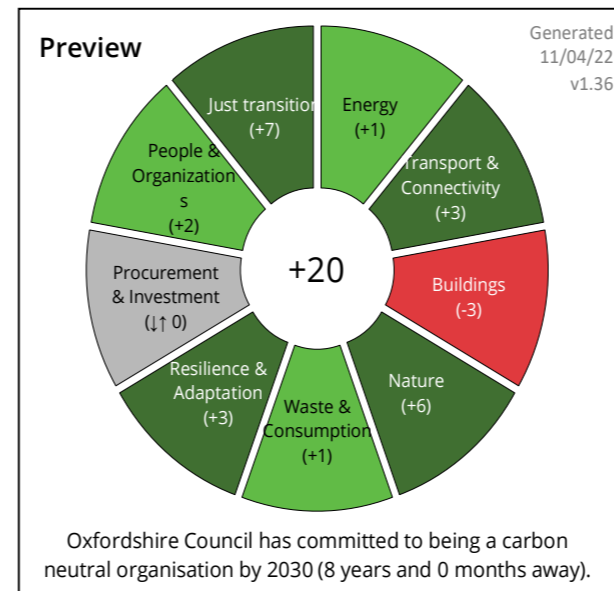


# Climate Impact Assessment

## Summary

<b>Directorate and Service Area</b>	Oxfordshire County Council (OCC) Major Infrastructure Capital Programme
<b>What is being assessed</b>	Climate Impact Assessment of implementing the A40 HIF2 Smart Corridor Project.
<b>Is this a new or existing function or policy?</b>	New proposed development that is currently transitioning between the Preliminary Design phase and Detailed Design Phase.
<b>Summary of assessment</b>	Impact Assessment result showed overall positive results, with a score of +20. The categories used to base the assessment on showed overall net positive impacts for the majority, apart from the Buildings, for which the Impact brought about by reduced promotion of net-zero new builds and developments scored negatively. However, mitigations to reduce negative impacts for this category and influencing the actioning of measures to reduce the impact is beyond the remit of the scheme.
<b>Completed by</b>	Naqeeb Hussain
<b>Climate action sign off by</b>	Sandra Fisher-Martins
<b>Director sign off by</b>	
<b>Assessment date</b>	44685



## Detail of proposal

<b>Context / Background</b>	<p>The HIF2 Project ('the Proposed Development') consists of three elements:</p> <p>Scheme 1 – A40 Dual Carriageway Extension – dualling of an approximately 3.2km long section of the A40 between Hill Farm Junction at Witney and the proposed Park and Ride at Eynsham with associated junctions and property accesses, as well as an upgrade to the active travel shared path on the northern verge of the carriageway ('Dualling').</p> <p>Scheme 3 – A40 Integrated Bus Lanes – installation of an approximately 6.5km long section of joint eastbound and westbound bus lane between the proposed Park and Ride at Eynsham and Duke's Cut with associated junction alterations and improvements, as well as improvements to the active travel shared paths alongside the carriageway ('IBL').</p> <p>Scheme 4 – A40 Duke's Cut – capacity and connectivity improvements over the four structures at Duke's Cut (Earl's Culvert, Duke's Cut Canal Bridge, Wolvercote Canal Bridge and Wolvercote Railway Bridge) to enable the bus lane(s) to be extended over the bridges, as well as an active travel shared path link to the National Cycle Network (NCN). The Proposed Development also includes for two complementary pieces of highway infrastructure ('the Salt Cross Garden Village (SCGV) works') which are not part of the original 'HIF2' funded scheme, but which are a requirement of the proposed SCGV site allocation immediately to the north of the A40:</p> <p>The Eynsham Underpass – an underpass linking the existing settlement of Eynsham to the proposed SCGV to the north of the A40. The Western Development Roundabout – a new roundabout to the West of Eynsham providing the main access from the A40 to the proposed SCGV.</p> <p>The Proposed Development is located wholly within the administrative boundary of Oxfordshire County Council (the County Planning Authority). The Site passes through the administrative boundaries of three local authorities: West Oxfordshire District Council (WODC), Cherwell District Council (CDC) and Oxford City Council from west to east.</p>
<b>Proposal</b>	<p>Please review the business case for further detail.</p>
<b>Evidence / Intelligence</b>	<p>Assessments and reports on the scheme include:</p> <ul style="list-style-type: none"><li>- A40 Smart Corridor Scheme, Environmental Statement (ES) for Oxfordshire County Council (AECOM, November 2021)</li><li>- A40 Smart Corridor Scheme, Transport Assessment for Oxfordshire County Council, (AECOM, November 2021).</li></ul>

<b>Alternatives considered / rejected</b>	Can be found in the relevant Options Assessments Reports for each of the schemes
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Category	Impact criteria	Score (-3 to +3)	Description of impact	Actions or mitigations to reduce negative impacts	Action owner	Timeline and monitoring arrangements
Energy	Increases energy efficiency	1	Street lightning and Traffic Signals replaced with LED lighting, but more of it, lights to be dimmed by 75% during the night. Stone Mastic road surfacing to be applied, lowering speed limit to encourage more continuous movement from vehicles rather than stop-starts.	Any and all lighting proposed/impacted by the scheme will provide/improve to lighting standards.		
Energy	Promotes a switch to low-carbon or renewable energy	0	n/a			
Energy	Promotes resilient, local, smart energy systems	0	n/a			
Transport & Connectivity	Reduces need to travel and/or the need for private car ownership	-2	Better roads and improvements to journey times could increase desire to travel. Scheme is not promoting additional travel/car use as facilities for public transport and active travel are being provided.	Increase options of travelling by promoting active travel and sustainable means of travelling. OCC to commence development and implementation of behavioural change policy.	OCC - A40 Smart Corridor Scheme team. Monitoring to be performed by OCC team that is TBC.	Scheme is to be established in 2025 to enable these active travel options. Uptake of active travel to be monitored at this point.
Transport & Connectivity	Supports active travel	3	Scheme focuses on increasing active travel options in the area - increased walking and cycle routes, segregated provisions according to standards, signalised crossings, future proofing for further legislation changes that support active travel.	OCC to commence development and implementation of behavioural change policy.		
Transport & Connectivity	Increases use of public transport	2	Dedicated bus lanes, additional bus stops, increased provision at bus stops for cycle-to-bus interchange, real time information improvements, improvements in service network.	Continue liaison with bus operators to confirm service improvements.		
Transport & Connectivity	Accelerates electrification of transport	0	No impact			
Buildings	Promotes net zero new builds and developments	-3	Reason for scheme is to facilitate increased population brought about by new housing developments in oxfordshire	Outside remit of scheme to influence mitigation measures of the properties that are to be developed.		
Buildings	Accelerates retrofitting of existing buildings	0	n/a			

Category	Impact criteria	Score (-3 to +3)	Description of impact	Actions or mitigations to reduce negative impacts	Action owner	Timeline and monitoring arrangements
Nature	Protects, restores or enhances biodiversity, landscape and ecosystems	2	Biodiversity Net Gain of 10% is the target of the scheme, restoring but not protecting existing vegetation that is to be cleared. Slight lag in restoring levels of biodiversity (negative from vegetation clearance is mitigated by BNG measures that are in place like new landscaping etc.) but the end outcome will be a Biodiversity Net Gain of 10%.			
Nature	Develops blue and green infrastructure	3	Increased blue infrastructure - attenuation ponds, swales via drainage designs that manage surface water run-offs, increased green infrastructure - New landscaping (wide hedgerows, woodland strips and other enhancements outside of site boundaries including meadow enhancement schemes and woodland planting) to achieve 10%			
Nature	Improves access to nature and green spaces	1	Improved accessibility to local wildlife site and canal tow path. Recreational enhancements in some sites along the scheme. Improved access to Public Rights of Way.			
Waste & Consumption	Reduces overall consumption	-1	Design specification to include materials that reduce consumption including warm asphalt to be used instead of hot-rolled asphalt. Reduction in excavations to prevent refilling of ground and reduce material consumption also an example of methods that are being/will be implemented.	Detail design phase to review requirements and development of material usage/specification.		
Waste & Consumption	Supports waste prevention and drive reuse and recycling	2	Contractor requirement for contractor to achieve 70-80% recycling target during construction. Recycled material to be include in design specification	Detail design phase to review requirements and development of material usage/specification.		

Category	Impact criteria	Score (-3 to +3)	Description of impact	Actions or mitigations to reduce negative impacts	Action owner	Timeline and monitoring arrangements
Resilience & Adaptation	Increases resilience to flooding	1	Flood impact assessment and modeling has been performed, result was that there was no effect of scheme on flooding. Have incorporated all flood compensation required within highways boundary to ensure that there was no impact on flooding.			
Resilience & Adaptation	Increases resilience to other extreme weather events (e.g., storms, cold snaps, heatwaves, droughts)	1	Incorporated within impact assessment	Further assessment work to be undertaken during detail design phase.		
Resilience & Adaptation	Increases resilience of council services, communities, energy systems, transport infrastructure and/or supply chains	1	Improvements to transport infrastructure by providing improvements to alternative means of transport	Further assessment work to be undertaken during detail design phase.		
Procurement & Investment	Procurement practices prioritise low-carbon options, circular economy and sustainability	2	OCC Success Factors of Environmental considerations and sustainability were/are always considered when procuring suppliers. Environmental, Waste and Sustainability requirements are part of the MHA and SCAPE frameworks that A40 team are using to procure suppliers. Consideration should be given to sustainability through all stages of the project. Throughout the development of the detailed design the Consultant shall maintain a Register of Consideration of Sustainability that covers optioneering, design, construction methods etc.	Procurement strategy is two stage tender, 2nd stage will consider approach to construction methodology/adoption.		Beyond 2025 (post-construction of the properties and the improvements to the highways.) Monitored by assessing consumption of new developments and commissioning schemes to counter the net positive carbon (if that is the case)
Procurement & Investment	Investment being considered supports climate action/ is consistent with path to net zero	-2	Introduction of properties in the area bring about various increases in consumption that lead to the carbon footprint rising (more cars/fuel usage, domestic energy usage, waste production and embodied carbon for each house), not being mitigated entirely by the measures brought about by the smart corridor scheme.	To establish further improvements to the local infrastructure to facilitate increased active travel and generally a path to net zero.	OCC Major Infrastructure Capital Programme	
People & Organizations	Drives behavioural change to address the climate and ecological emergency	2	Provision of infrastructure to support low/zero emission travel being provided by the scheme.	OCC behaviour campaigns to commence ASAP.		

Category	Impact criteria	Score (-3 to +3)	Description of impact	Actions or mitigations to reduce negative impacts	Action owner	Timeline and monitoring arrangements
People & Organizations	Drives organizational and systemic change to address the climate and ecological emergency	0	N/A			
Just transition	Promotes green innovation and job creation	1	Job creation during construction	Promotion and incorporate more "smart" technology within infrastructure e.g. real time information.		
Just transition	Promotes health and wellbeing	2	Improved walking and cycling routes. Health impact assessment was carried out with no significant adverse impacts to health or adverse AQ or NQ impacts found.	Medium to long term goals to integrate PRoW to green spaces.		
Just transition	Reduces poverty and inequality	2	Access to bus services and more affordable transport and via an easier reach.	Continue liaison with bus operators to confirm service improvements.		