

LONDON BOROUGH OF ENFIELD**PLANNING COMMITTEE****Date:** 24 March 2020**Report of:**

Head of Planning

Contact Officer:Andy Higham
Sharon Davidson
Claire Williams**Ward:**

Upper Edmonton

Application Number: 19/02717/RE3**Category:** Major

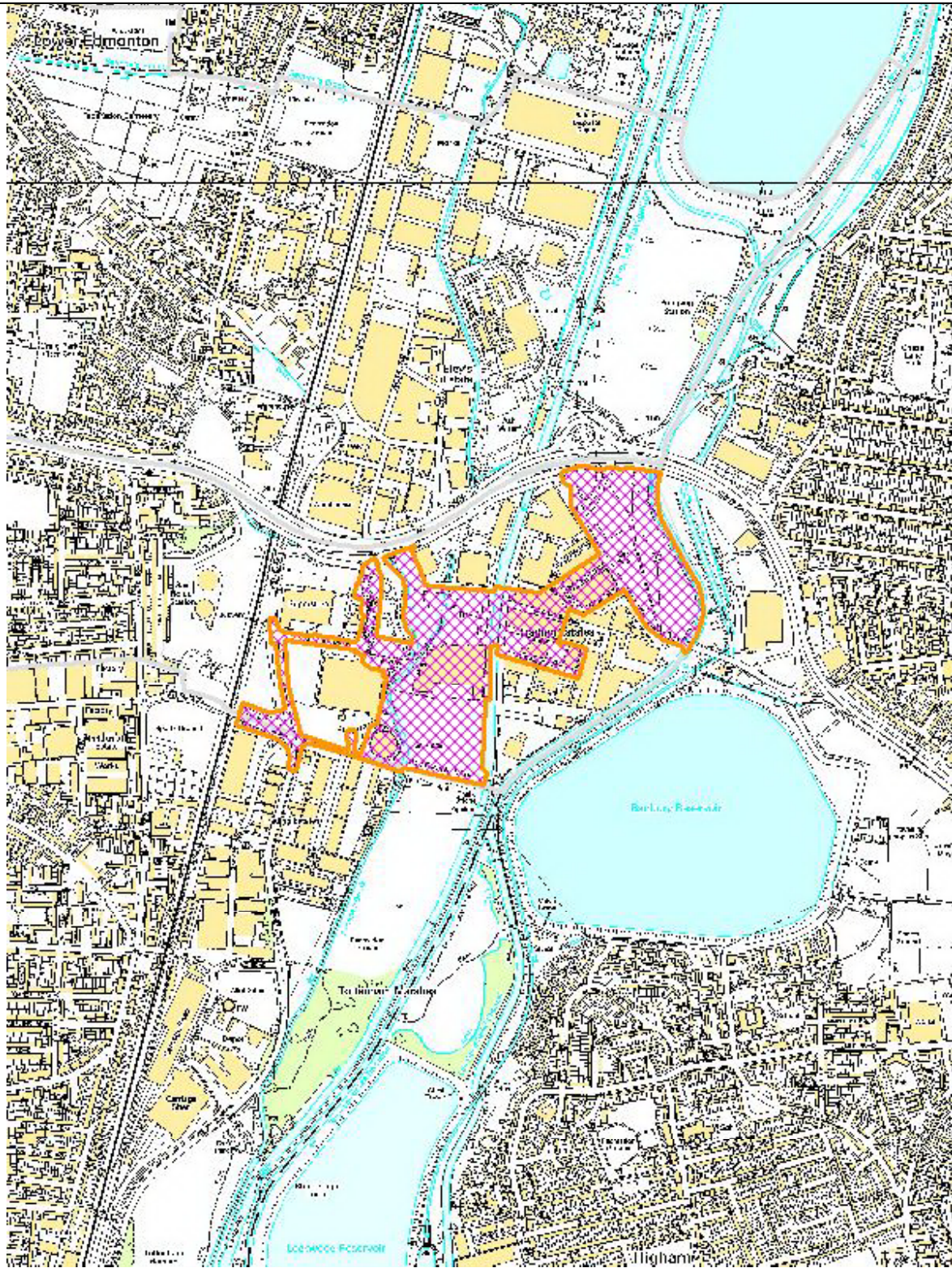
LOCATION: Meridian Water - Orbital Business Park, Adjoining Land At Leaside Road, South Of Argon Road, and Land At Former Stonehill Industrial Estate, Anthony Way And Adjoining Land, Land East Of Harbet Road And Adjoining Glover Drive, London N18

PROPOSAL: Full application for the redevelopment of the site to provide infrastructure works for the delivery of a mixed-use development comprising construction of an east-west link road between Glover Drive and Harbet Road (the Central Spine); alteration of access road between Argon Road and Glover Drive, construction of a link road between Leaside Road and the Central Spine, pedestrian and cycleway improvements to Glover Drive and Leaside Road, the construction of 4 no. bridges across the Pymmes and Salmon Brooks and River Lee Navigation; alteration to the Pymmes Brook channel, associated landscaping and formation of new public open space. Enabling works, comprising earthworks; remediation; flood conveyance channel, flood alleviation, outfall and new public open space works; utilities infrastructure; demolition of existing buildings, formation of new access's and associated works.

Applicant Name & Address:Mr Peter George
London Borough of Enfield
Civic Centre
Silver Street
Enfield
EN1 3XA**Agent Name & Address:**Mr Nick Finney
13 Fitzroy Street
London
W1T 4BQ

RECOMMENDATION: That subject to referral of the application to the Greater London Authority and the update of the drawing schedule to reflect minor amendments agreed, the Head of Development Management/Planning Decisions Manager in accordance with Regulation 4 of the Town and Country Planning General Regulations 1992 be authorised to GRANT planning permission subject to conditions

Note for Members: The application has been brought to the Planning Committee because this is a major planning application and the applicant is the Council.



1 Recommendation

- 1.1 That subject to referral of the application to the Greater London Authority and the update of the drawing schedule to reflect minor amendments agreed, the Head of Development Management/Planning Decisions Manager be authorised to GRANT planning permission subject to the following conditions:

Compliance with documents submitted for approval

- 1 The development hereby permitted shall be carried out in accordance with the approved plans and documents including plans(s) that may have been revised or may be amended necessary to support the further details Reserved Matters application(s) required by conditions of this permission, as set out in the attached schedule which forms part of this notice:

Drawing No	Drawing Title

Time Limit

- 2 The development to which this permission relates must be begun no later than the expiration of three years beginning with the date of the decision notice.

3 *Phasing*

Prior to the commencement of development a phasing plan of the proposed work sequence shall be submitted for approval. The works shall be carried out in accordance with the approved phasing plan

Landscape – compliance and implementation

- 4 Landscaping to be completed in accordance with soft landscape plans and planting schedule (drawing numbers to be inserted) within the first planting season following completion of the relevant phase of works in accordance with condition 3. Any planting which dies, becomes severely damaged or diseased within five years of planting shall be replaced with new planting in accordance with the approved details

Construction Environmental Management Plan

- 5 Prior to the commencement of any development including operations consisting of site clearance, archaeological investigations, investigations for assessing ground conditions, remedial work in respect of any contamination or other adverse ground conditions, diversion and laying of services, erection of any temporary means of enclosure, and the temporary display of site notices or advertisements a detailed Construction Environmental Management Plan and Code of Construction Practice for

those works shall be submitted to and approved by the Local Planning Authority. These shall comply and align with the Draft Code of Construction Practice (MWSIW-2.5 June 2019). The plan will include detail on the following information with respect to contaminated land and ground conditions:

- i) relevant methods specified in CIRIA A Guide for Safe Working On Contaminated Sites (C132) when handling arisings, due to the potential for hydrocarbons, asbestos and other contaminants;
- ii) procedures and protocols to prevent or manage the exposure of construction workers, visitors to the construction area, and users of neighbouring areas to contaminated materials;
- iii) measures to limit dust generation during excavation, handling and storage of potentially contaminated materials;
- iv) boundary monitoring of dust, volatile organic compounds and asbestos fibres during excavation and soil handling at points of greatest sensitivity;
- v) appropriate procedures for handling and treatment of groundwater;
- vi) measures to protect workers from vapours and dermal contact if hydrocarbon contamination is excavated, for instance during piling;
- vii) measures required under the Control of Asbestos Regulations 2012 and associated code of practice;
- viii) measures to control potential odours from the hydrocarbon and gasworks contaminated soils and prevent nuisance for workers and off site residents; and
- ix) good practice operation and containment measures for storage of fuels or liquid chemicals to conform with government regulations and pollution prevention guidance (PPGs) issued by the EA.
- x) Measures required under EA Pollution Prevention Guidance on works in, near or over watercourses (PPG5) for works near Pymmes Brook.
- xi) specify the measures to be taken to ensure the protection of the structural stability, water quality and biodiversity of the River Lee Navigation, as well as protection of its users.

And with respect to biodiversity:

- xii) risk assessment of potentially damaging construction activities, identification of biodiversity protection zones, practical measures (both physical measures and sensitive working practices) to avoid or reduce impacts during construction, the location and timing of sensitive works to avoid harm to biodiversity features, identify the times during construction when specialist ecologists need to be present on site to oversee works, responsible persons and lines of communication, use of protective fences, exclusion barriers and warning signs.

The development shall be implemented in accordance with the approved Construction Environmental Management Plan and Code of Construction Practice.

- 6 Prior to the commencement of development a detailed Construction and Logistics Plan for that phase shall be submitted to and approved in writing by the Local Planning Authority, which considers the impact of the development on air quality and the surrounding transport network. These shall comply and align with the Outline Construction Logistics Plan (MWSIW- 7.2 June 2019) The plan shall include:
- i) A photographic condition survey of public carriageways, verges and footways in the vicinity of the site;
 - ii) Works programme;
 - iii) Trip generation associated with the construction project, swept path analysis and identification of any works needed to the public highway;
 - iv) Routeing – primary and secondary designated routes to show how vehicles will keep to main routes and comply with the London Lorry Control Scheme;
 - v) Delivery scheduling;
 - vi) Use of holding areas and vehicle call up;
 - vii) Permit schemes and access;
 - viii) Parking, loading and unloading arrangements;
 - ix) Traffic management;
 - x) Measures and training to reduce danger posed to cyclists by HGV's;
 - xi) Consideration of use of alternative modes of transport (water freight/rail);
 - xii) CLP management including contact details for the person responsible for ensuring compliance with the Plan during construction;
 - xiii) Provision of wheel cleaning facilities;
 - xiv) Details of any temporary construction access;
 - xv) A management plan setting out measures to control construction pressures on the Lee Valley Ramsar and site; and
 - xvi) A plan written in accordance with the Mayor of London's supplementary planning guidance 'The Control of Dust and Emissions During Construction and Demolition' detailing how dust and emissions will be managed during demolition and construction work.

The development shall be undertaken in accordance with the approved plan.

Control of hours of work on site and deliveries to site

- 7 No demolition, construction or maintenance activities audible at the boundary of any residential dwelling and no deliveries of construction and demolition materials shall be undertaken outside the hours of 07.00 to 18.00 Monday to Friday and 07.00 to 13.00 Saturday or at any time on Sundays and Bank or Public Holidays without the written approval of the Local Planning Authority, unless the works have been approved in advance under section 61 of the Control of Pollution Act 1974.

Green procurement plan

- 8 Development shall not commence until a Green Procurement Plan has been submitted to and approved in writing by the Local Planning Authority. The Green Procurement Plan shall demonstrate how the procurement of materials for the development will promote sustainability, including by use of low impact, locally and/or

sustainably sourced, reused and recycled materials through compliance with the relevant CEEQUAL standard. The Plan must also include strategies to secure local procurement of materials. Wherever possible, this should include targets and a process for the implementation of this plan through the development process. The development shall be constructed and procurement plan implemented strictly in accordance with the Green Procurement Plan so approved.

Sample materials

- 9 That prior to relevant phase of works identified pursuant to condition 3 commencing on site sample materials and/or product specifications where not explicitly defined in document reference MWSIW_APP1_01A and 0052-PR-ZZ-ZZ-SP-L-0001 shall be submitted to and approved in writing by the LPA. Where sample materials are to be provided, these shall be made available on site for inspection, with the product specification submitted in writing. The works shall be completed in accordance with the approved details prior to the development being brought into use.

Access for existing occupiers

- 10 That access along Towpath Road shall not be severed until such time as the alternative access arrangements shown on drawing number MWP2-ARP-Z6-XX-DR-CH-70201 REV P03 have been completed and are available for use.

Enclosure of adjacent plots

- 11 That on completion of the relevant phase of works and before the development is brought into public use, the adjoining land plots shall be enclosed in accordance with drawing number 382 KCA P1 00 DR A 1005 P Rev 2

Archaeology

- 12 Prior to the commencement of development a Written Scheme of Investigation (WSI) shall be submitted to and approved in writing by the Local Planning Authority. For land that is included within the WSI, no development shall take place other than in accordance with the agreed WSI, which shall include:
 - i) the strategy for dealing with overlaps between phases;
 - ii) the statement of significance and research objectives;
 - iii) the programme and methodology of site investigation and recording and the nomination of a competent person(s) or organisation to undertake the agreed works; and
 - iv) the programme for post-investigation assessment and subsequent analysis, publication & dissemination and deposition of resulting material. This part of the condition shall not be discharged until these elements have been fulfilled in accordance with the programme set out in the WSI.

Reason: To ensure the implementation of appropriate archaeological investigation, recording and publication in accordance with policy CP31 of the adopted Core Strategy 2011.

Hedge/shrub clearance outside bird nesting period

- 13 All areas of hedges, scrub or similar vegetation where birds may nest which are to be removed as part of the development, are to be cleared outside the bird-nesting season (March - August inclusive) or if clearance during the bird-nesting season

cannot reasonably be avoided, a suitably qualified ecologist will check the areas to be removed immediately prior to clearance and advise whether nesting birds are present. If active nests are recorded, no vegetation clearance or other works that may disturb active nests shall proceed until all young have fledged the nest.

Eradication strategy for invasive species

- 14 Prior to the commencement of development details of an eradication strategy for invasive species shall be submitted to and approved in writing by the Local Planning Authority. Invasive species identified shall be treated in accordance with the approved eradication strategy.

Waste management plans

- 15 Prior to the commencement of development a detailed Site Waste Management Plan shall be submitted to and approved in writing by the Local Planning Authority. The plan should include as a minimum:
- i) Target benchmarks for resource efficiency set in accordance with best practice;
 - ii) Procedures and commitments to minimize non-hazardous construction waste at design stage. Specify waste minimisation actions relating to at least 3 waste groups and support them by appropriate monitoring of waste;
 - iii) Procedures for minimising hazardous waste;
 - iv) Monitoring, measuring and reporting of hazardous and non-hazardous site waste production according to the defined waste groups (according to the waste streams generated by the scope of the works);
 - v) Procedures and commitments to sort and divert waste from landfill in accordance with the waste hierarchy (reduce; reuse; recycle; recover) according to the defined waste groups; and
 - vi) Evidence that no less than 85% by weight or by volume of non-hazardous construction and excavation waste generated by the development has been diverted from landfill.

The development shall be implemented in accordance with the approved plan.

Ikea access

- 16 That existing access to the IKEA northern car park shall not be altered until such time as the new points of access to the IKEA site shown on drawing number 382 KCA P1 00 DR A 1002 P, have been provided .
- 17 That prior to the construction of the new points of access to the IKEA site, including the new IKEA service yard access ramp, detailed drawings of the construction of the proposed works including junctions with the public highway, levels across the junctions and to adjacent thresholds and materials of construction shall be submitted to and approved in writing by the LPA. The accesses shall be constructed in accordance with the approved details prior to first use.
- . 18 That prior to the commencement of the Central Spine Road west of the Pymmes Brook and Glover Drive improvement works, details of the treatment, including landscaping, street furniture and surface treatments of the southern pedestrian and cycle route and associated landscape shall be submitted to and approved in writing by the LPA. The area shall be laid out in accordance with the approval details prior

to the new points of access to the IKEA car park covered by condition 17, being brought into use.

Flood Conveyance Channel

19 That works shall not commence on the construction of the flood conveyance channel identified on drawing number MWP2-ARP-XX-XX-DR-CF-80302 P05 until such time as detailed drawings of the interface of this channel with Harbet Road, including details of ramps/stairs and surface treatment at this interface and details of surface treatments and landscaping through the channel as a whole, have been submitted to and approved in writing by the LPA.

Gas Governor

20 That prior to the construction of the gas governor identified on drawing number 382-KCA-P1-01-DR-A-1105, details drawings of the design and external appearance of the building, including details of external materials, shall be submitted to and approved in writing by the LPA. The gas governor shall be constructed in accordance with the approved details prior to occupation of the development.

Shelter/kiosk in Brooks Park

21 That prior to the construction of the shelter/kiosk in Brooks Park, identified on drawing number 00520PR-ZZ-GF-DR-L-1102 Rev 08, details of the design and external appearance of the building, including details of external materials, shall be submitted to and approved in writing by the LPA. The shelter/kiosk shall be constructed in accordance with the approved details prior to occupation of the development.

SUDS

22 Prior to development within each phase identified pursuant to condition 3 being brought into use a Verification Report demonstrating that the approved drainage / SuDS measures have been fully implemented in accordance with the approved plans shall be submitted to and approved in writing by the Local Planning Authority.

Leeside Road works

23 That prior to works commencing on Leeside Road, details of the configuration and alignment of the cycle and pedestrian routes along this road, together with details of the location and construction details of all new planting, rain gardens and tree pits to Leeside Road shall be submitted to and approved in writing by the LPA. The works shall be undertaken in accordance with the approved details prior to the Leeside Link Road being available for use.

Tree Protection

24 Prior to the commencement of the development hereby approved (including demolition and all preparatory work), a scheme for the protection of the retained trees, in accordance with BS 5837:2012, including a tree protection plan(s) (TPP) and an arboricultural method statement (AMS) shall be submitted to and approved in writing by the Local Planning Authority. The development shall be carried out in accordance with the approved details.

Flood Risk Assessment

- 25 The development shall be carried out in accordance with the submitted *Flood Risk Assessment* (updated document reference to be added), the earthworks and flood mitigation engineering plans (updated plan reference numbers to be added) and the following mitigation measures it details, consisting of:
- The proposed new flood conveyance channel and culvert between the River Lee Navigation and the proposed flood storage area
 - The increased ground levels
 - The Salmons/ Pymmes Brooks naturalisation proposals
 - Pymmes Brook Wall additions
 - Towpath Road Flood Barrier

These mitigation measures shall be fully implemented prior to occupation and subsequently in accordance with the scheme's timing/ phasing arrangements. The measures detailed above shall be retained and maintained thereafter throughout the lifetime of the development.

Land affected by contamination

- 27 Prior to each phase of development approved by this planning permission no development shall commence until a remediation strategy to deal with the risks associated with contamination of the site in respect of the development hereby permitted, has been submitted to, and approved in writing by, the local planning authority.

This strategy will include the following components:

1. A preliminary risk assessment which has identified:
 - all previous uses
 - potential contaminants associated with those uses
 - a conceptual model of the site indicating sources, pathways and receptors
 - potentially unacceptable risks arising from contamination at the site
 2. A site investigation scheme, based on (1) to provide information for a detailed assessment of the risk to all receptors that may be affected, including those off-site.
 3. The results of the site investigation and the detailed risk assessment referred to in (2) and, based on these, an options appraisal and remediation strategy giving full details of the remediation measures required and how they are to be undertaken.
 4. A verification plan providing details of the data that will be collected in order to demonstrate that the works set out in the remediation strategy in (3) are complete and identifying any requirements for longer-term monitoring of pollutant linkages, maintenance and arrangements for contingency action.
- Any changes to these components require the written consent of the local planning authority. The scheme shall be implemented as approved.

Verification report

- 28 Prior to each phase of development being occupied or brought into use, a verification report demonstrating the completion of works set out in the approved remediation strategy and the effectiveness of the remediation, including verification reports for gas vapour and clean soil cover, shall be submitted to, and approved in writing by the

local planning authority. The report shall include results of sampling and monitoring carried out in accordance with the approved verification plan to demonstrate that the site remediation criteria have been met.

Long-term monitoring

29 The development hereby permitted shall not commence until a monitoring and maintenance plan in respect of contamination, including a timetable of monitoring and submission of reports to the local planning authority, has been submitted to, and approved in writing by, the local planning authority. Reports as specified in the approved plan, including details of any necessary contingency action arising from the monitoring, shall be submitted to, and approved in writing by, the local planning authority.

Previously unidentified contamination

30 If, during development, contamination not previously identified is found to be present at the site then no further development (unless otherwise agreed in writing with the local planning authority) shall be carried out until a remediation strategy detailing how this contamination will be dealt with has been submitted to, and approved in writing by, the local planning authority. The remediation strategy shall be implemented as approved.

SuDs infiltration

31 No drainage systems for the infiltration of surface water to the ground are permitted other than with the written consent of the local planning authority. Any proposals for such systems must be supported by an assessment of the risks to controlled waters. The development shall be carried out in accordance with the approved details.

Borehole decommissioning

32 A scheme for managing any borehole installed for the investigation of soils, groundwater or geotechnical purposes shall be submitted to and approved in writing by the local planning authority. The scheme shall provide details of how redundant boreholes are to be decommissioned and how any boreholes that need to be retained, post-development, for monitoring purposes will be secured, protected and inspected. The scheme as approved shall be implemented prior to the occupation of any part of the permitted development.

Piling

33 Piling, deep foundations and other intrusive groundworks using penetrative methods shall not be carried out other than with the written consent of the local planning authority. The development shall be carried out in accordance with the approved details.

Brooks Naturalisation

35 No development to alter the structure of the Pymmes or Salmons Brook shall take place until a scheme for the provision and management of compensatory habitat creation/ river restoration, including a suitable and sufficient methodology for protection of controlled waters, has been submitted to, and agreed in writing by the local planning authority (in consultation with the Environment Agency). Thereafter, the development shall be implemented in accordance with the approved scheme.

The scheme should include as a minimum;

- detailed structural design, including cross sections, long gradients, groundwater monitoring levels and elevations, and plan views of the proposed scheme.
- details of the proposed construction methodology, with particular reference to the protection of controlled waters.
- details of any proposed changes to the designs in light of simultaneous development within the riparian corridor.

Artificial lighting

36 There shall be no light spill from external artificial lighting into the watercourse or adjacent river corridor habitat. To achieve this the specification, location, and direction of external artificial lights should be such that the lighting levels within 8/5 metres of the top of bank of the watercourse are maintained at background levels. Background levels are taken to be a Lux level of 0-2.

Landscape management plan

37 No development shall take place until a landscape and ecological management plan, including long-term design objectives, management responsibilities and maintenance schedules for all public accessible landscaped areas, shall be submitted to, and approved in writing by, the local planning authority. The landscape and ecological management plan shall be carried out as approved and any subsequent variations shall be agreed in writing by the local planning authority.

The scheme shall include the following elements:

- details of maintenance regimes
- details of any new habitat created on site
- details of treatment of site boundaries and/or buffers around water bodies
- details of management responsibilities

External lighting

38 No external lighting related to the development hereby permitted shall be installed unless it is in accordance with details which have previously been submitted to and approved in writing by the LPA. Such details shall include location, height, type and direction of light sources and intensity of illumination. Any lighting that is so installed shall not thereafter be altered without the prior consent in writing of the LPA.

River Lee Navigation Bridge

39 Prior to the commencement of the River Lee Navigation Bridge, a survey of the condition of the River Lee Navigation waterway wall shall be undertaken, a schedule of repairs required and evidence that such works have been completed shall be submitted to and approved in writing by the LPA

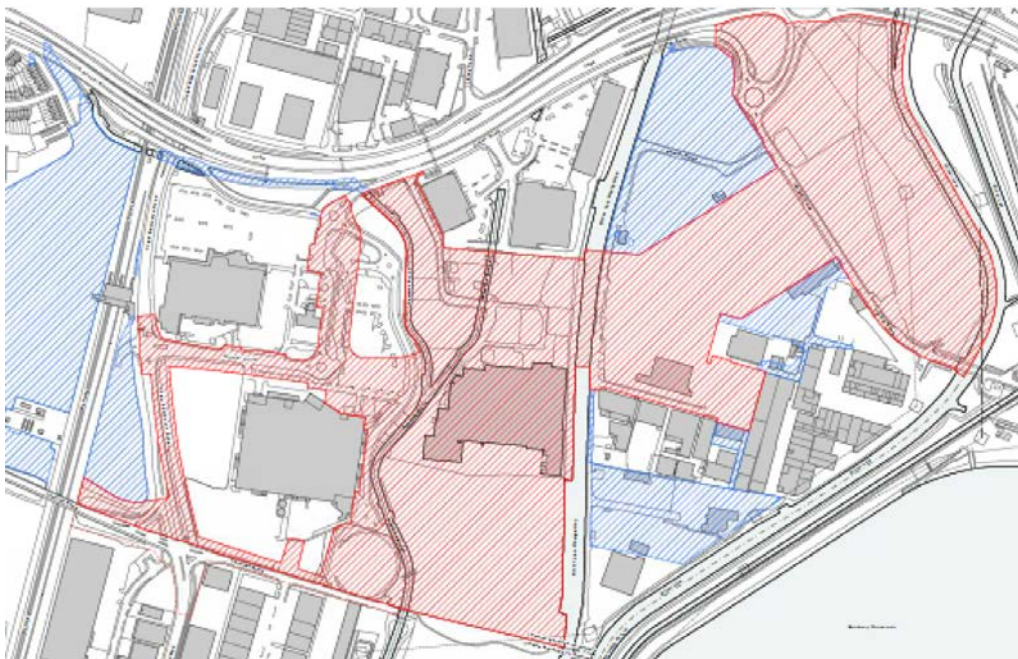
- 41 A risk assessment and method statement considering any potential impact of the construction of the River Lee Navigation Bridge on the River Lee Navigation and its infrastructure shall be submitted to and approved in writing by the LPA prior to the commencement of such works

2 Executive Summary

- 2.1 Meridian Water is the borough's largest residential led mixed use development and one of the largest brownfield development opportunities in Greater London. The Core Strategy (CS) and Edmonton Leaside Area Action Plan (ELAPP) identify a range of objectives for Meridian Water including the provision of 5000 new homes, 1500 new jobs, improvements to public transport provision, restoring and opening up access to the Lee Valley Regional Park and waterfront.
- 2.2 The Council has invested significant resources in land assembly, remediation and the provision of new infrastructure. Outline planning permission has already been granted for 725 homes on the former gas holder site off Willoughby Lane, to the west of Meridian Way and the railway line, known as Meridian One. This permission included the provision of the new Station which is now completed and operational.
- 2.3 The Council has also now secured funding of £156m through the Housing Investment Fund to support the provision of further new infrastructure in Meridian Water which in turn will support the delivery of new housing and commercial space. This application is the first of three related applications on this agenda. It proposes the new infrastructure, including a new east west route, remediation works and earthworks, a strategic framework for flood alleviation, landscaping and new green infrastructure. This infrastructure is integral to the delivery of new homes and jobs on the site and hence the associated outline application for the provision of up to 2300 new homes, new commercial and retail floor space and a three form entry primary school.
- 2.4 The application is recommended for approval because:
- i) It delivers the key infrastructure necessary to support much needed housing on the site;
 - ii) It provides the necessary infrastructure identified in policy to deliver east-west connectivity across the site, to enable active travel opportunities for future residents and improved connectivity for the existing community to access the Lee Valley Regional Park.
 - iii) It delivers new open spaces at an early stage to support the new residential community that will be established on the site
 - iv) Having regard to climate change it proposes a comprehensive strategy to address flood risk, enhances the biodiversity value of the site and improves connectivity and opportunities for active travel thus reducing reliance on the motor vehicle.

3 Site and Surroundings

- 3.1 The application site is approximately 30.4ha in extent and comprises predominantly non-designated industrial land along with lengths of existing highway: Meridian Way, Leaside Road, Glover Drive, Silvermere Drive, Harbet Road and undeveloped land to the east, between Harbet Road and the River Lea, some of which has been used for car parking to support former industrial uses, but has in the recent past been the subject of fly tipping. Most of the land east of the River Lea Navigation, is designated as Strategic Industrial Land (SIL) and is now predominantly open ground where buildings have been demolished. The site includes the Orbital Business Park to the west of the Navigation, a range of large industrial sheds formerly occupied by British Oxygen Company. These are now owned by LBE and currently used for a variety of storage uses, but also include a martial arts gymnasium and the meanwhile events space known as 'The Drumsheds' together with the field to the south, used for the recent Field Day event.

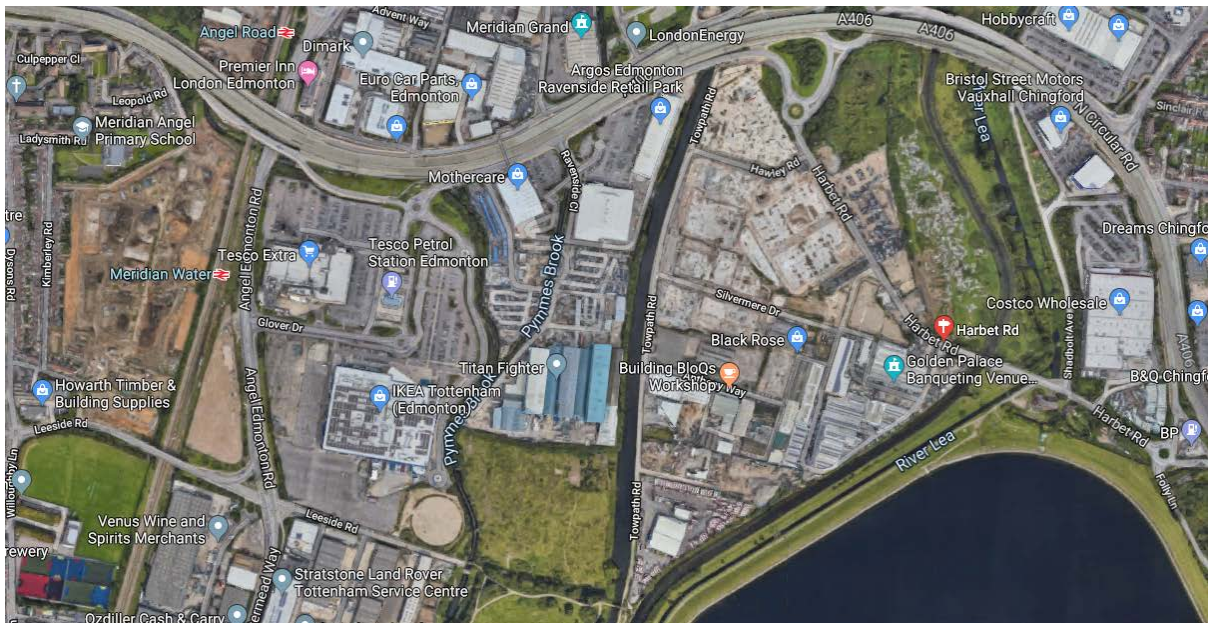


Application site

- 3.2 The site is traversed by three waterways:
- The Pymmes and Salmons Brooks run north-south through the western part of the site;
 - The River Lee Navigation runs north-south through the centre; and
 - The River Lea Overflow Channel runs along the eastern boundary of the site.
- 3.3 The north, north-eastern and southern parts of the site are located within groundwater Source Protection Zone (SPZ) 1 associated with the nearby active potable groundwater abstractions from the Chalk. The remainder of the site is within a SPZ 2.
- 3.4 The site is located within a borough-wide Air Quality Management Area (AQMA) and the Lea Valley East and West Bank Archaeological Priority Areas. Parts of the site

are located in Flood Zones 2 and 3, meaning it includes areas of medium to high risk of flooding.

- 3.5 The land to the east of Harbet Road is designated as Green Belt and forms part of the Lee Valley Regional Park, although it is neither actively managed nor publicly accessible and has been subject to extensive fly tipping.
- 3.6 To the north the site is bounded by Ravenside Retail Park, the North Circular Road – A406 and beyond this industrial land, including the Edmonton Eco -Park. To the east the site adjoins the River Lea channels and beyond a wholesale warehouse, car showroom and storage facility within the London Borough of Waltham Forest (LBWF). To the west is land occupied by Tesco's and Ikea. Beyond is the West Anglia Mainline Railway and new Meridian Water railway station.



Aerial phot showing surrounding land uses.

- 3.7 The site adjoins the Borough boundary with the London Borough of Haringey (LBH) to the south. Indeed, Leaside Road, is an adopted highway within LBH. It provides access to Mowlem Trading Estate and National Grid Tottenham Substation land, within designated Strategic Industrial Land, within LBH. This road also provides pedestrian and cycle access across Pymmes Brook to Tottenham Marshes in the Lee Valley Regional Park
- 3.8 The nearest existing residential properties are approximately 260m to the east of the site, beyond the River Lea Overflow Channel and within the LBWF or 290m to the west, beyond the West Anglia Mainline in Willoughby Lane and Kimberley Road within LBE.

4 Proposal

- 4.1 This application deals with the Strategic Infrastructure Works necessary to enable Phase 2 of the Meridian Water development to proceed and later phases of the Meridian Water development to be realised. The infrastructure works seek to remediate the site, introduce parks to provide flood attenuation, provide flood defence

measures and create new roads and utilities networks. The works comprise the following elements:

- **Central Spine Road** – a tree-lined east-west boulevard connecting to Glover Drive and the new Meridian Water Station in the west, crossing Pymmes and Salmons Brook and the River Lee Navigation to Harbet Road to the east.
- **Leeside Link Road** – a link road providing access for cars, pedestrians and cyclists from Leeside Road through to the Central Spine Road;
- **Bridges (x4)** – erection of bridges and associated works to enable the Central Spine Road and Leeside Link Road to span the Pymmes and Salmons Brook and River Lee Navigation (B1 River Lee Navigation Bridge, B2 Pymmes Brook Bridge, B4 Salmons Brook and B5 Pymmes Brook South Bridge);
- **Brooks Park and River Naturalisation** – naturalising the channelised Pymmes Brook to introduce an ecological river landscape, as well as providing riverside parkland;
- **Edmonton Marshes and Flood Alleviation Works** – re-levelling and remediation of land to the east of Harbet Road, providing comprehensive flood alleviation works and a new public open space within the Lee Valley Regional Park;
- **Access Works** – third party access works to provide new and altered accesses to the IKEA store, north-south link between Argon Road and Glover Drive, the creation of a link between the Central Spine Road and Anthony Way and other improvements to maintain access, along with other ancillary highway works to Glover Drive, Leeside Road and Meridian Way.
- **Earthworks, Remediation, Utilities and other ancillary works** – earthworks, retaining structures and remediation within Development Zones 4 and 5, installation of main utility networks and ancillary works including the demolition of existing building and structures

Environmental Statement

- 4.2 The application is supported by an Environmental Statement (ES). Effects have been assessed during the construction phase and operation phase. The ES considers the environmental impact of both this full planning application and the associated outline planning application for up to 2,300 residential units, Purpose Built Student Accommodation and/or Large-Scale Purpose-Built Shared Living; a hotel, commercial development (Class B1a,b,c); retail (Class A1 and/or A2 and/or A3 and/or A4), social infrastructure (Class D1 and/or D2), a primary school up to three forms of entry, hard and soft landscaping, new public open spaces including equipped areas for play, sustainable drainage systems, car parking provision, and formation of new pedestrian and vehicular access as applied for under application

reference 19/02718/RE3 and described in full under 'Relevant Planning History' below.

- 4.3 The Environmental Statement considers the likely significant effects of the whole proposed development in the context of other local developments likely to come forward, as well as the cumulative effects that may result from the proposed development and these other developments
- 4.4 The topics addressed in the ES are:
- Air Quality
 - Climate change (greenhouse gas assessment)
 - Daylight sunlight and shadow
 - Ecology and biodiversity
 - Environmental Wind
 - Ground conditions and contaminated land
 - Health
 - Historic environment
 - Noise and vibration
 - Socio-economic
 - Townscape and visual impact
 - Transport and access
 - Water resources and flood risk
- 4.5 The Environmental Impact Regulations require the applicant to set out in the ES an outline of the main alternatives to the proposed development considered by them, indicating the main reasons for the choice made, taking into account the environmental effects. The regulations do not require the applicant to undertake a sequential assessment of alternative sites but rather an assessment of the outline of main alternatives and an indication of main reasons for not pursuing them. The Central Spine Road's locational parameters are reflected in the now adopted Edmonton Leaside Area Action Plan (ELAAP), which now identifies a corridor within which the route and its detailed design should sit. Optioneering on the final design has been undertaken within this corridor. The applicant has confirmed that the environmental impacts of the alternatives did not vary significantly with the exception of the proposed Pymmes Brook Naturalisation. The applicant considered here 4 options of which the Environment Agency were only supportive of two. The option proposed within this application has been chosen on the basis of proportionality – offering less of a reduction of recreational space and space for storm attenuation, is more viable in requiring less engineering work and the contamination risks associated with it.
- 4.6 The ES discusses the impacts the project will have on climate in accordance with the EIA Regulations. It highlights the potential climate hazards and details the adaption measures which have been embedded within the design of the project. The ES also confirms that climate change projections have been embedded into the future baseline of the technical assessments which is in accordance with best practise.
- 4.7 Officers are satisfied with the assessment and conclusions provided.
- 4.8 All of the environmental information contained within the ES, including proposed mitigation measures (where relevant) has been taken into consideration. The additional information and revisions during the course of the application are all considered to be minor in nature and do not alter the conclusion that the proposal's environmental impact, subject to mitigations, is acceptable.

5 Relevant Planning History

5.1 Meridian Water Phase 1

16/01197/RE3 Granted subject to S106 Agreement and conditions

Development of Phase 1 of Meridian Water comprising up to 725 residential units, new station building, platforms and associated interchange and drop-off facilities including a pedestrian link across the railway, a maximum of 950 sqm retail (A1/A2/A3), floorspace, a maximum of 600 sqm of community (D1) floorspace, a maximum of 750 sqm of leisure (D2) floorspace, associated site infrastructure works including ground and remediation works, roads, cycle-ways and footpaths, utility works above and below ground, surface water drainage works, energy centre and associated plant, public open space and childrens play areas, and various temporary meantime uses without structures (landscaping and open space). OUTLINE APPLICATION - ACCESS ONLY. An Environmental Statement, including a non-technical summary, also accompanies the planning application in accordance with the Town and Country Planning (Environmental Impact Assessment) Regulations 2011 (as amended by the 2015 Regulations).

The station consented through this permission is now complete. No works have yet commenced on the residential element of the permission.

5.2 Meanwhile Sites

19/02749/FUL- Meridian Works (Drumsheds) – Under consideration

Change of use of buildings (units 4, 5, 6, 9 and 9a) and adjacent land to an events and entertainment space ('The Drumsheds') for a temporary period of five years.

19/03044/RE4 - 2 Anthony Way Granted with conditions

Refurbishment and alterations to a former vehicle testing building to provide light industrial workshop space and ancillary accommodation, including new cafe, erection of a new light industrial workshop building and link volume, roof canopy, with associated service yard, parking, storage area, and landscaping.

Not yet commenced.

19/03151/FUL – 1 Hawley Road Granted with conditions

Relocation of the existing transport yard at the Edmonton EcoPark for a period of 15 years involving construction of maintenance workshop, offices, vehicle refuelling and wash-down areas, an electricity kiosk, external lighting and CCTV together with replacement perimeter fencing, junction improvements, site drainage system and associated vehicle parking and cycle storage.

Not yet commenced.

5.3 Meridian Water Phase 2

19/02718/RE3 – Also reported on this agenda

Development of Phase 2 of Meridian Water comprising up to 2,300 residential units (Class C3), Purpose Built Student Accommodation and/or Large-Scale Purpose-Built Shared Living (Up to 18,000 sq m - Sui Generis); a hotel (Up to 16,000 sq m - Class C1), commercial development (Up to 26,500 sq m - Class B1a,b,c); retail (Up to 2,000 sq m - Class A1 and/or A2 and/or A3 and/or A4), social infrastructure (Up to 5,500 sq m - Class D1 and/or D2), a primary school up to three forms of entry, hard and soft landscaping, new public open spaces including equipped areas for play, sustainable drainage systems, car parking provision, and formation of new pedestrian and vehicular access (Outline- all matters reserved).

5.4 Ikea West Car Park

20/00111/RE4 - Also reported on this agenda

Relocation of 393 parking spaces from the existing northern car park and store front to the existing hard standing areas to the west and south of the store together with hard and soft landscaping and associated works.

5.5 Land Opposite 1A and 1 B Towpath Road

20/00112/RE4 - Also reported on this agenda

Installation of a low level flood restraint barrier adjacent to Towpath Road

6 Consultation

6.1 Pre-app consultation

6.1.1 In preparing this planning application significant pre-application engagement was undertaken by the applicant, including with local business and the residential community, statutory and non-statutory consultees and the officers. Community consultation exercises were undertaken in April and May 2019. The proposals, together with those proposed under phase 2 outline planning application, also under consideration, were also taken through a series of Design Review Panels and the proposals have been developed to respond to the feedback received.

6.2 Public Response

6.2.1 Letters have been sent to 859 properties adjoining and surrounding the site. In addition, the application has been advertised in the local press and 10 notices have been posted around the site.

6.2.2 Two neighbour responses have been received.

6.2.3 Costco Wholesale, within the London Borough of Waltham Forest and located to the east of the site, ask that the construction traffic management plan discourages the use of Harbet Road by construction vehicles for any lengthy phases of the project and in particular deters construction activity on Harbet Road between Shadbolt Avenue and the A406 North Circular Road, in the interests of directing construction traffic to the most suitable routes and away from the Folly Lane roundabout.

Officer response. A condition is recommended requiring the submission of a construction traffic management plan to be submitted prior to the commencement of works and this will be taken into consideration in managing the traffic impacts of the construction works.

6.2.4 IKEA originally submitted a holding objection outlining the following principal concerns in relation to this application:

- Impact on Ikea's Operations – The proposed works will sever IKEA's northern car park from the store, making it redundant and unusable. Similarly the proposals involve land at the front of the store, which is included in the red line, which has the prospect of adversely affecting the pedestrian and vehicular circulation to this area.
- Design and Parameter Plans – these are not consistent with the submitted illustrative plans.
- Flood Risk Modelling – The flood risk modelling submitted is insufficient to draw firm conclusions on the impact on IKEA's site and operation.
- Transport/Highway Modelling – the Transport Assessment does not contain the models used to assess the junction capacities in the local highway network

6.2.5 Since then discussions have been on going with the applicant team. In response in each point:

- IKEA have acknowledged that a separate planning application has been submitted for the provision of replacement car parking on land to the south and west of their store. They would expect a planning condition to be imposed on this permission to require the delivery of this replacement car parking.
- The design inconsistencies they confirm have been resolved.
- IKEA maintain their objection on flood risk on the grounds that it is inappropriate to permit development that increases the risk of flooding elsewhere and they are unclear whether the mitigation proposed within this application is agreeable to the Environment Agency or Enfield as Lead Local Flood Authority. They are also unclear as to how resilient the flood mitigation will be.
- They consider the strategic traffic modelling required to understand the impact of this development on IKEA's operations remains outstanding and consequently it is unclear how the proposals can be accommodated on the highway network without causing unacceptable highway conditions

Officer response;

- *This planning application includes the creation of new points of vehicle accesses to facilitate the use of existing land to the south and west of the Ikea store for car parking to compensate for the loss of car parking within the Ikea northern car park. In addition, a further application has been submitted for the engineering works necessary to facilitate customer parking on the land to the south and west of the store (20/00111/RE4). A condition is recommended requiring that the existing*

northern car park access should not be altered until such time as the new access points to the IKEA land to the south and west of the store are in place

- *Flood Risk Modelling – A series of mitigation measures have been developed to ensure that the proposed works create no increased risk of flooding elsewhere. The proposal to raise the existing levels of the Pymmes Brook’s west bank by approximately 200mm will ensure no increased risk of flooding. The June 2019 Flood Risk Assessment is supported by the EA. Subsequently the flood model has been refined following further detailed design work and the receipt of more accurate site survey information. This update is currently being reviewed by the EA but as a minimum the measures contained in the 2019 FRA could be delivered*
- *Transport/Highway Modelling – The Edmonton Leaside AAP (ELAAP) adopted in January 2020 sets out how, with sustainable mitigations including a spine road and active and sustainable travel improvements, there is capacity for at least 5,000 homes in the area. The ELAAP was supported by transport modelling and was subject to examination by a planning inspector. Alongside this, the Transport Assessment submitted with this application includes a combined assessment and so considers the impact of the Phase 2 development and associated vehicle movements. Therefore officer’s view and that of the regional transport authority (TfL) is that there is sufficient information to assess the highway network impacts of the proposed development, including in relation to existing land uses.*

6.3 External Consultees

Greater London Authority

- 6.3.1 The GLA recognise that the SIW enable the redevelopment of brownfield land identified for major redevelopment within the local development plan and within the Upper Lea Valley Opportunity Area in line with the master plan proposals in place for the site. However, they note that the Stonehill Industrial Estate, where part of the proposed spine road, access roads and flood conveyance channel is proposed, is designated as SIL. They have asked the applicant to demonstrate that these infrastructure works could facilitate a wholly industrial, or mixed residential and industrial development, to ensure that future development options are not prejudiced. Subject to this, the principle of the proposed infrastructure works are in line with London Plan policy and support strategic growth aspirations for the site.
- 6.3.2 They note that the proposed infrastructure works include the creation of flood alleviation storage within the LVRP which is designated Metropolitan Green Belt Land. The proposed works would see an enhancement in the visual amenity, biodiversity and recreational value of the land, through the removal of existing hard standing and landscaping works to provide a new publicly accessible park. The proposals will restore the verdant character and openness of the Green Belt land with clear demarcation of Green Belt and the urban area established by Harbet Road. Accordingly, the development is appropriate development within Green Belt and is supported.
- 6.3.3 Edmonton Bus Garage is currently located to the east of the Lee Navigation. Vehicular access via Towpath Road will be severed by the addition of the central spine road. The continued safe and efficient operation of this transport facility must be safeguarded as up to 200 buses currently operate from the site. Proposals and phasing of the diverted road to mitigate the loss of the current bus garage access are welcomed and the GLA advise that these must be secured by conditions and/or S106 obligations as necessary in accordance with draft New London Plan policy T3.

- 6.3.4 The general approach to flood risk management and drainage is generally supported. However, there were elements of the proposal that do not fully comply with current and draft policy and the applicant was asked to provide further information to address the matters raised. This matter has since been addressed and the GLA are satisfied with the surface water drainage strategy.
- 6.3.5 The provision of public open space, diversity of vegetation, proposed green connections and the multifunctionality of the proposed green infrastructure is strongly supported.
- 6.3.6 The GLA have provided a more detailed and comprehensive response to the wider proposals for Phase 2. This response is set out in the report under 19/02718/RE3 also included on this agenda.

Officer response:

1. *The applicant has confirmed that the Central Spine Road and Flood Conveyance Channel have been developed having regard to wider land use considerations. They have been spaced to allow secondary road network access and plot definition suitable for industrial use given the existing SIL designation. This will allow more efficient plot development than the existing road network provides for. The site has equally been tested for mixed use residential development and access roads spaced accordingly.*
2. *A condition is recommended to ensure that the existing access to Edmonton Bus Garage is not severed until such time as the alternative access arrangements proposed within this application are in place.*

Environment Agency

- 6.3.7 The Environment Agency have confirmed they have no objection to the June 2019 Flood Risk Assessment and are satisfied that this demonstrates that there will be no increased flood risk as a result of the works. Subsequently the flood modelling work has been refined following further detailed design work and more accurate site survey information. The EA are in the process of reviewing the updated modelling information but this is not yet completed given their resourcing constraints.
- 6.3.8 The EA have confirmed that subject to conditions they are satisfied with the approach to remediation and that they are supportive of the plans to naturalise a stretch of Pymmes Brook.

Officer response: An update on the EA's position in the updated flood modelling will be provided at the meeting. All conditions recommended by the Environment Agency are included in the above recommendation.

Canals and River Trust

- 6.3.9 The main issues relevant to the Trust are;
- a) The impact of the proposed River Lee Navigation Bridge on the canal environment and its users

- b) The impact of the proposed bridge on the structural integrity of the waterway and its infrastructure
- c) The impact of the proposed flood conveyance channel on waterway infrastructure

Impact on the canal environment and its users

- 6.3.10 The Trust have been engaged in a number of rounds of pre-application discussions. They have indicated through this that their preference would be for a narrower bridge with a single vehicular carriageway accommodating bus movements in both directions, controlled by signals, to reduce impact on the canal. However, they advise that if it accepted that the level of bus traffic warrants the proposed two way carriageway, then they have no objection to the design proposed. They welcome the effort that has gone in to elevating the design beyond a standard highway bridge, the generous towpath space that will be provided and the clearance above the towpath and water. They expect this to be carried through into the delivery stage.
- 6.3.11 They have discussed the safety implications of the steps down to the towpath on the north side of the proposed bridge and the risk of collisions between cyclists and pedestrians and the risk of people entering the canal. They are pleased to see that tactile paving will be employed at the bottom of the steps. However, they consider more may be needed to manage risks, including railings along the waters edge. They suggest this could be address by a condition requiring further landscaping details.
- 6.3.12 The application documents show surfacing is proposed as 'in situ concrete with exposed aggregate to tow path', but it is not clear if that is to include the towpath surface itself under the bridge. They suggest this should be a more sympathetic, hard wearing surface rather than concrete, but have no issue in this high-use area to draw attention to a change in activity levels. They advise this can be dealt with by condition.
- 6.3.13 The Trust have confirmed they will want to see further details of the lighting proposed under the bridge and a Lux plan showing the light levels falling on the waterspace. Whilst welcoming the lighting in principle, consideration needs to be given to the biodiversity impact. They request further lighting details are secured by condition in order to avoid adverse impact on bat foraging opportunities.
- 6.3.14 When constructed, the bridge will allow access to areas of land on the offside of the canal that are currently not available to the public and are afforded little passive surveillance. Until the adjacent plots are brought forward, an appropriate means of managing access to this space should be put in place to minimise the risks of anti-social behaviour. The Trust have asked to be consulted on such plans.

Impact on the structural integrity of the waterway and its infrastructure

- 6.3.15 In order to ensure that the development does not result in land instability adversely affecting the Lee Navigation and its infrastructure, the applicant will need to undertake an underwater survey of the river walls prior to works commencing to determine whether they need to be replaced or repaired. Where works are required, evidence should be submitted to show that it has been completed. They recommend a condition to address this.
- 6.3.16 The Trust will want to see the piling works design and detailed risk assessment and method statement identifying how the canal will be protected during the bridge construction works, as this may also impact on the structural integrity and stability of the canal infrastructure. They recommend a condition to address this.

Impact of the proposed flood relief channel

- 6.3.17 The Trust requires more detailed information about how the flood conveyance channel will interact with the River Lee Navigation. The applicant provided further explanation that no works are proposed to the towpath and that it will operate as a weir at its existing level. This solution relies on the preservation of access and suitable maintenance on the Trusts land and their consent would be need for this to occur. This is intended to be addressed in the commercial agreement being developed to enable the construction of the River Lee Navigation Bridge.

Officer response – Conditions are recommended in accordance with Canals and River Trust advice, to address all the matters that they have requested be covered by conditions. In addition, a condition is recommended requiring details of enclosure of the plots either side of the road and bridge infrastructure proposed as part of this application until such time as development plots come forward

Historic England

- 6.3.18 No comments on this application

Greater London Archaeological Advice Service (GLAAS)

- 6.3.19 GLAAS have advised that the application site lies in an area of archaeological interest. Overall they are pleased at the thoroughness of the assessment submitted with the application. However, they requested additional information in order to formulate an appropriate response in regards to the need for further archaeological work.:

- 6.3.21 Discussions between the applicant and officers at GLAAS have been on going and the following has been agreed:

1. Continuing to geoarchaeologically monitor the ongoing contaminated land ground investigation boreholes and test pits. The results of this monitoring will feed into a resultant updated archaeological deposit model, which will include reference to the known depth of the early medieval Crannog remains located under the present day IKEA site. The current programme suggests the updated deposit model should be available in the first quarter of 2020.
2. An overarching Written Scheme of Investigation (WSI) will be provided, which will outline the agreed approach to archaeological evaluation at the Meridian Water site. The purpose of this WSI will be to set out the archaeological approach as agreed with GLAAS to enable :
 - a. further understanding of the below-ground conditions at the site with a particular focus on the existing hydrological conditions at the site;
 - b. further evaluation of the potential for encountering below-ground archaeology within the site and the potential extent or survival of any identified archaeological deposits, with attention to the survival of any deposits which may be associated with the early medieval Crannog; and
 - c. contributing further towards making an assessment of the potential significance of any surviving archaeological deposits.

As the design of the Phase 2 site progresses from outline planning to detailed design, the results of the archaeological evaluation works (as managed through the overarching WSI) will feed into an assessment of the effects of the development on the archaeology of the site and allow for the consideration of any opportunities to

3. Avoid or minimise potential effects through changes to the design during the detailed design stages.

4. As requested, the applicant team has reviewed the 2008 AOC post excavation report regarding the archaeological investigation of the Crannog site and also the latest guidance regarding archaeology and both piling and contaminated land. These will all be incorporated into the ongoing approach to archaeology at the Meridian Water site.

6.3.22 GLAAS have indicated that they are happy with the suggested approach. A condition is recommended to cover the requirement for a WSI.

Lee Valley Regional Park Authority (LVRPA)

6.3.23 The Authority welcomes this application and supports the creation of Edmonton Marshes within the Regional Park. Reassurances are sought that:

- (a) the Lee Valley Biodiversity Action Plan will be taken into account in the detailed design and the choice and creation of habitats within Edmonton Marshes;
- (b) options to improve access connections between Edmonton Marshes and land within the Park to the north of the North Circular, are included at this stage as part of the Design & Access Statement even if delivery forms part of a later phase of development; and
- (c) the Authority is involved in further detailed planning and delivery of the proposed link between the southern end of Brooks Park and Tottenham Marshes to ensure an appropriate and attractive treatment of the access between the two areas; and

6.3.24 The Authority have indicated that they would wish to be involved with and consulted on:

- (a) any bespoke lighting solution for the River Lee Navigation and River Lee Navigation Bridge to ensure the design and use of lighting takes account of the need to mitigate impacts on habitats, protected species and the foraging and commuting routes used by wildlife, in particular along the Lee Navigation corridor;
- (b) details for the provision of access along the waterways within the Park, particularly where this is on both sides of the watercourse;
- (c) provision for Water Voles and Otter along the waterways within the development site, for example development of protected otter holts, consideration to Otter movement given during the construction of any new river crossings and linking marginal vegetation for Water Voles. Further discussion between the Authority and the Council would be welcome on these matters;
- (d) clarification is also sought as to the management of the waterways within the new park Edmonton Marshes and the wider Meridian Water development so as to ensure water quality is maintained and enhanced;
- (e) further detail on the Lee Navigation bridge design and use of materials particularly in terms of the relationship to the canal and waterway heritage;

Officer response:

The applicant has confirmed that the design for Edmonton Marshes the choice and creation of habitats has taken account of both the findings of the Environmental Impact Assessment and ecology surveys. As part of the ecology assessment for the site, the Lee Valley Biodiversity Action Plan has been considered and accounted for.

The Design and Access Statement (DAS) does illustrate the Future Anticipated Lee Valley Connection to the north of the North Circular. This connection does not form part of this application but is envisaged to form part of a later phase of development. The DAS also details how the works proposed in this application seek to connect the LVRP by stitching together the current north-south gap by creating green infrastructure along the waterways and enhancing the quality of the Park at Edmonton Marshes, as well as introducing new bridges and opening up connectivity

The applicant is keen to engage with the LVRPA to ensure connections from Brooks Park are delivered and successfully integrated with the LVRP.

The LVRPA will be consulted when details of lighting are submitted pursuant to the condition recommended.

The application provides for improved access along Pymmes and Salmons Brook for mammals through a range of naturalisation measures.

Waterways are not proposed within Edmonton Marshes. There will be a SuDs channel and flood attenuation basins which flow out to the River Lee Overflow Channel. The tree pits, permeable paving and attenuation provide treatment as well as the park, which functions as a bioretention system.

The detailed bridge design is included in the application.

Natural England

- 6.3.25 No objection. Natural England considers that the proposed development will not have significant adverse impacts on designated sites.

National Grid

- 6.3.26 No objection providing access to the overhead lines is not be obstructed. An informative setting out National Grids requirement for access will be attached to the decision notice.

Met Police

- 6.3.27 The Met Police following the consultation on the application raised objections on the grounds that whilst they had no objection in principle to the infrastructure works, they sought in the context of this application further information on landscaping, including street furniture, boundary treatment and lighting. The applicant team met with the Secure by Design Officer on 23rd October 2019 and explained the proposals for landscaping, street furniture boundary treatments and lighting. Further contact has since been made by officers with the Secure by Design Officer since this meeting to establish if he considers his concerns have been addressed. No response has been received.

Thames Water

- 6.3.28 Thames Water in their capacity as statutory undertaker responsible for drainage and water raise no objection in the context of waste water network, sewerage treatment

works or surface water infrastructure capacity. They note that there are public sewers crossing or close to the site and advise that the applicant should read their guidance on working near or diverting pipes. They also note that the proposed development is located within 15m of a strategic water main. They therefore request the imposition of condition requiring the submission of a piling method statement.

Officer response: The condition required by Thames Water is included within the recommendation above. An informative will be attached to the decision notice covering all other guidance that Thames Water have indicated the applicant needs to have regard to.

6.3.29 Thames Water in their capacity as property owner of land included within the application site object to the application. Thames Water's position is that their land included within the application site is retained operational land. Until such time that Thames Water can confirm the land is surplus to current/future operational needs, they will maintain an objection to the planning application.

Officer response: The application includes a number of parcels of land that are not within the ownership of the applicant (the Council). An applicant does not need to own all the land covered by a planning application to allow that application to be determined. The legislation allows for such circumstances through a notice procedure whereby the applicant is required to serve notice on any land owner with an interest in the land. Notice has been served on Thames Water and therefore this is a lawful planning application. Moreover, the applicant has reasonable 'genuinely' held intentions to acquire the interest in the land which can be demonstrated by the following:

- o It has resolved to use CPO powers in principle to deliver the Meridian Water scheme;*
- o It has made a first CPO to support redevelopment of Zone 1 (Willoughby Lane);*
- o It is in productive discussions with all landowners required for the Strategic Infrastructure Works, including the Lee Valley Regional Park Authority and Thames Water land;*
- o If agreement cannot be reached, full Cabinet on 24th January 2020, agreed to proceed with a Compulsory Purchase Order of all land necessary to allow for the implementation of this planning application.. The anticipated timetable is that the Council will make the CPO in February/March, with a view to a Public Inquiry being scheduled late summer/early Autumn. If the CPO is confirmed the Council would look to secure control of the land in summer 2021.*

With respect to the current use of the land, it is currently inaccessible to the general public and in a poor state of maintenance with extensive fly tipping and large areas of invasive species coverage. The current proposals offer the benefit of cleaning up the land and providing access for the general public.

Asset records indicate the presence of a number of Thames Water services through this land: 2 x 305mm ID sludge rising mains; 84" conduit to Coppermills Stream; 54" Raw Water; and 2540mm Lee Valley Spine Tunnel (constructed in the 1980's with a depth of cover of approximately 10m over the tunnel). In discussions between Thames water and the applicant they have not indicated there are any current plans for further operational use, other than the current services that run through the land. The pipes and infrastructure currently on the site would be retained and maintained within the current proposed works.

London Borough of Waltham Forest

6.3.30 No specific comments made on the Strategic Infrastructure Works

London Borough of Haringey

6.3.31 No comments received

6.4 Internal Consultees

Traffic and Transportation

6.4.1 No objection. The proposed works as a stand alone application do not appear to raise any significant transport network issues and will improve connectivity through the area.

Environmental Protection

6.4.2 No objections are raised. However, the development could have significant impacts on the local environment during construction and therefore conditions are recommended to deal with contamination and remediation, air quality through the submission of a Construction Management Plan, and noise through conditions controlling hours of construction and demolition activity.

Officer response: Conditions as suggested are included within the recommendation

SUDS

6.4.3 No objection subject to conditions as recommended.

7 Relevant Policies

7.1 London Plan (2016)

- 2.13 Opportunity areas and intensification areas
- 2.14 Areas for regeneration
- 2.16 Strategic Outer London development centres
- 2.17 Strategic Industrial Locations
- 2.18 Green Infrastructure: The multi functional network of green and open spaces
- 3.2 Improving health and addressing health inequalities
- 5.2 Minimising carbon dioxide emissions
- 5.3 Sustainable design and construction
- 5.10 Urban greening
- 5.12 Flood Risk Management
- 5.13 Sustainable Drainage
- 5.14 Water quality and wastewater infrastructure

- 5.21 Contaminated land
- 6.2 Providing public transport capacity and safeguarding land for transport
- 6.3 Assessing effects of development on transport capacity
- 6.9 Cycling
- 6.10 Walking
- 6.13 Parking
- 7.2 An inclusive environment
- 7.3 Designing out crime
- 7.4 Local character
- 7.5 Public realm
- 7.6 Heritage Assets and archaeology
- 7.14 Improving air quality
- 7.16 Green Belt
- 7.18 Biodiversity and access to nature
- 7.21 Trees and woodland
- 7.25 Restoration of the Blue Ribbon Network
- 7.30 London's canals and other rivers and waterspaces
- 8.2 Planning Obligations

7.2 London Plan - Intend to Publish (2019)

- 7.2.1 The Intend to Publish London Plan was published on 9 December 2019. It is currently with the Secretary of State for a six-week consultation period with the intention to publish a final London Plan in March 2020. The draft plan is a material consideration of considerable weight and although there are a number of proposed changes from the London Plan 2016 of relevance to this application, none of these proposed changes would result in a different conclusion in relation to this application. Policies of relevance:

GG6 – Increasing efficiency and resilience – supports the move towards a low carbon circular economy contributing towards London becoming a zero-carbon city by 2050. Buildings and infrastructure should be designed to adapt to a changing climate, make efficient use of water and reduce impacts from natural hazards like flooding and heatwaves

SD1 Opportunity Areas

D3 Optimising site capacity through the design-led approach

D4 Delivering good design

D5 Inclusive design

D8 Public Realm

D11 Safety, security and resilience to emergency

E4 Land for industry, logistics and services to support London's economic function

E5 Strategic Industrial Locations (SIL)
E11 Skills and opportunities for all
HC1 Heritage conservation and growth
G1 Green Infrastructure
G2 London's Green Belt
G4 Open space
G5 Urban Greening
G6 Biodiversity and access to nature
G7 Trees and woodlands
SI1 Improving air quality
SI5 Water infrastructure
SI6 Digital connectivity infrastructure
SI7 Reducing waste and supporting the circular economy
SI12 Flood risk management
SI13 Sustainable drainage
SI16 Waterways – use and enjoyment
SI17 Protecting and enhancing London's waterways
T1 Strategic approach to transport
T2 Healthy Streets
T3 Transport capacity, connectivity and safeguarding
T4 Assessing and mitigating transport impacts
T5 Cycling
T6 Car Parking
T9 Funding transport infrastructure through planning

7.3 Core Strategy

CP2 Housing supply and locations for new homes
CP9 Supporting community cohesion
CP14 Safeguarding Strategic Industrial Locations
CP21 Delivering sustainable water supply, drainage and sewerage infrastructure
CP24 The road network
CP25 Pedestrians and cyclists
CP26 Public Transport
CP28 Managing flood risk through development

CP29 Flood management infrastructure
CP30 Maintaining and improving the quality of the built and open environment
CP31 Built and landscape heritage
CP32 Pollution
CP33 Green Belt and countryside
CP34 Parks, playing fields and other open spaces
CP35 Lee Valley Regional Park and waterways
CP36 Biodiversity
CP37 Central Leaside
CP38 Meridian Water

7.4 Development Management Document

DMD19 Strategic Industrial Locations
DMD22 Loss of employment outside of designated areas
DMD 37 Achieving high quality and design-led development
DMD 38 Design process
DMD44 Conserving and enhancing heritage assets
DMD47 Access, new roads and serving
DMD48 Transport Assessments
DMD49 Sustainable design and construction
DMD 57 Responsible sourcing of materials, waste minimisation and green procurement
DMD59 Avoiding and reducing flood risk
DMD60 Assessing flood risk
DMD61 Managing surface water
DMD62 Flood control and mitigation measures
DMD63 Protection and improvement of watercourses and flood defences
DMD64 Pollution control and assessment
DMD65 Air quality
DMD66 Land contamination and instability
DMD69 Light pollution
DMD70 Water quality
DMD72 Open space provision
DMD75 Waterways

DMD76 Wildlife corridors
DMD77 Green chains
DMD78 Nature conservation
DMD80 Trees on development sites
DMD81 Landscaping
DMD82 Green Belt

7.5 Edmonton Leaside Area Action Plan

7.5.1 The Edmonton Leaside Area Action Plan (ELAAP) was adopted by the Council on 29th January 2020. The following policies are of relevance:

EL2 Economy and employment in Meridian Water
EL6 The central spine and central corridor
EL7 Rail and bus improvements
EL8 Managing flood risk in Meridian Water
EL9 Leisure facilities and open space at Meridian Water
EL12 Public realm at Meridian Water
EL13 Infrastructure delivery in Meridian Water
EL15 Improving existing industrial areas
EL21 Improving the quality of the pedestrian and cycling environment
EL22 Proposed Route – Improvement Principles
EL23 Enhancing the bus network and services
EL25 Design of the road network
EL26 The Meridian Water Heat Network
EL27 Watercourses at Edmonton Leaside
EL28 New and existing green spaces

7.6 Other Material Considerations

National Planning Policy Framework (NPPF) 2018 (revised)
National Planning Practice Guidelines (NPPG)
Upper Lee Valley Opportunity Area Planning Framework (2013)
Enfield Characterisation Study
Meridian Water Masterplan (July 2013)
GLA: Land for Industry and Transport SPG (2012)

Mayors Transport Strategy (May 2018)
London Environment Strategy (May 2018)
Travel Planning for new development in London 2011 (TfL)
Manual for Streets 1 & 2, Inclusive Mobility 2005 (DfT)

8 Assessment

8.1 The main issues arising from this proposal for Members to consider are:

- The principle of development
- Development within the Green Belt
- Traffic impact, connectivity, permeability and access
- Flood Risk and Mitigation
- Contamination and Remediation
- Open space
- Ecology and natural environment
- Design

Principle of Development

- 8.1 The Upper Lee Valley Opportunity Area Planning Framework (OAPF) was adopted by the London Mayor in July 2013. It is supplementary planning guidance to the London Plan. The OAPF sets the overarching framework for regeneration across the area and identifies growth at Meridian Water as one of the eight key objectives of the OAPF. Chapter 7 of the OAPF sets out a number of guiding principles for the development of Meridian Water, which include an ambition for 5,000 new homes and 3000 new jobs across the masterplan area. It also highlights objectives of improving transport connectivity, delivering sustainability across the area and improving the health and lifestyles, particularly through improved green links. In particular, the document highlights the need to open up connectivity east-west within and beyond the application site to provide greater access to the surrounding communities and the nearby Lee Valley Regional Park.
- 8.2 The application site falls within the Upper Lee Valley Opportunity Area, introduced in Policy 2.13 of the London Plan. Specific reference is made to the wider Meridian Water masterplan in Annexe One, which states the need for improved rail services in order to unlock development. The Opportunity Area is also identified as a strategic outer London development centre in Policy 2.16 and falls within one of the 'Area for Regeneration' as identified in Policy 2.14.
- 8.3 Core Policy 37 confirms the potential for a new sustainable urban mixed use community at Meridian Water of up to 5000 homes and 1500 jobs and that central to the wider transformation is improved accessibility, through public transport provision and a greater ease of vehicular movements along the existing road networks, including greater access for pedestrians and cyclists, with better routes and connections to surrounding areas. Core Policy 38 identifies some of the necessary infrastructure to support the delivery of the homes and jobs including:

- A new spine road through the area connecting all parts of Meridian Water, linking new and existing communities, the station and the Lee Valley Regional Park;
- Improved connectivity, both north-south and east-west;
- New open space at the heart of the new community, designed to connect the currently disjointed part of the Lee Valley Regional Park either side of the North Circular Road;
- A coordinated strategy to manage flood risk, and a coordinated strategy for the decommissioning of gas holders and other contaminated land in the area;
- Restoration of waterways which run through the development site as an integrated approach to water management.

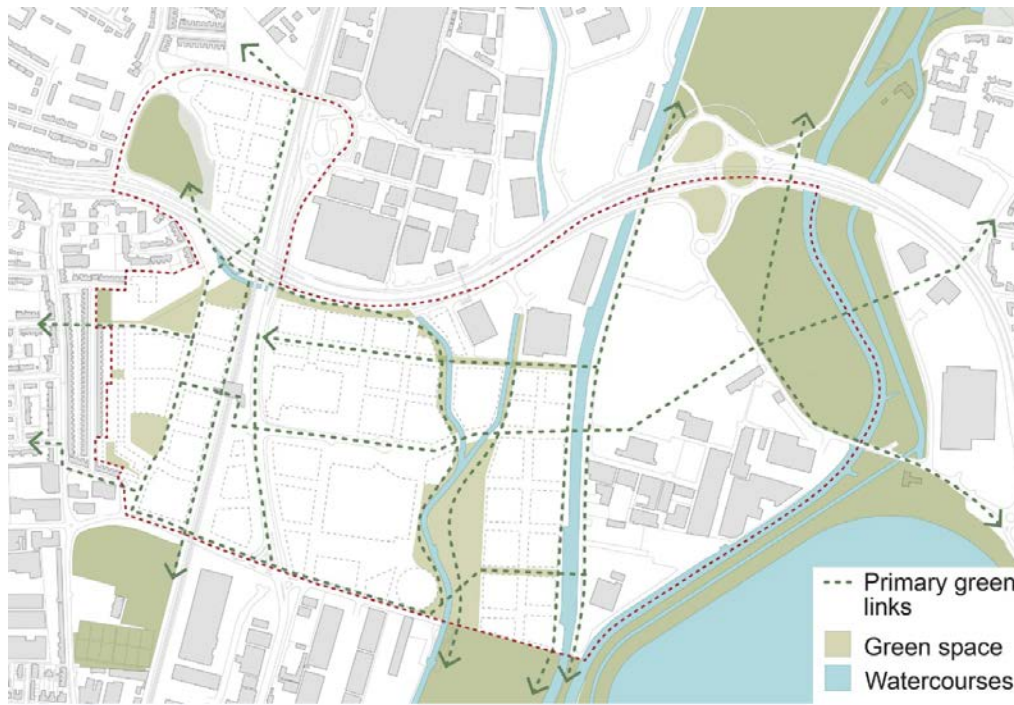
8.4 The ELAAP takes forward the concept of a new spine road through the area and identifies the Central Spine Corridor within which a proposed central spine road will sit, a core spine road around which Meridian Water can be structured and delivered. Policy EL6 advises:

“the identification of the route of the Central Spine within the Corridor shown in Figure 5.2 and its detailed design will be set out in a detailed planning application... The route and the detailed design of the Central Spine will be developed to take account of third party land interests as far as possible”.



Extract from ELAAP identifying Central Spine Corridor

- 8.5 This application proposes the construction of Central Spine Road within the corridor identified on the above plan and is therefore supported in principle.
- 8.6 At Meridian, ELAAP confirms that there are currently limited areas of open space with poor access to recreational spaces and waterways. Development at Meridian must deliver a network of open spaces that can provide visual and leisure amenity. These are indicated on the plan below.



Indicative green network plan included within ELAAP

- 8.7 This application makes provision for the creation of two new substantial areas of open space:
- a new park entitled Brooks Park for the purpose of this planning application, adjacent to Pymmes Brook and extending to 2ha in extent; and
 - a further new park entitled Edmonton Marshes for the purpose of this planning application, to the east of Harbet Road and extending to 6.4ha in extent.
- 8.8 The open space proposed within this application is therefore in accordance with the indicative plan above and is supported in principle.
- 8.9 On the issue of flood risk, the ELAAP confirms that adequate flood risk measures must be in place for any development prior to the loss of any flood storage associated with the development. This may include the early provision of strategic area-wide flood compensation where appropriate. Policy EL8 therefore confirms the Council will continue to work in partnership with relevant statutory undertakers and land owners to secure an integrated and sustainable approach to the management of development and flood risk and requires that all developments must be safe from flooding and must not increase flood risk elsewhere.
- 8.10 The application takes a comprehensive approach to flood risk which includes earthworks to set new site levels above the level of flood risk. The application proposes comprehensive re-levelling using cut and fill from the Lee Valley Regional Park (LVRP) to bring the development plots within the outline planning application also under consideration, above flood levels, whilst creating the two large parks referred to above, capable of absorbing extreme flood events. It is proposed to use the Edmonton Marshes new open space to compensate for the fluvial flood volume loss by lowering levels. A Flood Conveyance Channel is proposed to allow the passage of extreme flood event waters to Edmonton Marshes from the River Lee Navigation.
- 8.11 It is also proposed to naturalise Pymmes Brook on its eastern side, linked with the provision of Brooks Park, referred to above, to provide additional flood attenuation.

The brook will be partially re-routed outside of its existing channel with the existing channel partially infilled. The new channel will have a naturalised river bed. The remainder of the Brook will be subject to riverbed naturalisation works within the existing channel and the cutting down of the existing sheet pile wall to allow parkside access to the river course.

- 8.12 The flood strategy proposed is supported by the Environment Agency, subject to an update on their position on the most recent modelling work, and is therefore acceptable in principle

Development within the Green Belt

- 8.13 The land east of Harbet Road is designated a Green Belt
- 8.14 The NPPF (para 133) is clear that the Government attaches great importance to Green Belts, the fundamental aim being to protect against urban sprawl by keeping land permanently open. Planning authorities are also encouraged to plan positively for the beneficial use of Green Belts, such as looking for opportunities to provide access; to provide opportunities for outdoor sport and recreation; to retain and enhance landscapes, visual amenity and biodiversity; or to improve damaged and derelict land. Engineering operations that preserve the openness of the Green Belt are not considered to be inappropriate.
- 8.15 London Plan policy (adopted and emerging) strongly supports the continued protection of London's Green Belt as does local policy.
- 8.16 This application proposes the creation of flood alleviation storage, achieved through earthworks and landscaping within the Green Belt to create a new publicly accessible park (Edmonton Marshes). These proposed works would preserve the openness of the Green Belt, see an enhancement of visual amenity, biodiversity and recreational value of the land, with clear demarcation of Green Belt from the urban area established by Harbet Road. The development is appropriate development in the Green Belt and is supported.

Traffic Impact, connectivity, permeability and access

- 8.17 At present much of Meridian Water is severed from its surroundings by road, rail and waterways infrastructure; the West Anglia main Line and A1055 Meridian Way to the west, the A406 North Circular Road to the north, the Pymmes and Salmons Brooks and the River Lee Navigation. There is no direct access - vehicle, pedestrian or cycle access east-west across the site.



Existing site transport infrastructure

- 8.18 The delivery of the Central Spine Road (CPR) and Leaside Link Road (LLR) included in this application will overcome existing severance issues and enable east-west active travel and public transport connectivity. These new roads are also required to enable the development proposed with the outline application for Phase 2, also under consideration on this agenda.



Overview of proposed pedestrian, cycle and vehicle routes proposed

Traffic impact

- 8.19 Extensive modelling work has been undertaken for the local junctions within the vicinity of the proposed development. The results show that some of the existing junctions operate close to capacity in the existing baseline situation. With the proposed development, a few junctions will be affected by localised redistribution of vehicle trips due to the introduction of new highway infrastructure and there will be the generation of new trips associated with the Phase 2 application. When the junctions are tested with the proposed development, most will continue to operate with more than sufficient capacity and overall it is considered that there are minimal effects on the local highway network.
- 8.20 The new road infrastructure proposed as part of this application has been designed to take into account the redistribution of trips and the small increase in traffic volumes, whilst taking a balanced view on the provision for pedestrians and cyclists and has sought not to further encourage existing through traffic, rat running through the site. Some mitigation measures have also been suggested to existing junctions – minor signal timing changes are proposed to the signal controlled junctions at Meridian Way and Montagu Road in order to resolve capacity issues at these locations. These works only become necessary at the point new housing is delivered on the site and therefore the S106 Agreement to be linked to that application will require the implementation of the works.

Walking and Cycling

- 8.21 The long- term aspiration for the CSR in the completed Meridian Water masterplan is that it will be a sustainable transport corridor that will prioritise walking, cycling, and public transport with limited access for general traffic. At this stage, the proposed development within the Phase 2 application also under consideration, has been designed based on the principle of limited vehicle access to the Central Spine and the proposed bridge over the Lee Navigation being bus only.
- 8.22 The proposed development will significantly improve the quality of pedestrian access across the site. All the streets are designed to create a permeable, accessible network of footways, linking across the waterways and creating strategic east-west routes between the new station and the Lee Valley Park and Edmonton Marshes. The bridges not only provide access across the water; Bridge B1 River Lee Navigation Bridge also connects to the existing towpath via an accessible ramp and Bridge B5 Pymmes Brook South, creates a walking and cycling route underneath to extend Brooks Park under the new road. Brooks Park will also include footpaths providing additional options for pedestrians to travel north south through the site.
- 8.23 Dedicated, segregated two-way cycle tracks are proposed along the CSR and Glover Drive to provide a direct route across Meridian Water masterplan area. A segregated cycle route will be provided along Leaside Road, leading into the development across the new Bridge B5 to the south of the site.
- 8.24 There are also works proposed as part of this application at the Meridian Way/Leaside Road junction to improve both pedestrian and cycle crossing facilities.

Public transport

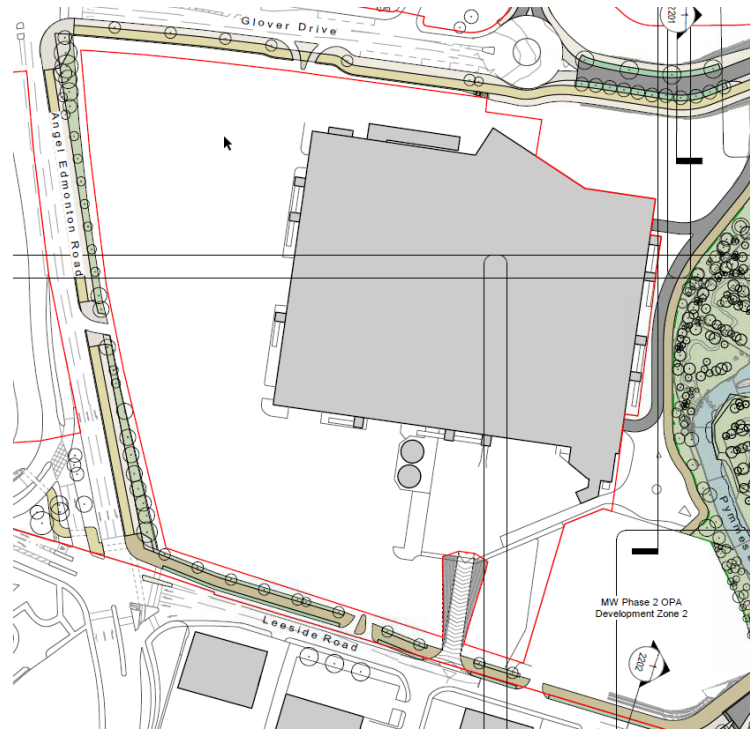
- 8.25 The existing bus stops within Meridian Water or within walking distance of the site, are on Glover Drive and the A406. These bus stops serve routes 34,192,341 and 344. The existing walking routes to these bus stops are along Glover Drive and

Argon Road. There is a footbridge across the A406 to the north of the site which provides access to the east bound bus stop.

- 8.26 The CSR will facilitate improved bus connections and the section which bridges over the River Lee Navigation is proposed to be bus only, providing a bus priority route through the site. There will be bus stops provided along the length of the CSR and one set of bus stops will also be provided on the Leaside Link Road. New bus stops will be provided near the River Lee Navigation and Edmonton Marshes. The stops on Glover Drive will be reconfigured to create an improved experience for users and better access to the Meridian Water Station. A new bus stand on Harbet Road will allow services that currently terminate at IKEA to be extended through the site and return along the same route, serving meanwhile uses that may come forward and emerging development. Bus stops will be delivered along the LLR to future proof additional bus routes and further improve connectivity. The report on the Phase 2 application also under consideration on this agenda sets out the bus service enhancements to be delivered alongside that development and secured through a S106 Agreement.
- 8.27 The nearest rail station to the site is Meridian Water station, now operational. The CSR will provide a direct route across the site to the station, resulting in significantly shorter walking routes to access the station. A new pedestrian crossing is in place on Meridian Way as part of the station works already completed. The station also provides an overbridge which improves permeability across the rail lines east-west.

Impact on Access for existing users

- 8.28 Meridian Water includes a number of uses which are currently in operation. It is important to maintain successful operation of these uses as development progresses. This application takes into account issues such as maintaining access, retail store visibility and quality of the customer journey, and the continuation of servicing and delivery arrangements for adjacent occupiers.
- 8.29 To the west of Pymmes Brook, the existing Ikea and Tesco stores and the petrol station are accessed from Argon Road, Glover Drive and a network of private internal roads. To the east of the Lee Navigation there are industrial uses, including the Arriva Bus Depot which are accessed from private roads off Harbet Road.
- 8.30 The proposed CSR will be a connection between Glover Drive and Harbet Road. However, it will affect access to the existing Ikea surface car park to the north of their store and internal access roads. There will be minimal impact on Tesco's access routes as a result of the CSR.
- 8.31 To address the impact on the Ikea car park, the application proposes alternative access to Ikea land to the south and west of the store that has in the past been used for overspill car parking.



- 8.32 The alternative access points are to Leaside Road and Glover Drive and will provide access to the alternative customer car parks to compensate for the severance of spaces within the northern car park. A separate planning application has been submitted providing details of the parking arrangement proposed to deliver those 393 parking spaces. The new access points proposed minimises the Ikea customer and servicing circulation route from the local highway network into the store. It also helps reduce traffic within the vicinity of the CSR, in keeping with the aspiration to deliver Healthy Streets.
- 8.33 IKEA have acknowledged that a separate application has been submitted to provide for the replacement car parking. They have advised that they would expect a condition to be attached to this permission to require the delivery of the replacement car parking. A condition is recommended to require that the access to the existing car park is not altered until such time as the new points of access proposed within this application are provided. These will enable the access to the land to deliver the replacement car park that is the subject of the separate application. The separate planning application demonstrates that the land to the south and west of the store can accommodate the number parking spaces required by IKEA to address their concerns about the impact of the Central Spine Road on their existing northern car park.
- 8.34 A new north- south link road will be provided incorporating part of the existing Tesco southbound exit carriageway and part of Ikea's northern car park. This new two way road will have a dual purpose of retaining south bound access from Argon Road to Glover Drive but also allowing exiting Ikea traffic a route to the north. As a result of the introduction of this new route a few changes are needed to the existing arrangements along the new route. All indicative works are considered acceptable in highway terms. No objections have been raised by Tesco.
- 8.35 The application also includes a highway arrangement to maintain access for the Arriva bus depot and other industrial uses which currently use Towpath Road. The existing roads are narrow and widening works are proposed, together with a 'jug

handle' turn to provide visibility before entering the existing single track access road. There will also be a re-provision of some car parking spaces and the introduction of a new pedestrian footway on one side of the road where space allows.



Proposed access works to enable continued access to Arriva bus depot and other occupiers

- 8.36 All industrial occupiers and Arriva have been consulted on this application and no objections have been received to the arrangements proposed.
- 8.37 The GLA point out that the phasing of delivery of the proposed new road to mitigate the loss of the current bus garage access are welcomed and must be secured by conditions and S106 obligations as necessary. A condition is included in the recommendation to cover this point.

Construction Traffic Management

- 8.38 An outline Construction Logistics Plan has been prepared to support both this and the associated outline planning application. The exact details of the construction programme will be developed and a condition is recommended requiring the submission of a detailed Construction Logistics Plan. However, at this stage, the proposed construction traffic routes are considered as follows:
- A406 will be the main strategic construction route to the site. Access will be from Cooks Ferry roundabout or the A406/Montagu Road junction;
 - From the A406, Harbet Road and/or Meridian Way will be used. Harbet Road will be used for work packages 1 and 2 (enabling works, Edmonton Marshes and the land to the east of the Lee Navigation) and Meridian Way for work packages 3 and 4 (Ikea Clear site, Orbital Business Park and Brooks Park).
 - It is likely that Leaside Road off Meridian Way and the Central Spine Road from Harbet Road will be used as the main access to the site for the purposes of implementation of the Phase 2 planning application works. This will be subject to the timing of proposed highway routes being built but these routes are expected to have

less disruption to the operation of adjacent users, when compared to Glover Drive and Argon Road.;

- In some instances, alternative routes may be required, such as Argon Road and Glover Drive, e.g for works to the Glover Drive Roundabout.

8.39 During the construction works, the peak traffic movements can be expected to be 75 HGV's and 5 LGV's a day (150 HGV and 10 LGV two-way movements). The working hours are expected to be Monday to Friday 08.00 to 18.00 and Saturday 08.00 to 13.00. Therefore, during the highest construction traffic period, based on a typical 10-hour day, the average peak construction movement would be 8 vehicles per hour (16 two-way movements). This is not considered significant in the context of the existing highway network design and the range of industrial and retail uses in the area.

Flood Risk and Mitigation

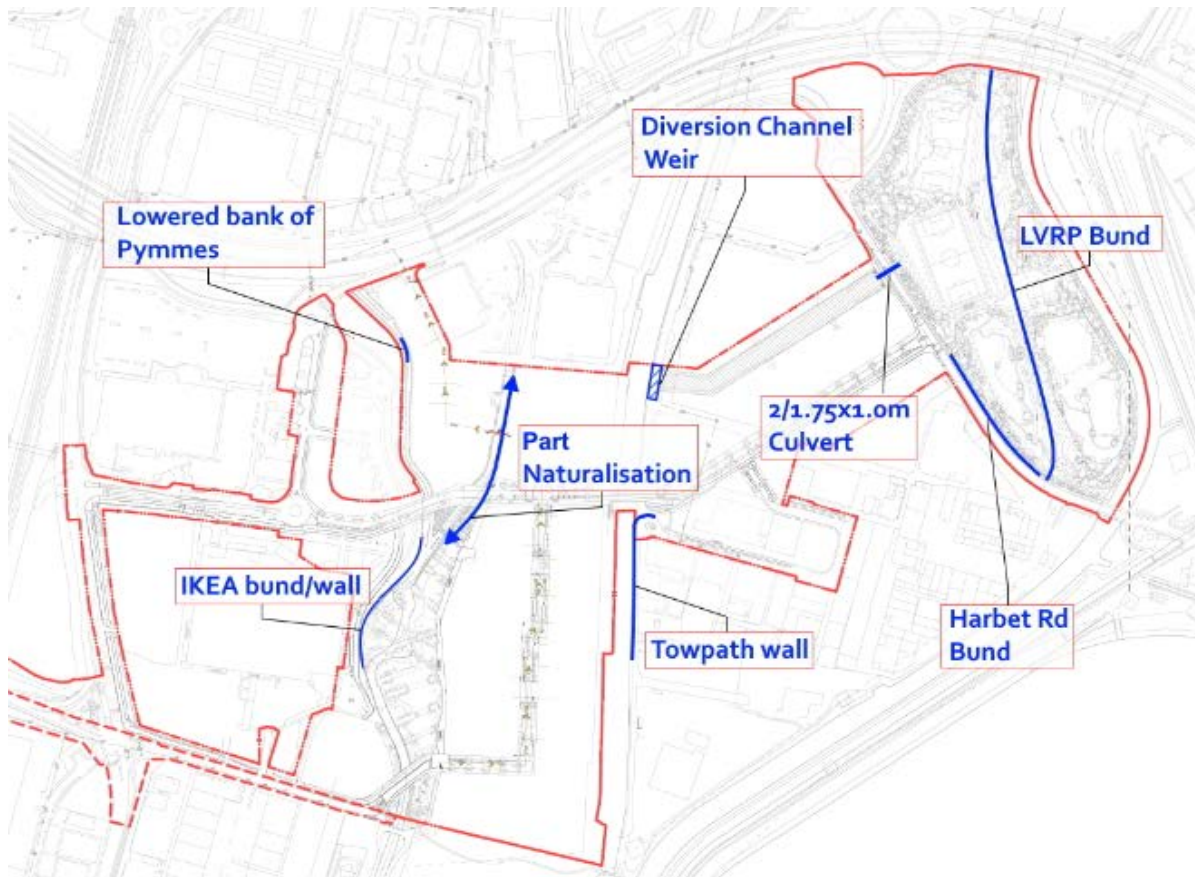
8.40 Core Strategy Policy 28 states that "the Council take a risk-based approach to development and flood risk, directing development to areas of lowest risk in accordance with Planning Policy Statement 25: Development and Flood Risk". This is reiterated in Policy DMD 59 which requires that 'new development must avoid and reduce the risk of flooding, and not increase the risks elsewhere'. These policies seek to ensure that the requirements of NPPF paragraph 163 are met.

8.41 The Meridian Water development is located in Flood Zones 2 and 3. Flood Zone 2 is defined as having a medium probability of flooding and Flood Zone 3 is defined as having a high probability of flooding. The site is also at risk of surface water flooding. The risk of flooding from reservoir failure remains a high impact low probability risk.

8.42 The Environment Agency advised in their scoping opinion to inform the Environmental Statement needed to support this application that the flood modelling strategy would only be considered acceptable if the modelling can sufficiently demonstrate that there will be no increase in flood risk as a result of the works, and that adequate flood storage compensation can be provided.

8.43 The main mitigation measures proposed for managing flood risk include:

- i) proposed earthworks, which include ground raising where required;
- ii) proposed new Flood Conveyance Channel and culvert between the River Lee Navigation and the proposed flood storage area;
- iii) Proposed flood storage area adjacent to the existing Lee Flood Relief Channel;
- iv) Increase in ground level as bunds or walls at four locations;
- v) Salmons/Pymmes Brooks naturalisation proposals comprising modified river cross-section geometry and bed/bank material and modified alignment of the Pymmes Brook along a certain length downstream of its confluence with the Salmons Brook



Summary of proposed mitigation measures

- 8.44 To address the risk of surface water flooding, a strategy has been developed using the proposed earthworks and soft landscaping proposed in this application to provide the necessary surface storage.
- 8.45 Infiltration is not acceptable on the site due to the contamination risks and designated Ground Water Protection Areas. As a result, the strategy relies on attenuation and discharge either directly or indirectly via a surface water sewer, to an open watercourse. For the CSR east of the River Lee Navigation it will comprise tree pits and permeable paving conveyed by carrier drain to Edmonton Marshes. On the west side of the Navigation, including the LLR drainage into tree-pits and permeable paving conveyed into Brooks Park where attenuation will be provided.
- 8.46 The applicant has supplemented the Surface Water Drainage Strategy with an additional chapter assessing water quality and treatment.
- 8.47 The Environment Agency have confirmed that having reviewed the submitted June 2019 Flood Risk Assessment and associated documents they are satisfied that there will be no increase in flood risk and that adequate flood compensation can be provided. They are currently reviewing the 2020 update of the modelling work and an update on their position will be provided at the meeting. They do recommend a number of conditions and these are included in the recommendation section of this report.
- 8.48 A sustainable urban drainage strategy has been developed to address surface water attenuation throughout the development whilst also contributing to the green and blue networks proposed throughout the site. Street levels have been set to ensure all surface water from carriageways and footways drain into rain gardens or permeable

parking bays, eliminating the need for conventional gullies. Water is stored and filtered with gravel attenuation layers beneath the rain gardens and parking bays, before being conveyed below ground to further attenuation and filtration zones within Brooks Park. The Surface Water Drainage Strategy submitted with the application accords with SuDs policy and good design practice and demonstrates a suitable approach to delivering sustainable drainage across the site.

Contamination and Remediation

- 8.49 The application site has previously been occupied by a variety of polluting industrial uses, including former gas holders, engineering and manufacturing works, made ground and historic landfill, which have contaminated the soil and underlying ground water. Potential sources of contamination have been identified based on these historical uses and existing investigations undertaken. Further ground investigation work was undertaken towards the end of 2019 to inform the design and construction activities going forward, including the gas and vapour risk assessment, the remediation strategy and piling risk assessment.
- 8.50 The application confirms that the results of the ground investigation will be used to undertake a detailed risk assessment for human health, controlled waters and other relevant receptors. The outcomes of the risk assessment will be agreed with the LPA and the Environment Agency and will inform the options for remediation. A remediation options appraisal will be undertaken and a remediation strategy agreed with the LPA and Environment Agency.
- 8.51 The ground investigations will include at least 6 months of groundwater monitoring as agreed with the Environment Agency, to define the baseline and remediation options. Following investigation, a ground water monitoring plan will be developed and agreed, setting out the monitoring to be undertaken before, during and after the proposed development.
- 8.52 It is likely that remediation will be required. This will likely form a mixture of both ex-situ and in-situ options depending on the ground conditions encountered and the requirement to treat excavated material to make it physically and chemically suitable for use. The remediation framework set out in the Environmental Statement describes the proposed approach to remediation and risk management.
- 8.53 Remediation will be phased, with the initial strategic remediation required as a result of works proposed in this application undertaken by the LBE at a site wide scale, and residual actions for plot developers coming forward to implement any permission granted through the outline phase 2 application, also under consideration on this agenda, being undertaken by the plot developers on a plot by plot basis.
- 8.54 The Environment Agency has been consulted on the application. They have advised that given the history of industrial uses on the site there is a high risk of contamination being mobilised during construction which could pollute controlled waters. However, they have confirmed that the supporting documents submitted and forming this application demonstrate that it will be possible to manage these risks. Further detailed information will be required before the work proposed under this application are commenced (including the results of the additional ground investigation undertaken at the end of 2019) but the EA are satisfied that the development will be acceptable subject to conditions being imposed. All conditions recommended by the EA to address the risks associated with contamination are included in the recommendation section of this report.
- 8.55 The risks to human health, both construction and operational effects, are also set out in the Environmental Statement along with the appropriate mitigation measures to ensure no significant effects. Mitigation through the construction process for those

working on site is dealt with under Health and Safety legislation and the use of construction management plans, secured by condition, will address air quality impacts through the construction process for those living or working in the vicinity. Operational effects will be mitigated through the requirement through condition to submit verification reports to demonstrate that remediation measures identified have been implemented. The Environmental Protection Officer has confirmed that with such conditions the development is acceptable.

Open space

- 8.56 London Plan policy 7.18 “Protecting Open Space and addressing deficiency’ provides a strategic aim to address areas with a deficiency of open space. DMD Policy 72 requires all new major residential development to be accompanied by proposals to improve open space provision.
- 8.57 This application secures over 8 hectares of public open space in the form of Brooks Park and Edmonton Marshes. The CSR and other infrastructure proposed as part of this application will also significantly improve east-west and north-south linkages, for pedestrians and cyclists, to the wider green network, including the LVRP and Tottenham Marshes. The proposed development is therefore welcomed in this respect.

Ecology and Natural Environment

- 8.58 The NPPF paragraphs 170 and 175 recognise that the planning system should aim to conserve and enhance the natural and local environment by minimising impacts on biodiversity and providing net gains in biodiversity where possible. London Plan policy 7.19 seeks to ensure development makes a positive contribution to the protection, enhancement, creation and management of biodiversity, improving access to nature and not adversely affecting the integrity of European sites or the population or conservation status of a protected species or habitat. Enfield’s Core Strategy Policy 29 encourages the removal of culverts, river restoration and naturalisation and DMD 63 requires new development to be set back from main rivers and ordinary watercourse and maintain a minimum of 8m buffer strip, which should be free of development and naturalised where feasible. Core Policy 36 outlines the Council’s ambition to ‘protect, enhance, restore or add to biodiversity interests within the Borough and DMD 81 requires developments to provide high quality landscaping that enhances the environment.
- 8.59 The site comprises a mosaic of urban habitats, including buildings and hard standing, introduced shrub, amenity grassland and two small areas of plantation woodland. These habitats are typical of similar sites across the region and contain mostly widespread or introduced species. They are therefore generally considered to be of low ecological value and have limited potential to support protected or notable species.
- 8.60 The site also includes an area of brownfield land in the south of the site, bordering Tottenham Marshes, and scrub habitat to the east, bordering the River Lea. These habitats have a greater potential to support protected or notable species, including reptiles, invertebrates, European Otter and European Water Vole.
- 8.61 The Ecology Chapter of the Environmental Statement takes account of existing habitats and the potential ecological effects of the proposed development. It concludes that the proposed development will cause no likely significant adverse effects relating to ecology. This includes the statutory designated sites such as Lee Valley SPA and Ramsar, Chingford Reservoirs SSSI and Epping Forest SAC, as well as non-statutory designated sites such as Lee Valley Site of Metropolitan Importance for Nature Conservation (SMINC). Indeed the development will result in a significant

biodiversity net gain, reflecting the multiple benefits of the proposed natural flood management approach to increasing flood alleviation storage and infrastructure and associated habitat for a range of plant and animal species. The proposed naturalisation of Pymmes Brook will create an ecologically richer environment, where the waterway is currently channelised.

- 8.62 The Environment Agency are supportive of the plans to naturalise a stretch of the Pymmes Brook but consider it important to develop these proposals in consultation with them, due to the site's extensive industrial history and the resulting presence of contamination. They therefore suggest a number of conditions to ensure that the detailed river restoration plans are sufficient and suitable for the site. The EA also suggest a condition requiring a landscape management plan to ensure the ecological enhancements and SUDs proposed are adequately maintained, All conditions recommended are included in the recommendation section above.
- 8.63 Natural England consider that the proposed development will not have any significant adverse impacts on designated sites and raise no objection.

Trees

- 8.64 An Arboricultural Impact Assessment has been undertaken to support both this and the outline planning application under consideration. The survey has identified 169 trees or tree groups within the totality of the site. There are no trees the subject of a Tree Preservation Order on the application site.
- 8.65 Using the recognised British Standard for assessing the arboricultural value of the trees, this confirms the following:

Category	Individual Trees	Tree Group/Hedge	Total
A	0	0	0
B	34	8	42
C	104	18	122
U	5	0	5
Total	143	26	169

- 8.66 In order to address on-site flooding and contamination constraints, a site-wide approach to earthworks is required to alleviate flood risk and remediate ground materials, including raising development plots within the Phase site and creating compensatory flood alleviation storage. Extensive earthworks are also proposed to naturalise a section of Pymmes Brook, which is currently canalised with a concrete base. The comprehensive nature of these site wide works therefore necessitates the removal of a number of trees which for this application includes 10 Category B trees and one small woodland group and 46 Category C trees (and 11 Category C groups).
- 8.67 Significant new planting is proposed as part of this application to compensate for this loss. A total of 155 trees would be planted within the new streets to be created and 1250 trees would be planted within the proposed new parks.

Design

- 8.68 Good design is central to all objectives of the London Plan. London Plan Policy 7.1 sets out a series of overarching design principles for development in London. New development is required to have regard to its context and make a positive contribution to local character. These objectives are mirrored in the draft New London Plan, with the concept of Good Growth, growth that is socially and economically inclusive and environmentally sustainable with policies that promote development that reinforces or enhances the character, legibility, permeability and accessibility of neighbourhoods.
- 8.69 Local Policy equally promotes good design through Core Strategy policy CS30, DMD Policies 37,38, 63 and 75.
- 8.70 Policy EL6 of the ELAAP seeks in relation to the CSR to ensure that it is designed to be navigable along its length by pedestrian and cyclists, with clear, safe and direct pedestrian and cycle provision. It should be led by a public realm and landscaping approach to ensure a quality development, allow for the accommodation of meanwhile uses and temporary activities , and act as a key route for infrastructure, including high speed broadband, decentralised energy, gas and electricity networks, demonstrating how the design seeks to minimise disruption for future maintenance and road works, wherever possible using shared channels and space set away from the main highway in order to allow maintenance and servicing to take place without disrupting the highway network
- 8.71 Policy EL12 Public realm at Meridian Water seeks to ensure landscaping is incorporated along movement corridors to enhance amenity, provide visual interest and contribute to biodiversity, ensure public realm surfaces are porous and/or enable natural drainage, support safe access, promote legibility and a sense of place and improve visual connectivity between meridian Water and the surrounding area, including the Lee Valley Regional Park.
- 8.72 The design and alignment of the key infrastructure included in this application has been informed by the plan-led approach and the above policies:
- 8.73 The proposed CSR aligns with Policy EL6, provides active travel and transport connectivity between Meridian Water and existing communities and provides visual connectivity to the Lee Valley Regional Park. Surface treatments and finishes seek to deliver a consistent material palette which will contribute to a coherent sense of place, and aid legibility. Street trees and soft landscaping will be included within the CSR and LLR, the key road infrastructure included within this application. Semi mature trees are proposed along the CSR and LLR. Street furniture is to be high quality and robust with a consistent approach across the development, proposed within this application and secured for the Phase 2 application through a design code.
- 8.74 The proposed bridges spanning the Pymmes Brook and River Lee Navigation seek to enhance the riverside character. Whilst the 4 bridges differ in appearance and context, there is a standardised approach to common elements such as balustrade design, edge details and concrete abutments, drawing on a palette of materials that are influenced by the newly completed Meridian Water Station. This will support a coherent character across Meridian Water. The bridge designs have evolved through consultation with stakeholders, including the Canals and River Trust and the Environment Agency, to satisfy their requirements.
- 8.75 The proposed green infrastructure along the Pymmes Brook and in the Lee Valley Park accords with Policies CS38 and EL12 creating open spaces that will frame future phases of development. Brooks Park (approximately 2ha in extent) will connect Tottenham Marshes to the south to the CSR and into the heart of Meridian

Water. The park seeks to deliver a rich diversity of habitat, strengthening ecological value and connectivity to Tottenham Marshes. It will be a primarily riverine character, combining industrial relics of the sites past within a natural setting. A boardwalk will be provided along 120m of the waters edge, providing the opportunity for people to get close to the water. Lighting of Brooks Park is minimal to avoid disturbing habitat and to deter public use after dark in accordance with Metropolitan Police advice

- 8.76 Edmonton Marshes will provide a new 6.4ha publicly accessible park, connected to the LVRP string of green spaces that run to the north and south. The requirements for flood alleviation earthworks establish the future parkland planting and habitats. The park incorporates a number of infrastructure elements including the existing electricity pylons and canalised river edge.
- 8.77 The design strategy works with these constraints to shape the park as four sunken bowls, each of which is defined by a specific character and ecological habitat. The northern part of the park creates two large spaces for grassland habitats for future recreational use e.g. sports pitches area. This allows flexibility for the park to develop with future recreational needs. The requirement for a sunken park creates opportunity to shape the terrain and topographical terraces are to be formed facing into the large grassland. The south of the park forms a seasonal wet meadow. The park has two primary entrances from Harbet Road, with the central entrance connecting to the new CSR and to the new bus stops. Secondary entrance points provide connections to local streets. A path network within the park connects north south, connecting to the existing crossing point below the North Circular Road. The Harbet Road park edge is designed to provide a barrier to unwanted entry through the use of topography along the length of the road and bollards at entrance points.
- 8.78 Existing on-site utilities infrastructure is not currently capable of supporting the plan - led vision for the delivery of up to 5000 homes and 1500 jobs. This application has been designed to accommodate this scale of growth, including the development proposed within the Phase 2 application also under consideration. In order to avoid abortive highway works, the CSR, LLR and the parkside cycle street provide for utility corridors capable of accommodating servicing for gas, water electricity, telecommunications and heat network required for comprehensive redevelopment.
- 8.79 As much of the site will potentially be inaccessible to the public for a number of years (subject to what meanwhile uses may come forward which would be the subject of separate planning applications), a boundaries strategy is proposed which ensure that the area feels safe, secure and visually interesting. Metal fences are proposed around development zones prior to construction to allow views through. A condition is recommended requiring the fencing to be in place in accordance with the submitted strategy before the relevant phase of works are open to public use.

Climate change and sustainable development

- 8.80 The NPPF advises that the 'planning system should support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change. It should help to: shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience; encourage the reuse of existing resources, including the conversion of existing buildings; and support renewable and low carbon energy and associated infrastructure.'
- 8.81 London Plan policy 5.2 requires development proposals to make the fullest contribution to minimising carbon dioxide emissions. Policy 5.3 requires the highest standards of sustainable design and construction, including efficient use of natural resources and making the most of natural systems both within and around buildings,

minimising pollution, avoiding impacts from natural hazards, securing sustainable procurement of materials and promoting and protecting biodiversity. Policy 5.6 encourages the use of decentralised energy systems. Policy 5.10 requires development proposals to integrate green infrastructure from the beginning of the design process to contribute to urban greening. Policies 5.12 and 5.13 deal with flood risk and sustainable urban drainage. These policies are taken forward in Chapter 9 of the new London Plan, yet to be adopted.

8.82 These policies are also echoed in DMD in policies 49, 51, 52, 57, 59, 61, 62 and 63.

8.83 This strategic infrastructure works that form this planning application have regard to climate change and seek to address some of the key elements to delivering a sustainable development at Meridian Water by proposing:

- a strategy to deal with the natural hazards,(in this case flood risk both fluvial and surface water);
- providing a new east-west link to improve connectivity and active travel opportunities for future residents to access local services and public transport nodes, reducing reliance on the private motor vehicle;
- additional pedestrian and cycle connections north-south and improved links to the existing network;
- enhancing the biodiversity value of the site through the naturalisation of part of Pymmes Brook and the creation of two new parks;
- the use of SUDS features throughout the public realm; and
- the provision of the necessary infrastructure to facilitate future connectivity to the decentralised energy network.

8.84 In this respect the development is considered to address the requirements of policy. A condition is recommended relating to the sustainable procurement of materials required for the development proposed.

Planning Obligations

8.85 There are no planning obligations linked to this application. All matters arising as a consequence of the redevelopment of the site for a residential led development are covered under the Phase 2 outline planning application also under consideration on this agenda.

Community Infrastructure Levy

8.86 The works included within this application are not CIL liable.

9 Conclusion

9.1 The design of the infrastructure proposed within this planning application has been informed by a master planned approach to development, and has been subject to extensive review by statutory and non-statutory agencies and the Design Review Panel throughout, to ensure all comments and opinions have been fully considered and taken into account to reach today's position and the proposed works the subject of this planning application .

9.2 The works contained in this application are necessary to unlock the development potential of this significant brownfield site by providing key infrastructure to support a

new residential community of circa 5000 homes and 1500 jobs. The application includes a comprehensive package of works to address:

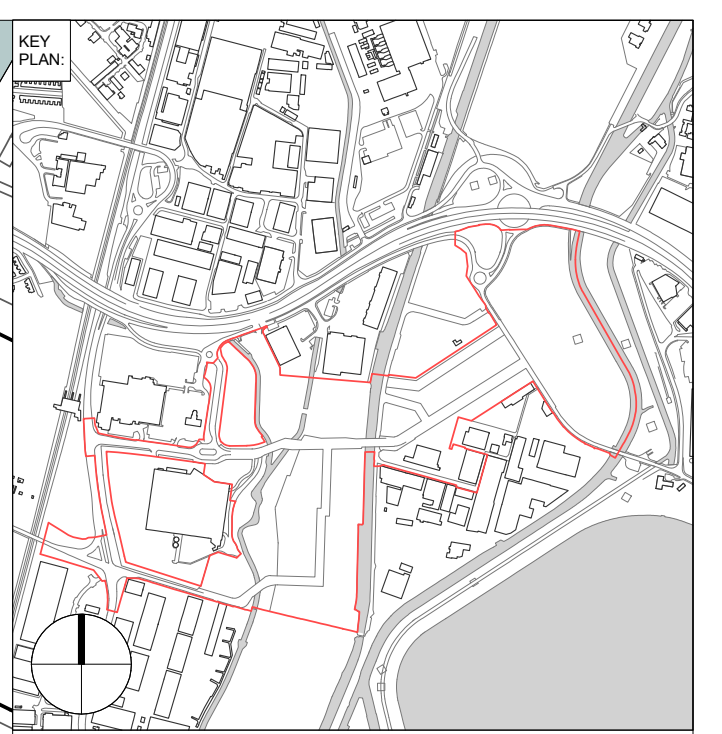
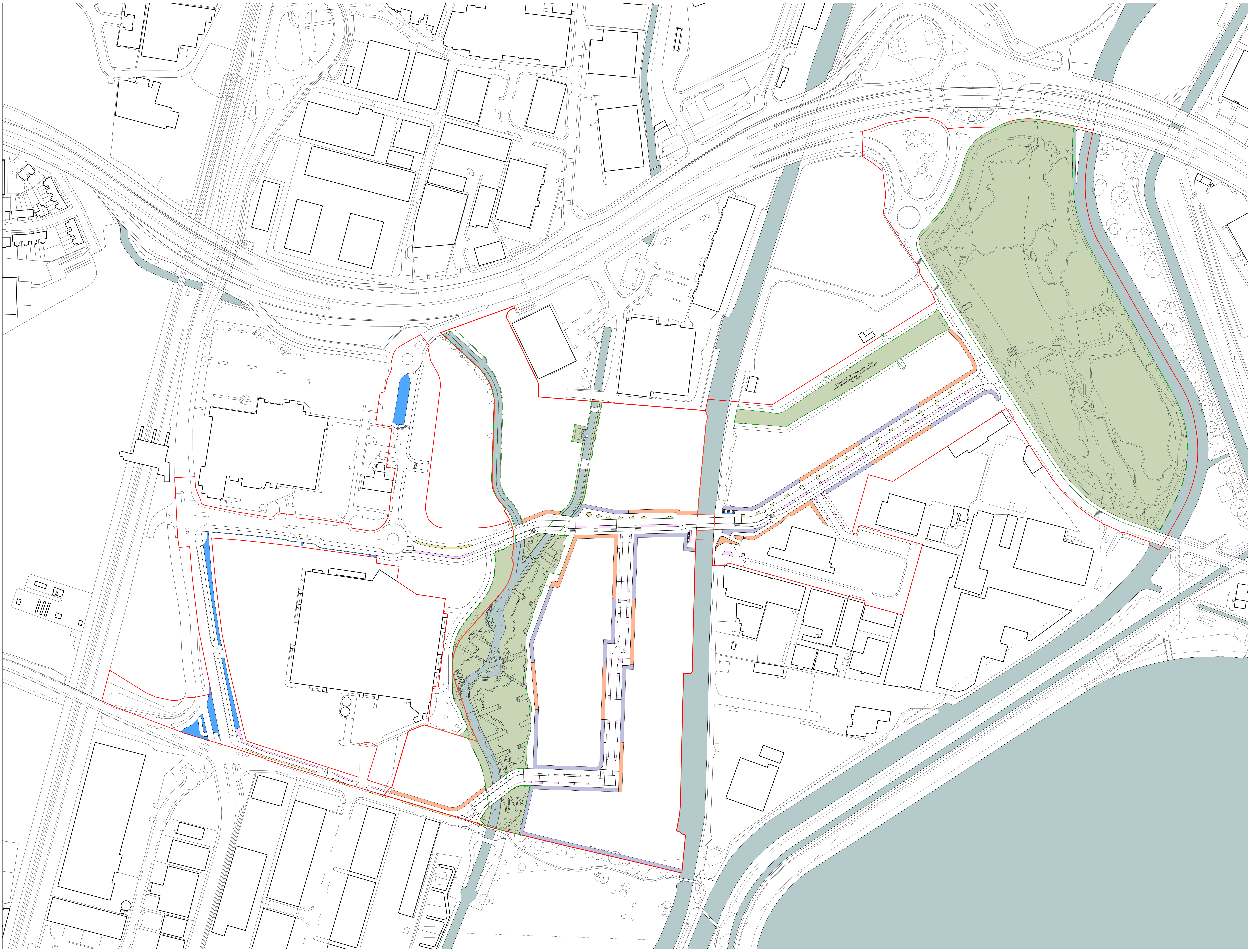
- Flood risk across the site by taking a site wide approach and creating developable plots to support the Phase 2 outline planning application, whilst delivering compensatory storage within the Lee Valley Regional Park;
- Creating a network of green infrastructure to deliver multiple benefits for future residents and the wider community, including biodiverse habitats, high quality open spaces and incorporating flood risk alleviation measures;

- East-west and north south severance by providing a new east-west Central Spine Road and north south Leaside Link Road, prioritising pedestrians, cyclists and public transport users;
- Post- industrial legacy of contamination by remediating the site at the same time as releveling the site for the purpose of addressing flood risk; and
- Delivering the key utilities infrastructure corridors required to support the scale of housing and employment growth envisaged across the site.

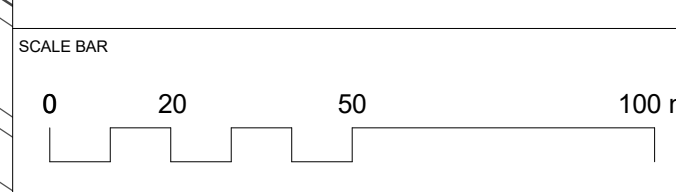
9.3 The works proposed are well considered and policy compliant and are therefore supported, with a recommendation that permission be granted subject to conditions to cover matters raised by third party consultees and to secure final details of certain elements before works commence.

9.4 As this is a full planning application and therefore covers a considerable amount of detail, there remain a small number of minor non material issues relating to detailed elements of the construction that officers are continuing to work with the applicant on. Officers are satisfied that this fine detail can be agreed. For example – detailed surfacing arrangements for the prow at the confluence of the Pymmes and Salmons Brook and the enclosure details for a section of the watercourse adjacent with Brooks Park. The final drawings to reflect these detailed discussions are still in preparation. All drawings will be available before the application is referred to the Mayor as part of the Stage 2 referral process. Members are therefore asked, in considering the officer recommendation to grant planning permission, to also grant delegated authority to agree these final update drawings before the application is referred to the Mayor and any decision notice is issued. This will in turn require the drawing numbers in many of the conditions listed above to be updated to reflect the latest revision to the drawing.

9.5 This application will need to be referred back to the Mayor prior to the issuing of any decision in accordance with the provisions of the Town and Country Planning (Mayor of London) Order 2008 and this requirement is therefore also covered in the recommendation.



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- Key**
- Application boundary containing road & bridge geometry & design by Karakuvovic Carson Architects; Services, structures and groundworks by ARUP
 - Landscape Architect's Scope: Areas within the GREEN line are indicated. Refer to Landscape Architect's working drawing (382-KCA-P1-00-DR-A-1006-P) and related drawings for all landscape infrastructure Package for further detail and reference
 - Landscape Scope - Refer to Landscape Drawings
 - Tree Pit Flora - spec: ref: Q21425A
 - Verge Planting - spec: ref: Q21425B
 - Water Intercept measure Hydroseed Mix 01 spec: ref: Q21425C
 - Water Intercept measure Hydroseed Mix 02 spec: ref: Q21425D
 - Water Intercept measure Flora Type D spec: ref: Q21425E

- General Notes**
1. These drawings form part of the detailed planning application to deliver Strategic Infrastructure Works (SIW) to the Meridian Water development including the comprehensive road-use development of Phase 2 and should be read in conjunction with the Outline Planning Application for Phase 2 development details.
 2. Sites have been investigated for relocation of the Gas Governor from the existing gas holder to a new location on the western side of Prince Street with parking provision for three units. The Gas Governor building will be subject to future design development and agreement between the Council and the relevant utility provider.
 3. All trees and shrubs to be retained are shown on the site plan (382-KCA-P1-00-DR-A-1006-P) and related drawings.
 4. All trees and shrubs to be retained are shown on the site plan (382-KCA-P1-00-DR-A-1006-P) and related drawings.
 5. All trees and shrubs to be retained are shown on the site plan (382-KCA-P1-00-DR-A-1006-P) and related drawings.
 6. The trees, shrubs and other landscape infrastructure areas, where these items are shown they are indicated only to be subject to relevant planning consent from the Council and the relevant utility provider. Existing trees and shrubs are shown on the site plan (382-KCA-P1-00-DR-A-1006-P) and related drawings. Existing trees and shrubs to be retained are shown on the site plan (382-KCA-P1-00-DR-A-1006-P) and related drawings.
 7. Existing street lighting and other infrastructure will be subject to Strategic Planning design.
 8. Final lighting column positions subject to future lighting calculations and highway approvals.
 9. Road and crossing markings to be provided, subject to detailed design and highway approvals.

2	FOR APPROVAL	03/03/20
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0	FOR APPROVAL	21/06/19

Rev Reason for issue Date

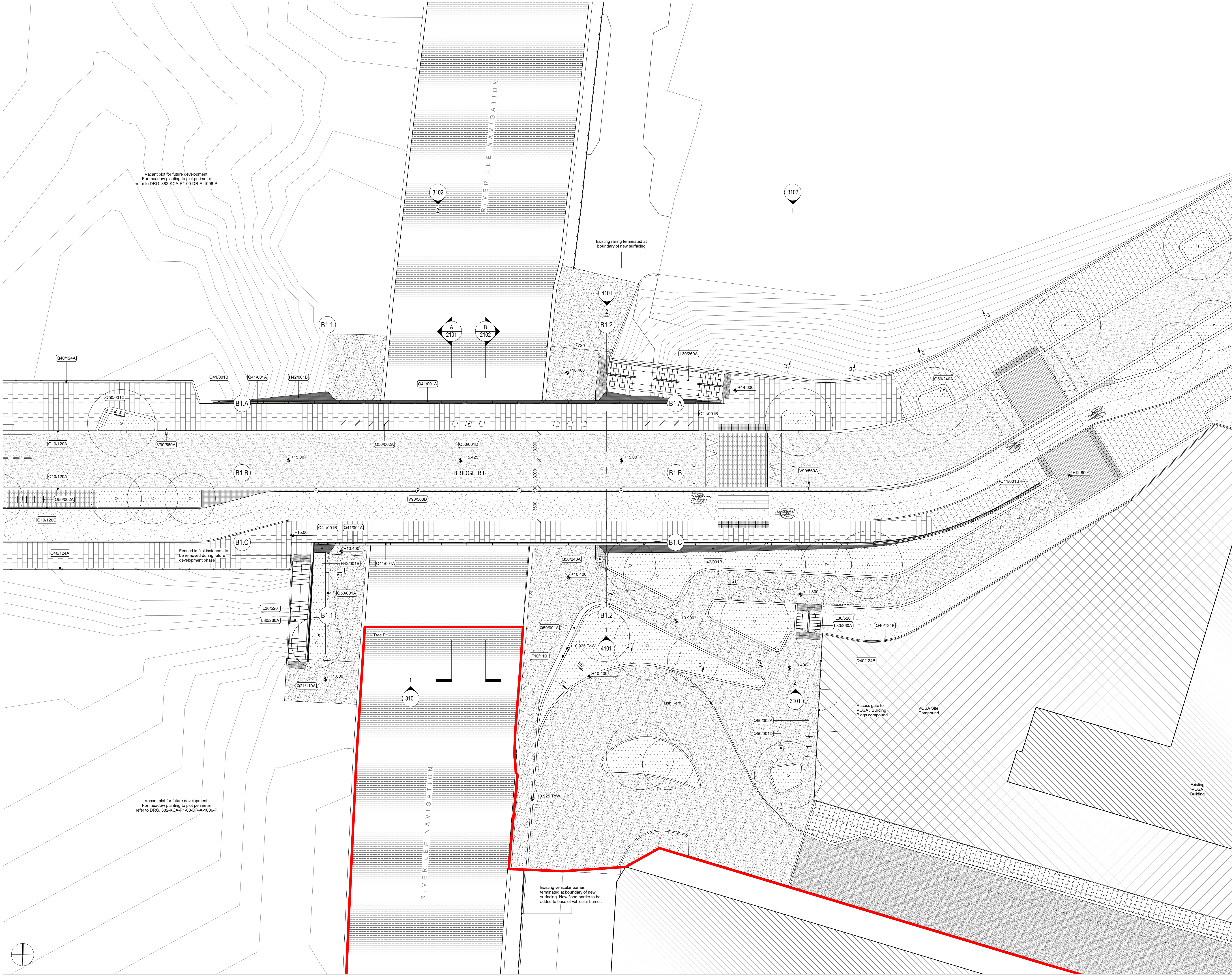
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PROJECT
Meridian Water Strategic Infrastructure Works (MWSIW)

TITLE
Soft Landscaping

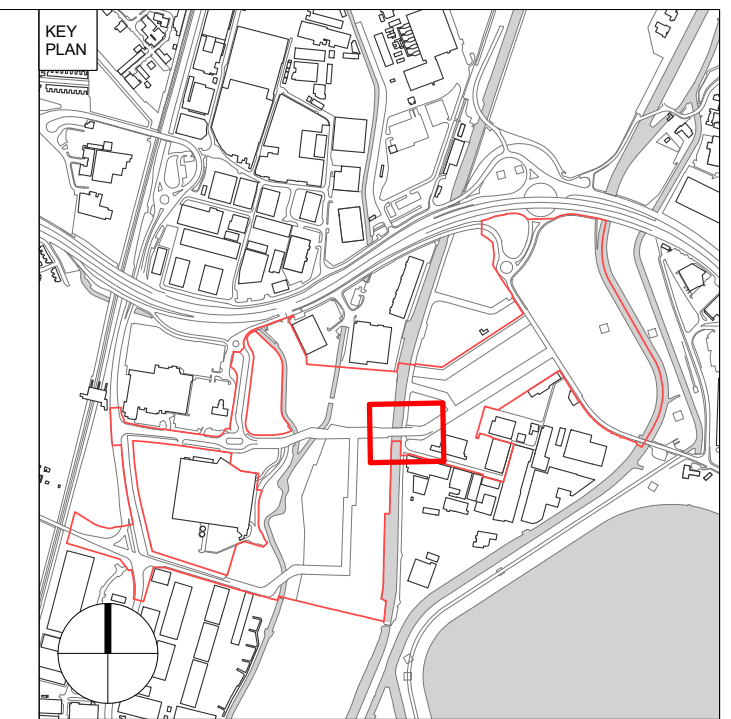
DRAWING NUMBER	REVISION
382-KCA-P1-00-DR-A-1006-P	2

DATE	FOR APPROVAL
03/03/20	
FIRST SHEET	CHECKED BY
21/06/19	JM
SCALE	PROJECT NUMBER
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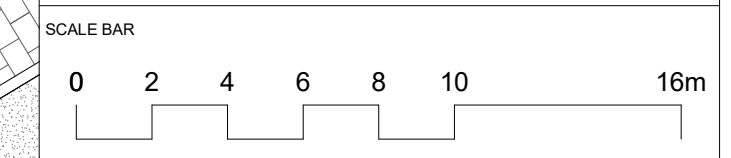


Vacant plot for future development.
For meadow planting to plot perimeter
refer to DRG. 382-KCA-P1-00-DR-A-1006-P

Vacant plot for future development.
For meadow planting to plot perimeter
refer to DRG. 382-KCA-P1-00-DR-A-1006-P



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- NOTES
1. These drawings form part of the detailed planning application to deliver Strategic Infrastructure Works (MWSIW) to enable the Meridian Water development including the comprehensive mixed-use development of Phase 2 and should be read in conjunction with the Outline planning application for the Phase 2 development (MWSIW).
 2. Space has been safeguarded for relocation of the Gas Governor building with parking provision for 2no. vans. The Gas Governor building will be subject to future design development and agreed between the IA and the relevant utility provider.
 3. For fences and boundary conditions refer to DRG. 382-KCA-P1-00-DR-A-1006-D.
 4. For tree types and planting DRG. 382-KCA-P1-00-DR-A-1006-D, DRG. 382-KCA-P1-00-DR-A-1007-D and landscape architects documentation.
 5. For specifications referenced by keynotes refer to 'Pictorial Specification 382-KCA-P1-XX-SP-A-0100-P'.
 6. The brooks, Brooks Park and Flow and ecology corridor fall within Landscape Architects scope, where these items are shown they are indicative only.
 7. Contour lines are shown indicatively and levels may be subject to refinement subject to a developed ground level strategy. Existing levels based on survey information and estimates where survey not available.
 8. Existing brick wall and embankment concrete structures will be subject to SE design.
 9. Final lighting column positions subject to future lighting calculations and highways approvals.
 10. Road and crossing markings to be painted, subject to detailed design and highways approvals.

LEGEND

	Application boundary containing road & bridge geometry & design by Karakusevic Carson Architects Services.
	Landscape Architect's Scope. Areas within this GREEN line are indicative. Refer to landscape architects overview drawing 005-PR-22-01-DR-A-0002
	Earth fill
	Q22/140A - Coloured asphalt to segregated cycleway
	Q25/200A or Q25/215A - 600x450mm flags to footways
	Q22/150B - Hot rolled asphalt w/ flint surface dressing to polystyrene placed surface & bus only way
	Q24/130A - 100 x 300mm Granite sets with mortar
	Q22/150A - Black top asphalt to carriageway
	Q25/610B - 240 x 160 Concrete sets with mortar
	Q21/110A - In situ concrete with exposed aggregate surface to footway
	Q24/130B - 100 x 100mm Granite sets with mortar joints
	Q21/110B - In situ concrete with exposed aggregate surface to carriageway
	Q31/425 - Rainwater / Trench
	Waterway
	Q23/100A - Permeable rebound surface to tree pit
	Ecology Corridor - Refer to Landscape Architects Design
	Q25/800A - Precast concrete and grass paving
	Existing Building
	Q25/210A - Tactile blister paving
	VOSA Site compound
	Q25/210B - Tactile corduroy paving

KEYNOTE LEGEND - Refer to Pictorial Specification 382-KCA-P1-XX-SP-A-0100-P

KEYNOTE	DESCRIPTION
F10110	Clay facing brickwork
H42/001B	Smoked brick faced precast concrete panels to retaining wall
L30/260A	Precast concrete slabs with integrated base turner in stronger
L30/520	Metal balustrades and handrail with integrated lighting where required
Q10/120A	Granite kerb - 300mm wide
Q10/120C	Granite kerb - 150mm wide
Q21/110A	In Situ concrete surfacing with exposed aggregate surface (pedestrian)
Q40/124A	Open mesh steel fence to vacant plots
Q40/124B	Secure by Design Open mesh steel panel fencing to VOSA Site
Q41/001A	Composite bridge parapet (typical) - Pigmented precast concrete base with coloured aggregate, grit blasted finish to exterior, polished finish to interior - Metal railing/guarding to top
Q41/001B	Composite bridge parapet (terminations) - Pigmented precast concrete base with coloured aggregate, grit blasted finish to exterior, polished finish to interior - Metal railing/guarding to top
Q50/001A	Street Furniture - Seat type 01 - Straight timber bench without back
Q50/001C	Street Furniture - Seat type 03 - Angled timber bench with back
Q50/001D	Street Furniture - Seat type 04 - Concrete Perch
Q50/002A	Street Furniture - Sheltered cycle stand
Q50/240A	Litter bin
V90/560A	Street Lighting Type 01
V90/560B	Street Lighting Type 02

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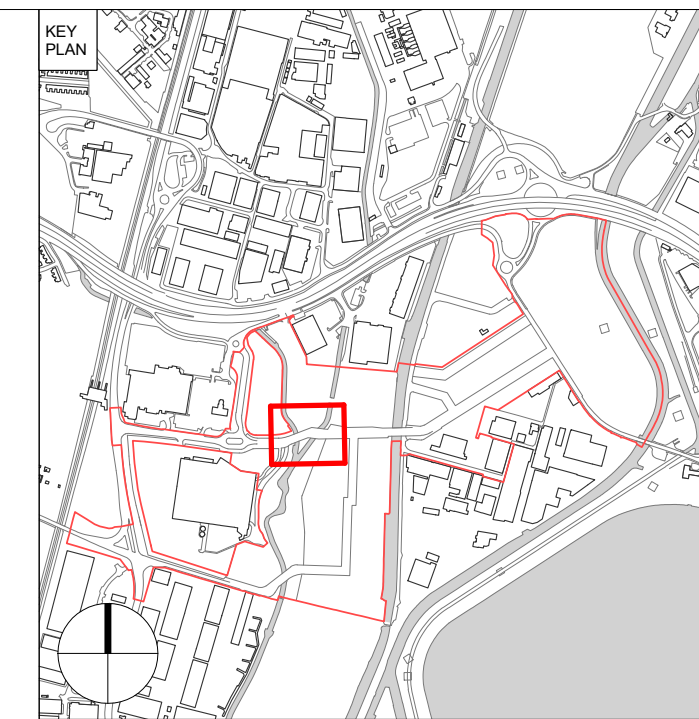
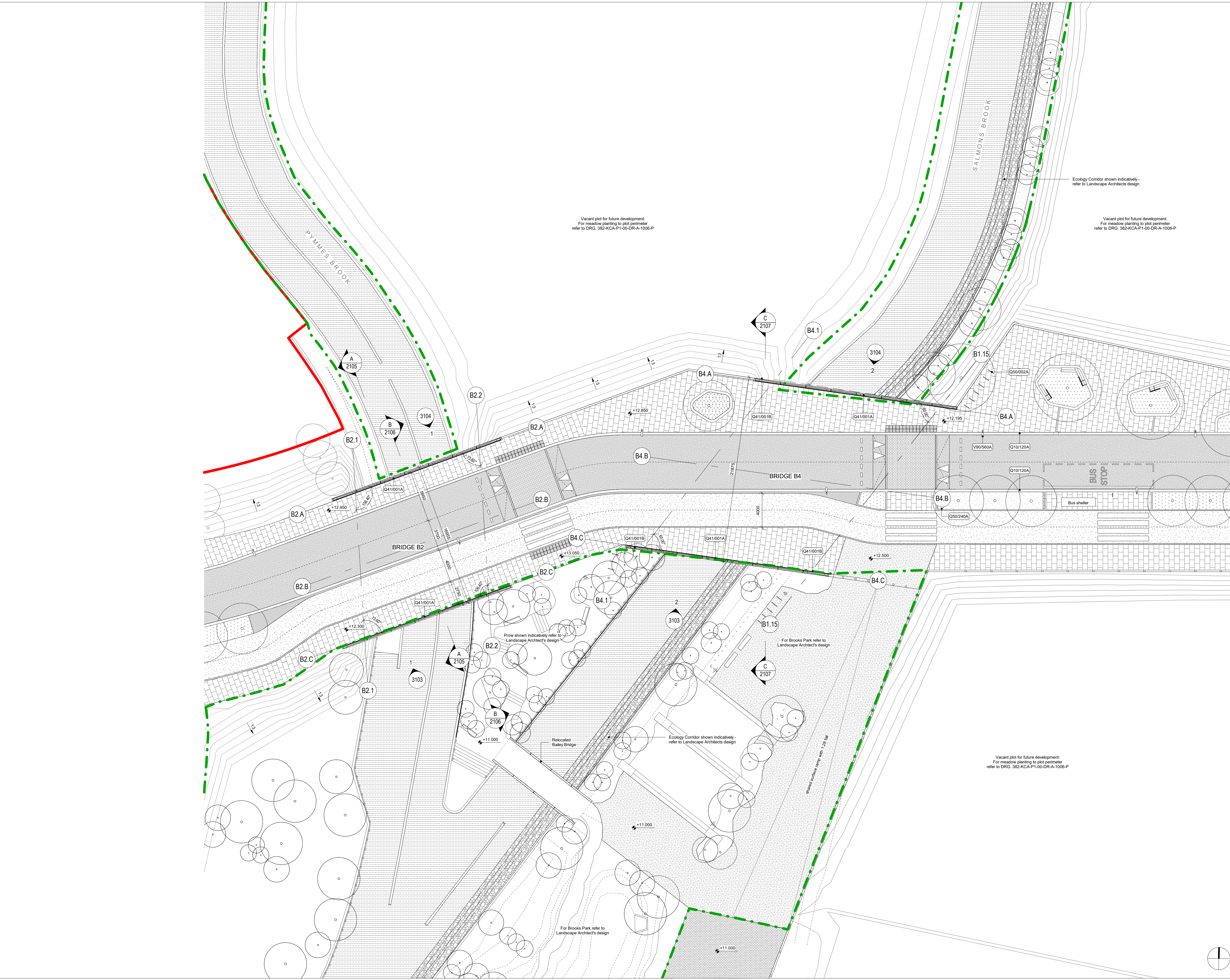
Rev Reason for Issue Date

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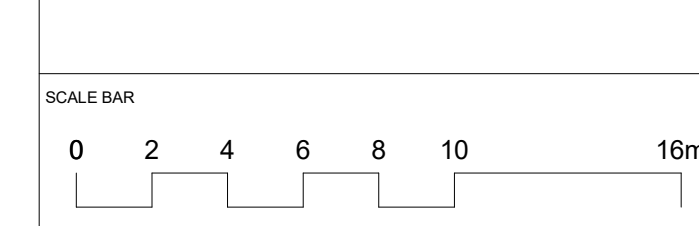
PROJECT
Meridian Water Strategic Infrastructure Works (MWSIW)

TITLE
Bridge B1 - Lee Navigation - Deck Level Plan

DRAWING NUMBER	382-KCA-P1-01-DR-A-1101-P	REVISION	1
STATUS	FOR APPROVAL		
REVISION DATE	03/03/20	DRAWN BY	JB
FIRST ISSUED	21/06/19	CHECKED BY	JM
SCALE	1 : 200 @ A1		
PROJECT NUMBER	382		



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- NOTES
1. These drawings form part of the detailed planning application to deliver Strategic Infrastructure Works (MWSIW) to enable the Meridian Water development including the comprehensive mixed-use development of Phase 2 and should be read in conjunction with the Outline planning application for the Phase 2 development (MWSIW).
 2. Space has been safeguarded for relocation of the Gas Governor from the existing gas holder site to south of Bridge B2 on the western bank of Pymmes Brook with parking provision for 2no vans. The Gas Governor building will be subject to future design development and agreements between the EA and the relevant utility provider.
 3. For fences and boundary conditions refer to DRG. 382-KCA-P1-00-DR-A-1005-D.
 4. For tree types and planting DRG. 382-KCA-P1-00-DR-A-1005-D, DRG. 382-KCA-P1-00-DR-A-1007-D and Landscape architects documentation.
 5. For specifications referenced by keynotes refer to Pictorial Specification 382-KCA-P1-XX-SP-A-0100-P.
 6. The brooks, Brooks Park and Prow and ecology corridor fall within Landscape Architects scope, where these items are shown they are indicative only.
 7. Contour lines are shown indicatively and levels may be subject to refinement subject to a developed ground strategy. Existing levels based on survey information and estimates where survey not available.
 8. Existing brook wall and embankment concrete structures will be subject to SE design.
 9. Final lighting column positions subject to future lighting calculations and highways approvals.
 10. Road and crossing markings to be painted, subject to detailed design and highways approvals.

LEGEND

	Application boundary containing road & bridge geometry & design by Karakusevic Carson Architects. Services, structures and groundworks by ARUP.
	Landscape Architect's Scope. Areas within this GREEN line are indicative. Refer to landscape architects overview drawing 005-Ph2-ZZ-DR-A-0003
	Earth fill
	Q22140A - Coloured asphalt to segregated cycleway
	Q25200A or Q25215A - 600x450mm flags to footways
	Q22150B - Hot rolled asphalt of flint surface dressing to polythene sheeted surface & bus only way
	Q41300A - 100 x 300mm Granite sets with mortar
	Q22150A - Black top asphalt to carriageway
	Q25610B - 240 x 160 Concrete sets with mortar joints
	Q21110A - In situ concrete with exposed aggregate surface to footway
	Q24130B - 100 x 100mm Granite sets with mortar joints
	Q21110B - In situ concrete with exposed aggregate surface to footway
	Q31425 - Rainwater / Trenchpit.
	Waterway
	Q23100A - Permeable resinbound surface to tree pit
	Ecology Corridor - Refer to Landscape Architects Design
	Q25800A - Precast concrete and grass paving
	Existing Building
	Q25210A - Tactile blister paving
	VOSA Site compound
	Q25210B - Tactile corduroy paving

KEYNOTE LEGEND - Refer to Pictorial Specification 382-KCA-P1-XX-SP-A-0100-P

KEYNOTE	DESCRIPTION
Q10120A	Granite kerb - 300mm wide
Q41001A	Composite bridge parapet (typical) - Pigmented precast concrete base with coloured aggregate, grit blasted finish to exterior, polished finish to interior - Metal railings/guarding to top
Q41001B	Composite bridge parapet (dermatation) - Pigmented precast concrete base with coloured aggregate, grit blasted finish to exterior, polished finish to interior - Metal railings/guarding to top
Q50102A	Street Furniture - Sheffield cycle stand
Q50102A	Street Furniture - Sheffield cycle stand
V90156A	Street Lighting Type 01

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0	FOR APPROVAL	21/06/19
Rev	Reason for Issue	Date

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PROJECT
Meridian Water Strategic Infrastructure Works (MWSIW)

TITLE
Bridge B2/4 - Pymmes Brook North / Salmons Brook - Deck Level Plan

DRAWING NUMBER	382-KCA-P1-01-DR-A-1103-P	REVISION	1
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STATUS
FOR APPROVAL

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