MEETING **ENVIRONMENT COMMITTEE**
DATE AND TIME **THURSDAY 14TH JULY, 2016** **AT 6.30 PM**
VENUE **HENDON TOWN HALL, THE BURROUGHS, LONDON NW4 4BQ**

Dear Councillors,

Please find enclosed additional papers relating to the following items for the above mentioned meeting which were not available at the time of collation of the agenda.

Please also note that 11 is in fact item 12 on the agenda and is therefore titled ‘Standard approach to footway Construction’ in error.

Item No	Title of Report	Pages
15	TRAFFIC CALMING	1 - 26
18.a	HIGHWAY REACTIVE MAINTENANCE	27 - 44

Paul Frost 020 8359 2205 paul.frost@barnet.gov.uk

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AGENDA ITEM 15

Environment Committee

14 July 2016

Title	**Traffic Calming Measures**
Report of	Commissioning Director for Environment
Wards	All
Status	Public
Urgent	No
Key	No
Enclosures	Appendix A – Type of Traffic Calming Measures
Officer Contact Details	Jamie Blake – E-mail – Jamie.blake@barnet.gov.uk

Summary

This Report sets outs the Council's current approach to Traffic calming Measures across the boroughs and seeks agreement on a formal Policy for future Planned Highways Improvement schemes and the use of Traffic Calming measures within them.

Recommendations

1. **That the Environment Committee notes the current approach to Traffic Calming Measures as set out in this report.**

2. **That the Environment Committee approve the following Policy Wording:**

   'Generally this Council opposes the use of vertical traffic calming measures, but acknowledges that calming measures can sometimes be appropriate. Officers should not, though, propose these apart from in exceptional circumstances and with all such decisions reserved for members.'

3. That the Environment Committee approve the process for the Consideration of Planned Maintenance schemes set out in paragraph 2.

1. WHY THIS REPORT IS NEEDED

1.1 This report is needed to provide Members with an insight into the historical working practices behind the introduction, retention and removal of traffic calming measures in London Borough of Barnet. In addition it is intended to provide Members with an overview of the advantages and disadvantages of different of measures to allow Members to agree a Policy on Traffic Calming Measures.

1.2 BACKGROUND

1.2.1 In the early 2000's , the Council began a significant road resurfacing programme which included a review of traffic management measures, including existing traffic calming measures. At the time of the road surfacing programme there was concern that road (speed) humps caused delays to traffic (including the emergency services) and that traffic calming on one route could cause higher speeds and risk-taking by drivers elsewhere through rat-running to avoid such measures and that vehicles driving over speed humps create additional noise and air pollution. It was suggested that road humps can reduce the journey time reliability of buses and cause discomfort to bus passengers when buses travel over the humps.

1.2.2 The Report of the Cabinet Member for Environment - 'Traffic Management – Future Strategy' dated 5 November 2002, sought to approve a revised strategy for progressing Traffic Management across the borough.

1.2.3 Paragraph 8.5 details the approach to traffic calming measures, it stated the following:

> *'Traffic calming on local roads will be a lower priority. Many physical measures to calm traffic have been put in over recent years. As a result the council has received representation on number adverse impacts from local residents which in some instances, have resulted in the measures being removed. The problems they experience include noise and vibration, reduced accessibility, loss of kerbside parking and sign and road marking proliferation. There can also an adverse effect on emergency vehicle response times. In some instances, the initial objective of reducing extraneous traffic movements has not been achieved as the problem has displaced onto adjacent local roads. By*

giving priority to improving the performance of the main road network the desire to rat run should be reduced over time.'

1.2.4 The recommendation of the report was that the above 'Strategy for Traffic Calming Measures' be approved.

1.2.5 Traffic Calming Measures were not limited to road humps/cushions but included the following measures:

- Mini-roundabout (including on a junction speed table)
- Speed tables
- Speed humps
- Speed cushions
- Raised Tables
- Kerb build-outs
- Coloured surfacing
- Cycle lanes
- White line markings including central hatching

1.2.6 The following review process was used to assess roads that were due to be re-surfaced, which involved the following 3 stages:

Stage 1 - Technical Assessment

Prior to the removal of traffic management measures an assessment is undertaken by Officers to establish the initial aims and objectives of the traffic management measures, and assess to what degree the measures have been effective in meeting these. The assessment looks at the wider implications of removing or retaining the traffic management and considers accident data from prior to the introduction of the original measures. Similarly, respective traffic speeds from before and after the installation of the measures were considered.

Stage 2 - Consultation

Next, the Council consults the emergency services, the elected ward members, residents, and if appropriate, public transport providers/user groups, etc. before resurfacing commences. Residents are advised that their views will be sought following the work regarding reinstatement of the original measures, when they will have had the experience of both arrangements.

Stage 3 - Report and Decision

Finally, a synopsis of the findings is presented to the Executive Member and the relevant Area Environment Sub-committee chairman for decision of whether the Traffic Calming Measures should be re-instated.

1.3 CURRENT POLICY POSITION

1.3.1 The 2002 Cabinet Report decision approved a 'Strategy' for the traffic management but not a 'Policy on the removal or implementation of road humps/cushions. The report stated that Traffic calming on local roads will be a 'lower priority'. Therefore, this report on 'Traffic Calming Measures' has been written to confirm the Policy position moving forward.

1.4 APPROVED AND PROPOSED TRAFFIC MANAGEMENT SCHEMES (WITH VERTICAL DEFLECTIONS)

1.4.1 In recent years requests have been received from residents and Ward Councillors for Traffic Management Schemes via correspondence, petitions, Residents Forum and Area Committees (previously Area Sub Committees) where speeding and volume of traffic have been the main areas of concern.

1.4.2 A number of these request related to roads where previous Traffic Calming measures have been removed following resurfacing. Concerns have been raised by local residents and Ward Councillors regarding increased vehicle speeds on these roads and despite Vehicle Activated Signs (driver feedback speed limit signs) being introduced these concerns have been on-going.

1.4.3 In addition, requests for traffic calming have also been received from roads where previously there haven't been any measures.

1.4.4 In both of these types of roads Traffic Management Studies to address the concerns of local residents and Councillors were undertaken and options were proposed with the intention of to reduce danger of excessive speeds from through traffic with minimal adverse effects on overall traffic flows. These studies assessed the existing arrangements on site and, analysed accident data, traffic speed and volume data and pedestrian usage and crossing counts.

1.4.5 The studies were undertaken within the context of the intervention criteria set by 'Priorities of the Traffic Management Budget' Cabinet Report of July 2002 (Appendix B).

1.4.6 Following the development of 3 Options for each road/area the Area Committee were asked to approve the following recommendations for Traffic Management Schemes:

1. That the Committee note the intention to address traffic management concerns on 'Example Road/Area';

2. That the Committee be mindful of the Councils current approach to traffic calming;

3. The Committee decide whether or not vertical traffic calming features should be re-introduced/introduced on 'Example Road/Area';
4. Subject to a preferred option being chosen, the authorising Officers to proceed with commissioning a detailed design and associated public consultation with a view to implementation when resources are in place and following liaison with local ward members.

1.4.7 Currently they are a number of schemes that include vertical deflections such as raised tables and/or speed cushions which have either been approved by Committee or schemes were feasibility is currently being carried out with the intention of developing Options that could include vertical deflections and other type of traffic calming measures.

1.4.8 In addition, currently schemes being developed within the Local Implementation Plan (LIP) 16/17 'Corridors, Neighbourhoods and Supporting Measures Programme' for 'Traffic Management and Accident Reduction', 'School Travel Plan Schemes and '20 mph' reviews potentially would include options that involve an element of vertical deflection in the form of raised tables at junctions/ crossing points or speeds cushions.

1.5 NEW DEVELOPMENTS AND REGENERATION AREAS

1.5.1 On new developments, the aim should always be to achieve the desirable design speed values as set out in Manual for Streets Guidelines counter-balanced against the need to ensure expeditious movement of traffic within the borough and de-congesting the network. In greater majority of developments this should be through the use of junction design and changes in horizontal alignment. This approach should be complemented with the careful arrangement of buildings and landscaping so that forward visibility and sight lines at junctions reflect the design speed.

1.5.2 It is also recognised, however, that occasionally additional speed restraint measures may be required or may even be considered to aid the overall design. Conflict among various user groups can be minimised or avoided by reducing the speed and flow of motor vehicles. Ideally, designers should aim to create streets that control vehicle speeds naturally rather than having to rely on unsympathetic traffic calming measures. As far as is reasonably practicable, a development's design layout should preferably incorporate inherent natural and appropriate traffic and speed management features to obviate the need for post-development traffic calming control without necessarily dominating the visual appearance of the street.

1.5.3 This approach accords with the London Mayor's Transport Strategy (2010) which gives the prerogative to highway authorities in the capital to formulate

alternatives to achieve slower traffic speeds without necessarily resorting to vertical deflection measures. This formed the impetus for the development of kerb build outs, chicanes or other such preferred measures should be sympathetic in design and choice of materials to safeguarding the amenity of the built environment and street scene while continuing to ensure a minimalist approach with regards to road markings and signs.

1.5.4 A range of traffic calming measures can be considered and these could act in different ways, with varying degrees of effectiveness:

- **Street Dimensions** – These can have a significant influence on speeds. Keeping lengths of street between junctions short is particularly effective. Street width also has an effect on speed.
- **Reduced Visibility** – There is a link between appropriately considered reductions in forward visibility and reduced driving speeds.
- **Provision of On-Street Parking & Physical Features** – Parking layout design is an important consideration and can be used to create a natural or chicane effect to effectively change the horizontal alignment and thus curtail speeding
- **Reduced Corner Radii** – These are effective in slowing turning movements at junctions offering greater safety for pedestrians and cyclists. Overrun areas, constructed by slightly raising the surface within the limits specified in The (Traffic Calming) Regulations, can be provided to allow larger vehicle access. Overrun areas can be used at bends and junctions.
- **Changes in Priority** – Can be used to disrupt flow and therefore bring overall speeds down.

1.5.5 Speed restraint and traffic calming should be based around the concept of safety by design and the layout should be such that high speeds are impossible to achieve. All speed restraint shall be incorporated in the initial stages of road construction to ensure potential residents are fully aware of the nature and scope of the measures.

1.5.6 Traffic calming, as a blanket approach, should be unnecessary if the roads have been designed correctly. New developments are recommended not to use vertical traffic calming features such as speed cushions and humps as these may have detrimental effects on disabled and infirm road users. However, vertical traffic calming features such as raised tables at junctions may be suitable in new low use residential developments. Wherever possible, slower speeds should be promoted through other road alignment.

1.5.7 Where the Council agrees or decides that any traffic management or traffic calming measure should be implemented in order to mitigate the impact of a particular development, the developer will be required to fund the costs for the

promotion and construction of these measures. Costs shall include those associated with the processing of any associated Traffic Regulation Order.

1.5.8 It is essential that early consultation and discussions take place with the Council, during the planning application stage, to agree which traffic calming features are the most appropriate.

1.5.9 The introduction of self-enforcing traffic calming measures can bring great benefit to residential areas, in terms of both accident reduction and environmental improvement. By creating a safer environment, the accident potential is reduced as are the fears of residents, particularly parents and the elderly. This reduced fear in itself represents a real improvement in the quality of life.

1.5.10 Each situation must be investigated on its individual merits to assess the suitability of a traffic calming solution, if newly generated traffic is likely to use inappropriate roads. In relation to development proposals, the onus is firmly on the developer to demonstrate that, following detailed study, the effects of any generated traffic will (at least) be nullified by an appropriate traffic calming scheme.

1.5.11 A comprehensive area study of the existing highway network, traffic speeds and land use, including consultations with bus operators and emergency services, is required. The study must fully take into consideration the principles of scheme development as described in this policy, although public consultation is not required at this stage. However, assuming that the study confirms the need for a traffic calming solution, then a public consultation, as set down elsewhere in this policy, will be necessary and paid for by the developer.

1.5.12 In normal circumstances, all aspects of the study and any resultant scheme will be funded by the developer. All costs associated with construction and maintenance for the designated life of the scheme must also be borne by the developer.

1.5.13 In addition, there may be circumstances where developers fund traffic calming schemes voluntarily. However, it is important to note that the availability of voluntary developer funding will neither result in an unwarranted scheme being implemented nor influence existing scheme priorities.

1.6 TYPES AND DESCRIPTION OF TRAFFIC CALING MEASURES

1.6.1 Traffic calming is a term used to describe a wide variety of measures that can be introduced on the road network with the objective of reducing vehicle

speeds and collisions. Traffic calming is the most direct and effective way to influence vehicle speeds on particular roads while maintaining access. Traffic calming should produce a road network that encourages steady and safe flow of traffic, at a speed that is appropriate to other road users and the local environment. Measures should not force drivers to drive at a slower speed than appears reasonable, as this may result in frustration or poor driving attitudes when entering the calmed area.

1.6.2 Traffic calming can influence the choice of route taken by drivers, but in practice it has not proved a very effective tool in dealing with problems of "rat running" through residential areas. Where there are otherwise equally attractive routes, the introduction of traffic calming on one route may cause traffic to intensify on another, and the potential for this effect needs to be taken into account when considering any scheme.

1.6.3 Whilst many people feel that traffic calming is the answer to their problems, others feel that certain types of calming measures are an unnecessary inconvenience and a nuisance.

1.6.4 It is important to determine the purpose for which a scheme is intended before any choice of measure is made. Traffic calming measures are usually considered where there is either:

- A demonstrable safety problem with a record of personal injury collisions and inappropriate speed.
- A perceived safety problem where people feel threatened by the speed, volume and/or type of traffic.
- The area concerned is considered unsuitable for the type/volume of traffic passing through it.
- Vehicle domination of the street space can significantly diminish the quality of life for residents, shoppers and traders.
- To act as a deterrent for unsuitable vehicular use i.e. heavy goods vehicles and ‘through’ traffic.

1.6.5 Any one or a combination of these factors may lead to consideration of the use of traffic calming. However, the desired outcome must be clearly understood at the outset to ensure the most appropriate scheme is selected. Each request needs to be considered on its own merits and some measures will not be appropriate in certain circumstances. Guidance for all potential schemes should include:

- Traffic data.
- Number of accesses, properties and junctions.
- Role of the road e.g. abnormal load, emergency or bus route.
- Not to use a feature in isolation.

1.6.6 Other factors that need to be considered:

- **Lighting**
  Any physical measure that changes the layout of the road requires adequate lighting so it can be seen at all times and meet set standards.
- **Utilities**
  When considering measures which requires work below existing ground level (i.e. foundations for signposts), the utility companies are contacted and ask for plans showing any cables/pipelines in the area they may have. This has to be done whenever the 'ground is broken' and also forms part of national legislation. In addition, if the scheme is deemed to interfere with any equipment owned by that utility company, then the scheme may require re-designing or moving the equipment at a cost.
- **Safety Audits**
  During design of any given scheme, safety auditing should be carried out at set stages to ensure that any works carried out on the highway do not actually do more harm than good.

1.6.7 There are a range of possible techniques that can be used. Vertical deflection traffic calming is nationally accepted as the most effective form of traffic calming while maintaining access. The following types of traffic calming measures are considered in more detail in Appendix C. Some of these are considered visually intrusive and controversial because of the inconvenience they cause for residents and others, they can also be expensive to install and maintain.

Physical Features
- Central Hatching
- Coloured surfacing treatments
- Removing markings and signs
- Mini Roundabouts
- Vehicle Activated Sign (VAS)

Horizontal Measures
- Narrowings - Priority Workings
- Central Traffic Islands

Vertical measures
- Road Humps
- Speed Cushions
- Raised Tables

Other Measures
- 20 MPH routes/zones
- Width restrictions

1.7 LIP 2016/17 ANNUAL SPENDING SUBMISSION GUIDANCE

1.7.1 Information provided by Transport for London (TfL) on the Local Implementation Plan (LIP) in the pro-forma application for LIP schemes:

Road humps[2]: 'given the Mayor's position on these, boroughs should exhaust all other options before considering the use of vertical deflections such as road humps and speed cushions. If a borough considers such measures to be the only viable option then a further discussion may be needed with TfL on their acceptability'.

[2] In a press release issued by the Mayor on 28 November 2008 he advised that "Road humps are often simply a lazy way of delivering slower speeds, and also do little to encourage people to walk, cycle and spend time using their streets. I want to encourage councils to be bold and to think much more creatively about ways of achieving slower speeds, and creating better streets."

1.7.2 TfL raised concerns in the early 2000's when road humps that they had funded and installed in roads adjacent to the TLRN were not replaced after resurfacing work took place.

1.8 PERSONAL INJURY ACCIDENTS (PIA's) - KSI Accidents

1.8.1 Appendix D details the last three year PIA's (Personal Injury Accidents) for KSI (Killed and Seriously Injured) accidents in Barnet with assigned by the police officer responding. In the last 3 year (Jan 13 – Dec 15). For KSI accidents the number of speed related contributory factors are 306 (exceeding speed limit) and 307 (travelling too fast for the conditions). Therefore, 'Exceeding the speed limit' was identified as very likely for 4.26% and possible for 3.93% of KSI accidents and 'Travelling too fast for the conditions' was identified as a very likely factor in 3.28% and as possible in 1.64% of KSI accidents.

2. REASONS FOR RECOMMENDATION

2.1 The Officer recommendation on Traffic Calming is that *'traffic calming in any form that is appropriate for the situation should be considered'*.

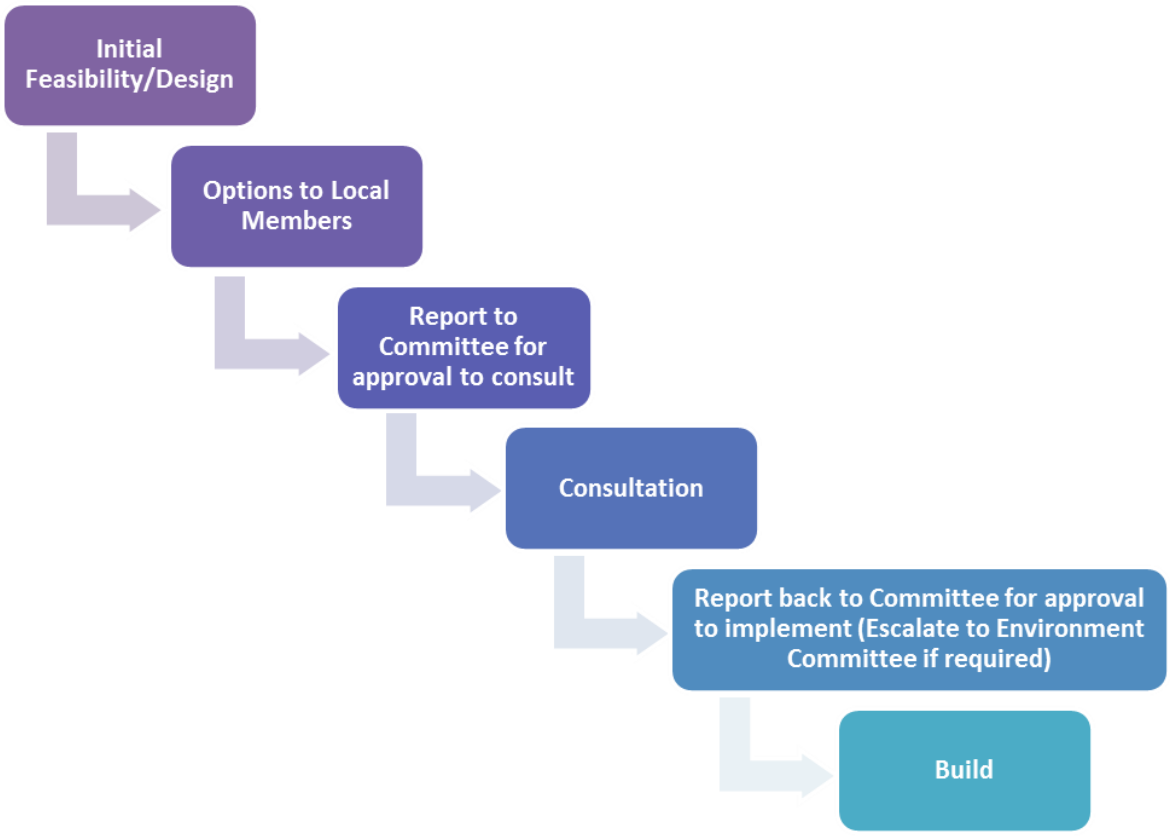
3.2 The Committee are to consider and approve a Policy for the Traffic Calming Measures across borough.

''Generally this Council opposes the use of vertical traffic calming measures, but acknowledges that calming measures can sometimes be appropriate. Officers should not, though, propose these apart from in exceptional circumstances and with all such decisions reserved for members.'

2.3 It is therefore proposed that during the design process Re engineers will during the design process liaise with local members and submit proposals to

the Area Committee for approval prior to any consultation that may be required.

2.4 The process for assessing the need for traffic calming measures in a location would include the following stages:



3. ALTERNATIVE OPTIONS CONSIDERED AND NOT RECOMMENDATION

3.1 The alternative options have been considered within the context of this report.

4. POST DECISION IMPLEMENTATION

4.1 That Traffic Calming features will be considered under the recommendation and Policy approved by this report. The development of each scheme for Planned Improvements of the Public Highways will follow the process approved by the Environment Committee.

5. IMPLICATIONS OF DECISION

5.1 Corporate Priorities and Performance

5.1.1 In relation to the Sustainable Community Strategy 2010-2020, Traffic Management Schemes should ensure the Council can deliver a successful London Suburb where Barnet is kept moving whatever the mode of transport chosen.

5.1.2 Traffic Management Schemes should support all of the 2015-2020 Corporate Plan strategic objectives and assist in delivery of Corporate Plan desired outcomes:

- A clean and attractive environment, with well-maintained roads and pavements, flowing traffic, increased recycling:
  - Barnet's streets will be kept clean and tidy, benefitting from investment in more efficient mechanical sweepers to better clean town centres and residential streets
  - the borough's roads and pavements will be in a good condition, with the council recognising that this has consistently been the top priority for residents for the past few years
  - traffic flow on Barnet's roads will be managed to reduce congestion, with regeneration areas designed effectively to keep traffic moving

- Delivering on borough Local Transport Objectives (and London Mayoral outcomes):

1. <u>Ensuring more efficient use of the local road network</u>
   a. Reduce congestion
   b. Improve the condition of roads and footpaths
   c. Improve the bus network (with TfL)
   d. Make travel safer and more attractive
2. <u>Taking a comprehensive approach to tackling the school run</u>
   a. Reduce car based journeys and increase levels of walking and cycling to and from school
   b. Reduce pupil parking near schools
3. <u>Delivery of high quality transport systems in regeneration areas</u>
   a. Comprehensive transport solutions in major development areas
   b. Public transport enhancements (with partners)
   c. Pursue major improvements to the strategic road network
   d. Town centre enhancement to improve the public realm, public transport services, short-trip making by walking, parking and servicing controls and accessibility improvements
4. <u>More environmentally friendly transport networks</u>
   a. Support the use of low emission vehicles including electric cars
   b. Encourage mixed use development that will help to reduce the distances people need to travel
   c. Making cycling and walking more attractive for leisure, health and short trips.

5.1.3 The Highway network is the Council's most valuable asset and is vital to the economic, social and environmental wellbeing of the Borough as well as the general image perception. They provide access for business and communities, as well as contribute to the area's local character and the resident's equality of life. Highways really do matter to people and often public opinion surveys continually highlight dissatisfaction with the condition of local roads and the way they are managed.

5.1.4 Future Commissioning Targets: Traffic Calming measures being the most appropriate and effective solution to contribute to the achievement of the following:

- Improving Barnet's Road Safety record in the borough and targeting particular users, pedestrians and cyclists for a higher degree of protection than they currently receive;
- Specifically outlined in the Environment Committee Commissioning Plan 2015-20;
- Balancing the needs of motorists with the needs of sustainable transport via the management of traffic speeds;
- Improving the management of traffic flows and parking;
- The population of the borough is growing and with it the need to keep roads safe and well maintained.

5.2 **Resources (Finance & Value for Money, Procurement, Staffing, IT, Property, Sustainability)**

5.2.1 Costs for the different traffic calming measures are referred to in Appendix A.

5.3 **Social Value**

The Public Services (Social Value) Act 2013 requires people who commission public services to think about how they can also secure wider social, economic and environmental benefits. This report does not relate to procurement of services contracts.

5.4 **Legal and Constitutional References**

5.4.1 The Traffic Management Act 2004 places obligations on authorities to ensure the expeditious movement of traffic on their road network. Authorities are required to make arrangements as they consider appropriate for planning and carrying out the action to be taken in performing the duty.

5.4.2 The Council's Constitution (Responsibly for Functions, Annex A) gives the Environment Committee certain responsibilities related to the street scene including pavements and all classes of roads, parking provision and enforcement, and transport and traffic management including agreement of the London Transport Strategy Local Implementation Plan.

5.4.3 Road safety and traffic calming are carried out in accordance with the following Legislation and Guidance:

- The Highways Act 1980
- Road Traffic Regulation Act 1980
- The Transport Act 1981
- The Road Traffic Act 1991
- The Traffic Calming Act 1992
- Disability Discrimination Act (DDA) 1995
- The Highways (Road Humps) Regulations 1999
- Greater London Authority (GLA) Act 1999

- Road Traffic Reduction Act 1997
- The Traffic Management Act 2004
- Bus Priority Team Technical advice note BP2/05 – Traffic Measures for Bus Routes 2005
- Local Transport Note 1/07 Traffic Calming 2007
- Manual for Streets
- Manual for Streets 2

5.5 **Risk Management**

5.5.1 None in the context of this report. Risk management may be required for work resulting from this report.

5.6 **Equalities and Diversity**

5.6.1 Street design should be inclusive, providing for all people regardless of age or ability. There is a general duty for public authorities to promote equality under the 2010 Equality Act. There is also a specific obligation for those who design, manage and maintain buildings and public spaces to ensure that disabled people play a full part in benefiting from, and shaping, an inclusive built environment.

5.6.2 The 2010 Equality Act outlines the provisions of the Public Sector Equalities Duty which requires Public Bodies to have due regard to the need to:

1. eliminate unlawful discrimination, harassment and victimisation and other conduct prohibited by the Equality Act 2010
2. advance equality of opportunity between people from different groups
3. foster good relations between people from different groups

5.6.3 The broad purpose of this duty is to integrate considerations of equality into day to day business and keep them under review in decision making, the design of policies and the delivery of services. As part of the consultation development a separate stakeholder management plan is being developed to ensure that equalities issues are incorporated into the policy development, consultation and implementation.

5.7 **Consultation and Engagement**

5.7.1 Public Consultation on Planned Highways Improvements Schemes is undertaken on individual schemes basis and details of the proposals are outlined on the council's website.

5.8 **Insight**

5.8.1 The options developed for individual scheme are informed through analysis of injury accident data and on site observations of the issues.

6. BACKGROUND PAPERS

6.1 Cabinet Report (5 November 2002) Traffic Management – Future Strategy

6.2 Cabinet Report (22 July 2002) Priorities for the Traffic Management Budget

6.3 PIA's (Personal Injury Accidents) – Contributory Factors for KSI (Killed and Seriously Injured) including speeding.

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Appendix A –Type of Traffic Calming Measures – Engineering Solutions

PHYSICAL MEASURES

Central Hatching

The major consideration of this feature is that, these markings can only be laid down the centre of roads which are 7 metres wide or more. They work on the principal of appearing to reduce the width of the running lanes. Speeding can therefore be inhibited to a degree, as overtaking will be discouraged.
If the road is 8 metres wide or more, right turn lanes may be incorporated to assist vehicles turning right. They will also provide an element of personal security for pedestrians because they act as refuges.

Pros
- Inexpensive.
- Provide lane guidance to drivers.
- Solid hatchings are enforceable by law.
- Will provide added protection when turn lanes or central refuges are incorporated.

Cons
- Not as effective when used in isolation.
- A minimum road width of 7m is required for basic lining.
- Constant over-running of lines will lead to maintenance problems.
- On-street parking will cause the over-running of lines
- Use of white edge lining may increase driver speed.

Removing markings and signs

Several surveys have indicated that the clearer the road marking layout, the more positive drivers are in their actions and general behaviour. This approach has been applied successfully in a number of locations but considerable judgement is required to minimise any risks resulting from removing signage and road markings.
Consideration has to be given to traffic flows, existing vehicle speeds, location and numbers of vehicles using the road. This philosophy is still undergoing trials and it is not yet clear how effective adopting this style of traffic calming is.

Pros
- Inexpensive.
- Removal of unnecessary lines and signs
-

Cons
- Not as effective when used in isolation.
- Over-provision of lines and signs can have a detrimental impact on the environment
- Over -provision of signs can dilute more important messages

Mini Roundabouts

Mini roundabouts will have a calming effect but should only be installed in 20/30mph zones at three armed junctions, which have equal and/or substantial traffic flow on each approach. The mini roundabout itself must be greater than 1m in diameter but less than 4m and must not exceed 125mm in height.

The alignment of the road may need adjustment to slow traffic on the approaches together with appropriate street lighting and illuminated signs. Doming of the roundabout centre is recommended.

Pros

- Reduces speed on all arms.
- Easy to install if no other works are required.
- Can be seen as an alternative to re-designing junction layout.

Cons

- Costs can escalate drastically depending whether lighting, and or road realignment is required.
- Very strict design guidelines.
- Creates extra signage.
- Has produced mixed results as a speed reduction measure.
- Any underground services may need to be diverted.

Vehicle Activated Sign (VAS)

A Vehicle Activated Sign (VAS) is an interactive sign designed to light up at a predetermined speed when approached by drivers. The sign lights up a specific message warning of a hazard or as a reminder of the speed limit in force. The signs are advisory and effective only if used sparingly. VAS's reinforce existing traffic signs and are only activated to alert drivers who are travelling above a speed set in the device. VAS signs can have a combined message such as 'slow down'/'bend' or 'slow down'/'school' in additional to the speed limit.

Pros

• Have proved effective when traditional signs have failed.
• Alternative to full-scale engineering which may be inappropriate for the style of road or area.
• Dual message can be displayed.
• Renewably powered option is available.

Cons

• Can be expensive if a power supply has to be installed.
• Suitable length of road is required. This allows the radar to pick up on on-coming vehicle and display the message long enough to be of sufficient impact.
• Should only be used when traditional signs have failed to remedy the problem.
• May prove to be less effective over time as drivers become familiar with the signs.
• On-going maintenance costs.

HORIZONTAL MEASURES

Narrowings - Priority Workings

This style of scheme reduces the width of the carriageway, which is then controlled by a “Priority” system, i.e. vehicles going in one direction have to give way to traffic from the other. They should be lit and can significantly reduce vehicle speeds. Similar to traffic islands, narrowings can create problems for cyclists.
They are most effective if traffic flows exceed 500 vehicles per day and are not heavily biased in one direction. However, they may cause sudden braking or acceleration and can reduce available parking space. Priority Workings are often difficult to site in residential areas where they conflict with accesses and on street parking.

Pros

- Significantly reduces vehicle speeds.
- Works well with high traffic flows.
- Relocation of road space reduces the dominance of motor vehicles.

Cons

- Expensive.
- Must be illuminated.
- Minimum carriage width of 3m required.
- Potential hindrances to emergency vehicles and public transport.
- Will cause noise due to sudden accelerating and braking of some drivers.
- Will reduce available parking space

Central Traffic Islands

Central traffic islands restrict two-way traffic flow into narrower lanes or provide a refuge for pedestrians/cyclists. In general, a minimum of 3 metres lane width must be maintained on either side of an island, where the island is a pedestrian refuge it must be a minimum of 2 metres wide and they must be illuminated.
Traffic Islands can create problems for cyclists or the emergency services where access may be hindered. This may mean that road widening is required. Islands are often difficult to site in residential areas where they conflict with accesses and on street parking. Central traffic islands can reduce vehicle speeds by 2-5mph depending on the lane widths.

Pros
- Can be effective in reducing vehicle speeds and injury crashes.
- Can be tailored to fit different road widths and conditions.
- Encourages lane discipline.
- Can be designed as a pedestrian refuge.

Cons
- Can be expensive depending on number of islands installed.
- Must be illuminated.
- Can be difficult to site in residential areas as minimum road width is required.
- Can cause problems for cyclists.
- Collisions with Island can occur.
- May receive objections from larger vehicle users & emergency services.

VERTICAL MEASURES

Each request for all types of vertical measure need to be considered on an individual basis, bearing in mind the collision history, the road layout and the gradient of the road, as it is inadvisable to install vertical measure on steep gradients. Vertical measures should only be considered where other less obtrusive and cost-effective measures have not been successful in calming the road.

Road Humps

Road (Speed) humps come in various forms and are constructed in tarmac for cost effectiveness in a round form or in blocks where a flatter profile is required. They can be effective in reducing speeds to about 20mph. Their height and frequency are controlled by Regulations. It is recommended that a “slowing” feature, e.g. roundabout, a sharp bend or a road narrowing, should exist or be introduced on the approach to the section where the humps are placed.

Pros

• Can be very effective in reducing vehicle speeds and personal injury accidents.
• Can provide pedestrian crossing places if flat topped.
• Continue across the full width of the road and can be installed without effecting on-street parking.

Cons

• Can only be used in areas with a speed limit of 30mph or less.
• Must be illuminated to ‘highway lighting standard’.
• Cause discomfort to bus passengers and patients in ambulances and effect response times for emergency services.
• Cannot be installed on emergency gritting routes.
• Braking and acceleration noise plus vibration can make them unacceptable to residents.
• Not cycle friendly.
• Drainage when raining for flat top style humps need to be considered.

Speed Cushions

Similar to road humps and the same constraints apply to them such as height, frequency, and lighting. Their effectiveness will depend on the width, height and profile of the cushion. The narrower the cushion the more acceptable to buses and emergency service vehicles which are then able to straddle them. Wider cushions are more effective in reducing speeds.

Pros

• Can be very effective in reducing vehicle speeds and personal injury accidents.
• Can be tailored to fit different road widths and conditions.
• Cycle friendly.
• Bus and HGV friendly.
• Better access for Emergency Service vehicles.

Cons

• Can only be used in areas with a speed limit of 30mph or less.
• Must be illuminated to 'highway lighting standard'.
• May cause discomfort to bus passengers and patients in ambulances if the vehicle unable to straddle cushions.
• Braking and acceleration noise plus vibration can make them unacceptable to residents.
• May cause drivers to weave or mount the kerb to avoid them.
• May not slow HGV's or motorcyclists.
• Cannot be installed on emergency gritting routes.
• May require waiting restrictions to prevent parking within 20 metres of the cushions. This will allow larger vehicles that straddle humps enough space to negotiate these measures.

Raised Tables

Similar to road humps and the same constraints apply to them such as height, frequency, and lighting. Raised tables are traffic calming devices that raise the entire wheelbase of a vehicle to reduce its traffic speed. Raised tables are longer than similar to road humps and flat-topped, with a height of 3–3.5 inches. These are speed humps with a long flat section that are generally used at junctions and can also improve crossing facilities for pedestrians. Raised tables require signing and roadway markings to make their presence known to motorists and other roadway users.

Pros

• Can be very effective in reducing vehicle speeds and personal injury accidents.
• Can be tailored to fit different road widths and conditions.
• Bus and HGV friendly.
• Better access for Emergency Service vehicles.

Cons

• Can only be used in areas with a speed limit of 30mph or less.
• Must be illuminated to 'highway lighting standard'.
• May cause discomfort to bus passengers and patients in ambulances if the vehicle unable to straddle cushions.
• Braking and acceleration noise plus vibration can make them unacceptable to residents.
• Cause discomfort to bus passengers and patients in ambulances and effect response times for emergency services.
• Cannot be installed on emergency gritting routes.
• Not Cycle Friendly.
• Drainage when raining for raised tables need to be considered.

OTHER MEASURES
20 MPH Limits/Zones

20 mph limits/zones are currently only considered as part of a Traffic Management and Accident reduction scheme a School Travel Plan scheme or a 20 mph scheme around schools. This is due to the need for extensive traffic calming to be incorporated onto the road network to keep average speeds below 20 mph.

The Department for Transport (DfT) advice emphasises the need for caution to be exercised when considering 20 mph limits. Experience suggests that signed-only limits have little or no effect on reducing speeds.

Width Restrictions

Width restrictions are a self-enforcing means of restricting road access for large vehicles. Posts or bollards are placed in the road about 7 feet (2.1 metres) apart so that vehicles wider than this cannot pass between them. As an alternative route must be available for large vehicles such as refuse collection vehicles, their use in residential areas may be limited.

Many residents mistakenly ask for width restrictions to be introduced as a means of slowing traffic. Width restrictions do not, and are not intended to, reduce traffic speed.

Sometimes a gate is provided for use by fire engines and other emergency vehicles. The gate is kept locked but emergency vehicles carry the key.

AGENDA ITEM 18a

Environment Committee
14th July 2016

Title	**Highway Reactive Maintenance**
Report of	Commissioning Director for Environment
Wards	All
Status	Public
Urgent	No
Key	No
Enclosures	Appendix A as part of this report
Officer Contact Details	Mario Lecordier, Interim Lead Commissioner, Environment Mario.Lecordier@Barnet.gov.uk - Tel 020 8359 5258

Summary

This report is in response to two Member's items raised at the Environment Committee on 8th March 2016 from Councillor Agnes Slocombe about potholes and Councillor Devra Kay about dangerous pavements.

The report addresses the request for information on the number of carriageway potholes and pavement defects along with the time taken for their repair and the number and cost of insurance claims to the Council.

Recommendations

That the Environment Committee note the response to the two Member's items and consider and comment on the information provided in this report.

1. WHY THIS REPORT IS NEEDED

1.1 This report is in response to the two Member's items (item 6b – Potholes and item 6e – Dangerous Pavements) which were discussed at the 8th March 2016 Environment Committee meeting. The request for item 6b was to provide information on the number of potholes on Barnet's roads and the time taken to complete their repair along with the number and cost of insurance claims to the Council. Item 6e was to provide similar information on dangerous pavements.

1.2 The Committee approved a recommendation that officers investigate both items and bring back a report to the Committee regarding how defects on the public highway are managed and repaired and provide statistical analysis of insurance claims, budgets and enquiries.

1.3 Local Authorities have a statutory duty under Section 41 of the Highway Act 1980 ("the 1980 Act")) to ensure all highway maintainable at public expense is safe for its intended use.

1.4 In layman's terms, this means that LBB are responsible for the upkeep of the highway network i.e. carriageways, footways, verges, traffic islands and any structure that forms part of the public highway within the borough and is funded by central government and council tax collected from the residents of Barnet.

1.5 The Council operates a highway safety inspection regime which is based on the recommendations contained in the Code of Practice for Highway Maintenance "Well Maintained Highways", to ensure that its statutory duties under Section 41 of the Highways Act 1980 are met.

1.6 All defects identified by the Highway Safety Inspectors on the highway network likely to create danger or serious inconvenience to users of the network or the wider community are assessed to determine the risks those defects pose and the level (and timeliness) of remedial actions required based on the danger they pose to road users. In particular, a highway authority has a duty to ensure that so far as is reasonably practicable, that safe passage along the highway is not endangered.

1.7 The preparation of a Highway Maintenance Inspection Manual is a requirement of the national Code of Good Practice for highway maintenance which sets out best practice guidance for highway authorities. The purpose of the manual is to provide details of how highway safety inspections are carried out, the frequency of inspections based on a road hierarchy and intervention levels used in order to identify defects along with associated rectification time periods.

1.8 Barnet's Highway Maintenance Inspection Manual is used to defend third party claims under Section 58 of the 1980 Act as a result of trips and falls.

1.9 **The Highways Act 1980 (S58)**

Section 58(1) states that "In any action against highway authority in respect of damage resulting from their failure to maintain a highway maintainable at public expense it is a defence (without prejudice to any other defence or the application of the law relating to contributory negligence) to prove that the authority had taken such care as in all the circumstances was reasonably required to secure that part of the highway to which the action relates was dangerous for traffic".. In other words, as long as the Council is able to demonstrate that it had taken reasonable care in discharging its duty, i.e. that there is a recognised system in place to inspect, identify and remedy defects such as potholes and damaged pavements within given timeframes and inside the Council's domain, then this would be a defence in court, should a claim be brought against the Council.

The burden of proof is on the Highway Authority to establish that it had taken reasonable care under all the circumstances to ensure that the part of the highway to which the action is related was not dangerous for traffic.

When considering a Section 58 Defence the Court will take into account a number of things to include:

- The character of the highway and the traffic reasonably to be expected to use it;
- The standard of maintenance appropriate for that type of road and traffic;
- The state of repair in which a reasonable person would have expected to find the highway;
- whether the Authority knew, or could reasonably have been expected to know, that the condition of the highway was likely to cause danger to the public
- where the Authority could not reasonably have been expected to repair the highway before the accident occurred, what warning notices of its condition had been displayed.

1.10 The Highway Inspection manual provides the methodology on how the highway network of an Authority is maintained to fulfil the statutory duty and the core objectives recommended by the Code of Practice for Highways Maintenance Management.
These core objectives are:

- Safety – Minimise risks of trips and falls and comply with statutory obligations
- Serviceability – Good even surface without defects
- Sustainability – Minimising cost over time and maximising value to the community

The timescales for the repair of a pothole or damage to a pavement would be dependent on a risk assessment to determine the likelihood of an accident

occurring as a result of the pothole and the severity of the damage it would likely cause should an accident ensue. The risk assessment would include the location of the defect, its size and depth, as well as the usage in terms of traffic volumes of the carriageway where the defect had occurred.

The severity of the defect would be categorised following the risk assessment, and the times for repair would depend on the following:-

- **Emergency (ME)** – completion (or at least made safe) within 2 hours;
- **Category 1** – completion/made safe within 48 hours;
- **Category 2** - completion within 7 working days;
- **Category 3** - completion within 28 working days;
- **Category 4** – defect not considered to need intervention although may be included in future planned works.

The method of repair of a pothole would either be a permanent repair (always for a Cat 2 and 3 and where circumstances allow for an ME or Cat 1,) using hot, bituminous materials, or a temporary repair using cold materials in order to make safe an ME or Cat 1 where a permanent repair is not viable. The decision to make a temporary repair would depend on each individual circumstance, taking into account Health & Safety issues such as speeding traffic or night time repairs, or availability of resources such as over a bank holiday period when some materials may not be easily accessible.

For a paving slab footway construction, a temporary repair may remain in place until the whole footway has been identified as requiring complete or partial relay as part of the annual footway relay work programme and included in this work programme.

1.11 A robust process for the identification and correction of defects on the public highway allows the authority to maximise the levels of service (availability at all times, Network integrity to provide a safe walking environment and condition that is consistent with minimum whole life costing) provided to road users and minimise the risks of claims for private and personal damages.

1.12 Appendix A provides a list of specific defects likely to be seen on any highway network along with investigatory levels and rectification levels as outlined in Barnet's Highway Maintenance Inspection Manual referenced in 1.7.

Furthermore, in operational terms, an explanation of how the Council addresses the different categories of works is outlined below. However if there are planned major maintenance works or improvements in the near future that could resolve the defect, then the temporary repair may be left at the 'made-safe' status. Normally this time period would not exceed 6 months.

- **Category 1** defects should be corrected or made safe at the time of inspection, where reasonably practicable. Permanent repair would be carried out within 28 days.

- **Category 2** defects are those which, following a risk assessment, are deemed not to represent an immediate or imminent hazard or risk of short term structural deterioration. Such defects may have safety implications, although of a far lesser significance than Category 1 defects, but are more likely to have serviceability or sustainability implications.

  These defects are normally permanently repaired on the primary site visit with the provision that no unforeseen issues such as water leaks are identified during the repair process.

- **Category** 3 is used for defects which do not pose an immediate risk to users due to their nature or location on a given asset but still exceed the borough's intervention level. This category is also used for defects likely to become Cat 1 or 2 defects if left untreated until the next cyclic inspection.

  As with Cat 2 defects, these defects are normally permanently repaired on the primary site visit with the provision that no unforeseen issues are identified during the repair process.

- **Category 4** defects are those which are below the Council's agreed intervention level, but are worth noting as potential intervention arising as part of overall planned maintenance works or should budget surpluses occur.

The Authority's Direct Labour Organisation provides an emergency service and undertakes Category 1 repairs with Conways Aecom (Transport for London's London Highways Alliance Contractor) undertaking other work. An information Bulletin giving examples and information on what constitutes an Emergency is included in the Appendices.

2. REPORTING OF DEFECTS TO REPAIR – PROCESS

2.1 Highway issues including defects are raised to the Highways Inspection Team following their schedule inspection regime, by residents of the Borough of Barnet, ward members, stakeholders, utilities and fellow proffessional bodies via email, telephone, the LBB website or public domain websites sites such as 'ReportIt' and 'FixMyStreet'. Officers will also explore the potential of using Apps which can be used on Smartphones to report defects in real time with photo attachments and geocodes to precisely locate the defect.

2.2 All enquiries generate a public enquiry record within the Re. asset management system (Exor). The system will record all the actions relating to an enquiry including contact with the customer, managing the

acknowledment, any further responses and the closure of the enquiry on completion of any works deemed necessary.

2.3 Should a repair be deemed necessary a works order will be generated stating the category of repair required. Emergency (ME) – 2 hour response, CAT 1 -48 hour response, CAT2 - 7 working day response, CAT 3 - 28 working day response or CAT 4 which are submitted for future planned maintenance schemes should resources/budget be available.

3. STATISTICS

3.1 Accidents on the highway such as tripping on the pavements or damage to vehicles in potholes may cause personal injury and loss or damage but it may not necessarily lead to a negligence claim for compensation against the Highway Authority.

3.2 Any claim for compensation must be submitted in writing (letter or email) where a claim will be recorded on the insurance claims database irrespective of the merits of claim as initially presented. An insurance claim, whether from a member of the public direct or a solicitor acting on behalf of the injured party, will be acknowledged usually within a 2 days with a request for further information in order to formally commence an investigation into liability.

3.3 In accordance with Civil Procedure Rules (CPR) for liability claims of this nature, once LBB is in receipt of all required information the formal investigation period commences and the required forms are passed to Highways. Under the CPR, a defendant has 40 business days to either accept or deny liability. Highways Claims Protocols requires Highways to complete their investigation within 21 calendar days of receipt of a claim from the insurance team so liability is generally being determined and communicated with claimants within 15 business days (3 weeks) of commencement.

3.4 The claims investigation process will establish if there is a defect in the pavement or carriageway that meets (or exceeds) the intervention levels as set out in the Highways Manual. If not, the claim will be defended on the basis of not breaching Section 41 of the 1980 Act.

3.5 If it is accepted there is an intervention level defect, Highways must provide evidence of regular safety inspections covering the accident location in accordance with the Highways Manual. Also evidence that any defects noted during these inspections have been ordered and repairs completed. Finally all customer reports or complaints received for the area in the last 12 months prior to the accident date are reviewed to establish if the alleged defective area had been reported to the council in between safety inspections and if so what actions were taken.

3.6 If LBB can demonstrate it has acted reasonably taking all of the above into account, the Council has a statutory defence to any claim under Section 58 of the 1980 Act and liability will be denied. However where LBB cannot

evidence a regular system of safety inspections or the completion of intervention level defects identified, liability is accepted. Claims are negotiated by the Insurance Team, and where appropriate our Insurers, settle on best terms based on medical evidence or estimates and invoices or damage claims. Throughout the claims process the Insurance Team will apply checks and measures to confirm the eligibility of a claim including fraud checks and independent inspections where considered appropriate.

3.7 The figures below show compensation claims received in the last three financial years for tripping accidents on the pavement and damage to vehicles in potholes on the carriageway. How many of these claims have been admitted and settled with the total cost including any legal costs, closed claims where the claim has either been withdrawn or successfully defended and the number of open claims with an estimate on a full liability basis (i.e. if the claim is accepted at the full value of the claim as presented by the claimant irrespective of liability):

2013/2014						
Type	**Number of Claims**	**Admitted**	**Cost (£)**	**Denied / Withdrawn**	**Open**	**Estimated Maximum Liability (£)**
Footway (trips)	**151**	**55**	**374,206**	**83**	**13**	**264,945***
Carriageway (potholes)	**152**	**70**	**25,972**	**82**	**0**	**0**
				***includes 1 claim at £100,000**		

2014/2015						
Type	**Number of Claims**	**Admitted**	**Cost (£)**	**Denied / Withdrawn**	**Open**	**Estimated Maximum Liability (£)**
Footway (trips)	**202**	**50**	**407,486***	**110**	**42**	**828,520****
Carriageway (potholes)	**160**	**85**	**45,449**	**72**	**3**	**3,121**
	***includes 1 claim at £105,000**			****includes 1 claim at £105,000, 1 at £70,000 and 5 over £25,000**		

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2015/16						
Type	**Number of Claims**	**Admitted**	**Cost (£)**	**Denied / Withdrawn**	**Open**	**Estimated Maximum Liability (£)**
Footway (trips)	**183**	**13**	**43,345**	**57**	**113**	**1,721,659****
Carriageway (potholes)	**141**	**48**	**14,662**	**32**	**61**	**39,206**
				****includes 1 claim at £70,000 and 6 over £25,000**		

3.8 Information relating to the number of emergency repairs (ME) and the number of enquiries received relating to carriageway defects and footway defects over the past 3 years is provided in the table below:

	2013/2014	2014/2015	2015/16
	Number of Enquiries	**Number of Enquiries**	**Number of Enquiries**
Emergency (ME)		**381**	**562**
Carriageway enquiries	**1915**	**1511**	**1869**
Footway enquiries	**3547**	**1982**	**2570**

LBB has recognised the risks involved in any deterioration of the network and is in the process of investing an additional £50m through the Network Recovery Programme.

Network Recovery Programme (NRP)

Historically there has been a lack of investment in the highway infrastructure, not only in Barnet but throughout the country, resulting in a poor quality asset.

In April 2015 Barnet council allocated a budget of £50 million over a 5 year period commencing in 2015/16 for a 'Network Recovery Plan' (NRP) aimed at halting the deterioration of its highway network.

The following considerations are taken into account when determining which roads and footways are to be included in the NRP.

- Amount of reactive repairs carried out.
- Number of third party claims

- Number of defects identified via inspections and condition surveys
- Character of the road i.e close proximity to hospitals, schools, doctor's surgeries, residential homes, shopping areas.
- Volumes of traffic/pedestrians
- Number of enquiries /complaints.

It is also intended to provide a planned maintenance solution to an area where reactive maintenance allocation has already been targeted by the council. The Highways strategy proposes to reduce future reactive maintenance spend as well as aspiring to reduce costs of insurance claims from third parties.

As part of the 15/16 budget process, a 5 year budget was set for Investment in Roads and pavements, totalling £50.375m. The current profile of that spend is as follows:-

	Outturn	Budget	Budget	Budget	Budget	Total
	2015/16	2016/17	2017/18	2018/19	2019/20	
	£000	£000	£000	£000	£000	£000
Investment in Roads and Pavements	15,365	12,965	8,000	8,000	6,375	50,705

Note that the current programme gives a total spend of £50.705m, an increase of £330k from the budget agreed for 2015/16.

4. DEFECT MANAGEMENT

4.1 To ensure that the repairs of Emergenc**y (ME), Cat 1 and Cat 2 defects are carried out within the prescribed parameters of the Key Performance Indicators (KPI), the following process is in place:**

Emergency and Cat 1 defects: LLB DLO Direct Labour Organisation

- Issues are identified by either the inspector or reported directly to the Hub who then investigate the report and classify the defect accordingly.
- Emergency defects are passed directly to the contractor via EXOR – DLO supervisor ensures necessary resources are available to the contractor for completion within required deadline.
- A daily report is forwarded to SRO and Service Directors listing all open cases.
- Only once the job ticket has been closed by the contractor in Exor will the service deem the issue to be closed.
- Inspectors carry out spot checks on repairs to confirm quality of repair and to ensure all works completed.
- There may be occasions where the Cat 1 defect cannot be completed within the required timescale for a number of reasons including:
    - Health and safety considerations
    - Severe weather conditions
    - Parked vehicles obstructing access to a defect
    - Works by utilities in the vicinity
    - Traffic issues
    - Planned maintenance works taking precedence.

In situations such as these a temporary safety repair may be undertaken to ensure public safety is maintained. The cost of carrying out such a temporary safety repair is calculated at £25.02 per square metre, against £37.84 per square metre for a permanent repair. As outlined above, such temporary repairs are only carried out as a last resort and wherever possible a permanent repair will be undertaken as the first consideration.

Where the Council asks the contractor to carry out the temporary repair, full responsibility for both the defect and its repair remains with Highways.

If, however, the contractor **chooses** to carry out a temporary repair rather than a permanent one, any risk associated with the defect is the responsibility of the contractor until a permanent repair has been completed. Under these circumstances, any additional costs associated with the contractor completing a permanent repair, including maintenance of the temporary repair in the meantime, will be met by the contractor.

Cat 2 defects: Conway Aecom

- Issues are identified by either the inspector or reported directly to the Hub who then investigate the report and classify the defect accordingly.

- Cat 2 defects are passed directly to the contractor via EXOR – Conway Aecom supervisor ensures necessary resources are available to the contractor for completion within required deadline.
- A daily report is forwarded to SRO and Service Directors listing all open cases more than 4 days old.
- The service commits to chase each defect at least once during the 4 to 7 day period.
- Only once the job ticket has been closed by the contractor in Exor will the service deem the issue to be closed.
- Inspectors carry out spot checks on repairs to confirm quality of repair and to ensure all works completed.
- As with Cat 1 defects there may be occasions where the defect is unable to be completed within required timescale. Where this is not possible, a permanent repair should be undertaken within 28 days. No additional cost is incurred by the authority.
- Should planned maintenance or improvement works which would or could permanently resolve the issue be scheduled within the following 12 months then the defect may be left at the 'made safe' status until this time.

The following table shows the number of Emergency Repairs (ME) defect repair requests; Cat 1 defect repair requests; and Cat 2 defect repair requests that have been received each month against the number completed within the given time frame of the Key Performance Indicator (KPI). The analysis in the final column shows the success rate given as a percentage for each quarterly period.

The table clearly demonstrates that since the commencement of the Network Recovery Programme, there has been a significant reduction in the number of Emergency Repairs received. It is also evident that while the overall number of Cat 1 and Cat 2 defect repairs are still significant, which will remain the case due to the impact of severe weather , utility works and lack of resource invested previously in the highway network, those that have been received are now being addressed within the required timescales.

Number of Pothole Repairs								
Month	Emergency Repairs (ME) Number completed within timescale / number received	Emergency Repairs (ME) Number completed within timescale / number received	% Completed within timescale	CAT 1 Number completed within timescale / number received	% Complete within timescale	CAT 2 Number completed within timescale / number received	% Complete within timescale	Quarterly Analysis
May-16	0	0	N/A	114/114	100%	85/85	100%	There were no Emergency Repair defect requests, while 99.5% of both Cat 1 and Cat 2 requests received this quarter were completed (Apr/May)
Apr-16	0	0	N/A	195/196	99%	97/98	99%	
Mar-16	0	0	N/A	184/184	100%	106/106	100%	There were no Emergency Repair defect requests, while 98% of Cat 1 requests and 96% of Cat 2 requests received this quarter were completed.
Feb-16	0	0	N/A	196/197	99%	69/78	88%	
Jan-16	0	0	N/A	208/216	96%	33/33	100%	
Dec-15	1/1	1	100%	95/95	100%	30/34	88%	100% of both Emergency Repair defect requests and Cat 1 requests received were completed while 96% of Cat 2 requests received this quarter were completed.
Nov-15	1/1	1	100%	107/107	100%	46/46	100%	
Oct-15	0	0	N/A	100/100	100%	31/31	100%	
Sep-15	0	0	N/A	89/89	100%	21/21	100%	No Emergency Repair defect requests received this quarter while 100% of both Cat 1 and Cat 2 requests received this quarter were completed.
Aug-15	0	0	N/A	73/73	100%	19/19	100%	
Jul-15	0	0	N/A	62/62	100%	21/21	100%	
Jun-15	2/2	2	100%	64/64	100%	31/31	100%	100% of Emergency Repair defect requests received were completed this quarter while 99.9% of Cat 1 requests and 99.3% of Cat 2 requests received this quarter were completed.
May-15	0	0	N/A	163/164	99%	49/50	99%	
Apr-15	1/1	1	100%	163/163	100%	45/46	99%	
Mar-15	1/1	1	100%	306/316	97%	37/37	100%	77.67% of Emergency Repair defect requests received were completed this quarter while 97% of Cat 1 requests and 43% of Cat 2 requests received this quarter were completed.
Feb-15	18/20	18/20	90%	270/274	98%	7/24	29%	
Jan-15	7/16	4/9	43%	214/222	96%	0/20	0%	

Further factors which have an impact on the continuous maintenance of public footways include damage caused by building devleopments and by root growth from trees planted on the footway. The Highways department are proactively looking at sustainable approaches to counteract both of these issues.

Damage to the Public Highway by Builders:

The Highways department undertook a pilot study over a 3 month period in an area of the Borough which had the most development sites. A dedicated officer inspected every development location in the area and, where visible damage to the highway fronting the development was observed, notice was served on the developer under Section 133 of the Highways Act 1980. This notice informed the developer of the Council's intention to recover the cost of the damage from them or required them to repair the damage to the Council's satisfaction.

The trial evidenced potential for recovering a significant amount of the cost of repair for a large number of the areas of damaged footway caused directly by development activities throughout the Borough.

Highways have determined that the trial was a success and the continuation of the scheme will result in safer footways. It would also contribute to the Corporate Objectives by promoting responsible growth, development and success across the Borough, as well as improving the satisfaction of residents and businesses within the London Borough of Barnet as a place to live, work and study. The well maintained roads and pavements provide a cleaner and more attractive environment which will help residents to feel confident when moving around their local area on foot and supports the Council's Health and Wellbeing Strategy.

The successful recovery of costs should also reduce the expenditure burden on the Council's reactive maintenance budget, and is expected to realise a reduction in the number of complaints and third party claims associated with any slips, trips and falls on damaged footways fronting developments.

Highway trees:

The Borough of Barnet is recognised as being one of the 'greenest boroughs' within London and the Council are keen for this to continue. However, the planting and maintenance of highway trees on the public highway places additional challenges on the authority to ensure public safety is maintained.

Typical issues include:

- Disruption of footway surfaces due to root growth from the trees resulting in trip hazards and potholes.
- Increase in third party claims as a result of trips.
- Damage to private property such as garden walls
- Damage to drainage systems due to root penetration of pipelines and chambers.

- Damage to utility apparatus

The Council's Greenspaces Department, who manage highway trees on behalf of the authority, intend to introduce a 'Tree Strategy' which will outline the importance of trees as assets of the Borough.

The strategy will include guidance on the suitability of different tree species together with a specification for suitable sustainable materials to be considered for use in tree pits and the surrounding footway. This strategy is aimed at reducing the negative impact of tree roots on footways.

A report on the Tree Strategy is being prepared and will be presented at a future Environment Committee.

5. REASON FOR RECOMMENDATIONS

5.1 There is no recommendation as such, but the Environment Committee is to note the above response to the two Member's items and consider and comment on the information provided in this report.

6. ALTERNATIVE OPTIONS CONSIDERED AND NOT RECOMMENDED

6.1 There are no relevant options to be considered within the context of this report

7. POST DECISION IMPLEMENTATION

7.1 Highways implement the reactive maintenance service on behalf of the council in accordance with the code of Practice for Highway Maintenance Management and the council's Highway Inspection Manual.

8. LEGAL AND CONSTITUTIONAL REFERENCES

8.1 Section 41Highways Act 1980 places a duty on local authorities to maintain the highway at public expense and s58 of the 1980 Act provides a statutory defence where the Highway Authority has taken reasonable care under all the circumstances to ensure that the part of the highway to which the action is related was not dangerous for traffic

9. RISK MANAGEMENT

9.1 None in the context of this report. Risk management may be required for work resulting from this report.

10. EQUALITIES AND DIVERSITY

10.1 Highway maintenance management should be inclusive, providing for all people regardless of age or ability. There is a general duty for public authorities to promote equality under Section 149 of the Equality Act 2010 There is also a specific obligation for those who design, manage and maintain buildings and public spaces to ensure that disabled people play a full part in benefiting from, and shaping, an inclusive built environment.

10.2 The 2010 Equality Act outlines the provisions of the Public Sector Equalities Duty which requires Public Bodies to have due regard to the need to:

- eliminate unlawful discrimination, harassment and victimisation and other conduct prohibited by the Equality Act 2010;
- advance equality of opportunity between people from different groups;
- foster good relations between people from different groups

The broad purpose of this duty is to integrate considerations of equality into day to day business and keep them under review in decision making, the design of policies and the delivery of services.

11. IMPLICATION OF DECISIONS

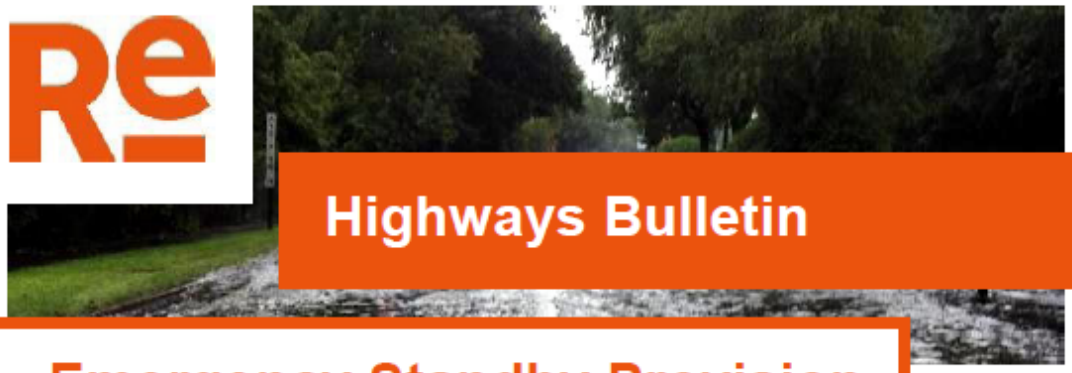
There are no implication of decisions in context to this report

12. BACKGROUND PAPERS

See Appendix A as part of this report.

Appendix A - List of specific defects and investigatory/rectification levels

Item	Defect	Investigatory Level
Carriageway	Pothole/spalling	40mm depth (no deeper than a golf ball)
	Crowning	50mm (area as NRSWA Code of Practice)50mm (area 2 sq.m)(no deeper than a tennis ball)
	Depression/rutting	40mm
	Gap/crack	40mm depth (20mm wide)
	Sunken ironwork	25mm level difference (no deeper than the height of a 50pence piece)
Pedestrian Crossing	Trip/pothole	25mm depth
Footway	Trip/pothole	25mm depth
	Rocking slab/block	25mm vertical movement
	Open joint	25mm width × 200mm length (min depth 20mm)(no wider than a tea plate)
	Tree root damage	25mm trip
	Sunken ironwork	25mm level difference
	Defective coal plates/basement lights etc	25mm trip
Surfacing	Missing/defective skid resistant carriageway	If present
	“Bubbled” mastic asphalt footway	25mm trip
Kerbing	Dislodged /loose/rocking/missing	50mm horizontally (slightly bigger than a golf ball) 25mm vertically yes/no
Ironwork	Broken/cracked cover likely to cause a hazard	If present
	Missing cover	Where not present
	Level difference within framework	15mm



Highways Bulletin

Emergency Standby Provision

As the Highways Service for the London Borough of Barnet we provide a 24 HOUR, 7 DAYS A WEEK, 365 DAYS PER YEAR emergency standby service to ensure that we at Highways can respond appropriately to those issues of greatest risk.

Last year 2014/15 we dealt with 1355 such emergencies.

An emergency is considered by the Code of Practice as those defects that require prompt attention because they represent an immediate or imminent hazard, or because there is a risk of short-term structural deterioration.

Incidents would include:

- Road traffic accidents
- Debris, including mud, chemical and clinical waste
- Large dead animals, for example cattle/deer/horse causing obstruction
- Fallen tree or branch blocking part or all the road or path
- Floods
- Swallow holes
- Obstructions on the highway
- Exposed electrical wires for traffic signals, street lights etc.

Should you become aware of an issue that requires urgent attention between the hours of 09.00-17.15 Mon -Thurs or 09.00-17.00 on Fri please call 020 8359 3555. Outside of these hours please call 020 8359 2000, whereupon a standby engineer will attend to assess the situation and take appropriate action.

As with all premium emergency services we need to ensure that resources are used for their intended purpose and should therefore only be used for urgent situations.

All other defects on the highway should be reported via 020 8359 3555 during office hours.

Re Highways Bulletin number 1

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