

LONDON BOROUGH OF RICHMOND UPON THAMES**TRANSPORT CONSULTATIVE GROUP**

DATE: May 20th 2009

REPORT OF: Head of Highways & Transport

LEAD OFFICER: Aurang Zeb

SUBJECT: Petersham Road 20mph zone

WARDS: Petersham and Richmond Riverside

KEY DECISION? No

IF YES, IN FORWARD PLAN? No

1. PURPOSE OF THE REPORT

- 1.1 This report summarises the findings of a post construction review of additional traffic calming measures introduced in Petersham Road and suggests future actions in relation to its findings.

EXECUTIVE SUMMARY

- 1.2 Following the introduction of additional traffic calming measures in Petersham Road a post construction review was undertaken to investigate the effect on several different criteria, including accidents, speed, noise and vibrations. A location plan is attached as Appendix A. A public consultation was also carried out to obtain the views of local residents on these features. This report summarises the findings of the post construction review and makes recommendations in light of the findings of the review.

2. RECOMMENDATION

That the Transport Consultative Group advises the Cabinet Member for Traffic, Transport and Parking to approve:-

- implementation of 'corrective measures' highlighted in Stage 3 Safety Audit Report
- Amendments to the gradient of the entry ramp at the southern gateway of the zone.
- Installation of outstanding line marking
- Consider the safety implication of width reductions of traffic calming at key locations
- Investigation of pedestrian crossing movements near Sandpits Road
- Consider the possible inclusion of addition traffic calming measure at the southern end of the existing zone.

3. BACKGROUND

- 3.1 The 20mph zone on Petersham Road extends from the Dysart Arms in the north to approximately opposite property number 261 in the south and includes the service road which runs adjacent. The original 20 mph zone on Petersham Road was introduced in September 2000 and consisted of two raised pedestrian crossings, vehicle activated signs and appropriate 20mph speed limit signage. In 2003, a mini roundabout was introduced on Petersham Road junction with Sandy Lane. In 2007, four speed tables and speed cushions at seven locations were constructed. A raised toucan crossing was also introduced by the Dysart Arms in 2008.
- 3.2 A design review of the scheme concluded that all of the features, except the speed table near the southern 20mph zone gateway (which require minor improvements on its ramps), have been constructed to the standards set by the Department for Transport (DfT). A Stage 3 Road Safety Audit (post construction) too was undertaken and it recommended the following additional actions:
- relocation of the boundary signs on Petersham Road service road and outside the Dysart Arms
 - increasing the length of anti-skid on the approaches to the toucan crossing outside the Dysart Arms
 - replacement of a statutory undertakers equipment cover
 - relocation of cycle signs

All recommendations have been accepted and will be implemented in due course.

- 3.4 The additional traffic calming measures introduced in Petersham Road have been successful in reducing the speeds, except for near the southern end. The results are given in Table 1, below.

Table 1 - Speed Survey Data Summary

	south /west				north / east			
	April 07		Sept 08		April 07		Sept 08	
	85ile%	mean	85ile%	mean	85ile%	mean	85ile%	mean
Dysart Arms	32	26	21	16	29	23	22	16
Near property no. 187	30	26	24	20	30	25	24	20
Near property no. 251 / 261 (Southern gateway)	33	28	29	25	33	28	25	22

The measures introduced now achieve an approximate spacing of between 55m to 80m, which presents smoother driving conditions through the zone.

Overall, mean traffic speeds have reduced by 7mph, which is a significant reduction. Research by the Transport Research Laboratory (TRL) has shown that a reduction in vehicles speeds generally leads to a reduction in the number and severity of accidents. On average, each 1mph reduction is expected to reduce the injury accident frequency by about 5%.

3.5 The independent noise and vibration study, undertaken by a specialist consultant (Southdowns Ltd), concluded that the noise from heavy goods vehicles increased by 3.1dB. This is just above the minimum perceptible change under normal everyday listening conditions. All measured vibrations were within the acceptable threshold.

4.0 COLLISION DATA

4.1.1 A review of personal injury collisions in Petersham Road within the zone showed that the scheme has significantly contributed towards making the road safe.

4.2

Table 2 shows the break down by severity collision grouped according to the time periods of the different elements of the 20mph zone.

- 1995 to 1999 – Before implementation of 20mph zone

2003 to 2007 – After introduction of zone which included boundary signs, raised pedestrian crossings, vehicle activated signs and a mini roundabout.
- 2008 – After introduction of the second phase of traffic calming including cushions, tables and a raised toucan crossing.

Table 2 - Summary Collisions Against 20mph Zone Implementation Phases

	Fatal	Serious	Slight	Total	Average per Year
1995 – 1999	1	4	17	22	4.4
2003 - 2007	0	1	11	12	2.4
2008	0	0	2	2	2.0
TOTAL	1	5	30	36	N/A

It should be noted that the data for 2008 is provisional; the total number of collisions , however are expected to remain the same.

5.0 CONSULTATION

5.1 Before the additional traffic calming measures were introduced, consultations with The Metropolitan Police Service, Bus Operators, Ambulance Service and London Fire Brigade were undertaken and no objections were received. Subsequent to implementation of the scheme, no issues have been raised in relation to the additional measures.

5.2 A total of 323 consultation packs containing a letter and questionnaire were delivered to properties within the consultation area..118 replies were received and 73% of these were in favour of the newly introduced cushions and speed tables.

5.3 58% of residents indicated that it felt safer to cross the road, in particular because of the introduction of the Toucan crossing near the Dysart Arms.

5.4 20% of residents who replied were concerned about the noise levels on Petersham Road, in particular those residents living on the west side of Petersham Road between Sandy

Lane and Sandpits Road. This may be due to the change in the character of the noise rather than an actual increase in noise.

5.5 A detailed breakdown of response to the questionnaire is as follows:-

Question 1: Do you feel the additional measures have improved the safety for road users of Petersham Road?

Responses Received	In Favour*	Against*	No opinion*
118	86	31	1
	73%	26%	1%

*Of responses received

Question 2: Have the additional measures made it easier and / or safer to cross Petersham Road?

Responses Received	In Favour*	Against*	No opinion*
118	68	48	2
	58%	41%	1%

* Of responses received

Question 3: Were any questions / concerns you had regarding the scheme answered in a timely manner?

Responses Received	In Favour*	Against*	No opinion*
118	40	20	58
	34%	17%	49%

* Of responses received

5.7 Details of the key concerns along with an officers response are detailed in Table 3.

Table 3 – Key Concerns Raised by Local Residents

Suggestion/Concern	Officer's response
The speed humps are noisy and cause vibrations felt inside the house.	The vertical traffic calming measures have been designed to the best practice guidelines thus having a minimum impact on vehicles and the surroundings, while effectively reducing vehicle speeds. While an independent specialist consultant has determined that the change in mean noise levels is not significant and that vibration levels are below the threshold of likely complaint, the Council acknowledges the concerns of a minority of residents about the impact on their properties and therefore agreed that possible amendments to the existing cushions be investigated to address their concerns.
The speed limit is not observed and cars still drive at excessive speeds on Petersham Road, even though there are physical measures in place to restrict their speed.	Speed surveys have been undertaken at three separate locations on Petersham Road and results have indicated that mean traffic speeds have reduced by 7 miles per hour within the zone.

<p>Introduce speed cameras to assist in speed reduction in combination with the existing features or instead of the speed cushions and tables.</p>	<p>The implementation of 20mph zones needs to be in accordance with Statutory Instrument, the Traffic Signs Regulations and General Directions 2002. According to this document physical measures such as speed cushions and tables are required to make the zone legal.</p> <p>The deployment of cameras across London is managed by the London Safety Camera Partnership (LSCP), which is part of Transport for London. The LSCP has generally adopted the criteria within the best practice guidance as described in Department for Transport Circular 01/2007. This criteria requires that a minimum of 4 collisions involving a person being killed or seriously injured within a kilometre and over the latest 3 year period, before deployment is considered. LSCP further requires that a minimum of 2 of the above collisions have excessive speed as a contributory factor. It is clear that at this time, the Petersham Road 20mph zone does not meet the above criteria.</p>
<p>Remove the traffic calming</p>	<p>The Traffic Signs Regulations and General Directions 2002 require that physical measures be placed not further than 100m apart within a 20mph zone. The recently completed zone now complies with this legislation and removal of any or all of the features would require that the speed limit revert to 30mph. The recent consultations indicate that a majority of residents do not want this to happen.</p> <p>The Council has a statutory duty to keep its road network safe for all road users. The Government has set casualty reduction targets which local authorities need to meet by 2010. These are: Reducing all fatal and serious accidents by 50%, fatal and serious child accidents by 60% and a 25% reduction in slight injuries.</p> <p>It is highly likely that the removal of the existing zone would result in an increase in collisions, which in turn would have a detrimental affect on the boroughs ability to meet its allotted targets and would be a failure in its duty of care to road users with the borough.</p>
<p>Introduce a pedestrian crossing on Petersham Road near Sandpits Road near the bus stops.</p>	<p>Officers will undertake an investigation into the feasibility of introducing a facility near Sandpits Road.</p>
<p>Introduce waiting restrictions to control parking on Clifford Road, Petersham Road service road, Cedar Heights, Ashfield Heights, and Sudbrooke Lane.</p>	<p>The locations will be placed on the boroughs programme for investigation of requests for parking controls.</p>
<p>The position of the speed cushions means that vehicles are likely to meet head on in the centre, particularly larger vehicles.</p>	<p>The position of the speed cushions have been located as per the design guidance to allow vehicles to pass and leave sufficient clearance between other vehicles and pedestrians. Vehicle</p>

<p>Drivers also swerve towards the pavement when trying to avoid the cushions.</p>	<p>speeds have been reduced and the position of the cushions are such that drivers do not have to make sudden changes in direction. The local bus companies have indicated that there are no problems with the position of the features on Petersham Road. An independent stage 3 (post construction) safety audit was undertaken and there were no actions raised against the alignment, dimensions or spacing of the cushions.</p>
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5.8 The Ward Members have been included throughout the course of the consultation, implementation and post construction consultation. As stated in the cabinet member decision report 24th July 2007 members supported the implementation of further measures. Any comments received in relation to the post construction monitoring review will be reported at the meeting.

6. PROPOSED ACTIONS

6.1 During the course of consultations it was suggested that the Council should consider the introduction of pedestrian refuges in place of cushions and tables. In order to accommodate a person with a pram, a minimum of 1.5m width is required for the island. As there is insufficient width on the footways to incorporate slip lanes, current guidance from the DfT requires that minimum lane widths of 4.0m are required either side of the island to ensure the safety of cyclists. Hence a minimum existing road width of 9.5 meters would be needed to accommodate such a feature. Carriageway widths on Petersham Road between the Dysart arms and Sandy have been measured from the Topographical survey at intervals of approximately 10 metres. There are no locations within this section of road that meet the current minimum width criteria. It is therefore concluded that no further action be taken.

6.2 It was also suggested that the borough further consider the introduction of a mini roundabout at Sudbrooke Lane junction with Petersham Road. A review of the junction against current DfT Design standards shows that the constraints of the site dictates that a safe design could not be achieved. This is primarily due to a lack of road width which means that it is not possible to introduce the necessary deflections to ensure slow entry/exit speeds and hence ensure safe operation of the junction. If the required speed reduction cannot be achieved, then a mini roundabout must not be provided. It is therefore concluded that no further action be taken.

6.3 Proposed action – Undertake corrective actions identified within the Stage 3 safety audit as stated earlier in section 3.3.

6.4 Proposed action - Arrange for corrective works to be undertaken to address the substandard gradient of the ramps on the table nearest the southern gateway of the zone.

6.5 Proposed action – Arrange for the marking of the double white lining system detailed within the original proposals.

Proposed Actions (subject to further investigatory works)

6.6 The existing cushions have been installed as per current Government guidance and have been effective in reducing speeds within the zone. The stage 3 post construction safety audit did not reveal any problems with the alignment of the cushions. However, in order to address the concerns of local residents in terms of noise and vibration, it is recommended to investigate the possibility of reducing the dimensions of the cushions to allow wider based vehicles to negotiate with minimum vertical displacement, at locations where noise is

a concern to residents. Benefits of this will need to be balanced against road safety implications to ensure that the zone is not compromised. A Road Safety Audit will also be required of any proposed amendments to features.

- 6.7 Undertake an investigation into the number and frequency of pedestrians crossing near the junction with Sandpits Road along with careful measurement of road widths to determine if there is justification and if it is feasible to introduce a pedestrian facility in the area.
- 6.8 Investigate the possible inclusion of additional traffic calming measures at the southern end of the existing zone.

7. FINANCIAL IMPLICATIONS

- 7.1 The cost of the works, listed in order of importance, below, are:-
- Corrective works from the stage 3 safety audit £5k.
 - Corrective works to the ramps at the southern boundary table £5k
 - Marking of the originally proposed double white line system £1k
 - Amending cushions in the area of resident's concern £30k
- 7.2 There is currently no funding from TfL allocated for this work and hence implementation will be subject to agreement.

8. POLICY IMPLICATIONS

- 8.1 TRN 2. The Council will support and implement limited highway schemes to improve road safety and provide benefits for pedestrians and cyclists and environmental benefits.
- 8.2 TRN 6 - The Council will develop and introduce traffic management and other measures aimed at improving road safety.
- 8.4 TRN 9. The Council will maintain and improve the environment for all pedestrians, including those with disabilities, by:
- Considering regulating some or all motorised traffic from limited town centres areas;
 - Introducing 20 mph zones;
 - Well designed and maintained pavements and street furniture;
 - Using landscaping to enhance the pedestrian environment;
 - Providing signs for pedestrians as a way of encouraging walking;
 - Ensuring that all walking facilities and routes are accessible to everyone.

9. EQUALITY CONSIDERATIONS

- 9.1 All measures have been built to current standards that ensure a safer road environment for all road users.

10. RISK ASSESSMENT

- 10.1 An independent safety audit will need to be commissioned to assess the implications of amending the cushions. Requires agreement on funding.

11. LEGAL IMPLICATIONS

- 11.1 There are no legal issues to this report.

12. ENVIRONMENTAL IMPLICATIONS

- 12.1 The traffic calming measures in Queens Road promote slower vehicle speeds and has helped in make the road safe for all road users. .

13. BACKGROUND PAPERS

Design Manual for Roads and Bridges – TD 54/07 Design of min roundabouts.
Statutory Instrument 2002 No. 3113 – The Traffic Signs Regulations and General Directions 2002.
DfT Circular 01/2007
Traffic Advisory Leaflet – Traffic Islands for Speed Control 7/95
Petersham Road – 20mph Zone – Post Construction Assessment – Mouchel – March 2009
Assessment of Road Traffic Noise and Vibrations Associate with traffic calming features – Southdowns Environmental Consultants – March 2009

14. CONTACTS

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