



Permit Scheme Year 1 Review

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Executive Summary

Overview

- Leicestershire County Council (LCC) introduced a permit scheme to manage street works on the 2nd February 2018, replacing the notice scheme that had been in place prior to this date. The scope of the permit scheme includes street works by utilities, works for road purposes (i.e. LCC works) and major highways works.
- The total permit fee income for the first year of the permit scheme (Year One) was £772,652. The allowable Year One costs of running the permit scheme (which cover staff and overhead costs required over and above the costs of running a notice scheme) was £786,433 leading to a deficit of £13,781 (i.e. a 1.7% deficit). Additional income from FPNs specific to the permit scheme was £55,280. No revision of permit fees is recommended at this stage.
- LCC has received 36,131 permit and permit variation applications in Year One, with 79% of applications granted by LCC. Just six works promoters (LCC, Severn Trent Water, BT Openreach, Western Power Distribution, Virgin Media and Cadent Gas) account for over 96% of applications. LCC highway works account for ~24% of all applications received.
- Over 19,000 individual works went into progress in Year One, corresponding to 50-75 works starting per day. Added together, these works had a total duration of nearly 56,000 working days (72,000 days including weekends and bank holidays). Total works duration has dropped in the past 3 years, with declines in duration continuing into year one of the permit scheme.

Scheme Objectives:

Efficiency – operation of scheme

- The administration of the permit scheme is generally efficient with 75% of applications receiving a response by the next working day after the application was received. A reason is always provided by the permit authority if an application is refused with a response code (RC) included in 88% of refusals.
- The monthly deemed rate of permits (whereby a permit is automatically granted with no fee if the permit authority has not responded to the application within statutory timescales) tended to fluctuate between 2% and 8% for the first few months of the scheme but this has now stabilised at below 2%. This indicates efficient operation of the scheme after performance issues concerning the LCC Network Management team were successfully addressed in the first few months.
- Around 9.2% of works put into progress were subjected to permit compliance inspections, which is at a rate similar to the 10% target of Category A inspections for works in progress (part of a separate sample inspection regime required under the New Roads and Street Works Act 1991).

Efficiency – evaluation of works promoters

- Over 90% of initial permit/PAA applications comply with minimum lead in times, although 17% of granted permits are subsequently cancelled indicating some promoter inefficiency when planning works. The fee payable by utilities for these cancelled permits (note that all granted permits carry a fee even if subsequently cancelled) is estimated to be £132,781.
- Compliance with PAA lead in times is poor for LCC highway works, although this likely reflects the need for road closures for urgent highway repair works to be completed safely and within statutory response times.

- Days' occupation of the highway has declined since the introduction of the permit scheme. This is due to fewer major projects being undertaken (e.g. Virgin's Project Lightning which had a peak of activity in 2016) but also due to reduced duration of minor works.
- Overall days' occupation has declined by 18% compared with the previous year under a notice scheme suggests the permit scheme is having a positive impact with respect to reduced delays associated with road works.
- This decrease in days' occupation is true for permits with passive traffic management (e.g. Give and Take) and positive traffic management (e.g. temporary traffic lights) with reductions of 25% and 13% respectively. However, the total days' occupation of works involving road closures, although only 8% of the total for all road works, has increased by 58%.
- Permit conditions are being applied excessively by some works promoters, contrary to statutory guidance. As such, it is not possible to assess the effectiveness of conditions in driving improved behaviour when planning and completing works on the highway.

Parity

- The three most common reasons given for refusing an application are 1) to request off peak working on traffic sensitive streets or other timing issue; 2) to query the proposed traffic management; and 3) to request works to be rescheduled due to a clash on the network. The profile of refusal reasons is similar for highways and utility works.
- Refusal rates are higher for utility works, which may indicate poor compliance with the requirement of parity. However, the fact that those planning for highway works only have to deal with one street authority (i.e. LCC) coupled with the fact that highway works are often for only one days' duration, may explain why refusal rates are higher. Deemed rates are also higher for highway permits but it is not clear why this is the case.
- FPNs are issued at a similar rate for both highway and utility works. However, permit condition inspections have only been completed for 3% of highway works compared to 10% for utility works.
- Overall, LCC can demonstrate parity with respect to permit responses and the issuing of FPNs but not with respect to permit compliance inspections. It is not clear if lower refusal rates and higher deemed rates for highway works indicate poor parity treatment and this will continue to be monitored in future years. Parity treatment with respect to permit conditions cannot be demonstrated due to their excessive use by various works promoters.

Safety and Integrity

- There is a clear shift towards higher categories of traffic management over the past four years (including one year under the permit scheme) which may indicate a positive behavioural change when choosing the appropriate traffic management to ensure safety of workers and road users when planning works.
- Category inspections are used to detect any defects in site set-up and reinstatement quality for up to two years after works are complete. LCC will start to issue quarterly inspection reports to works promoters so that any impact the permit scheme has on the rate of defects issued can be assessed.

Publicity

- LCC makes use of leicestershire.roadworks.org to publicise planned works and diversions
- Condition NCT11b, used to require publicity of planned works (e.g. advance warning signs or letter drops) has been applied to over 20% of permits that involve road closures.

Conclusions

Overall, the LCC permit scheme is running efficiently with permit fee income covering most allowable costs (1.7% deficit). LCC can demonstrate parity with respect to permit responses but not with respect to permit condition inspections, although certain aspects require continued monitoring to ensure full parity can be demonstrated. The 18% decline in working days' occupation since the introduction of the permit scheme may indicate a positive impact of the permit scheme compared to noticing, although the fact that a major utility infrastructure project (i.e. Virgin's Project Lightning) is now winding down after a peak in 2016 is also a factor for this decline. A number of recommendations based on the findings of this report are provided to assist all works promoters in their support of the scheme's objectives.

1 Introduction

Leicestershire County Council (LCC) introduced a permit scheme to manage and coordinate street works on the 2nd February 2018¹. The permit scheme supports our duty to coordinate street and road works (defined under section 59 of the New Roads and Street Works Act (NRSWA) 1991) and our network management duty to ensure expeditious movement of traffic (defined under section 16 of the Traffic Management Act (TMA) 2004) by providing more powers to control road and street works.

Permit Authorities may charge fees in relation to the issuing of permits. The income from fees can cover the direct costs and overheads of running a permit scheme over and above the costs of meeting the coordination duty under NRSWA and must not exceed the total allowable costs prescribed in the permit regulations². The income from fees over a three year period must not exceed allowable costs, and the evaluation report (see section 1.2) must include consideration of whether the fee structure needs to be revised in light of any surplus or deficit. Since the balance can be achieved over several years it is unlikely that the fee structure will be revised until the end of the third year of the LCC permit scheme (i.e. Spring 2021).

The powers of a permit scheme includes the use of permit conditions to enforce restrictions to minimise the impact of road and street works on traffic movement so far as may be reasonably practical with respect to other legal obligations of statutory undertakers². Highway authorities have an obligation to maintain and repair the road network and utility companies have an obligation to provide and maintain supply of services to customers and thus require access to apparatus buried beneath the road network.

1.1 Specified Works

A permit scheme covers the street works, carried out by statutory undertakers (i.e. utility companies) and all major highway works and road works, carried out by, or on behalf of, the Council to maintain the roads (i.e. highways works) as defined in NRSWA 1991. Section 50 licences, which allow a company or individual to install and maintain apparatus in the highway, are excluded from all permit schemes.

The different works categories are defined as:

- **Major** - works with a planned duration of 11 days or more **or** works that involve a temporary traffic regulation order (TTRO), usually a road closure
- **Standard** - works with a duration of between 4 and 10 days
- **Minor** - works with a duration of three days or less
- **Immediate** – works for urgent or emergency works for which, by their very nature, no advance notice is required and no duration limit applies

For each category of work the works promoter should conform to minimum notice periods. Similarly, the permit authority should meet statutory response times to either grant or refuse the permit (Table 1) as defined in Regulation 16 of the statutory guidance². A permit is deemed to be granted if the works promoter does not receive a response from the permit authority within the statutory time limits, and no fee is charged for deemed permits.

Table 1 Minimum application periods and response times for various categories of permit

ACTIVITY TYPE	Minimum application periods ahead of proposed start date		Minimum period before permit expires for application for variation (including extension)	Response times for issuing a permit or seeking further information or discussion		Response times for responding to applications for permit variations
	Provisional Advance Authorisation	Application		Provisional Advance Authorisation	Application	
Major	3 months	10 days	2 days or 20% of the original duration whichever is the longer	1 calendar month	5 days	2 days
Standard	N/a	10 days		N/A	5 days	
Minor	N/a	3 days		N/A	2 days	
Immediate	N/a	2 hours after		N/a	2 days	

Table reproduced from *Statutory Guidance for Highway Authority Permit Schemes*²

1.2 Evaluation of permit schemes

Regulation 16A of the permit scheme regulations (amended in 2015)³ states that the Permit Authority must evaluate each permit scheme every year for the first three years of operation and every third anniversary thereafter; and that this evaluation is made available to all statutory undertakers operating within Leicestershire and all neighbouring local authorities, among others. The evaluation shall include analysis of the fee structure, the costs and benefits (whether or not financial) of the scheme and whether the scheme is meeting its objectives as assessed by key performance indicators (KPIs).

2 Objectives of the LCC Permit Scheme

The scheme's primary objectives⁴ are:

1. to increase the efficient running of the highway network by minimising the disruption and inconvenience caused by road and street works and other highway events and activities through proactive management of activities on the highway
2. to protect the structure of the street and the integrity of the apparatus in it
3. to ensure safety of those using the street and those working on activities that fall under the Scheme
4. to ensure parity of treatment for all activity promoters particularly between statutory undertakers and highway authority works and activities
5. better information for road users about works in the highway;

The successful performance of the Scheme will bring a number of subsidiary benefits. These include:

- maximising the safe and efficient use of road space
- providing adequate information for route planning
- improving the resilience of the network
- minimising inconvenience to all

2.1 Parity treatment

Prior to the introduction of the LCC permit scheme in February 2018, Leicestershire operated under a noticing scheme. This is a passive system that applies only to works carried out by utility companies whereby promoters submit notices for planned and immediate works. Notices for highways works were submitted by LCC in order to assist with our duty to coordinate works on the road network, but this was not a statutory requirement. This is in contrast to the permit scheme whereby both highways (i.e. LCC works) and utility works require a granted permit before planned works can proceed. Furthermore, regulation 40 of the amended permit scheme regulations³ requires that we operate "without discrimination between different classes of applicant" i.e. demonstrate parity between all works promoters including LCC.

A key aim of the evaluation report is to demonstrate parity with respect to **four key areas** –

- parity in responses to permit applications
- parity with respect to permit inspections
- parity in issuing of FPNs for noticing and permit failures
- parity in application of permit conditions for similar works (e.g. temporary signals on traffic sensitive streets).

As there is no financial incentive with respect to permit fees and FPNs/overrun charges, it is important that any failures by LCC to meet similar standards expected of statutory undertakers are acted upon. This report will provide information on KPIs so that all major works promoters, including LCC, can be compared to ensure that parity treatment is demonstrated. Any instances where parity treatment has not been achieved are identified in this report alongside recommendations on how improve LCC's compliance with this requirement.

3 Fee structure

It is not the purpose of fee charging under the Permit Scheme to generate revenue for the Permit Authority; although a Permit Authority may cover its operation costs in line with statutory regulations³. Fees are payable by Statutory Undertakers depending on the type of activity and road category (Table 2), but highway authorities are not charged.

Table 2 Current fee structure for LCC Permit Scheme⁴.

Activity type	Road Categories 0-2 and all traffic sensitive streets	Road categories 3 and 4 (Non-traffic sensitive)
Provisional Advance Authorisation	£58	£48
Major activities (over 10 days duration AND major activities requiring a TTRO)	£180	£93
Major activities (4 to 10 days duration)	£79	£68
Major activities (up to 3 days duration)	£41	£37
Standard activities	£79	£68
Minor activities	£41	£37
Immediate activities	£28	£19
Permit Variation	£45	£35

4 Evaluation of the Scheme

4.1 Key performance indicators (KPIs)

Leicestershire County Council has developed a number of key performance indicators in order to assess the objectives of the LCC permit scheme (Table 3). These can be analysed to assess the performance of each of the main works promoter, including LCC, which will help inform if parity has been achieved.

Table 3 Performance indicators used to assess LCC permit scheme. These indicators are used to address objectives indicated in the final column

Function	Performance Indicator	Objective*
Permit Applications	applications received	1
	applications granted	1, 4
	applications refused	1, 4
	Early start requests	1, 4
	Early start agreements	1, 4
	Average Lead in time	1
	Compliance to min lead in times	1
Coordination	Permit conditions	1, 4, 5
	permits by refusal reason	4
	No. deemed permits	1, 4
Works Phases	Work phases started	1
	Work phases completed	1
	No. phase one permanent registrations	1
	Works completed by traffic management class	1
	Permits not used	1
	Cancellations	1
Duration	Road occupancy (working days)	1, 4
	Works completed on time	1, 4
	Extension requests	1, 4
	Agreed extensions	1, 4
	Overruns	1, 4
Inspections/FPNs	No. permit compliance inspections	1, 4
	% passed/failed permit inspections	1, 4
	FPNs by offence	1, 4
	Category A inspections (pass/fail) [†]	3
	Category B and C inspections (pass/fail) [†]	2

*refer to Section 2 for a list of the scheme's objectives

[†]Data on Category A, B and C outcomes will not be included in the Year One report

4.2 Permit Applications

Leicestershire County Council has received 36,131 permit and permit variation applications in the first year of the permit scheme (Year One) (Table 4). This corresponds to an average of 3,011 applications every month or 693 per week. Just over a third (33.7%) of applications are permit variations. These figures ignore any superseded permit applications – for example a permit application immediately followed by a modified application would count as a single permit application. Six different works promoters (i.e. Leicestershire County Council, Severn Trent Water, BT Openreach, Western Power Distribution, Virgin Media and Cadent Gas) account for over 96% of all applications received (Fig. 1). As such, all summary tables will only include analysis of these six works promoters with all other works promoters grouped together as 'other'. Please refer to the Appendix for detailed summary tables of all works promoters operating within Leicestershire.

Table 4 No. of permit and permit variation applications received, granted, and refused by application type.

Permit Type	Received (PA-1)	Granted (PA-2)	Refused (PA-3)
Provisional Advanced Authorisation (PAA)	2,271	2,154	117
Major	1,608	1,334	274
Standard	2,180	1,098	1,082
Minor	13,795	10,054	3,741
Immediate	4,103	4,068	35
Variation	12,174	9,864	2,310
TOTAL	36,131	28,572	7,559
%		79.1%	20.9%

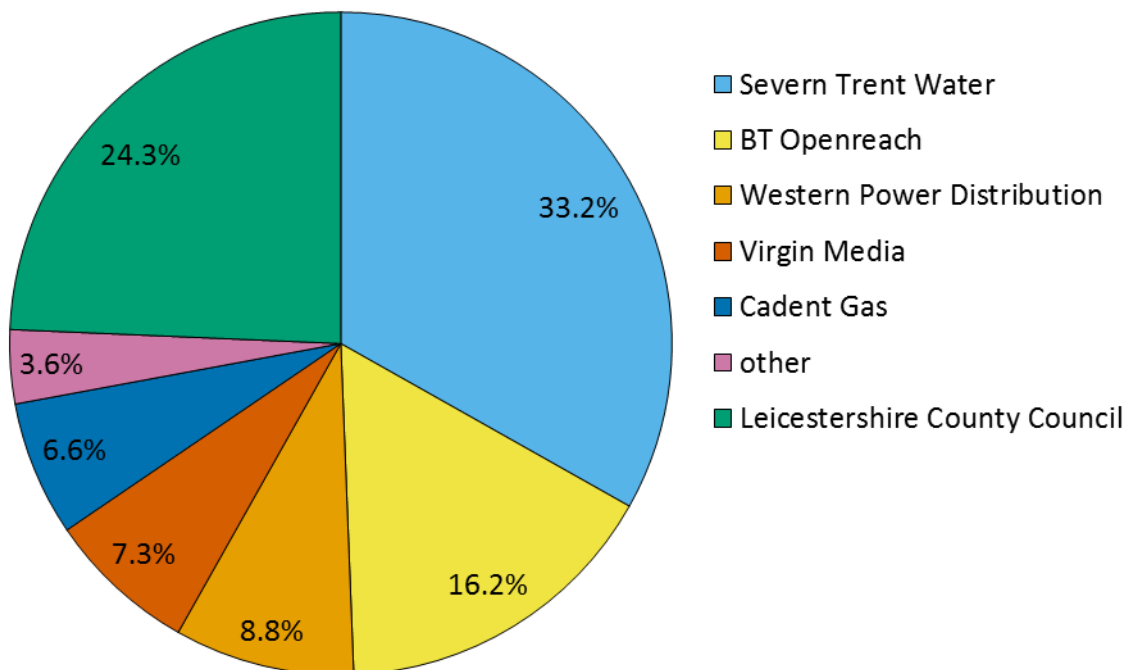


Fig. 1 Proportion of applications received from the main works promoters operating within Leicestershire.

Just over 79% of permit and permit variation applications are granted (this includes all deemed permits – see section 4.4.3). Around 20% of permits are refused via a modification request (whereby the highway authority requests a change to the permit before granting) and just over 1% of permit applications are refused outright. Reasons why permits are refused are explored in more detail in section 4.4.

4.2.1 Early start requests

An analysis of average lead in times indicates that almost 89% of all initial PAA and permit applications comply with the statutory notice periods (Table 5). Works promoters are encouraged to submit applications with their intended start dates even if these are outside the minimum lead in times and that the highway authority should be contacted to request an early start⁵. Thus the fact that some applications do not comply with the statutory lead in times does not necessarily mean that no valid permit is in place, rather it means that an early start is required and a low compliance rate may reflect poor planning by the works promoter. Compliance with notice periods for the initial permit application are over 90% for minor and standard works (Table 6) with an average lead in time of 10.0 and 21.2 working days respectively. Major works, which require a PAA and a major permit application, are much less

likely to comply with overall rates of 38.4% and 76.0% respectively. It is interesting to note that major works permits have a lower compliance rate when compared with standard works permits, despite both permit types have an identical minimum lead in time of 10 working days. This likely reflects early starts granted by LCC for major projects that involve multiple streets (each requiring their own permit) where discussions have already begun once the initial PAA application was submitted.

Table 5 Total number of permit applications and % compliance by application type for the main works promoters working within Leicestershire. Intensity of colour shift from red to green indicates greater degree of compliance.

Application type	PAA		Major		Standard		Minor		Immediate		OVERALL	
	no. apps	% compliance	no. apps	% compliance	no. apps	% compliance	no. apps	% compliance	no. apps	% compliance	no. apps	% compliance
Leicestershire County Council	1,480	15.9%	1,162	78.0%	369	61.8%	3,376	89.6%	29	65.5%	6,416	68.8%
Severn Trent Water	532	70.7%	355	74.1%	463	92.9%	5,396	99.5%	2,080	95.7%	8,826	95.5%
BT Openreach	48	37.5%	28	60.7%	314	94.6%	2,945	99.4%	889	97.4%	4,224	97.7%
Virgin Media	60	60.0%	47	40.4%	42	90.5%	2,022	99.8%	43	97.7%	2,214	97.2%
Western Power Distribution	92	64.1%	87	82.8%	476	98.9%	429	99.5%	942	84.2%	2,026	89.9%
Cadent Gas	208	84.6%	139	66.9%	417	97.6%	434	98.2%	449	98.7%	1,647	93.8%
other	160	56.9%	98	87.8%	206	97.1%	416	99.0%	26	96.2%	906	89.8%
OVERALL	2,580	38.4%	1,916	76.0%	2,287	90.6%	15,018	97.2%	4,458	93.7%	26,259	88.7%

Table 6 Average lead in times (days*) and % compliance with lead in times by application type.

Application type	PAA	Major	Standard	Minor	Immediate [†]	All
No. initial applications	2,580	1,916	2,287	15,018	4,458	26,259
Average lead in time*	78.3	29.3	21.2	10	n/a	-
% compliance	38.4%	76.0%	90.6%	97.2%	93.7%	88.7%

*PAA lead in times are calculated using calendar days and all other application lead in times are calculated using working days (i.e. excluding weekends and bank holidays).

[†]Immediate works permits need to be submitted no later than 2 hours after works have started (or by 10am next working day if works started outside working hours). Compliance rates are calculated against this time deadline as immediate works do not have a minimum lead in time.

The relatively poor compliance rates for LCC's own works, particularly for PAA applications (16% compliance rate), compared to other works promoters should be looked at in the context that 57% of all PAAs and over 60% of all major works permit applications are for LCC works. These works typically involve a road closure to repair a category 1 defect that requires a permanent repair within 28 days as per the Code of Practice for Highway Maintenance Management⁶. Since works involving a road closure are automatically classed as major it is not feasible for the necessary PAA applications to comply with minimum lead in times. This accounts for the low compliance rates for LCC major works.

4.3 Works Phases

4.3.1 Works phases started and stopped and phase one permanent registrations

Leicestershire County Council was operating under a noticing regime prior to the introduction of the LCC permit scheme on 2nd February 2018. The total volume of works started (Table 7), stopped (Table 8) and the total number of phase one full registrations received (Table 9) in the past four years (i.e. 3 years under notice scheme and 1 year under the LCC permit scheme) indicates that the number of individual street and road works has remained fairly constant in the past four years, with the 12 months prior to the introduction of the LCC permit scheme showing the highest volume of LCC and utility works compared to the other years. Over 19,000 works were put into progress in Year One, corresponding to over 50 works starting per day (or ~75 per working day).

Table 7 Volume of works started in Year One of the LCC permit scheme and in the 3 previous years.

Year	Scheme	LCC	Utility	TOTAL
2015/2016	Notice	3,624	14,082	17,706
2016/2017	Notice	3,428	14,835	18,263
2017/2018	Notice	5,208	15,628	20,836
2018/2019	Permit	3,794	15,358	19,152

Table 8 Volume of works stopped in Year One of the LCC permit scheme and in the 3 previous years.

Year	Scheme	LCC	Utility	TOTAL
2015/2016	Notice	3,546	14,200	17,746
2016/2017	Notice	3,342	14,875	18,217
2017/2018	Notice	5,156	15,778	20,934
2018/2019	Permit	3,701	15,317	19,018

Table 9 Volume of full Phase One registrations received in Year One of the LCC permit scheme and in the 3 previous years.

Year	Scheme	TOTAL
2015/2016	Notice	10,475
2016/2017	Notice	10,127
2017/2018	Notice	11,190
2018/2019	Permit	10,861

The proportion of works involving either road closures or positive traffic management (TM) has increased in the past four years (Fig. 2). (For the purposes of this report, No Carriageway Incursion and Some Carriageway Incursion are included in the passive TM category and Lane Closures and Convoy working are included in the positive TM category – please refer to the table on p54 of the Safety at Street Works Code of Practice⁷). In addition, there has been a shift within works classed under passive TM in the past four years with works increasingly likely to be classed as ‘Give and Take, rather than ‘Some Carriageway Incursion’ (Fig. 2). Although the total number of works closed has remained fairly steady in the past four years (with a peak observed in the year prior to the introduction of the LCC permit scheme), the actual number of works involving positive TM has been steadily rising and those involving a road closure (or other TTRO) has increased by 57% from 648 to 1,014 in Year One (Table 10).

4.3.2 Profile of works started by promoter type (Highways and Utilities)

A comparison of the types of works started in Year One reveals striking differences between the major works promoters identified in Fig. 1. Western Power Distribution and Cadent Gas have a relatively high proportion of immediate works (55% and 28% respectively) in contrast to LCC and Virgin with a very low proportion (<3%) (Fig. 3a). A key difference that highlights the differences between LCC highways works and utility works is the much higher proportion of LCC works classed as major, especially major works with a duration of up to 3 days (Fig. 3a). Furthermore, most works completed by LCC in year one are of a single working days’ duration (Fig. 4) in contrast to utility works. The reason for the relatively high proportion of major works starting for LCC works is due to the large number of works that require a Road Closure (or other TTRO) (Fig. 3b) despite a relatively short duration of under 3 days. It is also true that LCC works are more likely to involve some form of active TM with less than 40% of LCC works with passive TM, compared to nearly 80% of utility works with passive TM (Fig. 3b). It is also true that LCC has a greater total number of major works and works involving road closures (Table 11) compared with utility companies despite only accounting for less than a quarter of permit applications (Fig. 1).

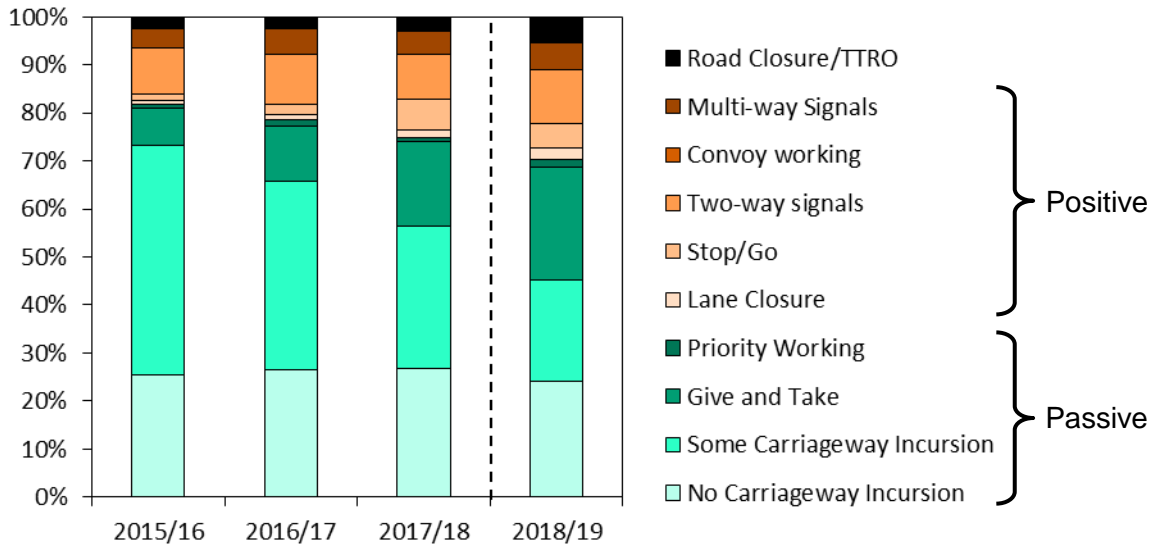


Fig. 2 Proportion of works completed under different carriageway restriction types.

Table 10 Total number of works stopped under the different categories of traffic management (TM) in past four years.

TM class	TM category	2015/16	Notice 2016/17	2017/18	Permit 2018/19
Passive	No Carriageway Incursion	4,475	4,841	5,586	4,538
	Some Carriageway Incursion	8,343	7,115	6,226	3,991
	Give and Take	1,375	2,110	3,654	4,430
	Priority Working	124	209	157	282
	Passive TOTAL	14,317	14,275	15,623	13,241
Positive	Lane Closure	150	194	355	493
	Stop/Go	261	385	1,304	957
	Two-way signals	1,666	1,937	1,955	2,094
	Convoy working	3	0	9	2
	Multi-way Signals	697	932	1,004	1,073
	Positive TOTAL	2,777	3,448	4,627	4,619
Road Closure	<i>Road Closure</i>	438	475	648	1,014
TOTAL		17,532	18,198	20,898	18,874

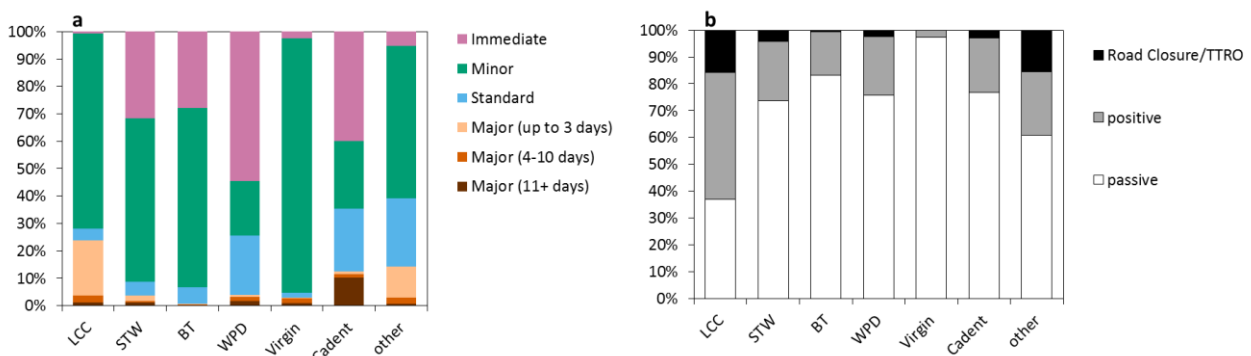


Fig. 3 Proportion of LCC and Utility works started within a) each works category and b) traffic management (TM) type in Year One. Utility works includes all works started by works promoters that are not Leicestershire County Council. Passive TM - No Carriageway Incursion, Some Carriageway Incursion, Give and Take, Priority Working; Positive TM - Lane Closure, Stop/Go boards, Two-Way/Multi-Way Signals, Convoy Working. Road Closure/TTRO - Road Closure, No Waiting Cones, Contra-Flow, Reduced speed limit.

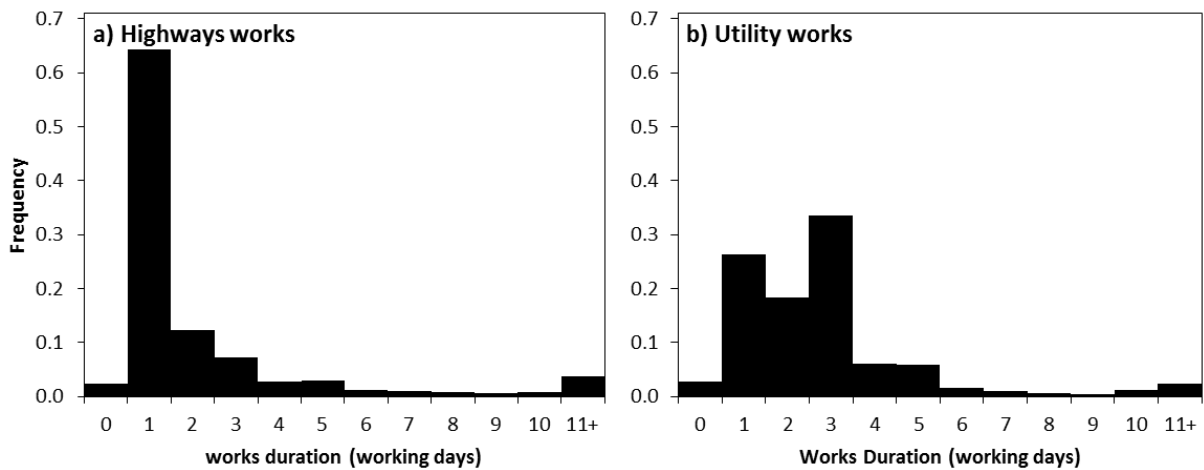


Fig. 4 Distribution of works completed in Year 1 of the permit scheme by working days' duration of a) Highways and b) Utility works. Works with 0 days' duration indicate works completed on non-working days (e.g. on a weekend).

Table 11 Number of works started by a) works type and b) traffic management (TM) type in Year One of the permit scheme. Passive TM - No Carriageway Incursion, Some Carriageway Incursion, Give and Take, Priority Working; Positive TM - Lane Closure, Stop/Go boards, Two-Way/Multi-Way Signals, Convoy Working. Road Closure/TTRO - Road Closure, No Waiting Cones, Contra-Flow, Reduced speed limit.

Works Type	LCC (Highways)	Utilities
Major (11+ days)	38	255
Major (4-10 days)	93	129
Major (up to 3 days)	695	244
Standard	155	1,372
Minor	2,477	8,735
Immediate	23	4,582
b) Traffic Management Type		
Passive	1,283	11,895
Positive	1,648	2,834
Road Closure/TTRO	545	459

4.5.3 Cancelled and unused permits

Nearly one sixth of all permits that were granted in Year One were subsequently cancelled by the works promoter (Table 12). Among the main works promoters in Leicestershire, Western Power Distribution have the lowest rate of cancelled permits (5.5%), suggesting a relatively well planned works programme. The fact that the other main works promoters in Leicestershire have a cancellation rate of between 15 and 27% (i.e. Leicestershire County Council, Severn Trent Water, BT Openreach and Cadent Gas) suggests a relatively poorly planned works programme.

In contrast to a notice scheme, there is no statutory requirement to issue a cancellation notice if works under a particular permit do not go ahead (although a cancellation notice is required if a new permit needs to be raised under the same works reference). As a consequence, some permits that are granted are never put in to progress although this is a rare occurrence (Table 13). The fact that LCC have a much greater proportion of unused permits (c. 5%) compared to utility companies (<1%) indicates a failure to properly manage permits on behalf of LCC's own highways works. The charge for all granted permits that are subsequently cancelled is estimated to be £132,781 for utility permits (see Table A6).

Table 12 Proportion of granted permits that are cancelled before works start.

Works Promoter	PAA	Major	Standard	Minor	Immediate	All Permits (excl. PAA)
Leicestershire County Council	14.5%	14.4%	35.2%	17.9%	10.5%	18.6%
Severn Trent Water	17.6%	16.3%	16.5%	22.4%	2.4%	16.5%
BT Openreach	22.7%	26.1%	18.1%	22.5%	0.9%	17.1%
Western Power Distribution	20.9%	20.0%	12.1%	8.4%	0.4%	5.5%
Virgin Media	5.4%	4.8%	45.9%	27.6%	18.4%	27.3%
Cadent Gas	7.2%	6.7%	20.3%	30.9%	0.5%	14.9%
Other	31.4%	28.4%	33.8%	17.2%	4.3%	22.5%
ALL	15.6%	15.1%	21.8%	21.8%	1.6%	17.1%

Table 13 Proportion of granted permits that are unused (i.e. no works start or cancellation notice received).

Works Promoter	PAA	Major	Standard	Minor	Immediate	All Permits
Leicestershire County Council	5.9%	5.9%	9.3%	4.7%	5.3%	5.3%
Severn Trent Water	1.6%	1.4%	0.3%	0.2%	0.0%	0.2%
BT Openreach	0.0%	0.0%	0.0%	0.5%	0.0%	0.3%
Western Power Distribution	0.0%	0.0%	0.3%	0.6%	0.0%	0.2%
Virgin Media	0.0%	0.0%	0.0%	0.1%	0.0%	0.1%
Cadent Gas	1.0%	1.0%	1.4%	0.8%	0.0%	0.7%
Other	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
ALL	3.9%	3.8%	2.1%	1.3%	0.0%	1.2%

4.4 Coordination

4.4.1 Permit responses

As indicated in Table 4 (see section 4.2), around 21% of permits are refused. A comparison of refusal rates by application type and promoter type indicates that a utility permit is more likely to be refused than a LCC highways application (Table 14). An analysis of the reasons provided for each application refusal (as required under Regulation 9(10)), which utilise the standard permit response codes developed by HAUC⁸ indicates that a response code was cited in 88% of all refusals issued (Table 15). The profile of response codes issued is broadly similar for LCC and utility works (Fig. 5) with the top three response codes identical: 1) RC32 Timing of Works (24% of refusals and usually issued to request off-peak working on traffic sensitive streets); 2) RC41 Incorrect TM (21% of refusals and issued to request a TM plan or advise that proposed TM is not appropriate); and 3) Clash of works (13% of refusals and issued when there is a clash with other proposed works). LCC highways work is more likely to be refused for coordination issues rather than lack of approval, although this may reflect a greater degree of communication between the LCC network management team and LCC works promoters during the planning stages prior to a permit being submitted. The fact that a request for off-peak working is the most common reason for refusal suggests that works promoters need to be more aware of streets with traffic sensitive designations. In cases where works are planned for these streets then the works promoter should either apply condition NCT02a to limit works to off-peak times or clearly state why works should continue during peak times. Issues surrounding TM are also a common reason for refusal which may indicate poor planning on the part of the works promoter. The fact that RC31 for clash of works is also a common refusal reason is an unavoidable aspect of street and road works although the use of leicestershire.roadworks.org to check if road space is available before submitting a permit application may allow for some self-coordination on the part of the works promoter to minimise the risk of refusal for this reason.

Table 14 Comparison of application responses (granted or refused) for road works (i.e. Leicestershire County Council) and street works (i.e. Statutory Undertakers) for PAAs, permit application and permit variations.

<i>Application Type</i>	% refused		
	ALL	Utility only	Highways only
PAA	5.2%	7.1%	3.7%
Major PA	17.0%	23.6%	12.2%
Standard PA	49.6%	56.6%	13.8%
Minor PA	27.1%	29.3%	17.9%
Immediate PA	0.9%	0.9%	0.0%
Permit Variation	19.0%	20.8%	14.4%

Table 15 Count of each response code (RC) cited in Modification Requests/Refusals, Authority Imposed Variations (AIVs) and Revoke Permits for Highway (i.e. LCC) and Utility permits. The rank of each RC from most to least common is also indicated.

Rank	Code	Type	Modification Request/Refusal		AIV		Revoke	
			H'way	Utility	H'way	Utility	H'way	Utility
7	RC10	Missing Information	49	413	2	43	0	0
12	RC11	Condition Not Provided/Not Necessary	14	78	1	14	0	0
4	RC12	TM Not Received	118	677	2	85	0	0
10	RC20	Incorrect Details on Permit	31	117	1	10	0	2
17	RC21	Incorrect Primary Recipient	0	9	0	1	0	0
5	RC22	Location issues	117	605	0	54	0	0
9	RC23	Conflicting Information	37	236	1	24	0	0
14	RC30	Co-ordination issues	4	33	0	12	0	0
3	RC31	Clash of Works	140	818	2	31	1	5
1	RC32	Timing of Works	363	1,275	14	199	0	0
13	RC33	Collaboration/Co-ordination	14	87	0	2	0	0
11	RC40	Lack of Approval	31	109	2	7	0	1
2	RC41	Incorrect TM	128	1,268	8	198	0	6
15	RC42	Early Start Agreement	0	17	0	4	0	1
16	RC43	S.58 Restriction	0	13	0	0	0	0
8	RC44	Duration	33	404	1	47	0	0
6	RC50	Other	109	566	11	55	0	1
<i>TOTAL refusals issued with code supplied</i>			<i>1,096</i>	<i>5,847</i>	<i>45</i>	<i>704</i>	<i>1</i>	<i>15</i>
	None	[no code supplied]	108	542	24	361	7	14
TOTAL refusals issued			1,204	6,389	69	1,065	8	29

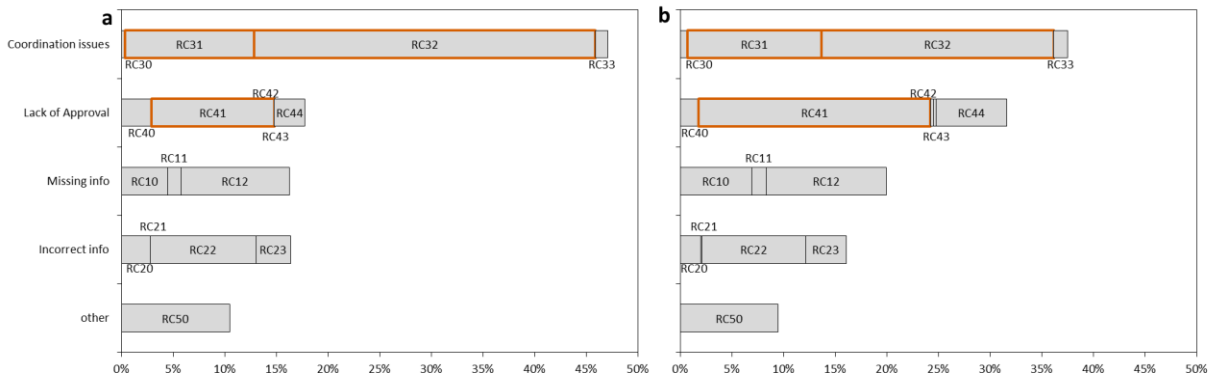


Fig. 5 Proportion of refusals with a specified response code (RC) issued to a) LCC works and b) Utility works. Please refer to Table 15 for name of each numbered response code. The three most commonly cited RCs are identified with a red border.

4.4.2 Permit conditions

A comparison of conditions attached to permits for highways works (i.e. permits raised within LCC) and for utility works reveals some differences in how conditions are applied (Table 16). The largest disparities are for conditions NCT05a (Road Occupation Dimensions), NCT06a (Traffic Space Dimensions) and NCT10a (Works Methodology) where over 80% of permits from certain works promoters have these conditions applied, compared to proportions of <10% when permits from these same works promoters are removed. Considering that less than 10% of permits from Severn Trent Water, BT and Virgin are granted with no conditions (excluding conditions NCT01a/b and NCT11a which apply to all permits) compared to 50-70% for all other major works promoters suggests that these three works promoters are excessive in adding conditions to their initial permit application. As a consequence, it is difficult to assess the usefulness of these conditions in managing works on the network.

The excessive use of conditions reflects pressure on utilities to have a granted permit in place before works start as any delays risk exposing the utility company to fines from the relevant regulator. A permit may be delayed if a particular permit authority demands potentially excessive conditions before granting the permit. As such, the excessive use of conditions may reflect a risk adverse attitude among some utility companies to try and guess what conditions a permit authority may wish to see applied to a permit, particularly for those that work across multiple permit authorities. This hampers LCC's ability to assess the effectiveness permit scheme conditions and makes it difficult to demonstrate parity when it comes to the application of conditions.

Table 16 The proportion of permits from the main works promoters within Leicestershire with specific permit conditions applied. Values in **bold** indicate proportions in excess of one standard deviation above the mean for each condition (calculated using proportions of the top 11 promoters for permit applications accounting for 99.4% of permits).

Condition		LCC	STW	BT	Virgin	WPD	Cadent	Other
Standard conditions only [†]		58.47%	1.42%	6.65%	22.66%	71.97%	58.04%	19.00%
Time constraint	2a	31.94%	33.34%	54.35%	73.60%	6.76%	5.95%	48.02%
	2b	1.34%	7.73%	1.68%	0.22%	0.66%	25.30%	1.22%
Material and Plant Storage	4a	0.00%	1.09%	30.06%	0.16%	3.32%	2.98%	3.80%
	4b	0.00%	0.00%	0.10%	0.00%	1.39%	0.85%	0.15%
Road Occupation Dimensions	5a	0.23%	85.59%	19.47%	1.14%	7.53%	3.61%	12.31%
Traffic Space Dimensions	6a	3.20%	83.69%	54.22%	74.63%	16.18%	29.77%	34.65%
Road Closure	7a	3.13%	4.90%	0.49%	0.05%	1.16%	2.13%	16.11%
Light Signals and Shuttle Working	8a	3.15%	55.80%	19.37%	5.42%	8.25%	6.95%	19.76%
	8b	0.54%	7.12%	2.69%	0.00%	1.72%	3.05%	6.38%
Traffic Management Changes	9a	0.10%	8.72%	11.63%	0.27%	9.03%	2.06%	8.81%
	9b	0.02%	0.13%	0.60%	0.00%	0.28%	0.50%	0.00%
	9c	0.21%	6.40%	12.79%	0.16%	0.89%	5.95%	7.60%
Works Methodology	10a	0.52%	94.16%	67.84%	4.23%	2.94%	3.90%	14.13%
Consultation and Publicity	11b	2.06%	5.63%	0.93%	0.16%	1.16%	4.54%	17.78%
Environmental	12a	0.00%	0.41%	17.40%	0.00%	0.00%	0.00%	0.00%
Local Conditions	13a	0.02%	0.13%	0.00%	0.00%	0.00%	0.00%	1.37%

*LCC - Leicestershire County Council; STW – Severn Trent Water; BT – British Telecom Openreach; WPD – Western Power Distribution. [†]Conditions NCT01a/b and NCT11a are standard and apply to all permits

4.4.3 Deemed permits

Most permit applications (75%) receive a response either on the day the application was received or by the next working day (Table 17), which is within the minimum response period of five working days for Major and Standard permit applications and two working days for Minor and Immediate permit applications (see Table 1). A permit is deemed to be granted if an application is not responded to within the minimum response period. Deemed permits are valid street work permits for the promoter and no fee is charged. A high deem rate indicates not only a loss of potential income for an authority but also suggests a failure to effectively coordinate street works as there may have been no proper assessment of works with deemed permits.

Table 17 Portion of initial permit applications that receive a response from the permit authority (i.e. either grant or refuse) by end of next working day.

Permit type*	% with response by next working day
Major	81%
Standard	57%
Minor	72%
Immediate	91%
TOTAL	75%

*PAAs have been excluded from this analysis as the response time in one calendar month, in contrast to five working days for Major and Standard permit applications and two working days for Minor and Immediate permit applications

The deemed rate fluctuated in the first five months of the LCC permit scheme with monthly deem rates of between 2% and 8% (Fig. 6). From June 2018 onwards the deemed rate remained consistently at 2% indicating that LCC is responding to almost all applications within statutory response times.

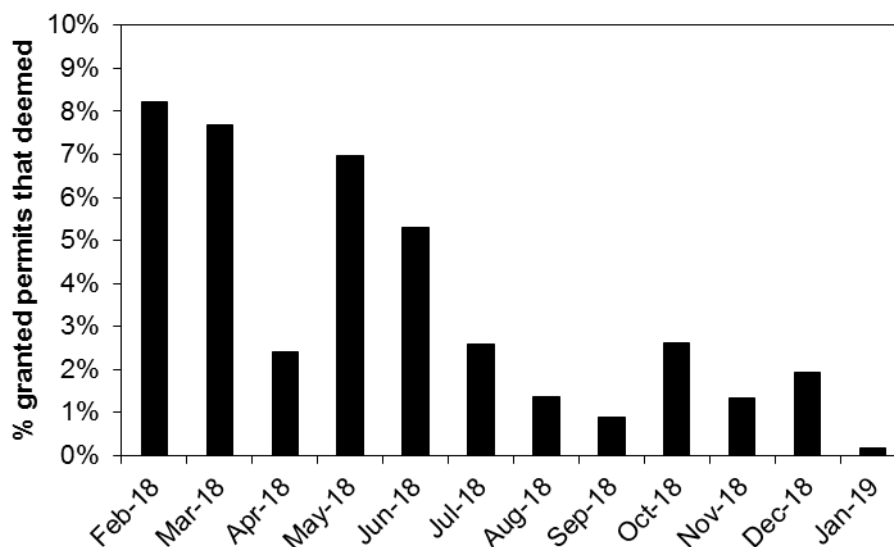


Fig. 6 Proportion of granted permits that deemed for each month during Year One of the LCC permit scheme.

A comparison of deemed rates shows applications for LCC highways works are more likely to deem than permits for utility works (Table 18). If all permits were being treated equally, then you would expect that the proportion of deemed permits would be similar. This disparity is driven mostly by major works (PAAs and major permit applications) and permit variations. The proportion of deemed permits for standard and minor permit applications are broadly similar. The fact that applications for major LCC highways works are more likely to deem may reflect the shorter lead in times (see section 4.2.1 Early start requests). The disparity in the responses to Permit Variations is more worrying and will be investigated in future reports.

Table 18 Proportion of highway and utility granted permits that deemed by application type.

Application type	LCC (Highways)		Utility	
	No. granted	% deemed	No. granted	% deemed
Provisional Advanced Authorisation (PAA)	994	10.7%	898	8.6%
Permit Application (Major)	722	9.8%	522	2.1%
Permit Application (Standard)	153	1.3%	791	5.7%
Permit Application (Minor)	1,997	3.3%	7,858	2.0%
Permit Application (Immediate)	20	5.0%	4,045	1.0%
Permit Variation	2,744	9.7%	6,864	1.4%
OVERALL	6,630	7.7%	20,978	2.0%

4.5 Duration

The number of individual works completed has remained fairly steady in the past four years (Fig. 7a) but the total working days occupation of these works has shown a consistent decline since 2016 which has continued into Year One (Fig. 7b). Works on Leicestershire's highways had a total duration of nearly 56,000 working days (c. 72,000 days including weekends and bank holidays) in Year One (down from a high of c. 76,000 working days in 2016/2017). This drop in days' occupation over the past four years was driven by a consistent decline in the duration of major works (Fig. 8), perhaps due to few major schemes, such as Virgin's Project

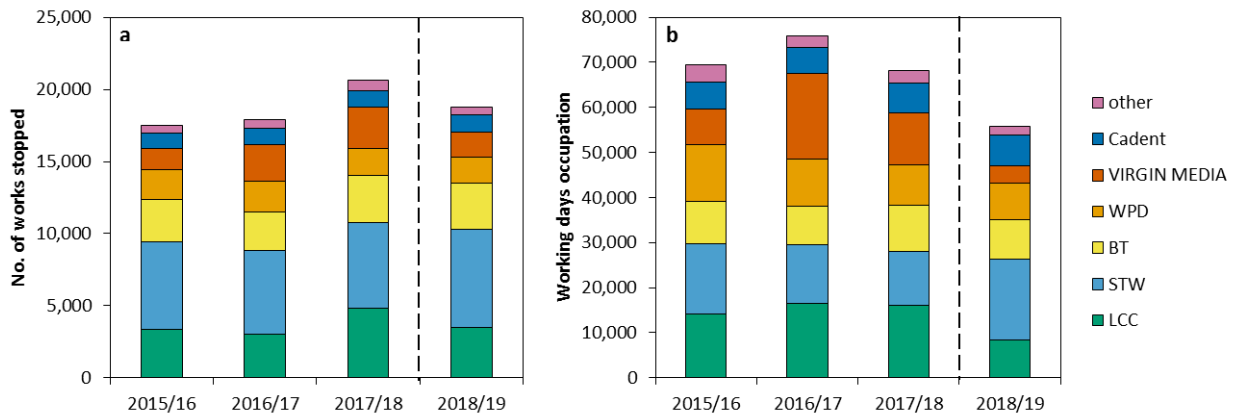


Fig. 7 Works stopped in the past four years (including 3 years when works were subject to a notice scheme and 1 year under the LCC permit scheme) from the main works promoters in Leicestershire in terms of a) number of works stopped; and b) total working days occupation. Dashed line shows indicates time when the permit scheme came into force.

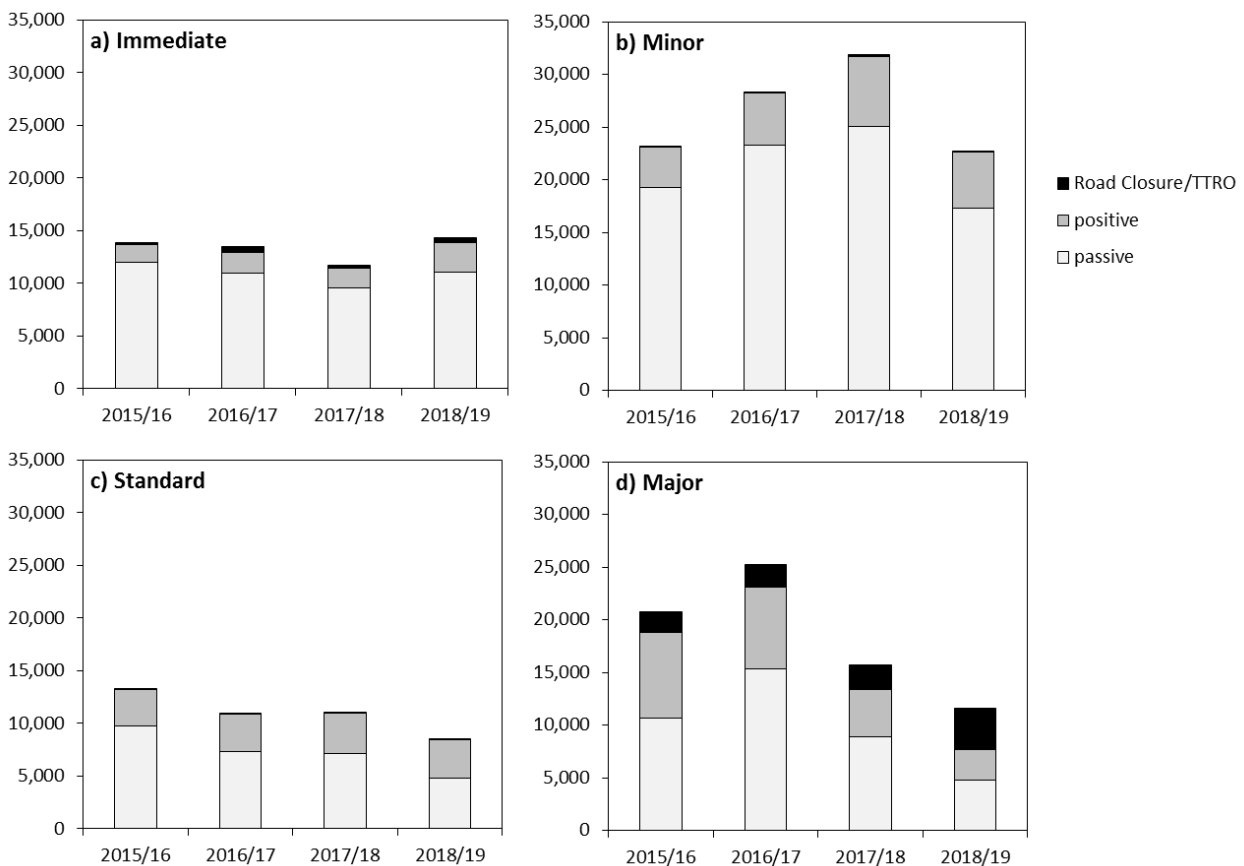


Fig 8 Total working days occupation under different types of traffic management (TM) for each works category for the past 4 years (including 3 years when works were subject to a notice scheme and 1 year under the LCC permit scheme). Passive TM - No Carriageway Incursion, Some Carriageway Incursion, Give and Take, Priority Working; Positive TM - Lane Closure, Stop/Go boards, Two-Way/Multi-Way Signals, Convoy Working. Road Closure/TTRO - Road Closure, No Waiting Cones, Contra-Flow, Reduced speed limit.

Lightning which started in Leicestershire in early 2016⁹. In addition, minor works also showed a drop in days' occupation in Year One in contrast to year on year increases observed during the preceding three years. The total duration of immediate and standard works remained

reasonably constant. Overall, total days' occupation has declined by 18% in Year One when compared with the previous year under a notice scheme. This decrease is true for permits with passive traffic management (e.g. give and take) and positive traffic management (e.g. temporary traffic lights) with reductions of 25% and 13% respectively. However, the total days' occupation for works involving road closures has increased by 58% (see Fig. 8d) in Year One, although the proportion of works that involve a road closure remains low at 8%.

4.6 Inspections and FPNs

As a highway authority, we must have confidence in the noticing information we receive from works promoters. Thus we can issue FPNs to enforce the noticing requirements under NRSWA and the permit scheme (issued under TMA). Two new FPN offences were introduced that are specific to permit schemes: working without a valid permit (Regulation 19) and working in breach of conditions (Regulation 20). As well as creating two new FPNs specific to permits, the permit scheme has resulted in certain FPNs being disapplied as the Authority would simply refuse the permit if certain information is incorrect rather than issue a FPN for an incorrect notice. The different FPNs that can be issued by a permit authority are outlined in Table 19.

Table 19 List of FPN offences that may be issued by a permit authority.

Code	Name	Offence*	Description
05	Incorrect registration	An offence under section 70(6) consisting of a failure to comply with subsection (3) or (4A).	Failure to comply with requirements to give notice of completion of reinstatement e.g. incorrect site coordinates or non-submission of notice
06	Incorrect notice	An offence created by regulations made under section 74(7B).	Failure to give a notice required by regulations under s.74 e.g. late "Actual Start Date" or "Works Stop" notice
PS01	No valid permit	An offence under Regulation 19(1)	Offence to undertake works without the required permit e.g. if authority not notified within 2 hours of starting immediate works
PS02	Breach of permit conditions	An offence under Regulation 20(1)	Offence to breach a permit condition e.g. failure to display a site information board with the correct permit number

*Sections 70(6) and 74(7B) are part of *NRSWA*; Regulations 19(1) and 20(1) are part of *Traffic Management Permit Scheme (England) Regulations 2007*

The number of FPNs issued to various works promoters is shown in Table 20. In total, 506 FPNs were issued for highways works undertaken by Leicestershire County Council and 1,844 were issued for utility works in Year One. The proportion of FPNs issued per works started is broadly similar for highways works and utility works (Fig. 9a) although the rate is slightly higher for highways works at 0.13 FPNs issued per works start compared to a utility average of 0.12. A closer look at FPNs issued to the main works promoters indicates that BT (0.06 FPNs per works start) and Virgin (0.03 FPNs per works start) are less likely to be issued a FPN (Fig. 9b), and that Western Power Distribution have the highest rate of FPNs per works start at 0.234.

Table 20 Number of FPNs issued to the main works promoters in Leicestershire in Year One.

Offence	LCC	STW	BT	WPD	Virgin	Cadent	other
05 & 06 Notice failures	369	412	66	220	27	139	28
PS01 No valid permit	74	84	27	54	14	21	5
PS02 Breach of permit conditions	63	397	112	144	13	62	19
TOTAL	506	893	205	418	54	222	52

LCC – Leicestershire County Council; STW – Severn Trent Water; BT – British Telecom/Openreach; WPD – Western Power Distribution

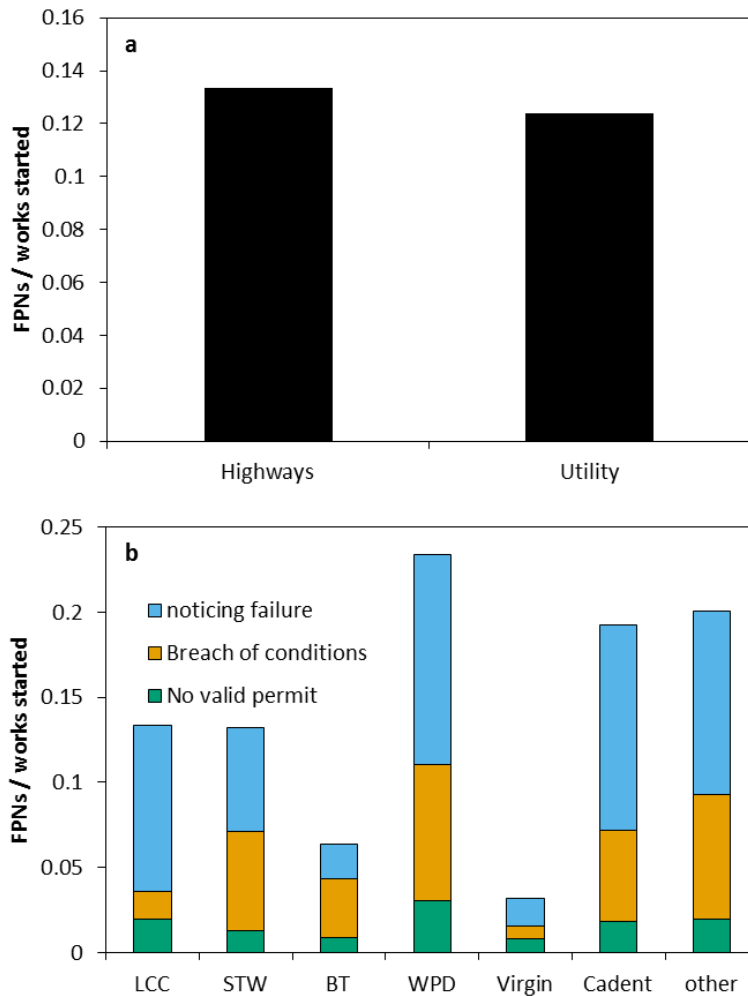


Fig. 9 FPNs issued per works start for the main works promoters; a) comparison of Highways (i.e. LCC) and Utilities (i.e. all other works promoters) works; b) comparison of the main individual works promoters. [LCC – Leicestershire County Council; STW – Severn Trent Water; BT – British Telecom/Openreach; WPD – Western Power Distribution].

A comparison of the proportion of FPNs issued (Fig. 10) reveals differences between each works promoter with BT much more likely to be issued a FPN for breach of conditions (55% of FPNs issued) when compared to a promoter average of 34%, but much less likely to be issued FPNs for noticing failures (i.e. incorrect notice or registration – codes 05 and 06).

An analysis of permit inspections indicates that LCC have a pass rate of 31% compared to a utility average pass rate of 51% (Fig. 11). Thus, LCC are less likely to be compliant with permit conditions and is a clear target for improvement for highways works. However, a closer look at the number of permit inspections reveals that, although we have inspected 9.2% works in progress, LCC has been uneven in targeting all works promoters equally (Table 21). The LCC permit scheme has overshot the 10% target for some works promoters, but far below the target when it comes to LCC highways works and Virgin Media works. This demonstrates a clear failure to show parity with respect to permit condition inspections and new targets for permit inspections have been set to ensure that the LCC permit scheme can demonstrate parity treatment in future. The fact that Virgin Media are currently under an improvement notice suggests that the LCC, as a highway authority, has been focusing more on Category A, B and C inspections and neglecting permit inspections for this works promoter.

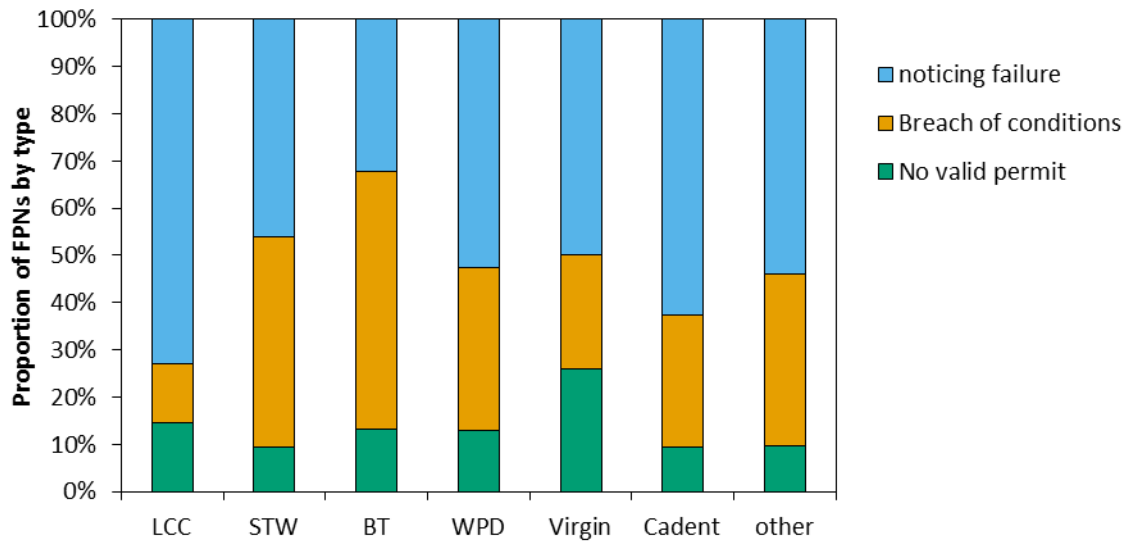


Fig. 10 Proportion of FPNs issued by type for the main works promoters. The average proportions for all works started are shown to the far left of the figure. The offence code is shown in brackets in the figure legend. [LCC – Leicestershire County Council; STW – Severn Trent Water; BT – British Telecom/Openreach; WPD – Western Power Distribution].

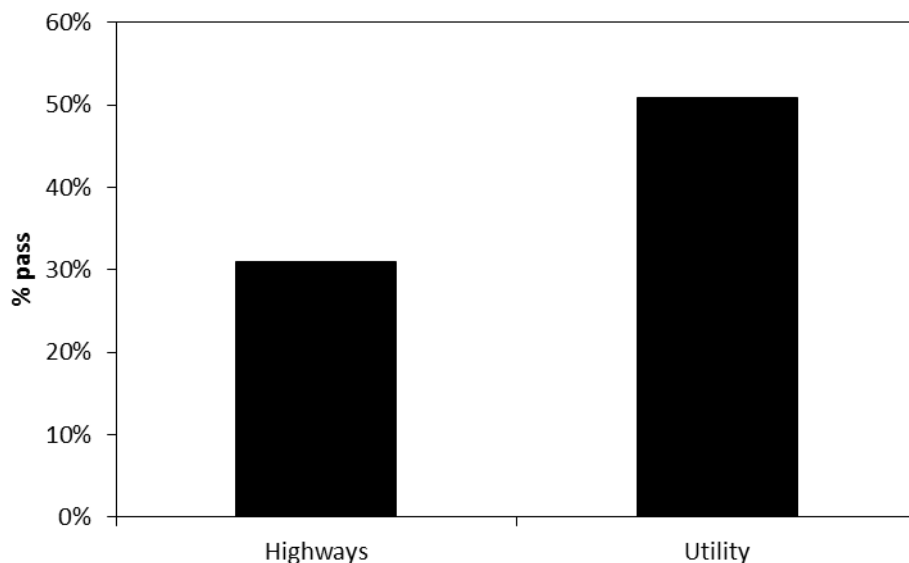


Fig. 11 Pass rate of permit inspections for highways and utility works.

Table 21 Permit inspections completed in year one and the rate of inspections per works started.

Promoter	No. Permit Inspections	Inspection rate (% works started)
Severn Trent Water	783	12%
BT Openreach	236	7%
Western Power Distribution	23	19%
Virgin Media	332	1%
Cadent Gas	179	15%
other	42	7%
<i>Utility Average</i>	1,595	10%
Highways	100	3%
ALL	1,695	9%

5 Cost Benefit Analysis

Permit Authorities may charge fees for permits (Table 2) and must justify the fee levels. Fee income can cover the allowable costs of operating the permit scheme (Regulation 32). Allowable costs are defined in regulation 29 as the costs of the scheme relating to the activities of statutory undertakers i.e. the schemes costs should only include staff costs over and above the costs of running an effective noticing scheme and cannot include costs involved relating to administering permits for Highways works (i.e. LCC permits). As well as any extra staff costs, allowable costs include non-salary staff related costs outlined in paragraph 6.5 of the Statutory Guidance for Highway Authority Permit Schemes.

The allowable costs of the scheme and its overall income have to be balanced. The balance can be achieved over several years and the statutory guidance suggests that clarity should emerge after 3 years of operation². Thus, the year 3 annual report (due Spring 2021) will include a detailed cost benefit analysis alongside a revision of the fee structure in light of any scheme surplus or deficit. The year 1 and year 2 annual reports (due Spring 2019 and Spring 2020) will also include a cost benefit analysis but it is unlikely that they will include recommendations to revise the fee structure to allow for clarity.

5.1 Scheme operating costs and permit fee income

The allowable scheme operating costs and permit fee income are indicated in Table 22. Permit fee discounts are offered in certain cases (e.g. collaborative working) and the income shown in table 22 indicates the actual amount that has been invoiced from all statutory undertakers.

Table 22 Permit fee costs and income for Year One of the LCC permit scheme

Allowable Costs	Permit Fee Income	Account Surplus (-) or Deficit
£786,433	£772,652	£13,781

The income from FPNs specific to the permit scheme issued under Regulation 19 and Regulation 20 totals £55,280. Note that the income from FPNs is not part of the permit fee income and does not count towards any surplus or deficit of the permit scheme. Rather any net proceeds must be applied to promoting and encouraging safe, integrated, efficient and economic transport facilities (regulation 28).

6 Conclusions

Leicestershire County Council received 36,131 separate permit and permit variation applications in Year One (Table 4), with over 96% of applications issued by six different promoters – namely Leicestershire County Council, Severn Trent Water, BT Openreach, Western Power Distribution, Virgin Media and Cadent Gas (Fig. 1). Over 19,000 start and stop notices for individual works or works phases were received in Year One, with nearly 11,000 phase one registrations received (Table 9). The volumes of start, stop and registration notices received in Year One are of a similar volume to the preceding three years under a notice scheme. In the Year One, LCC received an average of ~700 separate applications to process each week and inspected ~33 different works per week to check for compliance with permit conditions.

6.1 Efficiency

Objective 1 of the LCC permit scheme is *“to increase the efficient running of the highway network by minimising the disruption and inconvenience caused by road and street works and other highway events and activities through proactive management of activities on the highway”*. Our assessment of efficiency can be divided into two broad areas: 1) efficient running of the permit scheme by the LCC Network Management Team as assessed; and 2) efficient operation of road and street works by all works promoters operating within Leicestershire.

6.1.1 Efficiency of LCC Network Management Team

The data presented in this report suggests that the LCC permit scheme is running efficiently. The current deemed rate of under 2% (see Fig. 6) indicates that almost all applications receive a response within the statutory response times, with 75% of initial permit applications receiving a response by the next working day (Table 17). Grounds for refusal (and also when issuing an AIV) are included if a permit is refused, in line with Regulations², with a standard response codes (RCs) cited in 88% of instances where a modification request or AIV is issued (see data in Table 15). The extensive use of RCs, although short of the ideal rate of 100%, allows for an extensive analysis of refusal reasons. Typically modification requests are issued to request additional conditions to restrict works, which the works promoter can either accept or reject (with an explanation of why the condition is unnecessary or unsuitable) with the submission of a modified application.

The permit scheme regulations create two new FPN offences: 1) Offence to undertake works without a required permit (Regulation 19); and 2) Offence to breach a permit condition (Regulation 20). FPNs issued under regulation 19 are usually issued either when works are in progress without proper notification to the permit authority and, by the nature of the offence, there is no formal process to detect when such a breach of regulation has occurred. Potential FPNs issued under regulation 20 are typically detected during permit compliance inspections as the permit authority has a right to inspect all works in progress to check that all conditions applied to the permit are being followed. A sample of 10% of all works put into progress for permit compliance inspections is a reasonable target for any permit authority as this is comparable to the 10% target for Category A inspections. Table 21 indicates that a total of 1,875 permit compliance inspections were completed in year one, corresponding to 9.8% all works put into progress. This indicates that LCC is meeting its duty to inspect works for compliance with permit conditions. The issue of parity treatment in the distribution of permit compliance inspections will be explored in section 6.2.

6.1.2 Efficiency of works promoters within Leicestershire

Compliance with minimum lead in times (or within 2 hours of starting in the case of immediate works) is 90% or above for utilities within Leicestershire (Table 5). However, this strong rate of compliance is in contrast to a high cancellation rate of over 17% for granted permits (Table 12).

Thus, although works promoters are generally submitting permit applications for works in line with minimum lead in times, the relatively high rate of cancellations indicates inefficiency when planning works that are actually put into progress. The cost of all cancelled permits is estimated to be £132,781 for utility companies (and £62,133 for LCC highways works, although no fees are actually charged for highways works and are reported for comparison purposes only) (Table A6).

Although the LCC permit scheme includes a provision for the Permit Authority to attach conditions (in line in Regulation 10), the HAUC guidance states that “Work promoters should also include any conditions that are felt necessary to undertake the works, as it is the works promoter which is best placed to know the site specific detail.” Thus, initial permit applications submitted by a works promoter should contain all necessary additional conditions specific to the planned works. Unfortunately, due to the excessive use of unnecessary conditions by various works promoters identified in Table 16, the application of conditions is highly inefficient and contrary to statutory guidance which states that “Conditions should be applied following due consideration only where they contribute to meeting the scheme objectives”^{2,5}. Thus, it is not possible to assess the effectiveness of conditions. This is due to a failure by various works promoters to follow statutory guidance on the application of permit conditions. The reason for this failure is discussed further in section 4.4.2.

Despite some performance issues with planning inefficiency or improper use of conditions, there has been a clear drop in days’ occupation of the highway in year one of the permit scheme compared to the previous three years under a notice regime despite the number of individual works remaining relatively constant (Fig. 7). An academic study of the Derby City permit scheme¹⁰ found a reduction in works duration after its introduction which the authors ascribed to “the greater pre-planning the scheme demands in order for application approval”. While greater pre-planning may also be a factor in explaining the reduced days’ occupation, a closer look at the data presented in Fig. 7 indicates that Virgin Media had a high volume of longer duration works in 2016/17, which coincides with the rollout of Project Lightning in Leicestershire. Thus it seems that the main reason for a decline in days occupation is the fewer number of long duration major works (see Fig. 8d) associated with Project Lightning. Nonetheless, there has also been a drop in days’ occupation of minor works (see Fig. 8b) which is less likely to be associated with Project Lightning and may reflect greater pre-planning across all works promoters as observed within the Derby City permit scheme¹⁰.

6.2 Parity

Objective 4 of the LCC permit scheme is “*to ensure parity of treatment for all activity promoters particularly between statutory undertakers and highway authority works and activities*”. This is in accordance with Regulation 40 which requires that permits are sought for all registerable utility and highways works and that the permit authority operates “without discrimination between different classes of applicant”.

An examination of refusal rates indicates that LCC permits are less likely to be refused (either through a Modification Request or Permit Refusal) than utility permits across all types of application (Table 14). On the surface, this would suggest that the requirement for parity is not being achieved with respect to responses to permit application. However, if this was the case then the proportion of refusal reasons would be different but Fig. 5 indicates a broadly similar pattern in RCs with the three most common refusal reasons identical for both utility and highways permits. The variation in the profile of works types between highways works and other works promoters may account for some of the disparity but other factors may also be at play. A permit for highways works (i.e. LCC works) is more likely to be for a single days’ duration (Fig. 4) and so less likely to be refused as the impact on the network is lesser. One key explanation may be that LCC, as a works promoter, only have to deal with a single highway authority whereas a major utility company may have to deal with over 40 different highway authorities. Thus, permits for highways works are more likely to comply with the expectations of

the permit authority (e.g. by including a condition for off-peak working on a traffic sensitive street) and so are less likely to be refused. The fact that permits for utility works are much more likely to be excessive in the application of certain conditions supports this conclusion as this reflects the fact that utilities are working with multiple permit schemes that vary in their interpretation of guidance. The excessive use of conditions also makes it impossible to demonstrate parity in the application of permit conditions as they are being applied by various works promoters contrary to statutory guidance.

The proportion of FPNs issued per works started is generally consistent between highways and utility works (Fig. 9a) suggesting parity treatment in this regard. However, LCC are failing to show parity with respect to permit compliance inspections with an inspection rate of 0.03 for highways works in contrast to 0.10 for utility works (Table 21). Furthermore, not all utility companies are being inspected at a comparable rate indicating that the permit authority need to show more care in the application of permit inspections across all works promoters to ensure that all works promoters, including those conducting highway works, are subject to a similar rate of permit compliance inspections.

6.3 Safety and Integrity

The Statutory Guidance² states that the “main aim of a permit scheme should be to minimise disruption to the authority’s network” but then goes on to say that “better co-ordination... and closer monitoring can be used to drive behavioural change”. As such, the LCC permit scheme includes objectives concerning “*street integrity and the integrity of the apparatus in it*” (objective 3) and “*to ensure safety of those using the street and those working on activities that fall under the Scheme*” (objective 4 - see section 2).

Evidence of behavioural change can be seen in the shift in the use of TM over the past four years, including Year One (Fig. 2). Fewer works are being completed with “Some carriageway inclusion” and more with “give and take” as the carriageway restriction type. A larger proportion of works involving positive TM (i.e. lane closure or the use of temporary signals or Stop/Go boards) were also undertaken in the past year compared to previous years. This suggests a greater tendency to employ a higher category of TM if works are being undertaken within the carriageway and may indicate a behavioural change associated with the greater scrutiny and pre-planning associated with works undertaken within a permit scheme.

Overall performance of works promoters is assessed by inspections that check for defects while works are in progress (Category A inspections – usually detects defects in signing, lighting and guarding which may compromise safety of workers and the public) and up to two to three years after works are complete (Category B and C inspections that inspect the quality of the reinstatement in maintaining street integrity). The Code of Practice for Inspections¹¹ recommends that “Quarterly reports on performance should be sent to undertakers... to enable an analysis of each undertaker’s performance”. It is important that LCC issues these quarterly reports in order to determine whether the permit scheme has brought about any behavioural change that minimises defects affecting safety and street integrity.

6.4 Publicity

Objective 5 of the LCC permit scheme is “*better information for road users about works in the highway*”. Publicity for roadworks and street works is shared with road users via the website leicestershire.roadworks.org which is maintained by Elgin. This website displays map based information collected from EToN systems concerning the street work registers maintained by local authorities. This includes information on the works description and all works promoters, including LCC highways works, are advised to provide a “plain English, detailed description of the overall works including comments on any future phases” as per the EToN technical specification¹². A weekly email containing information about upcoming road and street works in each district within Leicestershire is also distributed by the LCC network management team

(please email networkmanagement@leics.gov.uk to request to be added to this mailing list). LCC use Elgin to plot diversions for any planned road closures. Any press releases issued to advise of upcoming road closures includes a reference to the roadworks website and it has proved a useful tool in meeting the scheme's objective to provide better information for road users about works in the highway.

The permit scheme also includes the option of requesting that condition NCT11b is applied to a permit before it is granted. This condition concerns publicity for proposed works and can be used to require that local residents and road users are informed of upcoming works via a letter drop or advance warning signs. Since this is one of the few conditions that is not excessively used by works promoters (see section 4.4.2) it can be reported with confidence that this condition is applied to 4.6% of works with temporary signals (either two-way or multi-way) and to 20.5% of permits involving a road closure. The use of this condition will be monitored in future to ensure that it is being applied to all relevant permits where the network management team feel it is necessary due to the proposed TM for planned works.

7 Recommendations

Recommendation 1 LCC must continue to monitor the KPIs used to assess the permit scheme. This is essential to ensure that parity can be demonstrated (e.g. with respect to refusal rates and deemed rates). In addition, the KPIs can be used to support recommendations specific for LCC and the various works promoters.

Recommendation 2 LCC must ensure that a more complete cost benefit analysis is ready by year 3 so that any revision of permit fees can be fully justified. As no excessive surplus or deficit has been identified in Year One, no revision of the permit fees is recommended at this stage.

Recommendation 3 LCC should issue quarterly sample inspection reports. As well as being in line with good practice, this will also allow for the identification of any potential impacts that the permit scheme may have on the rate of defects reported, in line with the scheme's objectives.

Recommendation 4 Utility companies are urged to comply with statutory guidance when applying conditions so as to avoid excessive use which has prevented an analysis of their effectiveness.

Recommendation 5 LCC should continue to issue FPNs for breach of conditions, even for excessively applied conditions not requested by the permit authority. One FPN per breach of condition will be issued.

Recommendation 6 LCC should consider refusing permits with excessive conditions to ensure compliance with statutory guidance (covered by code RC11).

Recommendation 7 All works promoters are encouraged to apply condition NCT02a to limit works to off-peak times on traffic sensitive streets where positive TM is necessary. In cases where off-peak working is not feasible then the works promoter should provide a clear justification for not applying NCT02a so that the permit may be granted in the first instance (as long as there are no other reasons for refusal).

Recommendation 8 LCC must ensure that condition NCT11b is added to all permits that require a road closure to enforce requirements concerning advanced publicity for closure.

Recommendation 9 LCC should include a standard response code (RC) alongside the stated refusal reason with all permit refusals. The current rate of 88% is good, but ideally the rate should be closer to 100% as per HAUC guidance.

Recommendation 10 All works promoters are encouraged to use leicestershire.roadworks.org to assist with self-coordination. This will help minimise refusals due to clash of works.

8 Glossary

BT	British Telecom/Openreach – a statutory undertaker responsible for ~16% of applications in Year One of the LCC permit scheme
EToN	Electronic Transfer of Notices - the nationally agreed format for the transmission of notice information (to be replaced by Street Manager in April 2020)
FPN	Fixed Penalty Notices
HAUC	Highway Authorities and Utilities Committee – advises the Secretary of State on issues relating to street works legislation, provides guidance to practitioners and provides a forum for utilities and highway authorities for discussions concerning street works.
KPI	Key Performance Indicator
LCC	Leicestershire County Council
NCT	National Condition Text – codes for the set of conditions that may be applied to a permit
NRSWA	New Roads and Street Works Act 1991
PAA	Provision Advanced Authorisation
RC	Response Code – codes for the standard permit response as recommended by HAUC
STW	Severn Trent Water – a statutory undertaker responsible for ~33% of applications in Year One of the LCC permit scheme
TM	Traffic Management (e.g. Give and Take or Temporary Two-Way Signals)
TMA	Traffic Management Act 2004
TTRO	Temporary Traffic Regulation Order – issued under the Road Traffic Regulation Act 1974
WPD	Western Power Distribution – a statutory undertaker responsible for ~9% of applications in Year One of the LCC permit scheme
Year One	shorthand used to refer to all notices received during the first year of operation of the LCC permit scheme (between 2 nd February 2018 and 1 st February 2019)

9 References

1. Leicestershire County Council (September 2017) *Leicestershire County Council Permit Scheme*.
2. Department of Transport (October 2015) *Statutory Guidance for Highway Authority Permit Schemes*.
3. The Traffic Management Permit Scheme (England) (Amendment) Regulations 2015 (SI 2015/958).
4. Leicestershire County Council (September 2017) *Leicestershire County Council Permit Scheme: Supporting Document*.
5. Highways Authorities and Utilities Committee (2017) *HAUC(England) Guidance: Operation of Permit Schemes (inc. Permit Condition Text)*. Version 1.0.
6. Roads Liaison Group (July 2005) *Well-maintained Highways: Code of Practice for Highway Maintenance Management*. The Stationary Office, Norwich.
7. Department of Transport (October 2013) *Safety at Street Works and Road Works: A Code of Practice*.
8. Highways Authorities and Utilities Committee (2016) *HAUC(England) Advice Note No. 002 – 2016: Standard Permit Response Codes*. The Stationary Office, Norwich.
9. <https://www.virginmedia.com/corporate/media-centre/press-releases/virgin-media-gives-leicestershire-homes-an-ultrafast-broadband-boost.html> [accessed April 2019]
10. Hussain, R.S., Brien, N., Gartside, D., Enoch, M. & Ruikar, K. (2016) *Evaluating the road works and street works management permit scheme in Derby, UK*. 95th Transportation Research Board Annual Meeting, 10th-14th January 2016, Washington DC.
11. Department of Transport (September 2002) *New Roads and Street Works Act 1991: Code of Practice for Inspections (2nd edition)*.
12. Department of Transport (April 2013) *Technical Specification for the Electronic Transfer of Notifications (EToN) (Version 6.0)*.

Appendix – Data tables

Table A1 all granted applications by works promoter in Year One of the LCC permit Scheme

	PAA	Major	Standard	Minor	Immediate	Variation	TOTAL
Leicestershire County Council	1,142	736	287	2,119	22	2,713	7,019
Abovenet Communications UK Ltd	-	-	-	-	-	-	-
Anglian Water	5	1	1	117	5	47	176
BT Openreach	33	19	104	1,773	805	1,347	4,081
Cadent Gas	155	90	169	272	413	628	1,727
CityFibre	-	-	-	6	-	13	19
Energetics Electricity Ltd	-	-	7	1	-	4	12
Energetics Gas Ltd	-	-	-	-	1	-	1
ES Pipelines Ltd	-	-	8	5	1	20	34
ESP Electricity Ltd	-	-	1	-	-	6	7
Fulcrum Electrical Assets Limited	1	-	-	-	-	-	1
Fulcrum Pipelines Ltd	-	-	27	11	-	41	79
Gas Transportation Co. Ltd	22	8	28	17	-	87	162
Gigaclear	-	-	-	3	-	11	14
Harlaxton Energy Networks	-	-	-	1	-	3	4
Independent Next Generation Networks Ltd	-	-	-	-	-	2	2
National Grid PLC	-	-	-	1	-	-	1
Network Rail	67	62	2	8	7	47	193
Romec	-	-	-	13	-	5	18
Severn Trent Water	407	224	187	3,597	1,830	2,995	9,240
South Staffordshire Water PLC	-	-	-	1	-	-	1
SSE Datacom	-	-	-	4	-	2	6
Telefonica (O2 (UK) Ltd)	1	1	2	45	1	27	77
T-Mobile (UK) Ltd	2	1	-	5	-	1	9
Utility Distribution Networks Ltd	2	1	1	-	-	3	7
Virgin Media	51	38	14	1,597	37	488	2,225
Vodafone	-	-	-	4	1	5	10
Western Power Distribution	75	66	195	221	902	984	2,443
Zayo Group UK Ltd	-	-	-	1	3	-	4
Utility TOTAL	821	511	746	7,703	4,006	6,766	20,553

Table A2 Total working days occupation in Year One of the LCC permit scheme and the three year prior. Each years' data is from 2nd February to 1st February of the following year.

Works Promoter	Notice			Permit
	2015/16	2016/17	2017/18	2018/17
Leicestershire County Council	14,111	16,430	16,123	8,442
Abovenet Communications UK	70	27	4	7
Angilan Water	150	228	930	465
BT Openreach	9,456	8,566	10,307	8,724
Cadent Gas	5,870	5,786	6,563	6,813
CenturyLink Communications UK	12	-	-	-
CityFibre	-	-	4	36
Colt Telecommunications	2	-	4	-
Dept for Transport Stat Roads	-	1	1	-
Energetics Electricity Limited	37	45	29	25
Energetics Gas Limited	122	14	27	3
ES Pipelines	258	142	56	107
ESP Electricity	-	47	2	105
Fulcrum Pipelines	151	93	270	268
Gas Transportation Co.	554	605	885	567
Gigaclear	1,830	410	8	59
Harlaxton Energy Networks	29	69	80	9
Independent Next Generation Networks	-	4	10	4
National Grid Electric	1	-	-	1
Network Rail	226	600	187	193
O2	141	111	135	89
Orange PCS Group	29	21	1	-
Romec	9	8	8	19
Severn Trent Water	15,572	13,105	11,910	17,883
South Staffordshire Water	20	12	6	3
Surf Telecoms	2	-	-	-
T-Mobile	42	83	45	4
Utility Distribution Networks	-	-	-	15
Virgin Media	7,995	18,927	11,589	3,732
Vodafone	134	39	17	10
WarwickNet	46	37	49	-
Western Power Distribution	12,593	10,417	8,896	8,198
Utility TOTAL	55,351	59,397	52,023	47,339
TOTAL	69,462	75,827	68,146	55,781

Table A3 Total number of works started in Year One of the LCC permit scheme and the three year prior. Each years' data is from 2nd February to 1st February of the following year

Works Promoter	2015/16	Notice 2016/17	2017/18	Permit 2018/17
Leicestershire County Council	3,382	3,100	4,854	3,518
Abovenet Communications UK	5	7	2	4
Angilan Water	49	70	299	155
BT Openreach	2,921	2,692	3,215	3,219
Cadent Gas	1,023	1,090	1,079	1,155
CenturyLink Communications UK	4	-	-	-
CityFibre	-	-	2	13
Colt Telecommunications	1	-	1	-
Dept for Transport Stat Roads	-	1	1	-
Energetics Electricity Limited	7	5	5	4
Energetics Gas Limited	6	2	6	1
ES Pipelines	37	27	10	24
ESP Electricity	-	11	1	7
Fulcrum Pipelines	37	28	54	55
Gas Transportation Co.	99	99	85	99
Gigaclear	85	91	4	10
Harlaxton Energy Networks	6	11	12	2
Independent Next Generation Networks	-	1	2	2
National Grid Electric	1	-	-	1
Network Rail	81	116	107	108
O2	50	59	69	53
Orange PCS Group	12	8	1	-
Romec	7	9	8	19
Severn Trent Water	6,036	5,713	5,833	6,764
South Staffordshire Water	5	3	2	1
Surf Telecoms	1	-	-	-
T-Mobile	23	52	35	4
Utility Distribution Networks	-	-	-	3
Virgin Media	1,507	2,640	2,856	1,717
Vodafone	45	21	16	7
WarwickNet	7	4	5	-
Western Power Distribution	2,026	2,075	1,917	1,789
Utility TOTAL	14,081	14,835	15,627	15,216
TOTAL	17,463	17,935	20,481	18,734

Table A4 Total number of works stop in Year One of the LCC permit scheme and the three year prior. Each years' data is from 2nd February to 1st February of the following year

Works Promoter	Notice			Permit
	2015/16	2016/17	2017/18	2018/17
Leicestershire County Council	3,334	3,054	4,836	3,470
Abovenet Communications UK	6	7	2	4
Angilan Water	48	71	304	154
BT Openreach	2,953	2,710	3,224	3,197
Cadent Gas	1,041	1,106	1,081	1,170
CenturyLink Communications UK	4	-	-	-
CityFibre	-	-	1	14
Colt Telecommunications	2	-	1	-
Dept for Transport Stat Roads	-	1	1	-
Energetics Electricity Limited	7	5	5	4
Energetics Gas Limited	6	2	5	1
ES Pipelines	38	26	10	24
ESP Electricity	-	11	1	7
Fulcrum Pipelines	40	29	56	55
Gas Transportation Co.	99	99	87	91
Gigaclear	85	91	4	10
Harlaxton Energy Networks	6	11	12	2
Independent Next Generation Networks	-	1	2	2
National Grid Electric	1	-	-	1
Network Rail	82	116	109	106
O2	53	58	70	52
Orange PCS Group	14	9	1	-
Romec	7	8	8	19
Severn Trent Water	6,062	5,750	5,941	6,817
South Staffordshire Water	5	4	2	1
Surf Telecoms	1	-	-	-
T-Mobile	24	52	36	4
Utility Distribution Networks	-	-	-	3
Virgin Media	1,511	2,586	2,872	1,741
Vodafone	46	22	16	7
WarwickNet	7	4	5	-
Western Power Distribution	2,053	2,096	1,921	1,824
Utility TOTAL	14,201	14,875	15,777	15,310
TOTAL	17,535	17,929	20,613	18,780

Table A5 Total number of permit refusals or modification requests issued and the proportion with a response codes (RCs) cited. Total includes all issued permit refusals, modification requests, AIVs and revokes.

Promoter	n	RC10	RC11	RC12	RC20	RC21	RC22	RC23	RC30	RC31	RC32	RC33	RC40	RC41	RC42	RC43	RC44	RC50	No code
Leicestershire County Council	1,281	4.5%	1.3%	10.5%	2.8%	0.0%	10.2%	3.3%	0.4%	12.5%	33.0%	1.2%	2.9%	11.9%	0.0%	0.0%	3.0%	10.5%	10.9%
Anglian Water	79	0.0%	0.0%	3.8%	1.3%	0.0%	2.6%	0.0%	1.3%	26.9%	17.9%	0.0%	0.0%	46.2%	1.3%	0.0%	1.3%	7.7%	1.3%
BT Openreach	1,844	8.7%	2.0%	11.4%	2.0%	0.1%	9.0%	4.6%	0.4%	17.9%	22.4%	1.3%	2.0%	21.3%	0.2%	0.1%	4.1%	9.2%	10.0%
Cadent Gas	760	7.6%	1.2%	13.5%	0.9%	0.0%	10.9%	2.8%	1.5%	7.4%	19.7%	0.4%	1.5%	22.6%	0.6%	0.0%	16.9%	11.9%	9.6%
CityFibre	17	31.3%	0.0%	12.5%	6.3%	0.0%	6.3%	18.8%	0.0%	0.0%	6.3%	0.0%	0.0%	25.0%	0.0%	0.0%	0.0%	0.0%	5.9%
Energetics Electricity Limited	4	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	0.0%
Energetics Gas Limited	1	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%	0.0%	0.0%	0.0%	0.0%	0.0%
ES Pipelines	22	9.1%	0.0%	9.1%	9.1%	0.0%	9.1%	0.0%	0.0%	18.2%	9.1%	18.2%	0.0%	18.2%	0.0%	0.0%	0.0%	9.1%	50.0%
ESP Electricity	14	0.0%	0.0%	14.3%	0.0%	7.1%	0.0%	0.0%	0.0%	7.1%	21.4%	7.1%	0.0%	28.6%	0.0%	0.0%	14.3%	0.0%	0.0%
Fulcrum Pipelines	58	7.8%	2.0%	11.8%	3.9%	0.0%	15.7%	0.0%	0.0%	15.7%	17.6%	5.9%	0.0%	5.9%	2.0%	0.0%	11.8%	7.8%	12.1%
Gas Transportation Co.	127	2.5%	0.8%	8.5%	0.8%	0.0%	8.5%	4.2%	0.0%	11.9%	14.4%	5.9%	5.1%	25.4%	0.0%	2.5%	14.4%	10.2%	7.1%
Gigaclear	15	0.0%	0.0%	13.3%	0.0%	0.0%	6.7%	0.0%	0.0%	6.7%	6.7%	0.0%	0.0%	66.7%	0.0%	0.0%	0.0%	46.7%	0.0%
Harlaxton Energy Networks	1	100%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Independent Next Generation Networks	2	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	0.0%	0.0%	0.0%	100%	0.0%	0.0%	0.0%	0.0%	0.0%
National Grid Electric Network Rail	0																		
O2	71	3.0%	0.0%	22.7%	0.0%	1.5%	4.5%	1.5%	0.0%	3.0%	22.7%	0.0%	0.0%	45.5%	0.0%	0.0%	0.0%	13.6%	7.0%
Romec	24	5.0%	0.0%	40.0%	10.0%	0.0%	5.0%	0.0%	0.0%	5.0%	25.0%	0.0%	0.0%	5.0%	0.0%	0.0%	0.0%	15.0%	16.7%
Severn Trent Water	7	0.0%	0.0%	14.3%	0.0%	0.0%	28.6%	0.0%	0.0%	14.3%	42.9%	0.0%	0.0%	14.3%	0.0%	0.0%	0.0%	14.3%	0.0%
South Staffordshire Water	3,085	4.3%	0.9%	11.0%	2.3%	0.2%	11.1%	4.1%	0.8%	13.0%	24.6%	1.5%	2.2%	22.4%	0.4%	0.3%	4.3%	8.7%	13.9%
Surf Telecoms	0																		
T-Mobile	5	0.0%	0.0%	20.0%	20.0%	0.0%	0.0%	0.0%	0.0%	20.0%	0.0%	0.0%	0.0%	40.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Virgin Media	418	13.7%	1.6%	7.5%	0.8%	0.0%	12.4%	6.5%	0.0%	15.6%	20.8%	1.1%	0.5%	16.2%	0.3%	0.0%	4.3%	11.9%	11.2%
Vodafone	9	37.5%	0.0%	12.5%	0.0%	0.0%	12.5%	0.0%	0.0%	62.5%	0.0%	0.0%	0.0%	12.5%	0.0%	0.0%	25.0%	0.0%	11.1%
Western Power Distribution	909	9.5%	2.3%	14.2%	2.1%	0.1%	8.2%	2.7%	0.9%	6.3%	21.0%	1.0%	0.9%	23.5%	0.1%	0.1%	13.6%	8.9%	15.7%

Please refer to HAUC(England) Advice Note No. 002 – 2016: Standard Permit Response Codes for further information of response codes

Table A6 Estimated cost of granted permits that are subsequently either cancelled or unused

Works Promoter	Estimated fee charge
<i>Leicestershire County Council</i>	<i>£62,133*</i>
Abovenet Communications UK Ltd	£0
Anglian Water	£9,952
BT Openreach	£23,984
Cadent Gas	£10,592
CityFibre	£115
Energetics Electricity Ltd	£136
Energetics Gas Ltd	£0
ES Pipelines Ltd	£184
ESP Electricity Ltd	£0
Fulcrum Pipelines Ltd	£1,254
Gas Transportation Co. Ltd	£3,756
Gigaclear	£37
Harlaxton Energy Networks	£0
Independent Next Generation Networks Ltd	£0
National Grid PLC	£0
Network Rail	£699
Romec	£37
Severn Trent Water	£54,494
South Staffordshire Water PLC	£0
Telefonica (O2 (UK) Ltd)	£456
T-Mobile (UK) Ltd	£178
Utility Distribution Networks Ltd	£396
Virgin Media	£19,645
Vodafone	£111
Western Power Distribution	£6,755
Utility Total	£132,781

*Estimated fee charge for Leicestershire County Council works included here for comparison purposes only – no fees are charged for council permit