BAE SYSTEMS

LANCASHIRE ADVANCED ENGINEERING & MANUFACTURING ENTERPRISE ZONE PHASE 1 SITE CONSULTATION MASTERPLAN

1148 Revision 03 October 2014

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1.0 Introduction

1.1 In Autumn 2011 the Warton Aerodrome site, along with the Salmesbury Aerodrome site, was awarded Enterprise Zone Status. It is known as the Lancashire Advanced Engineering and Manufacturing Enterprise Zone and incorporates land at both Aerodrome sites

1.2 Warton Aerodrome has been split into three Enterprise Zone areas:

- North Enterprise Zone – 39.7ha
- South East Enterprise Zone – 21.3ha
- South West Enterprise Zone –13.5ha

1.3 The airfield which measures 157.5ha lies outside the Enterprise Zone.

1.4 The development of the Enterprise Zone is to be managed and co-ordinated through the Lancashire Enterprise Partnership in association with BAE Systems as the landowner. These bodies form the Enterprise Zone Governing Committee.

1.5 On 2 October 2012, a Local Development Order (LDO) was granted for an 8.5ha site within the North Enterprise Zone known as Phase I of the Lancashire Enterprise Zone (Warton). The LDO was drawn up by Fylde Borough Council in consultation with Lancashire County Council, The Lancashire Enterprise Partnership and other stakeholders, including statutory bodies and BAE Systems as the owner of the site. The LDO allows permitted development to take place which conforms to Use Class B categories (business, industrial and storage and distribution) of development providing it meets certain conditions and therefore applications for planning permission are not required.

1.6 Development does not require planning permission where it for the purpose of advanced engineering and manufacturing and it falls within the following Standard Industrial Classification (SIC) Codes:

- Aerospace (30.3, 28.4)
- General Aviation Services (52.23)
- High-end automotive including motorsport, electric/alternative energy vehicles (29.1, 29.3)
- Computing, systems engineering and autonomous systems (62.01, 72.1)
- Nucleus (35.1)
- Advanced flexible materials (13.96, 20.6)
- Renewable energy (27.1)

1.7 The LDO does allow advanced engineering or manufacturing development or ancillary, complementary or supportive uses that fall outside of the above SIC Codes providing that it is accepted by the EZ Governing Committee and the LPA.

1.8 There are a number of further conditions which relate to access, highways and Travel Plan targets, height, material and colour of buildings and other matters that have to be adhered to. There are a number of constraints around the height of any development due to the CAA restrictions in relation to the operational airfield and from Fylde Borough Council in relation to adjacent residential areas.

1.9 As part of the requirement within the LDO, a masterplan is to be developed for the Enterprise Zone which is to embody the following guiding principles.

- Create a high quality, development providing people with a healthy work place in an inspirational, successful and vibrant environment which promotes the creation of an active, inclusive and harmonious community, while ensuring improvement and enhancement of the existing;

- Encourage investment, create jobs and build a flourishing economy;
- Provide a healthy working environment based upon the creation of a strong, inclusive and vibrant community using sustainable transport, movement and travel; and
- Create an environment reflective of the area whilst supporting better links and integration.

1.10 In addition to the above, the LDO states that the masterplan should address the following matters:

- Provision and co-ordination of transport infrastructure within and beyond the Enterprise Zone Boundary;
- Preparation and provision of a Travel Plan;
- Access (including routeing) to the Enterprise Zone from the influenced network and its integration to the existing public highway network and proposals for on-site/off-site works required as a result of the development linking and consistent with other relevant transport masterplans;
- On-site parking;
- Protection of BAE Systems' core operations;
- Provision of utilities supply and integration of new supplies with the existing;
- Provision of superfast broadband outside the BAE Systems secure area;
- Implementation of a Design Code (including height restrictions, palette of materials);
- Details of building materials;
- Provision of on-site structural landscaping;
- Avoidance of ecological impacts, measures to offset unavoidable ecological impacts, the delivery of bio-diversity enhancements, the maintenance and enhancement of habitat connectivity and buffer zones around habitats of ecological importance;
- Provision of drainage.

1.11 It is intended that the masterplan will be adopted by Fylde Borough Council. Development proposed under the provisions of the LDO shall be in general accordance with the principles of the adopted masterplan.

Warton EZ - Aerial Photograph

2.0 Vision for the Site

Vision: The Warton Enterprise Zone Phase 1 Site will help to deliver world class facilities for advanced engineering and manufacturing ensuring that the objectives of the Enterprise Zone as a national and international focus for these sectors are realised.

2.1 The Warton Phase I Site and the Enterprise Zone as a whole will act as a driver for strengthening the wider supply chain, increasing the overall value of the economy and raising the skills base across Fylde and Lancashire. It will form a key element in the overall sustainable growth plans for the sub region. Developments within the Warton Phase I site will be undertaken sustainably to a high quality benefitting its high profile and status and will respect its surroundings.

Implementing the Vision

2.2 A number of key principles will be used by the EZ Governing Committee to guide the development and delivery of the Warton Phase I site:

- Encouraging investment, creating jobs and building a sustainable economy by providing a centre of excellence for high technology manufacturing and support services;
- Attracting investments and high value end users by meeting facility and service needs within a high quality well-designed development located in a high quality setting;
- Ensuring sustainable access, travel and connectivity;
- Ensuring a phased but integrated development;
- Providing a healthy working environment and sustainable development which will both integrate with and enhance existing activities and communities;
- Taking an integrated approach to green infrastructure including landscaping and ecology;
- Meeting ecological management requirements within the constraints of an operational airfield.

3.0 Development Strategy: Development Zones, Occupancy and Land Use, Phasing and Security

Development Strategy: The existing BAE Systems site and the Warton Phase I EZ site are adjacent and will complement each other in terms of activities. However, the two sites will remain separate in order to maintain the required security of existing BAE Systems operations.

Development Strategy

3.1 The development strategy for the Warton EZ Phase 1 site is determined by a number of factors including access, available land and buildings and the potential demand for different uses within the advanced engineering and manufacturing sectors. Other key considerations are the character, type and use of existing buildings on the site and also the wider context in which different parts of the site are located.

3.2 It was considered early on that the site could effectively be split into two zones; the western zone providing industrial type of development and the eastern zone providing office, research & development and light industrial type development. In the former, buildings will be viewed against the backdrop of the main assembly halls and hangers with the Aerodrome complex. The proposed buildings will also comply with the LDO constraints plan in terms of interface with the CAA license requirements and with adjacent residential properties.

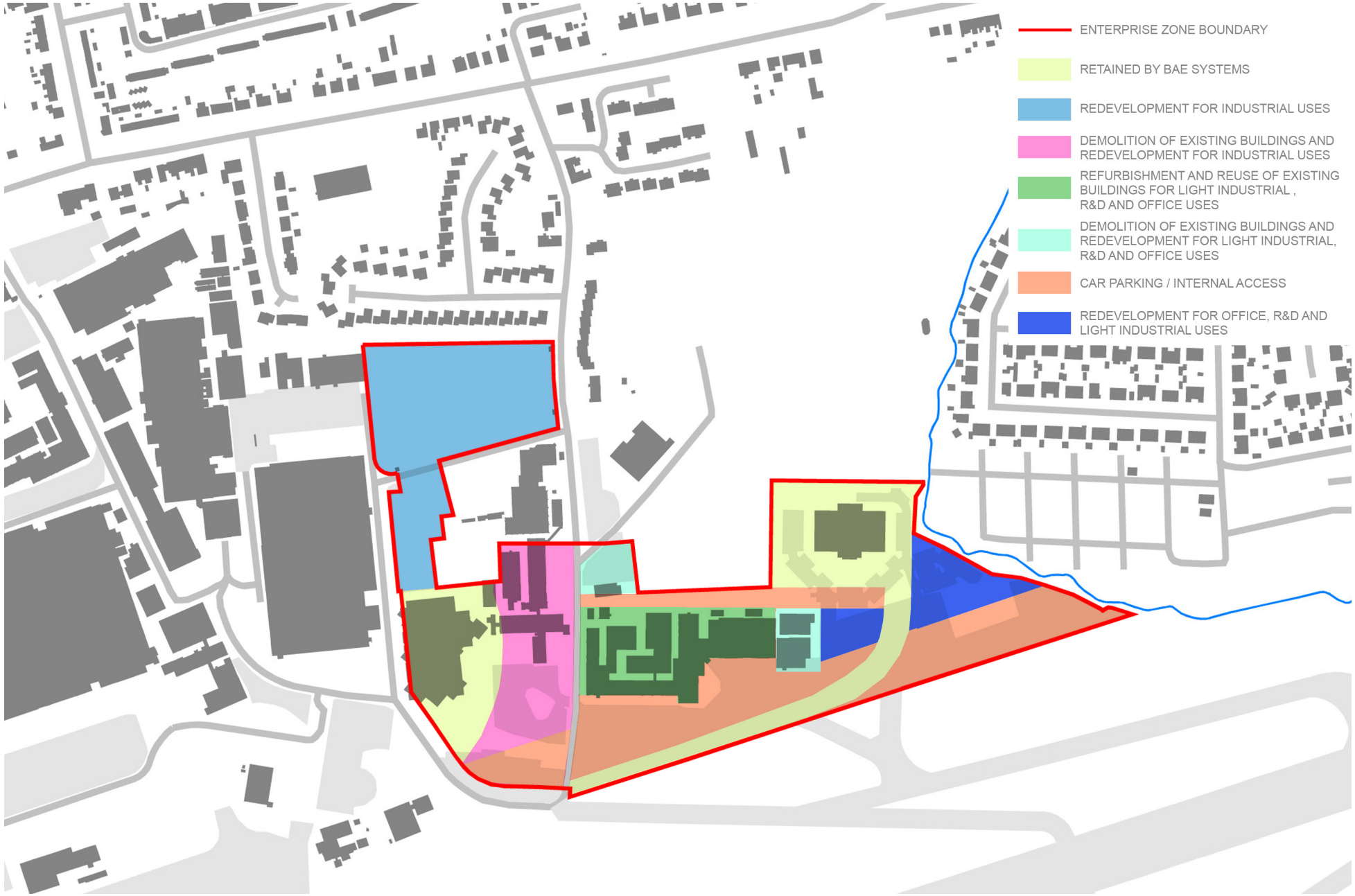
3.3 The eastern zone of the site currently consists of office and training facilities. To maintain this character it was considered that this zone will be redeveloped and re-used for office, R&D and light industrial uses. This strategy provides for a flexible response to the various sectors that may have an interest in locating on the site.

Occupancy and Land Use Strategy

3.4 It is intended that BAE Systems will retain and occupy two key buildings within the Warton EZ Phase 1 Site for the short to medium term. These are the Ribble Restaurant and the 3 storey office building. In addition, BAE Systems will retain land on the site to provide an enhanced access road and security facility into the Aerodrome site. The occupancy and land use strategy closely follows the 'development strategy' and the phasing and release of surplus land and buildings.

3.5 A survey of existing buildings and their suitability for re-use was carried out. The buildings to the west of Mill Lane were not considered appropriate or suitable for advanced engineering and manufacturing re-use. As such it was considered that these buildings should be demolished and replaced with modern high specification industrial units. Due to the constraints in this part of the site these units would be relatively small but would provide opportunities for smaller scale manufacturing and industrial processes.

3.6 The southern side of the site is constrained from development due to the CAA license and associated development and height restrictions. As such this area is predominately to be used for internal access, including BAE Systems new entrance road and car parking. There are some small areas within this zone that may have opportunities for modest development. The existing buildings which have been used for office and training were considered, with some refurbishment and demolition, to provide suitable accommodation particularly for SME's and business start-ups. Much of the infrastructure already exists for these buildings and they could be available in the short term to interested parties.


ENTERPRISE ZONE BOUNDARY
RETAINED BY BAE SYSTEMS
REDEVELOPMENT FOR INDUSTRIAL USES
DEMOLITION OF EXISTING BUILDINGS AND REDEVELOPMENT FOR INDUSTRIAL USES
REFURBISHMENT AND REUSE OF EXISTING BUILDINGS FOR LIGHT INDUSTRIAL , R&D AND OFFICE USES
DEMOLITION OF EXISTING BUILDINGS AND REDEVELOPMENT FOR LIGHT INDUSTRIAL, R&D AND OFFICE USES
CAR PARKING / INTERNAL ACCESS
REDEVELOPMENT FOR OFFICE, R&D AND LIGHT INDUSTRIAL USES

Phasing Strategy

3.7 There will be a phased decant of current BAE Systems activities on the site as the company creates the necessary space elsewhere to accommodate the displacement. This will have an impact on the phasing of re-use and redevelopment within the site.

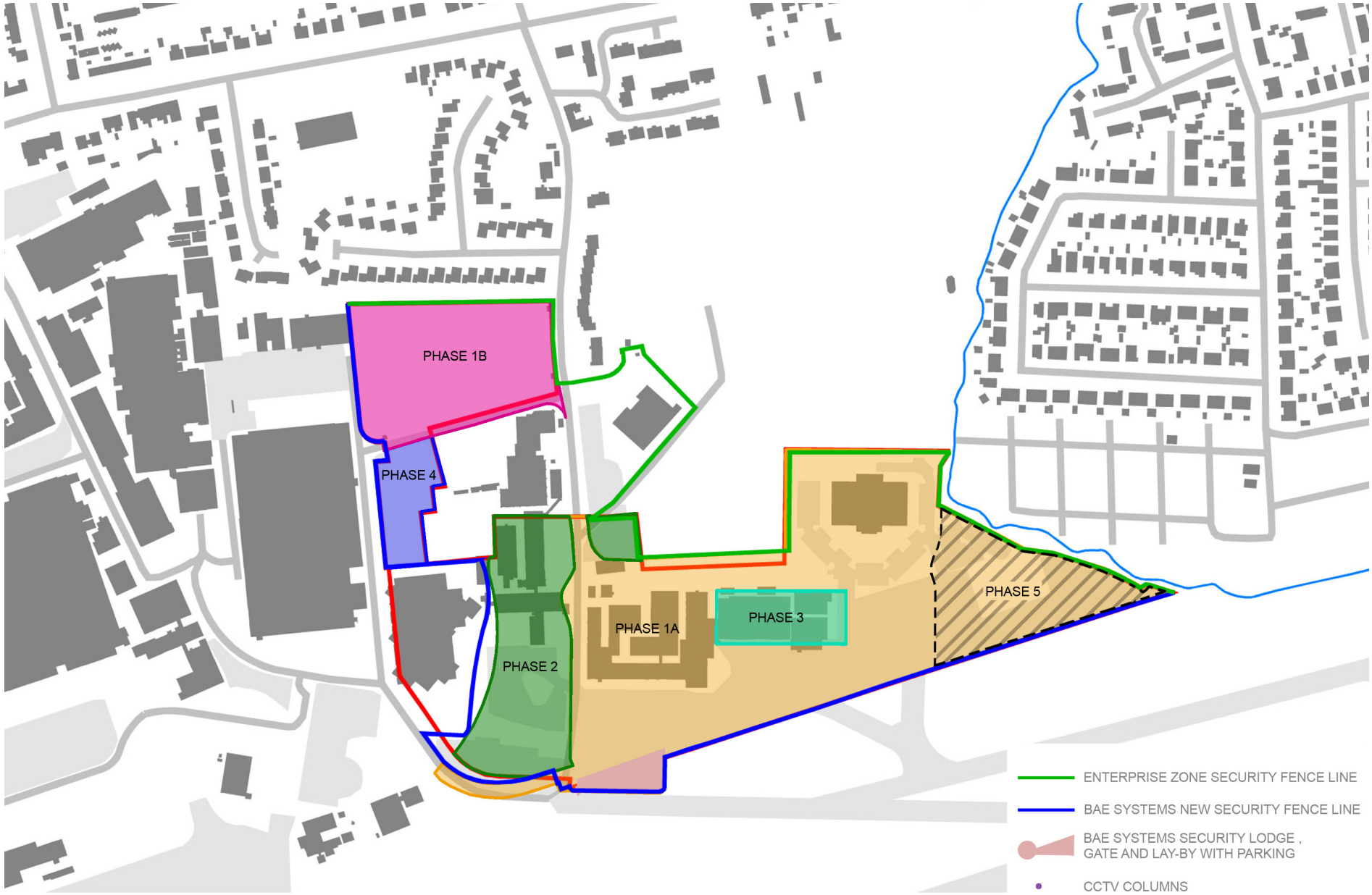
Security Strategy

3.8 Security for the scale back of BAE Systems Warton Aerodrome site is of upmost importance to ongoing operations. Additionally, enquiries from interested parties wishing to be located at the EZ highlight security as a key consideration and a key benefit of being located at the Warton EZ. Another factor is the redevelopment of the GEC Marconi Plastics Factory for residential development which lies adjacent to part of the northern boundary of the EZ. It is therefore important to ensure a comprehensive and robust strategy for security for the EZ site and the BAE Systems site. A secure EZ boundary will help provide an additional security buffer to the Warton Aerodrome site.

3.9 A new 3m high security fence was erected in 2013 between the former GEC Marconi plastics Factory site and the Phase 1 EZ Site. This is shown in green on the plan. There will also need to be a new secure line between the EZ site and BAE Systems Warton Aerodrome. This is shown in blue on the plan.

3.10 Additionally, the EZ development and the new access road provides an opportunity to relocate the current security lodge and gate currently located on Mill Lane. This provides significant benefits to the wider highway network and to residents living on and off Mill Lane. With the scaling back of BAE Systems' operations in this part of the site there is an opportunity to look to improve the access arrangements for BAE Systems' staff and visitors by providing dedicated access arrangements and retract the security point to deeper into the site. This would provide space and visibility for BAE Systems to ensure that problems of queuing traffic; lack of off road parking and conflict between pedestrians and vehicles is much reduced.

3.11 The location of the security lodge, gates, car park and lay-by is shown on the plan. This provides an appropriate secure entry point to BAE Systems. There is space for a lodge, lay-by and parking at the gate area. There is also an emergency and pedestrian route onto Mill Lane. A long linear access road adjacent to the southern boundary of the EZ site provides excellent visibility for security staff as well as a long road length for queuing traffic, at peak morning periods, which will not impact the wider highway and the EZ traffic.


PHASE 1B
PHASE 4
PHASE 2
PHASE 1A
PHASE 3
PHASE 5
ENTERPRISE ZONE SECURITY FENCE LINE
BAE SYSTEMS NEW SECURITY FENCE LINE
BAE SYSTEMS SECURITY LODGE ,
GATE AND LAY-BY WITH PARKING
CCTV COLUMNS

4.0 Broad Framework for Design

Design Framework: The overall objective of the framework is to establish a distinctive, attractive and functional working environment for the development of individual plots which will help to maintain a cohesive environment within the wider BAE Systems site and Warton and Freckleton.

Development Framework

4.1 The principal objectives of the development framework are:

- the creation of attractive, contemporary 'Gateways' at access points to the estate and at individual plot entrances, providing a distinctive and recognisable identity for the Enterprise Zone as a whole;
- to provide high quality developments which strive to achieve high standards of sustainability, throughout construction, operation and the life cycle of the property;
- improvements to the appearance and setting of existing buildings to be retained;
- the provision of a high quality public realm, including substantial appropriate tree and shrub planting, repaving and contemporary lighting (subject to CAA licence requirements);
- the provision of a safe and efficient circulation network for pedestrians and cyclists as well as vehicles.

Design Principles

4.2 The design quality objectives for each plot are:

- Buildings and plot layouts should relate to their neighbours.
- Buildings and plot layouts should make a positive contribution to the public realm.
- Use of planting and materials should be consistent with identity and approach established in public realm, and selected to minimise the impact on the environment.
- The style of buildings should be appropriate to their function.
- Access for persons with disabilities should be a high priority. Proposals need to comply with the Disability Discrimination Act, to cater for disabled people, whether physically or mentally impaired.
- Graphic identity and signage should be incorporated into building facades.
- Designs should respect designated plot boundaries, access routes and perimeter landscape.
- Landscape design should be in accordance with planting principles and the use of native species.
- Any negative impacts on the ecological diversity of the site must be mitigated.

Building Design

4.3 In terms of building design the overall aim is to ensure that all units, while adapting to the specific requirements of their usage and plot characteristics, maintain a recognisable consistency in form, cladding, materials and colour through the site.

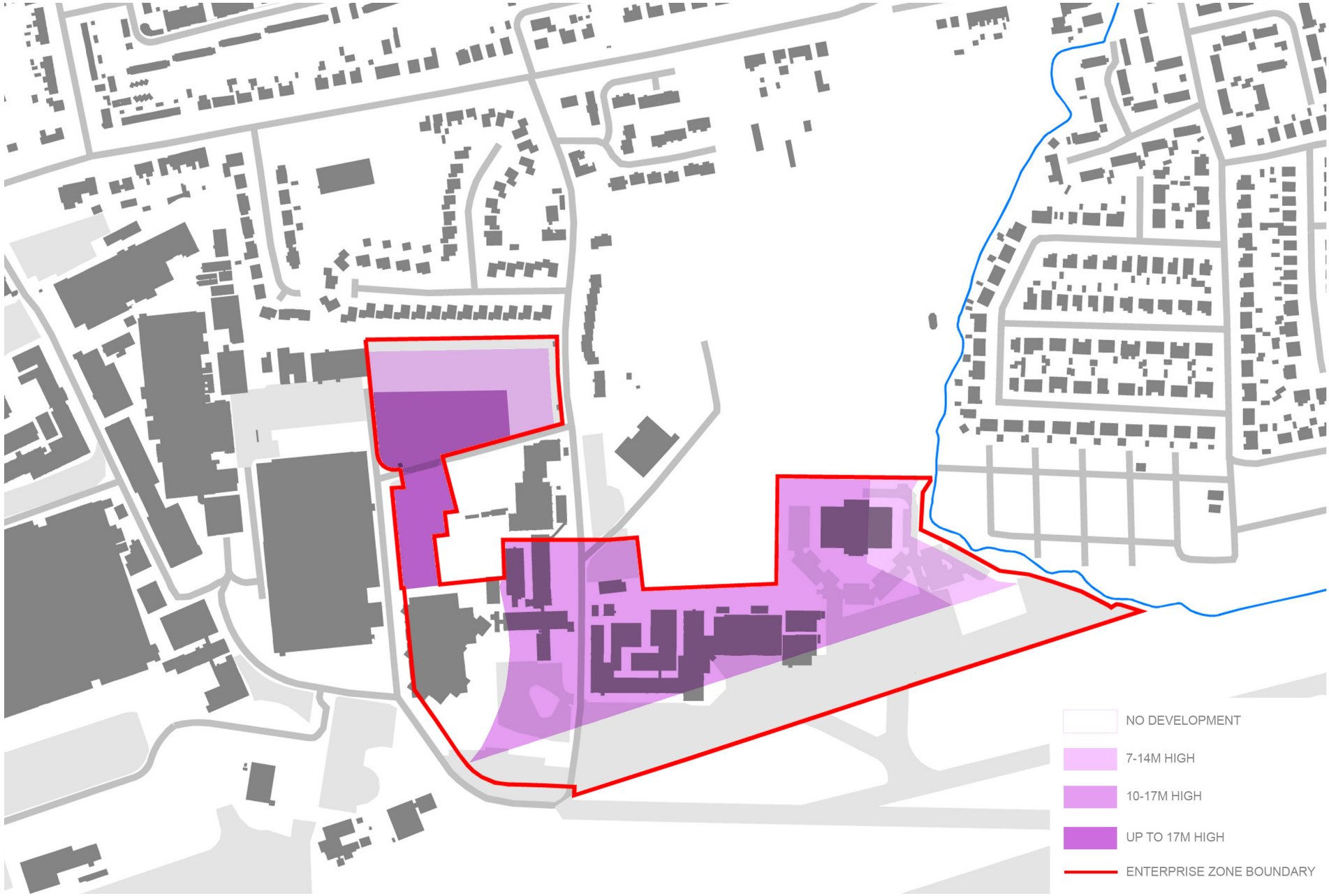
Plot Heights

4.4 The heights of any proposed plots on the site are restricted by CAA license and also the height restrictions imposed by Fylde Borough Council within the Local Development Order. These restrictions effectively constrain and development in a zone running parallel with the airfield and immediately adjacent to adjoining residential areas.

4.5 Beyond the 'no' development zones there is a boundary of height restrictions that runs parallel to the airfield from 10m to 17m (the highest building on the site).

4.6 Adjacent to the residential areas the height restrictions zones are tighter and allow development to be 6m high in the 12-16m zone (i.e. from the boundary) to 14m high in the 40-44m zone. Beyond this zone buildings can be 17m in height.

4.7 Where existing buildings are being retained there may be instances where they do not comply with the height restrictions. However, because they are existing this is considered to be acceptable.


NO DEVELOPMENT
7-14M HIGH
10-17M HIGH
UP TO 17M HIGH
ENTERPRISE ZONE BOUNDARY

5.0 Landscape Strategy

Landscape Strategy: The Masterplan provides an opportunity for creating landscape corridors that connect with existing green infrastructure assets such as Pool Stream and the airfield.

5.1 There is little in the way of structural landscaping on the Warton EZ Phase 1 Site. There are some trees, grassland around buildings and an area of scrub along part of the northern boundary. Much of this may be lost during the infrastructure and redevelopment works. However, this provides an opportunity to create a more robust landscape framework within the site. There are also opportunities to link the landscape within the site to existing wider landscape assets or those proposed within other adjacent developments such as the former GEC Marconi Plastics Factory (GEC site).

5.2 There is a need to ensure that the proposed landscape for the site is aligned with the wider site's strategy for managing wildlife and Foreign Objects Debris (FOD). This strategy is primarily to safeguard the operation of the Aerodrome.

5.3 The key elements of the landscape strategy are:

- Dense landscape of trees along boundaries adjacent to residential areas. In respect of the eastern boundary of the site this will connect with the landscape along Pool Stream and through the proposed GEC site.
- Planting along the key road corridors within the site which will be mainly grassland although could also include shrub and tree planting.
- Key open spaces in front of retained buildings to provide an appropriate interface to these buildings.
- A new open space courtyard within retained building in the location of the demolished buildings.


ACCESS ROUTES
LANDSCAPE AREAS
ENTERPRISE ZONE BOUNDARY

6.0 Access Strategy

Access Strategy: A full Transport Assessment was undertaken in relation to the proposed residential development at the adjacent GEC Marconi Plastics Factory site. This took account of the confirmed LDO for the EZ site and the prospect of the creation of 1,200 jobs.

6.1 Detailed consultations were held with BAE Systems in order to appreciate the implications of development on the EZ on the security restrictions imposed upon the Aerodrome site. These security restrictions prevent general traffic from making use of the existing BAES gates and so a dedicated access into the EZ site was essential. It was clear that even if the security gate at the Mill Lane entrance were relocated southwards, the junction of Mill Lane with Lytham Road would not be capable of accommodating both the existing BAE demand and that of the EZ. A separate access road would therefore be required to provide the necessary capacity for both the EZ and BAE combined.

6.2 Almost 50% of all BAE and EZ traffic approaches Warton from the east; the remainder is split roughly equally between northern and western approach routes. The logical location, therefore, for a new access into the EZ is on the eastern side of Warton to avoid drawing more traffic through the centre of the village.

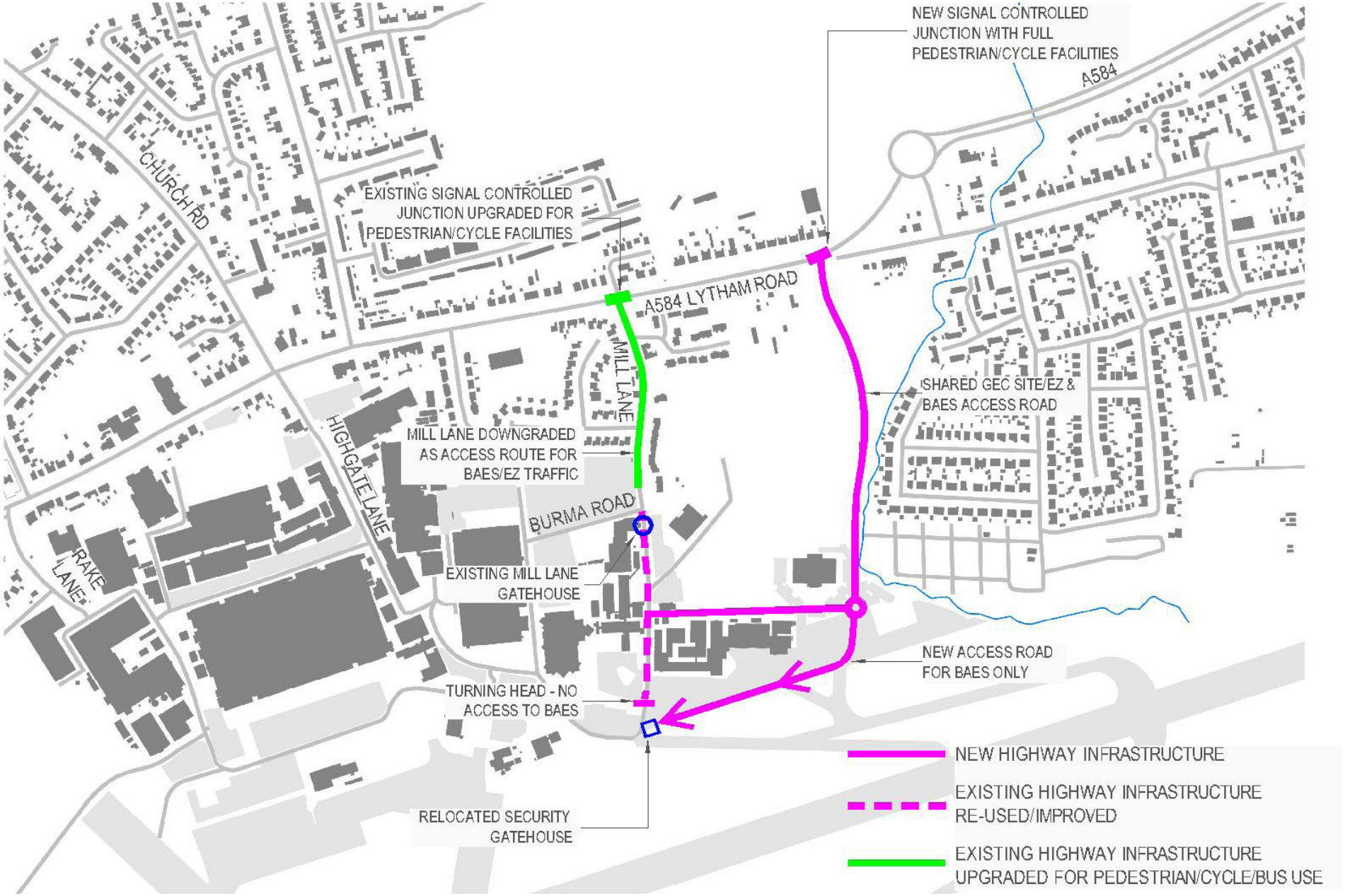
6.3 Additionally, a new eastern access would help to remove a significant volume of existing BAE traffic from the Mill Lane access if a combined access solution could be found. This would further benefit traffic conditions through the centre of Warton.

6.4 It was therefore determined that the preferred access strategy would be as follows:-

- Relocate the Mill Lane security gate to the south-eastern corner of the retained aerodrome site/ south-western corner of the EZ land;
- Provide a new signalised access onto Lytham Road to serve the proposed residential development on the former GEC Marconi Factory site (GEC site);
- Extend the residential access road through the GEC site along its eastern boundary into the Enterprise Zone to the east of the existing 3 storey office building;
- Connect the new eastern access road from the GEC site, through to EZ site to the southern end of Mill Lane to enable a loop road to be formed, thereby making the accessibility of the site by public transport a more realistic prospect;
- Downgrade the Mill Lane approach into the EZ through potential pedestrian improvements at the junction with Lytham Road.

6.5 These proposals were thoroughly tested during the consultation period for the GEC site's residential planning application by officers of Lancashire County Council and Fylde Borough Council. LCC had made it clear at pre-application stage that their highway concerns relating to the GEC development site would only be resolved provided the proposals for access into the EZ were also taken fully into account.

6.6 The Transport Assessment prepared by SCP in support of the 2012 planning application for residential development on the GEC site took full account of the confirmed Local Development Order for the EZ at Warton and the prospect of the creation of up to 1,200 jobs. As a result, the access strategy developed for the residential site had to also accommodate future projections for the EZ as well as 2010 levels of BAE traffic and growth in background flows up to 2024.


NEW SIGNAL CONTROLLED JUNCTION WITH FULL PEDESTRIAN/CYCLE FACILITIES
A584
CHURCH RD
EXISTING SIGNAL CONTROLLED JUNCTION UPGRADED FOR PEDESTRIAN/CYCLE FACILITIES
A584 LYTHAM ROAD
MILL LANE
SHARED GEC SITE/EZ & BAES ACCESS ROAD
HIGHGATE LANE
MILL LANE DOWNGRADED AS ACCESS ROUTE FOR BAES/EZ TRAFFIC
BURMA ROAD
RAKE LANE
EXISTING MILL LANE GATEHOUSE
NEW ACCESS ROAD FOR BAES ONLY
TURNING HEAD - NO ACCESS TO BAES
RELOCATED SECURITY GATEHOUSE
NEW HIGHWAY INFRASTRUCTURE
EXISTING HIGHWAY INFRASTRUCTURE RE-USED/IMPROVED
EXISTING HIGHWAY INFRASTRUCTURE UPGRADED FOR PEDESTRIAN/CYCLE/BUS USE

7.0 Access Proposals

New Junction off Lytham Road

7.1 The new signalised access onto Lytham Road via the former GEC Marconi Plastics Factory (the GEC site) provides double the capacity of the existing Mill Lane access for the right turn out towards Preston. It also provides a dedicated left-turn lane into the GEC site and EZ from the east via a widened stretch of Lytham Road between the new junction and the roundabout. This doubles the capacity of the westbound exit from the roundabout and enables the westbound approach traffic to dissipate across two lanes, rather than one, on entry to the terminal roundabout on the Freckleton Bypass.

7.2 All Enterprise Zone traffic, whether from the west, north or east, would be signed into the EZ via the new GEC eastern access road. EZ traffic would be expected to enter the site predominantly via the eastern access road. However, employees on plots to the north-west of the EZ site would continue to make use of the Mill Lane/Burma Road access. Due to the displacement of some 567 car parking spaces from T-car park elsewhere on the Aerodrome site, Mill Lane is likely to experience a significant reduction in peak hour traffic flows almost immediately. This would more than compensate for the additional traffic generated by EZ development traffic.

7.3 The capacity of the new access into the GEC site off Lytham Road was tested under the most robust scenario of all residential traffic, plus BAE traffic redistributed from Mill Lane, plus all EZ traffic. EZ traffic flows were derived on the basis of business park trip rates using a quantum of development commensurate with 1,200 employees.

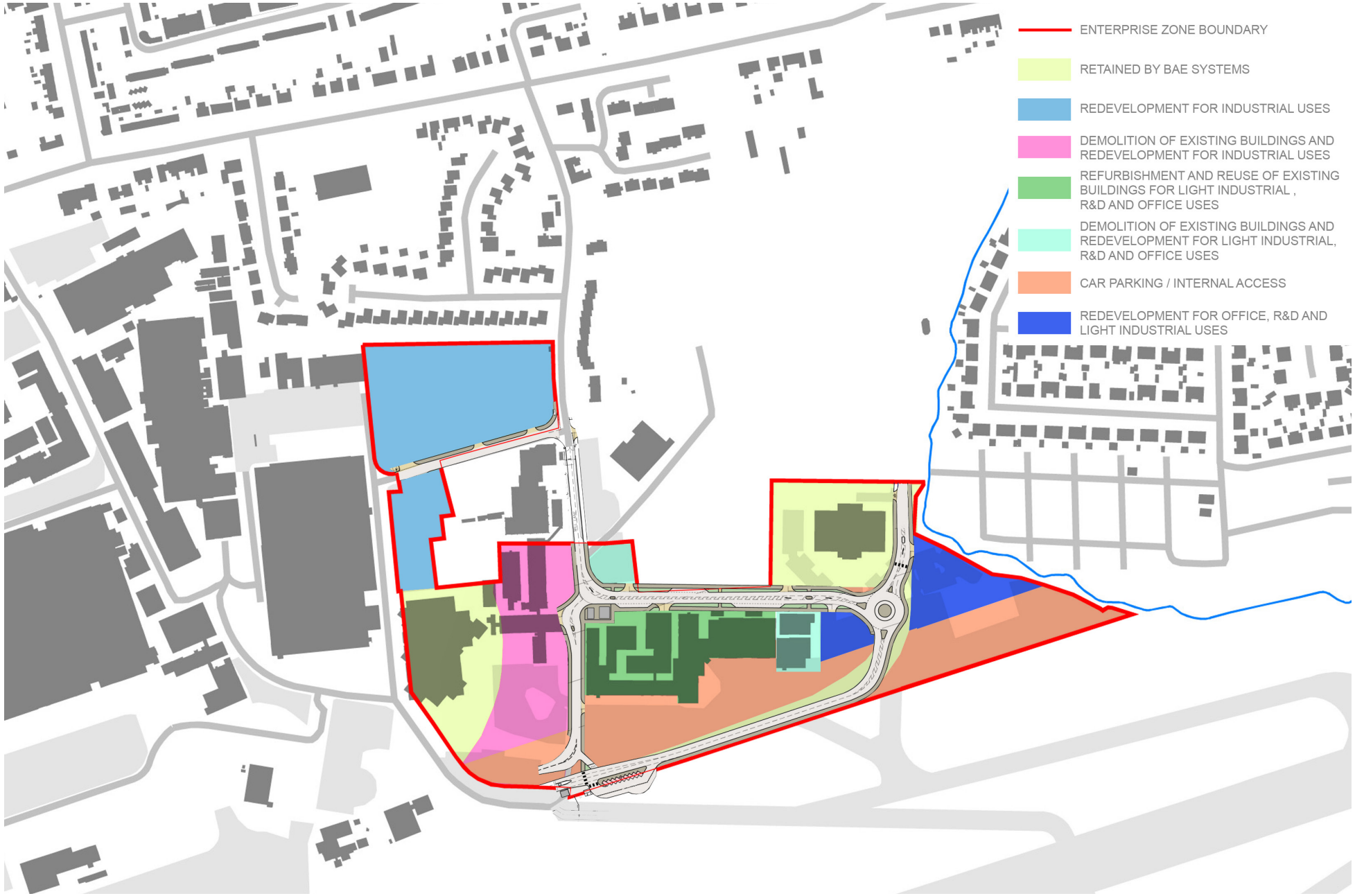
Proposed Entrance to the Phase I EZ Site

7.4 The first internal access junction is proposed to be located adjacent to the south-eastern corner of the existing 3 storey office building. Although the 'gateway' into the EZ will be at the boundary between the former GEC site and the aerodrome, to the north of this unit, this junction will serve as the main access feature for the majority of traffic and will need to cope with the predicted level of flow for both the EZ and diverted BAE traffic.

7.5 A roundabout is proposed which would have solid islands on all approaches and a short 2-lane flared section on the spine road approach from Lytham Road.

Internal Access Routes

7.6 The internal highway layout has been configured to accommodate the predicted traffic flows associated with the EZ and the swept paths of articulated HGVs through it and into/out of individual plots. The east-west connection between the main access roundabout and the southern extension of Mill Lane provides a loop into the EZ from Lytham Road that is intended to be attractive to bus operators. The minimum width of the main distributor roads through the EZ should be 7.3m to cater for bus and HGV traffic. The loop road itself is configured at between 8.0m and 9.0m in width to cater for pedestrian refuges and ghost-island right turn pockets into existing retained and proposed development plots.



Access Proposals Plan

8.0 Design Code

8.1 The design guide aims to outline the vision and objectives which BAE Systems have developed in conjunction with the EZ Governing Committee for the Warton EZ Phase I Site. It provides a framework for potential occupiers within which to plan and design development on individual plots.

8.2 The aim of the design guidance is to balance the need for flexibility in the design of units and plot layouts, responding to the diverse requirements of occupiers with the desire to achieve a high degree of coherence and continuity within the site and to ensure that the development of individual plots does not conflict with the high quality of the public realm works.

8.3 It also provides the basis for ensuring that the plots are developed in line with current best practice with regards to planning and sustainability issues.

Objectives

8.4 The overall objective is to establish a distinctive, attractive and functional working environment for the development of individual plots, and to ensure that the plots are sustainable. The principal objectives are:

- The creation of attractive, contemporary 'Gateways' at access points to the estate and at individual plot entrances, providing a distinctive and recognisable identity for the Enterprise Zone as a whole;
- To provide high quality developments which strive to achieve high standards of sustainability, throughout construction, operation and the life cycle of the property;
- Improvements to the appearance and setting of existing buildings to be retained;
- The provision of a high quality public realm, including substantial appropriate tree and shrub planting, repaving and contemporary lighting (subject to CAA licence requirements);
- The provision of a safe and efficient circulation network for pedestrians and cyclists as well as vehicles.

Design Requirements for Plots

8.5 BAE Systems and the EZ Governing Committee have established the following overall design quality objectives for plots:

- Buildings and plot layouts should relate to their neighbours.
- Buildings and plot layouts should make a positive contribution to the public realm.
- Use of planting and materials should be consistent with identity and approach established in public realm, and selected to minimise the impact on the environment.
- The style of buildings should be appropriate to their function.
- Access for persons with disabilities should be a high priority. Proposals need to comply with the Disability Discrimination Act, to cater for disabled people, whether physically or mentally impaired.
- Graphic identity and signage should be incorporated into building facades.
- Designs should respect designated plot boundaries, access routes and perimeter landscape.
- Landscape design should be in accordance with planting principles and the use of native species.
- Any negative impacts on the ecological diversity of the site must be mitigated.

Design Guidance

8.6 The following principles will be taken into account in the design of buildings and plots within the Warton EZ:

8.6.1 Plot Layout – design in line with principles of 'Secure by Design' guidance to incorporate design features that enable natural surveillance and create a sense of ownership and responsibility for every part of the development. Design aspects to be addressed include: plot boundaries, loading and servicing, parking provision and access and circulation.

8.6.2 Building Design – the aim is to create a recognisable consistency in form, cladding materials and colour throughout the EZ whilst allowing specific occupier requirements for usage and function. Design aspects to be addressed include: materials, building orientation, entrances, form and elevations, building heights and roof structures, ancillary buildings and structures and colours.

8.6.3 Hard and Soft Landscaping – the aim is to create an attractive, functional and consistent public realm environment. Design aspects to be addressed include: planting, paving and kerbs, signage, fencing and walls and lighting and security cameras.

8.6.4 Sustainability – the aim is to create a sustainable form of development with minimal environmental impact. This can be done through a range of measures:

- Energy – provision of appropriate renewable energy technologies to produce the required energy needs on site. Additionally measures to reduce energy demand will also be investigated and employed where appropriate.
- Water – consumption to be minimised through the specification of efficient sanitary fittings and where possible rainwater capture and grey water recycling.
- Waste – provision for the storage and collection of recyclable waste.
- Drainage – the provision of sustainable urban drainage systems to ensure efficient and effective drainage as well as create habitats and promote biodiversity.
- Health and Well-Being – design considerations for those using the buildings including daylight, providing views out, indoor air quality, ventilation and thermal comfort should be taken into account.

9.0 Travel Planning

9.1 A Travel Plan Co-Ordinator will be appointed for the Enterprise Zone Phase I Site. Each business relating to a development that exceeds National Travel Plan Thresholds will be required to produce a travel plan.

9.2 Realistic targets will be set and monitored to reflect current best practice and encourage the use of sustainable transport. Parking levels for all developments will be in line with Lancashire County Council standards.

10.0 Construction Management Plan

10.1 A Construction Management Plan will be prepared for the construction of the new access roads within the Enterprise Zone serving both existing and new premises. The Construction Management Plan (CMP) will support the implementation of the internal road system in accordance with the approved masterplan.

10.2 The formal CMP will be prepared at pre-tender stage and submitted to the Local Planning Authority for approval to outline the approach to managing construction under the Highways Act Section 38 Works for the internal link roads serving the EZ. The scope of the S38 works will accommodate the main spine road between the soutehrn end of Mill Lane and the southern end of the access road serving the housing development on the former GEC site at the north-eastern boundaryof the EZ.

10.3 Any future revised CMP prepared by the appointed contractor(s) for these works must provide the following basic information to the Local Planning Authority to be complied with thereafter.

- Scope
- Construction start/completion dates
- Proposed hours in which vehicles will arrive and depart
- Local access arrangements for vehicles
- Banksman/Road Marshall
- Proposed routes for vehicles between the site and the Strategic Highway Network
- The vehicles, plant and equipment to be used during the works
- Parking and loading arrangements
- Temporary traffic management orders
- Details of any hoardings
- Details of how pedestrian and cyclist safety will be maintained
- Management of traffic to reduce congestion
- Control of dirt and dust on the public highway
- Details of consultation with local businesses or neighbours
- Working group and other measures to reducethe impact of the site
- Fuel consumption
- Records.

11.0 Overview of Services and Utilities

Services and Utilities: Assessments have been undertaken to understand the scope and nature of utilities requirements including water, drainage, electricity, gas and telecoms necessary to deliver the Warton Phase I site at Warton.

Water Network

11.1 United Utilities has confirmed that the proposed Phase I Site could be fed from the existing 6" AC main in Mill Lane. The strategy is to lay water mains down the GEC site access road. It should be possible to gain United Utilities agreement for a connection point off the 9"AC main in Lytham Road

11.2 It is anticipated that United Utilities will construct a new Polyethylene water main with a diameter of 150mm through the spine road of the site.

Drainage

11.3 The maximum proposed surface water runoff into the Pool Stream is to be existing run off minus 20% for betterment which is estimated to be 860 litres/second. Surface water runoff which exceeds the agreed discharge rate will be attenuated onsite for events up to and including the 1 in 100 year event, with an allowance for climate change, so as not to increase the flood risk to areas offsite.

11.4 It is proposed to locate attenuation facilities for the 1 in 30 year storm event within the development plots, in the form of detention ponds and permeable paved car parking as attenuation tanks. Detention ponds store water temporarily during extreme events; it is proposed that they will remain dry for the majority of the time. Permeable paved car parking stores the excess surface water within the stone/hardcore layers that make up the car park construction. The outflow is controlled by a Hydro-Brake flow control device.

11.5 The proposed development site has also been modelled for the 1 in 100 year storm event, plus 30% for potential future climate change, with a maximum run off into the Pool Stream of 860 litres/second. Part of the proposed car park to the east of the site is allowed to flood during this storm event, and store excess surface water on the car park surface.

11.6 The majority of the existing surface water drains can be re-used for the proposed development. All of the 3 existing outfalls to the Pool Stream will be re-used.

11.7 All of the foul drains from the existing buildings, which form part of the site re-development scheme, will remain unaffected by the proposed works. All of the existing foul drains and their respective connections to the United Utilities combined public sewer will be utilised. It is understood that there is capacity in the system to accept the foul flows from the proposed buildings.

Electrical Network

11.8 The basis of the electrical strategy is to maintain the integrity of BAE System's High Voltage and Low Voltage network whilst constructing a new Distribution network for the Enterprise Zone.

11.9 The Point of Connection previously provided by ENWL is on the 6,600kV network which is currently located on Mill Lane. A revised point of connection will be required to connect the new network laid down the new GEC site access road, off the ENW HV network in Lytham Road.

Gas Network

11.10 The gas strategy is to maintain the integrity of BAE System's Medium Pressure and Low Pressure network whilst constructing a new Distribution network for the Enterprise Zone. A preliminary peak hourly load of 22,600 kWh has been applied to the Enterprise Zone. National Grid Gas has confirmed that the requested load is available at Medium Pressure from their existing main located on Mill Lane

Telecoms

11.11 Lancashire County Council in conjunction with BT Openreach has arranged for the installation of superfast broadband to the Enterprise Zone. The installation of the superfast broadband will be completed by the end of 2014.

12.0 Conclusion

12.1 The purpose of the Warton EZ Phase 1 Site Masterplan is to create a flexible and deliverable framework that can respond to a variety of development and user demands. As user requirements arise, various development and re-use of existing building opportunities can be provided that are grounded within the existing and proposed infrastructure that is provided early on in the development of the Phase 1 site.

12.2 The proposed masterplan complies with the constraints imposed within the Local Development Order and site constraints such as highways, utilities, ecology, drainage and ground conditions.

12.3 Key to the masterplan and the phasing of development is the decanting of BAE Systems, and its suppliers, out of the Phase 1 site to elsewhere on the Warton Aerodrome. Alongside this is maintaining and enhancing the security around the BAE Systems site whilst the Phase 1 site is being developed.

12.4 The development of the Phase 1 site provides a significant opportunity to improve the security arrangements into this part of the Aerodrome site and deliver improvements around peak traffic flows into and out of the site.

12.5 Most of the existing infrastructure will be used for the Phase 1 site development. New internal access roads and car parks located on existing hardstanding areas will form a key infrastructure improvement. This internal circulation route will connect with a new spine road through the GEC Marconi Plastics Factory site to Lytham Road and to the southern end of Mill Lane. This will in effect create a circulation loop for bus services and other EZ traffic.

12.6 Other infrastructure upgrades will be dependent on the density and type of development. However, the masterplan explores these requirements and when they may be needed.

12.7 The report is to be used as a working document. The development of the EZ Phase 1 site should be continually monitored and reviewed to ensure a coherent strategy is progressed. The principles of the masterplan provide a robust framework for individual proposals. However, as development progresses the masterplan may need to be refined to ensure the integrity of the framework and the ongoing operations of BAE Systems Warton Aerodrome is maintained.