



ESSEX COUNTY COUNCIL WITH BOROUGH OF BRENTWOOD LOCAL HIGHWAY PANEL 23 March 2015

Date: Monday 23 March 2015

Time 19:00 hrs

Venue: Council Chamber, Brentwood Borough Council

Chair

Cllr David Kendall

Panel Members Cllr Naylor CC Member, Cllr Aspinell CC Member, Cllr Hirst CC Member, Cllr Julie Morrissey BB, Cllr Phil Baker BB, Cllr Jon Cloke BB, Cllr Keith

Parker BB, Cllr Graeme Clark BB

Other Attendee Kim Shenton Highway Liaison Officer (EH), Sonia Church Highways Liaison Manager (EH), Vicky Duff Network Management Group Manager (EH), Peter Wright Highway Improvement Design Manager (EH), Mark Robinson Strategy & Engagement (ECC), Jean Sharp Governance &

Members Support (BB)

Time		Item	Lead:	Papers:
	1	Welcome and Introductions	Chair	Verbal
	2	Declarations of Interest	All	Verbal
	3	Apologies for absence	All	Verbal
	4	Minutes from Previous Meeting	Chair	Verbal
	5	 Public questions; 1. Presentation of petition relating to Herongate and Ingrave Ward. 2. Representation from Mountnessing regarding proposed traffic calming outside Mountnessing School. 	Chair/ public	Verbal
	6	A128 Ongar Road	SC	Verbal
	7	Brentwood High Street maintenance	Chair	Verbal
	8	Great Ropers Lane - Addendum and Design	VD	Papers
	9	Funding update	sc	Verbal
	10	Update on schemes approved Report 1 Any queries please contact kim.shenton@essexhighways.org	Chair	Verbal
	11	Schemes to Consider for Funding Report 2/Appendix A	All	Attached
	12	Any other business	All	Verbal
	13	Date of next meeting; Monday 8 June 2015 19:00hrs	Chair	Verbal

Minutes

Essex County Council with Brentwood Borough Council Local Highways Panel (LHP)

15 December 2014

Membership/Attendance

- * Cllr Kendall (ECC) (Chair)
- * Cllr Aspinell (ECC)
- * Cllr Baker (BBC)
- * Cllr Clark (BBC)
- * Cllr Cloke (BBC)
- *present

- * Cllr Hirst (ECC)
- * Cllr Morrissey (BBC)
- * Clir Dr Naylor (ECC)
- Cllr Parker (BBC)

Apologies

ECC Cllr Howard

Officers Present

Sonia Church - Highways Liaison Manager (ECC)

Mark Robinson Senior Transport and Strategy Engagement Manager (ECC)

Jean Sharp Governance and Member Support Officer (BBC)

Kim Shenton Highways Liaison Officer (ECC)

Peter Wright Design and Consultancy Manager (ECC)

1. Welcome and introductions

Cllr Kendall welcomed all present to the meeting and advised that at the 10.12.14 BBC Ordinary Council meeting, Cllr Clark had been appointed to the Local Highways Panel in place of Cllr Mrs Cohen.

2. Declarations of interest

None were received.

3. Apologies for absence

Apologies for absence had been received from Essex County Councillor Howard.

4. Minutes of the previous meeting

The minutes of the 23 September 2014 were approved as a true record.

5. Member and Public Questions

A member of the public in attendance at the meeting asked questions regarding the yellow box at Tabors Corner, Shenfield, and the proposed zebra crossing at Seven Arches Road, Brentwood. A response would be made to both questions by ECC officers.

The Chair requested that future specific questions be emailed to him and ECC officers so that a detailed response could be given at the LHP meeting.

5a. Election of Vice-chair

The Chair invited nominations for the role of Vice-chair.

CIIr Aspinell MOVED and CIIr Clark SECONDED and it was RESOLVED UNANIMOUSLY that CIIr Morrissey should be appointed as Vice-chair of the Panel.

6. Funding Update

An ECC officer advised that most of the 2014/15 budget had been allocated but there remained £16,960 in the revenue fund.

The Chair proposed and it was RESOLVED UNANIMOUSLY that £5,000 should be allocated for speed and pedestrian crossing surveys to be undertaken.

Cllr Kendall requested that proposals for speed and pedestrian crossing surveys including locations - be sent to him for discussion with Cllr Parker.

7. Update on Schemes Approved Report 1

Members received a list of schemes approved in 2012/13, 2013/14 and 2014/15 indicating what stage had been reached with each or if they had been completed or cancelled. Further details were given on the following schemes, numbered as shown in the report:

5. Priests Lane, Shenfield

Cllr Clark requested a timeline for completion of the proposed works and was advised that this had been delayed due to designing schemes for Great Ropers Lane and Ashwells Road taking priority.

(Cllr Clark declared a non-pecuniary interest under the Council's Code of Conduct by virtue of living close to the relevant site).

6. Wilson's Corner CR Scheme

A Panel member queried why this was being funded by LHP as it was a casualty reduction scheme. ECC officers would investigate and report back.

10. Shenfield and Brentwood Railway Stations

The Chair requested that ward Members and ECC members meet to input into the design process for both stations.

An ECC officer advised that any proposed designs would build on the Crossrail design. Cllr Kendall requested a timeline be sought from Crossrail in terms of the process and to find out what would be the next stage.

A Member highlighted the problems caused outside the Hutton pub at Shenfield by taxis making U-turns and it was suggested that Hutton South ward members be involved in addressing this issue.

Cllr Aspinell updated the Panel regarding a meeting he had attended with relevant members of London Boroughs affected by Crossrail. He advised he intended to write to the Leader of ECC requesting funding to improve Brentwood and Shenfield Stations. Cllr Dr Naylor proposed that Cllr Bass be invited to an LHP meeting to discuss issues relating to Crossrail.

14. Brentwood Cycle Strategy

Cllr Kendall advised that a Task and Finish Group comprising ECC officers Will Young and Mark Robinson and BBC/ECC Members Cllrs Baker, Kendall and Parker, had met in October 2014 and had agreed on four schemes to be progressed to validation and being included in the list of approved schemes for 2015/16. These were:

- Pilgrims Hatch to Brentwood Town Centre
- South West end of Greenshaw to Ongar Road
- Filling the 3 gaps between Hutton Road and Shorter Avenue
- Shenfield to Brentwood design work to enable options to be considered.

ECC officers would send details of these to Panel members.

Members noted that validation entailed considering the feasibility of a proposed scheme from an engineering perspective and that it was anticipated that the ECC validation team might be expanded which would enable quicker progression of schemes.

15. Ashwells Road/A128 Ongar Road

Members noted that a site meeting had taken place and that Phase 1 was to be implemented over the February 2015 half-term break. A road closure was necessary to enable the major works to be undertaken and parents needed to be forewarned of this.

The school would be advised of progress and ECC officers advised that the ECC comms team would publicise relevant information.

25. Hornbeam Close

Implementation of the proposed scheme had been cancelled due to Cllr Kendall's concern at the safety aspect of the new location of the bus stop.

26. A128 Tilbury Road, West Horndon

Cllr Hirst requested the proposed location be checked.

37. Update on casualty reduction sites

Cllr Kendall advised that he had met with Cllr Bass who confirmed that the LHP needed to fund any casualty reduction schemes. These would be considered at the March LHP meeting.

39. Hogarth Estate speed reduction measures

ECC officers were endeavouring to accelerate delivery.

40. School Road, Kelvedon Hatch

Members noted that if objections were received the Cabinet Member would be notified and would make a decision based on officer recommendations.

41. Hall Lane, Shenfield

Additional details of proposals were requested by Cllr Aspinell which would be provided by ECC officers.

49. Great Ropers Lane, Warley

ECC officers had met with school representatives to discuss proposals and it was anticipated the scheme would be implemented in 2015/16. The Chair thanked officers for their work in relation to this scheme which was supported by Ward Members.

50. Bridleway 12 Ingatestone and Fryerning and Highwood (Mapletree Lane)

A meeting was to be arranged between land owner, Cabinet member and ECC officers to discuss the way forward.

ECC officers would ensure current updates were provided for all schemes at the March 2015 LHP meeting.

8. Potential Schemes Report 2

Members were advised that since all capital funding had been committed, the schemes listed could not be considered for funding in 2014/15 but sufficient budget remained for the proposed revenue schemes to be progressed.

Details or updates were given on the potential schemes within the categories Capital Schemes, Passenger Transport and Revenue Funding.

Cllr Kendall requested that for any scheme put forward to be considered at the March 2015 LHP meeting a plan be provided to enable accurate prioritisation of schemes.

An ECC officer advised that any funds unspent from 2014/15 would be taken by the Cabinet Member for re-profiling.

The Panel RESOLVED to approve expenditure as follows:

- Middleton Hall Lane, Brentwood request to upgrade pedestrian crossing cost of PV² survey - £900
- The Drive, Warley request for investigation into the possibility of a zebra crossing cost of PV² survey £900

(NB £5000 already agreed under minute 6 to be allocated for speed surveys locations to be decided).

9. Brentwood Cycle Strategy

This topic been discussed during item 7 as scheme 14.

10. Beacon Lights feedback from Cabinet Member

The Chair had proposed to the Cabinet Member that the LHP should be able to agree to the installation of halo beacons and modular posts.

A Highways Practice Note had been included in the agenda relating to Zebra Crossings Halo Beacons and Modular Posts. This set out the criteria for these being installed which was where there had been 4 personal injury collisions (PICs) or three instances of loss of control resulting in 3 personal injury collisions. In light of this the Cabinet Member was not minded to permit LHPs to determine where these lights should be installed unless they met the criteria. No PICs had been recorded on the crossings proposed by Cllr Kendall to have halo beacons installed.

The Cabinet Member suggested a number of other safety measures that could be considered at these locations.

Members noted that zebra crossing markings were only replaced if 70% of the crossing was worn away, according to the ECC maintenance strategy and national code of practice.

The Chair proposed that any issues related to this be raised via County Councillors.

Panel Members requested that the possibility of extending the zig-zag markings outside Pemberton School, Ingatestone be investigated, also that an engineer investigate problems identified at the zebra crossing in the centre of Shenfield High Road.

11. Bus 21 Kelvedon Hatch

Cllr Dr Naylor highlighted the difficult position resulting from the withdrawal on 7.11.14 of the last two buses on the No 21 service between Harlow and Warley.

Passenger Transport officers at ECC were re-considering the matter since the subsidy needing to be paid had been miscalculated at £27.00 rather than the true figure of £5.53.

CIIr Kendall MOVED and it was RESOLVED UNANIMOUSLY that serious consideration be given to reinstating the bus services in view of the recalculation and it was suggested that any shortfall could be funded out of the LHP budget.

The Chair advised that ECC was to begin a major consultation on the bus service in 2015 and encouraged everyone to contribute their views.

12. Ingatestone High Street

ECC officers had been in discussion with Cllr Dr Naylor and advised that speed surveys had been carried out at High Street/New Road and High Street/Whadden Chase. A validation was to be undertaken on signage which could be improved and on the possibility of roundels being painted on the carriageway.

Cllr Cloke advised that traffic had speeded up since double yellow lines had been laid and believed that a single yellow line and parking restrictions might be more effective.

The Chair requested a definitive view be invited from stakeholders and suggested inviting SEPP to attend the site. Cllr Cloke would discuss at the Parish Council meeting and ECC officers would liaise with Cllrs Cloke and Dr Naylor.

13. Any Other Business

- 1. Church Road, Kelvedon Hatch: ECC officers advised that two speed surveys had been applied for and engineers would consider the results of these.
- 2. Cllr Baker requested a review of parking and manoeuvres at Mountnessing roundabout. ECC officers asked that a written referral be submitted.
- 3. Cllr Kendall requested a review of signage in Sandpit Lane in light of over-large vehicles turning into the lane. ECC officers asked that a written referral be submitted.

14. Date of next meeting

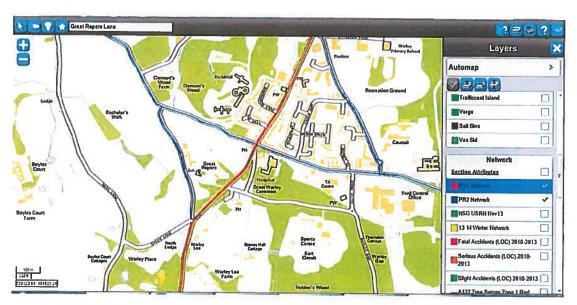
The next meeting would take place on Monday 23 March 2015 and a provisional date of Monday 8 June 2015 was suggested for the following meeting (to be confirmed).

Addendum

This addendum to the report to the Local Highway Panel was commissioned by Councillor Rodney Bass as Cabinet Member for Highways and Transportation following a request to him by the local MP Eric Pickles. While it is not possible to accommodate his request for a formal 20mph limit, the introduction of a 40mph limit at all times through a formal TRO process and an advisory 20mph limit when lights are flashing in the vicinity of the school with appropriate signage would in the view of the Cabinet Members, if approved by the LHP, offer a satisfactory solution which could then be signed off by Cllr Johnson the Cabinet Member for Highways Maintenance and Small Scheme Delivery.

Function

Great Ropers Lane, Warley is classed as a Priority Route 2 in the County Route Hierarchy.



As such its function in the hierarchy— is that although not as important as the Priority 1 routes, the Priority 2 routes still perform an essential traffic management distributary function between the local network and Priority One County Routes. They will be accessed by a number of different types of user including local buses. Therefore, motorised vehicular traffic will generally take precedence over the other modes on these routes.

Speed Limit

Great Ropers Lane has never been subject to a speed limit order instead the national speed limit applies along it. In extending the 40mph speed limit along the B186 across the junction with Great Ropers Lane in accordance with the rules governing speed limits it was a requirement that drivers turning into Great Ropers Lane from the B186 are reminded that the national speed limit applies. There are no signs at the north-western end as the national speed limit applies on both Mascalls lane and Great Ropers Lane.



The Department for Transport issues Local Highway Authorities with national best practise and guidance on the process for installing local speed limits.

Great Ropers lane is a rural lane which serves the Ursuline Preparatory School and a small industrial site (Great Ropers Business centre). There are approximately 6 gated entrances to farm land along the lane and it understood that the school has the use of a filed opposite which necessitates the children being escorted across the road.

In order to facilitate the discussion on viable options officers have provided the following guidance.

- As the traffic authority the County must abide by the guidance and regulations contained within circulars, and Statutory Instruments.
- Essex County Council is the order making authority for the introduction of Speed Limit Orders. In order to make a speed limit order the correct statutory process must be completed before any speed limit can be installed.
- It is important that traffic authorities and police forces work closely together in determining, or considering, any changes to speed limits.
 Essex police are a statutory consultee and any comments made to a proposal must be formally considered and responded to, prior to any order being made.
- In considering the application of a lower speed limit the Department for Transport
 makes it clear that Speed Limits should be evidence-led and self-explaining and
 seek to reinforce people's assessments of what is a safe speed to travel. They
 should encourage self-compliance.
- Traffic authorities were asked to keep their speed limits under review with changing circumstances, and to consider the introduction of more 20 mph limits and zones, over time, in urban areas and built up village streets that are primarily residential, to ensure greater safety for pedestrians and cyclists using the criteria documented in section 6 of circular 01/2013.
- 20 mph speed limits may be applied to a road were the mean speeds are at or below 24 mph.
- Successful 20mph speed limits are self-enforcing and should not place an undue burden on the Police as enforcing authority.

Officers on the request of the Cabinet Member following have assessed the speed limit of the lane in accordance with the guidance issued by the Department for Transport in Circulars 01/2006 and 01/2013 Setting Local Speed Limits and associated guidance notes, and in accordance with the Essex County Council Speed Management Strategy 2010.

Whilst Great Ropers Lane is classified as PR2 it is accepted that at particular times of the day there is a substantial increase in traffic and vulnerable road users accessing and exiting the school creating conflict with the use of the road as a route for a distributary function.

Officers therefore feel that consideration can be given to the introduction of a 40 mph Speed Limit following the standard order making process. This would offer a degree of protection to vulnerable road users and ensure that the economic viability of the route as a distributary link is maintained. It is also considered that this meets the criteria contained within the Department for Transport guidance in both circular 01/2006 and 01/2013, and is in accord with the Essex Speed Management Strategy.

The introduction of a 30mph speed limit would not met the Department for Transport Criteria nor the Essex Speed Management Strategy and would not be supported by Essex Police. It would not be self-explanatory to drivers and compliance would therefore be poor particularly at those time when drivers are unlikely to see any rational for the restricted limit.

Following the receipt of a petition from parents of children at the school Officers have considered the introduction of a 20mph Speed Limit along the length of Great Ropers Lane. However, as a rural lane with mean speeds well in excess of the Department for Transport recommended mean speed of 24mph. Officers consider that compliance would be poor as there are few indications outside of school entry and exit times that indicate to drivers the need for a significantly reduced speed. The implementation of an inappropriately low speed limit could pose significant risk to the authority if challenged. Particularly as the collision data for the route does not met the criteria for safety intervention, nor does the route met the criteria for the introduction of a 20mph limit.

Officer have investigated the introduction of a variable speed limit. The introduction of a variable 20mph from 60mph or from 40mph would require the consent of the Secretary of State for Transport given the data on collisions and current speeds and volumes officers consider it highly unlikely that approval would be given. In addition the level of finance required to implement the technology required would not enable any positive economic benefit ratio to be gained from the scheme. Approval to non-approved signs by the Secretary of State for Transport can take from between 6 to 12 months

In 2013 the Secretary of State for Transport provided English traffic authorities with special authorisation for the placement of part-time 20mph limit signs with flashing school warning lights. This is a more cost-effective solution and does not require the introduction of a Traffic Regulation Order or special approval

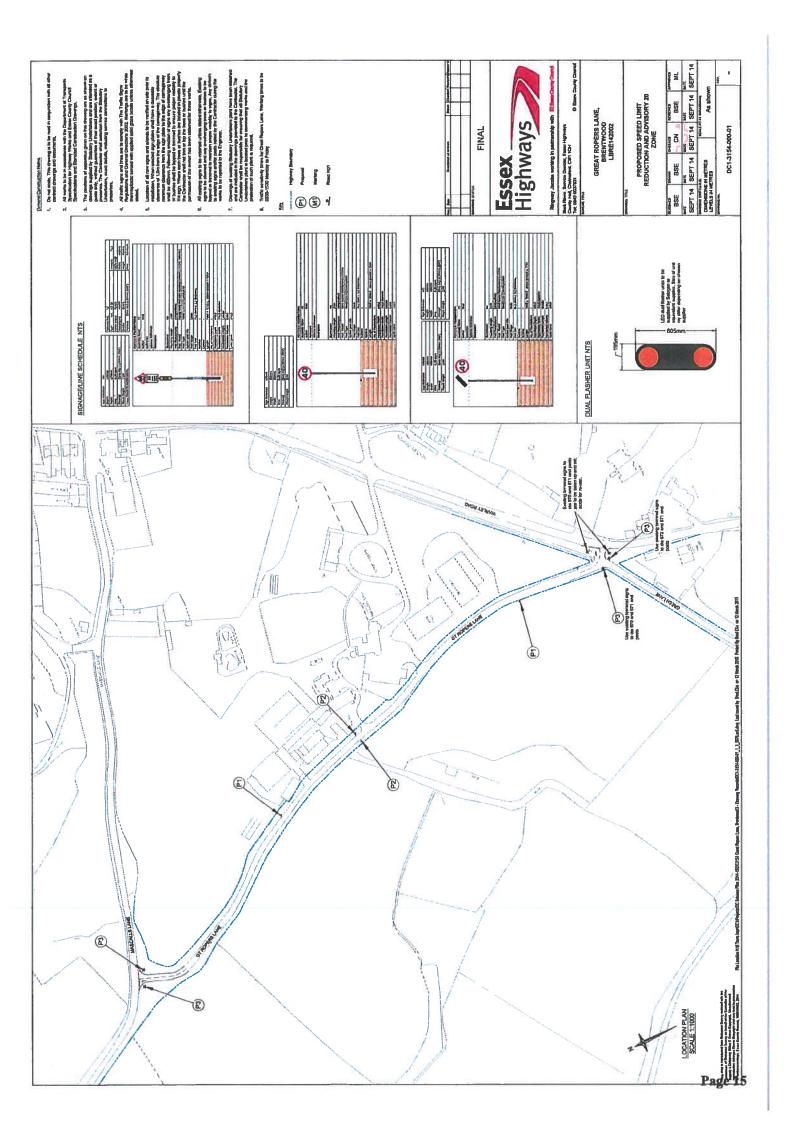
Essex Police have been informally consulted for their views and have confirmed that they would formally object to the introduction of a 20mph Speed Limit along Great Ropers Lane. They have also confirmed that they would not formally object to the introduction of a 40 mph speed limit

Recommendations

Officers would recommend that consideration is given to commencing the statutory process for the reduction in speed limit along Great Roper Lane, Warley from the national limit to 40mph.

That agreement is given to the introduction of advisory part time 20mph signs with flashing school warning signs in the vicinity of the school.

That the LHP agree to the funding of both elements.



Report 1- Brentwood District Approved Scheme List 23 March 2015

No.	Design Reference Number	Task Name	Parish/Ward	Finish	CMA approved	Cost Code	Works Description	Allocated Budget	Comments
						2012/13 Capital Schemes	tal Schemes		
1	DC1522	Borough Wide (Cycling) - Strategy Prioritisation	Brentwood	Thu 20/11/14	04/12/2012	LBREO03003	Borough wide cycle strategy	625,000.00	Completed and presented to the panel in September 2014.
2	DC1750	Hanging Hill Lane, Pondfield Lane, Brentwood	Hutton and Brentwood South	Tue 05/05/15	12/02/2013	LBRE001002	Safety improvements	£60,000.00	Complete. Feasibility back. No further action recommended. See Appendix A.
						2013/14 Cap	2013/14 Capital Schemes		
3	DC1864	Hartswood Rd, Brentwood	Warley	Fri 13/03/15	10/07/2013	LBRE132001	VAS sign to reduce speeds	£8,500.00	Completion this financial year is anticipated.
4	DC1868	Ashwells Rd & j/w A128 Ongar Rd & Mores Lane	Pilgrims Hatch	Mon 13/10/14	10/07/2013	LBRE132009	FEASIBILITY/DESIGN ONLY: solutions associated with parking and congestion; creation of extra parking laybys and	£20,000.00	Design complete.
5	DC1867	Priests Lane, Shenfield	Shenfield	Mon 02/02/15	10/07/2013	LBRE132006	FEASIBILITY/DESIGN ONLY: reduce speeds, improve visibility & improve footway	£5,000.00	Design complete. Adjustments made after meeting with Clirs. See appendix A.
9		Wilson's Corner - CR Schethe	Brentwood	Mon 19/12/14	10/07/2013	LBRE131004	FEASIBILITY/DESIGN ONLY: Detailed traffic study - view to installing ITS	£5,000.00	Stage 1 modelling is complete - initial investigation into signalling in conjunction with William Hunter Way. Now on hold pending planning committee decisions.
7		Hogarth Estate (Hogarth Ave, Riseway, Shenfield Cres) – used as a shortcut between Priests lane and A128 Ingrave Rd	Brentwood	Thu 18/12/14	29/10/2013	LBRE132017	Detailed study/design and TRO.	£5,000.00	TRO is out now. Aiming to deliver this financial year all being well.
8		School Rd, Kelvedon Hatch	Kelvedon Hatch	Fri 28/11/14	29/10/2013	LBRE132015	Detailed study/design and TRO.	£4,000.00	Design complete and agreed. PC have been consulted and decision taken, See Item 40.
6		Hall Lane, Shenffeld	Shenfield	Mon 08/09/14	29/10/2013	LBRE132018	Detailed study/design and TRO	£4,000.00	Complete
10		Shenfield & Brentwood rail stns, A129 Raieigh Rd/Alexander Lane mini RAB	Brentwood	Tue 31/03/2015	29/10/2013	LBRE132020	Feasibility study and designs	£19,000.00	Put on hoid by Clir Kendall until members have had more input.
11		Coxtie Green Road j/w Wheelers Lane	Pilgrims Hatch	Fri 13/03/15	04/02/2014	LBRE131006	£3k towards prelim design and investigation to look at removal of existing Bennett Junction and replacing with simpler priority.	£3,000.00	
12		B186 Warley Road j/w Great Ropers Lane	Warley	Thu 05/09/14	04/02/2014	LBRE131005	£3000 towards preliminary design and investigation	£3,000.00	Complete.
						2014/15 Capital Schemes	tal Schemes		

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13	Footpath 15 & Byway 22 Kelvedon Hatch	Kelvedon Hatch	Mon 23/03/15	29/04/2014	LBRE148001	Surface improvements	£25,000	Scheme currently being delivered.
14	Borough Wide	Brentwood	Mon 05/09/16	29/04/2014	LBRE144001	Brentwood Cycle Strategy	685,000	Delivery 15/16 Task and Finish' group have met and agreed sites.
15	Ashwells Road, A128 Ongar road Bentley St Paul Primary School	Pilgrims Hatch	Mon 06/04/15	29/04/2014	LBRE142006	Extra Footway/ Lay-by scheme . Phased scheme design currently being finalised.	£50,000	Phase 1 complete.
16	St Anne's Road, Mountnessing	Mountnessing	Tues 31/03/15	29/04/2014	LBRE142007	Works - installation of signing and lining improvements and initial drainage investigation.	£5,000	Signing and lining works to be done - see new anticipated completion date.
71	Orchard Avenue j/w Ingrave Road	Brentwood South	Fri 27/03/15	29/04/2014	LBRE143005	Works - improvements to an existing pedestrian refuge and bell mouth junction.	£8,000	Completion this financial year is anticipated. Date has change due to re programming in line with priorities. Top up required due to unforeseen utility expenses. On potential schemes list.
18	B186 Warley Road J/w Great Ropers Lane	Warley	Mon 16/02/15	29/04/2014	LBRE141001	Casualty reduction site - design being finalised costs associated with implementation of scheme.	£10,000	Complete
19	Coxtie Green Road j/w Wheelers Lane	Pilgrims Hatch	Fri 21/08/15	29/04/2014	LBRE141002	Casualty reduction site - design being finalised costs associated with implementation of scheme.	£15,000	Delivery 15/16 See new anticipated completion date.
20	Danes Way	Pilgrims Hatch	Mon 24/11/14	29/04/2014	LBRE146001	£2000 towards preliminary design and investigation	£2,000	Complete. See Appendix A
77	Mountnessing Post Office	Mountnessing	Fri 10/10/14	29/04/2014	LBRE146002	Replacement bus shelter requested by the Parish Council	69,000	Complete
22	The Chequers, Rayleigh	Hutton East	Mon 24/11/14	29/04/2014	LBRE146003	install bus stop clearway within lay-by	£2,000	Complete
23	Norman Crescent off Pondfield Lane	Brentwood South	Fri 30/01/15	29/04/2014	LBRE146006	Install two new bus stop clearway markings	£4,000	Complete
24	Cherry Avenue	Brentwood South	Mon 24/11/14	29/04/2014	LBRE146005	install two new bus stop clearway markings	£4,000	Complete
25	Hornbeam Close		Fri 07/11/14	29/04/2014	LBRE146007	Relocate bus stop onto Island area. Existing shelter will need to be removed and a new shelter installed.	£12,000	Scheme cancelled on 07/11/14 at the request of Clir Kendall.
56	A128 Tilbury Road, West Horndon	West Horndon	West Horndon Wed 13/05/15	29/04/2014	LBRE143002	Provision of a pedestrian refuge/ footway	£7,000	Technical note advises to cancel as not a viable scheme at this location. Proposed to extend the iay by and go to detailed design on potential schemes list. See
22	Sandpit Lane, Pilgrims Hatch	Pilgrims Hatch	23/03/2015	29/04/2014	LBRE143006	Footway widening scheme from its junction with Ongar Road. Design: £2,000; Works: £8,000	£10,000	
28	Hartswood Road, Kings Road, Pondfield Road	Brentwood	Fri 22/05/15	29/04/2014	LBRE142008	Provision of new signing on the approach to three existing zebra crossings following recent safety assessment.	£7,700	Delivery 15/16 See new completion date.

29	Bird Lane	Warley	Tue 14/10/14	29/04/2014	LBRE142009	Upgrade to existing HGV signage on the approach to the lane.	£4,000	Scheme cancelled at the request of Cllr Kendall.
30	Eagle Way J/w Hartswood Road and Childerditch Lane	Warley	31/03/2015	29/04/2014	LBRE142010	Implementation of road studs/ 'rainline' road markings and introduction of two bell bollards to prevent overrunning.	£5,000	Signing complete. Rainline to be installed by the end of March.
31	Cheimsford Road/ Hutton Road, Shenfield (Tabors Corner)	Shenfield	Tue 30/03/15	29/04/2014	LBRE147001	Following feasibility study it is supported to amend traffic signal phasings and amend the yellow box marking at this junction.	£11,000	Complete
32	Roman Road, Mountnessing	Mountnessing	Wed 31/12/14	29/04/2014	LBRE143007	Design and feasibility study - to widen existing pedestrian refuge and amend waiting restrictions outside Primary School.	£5,000	Complete. On potential schemes list. See Appendix A.
33	Burland Way j/w Wates Way	Brentwood North	Fri 28/08/15	29/04/2014	LBRE142012	Trial scheme modify the Junction of Wates Way.	£10,000	Delivery 15/16 Design complete and sent to Clir Aspinell to consider. See Appendix A.
34	Brentwood Road (Garden Centre opp Langford Bridge)	Kelvedon Hatch	Fri 10/07/15	25/06/2014	LBRE145005	There is currently no hardstand/footway for which passengers can board or alight. This poses a significant safety concern which was highlighted in the Road Safety Audit in Autumn 2013.	000'63	Complete
35	Eagle Way/w Hartswood Road (Devil s Head crossroads)	Warley	31/03/2015	25/06/2014	LBRE142019	This is an historical proposal and staff have since changed. It is therefore proposed to have a detailed design of this scheme to propose measures for this junction. Previously, a mini roundabout has been proposed and this will be reviewed with the historical plans available.	£10,000	
36	Sandpit Lane j/w Ongar Road	Pilgrims Hatch	31/03/2015	25/06/2014	LBRE142020	This is an historical proposal and it is therefore proposed to have a detailed design of this scheme to propose measures for this junction.	£10,000	
37	Sites are currently being determined (Brentwood Sites)	Brentwood	Mon 02/02/15	25/06/2014	LBRE141003	Preliminary design and investigation costs for 2015/16 casualty reduction sites for a potential 4 sites at approx £4,000 each.	£16,000	Panel agreed in September to progress with detailed design for (1) Weald Rd J/w Weald Park Way (2) Hartswood Rd (3) A127 southbound J/w Childerditch Lane. Hartswood complete and on potential schemes list. See Appendix A. Panel may consider other 2 scheme designs due the end of March.

88	Honeypot Lane	Brentwood West	30/03/2015	25/06/2014	LBRE142021	Designs and legal costs (Traffic Order) to change 20mph zone to 20 mph limit. Request made for additional funding to cover cost of implementation as currently in design.	£5,000	TRO is out now. Alming to deliver this financial year. Note that awaiting updated stats so this may be subject to change
б	Hogarth Estate (Hogarth Ave, Riseway, Shenfield Cres) - used as a shortcut between Priests Lane and A128 Ingrave Rd	Brentwood id South	Wed 18/03/15	25/06/2014	LBRE142022	Detailed study/design and TRO. Pilot for 20 limit on residential estate (local roads) which Brentwood BC would like to promote across the borough. Estate includes school. 3 estates were requested supported by local petition. Pilot to test the before and after impacts on 1 estate. 3 speed surveys (on streets above) with a combined mean of 23.3 mph for 12 hour 5 weekday resuits. Request made for additional funding to cover cost of implementation as currently in design.	£15,000	TRO is out now. Aiming to deliver this financial year. Note that awaiting updated stats so this may be subject to change.
40	School Road, Kelvedon Hatch	Kelvedon Hatch Fri 13/3/15	i Fri 13/3/15	25/06/2014	LBRE142023	Detailed study/design and TRO. Pilot for 20 limit on local road with school which Brentwood BC would like to promote across the borough. Pilot to test the before and after impacts. ECC. Request made for additional funding to cover cost of implementation as currently in design.	£10,000	Design changed to variable 20mph speed limit outside the school. See Appendix A.
41	Hall Lane, Shenfield	Shenfleld	31/03/2015	25/06/2014	LBRE142024	Detailed study/design and TRO for pilot extending 30 limit on local road with school to incorporate residential properties outside the existing 30 and assess village gateway option. Request made for additional funding to cover cost of implementation as currently in design.	£10,000	
42	B186/ A127 Junction south of Woodlands School on Great Warley Street.	uth Warley	Tue 17/03/15	25/06/2014	LBRE142025	issue with the directional signage at the B186/ A127 junction regarding the lack of information for the M25 on the existing directional signage	62,550	Complete. On potential schemes list. See Appendix A.
43	Crown Road Kelvedon Hatch	Kelvedon Hatch	Kelvedon Hatch Mon 15/12/14	25/06/2014	LBRE142017	The entrance gates to the school are a few yards into Crown Road from Ongar Road on a bend and traffic coming along Crown Road cannot see vehicles using school gates.	£1,500	Complete.
4	Hunter Avenue	Shenfield	Mon 02/03/15	25/06/2014	LBRE142027	To investigate widening the footway in front of the car park. Cut back the hedge. There is a short section of footway in front of the main car park access which is very narrow.	£2,500	Design complete and sent to Clir Aspinell to agree. On potential schemes list. See Appendix A.

	Stocks Lane Junction, Kelvedon Hatch	Kelvedon Hatch Tue 11/08/15	Tue 11/08/15	25/06/2014	LBRE142018	Drivers cutting off the junction as they turn into Stocks Lane. Construct raised island.	£10,000	Compiete. Not feasible. See Appendix A.
	Larchwood Gardens, Pilgrims Hatch	Pilgrims Hatch	Thu 03/09/15	25/06/2014	LBRE142015	Concern regarding the speed of traffic using Larchwood Gardens and the lack of signage in advance of the school. Scheme for additional signage and further feasibility into measures regarding speeding.	£6,500	Delivery 15/16 This scheme has been raised as a priority for the next financial year and it is hopeful this date may be brought forward.
	Great Fox Meadow, Kelvedon Hatch	Kelvedon Hatch	11/03/2015	25/06/2014	LBRE142016	Scheme to re install existing bollards with deeper foundations as they keep getting damaged.	£1,500	See new anticipated completion date.
	Seven Arches Road	Brentwood South	Mon 30/03/15	25/06/2014	LBRE142029	Feasibility for pedestrian crossing outside school after PV2 results indicate site is suitable.	£3,000	Technical note complete. On potential schemes list. See Appendix A.
	Great Ropers Lane	Warley	Tue 30/09/14	25/06/2014	LBRE142002	Previous request for 20mph not validated. Feasibility study into possible speed control measures for the Lane past school.	£3,000	Complete. Added to potential schemes list.
	Bridleways 12 (Ingatestone and Fyerning) and 12 (Highwood)	Ingatestone & Fryerning	On hold	25/06/2014	LBRE148002	Surface improvements to extensive potholes. Part of the works falls under Cheimsford City. Note; This has been discussed at the Cheimsford LHP and they are happy to contribute part of their budget 50/50	£6,000	Delivery 15/16 Possible landowner issues
	Bridleways 12 and 13 (Highwood) and 13 (Ingatestone)	Ingatestone	On hold	25/06/2014	LBRE148003	Surface and drainage improvements. Part of the works falls under Chelmsford City. Note; This has been discussed at the Chelmsford LHP and they are happy to contribute part of their budget 50/50	£14,000	Delivery 15/16 Possible landowner issues
) 1								
					2014/15 Rev	2014/15 Revenue Schemes		
	Burland Way J/w Wates Way	Brentwood North	02/06/2015	29/04/2014	LBRE142012	Trial scheme modify the junction of Wates Way.	£1,000	COMPLETE - this has been used for the equipment in the scheme itself.
1000	Hunter Avenue, Shenfield	Shenfield	Fri 07/08/15	29/04/2014	LBRE142001	Provision warning sign and new post at the entrance to PROW 171.	£1,500	New post to be installed to accommodate signage for pedestrians as well as PRoW
	Myrtle Road, Warley	Warley	08/09/2015	29/04/2014	LBRE143008	Provision of a bell bollard to protect the footway at the junction with Warley Hill	£2,000	
	Warley Hill opposite Pastoral Way	Warley	Fri 26/12/14	29/04/2014	LBRE142004	Removal of four bollards within the footway.	£1,000	Complete
	Childerditch Lane j/w Eagle Way	Warley	31/03/2015	29/04/2014	LBRE142011	Provision of advance give way sign and new post.	£1,500	
	Station Road, West Horndon	West Horndon	08/12/2014	29/04/2014	LBRE142005	Provision of additional guard railing at the zebra crossing o/s Village Hall	£2,000	Complete

88	Revenue	Rayleigh Road/ Poplars Drive, Hutton	Hutton North	01/02/2015	29/04/2014	LBRE143011	Feasibility study to look at introducing a pedestrian phase for the traffic signals at this junction.	£4,000	Complete. On potential schemes list.
29	Revenue	Cheimsford Road/ Hutton Road, Shenfield (Tabors Corner)	Shenfleld	31/03/2015	29/04/2014	LBRE147001	Feasibility study to look at the causes of queuing traffic on Shenfield Road to be undertaken and remedial measures considered.	£4,000	Complete
93	Revenue	Ongar Road, Keivedon Hatch	Kelvedon Hatch	12/06/2014	29/04/2014	LBRE143009	Pedestrian survey in relation to a pedestrian refuge request	£910	Complete
61	Revenue	Lincolns Lane	South Weald	02/09/2014	25/06/2014	LBRE142031	Speed/Volume survey request	£210	Complete
62	Revenue	Hanging Hill Lane	Hutton South	10/10/2014	25/06/2014	LBRE142032	Speed/Volume survey request	£210	Complete
63	Revenue	Coxtie Green Road	Coxtie Green	02/10/2014	25/06/2014	LBRE142033	Speed/Volume survey request	£210	Complete
64	Revenue	Roman Road		Tue 21/10/14	25/06/2014	LBRE142034	Speed/Volume survey request	£210	Complete
65	Revenue	Wash Road	\Box	02/10/2014	25/06/2014	П	Speed/Volume survey request	£210	Complete
99	Revenue	Wariey HIII	Warley	Wed 29/10/14	25/06/2014	LBRE143012	PV2 survey (i.e. degree of pedestrian conflict) which was previously agreed	£910	Complete
<i>L</i> 9	Revenue	Westwood Avenue		02/10/2014	05/08/2014	LBRE142039	Speed/Volume survey request. A previous survey was carried out at the location which showed average daily speeds of 20.2mph (30mph limit). Clirs request second survey to be carried out at a different location within this route and this is supported by residents.	£210	Complete
89	Revenue	Middleton Hall Lane		02/10/2014	19/08/2014	LBRE142040	Speed/Volume survey request. A previous road safety audit was carried out at the location at the request of Brentwood School nearby with regard to safety and congestion concerns. Part of the recommendations from the report was to obtain a speed/volume survey at the earliest opportunity once the school returns after the summer break to assess the impact of speed.	£210	Complete
69	Revenue	Moores Place, Brentwood	Brentwood	16/12/2014	30/09/2014	LBRE142045	Speed/volume survey required to determine vehicular use on this busy lane off the High Street	£210	Complete
07	Revenue	High Street, Brentwood	Brentwood	Thu 20/11/14	30/09/2014	LBRE142044	Two speed/volume surveys are required after numerous complaints received regarding speeding vehicles particularly at night. This is a long stretch of road.	£420	Complete
71	Revenue	Little Warley Hall Lane, Warley	Warley	To be programmed	30/09/2014	LBRE142046	Speed/volume survey required after complaints from horse riders in particular of vehicles speeding down the lane.	£210	Complete
	Revenue	Shenfield Road, Shenfield	Shenfield	To be programmed	30/09/2014	LBRE142047	Speed/volume survey required after complaints there are speeding vehicles at two locations in particular, therefore two surveys requested.	£420	Complete

-									
73	Revenue	Various Brentwood sites	Brentwood	To be programmed	30/09/2014	LBRE142048	Four speed/volume surveys are requested so there can be recommendations made in between panel meetings once appropriate approval has been sought for each location as it arises.	£840	Complete
74	Revenue	High Street, ingatestone	ingatestone Fri 21/11/14	Fri 21/11/14	30/09/2014	LBRE142049	two speed/volume surveys are requested after numerous complaints have been received of speeding vehicles through the High Street. This is a long stretch of road so two are required to cover it.	£420	Complete
75	Revenue	Pemberton Avenue, Ingatestone	Ingatestone Fri 21/11/14	Fri 21/11/14	30/09/2014	LBRE142036	PV2 is requested after complaints of dangerous driving and no safe place for the children to cross to get to the junior school. This is an initial investigation to see if a crossing would be feasible.	6890	Complete

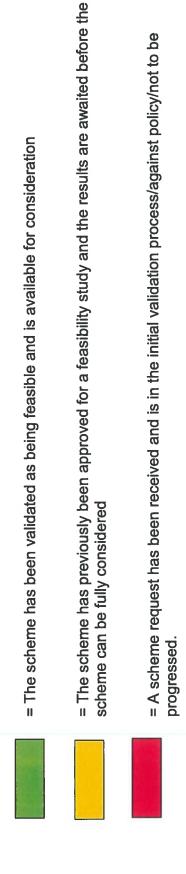
KEY	Cancelled scheme
	Complete scheme
	New information
	Revenue

BRENTWOOD DISTRICT COUNCIL WITH ESSEX COUNTY COUNCIL LOCAL HIGHWAY PANEL 23RD MARCH 2015 REPORT POTENTIAL CAPITAL SCHEMES

Chairman of the Panel, it is considered prudent for the Panel to make further recommendations against the 2015/16 Capital Budget of £449,876. This will ensure a recommended 2015/16 Capital Budget of £594,076 and will allow for the development of the rolling have been re-profiled and are being delivered in 2015/16. These schemes are detailed in Report 1. Following discussion with the From the schemes recommendations made by the Panel in 2014/15 there are currently schemes to the value of £144,200 which programme into 16/17.

The following Potential Scheme List identifies all of the scheme requests which have been received for the consideration of the Brentwood District Local Highways Panel. There are currently schemes with an estimated cost of £232,400 as shown in the following Report 2. The Revenue Budget allocation is £93,471 from which The Rangers allocation is £85,000. This leaves a revenue budget of £8,471.

The following list identifies all of the scheme requests which have fed into the Brentwood LHP. The RAG column acknowledges what the status of the scheme request is as below:



Traffic Management

of	£133,400
otal Value	chemes

RAG	The state of the s					
Comments	Church lane is a single track lane that is only wide enough for a single wehicle. At the very least not suitable for HGV signage should be installed at Church Lane, Hall Green Lane, Hall Green Lane and Hutton Village at the lunction of London	Unable to extend 30mph. Proposed signing review. To be discussed with Cllr.	This is PR1. Policy states that no physical traffic calming measures can be installed. There is an existing VAS and speed camera in the area, which would aid in keeping traffic speeds within the speed limit. The road camber was checked and was suitable for the speed limit.	TBC In validation	Total cost of scheme is £40,000. E20,000 Tesco have agreed to contribute £20,000.	Recommendation from previous feasibility
Estimated	£4,000			TBC	620,000	650,000
Cost Code	LBRE142054	LBRE142057	LBRE142037	LBRE142075	LBRE142068	LBRE142081
Scheme stage			Feasibility			Total scheme
Scheme Category	Traffic Management	Traffic Management	Traffic Management	Traffic Management	Traffic Management	Traffic Management
Parish	Hutton	Hutton	Kelvedon Hatch	Kelvedon Hatch	Little Warley	Mountnessing
Problem						
Description	Investigate additional signage for HGVs	To investigate speed/tuming movements of HGVs around the CEMEX works	To investigate safety by considering speed calming measures on this stretch of road, in particular immediately outside The Briars and Thom Cottages.	Vehicles over running the verge by house called Portelet	Zebra crossing	Extend existing pedestrian refuges and lining
Location	Church Lane/Hall Green Lane/Hutton Village, Hutton	Wash Road	A128 Ongar Road, Kelvedon Hatch, near to jiw Crown Road, by The Briars and Thoms Cottages	School Road junction with Chivers Road, Kelvedon Hatch		Roman Road
Ref	- α	ი	5	=	5	13

RAG					Maria Maria			o de la constitución de la const		
Comments	In validation	In validation	In validation	Civil works £170,000 PLUS final utility costings TBC	in validation.	Recommendation E3,200 from previous feastbility	PV2 0.092 does not met the criteria for crossing point.	Two (2) accompanied horse signs to be installed	£2,000 contribution from Tesco. FOR INFORMATION ONLY.	£28,000 AGENDA ITEM 8.
Estimated cost				TBC		£3,200		£3,000		£28,000
Cost Code	LBRE142085	LBRE142087	LBRE142088	LBRE142059	LBRE142063	LBRE142082	LBRE142041	LBRE142050	LBRE142053	LBRE142058
Scheme stage					Total scheme	Total scheme	Feasibility			
Scheme Category	Traffic Management	Traffic Management	Traffic Management	Traffic Management	Traffic Management	Traffic Management	Traffic Management	Traffic Management	Traffic Management	Traffic Management
Parish	Mountnessing	Mountnessing	Mountnessing	Pilgrims Hatch	Pilgrims Hatch	Shenfield	Warley	Warley	Warley	Warley
Problem										
Description	Road is a pinch point here caused by refuges, bus stop and parking. Request to investigate if a layby could assist.	Used as a cut through this junction is narrow and impedes traffic flow. Investigate junction alignment.	Kerb realignment	Implementation of phase 2 of kerbing/layby.	Review of signage and safety features in particular from the junction with A128 east to Mores Lane. Clir Naylor has requested this scheme as there are concerns of speeding vehicles and being used as a rat run.	Signs, lines and bollards	To Investigate the possibility of a zebra crossing, or a scheme that could assist in the safe crossing outside Mayfield House.	To investigate concerns of speeding vehicles and look at potential additional signage with regard to the increase in use by horse riders	Installation of bollards to prevent pavement parking.	Implementation of 40mph, additional signage, carriageway markings and flashing warning signs.
Location	5	Old Church Road junction with Old Church Lane	Lower Road approach to railway tunnel	Ashwells Road by Bentley School	Coxtie Green Road	Priest's Lane	The Drive, Warley, outside Mayflower House	Little Warley Hall Lane, Warley	Warley Hill	Great Ropers Lane.
Ref	×	92	27	4	15	16	17	18	19	20

RAG				
Comments	Recommendation from previous design	Not suitable to place bollards on dropped kerbing. Cannot re located footway to back of shops. Clir to advise.	From feasibility into pedestrian phases previously carried out at junction.	Recommendation from tech note. Previous scheme cancelled as not vlabie
Estimated cost	63,700		000'63	
Cost Code	LBRE142083	LBRE142051	LBRE14071	LBRE142080
Scheme stage	Total scheme		Feasibility	Design
Scheme Catagory	Traffic Management	Traffic Management	Traffic Management	Traffic Management
Parish	Warley	West Horndon	West Homdon	West Horndon
Problem				
Description	B186/A127 junction Advanced directional south of signage Woodlands School on Great Warley	To investigate measures to improve safety with regard to parking issues outside the shops	Pedestrian refuge feasibility	Detailed design for extension of layby and provision of crossing facility
Location	B186/A127 junction south of Woodlands School on Great Warley	Chafford Gardens, West Horndon	Rayleigh Road Junction with Poplar Drive, West Horndon	A128 Tilbury Road
Ref	21	8	23	24

Safer Roads

Total Value of £27,000

Scheme stage	Scheme Category Scheme sta	Scheme Category		Problem Parish Scheme Category
Implementation	Safer Roads		Safer Roads	Safer Roads
	Safer Roads	Brentwood Safer Roads		
	Safer Roads	Brentwood Safer Roads		
	Safer Roads	Warley Safer Roads		

Passenger Transport

Passenger Transport

CEO EOO	230,300
Total Value of	schemes

RAG				
Comments				
Estimated cost	£10,000	£10,000	630,000	58,500
Cost Code	LBRE145006	LBRE145007	LBRE145008	LBRE145009
Scheme stage				
Parish	Pilgrims Hatch	Doddinghurst	Pilgrims Hatch	West Hondon
Problem				
Descripton	Remove existing metal shelter and replace with wooden; Newstead/Hassocks Style.	Replace dilapidated shelter with new wooden shelter.	Kerb realignment and bus stop relocation, as per design completed in 14/15 (LBRE146001)	Install new wooden bus shelter.
Location	Bus Stop 374 Ongar Road, by Rose & Crown, Pilgrims Hatch CM15 9JH	Tipps Cross Lane Remembrance Hall bus shelter.	Danes Way, Pilgrims Hatch	Tilbury Road, West Homdon.
Ref	-	2	ო	4

Walking

Total Value of £11,500 schemes

RAG			
Comments	Top up of £6,500 required to original £6,500.00 £8,000 due to unforeseen utility works.	Validation	From previous feasibility.
Estimated cost	£6,500.00		£5,000
Cost Code	LBRE143005	LBRE143014	
Scheme stage	Implementation		Total scheme
Parish	Brentwood	Hutton	Shenfield
Problem			
Descripton	Orchard Avenue j/w and bell mouth junction. Ingrave Road Unforeseen utility works.	Badly worn path	Footway widening, installation of bollards, and hedge cut back.
Location	Orchard Avenue j/w Ingrave Road	Hutton Village	
Ref	-	7	ო

Public Rights of Way

RAG	
Comments	This is a revenue scheme from 2014/14 at risk of not being delivered. Option to capitalise.
Estimated cost	52,000.00
Cost Code	LBRE143008
Scheme stage	Total scheme
Parish	Warley
Problem	
Descripton	Provision of a bell bollard to protect the footway at the junction with Warley Hill
Location	Myrtle Road
Ref	

Potential Revenue

Potential Revenue

Total Value of £5,230 schemes

Comments		
Estimated Cost	55,000	6230
Cost Code	LBRE142084	LBRE142086
Scheme stage	Surveys	Surveys
Scheme Category	Traffic Management	Traffic Management
Parish	Bentwood	Mountnessing
Problem		
Descripton	Ad hoc surveys for speed/volume and also pedestrian/vehicle conflict PV2.	Speed/volume survey to feed into potential validation
Location	Various Brentwood Sites	Church Road
Ref Ref	-	2
Ref		
Capital or Revenue	K.	æ

RAG

Brentwood Local Highways Panel 23 March 2015 Appendix A

- 1. A128 Ongar Road pedestrian refuge Agenda item 6
- 2. Hanging Hill Lane and Pondfield Lane Report 1, item 2
- 3. Priests Lane Report 1, item 5
- 4. Danes Way Report 1, item 20
- 5. A128 Tilbury Road refuge Report 1, item 26
- 6. Roman Road refuge Report 1, item 32
- 7. Burland Way Report 1, item 33
- 8. Hartswood Road Casualty Reduction Report 1, item 37
- 9. B186/A127 south of Woodlands School Report 1, item 42
- 10. Hunter Avenue Report 1, item 44
- 11. Stocks Lane Report 1, item 45
- 12. Rayleigh Road/Poplars Drive Report 1, item 58

1. A128 Ongar Road Pedestrian Refuge

JACOBS



Project No. B3553F26
DC1841 A 128 Ongar Road Pedestrian Refuge
Technical Note & Drawings
30/6/14

Doc Ref: B3553F26/TN/01/Rev A

Background

A design brief has been received to design a pedestrian refuge to the north of the junction of A128 Ongar Road with Eagle Lane.



Photograph 1: Junction of Ongar Road/ Eagle Lane

There is no data available regarding pedestrian movements.

There have been no collisions recorded in the most recent 3 year period for the location.





Site Characteristics

A128 Ongar Road in the vicinity of the site is a single carriageway approximately 7.6m wide. The speed limit on this section of the A128 is 40mph and there is no street lighting.

There are two bus lay-bys immediately to the south of the junction with Eagle Lane. The access to The Eagle Public House is located opposite the Eagle Lane junction.

Eagle Lane is 6.5m wide, it is street lit and it has a speed limit of 30mph.



Photograph 2: Southbound approach to the Eagle Lane junction



Photograph 3: Eagle Lane approach to junction





The site was visited on 5th February 2014 between 11:30 and 12:30. The traffic flow was relatively low and only one pedestrian was observed crossing the road (Photograph 4).



Photograph 4: A pedestrian crossing Ongar Road

Design Proposals

The proposal is to install a pedestrian refuge immediately to the north of the junction. The existing width of the carriageway dictates the proposed refuge to be 1.50m wide.

The existing road markings in the vicinity of the site would also have to be modified to assure conformation to standards.

The Scheme Validation Request states that the proposed facility is to be used by school children among other vulnerable road users and that Ongar Road is a busy thoroughfare.

Drawing DC1841/F/00/401 illustrates the layout for Option 1 which is the stated preferred location within the brief.

The installation of a pedestrian refuge with a width of 1.50m on a busy road with a 40mph speed limit may entail some risks to the pedestrians using the facility.

This deficiency becomes even more critical where groups of children or parents with pushchairs use the refuge. Furthermore, a crossing point at this location within the available road space would be hazardous to pedestrians with visual impairment and for that reason tactile paving should not be provided at the potential crossing facility.

Furthermore, the lack of street lighting at this location would mean that additional measures would be needed in order to improve the conspicuity of any potential refuge at this location (Photograph 5).

JACOBS





Photograph 5: Possible location of the refuge

A second option is shown in Drawing DC1841/F/00/402 Rev A where a refuge is located between Ongar Road junctions with Eagle Lane and Mill Lane.

The installation of a refuge at this location would offer better visibility and could equally serve both Eagle Lane and Mill Lane. However, if a refuge were to be installed at this location then the construction of a section of footway in the existing grass verge would be necessary (Photograph 6).



Photograph 6: Alternative location of the refuge

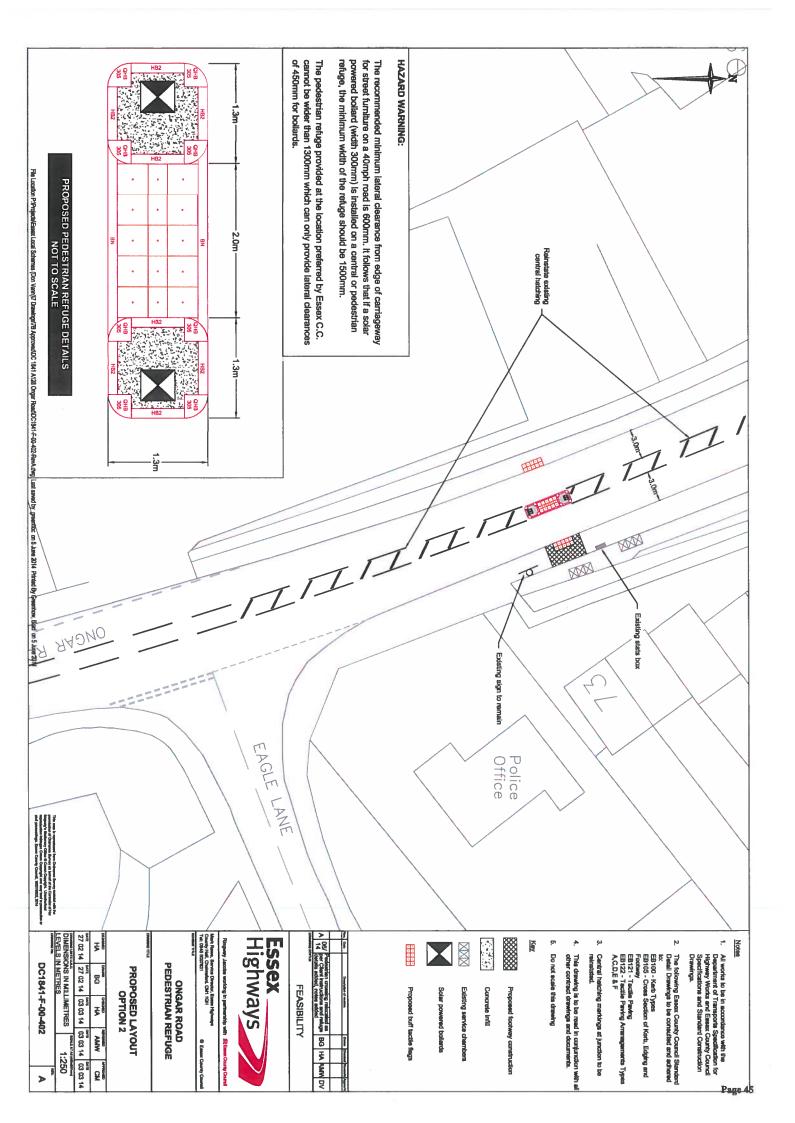




Recommendations

Carriageway alignment, pedestrian characteristics and vehicle speeds play important roles in deciding the type of pedestrian crossing provided (and indeed the necessity of such provision) at this location. It is therefore recommended that:

- A comprehensive pedestrian survey is undertaken in order to assess the level of demand, the composition and the desire line of potential users.
- A speed survey is carried out to determine the composition of the traffic and the 85th percentile of speed.
- The viability of alteration to road markings namely the removal of central hatching and the utilisation of carriageway edge markings as a means of traffic calming measure is explored.
- The possibility of reducing the speed limit on this section of the A128 to 30mph is examined. This may allow for the installation of a zebra crossing to be investigated.
- The feasibility of narrowing the carriageway by means of buildouts is investigated.



PROJECT LOCATION DATE 14378 KELVEDON HATCH A128 Ongar Rd, Kelvedon Hatch Tue 03 Jun, 2014



CDPV2 result

 0.052×10^8

CDPV2	0.052
Basic PV2	0.045
Difficulty factor	1.151
Collision factor	1.000

The collision factor multiplied by the difficuly factor, further multiplied by the original PV2 value, provides the CDPV2.

Where the value of CDPV2 is between 0.2 and 0.7 x 10^8, then a controlled crossing would not be recommended, and alternatives such as a pedestrian refuge or zebra crossing should be considered.

Where the value of CDPV2 is below 0.2, then a crossing facility would not normally be justified, but the site may be reviewed on its merits with regard to local and/or special needs and may be considered subject to funding.





Collision data (C)

	Fatal	Serious	Slight	TOTAL
Cyclist				0.0
Pedestrlan				0.0
Other				0.0
COLLISION FACT	OR			1.0

In order to produce the updated CDPV2, non-motorised collision numbers from the past 36 months, and within a reasonable distance from the site, are factored.

Difficulty factor (D)

40
40
7
2

The level of difficulty in crossing the road is determined from the posted speed limit, the road width and number of lanes.

Basic PV2 calculation

	Peds	Vehicles	PV2
07:00	2	699.0	
08:00	0	769.5	0.000
09:00	1	596.0	
10:00	6	462.5	
11:00	2	496.5	
12:00	3	540.0	
13:00	4	462.5	
14:00	3	616.0	
15:00	23	731.5	0.123
16:00	3	727.5	
17:00	4	770.0	0.024
18:00	5	815.5	0.033
AVERAGE			0.045

The traffic volumes from the four busiest hours are selected and squared. This figure is then multiplied by the corresponding pedestrian count, then divided by 10^8 to produce an hourly PV2.







2. Hanging Hill Lane and Pondfield Lane - Report 1, Item 2

Essex County Council Highways & Transportation Design & Consultancy Services

Form DCS 021

FEASABILITY REPORT DC1750

DC1750 Hanging Hill Lane / Pondfield Lane, Brentwood Casualty reduction & Localism

1.0 Brief

2.0

Site Location Plan

To investigate the possibility of widening the carriageway on the bend of Pondfield Lane and Hanging Hill Lane, Brentwood.

The site originated as a Casualty Reduction (CR) site in the financial year of 2012/13 and the recommended works were implemented in 2013/14. It is noted in the CR report that the investigation was driven more by the concern of residents rather than that of reported personal injury data. Since the works have been completed there have been no report Personal Injury Collisions (Please see section 5.0).

Pondfield Ln

Aerial Photograph 3.0

4.0 Site Description and Observations

These lanes are part of a Secondary Distributor (PR2) that links the A128 with the A129 and is an alternative route to the often congested A1023 between these roads. The speed limit at the location is set at 30mph.

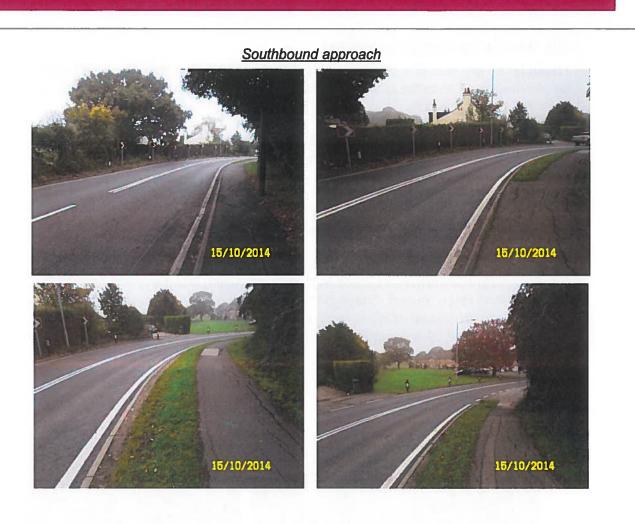
The eastbound approach to the bend in Pondfield Lane has residential properties on either side of the carriageway. There is a service road on the south side of the carriageway that is used by residents to park their vehicles.

The southbound approach to the bend in Hanging Hill Lane has fields on the east side of the carriageway and tree / bushes on the west side of the carriageway.

It was noted that overgrowing vegetation was partly obstructing the southbound VAS and that there were no reflective road studs in the double white lining system as specified on the Casualty Reduction design. These points have been raised for remedial works along with upgrading an advanced warning sign on the eastbound approach and additional vegetation clearance. BT and Street Lighting are the only services that are evident on visual inspection of the bend.

Eastbound approach





5.0 **Personal Injury Collision**

A study of the Personal Injury Collision (PIC) data on Essex County Councils Traffweb site indicates that there has been three recorded slight accidents in the past three years. Two of these accidents were on the bend and the other was between the bend and the junction of Hornbeam Close. Two of these collisions involved two vehicles that resulted in one casualty and the other accident involved one vehicles and resulted in two casualties.

Records on the Traffweb site are indicated as being correct at time of the publication (03.12.14).

The Personal Injury Collision (PIC) data provided in the CR report (2012/13) indicated that there had been three recorded collisions between 01.11.2006 to 31.10.2011 resulting in one serious and two slight collisions. Please refer to CR report for additional information on the collision data for the collisions between 01.11.2006 to 31.10.2011.

6.0 Trial Hole Investigation

As part of the investigation to determine the location of the utility services in the verge / footway area, four trial holes were dug on the bend in the area of the proposed widening. Please refer to Trial Hole location plan DC1-1750-26-003 for the findings of the trial holes.

The trial hole locations were determine from the stat plans provided by each utility company that gave an indication on the location of their equipment but were only used as a guide. The stat plans indicated that there was BT, Low Pressure Gas, High Voltage Electric and Essex & Suffolk Water Distribution main present in the area of the proposed widening.

The trial holes results showed that all of the above utility s equipment is present in the verge or footway area but only BT and Low Pressure Gas are affected by the proposed works.

Out of the four trial holes dug, trial hole 2 showed that BT and Electric / Gas would be directly affected by the carriageway widening. BT, Electric / Gas and Essex & Suffolk Water were in close proximity to the proposed kerb line in trial hole 1.

C3 estimates were requested with BT and National Grid (Electric and Gas) to determine the cost of relocating their equipment.

National Grid indicated that the Low Pressure Gas Main would need to be diverted for a length of approximately 43m at a cost of £16500 + VAT.

The service stated as being Electric / Gas in this report and on drawing DC1-1750-26-003 maybe one or the other as it was unclear from inspection what the main was. The C3 response from National Grid indicates that this main is likely to be Gas. This is because National Grid only indicated that the existing Low Pressure Gas main is required to be diverted and did not highlight any works required for the existing High Voltage Electric cable that is in the area of the verge / footway.

BT indicated that to divert their equipment would cost £106053.97 + VAT.

7.0 Recommendations

Following the site inspection and analysis of the trial hole information and C3 budget estimates it shows that the widening of the bend is a viable option. These works would require utility stats diversions and the total estimated cost of these works would be in the region of £170715.99 (see section 10 for brake down cost).

From the evidence provided in the CR report that states that the original scheme that was implemented in the financial year 2013/14 was more driven by the concern of residents than that by reported personal injury data (PCI). And the fact there has need to reported PCIs since its implementation indicates that the works have improved road users awareness of the bend.

The LHP are to consider if the funding required to widen the carriageway is a suitable scheme to allocate a budget to.

8.0 | Economic Analysis

The estimates for the proposed Civil works have been worked out on the RJ estimating tool. These estimates are only for guidance and may change if the scheme goes for target costing.

8.1 Widening Cost

Civil Works £15761.55

RJ Overheads - £1654.96

RJ Fee - £946.64

D&C Design Fee- £2000.00

Stage 2, 3 & 4 Safety Audits - £2000

Street Lighting Design / works - Unknown

Civils Estimated Total £22363.15

8.2 C3 Estimates for Diversion Works

National Grid - £16500 + VAT = £19800.00

BT - £106053.97 + VAT = £127264.76

Total stats diversion (including VAT) = £147064.76

It is stated that these are only estimates and if required detailed estimates can be provided (C4 Estimate) but this will incur a cost. In BT case their design to produce a specification and detailed design would be £8120.40 (Including VAT).

8.3 | Total Estimated Cost - £169427.91 + 10% contingency (£16942.79) = £186370.70

Prepared by:	Clint Nicholls	Date:	31 st December 2014
Approved by:	Peter Wright	Date:	31 st December 2014

Essex County Council Highways & Transportation Design & Consultancy Services Form DCS 021

FEASIBILITY REPORT DC1867

Feasibility study

Priest s Lane, Shenfield speed reduction, sightlines and footway improvements

Job Number:	DC1867
Doc Ref:	Feasibility Report
Author:	Francis Molisso

Document History

Revision	Purpose	Originated	Checked	Approved	Date
-	Draft for approval	FM	PGW		

1.	Intr	oduction	3
	1.1	Project Brief	3
2.	Exis	sting Conditions	3
	2.1	Site Location	3
	2.2	Site Observations	
	2.3	Traffic Flow Data	6
	2.4	Collision Analysis	
	2.5	Statutory Undertakers Services	7
	2.6	Existing Waiting and Loading Restrictions	
3	Pro	posals	7
	3.1	Priority Working	7
	3.2	Verge Parking Opposite Woodway	8
4.	Cor	nclusions and Recommendations	8
	4.1	Conclusions	8
	4.2	Recommendations	

Appendix A: Drawings

1. Introduction

1.1 Project Brief

Essex Highways have been asked by the Local Highways Panel to investigate what options could be considered to reduce speeds, improve visibility and improve the footway along the section of Priest's Lane between Woodway and Brickfield Cottages.

The request comes as a result of issues raised by local residents regarding safety. The Local Member also wishes Priority Working to be considered.

Consideration is to be given to the footway parking that is damaging the verge opposite Woodway.

2. Existing Conditions

2.1 Site Location

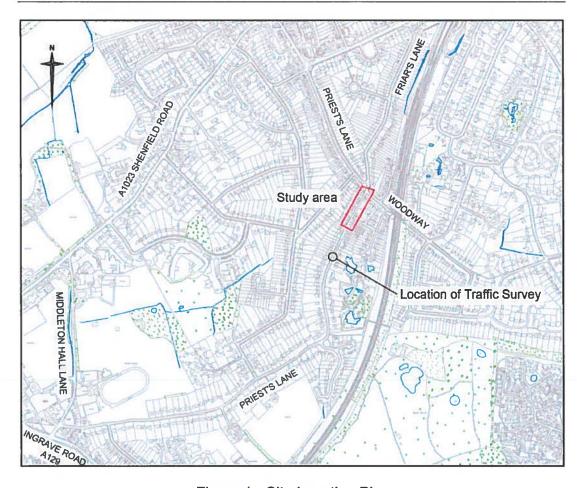


Figure 1 - Site Location Plan

Priest s Lane is designated as a PR2 route in Essex County Council s Route hierarchy. It runs from the A128 Ingrave Road and Middleton Hall Lane junction to Friars Road and on to Shenfield railway station.

Approaching the study area along Priest's Lane from the south, (apart from the bend near St Andrew Place) the road has a fast feel to it: there are good sightlines; there is little or no on street parking or frontage activity.

2.2 Site Observations

Although there are residential properties on both sides of Priest's Lane there is only a footway on the west side of the road, on the east side of Priest's Lane the boundary fences and bushes come right up to the carriageway.

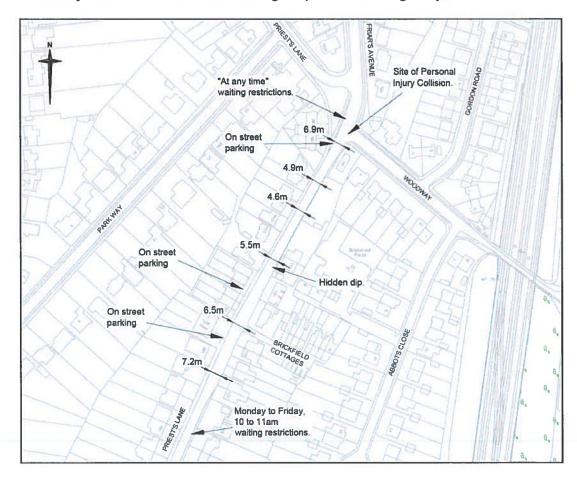


Figure 2 - Site Observations

The carriageway width varies considerably: either end of the study area it is quite wide (7.2m and 6.9m) whilst in the middle it narrows (4.6m to 5.5m). There is a centre line marked throughout the study area.

The footway on the west side varies between 1.4m and 1.7m. However some motorists park their vehicles two wheels up on the footway which reduces the available the width.

The residential properties Nos 160 to 170 Priest s Lane are set closer to the carriageway and have limited potential for off street parking. On street parking was observed both during the daytime and evening here. All the on street parking occurred by the footway, this creates a natural chicane for motorists travelling north (who then have to give way to southbound motorists). This was observed frequently on site.

The parking was spread out over a distance and so sometimes northbound motorists would have to give way more than once.

Between Nos 176 and 182 the carriageway is very narrow (4.6m to 4.9m). It looks like the carriageway has been built up at some point in the passed and as a result the vertical alignment creates a hidden dip at approximately 172 Priest s Lane.



Photo1 - View Looking North from 172 Priest's Lane

Deep rutting was observed in the grass verge opposite Woodway (although on site visits no vehicles were observed parked there).



Photo 2 - Rutting in Grass Verge Opposite Woodway

2.3 Traffic Flow Data

The location of the latest traffic survey is shown on Figure 1 above. The survey was taken over a 5 day period to see if there was any significant difference between weekday and weekend traffic speeds. The results are summarised in the tables below:

85% percentile	33.8	34.4	34.6	33.2	35.2
Average speed	29.7	30.2	30.2	28.4	31.0
	Wednesday	Thusday	Friday	Saturday	Sunday

Northbound

85% percentile	40.7	41.0	40.8	40.4	41.5
Average speed	34.9	36.6	35.4	35.1	36.1
	Wednesday	Thusday	Friday	Saturday	Sunday

Southbound

The traffic flow data agrees with what was observed on site:

- Traffic speeds through the study area are excessive and in excess of the speed limit.
- Traffic speeds were higher for motorists travelling southbound, away from the site.

2.4 Collision Analysis

Personal Injury Collisions (PIC) have been collected for the 60 months from 1st July 2009 to 30th June 2014 for the study area.

During this period there has been 1 PIC (slight) within the study area: a vehicle pulled out from Woodway into the path of a vehicle travelling north along Priest's Lane towards the junction. The only factor recorded was Poor turn or manoeuvre and the confidence of this was very likely.

2.5 Statutory Undertakers Services

SU requests cannot currently be made for feasibility studies.

2.6 Existing Waiting and Loading Restrictions

At the north of the study area there are At any time waiting restrictions at and around the junctions with Woodway and Friar's Avenue.

South of the boundary of 145 and 147 there are Mon - Fri 10 - 11am waiting restrictions on both sides of Priest's Lane.

3. Proposals

3.1 Priority Working

Proposals for priority working normally consist of a build out, with the traffic obstructed by the build out giving way to oncoming traffic. And often there will be a build out in both directions.

Providing a build out with priority working at either end of this narrow section of Priest's lane would help to reduce traffic speeds. However as described in Section 2.2 above, northbound traffic often has to give way to southbound traffic due to the presence of on-street parking, and therefore in order not to reduce the potential for on-street parking a build out is only proposed north of this section of road (see Drawings DC1-1867-00-006 and DC1-1867-00-007).

(Due to the narrow carriageway width it is not possible to locate build-outs (with waiting traffic) between approximately 170 and 182 Priest's Lane, a distance of approximately 75m.)

The main design considerations are:

- A build out across the southbound lane to slow southbound traffic.
- Northbound carriageway width adjacent to build out is 3.05m wide (so cyclists can dominate the lane and not get squashed at the pinch point).
- 1.0m wide southbound cycle bypass within build out.
- The use of on-street parking to form a northbound obstruction.
- Existing centre line road markings removed where carriageway is less than 5.5m wide.

Costs (including design and supervision) for the proposals are estimated to be £9,000 to £10,000.

3.2 Verge Parking Opposite Woodway

Site observations indicate that the parking of motor vehicles on the grass verge opposite Woodway has resulted in the rutting of the grass verge.

At present there are At any time waiting restrictions are in place to prevent parking within the vicinity of the junction (see Drawing DC1-1867-00-007 Appendix A). The waiting restrictions would have been put in place for safety reasons and to enable the free flow of traffic.

It is therefore proposed that the grass verge is reinstated and wooden stakes are installed to prevent further rutting.

Costs (including design and supervision) for the proposals are estimated to be £500 to £1,000.

4. Conclusions and Recommendations

4.1 Conclusions

- From site observations it is concluded that vehicles waiting to pull out of Woodway would not always have full visibility of northbound vehicles approaching the junction. This is particularly so if both vehicles are low sided.
- If there is no on-street parking present then there is no need for northbound traffic to give way (or slow down).

- The construction of a build out opposite 184 Priest s Lane would hamper access and egress from the dropped kerbs (see drawing DC1-1867-00-007).
- Paving over the grass verge would do nothing to stop parking on the existing double yellow lines.
- Reinstating the grass verge without any form of verge protection will result in the verge becoming rutted again.

4.2 Recommendations

- It is recommended that warning signs to Diag 562 with plates to Diag 563 are installed on Priest s Lane and Woodway (as shown in drawing DC1-1867-00-006) to warn motorists of the hidden dip. (Estimated costs £1200)
- It is recommended that the centreline of Priest's Lane is removed between the boundaries of 172 and 174 Priest's Lane, and, 182 and 184 Priest's Lane to highlight the narrowness of the carriageway. (Estimated costs £1000)
- It is recommended that the grass verge opposite Woodway is reinstated and wooden stakes are installed to prevent further rutting. (Estimated costs £1000)

Form DCS 021

FEASIBILITY REPORT DC1867

Appendix A: Drawings

DC1-1867-00-006 Proposed Priority Working
DC1-1867-00-007 Proposed Southbound Build Out

Essex County Council Highways & Transportation Design & Consultancy Services

Form DCS 021

Technical Note

	DC3081 - A128 Tilbury Road, West Horndon
40	Scheme Closure
1.0	<u>Introduction</u>
1.1	Having gathered sufficient site information to complete the design process, outcomes from discussions with Road Safety and from site meetings suggest that scheme delivery within the remit of the design brief is not possible.
1.2	This technical note is to present the initial findings from the design work carried out so far and the various options considered, within the design brief.
1.3	This Technical Note also puts forward options for further consideration
2.0	Site information
2.1	An initial site survey was carried out, Information was collected to complete the PCI form (traffic count, boundaries, stats and site dimensions)
2.2	Initial findings indicated that the location of a new pedestrian refuge as prescribed in the design brief may not be the best option in terms of providing a safe crossing point for school children alighting from southbound busses.
3.0	Options within the design brief
3.1	The Design Brief and validation Form requested the detailed design and implementation of a pedestrian refuge and additional footway works. The proposed location given, was just north of the existing bus lay-by and before the junction with the old Tilbury Road. Unfortunately, the carriageway width at this location narrows to 7.55m which is too narrow to incorporate a central refuge. There is adequate width within the verge to widen the road but this would incur a great deal of expense and also takes pedestrians away from the desire line which is south towards Station Road.
3.2	Three other locations for a pedestrian refuge were considered. The first, as mentioned in the validation form would be at the location of the existing island. However this conflicts with a lamp column within the west verge and with the access to the properties known as Dunton Hills Cottages.
3.3	The second location would be to construct a new refuge just north of the existing island. However this would shorten the right turn pocket into Dunton Hills Farm access road. The right turn pocket and deceleration lane are shorter than that recommended in current design standards, therefore to further shorten this lane would not be desirable.

Technical Note

- The third location would be to locate the crossing within the bus lay-by. Although this would not be a generally acceptable option, it has been considered. As the other options would require a Road Safety Exemption Report, if they were to go ahead, this option was considered in case it could offer a lower risk to safety. However given the speed of traffic along the A128, and that the bus stop lay-by would likely be used as a deceleration lane, the safety risks to this option are significant.
- 3.5 A site meeting was arranged with Road Safety, where it was agreed that none of the above options would be acceptable from a Road Safety Audit perspective.

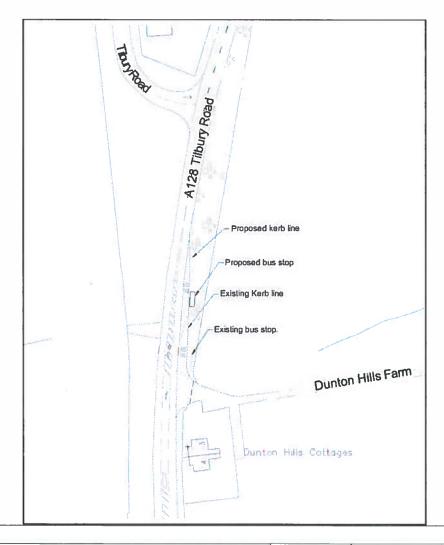
4.0 Options considered to be outside the design brief:

- 4.1 It is apparent from the scheme validation that there is a pedestrian safety issue at this site. While it is desirable to install a safer means for pedestrian to cross the road, directing pedestrian to a sub standard crossing is likely to attract liability in the event of an accident. As a consequence of not being able to implement the design brief the following options have been considered.
- 4.2 **Option 1. Do Nothing** Whilst the options considered above do not comply with current standards, the do nothing option must be considered. However, it is clear that in this situation, pedestrians, and in particular, school children crossing the road without the benefit of a refuge is the least safe option.
- 4.3 Option 2. Relocate the bus stop south of Dunton Hills Cottages the issues with this option are; the available width of the verge and the presence of the right turn pocket into Station Road. These two features would require the bus stop to be located south of Station Road. Not all busses travel south of Station Road and there is no footway on either side of the A128 at this location, and no footway within the southern verge of Station Road. The lack of these amenities would require a pedestrian refuge within Station Road, which in itself would present road safety issues. Therefore this option is not considered to be viable.
- 4.4 Option 3. Extend the existing bus lay-by By moving the entrance taper approximately 5m north of its current location and incorporating an exit taper it would be possible to construct a crossing between the bus stop lay-by and the farm access road. Although this is not ideal, as it is generally accepted that it is safer for a bus stop to be downstream of an adjacent crossing, This option would place the bus stop immediately upstream. However, if this was picked up in a Road Safety Audit it should be relatively easy to get an exemption report signed off, as the risk is fairly minimal compared to the other options. This is our preferred option.

Technical Note

5.0 **Summary**

- We propose that the existing scheme to construct a pedestrian refuge with additional footway works should be closed off, because the original brief does not present a viable scheme.
- We suggest that a new commission is raised for the detailed design of the scheme outlined in Option 3. To extend the existing bus stop lay-by, construct an exit taper to the existing lay-by and construct a crossing point with a pedestrian refuge, and associated footway works including a new bus boarder.
- 5.3 **Sketch.**



Prepared by:	Peter Millward	Date:	11 th December 2014
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Essex County Council Highways & Transportation Design & Consultancy Services

Form DCS 021

FEASIBILITY REPORT DC3173

Feasibility study Roman Road, Mountnessing Refuge Island

Job Number:	DC3173		
Doc Ref:	Feasibility Report		
Author:	Jamie Twinn		

Document History

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Revision	Purpose	Originated	Checked	Approved	Date	
N/A	Issued to HLO	JT	SM	CB	06/02/2015	

1.	Introduction	3
	1.1 Project Background	3
2.	Existing Conditions	3
	2.1 Location / Land Use 2.2 Site Observations 2.3 Statutory Undertakers 2.4 Collision Analysis 2.5 Photographs	4 4 5
3.	Feasibility Report Requirements	7
	3.1 Brief requirement	7
4.	Refuge Island Feasibility	7
	4.1 Requirement Evaluation	7
5.	Lining Feasibility	8
	5.1 Requirement Evaluation	8
6.	Economic Analysis	8
7.	Recommendation	9
Appe	ndix A: Site Assessment Record	10
Appe	ndix B: Collision Data Plot	11
Appe	ndix C: Refuge Island Design	12
Appe	ndix D: Lining Arrangment - Design Options	13

1. Introduction

1.1 Project Background

The Brentwood Local Highway Panel has supported the request for this scheme, which originated from Mountnessing Parish Council. It has been requested that consideration is given to the following measures:

- Extending the existing refuge island; and
- Extending the existing School Keep Clear markings or implementing Double Yellow Lines.

As a result the decision not to replace the retiring School Patrol Officer, the existing crossing point has been deemed as now not fit for purpose, concerns have been raised over the crossing point s capacity being unable to meet the peak pedestrian demand. Concerns have also been raised regarding vehicles having difficulty navigating the site, when parking occurs close to the refuge island.

2. Existing Conditions

2.1 Location / Land Use

- Roman Road, Mountnessing is a Priority Route 1 (PR1) Road.
- It is has a combination of residential and commercial units with a School and a Public House. The Public House car park is utilised by parents accessing the school to drop off and pickup their children.
- The speed limit signs on this section of Roman Road for which this report is relevant, indicates a 30mph limit.

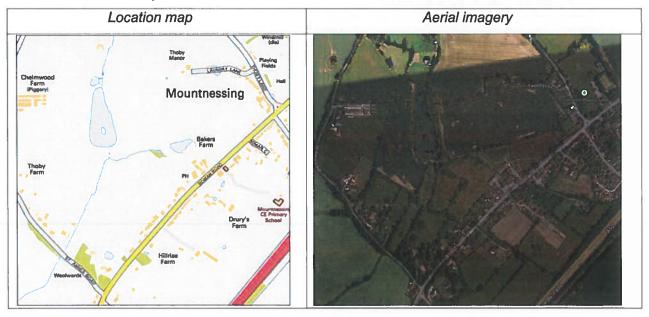


Fig 1.1 the location map and aerial imagery for Roman Road, Mountnessing.

2.2 Site Observations

A site assessment was undertaken on the 20th August 2014 at 3pm, which coincided with the summer school holiday period. The findings are detailed in Appendix A, though a summary of the main findings are below:

- The existing refuge island has dropped kerbs and tactile paving and provides an accessible waiting area of 2.0m by 2.0m.
- The existing School Keep Clear markings are curtailed at a point just after the refuge island, at times parking is observed close to the refuge island. This creates a chicane effect on vehicles travelling along Roman Road.
- The existing pedestrian refuge island previously sustained some damage as a result of a vehicle strike, please see paragraph 2.5 for photos. No pedestrians were injured as a result of this collision; the damaged sustained to the lighting unit has now been repaired, the repair works were not funded by this project.
- There was no visually observed evidence of speeding vehicles

An additional site survey was undertaken on the 16th September 2014, which identified that parents are parking in the Public House car park across the road and crossing via the refuge island. The capacity of the crossing did not look particularly over utilised and no latent crossing demand was observed. There is some room to extend the existing refuge island, though care must be taken in the design and the build to ensure the vehicle crossover to property number 283 Roman Road is not obstructed from turning right.

2.3 Statutory Undertakers

There are known to be a number of statutory plant located at this location, these include:

- British National Grid
- Essex and Suffolk Water
- BT Open Reach
- Gas Main Low Pressure
- Anglian Water

2.4 Collision Analysis

Two Personal Injury Collisions (PIC) have occurred within close vicinity of Mountnessing Primary School on Roman Road, Mountnessing within the period spanning the 30th May 2009 - 31st May 2014. As a result of these statistics we can assume there are no reported collision patterns at this site.

Collision Ref. (as indicated in Appendix B)	Involving	Severity	Date/Time	Conditions	No. of Casualties	Comments
1	Car on Bus	1 Slight	19/03/2012 @ 10:45	Dry	1 Passenger	
2	Car on Car on Car	2 Slight	26/06/2012 @ 09:00	Dry	1 Driver & 1Driver	1 Car was stationary and unattended and was hit by debris

Table 2.1: 60 months PICs Roman Road, Mountnessing.

2.5 Photographs



3. Feasibility Report Requirements

3.1 Brief requirement

The project brief requires an investigation to be undertaken into the length of the existing refuge island and the adequacy of the existing School Keep Clear (SKC) zigzags at this site. There have been observations of the current crossing point struggling to deal with the number of pedestrians crossing at the refuge island during the arrival and departure times of Mountnessing C of E Primary School. There are also issues with vehicles parking too close to the existing refuge island which can create a chicane effect which may be difficult for vehicles travelling along Roman Road to manoeuvre. As a result a length of Double Yellow Lines or extending the existing School Keep Clear are to be considered.

4 Refuge Island Feasibility

4.1 Requirement Evaluation

The design outlined in Appendix C, Refuge Island Design suggests that the implementation of a crossing at this location is feasible. The Vehicle Track Test shown in figure 4.1 below indicates that the proposed extents of the revised refuge island will not impede a vehicle from egressing to the right from the existing vehicle crossover (No. 283 Roman Road). The existing island refuge will need to be removed in its entirety prior to constructing the new refuge island as is does not comply with the current best practice nor does it make best use of the space.

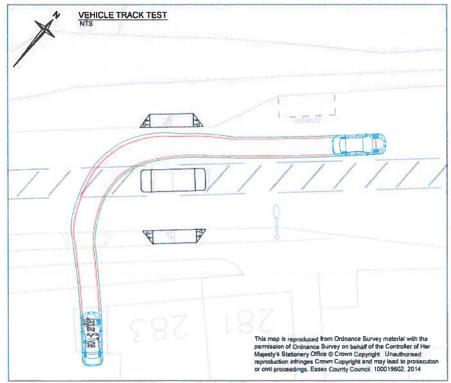


Figure 4.1 - Vehicle Track Test

5 Lining Feasibility

5.1 Requirement Evaluation

In order to protect the refuge island additional parking restrictions may be beneficial, the brief and validation suggested that the extension of the School Keep Clear markings or a length of Double Yellow Lines may be adequate. It should be noted that any lining proposal would require future liaison with South Essex Parking Partnership (SEPP). The design in Appendix D - Lining Arrangement - Option 1, shows proposal to the extend the Zig Zags by utilising two consectutive sets of 31.56 metres. This should then protect the area surrounding the refuge island.

However, we may not want to advocate parking near the narrow carriageway width close to the refuge island, outside of the operational hours of the School Keep Clear markings. As a result, it may be more practical to implement a length of Double Yellow Lines as shown in Appendix D - Lining Arrangement - Option 2, this intends to protect any unnatural chicane type manourves from occuring. Though, for completeness we would ideally want to duplicate this restriction on the opposite side of the carriageway.

If a lining solution cannot be agreed by all stakeholders this may affect the feasibility of the recommended work on the refuge.

6. Economic Analysis

The combined cost of the refuge island and the lining works at this site have been estimated to cost in the region of £20k. As the lining aspect of the project could take in the region of up to 12 months to complete, it is recommended that this is listed as the expected timescale. Installing the extended refuge island prior to the lining being in place is not recommended due to concern previously raised in the report and as part of the validation process. It should also be noted that close liaison with SEPP is required prior to identifying the solution to be put in place at this site, though the difference in cost between the lining options is negligible i.e. the cost of one School Keep Clear sign.

The estimate does not include the cost of any potential UKPN connection or disconnection work, nor does it include any works that may require relocating or diverting statutory undertakers plant.

7. Recommendation

The extension of the crossing is feasible at this location; though additional lining is strongly recommended at this location prior to undertaking these works.

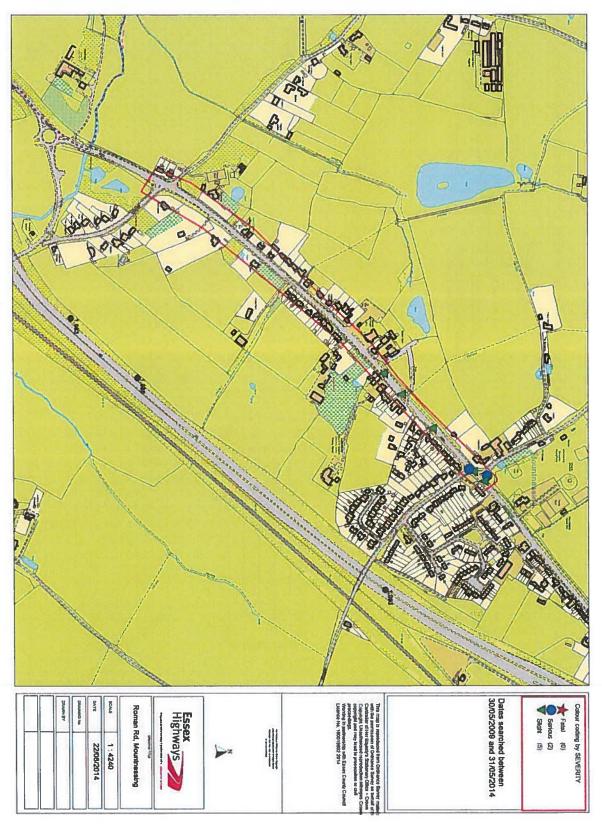
Of the two lining options put forward in Appendix D -lining arrangement; it is recommended that *Option 2 - Double Yellow Lines*, is considered by SEPP for approval as the ideal design to be taken forward. This option is favoured as it implements a 24 hour restriction on parking between the refuge and edge of carriageway - ideally on both sides of the road.

Although, if this option is deemed not to be suitable, and extending the School Keep Clear is seen as the more palatable option, then *Option 1 - School Keep Clear*, may be considered. This design and structure of the road markings have been checked against for compliance with the requirements of the Traffic Signs Regulation and General Directions (TSRGD). This option is not favourable due to the fact that parking near refuge may take place outside the operational hours of the School Keep Clear markings, which may block the road for through traffic.

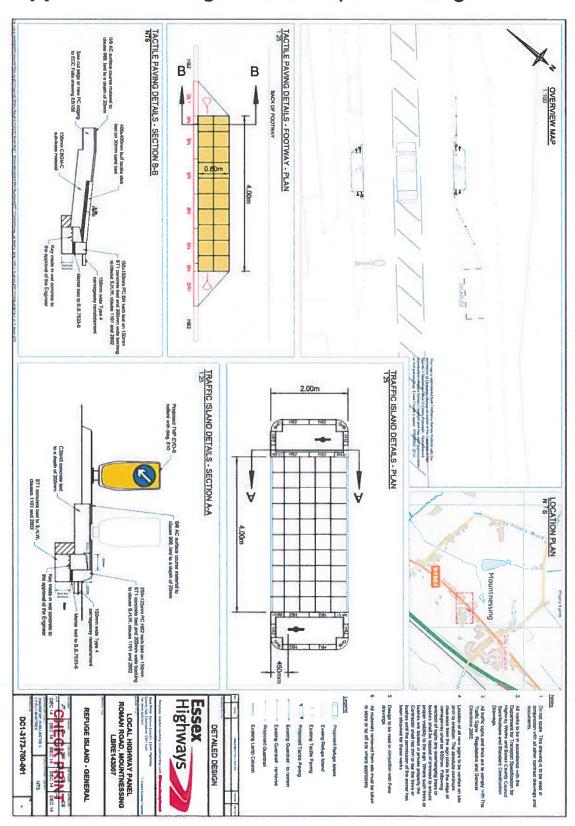
Appendix A: Site Assessment Record

Site Assessment Record				
	Engineer: Jamie Twinn			
	Date: 20th Aug 2014			
1.1 Site Location	B1002 Roman Road, Mountnessing			
OS Coordinate	es 562702, 197273			
Post Cod	de CM15 0TZ			
1.2 Carriageway Type	Single Lane, two way carriageway			
1.3 Carriageway Width	_9.1 metres			
1.4 Footway Width	_1.5 metres (minimum)			
1.5 Existing Crossing Facilities	Refuge Island within 20 metres of the school, no school crossing patrol operates at this location			
1.6 Streetlighting Facilities	Lighting facilities at the site form part of the main streetlighting network; with luminaires located near the refuge island			
1.7 Minimum Visiblity	No geometrical visibilty issues at this site, road is flat and straight. Parking upstream of refuge island may suggest additional parking restriction would be benificial on the school side of the road.			
1.8 Waiting/Loading/Stopping Restrictions	Current School Keep Clear Marking is 45.56metres in length			
1.7 Public Transport Stopping Points	Bus stops within 60 metres of the School on both sides of the carriageway			
1.8 Road Classification Information				
Route Ty	pe PR1			
Conservation An	ea No			
Traffic Sensitive Stre				
Bus Rou	ite Yes, Route 351 - 2 per hour			

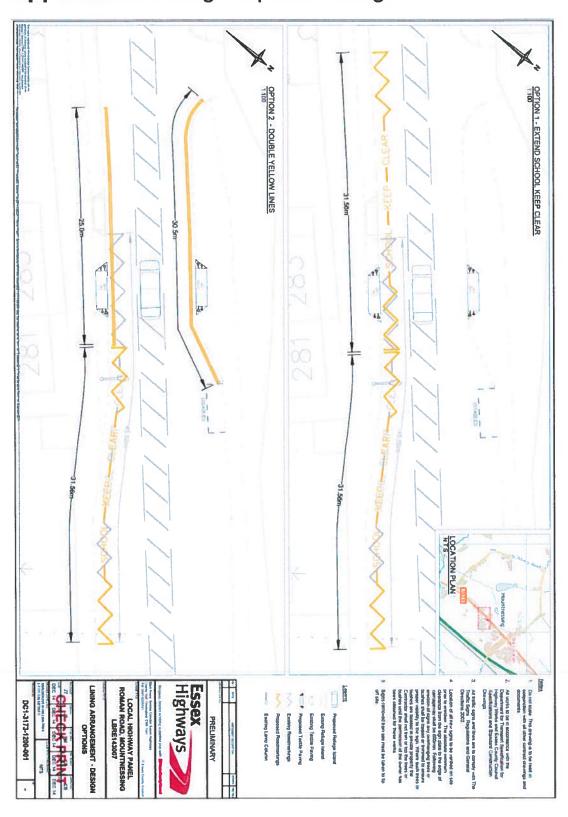
Appendix B: Collision Data Plot

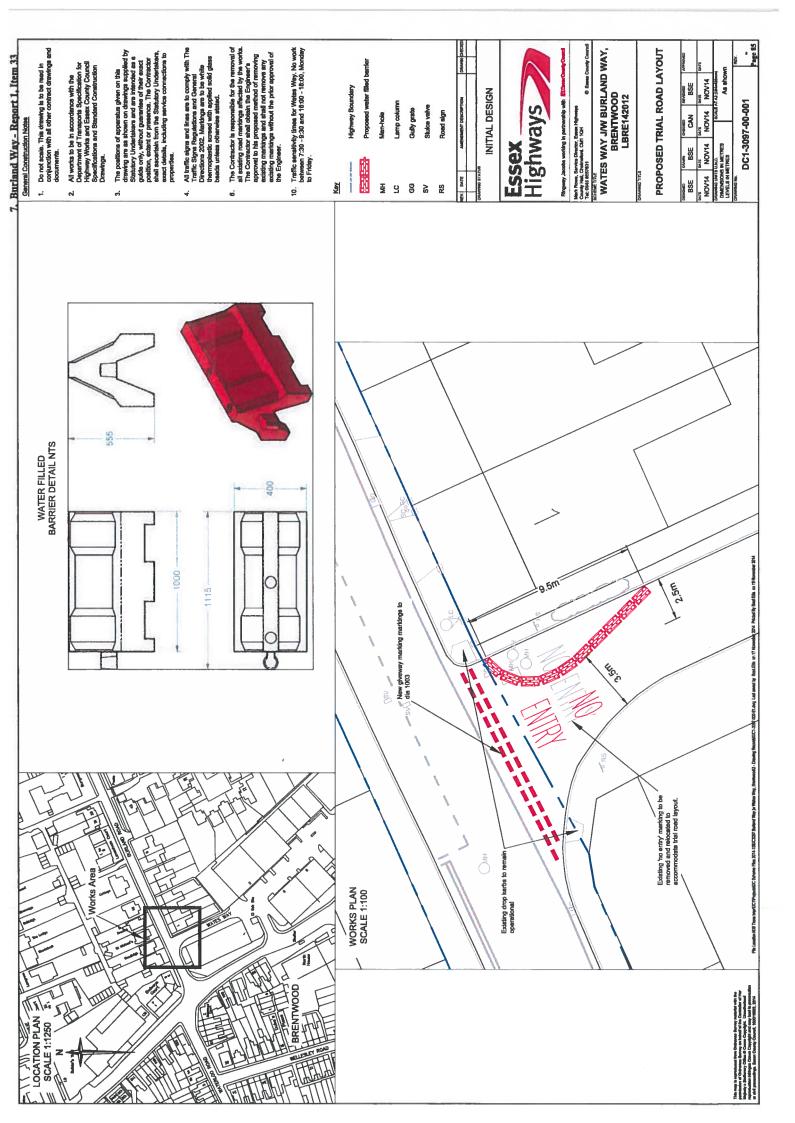


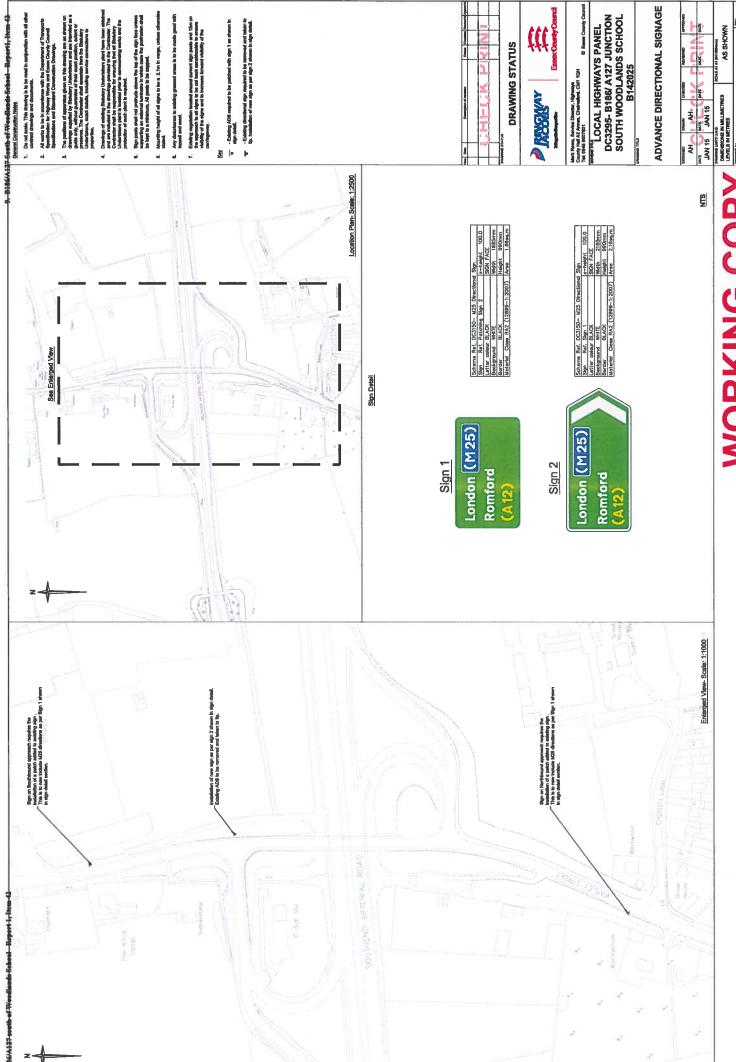
Appendix C: Refuge Island Proposed Design



Appendix D: Lining Proposed Design



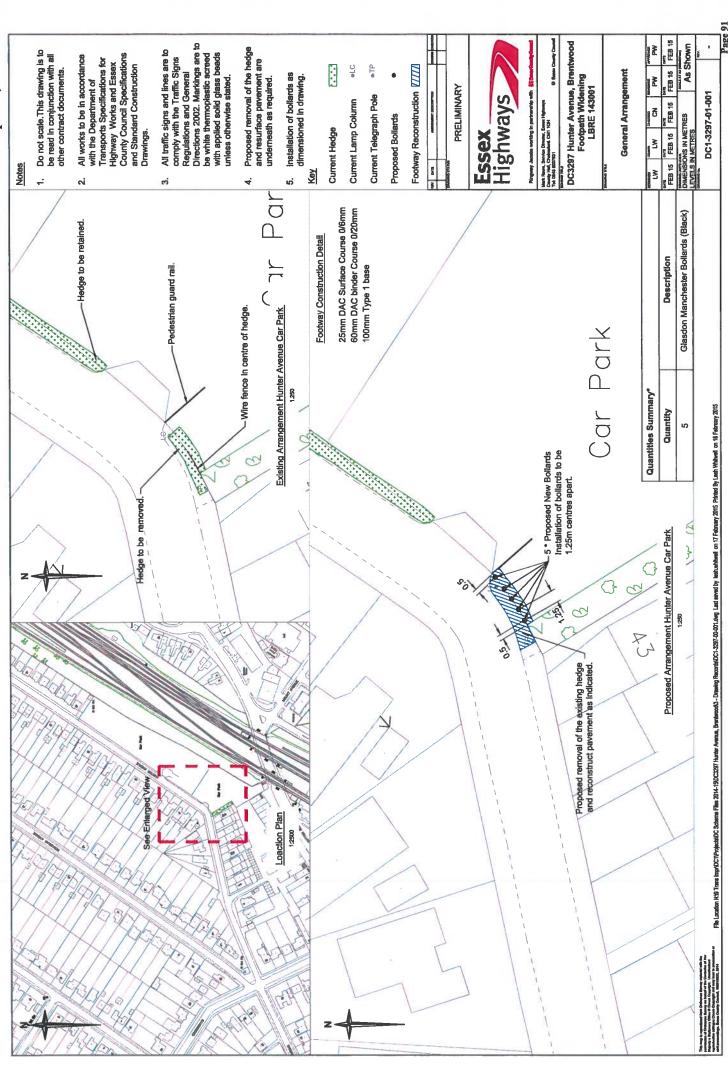




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DC1-3295-12-001



11. Stocks Lane - Report 1, Item 45

12. Rayleigh Road/Poplars Drive - Report 1, Item 58

JSTSM Ltd

Louise Schier
Senior Engineer ITS Design & Install
Essex Highway
County Hall
Chelmsford
CM1 1QH

By Email Only

26th November 2014

Dear Louise

<u>Junction investigation</u> A129 Rayleigh Road Brentwood

I refer to and thank you for your instructions.

Background

Follow a recommendation by Essex Highways to undertake further investigations at the Rayleigh Road Poplar Drive junction reference 9J13, JSTSM Ltd has been commissioned to undertake an assessment of the suitability for the addition of controlled pedestrian facilities. My work includes a site review, the preparation of Linsig capacity calculations and outline junction layouts.

The A129 Rayleigh Road, Poplar Drive and The Spinney are all single carriageway roads subject to a speed limit of 30mph. Rayleigh Road is a main Distributor which runs from its roundabout junction with Alexander Lane running east and becoming London Road travelling towards Billericay. Poplar Drive services the local community and housing to the north. The Spinney is a very short cul-de-sac serving properties to the south. The junction also forms part of a bus route.

The request for investigation has come from a member of the public who has some difficulty crossing Rayleigh Road with her young school aged children.

Vehicle and pedestrian counts were undertaken by Essex Highways on Wednesday 18th June 2014. The pedestrian count indicates low to moderate flow throughout the day and does not assess difficulty to cross.

JSTSM site investigations were carried out week commencing 17th November 2014.

1

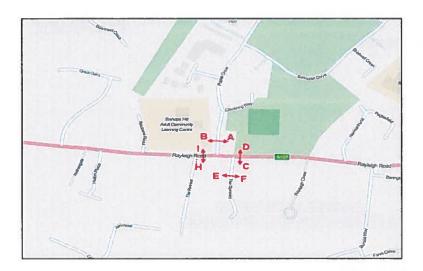


Fig1.

Pedestrian zones were allocated as indicated in the above figure.

There were six categories of pedestrians recorded Accompanied, Unaccompanied, Over 65, Visually Impaired, Pushchairs and Wheelchairs and General Public. There were no visually impaired users recorded in the survey. There is no assessment of difficulty to cross within the survey. Traffic Advisory Leaflet 5/05 provides guidance on the type of pedestrian facilities that can be provided and looks largely at the mechanics of controlled pedestrian facility provision rather than the justification. The leaflet advice discusses the options for non-controlled improvements such as installation of islands and the options for walk with pedestrian control; none of which are relevant at this site due to layout constraints. Local Transport Notes 1 & 2/95 remain the benchmark for controlled pedestrian facility assessment since the removal of the PV² assessment despite the advice being particular to stand alone crossings. This is the main criteria for pedestrian facility assessment and can be adapted to assess provision at signal controlled junctions. Factors most likely to have bearing on the choice or provision of a facility are:

difficulty in crossing

This is a factor related to the average time that a person normally has to wait at the site for an acceptable gap before crossing. The value will differ according to traffic levels, age and mobility. It can be assessed by the methods described in Appendix A in LTN 1/95. The highest factor at an appropriate time of the day should be used in the appraisal.

vehicle delays during peak periods carriageway capacity

To be assessed using Linsig

local representations

It is understood that local representations have or are being made cost (including maintenance) vehicle speeds.

2

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Site Observations

My site observations note that the junction is not under any particular stress during the peak periods, with only moderate queues and delay on any approach. Approach speeds are low, and within the speed limit as confirmed by the provided speed survey data. The site is operating local Vehicle Actuation cycling on a reasonably low cycle time. A facility exists in the controller to extend the interstage following the main road green period (all red extension) by inductive loops to clear the central right turn stacking areas. During the evening peak there is a heavy right turn movement into Poplar Drive which means that vehicles are still clearing during the extended intergreen. People were seen to use this period as an opportunity to cross the main road to the east. In the early evening (school run peak) the eastbound traffic blocks back into this junction from downstream bottlenecks. The junction operates at a fairly low cycle time creating ample opportunity for right turn movements to gap accept and for pedestrians to cross.

Very few people cross the main road at the junction. Of those seen most of them are opportunist crossers; that is, they see a chance to cross whilst walking past the junction but would most likely have crossed at other locations along Rayleigh Road. Most people are crossing the side roads; The Spinney in the morning, with quite high volumes heading inbound and Poplar Drive in the evening. Pedestrians appear to cross without difficulty. Of the people that do cross the main road, the east stud defined crossing is used most and mainly in the evening period.

Street lighting is poor (possible outdated) and is masked by mature trees.

Intervisibility around the junction is generally poor due to built environment.





Improvements

Refuge Island Provision

There is one controlled private vehicle access in the centre of the junction there are other closely spaced accesses which are uncontrolled and a bus stop town side (west) that precludes the installation of a refuge island here.



The installation of a refuge island may be possible to the east of the junction and there may be benefit depending on available carriageway width to provide a refuge island slightly remote from the junction. A series of refuge islands with guardian angel lighting may be worth consideration to benefit users over a length of road rather than just at the junction.

Extended intergreen period

Following the Poplar Drive green period the main road gains right of way quite quickly. Increasing the intergreen period here will help pedestrian crossing Poplar Drive.

Street Lighting

Street Lighting standards need to be reviewed and improved.

Controlled pedestrian crossing

It is physically possible to install a controlled pedestrian crossing at the junction. The T400 (EM19114) controller although essentially life expired can be modified to accommodate a crossing facility.

4

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The facility would be provided as an all red to traffic stage. It is questionable whether the facility needs to be provided across the side roads or indeed across both east and west sides of the main road? Technically there is an issue with vehicles emerging from the uncontrolled private accesses which would potentially be in conflict with pedestrians receiving a green signal. There is little justification for the provision of a controlled facility and as such if a crossing is to be considered it should be provided to the east of the junction across the main road only. An internal stop line may be required to protect the pedestrian phase from the uncontrolled accesses and allow the pedestrian facility to run in tandem with the Spinney.

I have carried out a Linsig assessment. This actually looks at the worst case scenario which is an all red to vehicles stage and one that appears every cycle of the signals. Even with this highly unlikely rate of activity and stage appearance the junction capacity remains positive. The Linsig file and output accompanies this report. It is highly likely that any loss of capacity afforded by a controlled pedestrian facility can be recovered with an upgrade to Mova control.

Recommendations

I recommend that either a series of refuge islands are considered along Rayleigh Road or a controlled pedestrian facility provided to the east of the junction. The supplied sketch drawing shows a layout including an internal stop line to protect pedestrians from use of private accesses.

Yours sincerely

John Spence JSTSM Ltd

5

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