Braintree District Council Local Impact Report

**Braintree District Council** 

LOCAL IMPACT REPORT

A12 Chelmsford to A120 Widening Scheme
[PINS Ref: TR010060]

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# A. Terms of Reference

#### 1. Introduction

This report comprises the Local Impact Report (LIR) of Braintree District Council ('the Council').

The Council has had regard to the purpose of LIRs as set out in s60(3) of the Planning Act 2008 (as amended), DLUHC (then DCLG) Guidance for the Examination of Applications for Development Consent, the Planning Inspectorate's Advice Note One, Local Impact Reports and the Planning Inspectorate's 'Example Documents', in preparing this LIR.

## <u>Scope</u>

The LIR relates primarily to the impacts of the proposed development as a whole but with a particular focus on Braintree District where appropriate. The nature of the proposed development (i.e. a linear expressway) is such that assessing the impacts in a piecemeal fashion as dictated by District boundaries is not practicable.

The applicant (National Highways) has submitted their application for a Development Consent Order (DCO) directly to the planning inspectorate (PINS) who publish the documents on their website.

https://infrastructure.planninginspectorate.gov.uk/projects/eastern/a12-chelmsford-to-a120-widening-scheme/?ipcsection=docs&stage=app

This LIR is limited in scope to the information made available by the applicant, with particular attention on the Environmental Statement (ES). The Council reserves the right to make further amendments to this LIR as updated information becomes available.

The description of development is set out below and is taken directly from the Applicant's submission. Section 2 of the 'Guide to the Application' (Document ref: TR010060/APP/1.2) describes the proposal as follows:

The existing A12 between junctions 19 (Boreham interchange) and 25 (Marks Tey interchange) is predominantly a dual two-lane carriageway, with a limited length of three-lane carriageway between junctions 19 and 20a (Hatfield Peverel South interchange). There are a number of direct accesses onto the carriageways, particularly between junctions 22 (Colemans interchange) and 23 (Kelvedon South interchange) and between junctions 24 (Kelvedon North interchange) and 25. 2.1.2 The proposed scheme involves widening the existing A12 to three lanes throughout in each direction, where it is not already three lanes. This would mainly involve online widening of the carriageway, with offline highway created between junctions 22 and 23 (Rivenhall End Bypass) and between junctions 24 and 25 (Kelvedon to Marks Tey). This would be accompanied by junction improvements (junctions 19 and 25), construction of new junctions catering for traffic movements both north and southbound (junctions 21, 22 and 24), and removal of existing junctions (junctions 20a, 20b and 23).

The applicant has submitted a detailed description as set out in Chapter 2 of the Environmental Statement (TR010060-000136-6.1).

Two additional housing applications coinciding with the Order Limits have been granted permission since the publication of the ES. These are to the east of Witham and to the west

of Kelvedon. We submit a correction for the number of dwellings allocated for Land at Feering which is 795 dwellings, not 750 dwellings as stated in the ES.

There are further housing applications or allocations which coincide with the Order Limits where there are proposed diversionary routes which are too numerous to list here. This information can be made available upon request.

Allocation/ application	Location	Number of residential properties	Notes
Land at North East Witham Phase 4	Witham	230	20/02060/OUT Appeal Ref: APP/Z1510/W/22/33 05099 Granted 5th January 2023
London Road	Kelvedon	300	17/00679/OUT Appeal Ref: APP/Z1510/W/22/33 0647930th Granted January 2023
Land at Feering	Feering	795	Strategic Growth Location. Capacity of residential properties is 795, not 635.

22/02283/FUL Land North Of Colchester Road Witham Essex for the Erection of two B8 (storage / distribution) units with office space and associated infrastructure – Detailed matters on this application seeks to connect walking and cycling shared path to the A12.

There are also a number of relevant applications at Coleman's quarry in relation to the extraction of minerals which are submitted to the County Council.

Planning applications for preliminary works have been submitted in relation to biodiversity off-setting.

- 1. 22/03316/FUL Land South of Cranes Lane
- 2. 22/03156/FUL Land Blackwater Lane Witham Essex
- 3. 22/03463/FUL Land South Of Howbridge Hall Road Witham Essex
- 4. 22/03461/FUL Land North East Of Hatfield Road Hatfield Peverel Essex
- 5. 22/03314/FUL Land South East Of Hatfield Road Hatfield Peverel Essex
- 6. 22/03313/FUL Land West Of Bury Lane Hatfield Peverel Essex
- 7. 22/03315/FUL Land South East Of The Street Hatfield Peverel Essex
- 8. 22/03462/FUL Land East Of Terling Hall Road Hatfield Peverel Essex
- 9. 23/00247/FUL Land North, Of Prested Hall, South Of The A12

## 2. Purpose and Structure of the LIR

The LIR identifies relevant policies within the Council's Adopted Development Plan and the extent to which the proposed development accords with these policies. Topic based headings are used as a framework to set this assessment of the impacts within and key issues are identified along with commentary on the applicant's approach to mitigating these impacts.

#### Description of the Area

The proposed scheme lies within Essex, mainly passing through the administrative areas of Braintree District Council and Colchester Borough Council, as well as parts of the administrative areas of Chelmsford City Council and Maldon District Council. Chelmsford is located to the south-west of the proposed scheme and Colchester to the north-east. The settlements of Hatfield Peverel, Witham, Rivenhall End, Kelvedon and Feering along the route fall within BDC's administrative area. There are also individual business and residential properties which front directly onto the A12.

Hectares: 600ha

The majority of the site is farmland but also includes large areas of woodland a number of which are both ancient woodlands and local wildlife sites. Watercourses and areas of public highway are also encompassed. Overall, it is rural-urban in its nature with no planning history of no relevance to the current proposal.

The A12 runs in parallel and to the south of the Great Eastern Main Line (GEML) railway for most of its length between junctions 19 and 25. Major connecting roads include the A130 which joins the A12 at junction 19 and the A120 which joins the A12 at junction 25. The B1018 and the B1019 link Maldon to Witham and Hatfield Peverel respectively. The B1023 links Kelvedon and Tiptree.

There are a number of heritage assets in the locality and several locally designated wildlife sites within a 1km radius. There are also a number of public rights of way which traverse the site or parts of it.

# Statutory Development Plan

The Council's statutory Development Plan consists of the Braintree District Local Plan 2013 – 2033 (herein referred to as the 'Adopted Local Plan'). Section 1 of the Local Plan was adopted on 22nd February 2021, and Section 2 of the Local Plan was adopted on 25th July 2022. As such, the Local Plan is therefore considered to be up to date.

There are also a number of Neighbourhood Plans within the District and where applicable these also form an important part of the Development Plan. The Hatfield Peverel Neighbourhood Plan, Kelvedon Neighbourhood Plan and Feering Neighbourhood Plan areas coincide with different parts of the route and are therefore applicable.

The Council has also adopted a number of Supplementary Planning Documents. Of these the Essex Design Guide (2005); Essex Parking Standards (2009); the External Artificial Lighting SPD (2009) and the Essex Coast RAMS SPD (2020) are of relevance here.

At the County level, the Essex Minerals Local Plan (2014) and the Essex and Southend on Sea Waste Local Plan (2017) are also material considerations in terms of Development Plan considerations, however these are County matters which are addressed by Essex County Council in their LIR submission.

# B Assessment of Impacts and Adequacy of Response

#### Introduction

The following sections identify the relevant policies within the Development Plan and other local policy, the key issues raised by the proposed development and the extent to which the applicant addresses them and thus the proposal complies with local policy.

#### 3. The Principle of Development

#### Development Plan Policies

Policy SP1 of the Adopted Local Plan states that the Local Planning Authorities 'will take a positive approach that reflects the presumption in favour of sustainable development contained within the National Planning Policy Framework'.

Policy SP3 of the Adopted Local Plan addresses the spatial strategy for North Essex, identifying that existing settlements will be the principal focus for additional growth with a settlement hierarchy to be identified. Beyond the main settlements the diversification of the rural economy and conservation and enhancement of the natural environment will be supported.

Policy SP6 of the Adopted Local Plan states that Local Planning Authorities 'will work with government departments, Highways England, Essex County Council, Network Rail, rail and bus operators, developers and other partners to deliver [inter alia]... a comprehensive network of segregated walking and cycling routes linking key centres of activity; and New and improved road infrastructure and strategic highway connections to reduce congestion and provide more reliable journey times along the A12, A120 and A133, specifically: Improved access to and capacity of junctions on the A12 and other main roads.'

Policy LPP1 of the Adopted Local Plan states that development outside development boundaries will be confined to uses appropriate to the countryside to protect the intrinsic character and beauty of the countryside.

The supporting text to LPP45 New Road Infrastructure supports strategic highway improvements and states the Council will work with National Highways to ensure that safe, convenient and suitable access to local roads is provided to meet the needs of Hatfield Peverel, Witham, Kelvedon and Feering. The A12 scheme is expected to increase overall capacity and upgrade junctions to make the network safer and smooth traffic flow.

## Commentary

The Development Plan is supportive of the general principle of new and improved road infrastructure and strategic highway connections, specifically the A12 and capacity of its junctions. However, all development outside the development boundary must be appropriate to protect the intrinsic character and beauty of the countryside where development which conserves or enhances the natural environment will be supported. Therefore, the general principle of the proposed development is in accordance with the adopted development plan and thus the detailed assessment of this scheme is important when establishing whether a proposal is likely to be acceptable or not.

## Adequacy of the Application/DCO

The DCO is adequate with respect to the description of the development which it proposes to authorise.

#### 4. Air Quality

#### **Development Plan Policies**

Policy LPP70 of the Adopted Local Plan requires proposals for all new development to prevent unacceptable risks from all emissions and other forms of pollution and to ensure no deterioration of air quality. It states that development will not be permitted where there are likely to be unacceptable impacts upon air quality and the health and safety of the public.

Policy FI1 of the Hatfield Peverel Neighbourhood Plan is primarily a Transport and Access Policy but does also specifically state that 'all new developments should prevent unacceptable risks from emissions and all forms of pollution (including air, water and noise pollution) to ensure no deterioration of current standards'.

Policy NE7 of the Kelvedon Neighbourhood plan on pollution generally states that 'development proposal should avoid any significant increases in... air pollution...'. It requires that proposals demonstrate potential risks to human health and environment, and that risks will be adequately addressed by appropriate avoidance, alleviation and mitigation measures.'

Limb A of Air Quality, dust and odour requires that mitigation must be in accordance with upto-date guidance issued by the Institute of Air Quality Management and limb B encourages a preference for locally dominant native species in either deciduous or evergreen planting.

Policy 9 of the Feering Neighbourhood plan is a policy on Moving Around and requires that new development should not have a severe detrimental impact on air quality and public health as a result of increased traffic flows and congestion. The Plan also supports development proposals that provide air quality assessments and detail mitigation measures in accordance with Policy 12 on Climate Change and Sustainability.

## Key Local Issues

The Council's main concern is that development does not have an unacceptable impact upon air quality and the health and safety of the public. Policies generally require that there should be no unmitigated deterioration of air quality as a result of new development, increased traffic flows or congestion.

With standard construction mitigation measures in place, the Council's consultants have found that there is unlikely to be significant effects resulting from construction dust. During construction no significant effects were found while the impact of operational traffic was found to have a likely significant adverse effect on one residential property.

## Adequacy of the Application/DCO

The application have been assessed by the Council's Air Quality consultants, Entran who are specialists in air quality, odour, noise & vibration and EIA. This is in italics below:

The stakeholder consultation process is comprehensive.

We do not have any comments on this issue. We do not have any comments on the Legislative and Policy Framework.

The Assessment methodology for both construction and operational air quality follows the methodology outlined in the Design Manual for Roads and Bridges (DMRB) LA 105 Air Quality document, this is considered to be acceptable.

## Potential Impacts

## **Construction Dust**

The assessment of construction dust follows the method set out in DMRB LA 105 which is considered to be acceptable. The assessment determined that prior to any mitigation measures the construction dust risk is considered to be high. It is understood that an Environmental Management Plan will be produced which will provide the details of best practice measures to control fugitive dust emissions.

With standard construction mitigation measures in place, it is unlikely there would be significant effects resulting from construction dust.

Overall, we find the construction dust assessment is considered to be thorough and following the correct guidance. It is advised that mitigation measures commensurate with the scale of the proposed scheme be included in the Environmental Management Plan and that the IAQM guidance 'Guidance on the assessment of dust from demolition and construction' be considered with regards to the mitigation measures proposed within the EMP.

#### Construction Traffic

The assessment of emissions from construction traffic was undertaken using the detailed air quality dispersion model ADMS Roads version 5 which is considered to be an appropriate choice of model. Meteorological data from the meteorological site at Andrewsfield Aerodrome was used in the assessment, again this is considered to be acceptable. Appropriate verification and adjustment of the model outputs have been completed in accordance with the relevant guidance.

As per the DMRB LA 105 guidance the assessment covers three areas, impacts to human health, impacts to ecology and compliance with relevant standards. The Do Minimum and Do Something scenarios were modelled for the year 2025 which is the year in which peak construction traffic is anticipated.

The assessment for impacts on human health determined that 2 human health receptors in Colchester were found to be at risk of exceeding the annual mean NO2 objective in the peak construction year (2025). However, the magnitude of the impact was determined to be imperceptible, therefore the effects are considered to be not significant.

The assessment of impacts on ecological receptors indicated that nitrogen deposition rates were in excess of 1% of the lower critical load and in excess of 0.4kgN/ha/yr at 6 veteran tree locations. Further assessment of the effects has therefore been undertaken by a

competent expert in ecology and included in Chapter 9 of the ES. It was concluded that the likely effect caused by the construction traffic on the 6 veteran trees would be not significant.

The assessment also concluded that the construction traffic effects would be unlikely to interfere with the UK's ability to meet the EU Limit Value for NO2 in the shortest possible time.

In accordance with the criteria outlined in the DMRB LA 105 guidance, the effect of the proposed scheme on air quality at human health receptors, ecological habitats and on compliance with EU Limit Values during the construction of the scheme is considered to be not significant.

Overall, we find the assessment of construction phase traffic on air quality to be thorough and following the correct guidance.

## Operational Traffic

The assessment of emissions from operational traffic was undertaken using the detailed air quality dispersion model ADMS Roads version 5 which is considered to be an appropriate choice of model. Meteorological data from the meteorological site at Andrewsfield Aerodrome was used in the assessment, again this is considered to be acceptable. Appropriate verification and adjustment of the model outputs have been completed in accordance with the relevant guidance.

As per the DMRB LA 105 guidance the assessment covers three areas, impacts to human health, impacts to ecology and compliance with relevant standards. The Do Minimum and Do Something scenarios were modelled for the year 2027 which is the opening year of the proposed scheme.

The assessment of impacts on human health indicated some areas experiencing an increase in pollutant levels and some a decrease. The main effects were experienced as a result of the offline bypass areas which alters the alignment of the carriageway, for some receptors the new road is closer than the existing carriageway and for some the distance is greater. The human health receptors representing three residential properties were shown to be at risk of exceeding the annual mean NO2 objective level with the proposed scheme operational, at two of these the objective level was also exceeded in the Do Minimum scenario and the impact is deemed to be small. Only one receptor was considered to have a medium impact in accordance with the criteria outlined in DMRB LA 105. As such, these values are below the guideline number of properties that would constitute a likely significant effect.

The assessment of impacts on ecological receptors indicated that nitrogen deposition rates were in excess of 1% of the lower critical load and in excess of 0.4kgN/ha/yr at 8 designated sites and 23 veteran tree locations. Further assessment of the effects has therefore been undertaken by a competent expert in ecology and included in Chapter 9 of the ES. It was concluded that the likely effect caused by the proposed development on the 23 veteran trees and 7 of the 8 designated wildlife sites would be not significant. Perry's Wood was assessed to remain at risk from nitrogen deposition arising from the proposed scheme and the impact is therefore considered to be significant. A Project Air Quality Action Plan has been produced which considers the options to reduce the impact of the nitrogen deposition at Perry's Wood.

The compliance assessment again followed the methodology outlined in DMRB LA 105. None of the PCM receptors were found to exceed the relevant EU limit value for annual

mean NO2 in either the Do Minimum or Do Something scenarios. Therefore, it is concluded that the proposed scheme is not likely to interfere with the UK's ability to meet the EU Limit Value for NO2 in the shortest possible time.

In accordance with the criteria outlined in the DMRB LA 105 guidance, the effect of the proposed scheme on air quality at human health receptors and on compliance with EU Limit Values during the operation of the scheme is considered to be not significant. Changes in nitrogen deposition as a result of the proposed scheme would have a significant effect on the ancient woodland habitat at Perry's Wood LWS. The Project Air Quality Action Plan has considered the options for mitigation and determined that no mitigation options are feasible. The conclusion from the competent expert on ecology is that the impact should be offset by planting additional trees as described within Chapter 9 of the ES.

Overall, we find the operational air assessment to be thorough and following the correct guidance.

#### 5. Cultural Heritage

#### **Development Plan Policies**

Essex County Council is commissioned to provide statutory consultee advice to Braintree District Council in relation to built heritage conservation for relevant planning applications within the district. Essex County Council otherwise retains statutory responsibility for archaeology matters. The County Council are also a host authority for the DCO and will provide their assessment on archaeology and historic buildings in their own LIR. The Council will therefore defer to ECC on this matter and highlight a handful of factual points.

For reference, relevant Development Plan Policies are identified below.

Policy SP7 of the Adopted Local Plan requires all new development to protect and enhance assets of historical value.

Policy LPP47 of the Adopted Local Plan states that the Council will promote and secure a high standard of design and layout and the protection and enhancement of the historic environment in order to respect and respond to local context, especially in the District's historic areas where development may affect the setting of listed buildings and other heritage assets.

Policy LPP57 of the Adopted Local Plan seeks to protect heritage assets and their settings stating that the Council 'will seek to preserve and enhance the immediate settings of heritage assets by appropriate control over the development, design and use of adjoining land'.

Policy LPP59 of the Adopted Local Plan addresses archaeological matters and seeks to ensure that sites of archaeological importance are appropriately investigated.

There are no relevant policies in the Hatfield Peverel Neighbourhood Plan.

Kelvedon Neighbourhood Plan Policy HE3 requires development to respect, and enhance wherever possible, the setting, character and appearance of non-designated heritage assets. The final list of non-designated heritage assets has yet to be adopted.

Feering Neighbourhood Plan Policy 4 on heritage assets and their settings states that proposals which have an impact on designated, non-designated heritage assets and historic landscapes will be supported where there is no detrimental impact, an enhancement of the

heritage assets and their settings. There should also be no loss of important views of heritage assets and building materials should be sympathetic to heritage assets. Similar to Kelvedon, a final list of non-designated heritage assets has yet to be adopted.

#### Key local Issues

Local policies generally require no detrimental impact from new development or an enhancement of heritage assets and their settings. The Council's main concern is that the development does not have an unacceptable adverse impact on heritage assets and their settings.

#### Summary impact assessment

There are a number of heritage assets within the area which the applicant has identified in detail in their Cultural Heritage Desk Based Assessment (TR010060-000236-6.3). The Assessment considers impacts on heritage assets within a 300m study area and then impacts on settings within a wider 1km study area of the DCO limits (i.e. the application site boundary).

For Braintree District, there is 1 building within the DCO limits, this is Grade 2 Sauls Bridge which forms part of a local road in Witham however there are 267 listed buildings within the 1km area. Of these, 68 listed buildings are within 10m of the DCO limit as many assets are adjacent to local roads required for construction such as Kelvedon High Street and The Street, Witham.

Three assets within 1km are Grade 1 (Church of All Saints, Feering, Church of St Mary, Kelvedon and 1-5 High Street, Kelvedon) and 27 are Grade 2\*. These are in clusters at historic centres at Hatfield Peverel, Witham, Kelvedon and Feering.

There is one Grade 2 Registered Park and Garden (Hatfield Priory) which falls partly within the 1km study area (but not within the DCO limits).

There are 4 Conservation Areas within the 1km study area (Newland Street, Witham, Kelvedon and Feering), none fall within the DCO limits.

Two Protected Lanes are also identified as being within 1km. Terling Hall Road lies to the north of the DCO limit at Hatfield Peverel and Hollow Road is north of Kelvedon High Street.

There are no scheduled monuments within these areas.

The heritage impact assessment summary tables (TR010060-000229-6.3) lists the applicant's assessments on the levels of impact, duration and mitigation measures.

There is moderate (negative) impact on two grade II listed buildings within a cluster along The Street in Hatfield Peverel. These are the Post Office Stores and Nos. 12 and 14 where the impacts are in relation to construction and there are no operational impacts identified. These negative impacts to their settings from noise, vibration, dust, visual impact and construct traffic. Many other high value buildings on The Street have also been assess as being slightly impacted by construction effects. The magnitude of effects for the remaining heritage assets in Hatfield Peverel were assessed as no change and the residual effect as neutral.

The residual effects for heritage assets in Witham were assessed as neutral.

At Rivenhall a minor magnitude of impact and moderate significance of residual effect is identified for Grade II\* listed Hole Farmhouse in relation to a number of construction

disturbance effects such as borrow pit extraction and Construction activity. Asset number 397 in the assessment table references Durwards Hall is assessed as moderate magnitude of change owing to operational effects from an offline section of the A12 being 150m away. However, the cultural value of the asset is low therefore the overall significance of residual effect is slight. Three other heritage assets, Pond Farmhouse, it's barn and Model Farm are assessed as being negatively impacted by noise, vibration, dust, visual impact and construct traffic during construction and minor changes to their settings during operation.

Due to diversion of a utility, circa 68 assets negatively affected by the Order Limits designation along the Kelvedon High Street area which are identified as having a minor magnitude of impact resulting in a slight significance of residual effect. This assessment also applies to the Kelvedon Conservation Area itself. Ewell Hall is a high value cultural asset positioned 160m away from the online widening works and borrow pits. There will be negative impacts from construction, such as noise, vibration and dust, plus there will be operation impact on the setting of the listed building therefore a minor magnitude of impact and slight significance of residual effect has been assessed.

Finally, Grade 2 Listed Prested Hall is a high value cultural asset minor magnitude of impact and slight significance of residual effect. A change was made to the access road to the hall in response to the Council's written response to preliminary design consultation.

## 6. Landscape and Visual

## **Development Plan Policies**

Policy LPP67 of the Adopted Local Plan addresses landscape character and features stating that BDC will take into account banks, ditches and natural features such as hedgerows, hedgerow trees and other structural elements contributing to the historic features of the lanes'.

Policy LPP65 of the Adopted Local Plan seeks to protect trees in the District, stating that 'trees which make a significant positive contribution to the character and appearance of their surroundings will be retained unless there is a good arboricultural reason for their removal for example they are considered to be dangerous or in poor condition'.

Hatfield Peverel Neighbourhood Plan Policy HPE1 requires development to 'have regard to and respect the character of the landscape and its sensitivity to change' and to 'enhance the locally distinctive character of the landscape in accordance with the Hatfield Peverel Landscape Character Assessment (2015)'.

Policy HPE5 seeks to protect the landscape setting of the village, requiring new development not to detract from the key landscape features of specifically identified views. Map 8 on page 56 of the Neighbourhood Plan identifies these views with View 6 and 5 being ones which are broadly affected by the DCO.

Kelvedon Neighbourhood Plan Policy NE5 also requires new development to account for indicative key views where any development or alterations should ensure key features of the views can continue to be enjoyed. The views indicated on Map 8 of page 70 of the Kelvedon Neighbourhood Plan are not directly affected by the DCO,

Feering Neighbourhood Plan Policy 6 contains policies pertaining Natural Environment and Green and Blue Infrastructure, including clear landscape policies. Criteria C specifically

requires development to protect and enhance the special features and overall character of the Blackwater river valley and the Langley green farmland plateau which are the two landscape character areas covering the entirety of the parish. Figure 11 and figure 10 of the Plan contain further details of the special features. In addition, Design Policy 2 seeks to preserve and enhance views of local landmarks, open space, green/blue infrastructure and the wider rural landscape.

## **Key Local Issues**

The Council's main concern is that the development does not have an unacceptable visual impact and would not harmfully affect the character and appearance of the area.

## Consideration

All DCO documents relating to the potential landscape and visual effects of the proposals have been independently reviewed by Wynne-Williams Associates (WWA). WWA are a practice registered with the Landscape Institute, with many years' experiences in landscape design and landscape and visual impact assessments.

The area in Braintree District included within the order limits is long and narrow, predominantly following the route of the existing A12 dual carriageway. The area extends in some areas to account for new junctions and localised effects on existing transport routes. The existing A12 carriageway is largely bounded by tree planting installed during the last major construction work on the route in the 1970s. In general, the route passes through rural land currently in use for agriculture. The exception to this is when the road passes close to the settlements of Hatfield Peveral, Witham, Rivenhall End, and Kelvedon.

The applicant has provided a Landscape and Visual Impact Assessment (LVIA) chapter within the submitted Environmental Statement. The LVIA sets an appropriate study area and describes the baseline qualities and current condition of local landscape character. It identifies locations (visual receptor viewpoints) from which the site can be viewed. The study area within Braintree District falls in national character area (NCA) 86, South Suffolk and North Essex Clayland. Locally, the relevant baseline assessment is the Braintree, Brentwood, Chelmsford, Maldon, and Uttlesford Landscape Character Assessment (Chris Blandford Associates 2006). The study area includes land within the following local landscape character areas:

- A9 Blackwater River Valley
- A9A Landscape Sub Area of the Blackwater River Valley
- B17 Terling Farmland Plateau
- B18 Silver End Farmland Plateau
- B19 Langley Green Farmland Plateau
- B2 Easthorpe Farmland Plateau
- B21 Boreham Farmland Plateau
- F1 Messing Wooded Farmland
- F2 Tiptree Wooded Farmland
- F3 Totham Wooded Farmland

## **Methodology**

WWA confirm the methodology used for assessing landscape and visual effects is robust, using a combination of the Guidelines for Landscape and Visual Impact Assessment 3rd Edition (GLVIA3) and the Design Manual for Roads and Bridges Environmental Assessment and Monitoring (DMRB). Criteria for assessment descriptors are sound and this is the appropriate methodology for a project of this type and scale.

The timeframes selected for assessing effects is during construction, at Year 1, and at Year 15 in both summer and winter. This is a thorough approach. The LVIA also identifies steps that would be taken to mitigate against any harm that would likely to arise from the implementation of the development. Shorter summaries of the key findings are included within the main landscape and visual chapter (Chapter 8), with detailed descriptions and assessments included within Appendix 8.2 and 8.3. WWA also confirm that a cumulative assessment has been undertaken using current methodology and included within Environmental Statement Chapter 16.

There is one aspect of the LVIA methodology that WWA would question. The accepted GLVIA3 methodology for assessing landscape sensitivity is to consider a combination of value and susceptibility to the proposed development. The assessment of most local landscape character areas within the study area is medium value, low susceptibility, and medium sensitivity. However, some are judged to have medium value, medium susceptibility, still leading to medium sensitivity. It is plausible that the authors of the chapter have exercised professional judgement to assess the same sensitivity, despite differing susceptibility ratings, but there is no justification offered for this discrepancy.

#### Landscape Character

The submitted LVIA chapter references the necessary precedent landscape character assessments and demonstrates a good understanding of the baseline character. This provides a solid base for considering the landscape effects.

During construction, effects on landscape character will be amplified due to the presence of heavy machinery, site compounds, haul roads, and construction lighting. Major earthworks including excavation of borrow pits and large changes in topography for the removal of redundant junctions and the creation of new junctions will be prominent. Effects will be further compounded in areas requiring large engineering interventions such as bridges. The submitted LVIA provides an accurate overview when it states, "The physical disruption and the presence of numerous uncharacteristic elements within these local LCAs would cause significant damage to the existing landscape character and affect tranquillity during construction".

Another considerable change to landscape character will be caused by the extent of proposed vegetation removal. Direct arboricultural effects are discussed separately in chapter 8, with this chapter focusing on the effects on character. Large areas of trees which currently bound the existing carriageway will need to be removed to facilitate widening and extensive changes to multiple junctions. The removal of large tree groups in quick succession will cause a significant change to the perception of landscape adjacent to the road. The existing trees currently provide a sense of time depth as well as better integrating steep roadside banks within the wider landscape.

In accordance with the Scoping Opinion for the Environmental Statement, assessment of landscape effects in relation to trees is limited to 'trees of status'. Trees of status comprise verified veteran, ancient and notable trees as defined by the Woodland Trust, potential veteran and ancient trees identified through a scheme-specific arboricultural survey, trees with TPOs and trees within conservation areas. This represents a small number of trees proposed for removal. It is the opinion of WWA that although many of the large tree groups proposed for removal are not trees of status, the extent of removals will have a localised significant effect on landscape character adjacent to the existing A12.

WWA have reviewed the detailed assessment of landscape effects included within the appendices of the LVIA chapter and are in general agreement with the majority of descriptions and assessments of landscape effects that will be experienced throughout the district. However, they do not agree with the assessments of effects by Year 15 within the following landscape character areas:

- A9 Blackwater River Valley
- A9A Landscape Sub Area of the Blackwater River Valley
- B19 Langley Green Farmland Plateau
- F1 Messing Wooded Farmland

These are the character areas that are likely to experience some of the greatest change due to the new A12 taking a considerably different course to the existing route. In each area by Year 15, the submitted LVIA assesses the magnitude of effect to be moderate adverse and the overall significance to be moderate adverse. It is the opinion of WWA that the significance of landscape effects will remain at a large adverse level in these character areas by Year 15. They believe that 15 years will not be enough time for the landscape mitigation to have established enough in these areas to reduce the overall change experienced.

#### Visual amenity

Assessment of visual effects have been informed by a digitally generated Zone of Theoretical Visibility (ZTV). Within the Braintree District the LVIA includes 24 viewpoints, representative of a range of receptor groups. 3 additional 'illustrative viewpoints' were included to assess longer distance views.

A sizable proportion of predicted visual effects will be experienced within the context of the existing A12 carriageway infrastructure. This acts to reduce the sensitivity of views experienced by some receptor groups. However, major deviations away from the existing route will cause a high level of visual change.

The submitted LVIA predicts significant visual effects for 21 of the 24 viewpoints within Braintree District during construction. This accurately recognises the amplified visual disruption that will be experienced throughout the construction phase of the proposals.

Mitigation planting will act to reduce visual effects over time, but this will not reduce predicted effects during the first year of operation after completion for most receptors. By Year 15 mitigation planting will have established. Nevertheless, significant visual effects are still predicted for 8 representative viewpoints within Braintree District by Year 15.

WWA visited all representative viewpoints and are in general agreement with most assessments of visual effects predicted for receptor groups. One point of disagreement is the effect on residential receptors at viewpoint 5 at Year 15. WWA believe effects will be

moderate adverse as opposed to the slight adverse assessment included within the LVIA. It is the opinion of WWA that the proposed mitigation will not reduce effects to the stated level.

Similar to their opinion of landscape character effects, WWA do not believe that the amount of tree removal has been fully considered within the submitted LVIA in relation to visual effects. Removal of large tree groups will lead to significant visual change, despite the trees not being recognised at trees of status.

In addition, WWA believe that the viewpoint location plan is difficult to use. It is drawn at a strategic scale, with extracts on photo pages too small to assist with locating each view accurately. This could be particularly difficult for members of the public to interpret.

The selection of longer distance illustrative viewpoints (B, C, and D within Braintree District) appears to be quite strange. Although they have probably been selected to represent particularly sensitive receptors, they do not accurately represent longer distance views towards the site in general. In fact, the site is not visible from any of these viewpoints. There are other longer distance views where receptors are likely to experience visual effects, albeit below a significant level.

WWA raised questions about the selection of viewpoints for photomontages. Some locations are helpful is understanding the predicted visual change brought about by the proposals, whereas other could have been better placed. An example being the view from public right of way Messing cum Inworth 17. However, this does not change the predicted level of visual effects on any receptor group.

## Adequacy of the application / DCO

By reason of its mass and scale, the proposal would lead to some significant adverse effects upon landscape character and visual amenity. In particular, the removal of existing trees in such high numbers will have a lasting effect. High levels of adverse change will also be caused by the introduction of new junctions and bridges, widening of existing bridges, and sections of the route that deviate from the existing A12.

The submitted LVIA chapter with the Environmental Statement does mostly provide an accurate assessment of the predicted landscape and visual effects. It correctly states that proposed mitigation planting will reduce effects for many landscape and visual receptors by Year 15 of operation. However, it is important to note that this conclusion is heavily dependent on the successful management and maintenance of proposed mitigation planting.

# Light pollution

## **Development Plan Policies**

Policy LPP52 of the Adopted Local Plan states that 'the design and level of any lighting proposals will need to be in context with the local area, comply with national policy and avoid or minimise glare, spill and light pollution on local amenity, intrinsically dark landscapes and nature conservation.'

LPP77 Applies to all Proposals for external lighting.

- a. The lighting is designed as an integral element of the development and shall be capable of adoption by the Highway Authority when it is on the public highway
- b. Low energy lighting is used in conjunction with features such as movement sensors, daylight sensors and time controls, and hours of illumination shall be controlled
- c. The alignment of lamps and provision of shielding minimises spillage, glare and glow, including into the night sky
- d. The lighting intensity is no greater than necessary to provide adequate illumination
- e. There is no loss of privacy or amenity to nearby residential properties and no danger to pedestrians and road users

Policy ECN5 of the Hatfield Peverel Neighbourhood Plan states that business are expected to consider the visual impact of their development on the area including signage, lighting and landscaping.

Policy NE7 of the Kelvedon Neighbourhood plan on pollution seeks to 'reduce the impact of light pollution in the Parish, the following area is recognised as a Dark Sky Area'. Limb g. requires that new development proposals should avoid artificial light levels which cause a significant increase in light pollution in the Dark Sky Area. On map 9 of the KNP, the Plan identified areas to the north-west of the parish (north of the Great Eastern Mainline) as the darkest areas to be maintained within the lowest level of light pollution.

Policy 12 of the Feering Neighbourhood Plan concerns Climate Change also states that the Plan will support developments that reduces the impact of light pollution in the Parish.

## Key Issues

Operationally, the online widened A12 is expected to generate lighting commensurate with existing levels. Offline bypasses, new junctions and new local roads would generate additional new lighting effects.

The applicant intends to submit planning applications for the main site compounds to the LPA separately, as part of a package of preliminary works, so the Council is content to allow local impacts to be considered there.

During construction, temporary lighting to support construction activities at borrow pits, laybys and worksites could result in adverse impact on residential privacy and amenity particularly in a countryside setting. The proposed temporary parking for Hatfield Peverel station is also expected require nighttime lighting for surface parking and for approach footpaths which could encroach on the rear of some residential properties. Embedded measures at detailed design stages will need to ensure impacts on these residential properties are minimised.

Updating the lighting on detrunked sections to meet higher standards outlined in policy LPP77 is a missed opportunity.

#### Adequacy of the DCO

The applicant has provided a Landscape and Visual Impact Assessment (LVIA) chapter within the submitted Environmental Statement. The submitted LVIA chapter of the ES states that new lighting will be installed at the following locations:

- junctions 21, 22 and 24
- the offline bypasses between junctions 22 and 23 and junctions 24 and 25
- overbridges and local road realignments
- roundabouts and tie-ins on de-trunked sections

During construction, new temporary lighting will also be installed at the 2 main compounds and 3 satellite compounds (not within nor adjacent to the district), the traffic management and logistics compound, four borrow pits, various laybys and worksites as per fig 2.3 of the ES (TR010060-000259). New temporary lighting will also be required for temporary surface parking and approach footpaths as part of the package of measures for accessing Hatfield Peverel station over a 6-month period.

Borrow pits E and F are to the south west of Witham, I is north east of Rivenhall End and J to the south of Feering. Due to the locations of sites E, I and F, these are not expected to have residential disturbance on any remaining properties following the CPO and demolition process. There are a handful of properties remaining which are close to borrow pits I.e. Dengie Farm and Foxmead road, Rivenhall.

Similarly temporary laybys and worksites during construction, as per fig 2.3 of the ES (TR010060-000259), could adversely impact a number of nearby residential privacy and amenity.

Although nighttime working impact is temporary, it is expected that all of these areas will feature 24 hour working and that they follow 'standard good construction practice' to reduce lighting impact levels, including construction vehicle lights, to meet Local Policy. The Council expects embedded measures such as temporary visual screening and consideration at detailed design stages which minimise impacts on these residential properties.

During operation, new lighting installation at junctions 21 and the offline bypass at Rivenhall End should be compliant with limbs c and d of policy LPP77. The assessment of operational effects of the scheme after 15-year is not agreed by the Council. Due to significant landscape change at nighttime as a result of new lighting installations at offline bypasses, junctions and local roads, the magnitude of effect should be moderate adverse and the overall significance to be moderate adverse on the following landscape character areas.

- A9 Blackwater River Valley
- A9A Landscape Sub Area of the Blackwater River Valley
- B19 Langley Green Farmland Plateau
- F1 Messing Wooded Farmland

Limb a. of LPP77 applies to new local roads and detrunked roads that would be adopted by the Local Highways Authority and means that lighting schemes for the detrunked sections would have to be to a standard acceptable to the Local Highways Authority to be policy compliant. The use of LED lighting as low energy lighting on offline bypasses, junctions and new local roads is compliant with policy LPP77 however the ES does not reveal if existing lighting will be altered on detrunked sections. Lighting is generally not of a scale appropriate for local roads, open countryside and a small village.

There is a potential opportunity to update the lighting on detrunked sections to meet the energy efficiency standards, lamp alignment, lighting intensity and amenity requirements of the policy. Specifically, the structure and lighting intensity of detrunked sections at Rivenhall End is not appropriate for the character of a small village.

The Council is satisfied that the proposal is not within the dark skies area identified at Policy NE7 of the Kelvedon NP and nor is any construction or operational aspects of the project likely to affect any part of the area. Lighting is expected to be compliant with the lighting policies in the Hatfield Peverel NP and Feering NP.

#### 8. Biodiversity and arboriculture

#### **Development Plan Policies**

Policy SP7 of the Local Plan requires all new developments to protect and enhance assets of natural value and to incorporate biodiversity creation and enhancement measures. It also requires an integrated and connected network of green and blue infrastructure.

Policy SP2 of the Adopted Local Plan secures financial contributions from relevant developments toward mitigation measures in accordance with the Essex Coast Recreational Disturbance Avoidance and Mitigation Strategy 2018-2023 (RAMS) (although the requirement for such contributions relates only to residential schemes). The Policy does however identify the importance of ensuring the safeguarding of these protected coastal sites.

Policy LPP63 of the Adopted Local Plan states that development must take available measures to ensure the protection and enhancement of the natural environment, habitats, biodiversity and geodiversity of the District. All developments are expected, where appropriate, to contribute towards the delivery of new Green Infrastructure to develop a network of multi-functional green spaces and natural features throughout the District.

Policy LPP64 of the Adopted Local Plan seeks to protect nationally or internationally designations of protected species, priority species and priority habitat. It states that in relation to sites of national or international designation 'sites designated for their international importance to nature conservation; including Ramsar sites, Special Protection Areas, Special Areas of Conservation, should be protected from development likely to have an adverse effect on their integrity whether they are inside or outside the District. Proposals which are considered to have a likely significant effect on these sites will require an Appropriate Assessment in line with European and domestic legislation'.

Proposals which result in a net gain in priority habitat will in principle be supported, subject to other policies in the Development Plan.

It goes on to state that 'Where priority habitats are likely to be adversely impacted by the proposal, the developer must demonstrate that adverse impacts will be avoided, and impacts that cannot be avoided are mitigated on-site. Where residual impacts remain, off-site compensation will be required so that there is no net loss in quantity and quality of priority habitat in Braintree District'. It also requires Ecological Surveys to be submitted by Developers to demonstrate that an adequate mitigation plan is in place.

Policy LPP64 also states that 'proposals resulting in the loss, deterioration or fragmentation of irreplaceable habitats such as ancient woodland or veteran trees will not normally be acceptable unless the need for, and benefits of the development in that location clearly outweigh the loss'.

Finally, the Policy also seeks to protect Local Wildlife Sites, Local Nature Reserves and Special Roadside Verges.

Policy LPP65 of the Adopted Local Plan covers Tree Protection. Preservation Orders may be placed on prominent trees which contribute to the character of the local landscape and have a reasonable life expectancy and trees which make a significant positive contribution to the character and appearance of their surroundings should in general be retained unless there is a good Arboricultural reasons for their removal. Trees of higher quality are also identified as being a material consideration in the planning process. Overall, the Policy seeks to retain and protect trees and to ensure that unnecessary, poorly considered or excessive tree loss is prevented.

Policy LPP66 of the Adopted Local Plan addresses the protection, enhancement, management and monitoring of Biodiversity. It states that 'Development proposals shall provide for the protection of biodiversity and the mitigation or compensation of any adverse impacts. Additionally, enhancement of biodiversity should be included in all proposals, commensurate with the scale of the development'. Some examples of enhancement are given such as watercourse improvements to benefit biodiversity and water quality, habitat creation and wildlife links.

Finally, LPP77 seeks to ensure that there is no harm to biodiversity, natural ecosystems and intrinsically dark landscapes from external lighting.

Policy HPE1 of the Hatfield Peverel Neighbourhood Plan also requires the retention and enhancement of trees, hedgerows and habitats including ancient woodlands. The Policy is explicitly supportive of the creation of new areas of habitat and requires developments to meet a number of criteria which include restricting planting to native species and ensuring the protection and enhancement of the natural environment, habitats, biodiversity and geodiversity of the Parish.

HPE1 also specifically supports the development of a network of wildlife corridors alongside public rights of way.

Policy NE3 of the Kelvedon Neighbourhood plan also seeks to maintain and enhance Green Infrastructure such that development wherever possible provides net gain for biodiversity. Any loss of green infrastructure, local biodiversity, priority habitat, wildlife of a Local Nature Reserve or protected species should demonstrate no alternatives, appropriate mitigation and as a last resort compensation measures. Green/blue infrastructure should be connected to allow freedom of movement for species through the site.

NE3 specifically refers to the use of suitable alternative nesting habitat where development results in a loss.

Policy 6 of the Feering Neighbourhood plan concerns the natural environment and green and blue infrastructure, it seeks to protect and enhance the natural environment and deliver biodiversity net gain, in addition to protecting existing habitats & species. Limb B of the policy supports creation of new green and blue infrastructure.

Paragraph 5.6.5 of the plan also states 'Biodiversity net gain can be increased by including the following provisions; boxes for bats, swifts and other birds, artificial badger setts, reptile mitigation strategies, hedgehog friendly fencing and bug hotels... along with the planting of native trees, hedgerows and sowing wild meadow mixes native to this part of the country.'

# **Biodiversity**

Essex County Council have a strong history of working in partnership with Braintree District Council on the protection and mitigation of adverse effects on nationally and internationally

designated sites under the Conservation of Habitats and Species Regulations 2017 (as amended). Their Place Services arm have dedicated Ecologists who have provided HRA screening assessment services for the vast majority of Neighbourhood Plans in the district, including Hatfield Peverel, Kelvedon and Feering NPs. ECC have also produced or are working to produce countywide guidance for Green Infrastructure Strategy and Local Nature Recovery Strategies to complement Biodiversity Net Gain. The Council will therefore defer to ECC on matters relating to biodiversity.

#### **Key Local Issues**

The Council notes and supports ECC who have stated that it currently does not consider that there is sufficient certainty that the Scheme would deliver effective and appropriate compensation and mitigation for potential ecological impacts for either the construction or operational phases of this Scheme. The Council shares concerns about impacts on protected species for which it is uncertain whether the mitigation is deliverable or appropriate.

As LPP66 requires that development proposals must mitigate or compensate adverse impacts on biodiversity, the mitigation must be deliverable to the satisfaction of the Council to be considered compliant with the Local Plan.

## Arboriculture

## Key Local Issues

Braintree District Council's main concern is that the development should not have an unacceptable impact on local amenity and that there should be no significant loss or harm to important trees, especially veteran trees and those with tree preservation orders in place.

The Council's appointed consultants have found that the aboricultural impact assessment is considered to be inadequate as further in-depth assessment is required of the potential impact, including to retained trees and 'trees at risk'. The applicant should also consider the impact on carbon loss due to removal of standing timber and the impact on local green infrastructure.

The mitigation plan also lacks detail so for the next stage of design development, the applicant should submit a detailed landscape management plan, including management responsibilities and a schedule of maintenance operations for all landscaped areas.

Unless these issues are addressed, the development does not meet the requirements of LPP65 which seeks to retain and protect trees and to ensure that unnecessary, poorly considered or excessive tree loss is prevented.

## Consideration

All DCO documents relating to the potential arboricultural effects of the proposals have been independently reviewed by the arboricultural team at Wynne-Williams Associates (WWA). WWA are a practice registered with the Landscape Institute and Karen Lacey is a professional member of the Arboricultural Association with 10 years post qualification experience.

The area in Braintree District included within the order limits is long and narrow, predominantly following the route of the existing A12 dual carriageway. The area extends to account for new junctions and localised effects on existing transport routes. The existing A12 carriageway is largely bounded by tree planting installed during the last major construction

work on the route in the 1970s. In general, the route passes through rural land currently in use for agriculture. The exception to this is when the road passes close to the settlements of Hatfield Peverel, Witham, Rivenhall End, and Kelvedon.

The applicant has provided an Arboricultural Impact Assessment chapter within the submitted Environmental Statement. This report is supported by a Tree Constraints Plan and a Trees at Risk Plan.

The arboricultural assessment has been undertaken at preliminary design stage and provides a reasonable, although 'high level' overview of the possible impacts of the proposed development on trees. A much finer grained assessment must be undertaken at design development stage to provide a more accurate assessment of the impact of development on the trees and tree groups. This must consider the implications of tree loss on local amenity and green infrastructure and the long-term effect on the health of trees at risk and trees in specials measure areas which are identified for retention.

#### Methodology

WWA confirm that the methodology used for the assessment of arboricultural effects is based on the standard approach outlined in BS 5837:2012, Trees in Relation to Design, Demolition and Construction – Recommendations. This is an acceptable approach and the standard is recognised and well-used in the industry.

The survey methodology used the standard recorded parameters from BS 5837:2012, with the following deviations from the standard approach:

Deviation from standard approach	Limitation
Mapping is based on ArcGIS data with accuracy of 5m. Plans are not based on a topographical survey	Tree positions are indicative only.  Greater accuracy will be required at design development stage for all trees shown for retention of possible retention
Where trees could not be accessed only partial data was collected	Where trees are likely to be impacted it will be necessary to obtain accurate and complete survey data for trees and tree groups
No assessment has been made of the number of trees in groups	The actual number of trees being lost cannot be quantified from the survey provided. It could range from 100's to 1000's. It is not therefore possible to assess carbon loss or determine the number of replacement trees to counter this loss.
Tree surveys do not record canopy clearance height or significant branch height and direction	This information is important for trees which are at risk of impact to allow an accurate assessment of impact and mitigation to be determined.
There is no accurate assessment of tree group root protection areas	This could lead to damage to roots where groups are retained in proximity to proposed work

There has been limited data collection of trees within the Extended Order Limits	An accurate assessment of trees within the extended Order Limit is required at design development stage to ensure adequate impact assessment and protection
Tree groups and woodland features have all been collectively surveyed and graded based on the largest single tree visible on the outer margins of the group/feature.	Tree groups or woodland features that are at risk must be re-surveyed to ensure appropriate impact assessment

The tree survey was undertaken in November 2020 and extended November 2021 due to an expansion of the Order Limits. Trees are dynamic features which adapt and change in response to climate and environment. It is possible that some of the tree survey data is already in need of updating. It is recommended that a more accurate and detailed survey of all trees which are likely to be impacted is undertaken at the start of the next design development stage to allow for accurate impact assessment and appropriate protection/mitigation measures.

## Response to Survey Findings

All veteran and ancient trees and all trees protected by a tree preservation order (TPO) have been given a category A (high value) rating. The assessment states that all category 'A' trees of high quality and value should be prioritised for retention. This is good industry practise and in accordance with the standard. However, the position of these trees on the current maps is not sufficiently accurate to allow for proper assessment of the impacts of the proposals on trees, especially those noted as at risk or in special measure areas.

The assessment states that category 'B' trees and tree groups (moderate quality and value) should be considered for retention where feasible ensuring they can be properly protected and that there is room for the tree's future growth. This is good industry practise.

Given the complex nature of the development proposals a more detailed assessment must be undertaken at the next stage of design to ensure proper assessment of category 'B' trees and tree groups in relation to retention and protection.

Category 'C' trees are not seen as a constraint on development.

WWA are in general in agreement with the survey findings and tree categorisation, however, following a site review, WWA do not agree that all highway trees should be categorised as 'C' low value on the basis that they offer only 'temporary/transient landscape benefit'.

There is a significant variation in age, size, amenity value and quality of trees which make up the defined Highways planting. Some of the groups are of much greater significance and have greater amenity value, due to their maturity and size than others. It seems inappropriate to classify all as category C tree groups. Many of these tree groups contribute significantly to local green infrastructure.

#### Tree Constraints

Tree constraints have been mapped at a scale of 1:2500 using the tree survey data and proposals plans.

At preliminary design stage an assessment of tree constraints can only be undertaken at a very coarse-grained level showing areas where tree removal is unavoidable. Mapping at a

scale of 1:2500 can only provide an overview of possible constraints but cannot provide the finer grained accuracy required to determine the true impact of development on trees which are shown for retention or possible retention.

At the next design development stage, further consideration must be given to the following factors:

- Morphology and disposition of the roots, when influenced by past or existing site conditions e.g. the presence of roads, hard surfacing, ditches, footings
- Topography and drainage
- Soil type and structure
- The likely tolerance of the tree to root disturbance or damage, based on factors such as species, age, condition and past management

#### Trees at Risk

The Trees at Risk baseline uses a course assessment based on a RAG system. This approach is acceptable, however, all trees identified as AMBER or GREEN must be reassessed at the next stage as a greater level of design detail is developed.

## Summary Impact Assessment

WWA are in general agreement with the arboricultural impact assessment findings. Whilst there is no recognised methodology for assessing the cumulative effects of tree loss, the impact on landscape character is considered further in Chapter 8 of the Environmental Statement. There is however no consideration in the arboricultural impact assessment of the following:

- Impact on carbon loss due to removal of standing timber
- Impact on local green infrastructure

The assessment of impact on individual trees is relatively robust but must be subject to a more detailed review once trees are accurately plotted on a topographical survey. It is reassuring that the proposed route has been in part adjusted to avoid high value trees. In total, 7 high quality trees (5 potential veteran and 2 TPO trees) and 29 moderate quality trees are shown for removal.

The assessment of tree loss is a numerical statistic which records groups as a single figure, irrespective of the size of those groups. Therefore, a group of approximately 300 trees is only 1 group, recorded in the same way as a group of less than 10 trees. This therefore under reports the actual number of trees being lost, irrespective of age, quality or value category. A total of 235 tree groups (43% of those surveyed) are being lost. The actual number of trees within these groups is not known.

A further 49 individual trees (7 high quality and 23 moderate quality) and 56 tree groups (3 high quality and 27 moderate quality) are at risk of removal.

A fine-grained assessment must be made at the next design stage to determine the viability of retaining and protecting these 'at risk' trees and tree groups.

## Matters for More Detailed Consideration

WWA are of the opinion that further in-depth assessment is required of the potential impact to retained trees and 'trees at risk' within, or in proximity to:

Borrow Pit Excavations

- Proposed Gas Diversion Works
- Road Diversions and Haul Roads
- Special Measure Areas (identified in section 4.9 of the Arboricultural Impact Assessment)

Particular attention should be given to assessing the impact on retained trees of:

- Proposed level changes and regrading
- Vehicle movements during construction
- Proposed drainage works and water table levels

## Review of Mitigation Proposals

WWA are of the opinion that mitigation planting could serve to re-provide visual amenity and green infrastructure but only after at least 15-20 years post-planting. However, there is insufficient detail provided on the type and extent of tree and hedgerow planting to be undertaken to mitigate tree loss. The following information is required at the next stage of design development:

- Planting plans showing location, species and quantity of new tree, shrub and hedgerow planting along the road corridor, at junctions and within borrow pit locations
- Planting schedules noting planting sizes, proposed numbers and planting densities
- Written specification to include soil preparation, planting methods and tree protection
- An implementation programme clearly indicating a timescale for the completion of all landscaping works
- A detailed landscape management plan, including management responsibilities and a schedule of maintenance operations for all landscaped areas covered for a minimum period of five years following implementation

## Adequacy of the application / DCO

WWA are of the opinion that the extent of tree loss is significant in terms of area and overall number giving rise to a potential adverse impact on local amenity and green infrastructure. The removal of so many trees along the road corridor will also impact local biodiversity and landscape character.

The submitted arboricultural chapter within the Environmental Statement only provides a very high-level, coarse-grained assessment of the arboricultural effects, limited by the lack of topographical accuracy and assumptions made about the relative amenity value of roadside tree groups. There is very limited detail in respect of the impact of levels changes, access and drainage works with trees only being noted as 'at risk' of removal or loss.

All trees noted as 'at risk' and those within 'special measure areas' must be re-assessed in line with BS 5837:2012 and plotted on a topographical survey at a scale of at least 1:500.

Mitigation planting will, in time, reduce the effects of tree loss however, it is important to note that this is heavily dependent on achieving successful establishment of trees and putting in place a long-term management and maintenance for the proposed tree planting.

#### 9. Geodiversity and soils

## **Development Plan Policies**

Policy LPP63 of the Adopted Local Plan states that development must take available measures to ensure the protection and enhancement of the natural environment, habitats, biodiversity and geodiversity of the District. A site is geodiversity importance is a specific designation protected as a Locally Designated Site under policy LPP64.

The supporting text at paragraph 6.29 states that 'the majority of agricultural land in the Braintree District is considered to the 'best and most versatile'. Whilst the Council will seek to develop poorer quality agricultural land, it is inevitable that due to the significant increased housing provision requirement, this will lead to unavoidable development on 'best and most versatile agricultural land'. This means that the vast majority of agricultural land in Braintree District is classified as grade 2 or 3 and it is inevitable that development will be on BMV land.

Policy HPE 1 ('Natural Environment and Biodiversity') of the Hatfield Peverel Neighbourhood Plan states that development should take into account the economic and other benefits of the best and most versatile agricultural land.

No relevant policies in the Kelvedon or Feering Neighbourhood Plans.

#### Key local Issues

Only one non-designated geological site has been identified in the vicinity of the site, this is Witham Spa (site of) (TL 8114 1537). This geological site is not identified by a geological feature but has a geological connection whereby the name Spa Road commemorates a historical period when Witham was an affluent Spa Town.

For soil, the applicant has completed a site specific local survey of agricultural land, in table 10.5 of the environmental statement (TR010060-000144-6.1) accounts for 544.5ha of agricultural land in total. Later, table 10.3 estimates that 84.5a of agricultural land (all grades) would be temporarily required for the construction phase – i.e. could not be farmed during the construction period. Of the total 544.5ha of agricultural land, 397.8ha 73% is classed as either grade 2 or 3a - I.e. BMV, and of this 332.5ha of BMV agricultural land would be permanently lost.

Despite the loss of hugely significant quantities of agricultural land, the proposed SuDS, biodiversity off-setting, open space compensation, landscaping and WCH links results in an overall enhancement of the natural environment for the purposes of policy LPP63. Hatfield Peverel NP policy HPE1 requires an economic assessment of lost agricultural land and this information is inadequate.

#### Adequacy of the Application/DCO

The environmental assessment concludes that loss of agricultural land is a very large adverse impact and the scheme is not compliant with the NPPF insofar as it would result in the significant loss of best and most versatile agricultural land. However, due to the inevitable necessity to develop on BMV land in the Braintree District, alternative route options would likely result in a similar loss.

Therefore, mitigation efforts should focus on embedded mitigation such as restoration to agricultural use of 56ha of temporary BMV landtake, further consolidating development/construction footprints or improving on sustainable use of soils.

## **Development Plan Policies**

ECC are the Minerals and Waste Authority for the Area. However, BDC Local Planning Policy does also contain a relevant section in relation to waste management.

Policy LPP52 of the Adopted Local Plan states that 'development proposals will incorporate measures for environmental sustainability throughout the construction, occupation and demolition of the development; in relation to energy conservation, water efficiency, waste separation (internal and external), climate change, flood resilience and resistant construction and the use of materials with low overall energy requirements'.

#### **Key Local Issues**

ECC states that they agree with the conclusions made in the Waste Infrastructure Assessment, namely that it is considered unlikely that the safeguarded waste management infrastructure sites proximate to the scheme would be impacted by the proposed scheme or vice versa (through noise, dust, odour, visual or light) to the extent that it would prejudice the efficient operation of these sites in line with their extant planning permissions. Indirect impacts are more commonly associated with more sensitive land uses such as residential developments that could limit the operation of these sites. Any impact is likely to be with regards to traffic during the construction phase, which could likely be mitigated through a transport management plan.

#### 11. Noise and Vibration

## **Development Plan Policies**

Policy SP7 of the Adopted Local Plan requires all new development to protect the amenity of existing and future residents with regard to inter alia noise and vibration.

Policy LPP70 of the Adopted Local Plan addresses emissions and pollution. It states that new development should prevent unacceptable risk from all emissions and other forms of pollution including noise pollution. Development will not be permitted where cumulatively or individually (after mitigation) there are likely to be unacceptable impacts to the general amenity and tranquillity of the wider rural area.

Policy FI1 of the Hatfield Peverel Neighbourhood Plan is a transport orientated policy however it addresses noise more generally stating that 'proposals for all new developments should prevent unacceptable risks from emissions and all forms of pollution (including air, water and noise pollution) to ensure no deterioration of current standards. All applications for development where the existence of/or potential for the creation of pollution is suspected must be supported by relevant assessment'.

Policy NE7 of the Kelvedon Neighbourhood plan on pollution generally states that 'development proposal should avoid any significant increases in... [inter-alia] noise pollution...' and requires that proposals demonstrate potential risks to human health and environment, and that risks will be adequately addressed by appropriate avoidance, alleviation and mitigation measures.'

Limb I further states that 'Development proposals which could result in a significant increase in noise pollution should demonstrate the potential impact on the surrounding area and proposed mitigation measures to address these impacts.'

Feering Neighbourhood Plan supports development proposals that provide noise pollution assessments and a mitigation strategy in accordance with Policy 12 on Climate Change and Sustainability.

#### Key local Issues

The Council's main concern is that development would not result in unacceptable increased in noise and vibration, having taken into account any mitigation.

## Adequacy of the Application/DCO

The application has been assessed by the Council's consultants Entran who are specialists in air quality, odour, noise & vibration and EIA.

The stakeholder consultation process is comprehensive. We do not have any comments on this issue. We do not have any comments on the Legislative and Policy Framework. The Assessment methodology for both construction and operational noise is acceptable.

#### Potential Impacts

#### Construction Noise

Construction impacts have been considered upon the calculation methodology outlined in BS5228:2009+A1:2014 'Construction Code of Practice for noise & vibration control on construction & open sites' and assumed construction activities and associated plant. Inevitably, the construction related noise impacts are an indication of potential effects and therefore the reported impacts must be treated with caution.

The construction related activities will unavoidably have noise impacts on some receptors along the scheme route. The number of receptors will be within the LOAEL and SOAEL. However, it is reported that a there will be a number of locations where potential noise levels are above SOAEL both during and at night. Mitigation measures revolve around the use of BPM and noise monitoring is recommended in the Noise & Vibration Management Plan. This plan relies on the Principal Contractor to assess the construction noise surveys and act where appropriate. The surveys would only be conducted on an ad-hoc basis when works are likely to cause significant effects or when a complaint is received. However, we believe it would be prudent to have routine surveys and share the data with the Environmental Health Officer of the BDC.

Overall, the construction noise assessment, in our opinion, does not have any omissions and is therefore acceptable. Construction noise is temporary and will not have a detrimental effect in relation to BDC noise policies.

## Operational Noise

The operational noise level methodology is that outlined in DMRB LA111/CRTN. The significance of effects assessment is also based upon LA111 (DMRB) with a further assessment based upon the Noise Insulation (Amendment 1988) Regulations 1975 (NIR). We consider this to be appropriate. The assessment considers the baseline for Year 2019 and also considers the Opening Year (2027) and Design Year (2042) (i.e. 15 years after opening year and usually the year of maximum traffic growth). For each future year (2027 and 2042), the assessment considers the DoMinimum and the Do-Something scenarios. We consider this to be appropriate.

A noise model has been constructed to calculate the noise impact at all receptors in the study area. However, the ES noise chapter does not specifically iterate that the baseline surveys have been utilised to validate the noise model.

A low-noise surface has been assumed for the new carriageways in certain sections with a RSI of -6.5 dB and where the existing carriageway is resurfaced (as part of the routine maintenance programme), it will also have the same low noise surface. It is assumed that for the Design Year (2042), all carriageways will have a low noise surface. BDC should seek reassurance from the scheme promoter that the low noise surface will in place for the year 2042. Further, the low noise surface tends to lose the noise 'benefits' with age. BDC should request further information from the scheme promoter on how often the road will be resurfaced against the probable deterioration of the noise benefits of the surfacing.

In addition to the low noise surfacing, several noise barriers have been included in the assessment. The noise chapter reports that with mitigation measures in place, 'The number of dwellings with an increase in noise of moderate or major has fallen from 133 to 71 during the day and from 82 to 57 at night. Those with a moderate or major decrease in noise has increased from 682 to 791 during the day following the additional mitigation. At night those with a moderate or major decrease in noise has increased from 609 to 721'. The chapter goes on detail the mitigating factors to reduce the noise impact on noise sensitive receptors.

In terms of the NIR, 3 dwellings provisionally qualify for additional sound insulation. BDC will need the scheme promoter to confirm this before the commencement of the scheme construction.

Overall, we find the operational noise assessment to be thorough subject to above mentioned assurances. Several mitigating measures have been formulated to reduce the noise impact on noise sensitive receptors as advocated by BDC policies.

### 12. Human health and population

## **Development Plan Policies**

Policy SP6 of the Adopted Plan states that the Council will 'will work with relevant providers and developers to facilitate the delivery of a wide range of social infrastructure required for healthy, active and inclusive communities, minimising negative health and social impacts, both in avoidance and mitigation, as far as is practicable.' And 'Require new development to maximise its positive contribution in creating healthy communities and minimise its negative health impacts, both in avoidance and mitigation, as far as is practicable.'

The Sustainable Transport policy, LPP42 states that 'Development which would adversely affect the character of, or result in loss of existing or public rights of way, will not be permitted unless alternative provision or diversions can be arranged which are at least as attractive, safe and convenient for public use.'

It supports the development and enhancement of the cycle network and appropriate provision for safe, accessible, direct and convenient design and layout for routes within new development. PROW should be safeguarded and where possible upgraded to multi-user routes for walking cycling and horseriding. It also requires development to be consistent with the 'Essex Transport Strategy' Local Transport Plan for Essex (or its successors), for Developers to produce Travel Plans and Transport Assessments and it confirms that the Essex County Council Transportation Development Management Policies provide further detail on requirements relating to accessibility and access.

Policy LPP49 of the adopted Local Plan requires that development proposals assess their impact on health and wellbeing and promote health improvement activities. The policy emphasises the creation of opportunities for physical activity through the provision of leisure and recreation opportunities and spaces for informal activity.

LPP50 on Open Space, Sport and Recreation requires the provision of open space in accordance with the Open Spaces SPD, or its successor. It further states that existing open space shall not be built on unless a robust and up-to-date assessment has been undertaken demonstrating why the space is surplus to requirements. In a planning application to the Council, the Council would have weighed any benefits being offered to the community against the loss of open space. Assessments for the above should account for erosion of recreational function, character, encroachment from development, protecting and enhancing the PROW network and biodiversity.

LPP63 concerning Natural Environment and Green Infrastructure encourages development to contribute to the delivery of Green Infrastructure to enhance networks of multi-functional spaces and natural features.

Hatfield Peverel Neighbourhood Plan policy F1 concerns Transport and Access. It requires new development to provide safe pedestrian and cycle links to transport hubs and to local and national routes. There is a specific requirement for the provision of safe links between Hatfield Peverel and Lodge Farm in Witham.

Policy MA3 of the Kelvedon Neighbourhood Plan also titled Transport and Access supports development which improves connectivity within the village. Additionally, limb D of Policy DE2 states that 'For cyclists, safe and attractive cycle routes to link up, where practical, with existing cycle routes in the village, or surrounding villages, will be provided.'

Policy 9 of the Feering Neighbourhood Plan regarding Moving Around seeks to protect the highway network for the safe and efficient movement of people and goods by all modes of travel, provide and enhance walking, cycling & horse-riding networks, including Public Rights of Way, (Figure 12). All development should demonstrate that there is no severe cumulative detrimental impacts on the existing or proposed highway in congestion terms or provide appropriate mitigation measures and not have a severe detrimental impact on air quality and public health as a result of increased traffic flows and congestion. Finally, where new and improved infrastructure is provided it should make adequate provision for safe crossing points and corridors for wildlife and equestrian use.

### Key Issues

The primary concern from the BDC perspective is potential negative impacts of noise, air and light pollution on human health and restrictions of access to open spaces and the PROW network during construction and during the operational stage.

During construction, the Council are particularly concerned about the effects of construction on mental wellbeing and sleep disturbance for occupants of residential properties, including noise, air pollution and night-time light from construction, diversions, movements of construction vehicles and HGVs. The severity of adverse impact from diversions, noise, air pollution and lighting are covered in chapters and 14 of this report. Neither the ES nor the Outline Construction Traffic Management Plan (TR010060-000362-7.7) provide enough details on potential movements of construction traffic to make a conclusion.

## Population

Chapter 13 of the ES (TR010060-000147-6.1) outlines the baseline information including the population of settlements along the A12 corridor and used the latest data available at the time which was Census 2011. This is over 10 years old and no longer accurately reflects the baseline population of the area.

Census 2021 ward summary populations for wards in Braintree District were published in January 2023. These wards do not align with the use of 'Built Up Areas + Parishes' in Table 13.5 of the ES (Settlements and usual resident population) or wards during 2011 therefore a direct comparison is difficult to make. The town of Witham, for example, has a 2021 baseline population of 27,394 which is 8% higher than 25,353 as quoted in Table 13.5. The applicant should make use of Census 2021 to supersede the 2011 Census or 2021 population estimates where this is possible.

Population of wards in Braintree District Census 2021:

2022 ward	2021
E05010365 : Bocking Blackwater	10,301
E05010366 : Bocking North	5,221
E05010367 : Bocking South	6,754
E05010368 : Braintree Central & Beckers Green	9,584
E05010369 : Braintree South	6,558
E05010370 : Braintree West	6,166
E05010372 : Coggeshall	5,878
E05010374 : Great Notley & Black Notley	10,101
E05012964 : Hatfield Peverel & Terling	5,887
E05010379 : Kelvedon & Feering	5,749
E05010380 : Rayne	2,887
E05012965 : Silver End & Cressing	7,047
E05012966: Witham Central	6,728
E05012967 : Witham North	7,483
E05010388 : Witham South	6,386
E05010389 : Witham West	6,797

## Walking Cycling and Horseriding

#### Key Issues

The Council's main concern is that the development should safeguard the PROW network and where appropriate upgrade it to multi-user routes for walking cycling and horseriding. The Council supports the principles of LTN 1/20 and acknowledge it's status as guidance and not policy.

- Cycle infrastructure must join together, or join other facilities together by taking a holistic, connected network approach which recognises the importance of nodes, links and areas that are good for cycling.
- Major 'iconic' items, such as overbridges must form part of wider, properly thoughtthrough schemes.
- Cycle routes must flow, feeling direct and logical.

These principles chime with Local Plan Policy LPP42 which requires safe, accessible, direct and convenient design and layout for routes and Kelvedon NP Policy MA3 for safe and attractive cycle routes.

# Assessment of impact

The table below shows PROW routes and some key paved routes in the Braintree District from west to east, starting at Hatfield Peverel parish and compares the applicant's assessment with our own.

ROUTE	CONSTRUCTIO N / OPERATION	DESCRIPTION	IMPACT (reference to human health guidance)
Footpath PROW 95_34 Hatfield Peverel 44	Construction	Footpath linking the Street with open countryside to the north. Nearby noise receptor 44 (Millfields) are a likely indication of the disruption to be caused by construction activity. Construction will require temporary closure for a short as possible period of time but it remains unclear how long this will be.	ES Assessment: none  BDC Assessment: Likely minor negative impacts due to disruption
Bury Lane Bridge	Construction	Closure for six months within the construction period to allow for rebuilding causing severance for this period. Phased with Station Road.  Mitigation proposed is a temporary diversion of users to Station Road.	ES Assessment: Very Large Adverse (overall) BDC Assessment: Agreed
Station Road Bridge	Construction	Closure for six months within the construction period to allow for rebuilding causing severance for this period. Phased with Bury Lane.  This is the most direct and frequently used route for residents to access the Station or Village facilities.  Mitigation proposed is a temporary footbridge via Swan Close and the rear of High Clere which is supported and a shuttle bus for residents with requiring accessibility. Shuttlebus should have operate a unfixed route to maximise benefits. An alternative route via Wellington Bridge is also available.	ES Assessment: Very Large Adverse (overall)  BDC Assessment: Agreed

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Wellington Road Bridge (B1117)	Construction	An important and frequently used route for a handful of residents at the Vineyards but mainly used by active travellers as part of the WCH route between Hatfield Peverel and Witham.  During construction mitigation requirements would result in substantial increase in construction traffic and traffic accessing a temporary station carpark. Substantial construction activities in relation to the development would cause noise and disruption to people travelling between Hatfield Peverel and Witham.  For an unspecified period of time, this bridge will be demolished and traffic will be rerouted via a temporary southern arm link to J21.  Post construction there would be a substantial increase in traffic and it is unclear how the WCH users are expected to navigate the Duke of	ES Assessment: Very Large Adverse (overall) BDC Assessment: Agreed
		Wellington roundabout.	
Footpath PROW 90_02 Hatfield Peverel 2	Construction	Footpath linking Wellington Bridge with open countryside north of Hatfield Peverel.  Draft CTMP (TR010060-000362-7.7) states that there would be temporary realignment 215m but there is little further detail or assessment.  Substantial construction activities in relation to the development would cause noise and disruption to users. This would likely have negative impacts due to loss of amenity discouraging recreational use and access to the open countryside.  Operational the walking and cycling accessibility is the same or similar to provision at baseline.	ES Assessment: None Operational: None BDC Assessment: Minor negative construction impacts due to disruption
MOLLESTOR	0		FO A
WCH between Wellington Bridge, Hatfield Peverel to Lodge Farm Witham	Construction and Operation	Substantial construction activities in relation to the development would cause noise and disruption to people travelling between Hatfield Peverel and Witham for an unspecified period of time. This path will be rerouted to use a temporary southern arm link to J21 during construction which would likely have negative impacts due to discouraging active travel habits.  It is unclear if there would be sufficient lighting for active travel uses in the dark during construction and post-construction.  For the ES assessment, we would suggest that operational effects are Neutral not Moderate Beneficial as this WCH link is already in active use and there would be no improvement.	ES Assessment: Moderate Adverse (overall) Operational: Moderate Beneficial (overall)  BDC Assessment: Minor negative construction impacts due to disruption, neutral operational impacts.
Footpath PROW	Construction	Previously accessible via Latney's Bridge. Link	ES Assessment:
90_25 Hatfield Peverel	and Operation	will be severed during construction and will require diversion to access in future.	Slight beneficial
29		require diversion to access in future.	BDC Assessment:
		Reduced access to countryside Wickham Bishop Road/Willowmead Carehome but for most residents this is mitigated by improved access to Maldon Road via PROW 121_95.	Minor negative construction and operational impacts due to disruption.
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		For most recreational users there would be less attractive accessibility as a result of a 200m+diversion and several road crossings post construction.	
Footpath PROW 121_95 Witham 95	Operation	Restoration of PROW severed as WCH route by the original A12 bypass, including linking Gershwin Boulevard with Olivers Drive. Post construction there would be increased opportunities for residents to access the open countryside and undertake circular walks.  A missed opportunity here to reduce the number of zig-zag foldbacks to improve attractiveness to cyclists.	ES Assessment: Slight beneficial BDC Assessment: Agree
Olivers Bridge (Maldon Road) and Benton Bridge (Blackwater Rail Trail)	Construction	Oliver's bridge to remain open where possible and cycle route under Benton Bridge to be diverted via Blue Mills Hill, Maldon Road, and Templar Knights asphalt walkthrough.  BDC would prefer if Oliver's Bridge would be upgraded to remains open at all times given the importance of retaining access for residents and businesses on Maldon Road.  The effects of the closure of Cycle Route 16 and the suitability of the proposed diversionary route appears not to have been assessed. In particular, an assessment of the traffic lights at Maldon Road and Blue Mills Bridge are not suitable for cycle diversion.	ES Assessment: slight beneficial (Overall) BDC Assessment: Minor negative
Footpath PROW 121_101 Witham 101 Brain Bridge	Construction	Access to Whetmead Nature Reserve will be closed intermittently for a period of 17 (or 12) months. Closure will prevent access to circular walking routes and recreational activities having negative temporary effects, there will also be significant medium to long term effects on human health due to reductions in healthy habits.  The effects on the ES assessment is agreed however there is little proposed by way of mitigation. It is unclear how closure will be communicated to residents and users of the LNR.	ES Assessment: Very Large Adverse BDC Assessment: Agree
Footpath PROW 121_103 Witham 103	Construction and Operation	This is a little used at-grade crossing across the A12. During construction and post-construction the footpath between Freebournes Road and Footpath 103 will be closed.	ES Assessment: slight beneficial BDC Assessment: Agree

Little Braxted Bridge NCN 16 Witham 121	Construction and Operation	Reprovision of route following demolition of Colemans bridge with grade separated upgrade to dedicated WCH little Braxted bridge for access south to link Bridleway 105_29. Includes Toucan crossing of new section of Junction 22 road link. Improved access to open country side and increased opportunities for circular walks.  Not clear if new cycling, footway and facilities would also be suitable for horseriders. Missed opportunity to create a straightened descent on south side to match the north side, otherwise new segregated route is more attractive to recreational users of the WCH route.	ES Assessment: slightly beneficial BDC Assessment: Agree
Witham to Rivenhall	Operation	Substantial construction activities in relation to the development would cause noise and disruption to people travelling between Hatfield Peverel and Witham. For an unspecified period of time, this path will be rerouted to use a temporary southern arm link to J21. This would likely have negative impacts due to discouraging active travel habits.  We are unclear if there would be sufficient lighting for active travel uses in the dark during construction and operational.  For the assessment, we would suggest that operational effects are Minor Positive not Moderate Beneficial as this WCH link is already in active use and there would be no improvement.	ES Assessment: Moderate Adverse Operational: Moderate Beneficial  BDC Assessment: Agree Operational: Minor positive, missed opportunities identified
Oak Road crossing on detrunked A12 at Rivenhall	Operation	Creation of a new WCH Toucan crossing on detrunked A12 is a benefit compared to the baseline by reducing historic segregation of Rivenhall End, encouraging active travel and improving access to the open countryside however the final detrunking remains an area of disagreement.  There are currently missed opportunities to reduce the carriageway to one lane in each direction which would reduce the length of roads crossed by 50% thus encourage and further improve the potential health benefits of WCH in this area. A staggered crossing is not considered to be necessary for modelled traffic flows and a straight crossing would be preferred. This could be a significant benefit compared to the baseline.	ES Assessment: slight beneficial BDC Assessment: Agree, missed opportunities identified
Henry Dixon Road Bridge	Construction / Operation	Es assessment: slight beneficial  Realignment of Henry Dixon Road west would result in a detour of 500m which is a minor negative impact on accessibility of the countryside however this is offset by footpath width and surface improvements.	Es assessment: slight beneficial BDC Assessment: Agree
Rivenhall 45, 46 and 36 Footpath 105_36 Footpath 105_46	Operation	Series of footpaths East of Rivenhall, while 36 will be severed by the new A12, 46 will be extinguished entirely by an attenuation pond.  46 formed a circular walking route and should be mitigated by the creation of a new circular walking route around the attenuation pond. Route should connect with Rivenhall to Kelvedon WCH/Detrunked A12 at eastern and western ends.	Es assessment: slight beneficial BDC Assessment: moderate negative

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Snivellers Lane Footpath 92_27 Kelvedon 27	Operational	Provision of a new crossing to the A12 to link with active travel route north of existing A12 where currently there is none. This will address existing severance and have significant beneficial effects by improving access to the countryside. The new crossing will become a vital link between Essex Fire HQ and sustainable transport options north of A12.  A missed opportunity here to reduce the number of zig-zag foldbacks to improve attractiveness to cyclists.	Es assessment: moderate beneficial BDC Assessment: Agree
Footpath PROW 246_19 Kelvedon 30	Construction	Footpath to be extinguished and relocated south. Connection to London Road to be retained.	Es assessment: moderate beneficial
			BDC Assessment: Neutral impacts during construction and operational
Highfields Overbridge (Kelvedon) (Maldon Road)	Construction	Demolition and relocation of replacement crossing to the west. Disruption is expected to have negative impacts to recreational users and therefore minor negative effects are expected. Post construction there is no change to accessibility.	Es assessment: none  BDC Assessment: minor negative Operational: Neutral impacts
Ewel Overbridge Kelvedon 25	Construction	Realignment to the east and demolition of previous structure. Demolition and relocation of replacement crossing to the west. Disruption is expected to have negative impacts to recreational users and therefore minor negative effects are expected. Post construction there is no change to accessibility.	Es assessment: none  BDC Assessment: minor negative Operational: Neutral impacts
New Footpath link between Kelvedon 15 and Inworth Road.	Operational	New Footpath link created north of J24 parallel with the southern edge of the Domsey Brook. New recreational route would improve access to the open countryside and have positive benefits for human health.	Es assessment: none BDC Assessment: moderately positive
Hinds Bridge (Inworth Road)	Operational	Hinds bridge is a pinch point without a segregated pavement.  There is a missed opportunity here to link the strategic development at Feering with the new footpath.	Es assessment: none BDC Assessment: neutral
Prested Hall Access Road Footpath PROW 78_15 Feering 18	Construction and operational	Es assessment: moderate beneficial  Realignment and demolition of Prested Hall Overbridge to accommodate a new road and WCH access from Threshelfords to Prested Hall. It is unclear if closures will be required during construction. Disruption is expected to have negative impacts to recreational users and therefore minor negative effects are expected. Post construction there is no change to accessibility.	Es assessment: moderate beneficial  BDC Assessment: minor negative during construction, moderate positive operational
Footpath PROW 78_15 Feeling 15		Es assessment: none  Footpath from Prested Hall Farm to be extinguished and diversion routed over 1.5km via	Es assessment: none

	Prested Hall overbridge. This severance is likely to have severe negative impacts on accessibility and negatively impact on human health.	BDC Assessment: significant negative
Feering to Marks Tey	Es assessment: none  Substantial construction activities in relation to the development would cause noise and	Es assessment: none BDC Assessment:
	disruption to active travelling between Feering and Marks Tey for an unspecified period of time.	minor negative Post Constuction: neutral impacts
	Operationally a detrunked route with lower noise and air pollution would be more attractive to active travellers and recreational users.	

# Adequacy of DCO

Overall, the development would result in operational net positive benefits on community cohesion and severance particularly where new routes, new junctions or detrunking results in a significant decrease in traffic levels contributing to environmental improvements for WCH users. Good design, lighting and landscaping also contribute to the improvement of the WCH environment.

Elimination of severance and improved access within and between communities and community facilities are significantly beneficial as the environmental improvements from easing traffic levels, i.e. lower air pollution, noise and reducing hazards will have health benefits and for non-motorised users. General relief from severance occurs at the villages of Rivenhall End, Kelvedon and Feering.

New Footpath links which connect existing settlements to the open countryside open up opportunities for recreational walking and cycling, while reducing the severance effects of the highway. These will have minor to moderate positive effects for human health as the attractiveness and accessibility of exercising and open space or the open countryside.

The villages Rivenhall End, Kelvedon and Feering and the town of Witham benefit from the reconnection or creation of new routes which are beneficial to recreational users:

- Reconnection of PROW 121\_95/ECC Witham 95 to Gershwin Boulevard
- PROW 121\_103/ECC Witham 103 at Freebournes Road and Little Braxted Bridge/ECC Witham 121
- Replacement Henry Dixon Road Bridge at Rivenhall
- Creation of new route between ECC Kelvedon 15 and Inworth Road

There are likely minor negative impacts on a number of recreational PROW during construction, which is often for indeterminable period of time. BDC agrees with the very large adverse effects and mitigation to limit disruption to active travel routes, particularly within Hatfield Peverel, between Hatfield Peverel and Witham and between Rivenhall End and Witham. Disruption to these routes will have minor negative impacts on human health through disincentives to healthy habits, weight gain and poorer mental health. In general, the longer temporary closures or lengthy diversions are in use, the greater the adverse effects.

There are significant negative impacts during construction on the following routes:

- Routes in Hatfield Peverel
- PROW 121\_101 / Witham 101 Whetmead

Post-construction the divergence or extinguishing of the following routes is noted as a significant negative:

- Rivenhall 45, 46 and 36 / Footpath 105\_36 / Footpath 105\_46
- Footpath PROW 78\_15 / Feering 15

## 13. Road drainage and water environment

# **Development Plan Policies**

Essex County Council are the Lead Local Flood Authority for the area and provide the relevant statutory consultee advice to BDC in the assessment of all relevant planning applications within the District. The County Council are also a host authority for the DCO and BDC have undertaken he process. ECC will provide their assessment on flood risk in their own LIR and BDC will therefore defer to ECC on this matter.

For completeness however, relevant Development Plan Policies are identified below.

Policy SP7 of the Adopted Local Plan requires all development to include flood mitigation measures.

Policy LPP74 of the Adopted Local Plan addresses flood risk and surface water drainage in detail. It requires development wherever possible to avoid areas at risk of flooding and to be located within Flood Zone 1. Where it must lie within higher risk areas sequential and exception tests are required and development should be designed appropriately. Specific requirements for a minimum 8m wide undeveloped buffer strip alongside Main Rivers (Environment Agency consultation being triggered if this is breached) and 3m buffer strip on at least one side of an Ordinary Watercourse are also included.

Policy LPP76 of the Adopted Local Plan requires development to incorporate SUDs systems where appropriate and to the County Council's requirements.

Hatfield Peverel Neighbourhood Plan Policy HPE 6 states that 'any proposed development should include measures to mitigate against future risk to properties, residents and wildlife from flooding and be located away from areas prone to flooding' and that the use of SUDs is expected on all sites with infiltration as the preferred discharge option.

Policy NE8 of the Kelvedon Neighbourhood Plan supports new development which reduces flood risk including the use of SUDs provided there is a long term maintenance and management plan. Supported measures include permeable pavement where appropriate, natural, integrated flood water management and multifunctional attenuation basins.

Feering Neighbourhood Plan Policy 12 on Climate Change and Sustainability requires that developments demonstrates potential risks to the human and natural environment and avoid, alleviate and mitigates any risks. A Water pollution assessment and mitigation strategy is expected to be submitted by the applicant.

## 14. Climate Change

## **Development Plan Policies**

LPP71 Applicants will be expected to demonstrate that measures to lower carbon emissions, increase renewable energy provision and adapt to the expected impacts of climate change have been incorporated into their schemes and demonstrate the principles of climate change mitigation and adaptation into the development.

LPP72 The Local Planning Authority will encourage appropriate energy conservation and efficiency measures in the design of all new development. Such measures could include site layout and building orientation, natural light and ventilation, air tightness, solar shading, reducing water consumption and increasing water recycling in order to contribute to the reduction in their total energy consumption.

Opportunities for decentralised energy networks will be encouraged and promoted where possible and where they conform to other Local Plan policies, in order to reduce carbon emissions.

All new non-residential buildings with a floor area in excess of 500sqm shall achieve a minimum BREEAM rating (or its successor) of 'Very Good'.

## **Key Local Issues**

The Council's main concern is that the development should demonstrate that the principles of climate change mitigation and adaptation have been adopted, particularly at the main compounds and the traffic management and logistics compound.

#### Adequacy of DCO

The applicant intends to submit planning applications for the main site compounds to the LPA separately, as part of a package of preliminary works, so the Council is content to allow impacts on Climate Change to be considered there.

## 15. Other Matters

#### Road network and traffic.

## **Development Plan Policies**

Essex County Council and National Highways are the Statutory Highway Authorities for the area therefor BDC will rely on these organisations to provide assessments of all relevant planning applications within the District. The County Council are also a host authority for the A12 to A120 widening DCO and BDC have worked alongside County Highways Officers from the outset of the process. ECC will provide their assessment on highway matters in their own LIR and BDC will primarily therefore defer to ECC on this matter.

For completeness however, relevant Development Plan Policies are identified below.

Policy SP6 on Infrastructure and connectivity limb B supports new and improved road infrastructure and strategic highway connections to reduce congestion and provide more reliable journey times along the A12, specifically improved access to and capacity of junctions on the A12 and other main roads.

Policy LPP43 of the Adopted Local Plan relates to vehicle parking and requires that provision is made in accordance with the Essex Parking Standards (2009), or it's successor.

Policy LPP69 of the Adopted Local Plan relates to Protected Lanes and states that the Council 'will conserve the traditional landscape and nature conservation character of roads designated on the Proposals Map as Protected Lanes, including their verges, banks, ditches and natural features such as hedgerows, hedgerow trees and other structural elements contributing to the historic features of the lanes'. Proposals which fail to do this or which would 'generate traffic of a type or amount inappropriate for the traditional landscape and nature conservation character of a protected lane, will not be permitted'.

## Key Local Issues

#### Hatfield Peverel Bypass

One of the main concerns from the BDC perspective is the operational performance of Duke of Wellington roundabout after construction is completed. The Council shares aspirations with Essex County Council and Maldon District Council to provide relief to the junction of B1019 / B1137, Duke of Wellington roundabout.

The Council notes ECC's conclusions on the traffic model has been subject to changes in flow as it was updated and refined. We share concerns about the fluctuations in traffic flows and accuracy of the forecasts therefore we support additional monitoring measures during operation for a reasonable period of time.

The Councils agree that the new junction (coupled with the closure of Junctions 20a and 20b) will attract more traffic and are not convinced that the modelling is accurately reflecting current and future congestion on the network and it may, therefore, be underrepresenting the impacts. The Duke of Wellington junction currently operates close to or above capacity at peak times, and the performance of the junction is expected to deteriorate as demand increases in the future.

The arrangement of Junction 21 is such that all traffic from Hatfield Peverel will route to/from the A12 via the Duke of Wellington junction, and we believe there is a need for a Maldon Road bypass in future to accommodate forecast growth and ensure local communities can fully benefit from the A12 widening project.

While the Council supports the planned widening of the verge platform at the on-slips to enable the slip roads to be more easily widened in the future to accommodate a future bypass, in practice widening of these on-slips at a later date will still represent a significant, disruptive and costly endeavour that will represent a major challenge to delivering a bypass.

The Council concurs with ECC and request NH to build widened on-slips at the junction from the outset through an amendment to the design of Junction 21.

The Council also requests that NH contributes towards the cost of developing existing feasibility work preferred option stage for a bypass.

#### Construction traffic

HGV movements to deliver machinery and material to the main compounds, including the 3 extra territorial satellite compounds, between borrow pits and the construction sites are likely to cause negative impacts on communities in terms of noise, air quality as well as increased congestion.

The number of vehicles of heavy good vehicle movements and hours of operation for the traffic management and logistics compound in Gershwin Boulevard is not disclosed in the outline CTMP. It is recognised that future iterations of the CTMP will detail the measures to

be implemented in respect of managing construction traffic to minimise disruption and nuisance within the site compounds.

The environmental effects of the two main site compounds will be considered separately as part of the planning application for preliminary works to the LPA.

#### Detrunking

The Council considers that the proposals for detrunking proposed do not go far enough to address local concerns. There are 2 detrunked sections, one between J22 and Kelvedon Park which is wholly within the district and one between J24 and J25 of which only a minor part is within the district.

The Council believes that changes to adapt dual carriageway to local roads users have been relatively minor in nature and National Highways have to date not agreed to any of the more substantive changes that have been requested by Parish and Local Councils. The Council would like to reiterate its view that National Highways have opted not to address legitimate concerns held by stakeholders on aspects of the scheme that are most in need of change whether it be because of cost, need for additional land-take or impact on DCO programme.

The Council supports ECC in it's view that the applicant's approach so far is unacceptable and represents a significant missed opportunity.

ECC have options exploration for the de-trunked sections, drawing on best practice and examples from elsewhere. Based on this the ECC believes the most pragmatic solution is to retain one side of the dual carriageway as highway (likely to be the current southbound carriageway) and to repurpose the other side with green infrastructure and provision for pedestrians and cyclists. This proposal would also simplify the proposed junctions at Rivenhall end and result in a local road more suitable in character for a small village.

The Council believes that the above could be a possible solution but further engagement including with the local community and future users of the detrunked section should take place before the final proposal is agreed.

# Diversionary routes

In general, the proposal aims to maintain two running lanes on the A12 for public access across during construction at weekday peak traffic hours (06:00 and 21:00). Where construction activities such as online bridge demolition or construction prohibit safe road operation, road closures would be required at nights and weekends. Therefore a number of diversionary routes are proposed and the Council is concerned with the impact of use of two routes.

The strategic diversion route which would be (from west to east) along the A130, A131 and A120. It was identified that there would be adverse impact on residents (266 noise sensitive receptors are identified) along this diversion route. The Council has concerns that the ES has concluded this unlikely to have a significant effect to population health when it is currently unknown how many nights of closure will be required. The Outline CTMP does not specify and thus this conclusion is unsatisfactory.

Station Road diversion route. For a period of 6 months, this diversion will be in operation for non-residents, including heavy good vehicles. Closure of Station Road bridge at Hatfield Peverel will necessitate a lengthy diversion via Witham, then utilising rural country roads

such as Terling road which is a tight and narrow single carriageway lacking markings with informal passing points. In the opinion of the Council this would be unsuitable for the proposed diversion of non-residential vehicles including HGVs. There are no proposals to suspend Blunts Hall Road which could be misused as a shortcut. The Outline CTMP does not specify details and thus this conclusion is unsatisfactory.

In particular overnight and weekend diversionary routes could lead to significant adverse impacts on mental wellbeing and sleep disturbance to local residents, particularly housebound residents, due to noise and vibration that will be created.

It remains a concern of the Council that a minority of diverted vehicles will utilise local roads instead of designated diversions, including some vehicles which may simply be lost. Standard practice in the usage of diversionary route signage is archaic and would be unwieldy on such a lengthy diversion route.

There is not enough information on the potential diversion of bus routes which utilise the A12 and Local Roads at this stage. Significant disruption to the availability or reliability of bus routes could have long-term negative impacts on bus patronage. The Council are particularly concerned with the delays that could be caused by roadworks as a result of utilities diversion on London Road, Kelvedon and on local roads between towns and villages. We request that this information is supplied as soon as possible.

#### Construction compounds

Details of the practical measures to be implemented for 2 main compounds and 3 satellite compounds by the Principal Contractor and the expected environmental effects are published within Appendix C: Construction Compound Management Plan (TR010060). The applicant intends to submit planning applications for the main site compounds to the LPA separately, as part of a package of preliminary works, so the Council is content to allow local impacts to be considered there. Satellite compounds are not within the district, however there is a traffic management and logistics compound located off Gershwin Boulevard, Witham.

An 8,000 sqm traffic management and logistics compound is proposed off Gershwin Boulevard in Witham. This would consist of an area for the storage of traffic management equipment, parking for small site vehicles, general materials storage and a small welfare unit. The outline CTMP does not reveal what the operational times and volume of construction traffic, particularly HGVs is to be expected as this is expected to be developed further with subcontractors and suppliers. Off-road parking at the traffic management and logistics compound should be provided in accordance with the Essex Parking Standards (2009), or its successor, to avoid overspill onto local roads.

For the traffic management and logistics hub and temporary laybys, the Council would principally be concerned with access to these areas for HGV vehicles during construction phase as movements would likely be frequent and would operate 24 hours a day. Where the traffic management and logistics hub and temporary laybys are located near residential properties, construction traffic on local roads will give rise to significant adverse effects (such as noise, vibration, air pollution and sleep disturbance. Night-time working should be reduced or avoided where significant adverse effect is predicted.

There would be a negative impact of increased construction traffic on some communities in Hatfield Peverel and Witham resulting in adverse environmental effects for noise, air quality and local road congestion. Although consideration has been made to reduce the impact on smaller capacity local routes, there would be significant negative impact as a result of activity

related to the two main construction compounds at Junction 20b and Junction 22 which are 24-hour work sites. According to the Outline CTMP, there would be access and egress of light vehicles via the Duke of Wellington roundabout at Hatfield Peverel until phase 4.

There would also be a negative impact during the extraction periods for borrow pits which are expected to generate haulage traffic and would affect the settlements of Hatfield Peverel, Witham and Rivenhall End. There are also borrow pits in Kelvedon and Feering however these are located away from population centres.

Although the submitted Outline CTMP shows the potential routes to be used by construction traffic, it does not show the quantity and periods of time vehicle movements are required during the construction stage. This is particularly significant given the residential streets being intruded on, rural nature of the borrow pits and the country lanes across the DCO order limits.

## Adequacy of the Application/DCO

The Applicant's submission does not provide enough detail within the outline CTMP to assess the impact of vehicle movements to and from the traffic management and logistics compound. However, the CTMP does state that in general traffic deliveries would be coordinated to reduce potential disruption on the road network and within local communities in proximity to the works. Overall compliance and acceptability in terms of highway safety is a matter for agreement with the Local Highway Authority.

#### **Employment**

The relevant Development Plan Policies are identified below.

Policy SP3 of the Adopted Local Plan states that existing settlements will be the principal focus for additional growth across the North Essex Authorities area and that development will be accommodated within or adjoining settlements according to their scale, sustainability and existing role. Witham is one of three main towns in the Spatial Strategy where development should be concentrated. Additionally, much of the DCO lies within the A12/Great Eastern Mainline corridor which is also a focus for development.

In terms of the rural economy, Policy SP3 of the Adopted Local Plan covers the spatial strategy for North Essex and states that 'beyond the main settlements the authorities will support diversification of the rural economy and conservation and enhancement of the natural environment'.

Paragraph 5.2 the Adopted Plan (Section 1) states that 'Braintree District's employment is relatively focused on industrial-type sectors, including construction and manufacturing.' This is supporting text for Policy SP5 which supports a strong, sustainable and diverse economy across North Essex where a flexible approach to economic sectors showing growth potential will be pursued.

ECN1 of the Hatfield Peverel Neighbourhood Plan supports development which meets the needs of local residents subject to a range of environmental criteria, including no unacceptable impact on residential amenity, local road network, satisfactory access and egress arrangements, satisfactory arrangements for waste and that new buildings are in a scale and design that respects landscape character.

## Key local issues

It is not specified whether the loss of agricultural land would result in loss of employment through redundancy or whether some of these workers would be retained to work elsewhere on existing farms.

As the construction compound is required to be developed in advance of the scheme, it will be subject of a separate planning application made to the Local Authority however the DCO will also grant permission in principle for the compound.

Regarding jobs, the A12 to A120 widening scheme is a significant employment generating opportunity for local residents. It is important that the district's businesses can make the most of the opportunities offered by construction work. In the ES, the Applicant estimates that this would generate approximately 1,500 peak full time equivalent construction jobs over a 4-5 year period with 300 of these predicted to be from the local area. Further induced jobs in the local area are predicted to be generated over the same period in sectors which would support the construction phase such as worker accommodation and supplies to the construction. The ES states that it is uncertain how many new job opportunities would be provided by the proposed scheme as it depends on the capacity of supply chain companies to provide specific expertise at relevant points in the construction programme.

# Cadent Gas Diversion

The majority of the route as proposed is located outside of the District however the Council reserves the right to comment should this design change.

Braintree District Council Local Impact Report