions in this Report to be further tested. Realisation of these opportunities will require the site(s) to be fully enabled and serviced, given the competition to attract new hangars from many other airports. Hence, the importance of securing general employment on the remainder of Site 4 at an early stage to create the conditions whereby Norwich Airport has a readily serviced site to offer.

7.0 EXISTING AND PREDICTED OPERATIONAL REQUIREMENTS

7.1 In this chapter, the opportunities for non-passenger activities at Norwich Airport are considered, which may generate a need for aviation facilities to be located in part of Site 4. This chapter covers:

- Freight Demand;
- Business and General Aviation; and
- Maintenance Repair and Overhaul (MRO).

Freight

7.2 At present there is a very small throughput of freight at Norwich. This is associated with freight being taken to the offshore gas platforms and with parts being moved between the Netherlands and KLM UK Engineering (KLMUKE) as freight placed in the hold on the scheduled KLM services. Although there is a freight shed, most of the freight going through this is handled by truck, bonded freight on the trucks and taken for consolidation at larger airports in the UK.

7.3 There is no reason for this pattern to change or for any significant growth in freight at Norwich. The Airport's location away from the main trunk motorway network means that it will be highly unattractive to freight airlines and the local market is unlikely to sustain flights directly.

7.4 Any need for additional freight capacity is not anticipated on this basis.

General and Business Aviation

7.5 Currently there is a steady, though low scale general and business aviation market at Norwich (excluding offshore helicopters). Across this sector the activity will largely be serving the local market, perhaps with some small number of trainee pilots choosing to come to Norwich for the flying school. Both the general and business aviation sectors are dominated by the South East of England, with some growth at core cities such as Manchester, but Norwich is not sufficiently located to be able to capitalise on these markets.

7.6 There has been long term cost pressure on the general aviation market, resulting in some aspects of the sector remaining relatively flat or even declining over the last decade.

However, developments in Microlight flying (which covers smaller aircraft now) has led to some regrowth in the sector which may benefit Norwich, though the extent of this may be small in overall terms and certainly by nature would not require large areas of hangarage or apron due to the size of the aircraft in question.

- 7.7 Whilst larger airports in the UK continue to squeeze out these activities, it is unlikely that Norwich will represent a viable alternative for operators to relocate because the nature of general and business aviation is that it should be in convenient locations to maximise the time benefits offered over alternative transport modes. As Norwich is not close to any of the Airports which are pricing the sector out, it is unable to satisfy the relevant markets.
- 7.8 Flying schools in the UK have benefitted from growth in demand from overseas, particularly Asia, and the shortages of pilots more recently in Europe. However, overall the scale of flying school activity remains relatively flat due to the cost and weather benefits of training in other global locations, including Spain and the USA. Furthermore, any boost gained from lack of training facilities in Asia may be reversed as flying schools are established on the continent.
- 7.9 Given the size of the local market for general and business aviation and the inability of Norwich Airport to act as a suitable alternative in core market regions, only steady growth in this sector would be expected over time. Given the levels of activity on the current general aviation apron, any growth over the medium term could be easily accommodated, and even over the longer term, only minimal expansion of the apron may be required, which would not require a relocation to Site 4.

Maintenance – MRO

- 7.10 Norwich Airport is fairly unique among smaller regional airports in the UK in having active maintenance facilities, provided by KLM UK Engineering (KLMUKE) and Air Livery (aircraft painting). The location of the KLMUKE facility at Norwich is historic, resulting from the formation of Air UK in the 1980s out of Air Anglia, and the subsequent retention of the maintenance facility at the Airport. This explains why Norwich has MRO activity when larger regional airports such as Newcastle and Leeds have a very limited amount. The KLMUKE facility provides support not only for KLM and KLM Cityhopper fleets, but also undertakes third party work for other airlines and aircraft owners. The scale of the activity makes this attractive to Air Livery as a secondary activity in support of aircraft maintenance. As a result of the KLMUKE facility, there remains a strong pool of skills in the engineering sector at the Airport, supported by the presence of the International Aviation Academy, which opened in April 2017.

- 7.11 At present, there remains a buoyant aircraft maintenance market in the UK, supported by a combination of independent providers and in-house capabilities at the key airlines. However, for a number of years a large (and growing) part of the market has been for European airlines, including British Airways, easyJet and others to send aircraft to Central Europe, the Middle East or further into Asia for heavy maintenance, driven by significantly lower labour costs which offset the costs of moving aircraft further afield for maintenance.
- 7.12 This has led to only limited growth in the UK market for heavy maintenance hangarage over recent years, with the most recent example being Monarch's hangar at Birmingham, although this came at the expense of the operator's Manchester facility which was subsequently closed as activity was consolidated into Birmingham. More recently, easyJet opened a new hangar at London Gatwick and this will be supplemented at the Airport by a new Boeing-operated hangar, but in both cases these facilities are designed almost exclusively for line maintenance and are only located at Gatwick because of the large based fleets which operate during the day and then go for routine maintenance through the night in the hangars. The same is true for the British Airways and Virgin Atlantic hangars at Gatwick and the Thomas Cook and Jet2 hangars at Manchester. This was also an influencing factor in the decision to locate the Monarch hangar at Birmingham, where value could be added in offering both line support and heavy maintenance in a single location.
- 7.13 Such facilities could never be attracted to Norwich because the based fleet of aircraft now, and in the future even at 4 mppa, would not be sufficient to require such line maintenance facilities over and above the capability of the KLMUKE hangar to provide required line maintenance report.
- 7.14 In considering the future potential for MRO in the UK, York Aviation combined its industry knowledge with the three key MRO providers in the UK: KLM UK Engineering, Chevron and Air Livery. Due to commercial sensitivities, this information provided by these companies has been aggregated, but it is worth noting that all three provided consistent information.
- 7.15 There is some evidence that there will be some re-trenching of maintenance back to Western Europe over the coming years driven by three factors:
- The rapid growth of airlines in Asia means that there will be increasing pressure on capacity there which may displace European carriers;
 - Retention of skilled staff in Central Europe is difficult as many will move to Western Europe on receiving their qualifications to earn a higher salary; and

- Costs of sending airline staff to oversee maintenance are increasingly high and seen as offsetting cost benefits.

7.16 This may present some opportunities for Norwich to grow in this sector, but these are unlikely to be widespread and, therefore, are unlikely to require the whole of Site 4. Norwich Airport's strengths, which may make it attractive include:

- An existing MRO cluster, which can generate synergies such as the shared use of ancillary facilities like the paint shop; and
- An existing skills base and aviation academy, which opened in April 2017, will be attractive in a market where there are skills shortages.

7.17 However, there are factors which will limit Norwich Airport's attractiveness, including:

- A preference by many operators to be located at bigger airports where there is significant line maintenance and ad-hoc repair demand to supplement any heavy maintenance, driven by based aircraft or those rotating through as part of their normal schedules;
- The runway length remains restrictive to widebody aircraft, and so those MRO providers who want to offer flexibility on the aircraft sizes they maintain, such as Boeing or Chevron, will be unlikely to consider Norwich. Flexibility to cover aircraft of all sizes is likely to be important to MRO providers;
- Although clusters have benefits as highlighted above, operators have highlighted to that they do not like too much immediate competition around them. They try to differentiate on location, otherwise it leaves only price for differentiation which can drive down returns. Whilst it is not expected the presence of KLMUKE at Norwich acts as an impediment to all future MRO operators, it may limit the number that could be attracted to locate at the Airport; and
- Having too many operators in a single location can drive up direct costs as salaries escalate to attract the same staff.

7.18 The scale of hangars which would be needed to support narrow body maintenance would not be as large as if they needed to accommodate widebody aircraft, and hangars which are used for heavy maintenance, as opposed to line maintenance, can be smaller for the same number of aircraft because they will tend to stagger aircraft inside, rather than parking them directly side by side. As an example, the easyJet hangar at Gatwick, used for line maintenance, is 5,400m² and accommodates two narrow body aircraft, but the

Monarch building at Birmingham is around 10,200m², but can handle up to five narrow body aircraft despite not even being double the size of the easyJet hangar.

- 7.19 The land area used by the Monarch hangar at Birmingham (including hangar, offices, car park and apron) was overlaid onto Site 4. As can be seen, one of the largest new hangars in the UK could be accommodated perhaps eight times over on the whole of Site 4, generating capacity for 40+ narrow body aircraft. This is far beyond the scale of MRO seen anywhere in the UK and highly unlikely to be achievable in a single location, particularly one where there is little 'line' flying. The proposed reserved strip for aviation-related use could potentially accommodate up to three such developments, delivering a greater floor area than the combined hangarage at Manchester Airport.
- 7.20 Furthermore, there will be intense competition for any new hangar developments in the UK, with airports such as Liverpool and Bristol already preserving land in their emerging Masterplans to attract these operations. In both of these cases however, there is a recognition that the markets are unlikely to be large enough to fill all available land and so these are viewed as part of mixed-use development.
- 7.21 Given the previously identified strengths of Norwich, it seems reasonable to preserve a suitable strip of land to allow for some limited long-term expansion in the MRO sector. However, on balance with the factors against Norwich, it would not be credible to retain the whole of Site 4 for solely aviation-related activity.
- 7.22 The timescales over which firms may come to Norwich are also uncertain. There may be a near-term opportunity for a single hangar, but then it seems likely that future opportunities will be much further out as the Asian market fills this. It could be 10-20 years away. This leaves some risk to the short-term achievability of the near-term opportunity because it will be hard to commercially justify opening up Site 4 for a single building and operator. There is a real risk that Norwich will not be able to capitalise on this opportunity. The loss of such an opportunity in the short-term may reduce the benefits of the cluster in the long term when Norwich seeks to compete for new operators in the future.

Conclusion

- 7.23 Long-term passenger growth scenario beyond 2045 suggests that Norwich Airport could reach 3.0 to 3.5 mppa towards the latter parts of the century and even up to 4.0 mppa. Within the growth scenario, offshore rotary is not expected to grow beyond current levels.

Freight traffic will not require additional facilities on site and GA traffic is likely to see only modest growth beyond current levels.

- 7.24 The MRO sector enjoys a high-quality presence at Norwich Airport with two principal players supported by a strong local skills base. However, in spite of the prospect that some UK and European demand for MRO may return to operators in the UK and Europe, Norwich will face stiff competition to attract significant additional new hangar development, over and above expansion of existing facilities.
- 7.25 Whilst some of this may be attracted to Norwich, this Report has demonstrated that these potential MRO uses can be accommodated to the south of the runway. However, to test the market, a strip of land, approximately 20% of Site 4, has been retained for aviation-related purposes. This would constitute three times the size of the Monarch hangar at Birmingham Airport.

8.0 REVIEW OF GREATER NORWICH EMPLOYMENT LAND AVAILABILITY

Introduction

- 8.1 This report is prepared jointly by Bidwells and Roche Chartered Surveyors. A full copy of the Report is available at Appendix 5.
- 8.2 The two firms are involved in the all major industrial estates and development sites in and around Norwich, and to a wider extent Norfolk as well.
- 8.3 Both firms have been established in Norwich for over 30 years and between them account for over 70% of the industrial and warehousing transactions on an annual basis. They have a proven track record and provide concise and impartial advice to developers and property owners.

Current Market Conditions and how the Market Has Changed since 2012

- 8.4 The industrial/warehouse market in Norwich is currently as buoyant as it has been for a number of years and is characterised by a steadily falling supply of available units, coupled with strong occupational demand.
- 8.5 The total supply of units currently available on the market now stands at 567,469 sq ft. Approximately half these units are below 5,000 sq ft in size, and there is a general shortage of good quality, well located units of over 20,000 sq ft in size.
- 8.6 Importantly, the vast majority of the larger units currently on the market do not suit current occupiers' needs. On the traditional industrial estates to the north of the City around Hurricane Way, Fifers Lane and Vulcan Road in particular, many of the units are older with limited eaves' heights, small yards and car parking areas and too many columns in the warehouse areas, which reduce flexibility from an occupier's perspective. This part of the City can also become very congested at peak times.
- 8.7 It is essential that a centre like Norwich keeps existing occupiers and allows them to expand into new, more suitable premises, which will enable their businesses to flourish, ultimately creating more jobs. There was considerable press coverage recently on the closure of the Britvic/Unilever site in 2019 and it is essential that no other large-scale occupiers, in particular, decide to move out of Norwich. Modern day industrial and

warehouse operators require flexible and usable buildings which will make their businesses more efficient.

8.8 Invariably, clear, open-plan warehouse space will be required, with minimal, or no columns. For the mid to large sized units in particular, a 7m eaves height is typically required. Generous parking, loading, unloading and circulation areas are also needed, which usually means a building to site ratio of 40% to 45% at most. Virtually no existing buildings in the immediate vicinity are able to offer these amenities.

8.9 In 2017, 228,255 sq ft of existing built space was taken up totalling 37 transactions. The largest deals to take place were:

- 35 Barnard Road, Bowthorpe – 49,240 sq ft let to Brandbank.
- 6 Lansdowne Road, Union Park – 40,2450 sq ft let to Middlesex Wines.

8.10 32 requirements are currently registered, which total 340,000 sq ft in size. 12 of these requirements are for units of over 10,000 sq ft.

8.11 The general feedback from occupiers is that they want modern units with good sized yards in accessible locations, close to the main arterial or ring roads.

8.12 There remains strong demand for virtual freeholds from owner-occupiers, who will typically look to place the property in their Self Invested Personal Pension (SIPP). Importantly, there is currently very low virtual freehold availability.

8.13 The table below sets out a summary of availability, take-up, the total amount of requirements and the largest deals to take place since 2012.

Table 8.1: Yearly Summary of Availability, Take-Up, Requirements and Deals

YEAR	AVAILABILITY	TAKE-UP	REQUIREMENTS	LARGEST DEALS
2012	1,196,264 sq ft	337,837 sq ft	215,500 sq ft	<ul style="list-style-type: none"> • 35 Barnard Road, Bowthorpe – 69,000 sq ft let to Tyco • Unit A, Old Hall Road – 61,918 sq ft sold to the Norfolk University Technical College • 1-3 Whiffler Road – 19,140 sq ft let to Pentaluck Ltd

2013	957,111 sq ft	545,701 sq ft	410,000 sq ft	<ul style="list-style-type: none"> the former Uniglaze 2 factory, Forest Way, Longwater – 154,122 sq ft sold to Pasta Foods the former Remploy factory, Raynham Street – 53,029 sq ft sold to Robinsons the former Uniglaze 2 factory, Spar Road – 50,663 sq ft sold to Barford Attachments
2014	783,366 sq ft	282,782 sq ft	260,000 sq ft	<ul style="list-style-type: none"> 3 Hurricane Way – 28,735 sq ft sold long leasehold to TSI Structures 408 Coppersmith Way, Gateway 11 – 12,537 sq ft let to MTCE Ltd 1 Arms Park Road, Union Park – 8,458 sq ft let to Saint Gobain
2015	871,644 sq ft	296,673 sq ft	560,000 sq ft	<ul style="list-style-type: none"> The former Yodel unit, Vulcan Road South - 30,673 sq ft let to Tufnells 2d Wendover Road, Rackheath - 29,138 sq ft let to Angling Direct
2016	431,417 sq ft	516,564 sq ft	476,500 sq ft	<ul style="list-style-type: none"> 2 Caley Close, Sweet Briar Industrial Estate – 133,474 sq ft let to Amazon The Former Knowles Capacitors Site, Old Stoke Road - 90,752 sq ft sold to Mattressman

8.14 The key points to note over the period are the following:

- Availability has nearly halved;
- The average yearly take-up figure is 367,968 sq ft;
- Total requirements average 377,000 sq ft per annum;
- There were two transactions over 100,000 sq ft in size, namely the sale of the former Uniglaze 2 factory at Longwater in 2013 and the letting of 2 Caley Close in 2016.

The Supply of Land in and around Norwich

8.15 It is essential for the local economy that there is a steady long-term supply of suitable land over the next 10 to 15 years. For such an opportunity to be successful, location and accessibility will be key.

8.16 The table below shows the supply of employment land on the various business parks and schemes in and around Norwich.

Table 8.2: Business Park / Development Schemes in Norwich

ADDRESS	SIZE	PRICE	PLANNING	COMMENTS
Sweet Briar Park, Norwich	Up to 10.04 acres	£375,000 per acre	Employment allocation	<ul style="list-style-type: none"> • New scheme to the west of the City centre • Plots sold to Wickes, Pendragon & Viking Storage • Estate road & services in place
Broadland Gate, Norwich	Up to 13.89 acres	£475,000 per acre	Outline permission	<ul style="list-style-type: none"> • New business park situated at junction of A47 & NDR • 6 acres under offer to Jaguar Land Rover • Estate road & services to be in place by end of 2017
Broadland Business Park, Norwich	Up to 18.7 acres	£400 to 500,000 per acre	Outline permission	<ul style="list-style-type: none"> • Established business park to the east of Norwich • Developer will also offer Freehold and Leasehold Design and Build packages • Site situated to rear of park, opposite Hewlett Packard data centre
Longwater Park, Norwich	Up to 16 acres	Specification dependant	Outline permission	<ul style="list-style-type: none"> • Established industrial area to the west of Norwich • Leasehold Design and Build packages only available • Rent likely to be no less than £8.50 per sq ft

ADDRESS	SIZE	PRICE	PLANNING	COMMENTS
St Andrews Northside, Norwich	12.6 acres	£3 million	Detailed planning for 137,240 sq ft of offices	<ul style="list-style-type: none"> • Situated to the east of Norwich, adjacent to Broadland Business Park • Owner will only consider a sale of the whole plot
Browick Interchange, Wymondham	Up to 26.4 acres	£450,000 per acre	Employment allocation	<ul style="list-style-type: none"> • New business park situated adjacent to A11 at Wymondham • Developer will also offer Freehold and Leasehold Design and build packages • To be serviced

8.17 Existing employment sites were examined and the following information was noted:

Sweet Briar Park

8.18 Although Sweet Briar Park is situated on the outer ring road on the west side of the city, it is still some distance from the County's main trunk roads. This section of the outer ring road can also become congested at peak times of the day.

8.19 There only just over 10 acres that are still available for employment uses. The shape and layout of this land means it could not be reasonably developed in its entirety for a single large unit.

Broadland Gate

8.20 This is a new scheme in the centre of which there are some residential houses. The land with NDR frontage is to be developed for higher value uses which are similar to the six acres under offer to Jaguar Land Rover.

8.21 There is limited land here for conventional employment uses and, therefore, some of the larger requirements cannot necessarily be catered for within a single usable development plot. In addition, it is only a fraction of the size of Site 4.

Broadland Business Park

- 8.22 Broadland Business Park provides a mix of office, warehouse and industrial uses, so the general environment will be different from Site 4. Office development has taken place toward and at the front of the Business Park, where occupiers include organisations like Aviva, the NHS Foundation Trust and Lovell Blake Accountants.
- 8.23 The industrial/warehouse development has typically occurred towards the rear of the park to the north of the aforementioned office uses. These locations are further away from the A47 and NDR and, therefore, considerably less accessible than Site 4.

Longwater Park

- 8.24 The land that is available is not immediately adjacent to the A47. Towards the rear of the Park, there are a number of general industrial uses, such as waste transfer stations and concrete batching plants. At the front of the site there are retail units, including Sainsburys, which can lead to congestion issues. Longwater Park is considered to be less suitable for more conventional light industrial and warehouse uses.
- 8.25 The available land here is only available on a leasehold design and build basis and it, therefore, cannot cater for either the sale of freehold land or the sale of bespoke freehold building.
- 8.26 The employment land at Longwater Park is less prominent and less accessible than Site 4 and the available land is considerably smaller than the total availability at Site 4.

St Andrews Northside

- 8.27 This is only suitable for offices and not industrial or warehouse uses, unlike Site 4 which can accommodate all Class B uses.

Browick Interchange

- 8.28 This is situated to the south of Norwich, in Wymondham, on the A11 and at 10.7 hectares is the largest employment site available in the local market. It has the potential to accommodate up to 280,000 sq ft of employment floorspace. However, the site still needs to be serviced.

- 8.29 Whilst Browick Interchange offers the largest amount of employment land it is still only 25% of the size of Site 4. As it is situated to the south-west of Norwich, it also caters for a different market from a geographical perspective. The town of Wymondham, where the scheme is situated, has typically attracted occupiers from the immediately surrounding areas who have wanted to remain within the immediate vicinity.

Site 4

- 8.30 At 115 acres (gross) and with the ability to accommodate in the order of 1 million sq ft of accommodation, Site 4 will offer Norwich and Norfolk the only opportunity for large-scale development.
- 8.31 Site 4 is immediately adjacent to and has extensive frontage to the new NDR and will, therefore, be one of the best located and accessible sites in the region. Its location will provide the perfect solution to all the issues and problems which have typically hampered many companies and businesses currently occupying older, inflexible and unsuitable buildings.
- 8.32 Site 4's accessibility and wide catchment area will provide organisations with the ideal opportunity to acquire land or buildings on a virtual freehold or leasehold basis, which will provide more suitable premises for occupiers' occupational needs. Many areas in rural Norfolk are less accessible to the major trunk road network, and with a distinct shortage of modern suitable buildings, Site 4 is an ideal solution and offers a unique opportunity.
- 8.33 Given the above, Site 4 represents the ideal opportunity to overcome all these issues and provide local businesses with buildings which will considerably better suit their needs and allow them to expand and flourish over the next five to 10 years.

Conclusion

- 8.34 It is essential that Norwich has a large-scale scheme which can deliver good quality modern units and prime employment land over the medium to long term.
- 8.35 The largest current scheme is Browick Interchange, but this only offers in the order of a quarter, in terms of both land and accommodation to be developed, of what Site 4 could offer. Site 4 also offers occupiers the opportunity for both virtual freehold and leasehold plots and is large enough to accommodate a variety of uses, including B2/B8 uses.

9.0 GENERAL EMPLOYMENT DEMAND AND FUTURE OPPORTUNITIES

Current and Predicted Future Demand

- 9.1 The current total amount of registered requirements is 340,000 sq ft. This is more or less in line with the yearly average of 360,000 sq ft since 2012.
- 9.2 Given the reducing supply of existing units and the fact this is likely to continue in the future, it is considered that more occupiers will have no choice but to consider purchasing plots of land or entering into virtual freehold or leasehold design and build packages for bespoke properties.
- 9.3 There will be future pent-up demand which will only be realised once the scheme is actively and openly marketed. This would be particularly the case for virtual freeholds.
- 9.4 For example, when Bidwells marketed the former Uniglaze 2 factory at Longwater in 2013, there were no known active requirements for 150,000 sq ft at the time. It was only when formal marketing commenced that four companies became interested in the property as they saw it as a good opportunity to potentially expand into a better building. It was ultimately purchased by Pasta Foods who relocated from Great Yarmouth.
- 9.5 During the first two months of this year, there have been a number of larger requirements in excess of 30,000 sq ft come to the market.
- 9.6 Given the general shortage of suitable buildings in the region as a whole, many companies are having to extend their area of search. As a result, companies from further afield are now considering Norfolk as a possible location, where this might not have been the case 12 or 18 months ago.
- 9.7 The increase in internet retailing has led to increased demand from the delivery companies in particular. For companies like DHL and the other delivery companies, accessibility to the main road networks are essential in order to deliver their goods on time. A site like Site 4, which is situated immediately adjacent to the NDR, should provide an ideal opportunity to provide access around Norwich and into the wider county as well. Internet retailing is only likely to continue to expand and, therefore, there is likely to be a continued and increased demand in the future from the providers and their delivery companies. With the availability of prime land at Site 4, it will provide one of the best schemes in and around Norwich to

cater for both increased future demand and pent up demand to be satisfied in a highly important and accessible location.

- 9.8 Given all of the above, it is predicted that demand for the foreseeable future is likely to be above the yearly average since 2012 and may well be in the order of 450,000 to 500,000 sq ft per annum. With the supply of suitable available buildings continuing to fall, proportionately more of this demand will have to be satisfied on new build schemes where new units can be provided, or land purchased.

Site 4 and its Potential Uses

- 9.9 Site 4 is conveniently located adjacent to the A1270, the Northern Distributor Road (NDR), which has recently opened. The site extends to in the order of 115 acres.

- 9.10 The Site is suitable for the following uses:

B1, B2 and B8 Uses

- 9.11 With the opening of the NDR, accessibility to the site is now directly off the dual carriageway. There are limited opportunities for large scale B1, B2 and B8 premises in northern Norwich (where most of the established industrial businesses are located) due to the age and configuration of the existing stock. Since the establishment of the Vulcan Road, Fifers Lane and Hurricane Way Industrial Estates in the 1960s and 1970s, there has been a fundamental shift in building design.
- 9.12 Occupiers generally require higher eaves, with new buildings now providing a minimum of 7m, as opposed older stock where the average eaves are in the region of 5m. Much of the existing accommodation in north Norwich offers lower eaves than the market now requires. In addition, older accommodation is developed to a much higher density, with small inadequate yards and parking. Modern premises are designed to offer more parking and better access for all vehicles. A lack of suitable parking and external hardstanding is one of the key issues which concerns occupiers because there is no simple way to design a solution. In tandem with the high-density developments which occur on individual plots, older industrial estates are generally developed to a higher density, leading to access problems and parking issues. A new scheme at Site 4 will provide direct, congestion free access to a major business hub.
- 9.13 Therefore, the ability to develop out new quality B1, B2 and B8 premises offers a new opportunity for occupiers seeking representation in north and north-west Norwich. There

are no other suitable sites in the immediate vicinity and, with the two main employment locations being to the east of Norwich, it is imperative that there are alternatives in a different location. The retention of established businesses in north Norwich is crucial and if no land is available, then occupiers will look for suitable alternative locations, where modern, accessible premises are available. It is important that suitable B1, B2 and B8 employment land is available in the Greater Norwich area to support growth in the region and help achieve the vision of the emerging Local Plan.

Roadside Uses

- 9.14 The location of the site adjacent and with prominent frontage to the NDR, makes it imminently suitable for roadside uses.
- 9.15 Recent examples of new road side schemes in Norwich include:
- 1) McDonald's at Thickthorn, at the junction of the A11 and A47
 - 2) Costa Coffee and Broadland Business Park
 - 3) Greene King premises at Broadland Business Park
 - 4) Upgrade of BP and M&S shop on Mousehold Lane, Norwich
- 9.16 Other roadside schemes for either fast food or retail have been developed over time and there are further requirements in the market for additional fast food restaurants, petrol filling stations and, where appropriate, small-scale trade counter schemes.
- 9.17 Recent experience has shown that multi-store occupiers, such as Screwfix, now have a format which allows for more, smaller units to provide short drive times for customers to their stores. Screwfix already have four outlets in Norwich and have a further requirement for the east side of the City, close to the A47.
- 9.18 For most if not all occupiers, the issue will be traffic flows. This will take some time to determine and importantly will also be dependent upon whether any other schemes are developed along the route before the subject land is developed.
- 9.19 The most appropriate initial development will be for a petrol filling station (PFS) with associated fast food and other food retailers. The ability to provide a hotel and pub is considered important for the Business Park, but the timing of this will be determined to some extent by the occupiers on the Park. The drive-by traffic will generate a certain amount of business, but adjacent occupiers will increase the interest in the site. As a location for these types of use, Site 4 is well positioned.

The NDR and its Connectivity

- 9.20 The NDR provides significantly improved accessibility to northern Norwich from the A1067 (Fakenham Road) to the Postwick Interchange on the A47 to the east of Norwich. With the almost opened NDR, access to the north of Norwich is now possible, without having to travel through Norwich City centre.
- 9.21 At the time the NDR was first considered in early 2000, it was seen as essential infrastructure to assist with economic growth and formed part of the Norwich Area Transport Strategy (NATS). The development of the road provides much needed infrastructure improvement to the north of Norwich, where congestion was causing a strangle hold on some industrial estates, leading to occupiers looking to move to better located estates, such as the Bowthorpe Employment Area to the west of Norwich and the White Lodge Trading Estate on the south side.
- 9.22 The road opens up large swathes of land for both commercial and residential development, with the principal commercial developments being at Broadland Business Park, Broadland Gate and Site 4. There are a large number of residential schemes in Sprowston and Plumstead, where over 11,000 new homes are planned, and it is important to ensure that there are sufficient employment opportunities spread across a wide geographical area, rather than just land to the east of the city. Furthermore, if there is direct access to the NDR from one of the new housing schemes, this could enable access from housing to employment without the need to use the existing road network, limiting congestion and providing a key benefit of the NDR, which is distribution of traffic.
- 9.23 The NDR has opened up significant development opportunities for commercial uses, with Broadland Gate presently under construction having a number of occupiers seeking representation adjacent to the junction of the A47 and the NDR.
- 9.24 Without the provision of the NDR, this development opportunity would not have arisen. Site 4 has direct access to the NDR, giving accessibility to the north of Norwich and further afield to mid and north Norfolk, via the A140. Norwich City centre is accessed via Cromer Road and the east of Norwich via the NDR.
- 9.25 The north of Norwich has historically been one of the more established locations for business occupiers. Prior to the construction of the NDR, there was potential for the location to suffer with congestion especially at certain times of the day. With the NDR in place, congestion will ease which will make the northern industrial estates and the adjacent

land more readily accessible, thereby increasing its popularity. This in turn will assist in the generation of jobs and employment in what is a key strategic location.

- 9.26 In commercial property terms, there has been increased popularity in locations such as Hall Road, Bowthorpe Employment Area and Broadland Business Park/Broadland Gate, due to the accessibility of the A47. With the NDR almost fully opened, this will increase accessibility and therefore demand for this location.
- 9.27 Importantly, the opening of the NDR provides a unique opportunity for new development at Site 4, in an area where there has been limited choice for occupiers and where in particular the age, configuration and condition of existing accommodation makes some of it no longer fit for purpose.
- 9.28 Without Site 4 being developed, the opportunities for business will be limited to the eastern and southern areas of the city. Recent experience has shown that businesses do want to locate to the north of Norwich, but the age and quality of buildings are not suitable. Other locations such as Rackheath are considered, but ideally businesses wish to remain in Norwich, where there is a larger employment pool.
- 9.29 The site will benefit from significantly improved connectivity. The NDR provides access to the A1067 (Fakenham Rd) to the west and the A47 via Postwick junction to the east. From the A47 all major arterial roads can be accessed, including the A11, A140 and A146. The city centre is accessed via either the A140 Cromer Road, or to the east via the various roads running into the centre from the NDR, including the A1151 and B1150.
- 9.30 When the final section of the NDR is completed to connect up with the A47 to the west of the city (being promoted as the 'Western Link'), Site 4 will sit adjacent to one of the major routes in Norfolk. Its position of one of the most accessible and prominent schemes in the region will be further enhanced. With dual carriageway access to a wide geographical area, there will also be no need to traverse the city centre.

The Importance of the Site in a Local and Regional Context

- 9.31 The availability of a site for large scale development is vitally important to Norwich and the wider economy. The competing sites are limited in terms of their size and their layouts limit the provision of larger sized units.
- 9.32 Site 4 provides in the order of 115 acres, with the ability to construct up to 1 million sq ft of industrial and warehouse accommodation. The existing stock around north Norwich is

dated, lacking the attributes required by occupiers of eaves height, parking and access and in most cases now likely to be below the legal Minimum Energy Efficiency Standard. The older properties in northern Norwich generally have asbestos roofs and are poorly insulated, which are currently holding back local businesses. Site 4 is a solution to all these issues.

- 9.33 Broadland Gate has a gross area of approximately 45 acres for development. A number of plots have been sold or are under offer and the availability of land for traditional B1, B2 and B8 uses is limited at around 15 acres.
- 9.34 Broadland Business Park has a net developable area of approximately 40 acres for new development, which is split across a number of sites. Both of these business parks are located to the east of the city.
- 9.35 Browick Road, Wymondham, is located to the south of Wymondham, adjacent to the A11. It is conveniently located, with good accessibility via the A11, but has a site area of 26 acres.
- 9.36 Site 4 has a gross developable area of around 115 acres, which is substantially greater than both Broadland Business Park and Broadland Gate and therefore offers the only opportunity in Norwich to provide large scale development for existing occupiers or inward investment. The site sits adjacent to the NDR and should provide a ready supply of land for 10-15 years.
- 9.37 The availability of large scale development sites throughout Norfolk and wider East Anglia is limited and one of the pertinent factors for enabling development is the provision of infrastructure. Site 4 has the most important infrastructure in place as its access road is the NDR. Locations such as Thetford, King's Lynn and Great Yarmouth have availability of land, but they are generally smaller parcels and not suited to large scale developments. Furthermore, the economics of development are such that without public sector intervention in locations such as Great Yarmouth commercial development does not work.
- 9.38 Land and buildings will be available for virtual freehold at Site 4, as well as on a leasehold basis. With limited virtual freehold availability elsewhere in and around Norwich, this will provide a steady supply to organisations looking to purchase property.
- 9.39 Norwich is better placed for businesses in terms of employment, transport links (with both rail and airport in close vicinity) and the economics of development are more likely to

work. Site 4 is also adjacent to Norwich Airport and therefore offers both airside and aviation uses, as well as accessibility to the wider European market via Amsterdam.

Conclusion

- 9.40 Site 4 offers the largest single commercial development site in and around Norwich and therefore the potential for large scale light industrial, manufacturing and warehousing, which no competing site does. At 115 acres in size, it is four times as large as the next biggest site. It is essential that Norwich has a unique site of this nature for the long-term prospects of the local and wider economy.
- 9.41 Site 4 will offer occupiers further choice. The other sites are located to the east and west of Norwich, with the land at Wymondham being to the south. This site, being to the north of the city gives another option from a geographical perspective, especially taking account of the present location of existing businesses in this area of Norwich. Modern premises are imperative for businesses who want to expand and grow, compared with the older style premises which are not fit for purpose. Not all businesses will be able to afford higher rent, but it is essential to provide them with a wide range of options.
- 9.42 Some of the other business park alternatives are not prepared to sell land or buildings on a virtual freehold basis. The availability of virtual freeholds at Site 4 will assist in satisfying companies' requirements to purchase property.
- 9.43 Site 4 has the potential to provide a long-term supply of prime employment land which could last for 10 to 15 years or more. Importantly, it is located within close proximity to a number of housing allocations which will come forward under the emerging Greater Norwich Local Plan offering opportunity for sustainable employment with potential for cycling to work and importantly without the need to traverse the city centre.
- 9.44 Site 4 sits adjacent to the NDR, which will offer dual carriageway access and connectivity to a wide geographical area, without the need to traverse the city centre. Once the Western Link is complete, the orbital road will offer connectivity to the A47 and beyond via the west, as well as the east and the Postwick interchange. This will further enhance Site 4's accessibility and make it more attractive to occupiers.
- 9.45 Site 4 offers an alternative to the traditional Northern Industrial Estates. It will not provide direct competition due to the different types of product, but will provide occupiers with a greater choice.

10.0 SUMMARY

Site and Policy Context

- 10.1 Site 4 has already been granted permission for employment use, albeit for aviation-related use only. Therefore, the principle of development for employment use has already been considered and approved by both NCC and BDC. It has no known constraints and it benefits from direct access from the NDR.
- 10.2 The Site extends to 46ha and is located in the north-eastern corner of Norwich Airport, within its operational boundary. It benefits from a new access from the Northern Distributor Road, which opened in March 2018.
- 10.3 There are no statutory environmental or historic designations within or immediately adjacent to the Site, including Listed Buildings and Conservation Areas. It benefits from a current planning permission for employment development restricted to aviation uses.
- 10.4 The Site is identified in the current adopted Development Plan, the Greater Norwich Joint Core Strategy, under the Norwich City and Broadland District Development Management Policies as employment land. It is currently restricted to aviation uses under the Norwich City Development Management Policy DM27.
- 10.5 NPPF Paragraph 7 emphasises an economic role in building a strong, responsible and competitive economy, by ensuring that sufficient land of the right type is available in the right places and at the right time to support growth and innovation.
- 10.6 The draft Airport Masterplan has concluded that Site 4 is remote from the main Airport and, with the exception of retaining the required fire training facilities, is not required for future airport operational or expansion.
- 10.7 Hybrid planning permission for aviation-related employment floorspace at Site 4 was approved in August 2013. The detailed element of the permission was secured for an aircraft re-spraying business called Air Livery Ltd. Subsequently, Air Livery terminated the agreement on viability grounds. Since the granting of planning permission in 2013 and the withdrawal of Air Livery, a suitable aviation occupier for the site has not come forward. The main reasons for this is understood to relate to a lack of demand for aviation uses, the cost of the required infrastructure necessary to serve the Site in order to enable a

potential aviation user and the principal aviation infrastructure cluster being situated south of the runway.

Economic Considerations

- 10.8 NCC and BDC have both adopted a Community Infrastructure Levy (CIL). The potential CIL payments from a comprehensive employment scheme on Site 4 would total up to £1,019,640. The CIL evidence base includes provision for the construction of the Northern Distributor Road.
- 10.9 Full development of 46ha of Site 4 for general employments uses could generate up to 3,298 jobs.
- 10.10 The net GVA that could be created from the development at Site 4 ranges from £55,273,787 to £106,507,238.
- 10.11 The Government has made considerable investment in strategic infrastructure to serve Greater Norwich which will unlock development and economic opportunities for the region, driving demand for skilled workers and services.
- 10.12 Site 4 is a key strategic employment site with direct access to the primary road network. It is the largest site of its kind and unique in its offer, in particular to the strategic employment, storage and distribution sector. The site should not be limited to specialist uses for which there is no proven need or demand, that artificially restrict the site to the detriment of key services and economic growth. Such restrictions are considered likely to prevent development coming forward on the site for the foreseeable future meaning the economic benefits outlined may not be realised.

Objective Evidence – Aviation Uses

- 10.13 The land to the south of the runway has been compared with a selection of other UK airports which demonstrates that there is more than sufficient land to accommodate at least 4 mppa of commercial passenger traffic alongside the requirements of all the other airport based operations, including expansion of existing hangarage.
- 10.14 Land available at Norwich Airport south of runway is much larger than the comparable airports for these activities, further endorsing the view that even if the Airport were to reach 4 mppa later this century, there will still be sufficient land available for all other uses.

- 10.15 Long-term passenger growth scenario beyond 2045 suggests that Norwich Airport could reach 3.0 to 3.5 mppa towards the latter parts of the century and even up to 4.0 mppa. Within the growth scenario, offshore rotary is not expected to grow beyond current levels. Freight traffic will not require additional facilities on site and GA traffic is likely to see only modest growth beyond current levels.
- 10.16 The MRO sector enjoys a high-quality presence at Norwich Airport with two principal players supported by a strong local skills base. However, in spite of the prospect that some UK and European demand for MRO may return to operators in the UK and Europe, Norwich will face stiff competition to attract significant additional new hangar development, over and above the expansion of existing facilities.
- 10.17 Whilst some of this may be attracted to Norwich, this Report has demonstrated that these potential MRO uses can be accommodated to the south of the runway. However, to test the market, a strip of land, approximately 20% of Site 4, has been retained for aviation-related purposes. This would constitute three times the size of the Monarch hangar at Birmingham Airport.

Objective Evidence – General Employment

- 10.18 It is essential that Norwich has a large-scale scheme which can deliver good quality modern units and prime employment land over the medium to long term.
- 10.19 The largest current scheme is Browick Interchange, but this only offers in the order of a quarter, in terms of both land and accommodation to be developed, of what Site 4 could offer. Site 4 also offers occupiers the opportunity for both virtual freehold and leasehold plots and is large enough to accommodate a variety of uses, including B2/B8 uses.
- 10.20 Site 4 offers the largest single commercial development site in and around Norwich and therefore has the potential for large scale light industrial, manufacturing and warehousing, which no competing site does. At 46ha in size, it is four times as large as the next biggest site. It is essential that Norwich has a unique site of this nature for the long-term prospects of the local and wider economy.
- 10.21 Site 4 will offer occupiers further choice. The other sites are located to the east and west of Norwich, with the land at Wymondham being to the south. Site 4, being to the north of the city gives another option from a geographical perspective, especially taking account of the present location of existing businesses in this area of Norwich. Modern premises are imperative for businesses that want to expand and grow, compared with the older

style premises which are not fit for purpose. Not all businesses will be able to afford higher rent, but it is essential to provide them with a wide range of options.

- 10.22 Some of the other business park alternatives are not prepared to sell land or buildings on a virtual freehold basis. The availability of virtual freeholds at Site 4 will assist in satisfying companies' requirements to purchase property.
- 10.23 Site 4 has the potential to provide a long-term supply of prime employment land which could last for 10 to 15 years or more. Importantly, it is located in close proximity to a number of housing allocations which will come forward under the emerging Greater Norwich Local Plan offering opportunity for sustainable employment with potential for cycling to work and importantly without the need to traverse the city centre.
- 10.24 Site 4 offers an alternative to the traditional Northern Industrial Estates. It will not provide direct competition due to the different types of product, but will provide occupiers with a greater choice.

Conclusion

- 10.25 Site 4 is a key strategic employment site for Norwich and the wider region.
- 10.26 The current aviation-related uses policy has proven to be prohibitively restrictive and has prevented the Site from being brought into economic use. It currently remains undeveloped and underused.
- 10.27 Objective evidence presented in this Report defines the current and predicted demand for aviation uses at Norwich Airport, and demonstrates that all future airport development and expansion can be accommodated within the airport boundary without the need for Site 4. This relates not only to the considerable land availability within the operational boundary but significantly to the preferred geographical location south of the runway in close proximity to the existing cluster of aviation users and infrastructure.
- 10.28 Notwithstanding this, it is proposed that a swath of land equating to approximately 20% of Site 4 is safeguarded for aviation development.
- 10.29 Should the current policy position prevail, not only is the site likely to remain undeveloped, but key employment and economic opportunities will not be realised to the detriment of the Greater Norwich region.

10.30 Indeed, development of Site 4 for general employment floorspace would serve to benefit the airport and its associated services from the considerable new direct / indirect employment opportunities and gross added value generated.

APPENDIX 1

Chapter 8 of Draft Norwich Airport Masterplan

8.0 Forecasts for Future Growth to 2030 and 2045

Introduction

- 8.1 In 2013, the Department for Transport (DfT) published UK Aviation Forecasts setting out the forecasts for passenger numbers, air transport movements and aviation carbon emissions at UK airports. The central forecast concluded that there would be an increase of 225 million passengers over the next 40 years.
- 8.2 Forecasts have been used to determine demand, surface access requirements, environmental impacts and sustainability targets as well as to programme capital development works to ensure that sufficient capacity is available to service passenger demand.

Department for Transport Forecasts for Norwich Airport

- 8.3 The DfT issued long-term passenger traffic forecasts for all airports in the United Kingdom when the Government published its UK Aviation Forecasts in January 2013.
- 8.4 The DfT forecasts Norwich Airport passenger traffic reaching 400,000 passengers by 2020, rising to 1 million by 2050, although these were made before Flybe announced (in 2016) that it would increase its destinations in the summer and winter, and in 2016, passenger figures, including the offshore sector, exceeded 500,000 passengers, well above the DfT projections at this time.
- 8.5 In its UK Aviation Forecasts, the DfT forecasts stronger than average growth for the Eastern Region in the period from 2011 to 2041 of 30%. However, this does include London Stansted Airport, which is located in Essex.

Passenger Forecasting Methodology

- 8.6 The passenger traffic forecasts in this Masterplan have been produced by a market-led bottom-up approach to 2030 based on:
- Growing underlying traffic demand for Norwich Airport's catchment from a base of 2015 in line with the DfT's 2013 Aviation Growth Rates;
 - Applying market capture performance to potential new routes to test which of these may be sustainable going forward, including eligible routes in the forecast;

- Applying aircraft size and load factor estimates to these routes to estimate the final passenger demand which may be handled;
 - Considering stimulation, market share gain and the impact of onward connecting passengers on hub routes and adding adjustments to the route level forecasts to determine the final forecast.
- 8.7 Beyond this, to 2045, the forecasts switch from a bottom-up capacity and demand-led approach to an overall market size approach, taking into account overall market share growth from the first 15-year period, and how this may continue going forward to reach a revised level of overall market share to estimate the forecast. Some reduction in demand associated with an expected decline in the offshore sector over time has also been factored in.
- 8.8 Given the long-term nature of these forecasts, they reflect a long-term growth rate. Although it is anticipated that, as a small regional airport, growth will necessarily be delivered in step changes over time and will not be linear throughout the period to 2045.
- 8.9 The adverse economic environment since mid-2008 has led to a significant reduction of air travel and passenger numbers at all UK airports, though more recently growth in demand has accelerated across the UK and returned to a level of normalised growth on the longer term, and the use of DfT growth rates reflects this aspect of the market where downturns are followed by accelerated growth.

Norwich Airport's Core Catchment Area

- 8.10 Norwich Airport's core catchment can be considered to be around a 60-minute drive from the Airport and, in 2015, it is estimated that this core catchment contributed around 96% of Norwich Airport's passenger traffic. Additionally, the Airport's outer catchment area extends into Suffolk, Cambridgeshire, Essex and parts of Lincolnshire and the East Midlands. At present, the contribution from these areas is low compared with overall demand. A small number of passengers make connections between scheduled air services and the offshore gas platforms, and, as such, do not have an origin or destination within the catchment area.
- 8.11 The total population of Norfolk, Suffolk and North Cambridgeshire is around 2.27 million.

8.12 Norwich Airport's core catchment can be considered to comprise the following eight districts:

- Breckland;
- Broadland;
- Great Yarmouth;
- King's Lynn and West Norfolk;
- North Norfolk;
- Norwich City;
- South Norfolk; and
- Waveney.

8.13 Nearly 40% of passengers from this core catchment area have a surface origin within Norwich City itself, higher than any other district.

8.14 Districts within the secondary catchment area are extensive and, in 2015, generated in excess of 5.2 million air passenger journeys across all airports, although most contribute only a very small number of passengers at Norwich Airport. These are:

- Babergh;
- Bassetlaw;
- Cambridge;
- Chelmsford;
- East Cambridgeshire;
- Fenland;
- Ipswich;
- Lichfield;
- Lincoln;
- Mid Suffolk;
- Peterborough;
- South Kesteven;
- St Edmundsbury;
- Suffolk Coastal;
- Tendring; and
- Uttlesford.

8.15 The remaining counties and local authorities in the Eastern Region, including parts of Cambridgeshire and Essex have not been seen as a potential source of traffic. The London airports are more accessible for this area than Norwich Airport and this is reflected by the

lack of passengers using Norwich Airport in 2015 from these areas. Norwich's negligible penetration of this extended catchment is not anticipated to change over the forecast period.

Underlying Traffic Demand

8.16 The underlying traffic demand has been taken from the Civil Aviation Authority (CAA) for 2015. As Norwich Airport has not been surveyed by the CAA, the estimates of the passenger profile for services from the Airport have been estimated as follows:

- For Edinburgh, Manchester and Aberdeen, the surveys from the other end of the route have been used with consideration of the 'destination' to inform the surface origin around Norwich. For airports surveyed prior to 2015, the passenger profile has been applied to the 2015 overall passenger demand;
- For the Amsterdam route, survey data from Aberdeen and Humberside to Amsterdam has been used to estimate the profile of demand, and then the catchment data associated with the domestic routes has been applied to this pro-rata to estimate the surface origins; and
- For the charter services, it has been assumed that all passengers are travelling for leisure purposes and their surface origin has been established by considering the levels of demand from the core and secondary catchment districts on similar routes served from London Stansted where a survey was conducted, with the catchment proportions allocated pro-rata to the overall passenger levels carried from Norwich in 2015.

8.17 Separately, Norwich Airport commissioned a survey in 2015 to identify the demographic characteristics within the catchment area and this was used to provide a cross-check on the results from the 2015 adjusted data outlined above.

8.18 The 2015 CAA survey provides traffic data, broken down by:

- Type of service – i.e. Charter or Scheduled;
- Origin airport;
- Final destination (and interim connecting points if not a direct itinerary);
- District of surface origin (or final destination) in the catchment area;
- Purpose of travel (business or leisure); and
- Nationality of passenger (UK or foreign).

8.19 In 2015, it is estimated that there were 1.85 million air journeys with a surface origin or destination in the core catchment area. Of these, around 21% of passengers were travelling

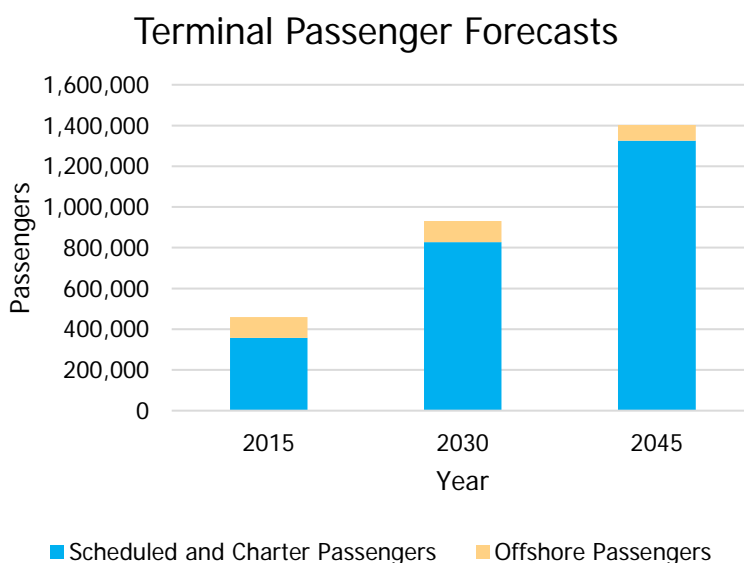
on business. When taking into account of the secondary catchment districts, the total air market from which Norwich Airport drew passengers was just over 7 million in 2015.

Growth of Oil and Gas

- 8.20 The offshore sector and the helicopter operations supporting this represent a significant proportion of the passengers at Norwich Airport. In 2015, over 22% of all terminal passengers at the Airport were travelling to and from the offshore gas platforms. Furthermore, the sector also generates significant travel on key scheduled routes, including Aberdeen (74% of all passengers) and Amsterdam (69% of all point to point business passengers).
- 8.21 Gas production in the Southern North Sea region is an important market for Norwich Airport. Despite a decline in production, movements and passengers have been increasing at Norwich Airport, as it has claimed a larger share of the market against Humberside, climbing from 47% of the helicopter movements in 2005 to 67% in 2015. The overall helicopter market has also grown, from around 10,500 movements across the two airports in 2005, to 20,500 in 2015, driven by an increase in the number of individual oil fields (and associated platforms) and a diversification of the number of oil and gas operating companies requiring transport for its operatives, albeit each field produces less gas individually than seen historically.
- 8.22 Based on reserved data published by the UK Government Oil and Gas Authority and estimated production rates, the gas reserves in the region could expire by 2030, although this does not take account of future exploration and discoveries. For the Masterplan and consideration of infrastructure needs and environmental impacts, it is not deemed prudent to assume there will be no further discoveries in the region and that production will end. Furthermore, as the offshore wind and platform decommissioning sectors continue to grow, it is likely that there will be some switch of operations to support these activities.
- 8.23 Consultations with existing operators confirm that they may expect some decline in operations over time, but with some uncertainty of scale and timeframe. With this uncertainty around gas reserves, exploration, production rates and offshore wind development, the offshore sector forecasts have been driven off this simple assumption that numbers will be consistent with 2015 levels in 2030, reducing to 75% of 2015 levels by 2045. This equates to around 13,750 movements and 103,000 passengers in 2030, falling to 10,300 movements and 77,000 passengers by 2045. This does not mean that numbers will not increase in the meantime, but that it is assumed over time they will fall from any peak in demand.

Norwich Airport’s Passenger Forecast to 2030 / 2045

- 8.24 From a base of around 460,000 passengers in 2015, it is forecast that passenger numbers will grow to around 930,000 by 2030, increasing again to 1.4 million by 2045. These represent compound annual growth rates (CAGR) of 4.9% to 2030 and 2.8% thereafter to 2045. This pattern, is, however, influenced by the decline in passengers projected in the offshore market segment to 2045. The CAGR for scheduled and charter passengers is actually 5.9% to 2030 and 3.2% to 2045. These are above the DfT’s growth rates for the underlying market as a result of step changes in market capture as new services are delivered.
- 8.25 For a small airport like Norwich, growth is unlikely to be linear throughout this period because small additions of capacity in any one year can lead to noticeable step changes in demand due to the low starting base, as has been seen in 2016 through the additional Flybe services. Analysis of the underlying market reveals a number of destinations which are already close to having sufficient demand to sustain direct services from Norwich Airport and, as such, there appears to be scope for a rapid growth in passenger services to 2030.
- 8.26 Scheduled and charter passengers are projected to increase from 77% of all passengers in 2015 to 89% (828,000) by 2030 and to 95% (1,326,000) by 2045 as offshore operations decline. It is anticipated that airlines will need to base new aircraft at the Airport, including a year-round basing of a charter aircraft.
- 8.27 By 2030, it is forecast that the Airport will increase its share of the core catchment market to 34.2%, up from 18% currently, with further market share gain to over 36% by 2045.



Graph 8.1 – Terminal Passenger Forecasts for 2030 and 2045

Air Traffic Movement (ATMs) Forecasts

- 8.28 ATM forecasts have been developed on a detailed analysis of routes considering indicative aircraft types suitable for the range of the route and the operator envisaged.
- 8.29 The aircraft mix is predicted to be made up of primarily 70-80 seat type aircraft for short haul international and domestic routes. Larger 120-190 seat aircraft are assumed on the leisure routes into Europe. As traffic increases, it is likely that there will be a continual upward shift in aircraft sizes. As a result, ATMs will grow at an overall slower rate than the passenger figures as more passengers will be carried on each movement.
- 8.30 In the Planning Forecast, passenger related ATMs are forecast to rise to around 13,500 by 2030, up from around 9,000 in 2015. This represents a 450% increase in movements against a 137% increase scheduled and charter passengers. The overall passengers per passenger related ATM is, as a consequence, forecast to reach 61 by 2030, up from 39 in 2015.
- 8.31 By 2045, ATMs are forecast to grow further to around 16,900 with average passengers per ATM of 78.
- 8.32 In overall ATM terms (passenger and offshore), it is projected that movements will increase from around 23,000 movements in 2015 to 27,000 by 2030. As a result of the decline in offshore helicopter movements offsetting growth in the passenger sector over the period to 2045, it is projected that movements will remain around 27,000 by 2045.

Growth of Business Aviation

- 8.33 There has been strong demand for Business Aviation services at Norwich Airport through Norwich-based operators such as SaxonAir. The demand reflects national and international growth in business traffic as individuals and corporations have increased usage of business aviation and air taxis.
- 8.34 Saxonair has developed General Aviation and charter handling services at the Airport since 2007 and has invested £7,000,000 in bespoke hangars, handling apron and office facilities from 2010 onwards. They have provided three separate hangars and high-quality offices on three floors in the Business Aviation Centre to the south-west of the runway. Saxonair operates its own fleet of 10 small to medium sized business jet and turboprop aircraft and arranges and handles charter flights for local and regional high worth individuals and businesses.

- 8.35 Norwich Airport forecasts that this market will continue to grow and that a number of operators will base aircraft at the Airport reflecting the economic growth and development of the region.

APPENDIX 2

**Norwich Airport: Imperial Park
Development Report: York Aviation**



York Aviation

Norwich Airport: Imperial Park Development Rigby Group Final Report

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Introduction

1. In February 2018, York Aviation were commissioned by Rigby Group to provide an objective review of the evidence for the aviation related requirement of Site 4, known as Imperial Park. Imperial Park forms part of the Airport Operational Area and benefits from a planning consent for aviation related commercial development. The site is identified in the ongoing Greater Norwich Local Plan consultation as a potential development site but we understand that Norwich City Council and the neighbouring local authorities are seeking objective evidence that the site should no longer be reserved solely for aviation related uses and that the majority of the site can be designated for non-aviation related uses.
2. This aim of this report is to provide the necessary evidence to Norwich City Council, and the neighbouring authorities, of the scale of land likely to be needed to support the long term growth of the commercial operations of the Airport, and to illustrate the need, or otherwise, for Imperial Park in supporting other aviation related activities, such as business aviation, MRO, cargo and general aviation.
3. Whilst, we appreciate that the draft Master Plan identified that Site 4 was not required for core aviation activity, this was not clearly demonstrated by reference to the land that might need to be safeguarded for the longer term (beyond the forecast period to 2045) to ensure that the Airport can continue to support the full range of potential aviation uses. This report then fills this gap in the evidence as well as substantiating the long term potential scale of aviation related development that might realistically take place associated with an airport of the scale of Norwich.

4. The demonstrative evidence we present is divided into two parts:
 - to provide evidence on the expected scale of the market for aviation related activities, particularly MRO and related activity as envisaged as the main aviation related users of the northern Site 4 in the original planning application;
 - to establish that there is sufficient land within the remainder of the Airport site to accommodate these uses and the longer term potential development of commercial aviation at Norwich on the assumption that 80% of Site 4 is released for non-aviation uses.
5. The report is organized as follows:
 - Long Term Passenger Demand;
 - Market Potential – Non-Passenger Aviation Market;
 - Scope of Facilities;
 - Conclusions.

Long Term Passenger Demand

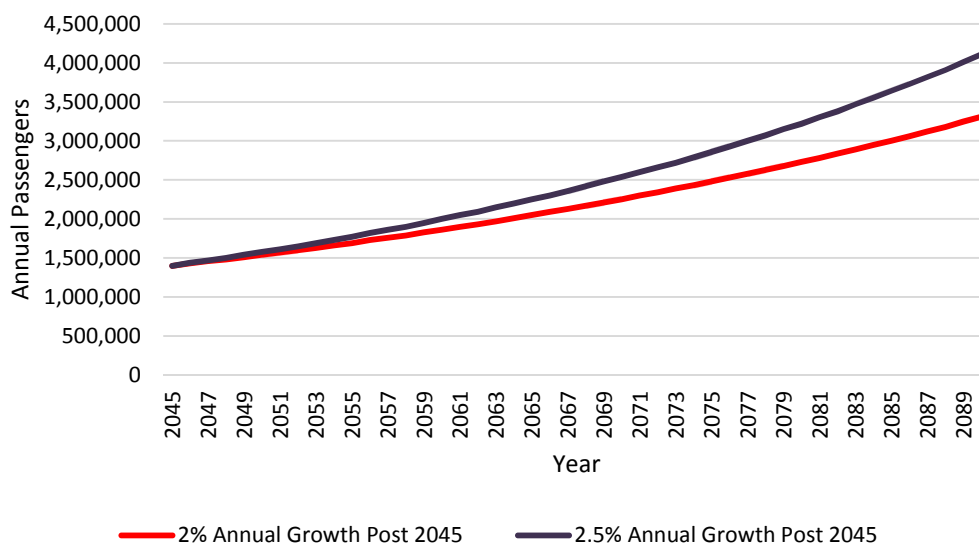
Commercial Passenger Market

6. We have previously produced long term forecasts for NWI to support the November 2017 Master Plan, covering the period to 2045. In considering the required infrastructure, we have not sought to develop detailed forecasts beyond 2045, but rather to apply simple metrics of growth to give a broad picture of when passenger demand may reach key milestone throughputs.
7. The Master Plan forecast shows the Airport reaching 1.4 million passengers per annum (mppa) by 2045, including around 80,000 passengers flying on offshore helicopters. This would place the Airport on a par with airports like Cardiff Wales and Doncaster Sheffield today
8. From this starting point, we have run two scenarios for a further 45 year period to 2090:
 - Applying a long term growth rate of 2% per annum to all non-offshore helicopter passengers; and
 - Applying a long term growth rate of 2.5% per annum to all non-offshore helicopter passengers.
9. In both cases, these growth rates exceed the long term average projected by the Department for Transport (DfT) which is 1.8% in the 2017 DfT Forecasts¹. This may be expected however as a small airport such as NWI could be expected to clawback some market leakage as it grows and offers a wider range of services. However, importantly, by presenting growth rates above the DfT figures, we have sought to provide an upper bound projection to ensure that our assessment of the land required for commercial activities will provide for all eventualities over the longer term
10. In both cases, we have assumed offshore passengers would remain around 80,000 as explained below. The results can be seen in **Figure 1** overleaf but, in summary:
 - At 2% annual growth – The Airport would reach 3mppa around 2085, and will not reach 3.5mppa even by 2090; and

¹ UK Aviation Forecasts, October 2017, Department for Transport

- At 2.5% annual growth – The Airport would reach 3mppa around 2077, 3.5mppa by 2084 and would reach 4mppa by 2089.

Figure 1: Long Term Passenger Projections



Source: York Aviation

11. These are indicative figures only to provide an indication of a realistic long term potential for which land would need to be safeguarded for purely aviation related uses. At the upper end of the scale, NWI would be comparable with Leeds Bradford or London City today. We consider the infrastructure requirements and the timescales over which this may be required later in this report.

Offshore Market

12. Based on the analysis undertaken as part of our Master Plan forecast, we believe that there is unlikely to be significant growth in the offshore helicopter market. We anticipate some switch from Gas to Windfarm usage, but the growth of the latter is likely to just act to offset the former's decline.
13. For this reason, we do not, at this time, believe there is a case for increasing the offshore helicopter passenger figures for 2045, and this is why they remain capped within the overall projections shown above. It must be noted however, that this is an assumption based on current thinking and that there could be changes in circumstances which could lead to further growth/decline.

Market Potential – Non-Passenger Aviation Market

14. In this section, we consider the opportunities for other aviation related activities to be attracted to NWI over and above the requirements directly associated with handling passenger flights, albeit that the scale of such activities which could realistically be attracted will be related in large part to the scale of passenger related operations. It is these non-passenger related activities which could generate a need for aviation related facilities to be located in part of Site 4. In this section, we cover:

- Freight Demand
- Business & General Aviation
- Maintenance – MRO
- Airport City type developments

Freight

15. At present, there is a very small throughput of freight at NWI and we understand that this is associated with freight being taken to the offshore gas platforms and with parts being moved between the Netherlands and KLM UK Engineering as bellyhold freight on the scheduled KLM services. Although there is a freight shed, most of the freight going through this is handled by truck and will be handled as bonded freight on the trucks and taken for consolidation at larger airports in the UK.
16. We do not see any reason for this pattern to change or for any significant growth in freight at NWI. The Airport's location away from the main trunk motorway network means that it will be highly unattractive to freight airlines seeking access to the UK freight distribution network, located principally between London and the Midlands. The local market is unlikely to sustain pure freighter operations flights directly.
17. We would not anticipate any need for additional freight handling capacity on this basis.

General and Business Aviation

18. Currently there is a steady, though low scale general and business aviation market at NWI (excluding offshore helicopters). Across this sector the activity will largely be serving the local market, perhaps with some small number of trainee pilots choosing to come to NWI for the flying school. Both the business and general aviation sectors are dominated by the South East of England, with some growth at core cities such as Manchester, but NWI is not located to be able to capitalise on these markets.
19. There has been long term cost pressure on the general aviation market, resulting in some aspects of the sector remaining relatively flat or even declining over the last decade. However, developments in Microlight flying (which covers smaller aircraft now) has led to some regrowth in the sector which may benefit NWI, though the extent of this may be small in overall terms and certainly by nature would not require large areas of hangarage or apron due to the size of the aircraft in question.
20. Whilst larger airports in the UK continue to squeeze out these activities, it is unlikely that NWI will represent a viable alternative for operators to relocate because the nature of general and business aviation is that it should be in convenient locations to maximise the time benefits offered over alternative transport modes. As NWI is not close to any of the Airports which are pricing the sector out, then they will be unable to satisfy the relevant markets.
21. Flying schools in the UK have benefitted from growth in demand from overseas, particularly Asia, and the shortages of pilots more recently in Europe. However, overall the scale of flying school activity remains relatively flat due to the cost and weather benefits of training in other global locations, including Spain and the USA. Furthermore, any boost gained from lack of training facilities in Asia may be reversed as flying schools are established on the continent.
22. Given the limited size of the local market for general and business aviation and its relative remoteness from other markets, e.g. London, we would expect to see only modest growth in this sector over time driven by local demand. Given the levels of activity on the current general aviation apron, we believe that any growth over the medium term could be easily accommodated, and even over the longer term, only minimal expansion of the apron may be required, which would not require a relocation to Site 4.

Maintenance – MRO

23. Norwich Airport is fairly unique among smaller regional airports in the UK in having substantial active aircraft maintenance facilities, provided by KLM UK Engineering (KUE) and Air Livery (aircraft painting). The location of the KUE facility at NWI is historic, resulting from the formation of Air UK in the 1980s out of Air Anglia, and the subsequent retention of the maintenance facility at NWI when KLM took over Air UK. This explains why NWI has MRO activity when larger regional airports such as Newcastle and Leeds have a very limited offer. The KUE facility provides support not only for KLM and KLM Cityhopper fleets, but also undertakes third party work for other airlines and aircraft owners. The scale of the activity makes this attractive to Air Livery as a secondary activity in support of aircraft maintenance. As a result of the KUE facility, there remains a strong pool of skills in the engineering sector at the Airport supported by the presence of the International Aviation Academy.
24. At present, there remains a buoyant aircraft maintenance market in the UK, supported by a combination of independent providers and in-house capabilities at the key airlines. However, for a number of years a large (and growing) part of the market has seen European airlines, including British Airways, easyJet and others, to send aircraft to Central Europe, the Middle East or further into Asia for heavy maintenance, driven by significantly lower labour costs which offset the costs of moving aircraft further afield for maintenance.
25. This has led to only limited growth in the UK market for heavy maintenance hangarage over recent years, with the most recent example being Monarch's hangar at Birmingham, although this came at the expense of the operator's Manchester facility which was subsequently closed as activity was consolidated into Birmingham. More recently, easyJet opened a new hangar at London Gatwick and this will be supplemented at the Airport by a new Boeing-operated hangar but, in both cases, these facilities are designed almost exclusively for line maintenance, and are only located at Gatwick because of the large based fleets which operate during the day and then go for routine maintenance through the night in the hangars. The same is true for the British Airways and Virgin Atlantic hangars at Gatwick and the Thomas Cook and Jet2 hangars at Manchester. This was also an influencing factor in the decision to locate the Monarch hangar at Birmingham, where value could be added in offering both line support and heavy maintenance in a single location. Such facilities could never be attracted to NWI because the based fleet of aircraft now, and in the future even at 4 mppa, would not be sufficient to require such line maintenance facilities over and above the capability of the KUE hangar to provide required line maintenance support.
26. In considering the future potential for MRO in the UK, we have combined our industry knowledge with consultations with three key MRO providers in the UK, KLM UK Engineering, Chevron and Air Livery. Due to commercial sensitivities, the information provided by these companies has been aggregated, but it is worth noting that the picture painted by all three was consistent. There is some emerging evidence, however, that there will be some re-trenching of heavy maintenance back to Western Europe over the coming years driven by three factors:
 - ➔ The rapid growth of airlines in Asia means that there will be increasing pressure on capacity there which may displace European carriers;
 - ➔ Retention of skilled staff in Central Europe is difficult as many will move to Western Europe on receiving their qualifications to earn a higher salary; and
 - ➔ Costs of sending airline staff to oversee maintenance are increasingly high and seen as offsetting cost benefits.
27. This may present some opportunities for NWI to grow in this sector, but these are unlikely to be widespread and are unlikely to require the whole of Site 4. NWI's strengths, which may make it attractive, include:
 - ➔ Existing MRO cluster, which can generate synergies such as the shared use of ancillary facilities like the paint shop; and

- Existing skills base and aviation academy will be attractive in a market where there are skills shortages.

28. However, there are factors which will limit NWI's attractiveness, including:

- A preference by many operators to be located at bigger airports where there is significant line maintenance and ad-hoc repair demand to supplement any heavy maintenance, driven by based aircraft or those rotating through as part of their normal schedules;
- The current runway length remains restrictive to widebody aircraft and, hence, those MRO providers who want to offer flexibility on the aircraft sizes they maintain, such as Boeing or Chevron, will be unlikely to consider NWI without the extension. Flexibility to cover aircraft of all sizes is likely to be important to MRO providers. The Master Plan safeguards the option of such an extension, but it will be the passenger market that determines whether this is required, not the low number of movements associated with MRO;
- Although clusters have benefits as highlighted above, operators have highlighted to us that they do not like too much immediate competition around them. They try to differentiate on location, otherwise it leaves only price for differentiation, which can drive down returns. Whilst we would not expect the presence of KUE at NWI to act as an impediment to all future MRO operators, it may limit the number that could be attracted to locate at the Airport and compete within the context of a relatively small local 'guaranteed' market and the limitations on the types of aircraft which could be maintained; and
- Having too many operators in a single location can drive up direct costs as salaries escalate in order to attract the same staff.

29. The scale of hangars which would be needed to support narrowbody maintenance would not be as large as they would if they needed to accommodate widebody aircraft, and hangars that are used for heavy maintenance, as opposed to line maintenance, can be smaller for the same number of aircraft because they will tend to stagger aircraft inside, rather than parking them directly side by side. As an example, the easyJet hangar at Gatwick, used for line maintenance, is 5,400m² and accommodates two narrowbody aircraft, but the Monarch building at Birmingham is around 10,200m², but can handle up to five narrowbody aircraft despite not even being double the size of the easyJet hangar. We overlay the total land area used by the Monarch hangar at Birmingham (including hangar, offices, car park and apron) onto the NWI Site 4 in **Figure 2** below.

Figure 2: Overlay of Monarch Maintenance facility onto Site 4



Source: York Aviation, Google Earth

30. As can be seen, one of the largest new hangars in the UK could be accommodated perhaps 8 times over on the whole of Site 4, generating capacity for 40+ narrowbody aircraft or 16 widebody aircraft. This is far beyond the scale of MRO seen anywhere in the UK and highly unlikely to be achievable in a single location, particularly one where there is little 'line' flying. The proposed reserved strip for aviation related used could potentially accommodate up to 3 such developments, delivering a greater floor area than the combined hangarage at Manchester Airport.
31. Furthermore, there will be intense competition for any new hangar developments in the UK, with airports such as Liverpool and Bristol already preserving land in their emerging Master Plans to attract these operations. In both of these cases, however, there is a recognition that the markets are unlikely to be large enough to fill all available land and so these are viewed as part of mixed-use development.
32. Given the previously identified strengths of NWI, it seems reasonable to preserve a suitable strip of land to allow for some limited long term expansion in the MRO sector. However, on balance with the factors against NWI and the overall space available compared to the smaller areas given over to MRO at comparator airports, it would not be credible in our view to retain the whole of Site 4 for aviation related activity.
33. The timescales over which firms may come to NWI are also uncertain. There could be near-term opportunities for a single hangar, but then it seems likely that future opportunities will be much further out as the Asian market fills and this could be 10-20 years away. This leaves some risk to the short term achievability of the near-term opportunity because it will be hard to commercially justify opening up Site 4 for a single building and operator. This leaves the very real risk that NWI will not be able to capitalise on this opportunity and it will go elsewhere. The loss of such an opportunity in the short term may reduce the benefits of the cluster in the long term when NWI seeks to compete for new operators in the future.

Airport City Type Developments

34. We understand that it has also been suggested that Norwich could attract other aviation related uses to this area, along the Manchester Airport City model. At Manchester, it is proposed to develop some 5 million ft² of offices, logistics, hotels and advanced manufacturing space over the next 10-15 years adjacent to the operational airport² on two sites totaling some 52.6 hectares. This compares to the Site 4 (imperial Park area) of some 46.5 hectares, i.e. of a similar total scale. This development needs to be seen within the context of:
 - the area's designation as part of an Enterprise Zone;
 - the relative scale of Manchester Airport which handled almost 28 mppa in 2017;
 - the proximity of the sites to the M56 motorway and major markets across the Liverpool/Manchester/Leeds corridor.
35. This zone does not include MRO type activity, which is located on a 9 hectare site within the operational part of the Airport. At present there are only three hangars used for MRO at Manchester, with a total floor area of approximately 28-29,000 m², less than three times the size of the Monarch hangar at Birmingham. The Airport's Sustainable Development Plan 2016 proposes that this area is sufficient for MRO type activity as the airport grows, albeit that some of the older hangarage is likely to require redevelopment. This would suggest that the reservation for hangarage development of 7.1 hectares within Site 4 should be more than sufficient to accommodate any reasonable aviation related activity at NWI given that this is in addition to the existing KUE and Air Livery facilities

² www.airportcity.co.uk

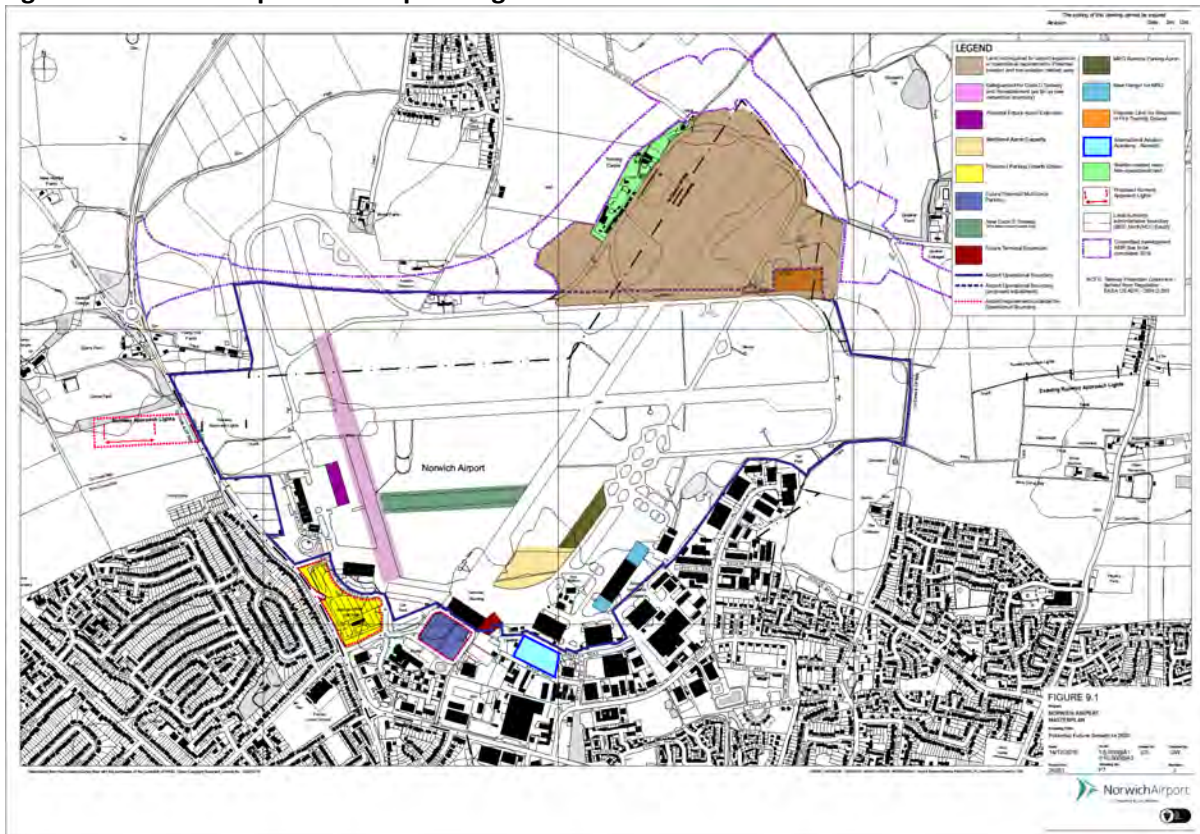
36. In terms of the uses being attracted to the Airport City site, these, in reality, have little direct connection with the operation of the Airport. Major logistics sheds have been attracted for Amazon and DHL and, whilst there is some connection to cargo activity at the Airport, the principal rationale for the location is proximity to the motorway. Similarly the attractiveness of the northern part of the site to office development is, at least in part, related to the direct rail and tram connections to the rest of Manchester. The scale of passenger activity at the Airport will be the principal driver of hotel requirements.
37. Overall, then, we do not believe that Manchester Airport City provides a relevant comparator for Imperial Park at NWI and to the extent that comparisons are valid, the scale of areas reserved for different activities at Manchester strongly suggest that the principal uses which might be attracted to Imperial Park are likely to be non-aviation related and that a reservation of 7.1 hectares for directly aviation related uses would be more than sufficient even for the longer term.

Scope of Facilities

Norwich Airport Master Plan

38. The November 2017 Norwich Airport Masterplan sets out the strategy for the development of facilities to meet the requirements of the traffic forecasts for the two key plan periods to 2030 and from 2030 until 2045. The traffic forecasts for these periods are 0.93 mppa by 2030 and 1.4 mppa by 2045. We have commented earlier on these forecasts in the light of the recent traffic performance at NWI and would expect that growth of this magnitude over this timescale to remain a realistic prospect.
39. To meet the requirements of these traffic projections, the Masterplan sets out phased developments to provide targeted new and modified infrastructure including new taxiway, apron, terminal and car parking facilities.
40. It also provides for the ability of other airport operations such as MRO, General Aviation (GA) and the offshore rotary sector to develop, grow and adapt accordingly. It is in these market segments that could give rise to the need to use of part of Site 4 to the north of the runway. Earlier, we have commented on the growth prospects and potential of these other non-passenger commercial market segments and indicated the extent that each of these are expected to perform during the Masterplan periods to 2045 and beyond. We have, as a central component of this report, identified what the longer term prospects are for these sectors beyond 2045 and will return to this later in this section.
41. **Figure 3** overleaf reproduces Figure 9.1 from the Masterplan which sets out the 'Potential Future Growth' developments to 2030. These comprise a range of developments across the southern part of the site in support of apron and terminal growth for commercial passenger flights, apron development in support of MRO, GA and offshore and other rotary operations, car parking and hangar development.

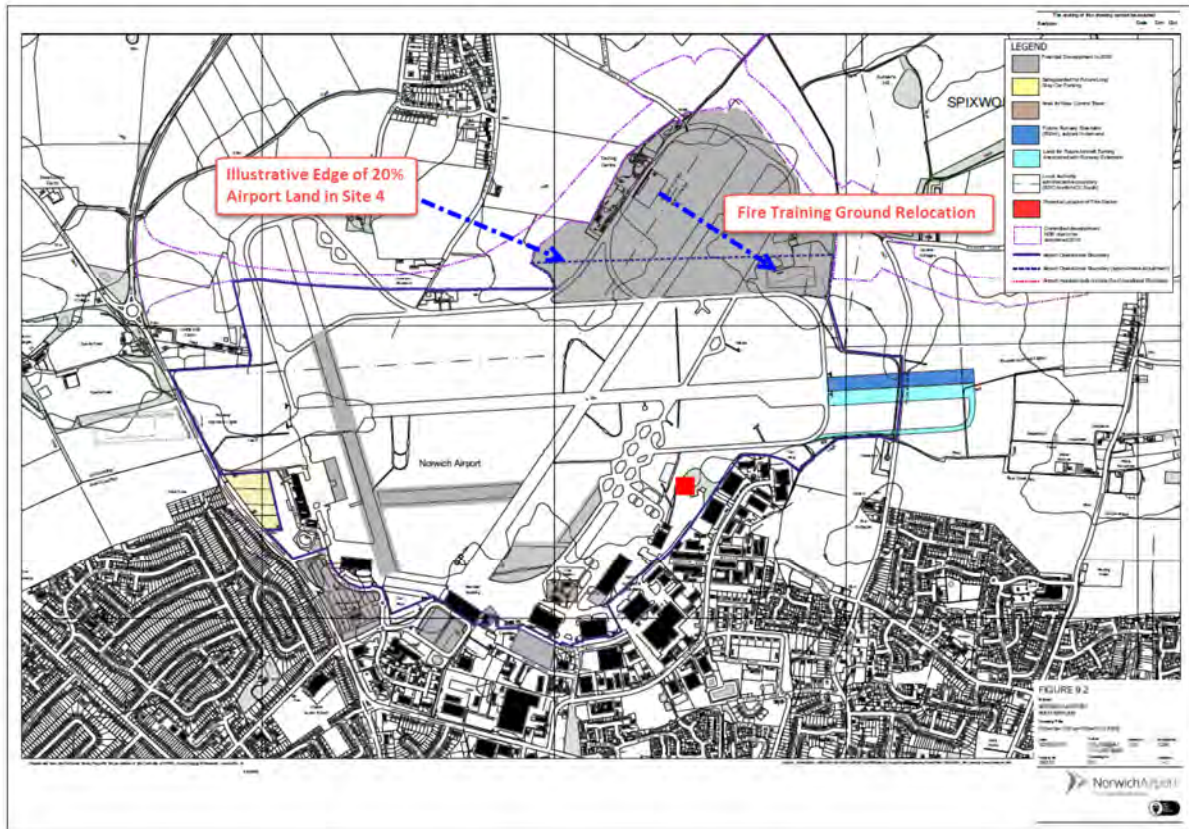
Figure 3: Norwich Airport Masterplan: Figure 9.1 – Potential Future Growth to 2030



Source: Norwich Airport Draft Masterplan, July 2017

42. It also highlights the extent of Site 4 to the north of the runway including the relocation of the Fire Training Ground to the south east corner of this site.
43. There is also a proposed new Code D taxiway running east-west to the south of the runway that will facilitate improved ground circulation for the taxiing of aircraft.
44. What is noticeable from this plan is the extent of available and unused land airside between the runway and the terminal apron areas and between the east and west apron zones that support MRO, GA and the offshore sectors.
45. **Figure 4** overleaf goes on to reproduce Figure 9.2 from the Masterplan that sets out the 'Potential Future Growth' developments to 2045. As well as illustrating the proposals set out above to 2030, the additional developments include additional car parking, a new fire station and the safeguarding of a runway extension.

Figure 4: Norwich Airport Masterplan: Figure 9.2 – Potential Future Growth to 2045



Source: Norwich Airport Draft Masterplan, July 2017

46. The full extent of Site 4 to the north of the runway is illustrated in grey and we have highlighted the relocation of the Fire Training Ground from its original location in the north-west area of Site 4 to its new location to the south-east. This relocation will have taken place during the first plan period to 2030.
47. We have also highlighted the 'blue' dashed line that runs east-west across Site 4. This provides a suitable strip for potential aviation-related hangar development with airside access. Preserving land for three hangars of the scale of the Monarch facility at Birmingham (and more than the MRO facilities at Manchester) and some ancillary activities, as discussed below, would require approximately 20% of the area to be retained for this use, though in reality the demand may never need all of this area as previously highlighted.
48. **Figure 5** overleaf illustrates the Option A 'Illustrative Masterplan' layout for Site 4 taken from the 'Imperial Park, Norwich Vision Document', October 2017. This depicts a range of airport related uses across the southern 20% of Site 4, the area highlighted in Figure 4.

Figure 5: Imperial Park Vision Document – Option A



Source: Norwich Airport

49. In this area we have highlighted the 'Engine Run Up Bay', recently constructed by the airport that will remain in this location long term. To its east is the relocated Fire Training Ground. To the west of this 20% area is a potential new location for the Air Ambulance facility. We understand that the current facility located as part of the complex of hangars and apron to the west of the current airport (south of the runway) is now too small for the Air Ambulance service that wishes to consolidate all of its NWI accommodation in one place (currently it has accommodation at two other locations at the airport in addition to the current hangar and apron).
50. In between these facilities, the Option A layout illustrates a row of hangars and apron.
51. As we have discussed earlier, the potential for additional MRO and other hangar related airport uses at NWI in addition to that that can be accommodated on land to the south of the runway is uncertain and very long term, in spite of the potential gravitation back towards Western Europe of European based MRO from Asia and other regions. Competition from other UK airports for new UK based MRO will be high. The remaining area in the 20% of Site 4 available for potential MRO then serves very much as a 'back stop' in the event that overall MRO, GA, Flying School, etc., activity at NWI outgrows the available land to the south of the runway.

Growth Beyond 2045

52. We next consider how much land NWI might need to accommodate growth above 1.4 mppa in the very long term beyond 2045. We have considered earlier three growth thresholds, 3.0 mppa (approximately twice the 2045 1.4 mppa traffic forecast) along with a 3.5 mppa and 4.0 mppa throughput based upon growth trends of 2% and 2.5% per year. The 3.0 mppa being reached from 2077 to 2085 and the 3.5 mppa reached from 2084 to 2090, depending on the rate of growth, and 4.0 mppa being reached in 2089 based upon a growth rate of 2.5%. These are all a long way out in the latter parts of this century.
53. Earlier in this section, in relation to Figure 3 and the proposals to 2030, we commented on the apparent extent of available and unused land airside between the runway and the terminal apron areas and between the east and west apron zones that support MRO, GA and the offshore sectors.

54. Our approach to gauge whether NWI will have sufficient land to the south of the runway, along with the 20% of Site 4, is to benchmark how much land is used to support operations at a selection of other UK airports that have a throughout in the 2.0 to 4.5 mppa range and compare this with the size of NWI. The airports selected are Aberdeen, Belfast City, Leeds Bradford and Southampton.
55. The areas we have measured are approximate and for consistency have used 'Google Earth' as a basis for the area measurements. The figures are set out in the **Table 1** below and we have divided the areas for the four benchmark airports in to three categories:
- ➔ total site area excluding the runway and associated 300m wide runway strip;
 - ➔ area of apron and taxiway used for commercial aircraft parking; and
 - ➔ the area occupied by the terminal, forecourt, access roads and car parking.
56. The comparator for NWI in this table has been obtained using a CAD drawing file with the same categories of area, except the area of apron and taxiway is the potential available area between the terminal and the runway strip and, thus, includes the apparent available undeveloped area described earlier as a potential expansion zone for such activities. As a cross check, we have also measured the total site area for NWI south of the runway strip in 'Google Earth' and derived a figure of 804,000 m², a very close match to the more accurate measurement of 807,000 m² in CAD. This then provides reasonable confidence that the areas measured for the benchmark airports using 'Google Earth' are sufficiently accurate to make comparisons.
57. Table 1 also combines the total area of the 'Terminal, Forecourt, Access Roads and Car Parking' with the 'Commercial Apron and Taxiway' in the right hand column.

Table 1: Benchmark Airport Site Areas (m²)

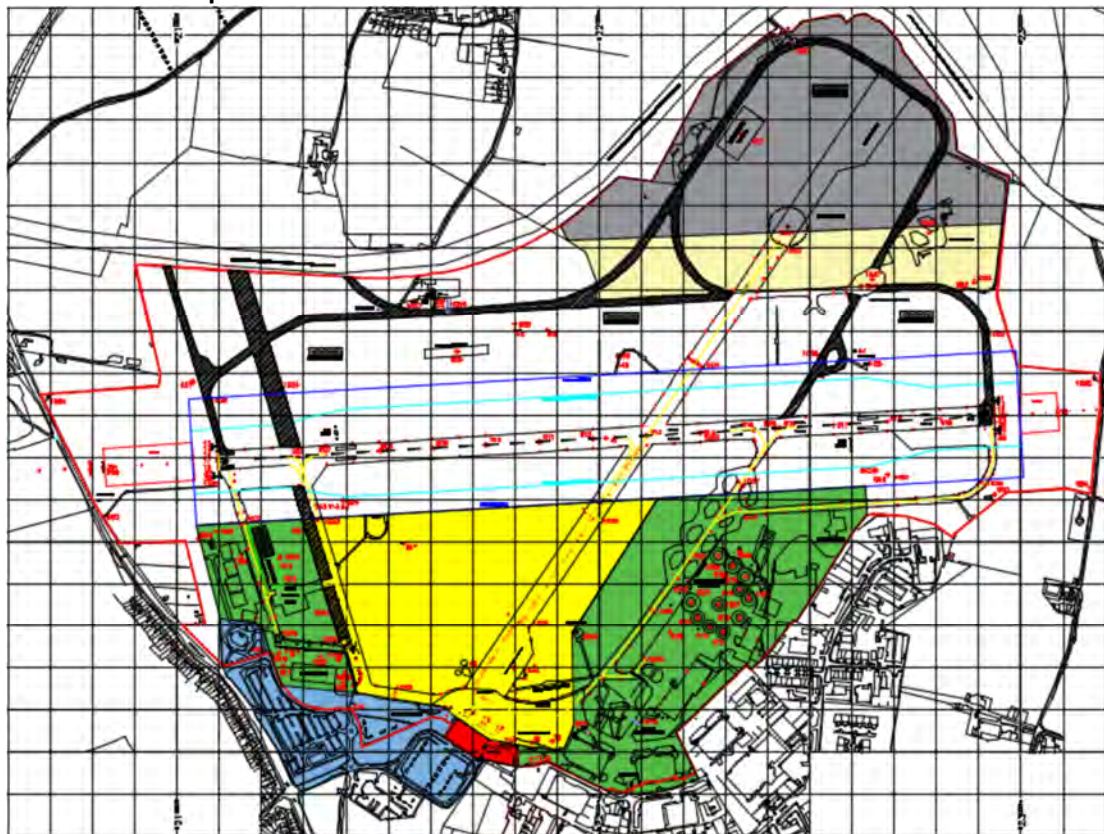
Airport	Mppa (2016)*	Total Site Area	Commercial Apron and Taxiway Site Area	Terminal, Forecourt, Access Roads and Car Parking Site Area	Combined Apron and Terminal Totals
Aberdeen	3	575,000	97,500	103,000	200,500
Belfast City	2.7	187,000***	50,000	137,000	187,000
Leeds Bradford	3.6	454,000	165,000	147,000	312,000
Southampton	2	305,000	54,000	91,000	145,000
Norwich	0.5	807,000	191,000**	111,000	302,000
Notes: *CAA Airport Statistics 2016 **Potential available land at NWI between terminal and Runway Strip ***Excludes extensive site for Bombardier Aerospace complex which has no airside connection					

Source: York Aviation, CAA Statistics, Google Earth

58. Importantly it should be noted that the NWI total site area is only for land south of the 300m runway strip and then excludes any of the Site 4 land.
59. What is striking, is how large the NWI site is at 807,000 m² compared to the other airports. Aberdeen with its significantly larger offshore rotary and fixed wing operation, the associated MRO and a commercial passenger throughput of 3.0 mppa is smaller at 575,000 m². Leeds Bradford at 410,000 m² is around half the size of NWI with a throughout of 3.6 mppa, although it does not have a significant MRO and GA operation.

60. Belfast City Airport has, for the commercial operations, an area only at 187,000 m² - it is a very compact airport. On the opposite side of the runway is the extensive Bombardier Aerospace complex covering an area of 770,000 m². Whilst some of this is adjacent to the Airport, the level of access is limited these days and the vast majority of it is landside. We have excluded this from the benchmarking as the scale and nature of this operation is unique at a British commercial airport. The Southampton Airport site at 305,000m² is split between two compact areas for commercial and other activity including GA.
61. The NWI combined area of 302,000 m² comprising the 191,000 m² of potential airside area and the 111,000 m² of the terminal, car parking and forecourt zones is very similar to the combined 312,000 m² at Leeds Bradford Airport, which handles 4.5 mppa and has plans to grow to 6.4 mppa by 2030. We understand that Leeds Bradford anticipate being able to handle in the region of at least 5 mppa through their site without the need to encroach too much on to land used by non-passenger related activities. There may be a requirement to relocate some car parking activity onto new sites outside the current airport boundary.
62. This would suggest that the 302,000 m² of available space for passenger related and other operations at NWI could support of 4 mppa. This area excludes the use of any part of Site 4 reserved for aviation related uses which would be available in addition to support growth in the other market sectors such as offshore rotary, GA, Air Taxi, Air Ambulance, MRO, Flying school, etc to the extent required
63. **Figure 6** overleaf illustrates, through shaded areas, the key zones of the operation or activity, including Site 4 to the north.

Figure 6: Norwich Airport Site Block Plan



Norwich Airport Site Block Plan Key:

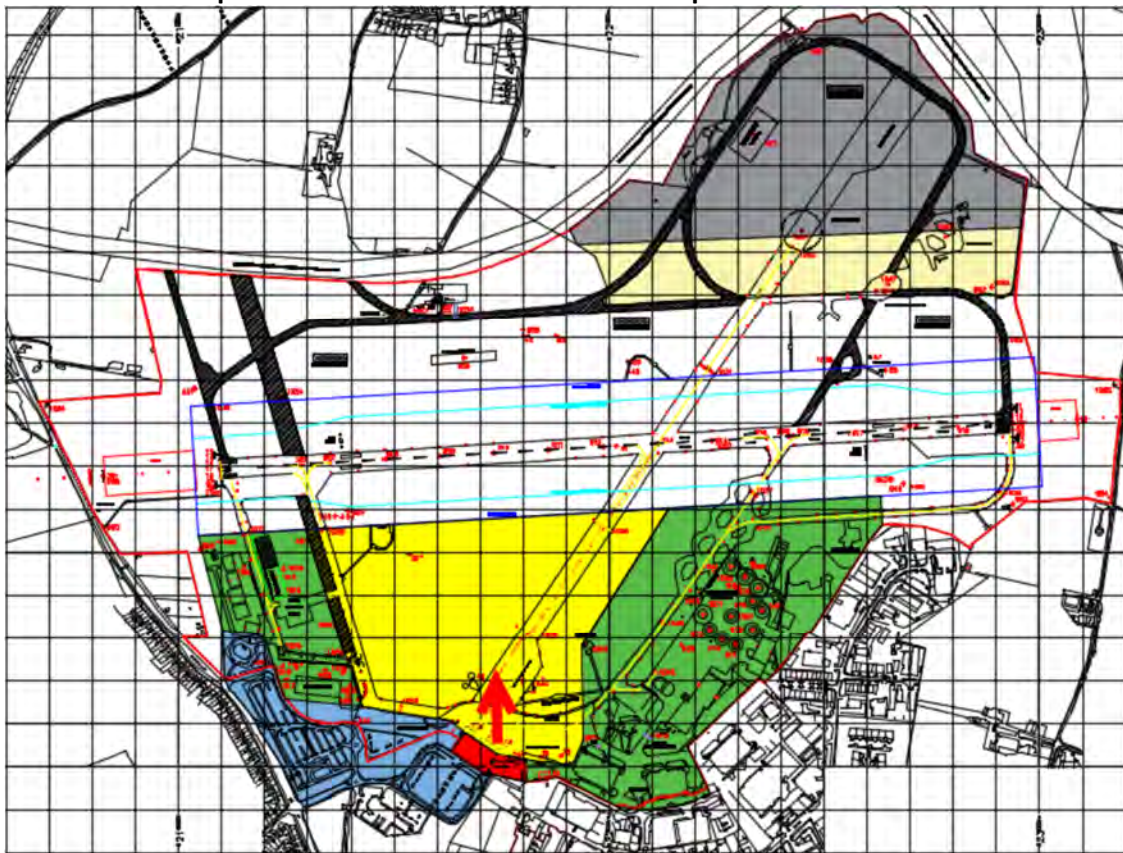


Source: York Aviation

64. The 'yellow' area is the potential airside area for commercial apron and taxiways, as discussed earlier. At its south is the 'red' terminal zone including the proposed Masterplan extension. Adjacent to this is a 'blue' zone covering the car parking, forecourt and access roads. The 'green' zones to the east and west cover the various MRO, offshore, GA, air taxi and flying school activities, along with other engineering and operational accommodation in support of airport activities. To the north is Site 4 in two colours, the 'beige' strip along its southern edge is the 20% of the site reserved for airport related activities, the remaining 'grey' area being for the non-aviation related developments.
65. This strip of land that constitutes the 20% of potential airfield related activities located along the southern edge of Site 4 will be in the 'line of sight' of the Control Tower located to the west of Site 4 on the northern side of the runway. Any MRO and other airport related development, together with its associated aprons and taxiways, will likely be south facing in any event. Any important localised areas that need to be observed in detail by the Control Tower can be resolved by the use of CCTV coverage, as is normal practice at all airports.

66. The two 'green' zones cover an area that is much larger than currently occupied by the various non-commercial related aviation activities and as such effectively provide significant space for these to grow and develop in the very long term without impeding the growth of the core commercial aviation activity.
67. Clearly, whilst the 'yellow' zone is substantial, with large areas undeveloped, even if all of the Masterplan proposals to 2045 are implemented, the 'red' terminal and 'blue' car parking and roadway zones are fully developed. In order that terminal and associated car parking (over and above Masterplan proposals) and forecourt capacity can be enhanced beyond 1.4 mppa then more land area will be required.
68. Figure 7 illustrates how the terminal could be expanded northwards in to part of the current commercial apron area, with the commercial apron area shifting northwards and expanded accordingly in to part of the very large 'yellow' area to the north.

Figure 7: Norwich Airport Site Block Plan – Terminal Zone Expansion Northwards



Norwich Airport Site Block Plan Key:

- Potential airside area for commercial apron and taxiways
- Terminal zone including proposed Masterplan extension
- Car parking, forecourt and access roads
- East and West zones for MRO, Off-shore, GA, Air Taxi, Flying Schools, Operational support, etc.
- Site 4 - 20% for Airport related activities
- Site 4 - 80% for non-aviation related developments

Source: York Aviation

69. Similarly, the 'blue' area could be expanded northwards in to the 'yellow' zone to create additional car parking and associated road capacity.

70. This will still support the 3.5 mppa to 4 mppa very long term growth potential of NWI given that it is the combined 'Yellow, Red and Blue' areas that make up the 302,000 m² of available space.
71. It should be noted that the boundaries between all these areas to the south of the runway are not fixed. The 'yellow' commercial airfield zone could stretch east and west if required and if the 'green' non-commercial areas do not grow significantly beyond the zones they currently occupy.
72. The block plans confirm that NWI will be able to support significant growth beyond 1.4 mppa and still allow land to be available for other non-commercial airport related uses. This in turn endorses the strategy of reserving just 20% of Site 4 for airport related activities to provide a 'flexible' backstop for additional MRO, GA and flying school activity that is not otherwise accommodated to the south of the runway.
73. The KLMUKE and Air Livery expansion, and proposed replacement apron for KLMUKE, outlined in section 3, will form part of the eastern 'green' zone on the block plan. This expansion will only utilise part of the spare land available within this zone.

Conclusions

74. That long term passenger growth scenario beyond 2045 suggests that NWI could reach 3.0 to 3.5 mppa towards the latter parts of the century, and even up to 4.0 mppa. Within this growth scenario off-shore rotary is not expected to grow beyond current levels. Freight traffic will not require additional facilities on site and GA traffic is likely to see only modest growth beyond current levels.
75. The MRO sector enjoys a high quality presence at NWI with two principal players supported by a strong local skills base. However, in spite of the prospect that some UK and European demand for MRO may return to operators in the UK and Europe, NWI will face stiff competition to attract significant additional new hangar development, over and above expansion of existing facilities. Whilst some of this may be attracted to NWI, the strip of land suggested within Site 4 (20%) for aviation related activities of 7.1 hectares for MRO type development is likely to be more than sufficient for any reasonable scale of new development which might be attracted even over the very long term.
76. We have benchmarked the NWI site and the areas of land to the south of the runway with a selection of other UK airports and from this exercise demonstrate that there is more than sufficient land to accommodate at least 4 mppa of commercial passenger traffic alongside the requirements of all the other airport based operations, including expansion of exiting hangarage.
77. Indeed, the 'green' areas to the east and west for non-commercial operations are much larger than that currently used at NWI for these activities, further endorsing our view that even if NWI were to reach 4 mppa later this century, there will still be sufficient land available for all other uses.
78. With the Engine Run-Up Bay, a proposed relocation of the Fire Training Ground in the vicinity of Site 4 and a potential consolidation of the Air Ambulance operation in to Site 4, there remains substantial areas of land within the remainder of the 20% for additional hangars, or perhaps Flying School and GA activities, over and above the areas already highlighted in 'green' to the south of the runway.
79. In overall terms, then, the existing aviation site south of the runway and a reservation of up to 20% of Site 4 will be more than sufficient to enable NWI to fulfil its realistic aviation potential, including its ability to attract other new aviation related tenants and operators. Realisation of these opportunities will require the site(s) to be readily available, given the competition to attract new hangars from many other airports. Hence, the importance of securing other development on the remainder of Site 4 at an early stage to create the conditions whereby NWI is has a readily serviced site to offer.

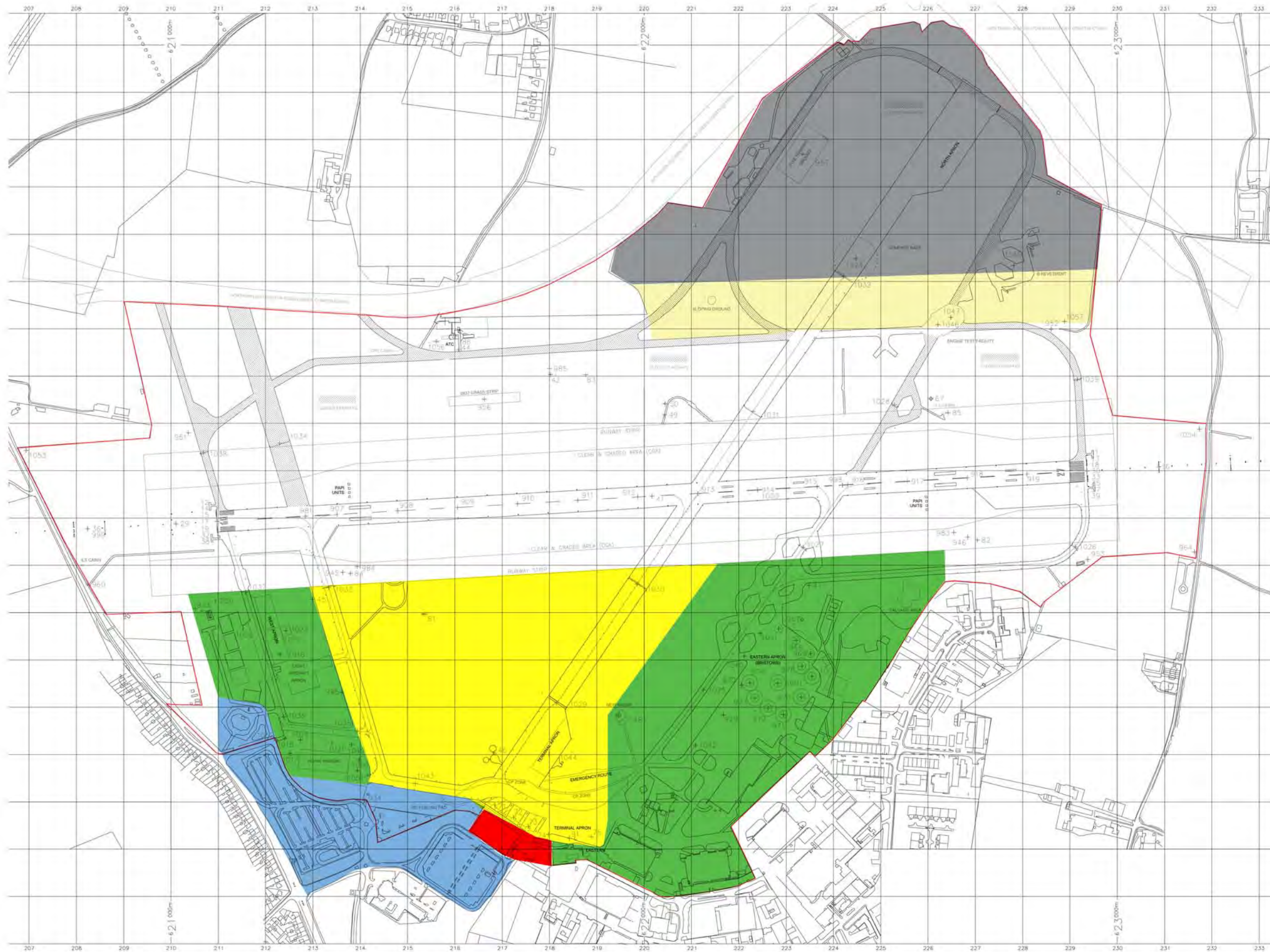
Originated by: Richard Connelly/Niall Gunn

Checked by: Louise Congdon

Dated: 21st March 2018

APPENDIX 3

Norwich Airport Site Block Plan

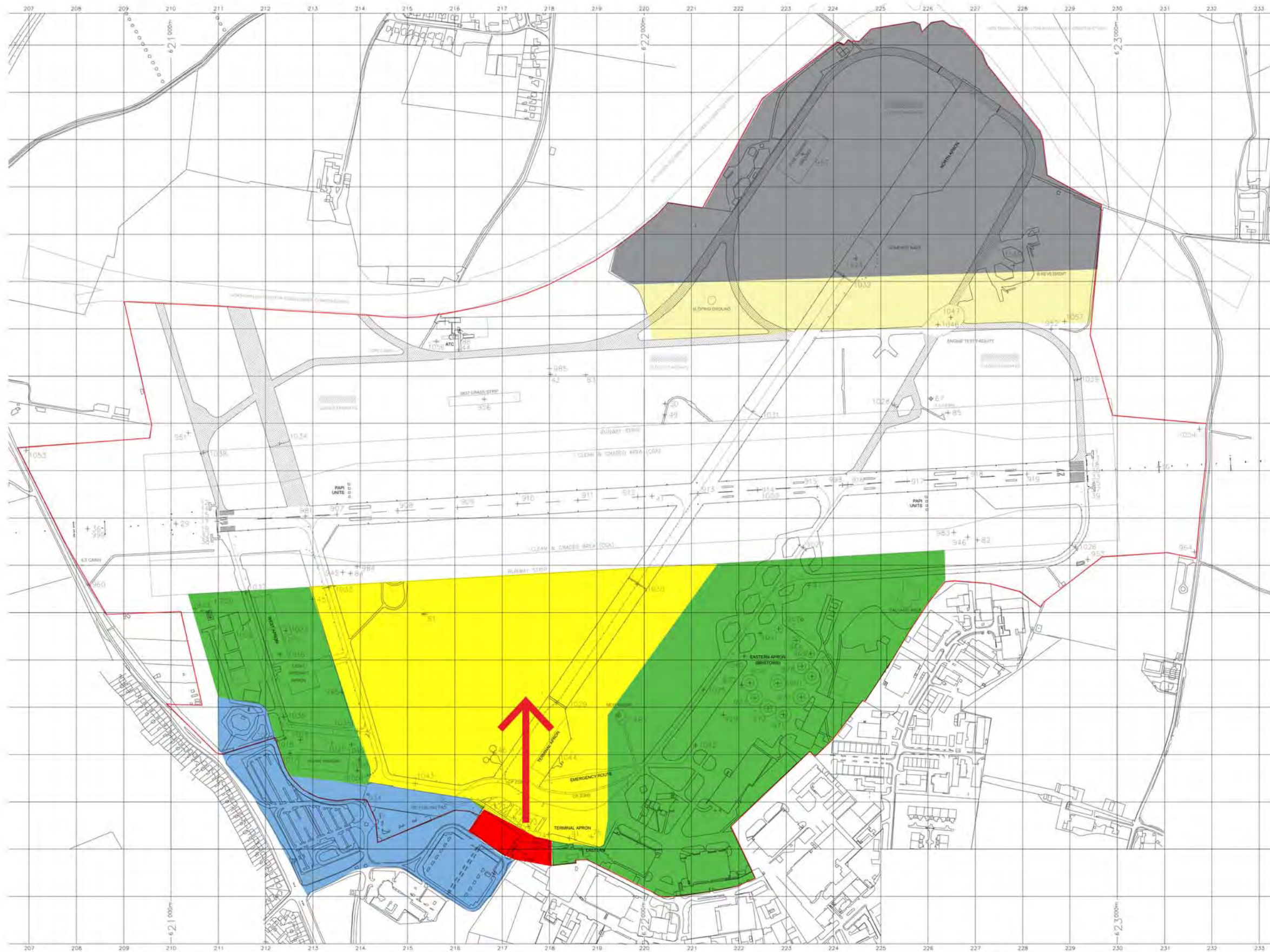


Norwich Airport Site Block Plan York Aviation

- Potential Airside Area for Commercial Apron and Taxiways
- Terminal Zone Including Proposed Masterplan Extension
- Car Parking, Forecourt and Access Roads
- East and West zones for MRO, Off-Shore, GA, Air Taxi, flying Schools, Operational Support etc.
- Site 4 – 20% for Airport Related Activities
- Site 4 – 80% for Non - Aviation Related Activities

APPENDIX 4

**Norwich Airport Site Block Plan –
Terminal Expansion Northwards**



**Norwich Airport Site Block Plan
Terminal Expansion Northwards**

- Potential Airside Area for Commercial Apron and Taxiways
- Terminal Zone Including Proposed Masterplan Extension
- Car Parking, Forecourt and Access Roads
- East and West zones for MRO, Off-Shore, GA, Air Taxi, flying Schools, Operational Support etc.
- Site 4 – 20% for Airport Related Activities
- Site 4 – 80% for Non - Aviation Related Activities
- Potential Terminal Building Expansion

APPENDIX 5

Local Market Analysis Report: Roche and Bidwells



IMPERIAL PARK, NORWICH – OBJECTIVE EVIDENCE

LOCAL MARKET ANALYSIS

Contents

- 1. Current Market Conditions & How the Market Has Changed since 2012**
- 2. The Supply of Land in and around Norwich**
- 3. Current and Predicted Future Demand**
- 4. The Site and Potential Uses**
- 5. The NDR and its Connectivity**
- 6. The Importance of the Site in a Local and Regional Context**

Appendix

- 1. Schedule of Business Parks and Development Schemes**

Introduction

This report is prepared jointly by Bidwells and Roche Chartered Surveyors.

The two firms are involved in the all major industrial estates and development sites in and around Norwich, and to a wider extent Norfolk as well.

Both firms have been established in Norwich for over 30 years and between them account for **the vast majority** of the industrial and warehousing transactions on an annual basis. They have a proven track record and provide **robust** and impartial advice to developers and property owners **alike**.

They are **at the forefront of current trends & market knowledge and therefore best placed** to comment on the benefits of Imperial Park - taking account of the site's location, size and opportunities for major development.

1. Current Market Conditions & How the Market Has Changed Since 2012

The industrial/warehouse market in Norwich is currently as buoyant as it has been for a number of years, and is characterised by a steadily falling supply of available units, coupled with strong occupational demand.

The total supply of units currently available on the market now stands at 567,469 sq ft. Approximately half these units are below 5,000 sq ft in size, and there is a general shortage of good quality, well located units of over 20,000 sq ft in size.

Importantly, the vast majority of the larger units currently on the market do not suit current occupiers' occupational needs. On the traditional industrial estates to the north of the City around Hurricane Way, Fifers Lane and Vulcan Road in particular, many of the units are **older in style** with limited eaves heights, small yards & car parking areas, and too many columns in the warehouse areas. **This severely reduces flexibility and suitability** from an occupier's perspective. This part of the City can also become very congested at peak times, which in turn **will increase journey times to and from the major trunk road network**.

It is essential that a centre like Norwich does all it can to keep existing occupiers and allow them to expand into new, more suitable premises, which will enable their businesses to flourish and ultimately create more jobs. There has been considerable press coverage recently on the closure of the Britvic/Unilever site, and it is essential that no other large-scale occupiers in particular decide to move out of Norwich. Modern day industrial and warehouse operators require flexible and usable buildings which will make their businesses more efficient.

Invariably, clear, open-plan warehouse space will be required, with minimal, or no columns. For the mid to large sized units in particular, a 7 metre eaves height is typically required. Generous parking, loading, unloading and circulation areas are also needed, which usually means a building to site ratio of 40% to 45% at most. Virtually no existing buildings in the immediate vicinity are able to offer these amenities.

Given the above, Imperial Park represents the ideal opportunity to overcome all these issues and provide local businesses with buildings which will considerably better suit their needs and allow them to expand and flourish over the next five to 10 years.

Imperial Park **will undoubtedly** be the best located, **most prominent and** the most accessible scheme in this area of Norwich and will, therefore, provide the perfect solution to all the issues and problems which have typically held back many companies and businesses who currently occupy older, inflexible and unsuitable buildings.

Take-up in terms of transactional activity for 2017 totalled 228,255 sq ft of existing built space.

The largest deals to take place were:

- 35 Barnard Road, Bowthorpe – 49,240 sq ft let to Brandbank.
- 6 Lansdowne Road, Union Park – 40,250 sq ft let to Middlesex Wines.

A total of 37 transactions took place during the course of the year.

We currently have 32 requirements registered on our books, which total 340,000 sq ft in size. 12 of these requirements are for units of over 10,000 sq ft.

The general feedback from occupiers who we speak to is that they want modern units with good sized yards in accessible locations, which are close to the main arterial or ring roads.

There remains strong demand for freeholds from owner-occupiers, who will typically look to place the property in their Self Invested Personal Pension (SIPP). Importantly, there is very low freehold availability.

Set out below is a summary of availability, take-up, the total amount of requirements and the largest deals to take place since 2012.

YEAR	AVAILABILITY	TAKE-UP	REQUIREMENTS	LARGEST DEALS
2012	1,196,264 sq ft	337,837 sq ft	215,500 sq ft	<ul style="list-style-type: none"> 35 Barnard Road, Bowthorpe – 69,000 sq ft let to Tyco Unit A, Old Hall Road – 61,918 sq ft sold to the Norfolk University Technical College 1-3 Whiffler Road – 19,140 sq ft let to Pentaluck Ltd
2013	957,111 sq ft	545,701 sq ft	410,000 sq ft	<ul style="list-style-type: none"> The former Uniglaze 2 factory, Forest Way, Longwater – 154,122 sq ft sold to Pasta Foods The former Remploy factory, Raynham Street – 53,029 sq ft sold to Robinsons The former Uniglaze 2 factory, Spar Road – 50,663 sq ft sold to Harford Attachments
2014	783,366 sq ft	282,782 sq ft	260,000 sq ft	<ul style="list-style-type: none"> 3 Hurricane Way – 28,735 sq ft sold long leasehold to TSI Structures 408 Coppersmith Way, Gateway 11 – 12,537 sq ft let to MTCE Ltd 1 Arms Park Road, Union Park – 8,458 sq ft let to Saint Gobain
2015	871,644 sq ft	296,673 sq ft	560,000 sq ft	<ul style="list-style-type: none"> The former Yodel unit, Vulcan Road South - 30,673 sq ft let to Tufnells 2d Wendover Road, Rackheath - 29,138 sq ft let to Angling Direct
2016	431,417 sq ft	516,564 sq ft	476,500 sq ft	<ul style="list-style-type: none"> 2 Caley Close, Sweet Briar Industrial Estate – 133,474 sq ft let to Amazon The Former Knowles Capacitors Site, Old Stoke Road - 90,752 sq ft sold to Mattressman

Key points to note over the period are:

- Availability **of existing units** has nearly halved.
- The average yearly take-up figure is 367,968 sq ft.

- Total requirements average 377,000 sq ft per annum.
- There were two transactions over 100,000 sq ft in size, namely the sale of the former Uniglaze 2 Factory at Longwater in 2013 and the letting of 2 Caley Close in 2016.

2. The Supply of Land in and around Norwich

At 115 acres (gross) and with the ability to accommodate in the order of 1 million sq ft of accommodation, Imperial Park will offer Norwich and Norfolk the only opportunity for large scale development. ***This in turn will provide the local economy with a steady long term supply of prime employment land over the next 15 years, or possibly longer. We firmly believe that it is essential for a centre like Norwich to have a scheme of this size and nature in order to safeguard future long term employment prospects. As the scheme is developed out and grows, it will provide a critical mass which will become more attractive to occupiers and local companies.***

For such an opportunity to be successful, location and accessibility will be key. Imperial Park will be ideally positioned to provide this. Being immediately adjacent to and having extensive frontage to the new NDR, it will be one of the best located and accessible sites in the region.

Being accessible to a wide catchment to the north of the City and North Norfolk in general, it will provide businesses and organisations with an ideal opportunity to acquire land or buildings on both a freehold or leasehold basis, which will prove more suitable premises for their occupational needs. Many areas in rural Norfolk are less accessible to the major trunk road network, and with a distinct shortage of modern suitable buildings, Imperial Park will provide an ideal solution and offer a unique opportunity.

The attached table shows the supply of employment land on the various business parks and schemes in and around Norwich.

Points to note are as follows:

- **Sweet Briar Park**

Given the shape and layout of the remaining available land, this could not be reasonably developed in its entirety for a single large unit.

Whilst Sweet Briar Park is situated on the outer ring road on the west side of the City, it is still some distance from the County's main trunk roads, ie the A47 and A11 and therefore not as prominent as Imperial Park. Also, this section of the outer ring road can become congested, mainly at peak times of the day.

Furthermore, there is only a limited amount of employment land still available here, i.e. just over 10 acres.

- **Broadland Gate**

This is a new scheme in the centre of which there are some residential houses. The land with NDR frontage is to be developed for higher value uses which are more in line with the 6 acres currently under offer to Jaguar Land Rover.

There is limited land here for conventional employment uses and, therefore, some of the larger requirements cannot necessarily be catered for within a single usable development plot. It is only a fraction of the size of Imperial Park.

- **Broadland Business Park**

Broadland Business Park provides a mix of office, warehouse and industrial uses, so the general environment will be different from Imperial Park.

Office development has taken place toward and at the front of the Business Park, where occupiers include organisations like Aviva, the NHS Foundation Trust and Lovell Blake Accountants.

The industrial/warehouse development has typically occurred towards the rear of the park to the north of the afore-mentioned office uses. These locations are further away from the A47 and NDR and, therefore, considerably less accessible when compared to a scheme like Imperial Park.

- **Longwater Park**

The available land here is only available on a leasehold design & build basis and it, therefore, cannot cater for either the sale of freehold land or the sale of bespoke buildings.

Again, the available land is not immediately adjacent to the A47 and, therefore, there is a short drive to access the major arterial routes. Towards the rear of the Park, there are a number of general industrial uses, such as waste transfer stations and concrete batching plants.

Given the presence of retail units, and Sainsburys in particular, at the front of the site, property, there can be congestion issues here. Given the general B8 uses, some areas of Longwater Park may be deemed to be less attractive to the more conventional light industrial and warehouse users.

The employment land at Longwater Park is less prominent and less accessible than Imperial Park and the available land is considerably smaller than the total availability at Imperial Park.

- **St Andrews Northside**

Only suitable for offices and not industrial or warehouse uses.

- **Browick Interchange**

Situated to the south of Norwich on the A11 and at 26.4 acres is the largest employment site available in the local market. Could accommodate up to 280,000 sq ft of accommodation. The site still needs to be serviced.

Whilst Browick Interchange offers the largest amount of employment land it is still only 25% of the size of Imperial Park. Being situated to the south west of Norwich it also caters for a different market from a geographical perspective. The town of Wymondham where the scheme is situated has typically attracted occupiers from the immediately surrounding areas who have wanted to remain within the immediate vicinity.

Elsewhere in the County there is also a very limited supply of available and deliverable land.

At Beacon Park in Gorleston, there is only 4.68 acres remaining in the current phase, although there is further land in future phases.

At Snetterton Park on the A11 there is 65 acres, but we understand there may be servicing issues here.

It is essential that Norwich has a large-scale scheme which can deliver good quality modern units and prime employment land over the medium to long term.

The largest current scheme is Browick Interchange, but this only offers in the order of a quarter, in terms of both land and accommodation to be developed, of what Imperial Park could offer.

3. Current and Predicted Future Demand

As mentioned above, the total amount of requirements we currently have registered on our books as looking for space is 340,000 sq ft. This is more or less in line with the yearly average of 360,000 sq ft since 2012.

Given the reducing supply of existing units and the fact this is likely to continue in the future, it is our view that more occupiers will have no choice but to consider purchasing plots of land, or entering into freehold or leasehold design & build packages for bespoke properties.

We also believe there will be future pent-up demand which we are not necessarily aware of at the moment and which will only be realised once the scheme is actively and openly marketed. This would be particularly the **case for parties looking to purchase property on a freehold basis.**

For example, when Bidwells marketed the former Uniglaze 2 factory at Longwater in 2013, there were no known active requirements for 150,000 sq ft at the time. It was only when formal marketing commenced that four companies became interested in the property as they saw it as a good opportunity to potentially expand into a better building. It was ultimately purchased by Pasta Foods who relocated from Great Yarmouth.

During the first two months of this year, we have in particular seen a number of larger requirements in excess of 30,000 sq ft come to the market. **There are currently no suitable existing buildings where these requirements can be satisfied.**

Given the general shortage of suitable buildings in the region as a whole, many companies are having to extend their area of search. As a result, companies from further afield are now considering Norfolk as a possible location, where **this was not the case** 12 or 18 months ago.

The increase in internet retailing has led to increased demand from the delivery companies in particular. For companies like DHL and **other organisations**, accessibility to the main road networks are essential in order to deliver their goods on time. A site like Imperial Park, which is situated immediately adjacent to the NDR, should provide an ideal opportunity to provide access around Norwich and into the wider county as well. Internet retailing is only likely to continue to expand and, therefore, there is likely to be a continued and increased demand in the future from the providers and their delivery companies. With the availability of prime land at Imperial Park, it will provide one of the best schemes in and around Norwich to cater for both increased future demand and pent up demand to be satisfied in a highly important and accessible location.

Given all of the above, we predict that demand for the foreseeable future is likely to be above the yearly average since 2012 and may well be in the order of 450,000 to 500,000 sq ft per annum. With the supply of suitable available buildings continuing to fall, proportionately more of this demand will have to be satisfied on new build schemes where new units can be provided or land purchased.

4. The Site and Potential Uses

Imperial Park is conveniently located adjacent to the A1270, the Northern Distributor Road (NDR), which has recently opened. The site extends to in the order of 115 acres.

The site is suitable for:

- **B1, B2 & B8 Uses**

With the opening of the NDR, **access** to the site is now directly off the dual carriageway. There are **very** limited opportunities **for companies to acquire suitable** large scale B1, B2 & B8 premises in northern Norwich (where most of the established industrial businesses are located) due to the age and configuration of the existing stock. Since the establishment of the Vulcan Road, Fifers Lane and Hurricane Way Industrial Estates in the 1960s and 1970s, there has been a fundamental shift in building design.

Occupiers generally require higher eaves, with new buildings now providing a minimum of 7 metres, as opposed older stock where the average eaves are in the region of 5 metres. Much of the existing accommodation in north Norwich offers lower eaves than the market now **demands**. In addition, older accommodation is developed to a much higher density, with small inadequate yards and parking. Modern premises are designed to offer **improved parking facilities** and better access for all vehicles. In our experience lack of suitable parking and external hardstanding is one of the key issues which concerns occupiers **most** - because there is no simple way to design a solution. In tandem with the high-density developments which occur on individual plots, older industrial estates are generally developed to a higher density, leading to access problems and parking issues. **A** new scheme at Imperial Park will provide direct, congestion free access to a major business hub.

The ability to develop out new quality B1, B2 & B8 premises offers a new opportunity for occupiers seeking representation in north and north/west Norwich. There are no other suitable sites in the immediate vicinity and, with the two main employment locations being to the east of Norwich, it is imperative that there are

alternatives in a different location. The retention of established businesses in north Norwich is imperative and if no land is available, then occupiers will look for suitable alternative locations, where modern, accessible premises are available.

- **Roadside Uses:**

The location of the site adjacent and with prominent frontage to the NDR, makes it imminently suitable for roadside uses.

Recent examples of new road side schemes in Norwich include:

- 1) McDonald's at Thickthorn, at the junction of the A11 and A47
- 2) Costa Coffee and Broadland Business Park
- 3) Greene King premises at Broadland Business Park
- 4) Upgrade of BP and M&S shop on Mousehold Lane, Norwich

Other roadside schemes for either fast food or retail have been developed over time and there are further requirements in the market for additional fast food restaurants, petrol filling stations and where appropriate small-scale trade counter schemes.

Recent experience has shown that multi-store occupiers, such as Screwfix, now have a format which allows for more, smaller units to provide short drive times for customers to their stores. Screwfix already have four outlets in Norwich and have a further requirement for the east side of the City, close to the A47.

For most if not all occupiers, the issue will be traffic flows. This will take some time to determine and importantly will also be dependent upon whether any other schemes are developed along the route before the subject land is developed

The most appropriate initial development will be for a petrol filling station (PFS) with associated fast food and other food retailers. The ability to provide hotel and pub is considered important for the business park, but the timing of this will be determined to some extent by the occupiers on the park. The drive-by traffic will generate a certain amount of business, but adjacent occupiers will increase the interest in the site. As a location for these types of use, the site is well positioned.

5. The NDR and its Connectivity

The NDR provides significantly improved accessibility to northern Norwich from the A1067 (Fakenham Road) **around** to the Postwick Interchange on the A47 to the east of Norwich. With the opening of the NDR, access to the north of Norwich is now possible, without having to travel through Norwich City centre or around the outer ring road.

At the time the NDR was first considered in early 2000, it was seen as essential infrastructure to assist with economic growth and formed part of the Norwich Area Transport Strategy (NATS). The development of the road provides much needed infrastructure improvement to the north of Norwich, where congestion was causing a stranglehold on some industrial estates and was leading to occupiers looking to move to better located estates, such as the Bowthorpe Employment Area to the west of Norwich and the White Lodge Trading Estate on the south side.

The **new** road opens up large swathes of land for both commercial and residential development, with the principal commercial developments being at Broadland Business Park, Broadland Gate and Imperial Park. There are a large number of residential schemes in Sprowston and Plumstead, where over 11,000 new homes are planned. **In conjunction with this**, it is important to ensure that there are sufficient employment opportunities spread across a wide geographical area, rather than just land to the east of the city. Furthermore, if there is direct access to the NDR from one of the new housing schemes, this could enable access from housing to employment without the need to use the existing road network, limiting congestion and providing a key benefit of the NDR, which is distribution of traffic.

The NDR has opened up significant development opportunities for commercial uses, with Broadland Gate presently under construction having a number of occupiers seeking representation adjacent to the junction of the A47 and the NDR.

Without the provision of the NDR this development opportunity would not have arisen.

The northern quarter of Norwich has no greenfield land for commercial uses, except for Imperial Park which has direct access to the NDR, giving accessibility to the north of Norwich and further afield to mid and north Norfolk, via the A140. Norwich City centre is accessed via Cromer Road and the east of Norwich via the NDR. The north of Norwich has historically been one of the more established locations for business occupiers. Prior to the construction of the NDR, there was potential for the location to suffer with congestion especially at certain times of the day. With the NDR in place, congestion will ease which will make the northern industrial estates and the adjacent land more readily accessible and therefore increase its popularity. This in turn will assist in the generation of jobs and employment in what is a key strategic location.

In commercial property terms, there has been increased popularity in locations such as Hall Road, Bowthorpe Employment Area and Broadland Business Park/Broadland Gate, due to the accessibility of the A47. With the NDR now open, this will increase accessibility and therefore demand for this location.

Importantly, the opening of the NDR provides a unique opportunity for new development at Imperial Park, in an area where there has been limited choice for occupiers and where in particular the age, configuration and condition of existing accommodation makes some of it no longer fit for purpose.

Without Imperial Park being developed, the opportunities for business will be limited to the eastern and southern areas of the city. Recent experience has shown that businesses do want to locate to the north of Norwich, but the age and quality of buildings are not suitable. Other locations such as Rackheath are considered, but ideally businesses wish to remain in Norwich, where there is a larger employment pool.

The site benefits, now that the NDR is open, from significantly improved connectivity. The NDR provides access to the A1067 (Fakenham Rd) to the west and the A47 via Postwick junction to the east. From the A47 all major arterial roads can be accessed, including the A11, A140 and A146. The City centre is accessed via either the A140 Cromer Road, or to the east via the various roads running into the centre from the NDR, including the A1151 and B1150.

When the final section of the NDR is completed to connect up with the A47 to the west of the city, Imperial Park will sit adjacent to one of the major routes in Norfolk. It's position of one of the most accessible and prominent schemes in the region will be further enhanced. With dual carriageway access to a wide geographical area, there will also be no need to traverse the city centre.

6. The Importance of the Site in a Local and Regional Context

The availability of a site for large scale development is vitally important to Norwich and the wider economy. The competing sites are limited in terms of their size and their layouts limit the provision of larger sized units.

Imperial Park provides in the order of 115 acres, with the ability to construct up to 1 million sq ft of industrial and warehouse accommodation. The existing stock around north Norwich is dated, lacking the attributes required by occupiers of eaves height, parking and access and in most cases now likely to be below the Minimum Energy Efficiency Standard proposed by law. The older properties in northern Norwich generally have asbestos roofs and are poorly insulated. Imperial Park will provide a solution to all these issues, which are currently holding back local businesses.

Broadland Gate has a gross area of approximately 45 acres for development. A number of plots have been sold or are under offer and the availability of land for traditional B1, B2 & B8 uses is limited at around 15 acres.

Broadland Business Park has a net developable area of approximately 40 acres for new development, which is split across a number of sites. Both of these business parks are located to the east of the city.

Browick Road, Wymondham is located to the south of Wymondham, adjacent to the A11. It is conveniently located, with good accessibility via the A11, but has a site area of 26 acres.

Imperial Park has a net developable area of around 115 acres, which is substantially greater than both Broadland Business Park and Broadland Gate and therefore offers the only opportunity in Norwich to provide large scale development for existing occupiers or inward investment. The site sits adjacent to the NDR and should provide a ready supply of land for 10-15 years.

The availability of large scale development sites throughout Norfolk and wider East Anglia is limited and one of the pertinent factors for enabling development is the provision of infrastructure. Imperial Park has the most important infrastructure in place, the access road, being the NDR. Locations such as Thetford, King's Lynn and Great Yarmouth have availability of land, but they are generally smaller parcels and not suited to large scale developments. Furthermore, the economics of development are such that without public sector intervention in locations such as Great Yarmouth commercial development do not work.

Land and buildings will be available freehold at Imperial Park, as well as on a leasehold basis. With limited freehold availability elsewhere in and around Norwich, this will provide a steady supply to organisations looking to purchase property.

Norwich is better placed for businesses in terms of employment, transport links (with both rail and airport in close vicinity) and the economics of development are more likely to work. Imperial Park is also adjacent to Norwich Airport and therefore offers both airside and aviation uses, as well as accessibility to the wider European market via Amsterdam.

7. **Conclusion**

- Imperial Park offers the largest single commercial development sites in and around Norwich and therefore the potential for large scale light industrial, manufacturing and warehousing, which no **other** competing site does. At 115 acres in size, it is four times as large as the next biggest site. It is essential that Norwich has a unique site of this nature for the long term prospects of the local and wider economy.
- Imperial Park will offer occupiers further choice. The other sites are located to the east and west of Norwich, with the land at Wymondham being to the south. This site, being to the north of the city gives another option from a geographical perspective, especially taking account of the present **concentration** of existing businesses, in this area of Norwich. Modern premises are imperative for businesses who want to expand and grow, compared to the older style premises which are not fit for purpose. Not all businesses will be able to afford higher rent, but it is essential to provide **them** with a wide range of options.
- Some of the other business park alternatives are not prepared to sell land or buildings on a freehold basis. The availability of freeholds at Imperial Park will assist in satisfying companies requirements to only purchase property.
- Imperial Park has the potential to provide a long-term supply of prime employment land which could last for 15 years or more. Importantly, it is located in within close proximity to a number of housing allocations which will come forward under the Greater Norwich Development Plan offering opportunity for sustainable employment with potential for cycling to work and importantly without the need to traverse the city centre.
- Imperial Park sits adjacent to the NDR, which will offer dual carriageway access and connectivity to a wide geographical area, without the need to traverse the city centre. Once the final phase of the NDR is complete, the orbital road will offer connectivity to the A47 and beyond via the west, as well as the east and the Postwick interchange. This will further enhance Imperial Park's accessibility and make it more attractive to occupiers.
- Imperial Park offers an alternative to the traditional Northern Industrial Estates. It will not provide direct competition due to the different types of product, but will provide occupiers with a greater choice.

BUSINESS PARKS / DEVELOPMENT SCHEMES IN NORWICH

ADDRESS	SIZE	PRICE	PLANNING	COMMENTS
Sweet Briar Park, Norwich	Up to 10.04 acres	£375,000 per acre	Employment allocation	<ul style="list-style-type: none"> • New scheme to the west of the City centre • Plots sold to Wickes, Pendragon & Viking Storage • Estate road & services in place
Broadland Gate, Norwich	Up to 13.89 acres	£475,000 per acre	Outline permission	<ul style="list-style-type: none"> • New business park situated at junction of A47 & NDR • 6 acres under offer to Jaguar Land Rover • Estate road & services to be in place by end of 2017
Broadland Business Park, Norwich	Up to 18.7 acres	£400 to 500,000 per acre	Outline permission	<ul style="list-style-type: none"> • Established business park to the east of Norwich • Developer will also offer FH & LH D&B packages • Site situated to rear of park, opposite Hewlett Packard data centre
Longwater Park, Norwich	Up to 16 acres	Specification dependant	Outline permission	<ul style="list-style-type: none"> • Established industrial area to the west of Norwich • Leasehold D&B packages only available • Rent likely to be no less than £8.50 per sq ft
St Andrews Northside, Norwich	12.6 acres	£3 million	Detailed planning for 137,240 sq ft of offices	<ul style="list-style-type: none"> • Situated to the east of Norwich, adjacent to Broadland Business Park • Owner will only consider a sale of the whole
Browick Interchange, Wymondham	Up to 26.4 acres	£450,000 per acre	Employment allocation	<ul style="list-style-type: none"> • New business park situated adjacent to A11 at Wymondham • Developer will also offer FH & LH D&B packages • To be serviced

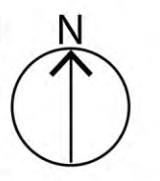
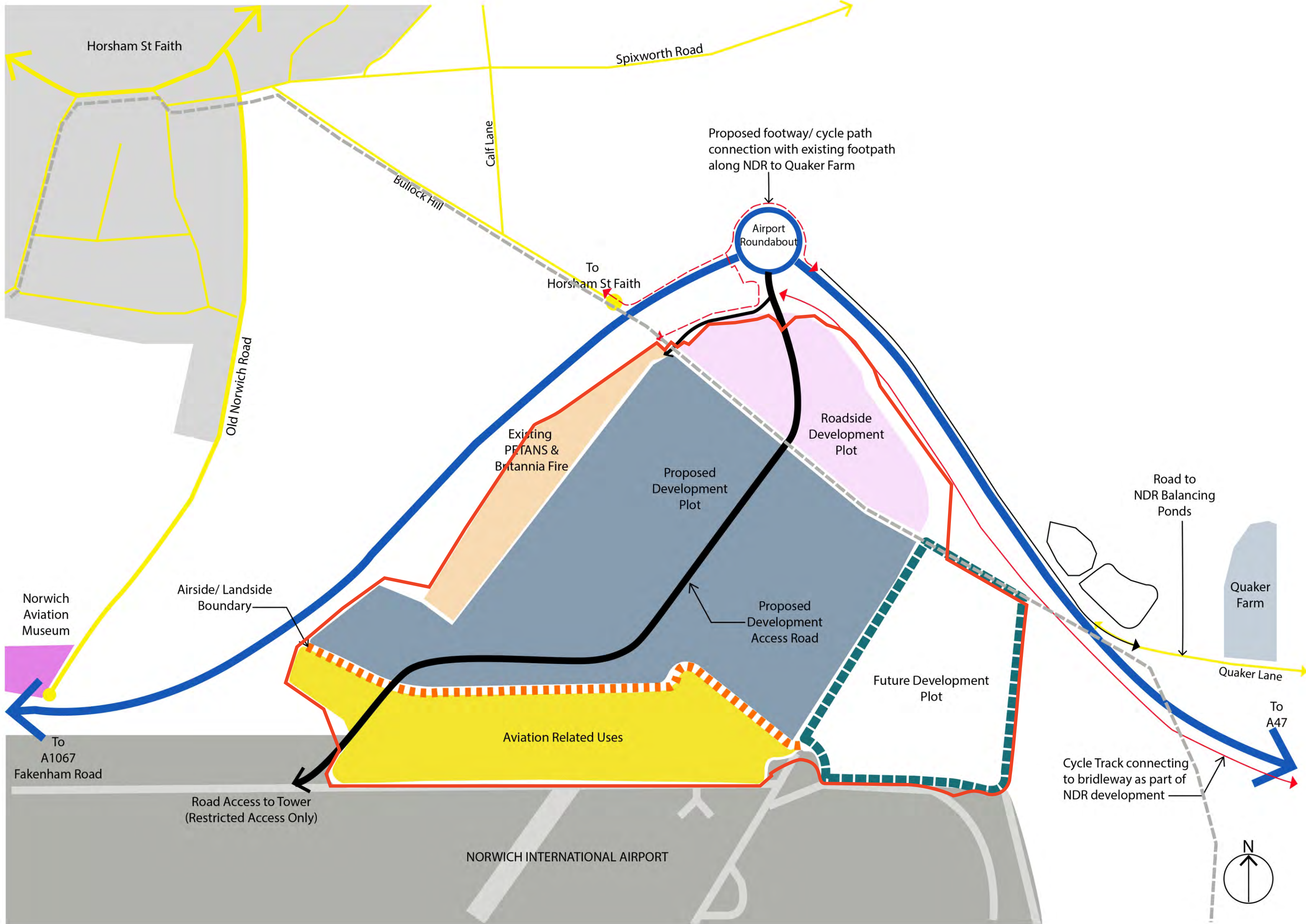
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APPENDIX 3

**Site Plan Showing 20%
Aviation Related Uses**



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