

Essex
Highways



Essex Highways Annual Plan 2022-2023

SAFER/GREENER/HEALTHIER

 RINGWAY
JACOBS
Integrated expertise


Essex County Council

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Foreword

Essex County Council appointed Ringway Jacobs in 2012 to undertake our highways work and much has been achieved. Using data and asset knowledge we have focused our resources, improved our main roads, and helped Essex County Council achieve 'Transport Local Authority of the Year' in 2017. Ringway Jacobs was awarded a full, five-year contract extension in February 2020, ensuring continuation of service until 2027.



Councillor Lee Scott

Cabinet Member for Highways Maintenance and Sustainable Transport

Investment in transport infrastructure, services and initiatives is vital to Essex County Council and its Everyone's Essex strategy, which sets out 20 commitments for the next four years, divided into four key areas - economy, environment, health and family. Through the Essex Highways Framework, Essex County Council is delivering vital highways and transportation services, investing in new and improved transport infrastructure, and leading campaigns and initiatives to encourage people to travel more sustainably, underpinned by the Safer, Greener, Healthier initiative and in line with recommendations from the Essex Climate Action Commission.

Delivery of a Safer, Greener, Healthier highways network is supporting the Authority's focus on the longer-term future economic growth and technological challenges facing transport in Essex. We are helping to create the stepping-stones that will enable us to realise the Vision we have for 15 or 20 years' time. Initiatives include introducing, supporting and funding various projects across Essex such as creating new walking and cycle paths as part of the Active Travel Fund and trialling e-scooters.

We have already achieved an ambitious and transformational funding bid from the Department for Transport, enabling us to create safe walking and cycling routes in Essex. We want to make it as easy as possible for people to travel more sustainably - walking, cycling, e-scootering or taking the bus or



Councillor Lesley Wagland

Cabinet Member for Economic Renewal, Infrastructure and Planning

train - especially for shorter journeys.

Much of the success of our stewardship of the Essex highway network can be attributed to the effectiveness of the award-winning strategic partnership between Essex County Council and Ringway Jacobs. This year sees the beginning of Ringway Jacobs' maximum five year extension to the original 10-year highway network management contract, running until 31 March 2027. This decision demonstrates the continued benefit the local authority sees in the unique value that Ringway Jacobs brings to the council and the Essex public through its integrated, asset-management led highways solutions.

Essex Highways benefits from the support, expertise and experience of two County Councillors. Cllr Lee Scott has jurisdiction over Highway Maintenance and Sustainable Transport.

Cllr Lesley Wagland, under her remit, is involved with the Major Projects teams, and working collaboratively with other transport stakeholders e.g. National Highways, Network Rail, Airport & Port Authorities on the planning and development of the transport infrastructure required to support economic growth in Essex.

Together, we all have a huge role to play in the way we support the county's mobility needs, and deliver Safer, Greener, and Healthier travel options for all.

Introduction

This Annual Plan provides an overview of the strategy to deliver task orders and budgets as detailed in the individual 2022-23 Service Plans, and highlights both service delivery achievement and priorities for this year



Essex Highways is a collaborative delivery partnership, created in 2012 by Essex County Council and Ringway Jacobs, to manage and deliver local highway services from the amalgamation of 10 separate highway contracts

Essex Highways comprises both Essex County Council and Ringway Jacobs people who are totally integrated throughout all levels of the service.

The partnership delivers an integrated service supported by direct-resource and over 100 supply chain partners, the majority being Essex based.

The Essex Highway asset covers over 5,000 miles of roads, 1,500 bridges, 4,000 miles of Public Rights of Way and 131,000 street lights. It is the seventh largest network in the country and has some of the heaviest traffic flows.

Natural deterioration, increased volume use and environmental impact, such as extreme weather, means that the asset can't be maintained within existing budgetary constraints - a challenge faced by all local authorities. Our Asset Management approach and strategy is all about planning ahead to maximise the use of our resources, protect the existing infrastructure and prioritise works for the best long-term benefit.

Our aims for the service are as follows:

- 'Deliver a common vision, working collaboratively, seamlessly and with integrity and transparency'
- 'Engage with our transport network users and provide them with the right information to help shape Essex priorities'
- 'Ensure everything we do supports the drive towards a greener Essex, promoting options that have a positive impact on everyone's health'
- 'Prioritise a safe environment for everyone travelling or working on our network, including safe design, delivery and use'
- 'Optimise our resources through efficiency and innovation to deliver the best possible outcomes while continuing to build future service resilience'
- 'Support the economic and social prosperity of Essex through joined up, accessible services'

Through these aims we will realise our vision of 'Delivering and enabling Safer, Greener and Healthier travel for current and future users of the transport network in Essex'. We will improve public satisfaction on all aspects of the highway network by maximising the commercial and strategic opportunities available through this partnership. Essex Highways is maintaining and adding to the existing highway network of which the residents of Essex can be proud.

Building on success

Since 2012, Essex Highways has effectively and innovatively managed the county's biggest and most valuable asset, resulting in the public having a safe, accessible, serviceable and sustainable highway network. 2020 began with ECC awarding Ringway Jacobs with the full five-year Essex Highways contract extension...

In February 2020 Essex County Council (ECC) awarded Ringway Jacobs the maximum possible five-year Essex Highways contract extension which runs from 1 April 2022 until 31 March 2027. The extension award followed the most intensively examined, independently benchmarked and scrutinised contract review process in the County Council's history.

The contract extension enables the partnership to continue this legacy and deliver an enhanced, innovative, industry leading service, while looking at making environmental and efficiency improvements for the citizens of Essex. It can continue to pull-through technological, material and digital innovations and deliver high levels of customer service.

Indeed, the partnership's approach to Asset Management has seen it gain successful accreditation to BS ISO 55001 Asset Management, no easy task given the scale of the challenge, the size of the network and the complexity of the infrastructure in Essex. This approach has helped Essex Highways consistently achieve Level 3 DfT Incentive funding over the past four years - in fact one of the strengths of the contract is that it has managed to secure a lot of external funding, such

as the HIF funding announced in 2019. Over 50% of the money that was allocated for the first tranche was given to Essex (see Major Projects, page 18).

We are continually improving the highway network, reducing cost through innovation, delivering efficiencies, while helping ECC to achieve its Strategic Aims. Essex Highways directly helps to enable inclusive economic growth, but also helps to create **Safer, Greener, Healthier** places in which to grow up in, to live in and work in.

Our ambition is to create a road environment that is safer, encouraging more residents to cycle or walk, especially for shorter journeys. We are also working up sustainable transport solutions to ensure that Essex reduces carbon emissions and delivers long-term greener benefits. We aim to deliver long-term public health benefits so that our residents become and stay healthier.

There is much more to do and more challenges to face, including the financial and social consequences of the COVID-19 pandemic and global economic downturn but the contract has achieved numerous and significant successes so far, all of which endorse the capability of this truly excellent partnership.



Health and Safety

‘Think Safe, Home Safe’ has become the cornerstone of Essex Highways’ culture since its introduction in 2015. It focuses our dedication to providing a safe working environment, ensuring our employees go home safely at the end of each day



Our health and safety objectives are honed annually and encourage staff to focus on appropriate themes each and every month throughout the year, supported by online training modules and Tool Box Talks.

Positive Mental Health is key to the well-being of our people and forms part of our ongoing cultural change journey to improve health and safety standards.

2017 saw the launch of ‘Open Minds, Healthy Minds’ our vehicle to embed and implement awareness of positive mental health into our culture. This initiative has been hugely successful. In 2020, our trained Positive Mental Health Champions responded 345 times to staff that requested their help. On top of this every member of staff was called by the PMHC, many were phoned twice during the year.

In 2018 our organisation completed a best practice Five Star Occupational Health and Safety Audit conducted by the British Safety Council. This involved a review of our overall approach to safety management systems, as measured

against a number of best practice benchmarks. In total, we underwent a detailed review of over sixty component elements. As a result, Ringway Jacobs was awarded a five-star grading following the audit, with an outstanding score of 97.88%.



Following this, Ringway Jacobs was awarded the renowned Sword of Honour from the British Safety Council (BSC) in 2019 and again in 2020, joining the small number of elite organisations worldwide that have achieved this accolade. The

Sword of Honour is awarded to companies that have demonstrated excellence in the management of health and safety risks at work.



The BSC’s Sword of Honour and Globe of Honour represent the pinnacle of achievement in the world of health and safety management. Successful applicants, demonstrate that they are among the ‘best of the best’.

Our approach is recognised beyond Essex. As well as being one of the first organisations worldwide to achieve ISO 45001 for health and safety management best practice,

Ringway Jacobs was again awarded a ROSPA Gold Award in 2021, marking three consecutive years for this achievement, recognising consistently excellent and continuous improvement in performance and an innovative approach to health and safety.

A key risk area for Ringway Jacobs is Roadworks Incursions and Abuse. Here in Essex, our roadworkers have experienced being threatened with baseball bats, knives, had bottles of urine thrown at them and have been both physically and verbally assaulted just for doing their jobs.

In one incident TM operatives had to restrain someone until police arrived. Perhaps most chillingly, two years ago, Essex Highways operatives were threatened with a gun at Brook Street, Brentwood. Following that incident, Essex Highways held a couple of meetings with Essex police to discuss ideas to reduce roadworker abuse.

Consequently, Essex Police are supporting our road workers by patrolling hot spot areas and attending whenever necessary. Road-users will see new signs displayed at road closure sites, which will act as a reminder that police officers are in the area and will act in the event of abusive behaviour.

It may take some time to effect any change, but efforts will continue through 2022/23 to ensure that our operatives get more protection from members of the public who cause this problem.

Our operatives are urged to report every incident of this type and the Police have requested that operatives should always submit their body-worn footage to them if they've captured an incident. The Police will investigate thoroughly and all instances of prosecution will help reinforce the clear message that abuse of any kind against our staff will not be tolerated.



Sword of Honour 2020 Winner

Roads

Effective asset management of roads and footways leads to a safe, accessible, serviceable and sustainable highway network which is vital for providing access to key services such as employment, healthcare, education, social services, sports and leisure

Essex has maintained the status of “Level 3 of the Department for Transport Highway Maintenance Incentive Fund” since 2017/18 and our expectation is to retain this additional funding (worth £3,409,000) during 2021/22 based on a recognised asset management approach.

Our asset-led maintenance strategy ensures that informed evidence-based

decisions are made on the maintenance of all highway assets, giving the benefits of long-term planned works. Investment in road and footpath maintenance is delivered at carefully planned intervals over the lifecycle of each route.

The Technical Working Group (TWG) a joint body within the partnership, reviews and updates current specifications, materials, technologies

and treatment options across all service areas in support of delivering value for money.

The frequency of inspections is determined by the Essex Highway Maintenance Strategy with PR1 roads inspected monthly, PR2 roads inspected quarterly, and local roads inspected annually. This equates to approximately 2,000 km of road length inspected in any given month. See

the Efficiencies and Innovations section for how we are improving this service.

For 22/23 the strategic direction continues with the strategy of maintaining the county routes subject to sufficient funding while focussing capital funding on residential areas to target those areas in deteriorated condition in addition to addressing residents’ concerns.

204
Road surfacing schemes completed in 2021/22

167
Road surfacing schemes confirmed for 2022/23

Defects fixed during 2021/22
P1: 1930 P2: 2517 P3: 4682 P4: 2287
We expect to achieve similar numbers during 2022/23

Good coverage in 2021-22

Inlay Surfacing: 402395 sq.m; 68,430 tonnes laid; 87 sites completed. 53km

Surface Dressing (TOTAL) – 971,155sq.m; 80 sites. 154km
Entyre 882,186 (939,618 – 57,432) sq.m; 73 sites
CE – 52,929 sq.m; 0 sites;
Lokchip – 36040 sq.m; 7 sites

Micro surfacing (TOTAL) – 193,669 sq.m; 40 sites. 34km
Micro surfacing (machine lay) – 144,617sq.m; km; 21sites
Micro surfacing (hand lay) – 43,243sq.m; km; 10 sites
Micro Surfacing (Rejuvopatch) – 6,079 sq.m; 9 sites.

Footways

Essex Highway's strategy for footways is to deliver condition improvements to heavily trafficked assets while maintaining usability of the remaining network.

Pre-patching and civils work delivered throughout the year facilitates the delivery of slurry works during the optimum time of April-September - adopting this activity in the later period of the year, helps optimise delivery in the preceding year.

The intention is to always deliver all slurry work by the end of November. Works not completed by this date will be rolled into year 12. Any surplus budget for this activity will be re-allocated to deliver additional patching sites as preparation for the slurry treatment in year 12.

For Year 11, £1M is being made available specifically for cycleway improvements. These works will be delivered by the Minor Capital Works Team alongside the Capital Footway programme.

The addition of funding for cycleway repairs is aligned to the Essex Highways Vision and Key Aims for enabling Safer, Greener and Healthier travel for current and future users of the transport network in Essex.

Verge cutting

Verge cutting is an important aspect of keeping roads and footways safe for users. Roadside verges are cut to preserve sightlines and keep them clear of overhanging trees and shrubs, paying special attention to cutting down growth along our high-speed roads, which includes sections of the A13, a little of the A120, A130, A127, A1245 and A133.

Verge cutting season on "fast roads", usually begins in June where most of the work is completed overnight because the necessary traffic management, traffic lights and lane closures which would otherwise cause congestion. At the same time, the first application of weed control (of two annually) is done in Braintree, Colchester, Maldon and Uttlesford, with other areas following.

Untreated weeds can have a detrimental impact to our network as they can grow quickly, ultimately causing damage to drains, footways and road surfaces.

As is our statutory obligation, our proactive approach to dealing with weeds and vegetation helps us to protect the asset and preserve its lifespan and represents better value for money for the residents of Essex in the long run because it helps to keep down maintenance costs.

53
footway
replacements
completed
during
2021/22



75
footway
replacements
confirmed
for
2022/23



18535 km
of weeds
treated in
2021/22
similar number
expected
2022/23

5020 km
of grass
verge cut
2021/22
similar number
expected
2022/23

Summer also sees the Parish verge-cutting programme, in some districts carried out by our partner companies, in others the City, Borough or District council make their own arrangements.

Essex Highways is working closely with partners to trial grass cutting regimes that will increase biodiversity as well as continuing to support the maintenance of 60km of Special Verges, so designated as they provide an important habitat for wildflowers and other native species in Essex.

Quality

Quality is about ensuring that our whole service delivery is at the highest standard. Our aim is not only to maintain this but to strive to continually improve it. Quality is measured externally through accreditation to various BS ISO standards



Quality is managed through site inspections / audits carried out by supervisors, managers, internal and external auditors. The audits assess the quality of works as well as Health, Safety and Environmental compliance. Quality is also assessed through the 'Right First Time' audits carried out by a varied selection of supervisors, engineers and highway inspectors.

Essex Highways is certified to the following standards:

- BS ISO 9001 – Quality Management Systems
- BS ISO 14001 – Environmental Management
- BS ISO 44001 – Collaborative Working
- BS ISO 45001 – Occupational Health & Safety
- BS ISO 55001 – Asset Management

Essex Highways was one of the first organisations in the country to be accredited to BS ISO 55001 Asset Management of footways and carriageways in March 2017. One of the main benefits of this accreditation is that it has helped to secure additional funding from the DfT through the Highway Maintenance Incentive Fund which amounted to £3.409m in 2021-22. In February this year, British Standard auditors recommended our re-certification to BS ISO 55001 for three years and stated that our performance has remained consistently high. This will re-assure other external bodies, including the Department for Transport, when assessing us for the Incentive Fund and other initiatives, helping to secure additional funding for Essex County Council's highways service.

The certification is currently for carriageways and footways, however, our ambition is that we can expand this to cover all highway assets at the next re-certification. Throughout 2022/23 the DfT will work with local councils to develop Incentive Fund future questions going forward. It is highly likely that a question on Sustainability will form part of

the scoring process for the 2022/23 submission (for 2023/24 funding). Essex Highways has set up Action Groups to develop its approach to reducing its carbon footprint and improving the biodiversity of our works, and the Asset Management Team is working closely with the other RJ Contracts to ensure a coherent and favourable position for the anticipated submission at the end of 2022/23. Accreditation to these standards recognises that we have industry leading processes and supporting culture to deliver our services to the highest levels. However, the real measure of quality lies in continuous improvement and innovation and this is monitored and reflected in Essex through the contract KPIs. Key objectives this year include:

- Management of the Ringway Jacobs Management System (RJMS) to ensure its continued fitness for purpose.
- Maintain accreditation to ISO 9001, 14001, 44001, 45001 and 55001 standards.
- Maintain the accreditation to ISO 55001 – Asset Management the scope of which currently includes carriageways and footways.
- To support the organisation's long-term objective to work towards extending the scope of ISO55001 to include the additional disciplines of ITS, Street Lighting and Structures.
- Manage the audit programme against BSI standards and internal processes.
- Maintain the EH / ECC joint audit programme and ensure consistent reporting and actioning of outcomes through Business Improvement Actions and Joint Improvement Programme.
- Manage the Business Improvement Actions process to ensure that they are closed in a timely manner and corrective and preventative actions are clearly and accurately identified.
- Joint development of the Key Performance Indicator (KPI) Framework and reaching timely agreement.
- Collection of Performance Indicator results from the various sources and collating into the summary report.
- Production of monthly KPI Dashboard report.
- Production of monthly Essex Highways Board (EHB) Dashboard report.
- Attendance at the monthly Performance Management Meeting (PMM).
- Attendance at the Contract Review Meeting (CRM)
- Attendance at the Joint Audit Tracker Meeting (JAT)
- Maintain the Business Continuity Plan and liaison with ECC to ensure contractual compliance.
- Production of the monthly SHE report
- Maintain the Social Value portal for a further three years
- Coordinate the review of contract processes and procedures

Efficiencies and Innovation

Doing something new or in a different way to improve the business and provide an excellent customer experience...



Efficiencies and innovations from all areas of the contract are managed through this team. In agreement with ECC Commissioning, all efficiencies are required to deliver cashable savings. The team is responsible for:

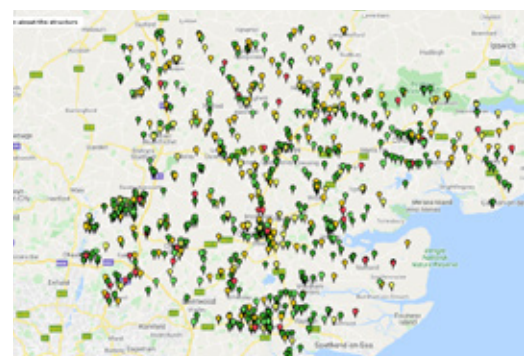
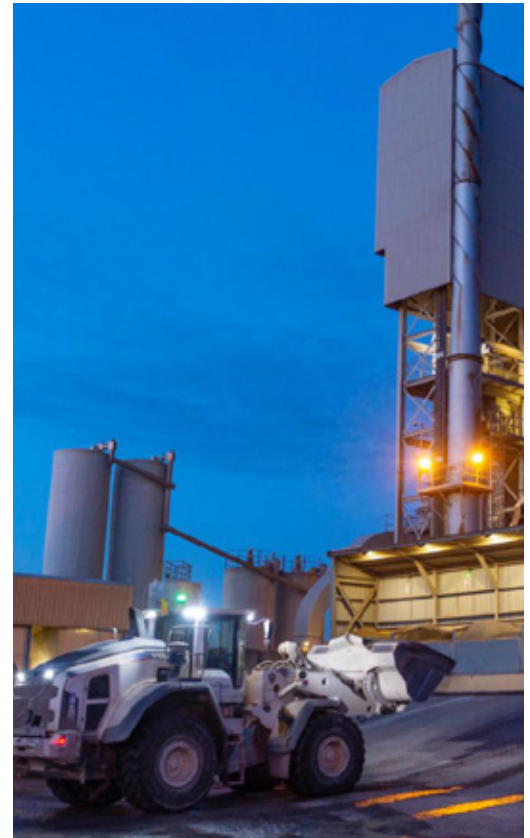
- Identification, development and reporting of innovations and efficiencies within Essex Highways.
- Supporting the Efficiencies Working Group.

Our focus is on delivering those efficiencies where budget reductions (cashable efficiencies) can be made. These can either be one-off cost reductions (a change of material or process for an individual project) or the renegotiation of supply chain contracts. System developments are also key to gaining service improvements with a particular focus on the electronic handling of information, enabling the service to become more data/intelligence led. Essex Highways is continually introducing new innovations and new technology on the network to improve efficiency, drive quality and exploit sustainable energy.

In 2020, for example, we trialled the use of 'Warm Asphalt', a more sustainable production process through reducing the operating temperature. In doing so, our shareholder Eurovia has cut production carbon emissions by over 25%, helping us make road surfacing Safer, Greener, Healthier.

Roads AI, provided by Vaisala, an alternative road condition survey using artificial intelligence software that teaches the system how to identify and treat different types of condition related defects. We have also implemented the use of BridgeStation, an advanced bridge management system purposely developed to assist in the effective management of bridges and associated data.

In 2022-23 the service is looking to continue to realise efficiencies through Service Improvement cards. As part of an overarching Transformation Programme, a number of potential ways to improve processes, remove duplicity of effort and methodology that isn't working have been identified. Having been assessed for viability and in terms of how much money can be saved, they are being implemented across the service.



Asset, Records Management and Inspections



Asset Team

Through adopting best practice, the Asset Team ensures delivery and compliance in accordance with the integrated asset management-led policy and strategy to maximise the benefit of investment across all ECC assets.

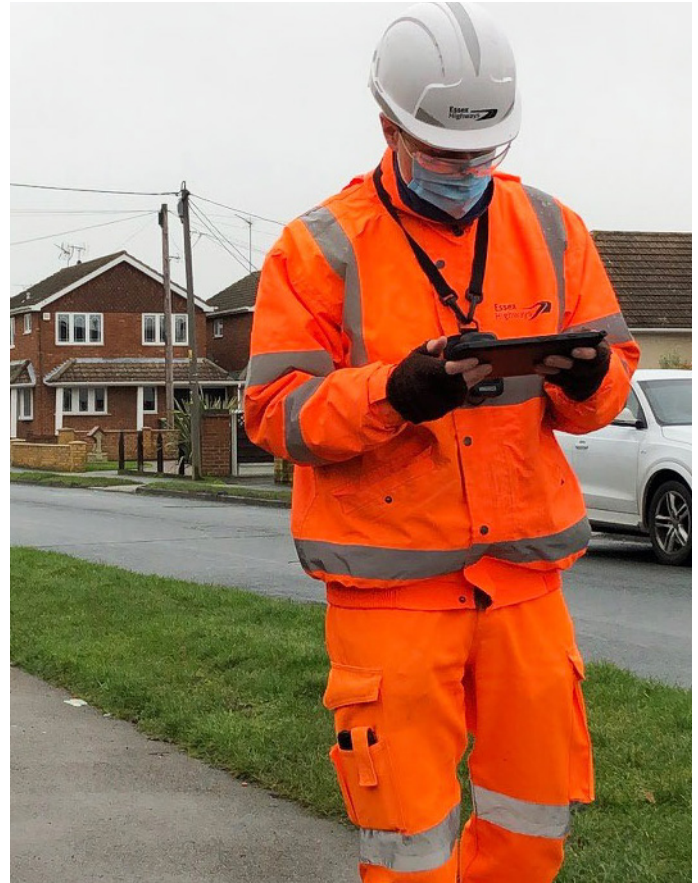
The team ensures that asset data systems are kept up to date, are fit for purpose and that accurate data is readily available for internal and external customers and stakeholders. The team provides prioritised asset derived information to drive the organisation's long-term forward programme.

The team will continue to deliver annual activities such as investment planning / modelling and prediction for asset groups. This will include the provision of investment scenarios to assist discussions with the Cabinet Member for Highways Maintenance and Sustainable Transport, as well as completion of the required business cases for investment.

Additionally the team will continue to undertake data management activities, scheme identification and validation all to fit with the strategy agreed with the Cabinet Member. Development of systems and processes will assist with the above activities.

Definitive Map and Records Team and Land Searches

Economic growth in Essex is facilitated by providing a prompt and efficient land charge enquiry service to District Councils. The team delivers statutory functions associated with maintaining the Definitive Map of Public Rights of Way, providing a service to carry out Public path



Orders and liaison with planners to minimise impact/ maximise potential for the PROW network as affected by planning applications.

It also provides responses to Highway Record Enquiries and promotes further development of web-based IT to facilitate self-service by the public.

Inspections Team

Established for several years, this team carries out routine Highway Safety Inspections and has a reputation for delivering consistent quality services.

All Inspections of the highway are undertaken on a routine basis. The frequency of inspection falls in line with our hierarchy of the network and the usage of the asset. All defects logged on a routine or adHoc inspection are risk assessed and prioritised accordingly. Highway safety

inspections provide a record of defects meeting the investigatory levels set out in the Essex Highways Maintenance Strategy including those in connection with carriageways, footways, road signs and street furniture.

This information can therefore be used as the basis for any court defence. Due to their knowledge and experience, staff are regularly called upon to provide evidence at Court in defence of third-party claims against Essex County Council and Ringway Jacobs.



Asset and Records

Over the next three year period the strategic approach taken by ECC will be asset-led yet still consider customer requirements. Asset management strategy and policy will continue to deliver an increased understanding of the condition of our assets to help define a long term, asset-led programme for maintenance and renewal, as well as assisting in meeting the Safer, Greener, Healthier and Everyone's Essex agendas. The team's focus for the coming years will be:

- Sustaining DfT Band 3 status.
- Consolidate the team into a single asset team, providing training as necessary
- Work with Network Rail to deliver the outcomes of the level crossing closure decision as appropriate.
- Continue the England Coast Path project.
- Strategic Asset Management Plan.
- Bids for external funding to supplement ECC budgets.
- Establish a highway enforcement team, focus on a training and development plan for new appointees
- Embed new ways of working into the newly formed single PRow team including the new PRow hierarchy (pending approval of the PRow Maintenance Strategy)
- Continue to deliver land searches
- Target long standing PRow enforcement cases
- Continued investigation into Carbon impacts and measurement
- Production of a Highway Infrastructure Asset Management Plan (HIAMP) and Resilient Network plan to meet the requirements of the incentive fund 2022/23 assessment.
- Roll out Phase 3 of remaining Maintenance Strategies (PRow, Skid resistance and VRS).
- Complete Winter network review.
- Develop a 5-year programme detailing risks and associated mitigations / planned works and timescales.

Inspections

Over the next three years, the inspection regime will continue to be developed to support our asset led decisions. The asset-led approach to inspections delivers revenue maintenance asset condition data that also supports the commissioned capital maintenance programmes. Further opportunities for enhanced data capture during 2022/23 include the rollout of Roads AI and Route Optimisation.

Roads AI has been introduced into the inspections team for with a view to implementation on all driven routes on the network. This new driven process can be undertaken by a single inspector while the route is recorded via a Roads AI device mounted in the windscreen of the vehicle. This removes the need for the driver to stop at each defect identified as any identified issues on the network will be recorded upon reviewing the footage.

Highway Inspections

The team continues to be responsible for routine safety inspections for all adopted roads in Essex. The frequency of inspections is determined by the Essex Highway Maintenance Strategy. A recent review of



the strategy has taken into consideration the “Well Managed Highway Infrastructure” approach which has now been implemented.

The remote footway network has been mapped in the asset management system, CONFIRM, which allows better quantifying of the length of network to be inspected. This makes it possible to review the geographical areas covered by each Inspector with a view to redistributing work across the team to better balance the workloads.

The data capture of condition associated with this network, will also help to improve the focus of the capital footway programme. The team will also continue to support data capture exercises such as those to inform bids submitted by other sections within Essex Highways on behalf of ECC to the Department for Transport for dry weather damage.

The team will work with other elements of the Service including Maintenance & Operations and Network & Safety to identify if there are further elements of data capture that can be undertaken on inspections. This will allow better informed decisions about works programmes to be made.

Enforcement (Highways)

The team was expanded as part of the transformation programme and much of this year will be spent establishing the team, confirming and delivering training needs, working practices, target areas in order to get the new team members working independently. This will include elements of training for other areas of the business so they are clear on what constitutes an enforcement case.

Enforcement (PRow)

As well as dealing with multiple issues as they arise on the PRow network, several long-standing enforcement cases were progressed throughout year 2021-2022. In 2022-2023, we will identify a small number (usually 3-4 depending on complexity and other ongoing cases) of cases to proactively try to address and -resolve long-standing enforcement issues.

Bridges, Subways and other Structures

Ensuring the maximum life of all structural assets through targeted maintenance, to provide safe and accessible passage along the highways

There are 1500 structures throughout Essex which are varied in age and complex by nature, comprising bridges, subways, retaining walls, culverts and headwalls. The condition of these assets requires management through regular inspections and maintenance. This inevitably leads to the design of improvements or replacement of existing structures.

The importance of improving the Asset Led approach for Structures is recognised, and the commitment to improve our asset data on structures will continue to be followed. In addition, the new maintenance policy for structures will be embedded. Our ongoing Structures Improvement plan has three areas of improvement which are:

- Principal inspections - Essex Highways is looking to implement a risk based approach PI programme
- Structural reviews - following a Principal Inspection, a Structural review will be undertaken.
- Management of sub-standard assets - completion of a standalone review (not dependent on other works taking place) of all substandard assets

The work on Principal Inspections (PIs) is a clear example where efficiency, innovation and service resilience has all been delivered in one project. Where access equipment was previously required this has been replaced by the use of drones and the process for all of the PIs has been stripped back to simply collect the data and input it directly into Bridgestation. The system stores all relevant data and assumptions and can be kept up

to date with any changes to the asset. This then automatically appraises the asset on priority of reassessment in accordance to the standards. This approach will provide Essex Highways with up to date conditions of their assets and better understanding of the impact they will have to the highway network.

We will continue monitoring throughout the year to ensure that all interested parties are clear about potential risk, aware of the current status of the structures asset and agree plans for future works. The schemes contained within the capital programme prioritises the structures with the highest risk. During 2021-22, 13 major bridge repairs were carried out as part of the year's improvement schemes that were either investigated, prepared or delivered, including the high profile Oasis Bridge in Chelmsford. 25 schemes are planned to be delivered, with a further 52 in various stages of assessment and design during 2022-23.

On occasions, temporary weight limits are imposed on structures while the design of a repair or replacement is completed and / or funding made available. In extreme cases, the passage of traffic over the structure might be restricted or prevented in the interests of safety.

The management of abnormal loads and weight restrictions are also a key element when it comes to managing the county's structures. Each individual bridge on the route is checked by a dedicated Abnormal Loads Office to ensure that they are capable of supporting the proposed loads.



Oasis Bridge, Chelmsford

10
schemes
developed
from feasibility
to design -
13 constructed
2021-22

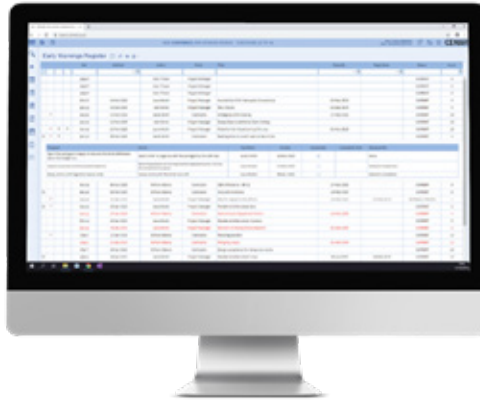
52
improvement
schemes
planned for
delivery
and **25** works
2022-23

Commercial

The commercial team plays a key role in Essex Highways, supporting all areas of the Service to ensure compliance with the requirements of both the Essex County Council contract and the commercial governance of Ringway Jacobs

While the Commercial team does not own any Task Orders, it has a responsibility to assist Task Order owners to ensure that budgets and outputs are delivered in a contractually compliant and efficient manner.

The Commercial team's key responsibility is to ensure the delivery of all obligations set under the contract. It also provides greater visibility, control and auditability, any key contractual notifications, communications and/or decisions. All of which are recorded within the CEMAR contract administration system. This web-based change management tool provides a base upon which the administration of existing contract mechanisms are managed while building a data log that provides valuable analytics as the contract evolves. It helps provide control and visibility as is as a single source of information directly relating to the management of all Task Orders. CEMAR ensures live management of Task Orders, making it possible for all relevant individuals to access information with the confidence that it is up to date and accurate.



- promoting long term agreements with the supply chain in return for reduced fees, rates or cost inflation certainty. This provides the supply chain with the ability to plan, and programme works and resources in the most efficient manner.
- procuring materials for free issue to the supply chain, removing an element of overhead and profit mark-up assisting the Operations team to make informed decisions over whether to subcontract or self-deliver works (such as reviews of traffic management, gully cleansing and the provision of operated plant)

Environment, Decarbonisation and Sustainability Management

The team works with delivery teams to ensure compliance with the accredited standard ISO14001 – Environmental Management. The main driver has been the monitoring and reduction of waste. Waste is not only a direct cost but also a waste of natural resources.

Waste is to be minimised and is considered during the procurement process. Supply Chain Partners are encouraged to promote ways to minimise waste to reduce the cost of waste disposal. In addition, The Social Value Act 2012 requires organisations to consider how they contribute to improving the quality of life of people and the environment around their business.

The Commercial team regularly liaises with the wider Service to identify and capture Social Value. This is then recorded in the Social Profit Calculator tool by the Business Improvement and Performance team. Ringway Jacobs is also assisting ECC with the transition to Theme Outcome Measures (TOMs). Current Initiatives Include:

- Engaging with Supply Chain Partners to share best practice and see how far along they are re: Environment, Decarbonisation and Sustainability Management. This involves using the Ringway Jacobs Sustainability Business Partner
- Maximising the adoption of electric plant / vehicle where economically viable
- Seeking to incorporate more sustainable ways of working and specifying the use of eco friendly innovations within tender requirements (i.e. the use of solar powered welfare units, grey water harvesting etc.)

Continuous Improvement

Works delivered through Supply Chain Partners (SCPs) are, where appropriate, procured through a competitive target costing process. This requires that the target cost submissions are assessed to ensure their adherence to the pre-contract scope and timeline. Any variations will be challenged prior to the awarding of the work to the most competitive submission.

The works are then managed in accordance with embedded procedures including the revaluation of final accounts, to ensure that these reflect the actual works delivered and are in line with the original target cost quotation. The processes associated with this are to be reviewed and revised where deemed necessary to mitigate the risk of any noncompliance and reflect any audit/sampling or best practice/lessons learned throughout the year.

Innovations and Efficiencies

The Commercial team is the main conduit between the wider Service and the Efficiency Manager. Identifying and maximising cashable benefits is critical to both the Provider and Authority to ensure that targets are met or exceeded. Recently the Commercial team has been focusing on:

Communications

The Essex Highways Communications team provides a mixture of public relations, marketing and customer service support, giving factual, useful service delivery information and knowledge



The highways communications function manages the main 'one-to-many' information-sharing interfaces between Essex Highways service delivery teams, various other internal groups and the public and highways users of Essex.

Working to the direction of the Cabinet Member for Highways Maintenance and Sustainable Transport, The Director of Highways and Transportation and service's Operations Director, the team provides factual service news and information in various formats and supports ECC Customer Services; Your Right to Know Team; Member Services and Corporate & Executive Complaints teams, based on its knowledge of service priorities and processes.

The team helps to deliver wider ECC efficiencies, mainly by encouraging the public to self-serve with highways enquiries and reports through curation, innovations and improvements to the **Essex Highways website**, managed by Ringway Jacobs entirely for ECC, leading to less pressure on the inbound ECC Contact Centre and service operational teams. It also helps ECC meet its own statutory responsibilities by coordinating the response to Highways service delivery related FOIs/EIRs and other enquiries within statutory deadlines.

The team supports Essex County Council's focus on giving its customers great service and a positive experience. This is a natural 'fit' given that part of the team's remit lies within safeguarding the highways service's reputation. For 2022/23 the team will, focus on five key themes, where it is appropriate to do so. These are:

1. Promoting sustainable and active travel and transport developments and progress, expressed through the Essex Highways ident 'Safer, Greener, Healthier'. We will try to maintain a variety of news and information across all modes of travel, remaining inclusive for all public highway users, but with a

higher focus on active travel initiatives and works.

2. Reputation management. We will work to protect, defend and enhance the reputations of Essex County Council, Ringway Jacobs and key partners, as expressed through the identity of 'Essex Highways'

3. Being customer focused - continuing to think like a customer to understand their issues and respond with information that clarifies their understanding. We will highlight the services EH delivers and the ECC policies and priorities the service operates under, while managing expectations and encouraging satisfaction where we can. Further opportunities to improve the quality, consistency and timeliness of responses to inbound enquiries may be pursued, through the Service Transformation Board.

4. Being helpful - providing clear, useful and timely service information to the public and new Members in particular, so understanding of the service grows and people can find the information they need to make their travelling and use of the network easier.

5. Promote Wellbeing to keep the workforce and public safer and healthier. This will include roadworker abuse issues and, where relevant, SERP 'Vision Zero' messages.

On a day-to-day business, the team also

- Acts as the brand guardians of the Essex Highways visual and written identity
- Improves awareness of the positive works/ investment we are undertaking on behalf of the County Council
- Provides as much factual, useful highways-related information as is possible, preferably using digital means, to the public
- Manages understanding and awareness of competing and perhaps poorly understood service level expectations and plans

Development Management

Managing the outcome of planning applications and associated roads for adoption by the authority



Economic growth and the need for more housing stock in Essex brings pressures on the local road network and growth in the highway estate road system. Essex Highways' Development Management team is responsible for delivering the design and construction of all works on the public highway and areas for adoption on behalf of Essex County Council. The Development Management Team has a key part to play in supporting the economic and social prosperity with its work in facilitating development.

The Development Management team works with colleagues in Strategic Development and the planning authority to consider planning applications, ensuring that any new assets are constructed to a standard suitable for adoption and maintainable by Essex County Council. Each adoption means an increase in assets that we are responsible for not mirrored by increased budgets. This results in increased risk to the network serviceability and requires careful management.

Development Management has its own regional forum where all our fees are regularly benchmarked, and Essex continues to be the County that is at the cutting edge of working with developers to introduce their development in a manner that is mindful of the additional pressure these new assets

create. Across all of Design Services, we hold a cross contract Design Forum where we promote national bench marking and share expertise across the contracts.

We are presently involved in approximately 1600 developments across the county which vary in size, from minor developments to the infrastructure for major sites of 3000+ homes, such as Beaulieu in north Chelmsford. The expectation for the coming year is for sustained demand on our services and increasing workload. To respond to the challenge, we are improving our existing processes and we are working towards developing online interactive software which is targeted at developers providing information and application forms to speed up the process.

The Development Management Team has a key part to play in supporting the economic and social prosperity with its work in facilitating development. Both the Development Management Team and the Design Teams introduce schemes which promote safe walking, cycling and passenger transport which contributes towards ensure everything we do supports the drive towards a greener Essex. Our work on introducing disabled parking bays and pram crossings provides joined up, accessible services.

Local Highway Panels

£7.2m additional funding over the next three years - These numbers will increase as the schemes are identified by the LHPs in line with the increased budget

Small scale schemes are identified by the 12 district LHPs and delivered by Essex Highways. Requests for improvements are received from a cross section of society, including local residents, Parish Councils, District/City/Borough Councillors and County Councillors and these are submitted to the LHPs for consideration.

The panels are encouraged to present their concerns on which Essex Highways officers and engineers offer support and advice, providing options and solutions for agreement and approval by the Cabinet Member for Economic Renewal,

Infrastructure and Planning. Our approach on the LHPs has recently seen a shift in emphasis whereby we are now encouraging maintenance works rather than delivering minor traffic management schemes, with a view to deliver better outcomes.

We intend to further evolve LHPs this year by expanding them to allow for Parish/Crowdfunding initiatives. The LHPs will also help us train members to ensure that we engage with our transport network users and provide them with the right information to help shape Essex priorities.



171
schemes
delivered in
2021/22

Plus 48
designed

158 schemes to
be delivered
in 2022/23

These numbers may
increase following next
round of panels
July 2022

More
information
and Members
topic guides
can be found
on the Website

Fambridge

Major Projects

Essex Highways' specialist team is working with Essex County Council to take advantage of the Government's strategy for major investment in highways and wider transport

Essex Highways continues to develop expertise to enable more effective delivery of improvement schemes, getting it right first time and making the improvements sustainable for the long term.

Major improvements to transport infrastructure are required to keep the Essex economy growing to its full potential. All of these are planned, developed, designed and managed through construction to completion and opening.

The collaborative Essex County Council / Ringway Jacobs Major Projects service is at the front end of responding to the Government's investment strategy in housing, jobs, sustainable travel and supporting transportation infrastructure.

Our teams are able to rapidly compile credible funding bids for numerous funding sources including the recent Active Travel Fund (ATF), Housing Infrastructure Fund (HIF), DEFRA, Major Road Network/Large Local Major (MRN / LLM), Pinch Point Fund etc.

Major Projects has developed a very competent and responsive bid team

who have been very successful in preparing/submitted/winning funding for Essex. To date we have secured in the order of £460m bid funding towards Essex infrastructure.

The large Housing Infrastructure Fund (HIF) schemes that were awarded in Yr8 need to be delivered in a short timeframe but following discussion with HIF, programme extensions to March 2025 have been agreed. We need to complete parallel progression of the preparation and design of the schemes, budget and funding profiles, stakeholder engagement, land ownership and negotiations, utilities and environmental constraints and issues.

2022-23 is going to be focussed on progressing the development of the HIF schemes to their very tight funding profiles which have been set by Homes England. There is also a very high focus on the Army & Navy Task force and progressing with the long-term improvements for this part of Chelmsford. The A127 Task Force also faces significant challenges including the Air Quality agenda and the future ownership of the road. Having delivered the M11 J7a

junction in June this year, the remaining forward programme for Major Projects includes the delivery of the remainder of the South East Local Enterprise Partnership (SELEP) programme and the A127 Fairglens junction improvements (2021 – 2023) along with the delivery of the M11 J8.

The Major Projects teams are also working collaboratively with other transport stakeholders e.g. National Highways, Network Rail, Airport & Port Authorities etc. on planning, development and operation of the transport infrastructure required to support economic growth in Essex.

They are also supporting Essex and its City, Boroughs and Districts with their Local Plans (long term planning) and providing strategic advice to Essex on the nationally important Garden settlements, Lower Thames Crossing, Bradwell B Nuclear Power Station development, and A12 widening.

The Major Projects team has a successful delivery record for the first 10 years of the contract and is well positioned to deliver this year's challenging expectations.



Public Rights of Way

The management and maintenance of 4000 miles of Public Rights of Way throughout the County which comprise, footpaths, bridleways and byways to provide unimpeded access for permitted users



The team delivers the statutory functions associated with the Public Rights of Way (PRoW) service which provides public access to the Essex countryside and promotes the amenity value of the PRoW network.

The team is currently implementing and embedding the first countywide model of the PRoW network hierarchy. Completed in March 2021, this work is subject to continued ongoing refinement and validation. The PRoW hierarchy enables a targeted approach across all activities on the PRoW network and will be reflected in the Rights of Way Improvement Plan Review, providing the PRoW business case for 2022/23 and beyond.

This statutory document when reviewed requires updating every 10 years, and will capture other initiatives, including the emerging Byway policy and an updated version of the Developer and Public Rights of Way Guide (2010) which will afford greater protection for Public Rights of Way in the development process, as well as guidance on new PRoW creation.

Public Path Orders (PPO) are required when it is necessary to create or divert paths as a result of road or drainage improvements, housing developments and following requests from landowners. PPOs are published to advertise and inform the public to ensure that the views of all interested parties are considered.

Orders are split into two types, those made under the Highways Act (HA) and those we make on behalf of the planning authorities under the Town and Country Planning Act (TCPA). The HA Orders are charged against a framework with a basic set fee but there is an extra charge for additional add-ons.

Essentially this means the more PRoW are affected by an order proposal, the greater the cost. Extra plans or orders associated with a PPO scheme will be cost recoverable accordingly.

TCPA Orders do not have a set fee and we recoup our officer time and costs such as advertising but they are sealed by the legal department of the relevant authority. The work is quite complex as there are over 115 elements we have to complete when making an order and they can take months to process. Over the last four years we have processed an average of 120 annually.

Some parish councils choose to maintain sections of their network themselves and this is managed through the Parish Path Partnership (P3) which comprises 39 parishes and 17 community groups (addition of the volunteers working in the Areas of Outstanding Natural Beauty -AONB) and was extended last year through the Highway Works Devolution project.

The Headland Management scheme is where landowners maintain sections of PRoW on behalf of Essex County Council. The PRoW team also manages the Essex Local Access Forum (ELAF) and undertakes Land Searches connected with house sales and purchases. The responsibility of maintaining the Definitive Map and Highway Records, which officially records the extent of highway ownership and any changes that have occurred, also falls within the PRoW team's remit.

The inspection team ensures that routes are accessible through regular, walked surveys and takes enforcement action when routes have been obstructed inadvertently or otherwise.

Red and Green Claims

Red Claims are claims by third parties against the Authority arising out of the condition of the Area Network or the performance of the Integrated Services. Green Claims are claims by the Authority against third parties for damage to the assets of the Authority within the Area Network and highway boundaries.

Red Claims

Typically, a Red Claim is notified to Essex County Council and investigated with the Red Claims Officer to determine liability.

ECC makes an initial assessment of the claim and assesses whether the Highway Authority is liable to the third party, irrespective of allocation of ultimate liability between ECC and Ringway Jacobs (RJ).

If the claim is defensible ECC issues a repudiation letter. If not defensible, ECC and RJ assess who is responsible. ECC then provides the RJ Insurance Team with the case file within 16 working days of notification.

If RJ are the responsible party: RJ will be liable for the outcome of the claim or any resulting court case and will meet its own costs of defending the claim and pay any sums ordered to be paid by the court. Ringway Jacobs will notify ECC within 10 working days that they've taken over conduct of the claim and will notify ECC, when a case is closed.

If RJ dispute liability: RJ provides details of the reason why rejecting the claim together with evidence to ECC within a further 10 working days, after which ECC either accepts liability or disagrees with RJ's Assessment.

In the event of a dispute, an assessment of liability is carried out by an Essex Highways inspector (who has not had any previous involvement in the claim whatsoever and who has not previously inspected the defect) and a member of the ECC commissioning team (who has not been involved in the claim

whatsoever a or with the defect) The parties use reasonable endeavours to assess and agree liability for the claim in advance of any court hearing and while assessment of liability is being undertaken, ECC has conduct of the claim and must adhere to the deadline set by a court.

If the parties cannot agree on allocation of liability, the matter will then be referred to the Dispute Resolution Process within 28 days of referral as defined in the contract.

For claims under £500 - ECC assesses whether the claim under £500. If yes, ECC determine liability and arrange recovery of costs from RJ where necessary. If the liability of RJ for claims under £500 exceeds £25,000 in any one Contract year then RJ may require that the process is amended.

The level of these claims will be reported to the Essex Highways Boards through the monthly dashboard. Ringway Jacobs reserve the right to sample audit these claims and where it is agreed that these are settled incorrectly raise a dispute

RJ handles any claims relating to direct works (schemes, resurfacing etc), rejecting or accepting depending on circumstances. RJ will hand over all claims to supply chain partners where necessary.

All personal injury claims are handled by specialist members of the team that have extensive experience in dealing with all aspects of Red Claims. assessments, costs calculations.

The successful defence of claims relies on timely completion of

Safety Inspections and repairs backed up by substantive documentary evidence including, decision criteria regarding intervention levels, measurement details and photos.

Our Red Claims Officer is fully conversant with Highway Inspection Policies of all contracts and will provide testimony and advice in court on the Risk Based Approach for Highway Maintenance explaining how the risks are calculated in order to ensure the most appropriate risk rating for the network.

Green Claims

Through training and the establishment of 'good claims practice' we have significantly improved the collection of culprit data enabling us to maximise recovery of costs for damage caused to network infrastructure

The income that ECC receives from third parties is for the recovery of the costs incurred by the service in repairing the damage to the network assets. Recent years have seen an increase in income following an agreement on the schedule of rates used, resulting in a substantial reduction of outstanding invoices.

Green Claims are notified through various data sources, the vast majority come through the CONFIRM system, these are Enquiries that come directly to us from members of the public Automated notification from CONFIRM lands in individual and team inboxes and is monitored daily

Road Drainage

Essex Highways has a clear plan for prioritising the work to reduce preventable flooding incidents on our roads



The highways drainage assets include:

- Gullies - remove surface water from the highway.
- Slotted and grilled drainage channel - more discreet types of gully, removing surface water.
- Catchpits - chambers with an inlet pipe and an outlet pipe, allowing sediment to collect by removing it from the flow of water.
- Manholes - inspection chambers for maintenance work.

Maintenance of highway drainage assets is an important aspect of delivering a safer network for road users in Essex. We carry out cleansing on the PR1, PR2 and local roads network, district by district, following a 2-year annual cyclic approach.

There are more than 250,000 gully assets on the network, with thousands of “catch pits” and drainage channels and five dedicated crews will complete at least 108,000 gully cleanses in 2022/23. Cleanse data is captured via Map 16 software and uploaded into Confirm. This lets us use data collected over the last five years on the volume of detritus in each gully when emptied. This means we can analyse and optimise the cleaning frequency for the

PR1 and PR2 network, providing resilience and flexibility - cleansing crews are still available to react to flooding incidents.

The management of drainage systems is to be further strengthened by using the link between the cyclical highway drainage cleansing approach and the ECC’s Flood Management information. Electronic information on all drainage assets will be captured along with data from incidents and inspections to support a more intelligent approach to maintenance.

Surface Water Alleviation Schemes (SWAS) are projects to improve highways drainage systems. This could involve the replacement of pipes or implementing new drainage assets. The asset management team ranks proposed SWAS schemes by risk assessment and 44 high priority SWAS schemes are scheduled to be delivered by a capital funded programme in 2022/23.

The extensive network of watercourses, ditches, form an important part of flood risk management. As more intense and heavy rainfall events are experienced, the significance of

maintaining the capacity of these local drainage systems has never been greater.

Finally, another challenge has arisen in the guise of repeated thefts of drain covers. Essex has suffered hundreds of these since the start of the year, in some cases having covers taken in large numbers along entire streets, leaving the service with a huge task in making safe and scheduling repairs. The high price of metal has led to thieves stealing the covers and selling them to scrap merchants.

Unfortunately, the service can’t simply replace the cover itself, as each sits within its own frame. In many cases, the frames are very old and finding a matching product is not possible.

Replacement gullies and frames are not easy to source, particularly given the well documented problems in national and global supply chains. replace both the cover and frame is time consuming and costly to the taxpayer - around £1,000 per lost cover/frame depending on location - and can be more where concrete roads are involved mainly due to excavation.

Road Safety

To ensure people enjoy safe travel on our highways with the key aim to reduce ‘Killed and Serious Injuries’ (KSIs) towards the vision of zero deaths and serious injuries

Essex County Council and Essex Highways, as part of the Safer Essex Roads Partnership, have committed to Vision Zero - to the ambition to achieve zero deaths and serious injuries on Essex roads by 2040; an ambition known as Vision Zero with an interim target of halving deaths and serious injuries to 415 or fewer.

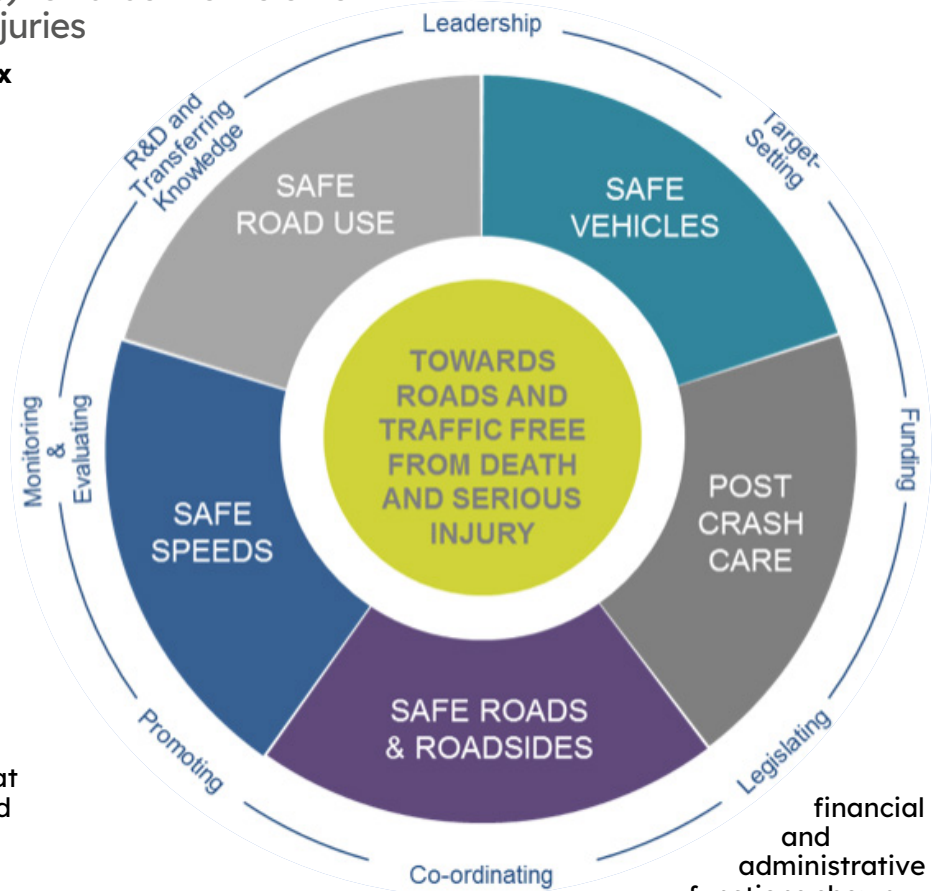
This is a challenging ambition which necessitates a fundamental rethink of the implementation of road safety, based around the development of a transportation system that provides layers of protection for the user; accepting that users make mistakes.

The causes of collisions are both predictable and preventable and the aim is to create highways that have ‘designed out’ collisions and ensured that any that do occur involve forces below that which will cause death or serious injury to the human body known as the Safe System approach.

The Safe System approach must be integrated with, and complement, other strategic goals and requirements such as safer, greener, healthier and wider ECC objectives such as addressing climate change and the economy if EH is to deliver a common vision, working collaboratively, seamlessly and with integrity and transparency.

Essex Highways has direct responsibility for delivering the ‘Safe roads and roadsides’ element of the safer systems approach and also for working with the enforcing authority to deliver a Speed Management Strategy that will promote the setting of speed limits in accordance with the safe system principles.

The Road safety Team will provide Safe System advice to the Speed Limit review Understanding how the Safe System principles might be applied in the safe roads and



roadsides element in order to achieve the 2030 target and the ultimate Vision Zero ambition is still at an early stage.

The road safety team has facilitated strategic awareness training on Vision Zero and the Safe System approach to the Cabinet Member, Senior Leadership Team, Senior Management Team and team leaders but further, more specialised training of system designers is required. The approach must also be integrated and complement other strategic goals and requirements such as safer, greener, healthier and wider ECC objectives such as addressing climate change and the economy.

The Road Safety Team delivers ECC's and Essex Highway's contribution to the SERP in two ways:

1) Through the delivery of most of the core leadership, management, data analysis,

financial and administrative functions shown in the diagram. These are delivered by EH through:

- a. The Road Safety Group Manager chairing the SERP's Strategic (officer) Group providing the partnership's leadership function
- b. The Partnership Manager manages the safety camera operation assisted by an engineer
- c. The Data and Strategy Analyst verifies collision data used across EH to identify collision sites for engineering treatments and to identify behaviours and user groups for targeted education or enforcement activity.
- d. The Road Safety Team Leader co-ordinates the operational delivery of all non-enforcement related road safety activities delivered by the Partnership, including everything delivered by the EH team.
- e. A Road safety technician provides qualitative evaluation expertise to the partnership.

2) Through the delivery of the Essex Highways activities detailed in the SERP's annual Activity delivery Schedule including:

a. The delivery of NDORS courses on behalf of Essex Police (administered through a team of 15 staff) b. The delivery of Bikeability training , funded through a DfT grant, to at least 6,000 children

c. The organisation and delivery of multi-partner Surround A Town (SAT) and engagement days, of which approximately 26 will be in Essex and which will include School Speed Watch activity and Community Speed Watch groups wherever possible.

d. Training and support to Community Speed Watch groups which may include Speed enforcement by EH staff with delegated powers from the Chief Constable.

e. Engagement with Essex businesses to support Driving for Better Business (DFBB), a National Highways initiative which is used as a start point for future engagement and which is currently delivered through

a National Highways funded consultant who is task managed by the Road Safety Group Manager.

f. Development, delivery and evaluation of Driving with Confidence courses, delivered free for drivers aged 70 years and above.

g. Support for development of campaigns and provision of face to face delivery of campaign messages to appropriate audiences.

h. Parent and child walks offered to 200 schools Covid-19 restrictions)

i. Year 5 road safety training offered to all Essex primary schools (400)

j. Support for pupil volunteer road safety ambassadors to deliver peer to peer messaging (30 schools/colleges)

k. A trial of the road safety ambassador programme in primary schools

l. Provision of targeted messages through Theatre in Education to

year 7, 9 and 11 age groups and Roadster to year 12

Through being a member of SERP, EH also benefits from the delivery of road safety activities by other partners, such as motorcycle training including 'first on scene' training, targeted safety campaigns and materials such as magazines, young driver engagement and training, engagement with groups such as those not in employment, education or training, Community Speed Watch, Extra Eyes, additional SERP funded roads policing, child car seat safety advice and improvements in post collision response through the attendance of the E&HAAT helicopter or car.

Additionally, the operation and maintenance of all approved safety camera housings provided by EH, is funded by SERP.

EH has some direct responsibilities for delivering the 'Safe roads and roadsides' element of the safer systems approach outlined in the SERP's Vision Zero Strategy, this will be explored and developed to understand the responsibilities and options for delivery.



Street Lighting

The provision of cost effective and efficient lighting for the safety of users of the roads, footways and cycleways



There are approximately 131,000 lighting columns, 12,000 illuminated signs and 5,600 bollards on the network. We repaired 35,061 faults on streetlights in 2020/21 and a similar number of repairs is expected in 2021-22.

Our aim is to keep these assets in a safe and serviceable condition, to maximise their service life and reduce ongoing energy usage and reactive maintenance costs. Street lighting assets have a high maintenance cost and energy expenditure. The Streetlighting team is responsible for lighting design, asset management, maintenance, supervision, software and data management, programme management and electrical engineering

Essex County Council budgets a significant amount for revenue maintenance and energy on an annual basis. Not only is this costly to Essex but it is unsustainable for the environment and street lighting contributes £150,000 pa on carbon taxes.

This is why we started to change all our lights to LED in 2015/16. LED lights are more sustainable and offer better value for money. We will also have better control over the brightness of the new units, so that they can be dimmed depending upon the surroundings.

Phase 3 of the LED replacement scheme was completed in 2019 and comprised more than 23,000 units. These will help reduce energy consumption and maintenance cost savings over the next 20 years as the lamps having a longer design life.

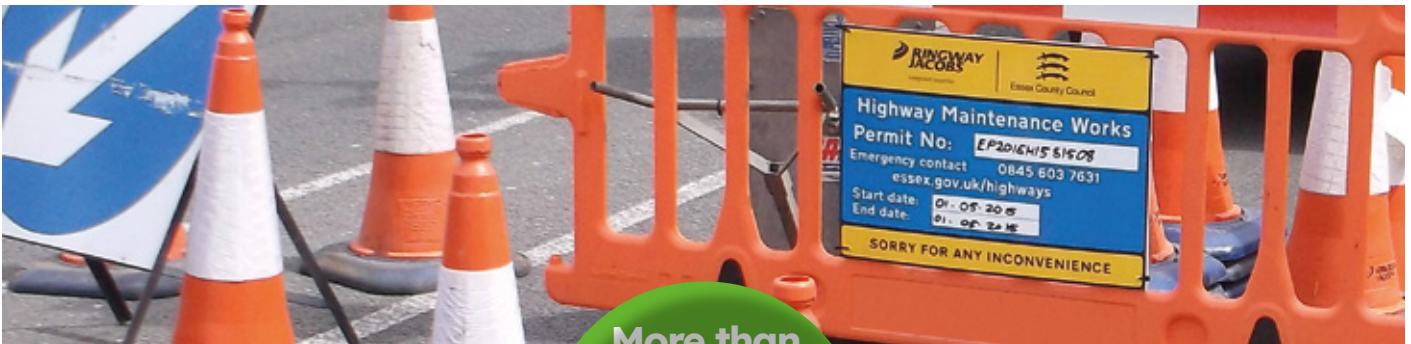
LED Phase 4 commenced in mid-May of 2021-22 with works taking place in Chelmsford, Basildon, Colchester and Tending. Works in 2021-2022 resulted in a reduction in energy and carbon of 74% of the units replaced - over 500 tonnes. In year 2022-23 works will be carried out in Colchester, Tending, Braintree, Epping and Castle Point.

We are aiming to install a minimum of 27,500 luminaires by Supply Chain Partners and a further 5000 luminaries by Direct Crews in response to member enquires in year 11. 32,280 units will have Pre-Contract Information (PCI) carried out in 2022-2023 to allow the design information for delivery the following year.

55% of the network has now been converted to LED, a further 15% of the network is planned to be converted to LED in year 2022-23 following the resumed availability of lighting units. This will have a significant impact on reducing the number of lighting faults registered on the network.

Streetworks

Management and permitting of all road works on the highway and co-ordination of works to minimise disruption to the travelling public while maintaining safety



The Street works team is responsible for the management and permitting of all road works on the highway. Through the ECC Permit Scheme, the team co-ordinates works to minimise disruption to the travelling public while maintaining safety.

More than
105,000
permit
applications
expected
2022/23

This is demonstrated through low levels of deeming permits and through congestion levels around works being reduced as far as possible. The team ensures that works are carried out to the appropriate safety standards, measured through numbers of failed safety inspections and is dependent upon compliance of all works promoters.

In 2021/2022 a dedicated broadband inspection team was formed to better protect the asset, working closely with the Essex Broadband team and tasked not only with checking but also driving works forward to make sure Essex is one of the first counties in the UK to be fully covered by a full fibre network. This team will continue throughout 2022/2023 to better protect the Highway while maintaining safe passage for all highway users. It is working closely with the Super-fast Broadband team in Essex to create a seamless message, holding monthly meetings with all fibre installers to maintain pressure on the contractor to maintain quality of works.

The team checks 70% of all completed works and defect accordingly. Where works promoters fail to maintain standards, we establish improvement plans as set down in Streetworks legislation with the objective of having them demonstrate improved performance. The Streetworks team also uses opportunities through enhancements to One. Network, using it to its fullest, with the objective of providing enhanced information to the public and more efficient processes for the organisation.

The Streetworks team also:

- Operates ECC Permit Scheme – 105,000+ applications are expected to be processed in 2022/2023

- Deliver a programme of inspections
 - 10 % category A & B inspections and 30% category C inspections of road works equating to 41,000 sites being inspected in 2022/2023. 9100 will be funded by utilities (£50 per inspection – as defined in legislation)
- Deliver a programme of coring of reinstatements that will further protect our asset – approx. 200 cores every 4 months (600 cores per annum) total cost pa £28,000 (a cost neutral service).
- Respond to TTRO requests to facilitate road works and schemes. It is estimated that a total of 2400 TTRO/TTRN will be processed in 2022/2023 (not including EH's own works)
- Undertake skip and scaffolding inspections
 - approx. 1400 skip licences and 580 scaffold licences will be assessed in 2022/2023.
- Processing and issuing all invoices relating to Street Works – for 2023/2023 we estimate 3500 invoices will be served including TTRO invoices as each one has a separate invoice.
- Identification and serving all relevant Fixed Penalty Notices for utilities
- Deliver the stats enquiry service – approx. 10k pa.
- Drive improvement in utilities performance through accurate targeted inspections and levying of correct penalties
- Investigate and produce a feasibility cost/benefit report for a lane rental scheme in Essex
- Implement better monitoring processes of all work streams to drive efficiencies
- Power BI is being used to monitor and drive better performance of both utilities and staff. individual training programs will be developed and implemented through better data.
- Work with providers to ensure that national rollout of super and ultra-fast broadband over the coming years can be supported in Essex, minimising disruption and protecting the highway asset. This also supports <https://www.superfastessex.org/media/1708/9284-digital-connectivity-strategy-v11-accessible.pdf>

Traffic Management

The provision of efficient Traffic Management for the safety of users of the roads, footways and cycleways

The Network and Safety function delivers the Network Management Duty of the Traffic Management Act supporting the safe and efficient movement of people and goods around and through the county.

The Network Operations team is responsible for the real-time management of incidents and events, along with planning and agreeing traffic management requirements for events.

The Essex Traffic Control Centre (ETCC) plays a pivotal role in maintaining access to the road network broadcasting information to road users via many sources. The ETCC has a wide range of deliverables.

It responds to incidents and congestion/delays on the road network, working with all relevant agencies by taking action to control traffic to ease or manage congestion or closure and maintaining contact with the travelling public within operational parameters.

Working with the Intelligent Traffic Systems (ITS) team, the ETCC develops and implements new systems and controls. The team Liaises with promoters of major schemes (both internal and external) to ensure that Variable Message Signs (VMS) and other media forms are used to advise travellers of planned works.

Using a variety of media both at the roadside and remotely, the ETCC communicates live network performance. It uses Twitter (approx. 55,656 followers) as a further way to communicate.

As a proactive member, the ETCC attends Safety Advisory Groups (or other meetings regarding events) across Essex to form links with borough/city/district councils

and external event organisers, to support the management of events locally, ensuring they are run safely, minimising the impact on the road network.

These range from small charity events such as local village fêtes to nationally significant ones such as the Tendring Motor Rally or any network management requirements that may be needed as a consequence of Brexit, for example.

The ETCC also Provides Network Operations intelligence/insight regarding new schemes on the network and their potential impact/benefit/dis-benefit to its operation, supported by the knowledge gained through the ETCC on the daily operation and performance of the network. Updating of the one.network

website following liaison with all district/borough, city councils and external event organisers is another of the team's responsibilities, ensuring a coordinated approach is in place for all activities and arranged on the network. This includes events and road closures.

Approximately 250 events were added in 2021-22 including many requiring Temporary Traffic Regulation Orders for closures and other restrictions to be put in place to manage the network (although this wasn't typical due to COVID restrictions).

150 events were communicated to us by local borough/city/district Councils using Town & Police Clauses Acts (T&PCAs) to close roads for local events.



Team representatives attend national and regional “enforcement” user group meetings to maintain knowledge and influence the national agenda, particularly around issues of concern in Essex.

There is typically one regional meeting every six months and one national meeting every six months. Essex Highways Chairs the national user group.

The ETCC continues discussions with Thurrock Council (and others where opportunities arise) to establish an agreement for Essex Highways to undertake Bus Lane Enforcement on their behalf.

The team supports the two Parking Partnerships in Essex, providing policy guidance and attends approx. 20 meetings annually

(providing support and briefings for the Cabinet Member as required). Work with both Parking Partnerships is also undertaken on defined ECC transformation projects devised to generate income, such as additional paid on-street parking.

The ETCC also attends the Regional and National Traffic Managers Forums, and is Chair of the regional group. (Quarterly meetings for each).

Finally, the ETCC leads within Essex Highways on Smart Technology, contributing to the technology forum, projects identified, bidding opportunities etc.; supporting delivery of the projects identified in the Essex Highways Innovations Tracker and the ECC Technology Strategy for Transport.



18
Traffic signal renewals were completed during 2021/22

14
Traffic signal renewals are confirmed for 2022/23



Duke Street, Chelmsford

Winter Safety

Aiming to keep roads, as far as reasonably practicable, free from ice and snow, for the safe and expedient movement of the travelling public

The Winter service period in Essex is between late October to early April, using 59 salt-spreading vehicles to treat approximately 2000 miles of roads. The salting network can be viewed on the Essex County Council website.

Winter service will commence on Monday 24 October 2022 until Sunday 23 April 2023, with a 26-week standby for drivers on a two-week rota delivering up to 57 routes, plus 2 mini gritter routes. Double shifting over the Christmas and New Year period provides resilience to delivery.

Each vehicle delivers a mix of rock salt and brine solution which improves the adherence of the treated salt to the road surface. In instances of heavy demand, dry salt can, and is, also used if temperatures fall below -6°C

or during snow conditions the effectiveness of salting is diminished. In severe weather or heavy snowfall, delivery is adjusted accordingly and any significant build-up of snow addressed by ploughing.

Essex has ten weather stations located at strategic locations around the county combined with specialist road surface forecasters who determine the weather and its likely effects across all parts of the county network. The successful introduction of route-based forecasting three years ago has allowed us to appropriately focus our attentions on the network where the need is greatest.

The accuracy of the Meteo Group route-based forecasting tool is currently being validated (RBF) which should provide EH with a greater awareness of the cold and

hotspot areas of the network. The aim of this is to allow a reduction in potential salt usage by focusing on specific routes. The data is subject to ongoing analysis.

Town Councils, Parish Councils and other organisations are invited to sign up to the Salt Bag Partnership prior to the winter season where the delivery of one- tonne of bagged salt is provided to help treat local areas. The scheme also covers urban un-parished wards. We are very grateful to our network of many farmers who are prepared to plough local roads when required, following snow fall.

It costs in the region of £1.6m to prepare and provide the resources required to be able to respond to the weather conditions. The average cost of treating the network is £1.0m but this is dependent upon the weather.





This information is issued by:
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