

SOCG007

Flintshire Local Development Plan 2015-2030

Statement of Common Ground
STR3B Warren Hall

February 2021

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1. Introduction

1.1 This Statement of Common Ground (SoCG) has been prepared by Flintshire County Council in conjunction with Welsh Government Department of Economy, Skills and Natural Resources (represented by WYG, now known as Tetra Tech) and Welsh Government Land Division and also the North Wales Economic Ambition Board. It has been prepared to assist and inform the Examination of the Flintshire Local Development Plan (LDP) in respect of the strategic site allocation STR3B Warren Hall. The purpose of the document is to determine the matters agreed between the parties as well as any matters yet to be resolved.

2. Site Context

2.1 The site is located on the south side of junction 36 of the A55(T). It is broadly triangular in shape being bounded by Kinnerton Lane to the south west, Lesters Lane to the east and the A5104 to the north west. It wraps around existing residential at Warren Hall Court, which is accessed directly off the A5104. To the north east is Broughton, to the south east is Higher Kinnerton and to the west is Penyffordd / Penymynydd. The site comprises 76.3ha of land which was submitted as candidate site BROU011 for mixed use development.

3. Current Planning Status

3.1 In the adopted Flintshire Unitary Development Plan (UDP) the site is allocated within policy EM2(1) as a High Quality Site allocation for B1 development. The allocation is for a smaller parcel of land amounting to 36.5ha and excludes the land between Kinnerton Lane and Warren Dingle and also excluded the land bounded by Kinnerton Lane, the A5026 and Warren Hall Court.

3.2 The site has a planning history dating back to the early 1990's. The more recent and relevant planning history is detailed below:

Ref No.	Description	Decision	Date
038744	Outline - Application (with details of siting and access) for 76,394 square metre business park (Class B1), hotel and associated leisure facilities, roadway, car parking, drainage and landscaping, and off-site roadworks including new slip roads from A55(T)	Approved	21/04/08

046961	Removal of conditions 9 & 10 of planning permission code no. 038744 pertaining to the construction of slip roads	approved	28/01/10
046962	Variation of condition no. 14 of planning permission ref. no. 038744 to read 'No site infrastructure or construction works shall be commenced until a scheme for the improvement and/or extension of the existing sewerage system has been agreed with the sewerage undertaker to the satisfaction of the Local Planning Authority. No buildings (or uses) hereby permitted shall be occupied (or commenced) until such improvements and/or extensions have been commissioned to the reasonable satisfaction of the Local Planning Authority.'	Approved	04/02/10
047092	Reserved Matters Application - details of structural landscaping required under condition no.1 of planning permission ref: 038744	Approved	06/04/10
048360	Application to vary condition no.2 of planning permission ref: 038744 to extend time for submission of reserved matters by 3 years	Approved	19/07/11
051965	Application for approval of reserved matters following outline approval. (038744)	withdrawn	19/02/20
051973	Application for approval of details reserved by condition Nos.28 (noise management) and No.29(dust assessment) attached to planning permission ref:038744	approved	09/05/14

4. Background and Technical Studies

4.1 The allocation of the site is informed by a number of background and technical studies undertaken and prepared by the site promoters Welsh Government.

4.2 As part of the suite of documents supporting the Deposit LDP the Council published a Warren Hall Masterplan and Delivery Statement which included an indicative masterplan for the site. This document represented a summary of the following background studies:

- Masterplan [LDP-EBD-STR3B.1](#)
- Agricultural Land Classification – Ray Leverton 2019 [LDP-EBD-STR3B.3](#)
- Ecological Assessment – (TEP) 2019 [LDP-EBD-STR3B.4](#)
 - Appendix A Desk Based Assessment – TEP 2019 [LDP-EBD-STR3C.4.A](#)
 - Appendix B Target Notes Report [LDP-EBD-STR3B.4.B](#)
 - Appendix C Hedgerow Assessment and Woodland NVC Survey Technical Report – TEP 2019 [LDP-EBD-STR3B.4.C](#)

- Appendix D Arboricultural Survey – [TEP LDP-EBD-STR3B.4.D](#)
- Appendix E Bat Surveys – TEP 2018 [LDP-EBD-STR3B.4.E](#)
- Appendix F Great Crested Newt Survey – TEP 2019 [LDP-EBD-STR3B.4.F](#)
- Appendix G Breeding Bird Survey – TEP 2019 [LDP-EBD-STR3B.4.G](#)
- Appendix H Water Vole and Otter Survey – TEP 2018 [LDP-EBD-STR3B.4.H](#)
- Appendix I Badger Survey – TEP 2018 [LDP-EBD-STR3B.4.I](#)
- Appendix J Reptile Survey – TEP 2018 [LDP-EBD-STR3B.4.J](#)
- Appendix K Invertebrate Assessment – TEP 2018 [LDP-EBD-STR3B.4.K](#)
- Appendix K Arboricultural Constraints Drawing [LDP-EBD-STR3B.4.L](#)
- Phase 1 Geo Environmental Assessment – TEP 2019 [LDP-EBD-STR3B.5.1](#)
 - Historical Records – Atkins 2019 [LDP-EBD-STR3B.5.2](#)
 - Envirocheck Report Part 1 – Landmark 2019 [LDP-EBD-STR3B.5.3](#)
 - Envirocheck Report Part 2 – Landmark 2019 [LDP-EBD-STR3B.5.4](#)
- Archaeological and Heritage Based Assessment WYG 2019 [LDP-EBD-STR3B.6](#)
- Noise, Air Quality, Lighting and Odour (NALO) – WYG 2019 [LDP-EBD-STR3B.7](#)
- Transport Feasibility Study Pt1– WYG 2019 [LDP-EBD-STR3B.8.1](#)
 - Transport Feasibility Study Pt2– WYG 2019 [LDP-EBD-STR3B.8.2](#)
- Preliminary Utilities Appraisal Report – WYG 2019 [LDP-EBD-STR3B.9.1](#)
 - Preliminary Utilities Appraisal Report – WYG 2019 Apps [LDP-EBD-STR3B.9.2](#)
- Dev Enq Mains Letter Hafren Dyfrdwy [LDP-EBD-STR3B.9.3](#)
- DCWW [LDP-EBD-STR3B.9.4](#)

4.3 As part of representations to the Deposit LDP, Welsh Government through WYG submitted the following documents:

- Market Assessment – Thomas Lister Limited – 2019 [LDP-EBD-STR3B.2](#)

4.4 Further supporting studies have been submitted by Welsh Government including:

- Placemaking Appraisal – WYG – 2020 (see Appendix 1)

5. Economic Viability

5.1 To capitalise on opportunities to generate growth, the North Wales region has developed a single, ‘joined-up’ vision for economic and employment growth, with a commitment between all the partners to work together collaboratively for a common purpose.

5.2 The Growth Vision produced by the North Wales Economic Ambition Board (NWEAB) is founded on three key aims (Smart North Wales, Resilient North Wales and Connected North Wales) with nine Programmes forming the “key drivers” to deliver the vision. The Programmes will be long-term, broad based in nature and provide a clear framework to

pool and integrate private and public resources to deliver positive outcomes for the economy. One of these is the Land and Property Development Programme, with the aim of addressing the shortage of suitable land and properties for business growth and to bring forward sites for housing development. The North Wales Growth Deal was completed by all the NWEAB partners and UK and WG on 18th December 2020. This commits the two Governments to investing £240m into programmes which, when combined with the contributions the board hopes to secure from partners and the private sector, result in a deal worth more than £1 billion.

5.3 Warren Hall is identified as one of the first six priority projects within the Land and Property Programme of the Growth Deal. While there is clear evidence of demand from the private sector, private investment cannot be secured and interest can't proceed unless the primary infrastructure is provided. Accordingly, the NWEAB funding plan identifies funding of up to £15M to meet primary services and up front infrastructure costs at the site.

5.4 The Welsh Government will provide the land and work with the NWEAB to deliver the necessary planning consents and enable the site for development subject to all necessary approvals.

5.5 The new Land Division within Welsh Government will be responsible for future delivery of the residential parts of the site. The Land Division has been formed to serve the policy objective of Ministers to deliver more well designed, affordable and sustainable homes and places whilst leveraging additional social benefits. This reflects the way the Welsh Government has transformed its approach towards publicly owned land by taking a far more strategic approach to utilising these key public assets. The WG has introduced a policy which recognises that public land can have a long-term value far beyond that which the commercial market can generate in the short term, and its establishment is a clear demonstration from Government that it is serious about accelerating the development of public sector land to ensure a concerted public sector response to the shortage of social housing. This is in alignment with the clear intentions in the National Development Framework in relation to the delivery of affordable housing, with the final NDF expected to be made public in February 2021.

5.6 The fundamental principle governing WG developments is that the WG will retain control of those developments rather than simply handing them over to a developer. Retaining control enables the WG to determine the tenure mix of a development, with the target being that at least half of the new homes should be affordable housing.

5.7 WG are also able to specify the energy efficiency of any new homes built where the target now is that every new development should be net zero in terms of carbon emissions. WG are also able to stipulate minimum space standards for the market housing as well as the social housing on these sites. The need to respond to the challenges of climate change is at the heart of this new response. The zero carbon homes

on our exemplar sites will demonstrate to communities that it is possible to build homes which are solely dependent on renewables.

5.8 A high level cost estimate for preparing development plots on the employment and commercial parts of the site has been prepared. The figures below provide a current estimate with no allowance for inflation. This has no bearing on the delivery of the housing element.

Development Costs:

1 Enabling works, site clearance	£4,000,000
2 Roads, paths, paving and surfacing	£1,538,000
3 Soft landscaping and planting	
4 Fencing, railings and walls	£822,000
5 External fixtures	£161,000
6 External drainage	£444,000
7 External services	£961,000
8 Minor building works and ancillary buildings	£27,000
9 Provisional Sums	£2,537,000
10 Main Contractor's Preliminaries	£1,573,000
11 Risks / Design Contingencies	£1,206,000
12 Inflation	Excl
13 Fees	£905,000
14 VAT Assessment	Excl
ESTIMATE TOTAL	£14,174,000

6. Development Parameters

6.1 The site is allocated by virtue of STR3B for a mixed use development comprising the following elements:

- 300 new homes, including affordable

- 22.7Ha of B1 and high quality B2 employment land
- Commercial hub involving hotel, leisure, local centre and retail
- Strategic landscaping and green infrastructure network
- Sustainable transport links with nearby settlements and a link with the section of the Mold – Deeside Active Travel route between Penymynydd and Broughton.

6.2 The housing element of the site falls within the Mold and Buckley Local Housing Market Area as defined in the Flintshire Local Housing Market Assessment which, in conjunction with the Viability Study, requires the provision of 40% affordable Housing. The Affordable Housing Background Paper 7 identifies 120 affordable units being delivered on the site. However, Welsh Government will seek to achieve at least 50% affordable on this site, which will result in an additional 30 affordable dwellings. In terms of size of units the Local Housing market Assessment identifies that 45.6% of need is for smaller 1-2 be units, 28.3% for 3 bed general needs, 12% for 4 bed or more and 14.1% for older persons.

6.3 In accordance with the findings of the LHMA the development should comprise a mix of housing by type and size. Table 5.7 of the Local Housing Market Assessment (Update) identifies the following breakdown for open market dwellings which represents a guide to the likely mix of dwellings by type and size within the development:

Table 5.7 Open market dwelling stock and preferences			
Dwelling type/size summary	% Profile of new dwelling stock based on:		
	Current stock	Like	Expect
House 1/2 Beds	12.7	11.7	20.2
House 3 Beds	43.0	26.2	28.8
House 4 or more Beds	22.3	26.7	17.9
Bungalow	17.2	29.6	24.5
Flat	4.2	5.7	8.2
Other	0.7	0.0	0.3
Total	100.0	100.0	100.0
<i>Base</i>	<i>53,825</i>	<i>8,738</i>	<i>7,628</i>

Source: 2014 Household Survey

6.4 As the Warren Hall site is in Welsh Government ownership, it is the intention to make the residential element of the mixed use site available as part of the Welsh Government’s programme of making land available to accelerate the provision of affordable housing, and work is ongoing with the North Wales Registered Social Landlords to advance this site. As set out above, the target is that at least half of the new homes to be affordable housing.

7. Development Trajectory

7.1 The development of the housing element of the site, as detailed in Background Paper 10 Housing Land Supply will proceed at the following rate of development:

Year	Completions
2023-24	30
2024-25	45
2025-26	45
2026-27	45
2027-28	45
2028-29	45
2029-30	45

7.2 One of the most important manifestations of the Welsh Government’s approach to publicly owned land has been the development of a new approach to housing development on so called ‘exemplar sites’. By harnessing the opportunities available to utilise public land in a manner which recognises its wider public value, the WG are placing social housing at the heart of the approach to development. By moving to a model that insists on decarbonisation of new homes, space standards and an insistence on mixed tenure development, WG are taking an integrated approach to the development of new homes which reflects its wider policy goals as well as the crucial need to deliver additional social housing.

7.3 The WG Land Division is focused on delivering this new approach on exemplar sites, focused on the delivery of primary benefits relating to Design Quality, Site Coverage and Dwelling Size and the Placemaking Wales Charter. The intention is for Warren Hall to comprise an exemplar site.

7.4 The planning strategy to deliver this site is envisaged to comprise a single outline planning application covering the commercial, employment and residential parts of the allocation. The outline application would seek permission for the enabling infrastructure in full. In parallel with the production of this application, the Land Division of WG would pursue discussions with residential developers such that reserved matters applications of the residential part of the site could be pursued promptly. The overall aim would be that implementation of the employment/commercial enabling infrastructure would occur in tandem with the development of the residential part of the site. Subsequent reserved matters for employment development would respond to market demand.

8. Infrastructure

Utilities

8.1 The Councils Infrastructure Plan [LDP-EBD-BP3](#) sets out some of the infrastructure required to deliver this development and further information is provided in the Preliminary Utilities Appraisal Report [LDP-EBD-STR3B.9.1](#) undertaken by the site promoter. Infrastructure will be funded through the Growth Deal.

Highways

8.2 Junction 36 has already been upgraded in the form of a grade separated interchange, which was a requirement of the previous planning permission. This upgrade provides access and egress to both carriageways of the A55(T) from the A5104. This will provide vehicular access to the business park and local centre / commercial hub. The residential development shall be accessed from a single / two points of vehicular access along Kinnerton Lane.

8.3 In accordance with the Transport Feasibility Study, which establishes the feasibility of the proposed development, further work on trip generation and assignment will be required in support of a planning application. The development of the site needs to fully consider the role of Lesters Lane as part of the local highway network. The road is unsuitable to provide a means of vehicular access to the site and options exist for it to become one-way or for it to become a no-through road whilst maintaining access to land holdings and properties from either end. This should prevent Lesters Lane from becoming a rat run.

Links to Active Travel / Public Transport

8.4 The Council has adopted an Active Travel strategy for the County. The Integrated Network Map (INM) schedules show a route BR2/2 from the footbridge to the east of Dobshill (Over the A55T) along The Old Warren to the junction with the A5104. The schedule also mentions an alternative route from Chester Rd Penyffordd along the A5104 to the Warren Hall interchange. At present the Council is progressing both schemes as part of its Active Travel and Core Cycle Network initiatives. The layout and design of the proposed development at Warren Hall should provide safe and convenient links from the site to Active Travel route(s) thereby linking with Penyffordd / Penymynydd and Broughton.

8.5 The proposed development should also ensure walking and cycling links throughout the site and provide links to Higher Kinnerton to enable services and facilities to be accessed by residents. As indicated on the Masterplan, pedestrian/cycle links are proposed at south of the site onto Kinnerton Lane and Lesters Lane, ultimately creating

pedestrian/cycle connectivity through the Strategic Site, including to the employment/commercial elements and up to the A5104 to the north.

8.6 Kinnerton Lane and Lesters Lane currently provide no dedicated footway / cycleway facilities. As part of Elan Homes residential scheme (planning permission ref. 054770) located to the south of Kinnerton Lane (circa 500m eastwards of the southern periphery of the Warren Hall site), new footpaths were required to be constructed as follows and this work is either complete or being progressed:

- Provision of a footway along the northern boundary of the site from the point Footpath No. 5 joins Kinnerton Lane and on to Main Road
- Provision of a lit footway along the western boundary of the site from the point Footpath No. 5 joins Kinnerton Lane to the south western corner
- Improvements to Footpath No. 5 from the point it joins the site at its south western corner to Park Avenue.

8.7 A new dedicated footway/cycleway could potentially be created to complete the current 'gap' in pedestrian/cycle access (extending to circa 500m) from the location of the proposed pedestrian/cycle access point into the Warren Hall site along Kinnerton Lane eastwards, connecting with the newly constructed footpath created as part of the Elan Homes scheme (i.e. connecting at the point where Footpath No. 5 joins Kinnerton Lane and including pedestrian crossing facilities as necessary). This would create a dedicated pedestrian route from the Strategic Site to the settlement of Higher Kinnerton, with pedestrians able to access the local services and facilities along Kinnerton Lane / Main Road or along Kinnerton Lane / Footpath No. 5 / Park Avenue. Further consideration needs to be given to improving cycle links between the site and Higher Kinnerton as part of drawing up more detailed development proposals.

8.8 The formulation of detailed development proposals will need to assess the capacity of existing bus services and the likely demand for new or improved services. At present, service number LT8 Caergwrle / Hope / Penyffordd / Higher Kinnerton / Broughton runs along Kinnerton Lane past the site and provides a link to Arriva service 3 between Broughton and Chester. The proposed development should provide appropriately sited new bus stops and routes within the development or ensure that the layout and design of the proposed development provides safe and convenient links to bus stops along Kinnerton Lane and the A5104.

Education

8.9 The Infrastructure Plan (Background Paper LDP03) provides a commentary in respect of Education. The Local Education Authority has not formally objected to the proposed development and the LDP continues the approach adopted in the UDP and existing SPG23 Developer Contributions to Education in seeking financial contributions whereby new development places pressure on the capacity of existing schools. Utilising

this methodology the Local Education Authority presently seeks a financial contribution of £845,733 to Derwen Foundation School, Higher Kinnerton and £960,388 to Hawarden High School. However, this will need to be reviewed in the light of up to date information at the time of a planning application.

Public Space / Green Infrastructure

8.10 The development will deliver a high quality green infrastructure framework for the site as indicated in the illustrative masterplan. For the residential element comprising:

- 16,000sqm play and recreation space including
 - An equipped neighbourhood play area
 - Signage / seating / picnic tables / litter bins / bike racks
 - Multi use Games Area (MUGA) 30m x 16m
- Structural landscaping
- Creation of attractive pedestrian and cycling routes through the site as part of a green infrastructure network (see Active Travel section)

8.10 The extensive areas of undeveloped land in the north western corner of the site may have the potential, subject to the extent of ecological mitigation, to accommodate a sports pitch, which could be utilised by residents of both the development and nearby settlements.

9. Other Matters

Placemaking

9.1 The development must embrace the Placemaking principles embodied within PPW10 in order to deliver a sustainable high quality living environment.

9.2 A detailed assessment of the sustainability credentials of the Warren Hall Strategic Site allocation has been undertaken in the context of The Well-Being of Future Generations (Wales) Act 2015 and Planning Policy Wales Edition 10 (December 2018) and this is presented in the form of a placemaking Appraisal. The allocation is capable of achieving the majority of the PPW placemaking outcomes (Paragraph 2.20 of PPW 10 clarifies that *“not every development or policy proposal will be able to demonstrate they can meet all of these outcomes”*) and is therefore capable of delivering a highly sustainable development. A summary of the key placemaking outcomes as well as the full assessment is set out in Appendix 1.

Indicative Layout

9.3 An indicative layout is provided as part of the Masterplan for the site and this identifies the broad location and arrangement of the land uses proposed as well as strategic green infrastructure network and access points. This will form the basis for the formulation of detailed development proposals at planning application stage.

Noise

9.4 In accordance with the NALO Report, an on-site noise assessment will be required in respect of existing sensitive receptors and to identify avoidance and mitigation measures in respect of the following potential noise sources:

- Road traffic noise from A55 to the north-east of the site;
- Road traffic noise from A5104 to the north of the site;
- Hawarden Airport towards the north-west of the site; and
- Operational noise from North Wales Autograss Club to the east of the site.

SuDS

9.5 A Sustainable Drainage Scheme based approach to the surface water drainage of the site will be required in accordance with the Flood Water Management Act 2010. The level of development proposed as part of the Strategic Site allocation can be delivered as part of a SuDS compliant scheme. The site is primarily characterised by medium/large pasture fields and areas of woodland, including the woodland and watercourse known as Warren dingle in the southern third of the site. Of the total site area of 75.49 hectares, development / built-form is proposed on circa 32 hectares. As such, over half of the site will remain undeveloped. A significant amount of undeveloped land is therefore retained on the site, allowing flexibility for appropriate areas to be utilised for SuDS measures as required. A SuDS compliant scheme can be delivered and the requirement to implement SuDS measures will have no significant effect on developable area. The scheme should be designed from the outset as an integral part of the overall design in accordance with the Statutory SuDS Standards and capable of being adopted by the SuDS Approval Body (SAB) which is FCC.

Ecology

9.6 The site is supported by an extensive and detailed range of ecological surveys. These identify the key ecological features, habitats and species in the site which are the linear hedgerows, mature trees, woodlands, patches of semi improved and marshy grasslands which are associated with a variety of species associated with the woodland. The development of the site should implement the Ecological Appraisal's recommendations and biodiversity enhancements in conjunction with the drafted Masterplan. Further ecological assessment work will be required in drawing up detailed development layouts and designs, in particular relating to breeding birds, and Hobby.

9.7 In addition to the existing Ecological Appraisal, an Ecological Impact Assessment will be required to inform a masterplan approach for the site at planning application stage supported by appropriate avoidance and mitigation measures for both species

and habitats. Overall, the proposed development should enhance biodiversity on the site.

9.8 Habitats to be retained need to be buffered appropriately so not to be squeezed (particularly hedgerows) between development land and footpath/cycleways particularly where lighting is required so that the habitats can continue to provide wildlife connectivity.

Trees and Hedgerows

9.9 Mature trees are on the site and will need to be retained and protected. Hedgerows should also be retained but where required to be removed they shall be replanted using indigenous species. Further advice is contained in adopted SPG4 Trees and Development.

9.10 Warren Dingle is a wooded valley running through the site which is designated as an Ancient Woodland under the title of 'Plantation on Ancient Woodland Site'. Gravelhole Wood is designated as a Restored Ancient Woodland Site. As indicated on the Masterplan these features will be protected from development. A planted buffer will be required between such woodland and built development and can help create dark corridors through the site. These habitats have good opportunities for biodiversity enhancement through appropriate management.

Built Heritage

9.11 In line with the findings of the Archaeological and Heritage Desk Based Assessment, the formulation of detailed development proposals will have regard to mitigating identified impacts on designated and non-designated heritage assets. With regards to Built Heritage, levels of less than substantial harm have been identified in relation to historic assets in proximity to the site boundary, and to the potential non-designated heritage asset of Warren Hall Garden, which lies wholly within the Site. With the levels of harm being demonstrably of a less than substantial nature and in the main at the lowest end of the scale of harm, the harm is required to be balanced against the public benefits arising from the development proposals.

Parking

9.12 Parking provision shall be made within the development in line with the current parking standards in SPG11 Parking Standards.

Space Around Dwellings

9.13 The development will ensure adequate separation distances between existing and proposed dwellings and adequate private amenity spaces in dwellings in line with existing SPG2 Space Around Dwellings to ensure that adequate living standards or amenity is established.

Aeronautical Constraints

9.14 The IFP Assessment (Cyrrus, December 2018) provides evidence to demonstrate that development of two or more storeys in height will be acceptable on approximately 53.6 ha / 71.2% of the overall site area. As such, it is confirmed that aeronautical restrictions will not constrain the deliverability of the Warren Hall Strategic Site. This position has been discussed with Airbus UK, who consider that in light of the results of the IFP Assessment, further detailed design work at Warren Hall can proceed. Further details are contained in Appendix 2.

10. Conclusion

10.1 The Council, Welsh Government and the North Wales Economic Ambition Board consider that the allocation is sustainable, viable and deliverable.

Andrew Roberts Andrew Roberts, Service Manager Strategy, Environment Directorate,
FCC 03/02/21

Peter Waldren Peter Waldren, Director, Tetra Tech, Agent on behalf of Landowners
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Appendix 1 Placemaking Appraisal

A summary of the way in which the Warren Hall Strategic Site has embraced the key sustainable placemaking outcomes is set out below (and detailed fully within the attached Placemaking Appraisal).

- *Outcome: Creating and Sustaining Communities*

The mix of uses to be located on the Strategic Site allocation will deliver a significant number of jobs located directly adjacent to new homes. The co-location of employment and residential land will create a balanced community, with the commercial hub providing complementary local facilities for use by future residents and employees alike. In addition, a significant number of affordable homes will be delivered on the site (circa 50%). The Warren Hall site will therefore provide much-needed high-quality affordable housing, and the phasing, mix, and integration of affordable and general market houses will ensure social inclusion and create an inclusive and mixed community, promoting the wellbeing of future occupiers.

- *Outcome: Making Best Use of Resources*

The site does not specifically make use of previously developed land – however, as set out within the LDP Preferred Strategy “*Given the polycentric settlement and development pattern, and as a general rule the lack of suitable new strategic sites, the Council’s focus in the Plan is on ensuring that the existing strategic site commitments are fully enabled to deliver development, before considering further strategic scale allocations*”. The Warren Hall site can deliver a sustainable mixed-use allocation adjacent to the existing settlement of Broughton directly to the north-east, within walking and cycling distance of existing services and facilities. The delivery of the Warren Hall site will assist in ensuring that less sustainable greenfield allocations are not required to provide jobs and homes for the residents of Flintshire.

Furthermore, the site does not contain any agricultural land that is classified as ‘Grade 1’ (excellent quality) or ‘Grade 2’ (very good quality). The site primarily comprises

agricultural land classified as ‘Subgrade 3a’ (good quality) and ‘Subgrade 3b’ (moderate quality), with some areas of ‘Grade 5’ (very poor quality) and ‘non-agricultural’ land. The Grade 3a land is present in patches across the site, principally north of Warren Dingle, south and west of Gravelhole Wood and adjoining the south and east of Warren Hall. Accordingly, allocation and development of the site is not considered to remove viable areas of best and most versatile agricultural land.

- *Outcome: Maximising Environmental Protection and Limiting Environmental Impact*

The illustrative masterplan for the Strategic Site incorporates a substantial degree of open space and high-quality green spaces. A network of green infrastructure threads throughout the site, through the retention of existing natural features as well as the provision of new or enhanced planting/hedgerows/footpaths. A number of ecological enhancement measures are incorporated within the masterplan, including the protection of existing hedgerows and woodland; management works to waterbodies and woodland on site; wildflower corridor planting; a bat and bird box scheme; and reptile habitat creation. Also key to the masterplan is the incorporation of sustainable drainage, with the site allowing for a SuDS-compliant scheme.

- *Outcome: Growing Our Economy in a Sustainable Manner*

The mixed-use allocation includes provision for a substantial degree of high-quality employment land. Warren Hall presents in the short term, prospects to deliver a mix and type of commercial development to Flintshire, to complement and enhance the type of employment development being provided on other sites in North East Wales. The site, therefore, will assist in facilitating economic growth and bringing about an increase in skilled / high-value employment. As stated above, the mixed-use nature of the allocation will ensure that homes are provided next to jobs, enhancing the site’s sustainability.

- *Outcome: Facilitating Accessible and Healthy Environments*

A shared cycleway / footway is present along the Warren Interchange to the north of the site, which provides a connection into the existing pedestrian footway along Mold Road

and Main Road within Broughton. Main Road provides a link to Chester Road where lit footways are provided on both sides of the carriageway. These footways provide a link from the site to Broughton Shopping Park and Hawarden Industrial Estate. There are a number of Public Rights of Way (PRoW) which run along the boundary of the site and provide a connection to the surrounding areas. Footpath Higher Kinnerton 5 runs to the south of the site from Kinnerton Lane to Main Road within Higher Kinnerton village centre, this provides an onwards link to PRoW Higher Kinnerton 4 and to the village of Penyfford. In addition, PRoW Buckley 77 runs to the west of the site off the A5104 to Old Warren Road, providing a link under the North Wales Expressway. A GIS network analysis has been carried out to assess pedestrian accessibility from the site. This analysis shows that Broughton, Higher Kinnerton, Kinnerton Green and Penyffordd are all accessible within a 30-minute walk from the site (based upon a walk speed of 4.8 km/hr).

There are a number of proposed cycling routes within the site that will tie in with the surrounding infrastructure including the new shared cycleway / footway along the Warren Interchange north of the site. National Cycle Network (NCN) route 568 runs approximately 6km north east of the site along the River Dee. NCN 568 runs along the River Dee shared cycleway/footway and provides a connection to NCN5 (North Wales Coastal Regional Route 89) within Shotton and NCN 45 within Chester, this allows for onward cycle connectivity within the wider surrounding areas. A GIS network analysis has been carried out to assess cyclist accessibility from the development site. This analysis shows that Broughton, Buckley, Higher Kinnerton and Bretton are all accessible within a 30-minute cycle from the site (based upon a cycling speed of 16km/hr).

The nearest bus stops to the north of the site are located on A5104 ('Warren Hall Court', immediately adjacent to the site.) This is served by the number 13 bus service which provides an hourly connection to the 'Old Cross Keys Farm' bus stop located approximately 300m from Buckley Rail Station. Additional bus services can be accessed from the 'Royal Oak' bus stop within Higher Kinnerton located approximately 600m south of the site. This stop operates is served by numbers 61, 61X and 62 providing additional

bus services to Broughton Heath, Wepre and Chester. It is pertinent to note that due to the scale of the site, certain areas are closer to bus services than others and, on this basis, it is considered that bus services are available within appropriate distances either from the A5104 Main Road, or from Higher Kinnerton. The site is well located to integrate into the local pedestrian and public transport network. Given the location of the development on the southern edge of Broughton it is well located to maximise access by sustainable transport modes. Both Broughton and Bretton village centres are accessible by walking and cycling to the north of the site and provide a number of employment opportunities, retail, leisure, healthcare and grocery facilities.

To the south of the site, the settlement of Higher Kinnerton is located within circa 1km, within which are located a range of local services and facilities, including shops; public house; primary school; village hall. Proposed enhancements to pedestrian and cycle linkages from the south of the Warren Hall site to Higher Kinnerton are outlined below.

The full Placemaking appraisal is presented overleaf:

Appendix 2

Aeronautical Constraints

The development of land at Warren Hall will be constrained by the operation of the runway at Hawarden Airport, which is located circa 2km to the north-west of the Warren Hall site. An assessment of aeronautical constraints has been carried out drawing upon the following (as detailed in full below):

- Obstacle limitation surfaces assessment
- Instrument flight procedure assessment

Obstacle Limitation Surfaces Assessment

The use of an aerodrome is influenced by natural features and man-made constructions inside and outside its boundary. The initial method of assessing the significance of any existing or proposed object within the aerodrome boundary or near the aerodrome is to establish defined obstacle limitation surfaces particular to the runway and its intended use.

Assuming that flights take off and land in both directions at Hawarden, there are two obstacle limitation surfaces that affect the Warren Hall site:

- Take-off climb surface – illustrated on Drawing A093950-15[B]02 (attached at Appendix A)
- Approach surface – illustrated on Drawing A093950-15[B]03 (attached at Appendix B)

The difference between existing ground levels and the obstacle limitation surfaces has been calculated. Much of the existing ground level of the site infringes the take-off climb surface and approach surface. For the balance of the site, the difference in height between the existing ground level and the obstacle limitation surfaces has been calculated and is illustrated on Drawing A093950-15[B]05 (attached at Appendix C). From this, it is concluded in summary:

- 10.35 ha (13.74% of the overall site) would be available for single-storey development.
- 7.85 ha (10.42% of the overall site) would be available for two-storey development.
- 6.18 ha (8.21% of the overall site) would be available for three-storey development.
- 2.57 ha (3.41% of the overall site) would be available for development above three storeys.
- In addition, there is a strip of land in the north-west of the site, adjacent to the A5104, that is unaffected by the obstacle limitation surfaces (2.61 ha).

This initial assessment indicated that surfaces were penetrated with the worst-case being the Instrument Landing System (ILS). Accordingly, an Instrument Flight Procedure (IFP) Assessment was required to provide a more detailed/refined assessment.

Instrument Flight Procedure (IFP) Assessment

Further to discussions with Airbus UK, an Instrument Flight Procedure Assessment was commissioned and undertaken by Cyrrus (Aviation Consultant) in December 2018 (Cyrrus Report attached at Appendix D). The IFP would establish the Target Level of Safety for aircraft operating to a specified Obstacle Clearance Altitude/Height (OCA/H), with consideration of all obstacles penetrating the Basic ILS surfaces.

The assessment was based broadly on building heights and locations proposed in the Masterplan approved as part of the 2008 outline permission for a business park and hotel/leisure uses (Permission Ref. 038744). Converting the OCA/H into metres and taking away the obstacle clearance of 50m provides a height of 87.16m. The ILS surface altitude at the critical point (Building Plot 04) is 74.2m, which indicates a maximum height of 74.2m for the development. As this assessment only considered the development as a whole, a further assessment would be required for each individual building against each IFP to determine individual building height requirements – however, this would need to follow more detailed designs for the site.

The assessment concludes that notwithstanding the penetration of the instrument landing system's basic surfaces, the assessed Instrument Flight Procedures were not impacted at a maximum building elevation of 74.2m.

The difference between the existing ground levels and an elevation of 74.2m across the site has been calculated. Some of the existing ground level of the site infringes the 74.2m elevation but, for the balance of the site, the difference in height between the existing ground level and the elevation of 74.2m has been calculated and is illustrated on Drawing A093950-15[B]08 (attached at Appendix E). From this, it is concluded in summary:

- 6.58 ha (8.73% of the overall site) would be available for single-storey development.
- 6.20 ha (8.23% of the overall site) would be available for two-storey development.
- 7.80 ha (10.35% of the overall site) would be available for three-storey development.
- 39.67 ha (52.65% of the overall site) would be available for development above three storeys.
- In addition, there is a strip of land in the north-west of the site, adjacent to the A5104, that is unaffected by the obstacle limitation surfaces (2.61 ha).

Conclusions



It can be concluded that the IFP Assessment (Cyrrus, December 2018) provides evidence to demonstrate that development of two or more storeys in height will be acceptable on approximately 53.6 ha / 71.2% of the overall site area. As such, it is confirmed that aeronautical restrictions will not constrain the deliverability of the Warren Hall Strategic Site. This position has been discussed with Airbus UK, who

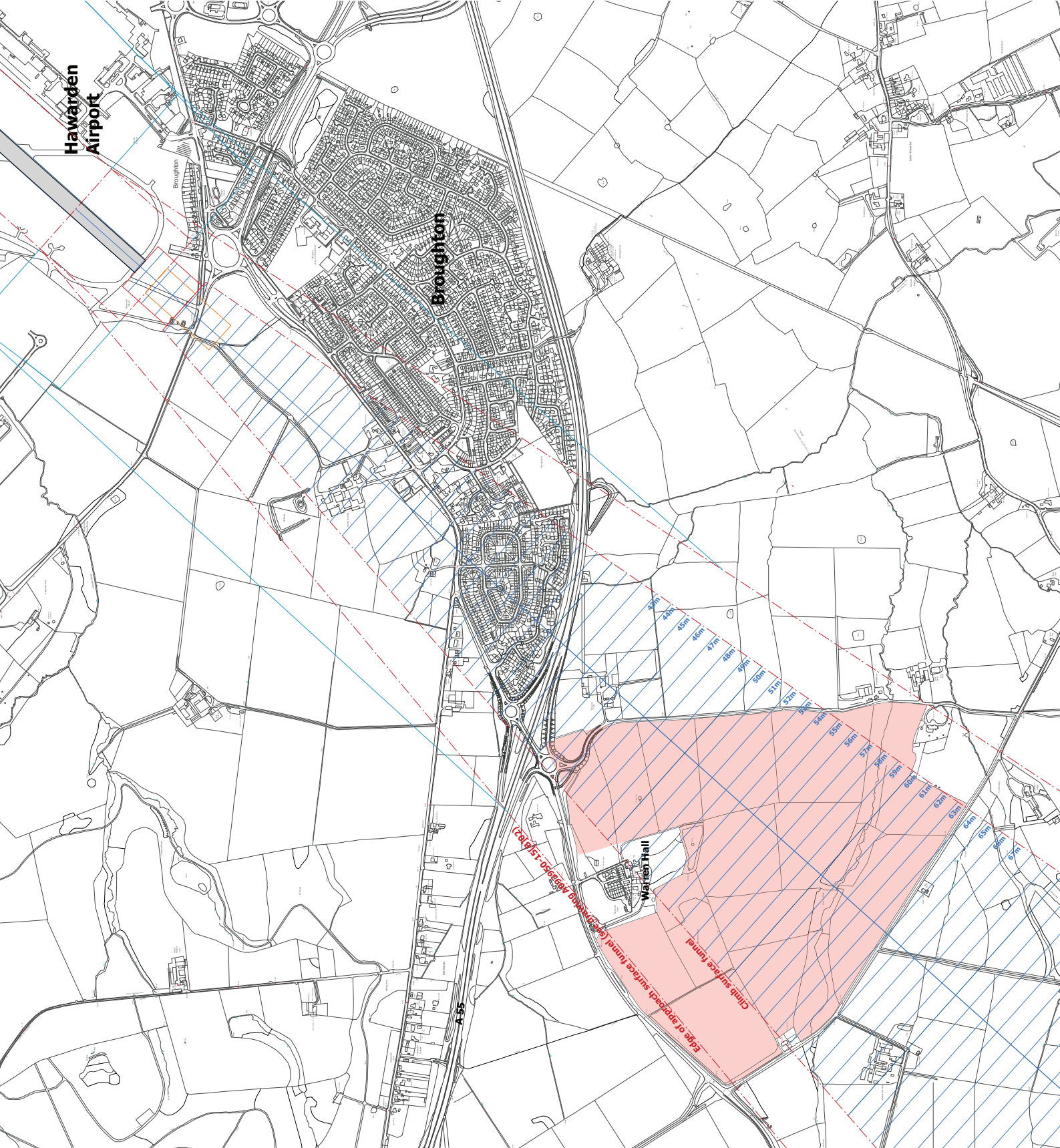
consider that in light of the results of the IFP Assessment, further detailed design work at Warren Hall can proceed (as set out within the letter attached at Appendix F dated 15th January 2019 from the Aerodrome Compliance and Safeguarding Engineer, Airbus Operations).

Warren Hall, Broughton Aeronautical constraints Take-off climb surface

02

Key

-  Warren Hall site
-  Obstacle limitation surface:
Take-off surface funnel
with contours at 1.0m intervals



Scale 1:10,000@A3
October 2018



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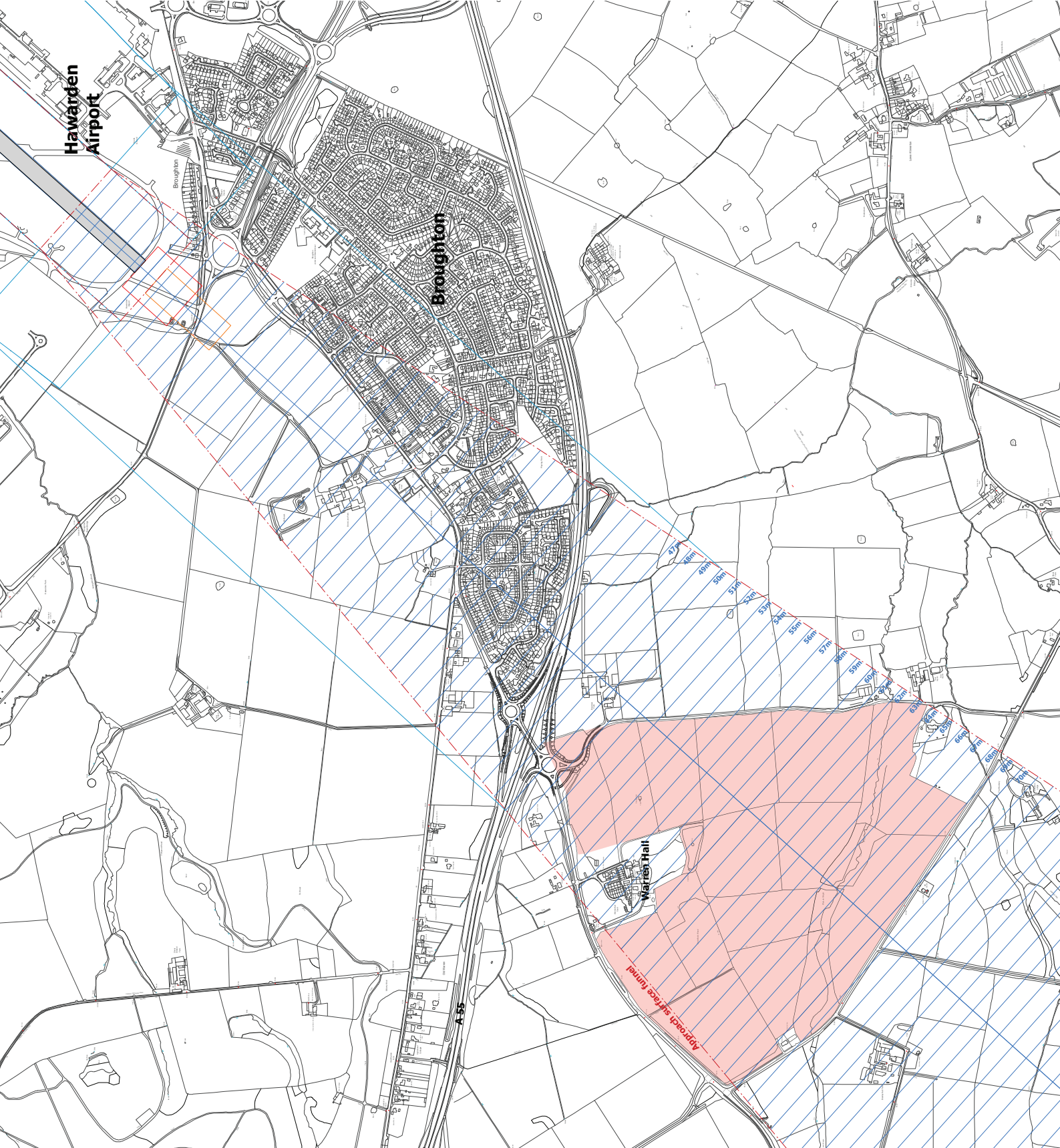
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Warren Hall, Broughton Aeronautical constraints Approach surface

03

Key

-  Warren Hall site
-  Obstacle limitation surface:
Approach surface funnel
with contours at 1.0m intervals



0 100 200 300 400 500 metres

A093950-15[B]03
File: A093950-15a101.vwx

Scale 1:10,000@A3
October 2018

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05












Warren Hall, Broughton Aeronautical constraints Development potential

Key

 Warren Hall site

Potential development heights

(Metres above existing ground level)

	No development possible	34.6 ha	45.94 % of site
	0.1 - 4	9.81 ha	13.02 %
	4.1 - 8	10.35 ha	13.74 %
	8.1 - 12	7.85 ha	10.42 %
	12.1 - 16	6.18 ha	8.21 %
	16.1 - 20	0.57 ha	0.76 %
	20.1 - 24	0.91 ha	1.21 %
	24.1 - 28	1.05 ha	1.39 %
	28.1 - 32	0.04 ha	0.05 %
	Development height contours (1 metre intervals)		
	No aeronautical constraint/ no topographic data available		



North

0 25 50 100 150 200 250 metres

A093950-15[B]05

File: A093950-15 05 Development Potential.mxd

Scale: 1:5,000@A3

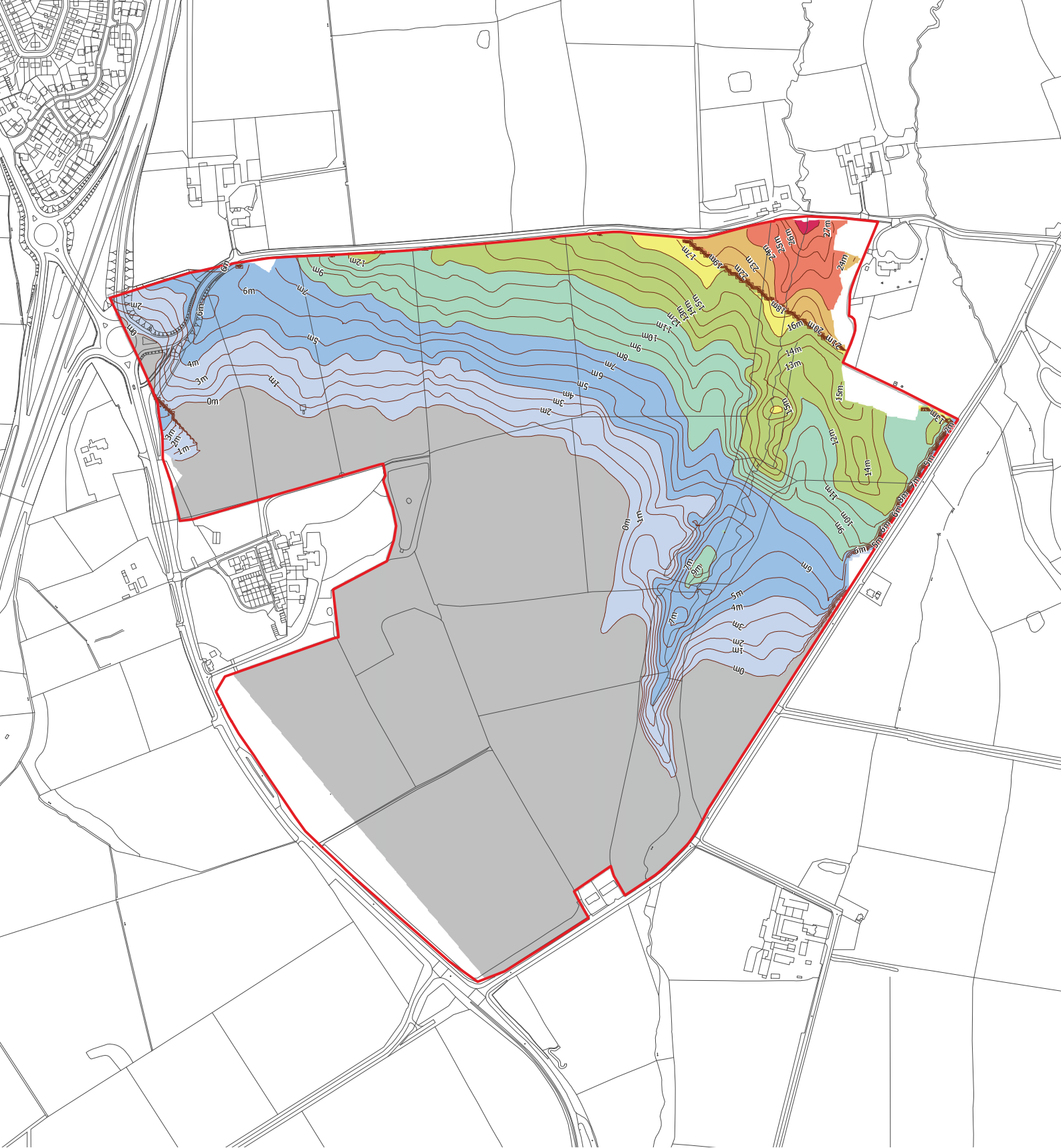
October 2018

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Instrument Flight Procedure Safeguarding

Warren Hall Development Assessment

Hawarden Airport

14 December 2018

CL-5348-IFP-004 V1.0

www.cyrrus.co.uk

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Introduction

The Welsh Government, through WYG, have requested an Instrument Flight Procedure (IFP) Assessment on a proposed development site at Warren Hall, Broughton. As the development site is only in proposal phase and forms part of a feasibility study, the assessment considered each building in the development, and reported on the most critical.

The closest point of the development site is positioned approximately 1.58 nautical miles (nm) south west of the Runway 04 threshold at Hawarden Airport (Figure 1). All the relevant IFPs will be assessed and any that are impacted will be detailed in this report.

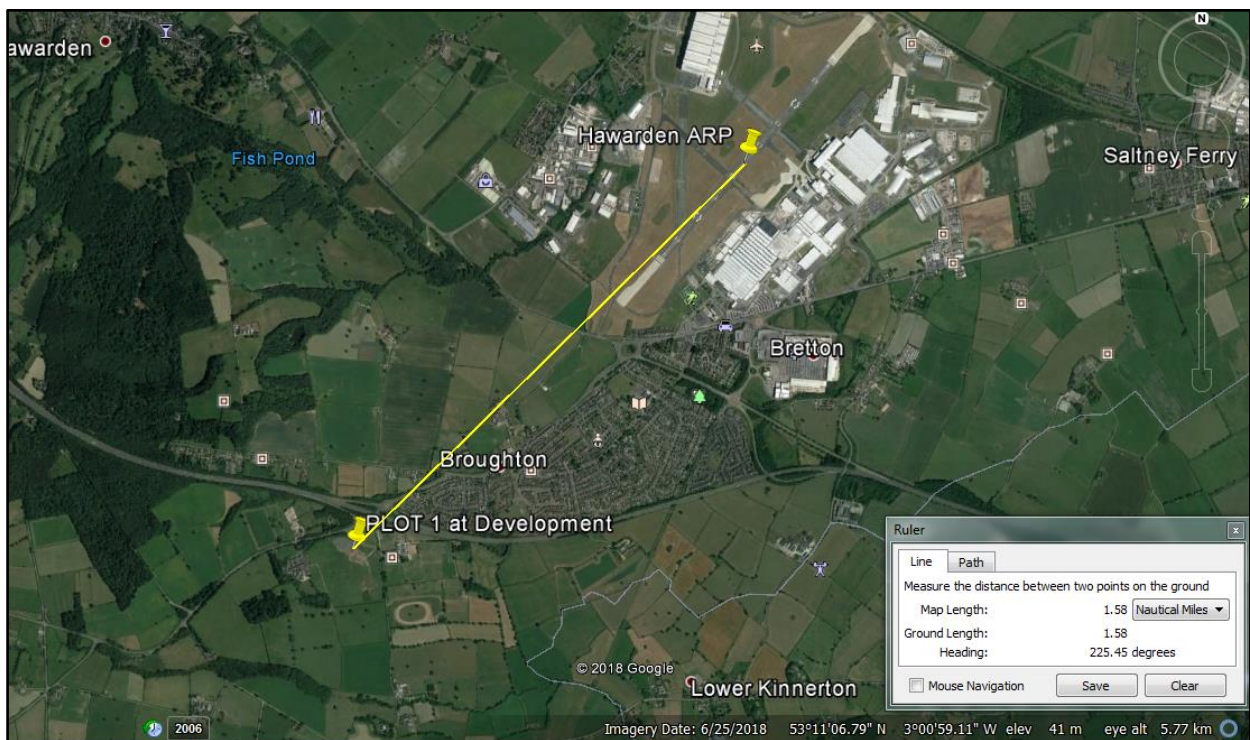


Figure 1: Distance from ARP

List of data received from client:

- Co-ordinates of each building planned for the development (18 Plots, 25 Buildings)
- Heights of each building shown in drawings (tallest building at 75.00m)

Assessment

In order to conduct the assessment, the lateral coordinates were extracted for each building, i.e. the corner for each building. Once each building was accurately placed the development was modelled against each IFP using specialist software application for the design and assessment of IFPs.

The initial assessment, on the Basic Surfaces, indicated that surfaces were penetrated with the worst-case being the Instrument Landing System (ILS). As a result of the penetration, the Obstacle Assessment Surfaces (OAS) were assessed, the outcome of which is detailed in Table 1.

Assessed Procedure	Runway	Impact	Comments
ILS/DME/NDB(L)	04	No	Penetrating but not affecting surfaces.
LOC/DME/NDB(L)		No	
SRA RTR 2nm		No	
NDB(L)/DME		No	
Visual Segment Surface		No	
Holding	04 & 22	No	
ILS/DME/NDB(L)	22	No	
LOC/DME/NDB(L)		No	
SRA RTR 2nm		No	
NDB(L)/DME		No	

Table 1: Summary of Assessed Procedures

Conclusion

Due to the penetration of the Basic Surfaces, the numerical risk which can be compared to the Target Level of Safety for aircraft operating to a specified OCA/H height, should be established with consideration of all obstacles penetrating the Basic ILS surfaces. The safety process is conducted by running a Collision Risk Modelling (CRM) assessment. It is intended to assist operational judgement in the choice of an OCA/H value and is recommended following this assessment.

The procedure with the lowest OCA is the LOC/DME/NDB(L) for Runway 22 at 450ft. Converting the OCA/H into metres and taking away the obstacle clearance of 50m provides a height of 87.16m. The ILS surface altitude at the critical point (Building Plot 04) is 74.2m, which indicates a maximum height of 74.2m for the development. As this assessment only considered the development as a whole, a further assessment would be required for each individual building against each IFP to determine individual building height requirements.

The OAS analysis indicates that the assessed IFPs are not impacted by the proposed development, however, the development is restricted to a maximum elevation of 74.2m amsl. Although the ILS basic surfaces are penetrated, and the subsequent assessment resulted in the obstacles not affecting the surfaces it is recommended that CRM is conducted for the ILS Approach.



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08

Warren Hall, Broughton

Development potential

(Maximum development height of 74.2m AOD)

Key

- Warren Hall site

Potential development heights
(Metres above existing ground level)

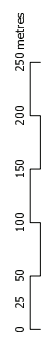
No development possible	7.71 ha	10.24 % of site
0.1 - 4	5.28 ha	7.01 %
4.1 - 8	6.58 ha	8.73 %
8.1 - 12	6.20 ha	8.23 %
12.1 - 16	7.80 ha	10.35 %
16.1 - 20	8.12 ha	10.77 %
20.1 - 24	7.59 ha	10.08 %
24.1 - 28	7.32 ha	9.72 %
28.1 - 32	7.46 ha	9.90 %
32.1 - 36	6.90 ha	9.16 %
36.1 - 40	2.23 ha	2.96 %
40.1 - 44	0.05 ha	0.06 %

Development height contours (1 metre intervals)

- No aeronautical constraint/
no topographic data available



North

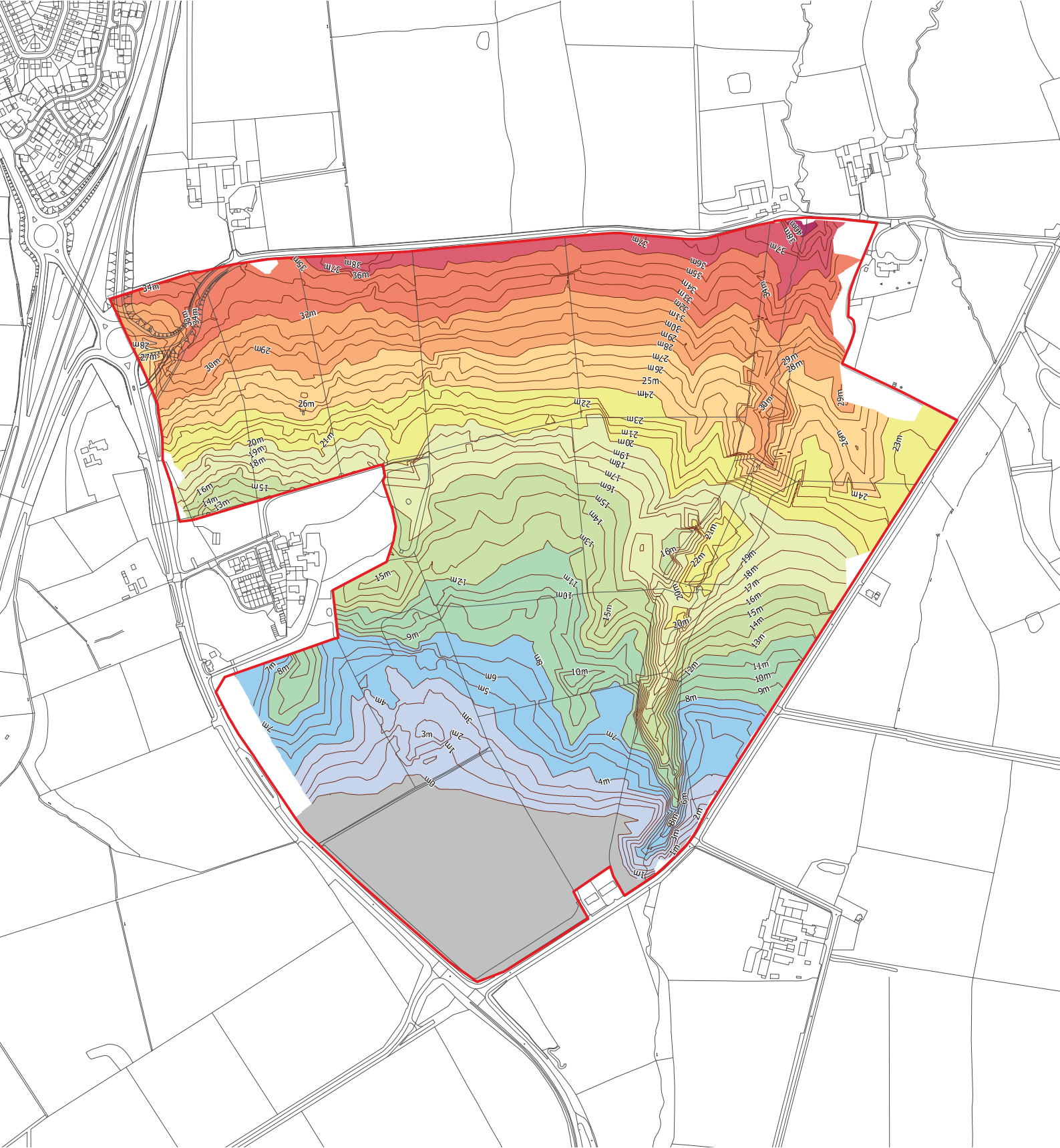


A093950-15[B]08

File: A093950-15 08 Development Potential - Max 74.2m.mxd
Scale: 1:5,000@A3
January 2019

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Department for Economy and Transport
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Ian Crawford
T +44 1244528292
E ian.ia.crawford@airbus.com

Our Reference: Warren Hall IFP Response
Your Reference:

15th January 2019

Warren Hall Development

Dear Clwyd,
Thank you for your e-mail dated 7th January 2019.

As discussed in our meeting on the 14th November 2018, the initial IFP assessment results are encouraging which can now allow for further design work for development of the site.

At present the Hawarden Aerodrome Management Team require the next steps to investigate the extent of the risk to operations as follows:

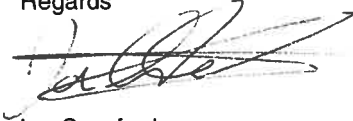
- **IFP further impact assessment**
Cyrus require a detailed site plan for them to consider potential buildings as a whole to determine individual building height requirements and impact on IFPs and ILS basic surfaces.
- **Collision Risk Modelling**
Due to penetration of ILS surfaces, Cyrus will be required to carry out a CRM (Collision Risk Modelling assessment) to assist in determining the obstacle clearance altitude (OCA).
- **Assessment of Dominant Obstacles / Type A Chart**
Hawarden Aerodrome Management Team will need to assess any dominant obstacles that may appear due to this development on the Type A chart and assess the risk to operations accordingly.
- **Assessment of Approach Slope 04**
An assessment is needed to identify any possible infringement of the 1:50 surface and proposed mitigation measures in order to maintain EASA compliance.
- **Assessment of Take Off 22**
Assess impact on the take-off surface for runway 22.
- **Beluga ST / XL Flight Performance**
It is necessary to liaise with ATI (Air Transport International) to ensure that the Beluga ST and the new Beluga XL flight performance is not impacted due to this development.

The next steps above are reliant on a detailed indicative plan and so Hawarden Aerodrome would be grateful of any plans being given to us at the earliest time possible to assess these risks in collaboration with yourselves.

AIRBUS

Thank you for your continued correspondence and we look forward to receiving further information on this development.

Regards

A handwritten signature in black ink, appearing to read 'Ian Crawford', written over a horizontal line.

Ian Crawford
Aerodrome Compliance and Safeguarding Engineer
For and on behalf of Airbus Operations Ltd