

Essex Highways Annual Plan 2016 - 2017



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Introduction

Highways are important to everyone – roads and footways underpin people’s ability to travel, get things done and power the Essex economy...

The Essex highway network is vast; over 5000 miles of roads, 4000 miles of footways and 4000 miles of other Public Rights of Way. It is the seventh longest in the country and has some of the heaviest traffic flows. Combined, the highways infrastructure is the most valuable asset that the council owns, valued at over £10 billion excluding land.

Built up over many years, the network consists of a diverse range of assets, including:

- Roads
- Footways
- Public Rights of Way
- Vehicle Restraint Systems
- Traffic Signs
- Highway structures like bridges, culverts and subways
- Street Lighting
- Highway drainage
- Traffic Signals
- Seasonal Programmes

Like any built environment, natural deterioration occurs through wear and tear, aging and weather. To keep the network in its current condition we need to spend approximately £51 million annually – and that is before we make improvements or add extra assets to support vital economic growth or changes to population and traffic.

Considering the constraints and limited budgets, it is critical that we plan ahead to maximise the use of our resources, protect the existing infrastructure and prioritise works for the best long-term benefit to be delivered. That’s why we’ve implemented our Asset Management Strategy.

This carefully considered whole-life approach, based on our deep data-driven knowledge of asset condition, county priorities and the most cost effective and technologically innovative engineering solutions, maximises the benefits of investment for all highways users.

We balance costs, opportunities and risks against the desired asset performance to achieve Essex County Council objectives.

Often there is a pressure to act quickly and fix individual potholes, but reactive maintenance is expensive and inefficient. Instead, we aim to deliver programmes that pre-empt problems and deal with multiple issues at once, resulting in cost savings, reduction of risk and enhanced performance. We seek to:

- Meet customer needs
- Obtain value for money
- Promote improvement and innovation
- Deliver the ambition of Essex 2021
- Reduce the cost of the Service

Working together in an award-winning, long-term collaborative partnership, Essex County Council and Ringway Jacobs will work in partnership to create a highway network that the residents of Essex are proud of.



Councillor Rodney Bass,
Cabinet Member for
Infrastructure



Councillor Eddie Johnson,
Cabinet Member for
Highways and Transport

Essex County Council's Corporate Outcomes 2014 - 2018

Essex Highways contributes to Essex County Council's outcomes which define the authority's priorities. These are:

1. Children in Essex get the best start in life
2. People in Essex enjoy good health and wellbeing
3. People have aspiration and achieve their ambitions through education, training and lifelong-learning
4. People in Essex live in safe communities and are protected from harm
5. Sustainable economic growth for Essex communities and businesses
6. People in Essex experience a high quality and sustainable environment
7. People in Essex can live independently and exercise control over their lives

Where appropriate, these outcomes are translated into a number of performance indicators which are used to align the service whilst monitoring performance and driving improvements.



Delivering our ambition on roads and footway condition

In order to achieve our ambition on roads and footway condition we will focus on:

- Developing a communications plan which sets out our engagement with residents and addresses how we make decisions and prioritise schemes. In recognition of resident complaints and compensation claims, we will also streamline our customer services;
- Create an integrated approach to highway transport by enhancing interfaces with other highway authorities such as Highways England and key stakeholders;
- Exploring, through the Materials Working Group, the palette of treatments used so that innovative materials can be exploited to minimise whole life maintenance costs;
- Lobbying Central Government to raise awareness of funding requirements, to support bids, evaluate investment levels and the effects on the economy, safety, environment and quality of life;
- Hierarchy-based safety inspections to identify localised maintenance issues, to allocate funding where it benefits the greatest number of highway users, while keeping the wider network safe and accessible;
- Comprehensive, formal road condition surveys to support a 'data led' long term, sustainable investment strategy to minimise whole life costs through value for money interventions;
- Exploring alternative funding sources for roads and footway maintenance by working closely with bid officers and other agencies to exploit every possible funding stream;
- Exploring the drivers behind the public perception of road condition;
- Achieving economies of scale through county wide delivery in line with the Essex Highways partnership;
- Re-categorise the footways hierarchy and develop a programme of footways surveys to achieve a robust baseline of footway conditions.



Improving our roads

Investing in our roads – maintaining and improving our highways in an ‘asset-led’ approach

An ‘asset-led’ approach means planning and investing in road and footpath maintenance at carefully considered intervals over the lifecycle of each route. It’s about implementing preventative maintenance at regular intervals to reduce the need for expensive repairs in response to separate faults. With clear priorities established, our strategic roads are inspected and maintained regularly.

In the financial year 2016/17 we will review the Council’s Highways Maintenance Strategy to ensure that we make the best possible use of available budgets.

We are working towards “Level 3 of the Department for Transport Highway Maintenance Incentive Fund” by 2017/18. This is central government funding which rewards highway authorities with additional funding when a good asset management approach is implemented.

A further objective is to reduce preventable flooding incidents. Performance targets have been established and progress towards achieving these targets is measured annually.

Capital investment will, wherever appropriate, be prioritised towards roads in the early stages of deterioration where a lower cost treatment can be applied to prolong service life, ensure value for money and minimal whole life maintenance cost.

This preventative approach enables a much larger proportion of the network to be treated annually than if a ‘worst first’ approach were taken, which requires higher cost interventions.

The preventative approach also reduces the formation of localised defects on treated roads, leading to a reduction in the revenue budget spent on reactive maintenance.

This approach, which aligns with Highways Maintenance Efficiency Programme (HMEP) guidance, has been fundamental to the County Council’s asset management strategy for many years.

HMEP is a £6million, Department for Transport funded and sector led transformation programme.

HMEP connects networks from across the highways sector and provides the tools and resources to ignite ideas and help leaders and managers to transform delivery of roads and services through greater efficiencies.

Footways (including shared use footway/cycleways)

The Council’s strategy is to improve the condition of its most heavily used footways while maintaining the functionality of the remaining footway network.

Similar to the roads, we use the most appropriate, cost-effective materials and techniques in line with the asset led approach. Repairs are prioritised and significant safety issues are given most urgency.



Carriageways

Around 540 miles of works to improve the overall condition of Essex roads with a large focus on local roads

Five schemes to address accident clusters

“THIS PREVENTATIVE APPROACH ENABLES A MUCH LARGER PROPORTION OF THE NETWORK TO BE TREATED ANNUALLY”

Footways

Programme of 130 schemes to repair 76 miles of footways, improve their condition and rectify defects

Road safety

We contribute to people enjoying safe and reliable travel on our highways

Road safety is the sole purpose of the Safer Essex Roads Partnership (SERP) comprising Essex County Council, Southend-on-Sea Borough Council, Thurrock Council Essex Police, Essex Fire and Rescue Service, Highways England, Essex and Herts Air Ambulance Trust, East of England Ambulance Trust and Safer Roads Foundation.

Essex Highways provides the core secretariat, safety engineering expertise and a considerable proportion of the outreach and campaign management.

SERP's vision is to reduce death and serious injury on Essex roads to zero. Vision zero is an ambitious target which SERP cannot tackle alone: road users need play their part in keeping themselves and everyone else safe.

In the interim, SERP has a target to reduce death and serious injuries on Essex roads by 40% by 2020. SERP supports the 'Safe System Approach' to help achieve Essex County Council's target for casualty reduction and Vision Zero.

The Safer System Approach states that life and health should not be comprised for mobility. SERP's partner members are encouraged to adopt the safer System Approach to ensure that highway investment is made with safety as its highest priority.

Road safety and casualty reduction will be achieved through:

Road Safety Management: SERP measures its effectiveness by collecting data and carrying out evidential research. This includes identifying sites, routes and areas for cost effective engineering improvement and contributing to quality schemes that would hopefully form part of a Safer Systems approach. These schemes are passed to the Local Highways Panels (LHPs) for funding prioritisation (see section 7 for more information on LHPs).

Safer Roads and Mobility: SERP aims to raise the inherent safety quality of the roads within the areas it covers for the benefit of all road users. It is proactively encouraging each local authority and/or its delivery partners to adopt the Safer System approach and work towards ISO 39001 (Road Traffic Safety Management System).

Safer Vehicles: Encourage deployment of improved vehicle safety technologies for both active and passive safety. For this, SERP needs to work closely with the DfT and support any campaigns.

Safer Road Users: Develop intelligence led, effective programmes to improve road user behaviour with measurable outcomes. Work with other partnerships, authorities and organisations to improve compliance with rules, incentivise positive behaviour changes and equipment choice.

Post-crash response: Improve post incident responsiveness to minimise the impact on casualties and the road user. SERP has funded an additional Rapid Response vehicle for the Essex & Herts Air Ambulance Trust (E&HAAT) to provide continuous emergency cover when the helicopter cannot fly.

Bikeability Bikeability, which trained over 5000 children last year, is another initiative that promotes safe cycling as a sustainable transport option. This year, courses are extending to give adults both skills and confidence on the roads.

Safety Cameras Essex Highways staff work in partnership with Essex Police in maintaining any safety cameras that are installed.

The planned upgrade to more efficient cameras will improve safety and enforcement. We aim to use enforcement as a means to engage and educate as it is far more beneficial for a driver to learn from their mistakes and gain a greater awareness for safety on the roads, than simply pay a fine.



“SAFETY ON OUR ROADS AND FOOTWAYS IS ALWAYS THE PARAMOUNT CONCERN FOR ESSEX HIGHWAYS”

Traffic management

Traffic lights and cameras, and the Essex Traffic Control Centre

If our engineering groups are the means by which we maintain and develop the physical roads network, our Traffic Management function is the means by which we regulate how the network is flowing at any given point.

This includes dynamic monitoring and intervention in network performance; giving considered permission to third parties to work on the highways; and working with other partners like the emergency services, to ensure safe and efficient movement of people and goods, with predictable journey times. The assets we employ to achieve this include:

- Traffic signal equipment and controllers,
- Traffic safety cameras,
- Bus lane enforcement cameras,
- Variable message signs,
- Vehicle-activated signs,
- School crossing lights,
- Traffic count sites,
- Bus telematics,
- CCTV,
- Automatic number plate recognition (ANPR) cameras

Our desired outcomes are to maintain the assets in a safe and serviceable condition, and to safeguard journey time reliability by reducing equipment failures and out of service 'down times'.

To this end we are looking to improve our assets and improve journey time. Part of this will involve switching to LED lighting to reduce maintenance costs and energy consumption in the long term.

Traffic management aims to:

- Achieve a clear, consistent and understandable road network
- Facilitate the efficient and safe movement of people and goods whilst protecting the quality of life within communities
- Make appropriate use of the different types of road and environment.

We are required to be able to monitor the road network to identify both trends in traffic growth and congestion, and in real-time, identify incidents, either planned (for example as a result of roadworks) or unplanned (for example as a result of a collision).

We use a wide range of Intelligent Transport Systems (ITS) within the Essex Traffic Control Centre to provide this information. Our aim for ITS is to develop it into a Centre of Excellence through an asset led approach, helping us to build resilience and bid for and win more third party works.

We have developed a matrix to help better evaluate and prioritise locations/equipment for repairs to help achieve this goal. This will enable us to look after the future asset management programme too.

To improve our work for the travelling public and to make our operations more efficient, we are exploring ways to work more closely with Essex Police using Automatic Number Plate Recognition (ANPR) devices with traffic information from the Essex Traffic Control Centre (ETCC) to improve enforcement (for example of bus lanes) more effectively.

Set up following the publication of the Traffic Management Act 2004, the ETCC strategically manages the highway network for the safe and expeditious movement of goods and people across the network. It is open Monday to Friday 6am to 7pm.

Staff monitor and communicate on all aspects of the network, using a variety of methods including CCTV, traffic sensors, information from Police, Highways England, various websites and other traffic monitoring companies - as well as other local authorities that border Essex.

The ETCC intervenes whenever possible to manage congestion whether caused by volume of traffic, accidents or incidents in a variety of high profile locations across the county using part time signals and altering signalling strategies on full time signals to manage traffic.

It communicates to the public via numerous methods including Variable Message Signs on the highway (in excess of 40 in the county including Southend-on-Sea), e-mail, Twitter (just under 30,000 followers), live travel radio broadcasts on Essex FM throughout the day, our website and bus telematics signs.

The information is primarily road network based, however it also communicates issues affecting other modes of travel including, rail, air and sea journeys which helps enable the better management of works in Essex.

Essex County Council's Permit Scheme

In 2015 the Essex County Council's permit scheme was introduced to improve the co-ordination of works across the county this makes sure that works close together are not preventing traffic flow and enable better management of works in Essex.

Going into next year the street works team will be working more closely with colleagues from across the services to adapt processes, to achieve better timing of works.

Traffic Signals

11 Refurbishment /
Replacement schemes
across Essex

Crash Barriers

2.4 miles of replacement /
upgrades to existing
restraints across
the county

**“WE’RE WORKING TO SAFEGUARD
JOURNEY TIME RELIABILITY BY
REDUCING EQUIPMENT FAILURES
AND OUT OF SERVICE DOWN TIMES”**



Bridges, Subways and other structures

Structures are varied and complex in nature

Structures include bridges, footbridges, subways and underpasses, culverts, retaining walls, sign and signal gantries. They comprise different elements all of which are critical to accessibility, serviceability and safety of the asset. Some structures are heritage listed and require special consideration and treatment. Structures play a vital role in carrying main routes that impact on all road users and businesses, county wide.

Unlike carriageway and footway assets, the condition of structures is often not easily visible and the need for maintenance works or other rehabilitation measures may not be as obvious.

Our work involves maintaining structures in a safe and serviceable condition, while making steady progress in improving weak structures where strengthening or reconstruction may be required. We consider:

- Improving the coordination of design within the programme so that construction is undertaken during clement weather conditions, to minimise the risk of delays due to flooding or freezing.
- Implementing the forward programme been developed by the Asset Investment Team based on condition data.

We are using innovative technology on some of our structures around the county. This results in a reduction of cost and time and improves overall efficiency. We will continue to pursue the use of innovative methods in 2016/17.

“STRUCTURES PLAY A VITAL ROLE IN CARRYING MAIN ROUTES THAT IMPACT ON ALL ROAD USERS AND BUSINESSES COUNTY WIDE”

Bridges

Strengthen / refurbish six structures across Essex

Preventative maintenance on 47 structures

Investment in Pitsea Flyover





Structures Maintenance team rolls out latest innovation

Essex Highways' Structures Maintenance Team have used an innovative combination of materials to protect the abutment of Orchard footbridge spanning the Roman River in Colchester.

We believe this is the first time two environmentally friendly and resource efficient technologies - recycled PVC plastic sheet piling and Guadua Bamboo culms - have been used to produce a better engineering solution.

River erosion of the western abutment caused subsidence making the bridge unsafe. Located in a popular part of Colchester, the footbridge is well-used by walking and wildlife groups.

As part of the solution, retention of downstream water quality was important because the river is home to native Brown Trout and European Eels.

The repair, completed in mid-march, used recycled PVC plastic sheet piling which incorporates a hybrid hexagonal Kingpost system for retention. This was driven approximately 500mm into the river bed to secure it.

Guadua bamboo culms were then driven through the 100mm hexagonal cells to the required depth, providing structural anchorage and strength to the retaining wall.

Guadua Bamboo which grows to an average of 10.7 cm diameter and 19.6m high is durable and strong. It can be a useful alternative to steel or other high-carbon footprint polluting metals and is effective at removing carbon dioxide from the atmosphere.

The technique has been submitted to the British Construction Industry Awards (where it has been shortlisted) and the Eurovia UK Innovation Awards and the landowner, National Grid and other Essex Highways teams are keen to adopt its use elsewhere.

Major projects

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

Investment in major improvement schemes through the Essex Highways contract, has increased from £2.5m four years ago to £20m in 2016/17, with similar levels forecast for next year.

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. Traffic and economic data analysis and transport demand modelling are modern tools to establish where best to implement improvement schemes.

'Micro-simulation' modelling of the effects on traffic of changes to road junctions takes much of the risk out of these schemes. We plan, develop and design the schemes and manage the construction through to completion and opening.

We rigorously assess and prioritise proposed major schemes according to strategic objectives and priorities, to ensure the maximum benefit for Essex residents, business and visitors. We plan to increase income to the Council through selling our consultancy expertise to others.

We design and construct works for the five-year Essex Flood Risk Programme, worth £1.5m currently and predicted to increase to £3m next year.

This year we will support the Highways Information Map initiative, for the public and councillors and council staff, so that all our data is in one place and can be shared and easily updated to gain major efficiencies – this is an industry-leading project.

We are at various stages of planning and developing Essex County Council's strategic schemes, including plans for a new junction 7A on the M11 at Harlow; improvements at the A127 Fairglen junction, and developing a preferred route for the A120 between Braintree and the A12.

“MAJOR IMPROVEMENTS TO TRANSPORT INFRASTRUCTURE ARE REQUIRED TO KEEP THE ESSEX ECONOMY GROWING TO ITS FULL POTENTIAL”

Current and recent projects

Basildon Hospital Access Road –
completed in December 2015

A176 Nethermayne Improvement Scheme, Basildon

Works began in September 2014 on this £3.4m scheme which aims to reduce congestion and increase accessibility along the A176. – completed in 2015.

Somnes Avenue cycleway improvements

Being made to the shared cycleway and footway scheme along Somnes Avenue to the train station.

Laindon Station access

Improving footway and cycleway access to the station and the station forecourt are being implemented.

A127 / A132 Nevendon Interchange improvement scheme

Work has begun to improve traffic flow - and so economic growth - in the Basildon Enterprise Corridor.

Army and Navy Parkway improvements, Chelmsford

The Army and Navy Parkway widening scheme has been completed and the dedicated left turn slip road is complete. The subway was opened in May 2015.

Station Square improvements, Chelmsford

Have now been carried out. The area surrounding the rail and bus stations gives visitors their first impressions of Chelmsford, surely important in business decision-making to invest or not in our area. Between November 2014 and May 2015 we have repaved all the footway areas, widening pavements and removing obstructions.

A414 Clocktower Roundabout improvements, Harlow

Capacity improvements were implemented in 2014/15.

A414 First Avenue in Harlow

Capacity improvements are being implemented along the A414 and at its key junctions in Harlow.

The North Colchester and Stanway cycle schemes

Part of a wider strategy within Colchester to reduce congestion on the road network and encourage sustainable or “green” travel. Connections will be improved to visitor attractions, shopping, business and future housing developments.

Mile End Cycle Improvements Scheme

Essex County Council is in the process of creating a new shared cycleway and footway in Mile End Road, Colchester, to improve safety for cyclists and pedestrians travelling between north Colchester and the railway station and town centre.

Colchester A133 Cymbeline Way and Colne Bank Avenue

The Colne Bank Avenue widening is part of a number of highway improvement projects proposed in this area of Colchester over the coming years to improve sustainable transport links from the north of Colchester to the town centre and reduce traffic congestion along the A133 Corridor.

These projects form part of the £24.9m Local Growth Fund improvements for Colchester. This section of carriageway is a particular pinch-point on the A133.

To improve traffic flow, we are investigating left turn slip lanes at Colne Bank roundabout and the widening of Cowdray Avenue and Westway - these later components are developer funded projects linked to the building of new homes to the north of Colchester Town Centre.

Please see Essex County Council website at <http://www.essexhighways.org/Transport-and-Roads/Highway-Schemes-and-Developments/Major-schemes.aspx> for further details.

Local Highway Panels (LHPs)

Local Highway Panels (LHP) meet regularly to deliver small scale improvement schemes

Small scale schemes are identified by the 12 district LHPs and delivered by Essex Highways. We encourage the panels to present particular problems in their areas. Our trained highway engineers then provide options and appropriate solutions.

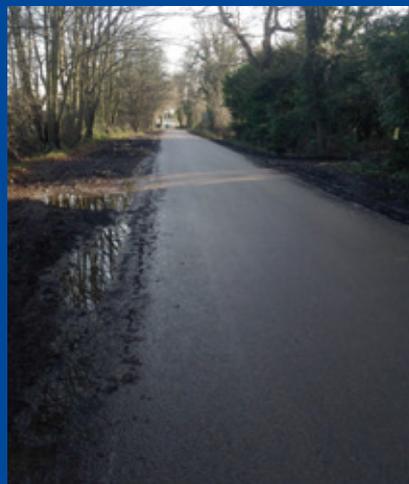
Requests for improvements are received from a cross section of society, including local residents, Parish Councils, District/City/Borough Councillors and County Councillors. These are submitted to the LHPs for consideration.

Essex Highways officers and engineers support the LHPs, giving technical advice on the feasibility of proposed schemes. Once validated and approved by the Cabinet Member for Maintenance and Small Schemes Delivery, the scheme is commissioned to Essex Highways to deliver.

The schemes cover a range of different improvements such as Casualty Reduction and Traffic Management. A typical example might be the construction of a new pedestrian crossing in a busy high street or near a school.

As part of our asset-led approach, a much more rigid programme of works will be implemented to ensure increased efficiency in the design and delivery phases.

“SCHEMES COVER A RANGE OF DIFFERENT TOPICS SUCH AS CASUALTY REDUCTION AND TRAFFIC MANAGEMENT”



Inset photos:

Above right: Ashwell's LHP scheme, Brentwood. Before and after shots. Requested by a local school and Councillors Aspinell and Kendall to assist vehicles parking and pedestrians manoeuvring to and from the school.

Below right: North Street & Weir Pond Road, Rochford. Traffic Island here caused confusion. The traffic island was extended and enhanced with clearer direction and informative signage.





Streetlighting

Highway lighting assets are a significant element of highways infrastructure

There are approximately 127,000 lighting columns, 12,000 illuminated signs and 5,600 bollards owned by the Council. Streetlighting helps to achieve safe and efficient speeds and traffic flow around the county. Essex Highways staff repaired about 30,000 faults on streetlights last year.

As part of the asset-led approach, our aim is to maintain these assets in a safe and serviceable condition, to maximise their service life and to reduce ongoing energy usage and reactive maintenance costs.

Street lighting assets have a high maintenance cost and energy expenditure; currently Essex County Council spends £240,000 pa on revenue maintenance and £3.9m on energy costs. Not only is this costly to Essex but it is unsustainable for the environment, as street lighting contributes £150,000 pa on carbon taxes.

In partnership with Essex County Council we want to see people in Essex experience a high quality and sustainable environment which is why we introduced the LED pilot in 2015/16

LED lights are more sustainable and offer better value for money, as outlined below:

- Reduces maintenance by £111,700 pa or £2.2m over 20 years, due to more efficient bulbs.
- Better control over the brightness of light, so street lights can be toned up or down depending on the surroundings.
- The reduction in the cost of electricity to Essex County Council equates to £20m over 20 years.*
- Lower consumption will reduce the carbon tax by £90,000 pa which is a 60% reduction. This equates to a saving of £1.8m over 20 years.

Building on the success of the LED pilot, we will replace faulty lamps with LEDs and roll out a two year programme for our all-night lighting on priority routes (PR1 and PR2 county routes) with £4.5m investment. All the savings above will be achieved once these programmes have been completed.

Other assets under street lighting include illuminated signs and underpasses. We will also upgrade illuminated signs on priority routes to LED and the underpasses we maintain will be a priority for lighting maintenance, for public safety reasons.

*Note: this assumes Retail Price Index (RPI) growth of 3.2% after the two year fixed price expires in 2018.

“LED LIGHTS ARE MORE SUSTAINABLE AND OFFER BETTER VALUE FOR MONEY”





Street Lighting

1100 structurally unsound lighting columns to be replaced

Roads drainage

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

Our highways drainage assets include:

Gullies

These help remove surface water due to rainfall/storm weather from the highway.

Slotted and grilled drainage channel

More discrete types of gullies. Their purpose is the same, remove surface water.

Catchpits

Empty chambers with an inlet pipe and an outlet pipe, which allow sediment to be removed from the flow of water.

Manholes

Inspection chambers for maintenance work.

Our aim is to improve the condition of the highway drainage assets so as to provide, as far as is reasonably practicable and affordable, a flood free highway to ensure a safe network for road users in Essex. This will be achieved through:

- Cleansing all gullies (drains) on our strategic county routes, our PR1 and PR2 roads, at least once over a 12 month cycle.
- Repairing prioritised defects. These include:
 - Accident sites
 - Insurance claims paid out
 - High speed roads
 - Flooding hotspots
 - Gritting routes

We are improving our electronic information on all the drains on our highways, bringing historic records (or the lack of them) up to date.

Correlating data from incidents and inspections helps us devise a more intelligent approach to maintenance. There are nearly 250,000 gullies on our road network, as well as thousands of “catch pits” and drainage channels - a massive task even with four crews dedicated to this work year-round.

Surface Water Alleviation Schemes (SWAS) are projects to improve highways drainage systems. For example, this could involve the replacement of pipes or implementing new gullies. The asset management team rank proposed SWAS schemes based on a risk assessment, to create a programme of works. We will deliver the high priority SWAS schemes through capital budgets, in 2016/17.

The extensive network of watercourses (ditches) form an important part of flood risk management. As we experience more intense and heavy rainfall events, the significance of maintaining the capacity of these local drainage systems has never been greater.

“THERE ARE NEARLY 250,000 GULLIES ON OUR ROAD NETWORK, AS WELL AS THOUSANDS OF ‘CATCH PITS’ AND DRAINAGE CHANNELS”

Drainage

15 of the highest priority schemes funded

34 designs to be undertaken for forward planning

An ADEPT approach to flooding

A Multi-Agency Partnership approach to flooding, in which Highways was involved, won a top national award for work undertaken in Canvey Island.

The agencies, led by Essex County Council as the Lead Local Flood Authority, collaborated on the Canvey Island flood alleviation project, and had their work recognised by The Association of Directors of Environment, Economy, Planning and Transport (ADEPT), at the ADEPT national awards ceremony on 31 January.

The flood alleviation project was in response to a significant surface water flood incident on 20 July 2014, when a

'Wembley Stadium' of water fell on the Island.

The partnership's aim has been to raise awareness of flood risk, and increase the resilience of Canvey Island's communities and businesses to flooding.

Since the incident, Highways and its partner agencies surveyed over 5,000 gullies and 2,500 manholes, finding 1,800 defects in the drainage system.

Jetting and CCTV surveying on 3.6km of the drainage network has taken place and over £2m has been spent updating the island's infrastructure since 2013.



Winter safety

Our objective is to keep the roads safe in the event of extreme weather

When freezing conditions are forecast on roads in Essex, the Highways Winter teams prepare to spread pre-wetted salt on a key network of just over 2000 miles of roads. We work in partnership with Essex County Council to make sure people in Essex live in safe communities by ensuring that residents feel that Essex roads are safe.

The Winter service period in Essex usually operates from late October to early-April. The routes that are salted are shown on the Essex County Council website. Our vehicles, known to the public as gritters, are fitted with snow ploughs when needed. The 58 routes are designed to ensure that each vehicle takes a maximum of 2.5 hours between leaving the depot to finishing its salting route.

Salted roads help to prevent the formation of ice and frost. During snow conditions, any dangerous build-up of snow will require us to plough the snow off the road surface to keep our roads as safe as possible.

During very cold weather, the effectiveness of salt melting snow, frost & ice on a road surface is reduced and hazards may still be present on treated surfaces. We ask drivers to expect road surface conditions to vary more than usual when road surface temperatures start to fall below -6.0C or during snow conditions.

Heavy snowfall and icy conditions on our untreated minor roads and pavements are much less safe for all drivers, pedestrians and cyclists, so people should always take extra care, for example, by reducing speed or avoiding the need to travel altogether during inclement weather.

Essex has ten weather stations, so we use specialist road surface forecasts to determine varying weather across all the varying parts of our large county, to ensure we only spread salt on areas likely to be affected.

Town Councils, Parish Councils and other organisations are invited to join a self-help scheme at the start of the winter season where we deliver 1 tonne of bagged salt to those who require it, under a scheme known as the Salt Bag Partnership.

This scheme also covers urban un-parished wards. All public authorities are very grateful to the many farmers who are prepared to plough local roads.





Winter Infrastructure

1 weather station that has exceeded its service life replaced/refurbished

16 Salt bins replaced / refurbished

“EACH VEHICLE TAKES A MAXIMUM OF 2.5 HOURS BETWEEN LEAVING THE DEPOT AND FINISHING ITS SALTING RUN”

Development Management

The national drive towards increasing housing stock to keep up with population growth and the improving economy, brings with it pressures on the local road network and a growth in the highway estate road system.

The continuing expansion of Local Development Frameworks within the Essex districts will open up further development opportunities within the next year, especially around Maldon, Colchester and Chelmsford.

The Development Management team work with colleagues in the planning authority to implement the outcome of planning applications and ensure the resulting new roads are constructed to a standard that is suitable for adoption by Essex County Council.

This means the materials used need to be maintainable by Essex Highways. We are presently involved in more than 800 developments across the county which vary in size, from estate roads serving five dwellings 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 this challenge we are changing our approach, using enhanced web-based information and application forms to speed up the process.

Also, we are moving towards offering a scheme design and construction service with the option of in-house construction for works on the existing highway.

The team oversees the Vehicle Crossing Service. Over the last two years we have brought about a more efficient application process through the website and an electronic payment option.

In addition, we respond to over 2000 Highway Searches in Essex per month and provide written responses to Chargeable Enquiries on roads Adoption Matters. Our aim is to enhance the data available through the website to allow more self-service and make information more readily available to the public.

“WE ARE PRESENTLY INVOLVED IN MORE THAN 800 DEVELOPMENTS ACROSS THE COUNTY”



Jaywick Road Improvement Scheme

As part of efforts to regenerate Jaywick, Essex County Council has funded a £5m scheme to improve some residential roads and drainage. The aim of the scheme is to improve local street conditions and the appearance of the area.

The work is being carried out by Ringway Jacobs and their sub-contractor John Henry Group. Work commenced in the Brooklands area of Jaywick in June 2015 with the construction of a new 600mm diameter carrier drain in Brooklands ditch.

Then followed the installation of a drainage system and reconstruction of the residential roads. To date 13 of the 15 roads in the current phase have been completed with work currently under way in Hillman Avenue and Morris Avenue.

Work will commence shortly in Sunbeam Avenue which will complete Phase 1 of the works in August 2016.



Images of Jaywick - Above: Prior to works. Below: After the improvements



Public Rights of Way (PRoW)

Essex has an extensive and diverse Public Rights of Way network.

Essex has an extensive and diverse Public Rights of Way network. We facilitate public access to the Essex countryside through maintaining, protecting and promoting the legally recorded PRoW network, and we encourage volunteer activity. This helps the people of Essex to enjoy the countryside through various activities, encouraging healthier lifestyles.

There are four different types of Right of Way:

Footpath

A highway over which the public has a right of way on foot only

Bridleway

A bridleway is a highway over which the public has a right of way on foot, horseback and on all types of bicycle.

Byway

A byway open to all traffic (BOAT) is a highway over which the public is entitled to travel on foot, horseback or pedal cycle and by motorised vehicle of all kinds, including horse-drawn vehicles.

Restricted Byway

Allow right of way on foot, on horseback; leading a horse, riding a bicycle or using any other vehicle that is not mechanically propelled.

This year we will continue the implementation of a PRoW Hierarchy to help prioritise resources on the better used routes, update the Rights of Way Improvement Plan (RoWIP) and develop a new PROW Maintenance Strategy with defined levels of service.

As well as keeping the network safe and accessible through the rolling programme of inspections and minor works, a programme of major works will also be undertaken to replace broken and missing footbridges and to improve the condition of some parts of our Byway network.

Essex Highways will be acting as Essex County Council's lead team for the implementation of the new National Coast Path through Essex, working with Natural England to agree routes, with funding for future maintenance.

“WE FACILITATE PUBLIC ACCESS TO THE ESSEX COUNTRYSIDE THROUGH MAINTAINING, PROTECTING AND PROMOTING THE LEGALLY RECORDED PRoW NETWORK”

PRoW

Five footbridges replaced / refurbished

Three right of way schemes undertaken

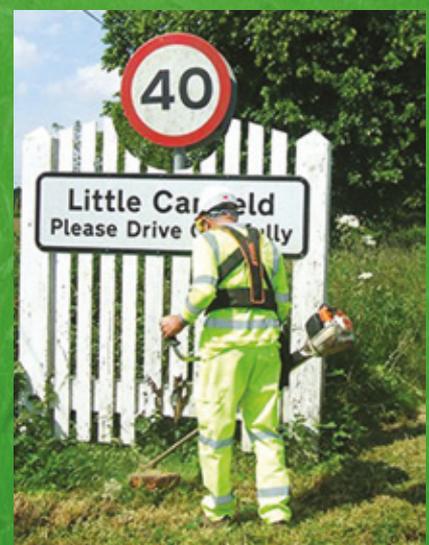
259 assets replaced / refurbished (e.g steps, barriers etc)

Verge Cutting

It is important for the safe use of roads by pedestrians, cyclists and drivers, that trees, shrubs and other plants growing on verges are kept cut back away from the road and to keep road signs clearly visible.

Essex Highways staff carry out the regular cutting back of plants on roadside verges, including a one-metre wide Spring safety cut in some areas, and a full width Autumn/Winter cut in priority areas.

On all our high speed roads we will carry out a safety cut in Spring and a full width cut in Autumn. In urban areas verges will be weed-treated in Spring, Summer and Autumn.



Visit our website:
www.essex.gov.uk/highways

