## **Basildon Local Highway Panel Meeting Agenda**

20<sup>th</sup> Jan 2014 10:30 AM Committee Room 4, County Hall

Chair Cllr Keith Bobbin

Panel Cllr Kay Twitchen, Cllr Tony Hedley, Cllr Malcolm Members Buckley, Cllr Kerry Smith, Cllr William Archibald, Cllr

Mark Ellis, Cllr Melissa McGeorge, Cllr Nigel Le Gresley

Other Attendees Will Price – Highway Liaison Officer, Anthony Buston Senior Transport Strategy and Engagement Officer, Beverley Gould – Principal Transport Strategy and Engagement Officer, Peter Wright - Design and

Consultancy Manager, Sonia Church - Highway Liaison

Manager

Page no		Item	Lead:	Papers:
	1	Welcome and Introductions	Chair	Verbal
	2.	Declarations of Interest	Chair	Verbal
1	3.	Minutes of meeting held on 9 <sup>th</sup> October 2014 and matters arising	Chair	Attached
6	4.	Basildon District Approved Scheme List	WP	Attached
10	5.	Highway Improvements Programme 2015-16 - Potential Schemes	WP	Attached
	6.	A.O.B.	Chair	Verbal
	7.	Date of next meetings	Chair	Verbal

## **Basildon LHP – Potential Schemes for 2015/16**

In order to ensure an efficient system of scheme delivery it is important that the Basildon Panel assemble a full programme of works in advance of the new financial year (i.e. by March 2015). With this in mind, Panel Members should continue to send any new requests to <a href="will.price@essexhighways.org">will.price@essexhighways.org</a>.

To prevent any future loss of time and/or misinterpretation of local wishes it is important that Members requests are as detailed as possible and, ideally provided on the LHP scheme request form.

#### **Schemes for Consideration**

The below schemes have all been "validated" and are ready for the Panels consideration. Any schemes shaded grey have already been pre-approved:

Location	Descripton	Scheme Category	Scheme stage	ID	Estimated Cost
Hornsby Way, Basildon	Panel Commissioned feasibility study provides 3 alternative traffic calming options to overcome reported reckless driving: Option A - Speed Cushions, Option B - Raised Junction Plateaus, Option C - Flat Top Road Humps. Panel to consider all options in detail before deciding which, if any, options to implement	Traffic Management	Implementation	LBAS152001	£95,485
Kennel Lane, Billericay	Delivery of design commissioned in 2013/14 to provide advanced signage of weight restriction	Traffic Management	Implementation	LBAS152002	£10,000
Brightside, Billericay	Delivery of design commissioned in 2013/14 to provide 20mph zone	Traffic Management	Implementation	LBAS152003	£12,000

Location	Descripton	Scheme Category	Scheme stage	ID	Estimated Cost
Noak Hill junction with Wash Road	Detailed design to include Topographical survey, traffic modelling and consultation with Utility Companies	Safer Roads	Design	LBAS152004	£12,000
High Road, Langdon Hills	Removal of old barriers (where still present) between Staneway and Shelsley Drive and replacement with reflective bollards and bend warning signs alongside a "treefend" barrier system around large oak tree.	Traffic Management	Total scheme	LBAS152005	£27,000
Byway 17, Little Burstead	Drainage improvements alongside removal of tarmacadam surface and its replacement with type 1 granular material or road plainings. These improvements are to overcome a problem of standing water and subsequent path erosion.	Public Rights of Way	Total scheme	LBAS152006	£15,000

#### **Schemes not yet Validated**

In addition, the following scheme requests have been received, but require the undertaking of surveys, further information from Panel Members and/or are awaiting an initial site visit by our validating engineer. Therefore the scope, viability and costs of the scheme are not yet defined:

Location	Description
Gardiners Lane North	Request for Weight Limit – Approval for HGV Survey required.*
Dunton Road	Request for measures to reduce driver speeds and discourage use as a rat run – Approval for Speed Survey required.*
Church Road, Ramsden Bellhouse	Measures to improve pedestrian safety and aid access to the recreation ground.
Elder Avenue, Wickford	Request for removal of speed humps.
Twinstead, Wickford	Request for speed humps to be reduced in gradient due to vibrations in homes.
Golden Jubilee Way	Request for a signalised pedestrian crossing adjacent to the Texaco garage.
Stock Road, Billericay	Request for zebra crossing to be upgraded to signalised crossing.
Bridge Road, Noak Bridge	Possible 20mph scheme*

<sup>\*</sup> Further information required to progress

#### **Basildon District Approved Scheme List** Key: **Completed schemes Cancelled schemes** For Discussion Design Reference Task Name Finish CMA approved Cost Code **Works Description Allocated Budget Comments** Number **2012/13** Approved Valence Way Footway Mon 09/02/15 14/01/2013 LBAS003004 Footway (new) £115,000.00 Further clarification required on the A176 Basildon to Billericay Cycleroute Tue 04/08/15 14/01/2013 LBAS004001 Cycleway improvements £255,000.00 Panels wishes for this scheme ITS0031 A127 Between A128 and B148 Design, supply and installation of Variable 14/01/2013 LBAS002014 Fri 07/08/15 £95,000.00 Message Sign. VMS 14/01/2013 LBAS006006 South Green Infant and Junior Schools Mon 16/02/15 School route improvements £3,540.00 Bus Stop 1500PITS6 St Margarets 14/01/2013 LBAS006010 Imminent Bus stop improvements £2,750.00 School 1500PITS5 St Margarets School 04/03/2013 LBAS006009 Transport - School crossing patrols Imminent £750.00 **2013/14 Approved** Thu 29/01/15 27/03/2013 LBAS131019 Valence way, Laindon Waiting restrictions £8,700.00 Vange Primary School Extend TRO Thu 09/07/15 23/07/2013 LBAS131013 Extend existing TRO £4,000.00 Billericay Station, Paint Bay Tue 17/03/15 23/07/2013 LBAS131004 £2,000.00 Paint bus bay lines B1007 Staneway jw High Road Langdon Fri 30/01/15 30/09/2013 LBAS001006 £52,500.00 Casualty reduction measures Hills CR Scheme Please see Appendix - Panel to decide Feasibility Study into options following the £3,500.00 which of the 3 proposed measures to take Noak Hill Road j/w Wash Road Fri 30/01/15 30/09/2013 LBAS001002 rejection of the no right turn scheme. forward for funding in 2015-16 **Dunton Roundabout** Mon 26/01/15 30/09/2013 LBAS131007 Casuality reduction scheme £15,200.00 Eastmayne Mon 24/11/14 30/09/2013 LBAS131008 Casuality reduction scheme £20,500.00 Uppermayne j/w St Nicholas Lane Tue 18/11/14 30/09/2013 LBAS131009 Casuality reduction scheme £21,500.00 2014/15 Approved Mon Basildon Hospital, Nethermayne 24/02/2014 LBAS142013 New signals and CCTV £70,000.00 25/03/2015

Laindon Road, Billericay	Fri 10/04/15	24/02/2014	LBAS132030	Reposition existing School sign with School plate and install Children Going to School sign with School plate pre approved prior to new years budget	£2,000.00	
London Road, Billericay	Tue 14/04/15	24/02/2014	LBAS142001	Installation of tall poles to the London Road crossing	£50,000.00	
Stonechat Road, Greens Farm Lane, Billericay	Fri 30/01/2015	24/02/2014	LBAS145001	Raised kerbs	£4,850.00	
Burnt Mills Rd	Tue 02/12/14	24/02/2014	LBAS145002	Hard standing, kerbs and infrastructure	£4,850.00	
Ashlyns J/w Mill Green Road, Pitsea	Tue 31/03/2014	28/05/2014	LBAS141002	Preliminary design and investigation costs estimate	£3,000.00	
Janet Duke School, Basildon	Wed 22/07/15	28/05/2014	LBAS142034	Design previously agreed - implementation costs for crossing	£150,000.00	
Salcott Crescent	Wed 05/08/15	28/05/2014	LBAS142002	Install Staggered barriers either side of Salcott Crescent	£10,000.00	
Church St j/w Noak Hill Rd	Tue 16/06/15	28/05/2014	LBAS142025	Install 1 30mph/50mph sign and post. 2) Add 1 50mph sign to back of existing 30mph signage 3) Install 1 No. Gateway (as per South Green Gateway signage and posts at Parish boundary	£5,000.00	
A13	Tue 31/03/15	28/05/2014	LBAS142016	Investigate and review Layby	£5,000.00	
The Paddocks, Pound Lane	Thu 21/08/14	28/05/2014	LBAS142028	Signage - already designed	£475.00	
Basildon - TBC	Tue 06/10/15	28/05/2014	LBAS142030	Funding towards cycling schemes once review is complete	£100,000.00	
Great Burstead and South Green, Little Burstead, Ramsden Bellhouse, Ramsden Crays, South Hanningfield	Fri 23/01/15	28/05/2014	LBAS145003	Phase 1 -Poles, flags, timetable frames, removing old infrastructure , installing new infrastructure, inserting TT graphics	£31,373.00	
Billericay	Fri 30/01/15	28/05/2014	LBAS145004	Phase 2 - Poles, flags, timetable frames, removing old infrastructure , installing new infrastructure, inserting TT graphics	£54,790.00	
Basildon inc Wickford	Fri 30/01/15	28/05/2014	LBAS145005	Phase 3 - Poles, flags, timetable frames, removing old infrastructure , installing new infrastructure, inserting TT graphics. Phase 3 not to start until one and two completed. Final confirmation of Phase 3 to be taken back to LHP	£248,196.00	
outside Basildon Schools	Fri 13/03/15	28/05/2014	LBAS142029	Review/Feasibility into 20 mphs outside schools in Basildon	£15,000.00	
Ashlyns J/w Mill Green Road, Pitsea	Fri 27/11/15	09/07/2014	LBAS141004	Providing a right turn lane to facilitate turning movements from Ashlyns into Mill Green Road and reduce collisions.	£30,000.00	

District Wide	Tue 31/03/15	09/07/2014	LBAS141005	Funding for Casualty Reduction Site Investigations at forthcoming identified	£16,000.00	
Gaywood, Laindon	Mon 19/01/15	09/07/2014	LBAS142041	cluster sites.  Re-positioning the staggered posts to accommodate a wheelchair or mobility vehicle	£5,000.00	
High Road North, Laindon	Tue 07/10/14	09/07/2014	LBAS142021	1) The removal of the existing chicane and the installation of two new humps 2) Improve visibility & rationalisation of the existing hump warning & 7.5ton prohibition signs at either end of the scheme.	£15,000.00	
Eastgate layby (Asda end Southernhay)	Fri 27/03/15	09/07/2014	LBAS142008	Feasibility study to install a clearway along Southernhay therefore reducing ilegal parking in the layby and improving traffic flow.	£3,000.00	
Hillside Road/Langemore Way junction, Billericay	Wed 31/12/14	09/07/2014	LBAS142038	Investigation/ Study/ Design for utilisation of S106 Funds	£1,000.00	No suitable schemes found.
Bus stop IM198, Eastfield Road, Basildon j/w Wash Road	Tue 23/09/14	09/07/2014	LBAS145006	Unofficial temporary bus stop to be formally recognised and marked and redundant stop to be removed.	£7,500.00	
Bus stop : IM968 Sun Corner Billericay	Fri 24/10/14	09/07/2014	LBAS145007	Reposition the bus cage to line up with the current bus stop, remove 9 of the departure dotted yellow lines to shorted the cage and lengthen the cage by 9 lines to make the cage 21m again	£1,500.00	
Bus stop IM452, Wickford Railway Station	to be programmed	09/07/2014	LBAS145008	Overcome the issue of buses being issued with parking tickets as follows: Lengthen current bus stop cage by 10 m to the road between Station Court and the day nursery. Mark section next to the station as a Bus stop with the furthest section as Bus Stand	£1,500.00	
The Meads, Basildon	Mon 22/12/14	09/07/2014	LBAS142039	Design and Install noise barrier	£77,000.00	
Church Road JW Southend Road	Tue 16/06/15	15/10/2014	LBAS142046	Detailed design and investigation to include safety audit and to explore land ownership and potential utility costs as recommended in the technical note.	£4,000.00	
A129 Southend Road / Bakers Farm Close, Wickford	Tue 16/06/15	15/10/2014	LBAS142047	Feasibility study to explore the possibility of upgrading existing crossing point with pedestrian refuge into a signalised crossing	£4,000.00	
Greenstead Infant and Junior School, Timberlog Lane, Basildon	Mon 26/01/15	15/10/2014	LBAS142048	Delivery of design commisioned in 2013/14 to harden and improve the uneven grass verge	£4,025.00	

	High Road North, Laindon	Mon 12/01/15	04/11/2014	LBAS142049	Topographical survey and detailed design of scheme to improve HGV restriction and directional signage, and narrow junction with A127.	£4,000.00	
Revenue	Kennel Lane_ Billericay_ HGV Sign	Mon 15/09/14	23/07/2013	LBAS131017	HGV advanced warning signage design	£800.00	
Revenue	Markhams Chase- Janet Duke School _TRO ammend	Mon 01/06/15	23/07/2013	LBAS131016	TRO amendment on school keep clear markings AND PV2 survey	£5,000.00	
Revenue	Brightside, Billericay	Mon 28/07/14	30/09/2013	LBAS132022	Design of 20mph zone	£3,000.00	
Revenue	Janet Duke School, Basildon	Fri 23/01/15	11/12/2013	LBAS132029	Design for zebra crossing outside school	£5,000.00	
Revenue	Elizabeth Way j/w Southwell Link, Laindon	Fri 23/01/15	11/12/2013	LBAS132026	Installation of bollards to prevent vehicles mounting the footway to access the estate	£1,000.00	
Revenue	Billericay Station	Fri 29/05/15	11/12/2013	LBAS132022	Review of existing TROs and waiting areas to have joined up approach to what measures need to be undertaken to enable this area to be enforced by SEPP	£5,000.00	
Revenue	Greensted Infant and Junior School, Kirby Road	Tue 30/09/14	11/12/2013	LBAS132023	Design for hardening of grass verge area to make it easier for pupils to walk to school	£1,500.00	
Revenue	Greens Farm Lane	Mon 17/02/14	11/12/2013	LBAS132038	Speed survey to ascertain if there is a speeding issue at this location	£210.00	
Revenue	Wickford Station	Mon 31/03/15	11/12/2013	LBAS135005	Real time bus shelter to allow passengers to know what time next bus is arriving.	£9,200.00	
Revenue	Hill Avenue, Wickford	Tue 07/10/14	28/05/2014	LBAS142004	speed survey for Vas Consideration and 20 mph	£210.00	
Revenue	Grange Primary School, Elder Avenue, Wickford	Thu 09/10/14	28/05/2014	LBAS142020	PV2 for consideration of Zebra	£890.00	
Revenue	Salcott Crescent	Tue 07/10/14	28/05/2014	LBAS142024	PV2	£890.00	
Revenue	All of Basildon		28/05/2014	LBAS144001	Strategic review of cycling schemes	£13,000.00	
Revenue	District Wide Surveys		15/10/2014	LBAS142044	Comission to enable speed and PV2 surveys requested between meetings	£5,000.00	Surveys Required as follows: Hill Avenue - Automatic Traffic Count, Gardiners Lane North - HGV Count, Dunton Road - Speed Survey, Bridge Street - Speed Survey

# **Basildon Local Highway Panel Appendices**

## Appendix 1 –Noak Hill Rd junction with Wash Rd Feasibility Study

Recommendations:

Option A – Conventional Roundabout – £261,421 (Estimate)

Option B – Mini Roundabout - £134,437 (Estimate)

Option C – Signalised Junction - £153,500 (Estimate)

#### DC1752 Noak Hill Road j/w Wash Road West, Billericay - LHP

#### 1.0 **Brief**

To Investigate the proposal put forward from the Local Highways Panel (LHP) for;

- 1. A Conventional Roundabout
- 2. A Mini Roundabout with a reduced speed limit
- 3. A Traffic Signalised junction

This site has previously been investigated for the installation of a Conventional Roundabout, which concluded that traffic calming measures on this classification of road contradicts The Traffic Management Policy Guidance. Also the LHP choose not to purse the option due to estimated costs and went for the 'No Right Turn' out of Wash Road West option.

The Local Highways Panel has requested that a feasibility study is undertaken for the proposals put forward.

This request has come about as a result of the number of objections that were received from the consultation period for a Left turn out of Wash Road West that was carried out in June 2014. This scheme originated as a Casualty Reduction Report in 2012/13 which reviewed the collision pattern at the junction and made recommendations on how to reduce the collision pattern.

#### 2.0 | Site Description

The site in question is the A176 Noak Hill Road junction with Wash Road West. This section of Noak Hill Road is classified as a PR1 Radial Feeder route, which has a speed limit of 40mph and is single carriageway in both directions with hatching down the centre of the carriageway.

Wash Road West is classified as a PR2 Link Road that is subject to a 30mph speed limit and is single carriageway in both directions.

#### Noak Hill Road North bound approach





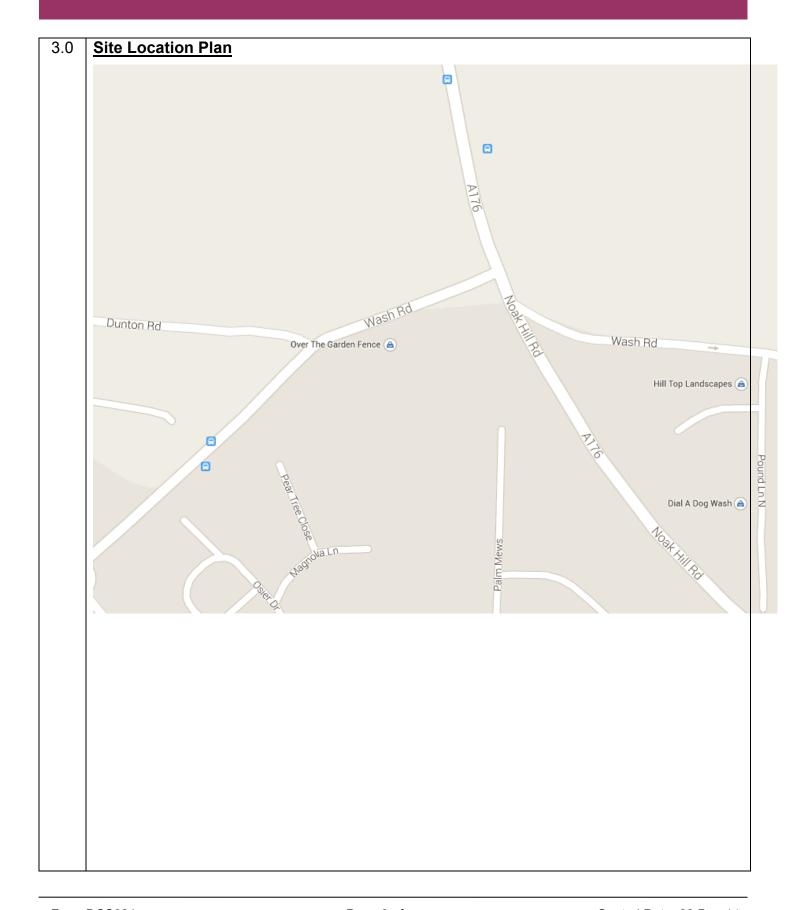
Noak Hill Road South bound approach





Wash Road West heading toward Noak Hill Road





### 4.0 **Aerial Photograph**



#### 5.0 **Personal Injury Collision**

5.1 A study of the Personal Injury Collision (PIC) data indicates that there have been nine recorded collisions in the vicinity of the junction. Six of these involved vehicles exiting Wash Road West who failed to give way to traffic on Noak Hill Road (two serious and four slight)

Records indicated as being correct at time of the publication (27.10.14).

#### 6.0 | Site Observations

#### 6.1 Northbound Approach in Noak Hill Road

This section of Noak Hill Road is located on a long sweeping bend that has grass verge embankments on both sides of the carriageway with a shared footway / cycleway on the west side of the carriageway (Also known as National Cycle Network 13( NCN13)). A signalised pedestrian crossing point is located approximately 55m south of the junction with Wash Road West.

#### 6.2 | Southbound Approach in Noak Hill Road

This section of Noak Hill Road is located on a slight down hill gradient with a shared footway / cycleway (NCN13) on the west side of the carriageway and a bus stop on the east side of the carriageway near the junction with Wash Road West. The central hatching markings widen out before the junction with Wash Road West to create a right hand turn lane.

#### 6.3 Wash Road West approach to Noak Hill Road junction

There is evidence of on street parking that is mainly on the south side of the carriageway out side of the business units and residential houses. There is a pedestrian island located at the junction with Noak Hill Road for use with the shared footway / cycleway facility (NCN13).

#### 7.0 Design Options

- 7.1 It should be highlighted that if any of these measures were introduced on this classification of road network (PR1 & PR2) it would contradict the Traffic Management Policy Guidance.
- 7.2 Street Lighting designs will have to be carried out for each proposal to make sure that the street lighting levels for any new layout are up to current standards.
- 7.3 No Safety Audits have been carried out on any of the three proposals.

#### 7.4 Proposed Conventional Roundabout (*DC1-1752-00-002*)

- 7.4.1 Some advantages of using conventional roundabouts are that they can have a better safety performance over other types of junctions. Surveys have shown that the damage incurred in roundabout crashes was significantly reduced due to the reduction in speed of vehicles.
  - Some disadvantages of using conventional roundabouts are that queue development can cause long lines at the entry points. Cyclists are more vulnerable because of blind spots on a roundabout.
- A preliminary design was carried out for a proposed conventional roundabout to see if there is enough Highway land available and to see what Utility equipment is likely to be affected. The preliminary design may not determine if any potential land acquisition will be required from private land owners.
- 7.4.3 It is noted that two telegraph poles are affected by this proposal and will need to be relocated outside of the new footway and carriageway areas. There are also a number of

utility boxes that are currently located in the verge / footway area, which will be converted into new carriageway area. As a result the Utility companies may wish to relocate these boxes into the new verge / footway area. C3 estimates will need to be sent to the affected Utility companies to determine the cost estimate for these works.

- 7.4.4 Due to the sloped gradient of the verge on the east side of the carriageway in Noak Hill Road a retaining wall feature will have to be erected to support the level difference from the Highway to the Farmers field behind it.
- 7.4.5 A drainage design will have to be carried out on this proposal due to the realignment and level changes that will be required.
- The junction area and approaches will have to be resurfaced as the current surface is a thin surfacing that may not withstand the additional turning stress movements by vehicles manoeuvring around the roundabout. Also level changes will need to be made to incorporate the widening of the junction whilst considering the drainage cross falls.
- 7.4.7 The existing footway / cycleway networks (NCN13) that currently exist will have to be repositioned into the existing verge areas so that the existing network will remain continuous and accessible.
- This design could result in the removal of trees on the east side of the carriageway in Noak Hill Road and on the north side of the carriageway in Wash Road West. This maybe necessary to install the retaining wall feature and to widen the footway areas into the existing verge areas.
- There is an existing signalised pedestrian crossing point in Noak Hill Road that will be affected by these proposals. Due to the proposed resurfacing works the detection loops will have to be re-cut for this crossing point on the southbound carriageway. The close proximity of this crossing point may cause traffic to back up to the roundabout and cause grid lock as a result.

#### 7.5 Mini roundabout with speed limit reduction

- 7.5.1 The existing kerb lines at this junction would have to be amended to create deflections on the approaches so that road users have to slow down and negotiate the mini roundabout. If this is not done then road users approach speeds will increase and the mini roundabout could be driven straight over. The junction area and approaches will have to be resurfaced as the current surface is a thin surfacing that may not withstand the additional turning stress created by a roundabout. Localised drainage works will need to be carried out for any changes in the kerb line in the area of the junction.
- 7.5.2 The Design Manual for Roads and Bridge Volume 6 Section 2 part 2 TD 54/07 states that;
  - 2.1 Mini-roundabouts must only be used on roads with a speed limit of 30mph or less and where the 85th percentile dry weather speed of traffic is less than 35mph within a distance of 70 metres from the proposed give way line on all approaches, unless installed in combination with speed reduction measures.

- 2.2 Where the existing 85th percentile dry weather speed is 35mph and above and a mini roundabout is installed in combination with speed reduction measures in anticipation of reducing speeds to the required level, post installation vehicle speed monitoring must be undertaken. In the event that vehicle speeds remain at 35mph or above, further speed reducing measures must be installed.
- 2.8 Introducing a mini-roundabout may lead to the reassignment of traffic to and from other routes. There is therefore a need to assess the surrounding network for the traffic and safety implications of introducing a new mini-roundabout.

#### 7.5.3 | <u>Summary</u>

If the speed limit is reduced to 30mph (a minimum length of 350m is required as per the Speed Management Strategy) this would contradict the Speed Management Strategy as there is insufficient number of properties in the area of the site to allow for this. Also the use of additional speed reduction measures will be classed as Traffic Calming measures, which also contradicts the Speed Management Strategy as the two roads in question are classified as PR1 and PR2 roads, which should not have any Traffic Calming measures on them.

It is important to predict, as accurately as possible, the accidents likely to occur after introducing a mini-roundabout as this site originated as a Casualty Reduction Scheme. Therefore any remedial works at this location will have to reduce the collisions and not increase them with a different collision pattern.

In some instances, for the space available, mini-roundabouts can achieve greater capacity than other types of junction, for example Traffic Signals.

As this option contradicts the Speed Management Strategy a design has not been carried out to date. If this option is chosen as the preferred scheme a preliminary design can be carried out but it should be highlighted that the departures from standard will need to be approved and signed off by the Cabinet Leader for Highways.

#### 7.6 Signalised junction

A review has been carried out on the signalised junction proposals and the following comments have been made:

Whilst the junction generally would lend itself to signalisation, the location of a pedestrian crossing over Noak Hill Road within the junction signalling would be problematic.

The existing toucan crossing is sited in the ideal place with regard to the junction (not too close) and to pick up the desire line between the connecting paths on either side, including to Wash Road (east). This location is too far from the junction to retain the crossing in this location as part of the junction signalling and too close to remain as a standalone crossing next to a signalised junction.

However there is no obvious suitable location to move the crossing further towards the junction due to the slip to Wash Road (east). Although the crossing could possibly be landed at the start of the Wash Road one-way slip, peds/cyclists would immediately have to cross the Wash Road slip uncontrolled (as impracticable to have another crossing here) if continuing south or using Wash Road (east) footway.

So the crossing location problem may make signalisation of the junction difficult unless these issues could be satisfactorily resolved. One option could be to close the access road to allow for the crossing point to be incorporated in the design.

If the design issues mentioned above can be overcome, a possible "ball park" figure might be in the region of £150,000.00 assuming only one crossing point and no upgrade to the street lighting.

#### 8.0 Dunton Road j/w Wash Road West

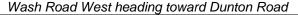
During the consultation period in June 2014 for the 'No Right Hand Turn' out of Wash Road West design option, 22% of the responses (for and against the scheme) raised their concerns about the above junction.

The main concerns were about the visibility at this junction and its current layout. This junction is an old style Bennett junction layout that has a grass island in the middle of it. The island has a telegraph pole and highway signage on it which causes visibility issues with road users pulling out of Dunton Road. There is also an issue with the maintenance of the vegetation that is regularly over grown which further reduces road users visibility to see approaching traffic.

A study of the Personal Injury Collision (PIC) data indicates that there have been no recorded collisions at this junction in the past five years.

This junction will have to be investigated separately from the Noak Hill Road j/w Wash Road West scheme as there are no recorded accidents here and the original site is a Casualty Reduction site.







Dunton Road looking South Westbound





Dunton Road looking Eastbound

Dunton Road looking South Westbound



Wash Road West looking towards Dunton Road

#### 9.0 | Recommendations

- 9.1 The LHP should advise on the way forward for the scheme having considered all the options/issues/pros & cons in this report.
- 9.2 The future maintenance costs of any of the proposals are to be considered as this could greatly increase to what is currently in place due to the nature of the proposals. For example Traffic Signals will have to be updated at a future date or replaced if damaged etc. The whole life value of a scheme should assist in the safe and efficient maintenance as well.
- 9.3 The chosen design should be assessed with design software (Arcady and Picardy) to predict the capacities, queues, delays, accidents and the knock on affect to surrounding roads. Also any future works on surrounding roads like Dunton Road and High Road North

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need to be taken into consideration as installing one of the proposed designs may increase the attractiveness of these roads in preference to the A127.

9.4 Any future commission should be detail design only so that detailed works cost can be worked up.

#### 10.0 | Economic Analysis

The estimates for the proposed works have been worked out on the RJ estimating tool. These estimates are only for guidance and are likely to change if the scheme goes for target costing. It is recommended that any chosen option is to proceed to a Detailed estimate in the first instance before any works are commissioned.

#### 10.1 Breakdown Cost for Conventional Roundabout

Civil Works - £211859.06

Target cost contingency - £10592.95

RJ Overheads - £22245.20

RJ Fee - £12724.26

Stage 2, 3 & 4 Safety Audit - £2000

C3 & C4 Estimate Costs – Unknown

Street Lighting Design & Works - Unknown

D&C Design Fee- £2000.00

Estimated Total – £261421.40 + Unknowns

#### 10.2 Breakdown Cost for Mini Roundabout

Civil Works - £106691.99

Target cost contingency - £5334.60

RJ Overheads - £11202.66

RJ Fee - £6407.92

Traffic Survey - £800.00

Stage 2, 3 & 4 Safety Audit - £2000

C3 & C4 Estimate Costs - Unknown

Street Lighting Design & works - Unknown

D&C Design Fee- £2000

Estimated Total – £134437.17 + Unknowns

#### 10.3 Breakdown Cost for Signalised junction (see section7.6)

Civil Works - £150,000.00

Stage 2, 3 & 4 Safety Audit - £2000

C3 & C4 Estimate Costs – Unknown

Street Lighting Design - Unknown

D&C Design Fee-£1500.00

Estimated Total – £153,500.00 + Unknowns

Prepared by:	Clint Nicholls	Date:	6 <sup>th</sup> January 2015
Approved by:	Peter Wright	Date:	6 <sup>th</sup> January 2015