

INTRODUCTION

This response sets out Essex County Council's response to the statutory consultation on the A12 Chelmsford to A120 Widening Development Consent Order (DCO) and in particular comments on the detailed Preliminary Environmental Impact Report (PEIR). Where reference is made to specific comments in this response they relate to the chapter, paragraph and tables in the PEIR for ease of reference

The applicant, Highways England (HE) on behalf of the Department for Transport are seeking to deliver improvements to a 15 mile stretch of the A12 between Junction 19 (Boreham Interchange) and Junction 25 (Marks Tey Interchange). The scheme involves widening the A12 to three lanes throughout (where it is not already three lanes) and creating two bypasses, one between Junctions 22 and 23 and another between Junctions 24 and 25.

The A12 road is an important economic link, providing the main south-west/north-east route through Essex and Suffolk, connecting Ipswich to London and the M25. The section between Chelmsford and Colchester (junction 19 Boreham Interchange to junction 25 Marks Tey Interchange) carries up to 90,000 vehicles daily.

With its important connection for freight traffic, especially to and from the ports of Felixstowe and Harwich, heavy goods vehicles are between 9% and 12% of the traffic on this section, which is also an important commuter route. The resulting congestion means that, during the morning commute, a driver's average speed is particularly slow in both directions for a dual carriageway A-road of its kind.

The scheme is wholly within Essex and covers the Local Planning Authority areas of Chelmsford, Braintree and Colchester with other adjacent authorities being affected, most notably Maldon. All the affected Authorities have contributed to working with HE and their consultants on the proposals.

Highways England's stated aims for the scheme are to:

- Increase safety for road users, especially at the junctions and slip roads through better design while also removing direct private accesses to the A12.
- Reduce traffic congestion by increasing the capacity of the road, making journey times more reliable. It is stated that the proposed scheme will save motorists as much as 1.5 hours in a working week if they travel daily between junctions 19 and 25.
- Take long-distance traffic off local roads and put it on the A12, so local roads are not used as 'rat runs', affecting local villages and communities.
- Smooth traffic flow by helping the road to cope with incidents such as breakdowns and accidents.

- Help ensure the road can cope with a predicted increase in traffic from more development which proposes additional jobs and homes in the area.
- Make improvements for walkers, cyclists, horse riders and public transport users, to give them better connections and safer, more enjoyable journeys.
- Support planned economic and housing growth in Essex and its region.

In brief the scheme proposes the following:

- Improvements to Junctions 19 and 25,
- Construction of new junctions 21, 22 and 24 to provide both north and southbound access to the A12,
- Removal of existing junctions 20a, 20b and 23,
- Closure of existing private and local direct accesses onto the main carriageway,
- Provision of new and improved existing walking, cycling and horse-riding routes,
- Provision of necessary utility diversions.

ECC is a **strong supporter of the scheme**, particularly because of the economic benefit, easing of congestion and positive road safety impact and very much wish to see the improvements progress.

While we support the scheme, we remain concerned about particular aspects, especially the ability of the project to cater for the need to tie in better with local roads to improve connectivity and bring wider community benefits.

ECC is a Statutory Consultee, as a host strategic authority within the definition of the Duty to Co-operate S110 of the Localism Act 2012 and Section 30 of the Planning and Compulsory Purchase Act 2008. The proposed project is a strategic matter and ECC wish to engage with this process, with the following relevant roles:

- a key partner and service provider within Essex promoting economic development, regeneration, infrastructure delivery and new development for the benefit of Essex and the region;
- The highways and transportation authority for Essex, with responsibility for the delivery of the Essex Local Transport Plan;
- The Minerals and Waste Planning Authority and Local Lead Flood Authority for Essex;
- The Public Health advisor for the county of Essex;
- The Local Education Authority for Essex and as a key partner in the promotion of employability and skills; and
- Consider the impact of the development on Climate Change.

ECC has commented on the scheme in the past, the last one being sent at the end of 2019.

The Councils' capacity to fully engage with the Stage 1 Consultation has been impacted by the unprecedented impacts of the Coronavirus COVID 19 pandemic. The officer comments below have been limited by priority commitments to addressing the COVID 19 response, and similar impacts on other organisations and stakeholders that limited the normal level of co-ordination and discussion between colleagues before the comments were provided. Site visits were also cancelled due to home working. Whilst some officers could provide limited input, some officers were unable to provide comments on the Stage 1 Consultation at all due to COVID 19 impacts.

Of particular relevance is our response on Health and Wellbeing. At this time resources remain increasingly stretched on this topic, hence ECC's response is limited and the Inspectorate is referred to other comments as may be submitted by the NHS or the relevant Clinical Commissioning Groups (CCG) in consultation as the health impacts of the scheme will be lasting and significant.

The timing of the consultation further prejudices comment. July and August are within the school holidays and a number of internal stakeholders have taken the opportunity to take leave with their families as Covid restrictions ease.

In addition, ECC has seen a significant increase in NSIP submissions in Summer 2021 including additional consultation on the Lower Thames Crossing, two Scoping Opinions on the Bramford to Twinstead, on Longfield Solar Farm, the North Falls offshore windfarm, with engagement on the Five Estuaries Wind Farm and the Oikos Marine NSIP proposals. In addition, the M25 Junction 28 scheme completed its DCO process within a similar timeframe. This alone has stretched resources and in combination with the above has resulted in significant pressure on staff, on resources and time.

Nevertheless, the attached is as comprehensive as is possible currently, however ECC reserve to right to contribute further to this NSIP proposal prior to its eventual submission.

ECC reserves full comments on some aspects of the proposal, until such time as this is available, at the point of submission of the application to PINS and looks forward to future engagement with the applicants and their consultants during this period.

This response also comes with a completed on-line questionnaire that is attached to this response as Annex 2.

HIGHWAYS AND TRANSPORTATION

In general, the Council recognises the schemes benefits, in alleviating congestion and allowing the free flow of traffic along the A12, reducing journey times and enabling the free flow of traffic down this major route.

The A12 in Essex is not a trunk road in the same way as the A1 or the M11, where the majority of trips are heading to the M25 or London. Instead, the A12 is extensively used by Essex communities which have no other parallel routes on which to travel. The widening scheme would be a great improvement, with beneficial new, revised and safer junctions, however this is significantly compromised by the as proposed poor access to and from the local road network.

It is considered that a vital component of the scheme is that the connectivity to the new and improved junctions is enhanced because the scheme sees several junctions closed and others moved, potentially introducing problems and making some longstanding issues worse.

Historically neither ECC, Highways England or its predecessors have been able to address local connectivity to the trunk road, with inadequate access points and slip roads, leading to 'rat-running' on the network. This NSIP therefore represents a once in a lifetime opportunity to alleviate these long-standing issues. It is considered that the planned A12 junctions have convoluted and inadequate links to the Essex road network and, if built as proposed, would need new and better connectivity for the lasting benefit of road users, and the community.

It is estimated that new and improved connections could be provided for approximately just an additional 5% of the stated £1 billion cost of the scheme, and without this investment this would be an opportunity lost for the scheme to provide the area with a much needed and lasting legacy.

We believe Highways England are not able to address our concerns alone because they do not fall within the scope of the widening project being progressed. If more flexibility in the scope of the A12 widening scheme was planned for and provided by DfT, it would greatly enhance the proposals and go a long way to alleviating local community concerns, providing the as mentioned legacy benefits. ECC consider as it is, that the scheme clearly misses out on a one-off opportunity to make the most of the very welcome A12 widening project. It is considered that if this is not dealt with here this could result in significant opposition at the DCO stage.

A number of specific concerns are highlighted at the proposed junctions below:

Hatfield Peveril (J20). Here the existing local road connection is inadequate, it undoubtedly faces pressure from local development and will be further compromised by the rerouting of traffic with the proposed closure of J20a and J20b. Maldon-based traffic requires a route to reach the A12 without going through the village and it is noted that Maldon themselves in consultation have strongly echoed this view.

Witham North/Rivenhall End. Here the de-trunking proposals need further work to ensure that they tie in with local road connections adequately. Further information is required to ensure that the minor roads and the proposed new access road from Braxted Road will work with the trunk road to avoid 'rat-running' and lorries traversing the area particularly given the busy and growing industrial estate located in the immediate area. We will be

happy to work with the A12 team to review the ongoing design development in this immediate area.

Kelvedon, Crucially, ECC ask for clarity about the future of J23 - a junction which will be removed under the scheme proposals, but which will need to be reinstated when the new A120 is built. This is seen as being fundamentally short sighted. In addition, it is considered that there is a case to consider supplementing the proposed new junction J24 with a short stretch of new road to better connect it to the local network, accommodating growth from proposed development at Tiptree.

Marks Tey. Here there are understandable local concerns about the location and scale of the junction envisaged, even though the A120 will be diverted in the future.

ECC have offered to develop solutions either inside or outside the scope of the widening proposals, as long as provision is made in the widening design and there is recognition that funding would be prioritised.

Therefore, ECC has significant concerns that the proposal will have a serious detrimental and lasting negative effect on the existing and as proposed local road network which, it is considered, would cause widespread and lasting damage to the local areas in future years, concerns that are relatively easy to mitigate.

The legacy as created by this new route fails to take into account the adjacent road network which joins into the proposed NSIP route, fails to recognise the opportunities it could create, and will leave a poor legacy for adjacent areas and communities. Therefore, the Council requests urgent additional discussions with Highways England to see if a more appropriate scheme, and hence a more beneficial legacy, can be achieved through additional design work.

To make the most of the opportunities it is considered that a number of actions need to be considered, including;

- A local roads improvement package
- Detailed discussion about redundant sections of trunk road
- Investigation of the potential to enhance sustainable transport
- Some possible revisions to the proposals.

In terms of the implications of the development on sustainable travel the following comments are raised:

1) Active & Sustainable travel

ECC is concerned with the level of commitment that the proposals currently show when compared with the current Government's stated objectives in the recent Decarbonisation Strategy. ECC would strongly support measures that would reduce congestion on the route in the future, that encourage active travel and any public transport improvements. These measures could include (but not limited to):

- ECC would like to see LTN 1/20 specifically named, if this is not superseded by the delivery, so it is requested that a firmer commitment is given on the minimum standard 'latest standards' and what that will mean. Walking, cycling and horse-riding routes should always be free from unnecessary diversions, frequent obstacles and fragmented facilities.
- ECC strongly support repurposing of nearside lanes of de-trunked existing sections of the A12 for cycling and public transport improvements.
- De-trunked parts of the route should be prioritised where possible for bus travel, cycling and non-motorised forms of transport.
- Where temporary roads for construction traffic are created, these should be converted where appropriate to permanent cycle ways after the scheme is completed.
- In general, it is considered that more should be done to incorporate walking and cycling. For example, in certain locations like at Junction 24 this is given no consideration at all. While 9 miles of new (or improved) cycleways is proposed within the scheme, more should be considered.
- Consideration should be given to ensuring the as proposed shuttle buses be electric powered and facilities be made available for charging the same. In addition, the scheme makes no reference to electric vehicle charging infrastructure, the opportunity which should be brought forward by the scheme is to future proof it to acknowledge the future emphasis on using electric vehicles by providing smart carriageways.

2) Green construction

- More needs to be done regarding green construction methods and tools. It is insufficient and inappropriate to simply mention that the scheme will ensure construction traffic isn't 'dusty'. The opportunity should not be missed to incorporate green methods of working.
- The scheme, which will be carbon heavy in its construction, needs to show a commitment and methodology to offset the carbon footprint of the development and make it carbon net neutral.

- In general, the development relies on vague and completely insufficient statements to implement green solutions where this is stated as being “*if possible*” or where HE “*will try*” to implement the same. This is clearly not specific enough. Any consented DCO submission should work towards specific and measurable targets around proposed benefits to the environment, waste, greening the development and offsetting against pollution impacts. The solution would potentially be to set a set of carbon targets which could be monitored throughout the construction and operation of the scheme.

As one specific matter of detail, it is noted that the scheme does not take into account the proposed traffic increase as a result of the recently commenced construction and late use of the Rivenhall End Incinerator.

The submitted consultation request has been reviewed in respect of this topic, our comments on the same are included in the following table for ease of reference.

Ref.	Error/Data Issue/ Clarification/Formatting /Comment	Comment	Recommended Actions
J19 design	Comment	The ped/cycle crossing on RDR3 is uncontrolled in the Beaulieu scheme because a controlled crossing on the exit from J19 would cause blocking back through the roundabout which is considered to be detrimental to highway safety and capacity. Hence the entry to J19 from RDR3 is not proposed to be signalised because you cannot have half controlled and half uncontrolled. The HE scheme proposes full signalisation and does not appear to address these issues.	Review Beaulieu scheme RSA, departures from and capacity analysis. Capacity analysis and RSA required to demonstrate that this is a feasible option
J19 design	Comment	Concern about the impact of a central crossing on the bridge in terms of capacity and potential blocking	Capacity analysis and RSA required to demonstrate that this is a feasible option

		back to both roundabouts with associated safety implications	
J19 design	Comment	The Beaulieu scheme for Generals Farm roundabout is not a full roundabout because there would be too short stacking distance between the stop line between the bridge entry /exit lanes, and the through-about central lane which would lead to capacity and safety issues. HE scheme proposes a full roundabout and does not appear to address these issues.	Capacity analysis and RSA required to demonstrate that this is a feasible option
J19 design	Comment	Concern about proposal for controlled crossings on Main Rd and Southbound on-slip. Looked at for Beaulieu scheme and proximity to roundabout circulatory with very short stacking distances would lead to capacity and safety issues, so remain uncontrolled. The HE scheme proposes full signalisation and does not appear to address these issues.	Capacity analysis and RSA required to demonstrate that this is a feasible option

In addition, it is also noted that the fact that there is no potential for a link to the future Chelmsford NE bypass dual carriageway scheme which is very disappointing as J19 will not be future proofed this needs to be rectified in the next stage of work.

ECC's passenger transport Team also raise the following comments, firstly on the PEIR and secondly in tabulated form on the plans as submitted with the consultation documents and the video extracts that accompany the submission as shown online.

It is shown that Wellington Bridge is to be removed, however this needs to remain accessible until the new junction 21 is made fully operational providing links between

Hatfield Peverel and Witham in both directions. ECC also need to be able to retain access to what is currently the southbound offslip at J20, throughout the works, otherwise we have no reasonable means of maintaining an important interurban bus service on the Witham to Hatfield Peverel section.

Replacement of the Station Road bridge will severely affect access to Hatfield Peverel Rail Station, in effect removing all sustainable access from the village and the majority of users south of the line, it will also mean that car access is circuitous around a number of lanes unsuitable for increased levels of traffic.

Ref.	Error/Data Issue/ Clarification/Formatting /Comment	Comment	Recommended Actions
	Comment	There is reference to provision of bus stops on old A12 at Rivenhall – ECC IPTU would wish to be involved in locating and specification of these.	Note and review position of stops with ECC PT.
	Comment	Location of bus stops, by new shared use bridge linking Essex Fire & Rescue premises with new link road between Rivenhall and Kelvedon South need to be agreed – video implies they are seemingly unnecessarily distant from where bridge lands at roadside.	As above
	Comment	There is reference to possible new bus stops around old j24 of A12 – locations and spec needs to be agreed with IPTU Infrastructure Team, to enable them to better serve residents of Feering.	As above
	Comment	Don't close existing access to Coggeshall Rd at Marks Tey – this is the only way for buses to serve Marks Tey and surrounding villages as	As above

		well as carrying key interurban bus services between Colchester and Braintree. Could be acceptable as a 'bus gate' for sustainable modes to use.	
	Comment	It isn't possible to work out how Marks Tey Estates residents will access A12 and Colchester if road to be blocked off?	Further details are needed
	comment	Widening adjacent to Marks Tey Station (on current A120 alignment – needs to ensure that it maintains bus stops in each direction for passengers accessing the station.	
	Comment	ECC acquired sections of current A12 – along these sections we currently aspire to there being a sustainable lane in each direction for use by buses and bikes for example. This will mean for example that the westbound access to the old A12 at Marks Tey roundabout needs to be 2 lanes not one, as currently shown on the drawings / video.	

CLIMATE CHANGE

The UK is bound by the Climate Change Act 2008 to achieve net zero carbon emissions by 2050. This shift to net zero target from the previous target of 80% reductions on a 1990 baseline has brought into sharp focus the need to radically tackle Green House Gases (GHG) across all sectors including the built environment and nuclear development.

ECC has commitment to formulate a Climate Action Plan to reduce carbon emissions across the county of Essex. In addition, ECC has inaugurated an independent, cross-party Essex Climate Change Commission with the purpose of:

- Identifying ways in which ECC can mitigate the effects of climate change, improve air quality, reduce waste across Essex and increase the amount of green infrastructure and biodiversity in the County, explore transport modal shift, research energy generation and fully engage with communities around behavioural change.
- Reducing the carbon footprint of both ECC and Essex as a whole – the Commission is expected to recommend an ambitious, but realistic target year, to have achieved net zero greenhouse gas emissions.

As the UK transitions into a net zero carbon future, NSIPs have been recognised as important in reducing carbon production. However, the scale of such nationally important infrastructure developments do carry an equally large, and conflicting carbon footprint in their embodied and operational carbon. The Council welcomes the benefit that the A12 widening scheme can have on benefiting climate change, but is equally concerned to see that material provisions are made in the development proposal that mitigate the carbon emissions generated from the construction and operation of the proposal and its associated development.

Adequate provision for reduction and offsetting of carbon emissions, both embedded and operational, need to minimise the development's carbon footprint and mitigate the effects of climate change. and with reference to planning principles set out nationally and locally including:

- National Planning Policy Framework, S14, para 148 which states: *"The planning system should support the transition to a low carbon future in a changing climate [...]. It should help to shape places in ways that contribute to radical reductions in greenhouse gas emissions [...] and support renewable and low carbon energy and associated infrastructure."*
- The National Networks National Policy Statement (NNNPS) (Department for Transport, 2014) sets out the Government's policies to deliver the development of Nationally Significant Infrastructure Projects on the national road and rail networks in England. The Secretary of State uses the NNNPS as the primary basis for making decisions on DCO applications

It is noted that within the consultation the previous comments of ECC are mentioned and will be taken into account. It is shown in table 15.1 of the PEIR that previous comments will mostly be addressed in the next consultation stage in the full Environmental Statement, so ECC will look to review this again at that stage.

We recommend the measuring of the carbon footprint of the whole development throughout its life cycle, with the yearly disclosure of this information in aid of pursuing low carbon targets through the Carbon Plan. This is an omission from the proposal which would provide considerable support in monitoring, reducing, mitigating, as well as offsetting carbon emissions associated with the construction and operation of the development. In order to achieve national targets of net zero carbon by 2050, and to reduce the carbon

footprint of Essex, the need to decarbonise large infrastructure developments in Essex is significant. Any measuring should be made available yearly and reviewed going forward.

The inclusion of the above suggestions will aid the development in not only attaining national low carbon targets, but also in achieving project aims for whole life sustainability and avoiding adverse environmental effects.

GREEN INFRASTRUCTURE

The submitted consultation request has been reviewed in respect of this topic, our comments on the same are included in the following table for ease of reference.

Ref.	Error/Data Issue/ Clarification/Formatting /Comment	Comment	Recommended Actions
Construction Brochure - Habitat connectivity	Comment	Connectivity Opportunities for connectivity are difficult as a road scheme will be a barrier to species and people. However, an advantage could be that the transport corridor could act as an access and habitat corridor. Through hedgerows/ wildflower verges, tree planting, under passes and green bridges. It is welcomed that proposal to use mammal ledges and underpasses to allow species movement. Through the emerging Environment Bills there will be	The Landscape and Environment Management Plan and Environmental Masterplan needs to clearly demonstrate on the schemes maps and within the management requirements text how these sites are connected to the road network/corridor and not in fact isolated/fragmented habitat areas, whether this is connected via paths, or green corridors such as hedges and verges. For the scheme to consider the use of nature-based solutions/ natural flood management technics and soft landscaping/ vegetation for Sustainable Drainage

		requirement for Local Authorities to produce Local Nature Recovery Strategies that contribute to the national Nature Recovery Network. ECC is currently working with Essex Wildlife Trust, RSPB and Nature England to commence on the development of a Local Nature Recovery Strategy for Essex, which include opportunity mapping. This is still at the early stages.	and watercourses along the roads. For foot/cycle and horse-riding bridges such as the new Wellington bridge at Junction 21, new bridge near the Essex County Fire and Rescue Service headquarters, new bridge across the river blackwater and/or Eastway Junction on the National Circle Route 16 possible bridge to be green bridges.
Preliminary Environmental Information Report Page 160	Comment	Welcome the response to original comments in relation to EIA in terms of the design principles will consider green infrastructure objectives, will be presented in a <i>“design principles document and project design report. Mitigation for green infrastructure assets will be identified within the landscape and biodiversity chapters of the Environmental Statement. A Preliminary Environmental Masterplan will</i>	It is recommended that a detailed landscaping and ecology/green The Preliminary Environmental Masterplan and the Landscape and Ecological Management Plan to include: • Hard and soft landscape proposals for new and replacement planting together with vegetation retention to improve the character and quality of the landscape and how this will be managed and maintained – who will be responsible and how will it be funded? Also use of materials

		<i>illustrate how green infrastructure would be addressed in terms of landscape and biodiversity mitigation, and public rights of way and access provision. The Environmental Management Plan will present how natural assets would be protected during construction. The Landscape and Ecological Management Plan will present how the landscape and ecological mitigation would be reinstated and maintained."</i>	i.e. tree guards to plastic free biodegradable guards, in order to reduce the use of standard plastic. For example, 'Biodegradable Plastic Free Shrub Shelter Guards' can last for 3 years and will safely breakdown into the ground, so they do not necessarily have to be removed at the end of their lifespan, or they can be recycled. • Opportunities for advanced planting in the early stages of construction should be sought, where practicable. The phased implementation of new GI of the development construction will allow for the GI to mature and it will provide further benefit of reducing/buffering the aesthetic impact from the construction work. • The provision of multi-functional GI that can provide biodiversity net gain and create a potential green/wildlife corridor/bridges to allow for species migration and prevent
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			fragmentation. By incorporating new and existing tree and vegetation planting, which will ensure that the visual impacts of the proposed scheme will be limited. Also, to provide new biodiverse habitats throughout the scheme, which connect to each other and to existing retained habitat, preventing habitat fragmentation from the road, forming a green corridor along the length of the scheme. • Existing and new paths (PROW, Cycle and bridle ways) to be incorporated into the GI network, through planting to provide attractive recreation areas that link with the rights of way network. • How retained trees and vegetation will be protected during construction through Construction Environmental Management Plan. • Where reinstatement of vegetation/ GI is not possible will the scheme consider offsetting on land parcels adjacent or near to the A12 or
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			contribute to Blackwater River catchment or Whetmead Local Nature Reserve for instance?
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ECONOMY AND SKILLS

The submitted consultation request has been reviewed in respect of this topic, our comments on the same are included in the following table for ease of reference.

Ref.	Error/Data Issue /Clarification /Formatting /Comment	Comment	Recommended Actions
13.8.16	Comment	Preliminary Environment Information Report. Further clarity on plans for employment and skills training should be included.	Include provisional list of expected workforce requirements during construction, and suggested skills training schemes.
B.3.5	Comment	Preliminary Environment Information Report. Commitment to ensure local economic benefit through job creation, training schemes and use of local contractors where possible.	Inclusion of a clear statement around ensuring that growth and jobs benefit the local area directly during the construction phase.
PEIR	Comment	The cumulative impact of concurrent NSIPs (transport, infrastructure, and energy) in the region is significant. These require assessment to ensure both appropriate mitigation of negative impacts, and maximising potential	Cumulative impact of similar and concurrent schemes should be considered, particularly regarding employment opportunities, impact to existing local companies, and potential opportunities for skills training programmes, shared apprenticeships, traineeships, etc.

		opportunities for economic growth through skills and employment as part of the various planned projects.	Approaching this with the wider context of various concurrent schemes will ensure maximum social value.
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HEALTH AND WELL BEING

Thank you for consulting ECC, as Lead Advisor on Public Health matters within Essex. Please note that ECC is co-ordinating its response with that of the National Health Service (NHS) - Mid and South Essex Clinical Commissioning Group (MSECCG) and Suffolk and North East Essex Clinical Commissioning Group, plus the East of England Ambulance Service NHS Trust (EEAST) for the purposes of this and future consultations. ECC has reviewed and discussed the proposals with these partner organisations and ECC supports the comments they are providing in response. In this way we aim to provide a single, seamless response process as far as possible, that combines all health related considerations relevant to these partner organisations.

As is mentioned in the preface to this letter ECC's comments on the submission in relation to Health & Well Being have been compromised and prejudiced by the current Covid 19 Pandemic and staff resources. Nevertheless, conversations with the Project Team and the service providers have taken place.

What is apparent is that access to NHS services, both during the day and night during the construction phase of the development, could be prejudiced and would need to be safeguarded. What is becoming apparent is that during the pandemic people have been put off using primary care services and further barriers in terms of access to services must be avoided.

The on-site workforce will require care and it is noted that for offsite care Health facilities in Colchester are shown as to be used. The proposal should engage with Health England to ensure sufficient capacity is available.

The documents as submitted indicate there may be, potential changes to routes for ambulances (emergency and routine), health workers and patients to all healthcare settings (acute, primary and care homes) both during construction and the operational scheme. In general, there is an absence of information addressing this in the documentation provided. Therefore, it is necessary for any submission to explain how the applicant will demonstrate how these routes have been considered, to show what impacts have been identified, and what mitigation is proposed. It is noted that the Health Care providers will be able to assist with information about the location of key facilities that may be impacted and can give examples of particular cases of concern. Further discussions on this topic are therefore

necessary. ECC will support Health Care providers, but it is noted that a separate return will be made by these organisations.

The second main issue is the burden to health services on the influx of construction workers introduced to the area, including the cumulative impact of workers for this scheme in combination with those for other major projects including the Lower Thames Crossing, wind farms etc. Again, there is a lack of information about the numbers, location and timing of workers, assessment of their impact and proposals to mitigate.

Status and Evolution of Assessment on health & wellbeing

ECC notes that the work carried out so far provides a preliminary assessment in advance of the Development Consent Order application and full Environmental Statement and wishes to provide the following comments at this relatively early stage.

It is also noted that the current consultation focuses on scheme design, following earlier Highways England work to identify the most appropriate route for the scheme.

ECC welcomes the context set for this matter in the Preliminary Environmental Information Report (PEIR) – that identifies the wider determinants of health and the important issue of health inequalities, as previously raised by ECC Public Health team.

Evidence Base

It is noted that this is largely as laid out in the 'Baseline Conditions' section of the PEIR (section 13.7). In line with the approach ECC recommends for Health Impact Assessments (HIA) it is considered positive that the Public Health England's public health profiles and Essex Joint Strategic Needs Assessment and Area Profiles (Essex County Council, 2019b) have been drawn upon and this helps ensure a robust evidence base.

Health & Wellbeing Strategies

ECC notes and supports the inclusion within the PEIR of references to the relevant Health and Wellbeing Strategies that are in place for the areas to be affected by the scheme, these being:

- [Essex Joint Health and Wellbeing Strategy 2018 – 2022](#)
- [Chelmsford Health & Wellbeing Plan 2019](#)
- [The Braintree District Livewell Strategy 2019 – 2023](#)
- Colchester Borough Council is part of the [Livewell Essex](#) campaign / initiative

ECC considers these strategies and initiatives to be key reference points that the current work and ensuing ES need to reflect, as evidence based foci of local health and wellbeing priorities.

In addition the Council has had sight of the letter as sent in consultation from the Mid and South Essex Health Care Partnership in conjunction with the NHS and as dated 13 August 2021. ECC recognises and is in full support of the comments as made in this consultation response.

Methodology

ECC notes and supports the scoping work that has been carried out to inform the assessment.

It is also noted that the Human Health topic will form its own element of the Environmental Statement when this is produced. ECC is supportive of this approach and would wish to ensure that this matter is fully integrated and connected with the other subject matter of the ES. Consideration might be given to whether this could be dealt with by way of carrying out a Health Impact Assessment (HIA) provided that this process follows appropriate methodology and again, is fully integrated and connected with the other subject matter of the ES.

ECC also supports the consideration given within the PEIR assessment to effects as arising at both the construction and (final) operation stages, since some of these will be temporary, while other impacts will be permanent in nature and duration. Since construction is expected to endure for approximately four years, it is considered necessary to afford sufficient weight to construction stage impacts, which may have potential to result in longer term impacts (such as behavioural changes) and to ensure that impacts to economic interests do not endure longer.

Commentary on Preliminary Assessment findings (from PEIR- Non-Technical Summary June 2021 report document)

Economic Assessment

ECC considers that this range of considerations has great importance among the wider determinants of health, as Plate 13.2 (pg 413 of PEIR) shows. However, this subject of analysis appears to have received little attention overall. For example, the construction stage would be expected to provide substantial benefits to the local economy, could provide a significant boost to jobs within the area and to offer and present opportunities for local businesses to increase trade. Economic impacts, both positive and negative, accordingly require greater attention within the ES.

(13.8.1) Construction

Land use and accessibility

The findings / conclusions of this section state that:

The preliminary assessment has concluded that, overall, there would be **no likely significant effects on land use and accessibility during construction** for the population in the study area as a whole, with mitigation measures in place. However, it is noted that permanent loss of properties and garden areas for a small number of households would have large significance for the individuals concerned.

Within the more detailed assessment of this measure, ECC notes that there would be temporary and permanent impacts on land allocated for employment and commercial uses and to businesses. This raises some concern to ECC and we would wish to see attention given to appropriate minimisation and mitigation measures in this regard, particularly given the significant difficulties faced by enterprise and business within Essex as a result of the COVID pandemic. This aligns with extensive work and efforts in which ECC and the other constituent local authorities have been involved since early 2020 to support businesses and jobs within Essex.

Please also refer to the response developed by ECC's NHS partners regarding accessibility for ambulances, health workers and patients in accessing healthcare services across the area affected by the A12 widening scheme (including areas of land beyond the actual scheme itself).

Human health

The findings / conclusions of this section state that:

The preliminary assessment has concluded that, overall, **effects on human health at a population scale during construction would be neutral**. However, it is noted for some individuals there may be temporary or short-term negative impacts on wellbeing associated with actual or perceived disruption from construction.

ECC recognises that there are trade offs that are necessary to balance in this regard, such as the pros and cons and relative disruption caused by either day time or night time construction working. However, development and effective implementation of Construction Environmental Management Plan(s), in which ECC Transport teams need to be involved closely, would provide a means through which to help manage these impacts. In addition, ECC trusts there will be further engagement with the various stakeholders involved (such as local authority Environmental Health teams), together with engagement with the various local communities themselves who are likely to be affected in order to better understand and manage these impacts.

Attention is necessary to the identified potential for impacts on active travel opportunities that may arise at a sensitive time (paragraph 13.8.17). This identifies disruption to access along routes during construction resulting in reduced rates of active travel. The concern of ECC on this is in view of the increasing emphasis the Government and ECC are placing on sustainable and active travel in the interests of human health; protecting the environment; and tackling climate change. ECC would wish to ensure that every effort is given towards mitigating these impacts effectively to seek to avoid these temporary reductions in active travel becoming permanent changes to the detriment of health and wellbeing for people affected by the construction. In addition, the need to promote and maximise potentially new active travel opportunities through the construction stage will need to endure into the operation stage wherever possible, to the benefit of both individuals and communities. This outcome is indicated where the summary report states that 'The proposed scheme would improve connectivity for walkers, cyclists and horse riders.'

Operation

(13.8.20) Land use and accessibility

The findings / conclusions of this section state that:

The preliminary assessment has concluded that, overall, there would be **no likely significant effects on land use and accessibility during operation** for the population in the study area as a whole, with mitigation measures in place.

ECC notes with interest the potential benefits identified here (as alluded to above) for walkers, cyclists and horse riders. This issue needs to be approached holistically and strategically (instead of a piecemeal approach) whereby wider connectivity is sought at every opportunity in order to promote connectivity on a network-wide basis. These aims may be promoted partly through reference to the walking and cycling strategies developed for the areas affected (e.g. Chelmsford Cycling Action Plan, March 2017; Braintree District Cycling Action Plan – Draft, January 2018; plus the ECC PROW Improvement Plan). Where previous severance of off road routes for these users has occurred or where public footways are lacking there will be valuable opportunities to address severance, make positive improvements and to improve connections with public transport provision. ECC notes and welcomes the points made (at paragraph 13.8.28) on opportunities to improve public transport provision. Use of public transport might be encouraged by potential improvements to journey reliability and shorter journey times along public transport routes through the scheme if it is successful in tackling traffic congestion. The stated improvements to accessibility of bus stops and railway stations cited will require publicising in order to ensure that users are aware of these benefits and to thereby encourage their take up and use.

Air quality, noise and health

The findings / conclusions of this section state that:

The preliminary assessment has concluded that, overall, **effects on human health from air quality and noise are uncertain at this stage**. Further assessment is needed, the results of which will be reported in the Environmental Statement.

It is not considered possible for ECC to comment on these important measures at this stage given that human health impacts from air quality noise are at present uncertain.

Walking, cycling, physical activity and health

The findings / conclusions of this section state that:

Once operational, the improved connectivity of walking and cycling routes incorporated into the proposed scheme would have an **overall positive effect on active travel** opportunities and outdoor recreation, and so this would support positive health outcomes associated with increased physical activity.

ECC notes these findings of the initial assessment and would wish to see these benefits maximised through effective integration with other initiatives and campaigns aimed at

promoting similar outcomes, such as those developed by [Active Essex](#) plus walking and cycling bodies etc.

Access to services and community severance

The findings / conclusions of this section state that:

However, on balance, given the strong beneficial effects identified in other locations within the study area, the **overall effect of the proposed scheme on community severance is assessed as positive.**

ECC acknowledged that potentially substantial benefits would accrue from existing road sections being bypassed in several locations. ECC will also be interested to consider and assist with mitigations proposals as appropriate for the identified route where a significant traffic increase is forecast (B1023 Inworth Road). Preferred approaches will be those that manage this by helping to reduce travel demand via the route and to achieve modal shift to sustainable / active modes where possible. Please also refer to comments from ECC's NHS partners on this matter (particularly in relation to access to healthcare facilities and for ambulances etc.).

Use of outdoor space and access to greenspace

The findings / conclusions of this section state that:

.....there is uncertainty as to whether the proposed scheme would be positive or negative in terms of mental wellbeing associated with access to greenspace.

Given the above preliminary findings ECC will await further information and conclusions before offering comment.

Collisions and road safety

The findings / conclusions of this section state that:

We would improve infrastructure for walkers, cyclists and horse riders, and improve the standard of highway layouts, which would reduce the risk of road traffic collisions. This would have the **benefit of reducing rates of deaths and injuries on roads**. However, the results of collision and safety analyses, which are being undertaken to support the DCO application, are needed to confirm this assessment and will be referred to in the upcoming Environmental Statement.

As stated elsewhere, improvements to infrastructure and other measures to promote active travel are welcomed and this is considered a significant potential benefit that ECC would hope to see increase uptake of active travel modes. Given the extent and nature of substandard highway layouts on the A12 section to be upgraded (such as direct access from properties onto the A12 and substandard junctions) the planned improvements to these are also welcomed by ECC and these could be expected to reduce road traffic collisions, injuries and deaths.

Concluding Comments

ECC welcomes the opportunity for constructive engagement and active involvement with Highways England in the scheme design and assessment processes. It is noted that there will be further engagement and discussion to shape an iterative design and implementation process as proposals evolve and develop further. ECC expects to comment further when the full DCO application is developed, together with the ES to support this.

EDUCATION

A development of the type as proposed, particularly in its construction phase, will affect journey times for walkers, cyclists and road users. This will have an impact on school transport times and options for school children travelling to school independently, by provided for or private transport. The consultation does not comment specifically on these issues at this time, hence its impacts cannot be properly evaluated.

It is known that a number of students at this time travel from Hatfield Peverel to Witham, some of whom qualify for free school transport, and others who do not dependant on journey times. Some of these may seek or need to use more sustainable modes of transport including walking and cycling, to get to and from school.

Currently the pedestrian route alongside the A12 between Hatfield Peverel and Witham is unattractive, runs immediately adjacent to the carriageway, and close to traffic with no discernible barrier. This makes use along it significantly compromised with children, and their parents, predicated from using it to its full potential. Although the current route is available, the development as proposed has an opportunity to achieve significant betterment and to provide high-quality foot and cycle ways. By providing routes which are not in the immediate proximity of the traffic, we may begin to change local habits. It is of clear benefit to sustainable travel modes to significantly increase the condition and useability of this link. Any walking and cycling route would need to be safe in terms of providing a defensible space, be appropriately lit, and not prejudice air quality impacts on users of the same. A combination of the same will make the use of the cycling and walking route more attractive to the benefit of sustainable travel options. This initiative could also be positive as new areas of development and growth are proposed in the immediate area, including a new school proposal at Lodge Farm.

In respect of the other amended, additional and improved junctions all should facilitate easy walking and cycling connections.

FLOODING

Essex County Council are the Lead Local Flood Authority (LLFA) and hence have considered the consultation in light of this.

The PEIR document makes a number of references to the Preliminary FRA and the WQAR which, as far as we are aware, we have not received for review by the LLFA so comments that have been provided are based on the information within the PEIR.

I understand from earlier conversations with HE and their consultants that further meetings will be set up to discuss some of the outstanding points in more detail when they have carried out further work on elements of the detailed design. We look forward to additional engagement going forward.

The submitted consultation request has been reviewed in respect of this topic, our comments on the same are included in the following table for ease of reference.

Ref.	Error/Data Issue /Clarification /Formatting /Comment	Comment	Recommended Actions
13.8.16	Comment	Preliminary Environment Information Report. Further clarity on plans for employment and skills training should be included.	Include provisional list of expected workforce requirements during construction, and suggested skills training schemes.
B.3.5	Comment	Preliminary Environment Information Report. Commitment to ensure local economic benefit through job creation, training schemes and use of local contractors where possible.	Inclusion of a clear statement around ensuring that growth and jobs benefit the local area directly during the construction phase.
PEIR	Comment	The cumulative impact of concurrent NSIPs (transport, infrastructure, and energy) in the region is significant. These require assessment to ensure both appropriate mitigation of negative impacts, and maximising potential	Cumulative impact of similar and concurrent schemes should be considered, particularly regarding employment opportunities, impact to existing local companies, and potential opportunities for skills training programmes, shared apprenticeships, traineeships, etc.

		opportunities for economic growth through skills and employment as part of the various planned projects.	Approaching this with the wider context of various concurrent schemes will ensure maximum social value.
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MINERAL AND WASTE

The submitted consultation request has been reviewed in respect of this topic, our comments on the same are included in the following table for ease of reference.

Ref.	Error/Data Issue /Clarification /Formatting /Comment	Comment	Recommended Actions
Paragraphs 2.5.50, 2.5.52 – 2.5.54 Paragraph 3.3.5	Comment	The intention to make use of borrow pits and, if required, aggregate processing plant within those allocated borrow pit areas, is supported in principle in the interests of the sustainable use of minerals. The assessment that led to the selection/rejection of candidate borrow pits appears appropriate.	None.
Paragraphs 2.5.60 – 2.5.61	Comment	The commitments to sustainable procurement set out in this section and through other sections of the PIER are supported. The provisions set out are held to be in conformity with the Minerals Local Plan (MLP) Policy S4.	

Table 9.1	Comment	The intention to meet with ECC with regards to mitigation for Colemans Farm Quarry is noted and welcomed.	
Paragraph 9.7.114	Comment	The final sentence about habitats delivery. Is supported. The final commitment, including the identification of where habitats are to be located, needs to be discussed with the Mineral Planning Authority.	
Paragraph 9.10.63	Clarification	Whilst the physical elements of Colemans Reservoir may not change, it is considered that the implications for the wildlife of the road corridor coming closer to the habitat area, such as disturbance and air quality, have not been sufficiently addressed.	To assess the implications for the wildlife associated with the Colemans Farm Reservoir of the road corridor coming closer to the habitat.
Paragraph 11.1.5	Comment	The clear support for adhering to circular economy principles is noted and welcomed, as is the intention to produce and maintain a Site Waste Management Plan.	None.
Table 11.1	Comment	Table 11.1 addresses the issues that ECC acting in its capacity as the Minerals and Waste Authority raised in its response to the Scoping consultation in	None.

		November 2020. It states that Mineral Resource Assessments, and Mineral and Waste Infrastructure Assessments will be provided alongside the future Environmental Statement. An assessment of the aggregate consumption of the proposed scheme versus recent annual sales will also be considered in the Environmental Statement, as will waste generated by the scheme versus baseline levels of construction and demolition waste arisings. This is noted and the Minerals and Waste Planning Authority (MWPA) defers final comment on all related matters until receipt of these assessments. The MWPA is satisfied by the responses provided within Table 11.1	
Table 11.1, Paragraph 11.2.3	Comment	Table 11.1 states that information will be provided to address the issues identified by ECC and that this	That where information pertaining to Material Assets and Waste, and particularly that addressing issues raised

		will be reported in various chapters of the Environmental Statement, including but not limited to the material assets and waste aspect (i.e. to be supported by the Responsible Sourcing Plan, Mineral Resource Assessment and Site Waste Management Plan). The MWPA requests that relevant information is clearly signposted within a future Material Assets and Waste chapter if it is not to be included directly within that chapter. With regards to the above, it is noted that Section 11.2.3 states that the full Scoping Opinion, as well as the applicant's response regarding how and where comments have been addressed in the Environmental Impact Assessment (EIA) and draft Development Consent Order (DCO), will be included within the Environmental Statement (ES).	by the Minerals and Waste Planning Authority, is not placed in the Material Assets and Waste Chapter, that this information is clearly signposted in that Chapter.
Table 11.2	Clarification/ Error	Table 11.2 sets out the 'Land-won aggregate sales, reserves and	To ensure that data pertaining to Essex and Greater Essex is

		landbanks in the East of England and Essex, 2018’. It is noted that the landbank based on the ten-rolling sales figure has no policy basis in Essex. Policy S6 of the MLP sets the <u>Essex</u> apportionment at 4.31mtpa, and this is therefore the figure that is used to calculate the landbank for policy matters. It is further noted that the Greater Essex LAA, from which it is presumed information in this table was gathered, reports at the ‘Greater Essex’ tier, which means that the data presented pertains to the sub-region of Essex, Southend-on-Sea and Thurrock, and not the administrative area of Essex in isolation. Southend-on-Sea and Thurrock are both Unitary Authorities and therefore do not fall within the administrative area of Essex. References to an apportionment of 4.45mtpa for example are referencing the <u>Greater Essex</u>	correctly referenced and assessed.
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		apportionment. The baseline section in Chapter 11 will require editing to ensure that statistics are accurately representative of either Essex and/or Greater Essex. As the table contains annually updated data, it is assumed that the future Environmental Statement will be based on the latest available information.	
Paragraph 11.7.50	Error	The paragraph states that 'Whilst the East of England region and Essex sub-region both have good amounts of inert landfill, non-hazardous landfill, and non-hazardous landfill SNRHW capacity...'. It is noted that the Essex sub-region has no non-hazardous landfill SNRHW capacity.	Error requires correcting and factored into revised assessment.
Table 11.6	Error/ Data Issue	The table is titled 'Operational Landfills in Essex' but contains a number of landfill sites that are located in Thurrock. These are 'East Tilbury', 'Linford', 'Rainbow Shaw', 'Tilbury Ash', 'Ockendon' and 'Mucking'. ECC holds	List of landfill facilities will need updating and factored back into any assessment.

		no information relating to these sites. 'Cell 5 at Pratts Farm Lane', 'Inworth Grange', and 'Ugley' are closed, whilst 'Brittons Hall Farm' and 'Pitsea Landfill' is being restored. These sites are longer accepting waste for disposal. Barling is only accepting soils, with landfill cells for waste having been filled. These should be removed, unless it is demonstrated that they are viable routes for waste management due to requiring material for restoration purposes (such as Pitsea). Crumps is inactive whilst references to Wivenhoe are queried. Stated capacities of those facilities in Essex are agreed.	
11.7.55	Error/ Data Issue/ Further assessment required.	The paragraph states, in relation to setting the future baseline, that 'For the purpose of this assessment, it has been assumed that the size of the primary aggregate landbanks, marine aggregate reserves and the supply market for secondary and recycled aggregate would remain largely	It cannot be assumed that primary aggregate supply will just be there. The aggregate demand of this project, alone and in combination with other major projects, should be assessed and compared with recent sales, scaled to an appropriate market area, to justify that the impact on primary aggregate demand

		the same for the construction period (2023 to 2027) as for the baseline year (2019), as mandated by relevant national planning policy.' This is not considered to be an appropriate assumption with respect to the primary landbank. It will need to be demonstrated that this project, both in isolation and in combination with other proximate major schemes, does not create a scenario where there is a significant uplift in annual baseline sales such that existing permitted reserves are depleted more rapidly than would be forecasted based on recent annual sales data.	would not go significantly beyond 'business as usual'.
Paragraph 11.7.57 – 11.7.58	Error/ Data Issue/ Further Assessment Required	These paragraphs state that 'Waste treatment, recycling and recovery infrastructure facilities are considered to be a beneficiary of incoming materials through driving the management of the waste hierarchy, and by creating conditions that facilitate a circular approach to the management of materials. These	The demand on waste capacity of this project, alone and in combination with other major projects, should be assessed and compared with recent waste arisings, scaled to appropriate market areas, to justify that the impact on waste recycling capacity would not go significantly beyond 'business as usual'.

		facilities are therefore not considered to be sensitive receptors for the purposes of assessment in the same way as landfill sites, given that they are part of a recovery system that has the potential to reduce the environmental effects associated with waste generation, management and disposal. These facilities are also different to landfills, in that landfills are a finite resource.' This is not considered to be an appropriate assumption. Such facilities have a finite capacity in so much as they can only process a maximum amount of material over any given time period. For the statement above to be true, it would need to be demonstrated that this project, both in isolation and in combination with other proximate major schemes, does not create a scenario where there is a significant uplift in baseline waste arisings requiring recycling that goes beyond the total recycling capacity that	
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		is available. In this regard, the provisions of Paragraphs 11.7.59 and 11.7.60 of the PIER are noted, but to understand the magnitude of any potential effect, the amount of waste leaving the project area and similar large one-off projects in the locality versus baseline waste arisings is required. Subsequent paragraphs of the ES (eg 11.7.67 and 11.7.68) note construction and demolition capacity gaps that could occur based on baseline assumptions.	
Paragraph 11.7.64, Table 11.8	Error/ Data/ Issue./ Further Assessment Required	This paragraph describes how inert and non-hazardous landfill capacity has been forecasted. It states that these forecasts do 'not include any additional capacity that may open in the future in the region.' It is therefore uncertain how the remaining capacity for inert waste can be seen to increase annually in Table 11.8 at both the East of England and Essex tier. Whilst recognising the caveat associated with the forecasting	A more realistic forecasting methodology is required to inform Table 11.8

		methodology in Table 11.8, it cannot be the case that inert landfill capacity increases without additional capacity being permitted. The appropriateness of the forecasting methodology must therefore be questioned. This is particularly the case given the identified inert capacity gaps that Essex has been forecasted to face in the Essex & Southend on Sea Waste Local Plan Waste Capacity Gap Update 2015, which are noted in Paragraph 11.7.68 of the PIER.	
Table 11.8	Error/ Data/ Issue./ Further Assessment Required	It is questioned whether presented capacity information at the Essex tier is in fact representative of the Greater Essex level. The legitimacy of taking an average of remaining landfill capacity from a set of forecasted annual remaining landfill capacity figures is questioned. Irrespective of this, the unit of measurement would be tonnes, not tonnes per annum. It is	A more realistic forecasting methodology is required to inform Table 11.8

		questioned whether it would be more appropriate to compare the annual capacity take of the scheme individually and cumulatively with other major infrastructure projects versus baseline fill rates, and how that might impact an appropriately forecasted remaining capacity at the end of the construction period. As set out in the comment against Paragraph 11.7.64, the methodology used to arrive at the assumption that inert landfill capacity is going to increase at both of the geographical tiers presented in the table is considered to be unfounded. Any subsequent conclusions are therefore also considered to be unfounded. More realistic remaining capacity forecasts would assess likely capacity increases in the context of inert landfill site allocations yet to be bought forward in relevant Waste Local Plans	
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		whilst taking into account average rates of deposition.	
Paragraph 11.8.13	Clarification/ Further Assessment	The statement does not acknowledge that the road corridor would impact the existing quarry processing plant footprint and a consequence of the road going ahead could be the need to relocate the processing plant facilities and for this either being accomplished in the DCO or as a separate planning application.	Need to assess the impact of the road corridor on the existing quarry processing plant footprint, and the resultant consequences.
Table 11.9	Clarification/ Further Assessment	As set out previously, it is not considered appropriate to assume a supply of primary aggregate until the total and annual aggregate take of this proposed scheme is understood in isolation and in combination with other proximate major schemes in the context of historic aggregate sales.	It cannot be assumed that primary aggregate supply will just be there. The aggregate demand of this project, alone and in combination with other major projects, should be assessed and compared with recent sales, scaled to an appropriate market area, to justify that the impact on primary aggregate demand would not go significantly beyond 'business as usual'.
Table 11.10	Comment/ Clarification	Whilst it is noted that working methods will be adopted to make best use of the county's mineral and waste assets, it is noted that Table 11.10 states that there will be just a 'slight adverse' impact	It seems appropriate to present a more rounded acknowledgement of the impact of this scheme on the mineral resources of the County.

		across a range of 'Matters' relating to mineral and waste assets. Whilst the Matters and assessment methodology as set out in this table are noted, it is considered that a scheme sterilising 595ha of sand and gravel bearing land and 7ha of brick clay having only a 'slight adverse' impact on mineral assets at the local level somewhat underplays the significance. The MWPA places less emphasis on the 7ha brick clay that is highlighted as having the potential to be sterilised, which is noted as equating to 3.4% of the County reserve. It is however noted by the MWPA that this brick clay has particular characteristics, meaning that it plays an important role in historic renovation, and it is assumed that this total county figure takes into account brick clay that is not accessible for extraction, so the figure of 3.4% has the potential to be underplayed in terms	
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		of the total available resource. Further, it would not just be land immediately under the proposed scheme that would be sterilised, land in close proximity to the scheme may also not be able to be worked, which further increases this calculated figure of 3.4% of what is a finite brick clay resource with particular historical significance being sterilised by a single development. However, the PIER also notes that it is assumed that this mineral has already been sterilised by the presence of the existing A12 trunk road. If the assumption is true, it is agreed that the proposed scheme is unlikely to have any significant adverse impact on brick clay resources. However, the amount of sand and gravel that has the potential to be sterilised by this single project equates to the amount of sand and gravel that could be expected to be sterilised county-wide over a 15.5-year period, based on the	
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		sterilisation rates of the last four years. It is also noted that relative abundance plays no role in the importance of safeguarding finite mineral in the NPPF. Taken together, and whilst noting the DMRB LA 110 criteria, an assessment of 'slight adverse' seems to underplay the impact when considering the impact on these mineral assets in isolation (as opposed to in comparison to the wider benefits that may be realised by the proposed development). Where degrees of significance have been scored against matters relating to construction and demolition waste management, it is noted that waste arisings from the project are not known and that future forecasts of available capacity are questioned for the reasons set out in relation to comments against Paragraph 11.7.64 and Table 11.8.	
Paragraph 13.10.18	Error/ Clarification	This paragraph mentions Colemans	Correct Figure 2.2

		Farm as a potential borrow pit/attenuation pond location. Figure 2.2 showing the borrow pits does not identify in its key/plan Colemans Farm as being a borrow pit.	
Table 14.7, Final Row	Clarification	Second para refers to significant flooding predicted alongside Colemans Reservoir. Not clear if the A12 road scheme would seek to mitigate addresses this predicted risk or not?	

HISTORIC ENVIROMENT

A Preliminary Environmental Information Report has been submitted which focusses mainly on construction impacts of the scheme on built heritage assets and historic landscapes. There is also some preliminary assessment of the operational impacts. In addition, the Environmental Scoping Report (Highways England, 2020d) mainly focusses on construction impacts and also presents a gazetteer of cultural heritage assets. The built heritage impact assessment is ongoing, it has been noted that this will be fully reported in the Environmental Statement, and the mitigation measures currently in development being taken into account. The built heritage impact assessment should be prepared in line with Historic England's guidance GPA3, The Setting of Heritage Assets.

A 1 kilometre study area has been used for designated assets (scheduled monuments, registered battlefields, registered parks and gardens, and grade I, II* and II listed buildings). While a 300 metre study area has been used for all other heritage assets (non-designated). It is understood that a selection of assets will be assessed for potential significant effects beyond the 1 kilometre study area will be undertaken in the Environmental Statement, using informed judgement and forthcoming data from the ZTV study. The study areas indicated are appropriate, although the methodology for the ZTV and how heritage assets will be assessed would need to be clearly set out.

The current preliminary assessment has concluded that there would be no direct impacts upon historic buildings and structures during the construction phase, but there would be temporary, adverse impacts on the settings of some assets, as a result of construction activities due to traffic movements, lighting and noise.

The Preliminary Environmental Report identifies a moderate adverse impact from construction phase on one Grade I Listed building, two Grade II* Listed buildings and ten Grade II Listed buildings. With regard to construction phase impacts on the historic landscape, two slight adverse impacts have been identified and five neutral impacts.

At present, pre-mitigation operational impacts on designated heritage assets include a moderate adverse impact on one Grade II* Listed building and five Grade II Listed buildings. The preliminary assessment of historic landscape has not identified any significant residual effects on historic landscapes during operation.

Continued and detailed assessment, particularly of operational impacts will be required in the forthcoming Environmental Statement. The visual impact and the effect of the scheme on the setting of heritage assets should be fully explored, with multiple photographs to and from the heritage assets. The non-visual impacts also require further assessment, with other factors such as noise, dust, light, traffic and vibration, along with seasonal and diurnal changes, being considered. I have some concerns that these non-visual impacts have been considered for the construction phase but have not yet been considered for the operational phase. These are potentially more significant impacts for built heritage.

Some discussion of the proposed mitigation measures is presented, which include retained mature vegetation, new tree planting and new hedgerow planting. Whilst this form of mitigation can help to soften the visual impact, it can also be subject to change through seasonal changes, pruning or complete removal. It is therefore recommended that further design mitigation methods are fully explored. A photographic survey and historic landscape survey is suggested, to make a record of the historic landscapes, the condition of the heritage assets and their setting before construction begins. This should also provide data for landscaping and embedded (design) mitigation, along with additional bespoke mitigation measures, specifically designed to reduce the impact of the scheme on the setting of the heritage assets that are adversely affected. For example, the construction of banks or a ridge with a gentle back slope towards the heritage asset, along with screening, to soften the visual intrusion in viewpoints to and from sensitive assets. A full account of these proposed mitigation measures should be included within the heritage chapter of the Environmental Statement, along with an assessment of their effectiveness. Using photographs and photomontages, the mitigation measures should be cross-referenced with the landscape and visual assessment, with particular focus on heritage specific viewpoints, to demonstrate their effectiveness.

HISTORIC BUILDINGS

A Preliminary Environmental Information Report has been submitted which focusses mainly on construction impacts of the scheme on built heritage assets and historic landscapes. There is also some preliminary assessment of the operational impacts. In addition, the Environmental Scoping Report (Highways England, 2020d) mainly focusses on construction impacts and also presents a gazetteer of cultural heritage assets. The built heritage impact

assessment is ongoing, it has been noted that this will be fully reported in the Environmental Statement, and the mitigation measures currently in development being taken into account. The built heritage impact assessment should be prepared in line with Historic England's guidance GPA3, The Setting of Heritage Assets.

A 1 kilometre study area has been used for designated assets (scheduled monuments, registered battlefields, registered parks and gardens, and grade I, II* and II listed buildings). While a 300 metre study area has been used for all other heritage assets (non-designated). It is understood that a selection of assets will be assessed for potential significant effects beyond the 1 kilometre study area will be undertaken in the Environmental Statement, using informed judgement and forthcoming data from the ZTV study. The study areas indicated are appropriate, although the methodology for the ZTV and how heritage assets will be assessed would need to be clearly set out.

The current preliminary assessment has concluded that there would be no direct impacts upon historic buildings and structures during the construction phase, but there would be temporary, adverse impacts on the settings of some assets, as a result of construction activities due to traffic movements, lighting and noise.

The Preliminary Environmental Report identifies a moderate adverse impact from construction phase on one Grade I Listed building, two Grade II* Listed buildings and ten Grade II Listed buildings. With regard to construction phase impacts on the historic landscape, two slight adverse impacts have been identified and five neutral impacts.

At present, pre-mitigation operational impacts on designated heritage assets include a moderate adverse impact on one Grade II* Listed building and five Grade II Listed buildings. The preliminary assessment of historic landscape has not identified any significant residual effects on historic landscapes during operation.

Continued and detailed assessment, particularly of operational impacts will be required in the forthcoming Environmental Statement. The visual impact and the effect of the scheme on the setting of heritage assets should be fully explored, with multiple photographs to and from the heritage assets. The non-visual impacts also require further assessment, with other factors such as noise, dust, light, traffic and vibration, along with seasonal and diurnal changes, being considered. I have some concerns that these non-visual impacts have been considered for the construction phase but have not yet been considered for the operational phase. These are potentially more significant impacts for built heritage.

Some discussion of the proposed mitigation measures is presented, which include retained mature vegetation, new tree planting and new hedgerow planting. Whilst this form of mitigation can help to soften the visual impact, it can also be subject to change through seasonal changes, pruning or complete removal. It is therefore recommended that further design mitigation methods are fully explored. A photographic survey and historic landscape survey is suggested, to make a record of the historic landscapes, the condition of the

heritage assets and their setting before construction begins. This should also provide data for landscaping and embedded (design) mitigation, along with additional bespoke mitigation measures, specifically designed to reduce the impact of the scheme on the setting of the heritage assets that are adversely affected. For example, the construction of banks or a ridge with a gentle back slope towards the heritage asset, along with screening, to soften the visual intrusion in viewpoints to and from sensitive assets. A full account of these proposed mitigation measures should be included within the heritage chapter of the Environmental Statement, along with an assessment of their effectiveness. Using photographs and photomontages, the mitigation measures should be cross-referenced with the landscape and visual assessment, with particular focus on heritage specific viewpoints, to demonstrate their effectiveness.

ECOLOGY

The following table provides more specific comments by section on ecology:

Section	Comment
PEIR Biodiversity Chapter Table 9.2 Key stakeholder feedback for biodiversity aspect Page 203	<u>Biodiversity Metric and Biodiversity Net Gain</u> Now that the Biodiversity Metric 3.0 has been launched, it should be used for this scheme, instead of 2.0 (Beta version), given that it is only in the relatively early stages of development of a large long term project. As previously stated, we recommend that a minimum of 10% Biodiversity Net Gain should be provided using Good Practice Principles for Development (https://cieem.net/wp-content/uploads/2019/02/Biodiversity-Net-Gain-Principles.pdf). Notwithstanding the above, ecological functionality is important to underpin the assessments and the site's design should ultimately be based upon the Good Practice Principles using professional judgement by a suitably competent ecologist. The Metric should also not be a reason to miss opportunities to benefit key species through biodiversity net gain where they are not directly accounted for within the Metric.
PEIR Biodiversity Chapter Table 9.2 Key stakeholder feedback for biodiversity aspect Page 204	<u>Coleman's Farm Quarry Biodiversity Flagship site</u> in the Essex Minerals Local Plan 2014 It is acknowledged that our previous comments have been taken into account in relation to Coleman's Farm Quarry Biodiversity Flagship site. However, the proposed mitigation on page 204 does not reflect the knock-on implications for the rest of

	Coleman's Farm Quarry and its restoration. For example, the knock-on effects of the A12 widening include there potentially being insufficient material to enable the creation of priority habitats as part of the restoration of the Biodiversity Flagship site. Additional infill of inert material and movement of the processing plant may be required, resulting in additional lorry movements and potential reduction in air quality. The newly created priority habitats will also be closer to the A12, which could create air quality implications for them. This should all be taken into account in proposing proportionate mitigation.
PEIR Biodiversity Chapter Table 9.2 Key stakeholder feedback for biodiversity aspect Pg 204	<u>Dormice</u> – the response to Essex County Council is noted. The ecology team at Place Services would welcome discussions on this. However we are concerned that the response to the planning Inspectorate on Dormice states (on page 201) that "Dormice have been scoped out of the Environmental Statement." Para 9.7.56 "No dormice or evidence of dormice were recorded during field surveys" Para 9.7.57 "This species has been scoped out from further assessment" We do not agree that the Hazel Dormouse should be scoped out from any further consideration. As stated previously, the report scopes out Hazel Dormouse based on the fact that no evidence was identified during a nest tube survey and that the nearest record was 2km. However, we query the methodology undertaken, as the report specifies that a presence/absence survey was undertaken following Bright et al. 2006 (Dormouse Conservation Handbook), but no specific details on how the survey was carried out has been provided. In particular, we have concerns about the following statement: "The number of tubes will be appropriate for the habitats to be surveyed, with at least ten tubes in each sample area." 10 tubes are unlikely to be sufficient sample size to identify presence/absence per habitat block (50 tubes per habitat section would be preferable). Furthermore, we have not found any details on the habitat assessment (Species diversity, structure,

	landscape connectivity etc.) to accompany the presence/likely absence survey. This would be necessary to allow us to have certainty that surveys have been carried out in appropriate locations to further justify likely absence.
PEIR Biodiversity Chapter 9.10 Assessment of likely significant effects Page 279	<u>Non-significant Effects</u> As previously stated, consideration must also be given to likely impacts on designated sites (international, national and local), protected species and Priority habitats and species - not just significant ones. This can be done within the Environmental Statement or provided as a separate document. Any report on badgers should be contained in a separate and confidential appendix which is clearly marked as such to avoid the details from being widely available. Effective and robust measures, in line with the mitigation hierarchy, must be proposed which have a high degree of certainty for their deliverability in the long term. If there are residual impacts, these will need to be compensated or offset and appropriate enhancements included to ensure measurable Biodiversity Net Gain from development.
PEIR Biodiversity Chapter Table 9.2 Key stakeholder feedback for biodiversity aspect Page 204	<u>Bats</u> Deviation from the Bat Conservation Trust survey guidelines- Response noted. The ecology team at Place Services would welcome the proposed discussion on bat survey methodology to ensure a robust dataset is provided to support this NSIP at Examination.
PEIR Biodiversity Chapter Table 9.12 Importance of receptors in the study area for biodiversity And paragraphs 9.10.19 to 9.10.25 Page 243-244 Page 281 (paras 9.10.19 to 9.10.25)	<u>Bats</u> We note that there is some uncertainty regarding the significance and importance of the habitats for bat commuting as analysis of the data is ongoing. We believe that Barbastelle bats should be considered as higher than of county importance due to their rarity and international protection and they should be considered at least of regional importance. We would anticipate the inclusion of a map showing the commuting and foraging routes for bats-particularly Barbastelles- to help demonstrate how they utilise the landscape and whether the road scheme will potentially impact on the

	ability of Barbastelle bats to effectively use the landscape in the way that they are currently doing. We are concerned that the significance of the effects (see Table 9.15 Summary of likely significance of effects on biodiversity resources) is currently judged to be 'neutral' for bats, including Barbastelle bats without having all the data. Depending on current usage by bats -and particularly large bats such as Barbastelle bats- their movement across the landscape could be severely impaired by the new sections or the widened existing road and associated infrastructure. It should also be acknowledged that there is currently a general level of uncertainty as to the effectiveness of bat crossings over major roads, such as hop overs. The evaluation needs to be amended now and reviewed when further information is available.
PEIR 9.9.84	We welcome the types of biodiversity enhancements proposed in this section and emphasise the need for the long-term management and monitoring of habitats to ensure their success at delivering ecological connectivity and functionality. As stated above, ecological functionality is important in designing any habitat scheme and we encourage habitat restoration, enhancements and habitat creation to include Priority habitats which reflect those present in the local landscape.

LANDSCAPE

The following table provides more specific comments by section on landscape:

Section	Comment
PEIR Landscape Chapter Section 8.2 Stakeholder engagement Page 157	We recommend that a landscape architect from the Place Services team is involved with ECC meetings where they relate to landscape issues
PEIR Landscape Chapter	The landscape baseline is to be informed by the local landscape

Landscape Assessment Page 162	character areas (LCAs) defined within the Braintree, Brentwood, Chelmsford, Maldon and Uttlesford Landscape Character Assessment (Chris Blandford Associates, 2006) and Colchester Borough Landscape Character Assessment (Chris Blandford Associates, 2005), which is welcomed. However, given both these documents are now over 15 years old, we would be expecting a detailed localised landscape analysis to be undertaken to understand how the landscape has changed over this period of time and what qualities and characteristics are pertinent to this landscape. On this proviso, it may be necessary for additional landscape receptors to be included.
PEIR Landscape Chapter Table 8.4 Viewpoints for assessment Page 176	Given the scale of this project, it may be necessary that sequential visual effects are considered, especially from the PRoW network. The assessment should be supported by winter viewpoint photography only, which ensures a 'worst case scenario' is being appraised, and a standardised baseline is being used. In addition to representative viewpoints, it is expected that illustrative viewpoints will also be required as the purpose of LVIA is not only to provide technical analysis of the potential impacts but also to ensure the public and Interested Parties have a proper understanding of those likely effects.
PEIR Landscape Chapter Value and sensitivity of receptors Page 178	There is an expectation that any future assessment takes into consideration the Technical Guidance Note (TGN) 02-21 'Assessing the Value of Landscapes Outside National Designations' that has recently been published and builds on the details within GLVIA3 and the assessment of value (GLVIA3 Box 5.1). GLVIA3 recognises that landscape value is not always signified by designation: 'the fact that an area of landscape is not designated either nationally or locally does not mean that it does not have any value' (paragraph 5.26). This TGN provides further information on the subject matter and introduces additional factors that should be taken into consideration when assessing value.
PEIR Landscape Chapter	Photomontages will be prepared in accordance with the Visual Representation of Development Proposals

	Technical Guidance Note 06/19 (TGN 06/19) (Landscape Institute, 2019). The type of photomontage, or visualisation, considered both appropriate and proportionate would be Type 3, as defined in the TGN 06/19. TGN 06/19 states that ‘Type 3 visualisations are intended to represent design, form and context to a reasonable degree of objectivity and accuracy, one which can be understood and relied on by competent authorities and others.’ The Type 3 visualisations would include an indication of the mitigation for the Proposed Scheme. Photomontages should be prepared for the following timeframes: ▪ Operation Year 1: Considers impacts on a winter’s day during year 1 following completion of all construction, when planted mitigation would not yet have taken effect. ▪ Operation Year 15: Considers the impacts on a summer’s day in the fifteenth year after opening, when planted mitigation would have taken effect.
PEIR Landscape Chapter 8.9 Design, mitigation and enhancement measures	We welcome the types of enhancements proposed in this section and emphasise the need for the long-term management and monitoring of proposed to ensure their establishment and ongoing success. Landscape character and green infrastructure connectivity should be key considerations when proposing mitigation measures. Species mix, arrangement and pattern of stock can all have an influence on how proposals are sympathetic to their landscape setting, but also encourage connection of habitats for wildlife enhancements.