



Havering
LONDON BOROUGH

HIGHWAYS ADVISORY COMMITTEE

17 December 2019

Subject Heading:

**RAINHAM ROAD CASUALTY
REDUCTION PROGRAMME –
PROPOSED SAFETY IMPROVEMENTS
(The Outcome of public consultation)**

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Policy context:

**Havering Local Development
Framework (2008)
Havering Local Implementation Plan
2018/19 Delivery Plan**

Financial summary:

**The estimated cost of £0.070m for
implementation will be met by
Transport for London through the
2019/20 Local Implementation Plan
allocation for Casualty Reduction
Programme – Rainham Road (A3067).**

**The subject matter of this report deals with the following Council
Objectives**

Havering will be clean and its environment will be cared for	<input checked="" type="checkbox"/>
People will be safe, in their homes and in the community	<input checked="" type="checkbox"/>
Residents will be proud to live in Havering	<input type="checkbox"/>

SUMMARY

Rainham Road – Casualty Reduction Programme was one of the schemes approved by Transport for London for funding for 2019/20.

A feasibility study was undertaken to identify safety improvements including a mini roundabout, pedestrian refuges, pedestrian refuge with minor carriageway widening, vehicle activated signs, road markings and road signs to reduce the casualty rate along the street. A public consultation has been carried out and this report details the findings of this consultation and recommends that the safety improvements as detailed in the recommendation be approved.

The scheme is within **Elm Park** and **South Hornchurch** wards.

RECOMMENDATIONS

1. That the Committee having considered the representations and information set out in this report recommends to the Cabinet Member for Environment in consultation with the Leader of the Council that the safety improvements as detailed below and shown on the relevant drawings be implemented as follows:
 - (a) Rainham Road east of Dunningford Close
 - Replacing existing pedestrian refuge with wider Pedestrian refuge;
 - Minor carriageway widening as shown on drawing reference QS004/1.
 - (b) Rainham Road opposite to property No.275 Rainham Road
 - 30mph vehicle activated sign as shown on drawing reference QS004/2.
 - (c) Rainham Road / Fyfield Road Junction
 - Mini roundabout
 - Pedestrian refuge with minor carriageway widening as shown.
 - Relocation of speed table as shown on drawing reference QS004/3.
 - (d) Rainham Road outside property Nos: 9 and 11 Rainham Road
 - Pedestrian refuge as shown on drawing reference QS004/4.
2. That, it be noted that the estimated costs of £0.070m, will be met from the Transport for London's ("TfL") 2019/20 Local Implementation Plan allocation for Casualty Reduction.

REPORT DETAIL

1.0 Background

- 1.1 In November 2018, Transport for London ("TfL") approved funding for a

number of Casualty Reduction Schemes as part of the 2019/20 Local Implementation Plan. The 'Rainham Road - Casualty Reduction Programme' was one of the schemes approved by TfL. A feasibility study has been carried out to identify potential casualty reduction measures in the area. The feasibility study looked at ways of reducing casualties and risk exposure (especially to vulnerable users) and a series of safety improvements were identified. Following completion of the study, the safety improvements, as set out in this report, were taken forward to a formal public consultation.

- 1.2 The Government and Transport for London have set targets for 2020 to reduce Killed or Serious Injury collisions ("KSIs") by 40%; Child KSIs by 50%; pedestrian, cyclist KSI's by 50% and slight injuries by 25% from the baseline of the average number of casualties for 2005-09.
- 1.3 The Mayor's Vision Zero Strategy aims to eliminate deaths and serious injuries on London's road and street network including **Haverling** roads in light of previous incidents. The Mayor's aim is for no-one to be killed in or by a London Bus by 2030 and for all deaths and serious injuries from road collisions to be eliminated from London's roads and streets by 2041. The main targets are as follows:
 - (a) 65% reduction in KSIs by 2022 against 2005-2009 baseline average
 - (b) 70% reduction in KSIs by buses by 2022 against 2005-2009 baseline average
 - (c) 70% reduction in KSIs by 2030 against 2010-2014 baseline average
 - (d) 0 KSIs by 2041
 - (e) 0 KSIs by buses by 2030

The Rainham Road Casualty Reduction Scheme was develop to help to meet the above targets.

Traffic Survey Results Summary

- 1.4 Traffic surveys showed that two-way traffic flows are up to 1700 vehicles per hour during peak periods along Rainham Road north of Anstead Drive.

A speed survey was carried out and the results are as follows.

Location	85%il Speed (mph)		Highest Speed (mph)	
	Eastbound/ Northbound	Westbound/ Southbound	Eastbound/ Northbound	Westbound/ Southbound
Rainham Road between Nelson Road and Hubert Road (off peak)	38	37	50	50
Rainham Road between Nelson Road and Hubert Road (Peak)	30	30	40	40

Rainham Road north of Anstead Drive (Off peak)	40	35	50	45
Rainham Road north of Anstead Drive (Peak)	31	30	40	40

The 85th percentile traffic speed (the speed at which 85% of vehicles are travelling at or below) along Rainham Road exceeds the 30mph speed limit. Officers consider these speeds to be excessive and a contributory factor in collisions and risk exposure.

Injury Collision Data

- 1.4 In the five-year period to 31st May 2018, **sixty three** personal injury collisions (PICs) were recorded along Rainham Road between Newtons Corner and Dovers Corner. Of these sixty three PICs, eight (13%) were serious; nine (14%) involved pedestrians; ten (16%) involved children; five (8%) involved cyclists; nine (14%) involved motorcyclists; five (8%) were speed related and twenty one (33%) occurred during the hours of darkness.

Details of PICs are as follows:

Location	Fatal	Serious	Slight	Total PIAs
Rainham Road / Dagenham Road Roundabout (Newtons corner)	0	1	1 (1-Ped)	2
Rainham Road between Newtons Corner and Stanley Road North	0	0	1	1
Rainham Road / Stanley Road North Junction	0	0	3 (1-Ped)	3
Rainham Road between Stanley Road North and Fyfield Road	0	1 (1-Dark)	0	1

Rainham Road / Fyfield Road Junction	0	0	7 (2-Ped) (2-Dark) (3-speed)	7
Rainham Road between Fyfield Road and Harlow Road	0	0	2 (1-Ped)	2
Rainham Road / Harlow Road Junction	0	0	2 (1-Ped)	2
Rainham Road / Blacksmiths Lane Junction	0	0	2 (1-Dark)	2
Rainham Road between Blacksmiths Lane and Hubert Road	0	0	1 (1-Dark)	1
Rainham Road between Hubert Road and Cherry Tree Lane	0	1 (1-Dark)	3 (2-Dark) (1-speed)	4
Rainham Road / South End Road / Cherry Tree Lane Traffic Signal Junction	0	2 (2-Ped) (2-Dark)	11 (4-Dark)	13
Rainham Road / Cherry Walk Junction	0	0	1	1
Rainham Road between Stanhope Road and Victory Road	0	0	1	1
Rainham Road / Victory Road Junction	0	1	0	1
Rainham Road / Anstead Drive Junction	0	0	1	1
Rainham Road / Knightswood Road Junction	0	1	0	1

Rainham Road / Dominion Way North Junction	0	0	2 (1-Ped) (1-Dark)	2
Rainham Road / Dominion Way South Junction	0	0	4 (1-Dark) (1-speed)	4
Rainham Road between Dominion Way and Dovers Corner	0	1 (1-Dark)	1 (1-Dark)	2
Rainham Road / A1306 New Road Roundabout (Dovers Corner)	0	0	12 (3-Dark)	12
Total	0	8	55	63

Proposals

1.5 The following safety improvements were proposed along Rainham Road to reduce vehicle speeds and minimise collisions.

- (a) Rainham Road east of Dunningford Close (Plan No:QS004/1)
 - Replacing existing pedestrian refuge with wider Pedestrian refuge.
 - Minor carriageway widening as shown.
- (b) Rainham Road opposite to property No.275 Rainham Road (Plan No.QS004/2)
 - 30mph vehicle activated sign
- (c) Rainham Road / Fyfield Road Junction (Plan No:QS004/3)
 - Mini roundabout
 - Pedestrian refuge with minor carriageway widening as shown.
 - Relocation of speed table
- (d) Rainham Road outside property Nos: 9 and 11 Rainham Road (Plan No. QS004/4)
 - Pedestrian refuge as shown.

2.0 Outcome of public consultation

2.1 Letters, describing the proposals were delivered to local residents / occupiers. Approximately, 350 letters were delivered via post to the area affected by the proposals. Emergency Services, bus companies, local Members and cycling representatives were also consulted on the proposals. Seven written

responses from Local Members and residents were received and the comments are summarised in the Appendix 1. The Local Members expressed support for the scheme. Three residents are in favour of the scheme. One resident raised concerns about the parking bays along Rainham Road by Dunningford Close. One resident objected to the mini roundabout proposal at the Rainham Road / Fyfield Road junction. Details of the comments are shown in the Appendix 1.

- 2.2 Details of some of the operational Casualty Reduction Schemes implemented within Havering, TfL's targets, Mayor's vision zero Strategy and traffic calming techniques are summarised in the Appendix 2.

3.0 Officers' comments and conclusions

- 3.1 The collision analysis indicated that **sixty three** personal injury collisions (PICs) were recorded along Rainham Road between Newtons Corner and Dovers Corner. Of these sixty three PICs, eight (13%) were serious; nine (14%) involved pedestrians; ten (16%) involved children; five (8%) involved cyclists; nine (14%) involved motorcyclists; five (8%) were speed related and twenty one (33%) occurred during the hours of darkness.
- 3.2 Appendix 2 provides commentary /analysis of the effectiveness of implemented Casualty Reduction Schemes, traffic calming measures and other features used in the Council's Casualty Reduction Programme, TfL's targets, Mayor's Vision Zero Strategy, UK Traffic calming techniques and their effect.
- 3.3 Officers prepared a set of proposals which are considered appropriate for Rainham Roads' class of road. These measures should influence driver behaviour and reduce the risk exposure of vulnerable road users to collisions. Officers' recommend that all suggested measures should be implemented.
- 3.4 The proposed safety improvements as detailed in the recommendation would minimise collisions, particularly for vulnerable road users along Rainham Road.

IMPLICATIONS AND RISKS

Financial implications and risks:

This report is asking HAC to recommend to the Cabinet Member the implementation of the above scheme.

The estimated cost of £0.070m for feasibility, consultation and implementation will be met by Transport for London through the 2019/20 Local Implementation Plan allocations for Rainham Road Casualty Reduction Programme (A3067). The funding will need to be spent by 31st March 2020, to ensure full access to the grant.

The costs shown are an estimate of the full costs of the scheme, should all proposals be implemented. It should be noted that subject to the recommendations of the committee a final decision would then be made by the Lead Member – as regards actual implementation and scheme detail. Therefore, final costs are subject to change.

This is a standard project for Environment and there is no expectation that the works cannot be contained within the cost estimate. There is an element of contingency built into the financial estimate. In the unlikely event of an overspend, the balance would need to be contained within the overall Environment budget.

Legal implications and risks:

The Council's power to construct and maintain places of refuges for the protection of pedestrians in the maintained highway is set out in Part V of the Highways Act 1980 ('HA1980')

The Council's power to construct road humps in highway maintainable at public expense is set out in Part V of the HA 1980. Before making an order under this provision the Council should ensure that the statutory procedures set out in section 90C, Part V of the HA 1980 and the Highways (Road Humps) Regulations 1999 are complied with. The Traffic Signs Regulations and General Directions 2016 govern road traffic signs and road markings

The Council's power to make an Order regulating or controlling vehicular traffic on roads is set out in section 6 of Part 1 of the Road Traffic Regulations Act 1984 ("RTRA"1984). Schedule 1 of the RTRA 1984 lists those matters as to which Orders can be made under section 6. The Traffic Signs Regulations and General Directions 2016 govern road traffic signs and road markings.

Section 122 RTRA 1984 imposes a general duty on local authorities when exercising functions under the RTRA. It provides, insofar as is material, to secure the expeditious, convenient and safe movement of vehicular and other traffic (including pedestrians) and the provision of suitable and adequate parking facilities on and off the highway. This statutory duty must be balanced with any concerns received over the implementation of the proposals.

In considering any responses received during consultation, the Council must ensure that full consideration of all representations is given including those which do not accord with the officer's recommendation. The Council must be satisfied that any objections to the proposals were taken into account.

In considering any consultation responses, the Council must balance the concerns of any objectors with the statutory duty under section 122 RTRA 1984.

Human Resources implications and risks:

The recommendations made in this report do not give rise to any identifiable HR risks or implications that would affect either the Council or its workforce.

Equalities Implications and Risks:

The Council has a general duty under the Equality Act 2010 to ensure that its highway network is accessible to all users. Where infrastructure is provided or substantially upgraded, reasonable adjustments should be made to improve access. In considering the impacts and making improvements for people with protected characteristics (mainly, but not limited to disabled people, the young and older people), this will assist the Council in meeting its duty under the Act.

Havering has a diverse community made up of many different groups and individuals. The council values diversity and believes it essential to understand and include the different contributions, perspectives and experience that people from different backgrounds bring.

The Public Sector Equality Duty (PSED) under section 149 of the Equality Act 2010 requires the council, when exercising its functions, to have due regard to:

- (i) the need to eliminate discrimination, harassment, victimisation and any other conduct that is prohibited by or under the Equality Act 2010;
- (ii) the need to advance equality of opportunity between persons who share protected characteristics and those who do not, and;
- (iii) foster good relations between those who have protected characteristics and those who do not.

Note: 'Protected characteristics' are: age, sex, race, disability, sexual orientation, marriage and civil partnerships, religion or belief, pregnancy and maternity and gender reassignment.

The council demonstrates its commitment to the Equality Act in its decision-making processes, the provision, procurement and commissioning of its services, and employment practices concerning its workforce. In addition, the council is also committed to improving the quality of life and wellbeing of all Havering residents in respect of socio-economics and health determinants.

There would be some visual impact from the proposals; however these proposals would generally improve safety for both pedestrians and vehicles.

BACKGROUND PAPERS

None.

APPENDIX 1

SUMMARY OF RESPONSE

RESPONSE REF:	COMMENTS	STAFF COMMENTS
QS004/1 (Elm Park Member 1)	I have no problems with this scheme as the only item that affects Elm Park ward is the two proposed vehicle activated school signs.	-
QR004/2 (Elm Park Member 2)	I have no problems with this scheme as the only item that affects Elm Park ward is the two proposed vehicle activated school signs.	-
QS004/3 (Oswald Close resident 1)	As a parent and a resident to this area I strongly agree on this improvement. The request for speed humps along Rainham Road by Oswald Close.	Further measures could be considered at a later date if necessary.
QS004/4 (Oswald Close resident 2)	As one of the many families with young children on the Dunningford Chase development, we welcome the proposed improvement. We would question if the improvement go far enough, and would suggest the consideration of a speed table in addition to the upgraded pedestrian refuge due to the speed at which some vehicles approach this area from the south, which is a blind bend.	Further measures could be considered at a later date if necessary.
QS004/5 (Rainham Road resident 1)	I am a resident of Rainham Road and have been for the past 43 years. I agree vehicles travel at extreme speeds at times and usually when the road is quiet but I feel that this could easily be controlled by a speed camera which would also provide some income for the Council. The small planned roundabout would further slowdown traffic during busy periods and cause further problems on surrounding roads and may result in a fatality. If you feel that it is necessary to reduce the flow of the traffic further then I feel the best solution is to add another zebra crossing or move the existing zebra crossing at the end of Blacksmiths Lane closer to Harlow Road.	The Transport for London is responsible for the selection, installation and maintenance of the speed cameras in London. The Council is not responsible for the installation of speed cameras. As Harlow Road and Blacksmiths Lane are located very close to each other, it is not necessary to relocate the zebra crossing.
QS004/6 (Dunningford Close resident)	I think that the plan to widen the pedestrian refuge and widen the carriageway is a bad idea. As it appears that the lamp column you are referring to is located near to parking bay which are used by residents of Dunningford Close and those who use the field opposite and	The lamp column will be moved towards the buildings, not along the kerb lines. All the parking bays will be kept with minor changes.

	thus moving the light will put in the parking bays that are in use so I think it should be left as it is.	
QS004/7 (Rainham Road resident 2)	<p>We refer to the proposed mini roundabout with pedestrian refuge and minor carriageway widening at the junction of Rainham Road and Fyfield Road to which we strongly object.</p> <p>Entering and exiting my property will become more hazardous as a result of the changes particularly when existing from the right hand side of the property, when looking from the front of the house. There will be insufficient room to follow the road markings when turning right, to do so requires a 360 degree turn around the roundabout for which there is insufficient room, when heading toward the Cherry Tree cross road. Thus we will have to cut across the lanes of three lines of traffic coming from the left and right along Rainham Road and that which is turning left from Fyfield Road, given the new right of way from each direction.</p> <p>During the morning and evening rush hour traffic will be stopping and slowing to negotiate the roundabout this will undoubtedly increase queues, noise and exhaust pollution, Given that heavy lorries have been redirected from Dagenham to use Dagenham Road and Rainham Road to reach the A13 over the last few years the noise and pollution levels have already increased. The effect of the roundabout will only make matters worse. We are also concerned about the impact this development will have on the value of our property, which we see as detrimental. We are therefore seeking advice from local estate agents and values to make a determination on the effect of the proposed changes. If there should be a reduction of value we will be seeking compensation from the London Borough of Havering</p> <p>I thank you for your attention to this matter and await your recommendation to reduce the hazards to which we elude.</p>	<p>Staff considered that as this property has two entrance/exit points, accessing the property would not cause significant problems as a result of the mini roundabout proposal. If the resident has concerns about exiting from the east side entrance, they could use west side entrance to turn right into Rainham Road.</p> <p>The mini roundabout proposal would not cause significant changes to noise and pollution compared with the existing levels.</p> <p>The Highways team cannot comment on the property value and compensation.</p>

APPENDIX 2

SUMMARY OF CASUALTY TARGETS, CASUALTY REDUCTION, TRAFFIC CALMING TECHNIQUES AND THEIR EFFECT

1. PERCENTAGE OF CASUALTY REDUCTION

The following table shows the percentage of casualty reduction achieved on the implementation of Accident Reduction Programme schemes in recent years using vertical deflections such as humped crossings, speed tables and speed cushions.

SCHEME	IMPLEMENTATION DATE	PERCENTAGE CASUALTY REDUCTION
Mawney Road and White Hart Lane Between A12 and Collier Row Road	March 2012	77%
Hornchurch Town Centre (20mph zone)	June 2012	45%
Collier Row Lane Between Goring Road and Playfield Avenue	March 2014	60%
Crow Lane Whole length	March 2015	40%
Dagnam Park Drive Between Gooshays Drive and Chudleigh Road (20mph zone)	January 2016	100%
Rainham Road Between Ford Lane and Wood Lane	December 2016	50%

Please note that vertical deflections such as humped crossings, speed tables, speed cushions were used in all the above schemes to reduce accidents. The casualties are compared before and after implementation of the schemes.

2. TFL 2020 CASUALTY TARGETS

The Government and Transport for London have set targets for 2020 to reduce Killed or Serious injury accidents (KSI) by 40%; Child KSIs by 50%; pedestrian, cyclist KSI's by 50% and slight injuries by 25% from the baseline of the average number of casualties for 2005-09. The **Havering** Accident Reduction Programme, funded by Transport for London will help to meet these targets.

3. LONDON MAJOR'S VISION ZERO STRATEGY

The Major's Vision Zero Strategy aims to eliminate deaths and serious injuries on London's road and street network including **Havering** roads in the light of previous incidents. The Major's aim is for no-one to be killed in or by a London Bus by 2030 and for all deaths and serious injuries from road collisions to be eliminated from London's road and street by 2041. The main targets are as follows:

- (a) 65% reduction in KSIs by 2022 against 2005-2009 baseline average
- (b) 70% reduction in KSIs by buses by 2022 against 2005-2009 baseline average
- (b) 70% reduction in KSIs by 2030 against 2010-2014 baseline average
- (d) 0 KSIs by 2041
- (e) 0 KSIs by buses by 2030

4. TRAFFIC CALMING TECHNIQUES IN UK AND THEIR EFFECT ON SPEED REDUCTION, ACCIDENT REDUCTION AND AIR QUALITY/ HEALTH/ POLLUTION

(a) TRAFFIC CALMING TECHNIQUES

The following 'Traffic calming techniques' are widely used in UK.

- (1) Vertical deflections include Road hump, speed table, speed cushions, rumble strips
- (2) Horizontal deflection include Chicanes
- (3) Road Narrowing
- (4) Central islands
- (5) Traffic calming at junctions includes changes in alignment, roundabout and mini roundabouts.
- (6) Gateway measures include different surface materials, traffic islands, 20/30mph road signs
- (7) Speed cameras and speed limit changes
- (8) Traffic management measures include road closures and one way streets

All the above traffic calming measures are not suitable for all the roads in **Havering**. The selected traffic calming measures are generally used depending on the road character and nature of achievement such as speed reduction and accident reduction.

(b) SPEED REDUCTION

Vertical deflections such as road humps, speed tables and speed cushions in the carriageway have a **greater impact on vehicle speeds** than any other measures. In order to achieve greater vehicle speeds reduction, the vertical deflections need to be placed close apart which may require greater funding.

(c) ACCIDENT REDUCTION

The impact of traffic calming schemes on accident levels is generally related to both the speed reducing effect of the scheme and any reduction in traffic levels as a consequence of it. Slower vehicle speeds in 20mph speed limit roads compared with 30mph or over speed limit roads, not only reduce the occurrence of the accidents, but also have a significant effect on their severity such as from fatal and serious injuries to slight injuries.

(d) AIR QUALITY / HEALTH / POLLUTION

WHAT IMPACT DO SPECIFIC SCHEMES HAVE ON AIR QUALITY AND HEALTH?

The Transport for London research suggests:

(i) 20mph zones **do not increase air pollution**. Imperial College University's evaluation of 20mph zones in London suggested they had **no net negative impact on exhaust emissions** and resulted in clear benefits to driving style and associated particulate emissions.

(ii) Speed bumps generate small, local increase in emissions, but the health impacts are likely to be **negligible**. They dramatically reduce road danger and support the Health Street Approach. It is uncertain whether speed bumps have negative impacts on air quality over the whole area of a scheme. There is good evidence they are one of the best ways to reduce vehicle speeds and are expected to reduce collisions by around 44%. Speed tables should be considered as an alternative to speed bumps.

(iii) Protected cycle lanes tend not to prolong journey time and are **not expected to increase air pollution**.