The West Berkshire Streetworks Permit Scheme

Evaluation Report 2016 to 2018

January 2020

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Service Area:	
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Authors:	Jason Setford-Smith, Scheme Consultant Richard Pelham, Technical Consultant
Project Lead:	
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1 EXECUTIVE SUMMARY

The West Berkshire Council Permit Scheme (WBPS) was introduced on 1st March 2015. For this Evaluation, the second and third full financial years between 1st March 2016 and the 28th February 2018 have been analysed. For year one data please see the Year 1 Report prepared by others.

The purpose of this year 2 and year 3 Evaluation Report is to evaluate the Permit Scheme in respect of its societal impacts and give consideration to the fee structure, the costs and benefits of operating the scheme and whether the Permit Scheme is fit for purpose or should be modified or extended to increase its positive impacts and wider financial benefits.

The New Roads and Street Works Act 1991 ("NRSWA") and the Traffic Management Act 2004 ("TMA") place duties on Highway Authorities to co-ordinate street and highway works, and more generally, to facilitate the expeditious movement of traffic within their areas. This is a key element of the Highway Authority's Network Management Duty.

It is also the Highway Authority's responsibility to ensure that it makes appropriate use of the powers at their disposal, recognising that different tools may be appropriate in different situations.

Road works are a necessity to enable utilities' and highways' works to be carried out in order to renew, improve, maintain and install infrastructure. As these works take up valuable road space it is important that the impact is minimized, as they can create disruption and delay.

The Permit Scheme is not intended to prevent these activities necessary for the maintenance or improvement of the road network or the services running underneath it. It is designed to make available the necessary resources to achieve an appropriate balance between the interests of the various parties and where possible, bring about effective co-ordination between all the different competing interests.

This is a two-year evaluation and there are a wide range of indicators and measures that the industry has been discussing and agreeing that should be reported on. Some of these are possible to report on and some require further work or system changes to prepare. This evaluation identifies all the indicators and measures agreed by the industry, through various representative groups, whether data is available currently or not.

The understanding of how effective Permit Schemes can be has grown across the industry and the impact of different approaches is better understood. Many Highway Authorities successfully operate schemes that apply to all works and charge permit fees for all application types, on traffic sensitive streets (TSS) and those that are not TSS. City and Unitary schemes often charge maximum fees as the cost of operating a scheme to achieve maximum effectiveness requires this level of matched income. There are also now County schemes, which although they have greater economies of scale, still require maximum fees to be charged. It should be noted that the maximum permitted level of fees has not risen in 10 years so when factoring in the normal rise in costs this situation would be expected.

As the West Berkshire Permit Scheme is now over 4 years old and does not receive fee income to fully resource co-ordination resources for all non-TSS works, serious consideration should be given to developing a modified Permit Scheme with an expanded scope and increased resources, supported by a revised fee structure that will provide matched income to meet these increased costs. A new Cost Benefit Analysis should be prepared that shows the financial impact on society of this new approach. If the Benefit to Cost Ratio is positive, then approval should be sought to implement this change.

NRSWA also provides for financial incentives to reduce the disruption caused by street works. Authorities can levy "overrun charges" under section 74 of NRSWA where street works are not completed within an agreed, reasonable period of time.

While these charges provide a strong financial incentive to avoid works overrunning beyond the end of the reasonable period, they do not provide a similar incentive to reduce durations or disruption to road users within the agreed reasonable period.

Under Section 74A of NRSWA, Highway Authorities, with the approval of the Secretary of State, can charge street works undertakers a daily charge for each day during which their works occupy the highway. These schemes are commonly referred to as “Lane Rental” schemes.

Following successful operation of a Permit Scheme and the maximising of its benefits, a Highway Authority may conclude that the Permit Scheme has still not driven the behavioural change, with regard to durations, that is desired. In this situation, developing a Lane Rental scheme may be appropriate. Advice is provided later in this document on the process to achieve a Lane Rental Scheme suitable for West Berkshire.

In addition to these developments, there are considerable issues across the industry with the data management and reporting that can be achieved with the current street works management systems on the market. This is the case in West Berkshire and as can be seen in this Evaluation Report, a great deal of the industry agreed indicators and measures are not possible to produce or report on. There is a project underway by the DfT seeking to develop and new IT solution called Street Manager that all Highway Authorities will use from April 2020 that will hopefully address some of these issues.

However, over the coming years, more and more data will be available and can be analyzed along with benchmarking data from other Permit Schemes. This will allow the West Berkshire Council Permit Scheme to continuously improve and understand the areas it is efficient and effective at and aspects that could be considered for improvement or change.

Although some data is not available currently, the current requirement and format has been documented in this evaluation so that it can be identified easily and worked on.

When the Permit Scheme was being developed a Benefit to Cost Ratio was prepared by others using predicted costs and benefits. Now there are actual costs and volumes, this has been calculated using the network data and utilising a more detailed methodology and the result is shown in Table 64.

The Actual Benefit to Cost Ratio for the current West Berkshire Permit Scheme is between 46.53:1 and 25.08:1.

This indicates the Permit Scheme has been beneficial to society even though the time and resources available to co-ordinate all works, particularly those on Non-Traffic Sensitive Streets is minimal.

Table 64 Highway Authority West Berkshire Cost Benefit results

Highway Authority Assessment 5% reduction in works impact	**Predicted 25 year**	**Opening Year Actuals**	**Second Year Actuals**	**Third Year Actuals**
Net Present Value of Benefits	£10,932,578	£5,900,376	£5,900,376	£5,900,376
Net Present Value of Costs	£7,314,775	£126,795	£188,410	£235,287
Net Present Value of Permit Scheme	£3,617,803	£5,773,581	£5,711,966	£5,665,089
Benefit to Cost Ratio	**1.49**	**46.53**	**31.32**	**25.08**

1.1 Highway Network Summary Performance Report

The data indicates that the permit scheme has had a positive effect on reducing traffic delay on the network.

During the second 2 years of the Permit Scheme:

- Traffic volume in West Berkshire has risen and then fallen, during 2015 there were 1,048 million vehicle kilometres (mvkm), during 2016 this increased to 1,078 mvkm, in 2017 this increased to 1,080 (revised) mvkm and in 2018 this decreased to 1,065 mvkm (this 2018 figure may be revised)
- Traffic flow (the average number of vehicles travelling along a given stretch of the road network per day) has increased by 2%
- Journey Time Reliability has remained generally stable
- Average Traffic Speed has increased by 3% for each year
- Average journey times show a slight decrease of between 0.31% and 0.53% based on the assumption that all other network outcomes are equal
- Over the two years carbon emissions have decreased by 3%
- In year 3 collisions have decreased by 20%, a decrease of 14% against the predicted trends. This is in comparison to a slight rise the previous year of 1%

This would indicate that the Permit Scheme has performed as well or better than expected and is making a positive impact on reducing disruption on the network even though it is not as comprehensive as it could be.

1.2 Permit Scheme Summary Performance Report

During the second 2 years of operation an average of 8,900 Permit applications were received from Utility Promoters and Highway Authority Promoters. This is a total of 17,804.

This total includes applications that were granted but subsequently cancelled by the Promoter before the works were undertaken.

Applications from Utilities increased from 8,199 to 8,218 over the two years.

Applications from the Highway Authority decreased from 861 to 526 over the two years.

90% to 96% of Permit applications were from Utility companies.

13,803 Permits were granted which is 77% of the applications received.

Average durations of works data are now available, see Table 46 and will show trends over time. The average duration for Major works was 14 days.

Over the two years 4,001 Permits were refused for various reasons which is 23% of applications and in line with other schemes. The Permit team can refuse a Permit application when they consider that elements of the application (e.g. timing, location or conditions) are not acceptable. Less Permits being refused would indicate that the quality of applications and uses of information such as online maps has improved the quality of application.

15% of applications from the Highway Authority were refused.

23% of applications from Utility Promoters were refused.

Over the two years there is a level of consistent refusal percentage for both Utility and Authority works. This need to be observed over the coming years to ensure parity of treatment is maintained.

4,316 variations requests were received which is some 10 times the number originally expected using prescribed DfT calculations. Managing this continued high volume of

variations has been a considerable challenge which has been met by the team even though there is less resource available than required.

3,395 variations to granted Permits were approved which is 78% of requests.

There were 20 occasions of collaborative working over the two years. The days saved from this approach has totalled 121. This is a valuable achievement by the team. At an average cost of works of £600 per day at 2002 prices (when the original calculation was made) the societal saving equates to £72,600 or at today's prices circa £123,000.

There were 30 cases of working without a Permit identified and 178 breeches of agreed conditions identified over the two years. These are offences and resulted in a Fixed Penalty Notices being issued.

There were a total 486 breaches of all types over this reporting period. These are seen as relatively low numbers so increased compliance monitoring needs to be undertaken by the Permit Team and this area needs further focus and monitoring.

1.3 Issues Identified

Difficulties during the first three years of operation have been in five key areas;

1. Fee income has been less than originally anticipated by circa 30%
2. In line with the scheme design, no Permits issued or fees were charged for no Major works on Non-Traffic Sensitive Streets, greatly reducing the resources available to co-ordinate this large volume of works
3. Due to restricted revenue, there has not enough staff to manage the volume of works applications as effectively as possible
4. No revenue is currently available to increase staff to effectively manage all Non-Traffic Sensitive works
5. Compliance monitoring needs additional resources so further focus and monitoring can be undertaken
6. The inability of the IT system to produce reports consistent with the industry's agreed indicators and measures

The lower level of staff as meant that the team have had to work incredibly hard to cope with the volume of applications and it is a credit to them that they have achieved the results they have.

The industry has agreed on a range of reports that none of the system providers have been able to produce. There is a central government initiative to develop a new single central IT system and this may replace current providers and clarify KPI reporting requirements.

1.4 New Staff

The original DfT provided Fees Matrix identified a requirement of 5.5 staff to operate the Permit Scheme. 1.5 FTEs were already funded from Authority and NRSW income and 4 FTEs would be funded from the new Permit Fee income.

The full complement of staff has not been able to be employed due to the lower than expected fee income.

Although there have been staff changes over the years, 2 roles remain vacant due to the reduced fee income.

1.5 Operational Costs

Average resource, overhead and operational costs of **£211,848** per year were incurred. This operational cost has been matched to fee income in line with DfT Guidance.

Average Permit Fee income was **£216,354** per year**.**

Income from fees was circa 30% lower than originally indicated by the DfT provided Fees Matrix.

2 CONCLUSIONS

This report provides evaluation findings of key indicators and measures for the West Berkshire Permit Scheme.

Overall, the West Berkshire Permit Scheme has been implemented well in-line with the original scheme design even though income and therefore resources have been lower than expected.

The team attempt to co-ordinate all road and street works in West Berkshire and take the time to review each and every Permit application and apply conditions to minimise the impact of the works, particularly on the users of the TSS network.

However, the fee income and the funding from internal budgets does not allow for sufficient resources to fully manage all Permit applications, especially on Non-Traffic Sensitive Streets are not co-ordinated as effectively as possible. This reduces that ability of the team to minimise the impact of road and street works on society across the network.

The Permit Scheme has delivered it core objectives and is an outstanding achievement by the team considering the reduced number of resources and lower than expected revenue.

- Volumes of Permit Applications were slightly higher (7%) than expectations
- Fee income is less (30%) than expectations
- Costs are matched to fee income
- Costs and income are well balanced due to effective management
- The Societal Benefit to Cost Ratio is averaging out at 34:1, mostly due to the low cost of the scheme
- Variations to granted Permits were 10 times volume expected and have been managed by the team as effectively as possible and has positively impacted revenue

There have been difficulties gathering accurate data from the IT system and this is a focus of development over the coming years.

However, what has been gathered shows the objectives of the original scheme design are being met and that society is benefiting from the implementation.

The Permit team and Promoters will continue to work together and make improvements to minimise the impact of works on the highway network.

Future reports will contain more data and allow greater analysis of the impact of the Permit Scheme.

Now TSS Major works are being Permitted and co-ordinated to the best of the team's ability, there has been a step change in the management of the TSS network, therefore; the introduction of the Permit Scheme has led to a better control of the TSS network and of the works undertaken on it.

Major works and those on Traffic Sensitive Streets are the focus of Permit team's activities.

An assessment of the impact of increasing the resources available, so that further co-ordination of TSS and co-ordination of all Non-TSS works can be undertaken and is expected to indicate that this is a desirable approach.

The introduction of the Permit Scheme has led to a better control of the TSS network and delivered an essential element of the Traffic Management Duty placed on West Berkshire Council by the Traffic Management Act.

3 RECOMMENDATIONS

The Permit Scheme will continue to be developed over the coming years with a focus on seven six areas.

1. An assessment should be made of the impact of increasing the available resources so that further co-ordination of TSS and co-ordination of all Non-TSS works can be undertaken, benefiting society and local stakeholders.
2. Following the maximising of the scope and impact of the Permit Scheme, consideration should be given to, and potential preparation of, a suitable Lane Rental Scheme, ensuring West Berkshire is at the forefront of developments and is meeting its Network Management Duty and ensuring it makes appropriate use of all the powers at its disposal, recognising that different tools may be appropriate in different situations.
3. IT system improvement work and increased data recording and reporting should be undertaken.
4. Staff recruitment to meet the needs of any modified scheme needs to be considered.
5. Staff training and development should be a focus to ensure the skills are available to deliver these opportunities.
6. Internally agreed budgets need to be defined and monitored to ensure full recovery of all overheads and operational costs. In addition to staff overheads, these are reasonable budget figures for on-going yearly operating costs. These are the ‘Additional Operational Factors’ within the fees matrix.
   Defined as:

- KPI Production
- Invoicing (finance support)
- IT support
- Unauthorised / Abandoned works (the costs of time)
- Management Overhead (which can include training)

4 DEVELOPING THE PERMIT SCHEME

During 2014 there was an initial high-level financial assessment, consideration of the local needs and discussion with internal stakeholders, operational partners and neighboring Highway Authorities.

West Berkshire Council decided that the most appropriate scheme for West Berkshire is one that would operate on all streets but only charge a fee for Granted Permits on Road Category 0-2 Strategic or Traffic Sensitive Streets and Major Works on Non- Traffic Sensitive Streets.

The current Permit Fees are:

Fee levels per Permit or Provisional Advanced Authorisation	Road Category 0-2 Strategic or Traffic Sensitive at any time	Minor Roads Category 3 and 4 / Non Traffic Sensitive streets
Provisional Advanced Authorisation (PAA)	£77	£62
Major Activity – over 10 days	£199	£125
Major Activity - 4 to 10 days	£130	£0
Major Activity – up to 3 days	£65	£0
Standard Activity	£111	£0
Minor Activity	£52	£0
Immediate Activity	£47	£0
Permit Variation initiated by promoter	£45	£35

The West Berkshire Permit Scheme has been designed to assist the Council to manage the existing local road network for the benefit of all road users. The Permit Scheme will support existing activities and priorities of the Council and will provide a positive benefit. The Scheme will also encourage all undertakers, including those working for and on behalf of the Highway Authority to work in collaboration.

The Permit Scheme has been operationally and proactively focused on Strategically Significant Streets and to further the overall operational shift to better management of the network. However, all activities on all streets will be Permitted to deliver effective and proactive management of the entire network and give consideration to the needs of all highway users and stakeholders such as local community bus operators.

4.1 Permit Scheme Objectives

The strategic objective of all Permit schemes is to provide a capability to manage and maintain the local highway network for the safe and efficient use of road space, whilst allowing Promoters access to maintain their services and assets.

The principle of the Permit Scheme is to improve the planning, scheduling and management of activities so that they do not cause unnecessary traffic disruption to any road user. It also helps West Berkshire Council to meet their Network Management Duty under the Traffic Management Act.

Co-ordination of activities through the Permit Scheme will enable differences between those competing for space or time in the street, including traffic, to be resolved in a positive and constructive way.

4.2 Key Scheme Objectives

The scheme's primary objectives are:

Manage and maintain the local highway network to maximise the safe and efficient use of road space and provide reliable journey times

This will result in:

- Reduced disruption on the road network
- Improvements to overall network management
- A reduction in delays to the travelling public
- A reduction in costs to businesses caused by delays
- Promotion of sustainable communities and businesses
- Promotion of a safer environment
- Reduced carbon emissions

4.3 Improving Performance

The Permit Scheme objective will be facilitated by improving performance in line with the Authority's Network Management Duty in relation to the following key factors:

- Enhanced co-ordination and co-operation
- Encouragement of partnership working between the Permit Authority, all Activity Promoters and key stakeholder groups
- Provision of more accurate and timely information to be communicated between all stakeholders including members of the public
- Promotion and encouragement of collaborative working
- Improvement in timing and duration of activities, particularly in relation to the busiest streets within the network
- Promotion of dialogue with regard to the way activities are to be carried out
- Enhanced programming of activities and better forward planning by all Activity Promoters

4.4 Aligned Objectives

The Permit Scheme objectives align with the strategic objectives contained within the authorities' local area action plan

The four priorities for West Berkshire in this long term strategic plan are:

- Manage and maintain the local highway network to maximise the safe and efficient use of road space and provide reliable journey times, including:
    - Providing for people with a disability;
    - Minimising other impacts on the community;
    - Improve public satisfaction
- Encourage a proactive, rather than reactive, attitude by activity promoters. This is a change in culture that will result in promoters supplying more information to the Permit Authority, which will enable the authority to better manage the network
- Protect the structure off the street and the integrity of the apparatus within it

- Ensure the safety for those using, living or working on the street, including those engaged in activities controlled by the Scheme, with special emphasis on people with disabilities

5 MODIFIED SCHEME EXPCTATIONS

When considering any modification to the West Berkshire Permit Scheme some initial benchmarking analysis or third-party views can help with understanding the potential scope of the modified scheme.

Using other schemes experience and an average Permit fee and based on Utility applications of circa 7,000 per year, a modified Permit Scheme for West Berkshire, delivering full resources and full Permit application co-ordination, could potentially have;

- Staff numbers of: 7 (an increase of 4)
- Resource costs, including overheads of circa £350,000 per year
- Operational overhead recovery of circa £100,000 per year
- Permit fee income of circa £450,000 per year

These are early views based on experience of multiple other schemes and will need to be verified via an analysis process and the preparing a range of new documents.

6 LANE RENTAL CONSIDERATIONS

Local Highway Authorities have the power to implement Lane Rental schemes in England, subject to the approval of the Secretary of State.

Following pilot schemes which ran between 2002 and 2004 and two pioneer lane rental schemes in operation since 2012 on parts of TfL's road network in London and since 2013 on parts of the network in Kent, but new Regulations are being put in place to allow Authorities to bring forward new lane rental scheme proposals.

Lane rental involves charging the Promoters who carry out road works during lane rental periods for the time their works occupy the road. Charges will be focused on the busiest streets at the busiest times.

NRSWA provides the legal basis for lane rental charges to be applied to street works. It does not require lane rental schemes to impose charges in relation to highway works, which typically account for 30% to 50% of all works in the street.

However, local authorities' network management duty (mentioned above) does not distinguish between different causes of congestion, and the accompanying statutory guidance establishes a clear principle of "parity". Applying lane rental charges to highway works on the same terms as to street works will maximise the overall benefits, as well as promoting fairness by ensuring parity of treatment. This is therefore a requirement.

6.1 Triggering the Process

Following a Permit Scheme Evaluation or Assessment, the Authority can ask itself, has the Permit Scheme driven the behavioural change desired? If no or not sufficiently, then a Lane Rental scheme may be appropriate.

The expectation regarding the answer is that the Permit Scheme has achieved objectives around traffic management and attached conditions, but durations are still too high and too many works are being done during Traffic Sensitive times.

6.2 Identifying Appropriate Streets

The expectation is that the scheme will apply to a combination of Traffic Sensitive Streets, Strategically Important streets, other factors including those identified in the Associated Street Data.

The Scheme needs to be well-designed and well-targeted, focused on the most critical parts of the highway network.

Lane rental charges must be targeted at the streets (or parts of streets) where evidence shows that works in the highway cause the highest levels of disruption.

Streets should be selected where the charge will have the most effect in reducing disruption, and where the benefits will be sufficient to justify the costs.

6.3 Traffic Sensitive Streets

When preparing a Lane Rental Scheme, a review of whether the TSS network requires updating should be considered.

This review may be required prior to preparing a Cost Benefit Analysis, along with the review of the TSS network, necessary consultation and Gazetteer updates.

6.4 Cost Benefit Analysis

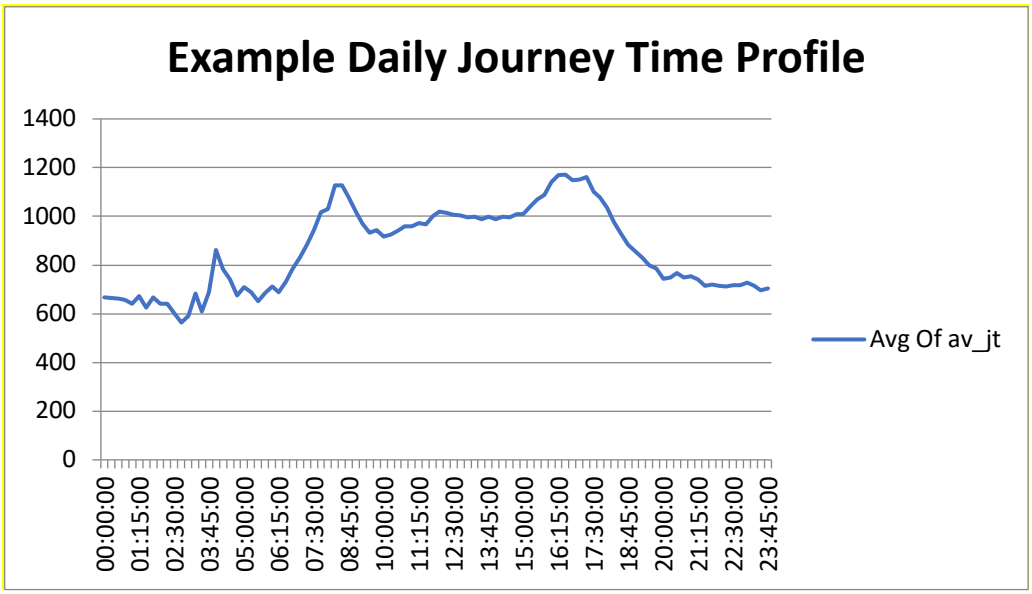
The expectation regarding a CBA is that it will require an examination of assumptions regarding the behavioural change from introducing a Lane Rental scheme. The components will probably include:

- Identified Streets
- Objectives
- Works Volumes
- Fully Justified Daily Charges
- Revenue Model
- Agreed Costs and Budgets
- Resource Requirements
- Rick Management Approaches
- Ensuring the Cost of Congestion is not less than Rental Charge
- Different Charges for Remedial Works
- Societal Impacts
- Benefit to Cost Ratio
- Scheme Evaluation Method

Within the CBA, a similar traffic model will be used to that underpinning a Permit Scheme with an assumption being that works are done outside traffic sensitive times and / or with a shorter duration.

A comparison is then possible, and this is done by simulation with works creating reduced traffic flows using a traffic profile run in a Quadro model.

A journey time profile using AGPS data would be useful to see what charge banding should be applied. See below.



DfT Guidance states:

'An application must demonstrate how the scheme will deliver the benefits and it must also justify the details of the scheme, including which roads which are included in the scheme, the charging structure etc. The application must include a full cost benefit analysis of the scheme with all the underlying data used to create the assumptions in that analysis. Benefits attributed to lane rental should not include those benefits that could reasonably be expected to arise in the absence of lane rental under other mechanisms already in place within the area of the proposed scheme.'

6.5 The Impact on current Permit Scheme

The Lane Rental Scheme will operate alongside the existing Permit Scheme to ensure that works taking place on the busiest streets are still properly co-ordinated.

However, the Lane Rental income will replace Permit fee income on these streets and needs to be accounted for.

6.6 Parity of treatment

NRSWA provides the legal basis for lane rental charges to be applied to street works. It does not require lane rental schemes to impose charges in relation to highway works.

However, the Network Management Duty does not distinguish between different causes of disruption.

The statutory guidance establishes a clear principle of "parity". Applying lane rental charges to highway works on the same terms as to street works will maximise the overall benefits, as well as promoting fairness by ensuring parity of treatment.

6.7 Environmental Health

There will be a need to assess the impact of working at different times on local environmental health considerations which may be a critical element of a Lane Rental Scheme.

6.8 Business Processes

Consideration needs to be given to the additional operational requirements for the Authority and other works promoters.

There will need to be identification of the full range of business processes that could be affected by the scheme.

6.9 Discounts

Making policy decisions regarding joint working arrangements and how these can be encouraged will be another important element.

6.10 Consultation Proposals

A full consultation on the draft Lane Rental scheme is required.

- How Parity of treatment will be delivered
- The specific streets (or parts of streets) in the scheme
- The types of works which lane rental charges are to be applied to
- How the proceeds of lane rental schemes will be used
- Times and days at which charges will apply
- The actual charge levels (subject to the statutory maximum)
- Circumstances in which charges will be waived or reduced

6.11 Net Revenues

There will be a need to prepare a plan for the use of net / surplus revenues and seeking agreement with stakeholders and joint working, such as:

- R&D
- Dig technologies
- ICT and particularly apparatus records and Gazetteer services
- Training

There is an expectation that the same principles are applied to any net revenues generated from own highway works to ensure consistency of "parity" set out in the Network Management Duty Guidance.

6.12 Approval process

A proposal to operate a Lane Rental scheme must be made to the Secretary of State.

Approval would be given on condition that a Permit Scheme is in operation and is seen as ‘best in class’, where;

- Permit fees are proportionate
- Discounts are offered for joint working
- Full compliance with regulations and guidance can be shown
- The scheme fully supports the delivery of national infrastructure projects

The application must demonstrate that;

- The scheme is applied to the Authorities own works
- Charges are used to provide incentives to work outside of peak times
- Charges are waived for joint works
- Caps were put in place for major works to replace apparatus

Implementation must include a process where;

- The scheme is trialled for a period of time before ‘going live’
- The scheme is reviewed annually to ensure charges remained proportionate

6.13 Evaluation Plan

A full evaluation plan must be included as part of the Lane Rental Scheme itself which would need to be agreed with the DfT and published.

The evaluation shall include;

- Whether the charge needs to be changed
- The implementation of the Net Revenue Plan
- The costs and benefits of operating the scheme and weather the scheme is meeting key performance indicators and specific measures such as;
  - Journey Time Reliability
  - Average Journey Times
  - Carbon Emissions

7 APPENDIX 1 - EVALUATION BACKGROUND

7.1 PERMIT SCHEME EVALUATION

Swift Argent Ltd was commissioned by West Berkshire Council (WBC) in 2019 to evaluate the performance of the second and third year of the West Berkshire Permit Scheme (WBPS) as a requirement set out in The Traffic Management Permit Scheme (England) (Amendment) Regulations 2015 regulation 16A.

The WBPS was implemented on 1st March 2015 and the purpose of this report is to evaluate the Permit Scheme in respect to these successes and give consideration to the fee structure, the costs and benefits of operating the Scheme and whether the Permit Scheme is meeting key performance indicators where these are set out in the Guidance.

7.2 SCOPE OF WORK

In order to evaluate the performance of a Permit Scheme a number data items are required to enable analysis.

All data should be readily available within the street works IT system of the respective Highway Authority. Financial information should be available from the Authority finance department and certain data is collected from DfT statistics.

When preparing and Evaluation Report there are a wide range of indicators and measures that the industry has been discussing and agreeing that should be reported on.

Many of these are simply counts and volume indicators. If there was reporting consistency across the industry and a reliable way of preparing these counts then benchmarking and comparative analysis could be undertaken and discussion had about what constitutes effective or abnormal results or behaviours.

Unfortunately, many of these are not possible to report on and some require further work or system changes to prepare.

This evaluation identifies all the indicators and measures agreed by the industry whether data is available currently or not so that the system issues can be clearly identified.

However, an impact analysis is one that looks at the effect the Permit Scheme has had on the users of the network and society and this has been the focus of this Evaluation Report.

Ideally annual performance data should be collected monthly throughout the year to enable changes and trends to be observed time. This could also be useful to enable regular checks to be made internally against key targets so this can be managed and responded to quickly. The response can include further training of the Permit Team to ensure consistency and outcome focused activities.

The individual data items are set out later in this report for each indicator but will include the following categories.

- Number of Permits granted, modified and refused
- Conditions applied for
- Variations and extensions and early starts
- Location of roadworks
- Permit fees
- Operational costs
- Travel times and reliability
- Carbon Impacts

As part of the initial assessment for the introduction of a Permit Scheme and the subsequent application to the Secretary of State for Transport or preparation of a Local Order, the Highway Authority is required to conduct a Cost Benefit Analysis (CBA) on the likelihood of a Scheme to deliver value for money to society as a benefit to cost ratio.

This CBA is based on the principles of the Department for Transports New Approach to Transport Appraisals (NATA) framework and include broad assumptions on the costs and benefits of a Permit Scheme. This gives a base in order to make assessment of aims to be achieved.

7.3 KEY PERFORMANCE INDICATORS

A set of Key Performance Indicators (KPIs) and Objective Measures (OMs) are set out below to demonstrate parity of treatment between works for road purposes and street works undertaken by statutory undertakers.

Section 20.3 of the Permits Code of Practice states that every Authority that wants to run a Permit Scheme must explain how it intends to demonstrate parity of treatment for promoters in its application.

The Code contains seven KPIs that could be used for this purpose. The recording of KPIs 1 and 2 is a mandatory requirement of all Permit Schemes.

Authorities should select at least two others which they consider will demonstrate parity across their Permit Scheme. Authorities can also include their own KPIs.

- KPI 1 The number of Permit and Permit variation applications received, the number granted and the number refused. (breakdown of the data into applications granted and refused in relation to highway authority works for road purposes and works by utility promoters, and provide a comparison with the percentage of Permits granted Also, the data is further broken down by activity type into applications granted and refused.)
- KPI 2 The number of conditions applied by condition type.
- KPI 3 The number of approved extensions
- KPI 4 The number of occurrences of reducing the application period (early starts).
- KPI 5 The number of agreements to work in Section 58 and Section 58A restrictions. (Details of Section 58 and 58A restrictions will be provided as required under Section 8.3 of the TMA Code of Practice for Permits.)
- KPI 6 The proportion of times that a Permit authority intervenes on applications
- KPI 7 Number of inspections carried out to monitor conditions

The Statutory Guidance for Highway Authority Permit Schemes October 2015 set out Permit Indicators (TPI) for Permit Schemes are additional to the general TMA Performance Indicators (TPIs), which are already being produced. The TPIs focus on occupancy, co-ordination and inspections, and there for relate mainly to the stages of the works from works start to final conclusion. These additional Permit indicators focus more on the process of Permit applications and responses, prior to the works being carried out.

- TPI1 Works Phases Started (Base Data)
- TPI2 Works Phases Completed (Base Data)
- TPI3 Days Of Occupancy Phases Completed
- TPI4 Average Duration of Works Phases Completed
- TPI5 Phases Completed on time

- TPI6 Number of deemed Permit applications
- TPI7 Number of Phase One Permanent Registrations

In addition to DfT KPIs and HAUC TPIS. The authority can collate its own data. These measures should reflect the business case and objectives put forward in the Scheme submission documentation.

- AM 1 Average duration of works by Permit type
- AM 2 Inspections (% age of total undertaken and failures)
- AM 3 Days of Disruption Saved/ Number of collaborative works
- AM 4 Response Code – broken down by promoter
- AM 5 FPNs (Permit Breaches)
- AM 6 Levels of Customer Enquiries
- AM 7 Average Journey Times (as detailed below)
- AM 8 Journey time reliability (as detailed below)
- AM 9 Road Traffic Collisions (as detailed below)
- AM 10 Carbon Emissions (as detailed below)
- AM 11 Profit/Loss (as detailed below)

7.4 AVERAGE JOURNEY TIMES

A key benefit of the Permit Scheme will be to improve operation of the transport network through a reduction in journey times per unit distance travelled due to reduction in delay from roadworks. It is expected the level of delay in a dense urban network across 12 hours of operation, 10% is estimated to be due to road works, 10% unplanned incidents and 5% control devices with a non-recurrent delay on roads of 25% of total delay. A 5% reduction in road works would account for a 0.5% reduction in total delay or 10% reduction 1% reduction on total delay.

The DfT publish data quarterly statistical data on road congestion on locally managed ‘A’ roads and is measured by estimating the average speed achieved by vehicles during the weekday morning peak from 7am to 10am. Average speeds are presented at national, regional and local highway authority level. Analysis by TfL has determined that on average between 07:00 to 19:00 across the network, delay accounts for about one third of journey times, the remaining two thirds approximates to the free flow or unhindered journey component so that a 5% reduction in roadworks would see an expected improvement of 0.17%.

There are two ways to measure average journey times using this data (a) either comparing passed average journey times before the Permit Scheme and during the Permit Scheme for that authority; or (b) compare Permitted authority to non-Permitted authority local to the area with similar characteristics. The later assumes that all network outcomes are equal and any difference is attributable to the Permit Scheme.

7.5 JOURNEY TIME RELIABILITY

It is expected that a key benefit of a Permit Scheme will be an improvement in journey time reliability on the network. Journey time reliability is measured using ANPR (Automatic Number Plate Recognition) cameras with some authorities such as TfL, Essex, Bedfordshire that is an accurate mechanism for monitoring journey times to provide a meaningful measure of overall network performance. Although ANPR cameras are becoming more of a necessity for highway authorities to prove that traffic management measures are reducing congestion as part of the TMA (Traffic Management Act) these are generally only used for major roads

where there is the most congestion. A further method is to model the relationship between journey time and standard deviation. This method is suggested in WebTAG and would compare the standard deviation of variability between the Permitted and non-Permitted authorities.

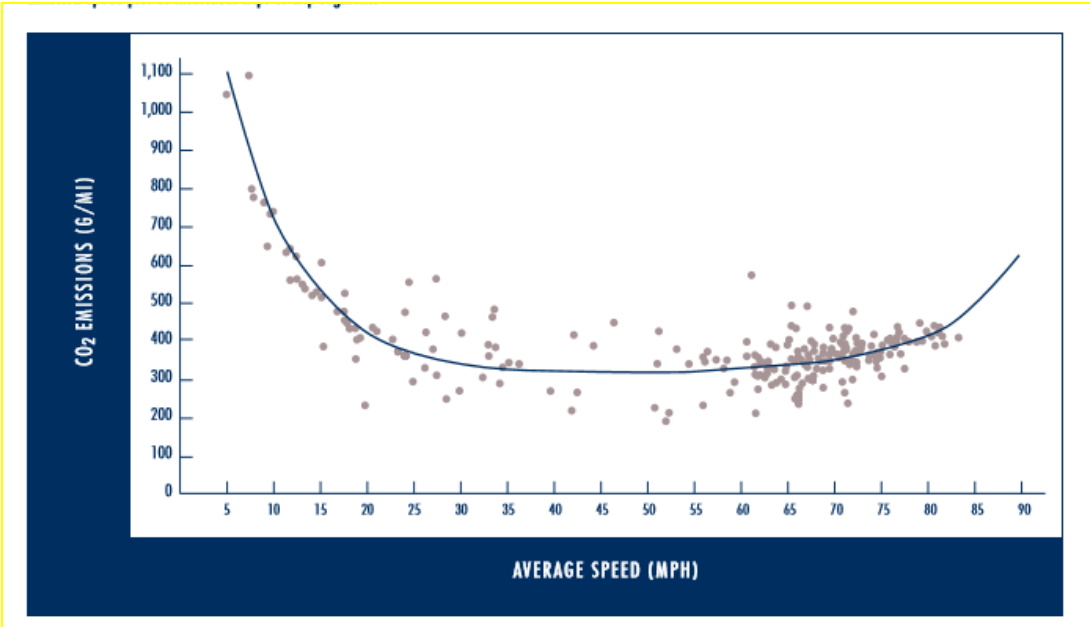
7.6 ROAD TRAFFIC COLLISIONS

The presence of roadworks in itself has a higher rate of collisions due to queuing traffic and driver frustration causing erratic behaviour. There are a number of measures that are used to minimise confusion and risk to drivers that can result from better management through a Permit Scheme in addition to the reduction in roadworks themselves. This may include approval of traffic management plans, better signage, diversion routes, average speed cameras, reduced duration and disruption. Accidents on the public highway in Great Britain, reported to the police and which involve personal injury or death are recorded by police officers onto a STATS 19 report form with information relating to that accident. The DfT is responsible for collection of STATS 19 data and forms the basis for annual statistics and is updated quarterly for all local authorities. To measure the effectiveness of a Permit Scheme on road traffic collisions data can be analysed for the Permitted authority before and after the Scheme start and compare trends with non-Permitted authorities.

7.7 CARBON EMISSIONS

An outcome of reduced congestion is the reduction in fuel consumption and CO_2 emissions. The fuel consumption that causes CO_2 emissions is very sensitive to several factors and include driver behaviour, vehicle, road types and traffic conditions. Due to multiple variables a comprehensive carbon model is used as a methodology to accurately estimate how congestion reduction will reduce CO_2. A typical driving trip consists of idling, accelerating, cruising, and decelerating. An average trip would produce about 330 grams per mile (g/mi) of CO2 emissions. The figure below shows a typical speed emission curve and shows at lower speeds with high accelerating and decelerating in congestion has much higher emissions. As speed increases congestion decreases. On motorways with speeds above 65mph emissions increase as engines are under strain.

AVERAGE SPEED OVER CO_2 EMISSIONS



Source: TRAFFIC CONGESTION AND GREENHOUSE GASES BY MATTHEW BARTH AND KANOK BORIBOONSOMSIN

The National Transport Model (NTM) is the Department for Transport's main strategic policy testing and forecasting tool used to forecast traffic levels and the subsequent congestion and emissions impacts on the national road network of Great Britain (GB).

Curves for 'ultimate' CO2 emissions can be derived directly from the fuel consumption by converting the units from litre/100km to g fuel/km and applying a simple conversion factor based on the carbon content of petrol and diesel fuels. To calculate fuel consumption as set out in WebTAG the following

Fuel consumption is estimated using a function of the form: $L = a/v + b + c.v + d.v2$

Where:

L = consumption, expressed in litres per kilometre;

v = average speed in kilometres per hour; and

a, b, c, d are parameters defined for each vehicle category.

The revised fuel consumption aggregated equation for WebTAG vehicle groups was derived (TRL unpublished report "Fuel Consumption Equations" dated 29 September 2008) using the results from the New UK Road Vehicle Emission .

Parameters for each vehicle category are set out in Tab;e A 1.3.8 of WebTAG as shown on Table 1 below.

Table 1 - WebTAG – Fuel consumption parameter values

	Fuel consumption parameter values (litres per km, 2010)			
	Parameters			
Vehicle Category	**a**	**b**	**c**	**d**
Petrol Car	0.96402	0.04145	0.00005	2.01346E-06
Diesel Car	0.43709	0.05862	0.00052	4.12709E-06
Petrol LGV	1.55646	0.06425	0.00074	1.00552E-05
Diesel LGV	1.04527	0.05790	0.00043	8.02520E-06
OGV1	1.47737	0.24562	0.00357	3.06380E-05
OGV2	3.39070	0.39438	0.00464	3.59224E-05
PSV	4.11560	0.30646	0.00421	3.65263E-05
Energy consumption parameter values (kWh per km, 2011)				
Electric Car	0.12564			
Electric LGV				
Electric OGV1				
Electric OGV2				
Electric PSV				

The DfT have developed a carbon tool to allow local authorities to assess the potential effects of transport interventions on carbon emissions in their area. The tool will output results on the total change in carbon emissions. The Scheme details are entered into the tool and include the time period, type of road, type of area, region and year affected.

Affected modes are selected and default vehicle mix is used based on speed curves from national derived data. For each affected mode the daily distance and number of vehicles is entered. The vehicle speeds before and after intervention are recorded. This will generate the CO_2 emisions before and after intervention.

7.8 PROFIT / LOSS

The Scheme profit / loss is made up of the staff and operational costs and Permit fee. The maximum charge per Permit type is shown on Table 2 below. The Authority sets their own fee structure reflecting on the potential number of Permits and operational costs.

The operational cost includes the initial start-up costs, additional staff administering and co-ordinating Permit Applications which includes Street Work Officers, Street Work Co-ordinators and Manager(s).

Table 2 - Statutory Permit Fee rates

Revised maximum fee structure for each category of works and for a hierarchy of main and minor roads - Road category refers to the reinstatement category of the street under the New Roads and Street Works Act 1991

Work Type	Road Category 0-2 or Traffic-sensitive	Road Category 3-4 and non traffic-sensitive
Provisional Advance	£105	£75
Major works – over 10 days and all major works requiring a traffic regulation order.	£240	£150
Major works – 4 to 10 days	£130	£75
Major works – up to 3 days	£65	£45
Activity Standard	£130	£75
Activity Minor	£65	£45
Immediate Activity	£60	£40
Permit Variation	£45	£35

The profit loss is the Permit fee revenue minus the operational cost. The result will enable the authority to understand if they are applying the crorrect fee structure or need to review staff levels.

7.9 REPORT STRUCTURE

- EXECUTIVE SUMMARY and FINDINGS
- APPENDIX 1 - EVALUATION BACKGROUND
- APPENDIX 2 - KEY PERFORMANCE INDICATOR DATA
- APPENDIX 2a - HAUC TPI MEASURES
- APPENDIX 2b - PERMIT APPLICATIONS DATA
- APPENDIX 2c - AUTHORITY MEASURES
- APPENDIX 3 – COSTS, INCOME and DISCOUNTS

8 APPENDIX 2 - KEY PERFORMANCE INDICATOR DATA

8.1 KPI 1

The number of Permit and Permit variation applications received, the number granted and the number refused.

Table 3 below shows a breakdown of Permit applications received granted and refused. This excludes Provisional Permit Applications (PAAs)

Data is further broken down into Permit applications received, granted and refused related to Highway Authority works and Utilities works on Table 4 below.

Table 3 KPI 1 The number of permit and permit variation applications received, the number granted and the number refused, deemed and superseded										
Year 2	**Applications Received**	**Variations Received**	**Applications Granted**	**Variations Granted**	**Applications Refused**	**Variations Refused**	**Applications Deemed**	**Applications Superseded**	**Applications Deemed**	**Applications Superseded**
Total	9,060	2,084	7,042	1,720	2,018	364	No Data	No Data	No Data	No Data
Percentage			78%	83%	22%	17%				
Year 3	**Applications Received**	**Variations Received**	**Applications Granted**	**Variations Granted**	**Applications Refused**	**Variations Refused**	**Applications Deemed**	**Applications Superseded**	**Applications Deemed**	**Applications Superseded**
Total	8,744	2,232	6,761	1,675	1,983	557	26	No Data	No Data	No Data
Percentage			77%	75%	23%	25%	0%			

Table 4 KPI 1 Permit Applications by Promoter			
Year 2			
Promoters	**Total Permit Applications**	**Total Applications Granted**	**Total Applications Refused**
Highway Authority	861	720	141
		84%	16%
Utility	8,199	6,322	1877
		77%	23%
Year 3			
Promoters	**Total Permit Applications**	**Total Applications Granted**	**Total Applications Refused**
Highway Authority	526	450	76
		86%	14%
Utility	8,218	6,311	1907
		77%	23%

Table 5(a) KPI 1 The number of permit and permit variation applications received, the number granted and the number refused, deemed and superseded by Promoter

Promoter										
BT Open Reach	Year 2									
	Applications Received	Variations Received	Applications Granted	Variations Granted	Applications Refused	Variations Refused	Applications Deemed	Applications Deemed	Applications Superseded	Applications Superseded
	728	160	539	146	189	14	No Data	No Data	No Data	No Data
	8%	8%	74%	91%	26%	9%				
	Year 3									
	Applications Received	Variations Received	Applications Granted	Variations Granted	Applications Refused	Variations Refused	Applications Deemed	Applications Deemed	Applications Superseded	Applications Superseded
	755	315	494	205	261	110	3	No Data	No Data	No Data
	8%	15%	65%	65%	35%	35%	0%			

Table 5(b) KPI 1 The number of permit and permit variation applications received, the number granted and the number refused, deemed and superseded by Promoter

Promoter										
Centurylink Comms	Year 2									
	Applications Received	Variations Received	Applications Granted	Variations Granted	Applications Refused	Variations Refused	Applications Deemed	Applications Deemed	Applications Superseded	Applications Superseded
	15	8	5	7	10	1	No Data	No Data	No Data	No Data
	0%	0%	33%	88%	67%	13%				
	Year 3									
	Applications Received	Variations Received	Applications Granted	Variations Granted	Applications Refused	Variations Refused	Applications Deemed	Applications Deemed	Applications Superseded	Applications Superseded
	2	-	1	-	1	-	-	No Data	No Data	No Data
	0%	0%	50%	0%	50%	0%	0%			

Table 5(c) KPI 1 The number of permit and permit variation applications received, the number granted and the number refused, deemed and superseded by Promoter										
Promoter										
CityFibre										
	Year 2									
	Applications Received	**Variations Received**	**Applications Granted**	**Variations Granted**	**Applications Refused**	**Variations Refused**	**Applications Deemed**	**Applications Deemed**	**Applications Superseded**	**Applications Superseded**
	4	-	2	-	2	-	No Data	No Data	No Data	No Data
	0%	0%	50%	0%	50%	0%				
	Year 3									
	Applications Received	**Variations Received**	**Applications Granted**	**Variations Granted**	**Applications Refused**	**Variations Refused**	**Applications Deemed**	**Applications Deemed**	**Applications Superseded**	**Applications Superseded**
	-	-	-	-	-	-	-	No Data	No Data	No Data
	0%	0%	0%	0%	0%	0%	0%			

Table 5(d) KPI 1 The number of permit and permit variation applications received, the number granted and the number refused, deemed and superseded by Promoter										
Promoter										
CMU Infrastructure Ltd										
	Year 2									
	Applications Received	**Variations Received**	**Applications Granted**	**Variations Granted**	**Applications Refused**	**Variations Refused**	**Applications Deemed**	**Applications Deemed**	**Applications Superseded**	**Applications Superseded**
	24	12	12	14	12	-	No Data	No Data	No Data	No Data
	0%	1%	50%	117%	50%	0%				
	Year 3									
	Applications Received	**Variations Received**	**Applications Granted**	**Variations Granted**	**Applications Refused**	**Variations Refused**	**Applications Deemed**	**Applications Deemed**	**Applications Superseded**	**Applications Superseded**
	27	5	22	5	5	-	-	No Data	No Data	No Data
	0%	0%	81%	100%	19%	0%	0%			

Table 5(e) KPI 1 The number of permit and permit variation applications received, the number granted and the number refused, deemed and superseded by Promoter

Promoter

Dept for Trans										
	Year 2									
	Applications Received	**Variations Received**	**Applications Granted**	**Variations Granted**	**Applications Refused**	**Variations Refused**	**Applications Deemed**	**Applications Deemed**	**Applications Superseded**	**Applications Superseded**
	1	-	1	-	-	-	No Data	No Data	No Data	No Data
	0%	0%	100%	0%	0%	0%				
	Year 3									
	Applications Received	**Variations Received**	**Applications Granted**	**Variations Granted**	**Applications Refused**	**Variations Refused**	**Applications Deemed**	**Applications Deemed**	**Applications Superseded**	**Applications Superseded**
	-	-	-	-	-	-	-	No Data	No Data	No Data
	0%	0%	0%	0%	0%	0%	0%			

Table 5(f) KPI 1 The number of permit and permit variation applications received, the number granted and the number refused, deemed and superseded by Promoter

Promoter

ES Pipelines										
	Year 2									
	Applications Received	**Variations Received**	**Applications Granted**	**Variations Granted**	**Applications Refused**	**Variations Refused**	**Applications Deemed**	**Applications Deemed**	**Applications Superseded**	**Applications Superseded**
	49	17	35	10	14	7	No Data	No Data	No Data	No Data
	1%	1%	71%	59%	29%	41%				
	Year 3									
	Applications Received	**Variations Received**	**Applications Granted**	**Variations Granted**	**Applications Refused**	**Variations Refused**	**Applications Deemed**	**Applications Deemed**	**Applications Superseded**	**Applications Superseded**
	89	5	72	-	17	5	-	No Data	No Data	No Data
	1%	0%	81%	0%	19%	100%	0%			

Table 5(g) KPI 1 The number of permit and permit variation applications received, the number granted and the number refused, deemed and superseded by Promoter

Promoter										
EUNetworks	Year 2									
	Applications Received	Variations Received	Applications Granted	Variations Granted	Applications Refused	Variations Refused	Applications Deemed	Applications Deemed	Applications Superseded	Applications Superseded
	1	-	1	-	-	-	No Data	No Data	No Data	No Data
	0%	0%	100%	0%	0%	0%				
	Year 3									
	Applications Received	Variations Received	Applications Granted	Variations Granted	Applications Refused	Variations Refused	Applications Deemed	Applications Deemed	Applications Superseded	Applications Superseded
	-	-	-	-	-	-	-	No Data	No Data	No Data
	0%	0%	0%	0%	0%	0%	0%			

Table 5(h) KPI 1 The number of permit and permit variation applications received, the number granted and the number refused, deemed and superseded by Promoter

Promoter										
Fulcrum Pipelines Limited	Year 2									
	Applications Received	Variations Received	Applications Granted	Variations Granted	Applications Refused	Variations Refused	Applications Deemed	Applications Deemed	Applications Superseded	Applications Superseded
	-	-	-	-	-	-	No Data	No Data	No Data	No Data
	0%	0%	-	-	-	-				
	Year 3									
	Applications Received	Variations Received	Applications Granted	Variations Granted	Applications Refused	Variations Refused	Applications Deemed	Applications Deemed	Applications Superseded	Applications Superseded
	2	-	-	-	2	-	-	No Data	No Data	No Data
	0%	0%	0%	0%	100%	0%	0%			

Table 5(i) KPI 1 The number of permit and permit variation applications received, the number granted and the number refused, deemed and superseded by Promoter

Promoter

Gigaclear PLC

Year 2									
Applications Received	**Variations Received**	**Applications Granted**	**Variations Granted**	**Applications Refused**	**Variations Refused**	**Applications Deemed**	**Applications Deemed**	**Applications Superseded**	**Applications Superseded**
900	276	587	248	313	28	No Data	No Data	No Data	No Data
10%	13%	65%	90%	35%	10%				
Year 3									
Applications Received	**Variations Received**	**Applications Granted**	**Variations Granted**	**Applications Refused**	**Variations Refused**	**Applications Deemed**	**Applications Deemed**	**Applications Superseded**	**Applications Superseded**
1,596	346	1,144	242	452	104	4	No Data	No Data	No Data
18%	17%	72%	70%	28%	30%	0%			

Table 5(j) KPI 1 The number of permit and permit variation applications received, the number granted and the number refused, deemed and superseded by Promoter

Promoter

Kier Highways

Year 2									
Applications Received	**Variations Received**	**Applications Granted**	**Variations Granted**	**Applications Refused**	**Variations Refused**	**Applications Deemed**	**Applications Deemed**	**Applications Superseded**	**Applications Superseded**
2	-	2	-	-	-	No Data	No Data	No Data	No Data
0%	0%	100%	0%	0%	0%				
Year 3									
Applications Received	**Variations Received**	**Applications Granted**	**Variations Granted**	**Applications Refused**	**Variations Refused**	**Applications Deemed**	**Applications Deemed**	**Applications Superseded**	**Applications Superseded**
-	-	-	-	-	-	-	No Data	No Data	No Data
0%	0%	0%	0%	0%	0%	0%			

Table 5(k) KPI 1 The number of permit and permit variation applications received, the number granted and the number refused, deemed and superseded by Promoter

Promoter

Network Rail	**Year 2**									
	Applications Received	**Variations Received**	**Applications Granted**	**Variations Granted**	**Applications Refused**	**Variations Refused**	**Applications Deemed**	**Applications Deemed**	**Applications Superseded**	**Applications Superseded**
	70	25	39	15	31	10	No Data	No Data	No Data	No Data
	1%	1%	56%	60%	44%	40%				
	Year 3									
	Applications Received	**Variations Received**	**Applications Granted**	**Variations Granted**	**Applications Refused**	**Variations Refused**	**Applications Deemed**	**Applications Deemed**	**Applications Superseded**	**Applications Superseded**
	85	18	80	17	5	1	-	No Data	No Data	No Data
	1%	1%	94%	94%	6%	6%	0%			

Table 5(l) KPI 1 The number of permit and permit variation applications received, the number granted and the number refused, deemed and superseded by Promoter

Promoter

Orange	**Year 2**									
	Applications Received	**Variations Received**	**Applications Granted**	**Variations Granted**	**Applications Refused**	**Variations Refused**	**Applications Deemed**	**Applications Deemed**	**Applications Superseded**	**Applications Superseded**
	3	-	3	-	-	-	No Data	No Data	No Data	No Data
	0%	0%	100%	0%	0%	0%				
	Year 3									
	Applications Received	**Variations Received**	**Applications Granted**	**Variations Granted**	**Applications Refused**	**Variations Refused**	**Applications Deemed**	**Applications Deemed**	**Applications Superseded**	**Applications Superseded**
	1	-	1	-	-	-	-	No Data	No Data	No Data
	0%	0%	100%	0%	0%	0%	0%			

Table 5(m) KPI 1 The number of permit and permit variation applications received, the number granted and the number refused, deemed and superseded by Promoter

Promoter										
O2	Year 2									
	Applications Received	Variations Received	Applications Granted	Variations Granted	Applications Refused	Variations Refused	Applications Deemed	Applications Deemed	Applications Superseded	Applications Superseded
	-	-	-	-	-	-	No Data	No Data	No Data	No Data
	0%	0%	0%	0%	0%	0%				
	Year 3									
	Applications Received	Variations Received	Applications Granted	Variations Granted	Applications Refused	Variations Refused	Applications Deemed	Applications Deemed	Applications Superseded	Applications Superseded
	-	2	-	2	-	-	-	No Data	No Data	No Data
	0%	0%	0%	100%	0%	0%	0%			

Table 5(n) KPI 1 The number of permit and permit variation applications received, the number granted and the number refused, deemed and superseded by Promoter

Promoter										
SGN	Year 2									
	Applications Received	Variations Received	Applications Granted	Variations Granted	Applications Refused	Variations Refused	Applications Deemed	Applications Deemed	Applications Superseded	Applications Superseded
	19	2	3	-	16	2	No Data	No Data	No Data	No Data
	0%	0%	16%	0%	84%	100%				
	Year 3									
	Applications Received	Variations Received	Applications Granted	Variations Granted	Applications Refused	Variations Refused	Applications Deemed	Applications Deemed	Applications Superseded	Applications Superseded
	9	4	-	-	9	4	-	No Data	No Data	No Data
	0%	0%	0%	0%	100%	100%	0%			

Table 5(o) KPI 1 The number of permit and permit variation applications received, the number granted and the number refused, deemed and superseded by Promoter

Promoter										
SSE Networks	Year 2									
	Applications Received	Variations Received	Applications Granted	Variations Granted	Applications Refused	Variations Refused	Applications Deemed	Applications Deemed	Applications Superseded	Applications Superseded
	385	120	301	75	84	45	No Data	No Data	No Data	No Data
	4%	6%	78%	63%	22%	38%				
	Year 3									
	Applications Received	Variations Received	Applications Granted	Variations Granted	Applications Refused	Variations Refused	Applications Deemed	Applications Deemed	Applications Superseded	Applications Superseded
	503	126	350	84	153	42	4	No Data	No Data	No Data
	6%	6%	70%	67%	30%	33%	1%			

Table 5(p) KPI 1 The number of permit and permit variation applications received, the number granted and the number refused, deemed and superseded by Promoter

Promoter										
SSE Telecoms	Year 2									
	Applications Received	Variations Received	Applications Granted	Variations Granted	Applications Refused	Variations Refused	Applications Deemed	Applications Deemed	Applications Superseded	Applications Superseded
	347	93	94	59	253	34	No Data	No Data	No Data	No Data
	4%	4%	27%	63%	73%	37%				
	Year 3									
	Applications Received	Variations Received	Applications Granted	Variations Granted	Applications Refused	Variations Refused	Applications Deemed	Applications Deemed	Applications Superseded	Applications Superseded
	34	11	29	11	5	-	-	No Data	No Data	No Data
	0%	1%	85%	100%	15%	0%	0%			

Table 5(q) KPI 1 The number of permit and permit variation applications received, the number granted and the number refused, deemed and superseded by Promoter

Promoter										
Thames Water	Year 2									
	Applications Received	Variations Received	Applications Granted	Variations Granted	Applications Refused	Variations Refused	Applications Deemed	Applications Deemed	Applications Superseded	Applications Superseded
	4,262	708	3,555	535	707	173	No Data	No Data	No Data	No Data
	47%	34%	83%	76%	17%	24%				
	Year 3									
	Applications Received	Variations Received	Applications Granted	Variations Granted	Applications Refused	Variations Refused	Applications Deemed	Applications Deemed	Applications Superseded	Applications Superseded
	3,848	807	3,112	584	736	223	7	No Data	No Data	No Data
	42%	39%	81%	72%	19%	28%	0%			

Table 5(r) KPI 1 The number of permit and permit variation applications received, the number granted and the number refused, deemed and superseded by Promoter

Promoter										
T Mobile	Year 2									
	Applications Received	Variations Received	Applications Granted	Variations Granted	Applications Refused	Variations Refused	Applications Deemed	Applications Deemed	Applications Superseded	Applications Superseded
	40	23	14	12	26	11	No Data	No Data	No Data	No Data
	0%	1%	35%	52%	65%	48%				
	Year 3									
	Applications Received	Variations Received	Applications Granted	Variations Granted	Applications Refused	Variations Refused	Applications Deemed	Applications Deemed	Applications Superseded	Applications Superseded
	13	8	9	7	4	1	1	No Data	No Data	No Data
	0%	0%	69%	88%	31%	13%	8%			

Table 5(s) KPI 1 The number of permit and permit variation applications received, the number granted and the number refused, deemed and superseded by Promoter

Promoter										
Virgin Media	Year 2									
	Applications Received	Variations Received	Applications Granted	Variations Granted	Applications Refused	Variations Refused	Applications Deemed	Applications Deemed	Applications Superseded	Applications Superseded
	1,308	305	1,106	295	202	10	No Data	No Data	No Data	No Data
	14%	15%	85%	97%	15%	3%				
	Year 3									
	Applications Received	Variations Received	Applications Granted	Variations Granted	Applications Refused	Variations Refused	Applications Deemed	Applications Deemed	Applications Superseded	Applications Superseded
	1,181	192	978	178	203	14	3	No Data	No Data	No Data
	13%	9%	83%	93%	17%	7%	0%			

Table 5(t) KPI 1 The number of permit and permit variation applications received, the number granted and the number refused, deemed and superseded by Promoter

Promoter										
Vodafone	Year 2									
	Applications Received	Variations Received	Applications Granted	Variations Granted	Applications Refused	Variations Refused	Applications Deemed	Applications Deemed	Applications Superseded	Applications Superseded
	14	19	9	10	5	9	No Data	No Data	No Data	No Data
	0%	1%	64%	53%	36%	47%				
	Year 3									
	Applications Received	Variations Received	Applications Granted	Variations Granted	Applications Refused	Variations Refused	Applications Deemed	Applications Deemed	Applications Superseded	Applications Superseded
	5	8	-	4	5	4	1	No Data	No Data	No Data
	0%	0%	0%	50%	100%	50%	20%			

Table 5(u) KPI 1 The number of permit and permit variation applications received, the number granted and the number refused, deemed and superseded by Promoter

Promoter										
Volker Highways	Year 2									
	Applications Received	Variations Received	Applications Granted	Variations Granted	Applications Refused	Variations Refused	Applications Deemed	Applications Deemed	Applications Superseded	Applications Superseded
	859	305	718	286	141	19	No Data	No Data	No Data	No Data
	9%	13%	84%	94%	16%	6%				
	Year 3									
	Applications Received	Variations Received	Applications Granted	Variations Granted	Applications Refused	Variations Refused	Applications Deemed	Applications Deemed	Applications Superseded	Applications Superseded
	526	327	450	309	76	18	2	No Data	No Data	No Data
	5%	14%	86%	94%	14%	6%	0%			

Table 5(v) KPI 1 The number of permit and permit variation applications received, the number granted and the number refused, deemed and superseded by Promoter

Promoter										
Wales & West Utilities	Year 2									
	Applications Received	Variations Received	Applications Granted	Variations Granted	Applications Refused	Variations Refused	Applications Deemed	Applications Deemed	Applications Superseded	Applications Superseded
	26	5	15	4	11	1	No Data	No Data	No Data	No Data
	0%	0%	58%	80%	42%	20%				
	Year 3									
	Applications Received	Variations Received	Applications Granted	Variations Granted	Applications Refused	Variations Refused	Applications Deemed	Applications Deemed	Applications Superseded	Applications Superseded
	66	56	18	26	48	30	1	No Data	No Data	No Data
	1%	3%	27%	46%	73%	54%	2%			

Table 5(w) KPI 1 The number of permit and permit variation applications received, the number granted and the number refused, deemed and superseded by Promoter										
Promoter										
Zayo (Abovent)	**Year 2**									
	Applications Received	**Variations Received**	**Applications Granted**	**Variations Granted**	**Applications Refused**	**Variations Refused**	**Applications Deemed**	**Applications Deemed**	**Applications Superseded**	**Applications Superseded**
	3	4	1	4	2	-	No Data	No Data	No Data	No Data
	0%	0%	33%	100%	67%	0%				
	Year 3									
	Applications Received	**Variations Received**	**Applications Granted**	**Variations Granted**	**Applications Refused**	**Variations Refused**	**Applications Deemed**	**Applications Deemed**	**Applications Superseded**	**Applications Superseded**
	2	2	1	1	1	1	-	No Data	No Data	No Data
	0%	0%	50%	50%	50%	50%	0%			

Table 5(x) KPI 1 The number of permit and permit variation applications received, the number granted and the number refused, deemed and superseded by Promoter										
Promoter										
Total	**Year 2**									
	Applications Received	**Variations Received**	**Applications Granted**	**Variations Granted**	**Applications Refused**	**Variations Refused**	**Applications Deemed**	**Applications Deemed**	**Applications Superseded**	**Applications Superseded**
	9,060	2,082	7,042	1,720	2,018	364	No Data	No Data	No Data	No Data
	Year 3									
	Applications Received	**Variations Received**	**Applications Granted**	**Variations Granted**	**Applications Refused**	**Variations Refused**	**Applications Deemed**	**Applications Deemed**	**Applications Superseded**	**Applications Superseded**
	8,742	2,232	6,761	1,675	1,983	557	26	No Data	No Data	No Data

Table 6(b) KPI 1 The number of permit and permit variation granted, number refused, deemed superseded and cancelled for Category 0-2 and Traffic Sensitive Streets for Utility Works by Activity type

Year 2

Activity Type	Permit App Granted		Permit App Refused		Variation Granted		Variation Refused		Deemed Permit Applications		Superseded Applications		Deemed Permit Variations		Superseded Variations		Cancelled /Aborted	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Provisional Advance	58	**4%**	294	**26%**	NA		NA		No Data		No Data		No Data		No Data		No Data	
Major	97	**7%**	19	**2%**	47	**10%**	20	**9%**	No Data		No Data		No Data		No Data		174	**29%**
Standard	18	**1%**	79	**7%**	106	**24%**	51	**23%**	No Data		No Data		No Data		No Data		64	**11%**
Minor	570	**40%**	500	**45%**	284	**63%**	141	**64%**	No Data		No Data		No Data		No Data		351	**59%**
Immediate	229	**16%**	3	**0%**	13	**3%**	7	**3%**	No Data		No Data		No Data		No Data		11	**2%**
Permit Variation	450	**32%**	219	**20%**					No Data		No Data		No Data		No Data		No Data	
Total	**1,422**		**1,114**		**450**		**219**										**600**	

Table 6(c) KPI 1 The number of permit and permit variation granted, number refused, deemed superseded and cancelled for Category 0-2 and Traffic Sensitive Streets for Utility Works by Activity type

Year 3

Activity Type	Permit App Granted		Permit App Refused		Variation Granted		Variation Refused		Deemed Permit Applications		Superseded Applications		Deemed Permit Variations		Superseded Variations		Cancelled /Aborted	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Provisional Advance	76	**5%**	114	**10%**	NA		NA		No Data		No Data		No Data		No Data		No Data	
Major	51	**3%**	41	**3%**	31	**7%**	25	**8%**	No Data		No Data		No Data		No Data		136	**18%**
Standard	49	**3%**	130	**11%**	87	**21%**	63	**21%**	No Data		No Data		No Data		No Data		132	**17%**
Minor	635	**40%**	582	**49%**	289	**68%**	218	**71%**	No Data		No Data		No Data		No Data		484	**64%**
Immediate	347	**22%**	25	**2%**	15	**4%**	1	**0%**	No Data		No Data		No Data		No Data		7	**1%**
Permit Variation	422	**27%**	307	**26%**					No Data		No Data		No Data		No Data		No Data	
Total	**1,580**		**1,199**		**422**		**307**										**759**	

Table 7(b) KPI 1 The number of permit and permit variation granted, number refused, deemed superseded and cancelled for Category 3-4 Non Traffic Sensitive Streets for Utility Works by Activity type

Year 2

Activity Type	Permit App Granted		Permit App Refused		Variation Granted		Variation Refused		Deemed Permit Applications		Superseded Applications		Deemed Permit Variations		Superseded Variations		Cancelled /Aborted	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Provisional Advance	255	**4%**	225	**20%**	NA		NA		No Data		No Data		No Data		No Data		No Data	
Major	352	**6%**	76	**7%**	227	**23%**	31	**25%**	No Data		No Data		No Data		No Data		328	**23%**
Standard	159	**3%**	158	**14%**	256	**26%**	42	**33%**	No Data		No Data		No Data		No Data		173	**12%**
Minor	3,364	**53%**	519	**47%**	417	**42%**	53	**42%**	No Data		No Data		No Data		No Data		904	**64%**
Immediate	1,220	**19%**	4	**0%**	84	**9%**	-	**0%**	No Data		No Data		No Data		No Data		18	**1%**
Permit Variation	984	**16%**	126	**11%**					No Data		No Data		No Data		No Data		No Data	
Total	**6,334**		**1,108**		**984**		**126**										**1,423**	

Table 7(c) KPI 1 The number of permit and permit variation granted, number refused, deemed superseded and cancelled for Category 3-4 Non Traffic Sensitive Streets for Utility Works by Activity type

Year 3

Activity Type	Permit App Granted		Permit App Refused		Variation Granted		Variation Refused		Deemed Permit Applications		Superseded Applications		Deemed Permit Variations		Superseded Variations		Cancelled /Aborted	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Provisional Advance	621	**10%**	119	**10%**	NA		NA		No Data		No Data		No Data		No Data		No Data	
Major	344	**6%**	113	**9%**	186	**20%**	23	**10%**	No Data		No Data		No Data		No Data		319	**22%**
Standard	153	**3%**	153	**12%**	208	**22%**	53	**23%**	No Data		No Data		No Data		No Data		148	**10%**
Minor	2,711	**44%**	602	**48%**	465	**49%**	152	**66%**	No Data		No Data		No Data		No Data		967	**66%**
Immediate	1,324	**22%**	28	**2%**	85	**9%**	4	**2%**	No Data		No Data		No Data		No Data		23	**2%**
Permit Variation	944	**15%**	232	**19%**					No Data		No Data		No Data		No Data		No Data	
Total	**6,097**		**1,247**		**944**		**232**										**1,457**	

Table 8(b) KPI 1 The number of permit and permit variation granted, number refused, deemed superseded and cancelled for Utility Works by Activity type																		
Year 2																		
Activity Type	**Permit App Granted**		**Permit App Refused**		**Variation Granted**		**Variation Refused**		**Deemed Permit Applications**		**Superseded Applications**		**Deemed Permit Variations**		**Superseded Variations**		**Cancelled /Aborted**	
	No.	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Provisional Advance	313	**4%**	519	**23%**	NA		NA		No Data		No Data		No Data		No Data		No Data	
Major	449	**6%**	95	**4%**	274	**19%**	51	**15%**	No Data		No Data		No Data		No Data		502	**25%**
Standard	177	**2%**	237	**11%**	362	**25%**	93	**27%**	No Data		No Data		No Data		No Data		237	**12%**
Minor	3,934	**51%**	1,019	**46%**	701	**49%**	194	**56%**	No Data		No Data		No Data		No Data		1,255	**62%**
Immediate	1,449	**19%**	7	**0%**	97	**7%**	7	**2%**	No Data		No Data		No Data		No Data		29	**1%**
Permit Variation	1,434	**18%**	345	**16%**					No Data		No Data		No Data		No Data		No Data	
Total	**7,756**		**2,222**		**1,434**		**345**										**2,023**	

Table 8(c) KPI 1 The number of permit and permit variation granted, number refused, deemed superseded and cancelled for Utility Works by Activity type																		
Year 3																		
Activity Type	**Permit App Granted**		**Permit App Refused**		**Variation Granted**		**Variation Refused**		**Deemed Permit Applications**		**Superseded Applications**		**Deemed Permit Variations**		**Superseded Variations**		**Cancelled /Aborted**	
	No.	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Provisional Advance	697	**9%**	233	**10%**	NA		NA		No Data		No Data		No Data		No Data		No Data	
Major	395	**5%**	154	**6%**	217	**16%**	48	**9%**	No Data		No Data		No Data		No Data		455	**21%**
Standard	202	**3%**	283	**12%**	295	**22%**	116	**22%**	No Data		No Data		No Data		No Data		280	**13%**
Minor	3,346	**44%**	1,184	**48%**	754	**55%**	370	**69%**	No Data		No Data		No Data		No Data		1,451	**65%**
Immediate	1,671	**22%**	53	**2%**	100	**7%**	5	**1%**	No Data		No Data		No Data		No Data		30	**1%**
Permit Variation	1,366	**18%**	539	**22%**					No Data		No Data		No Data		No Data		No Data	
Total	**7,677**		**2,446**		**1,366**		**539**										**2,216**	

Table 9(b) KPI 1 The number of permit and permit variation granted, number refused, deemed superseded and cancelled for Category 0-2 and Traffic Sensitive Streets for Highway Works by Activity type

Year 2

Activity Type	Permit App Granted		Permit App Refused		Variation Granted		Variation Refused		Deemed Permit Applications		Superseded Applications		Deemed Permit Variations		Superseded Variations		Cancelled /Aborted	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Provisional Advance	7	**3%**	-	**0%**	NA		NA		No Data		No Data		No Data		No Data		No Data	
Major	3	**1%**	5	**5%**	3	**4%**	1	**8%**	No Data		No Data		No Data		No Data		5	**5%**
Standard	19	**7%**	8	**8%**	8	**10%**	3	**23%**	No Data		No Data		No Data		No Data		-	**0%**
Minor	131	**49%**	79	**75%**	67	**86%**	9	**69%**	No Data		No Data		No Data		No Data		98	**95%**
Immediate	3	**1%**	-	**0%**	-	**0%**	-	**0%**	No Data		No Data		No Data		No Data		-	**0%**
Permit Variation	102	**38%**	13	**12%**					No Data		No Data		No Data		No Data		No Data	
Total	**265**		**105**		**78**		**13**										**103**	

Table 9(c) KPI 1 The number of permit and permit variation granted, number refused, deemed superseded and cancelled for Category 0-2 and Traffic Sensitive Streets for Highway Works by Activity type

Year 3

Activity Type	Permit App Granted		Permit App Refused		Variation Granted		Variation Refused		Deemed Permit Applications		Superseded Applications		Deemed Permit Variations		Superseded Variations		Cancelled /Aborted	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Provisional Advance	39	**13%**	-	**0%**	NA		NA		No Data		No Data		No Data		No Data		No Data	
Major	3	**1%**	1	**1%**	31	**27%**	2	**14%**	No Data		No Data		No Data		No Data		15	**23%**
Standard	6	**2%**	2	**3%**	13	**11%**	-	**0%**	No Data		No Data		No Data		No Data		11	**17%**
Minor	131	**44%**	53	**76%**	70	**61%**	12	**86%**	No Data		No Data		No Data		No Data		38	**59%**
Immediate	2	**1%**	-	**0%**	1	**1%**	-	**0%**	No Data		No Data		No Data		No Data		-	**0%**
Permit Variation	115	**39%**	14	**20%**					No Data		No Data		No Data		No Data		No Data	
Total	**296**		**70**		**115**		**14**										**64**	

Table 10(b) KPI 1 The number of permit and permit variation granted, number refused, deemed superseded and cancelled for Category 3-4 Non Traffic Sensitive Streets for Highway Works by Activity type

Year 2

Activity Type	Permit App Granted		Permit App Refused		Variation Granted		Variation Refused		Deemed Permit Applications		Superseded Applications		Deemed Permit Variations		Superseded Variations		Cancelled /Aborted	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Provisional Advance	90	**12%**	4	**7%**	NA		NA		No Data		No Data		No Data		No Data		No Data	
Major	71	**9%**	1	**2%**	36	**18%**	-	**0%**	No Data		No Data		No Data		No Data		7	**5%**
Standard	66	**9%**	7	**13%**	13	**6%**	-	**0%**	No Data		No Data		No Data		No Data		9	**7%**
Minor	327	**43%**	37	**67%**	153	**76%**	6	**100%**	No Data		No Data		No Data		No Data		121	**88%**
Immediate	3	**0%**	-	**0%**	-	**0%**	-	**0%**	No Data		No Data		No Data		No Data		-	**0%**
Permit Variation	202	**27%**	6	**11%**					No Data		No Data		No Data		No Data		No Data	
Total	**759**		**55**		**202**		**6**										**137**	

Table 10(c) KPI 1 The number of permit and permit variation granted, number refused, deemed superseded and cancelled for Category 3-4 Non Traffic Sensitive Streets for Highway Works by Activity type

Year 3

Activity Type	Permit App Granted		Permit App Refused		Variation Granted		Variation Refused		Deemed Permit Applications		Superseded Applications		Deemed Permit Variations		Superseded Variations		Cancelled /Aborted	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Provisional Advance	84	**18%**	-	**0%**	NA		NA		No Data		No Data		No Data		No Data		No Data	
Major	15	**3%**	-	**0%**	68	**35%**	3	**75%**	No Data		No Data		No Data		No Data		1	**2%**
Standard	6	**1%**	2	**8%**	19	**10%**	-	**0%**	No Data		No Data		No Data		No Data		2	**3%**
Minor	158	**34%**	18	**75%**	107	**55%**	1	**25%**	No Data		No Data		No Data		No Data		54	**92%**
Immediate	6	**1%**	-	**0%**	-	**0%**	-	**0%**	No Data		No Data		No Data		No Data		2	**3%**
Permit Variation	194	**42%**	4	**17%**					No Data		No Data		No Data		No Data		No Data	
Total	**463**		**24**		**194**		**4**										**59**	

Table 11(b) KPI 1 The number of permit and permit variation granted, number refused, deemed superseded and cancelled for Highway Works by Activity type

Year 2

Activity Type	Permit App Granted		Permit App Refused		Variation Granted		Variation Refused		Deemed Permit Applications		Superseded Applications		Deemed Permit Variations		Superseded Variations		Cancelled /Aborted	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Provisional Advance	97	**9%**	4	**3%**	NA		NA		No Data		No Data		No Data		No Data		No Data	
Major	74	**7%**	6	**4%**	39	**14%**	1	**5%**	No Data		No Data		No Data		No Data		12	**5%**
Standard	85	**8%**	15	**9%**	21	**8%**	3	**16%**	No Data		No Data		No Data		No Data		9	**4%**
Minor	458	**45%**	116	**73%**	220	**79%**	15	**79%**	No Data		No Data		No Data		No Data		219	**91%**
Immediate	6	**1%**	-	**0%**	-	**0%**	-	**0%**	No Data		No Data		No Data		No Data		-	**0%**
Permit Variation	304	**30%**	19	**12%**					No Data		No Data		No Data		No Data		No Data	
Total	**1,024**		**160**		**280**		**19**										**240**	

Table 11(c) KPI 1 The number of permit and permit variation granted, number refused, deemed superseded and cancelled for Highway Works by Activity type

Year 3

Activity Type	Permit App Granted		Permit App Refused		Variation Granted		Variation Refused		Deemed Permit Applications		Superseded Applications		Deemed Permit Variations		Superseded Variations		Cancelled /Aborted	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Provisional Advance	123	**16%**	-	**0%**	NA		NA		No Data		No Data		No Data		No Data		No Data	
Major	18	**2%**	1	**1%**	99	**32%**	5	**28%**	No Data		No Data		No Data		No Data		16	**13%**
Standard	12	**2%**	4	**4%**	32	**10%**	-	**0%**	No Data		No Data		No Data		No Data		13	**11%**
Minor	289	**38%**	71	**76%**	177	**57%**	13	**72%**	No Data		No Data		No Data		No Data		92	**75%**
Immediate	8	**1%**	-	**0%**	1	**0%**	-	**0%**	No Data		No Data		No Data		No Data		2	**2%**
Permit Variation	309	**41%**	18	**19%**					No Data		No Data		No Data		No Data		No Data	
Total	**759**		**94**		**309**		**18**										**123**	

Table 12(b) KPI 1 The number of permit and permit variation granted, number refused, deemed superseded and cancelled for Category 0-2 and Traffic Sensitive Streets for All Works by Activity type

Year 2

Activity Type	Permit App Granted		Permit App Refused		Variation Granted		Variation Refused		Deemed Permit Applications		Superseded Applications		Deemed Permit Variations		Superseded Variations		Cancelled /Aborted	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Provisional Advance	65	**4%**	294	**24%**	NA		NA		No Data		No Data		No Data		No Data		No Data	
Major	100	**6%**	24	**2%**	50	**9%**	21	**9%**	No Data		No Data		No Data		No Data		179	**25%**
Standard	37	**2%**	87	**7%**	114	**22%**	54	**23%**	No Data		No Data		No Data		No Data		64	**9%**
Minor	701	**42%**	579	**47%**	351	**66%**	150	**65%**	No Data		No Data		No Data		No Data		449	**64%**
Immediate	232	**14%**	3	**0%**	13	**2%**	7	**3%**	No Data		No Data		No Data		No Data		11	**2%**
Permit Variation	552	**33%**	232	**19%**					No Data		No Data		No Data		No Data		No Data	
Total	**1,687**		**1,219**		**528**		**232**										**703**	

Table 12(c) KPI 1 The number of permit and permit variation granted, number refused, deemed superseded and cancelled for Category 0-2 and Traffic Sensitive Streets for All Works by Activity type

Year 3

Activity Type	Permit App Granted		Permit App Refused		Variation Granted		Variation Refused		Deemed Permit Applications		Superseded Applications		Deemed Permit Variations		Superseded Variations		Cancelled /Aborted	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Provisional Advance	115	**6%**	114	**9%**	NA		NA		No Data		No Data		No Data		No Data		No Data	
Major	54	**3%**	42	**3%**	62	**12%**	27	**8%**	No Data		No Data		No Data		No Data		151	**18%**
Standard	55	**3%**	132	**10%**	100	**19%**	63	**20%**	No Data		No Data		No Data		No Data		143	**17%**
Minor	766	**41%**	635	**50%**	359	**67%**	230	**72%**	No Data		No Data		No Data		No Data		522	**63%**
Immediate	349	**19%**	25	**2%**	16	**3%**	1	**0%**	No Data		No Data		No Data		No Data		7	**1%**
Permit Variation	537	**29%**	321	**25%**					No Data		No Data		No Data		No Data		No Data	
Total	**1,876**		**1,269**		**537**		**321**										**823**	

Table 13(b) KPI 1 The number of permit and permit variation granted, number refused, deemed superseded and cancelled for Category 3-4 Non Traffic Sensitive Streets for All Works by Activity type

Year 2

Activity Type	Permit App Granted		Permit App Refused		Variation Granted		Variation Refused		Deemed Permit Applications		Superseded Applications		Deemed Permit Variations		Superseded Variations		Cancelled /Aborted	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Provisional Advance	345	**5%**	229	**20%**	NA		NA		No Data		No Data		No Data		No Data		No Data	
Major	423	**6%**	77	**7%**	263	**22%**	31	**23%**	No Data		No Data		No Data		No Data		335	**21%**
Standard	225	**3%**	165	**14%**	269	**23%**	42	**32%**	No Data		No Data		No Data		No Data		182	**12%**
Minor	3,691	**52%**	556	**48%**	570	**48%**	59	**45%**	No Data		No Data		No Data		No Data		1,025	**66%**
Immediate	1,223	**17%**	4	**0%**	84	**7%**	-	**0%**	No Data		No Data		No Data		No Data		18	**1%**
Permit Variation	1,186	**17%**	132	**11%**					No Data		No Data		No Data		No Data		No Data	
Total	**7,093**		**1,163**		**1,186**		**132**										**1,560**	

Table 13(c) KPI 1 The number of permit and permit variation granted, number refused, deemed superseded and cancelled for Category 3-4 Non Traffic Sensitive Streets for All Works by Activity type

Year 3

Activity Type	Permit App Granted		Permit App Refused		Variation Granted		Variation Refused		Deemed Permit Applications		Superseded Applications		Deemed Permit Variations		Superseded Variations		Cancelled /Aborted	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Provisional Advance	705	**11%**	119	**9%**	NA		NA		No Data		No Data		No Data		No Data		No Data	
Major	359	**5%**	113	**9%**	254	**22%**	26	**11%**	No Data		No Data		No Data		No Data		320	**21%**
Standard	159	**2%**	155	**12%**	227	**20%**	53	**22%**	No Data		No Data		No Data		No Data		150	**10%**
Minor	2,869	**44%**	620	**49%**	572	**50%**	153	**65%**	No Data		No Data		No Data		No Data		1,021	**67%**
Immediate	1,330	**20%**	28	**2%**	85	**7%**	4	**2%**	No Data		No Data		No Data		No Data		25	**2%**
Permit Variation	1,138	**17%**	236	**19%**					No Data		No Data		No Data		No Data		No Data	
Total	**6,560**		**1,271**		**1,138**		**236**										**1,516**	

Table 14(b) KPI 1 The number of permit and permit variation granted, number refused, deemed superseded and cancelled for All Works by Activity type																		
Year 2																		
Activity Type	**Permit App Granted**		**Permit App Refused**		**Variation Granted**		**Variation Refused**		**Deemed Permit Applications**		**Superseded Applications**		**Deemed Permit Variations**		**Superseded Variations**		**Cancelled /Aborted**	
	No.	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Provisional Advance	410	**5%**	523	**22%**	NA		NA		No Data		No Data		No Data		No Data		No Data	
Major	523	**6%**	101	**4%**	313	**18%**	52	**14%**	No Data		No Data		No Data		No Data		514	**23%**
Standard	262	**3%**	252	**11%**	383	**22%**	96	**26%**	No Data		No Data		No Data		No Data		246	**11%**
Minor	4,392	**50%**	1,135	**48%**	921	**54%**	209	**57%**	No Data		No Data		No Data		No Data		1,474	**65%**
Immediate	1,455	**17%**	7	**0%**	97	**6%**	7	**2%**	No Data		No Data		No Data		No Data		29	**1%**
Permit Variation	1,738	**20%**	364	**15%**					No Data		No Data		No Data		No Data		No Data	
Total	**8,780**		**2,382**		**1,714**		**364**										**2,263**	

Table 14(c) KPI 1 The number of permit and permit variation granted, number refused, deemed superseded and cancelled for All Works by Activity type																		
Year 3																		
Activity Type	**Permit App Granted**		**Permit App Refused**		**Variation Granted**		**Variation Refused**		**Deemed Permit Applications**		**Superseded Applications**		**Deemed Permit Variations**		**Superseded Variations**		**Cancelled /Aborted**	
	No.	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Provisional Advance	820		233		NA		NA		No Data		No Data		No Data		No Data		No Data	
Major	413		155		316		53		No Data		No Data		No Data		No Data		471	
Standard	214		287		327		116		No Data		No Data		No Data		No Data		293	
Minor	3,635		1,255		931		383		No Data		No Data		No Data		No Data		1,543	
Immediate	1,679		53		101		5		No Data		No Data		No Data		No Data		32	
Permit Variation	1,675		557		-		-		No Data		No Data		No Data		No Data		No Data	
Total	**8,436**		**2,540**		**1,675**		**557**										**2,339**	

8.2 KPI 2

The number of conditions applied by condition type.

Table 15 KPI 2 The number of conditions applied by condition type							
Number	Condition	Year 2			Year 3		
		Utility Works	Highway Authority Works	Total	Utility Works	Highway Authority Works	Total
1	Date Constraints	No Data	No Data		No Data	No Data	
2	Time Constraints	No Data	No Data		No Data	No Data	
3	Out of Hours Work	No Data	No Data		No Data	No Data	
4	Material and Plant Storage	No Data	No Data		No Data	No Data	
5	Road Occupation Dimensions	No Data	No Data		No Data	No Data	
6	Traffic Space Dimensions	No Data	No Data		No Data	No Data	
7	Road Closure	No Data	No Data		No Data	No Data	
8	Light Signals and Shuttle Working	No Data	No Data		No Data	No Data	
9	Traffic Management Changes	No Data	No Data		No Data	No Data	
10	Work Methodology	No Data	No Data		No Data	No Data	
11	Consultation and Publicity	No Data	No Data		No Data	No Data	
12	Environmental	No Data	No Data		No Data	No Data	
13	Local	No Data	No Data		No Data	No Data	
	Total						

8.3 KPI 3

The number of approved extensions

Data cannot be broken down at this time.

Table 16 KPI 3 The number of approved extensions						
Period	Year 2			Year 3		
	Agreed Extensions			Agreed Extensions		
	Highway Authority	Utilities	Total	Highway Authority	Utilities	Total
Apr	No Data	No Data		No Data	No Data	
May	No Data	No Data		No Data	No Data	
Jun	No Data	No Data		No Data	No Data	
Jul	No Data	No Data		No Data	No Data	
Aug	No Data	No Data		No Data	No Data	
Sep	No Data	No Data		No Data	No Data	
Oct	No Data	No Data		No Data	No Data	

Nov	No Data	No Data		No Data	No Data	
Dec	No Data	No Data		No Data	No Data	
Jan	No Data	No Data		No Data	No Data	
Feb	No Data	No Data		No Data	No Data	
Mar	No Data	No Data		No Data	No Data	
Total						

8.4 KPI 7

Number of inspections carried out to monitor conditions

This KPI is broken down by promoter and shown (were possible) as the number of sample Permit condition checks carried out as a percentage of the number of Permits issued.

Table 17 KPI 7 Number of inspections carried out to monitor conditions

Promoter	Year 1			Year 2			Year 3		
	Passed	Non-Compliant	Total	Passed	Non-Compliant	Total	Passed	Non-Compliant	Total
BT OpenReach	No Data	No Data		106	54	160	67	-	67
Centurylink Comms	No Data	No Data		-	-	-	-	-	-
CityFibre	No Data	No Data		-	-	-	-	-	-
CMU Infrastructure Ltd	No Data	No Data		-	-	-	-	-	-
Dept for Trans	No Data	No Data		-	-	-	-	-	-
ES Pipelines	No Data	No Data		3	-	3	3	-	3
EUNetworks	No Data	No Data		-	-	-	-	-	-
Fulcrum Pipelines Limited	No Data	No Data		-	-	-	-	-	-
Gigaclear PLC	No Data	No Data		-	5	5	46	229	275
Kier Highways	No Data	No Data		-	-	-	-	-	-
Network Rail	No Data	No Data		-	-	-	-	-	-
Orange	No Data	No Data		1	-	1	-	-	-
O2	No Data	No Data		-	-	-	-	-	-
SGN	No Data	No Data		-	-	-	2	-	2
SSE Networks	No Data	No Data		41	7	48	33	7	40

SSE Telecoms	No Data	No Data		-	-	-	-	-	-
Thames Water	No Data	No Data		401	58	459	364	36	400
T Mobile	No Data	No Data		-	4	4	-	-	-
Virgin Media	No Data	No Data		39	6	45	46	5	51
Vodafone	No Data	No Data		1	-	1	1	-	1
Volker Highways	No Data	No Data		-	-	-	-	-	-
Wales & West Utilities	No Data	No Data		3	-	3	7	-	7
Zayo (Abovent)	No Data	No Data		-	-	-	-	-	-
Total				595	134	729	569	277	846

9 APPENDIX 2A - HAUC TPI MEASURES

9.1 TPI 1 Works Phases Started (Base Data)

Table 18 TPI 1 Works Phases Started (Base Data) by Promoter						
Year 2						
Activity Type	**Major**	**Standard**	**Minor**	**Urgent**	**Emergency**	**Total**
All Promoters	28	444	3,233	1,086	171	4,962
Highway Authority	2	120	648	3	3	776
Utilities	26	324	2,585	1,083	168	4,186
Year 3						
Activity Type	**Major**	**Standard**	**Minor**	**Urgent**	**Emergency**	**Total**
All Promoters	30	462	3,000	1,217	183	4,892
Highway Authority	3	45	446	-	9	503
Utilities	27	417	2,554	1,217	174	4,389

Table 19 TPI 1 Works Phases Started (Base Data) for Highway Authority Works by Reinstatement Category						
Year 2						
Reinstatement Category	**Major**	**Standard**	**Minor**	**Urgent**	**Emergency**	**Total**
Cat 1	-	10	81	-	3	94
Cat 2	-	14	91	-	-	105
Cat 3	-	19	76	1	-	96
Cat 4	2	74	384	2	-	462
Other F/way	-	2	14	-	-	16
Year 3						
Reinstatement Category	**Major**	**Standard**	**Minor**	**Urgent**	**Emergency**	**Total**
Cat 1	1	10	80	-	1	92
Cat 2	1	7	110	-	2	120
Cat 3	1	5	49	-	3	58
Cat 4	-	23	207	-	3	233
Other F/way	-	-	-	-	-	-

Table 20 TPI 1 Works Phases Started (Base Data) for Utility Works by Reinstatement Category						
Year 2						
Reinstatement Category	**Major**	**Standard**	**Minor**	**Urgent**	**Emergency**	**Total**
Cat 1	-	22	94	31	14	161
Cat 2	3	47	317	130	26	523
Cat 3	6	45	265	85	29	430
Cat 4	17	207	1,836	810	98	2,968
Other F/way	-	3	66	27	-	96
Year 3						
Reinstatement Category	**Major**	**Standard**	**Minor**	**Urgent**	**Emergency**	**Total**
Cat 1	2	33	126	50	10	221
Cat 2	5	56	306	134	32	533
Cat 3	3	73	326	140	30	572
Cat 4	17	254	1,741	867	102	2,981
Other F/way	-	1	54	24	-	79

9.2 TPI 2 Works Phases Completed (Base Data)

Table 21 TPI 2 Works Phases Completed (Base Data) by Promoter						
Year 2						
Activity Type	**Major**	**Standard**	**Minor**	**Urgent**	**Emergency**	**Total**
All Promoters	27	320	2,600	1,076	168	4,191
Highway Authority	1	1	25	-	-	27
Utilities	26	319	2,575	1,076	168	4,164
Year 3						
Activity Type	**Major**	**Standard**	**Minor**	**Urgent**	**Emergency**	**Total**
All Promoters	28	421	2,652	1,216	174	4,491
Highway Authority	1	5	61	-	1	68
Utilities	27	416	2,591	1,216	173	4,423

Table 22 TPI 2 Works Phases Completed (Base Data) for Highway Authority Works by Reinstatement Category						
Year 2						
Reinstatement Category	**Major**	**Standard**	**Minor**	**Urgent**	**Emergency**	**Total**
Cat 1	-	-	4	-	-	4
Cat 2	-	-	4	-	-	4
Cat 3	-	1	7	-	-	8
Cat 4	1	-	10	-	-	11
Other F/way	-	-	-	-	-	-
Year 3						
Reinstatement Category	**Major**	**Standard**	**Minor**	**Urgent**	**Emergency**	**Total**
Cat 1	-	5	10	-	-	15
Cat 2	1	-	24	-	-	25
Cat 3	-	-	8	-	-	8
Cat 4	-	-	19	-	1	20
Other F/way	-	-	-	-	-	-

Table 23 TPI 2 Works Phases Completed (Base Data) for Utility Works by Reinstatement Category						
Year 2						
Reinstatement Category	**Major**	**Standard**	**Minor**	**Urgent**	**Emergency**	**Total**
Cat 1	-	22	94	31	14	161
Cat 2	3	46	315	127	26	514
Cat 3	6	44	265	84	29	422
Cat 4	17	204	1,830	807	98	2,939
Other F/way	-	3	64	27	-	94
Year 3						
Reinstatement Category	**Major**	**Standard**	**Minor**	**Urgent**	**Emergency**	**Total**
Cat 1	2	33	124	50	10	217
Cat 2	5	55	300	134	32	521
Cat 3	3	73	326	140	30	569
Cat 4	17	254	1,723	866	101	2,944
Other F/way	-	1	53	24	-	78

9.3 TPI 3 Days of Occupancy Phases Completed

Table 24 TPI 3 Days Of Occupancy Phases Completed by Promoter						
Year 2						
Activity Type	**Major**	**Standard**	**Minor**	**Urgent**	**Emergency**	**Total**
All Promoters	383	2,600	10,717	4,814	670	19,184
Highway Authority	60	421	3,528	3	32	4,044
Utilities	323	2,179	7,189	4,811	638	15,140
Year 3						
Activity Type	**Major**	**Standard**	**Minor**	**Urgent**	**Emergency**	**Total**
All Promoters	429	2,939	7,112	4,836	674	15,990
Highway Authority	12	26	66	-	1	105
Utilities	417	2,913	7,046	4,836	673	15,885

Table 25(b) TPI 3 Days Of Occupancy Phases Completed for Highway Authority Works by Reinstatement Category and Traffic Sensitivity Street						
Year 2						
Traffic Sensitive						
Reinstatement Category	**Major**	**Standard**	**Minor**	**Urgent**	**Emergency**	**Total**
Cat 1	-	-	8	-	-	8
Cat 2	-	-	3	-	-	3
Cat 3	-	5	1	-	-	6
Cat 4	-	-	4	-	-	4
HA f/way	-	-	-	-	-	-
HD f/way	-	-	-	-	-	-
Other f/way	-	-	-	-	-	-
Non Traffic Sensitive						
Reinstatement Category	**Major**	**Standard**	**Minor**	**Urgent**	**Emergency**	**Total**
Cat 1	-	-	-	-	-	-
Cat 2	-	-	2	-	-	2
Cat 3	-	-	13	-	-	13
Cat 4	12	-	15	-	-	27
HA f/way	-	-	-	-	-	-
HD f/way	-	-	-	-	-	-
Other f/way	-	-	-	-	-	-

Table 25(c) TPI 3 Days Of Occupancy Phases Completed for Highway Authority Works by Reinstatement Category and Traffic Sensitivity Street						
Year 3						
Traffic Sensitive						
Reinstatement Category	**Major**	**Standard**	**Minor**	**Urgent**	**Emergency**	**Total**
Cat 1	-	21	12	-	-	33
Cat 2	12	-	22	-	-	34
Cat 3	-	-	2	-	-	2
Cat 4	-	-	-	-	-	-
HA f/way	-	-	-	-	-	-
HD f/way	-	-	-	-	-	-
Other f/way	-	-	-	-	-	-
Non Traffic Sensitive						
Reinstatement Category	**Major**	**Standard**	**Minor**	**Urgent**	**Emergency**	**Total**
Cat 1	-	5	1	-	-	6
Cat 2	-	-	4	-	-	4
Cat 3	-	-	6	-	-	6
Cat 4	-	-	20	-	1	21
HA f/way	-	-	-	-	-	-
HD f/way	-	-	-	-	-	-
Other f/way	-	-	-	-	-	-

Table 26(b) TPI 3 Days Of Occupancy Phases Completed for Utility Works by Reinstatement Category and Traffic Sensitivity Street						
Year 2						
Traffic Sensitive						
Reinstatement Category	**Major**	**Standard**	**Minor**	**Urgent**	**Emergency**	**Total**
Cat 1	-	167	182	102	46	497
Cat 2	24	199	407	459	64	1,153
Cat 3	3	140	516	50	23	732
Cat 4	13	23	11	18	3	68
HA f/way	-	-	-	-	-	-
HD f/way	-	-	-	-	-	-
Other f/way	-	-	-	-	-	-
Non Traffic Sensitive						
Reinstatement Category	**Major**	**Standard**	**Minor**	**Urgent**	**Emergency**	**Total**
Cat 1	-	8	12	20	5	45
Cat 2	-	49	117	57	5	228
Cat 3	66	237	622	338	117	1,380
Cat 4	217	1,283	5,069	3,607	370	10,546

HA f/way	-	-	4	5	-	9
HD f/way	-	7	25	52	-	84
Other f/way	-	56	50	103	-	209

Table 26(c) TPI 3 Days Of Occupancy Phases Completed for Utility Works by Reinstatement Category and Traffic Sensitivity Street						
Year 3						
Traffic Sensitive						
Reinstatement Category	**Major**	**Standard**	**Minor**	**Urgent**	**Emergency**	**Total**
Cat 1	33	159	313	194	35	734
Cat 2	114	304	695	461	101	1,675
Cat 3	13	87	169	96	26	391
Cat 4	-	7	22	3	-	32
HA f/way	-	-	-	-	-	-
HD f/way	-	-	-	-	-	-
Other f/way	-	-	-	-	-	-
Non Traffic Sensitive						
Reinstatement Category	**Major**	**Standard**	**Minor**	**Urgent**	**Emergency**	**Total**
Cat 1	-	51	10	10	8	79
Cat 2	19	35	97	50	17	218
Cat 3	10	445	840	462	62	1,819
Cat 4	228	1,802	4,782	3,452	424	10,688
HA f/way	-	-	7	-	-	7
HD f/way	-	-	49	42	-	91
Other f/way	-	4	36	46	-	86

9.4 TPI 4 Average Duration of Works Phases Completed

Table 27 TPI 4 Average Duration of Works Phases Completed by Promoter by Activity Type				
Activity Type	**Year 2**		**Year 3**	
	Highway Authority	**Utility**	**Highway Authority**	**Utility**
Major	12	12	12	16
Standard	5	7	5	7
Minor	2	3	1	3
Immediate - Urgent	N/A	4	N/A	4
Immediate - Emergency	N/A	4	1	4

9.5 TPI 5 Phases Completed on time

Table 28 TPI 5 Phases Completed on time by Promoter						
Year 2						
Activity Type	**Major**	**Standard**	**Minor**	**Urgent**	**Emergency**	**Total**
All Promoters	26	314	2,592	1,067	168	4,167
Highway Authority	1	1	23	N/A	N/A	25
Utilities	25	313	2,569	1,067	168	4,142
Year 3						
Activity Type	**Major**	**Standard**	**Minor**	**Urgent**	**Emergency**	**Total**
All Promoters	30	451	2,448	1,182	176	4,287
Highway Authority	3	45	444	-	9	501
Utilities	27	406	2,004	1,182	167	3,786

9.6 TPI 6 Number of deemed Permit applications

Table 29 TPI6 Number of deemed permit applications by Promoter			
Year 2		**Year 3**	
Highway Authority	**Utility**	**Highway Authority**	**Utility**
No Data	No Data	2	24

9.7 TPI 7 Number of Phase One Permanent Registrations

This information is not available at this time.

Table 30 TPI7 Number of Phase One Permanent Registrations by Promoter						
Activity Type	**Major**	**Standard**	**Minor**	**Urgent**	**Emergency**	**Total**
All Promoters	No Data	No Data	No Data	No Data	No Data	
Highway Authority	No Data	No Data	No Data	No Data	No Data	
Utilities	No Data	No Data	No Data	No Data	No Data	

Table 31 TPI7 Number of Phase One Permanent Registrations for Highway Authority Works by Reinstatement Category and Traffic Sensitivity Street						
Traffic Sensitive						
Reinstatement Category	**Major**	**Standard**	**Minor**	**Urgent**	**Emergency**	**Total**
Cat 1	No Data	No Data	No Data	No Data	No Data	

Cat 2	No Data	No Data	No Data	No Data	No Data	
Cat 3	No Data	No Data	No Data	No Data	No Data	
Cat 4	No Data	No Data	No Data	No Data	No Data	
HA f/way	No Data	No Data	No Data	No Data	No Data	
HD f/way	No Data	No Data	No Data	No Data	No Data	
Other f/way	No Data	No Data	No Data	No Data	No Data	
Non Traffic Sensitive						
Reinstatement Category	**Major**	**Standard**	**Minor**	**Urgent**	**Emergency**	**Total**
Cat 1	No Data	No Data	No Data	No Data	No Data	
Cat 2	No Data	No Data	No Data	No Data	No Data	
Cat 3	No Data	No Data	No Data	No Data	No Data	
Cat 4	No Data	No Data	No Data	No Data	No Data	
HA f/way	No Data	No Data	No Data	No Data	No Data	
HD f/way	No Data	No Data	No Data	No Data	No Data	
Other f/way	No Data	No Data	No Data	No Data	No Data	

Table 32 TPI7 Number of Phase One Permanent Registrations for Utility Works by Reinstatement Category and Traffic Sensitivity Street						
Traffic Sensitive						
Reinstatement Category	**Major**	**Standard**	**Minor**	**Urgent**	**Emergency**	**Total**
Cat 1	No Data	No Data	No Data	No Data	No Data	
Cat 2	No Data	No Data	No Data	No Data	No Data	
Cat 3	No Data	No Data	No Data	No Data	No Data	
Cat 4	No Data	No Data	No Data	No Data	No Data	
HA f/way	No Data	No Data	No Data	No Data	No Data	
HD f/way	No Data	No Data	No Data	No Data	No Data	

Other f/way	No Data	No Data	No Data	No Data	No Data	
Other f/way	No Data	No Data	No Data	No Data	No Data	
Non Traffic Sensitive						
Reinstatement Category	**Major**	**Standard**	**Minor**	**Urgent**	**Emergency**	**Total**
Cat 1	No Data	No Data	No Data	No Data	No Data	
Cat 2	No Data	No Data	No Data	No Data	No Data	
Cat 3	No Data	No Data	No Data	No Data	No Data	
Cat 4	No Data	No Data	No Data	No Data	No Data	
HA f/way	No Data	No Data	No Data	No Data	No Data	
HD f/way	No Data	No Data	No Data	No Data	No Data	
Other f/way	No Data	No Data	No Data	No Data	No Data	

10 APPENDIX 2B - PERMIT APPLICATIONS DATA

10.1 Number of PAA applications submitted

Table 33 Number of PAA applications submitted	
Year 2	Year 3
933	1,053

10.2 Number of PAA applications granted

Table 34 Number of PAA applications granted	
Year 2	Year 3
410	820

10.3 Number of PAA applications deemed

This information is not available at this time.

Table 35 Number of PAA applications deemed

10.4 Number of “initial” permit applications submitted for a works phase

This information is not available at this time.

Table 36 Number of “initial” permit applications submitted for a works phase

10.5 Number of Permit applications granted on first application submission

This information is not available at this time.

Table 37 Number of Permit applications granted on first application submission

10.6 Number of “modified” applications submitted prior to Permit being granted or deemed

This information is not available at this time.

Table 38 Number of “modified” applications submitted prior to Permit being granted or deemed

10.7 Number of Permit applications deemed

Table 39 Number of Permit applications deemed		
Year 1	Year 2	Year 3
No Data	No Data	26

10.8 Number of applications cancelled prior to grant / deemed

This information is not available at this time.

Table 40 Number of applications cancelled prior to grant / deemed

10.9 Number of granted / deemed Permits for which and Actual Start never occurred

This information is not available at this time

Table 41 Number of granted / deemed Permits for which and Actual Start never occurred

10.10 Number of Authority imposed variations / revokes

Table 42 Number of Authority imposed variations / revokes	
Year 2	Year 3
5	14

10.11 Number of Duration variations after works started

This information is not available at this time.

Table 43 Number of Duration variations after works started

10.12 Number of Duration variations refused

This information is not available at this time.

Table 44 Number of Duration variations refused

10.13 Number of Permit applications with “Collaboration indicator” set

Table 45 Number of Permit applications with “Collaboration indicator” set	
Year 2	Year 3
7	10

11 APPENDIX 2C - AUTHORITY MEASURES

11.1 AM 1 - Average duration of works

Table 46 AM 1 Average duration of works by permit type by Promoter by Activity Type				
Activity Type	Year 2		Year 3	
	Highway Authority	Utility	Highway Authority	Utility
Major	14	12	12	19
Standard	6	7	5	7
Minor	2	3	1	3
Immediate - Urgent	8	5	-	4
Immediate - Emergency	1	4	1	4

11.2 AM 2 - Inspections

Table 47(a) AM 2 Inspections (%;age of total undertaken and failures) by Promoter by Activity Type												
Promoter												
BT OpenReach	Year 2											
	CAT A Done	CAT A Fail	CAT A Failure Rate %	CAT B Done	CAT B Fail	CAT B Failure Rate %	CAT C Done	CAT C Fail	CAT C Failure Rate %	Total Inspections	Total Failure	Total Failure Rate %
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	160	54	34%
	Year 3											
	CAT A Done	CAT A Fail	CAT A Failure Rate %	CAT B Done	CAT B Fail	CAT B Failure Rate %	CAT C Done	CAT C Fail	CAT C Failure Rate %	Total Inspections	Total Failure	Total Failure Rate %
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	67	-	0%

Table 47(b) AM 2 Inspections (%;age of total undertaken and failures) by Promoter by Activity Type												
Promoter												
Centurylink Comms	Year 2											
	CAT A Done	CAT A Fail	CAT A Failure Rate %	CAT B Done	CAT B Fail	CAT B Failure Rate %	CAT C Done	CAT C Fail	CAT C Failure Rate %	Total Inspections	Total Failure	Total Failure Rate %
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	-	-	
	Year 3											
	CAT A Done	CAT A Fail	CAT A Failure Rate %	CAT B Done	CAT B Fail	CAT B Failure Rate %	CAT C Done	CAT C Fail	CAT C Failure Rate %	Total Inspections	Total Failure	Total Failure Rate %
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	-	-	

Table 47(c) AM 2 Inspections (%;age of total undertaken and failures) by Promoter by Activity Type												
Promoter												
CityFibre	Year 2											
	CAT A Done	CAT A Fail	CAT A Failure Rate %	CAT B Done	CAT B Fail	CAT B Failure Rate %	CAT C Done	CAT C Fail	CAT C Failure Rate %	Total Inspections	Total Failure	Total Failure Rate %
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	-	-	
	Year 3											
	CAT A Done	CAT A Fail	CAT A Failure Rate %	CAT B Done	CAT B Fail	CAT B Failure Rate %	CAT C Done	CAT C Fail	CAT C Failure Rate %	Total Inspections	Total Failure	Total Failure Rate %
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	-	-	

Table 47(d) AM 2 Inspections (%;age of total undertaken and failures) by Promoter by Activity Type												
Promoter												
CMU Infrastructure Ltd	Year 2											
	CAT A Done	CAT A Fail	CAT A Failure Rate %	CAT B Done	CAT B Fail	CAT B Failure Rate %	CAT C Done	CAT C Fail	CAT C Failure Rate %	Total Inspections	Total Failure	Total Failure Rate %
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	-	-	
	Year 3											
	CAT A Done	CAT A Fail	CAT A Failure Rate %	CAT B Done	CAT B Fail	CAT B Failure Rate %	CAT C Done	CAT C Fail	CAT C Failure Rate %	Total Inspections	Total Failure	Total Failure Rate %
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	-	-	

Table 47(e) AM 2 Inspections (%;age of total undertaken and failures) by Promoter by Activity Type												
Promoter												
Dept for Trans	Year 2											
	CAT A Done	CAT A Fail	CAT A Failure Rate %	CAT B Done	CAT B Fail	CAT B Failure Rate %	CAT C Done	CAT C Fail	CAT C Failure Rate %	Total Inspections	Total Failure	Total Failure Rate %
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	-	-	
	Year 3											
	CAT A Done	CAT A Fail	CAT A Failure Rate %	CAT B Done	CAT B Fail	CAT B Failure Rate %	CAT C Done	CAT C Fail	CAT C Failure Rate %	Total Inspections	Total Failure	Total Failure Rate %
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	-	-	

Table 47(f) AM 2 Inspections (%;age of total undertaken and failures) by Promoter by Activity Type												
Promoter												
ES Pipelines	Year 2											
	CAT A Done	CAT A Fail	CAT A Failure Rate %	CAT B Done	CAT B Fail	CAT B Failure Rate %	CAT C Done	CAT C Fail	CAT C Failure Rate %	Total Inspections	Total Failure	Total Failure Rate %
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	3	-	0%
	Year 3											
	CAT A Done	CAT A Fail	CAT A Failure Rate %	CAT B Done	CAT B Fail	CAT B Failure Rate %	CAT C Done	CAT C Fail	CAT C Failure Rate %	Total Inspections	Total Failure	Total Failure Rate %
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	3	-	0%

Table 47(g) AM 2 Inspections (%;age of total undertaken and failures) by Promoter by Activity Type												
Promoter												
EUNetworks	Year 2											
	CAT A Done	CAT A Fail	CAT A Failure Rate %	CAT B Done	CAT B Fail	CAT B Failure Rate %	CAT C Done	CAT C Fail	CAT C Failure Rate %	Total Inspections	Total Failure	Total Failure Rate %
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	-	-	
	Year 3											
	CAT A Done	CAT A Fail	CAT A Failure Rate %	CAT B Done	CAT B Fail	CAT B Failure Rate %	CAT C Done	CAT C Fail	CAT C Failure Rate %	Total Inspections	Total Failure	Total Failure Rate %
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	-	-	

Table 47(h) AM 2 Inspections (%;age of total undertaken and failures) by Promoter by Activity Type												
Promoter												
Fulcrum Pipelines Limited												
	Year 2											
	CAT A Done	**CAT A Fail**	**CAT A Failure Rate %**	**CAT B Done**	**CAT B Fail**	**CAT B Failure Rate %**	**CAT C Done**	**CAT C Fail**	**CAT C Failure Rate %**	**Total Inspections**	**Total Failure**	**Total Failure Rate %**
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	-	-	
	Year 3											
	CAT A Done	**CAT A Fail**	**CAT A Failure Rate %**	**CAT B Done**	**CAT B Fail**	**CAT B Failure Rate %**	**CAT C Done**	**CAT C Fail**	**CAT C Failure Rate %**	**Total Inspections**	**Total Failure**	**Total Failure Rate %**
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	-	-	

Table 47(i) AM 2 Inspections (%;age of total undertaken and failures) by Promoter by Activity Type												
Promoter												
Gigaclear PLC												
	Year 2											
	CAT A Done	**CAT A Fail**	**CAT A Failure Rate %**	**CAT B Done**	**CAT B Fail**	**CAT B Failure Rate %**	**CAT C Done**	**CAT C Fail**	**CAT C Failure Rate %**	**Total Inspections**	**Total Failure**	**Total Failure Rate %**
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	5	5	100%
	Year 3											
	CAT A Done	**CAT A Fail**	**CAT A Failure Rate %**	**CAT B Done**	**CAT B Fail**	**CAT B Failure Rate %**	**CAT C Done**	**CAT C Fail**	**CAT C Failure Rate %**	**Total Inspections**	**Total Failure**	**Total Failure Rate %**
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	351	305	87%

Table 47(j) AM 2 Inspections (%;age of total undertaken and failures) by Promoter by Activity Type												
Promoter												
Kier Highways	**Year 2**											
	CAT A Done	**CAT A Fail**	**CAT A Failure Rate %**	**CAT B Done**	**CAT B Fail**	**CAT B Failure Rate %**	**CAT C Done**	**CAT C Fail**	**CAT C Failure Rate %**	**Total Inspections**	**Total Failure**	**Total Failure Rate %**
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	-	-	
	Year 3											
	CAT A Done	**CAT A Fail**	**CAT A Failure Rate %**	**CAT B Done**	**CAT B Fail**	**CAT B Failure Rate %**	**CAT C Done**	**CAT C Fail**	**CAT C Failure Rate %**	**Total Inspections**	**Total Failure**	**Total Failure Rate %**
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	-	-	

Table 47(k) AM 2 Inspections (%;age of total undertaken and failures) by Promoter by Activity Type												
Promoter												
Network Rail	**Year 2**											
	CAT A Done	**CAT A Fail**	**CAT A Failure Rate %**	**CAT B Done**	**CAT B Fail**	**CAT B Failure Rate %**	**CAT C Done**	**CAT C Fail**	**CAT C Failure Rate %**	**Total Inspections**	**Total Failure**	**Total Failure Rate %**
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	-	-	
	Year 3											
	CAT A Done	**CAT A Fail**	**CAT A Failure Rate %**	**CAT B Done**	**CAT B Fail**	**CAT B Failure Rate %**	**CAT C Done**	**CAT C Fail**	**CAT C Failure Rate %**	**Total Inspections**	**Total Failure**	**Total Failure Rate %**
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	-	-	

Table 47(l) AM 2 Inspections (%;age of total undertaken and failures) by Promoter by Activity Type												
Promoter												
Orange												
	Year 2											
	CAT A Done	**CAT A Fail**	**CAT A Failure Rate %**	**CAT B Done**	**CAT B Fail**	**CAT B Failure Rate %**	**CAT C Done**	**CAT C Fail**	**CAT C Failure Rate %**	**Total Inspections**	**Total Failure**	**Total Failure Rate %**
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	1	-	0%
	Year 3											
	CAT A Done	**CAT A Fail**	**CAT A Failure Rate %**	**CAT B Done**	**CAT B Fail**	**CAT B Failure Rate %**	**CAT C Done**	**CAT C Fail**	**CAT C Failure Rate %**	**Total Inspections**	**Total Failure**	**Total Failure Rate %**
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	-	-	

Table 47(m) AM 2 Inspections (%;age of total undertaken and failures) by Promoter by Activity Type												
Promoter												
O2												
	Year 2											
	CAT A Done	**CAT A Fail**	**CAT A Failure Rate %**	**CAT B Done**	**CAT B Fail**	**CAT B Failure Rate %**	**CAT C Done**	**CAT C Fail**	**CAT C Failure Rate %**	**Total Inspections**	**Total Failure**	**Total Failure Rate %**
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	-	-	
	Year 3											
	CAT A Done	**CAT A Fail**	**CAT A Failure Rate %**	**CAT B Done**	**CAT B Fail**	**CAT B Failure Rate %**	**CAT C Done**	**CAT C Fail**	**CAT C Failure Rate %**	**Total Inspections**	**Total Failure**	**Total Failure Rate %**
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	-	-	

Table 47(n) AM 2 Inspections (%;age of total undertaken and failures) by Promoter by Activity Type

Promoter

SGN

Year 2											
CAT A Done	**CAT A Fail**	**CAT A Failure Rate %**	**CAT B Done**	**CAT B Fail**	**CAT B Failure Rate %**	**CAT C Done**	**CAT C Fail**	**CAT C Failure Rate %**	**Total Inspections**	**Total Failure**	**Total Failure Rate %**
No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	-	-	
Year 3											
CAT A Done	**CAT A Fail**	**CAT A Failure Rate %**	**CAT B Done**	**CAT B Fail**	**CAT B Failure Rate %**	**CAT C Done**	**CAT C Fail**	**CAT C Failure Rate %**	**Total Inspections**	**Total Failure**	**Total Failure Rate %**
No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	2	-	0%

Table 47(o) AM 2 Inspections (%;age of total undertaken and failures) by Promoter by Activity Type

Promoter

SSE Networks

Year 2											
CAT A Done	**CAT A Fail**	**CAT A Failure Rate %**	**CAT B Done**	**CAT B Fail**	**CAT B Failure Rate %**	**CAT C Done**	**CAT C Fail**	**CAT C Failure Rate %**	**Total Inspections**	**Total Failure**	**Total Failure Rate %**
No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	48	7	15%
Year 3											
CAT A Done	**CAT A Fail**	**CAT A Failure Rate %**	**CAT B Done**	**CAT B Fail**	**CAT B Failure Rate %**	**CAT C Done**	**CAT C Fail**	**CAT C Failure Rate %**	**Total Inspections**	**Total Failure**	**Total Failure Rate %**
No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	40	7	18%

Table 47(p) AM 2 Inspections (%;age of total undertaken and failures) by Promoter by Activity Type												
Promoter												
SSE Telecoms	**Year 2**											
	CAT A Done	**CAT A Fail**	**CAT A Failure Rate %**	**CAT B Done**	**CAT B Fail**	**CAT B Failure Rate %**	**CAT C Done**	**CAT C Fail**	**CAT C Failure Rate %**	**Total Inspections**	**Total Failure**	**Total Failure Rate %**
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	-	-	
	Year 3											
	CAT A Done	**CAT A Fail**	**CAT A Failure Rate %**	**CAT B Done**	**CAT B Fail**	**CAT B Failure Rate %**	**CAT C Done**	**CAT C Fail**	**CAT C Failure Rate %**	**Total Inspections**	**Total Failure**	**Total Failure Rate %**
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	-	-	

Table 47(q) AM 2 Inspections (%;age of total undertaken and failures) by Promoter by Activity Type												
Promoter												
Thames Water	**Year 2**											
	CAT A Done	**CAT A Fail**	**CAT A Failure Rate %**	**CAT B Done**	**CAT B Fail**	**CAT B Failure Rate %**	**CAT C Done**	**CAT C Fail**	**CAT C Failure Rate %**	**Total Inspections**	**Total Failure**	**Total Failure Rate %**
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	459	58	13%
	Year 3											
	CAT A Done	**CAT A Fail**	**CAT A Failure Rate %**	**CAT B Done**	**CAT B Fail**	**CAT B Failure Rate %**	**CAT C Done**	**CAT C Fail**	**CAT C Failure Rate %**	**Total Inspections**	**Total Failure**	**Total Failure Rate %**
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	400	36	9%

Table 47(q) AM 2 Inspections (%;age of total undertaken and failures) by Promoter by Activity Type												
Promoter												
T Mobile	Year 2											
	CAT A Done	CAT A Fail	CAT A Failure Rate %	CAT B Done	CAT B Fail	CAT B Failure Rate %	CAT C Done	CAT C Fail	CAT C Failure Rate %	Total Inspections	Total Failure	Total Failure Rate %
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	4	4	100%
	Year 3											
	CAT A Done	CAT A Fail	CAT A Failure Rate %	CAT B Done	CAT B Fail	CAT B Failure Rate %	CAT C Done	CAT C Fail	CAT C Failure Rate %	Total Inspections	Total Failure	Total Failure Rate %
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	-	-	

Table 47(r) AM 2 Inspections (%;age of total undertaken and failures) by Promoter by Activity Type												
Promoter												
Virgin Media	Year 2											
	CAT A Done	CAT A Fail	CAT A Failure Rate %	CAT B Done	CAT B Fail	CAT B Failure Rate %	CAT C Done	CAT C Fail	CAT C Failure Rate %	Total Inspections	Total Failure	Total Failure Rate %
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	45	6	13%
	Year 3											
	CAT A Done	CAT A Fail	CAT A Failure Rate %	CAT B Done	CAT B Fail	CAT B Failure Rate %	CAT C Done	CAT C Fail	CAT C Failure Rate %	Total Inspections	Total Failure	Total Failure Rate %
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	51	5	10%

Table 47(s) AM 2 Inspections (%;age of total undertaken and failures) by Promoter by Activity Type												
Promoter												
Vodafone												
	Year 2											
	CAT A Done	**CAT A Fail**	**CAT A Failure Rate %**	**CAT B Done**	**CAT B Fail**	**CAT B Failure Rate %**	**CAT C Done**	**CAT C Fail**	**CAT C Failure Rate %**	**Total Inspections**	**Total Failure**	**Total Failure Rate %**
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	1	-	0%
	Year 3											
	CAT A Done	**CAT A Fail**	**CAT A Failure Rate %**	**CAT B Done**	**CAT B Fail**	**CAT B Failure Rate %**	**CAT C Done**	**CAT C Fail**	**CAT C Failure Rate %**	**Total Inspections**	**Total Failure**	**Total Failure Rate %**
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	1	-	0%

Table 47(t) AM 2 Inspections (%;age of total undertaken and failures) by Promoter by Activity Type												
Promoter												
Volker Highways												
	Year 2											
	CAT A Done	**CAT A Fail**	**CAT A Failure Rate %**	**CAT B Done**	**CAT B Fail**	**CAT B Failure Rate %**	**CAT C Done**	**CAT C Fail**	**CAT C Failure Rate %**	**Total Inspections**	**Total Failure**	**Total Failure Rate %**
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	-	-	
	Year 3											
	CAT A Done	**CAT A Fail**	**CAT A Failure Rate %**	**CAT B Done**	**CAT B Fail**	**CAT B Failure Rate %**	**CAT C Done**	**CAT C Fail**	**CAT C Failure Rate %**	**Total Inspections**	**Total Failure**	**Total Failure Rate %**
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	-	-	

Table 47(u) AM 2 Inspections (%;age of total undertaken and failures) by Promoter by Activity Type												
Promoter												
Wales & West Utilities	**Year 2**											
	CAT A Done	**CAT A Fail**	**CAT A Failure Rate %**	**CAT B Done**	**CAT B Fail**	**CAT B Failure Rate %**	**CAT C Done**	**CAT C Fail**	**CAT C Failure Rate %**	**Total Inspections**	**Total Failue**	**Total Failure Rate %**
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	3	-	0%
	Year 3											
	CAT A Done	**CAT A Fail**	**CAT A Failure Rate %**	**CAT B Done**	**CAT B Fail**	**CAT B Failure Rate %**	**CAT C Done**	**CAT C Fail**	**CAT C Failure Rate %**	**Total Inspections**	**Total Failue**	**Total Failure Rate %**
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	7	-	0%

Table 47(v) AM 2 Inspections (%;age of total undertaken and failures) by Promoter by Activity Type												
Promoter												
Zayo (Abovent)	**Year 2**											
	CAT A Done	**CAT A Fail**	**CAT A Failure Rate %**	**CAT B Done**	**CAT B Fail**	**CAT B Failure Rate %**	**CAT C Done**	**CAT C Fail**	**CAT C Failure Rate %**	**Total Inspections**	**Total Failure**	**Total Failure Rate %**
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	-	-	
	Year 3											
	CAT A Done	**CAT A Fail**	**CAT A Failure Rate %**	**CAT B Done**	**CAT B Fail**	**CAT B Failure Rate %**	**CAT C Done**	**CAT C Fail**	**CAT C Failure Rate %**	**Total Inspections**	**Total Failure**	**Total Failure Rate %**
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	-	-	

Table 47(w) AM 2 Inspections (%;age of total undertaken and failures) by Promoter by Activity Type												
Promoter												
Total	Year 1											
	CAT A Done	CAT A Fail	CAT A Failure Rate %	CAT B Done	CAT B Fail	CAT B Failure Rate %	CAT C Done	CAT C Fail	CAT C Failure Rate %	Total Inspections	Total Failure	Total Failure Rate %
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data
	Year 2											
	CAT A Done	CAT A Fail	CAT A Failure Rate %	CAT B Done	CAT B Fail	CAT B Failure Rate %	CAT C Done	CAT C Fail	CAT C Failure Rate %	Total Inspections	Total Failure	Total Failure Rate %
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	729	134	18%
	Year 3											
	CAT A Done	CAT A Fail	CAT A Failure Rate %	CAT B Done	CAT B Fail	CAT B Failure Rate %	CAT C Done	CAT C Fail	CAT C Failure Rate %	Total Inspections	Total Failure	Total Failure Rate %
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	922	353	38%

11.3 AM 3 - Days of Disruption Saved/ Number of collaborative works

Table 48 AM 3 Days of Disruption Saved/ Number of collaborative works				
Type	Year 2		Year 3	
	Number of Collaborative Works	Days Saved	Number of Collaborative Works	Days Saved
Permit	7	57	7	42
Trench Sharing	3	11	3	11
Total	10	68	10	53

11.4 AM 4 - Response Code

This information is not available at this time.

Table 49(a) AM 4 Response Code – broken down by promoter																	
Promoter																	
Year																	
No	RC10	RC11	RC12	RC20	RC21	RC22	RC23	RC30	RC31	RC32	RC33	RC40	RC41	RC42	RC43	RC44	RC50
	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data

11.5 AM 5 – FPNs (Permit Breaches)

Table 50 below shows the number of fixed penalty notices. Under section 74 (7B) failure to give a notice under regulation 74 (charge for occupation of the highway where works unreasonably delayed); under section 19 (1) working without a Permit and under 20 (1) Permit breaches. The Permit Authority will continue to work with Promoters to reduce the number of FPN's.

Table 50(a) AM 5 FPNs (Permit Breaches) – broken down by promoter														
Promoter														
BT OpenReach	Year 2							Year 3						
	70(6)	74(7B)	19(1)	20(1)	55(5)	55(9)	Total	70(6)	74(7B)	19(1)	20(1)	55(5)	55(9)	Total
	-	-	2	49	1	1	53	2	11	-	8	1	5	27
Centurylink Comms	Year 2							Year 3						
	70(6)	74(7B)	19(1)	20(1)	55(5)	55(9)	Total	70(6)	74(7B)	19(1)	20(1)	55(5)	55(9)	Total
	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CityFibre	Year 2							Year 3						
	70(6)	74(7B)	19(1)	20(1)	55(5)	55(9)	Total	70(6)	74(7B)	19(1)	20(1)	55(5)	55(9)	Total
	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CMU Infrastructure Ltd	Year 2							Year 3						
	70(6)	74(7B)	19(1)	20(1)	55(5)	55(9)	Total	70(6)	74(7B)	19(1)	20(1)	55(5)	55(9)	Total
	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dept for Trans	Year 2							Year 3						
	70(6)	74(7B)	19(1)	20(1)	55(5)	55(9)	Total	70(6)	74(7B)	19(1)	20(1)	55(5)	55(9)	Total
	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 50(b) AM 5 FPNs (Permit Breaches) – broken down by promoter														
Promoter														
ES Pipelines	**Year 2**							**Year 3**						
	70(6)	**74(7B)**	**19(1)**	**20(1)**	**55(5)**	**55(9)**	**Total**	**70(6)**	**74(7B)**	**19(1)**	**20(1)**	**55(5)**	**55(9)**	**Total**
	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EUNetworks	**Year 2**							**Year 3**						
	70(6)	**74(7B)**	**19(1)**	**20(1)**	**55(5)**	**55(9)**	**Total**	**70(6)**	**74(7B)**	**19(1)**	**20(1)**	**55(5)**	**55(9)**	**Total**
	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fulcrum Pipelin	**Year 2**							**Year 3**						
	70(6)	**74(7B)**	**19(1)**	**20(1)**	**55(5)**	**55(9)**	**Total**	**70(6)**	**74(7B)**	**19(1)**	**20(1)**	**55(5)**	**55(9)**	**Total**
	-	-	-	-	-	-	-	-	-	1	-	-	-	1
Gigaclear PLC	**Year 2**							**Year 3**						
	70(6)	**74(7B)**	**19(1)**	**20(1)**	**55(5)**	**55(9)**	**Total**	**70(6)**	**74(7B)**	**19(1)**	**20(1)**	**55(5)**	**55(9)**	**Total**
	-	-	1	1	-	-	2	10	4	4	1	-	15	34
Kier Highways	**Year 2**							**Year 3**						
	70(6)	**74(7B)**	**19(1)**	**20(1)**	**55(5)**	**55(9)**	**Total**	**70(6)**	**74(7B)**	**19(1)**	**20(1)**	**55(5)**	**55(9)**	**Total**
	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 50(c) AM 5 FPNs (Permit Breaches) – broken down by promoter														
Promoter														
Network Rail	**Year 2**							**Year 3**						
	70(6)	**74(7B)**	**19(1)**	**20(1)**	**55(5)**	**55(9)**	**Total**	**70(6)**	**74(7B)**	**19(1)**	**20(1)**	**55(5)**	**55(9)**	**Total**
	-	-	-	1	-	-	1	1	1	-	-	-	8	10
Orange	**Year 2**							**Year 3**						
	70(6)	**74(7B)**	**19(1)**	**20(1)**	**55(5)**	**55(9)**	**Total**	**70(6)**	**74(7B)**	**19(1)**	**20(1)**	**55(5)**	**55(9)**	**Total**
	-	-	-	-	-	-	-	-	-	-	-	-	-	-
O2	**Year 2**							**Year 3**						
	70(6)	**74(7B)**	**19(1)**	**20(1)**	**55(5)**	**55(9)**	**Total**	**70(6)**	**74(7B)**	**19(1)**	**20(1)**	**55(5)**	**55(9)**	**Total**
	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SGN	**Year 2**							**Year 3**						
	70(6)	**74(7B)**	**19(1)**	**20(1)**	**55(5)**	**55(9)**	**Total**	**70(6)**	**74(7B)**	**19(1)**	**20(1)**	**55(5)**	**55(9)**	**Total**
	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SSE Networks	**Year 2**							**Year 3**						
	70(6)	**74(7B)**	**19(1)**	**20(1)**	**55(5)**	**55(9)**	**Total**	**70(6)**	**74(7B)**	**19(1)**	**20(1)**	**55(5)**	**55(9)**	**Total**
	1	1	1	21	-	-	24	4	2	2	5	-	-	13

Table 50(d) AM 5 FPNs (Permit Breaches) – broken down by promoter														
Promoter														
SSE Telecoms	**Year 2**							**Year 3**						
	70(6)	**74(7B)**	**19(1)**	**20(1)**	**55(5)**	**55(9)**	**Total**	**70(6)**	**74(7B)**	**19(1)**	**20(1)**	**55(5)**	**55(9)**	**Total**
	-	-	-	-	-	-	-	4	-	-	-	-	-	4
Thames Water	**Year 2**							**Year 3**						
	70(6)	**74(7B)**	**19(1)**	**20(1)**	**55(5)**	**55(9)**	**Total**	**70(6)**	**74(7B)**	**19(1)**	**20(1)**	**55(5)**	**55(9)**	**Total**
	-	-	5	60	2	-	67	53	118	14	17	2	2	206
T Mobile	**Year 2**							**Year 3**						
	70(6)	**74(7B)**	**19(1)**	**20(1)**	**55(5)**	**55(9)**	**Total**	**70(6)**	**74(7B)**	**19(1)**	**20(1)**	**55(5)**	**55(9)**	**Total**
	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Virgin Media	**Year 2**							**Year 3**						
	70(6)	**74(7B)**	**19(1)**	**20(1)**	**55(5)**	**55(9)**	**Total**	**70(6)**	**74(7B)**	**19(1)**	**20(1)**	**55(5)**	**55(9)**	**Total**
	-	-	-	5	-	-	5	7	15	-	9	-	-	31
Vodafone	**Year 2**							**Year 3**						
	70(6)	**74(7B)**	**19(1)**	**20(1)**	**55(5)**	**55(9)**	**Total**	**70(6)**	**74(7B)**	**19(1)**	**20(1)**	**55(5)**	**55(9)**	**Total**
	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 50(e) AM 5 FPNs (Permit Breaches) – broken down by promoter														
Promoter														
Volker Highways	**Year 2**							**Year 3**						
	70(6)	**74(7B)**	**19(1)**	**20(1)**	**55(5)**	**55(9)**	**Total**	**70(6)**	**74(7B)**	**19(1)**	**20(1)**	**55(5)**	**55(9)**	**Total**
	-	-	-	1	1	2	4	-	-	-	-	-	-	-
Wales & West Utilities	**Year 2**							**Year 3**						
	70(6)	**74(7B)**	**19(1)**	**20(1)**	**55(5)**	**55(9)**	**Total**	**70(6)**	**74(7B)**	**19(1)**	**20(1)**	**55(5)**	**55(9)**	**Total**
	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zayo (Above nt)	**Year 2**							**Year 3**						
	70(6)	**74(7B)**	**19(1)**	**20(1)**	**55(5)**	**55(9)**	**Total**	**70(6)**	**74(7B)**	**19(1)**	**20(1)**	**55(5)**	**55(9)**	**Total**
	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WarwicNet	**Year 2**							**Year 3**						
	70(6)	**74(7B)**	**19(1)**	**20(1)**	**55(5)**	**55(9)**	**Total**	**70(6)**	**74(7B)**	**19(1)**	**20(1)**	**55(5)**	**55(9)**	**Total**
	-	-	-	-	-	-	-	1	3	-	-	-	-	4
Total	**Year 2**							**Year 3**						
	70(6)	**74(7B)**	**19(1)**	**20(1)**	**55(5)**	**55(9)**	**Total**	**70(6)**	**74(7B)**	**19(1)**	**20(1)**	**55(5)**	**55(9)**	**Total**
	1	1	9	138	4	3	156	82	154	21	40	3	30	330

Permit Breach Code Descriptions	
Code	**Description**
70(6)	Failure to comply with requirements to give notice of completion of reinstatement
74(7B)	Failure to give a notice under regulation 74 (charge for occupation of the highway where works unreasonably delayed)
19(1)	Works without a permit
20(1)	Permit breaches

11.6 AM 6 - Levels of Customer Enquiries

This information is not available at this time.

Table 51 AM 6 Levels of Customer Enquiries	
Number of instances	**Type of Enquiry**
No Data	No Data
No Data	No Data
No Data	No Data
No Data	No Data
No Data	No Data

11.7 AM 7 Average Journey Time and AM8 Journey Time Reliability

One of the anticipated key benefits of the Permit Scheme is an increase in traffic speeds as a result of a reduction in delay to traffic caused by road works.

As set out in the scope in Section 3.4 of this Evaluation, for a 5% reduction in delay, there is an expected improvement of 0.17% in journey time savings.

Vehicle speeds and journey times are generated through in-vehicle GPS units as part of the satellite navigation and stolen vehicle tracking services Trafficmaster provides to their customers. The specific raw data used to derive the Department's journey time statistics consist of 10-second GPS location reports for these vehicles for the period during which their ignition is on.

As part of the service provided to the DfT, Trafficmaster map these GPS location reports to the Ordnance Survey ITN (described earlier) and then use this information to reconstruct the routes taken by their customers as they move through the road network.

These reconstructed journeys, combined with the time stamps on the associated GPS location reports, allow Trafficmaster to estimate the time taken by these vehicles to traverse each ITN link. The data also allows journey times to be associated with a particular link direction if the ITN link in question can be traversed in either direction. Where the 10-second GPS location reports don't fall exactly on the start and end of each link, interpolation is used to estimate the time taken by the vehicles to complete each link.

Only data generated from cars, light goods vehicles and heavy goods vehicles are used to estimate journey times. All public service vehicles (e.g. buses) are excluded from the statistics as their frequent stopping/starting would report much slower journey times than actually prevail on the road.

In addition, in order to make the data representative of conditions during the most congested times, data is only included for journeys made during the morning peak, defined as 7am to 10am, and weekends and school holiday periods were excluded from the statistics.

The individual link journey times were then averaged for each ITN link and for all relevant journeys made during each month. ITN links were then matched for the representative period from April 2014 to March 2018. This process resulted in a single average journey time, in minutes, for each link.

The complete network for England consists of around 3.4 million separate 'links' and gives an extremely accurate dataset. In West Berkshire there are over 97,000 links with live data collected continuously. Due to the huge amount of data collected the data is aggregated to every 15 minutes AGPS (Aggregated Global Positioning System Data). For analysis data for A roads has been used as has the greatest impact with the most traffic flow.

For Year 1 Table 52(a) shows a slight decrease of 0.23% on journey times based on the assumption that all other network outcomes are equal. Table 58(a) shows that traffic flows have increase by 2% that would have some effect on journey times. The data indicates that the permit scheme has had a positive effect on reducing traffic delay on the network. If we look at the journey time reliability this shows a similar level of stability to the previous year. For Year 2 Table 52(b) shows a slight decrease of 0.31% on journey times based on the assumption that all other network outcomes are equal. Table 58(b) shows that traffic flows have decreased by 5% that would have some effect on journey times. For journey time reliability, there was a slightly more fluctuation in journey time to previous years. For Year 3 Table 52(c) shows a slight decrease of 0.53% on journey times based on the assumption that all other network outcomes are equal. Table 58(c) shows that traffic flows have increased by 1% that would have some effect on journey times. The data indicates that the permit scheme has had a positive effect on reducing traffic delay on the network. For journey time reliability, there is slightly less fluctuation in journey time reliability that and could mean that the journey time is settling and could be an indication that the permit scheme is helping to make the network run more smoothly.

Table 52(a) AM 7 Average Journey Times & AM 8 Journey Time Reliability														
Year 1														
Average journey time (minutes per mile) (Source Trafficmaster AGPS) Average journey times all vehicles on locally managed 'A' roads:														
Local Authority	**ONS area code**		**Apr-14**	**May-14**	**Jun-14**	**Jul-14**	**Aug-14**	**Sep-14**	**Oct-14**	**Nov-14**	**Dec-14**	**Jan-15**	**Feb-15**	**Mar-15**
			Pre-scheme											
West Berkshire UA	***E06000037 (00MB)***	**AJT (mpm)**	2.14	2.15	2.17	2.18	2.13	2.17	2.20	2.22	2.20	2.21	2.20	2.17
		% Compare	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**
% Average Journey Time increase/decrease			**-**	**-**	**-**	**-**	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Local Authority	**ONS area code**		**Apr-15**	**May-15**	**Jun-15**	**Jul-15**	**Aug-15**	**Sep-15**	**Oct-15**	**Nov-15**	**Dec-15**	**Jan-16**	**Feb-16**	**Mar-16**
			Post-scheme											
West Berkshire UA	***E06000037 (00MB)***	**AJT (mpm)**	2.15	2.17	2.18	2.16	2.14	2.17	2.19	2.21	2.18	2.19	2.17	2.15
		% Compare	**1.01**	**1.01**	**1.01**	**0.99**	**1.01**	**1.00**	**0.99**	**1.00**	**0.99**	**0.99**	**0.99**	**0.99**
% Average Journey Time increase/decrease			**-0.01**	**-0.01**	**-0.01**	**0.01**	**-0.01**	**0.00**	**0.01**	**0.00**	**0.01**	**0.01**	**0.01**	**0.01**
Total Average			**0.23%**											

Table 52(b) AM 7 Average Journey Times & AM 8 Journey Time Reliability														
Year 2														
Average journey time (minutes per mile) (Source Trafficmaster AGPS) Average journey times all vehicles on locally managed 'A' roads:														
Local Authority	ONS area code		Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16
			Post-scheme											
West Berkshire UA	*E06000037 (00MB)*	AJT (mpm)	2.15	2.17	2.18	2.16	2.14	2.17	2.19	2.21	2.18	2.19	2.17	2.15
		% Compare	**1.01**	**1.01**	**1.01**	**0.99**	**1.01**	**1.00**	**0.99**	**1.00**	**0.99**	**0.99**	**0.99**	**0.99**
% Average Journey Time increase/decrease			**-0.01**	**-0.01**	**-0.01**	**0.01**	**-0.01**	**0.00**	**0.01**	**0.00**	**0.01**	**0.01**	**0.01**	**0.01**
Local Authority	ONS area code		Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17
			Post-scheme											
West Berkshire UA	*E06000037 (00MB)*	AJT (mpm)	2.15	2.18	2.17	2.15	2.13	2.18	2.17	2.22	2.19	2.16	2.13	2.11
		% Compare	**1.00**	**1.01**	**0.99**	**1.00**	**0.99**	**1.00**	**0.99**	**1.00**	**1.00**	**0.99**	**0.98**	**0.98**
% Average Journey Time increase/decrease			**0.01**	**0.00**	**0.02**	**-0.00**	**0.01**	**-0.00**	**0.00**	**-0.01**	**-0.01**	**0.00**	**0.01**	**0.02**
Total Average			0.31%											

Table 52(c) AM 7 Average Journey Times & AM 8 Journey Time Reliability														
Year 3														
Average journey time (minutes per mile) (Source Trafficmaster AGPS) Average journey times all vehicles on locally managed 'A' roads:														
Local Authority	**ONS area code**		**Apr-16**	**May-16**	**Jun-16**	**Jul-16**	**Aug-16**	**Sep-16**	**Oct-16**	**Nov-16**	**Dec-16**	**Jan-17**	**Feb-17**	**Mar-17**
			Post-scheme											
West Berkshire UA	***E06000037 (00MB)***	**AJT (mpm)**	2.15	2.18	2.17	2.15	2.13	2.18	2.17	2.22	2.19	2.16	2.13	2.11
		% Compare	**1.00**	**1.01**	**0.99**	**1.00**	**0.99**	**1.00**	**0.99**	**1.00**	**1.00**	**0.99**	**0.98**	**0.98**
% Average Journey Time increase/decrease			**0.01**	**0.00**	**0.02**	**0.00**	**0.01**	**0.00**	**0.00**	**-0.01**	**-0.01**	**0.00**	**0.01**	**0.02**
Local Authority	**ONS area code**		**Apr-17**	**May-17**	**Jun-17**	**Jul-17**	**Aug-17**	**Sep-17**	**Oct-17**	**Nov-17**	**Dec-17**	**Jan-18**	**Feb-18**	**Mar-18**
			Post-scheme											
West Berkshire UA	***E06000037 (00MB)***	**AJT (mpm)**	2.09	2.13	2.13	2.10	2.09	2.14	2.14	2.18	2.17	2.15	2.14	2.20
		% Compare	**0.97**	**0.98**	**0.99**	**0.98**	**0.98**	**0.98**	**0.99**	**0.98**	**0.99**	**1.00**	**1.00**	**1.04**
% Average Journey Time increase/decrease			**0.03**	**0.03**	**0.01**	**0.02**	**0.01**	**0.02**	**0.00**	**0.02**	**0.02**	**-0.01**	**-0.02**	**-0.06**
Total Average			**0.53%**											

11.8 AM 9 - Road Traffic Collisions

Road Traffic collisions have been analysed for 2014 pre-Permit Scheme and 2015 post-Permit Scheme.

To estimate the predicted collisions post-scheme compared to the actual data collected, trends were analysed from reported collision statistics from 2009-2013 PIA that shows an annual average reduction of 17 collisions or 1.4 per month.

The actual data as shown on Table 53(a) shows that there has been a decrease of 10% in collisions compared to the 2014 collisions and decrease of 5% based on the predicted trends. This would indicate a positive benefit of the Permit Scheme on the basis that all other network outcomes are equal. A contributing factor would be reduced disruption of road works by improved traffic management, signage and diversion routes and less variable speeds reducing the risks to drivers.

For Year 2 Table 53(b) shows there has been an increase of 1% in collisions compared to 2016 and an increase of 2% which could indicate that improvements are required with the Permit Scheme however this could be a fluctuation in collisions not related to the scheme.

For Year 3 Table 53(c) shows there has been a decrease of 20% in collisions compared to 2016 and a decrease of 14% based on predicted trends. This would be very positive benefit of the Permit Scheme on the basis that all other network outcomes are equal.

Table 53(a) AM 9 Road Traffic Collisions						
Year 1						
Previous Year		Predicted*		Actual		
Month-Year	Total	Month-Year	Total	Month-Year	Total	% Diff
Jan-14	27	Jan-15	26	Jan-15	20	77%
Feb-14	31	Feb-15	29	Feb-15	25	86%
Mar-14	29	Mar-15	27	Mar-15	29	107%
Apr-14	29	Apr-15	28	Apr-15	20	71%
May-14	19	May-15	18	May-15	14	78%
Jun-14	24	Jun-15	23	Jun-15	29	126%
Jul-14	31	Jul-15	29	Jul-15	35	121%
Aug-14	17	Aug-15	16	Aug-15	30	188%
Sep-14	26	Sep-15	25	Sep-15	26	104%
Oct-14	35	Oct-15	33	Oct-15	32	97%
Nov-14	30	Nov-15	28	Nov-15	17	61%
Dec-14	27	Dec-15	26	Dec-15	17	65%
Total	325	Total	308	Total	294	95%

Table 53(b) AM 9 Road Traffic Collisions						
Year 2						
Previous Year		Predicted		Actual		
Month-Year	Total	Month-Year	Total	Month-Year	Total	% Diff
Jan-15	20	Jan-16	25	Jan-16	27	108%
Feb-15	25	Feb-16	27	Feb-16	25	93%
Mar-15	29	Mar-16	25	Mar-16	15	60%
Apr-15	20	Apr-16	27	Apr-16	24	89%
May-15	14	May-16	17	May-16	27	159%
Jun-15	29	Jun-16	22	Jun-16	23	105%
Jul-15	35	Jul-16	27	Jul-16	24	89%
Aug-15	30	Aug-16	15	Aug-16	37	247%
Sep-15	26	Sep-16	24	Sep-16	22	92%
Oct-15	32	Oct-16	31	Oct-16	24	77%
Nov-15	17	Nov-16	26	Nov-16	26	100%
Dec-15	17	Dec-16	25	Dec-16	24	96%
Total	294	Total	291	Total	298	102%

Table 53(c) AM 9 Road Traffic Collisions						
Year 3						
Previous Year		Predicted		Actual		
Month-Year	Total	Month-Year	Total	Month-Year	Total	% Diff
Jan-16	27	Jan-17	24	Jan-17	19	79%
Feb-16	25	Feb-17	25	Feb-17	17	68%
Mar-16	15	Mar-17	24	Mar-17	21	88%
Apr-16	24	Apr-17	25	Apr-17	14	56%
May-16	27	May-17	16	May-17	30	188%
Jun-16	23	Jun-17	21	Jun-17	18	86%
Jul-16	24	Jul-17	25	Jul-17	25	100%
Aug-16	37	Aug-17	14	Aug-17	17	121%
Sep-16	22	Sep-17	23	Sep-17	21	91%
Oct-16	24	Oct-17	29	Oct-17	20	69%
Nov-16	26	Nov-17	24	Nov-17	21	88%
Dec-16	24	Dec-17	24	Dec-17	14	58%
Total	298	Total	274	Total	237	86%

11.9 AM 10 - Carbon Emissions

The result of reduced congestion is a reduction in fuel consumption and CO2 emissions.

Data has been collected from the DfT on traffic flow sites on major and minor roads in West Berkshire that identifies 47 locations as shown on Table 54 and 55 with traffic flows by vehicle type.

The data shows that traffic levels have increased by 2% from 2014 to 2015.

The average traffic speed from the DfT on Table 56 has been used for comparison. The DfT carbon tool has been used using the traffic flow and average speed to predict carbon emissions that is summarized in Table 57.

Table 58 compares output pre-Permit Scheme and post-Permit Scheme.

The summary shows that there has been increase in traffic speed of 14% and carbon emissions have decreased by 2%. Due to the increases in traffic flow this will affect the carbon emissions and traffic speed and therefore it is not possible to conclude if the scheme has reduced any carbon output.

As the Permit Scheme progresses the Highway Authority will continue to work with Utilities to reduce disruption wherever possible and monitor these elements.

For Year 2 Table 58(b) shows that traffic speed has increased by 3% and carbon emissions have increased by 1% mainly due to the increase on traffic flow.

For Year 3 Table 58(c) shows traffic speed has increased by 3% and carbon emissions have decreased by 4%. This is very positive for the Permit scheme.

Table 54(a) AM 10 Carbon Emissions - DfT Traffic Count Sites

Ref No	DfT Traffic Count Sites									
	CP	Region	Local Authority	Road	Road Category	Easting	Northing	Start Junction	End Junction	LinkLength_km
1	6129	South East	West Berkshire	A4	PA	446,000	167,940	A34 spur	B4494	1.6
2	6364	South East	West Berkshire	A339	PA	447,081	169,543	A4 intersection	A34	3.5
3	6936	South East	West Berkshire	A338	PA	436,130	173,000	M4	B4000	1.1
4	6942	South East	West Berkshire	A340	PA	463,500	175,000	A4	A329	5.9
5	8059	South East	West Berkshire	A339	PA	447,342	166,788	A343	A4 intersection	1.3
6	16118	South East	West Berkshire	A4	PA	434,000	168,920	A338	A338	0.3
7	16882	South East	West Berkshire	A329	PA	460,000	179,450	B4009	A340	6.3
8	16903	South East	West Berkshire	A340	PA	459,100	165,000	B3051	Church rd	2.7
9	18305	South East	West Berkshire	A343	PA	446,920	166,400	Garden Close Lane	A339	3.4
10	18684	South East	West Berkshire	A4	PA	460,500	167,730	A340	A340	4.3
11	26122	South East	West Berkshire	A4	PA	447,000	167,870	B4494	A339	1.0
12	26963	South East	West Berkshire	A338	PA	439,100	176,300	B4000	LA Boundary	11.3

13	36126	South East	West Berkshire	A4	PA	463,750	170,710	A340	Waterside Drive, Theale	1.7
14	36127	South East	West Berkshire	A4	PA	440,000	168,400	A338	A34 spur	10.9
15	36979	South East	West Berkshire	A329	PA	465,000	176,100	A340	Westbury Lane, Purley	2.1
16	36996	South East	West Berkshire	A339	PA	450,000	163,885	LA Boundary	Old A34	3.4
17	36998	South East	West Berkshire	A340	PA	460,000	166,900	Church Rd	A4	2.9
18	38784	South East	West Berkshire	A4	PA	465,250	171,700	M4	LA Boundary	2.9

Table 54(b) AM 10 Carbon Emissions - DfT Traffic Count Sites

Ref No	DfT Traffic Count Sites									
	CP	Region	Local Authority	Road	Road Category	Easting	Northing	Start Junction	End Junction	LinkLength_km
19	46128	South East	West Berkshire	A4	PA	460,000	167,400	Pipers Way, Thatcham	A340	7.5
20	47862	South East	West Berkshire	A339	PA	447,409	166,000	PINCHINGTON LANE	A343	1.3
21	56129	South East	West Berkshire	A4	PA	433,700	168,960	B4192	A338	0.4
22	56991	South East	West Berkshire	A338	PA	434,760	170,000	A4	M4	4.3
23	57139	South East	West Berkshire	A329	PA	459,125	181,000	A417	B4009	0.3
24	73890	South East	West Berkshire	A417	PA	458,760	182,000	LA Boundary	A329	1.5
25	73891	South East	West Berkshire	A329	PA	459,250	182,000	A417	LA Boundary	1.8
26	74034	South East	West Berkshire	A340	PA	459,550	162,550	LA Boundary	B3051	1.4
27	74038	South East	West Berkshire	A4	PA	432,000	168,520	LA Boundary	B4192	3.3
28	74039	South East	West Berkshire	A338	PA	433,160	167,000	LA Boundary	A4	4.2
29	75106	South East	West Berkshire	A4	PA	444,900	168,090	A34 spur	A34 spur	0.5
30	78259	South East	West Berkshire	A343	PA	445,390	163,500	LA Boundary	Garden Close Lane, Newbury	0.6
31	78260	South East	West Berkshire	A4	PA	450,000	167,680	A339 intersection	Pipers Way, Thatcham	5.9
32	78282	South East	West Berkshire	A4	PA	464,870	171,400	Waterside Drive, Theale	M4	0.5

Table 54(c) AM 10 Carbon Emissions - DfT Traffic Count Sites

Ref No	DfT Traffic Count Sites									
	CP	Region	Local Authority	Road	Road Category	Easting	Northing	Start Junction	End Junction	LinkLength_km
33	78283	South East	West Berkshire	A329	PA	466,220	176,000	Westbury Lane	LA Boundary	1.9
34	80639	South East	West Berkshire	A339	PA	447,500	164,900	B4640	PINCHINGTON LANE	1.6
35	946395	South East	West Berkshire	B4494	MB	446,658	169,382	B4494	A34	1.1
36	946396	South East	West Berkshire	B4009	MB	448,663	169,447	Love Lane	Red Shute Hill	4.2
37	946398	South East	West Berkshire	B4009	MB	457,457	180,004	Reading Road	Reading Road	4.0

38	946401	South East	West Berkshire	B3421	MB	447,464	167,043	Kings Road	B3421	0.5
39	946402	South East	West Berkshire	Church Hill	MCU	438,808	170,063	Station Road	B4000	2.5
40	946404	South East	West Berkshire	Inkpen Road	MCU	434,902	166,491	Inglewood Road	Old Anvilles	1.2
41	946406	South East	West Berkshire	Beech Hill Road	MCU	470,016	164,748	Park View	Cross Lane	0.8
42	946407	South East	West Berkshire	Tyler's Lane	MCU	453,653	170,290	Holly Lane	Marlston Road	1.4
43	946409	South East	West Berkshire	Brewery Common	MCU	465,840	165,456	Nightingale Lane	Goring Lane	1.3
44	946413	South East	West Berkshire	Fir Tree Lane	MCU	449,185	167,791	Turnpike Road	A4	0.4
45	946417	South East	West Berkshire	Church Road	MCU	443,357	168,445	A4	B4000	0.5
46	946427	South East	West Berkshire	Ilkley Way	MCU	451,304	166,987	The Moors	Urquhart Road	0.8
47	946428	South East	West Berkshire	Old Newton Road	MCU	447,010	166,043	Newton Road	Andover Road	0.6
									Totals	**122.8**

Table 55(b) AM 10 Carbon Emissions - Traffic Count Data													
Year 1													
2014 Flow Data													
Pre-scheme													
Ref No	**Pedal Cycles**	**Motorcycles**	**Cars Taxis**	**Buses Coaches**	**Light Goods Vehicles**	**V2AxleRigidHGV**	**V3AxleRigidHGV**	**V4or5AxleRigidHGV**	**V3or4AxleArticHGV**	**V5AxleArticHGV**	**V6orMoreAxleArticHGV**	**All HGVs**	**All Motor Vehicles**
19	17	180	11,123	120	2,429	527	111	63	134	28	398	1,259	15,112
20	19	171	19,526	114	2,997	371	120	49	32	104	443	1,118	23,926
21	37	87	8,184	30	1,393	190	26	17	57	19	38	347	10,041
22	6	94	7,024	59	1,408	217	64	1	33	16	83	413	8,998
23	8	61	6,187	43	1,469	197	14	1	5	2	1	220	7,979
24	4	35	3,400	10	891	52	11	2	10	4	6	85	4,421
25	28	39	5,639	23	1,131	126	18	1	11	6	1	163	6,995
26	145	62	11,488	158	2,194	257	68	14	210	15	39	603	14,505
27	8	106	5,205	24	816	134	26	11	31	40	52	294	6,446
28	-	24	2,390	6	633	31	28	-	8	5	12	84	3,138
29	21	107	15,824	55	2,542	242	72	8	26	20	96	463	18,991
30	220	67	10,399	91	1,644	89	28	-	8	1	1	126	12,326
31	315	87	13,747	195	3,510	406	137	20	91	33	245	932	18,470
32	39	162	24,765	95	4,044	839	172	223	307	304	283	2,128	31,193
33	70	54	7,626	53	1,194	131	39	1	32	-	1	205	9,131
34	18	134	19,959	147	3,052	397	66	77	63	189	205	997	24,288

35	15	25	2,315	4	269	30	10	2	5	-	-	47	2,659
36	52	55	4,638	13	723	80	9	1	6	4	6	107	5,536

Table 55(c) AM 10 Carbon Emissions - Traffic Count Data													
Year 1													
2014 Flow Data													
Pre-scheme													
Ref No	**Pedal Cycles**	**Motorcycles**	**Cars Taxis**	**Buses Coaches**	**Light Goods Vehicles**	**V2AxleRigidHGV**	**V3AxleRigidHGV**	**V4or5AxleRigidHGV**	**V3or4AxleArticHGV**	**V5AxleArticHGV**	**V6orMoreAxleArticHGV**	**All HGVs**	**All Motor Vehicles**
37	112	20	2,150	1	367	33	2	-	2	1	-	38	2,576
38	22	18	4,850	23	1,122	52	1	1	1	1	1	57	6,070
39	3	2	138	2	33	3	-	-	-	-	-	3	178
40	14	5	538	11	126	6	-	-	1	-	2	9	689
41	205	21	1,937	5	502	33	2	-	3	-	-	37	2,501
42	16	-	107	-	30	4	1	-	-	-	-	6	143
43	40	11	1,296	-	144	8	2	-	-	-	-	10	1,461
44	74	23	3,531	53	463	27	11	-	5	-	-	43	4,114
45	14	1	315	3	51	6	3	-	-	-	-	9	380
46	27	9	1,400	8	160	1	-	-	-	-	-	1	1,578
47	29	-	376	-	35	1	-	-	-	-	-	1	413
Totals	**2,383**	**4,019**	**441,548**	**2,518**	**79,878**	**10,403**	**2,184**	**1,213**	**2,486**	**2,106**	**3,832**	**22,218**	**550,178**

Table 55(d) AM 10 Carbon Emissions - Traffic Count Data													
Year 1													
2015 Flow Data													
Post-scheme													
Ref No	**Pedal Cycles**	**Motorcycles**	**Cars Taxis**	**Buses Coaches**	**Light Goods Vehicles**	**V2AxleRigidHGV**	**V3AxleRigidHGV**	**V4or5AxleRigidHGV**	**V3or4AxleArticHGV**	**V5AxleArticHGV**	**V6orMoreAxleArticHGV**	**All HGVs**	**All Motor Vehicles**
1	85	119	14,745	24	2,295	200	31	20	38	19	20	327	17,511
2	-	157	22,039	46	3,581	570	88	157	105	315	390	1,626	27,449
3	5	79	5,200	34	1,261	239	79	5	24	10	84	442	7,016
4	34	88	9,458	29	2,247	147	17	1	7	1	3	176	11,998
5	42	247	30,532	174	5,358	583	131	91	84	112	321	1,322	37,632
6	45	101	13,221	51	2,484	266	47	46	63	67	94	583	16,439
7	9	100	6,840	49	1,852	137	7	2	5	2	7	160	9,001
8	12	45	5,864	30	1,787	290	91	19	210	14	95	720	8,446

9	225	65	11,654	107	1,894	93	31	-	8	1	1	134	13,854
10	56	360	18,013	99	3,925	671	151	158	156	144	270	1,549	23,946
11	26	81	16,187	20	2,941	314	69	8	38	4	24	456	19,685
12	9	49	2,372	6	819	63	16	3	20	9	29	141	3,386
13	17	161	23,273	55	3,934	880	212	142	434	315	340	2,323	29,745
14	28	85	9,861	20	1,381	165	51	15	33	19	23	307	11,655
15	108	121	7,710	37	1,419	114	21	4	9	-	1	149	9,436
16	5	188	15,023	109	2,526	343	39	59	49	263	103	856	18,702
17	39	60	6,140	54	1,506	283	51	38	214	43	63	693	8,453
18	63	287	29,070	220	5,427	576	99	47	75	67	97	960	35,964

Table 55(e) AM 10 Carbon Emissions - Traffic Count Data													
Year 1													
2015 Flow Data													
Post-scheme													
Ref No	**Pedal Cycles**	**Motorcycles**	**Cars Taxis**	**Buses Coaches**	**Light Goods Vehicles**	**V2AxleRigidHGV**	**V3AxleRigidHGV**	**V4or5AxleRigidHGV**	**V3or4AxleArticHGV**	**V5AxleArticHGV**	**V6orMoreAxleArticHGV**	**All HGVs**	**All Motor Vehicles**
19	52	143	12,367	83	2,578	533	102	116	216	195	217	1,378	16,550
20	42	178	18,753	41	2,816	357	80	77	39	196	169	919	22,707
21	37	83	8,087	30	1,492	190	29	22	57	19	38	354	10,046
22	6	90	6,941	61	1,507	217	69	1	33	16	83	419	9,018
23	8	58	6,114	44	1,572	197	15	1	5	2	1	221	8,009
24	4	33	3,360	10	954	52	12	3	10	4	6	86	4,444
25	28	38	5,572	24	1,210	126	19	1	11	6	1	164	7,008
26	135	55	11,715	170	2,301	244	70	17	199	14	38	582	14,823
27	8	101	5,144	25	873	134	29	13	31	40	53	300	6,443
28	-	23	2,362	7	678	31	30	-	8	5	12	87	3,156
29	64	161	16,043	31	2,358	237	46	45	40	46	48	461	19,054
30	205	59	10,605	98	1,724	85	28	-	7	1	1	122	12,607
31	293	76	14,019	210	3,681	385	140	24	86	32	236	903	18,890
32	19	179	25,833	61	4,366	977	236	157	481	350	377	2,578	33,017
33	65	47	7,777	57	1,252	124	40	1	30	-	1	197	9,331
34	18	138	20,561	144	3,392	415	75	98	66	196	212	1,062	25,298
35	12	36	2,654	2	296	39	3	-	1	-	1	43	3,031
36	17	39	4,100	10	684	74	1	3	3	4	5	90	4,924

Table 55(f) AM 10 Carbon Emissions - Traffic Count Data													
Year 1													
2015 Flow Data													
Post-scheme													
Ref No	**Pedal Cycles**	**Motorcycles**	**Cars Taxis**	**Buses Coaches**	**Light Goods Vehicles**	**V2AxleRigidHGV**	**V3AxleRigidHGV**	**V4or5AxleRigidHGV**	**V3or4AxleArticHGV**	**V5AxleArticHGV**	**V6orMoreAxleArticHGV**	**All HGVs**	**All Motor Vehicles**
37	15	5	1,722	1	363	24	2	-	1	-	-	27	2,118
38	38	42	5,878	10	1,240	98	8	2	7	4	2	121	7,291
39	11	-	153	-	36	1	-	-	-	-	-	1	189
40	10	18	615	13	98	14	-	-	1	-	-	14	758
41	34	24	2,051	7	390	25	2	5	8	-	-	40	2,513
42	6	-	72	-	43	-	-	-	-	-	-	-	115
43	24	20	1,331	-	126	6	2	-	-	-	-	8	1,485
44	71	20	3,556	54	472	27	11	-	5	-	-	43	4,146
45	2	-	284	4	53	1	2	-	-	-	-	2	344
46	26	11	1,397	3	184	11	-	-	-	-	-	11	1,606
47	18	-	448	-	55	1	-	-	-	-	-	1	504
Totals	**2,076**	**4,070**	**446,716**	**2,364**	**83,431**	**10,559**	**2,282**	**1,401**	**2,917**	**2,535**	**3,466**	**23,158**	**559,743**

Table 55(g) AM 10 Carbon Emissions - Traffic Count Data													
Year 2													
2016 Flow Data													
Post-scheme													
Ref No	**Pedal Cycles**	**Motorcycles**	**Cars Taxis**	**Buses Coaches**	**Light Goods Vehicles**	**V2AxleRigidHGV**	**V3AxleRigidHGV**	**V4or5AxleRigidHGV**	**V3or4AxleArticHGV**	**V5AxleArticHGV**	**V6orMoreAxleArticHGV**	**All HGVs**	**All Motor Vehicles**
1	79	117	14975	22	2507	203	31	21	43	17	19	333	17954
2	0	157	22312	45	3867	598	84	161	121	295	402	1662	28044
3	3	56	6151	9	1197	237	37	32	36	48	58	448	7861
4	34	89	9575	29	2426	154	17	1	8	1	3	183	12302
5	39	242	31009	161	5852	591	130	95	95	99	316	1326	38589
6	44	101	13386	50	2682	279	45	47	72	63	96	603	16822
7	18	50	5896	22	1176	98	8	3	7	4	1	121	7264
8	12	45	5936	30	1930	305	87	19	241	13	98	764	8705
9	138	93	11414	52	1446	70	14	2	7	8	3	104	13109
10	55	360	18236	98	4239	704	144	163	179	135	278	1602	24535

11	72	123	12187	12	1824	168	27	28	17	40	22	303	14449
12	9	49	2401	6	884	66	16	3	23	9	30	147	3487
13	17	161	23562	54	4248	924	203	146	499	294	350	2416	30441
14	28	86	9983	20	1492	173	49	15	38	18	24	318	11898
15	107	121	7806	37	1533	120	20	4	11	0	1	155	9651
16	5	188	15210	108	2728	360	37	61	56	246	106	866	19099
17	39	60	6216	54	1626	297	49	39	247	40	65	737	8693
18	59	280	29524	204	5928	585	98	49	84	59	95	970	36906

Table 55(h) AM 10 Carbon Emissions - Traffic Count Data

Year 2

2016 Flow Data

Post-scheme

Ref No	Pedal Cycles	Motorcycles	Cars Taxis	Buses Coaches	Light Goods Vehicles	V2AxleRigidHGV	V3AxleRigidHGV	V4or5AxleRigidHGV	V3or4AxleArticHGV	V5AxleArticHGV	V6orMoreAxleArticHGV	All HGVs	All Motor Vehicles
19	52	144	12520	82	2784	559	98	119	248	182	223	1430	16960
20	39	174	19046	38	3076	362	80	80	44	174	166	906	23240
21	19	82	9000	16	1448	163	30	17	22	36	47	315	10861
22	6	90	7027	60	1628	228	66	1	38	15	86	433	9238
23	67	94	7368	28	1359	95	6	6	4	2	1	113	8962
24	4	33	3402	10	1030	55	12	3	11	4	6	90	4565
25	28	38	5641	23	1307	132	18	1	13	6	1	171	7181
26	126	54	11898	157	2513	247	69	18	225	12	37	608	15231
27	8	101	5208	24	943	141	27	14	36	37	54	309	6586
28	0	23	2391	7	732	33	29	0	9	5	13	88	3241
29	63	161	16242	31	2547	248	44	46	46	43	49	476	19457
30	126	84	10387	47	1316	64	13	2	6	8	3	95	11929
31	316	137	13081	198	2329	285	76	77	57	161	145	801	16547
32	19	179	26153	60	4715	1025	225	162	554	326	389	2681	33790
33	61	46	7898	53	1368	126	40	1	34	0	1	203	9568

Table 55(i) AM 10 Carbon Emissions - Traffic Count Data

Year 2

2016 Flow Data

Post-scheme

Ref No	Pedal Cycles	Motorcycles	Cars Taxis	Buses Coaches	Light Goods Vehicles	V2AxleRigidHGV	V3AxleRigidHGV	V4or5AxleRigidHGV	V3or4AxleArticHGV	V5AxleArticHGV	V6orMoreAxleArticHGV	All HGVs	All Motor Vehicles
34	18	138	20817	142	3663	435	72	101	75	183	219	1086	25846
35	25	24	2728	2	325	23	4	1	14	1	2	45	3123
36	18	43	4098	11	755	39	6	1	4	8	7	66	4972
37	27	13	2035	1	327	27	5	0	5	0	0	36	2412
38	39	42	5907	10	1296	101	8	2	7	4	2	123	7379
39	8	0	137	0	54	1	0	0	0	0	0	1	192
40	20	8	631	7	202	17	2	3	2	0	1	24	872
41	43	25	2267	3	494	38	6	2	1	1	0	47	2835
42	6	0	75	0	42	0	0	0	0	0	0	0	118
43	14	10	1469	0	136	6	2	0	0	0	0	8	1623
44	53	21	3773	47	507	28	14	0	1	0	1	44	4393
45	4	0	312	0	62	2	0	0	0	0	0	2	375
46	36	10	1211	8	154	3	1	0	0	0	0	4	1387
47	20	1	402	0	40	1	0	0	0	0	0	1	444
Totals	**1,962**	**3,948**	**421,260**	**1,923**	**79,994**	**9,919**	**1,967**	**1,443**	**3,147**	**2,405**	**3,192**	**22,067**	**529,195**

Table 55(j) AM 10 Carbon Emissions - Traffic Count Data													
Year 3													
2017 Flow Data													
Post-scheme													
Ref No	Pedal Cycles	Motorcycles	Cars Taxis	Buses Coaches	Light Goods Vehicles	V2AxleRigidHGV	V3AxleRigidHGV	V4or5AxleRigidHGV	V3or4AxleArticHGV	V5AxleArticHGV	V6orMoreAxleArticHGV	All HGVs	All Motor Vehicles
1	76	118	14865	21	2639	201	31	22	44	17	20	334	17977
2	4	128	19987	26	3315	479	66	85	78	342	398	1448	24905
3	3	55	6143	9	1267	244	39	32	38	48	59	460	7934
4	34	86	9563	28	2568	159	17	1	8	1	3	189	12434
5	215	274	34351	228	4545	522	108	59	58	70	308	1124	40523
6	15	142	13166	29	2487	191	52	23	52	53	61	431	16256
7	18	49	5888	22	1244	101	8	3	7	4	1	124	7327
8	12	44	5929	29	2042	314	90	20	250	13	101	788	8832
9	132	94	11330	48	1522	70	14	2	7	8	3	104	13099
10	35	164	18848	75	4028	507	122	108	176	200	239	1352	24467
11	69	124	12097	11	1920	167	28	29	18	40	22	304	14457
12	9	47	2398	5	936	68	16	3	24	9	31	151	3538
13	11	232	26203	38	4270	758	154	64	326	52	574	1928	32670

14	28	83	9971	20	1579	178	51	15	39	18	25	327	11979
15	108	117	7796	36	1622	123	21	4	11	0	1	160	9731
16	5	183	15191	105	2887	370	38	62	58	247	109	884	19250
17	39	58	6209	52	1721	306	51	40	256	40	67	759	8799
18	15	281	33932	106	4654	510	76	45	142	34	154	961	39933

Table 55(k) AM 10 Carbon Emissions - Traffic Count Data

Year 3

2017 Flow Data

Post-scheme

Ref No	Pedal Cycles	Motorcycles	Cars Taxis	Buses Coaches	Light Goods Vehicles	V2AxleRigidHGV	V3AxleRigidHGV	V4or5AxleRigidHGV	V3or4AxleArticHGV	V5AxleArticHGV	V6orMoreAxleArticHGV	All HGVs	All Motor Vehicles
19	52	140	12505	80	2946	576	101	121	257	183	229	1467	17138
20	37	176	18906	36	3238	359	81	83	45	173	173	915	23271
21	19	80	8989	16	1533	167	31	17	23	36	48	323	10940
22	6	88	7019	58	1722	235	69	1	39	15	88	446	9333
23	67	92	7359	27	1438	98	6	6	4	2	1	117	9032
24	4	32	3398	10	1090	56	12	3	11	4	6	93	4622
25	28	37	5634	23	1383	136	19	1	13	6	1	176	7253
26	126	52	11884	153	2660	254	72	18	233	12	38	628	15377
27	8	98	5201	24	998	145	28	14	37	37	56	317	6639
28	0	22	2389	6	775	34	30	0	10	5	13	91	3282
29	64	157	16223	30	2695	256	46	47	47	43	51	489	19593
30	120	85	10310	44	1385	63	13	2	7	8	3	95	11920
31	303	138	12985	185	2452	283	77	80	58	161	151	810	16570
32	12	257	29085	42	4739	841	171	72	361	58	637	2140	36264
33	58	47	7840	49	1440	125	40	1	35	0	1	203	9579

Table 55(l) AM 10 Carbon Emissions - Traffic Count Data

Year 3

2017 Flow Data

Post-scheme

Ref No	Pedal Cycles	Motorcycles	Cars Taxis	Buses Coaches	Light Goods Vehicles	V2AxleRigidHGV	V3AxleRigidHGV	V4or5AxleRigidHGV	V3or4AxleArticHGV	V5AxleArticHGV	V6orMoreAxleArticHGV	All HGVs	All Motor Vehicles
34	18	135	20791	138	3877	448	74	103	78	183	225	1112	26053
35	18	26	2532	3	332	29	3	0	8	0	0	40	2933

36	52	32	4387	27	742	45	8	5	10	9	4	81	5270
37	25	17	2023	4	331	26	6	4	3	0	0	40	2414
38	51	50	5215	61	1193	55	5	1	2	4	1	67	6587
39	2	0	103	2	37	4	0	0	0	0	0	4	145
40	13	4	624	4	82	18	2	0	2	2	1	24	739
41	23	10	2374	3	409	28	5	2	1	2	6	43	2839
42	7	0	92	0	30	3	0	0	0	0	0	3	124
43	20	2	1440	0	138	15	1	0	1	0	0	16	1597
44	68	40	3697	41	504	27	20	2	27	1	0	77	4359
45	4	0	266	1	50	1	2	0	0	0	0	3	320
46	49	4	1530	21	192	4	0	0	0	0	0	4	1750
47	36	0	389	0	26	4	0	0	0	0	0	4	419
Totals	**2,030**	**3,907**	**431,347**	**1,808**	**78,732**	**9,081**	**1,819**	**1,092**	**2,808**	**1,948**	**3,680**	**20,423**	**536,217**

Table 56 AM 10 Carbon Emissions - Traffic Speed					
Average traffic speed (miles per mile) (Source DfT Congestion & Reliability Statistics Table CGN0501b) Average traffic speeds on local 'A' roads					
Year 1		**Year 2**		**Year 3**	
Period		**Period**		**Period**	
2014	**2015**	**2015**	**2016**	**2016**	**2017**
Pre-scheme	**Post-scheme**	**Post-scheme**	**Post-scheme**	**Post-scheme**	**Post-scheme**
26.8	30.5	30.5	29.7	29.7	30.7

Table 57(a) AM 10 Carbon Emissions - DfT Sites													
Year 1													
2014 Total Emissions (thousand tonnes CO2)													
Pre-scheme													
Ref No	**Pedal Cycles**	**Motorcycles**	**Cars Taxis**	**Buses Coaches**	**Light Goods Vehicles**	**V2AxleRigidHGV**	**V3AxleRigidHGV**	**V4or5AxleRigidHGV**	**V3or4AxleArticHGV**	**V5AxleArticHGV**	**V6orMoreAxleArticHGV**	**All HGVs**	**All Motor Vehicles**
1	0.00	0.03	0.85	0.00	0.20	0.03	0.03	0.03	0.01	0.01	0.01	0.11	1.18
2	0.00	0.07	2.56	0.03	0.52	0.15	0.15	0.15	0.22	0.22	0.22	1.10	4.28
3	0.00	0.01	0.20	0.01	0.06	0.02	0.02	0.02	0.01	0.01	0.01	0.09	0.37
4	0.00	0.08	1.93	0.03	0.57	0.05	0.05	0.05	0.01	0.01	0.01	0.18	2.78
5	0.00	0.04	1.38	0.04	0.30	0.06	0.06	0.06	0.05	0.05	0.05	0.34	2.11
6	0.00	0.00	0.13	0.00	0.03	0.01	0.01	0.01	0.01	0.01	0.01	0.03	0.20
7	0.00	0.09	1.49	0.05	0.50	0.05	0.05	0.05	0.01	0.01	0.01	0.18	2.31
8	0.00	0.02	0.55	0.01	0.21	0.06	0.06	0.06	0.07	0.07	0.07	0.38	1.17
9	0.00	0.03	1.33	0.05	0.28	0.02	0.02	0.02	0.00	0.00	0.00	0.08	1.78

10	0.00	0.21	2.57	0.07	0.69	0.22	0.22	0.22	0.19	0.19	0.19	1.22	4.76
11	0.00	0.01	0.54	0.00	0.13	0.02	0.02	0.02	0.01	0.01	0.01	0.09	0.77
12	0.00	0.08	0.93	0.01	0.40	0.05	0.05	0.05	0.05	0.05	0.05	0.31	1.73
13	0.00	0.03	1.30	0.02	0.28	0.11	0.11	0.11	0.11	0.11	0.11	0.65	2.29
14	0.00	0.07	3.48	0.01	0.93	0.21	0.21	0.21	0.11	0.11	0.11	0.94	5.44
15	0.00	0.04	0.56	0.01	0.13	0.02	0.02	0.02	0.00	0.00	0.00	0.05	0.79
16	0.00	0.09	1.70	0.06	0.35	0.08	0.08	0.08	0.11	0.11	0.11	0.56	2.76
17	0.00	0.03	0.62	0.02	0.19	0.06	0.06	0.06	0.07	0.07	0.07	0.40	1.25
18	0.00	0.11	2.94	0.10	0.68	0.12	0.12	0.12	0.06	0.06	0.06	0.53	4.37

Table 57(b) AM 10 Carbon Emissions - DfT Sites

Year 1

2014 Total Emissions (thousand tonnes CO2)

Pre-scheme

Ref No	Pedal Cycles	Motorcycles	Cars Taxis	Buses Coaches	Light Goods Vehicles	V2AxleRigidHGV	V3AxleRigidHGV	V4or5AxleRigidHGV	V3or4AxleArticHGV	V5AxleArticHGV	V6orMoreAxleArticHGV	All HGVs	All Motor Vehicles
19	0.00	0.19	2.86	0.14	0.83	0.30	0.30	0.30	0.33	0.33	0.33	1.89	5.91
20	0.00	0.03	0.87	0.02	0.18	0.04	0.04	0.04	0.06	0.06	0.06	0.30	1.40
21	0.00	0.00	0.11	0.00	0.03	0.01	0.01	0.01	0.00	0.00	0.00	0.03	0.17
22	0.00	0.06	1.03	0.04	0.28	0.07	0.07	0.07	0.05	0.05	0.05	0.34	1.75
23	0.00	0.00	0.06	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.10
24	0.00	0.01	0.17	0.00	0.06	0.01	0.01	0.01	0.00	0.00	0.00	0.02	0.27
25	0.00	0.01	0.35	0.01	0.09	0.01	0.01	0.01	0.00	0.00	0.00	0.05	0.51
26	0.00	0.01	0.55	0.03	0.14	0.03	0.03	0.03	0.03	0.03	0.03	0.17	0.91
27	0.00	0.05	0.59	0.01	0.12	0.03	0.03	0.03	0.03	0.03	0.03	0.19	0.97
28	0.00	0.01	0.34	0.00	0.12	0.01	0.01	0.01	0.01	0.01	0.01	0.07	0.55
29	0.00	0.01	0.27	0.00	0.06	0.01	0.01	0.01	0.01	0.01	0.01	0.04	0.39
30	0.00	0.01	0.21	0.01	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.29
31	0.00	0.07	2.78	0.18	0.95	0.19	0.19	0.19	0.17	0.17	0.17	1.08	5.06
32	0.00	0.01	0.42	0.01	0.09	0.03	0.03	0.03	0.04	0.04	0.04	0.21	0.75
33	0.00	0.01	0.50	0.02	0.10	0.02	0.02	0.02	0.00	0.00	0.00	0.07	0.70
34	0.00	0.03	1.09	0.04	0.22	0.05	0.05	0.05	0.06	0.06	0.06	0.32	1.70
35	0.00	0.00	0.09	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.11
36	0.00	0.03	0.67	0.01	0.14	0.02	0.02	0.02	0.01	0.01	0.01	0.08	0.93

Table 57(c) AM 10 Carbon Emissions - DfT Sites													
Year 1													
2014 Total Emissions (thousand tonnes CO2)													
Pre-scheme													
Ref No	Pedal Cycles	Motorcycles	Cars Taxis	Buses Coaches	Light Goods Vehicles	V2AxleRigidHGV	V3AxleRigidHGV	V4or5AxleRigidHGV	V3or4AxleArticHGV	V5AxleArticHGV	V6orMoreAxleArticHGV	All HGVs	All Motor Vehicles
37	0.00	0.01	0.29	0.00	0.07	0.01	0.01	0.01	0.00	0.00	0.00	0.03	0.40
38	0.00	0.00	0.07	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11
39	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
40	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
41	0.00	0.00	0.05	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.08
42	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
43	0.00	0.00	0.06	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07
44	0.00	0.00	0.05	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06
45	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
46	0.00	0.00	0.04	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05
47	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Totals	**0.00**	**1.63**	**38.66**	**1.07**	**10.09**	**2.18**	**2.18**	**2.18**	**1.88**	**1.88**	**1.88**	**12.18**	**63.63**

Table 57(d) AM 10 Carbon Emissions - DfT Sites													
Year 1													
2015 Total Emissions (thousand tonnes CO2)													
Post-scheme													
Ref No	Pedal Cycles	Motorcycles	Cars Taxis	Buses Coaches	Light Goods Vehicles	V2AxleRigidHGV	V3AxleRigidHGV	V4or5AxleRigidHGV	V3or4AxleArticHGV	V5AxleArticHGV	V6orMoreAxleArticHGV	All HGVs	All Motor Vehicles
1	0.00	0.03	0.77	0.01	0.17	0.02	0.02	0.02	0.01	0.01	0.01	0.09	1.06
2	0.00	0.07	2.53	0.02	0.56	0.15	0.15	0.15	0.21	0.21	0.21	1.09	4.28
3	0.00	0.01	0.19	0.01	0.06	0.02	0.02	0.02	0.01	0.01	0.01	0.09	0.35
4	0.00	0.07	1.83	0.03	0.60	0.05	0.05	0.05	0.00	0.00	0.00	0.17	2.70
5	0.00	0.04	1.30	0.03	0.31	0.06	0.06	0.06	0.05	0.05	0.05	0.32	2.01
6	0.00	0.00	0.13	0.00	0.03	0.01	0.01	0.01	0.00	0.00	0.00	0.03	0.20
7	0.00	0.09	1.41	0.05	0.52	0.05	0.05	0.05	0.01	0.01	0.01	0.17	2.24
8	0.00	0.02	0.52	0.01	0.22	0.06	0.06	0.06	0.06	0.06	0.06	0.37	1.13
9	0.00	0.03	1.30	0.05	0.29	0.02	0.02	0.02	0.00	0.00	0.00	0.08	1.75
10	0.00	0.21	2.54	0.06	0.76	0.23	0.23	0.23	0.18	0.18	0.18	1.22	4.80
11	0.00	0.01	0.53	0.00	0.13	0.02	0.02	0.02	0.00	0.00	0.00	0.08	0.76
12	0.00	0.08	0.88	0.01	0.42	0.05	0.05	0.05	0.05	0.05	0.05	0.30	1.68

13	0.00	0.04	1.30	0.01	0.30	0.11	0.11	0.11	0.14	0.14	0.14	0.75	2.40
14	0.00	0.13	3.53	0.03	0.68	0.14	0.14	0.14	0.06	0.06	0.06	0.59	4.95
15	0.00	0.03	0.53	0.01	0.13	0.02	0.02	0.02	0.00	0.00	0.00	0.05	0.76
16	0.00	0.09	1.68	0.06	0.39	0.08	0.08	0.08	0.10	0.10	0.10	0.55	2.76
17	0.00	0.02	0.58	0.02	0.20	0.06	0.06	0.06	0.07	0.07	0.07	0.38	1.21
18	0.00	0.11	2.77	0.10	0.71	0.11	0.11	0.11	0.05	0.05	0.05	0.49	4.18

Table 57(f) AM 10 Carbon Emissions - DfT Sites

Year 1

2015 Total Emissions (thousand tonnes CO2)

Post-scheme

Ref No	Pedal Cycles	Motorcycles	Cars Taxis	Buses Coaches	Light Goods Vehicles	V2AxleRigidHGV	V3AxleRigidHGV	V4or5AxleRigidHGV	V3or4AxleArticHGV	V5AxleArticHGV	V6orMoreAxleArticHGV	All HGVs	All Motor Vehicles
37	0.00	0.00	0.23	0.00	0.07	0.01	0.01	0.01	0.00	0.00	0.00	0.02	0.31
38	0.00	0.00	0.09	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.12
39	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
40	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
41	0.00	0.00	0.05	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.08
42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
43	0.00	0.00	0.06	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07
44	0.00	0.00	0.05	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06
45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
46	0.00	0.00	0.04	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05
47	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Totals	**0.00**	**1.57**	**37.64**	**0.99**	**10.22**	**2.09**	**2.09**	**2.09**	**1.78**	**1.78**	**1.78**	**11.61**	**62.04**

Table 57(g) AM 10 Carbon Emissions - DfT Sites

Year 2

2016 Total Emissions (thousand tonnes CO2)

Post-scheme

Ref No	Pedal Cycles	Motorcycles	Cars Taxis	Buses Coaches	Light Goods Vehicles	V2AxleRigidHGV	V3AxleRigidHGV	V4or5AxleRigidHGV	V3or4AxleArticHGV	V5AxleArticHGV	V6orMoreAxleArticHGV	All HGVs	All Motor Vehicles
1	0.00	0.03	0.78	0.01	0.18	0.02	0.02	0.02	0.01	0.01	0.01	0.10	1.09
2	0.00	0.08	2.54	0.02	0.62	0.17	0.17	0.17	0.23	0.23	0.23	1.18	4.44
3	0.00	0.01	0.22	0.00	0.06	0.02	0.02	0.02	0.01	0.01	0.01	0.09	0.38
4	0.00	0.07	1.84	0.03	0.65	0.06	0.06	0.06	0.01	0.01	0.01	0.19	2.78

5	0.00	0.04	1.31	0.03	0.35	0.06	0.06	0.06	0.05	0.05	0.05	0.34	2.07
6	0.00	0.00	0.13	0.00	0.04	0.01	0.01	0.01	0.01	0.01	0.01	0.04	0.21
7	0.00	0.04	1.21	0.02	0.34	0.04	0.04	0.04	0.01	0.01	0.01	0.13	1.75
8	0.00	0.02	0.52	0.01	0.24	0.06	0.06	0.06	0.08	0.08	0.08	0.41	1.20
9	0.00	0.04	1.26	0.03	0.22	0.02	0.02	0.02	0.00	0.00	0.00	0.06	1.62
10	0.00	0.22	2.55	0.07	0.83	0.25	0.25	0.25	0.20	0.20	0.20	1.34	5.01
11	0.00	0.02	0.40	0.00	0.08	0.01	0.01	0.01	0.01	0.01	0.01	0.06	0.56
12	0.00	0.08	0.88	0.01	0.46	0.05	0.05	0.05	0.06	0.06	0.06	0.33	1.76
13	0.00	0.04	1.30	0.01	0.33	0.12	0.12	0.12	0.15	0.15	0.15	0.83	2.51
14	0.00	0.13	3.54	0.03	0.74	0.15	0.15	0.15	0.07	0.07	0.07	0.65	5.10
15	0.00	0.04	0.53	0.01	0.15	0.02	0.02	0.02	0.00	0.00	0.00	0.06	0.79
16	0.00	0.09	1.68	0.06	0.42	0.09	0.09	0.09	0.11	0.11	0.11	0.59	2.85
17	0.00	0.02	0.59	0.02	0.21	0.06	0.06	0.06	0.08	0.08	0.08	0.43	1.28
18	0.00	0.11	2.79	0.09	0.78	0.12	0.12	0.12	0.05	0.05	0.05	0.52	4.30

Table 57(h) AM 10 Carbon Emissions - DfT Sites													
Year 2													
2016 Total Emissions (thousand tonnes CO2)													
Post-scheme													
Ref No	**Pedal Cycles**	**Motorcycles**	**Cars Taxis**	**Buses Coaches**	**Light Goods Vehicles**	**V2AxleRigidHGV**	**V3AxleRigidHGV**	**V4or5AxleRigidHGV**	**V3or4AxleArticHGV**	**V5AxleArticHGV**	**V6orMoreAxleArticHGV**	**All HGVs**	**All Motor Vehicles**
19	0.00	0.15	3.06	0.10	0.95	0.33	0.33	0.33	0.39	0.39	0.39	2.15	6.41
20	0.00	0.03	0.81	0.01	0.18	0.04	0.04	0.04	0.04	0.04	0.04	0.23	1.26
21	0.00	0.00	0.12	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.17
22	0.00	0.05	0.98	0.04	0.32	0.07	0.07	0.07	0.05	0.05	0.05	0.36	1.75
23	0.00	0.00	0.07	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.10
24	0.00	0.01	0.17	0.00	0.07	0.01	0.01	0.01	0.00	0.00	0.00	0.03	0.27
25	0.00	0.01	0.33	0.01	0.11	0.02	0.02	0.02	0.00	0.00	0.00	0.05	0.51
26	0.00	0.01	0.54	0.03	0.16	0.03	0.03	0.03	0.03	0.03	0.03	0.17	0.92
27	0.00	0.05	0.56	0.01	0.14	0.03	0.03	0.03	0.03	0.03	0.03	0.20	0.96
28	0.00	0.01	0.33	0.00	0.14	0.01	0.01	0.01	0.01	0.01	0.01	0.07	0.56
29	0.00	0.01	0.26	0.00	0.06	0.01	0.01	0.01	0.01	0.01	0.01	0.05	0.38
30	0.00	0.01	0.20	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.26
31	0.00	0.11	2.51	0.18	0.63	0.15	0.15	0.15	0.17	0.17	0.17	0.95	4.38
32	0.00	0.01	0.43	0.00	0.11	0.04	0.04	0.04	0.05	0.05	0.05	0.27	0.82
33	0.00	0.01	0.49	0.02	0.12	0.02	0.02	0.02	0.01	0.01	0.01	0.07	0.70
34	0.00	0.03	1.08	0.04	0.27	0.06	0.06	0.06	0.06	0.06	0.06	0.35	1.76
35	0.00	0.00	0.10	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.13

36	0.00	0.03	0.56	0.01	0.14	0.01	0.01	0.01	0.01	0.01	0.01	0.05	0.79

Table 57(i) AM 10 Carbon Emissions - DfT Sites													
Year 2													
2016 Total Emissions (thousand tonnes CO2)													
Post-scheme													
Ref No	**Pedal Cycles**	**Motorcycles**	**Cars Taxis**	**Buses Coaches**	**Light Goods Vehicles**	**V2AxleRigidHGV**	**V3AxleRigidHGV**	**V4or5AxleRigidHGV**	**V3or4AxleArticHGV**	**V5AxleArticHGV**	**V6orMoreAxleArticHGV**	**All HGVs**	**All Motor Vehicles**
37	0.00	0.01	0.27	0.00	0.06	0.01	0.01	0.01	0.00	0.00	0.00	0.03	0.36
38	0.00	0.00	0.09	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.13
39	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
40	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.04
41	0.00	0.00	0.06	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.09
42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
43	0.00	0.00	0.06	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07
44	0.00	0.00	0.05	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07
45	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
46	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
47	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Totals	**0.00**	**1.64**	**37.31**	**0.94**	**10.34**	**2.16**	**2.16**	**2.16**	**1.99**	**1.99**	**1.99**	**12.46**	**62.68**

Table 57(j) AM 10 Carbon Emissions - DfT Sites													
Year 3													
2017 Total Emissions (thousand tonnes CO2)													
Post-scheme													
Ref No	**Pedal Cycles**	**Motorcycles**	**Cars Taxis**	**Buses Coaches**	**Light Goods Vehicles**	**V2AxleRigidHGV**	**V3AxleRigidHGV**	**V4or5AxleRigidHGV**	**V3or4AxleArticHGV**	**V5AxleArticHGV**	**V6orMoreAxleArticHGV**	**All HGVs**	**All Motor Vehicles**
1	0.00	0.03	0.74	0.01	0.19	0.02	0.02	0.02	0.01	0.01	0.01	0.09	1.05
2	0.00	0.06	2.18	0.01	0.52	0.12	0.12	0.12	0.21	0.21	0.21	0.99	3.76
3	0.00	0.01	0.21	0.00	0.06	0.02	0.02	0.02	0.01	0.01	0.01	0.09	0.37
4	0.00	0.07	1.76	0.02	0.68	0.06	0.06	0.06	0.01	0.01	0.01	0.18	2.71
5	0.00	0.05	1.39	0.04	0.26	0.05	0.05	0.05	0.04	0.04	0.04	0.27	2.02
6	0.00	0.01	0.12	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.19
7	0.00	0.04	1.16	0.02	0.35	0.04	0.04	0.04	0.01	0.01	0.01	0.13	1.70

8	0.00	0.02	0.50	0.01	0.25	0.06	0.06	0.06	0.07	0.07	0.07	0.40	1.17
9	0.00	0.04	1.20	0.02	0.23	0.02	0.02	0.02	0.00	0.00	0.00	0.06	1.56
10	0.00	0.10	2.52	0.05	0.78	0.17	0.17	0.17	0.19	0.19	0.19	1.09	4.54
11	0.00	0.02	0.38	0.00	0.09	0.01	0.01	0.01	0.01	0.01	0.01	0.05	0.54
12	0.00	0.07	0.84	0.01	0.47	0.05	0.05	0.05	0.05	0.05	0.05	0.32	1.72
13	0.00	0.05	1.39	0.01	0.33	0.09	0.09	0.09	0.12	0.12	0.12	0.62	2.40
14	0.00	0.12	3.39	0.03	0.77	0.14	0.14	0.14	0.07	0.07	0.07	0.63	4.94
15	0.00	0.03	0.51	0.01	0.15	0.02	0.02	0.02	0.00	0.00	0.00	0.06	0.76
16	0.00	0.08	1.61	0.05	0.44	0.09	0.09	0.09	0.10	0.10	0.10	0.57	2.75
17	0.00	0.02	0.56	0.02	0.22	0.06	0.06	0.06	0.08	0.08	0.08	0.42	1.25
18	0.00	0.11	3.07	0.05	0.60	0.10	0.10	0.10	0.07	0.07	0.07	0.51	4.33

Table 57(k) AM 10 Carbon Emissions - DfT Sites													
Year 3													
2017 Total Emissions (thousand tonnes CO2)													
Post-scheme													
Ref No	**Pedal Cycles**	**Motorcycles**	**Cars Taxis**	**Buses Coaches**	**Light Goods Vehicles**	**V2AxleRigidHGV**	**V3AxleRigidHGV**	**V4or5AxleRigidHGV**	**V3or4AxleArticHGV**	**V5AxleArticHGV**	**V6orMoreAxleArticHGV**	**All HGVs**	**All Motor Vehicles**
19	0.00	0.14	2.92	0.09	0.99	0.32	0.32	0.32	0.37	0.37	0.37	2.07	6.22
20	0.00	0.03	0.77	0.01	0.19	0.04	0.04	0.04	0.04	0.04	0.04	0.22	1.21
21	0.00	0.00	0.11	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.17
22	0.00	0.05	0.94	0.04	0.33	0.07	0.07	0.07	0.04	0.04	0.04	0.35	1.71
23	0.00	0.00	0.07	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.10
24	0.00	0.01	0.16	0.00	0.07	0.01	0.01	0.01	0.00	0.00	0.00	0.02	0.26
25	0.00	0.01	0.32	0.01	0.11	0.02	0.02	0.02	0.00	0.00	0.00	0.05	0.50
26	0.00	0.01	0.52	0.03	0.17	0.03	0.03	0.03	0.03	0.03	0.03	0.17	0.89
27	0.00	0.04	0.53	0.01	0.15	0.03	0.03	0.03	0.03	0.03	0.03	0.19	0.93
28	0.00	0.01	0.31	0.00	0.15	0.01	0.01	0.01	0.01	0.01	0.01	0.07	0.54
29	0.00	0.01	0.25	0.00	0.06	0.01	0.01	0.01	0.01	0.01	0.01	0.04	0.37
30	0.00	0.01	0.19	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.25
31	0.00	0.11	2.39	0.16	0.65	0.14	0.14	0.14	0.16	0.16	0.16	0.90	4.21
32	0.00	0.02	0.45	0.00	0.11	0.03	0.03	0.03	0.04	0.04	0.04	0.20	0.78
33	0.00	0.01	0.46	0.01	0.12	0.02	0.02	0.02	0.01	0.01	0.01	0.07	0.68
34	0.00	0.03	1.04	0.03	0.28	0.05	0.05	0.05	0.06	0.06	0.06	0.33	1.71
35	0.00	0.00	0.09	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.12
36	0.00	0.02	0.57	0.02	0.14	0.01	0.01	0.01	0.01	0.01	0.01	0.06	0.81

Table 57(I) AM 10 Carbon Emissions - DfT Sites													
Year 3													
2017 Total Emissions (thousand tonnes CO2)													
Post-scheme													
Ref No	**Pedal Cycles**	**Motorcycles**	**Cars Taxis**	**Buses Coaches**	**Light Goods Vehicles**	**V2AxleRigidHGV**	**V3AxleRigidHGV**	**V4or5AxleRigidHGV**	**V3or4AxleArticHGV**	**V5AxleArticHGV**	**V6orMoreAxleArticHGV**	**All HGVs**	**All Motor Vehicles**
37	0.00	0.01	0.25	0.00	0.06	0.01	0.01	0.01	0.00	0.00	0.00	0.03	0.35
38	0.00	0.00	0.07	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.11
39	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
40	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.03
41	0.00	0.00	0.06	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.08
42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
43	0.00	0.00	0.06	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07
44	0.00	0.00	0.05	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.07
45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
46	0.00	0.00	0.04	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05
47	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Totals	**0.00**	**1.46**	**36.19**	**0.82**	**10.17**	**1.93**	**1.93**	**1.93**	**1.86**	**1.86**	**1.86**	**11.37**	**60.02**

Table 58(a) AM 10 Carbon Emissions - Summary													
Year 1													
2014 Carbon Output													
Pre-scheme													
Period	**Pedal Cycles**	**Motor cycles**	**CarsTaxis**	**BusesCoaches**	**LightGoodsVehicles**	**V2AxleRigidHGV**	**V3AxleRigidHGV**	**V4or5AxleRigidHGV**	**V3or4AxleArticHGV**	**V5AxleArticHGV**	**V6orMoreAxleArticHGV**	**AllHGVs**	**AllMotor Vehicles**
Flow	2383	4019	441548	2518	79878	10403	2184	1213	2486	2106	3832	22218	550178
Average speed (mph)		26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8
Emission (g CO_2 / km)	0.00	1.63	38.66	1.07	10.09	2.18	2.18	2.18	1.88	1.88	1.88	12.18	63.63
2015 Carbon Output													

Post-scheme													
Flow	2076	4070	446716	2364	83431	10559	2282	1401	2917	2535	3466	23158	559743
Average speed (mph)		30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5
Emission (g CO_2 / km)	0.00	1.57	37.64	0.99	10.22	2.09	2.09	2.09	1.78	1.78	1.78	11.61	62.04
Carbon Output Comparison													
Traffic Flow (+/-) %	-13%	1%	1%	-6%	4%	1%	4%	15%	17%	20%	-10%	4%	2%
Speed (+/-) %		14%	14%	14%	14%	14%	14%	14%	14%	14%	14%	14%	14%
Emission (g CO_2 / km) (+/-) %	0%	-4%	-3%	-7%	1%	-4%	-4%	-4%	-5%	-5%	-5%	-5%	-2%

Table 58(b) AM 10 Carbon Emissions - Summary													
Year 2													
2015 Carbon Output													
Pre-scheme													
Period	**Pedal Cycles**	**Motor cycles**	**CarsTaxis**	**BusesCoaches**	**LightGoodsVehicles**	**V2AxleRigidHGV**	**V3AxleRigidHGV**	**V4or5AxleRigidHGV**	**V3or4AxleArticHGV**	**V5AxleArticHGV**	**V6orMoreAxleArticHGV**	**AllHGVs**	**AllMotorVehicles**
Flow	2076	4070	446716	2364	83431	10559	2282	1401	2917	2535	3466	23158	559743
Average speed (mph)		30.50	30.50	30.50	30.50	30.50	30.50	30.50	30.50	30.50	30.50	30.50	30.50
Emission (g CO_2 / km)	0.00	1.57	37.64	0.99	10.22	2.09	2.09	2.09	1.78	1.78	1.78	11.61	62.04
2016 Carbon Output													
Post-scheme													
Flow	1,962	3,948	421,260	1,923	79,994	9,919	1,967	1,443	3,147	2,405	3,192	22,067	529,195

Average speed (mph)		29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7
Emission (g CO_2 / km)	0.00	1.64	37.31	0.94	10.34	2.16	2.16	2.16	1.99	1.99	1.99	12.46	62.68
Carbon Output Comparison													
Traffic Flow (+/-) %	-5%	-3%	-6%	-19%	-4%	-6%	-14%	3%	8%	-5%	-8%	-5%	-5%
Speed (+/-) %		-3%	-3%	-3%	-3%	-3%	-3%	-3%	-3%	-3%	-3%	-3%	-3%
Emission (g CO_2 / km) (+/-) %	0%	4%	-1%	-5%	1%	4%	4%	4%	12%	12%	12%	7%	1%

Table 58(c) AM 10 Carbon Emissions - Summary													
Year 3													
2016 Carbon Output													
Pre-scheme													
Period	**Pedal Cycles**	**Motor cycles**	**CarsTaxis**	**BusesCoaches**	**LightGoodsVehicles**	**V2AxleRigidHGV**	**V3AxleRigidHGV**	**V4or5AxleRigidHGV**	**V3or4AxleArticHGV**	**V5AxleArticHGV**	**V6orMoreAxleArticHGV**	**AllHGVs**	**AllMotorVehicles**
Flow	1,962	3948	421260	1923	79994	9919	1967	1443	3147	2405	3192	22067	529195
Average speed (mph)		29.70	29.70	29.70	29.70	29.70	29.70	29.70	29.70	29.70	29.70	29.70	29.70
Emission (g CO_2 / km)	0.00	1.64	37.31	0.94	10.34	2.16	2.16	2.16	1.99	1.99	1.99	12.46	62.68
2017 Carbon Output													
Post-scheme													
Flow	2,030	3,907	431,347	1,808	78,732	9,081	1,819	1,092	2,808	1,948	3,680	20,423	536,217
Average speed (mph)		30.7	30.7	30.7	30.7	30.7	30.7	30.7	30.7	30.7	30.7	30.7	30.7

Emission (g CO_2 / km)	0.00	1.46	36.19	0.82	10.17	1.93	1.93	1.93	1.86	1.86	1.86	11.37	60.02
Carbon Output Comparison													
Traffic Flow (+/-) %	3%	-1%	2%	-6%	-2%	-8%	-8%	-24%	-11%	-19%	15%	-7%	1%
Speed (+/-) %		3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Emission (g CO_2 / km) (+/-) %	0%	-11%	-3%	-12%	-2%	-11%	-11%	-11%	-7%	-7%	-7%	-9%	-4%

11.10 KPI 4 Reduced Application Period

This KPI shows where promoters start their works without having to comply with the minimum Permit application lead-in period, commonly known as early start agreements.

This information is not available at this time.

Table 59 KPI 4 The number of occurrences of reducing the application period (early starts)

Period	Early Starts Agreements		
	Highway Authority	Utilities	Total
Total	No Data	No Data	

11.11 KPI 5 Section 58 and Section 58A restrictions

This information is not available at this time.

Table 60 KPI 5 The number of agreements to work in Section 58 and Section 58A restrictions

11.12 KPI 6 Interventions on applications

This information is not available at this time.

Table 61 KPI 6 The proportion of times that a permit authority intervenes on applications

12 AVERAGE PERMIT COST AND ACTUAL BENEFIT RATIO

This information is not available at this time.

Table 62 AM 11 – Costs Budgets Breakdown Against Actuals

By dividing the number of Utility Permits granted by the Permit Scheme cost an average cost per Permit can be calculated.

Table 63 AM 11 – Average Permit Cost to Utilities			
Year 2			
Promoters	**Total Permit Applications**	**Total Scheme Cost**	**Average Permit Cost**
Utility	8,199	188,410	£22.98
Year 3			
Promoters	**Total Permit Applications**	**Total Scheme Cost**	**Average Permit Cost**
Utility	8,218	235,287	£28.63

This is a useful indicator of the general scheme costs to Utilities and can be compared to other schemes to show a general financial efficiency level.

As there are no charges for Non-TSS Permits the Average Permit Cost to Utilities is low.

Benefit Cost Ratio per year using actual data.

Table 64 Highway Authority West Berkshire Cost Benefit results				
Highway Authority Assessment 5% reduction in works impact	**Predicted 25 year**	**Opening Year Actuals**	**Second Year Actuals**	**Third Year Actuals**
Net Present Value of Benefits	£10,932,578	£5,900,376	£5,900,376	£5,900,376
Net Present Value of Costs	£7,314,775	£126,795	£188,410	£235,287
Net Present Value of Permit Scheme	£3,617,803	£5,773,581	£5,711,966	£5,665,089
Benefit to Cost Ratio	**1.49**	**46.53**	**31.32**	**25.08**

Predicted 25 year appraisal used a different methodology.

END