PLANNING AND TRANSPORTATION REGULATORY PANEL		**PART 1 (OPEN TO THE PUBLIC)**
		ITEM NO
SUBJECT:	**TRAFFIC REGULATION ORDER - SALFORD CITY COUNCIL (HILTON LANE , WALKDEN)(ROAD HUMPS) NOTICE 2009**	**OPERATIONAL MATTER**
JOINT REPORT OF THE STRATEGIC DIRECTOR OF SUSTAINABLE REGENERATION AND STRATEGIC DIRECTOR.		**FOR DECISION**

1. Purpose of Summary/Report:

This report sets out objections to the proposed introduction of a road humps at Hilton Lane,Walkden together with the Strategic Director of Engineering comments thereon.

2. Recommendations:

The Committee are asked to consider whether, in the light of the objection received, the Order should be:-

(i) introduced as proposed, or

(ii) amended, or

(iii) withdrawn

(iiii) referred for a public enquiry

It is the recommendation of the Strategic Director of Sustainable Regeneration that the proposal be introduced as proposed.

IF YOU HAVE ANY QUERIES PLEASE CONTACT **Mr P. Pearson** **0161-793-3122**	**BACKGROUND DOCUMENTS (Available for public inspection) Statement of Reasons; correspondence from the Objector; plan outlining the proposals.**
QUALITY CONTROL	**Report prepared by: Mr. P Pearson 28th July 2009** **Reviewed by:**
Customer & Support Services Directorate, Law and Administration Division, Salford Civic	

Centre, Chorley Road, Swinton M27 5DA

3. Routing:

To Planning and Transportation Regulatory Panel on
21st August 2008

4. Implications:

4.1	Resources (Finance/Staffing):	Funded from current Highways Revenue Allocation
4.2	Strategy and Performance Review:	No implications.
4.3	Environmental:	No implications.
4.4	Equal Opportunities:	No implications.
4.5	Anti Poverty	No implications

5. Background

5.1 On the 21st August 2008 the Director of Housing and Planning gave approval to advertise the intention to construct road humps subject to no objections being received.

5.2 The Strategic Director of Sustainable Regeneration initial proposals were/are to introduce road humps on Hilton Lane, Walkden Attached for the panel's convenience are plans and a copy of the notice placed in the Salford Advertiser on the 22nd January 2009.

5.3 Six objections to the proposal have been received.

6. Details

The following Objections have not been withdrawn.

Brief details of each objection are as follows:-

Objector 1

A letter was received from Objector 1 undated objecting to the proposals to construct road humps on the following grounds :-

1. Existing traffic calming measures introduced in 2001 are ineffective and an increase in accidents since the introduction.

2. Increased traffic and parking on Hilton Lane owing to a new school development.

3. Straddling of speed humps/cushions.

4.. Access for emergency and public services

The Strategic Director of Sustainable Regeneration replied as follows : -

As part of the planning conditions associated with Harrop Fold School it was required that a suitable travel plan be submitted to the highway authority for approval. This is to include provision for a safer routes to school scheme. As stated in paragraph 3.2.15 of the local transport note 01/07, 20 mph zones are appropriate where large concentrations of pedestrians are expected and on routes to and from schools, and as such 20 mph zone was included as part of the travel plan and a preliminary design submitted. Following consultations with the emergency services and public transport provider's revisions were made and the scheme advertised as required.
Since the initial traffic calming scheme was introduced on Hilton Lane there has been a decrease in road traffic accidents as shown by the stat's 19 data reported to the highway authority and as such traffic calming on Hilton Lane is seen as an effective road safety measure.
With reference to the effectiveness of the traffic calming measures currently in place existing accident data shows that there has been a decrease in the number of accidents reported since the installation of the first set of cushions in 2002. The accident data shows 13 accidents, 12 slight and 1 serious, reported in 36 months prior to the implementation of the original traffic calming scheme. In the three years following the implementation of the scheme only 11 accidents were reported all of which were slight.

The average number of accidents for Hilton Lane for the 36 months before the traffic calming was introduced was 4.3 accidents per year. The average number of accidents for Hilton Lane since the implementation of traffic calming is 2.2, a reduction of 2 accidents per year.

The increase in traffic and number of additional pedestrians using Hilton Lane would imply a need to ensure vehicles are travelling at a speed that would not cause possible accidents and would suggest that traffic calming is necessary to provide a safe route to the Hilton Lane site.

The additional traffic flows created from the construction of the new school have been factored into the calculations for the assessment of the proposed traffic calming features and spacing of the features is such so as to meet recommendations for a self enforcing 20 mph zone.

The issue of people parking on Hilton Lane to drop off and pick up pupils at the school site was discussed during the development of the school and provision made in the form of a parking and drop off area. With this in mind it would be down to those responsible for the school site to actively encourage responsible behaviour whilst accessing and exiting the site.

The flow of traffic during the repairs carried out to the bridge on Hilton Lane was controlled by temporary signals that operate in a different manner to a build out. The flow of traffic at the build out can be modelled in the same manner as a priority junction, The requirement for vehicles being able to pull out at a build out or priority junction is that

there is a 3 seconds perceived clear time. Vehicles pulling out at the build out would then be able to travel a distance of 45m clearing the build out.

The most recent flow data for Hilton Lane shows 272 vehicles travelling towards the northern most build out at peak flow, assuming a steady flow and an increase of 30% since the count was taken on average there would be a gap of 10.2 seconds between vehicles, this is much more than 5 seconds required to allow the build out to function. In order for grid lock to occur it would be necessary for more than 720 vehicles to be travelling north bound at peak time, this would be an increase of 165%.

For the most southern build out a similar modelling exercise was carried out count data shows 496 vehicles travelling east at the peak flow, again assuming a steady flow with a 30% increase in flow this provides a 5.6 second gap between vehicles which is enough to allow the build out to function. In order for grid lock to occur it would be necessary for more than 720 vehicles to be travelling north bound at peak time, this would be an increase of 45%.

As part of the design process any traffic engineering schemes which would affect emergency services or public transport are discussed at a monthly transport management unit meeting with all major emergency service and public service providers. Objections to the proposals are noted and alterations made in order to suit the requirements of these groups. As such the proposals for Hilton Lane have been through this process and the impact on both emergency services and public transport assessed by the providers. Amendments have been made where requested before being put forward for public consultation. Although it is not possible to assess the condition of flowing traffic from still photographs a numbers of points have been noted. Photographs showing queuing buses it is unclear as to if traffic is queuing in both directions as photographs show only narrow shots of two buses, it is also noted that there is a school crossing patrol at this location which will cause localised queues.
Photographs showing queuing cars again is unclear however vehicle turning off Madamswood Road and space in front of and behind vehicle would suggest traffic is free moving. Photographs submitted showing traffic queuing the length of Madamswood and Hilton Lane appear to have been taken during a period of poor weather conditions (snow is visible on vehicles and building roofs), this would not be typical of average day. Parking of vehicles along Hilton Lane it is noted that there are a number of contractors/builders vehicles parked in the photograph with lights on and occupants, again this is unlikely to be a regular occurrence, it is also noted that the van shown in the photo showing queuing traffic assumed to belong to one of the complainants is one of the vehicles parked on the road. This would suggest that the parking issues along Hilton Lane are due to a number of factors including both resident parking and traffic caused by the new school site.

It should be noted that these are comments on the photographs alone as it is not possible to assess the flow from these and as such no conclusions should be drawn on this evidence alone. In order to avoid the current situation of vehicles straddling the centre cushions it is proposed to alter both the spacing and size of the cushions. This should make it more difficult for vehicles to straddle the traffic calming measures. Also the addition of the junction tables and build outs will mean that vehicles will not be able to avoid these measures and as such will be travelling at a slower speed on approaching the cushions.

Paragraph 3.2.15 of local transport note 01/07 states that 20mph zones are appropriate where large concentrations of pedestrians are expected and on routes to and from

schools. The effectiveness of 20mph zones can be summarised as follows:
A review of the first 230 zones in England, Wales and Scotland (Webster 7 Mackie, 1996) indicated that average speeds reduced by 9mph, annual accident frequency fell by 60% the overall reduction in child accidents was 70% and there was an overall reduction in accidents involving cyclists on 29%. Traffic flow in the zones was reduced on average by 27%, but flows on the surrounding roads increased by 12%. There was generally little measured accident migration to surrounding roads.
In order to achieve effective traffic calming it is recommended that a combination of different measures are used, the effectiveness of these measures has been studied by the Department of Transport and the guidance produced (local Transport Note 01/07 used in the design of this scheme. Of the measures available speeds humps were not deemed suitable by the Passenger Transport Executive and emergency services, the next most effective traffic calming measures are raised junctions and pinch points and build outs both of which have been included as part of this scheme. The next most effective measures include both variable message signs and speed cushions, although both have similar effects on the speed of traffic, the requirements for the 20mph traffic calmed zone to be self enforcing means that there is a requirement for physical traffic calming measures. These should be placed on the carriageway at distances between 60 and 70m (traffic advisory leaflet 09/99) and as such speed cushions have been seen as a more favourable option in this instance.

It should be noted that this does not exclude the option of using variable message signs on Hilton Lane however this would require additional funding to be made available or would have to be carried out a separate scheme. It should be noted that every effort to consult with residents on Hilton Lane have been made this includes informal meetings at the request of individuals concerned to discuss the scheme, telephone conversations as well as following the legal notice procedure. Notices of the intended scheme have been posted the length of Hilton Lane and published in the local press.

Objector 2

A letter was received from Objector 2 dated 14th November 2008 objecting to the proposed order on the following grounds :-

1. Constant traffic passing through the estate.

The Strategic Director of Sustainable Regeneration replied as follows : -

As part of the planning conditions associated with Harrop Fold School it was required that a suitable travel plan be submitted to the highway authority for approval, this is to include provision for a safer routes to school scheme. As stated in paragraph 3.2.15 of the local transport note 01/07, 20 mph zones are appropriate where large concentrations of

pedestrians are expected and on routes to and from schools, and as such 20mph zone was included as part of the travel plan and a preliminary design submitted. Following consultations with the emergency services and public transport provider's revisions were made and the scheme advertised as required.
Since the initial traffic calming scheme was introduced on Hilton Lane there has been a decrease in road traffic accidents as shown by the stat's 19 data reported to the highway authority and as such traffic calming on Hilton Lane is seen as an effective road safety measure.
It is envisaged that there would be no advantage to people using Calder Drive as a cut through to enter or leave Little Hulton as there is existing traffic calming features on Madamswood Road so it would not be possible to avoid.
As part of the development of any school it is necessary for a travel plan to be produced in which access and egress to the site should be considered, part of this plan is targeted at encouraging other forms of transport to the site other than using cars. As part of this it is the responsibility of the schools themselves to try and reduce the number of cars accessing the site and to try to reduce congestion at peak times.
The purpose of this scheme is then to reduce the speed of those vehicles that do access the site at peak times to make it safer for both pedestrians and residents.
The additional traffic flows created from the construction of the new school have been factored into the calculations for the assessment of the proposed traffic calming features and spacing of the features is such so as to meet recommendations for a self enforcing 20mph zone.

Objector 3

A letter was received from Objector 3 undated objecting to the proposed order on the following grounds : -

1. Road humps will increase accidents by virtue of road users straddling them.

2. Traffic flow.

The Strategic Director of Sustainable Regeneration replied as follows : -

As part of the planning conditions associated with Harrop Fold School it was required that a suitable travel plan be submitted to the highway authority for approval, this is to include provision for a safer routes to school scheme. As stated in paragraph 3.2.15 of the local transport note 01/07, 20mph zones are appropriate where large concentrations of pedestrians are expected and on routes to and from schools, and as such a 20mph zone was included as part of the travel plan and a preliminary design submitted.
Following consultations with the emergency services and public transport providers revisions were made and the scheme advertised as required.
Since the initial traffic calming scheme was introduced on Hilton Lane there has been a decrease in road traffic accidents as shown by the stat's 19 data reported to the highway authority and as such traffic calming on Hilton Lane is seen as an effective road safety measure. In order to avoid the current situation of vehicles straddling the centre cushion it is proposed to alter both the spacing and size of the cushions. This should make it more difficult for vehicles to straddle the traffic calming measures. Also the addition of the junction tables and build outs will mean that vehicles will not be able to avoid the

traffic calming measures.
The most recent flow data for Hilton Lane shows 272 vehicles travelling towards the northern most build out at peak flow, assuming a steady flow and an increase of 30% since count was taken on average there would be a gap of 10.2 seconds between vehicles, this is much more than 5 seconds required to allow the build out to function. In order for grid lock to occur it would be necessary for more than 720 vehicles to be travelling north bound at peak time, this would be an increase of 165%.
For the most southern build out a similar modelling exercise was carried out count data shows 496 vehicles travelling east at the peak flow, again assuming a steady flow with a 30% increase in flow this provides a 5.6 second gap between vehicles which is enough to allow the build out to function. In order for grid lock to occur it would be necessary for more than 720 vehicles to be travelling north bound at peak time, this would be an increase of 45%.
As part of the provision for accessing the Harrop Fold School lollypop ladies are provided to assist people in crossing the road at peak times. This is just one measure used to try to reduce accidents on routes to school. In order to achieve creating safe routes it is recommended that a combination of different measures are used, the effectiveness of these measures has been studied by the Department of Transport and the guidance produced (local transport note 01/07) used in the design of this scheme. Of the measures available speed humps were not deemed suitable by the passenger Transport Executive and emergency services, the next most effective traffic calming measures are raised junctions and pinch points and build outs both of which have been included as part of this scheme. The next most effective measures include both variable message signs and speed cushions, although both have similar effects on the speed of traffic, the requirement for the 20mph traffic calmed zone to be self enforcing means there is a requirement for physical traffic calming measure. These should be placed on the carriageway at distances between 60 and 70m (traffic advisory leaflet 09/99) and as such speed cushions have been seen as a more favourable option in this instance. It should also be noted that a reduction in speed would allow the existing crossing patrols to operate in a safer environment.

Objector 4

A letter was received from Objector 4 dated the 3rd December 2008 objecting to the proposed order on the following grounds : -

1. Proposals inadequate and 'potentially lethal'

2. Issues of congestion and disruption.

The Strategic Director of Sustainable Regeneration replied as follows : -

As part of the planning conditions associated with Harrop Fold School it was required that a suitable travel plan be submitted to the highway authority for approval, this is to include provision for a safer routes to school scheme. As stated in paragraph 3.2.15 of the local transport note 01/07, 20 mph zones are appropriate where large concentrations of pedestrians are expected and on routes to and from schools, and as such a 20mph zone was included as part of the travel plan and a preliminary design submitted. Following consultations with the emergency services and public transport

providers revisions were made and the scheme advertised as required. Since the initial traffic calming scheme was introduced on Hilton Lane there has been a decrease in road traffic accidents as shown by the stat's 19 data reported to the highway authority and as such traffic calming on Hilton Lane is seen as an effective road safety measure. Allocation of monies for road safety is carried out on an individual site basis as based on accident data and statistics as well as perceived risk. Since the initial proposal put forward the extent of the scheme has been increased substantially in order to replace the existing calming measures with new features suitable for creating an effective self enforcing 20mph zone.

As part of the development of any school it is necessary for a travel plan to be produced in which access and egress to the site should be considered, part of this plan is targeted at encouraging other forms of transport to the site other than using cars. as part of this it is the responsibility of the schools themselves to try and reduce the number of cars accessing the site and to try and reduce congestion at peak times

The most recent flow data for Hilton Lane shows 272 vehicles travelling towards the northern most build out at peak flow, assuming a steady flow and an increase of 3% since the count was taken on average there would be a gap of 10.2 seconds between vehicles, this is much more than the 5 seconds required to allow the build out to function In order for grid lock to occur it would be necessary for more than 720 vehicles to be travelling north bound at peak time, this would be an increase of 165%. For the most southern build out a similar modelling exercise was carried out count data shows 496 vehicles travelling east at the peak flow, again assuming a steady flow with a 30% increase in flow this provides a 5.6 second gap between vehicles which is enough to allow the build out to function. In order for grid lock to occur it would be necessary for more than 720 vehicles to be travelling north bound at peak time, this would be an increase of 45%.

In order to achieve effective traffic calming it is recommended that a combination of different measures are used, the effectiveness of these measures has been studied by the Department of Transport and the guidance produced (local transport note 01/07) used in the design of this scheme. Of the measures available speed humps were not deemed suitable by the Passenger Transport Executive and emergency services, the next most effective traffic calming measurers are raised junctions and pinch points and build outs both of which have been included as part of this scheme. The next most effective measurers include variable message signs and speed cushions, although both have similar effects on the speed traffic, the requirements for the 20mph traffic calmed zone to be self enforcing means there is a requirement for physical traffic calming measurers. These should be placed on the carriageway at distances between 60 and 70m (traffic advisory leaflet 09/99) and as such speed cushions have been seen as a more favourable option in this instance.

Paragraph 3.2.15 of local transport note 01/07 states that 20mph zones are appropriate where large concentrations of pedestrians are expected and on routes to and from schools. The effectiveness of 20mph zones can be summarised as follows:

A review of the first 230 zones in England, wales and Scotland (Webster 7 Mackie, 1996) indicated that average speeds reduced by 9mph, annual frequency fell by 60% the overall reduction in child accidents was 70% and there was an overall reduction in accidents involving cyclists of 29%. Traffic flow in the zones was reduced on average by 27%, but flows on the surrounding roads increased by 12%. There was generally little measured accident migration to surrounding roads. The effectiveness of the traffic calming measures currently in place existing accident data shows that there has been a decrease in the number of accidents reported since the installation of the first set of cushions in 2002. The accident data shows 13 accidents, 12 slight and 1 serious, reported in the 36 months prior to the implementation of the original traffic calming

scheme. In the three years following the implementation of the scheme only 11 accidents were reported all of which were slight.
The average number of accidents for Hilton Lane for the last 36 months before the traffic calming was introduced was 4.3 accidents per year. The average number of accidents for Hilton Lane since the implementation of traffic calming 2.2, a reduction of 2 accidents per year.
The use of traffic signals can only be justified providing traffic flows at junctions justify the installation, since there are no major junctions along the length of Hilton Lane with flows that justify installing traffic signals this is not a viable option. it should be noted that although traffic signals do have an effect on traffic speed their primary purpose is to control the flow of traffic at junctions and as such are not considered to be traffic calming measure.
The effectiveness of speed cameras as part of a traffic calming scheme has also been recorded with them deemed to have the same effect on vehicles as speed cushions but less of an effect than raised junctions with build outs. As previously mentioned in order to create a self enforcing 20mph traffic calmed zone there is a requirement for physical traffic calming measures. These should be placed on the carriageway at distances between 60 and 70m (traffic advisory leaflet 09/99) and as such speed cushions have been seen as a more favourable option in this instance. As such speed cameras would not meet the requirements of this scheme.
The access and egress to the site would have been discussed during the planning of the new Harrop Fold site, having reviewed the arrangements, providing the site is managed in accordance with the recommendations in the planning application all required site lines are met.
In order to achieve effective traffic calming it is recommended that a combination of different measures are used, the effectiveness of these measures and their impact on response times has been studied by the Department of Transport and the guidance produced (local transport note 01/07) used in the design of this scheme.
Of the measurers available speed humps were not deemed suitable by the Passenger Transport Executive and emergency services, the next most effective traffic calming measures are raised junctions and pinch points and build outs both of which have been included as part of this scheme, it should be noted that these two measures will affect all vehicles travelling down Hilton Lane including wide track vehicles. With regards to the issue of noise generated by speed cushions a report carried out by the Transport Research Laboratory entitled traffic calming, vehicle noise emissions alongside speed control cushions and road humps, TRL report 180 has examined this. The findings conclude that different classes of vehicles do cause different changes in the level of noise at the roadside, in the instance of Hilton Lane the composition of traffic flow was examined from counts carried out in 2004, this showed the traffic to consist of 98% cars/light goods, 1% medium goods vehicles, 1% heavy goods vehicles and 1% other.
It is also noted that the width of the speed cushions being installed has an impact on the level of noise at the roadside. In this instance the width of the cushion fall between the two classes within the report. However it is suggested that the change in noise caused by the implementation of speed cushions on a road where no cushions previously existed would be in the range of -3.3db and +2db.
It should be noted that since there are existing cushions on Hilton Lane that the replacement of these cushions should cause little change in road traffic noise.
Evidence available from existing research suggests that speed humps would have to be a maximum of 4m or less from residential properties in order for them to cause superficial cracks from sustained exposure and a maximum of 1m or less to cause minor damage, there is no evidence to suggest that traffic humps cause subsidence in buildings. It should be noted that this is a worse case measure in Alluvium type soil

the type of soil predominately present in the Greater Manchester area is boulder clay and as such the possibility of any type of damage to property is greatly reduced detailed as in the (local transport note 01/07). This would be further backed up by the fact that there have been no complaints regarding damage to property caused by existing traffic calming scheme.
The requirement to replace existing traffic calming measures is dependent upon the installation of the cushions and the materials used. if cushions constructed from HRA are layed in cold weather or the material is layed cold before rolling the materials expected serviceable life could be reduced. In order to prevent this occurring the proposed cushions are to be constructed in a different material, mastic asphalt, which is not prone to this type of failure, this will reduce the cost of future maintenance.
Paragraph 3.2.15 of local transport note 01/07 states that 20mph are appropriate where large concentrations of pedestrians are expected and on routes to and from schools. The effectiveness of 20mph zones can be summarised as follows:
A review of the first 230 zones in England, Wales and Scotland (Webster 7 Mackie, 1996) indicated that average speeds reduced by 9mph, annual accident frequency fell by 60% the overall reduction in child accidents was 70% and there was an overall reduction in accidents of 29%. Traffic flow in the zones was reduced on average by 27%, but flows on the surrounding roads increased by 12%. There was generally little measured accident migration to surrounding roads. In order to achieve effective traffic calming it is recommended that a combination of different measures are used, the effectiveness of these measures has been studied by the Department of Transport and the guidance produced (local transport 01/07) used in the design of this scheme.
Of the measurers available speed humps were not deemed suitable by the Passenger Transport Executive and emergency services, the next most effective traffic calming measurers are raised junctions and pinch points and build outs both of which have been included as part of this scheme. The next most effective measurers include both variable message signs and speed cushions, although both have similar effects on the speed of traffic, the requirements for the 20mph traffic calmed zone to be self enforcing means there is a requirement for physical traffic calming measures. These should be placed on the carriageway at distances between 60 and 70m (traffic advisory leaflet 09/99) and as such speed cushions have been seen as a more favourable option in this instance.

Objector 5

A letter was received from Objector 5 dated the 2nd February 2009 objecting to the proposed order on the following grounds : -

1. Access for emergency services
2. Speed Hump design.
3. Straddling speed humps.
4. Road subsidence, Maintenance costs.

The Strategic Director of Sustainable Regeneration replied as follows : -

As part of the planning conditions associated with Harrop Fold school it was required that a suitable travel plan be submitted to the highway authority for approval, this is to include provision for a safer routes to school scheme. As stated in paragraph 3.2.15 of the (local authority transport note 01/07) 20mph zones are appropriate where large concentrations of pedestrians are expected and on routes to and from schools, and as such a 20mph zone was included as part of the travel plan and a preliminary design submitted. Following consultations with the emergency services and public transport providers revisions were made and the scheme advertised as required.
Since the initial traffic calming scheme was introduced on Hilton Lane there has been a decrease in road traffic accidents as shown by the stat's 19 data reported to the highway authority and as such traffic calming on Hilton Lane is seen as an effective road safety measure.
The research referred to in your letter relating to delay in response times of up to 10 seconds (Coleman MA(1997). The influence of traffic calming devices upon fire vehicle travel times Institute of Transportation of Engineers 67 Annual Meeting. Boston 3-7 August. Institute of Transport Engineers, Washington D.C) refers to delays caused by speed humps, it should be noted that speed humps are not being included as part of this scheme, it is true to say that road geometry, type of emergency vehicles and residential layouts vary greatly between the US and the UK and so the relevance of research in the US should be questioned.
Table 1.1 in (local transport note 01/07) which summarises all research carried out in the UK shows the effect of different traffic calming measures on emergency vehicle response time, this shows that the effect of speed cushions as proposed in this scheme is less than speed humps.
It should also be noted that as part of the design process any traffic engineering schemes which would affect emergency services or public transport are discussed at a monthly transport management unit meeting with all major emergency service and public transport providers. Objections to proposals are noted and alterations made in order to suit the requirements of these groups. As such the proposals have been through this process and the impact on both emergency services and public transport assessed by the providers. Amendments have been made where requested before being put forward for public consultation.
As previously mentioned although research carried out by the Transport Research Laboratory (TRL report 417) does state that speed humps can cause discomfort, there are no plans to implement speed humps on Hilton Lane, the proposed cushions are designed so that public service vehicles and emergency vehicles with a larger wheel base can straddle the cushions to reduce discomfort. Intended scheme have been posted the length of Hilton Lane and published in the local press.

Objector 6

A letter was received from Objector 6 undated the objecting to the proposed order on the following grounds : -

1. Access for emergency services

2. Vehicle obstruction to private access/driveway.

3. Parking congestion.

The Strategic Director of Sustainable Regeneration replied as follows : -

5.4

The Director of Engineering has considered the objections submitted and his comments are:-

As part of the planning conditions associated with Harrop Fold School it was required that a suitable travel plan be submitted to the highway authority for approval, this is to include provision for a safer routes to school scheme. As stated in paragraph 3.2.15 of the (local transport note 01/07), 20 mph zones are appropriate where large concentrations of pedestrians are expected and on routes to and from schools, and as such a 20 mph zone was included as part of the travel plan and a preliminary design submitted. Following consultations with the emergency services and public transport providers revisions were made and the scheme advertised as required.
Since the initial traffic calming scheme was introduced on Hilton Lane there has been a decrease in road traffic accidents as shown by the stat's 19 data reported to the highway authority and as such traffic calming on Hilton Lane is seen as en effective road safety measure.
The issue of people parking on Hilton Lane to drop off and pick up pupils at the school site was discussed during the development of the school and provision made in the form of a parking and drop off area. With this in mind it would be down to those responsible for the school site to actively encourage responsible behavior whilst accessing and exiting the site.
In order to achieve effective traffic calming it is recommended that a combination of different measures are used, the effectiveness of these measures has been studied by the Department of Transport and the guidance produced (local transport note 01/07) used in the design of this scheme. Of the measures available speed humps were not deemed suitable by the Passenger Transport Executive and emergency services, the next most effective traffic calming measures are raised junctions and pinch points and build outs both of which have been included as part this scheme. The next most effective measures include variable message signs and speed cushions, although both have similar effects on the speed of traffic, the requirement for the 20mph traffic calmed zone to be self enforcing means there is a requirement for physical traffic calming measures. These should be placed on the carriageway at distances between 60 and 70m (traffic advisory note 09/99) and as such speed cushions have been seen as a more favourable option in this instance.
Part of the research carried out and included in local transport note 01/07 also assessed the impact on traffic flows and showed little difference between the effect of

speed cushions and speed humps as compared with build outs also during the design modelling was carried out using available traffic flow data. The most recent flow data for Hilton Lane shows 272 vehicles travelling towards the northern most build out at peak flow, assuming a steady flow and an increase of 30% since the count was taken on average there would be a gap of 10.2 seconds between vehicles, this is much more than 5 seconds required to allow the build out to function. In order for grid lock to occur it would be necessary for more than 720 vehicles to be travelling north bound at peak time, this would be an increase of 165%.

For the most southern build out a similar modelling exercise was carried out count data shows 496 vehicles travelling east at the peak flow, again assuming a steady flow with a 30% increase in flow this provides a 5.6 second gap between vehicles which is enough to allow the build out to function. In order for grid lock to occur it would be necessary for more than 720 vehicles to be travelling north bound at peak time, this would be an increase of 45%. In order to avoid the current situation of vehicles straddling the centre cushion it is proposed to alter both the spacing and size of the cushions. This should make it more difficult for vehicles to straddle the traffic calming measures. Also the addition of the junction tables and build outs will mean that vehicles will not be able to avoid these measures and as such will be travelling at a slower speed on approaching the cushions.

As part of the design process any traffic engineering schemes which would affect emergency services or public transport are discussed at a monthly transport management unit meeting with all major emergency service and public transport providers. Objections to proposals are noted and alterations made in order to suit the requirements of these groups. As such the proposals for Hilton Lane have been through this process and the impact on both emergency services and public transport assessed by

the providers. Amendments have been made where requested before being put forward for public consultation.

A. Westwood
Strategic Director

Anthony Rich
City Solicitor