

CET/24/22

Corporate, Infrastructure and Regulatory Services Scrutiny Committee
28 March 2024

Highways Performance Dashboard – Winter 2023/24

Report of the Director of Climate Change, Environment and Transport

1) Introduction

In response to the recommendations of the Planned and Reactive Maintenance: Potholes and Drainage Task Group presented to the Corporate, Infrastructure and Regulatory Services (CIRS) Scrutiny Committee in March 2019 an updated Performance Dashboard Report has been produced. The intention of this report is to provide Members with an overview of the performance of the Highways and Traffic Management Team over the winter period.

2) Reactive Works

2.1 PIP (Public Interface Portal) Enquiries

As is typical for the winter period, the Service has recorded a gradual increase in the number of publicly reported pothole defects (PIPs) since November (see Appendix A). The team of Highway Safety Inspectors are working hard to undertake assessments, using extended weekday and weekend working where resource allows. Milestone are currently in the process of recruiting three additional permanent inspectors to assist in driving further efficiencies and timely inspections of these reports.

At the start of 2024, the Service implemented changes to the pothole reporting pages on the PIP website to improve clarity for citizens on intervention criteria, the triage inspection process, outcomes and customer feedback. The incoming data is being carefully monitored and will support decisions on future enhancements.

2.2 Safety Defects

The Service has already recorded more pothole defects this financial year than 2022/23. Whilst a further 12 months of network deterioration has occurred, the impacts on network condition of the relatively early and harsh freeze/thaw cycles experienced during last winter (2022/23) were felt deep into the summer months of 2023. In addition to the winter weather, there has been an unprecedented number of storm events experienced so far this autumn and winter.

Currently, through a combination of carefully optimised and balanced contractor resource and an accelerated programme of reactive patching, the Service is managing to contain the overall number of pothole defects across the network awaiting repair. Crucially, this has enabled the team to continue the identification and repair of non-safety or 'serviceability' potholes and patches through what is historically a very demanding period, in recognition of the efficiencies in repairing these emerging defects, prior to further deterioration. This has been possible through the allocation of £1.5m of the additional in-year government funding.

In the summer/autumn of 2023 the Service conducted a comprehensive trial of a road surface repair system called 'Elastomac', which was demonstrated to Councillors in May 2023. The system uses a flowable mastic asphalt which incorporates up to 70%-80% recycled materials and can be installed much more quickly than traditional patching techniques and with less disruption to the travelling public. This new solution will be added to the wider 'toolkit' again from the spring through to autumn this year.

The Dragon Patchers have undertaken more than five hundred shifts so far in 2023/24 at numerous sites across Devon. While the winter weather conditions are less favourable, the machines have been tackling safety defects.

2.3 Winter Service

As of the beginning of February 1,092 gritting runs have been conducted, using around 4,750 tonnes of salt. This is around half the amount when compared to the same period last season.

A review of management of the winter service fleet (gritters etc.), has enabled the team to achieve further reductions in the maintenance costs of these vehicles, despite the high inflation rates associated with vehicle parts and labour. This has been a collaborative endeavour with Milestone's in-house workshop team.

Following a successful, collaborative procurement exercise with some neighbouring authorities, the Service switched to a new weather forecast provider, MetDesk, at the start of the season. This has facilitated full adoption of Route-Based Forecasting (RBF) to support decisions to send which gritters during freezing conditions. RBF provides a far greater level of detail in the route treatment selection (of which there are 37 primary routes) within the five weather domains in Devon, with associated cost, efficiency and carbon reduction benefits.

The service continues to draw national interest from leading research bodies, industry groups and other highway authorities in the treatment of cycleways and footways in Exeter. DCC is proactively sharing our findings to assist in promoting more sustainable travel and helping to meet carbon reduction objectives. More sustainable gritting vehicles are gradually emerging on to the market, and the Service is exploring how and where they may fit amongst the existing fleet and infrastructure in the future. Indeed, there was a demonstration recently at Westpoint of a fully electric gritter. However, the cost of this technology is currently prohibitive.

3) Cyclical Operations

3.1 Gully Cleaning

While there have been challenges around plant breakdowns and availability, it is anticipated the programme to clean 150,630 gully assets will be completed on time for the current financial year.

The additional high pressure jetting resource is currently resolving approximately 800 recorded issues per month, effectively maintaining pace with the number of issues reported during the flooding events experienced over the 2023/24 winter period.

The Service continues to trial a different approach to cleaning both urban gullies and gullies that require multiple cleans per year. This information is providing valuable information to review cleaning frequencies and timings as with the aim of improving the efficiency of the service in the future.

3.2 Grips, Easements and Buddleholes

The 2023/24 programme to clear 111,594 grip, easement and buddlehole assets is currently running 2% ahead of planned programme. If current progress is maintained at this rate, it may be possible during the final month to undertake some proactive cleaning of these assets, focusing on recorded work requests.

4) Tree Safety Management (including vegetation)

4.1 Expert Scheduled Inspections

The 2023 programme of scheduled expert tree inspections generated 503 records of defective trees compared with 274 records in 2022. This represents an increase of approximately 84%.

4.2 Ash Dieback (ADB)

The total number of trees reported with ash dieback from scheduled expert inspections in 2023 was 1,084, which is the second highest number after 2020, and an overall increase of nearly 400% compared with last year. Trees with ash dieback represented over half of all expert inspection records in 2023.

Scheduled expert inspections in 2021 and 2022 had suggested a downward trend in the overall number of trees reported with ash dieback, reducing from 470 to 274. However in 2023, only scheduled expert inspections in South Hams reported a decrease in trees with ash dieback. Significant increases were seen in Teignbridge (53 to 132), Torridge (15 to 134) and North Devon (39 to 647).

4.3 Highway Safety Inspections

To the end of November 2023 Highway Safety Inspectors had referred 96 tree related defects to the Tree Safety Management Team for action. In the same period last year 319 tree related defects were referred, many of which were found to present tolerable or negligible risk when attended by expert tree inspectors. The reduced referral number in 2023 is an indication that the quality of reporting has improved following refresher training given to Highway Safety Inspectors in 2022.

4.4 Tree Inventory

The tree inventory is being developed with a series of workshops planned in March when its use as the basis of a new management system for trees and vegetation will be explored.

5) Highways Digital Transformation Project

A significant number of features have been delivered following the last update, with the development focus being very much on providing additional value for staff in ALFIE (Applications, Licences, Faults, Information and Enquiries). Alongside the release of ALFIE

v1, the Service launched a new online form that allows contractors to apply online for a licence to place apparatus or excavate the highway.

The new features provide improved efficiency for staff while offering better tools to record all the associated communications. In addition, the new system has removed an organisational risk associated with reliance on an outdated and unsupported database.

In the month's leading up to Christmas, because the Digital Transformation Team needed to transfer their support to the SEND transformation programme, the project team focussed on reprioritising the features within ALFIE. The priority being to provide a workable end to end solution to enable the team to step away from the highways project.

The project has now moved into the early life support, focussing on identified bugs and releasing a number of high priority improvements. This finished on the 12 February and development work is now on hold either for a phase 2 or a smaller scale continuation of the project.

Work is continuing with the Service to embed ALFIE, support users and continue to update and review current processes until the end March 2024.

6) Delivery of the Capital Programme

6.1 Carriageway Assets

Design, programming, and delivery of planned maintenance work continues to go very well. In-house teams have worked hard to ensure that the additional £9.4m funding awarded in mid-March 2023, and the additional £6.6m awarded in mid-November 2023 is being invested appropriately to maximise the impact on Devon's network.

The additional £9.4m incorporated into the Council's wider 2023/24 highway structural maintenance budget is covered in the following sections. Progress on schemes being delivered through the additional £6.6m can be found in Appendix B.

Over £8 million will be invested into the strategic A-road network by the end of the financial year, typically through resurfacing and associated drainage refurbishment. Within this funding there is an additional programme of works that addresses locations of known risk of wet-road skidding following SCRIM (Sideway-force Coefficient Routine Investigation Machine) surveys.

A number of high-profile schemes have been delivered, including the A381 Main Road, Harbertonford, the A361 St Brannocks Road, Ilfracombe and the A38 to M5 J27.

By the end of the financial year over £17 million of planned works will be delivered via the Local Asset Capital Programme. This programme aims to prioritise schemes for lower category local roads outside the A-road network. It is a process that brings different asset data sources and local knowledge together focusing on the holistic needs of the network, and therefore includes a range of different work types including resurfacing, patching, footways, drainage, cattle grids, etc.

A further £6 million of reactive, short notice, planned works including minor hand patching and dragon patching will be delivered on the minor network. These works are identified through the centrally managed highway safety inspections and delivered countywide via a rolling program through to the end of the financial year.

6.2 Bridges and Structures

In addition to carriageway assets the programme of maintenance for bridges and structures has included the refurbishment of both the Drakes Trail Gem Aerial Walkway and Courtlands Boardwalk on the Exe Estuary Trail.

This year has seen the completion of a 3-year programme of Post Tension Bridge Inspections which are undertaken every 18 years. An ongoing programme of rockface management continues with inspection and works ongoing on the A39 at Watersmeet Road Lynmouth.

Refurbishment works and masonry repairs to the walls at Iron Bridge Exeter were completed earlier in the year and further works are ongoing to stabilise an adjacent retaining wall.

The unprecedented number of flooding and storm events this autumn and winter has resulted in the damage and closure of a number of footbridges, including Coleridge footbridge in Ottery and Dotton footbridge near Newton Popleford. These events by their nature are unplanned and as a result some capital schemes could not be delivered as programmed. The affected schemes will be carried forward into 2024/25.

The various storm events have led to £2.1m of the resilience contingency budget being used. The May 2023 storm event resulted in heavy flooding, particularly in the east of Devon leading to road surface and structural damage, alongside heavy debris resulting in multiple legacy works. Other notable schemes that have been delivered include repairs to a culvert in Coles Lane, Axminster, and repairs to a landslip on the A386 at Landcross.

6.3 Cross Asset Innovation

£3.6 million was allocated to a Cross Asset Innovation Fund, recognising the authority must continue to engage with the market sector to encourage innovation that will serve to provide the Service with the means to be more agile and versatile in meeting environmental and funding pressures.

Delivery of the budget is on course with two hybrid rural road maintenance projects that address drainage cleaning at the same time as carriage way repairs were delivered in West Devon during the summer of 2023. The schemes while facing some challenges have been seen as successful with delivery under budget, no post winter patching required on the most recent assessment and being well received by the local communities.

A 'retread' recycling programme has unfortunately been delayed, however is programmed to start in March 2024 across five sites in North and West Devon. Retreading involves breaking up the existing road surface which is then mixed with bitumen and rolled to create a solid structural layer, then sealed. In most cases, a surface layer of asphalt or micro asphalt is also applied, which can happen several weeks after the road has been retread.

A programme of micro asphalt also commissioned under the cross asset innovation budget was completed by mid-October 2023. Micro asphalt is a relatively low-cost preventative surface treatment similar to surface dressing but is more suitable for urban and residential environments. The successful delivery of this program resulted in thirty-five sites across the County being delivered, and over 9km of carriageway being sealed.

At the end of November 2023 DCC received an additional £6,663,000 of funding to be allocated within the 2023/24 financial year from the Department for Transport's Road Resurfacing Fund for local highways maintenance. In addition to the £1.5m allocated to serviceability patching mentioned in 2.2 above, the remainder was allocated to surfacing and larger patching schemes which will provide targeted resilience across the network. Progress on these schemes can be seen in Appendix B.

7) Street Lighting and Traffic Signals

The roll out of LED luminaires continues across the county, with the aim to reach 70,000 by the end of this financial year. By way of comparison the table below highlights the energy savings offered by this initiative.

Financial Year	Energy Used (kWh)	Saving (kWh)
2021/22	14,439,652	
2022/23	13,187,867	1,251,785

This trend will continue through 2023/24 with the expectation that a further saving in the region of 1 million kWh will be achieved. With energy prices still increasing, this piece of work has been critical in managing revenue expenditure.

Coupled with LED, the Central Management System roll out has now been installed in 25,600 lanterns. Three areas (Holcombe Rogus, Sidmouth, The Kerswells) are set up for a trial to offer further dimming options and extend the part night light switch off times. It is hoped this will give a greater ability to react to increasing energy prices and meet the needs of the people of Devon.

In addition to energy savings, the LED roll out has an associated reduction in carbon.

Financial Year	Carbon Produced (tonnes)	Saving (tonnes)
2021/22	3,303	
2022/23	2,752	551

From a traffic signal perspective, the age of the assets across the network is generally less than 15 years old. The Bus Service Improvement Programme is an opportunity to introduce innovative technology at junctions and pedestrian crossings to help buses reduce travel time on the main corridors into Exeter and there will be future proposals around Newton Abbot and Barnstaple.

8) Carbon Reduction Project

The use of hydrotreated vegetable oil (HVO) as a low carbon alternative to diesel has been extended to the south and east areas of the county. The winter gritters and Milestone's larger construction vehicles, such as 3.5 tonnes pickups are also utilising HVO. The HVO source is derived entirely from food waste and has an associated reduction in carbon emissions in the order of 90% when compared with diesel.

The new method of collating data on carbon emissions is progressing and the council has received 561 returns in an 18-month period from contractors. These returns allow an estimate of the total carbon emissions associated with the works to be calculated. A quarterly carbon board is now in operation, offering governance and strategic direction.

In November, the Service published a Decarbonisation Strategy which sets out the vision for reducing carbon from construction and maintenance works.

In collaboration with Milestone and the Materials Laboratory the specification for concrete has been amended to allow low carbon concrete. From March, this change will see an approximate carbon reduction associated with concrete works of 30%.

9) Social Value

In January the Devon Highways Social Value Plan was launched in partnership with Milestone. This plan intends to drive the right behaviours to help deliver value beyond financial gain to our communities through the Term Maintenance Contract. In 2023, it is estimated that £1,706,000 of social value was delivered through the Devon Highways partnership. This figure is calculated in line with the National Social Value Standard methodology and includes factors such as value of spending with local suppliers, the number of apprentices employed, and the value generated by Milestone employees using their corporate volunteering days.

Meg Booth

Director of Climate Change, Environment and Transport

Electoral Divisions: All

Cabinet Member for Highway Management: Councillor Stuart Hughes

Local Government Act 1972: List of Background Papers

Nil.

Contact for enquiries:

Name: Robert Richards

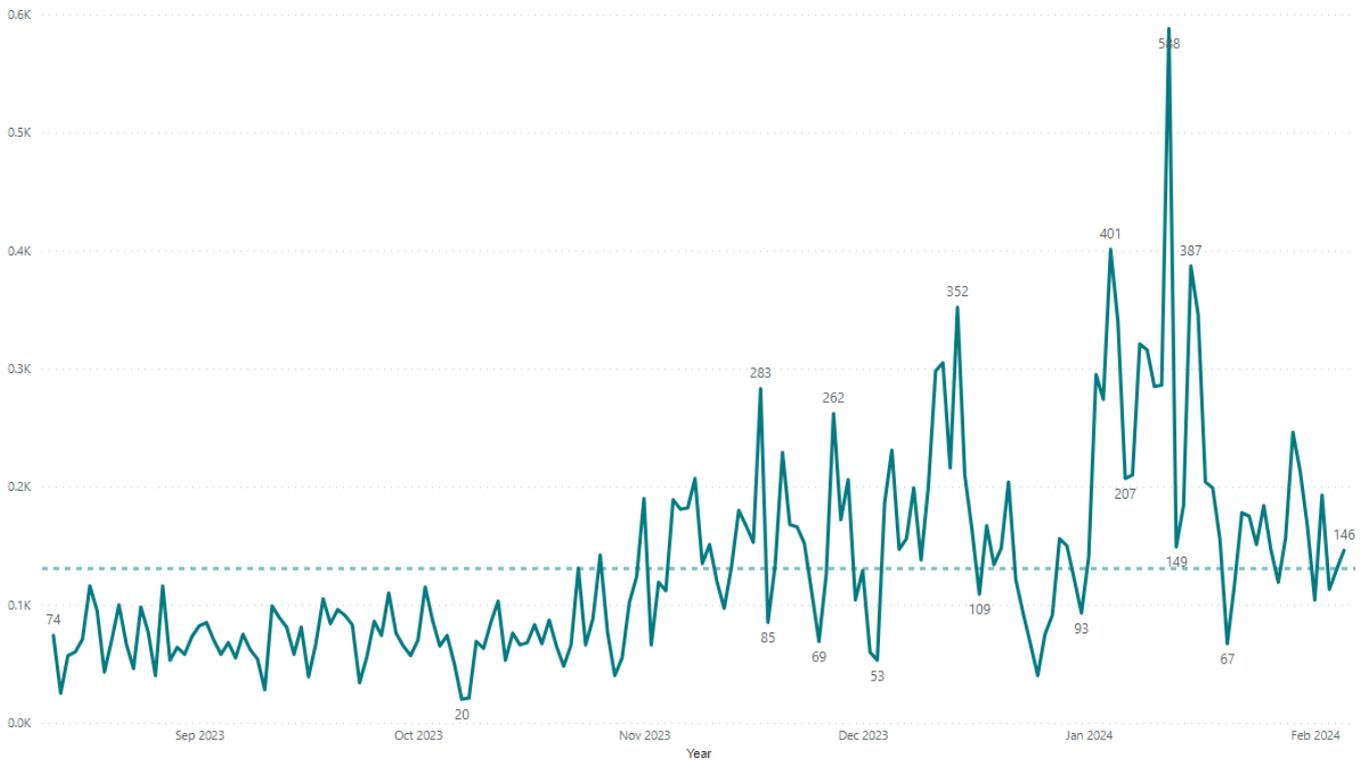
Telephone: 01392 383000

Address: County Hall, Exeter. EX2 4QD

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Appendix A to CET/24/22

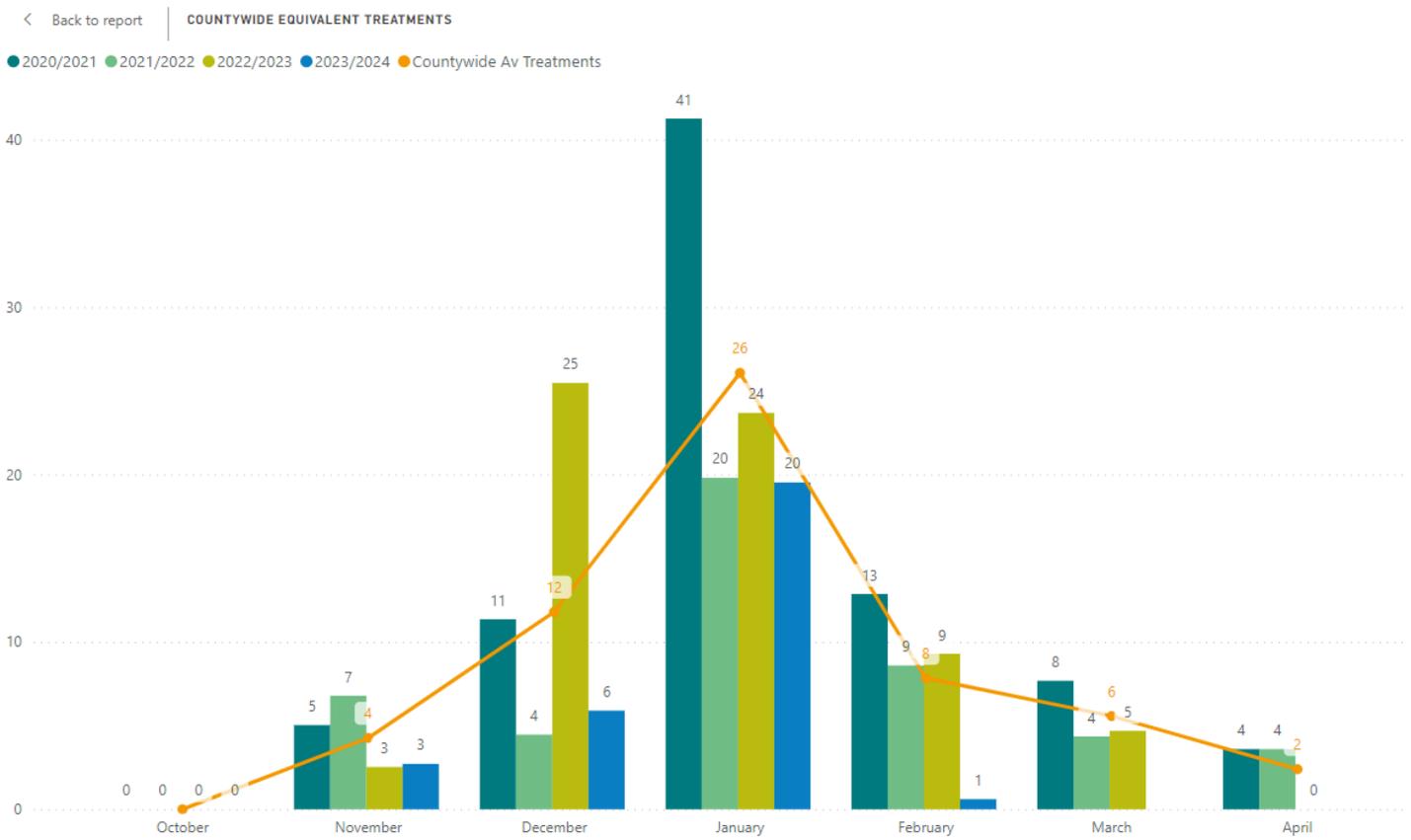
Public reports of potholes received since September 2023



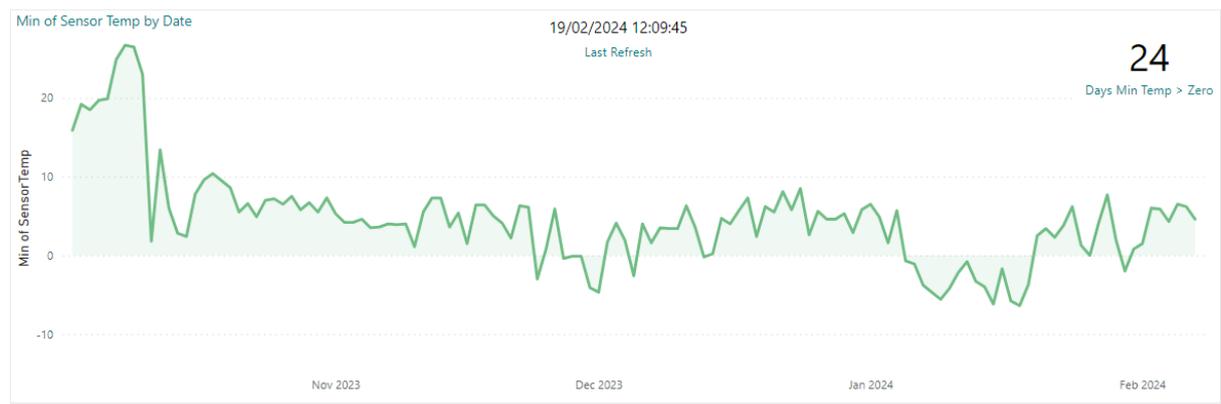
Number of potholes recorded across the Devon network per month/year to 19 Feb 2024

	17/18	18/19	19/20	20/21	21/22	22/23	23/24	Avg
April	3,489	9,782	3,741	6,505	3,904	2,984	4,631	5,005
May	4,329	6,339	3,344	4,764	4,248	3,499	4,183	4,387
June	3,293	5,120	3,713	5,179	5,743	2,949	3,739	4,248
July	3,148	5,225	2,719	4,040	4,301	2,766	3,470	3,667
August	3,352	4,423	2,041	3,071	3,845	2,344	3,781	3,265
September	2,831	3,378	2,745	3,297	2,874	2,133	3,650	2,987
October	3,750	3,137	3,013	2,465	2,545	1,478	2,807	2,742
November	4,316	3,434	3,931	3,349	2,697	2,654	4,874	3,608
December	3,766	3,533	3,393	2,465	2,723	2,434	3,551	3,124
January	7,408	5,770	6,694	5,181	3,494	7,376	5,563	5,927
February	7,687	5,121	5,269	5,619	2,972	4,308	4,010	4,998
March	8,523	6,706	7,884	6,190	4,919	4,888		6,518
Total	55,892	61,968	48,487	52,125	44,265	39,813	44,260	49,351

Countywide equivalent gritting treatments vs average



Lowest recorded temperatures across DCC's weather station network this winter



Appendix B to CET/24/22

Progress on the Delivery of Maintenance Schemes Funded Through the Additional £6.6m

Scheme Name	Parish	Length (metres)	Program Date
P117 - Baddaford Cross	Ashburton	1,074	Delivered
C10 - Church House Inn	Marldon	289	Delivered
Z3514 - Kerse Lane	Thurlestone	1,308	Delivered
C344 - Kiln Road	Marldon	485	Delivered
P1107 - Lower Weekaborough	Combe Fishacre	446	Delivered
P128 - Parkfield Cross	Ashburton	1,371	February
Z2820 - Stoke Cross to Revelstoke Park House	Newton and Noss	244	Delivered
Z3717 - Wallingford Rd	Kingsbridge	170	Delivered
P1128 - Weirfield Road	Totnes	354	March
Z5050 - Westover Lane	Ivybridge	148	Delivered
C11 - Preston Down Road	Marldon	247	March
P1405 - East Leigh Cross	South Brent	1,278	Delivered
L5119 - Brunel Road	Newton Abbot	513	March
C764 - Main Road	Exminster	1,653	Delivered
W4724 - Matford Mews	Exminster	212	Delivered
C198 - Shaldon Road	Newton Abbot	1,006	Delivered
B3193 - Gestridge Cross	Kingsteignton	807	April
C467 - Exeter St	North Tawton	597	March
C575 - Jacobstowe to Abbeford Woods	Jacobstowe	3,369	March
B3357 - Merrivale	Whitchurch	516	Delivered
Y1503 - Pixon Lane	Tavistock	1,391	March
U404 - Winkleigh Airfield	Winkleigh	1,352	February
C357 - Grantland Hill -	Poughill	2,114	March
S2304 - Westland Lane	Cruwys Morchard	1,087	March
C238 - Warbrightsleigh Hill	Stoodleigh	150	March
W204 - Pitt Lane	Cadbury	360	Delivered
S2605 - UNNAMED	Cruwys Morchard	100	March
S1711 - Aldridge Mill Hill -	Stoodleigh	100	March
C135 - Bickleigh Road -	Cadeleigh	90	March
R6404 - Meethe Hill King's Nympton	King's Nympton	250	April
C686 - UNKNOWN	Rose Ash	100	April
R6407 - UNNAMED	King's Nympton	100	April
R8404 - Mare Hill	Morchard Bishop	100	April

R6403 - UNNAMED -	King's Nympton	100	April
W4559 Premier Place, Exeter	Exeter	84	March
L425 - UNNAMED -	Woodbury	280	March
W5741 Pulling Road & W5743 Puckridge	Exeter	99	April
W4802 Streatham Drive, Exeter	Exeter	404	April
W4603 - Lyndhurst Road, Exeter	Exeter	380	April
W4604 - Victoria Park Road - Exeter	Exeter	499	April
W5328 Fortescue Road, Exeter	Exeter	132	April
W4801 Carlyon Gardens, Exeter	Exeter	422	April
C595 Douglas Avenue,	Exmouth	1,703	May
W5341 Welcome Street, Exeter	Exeter	80	April
W3804 Blackall Road, Exeter	Exeter	377	April
W4574 Lower Summerlands, Exeter	Exeter	83	April
X1403 - Lodge Lane -	Axminster	200	Delivered
S3702 - Boobery -	Sampford Peverell	682	February
L625 - Winkleigh Lane -	Colaton Raleigh	150	March
C306 - Quarter Mile Lane -	Rockbeare	362	Delivered
X313 - UNNAMED -	Upottery	200	March
C129 - Station Road -	Feniton	568	Delivered
X610 - Hayne Lane -	Widworthy	2,245	April
S2013 - Beer Lane -	Burlescombe	150	Delivered
B3181 - Cullompton Road (Budlake) -	Broad Clyst	3,435	TBC
C28 - UNNAMED - (Seven Mile Straight)	Stockland	7,853	TBC
C260 - UNKNOWN - Uffculme to C107 - Ashley Road	Uffculme	1,350	May
C100 - Axe Farm	All Saints	200	May
C302 - UNKNOWN -	Dalwood	336	May
S2011 - UNNAMED -	Culmstock	428	April
X307 - UNNAMED -	Yarcombe	200	April
X1006 - UNNAMED -	Widworthy	100	April
C216 - UNNAMED -	Nether Exe	1,456	April
X710 - To Yarty farm -	Membury	250	May
X2240 - Valley View -	Seaton	481	May
X703 - UNNAMED -	Membury	100	May