

MEETING OF THE CHELMSFORD LOCAL HIGHWAYS PANEL

17 JUNE 2015
MARCONI ROOM, CHELMSFORD CITY COUNCIL
COMMENCING AT 13.00

There will be a buffet lunch available for Panel Members and officers from 12.30

AGENDA

1. Apologies for absence
2. Appointment of Chair and Vice-Chair Averil Price (CCC)
3. Introduction to the Local Highways Panel Sonia Church (ECC)
Rosa Tanfield (CCC)
4. Minutes of the Local Highways Panel meeting held on 17th March 2015
5. Matters arising
6. Approved works programme updates Jon Simmons (ECC)
 - A. Schemes In Progress
 - B. Feasibility and Designs
7. Proposed schemes and budgets Jon Simmons (ECC)
Sonia Church (ECC)
 - A. Potential Schemes List (Version 24)
 - B. Feasibility Studies (*for reference*)
8. Highway rangers Jon Simmons (ECC)
9. AOB
 - A. Date of future meetings

Chelmsford City Local Highways Panel - Approved Works Programme (May 2015)

Approved Schemes - In Progress

Key	Completed	Cancelled	March Panel First priority	March Panel Second Priority
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Ref.No.	Task Name	Parish	Finish	CMA Approved	Cost Code	Scheme type	Works Description	Budget	Comments
2012/13 Approved Schemes									
1	A138 Chelmsford Road/Sandford Road	Chelmsford Non Parished	Mar 2015	26/09/2012	LCHE007003	Traffic Management	Signals Upgrade	£7,000	Completed
2	New London Road Subway Chelmsford	Chelmsford Non Parished	Oct 2015	01/03/2013	LCHE004001	Cycling	Measures to permit cycling through subway	£33,912	Due to headroom issues that cannot be resolved, designers recommendation to cancel scheme
3	A12 Howe Green Interchange	Sandon	Apr 2015	17/07/2012	LCHE001004	Safer Roads	Signs and lines	£11,000	Completed
2013/14 Approved Schemes									
6	Main Road (at southern Broomfield Parish boundary), Broomfield	Broomfield	Nov 2015	18/03/2014	LCHE142001	Traffic Management	Village gateway treatment - design	£5,000	Ongoing liaison with Parish Council over sites for gateways
7	Main Road (at northern Broomfield Parish boundary), Broomfield	Broomfield	Nov 2015	18/03/2014	LCHE142002	Traffic Management	Village gateway treatment - design	£5,000	Ongoing liaison with Parish Council over sites for gateways
4	Parkway A1060 Odeon RAB	Chelmsford Non Parished	Sep 2015	10/07/2013	LCHE132022	Traffic Management	Dedicated left turn lane	£41,000	
5	O/s Moulsham Grange, London Rd, Chelmsford	Chelmsford Non Parished	Dec 2015	04/02/2014	LCHE132071	Traffic Management	Raise kerbing/add bollards/pave area	£12,500	
8	Watchhouse Road (Skinners Lane to Pipers Tye), Galleywood	Chelmsford Non Parished	Jan 2016	18/03/2014	LCHE142003	Traffic Management	Speed reduction measures - VAS sign	£10,000	
9	Main Rd nr j/w Church Rd, East Hanningfield	East Hanningfield	Dec 2015	04/02/2014	LCHE132068	Traffic Management	Create walkable verge	£11,500	
10	Margaretting Road, Galleywood	Galleywood	Aug 2016	12/09/2013	LCHE003001	Walking	Continuation of footway from Village to Heritage Centre	£124,000	Secretary of State approval required as this is Common Land. CCC officers progressing and consulting with Commoners. ECC/EH providing design/contract admin/supervision support.
11	Five entry point to Galleywood	Galleywood	Jun 2015	04/02/2014	LCHE132016	Traffic Management	Install five Village gateway features	£12,500	S.106 funding available
12	Highwood V Hall	Highwood	Mar 2015	12/11/2013	LCHE132061	Traffic Management	signage improvements for Village Hall - add Highwood to finger post	£700	Completed
13	Cross Keys A1060, Boyton Cross, Roxwell	Roxwell	Mar 2015	04/02/2014	LCHE135014	Bus Stop Improvement	Bus stop improvement - Bus build out	£1,500	Completed
14	Paradise Road, Writtle	Writtle	Feb 2015	12/11/2013	LCHE132045	Traffic Management	Signage improvements	£2,000	Completed
15	Margaretting Rd/Writtle Road, Writtle	Writtle	Feb 2015	04/02/2014	LCHE132075	Traffic Management	Village gateway features	£7,500	Completed
2014/15 Approved Schemes									
16	Bicknacre Road, Bicknacre	Bicknacre	Aug 2015	09/07/2014	LCHE142043	Traffic Management	WigWag (flashing warning) signs outside school	£15,000	
17	Dove Ln/Wood St Cycle Track	Chelmsford Non Parished	Feb 2015	24/04/2014	LCHE144002	Cycling	Removal of cycle track barrier to be replaced with bollard/extend pedestrian guard rail and road markings	£2,000	Completed
18	PROW Ftp/Bridleway 93/94	Chelmsford Non Parished	TBC	24/04/2014	LCHE148003	Public right of way	Drainage and signage improvements	£5,000	
19	North Avenue j/w Melbourne Avenue, Chelmsford	Chelmsford Non Parished	Feb 2015	02/06/2014	LCHE142025	Traffic Management	Two number dropped kerbs with tactile paving	£2,500	Completed
20	Keane Memorial Homes, Broomfield Road, Chelmsford	Chelmsford Non Parished	Jan 2015	02/06/2014	LCHE142026	Traffic Management	Two number KEEP CLEAR road markings at entrance/exit to sheltered homes complex	£1,500	Completed
21	O/s 140-147 Forest Drive Chelmsford	Chelmsford Non Parished	Jan 2016	02/06/2014	LCHE142004	Traffic Management	To construct lay-by within available verge	£25,000	
22	O/s Farthing court, Broomfield Road, Chelmsford	Chelmsford Non Parished	Aug 2015	02/06/2014	LCHE142027	Traffic Management	Was bollards to prevent parking and improve sight lines for vehicles, now TRO	£3,000	Out to formal residents consultation
23	Chignal Road j/w St James Park Road, Chelmsford	Chelmsford Non Parished	Jan 2015	02/06/2014	LCHE142066	Traffic Management	KEEP CLEAR road marking	£1,000	Completed
24	Avon Road, Chelmsford	Chelmsford Non Parished	Jan 2016	02/06/2014	LCHE142031	Traffic Management	Parking Improvements along whole length of road (1377m) - measures to prevent parking on verges combined with creation of parking laybys	£228,923	
25	Ten Entry points to Chelmsford City	Chelmsford Non Parished	Nov 2015	09/07/2014	LCHE142023	Traffic Management	Improved City nameplate signage, to include image of area of interest within City. will require DfT approval	£40,000	
26	Citywide - Watchhouse Road shops, Chelmsford Park, Writtle Library, Long Brandocks, Wellfield	Chelmsford Non Parished	Oct 2015	24/04/2014	LCHE144001	Cycling	Provision of Cycle parking facilities	£10,000	
27	O/s 119-121 Arbour Lane, Chelmsford	Chelmsford Non Parished	Jan 2015	09/07/2014	LCHE145007	Bus Stop Improvement	Cleanway sign at bus stop to allow enforcement	£2,500	Completed
28	Various points within City	Chelmsford Non Parished	Feb 2016	09/07/2014	LCHE142034	Traffic Management	New Wayfinder signs to help pedestrians within City Centre	£52,120	
29	Dyers Hall to Cricket Ground, Mashbury Road, Chignal	Chignal	Sep 2015	02/06/2014	LCHE142032	Traffic Management	Creation of three passing places on narrow road	£29,700	Following scheme re-design now needs top up £30k
30	Sandon Hill, Ford End 30mph signs	Ford End	Dec 2015	24/04/2014	LCHE142016	Traffic Management	Provision of 30mph count down signs at either end of Village (will require DfT approval)	£4,000	
31	Sandon Hill, Ford End	Ford End	Oct 2015	24/04/2014	LCHE142017	Traffic Management	Traffic management improvements through Village - Speed terminal signs at village gateways, VAS's, Improved bend signage, mini-RAB, improved school signage	£58,500	
32	Farmbridge End Road, Good Easter	Good Easter	Mar 2015	02/06/2014	LCHE142029	Traffic Management	Two number Danger Ahead warning signs with Road liable to flood sub-plate	£2,500	Completed
33	A131/A130/B1008, Sheepcoates RAB, Great Waltham	Great Waltham	Jul 2015	09/07/2014	LCHE142036	Traffic Management	Two M11 sign patches to existing Advanced Directional signage	£2,500	
34	Bennetts Lane/Mill Road/Black Chapel Lane, North End, G	Great Waltham	Feb 2015	02/06/2014	LCHE142028	Traffic Management	Deer warning signs at three locations	£3,100	Completed
35	Bridleway 12 Highwood	Highwood	TBC	02/06/2014	LCHE148006	Public right of way	Improvements to surface condition and drainage	£6,000	
36	Bridleway 13 Highwood	Highwood	TBC	02/06/2014	LCHE148007	Public right of way	Improvements to surface condition and drainage/piped culverts	£14,000	
37	Bridge at Battlesbridge, Hawk Hill, Rettendon	Rettendon	Apr 2015	02/06/2014	LCHE142030	Traffic Management	Signage improvements to priority working at bridge	£1,750	Completed
38	A1060 Maldon Road j/w Molrams Lane, Sandon	Sandon	Jan 2016	02/06/2014	LCHE142021	Traffic Management	Remedial works to Section 278 highway works - signing/lining/lighting improvements	£10,000	
39	PROW Ftp 40 South Woodham Ferrers	South Woodham Ferrers	Jan 2015	24/04/2014	LCHE148004	Public right of way	Surfacing of footpath	£4,000	Completed
40	A132/B1012 (Shaw Farm RAB and B1012/B1418, South Woodham Ferrers	South Woodham Ferrers	Feb 2016	09/07/2014	LCHE142041	Traffic Management	Improved Goods Vehicle Signage to keep vehicles on Priority Route and not diverting through Woodham Ferrers	£7,500	

Chelmsford City Local Highways Panel - Approved Works Programme (May 2015)

Approved Schemes - In Progress

Key	Completed	Cancelled	March Panel First priority	March Panel Second Priority
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Ref.No.	Task Name	Parish	Finish	CMA Approved	Cost Code	Scheme type	Works Description	Budget	Comments
2014/15 Approved Schemes (Continued)									
41	White hart Lane (Sainsbury's) to Beaulieu Park, Springfield	Springfield	Mar 2016	24/04/2014	LCHE144005	Cycling	Phase 2a of scheme to connect cycleway from Sainsbury's to Beaulieu park	£60,000	Phase 2B - Raise bridge parapet, Phase 2C - widen footway bridge to School access, Phase 2D - TRO/Tactile paving/Signs. Additional costs £225K
42	Chelmer Retail Park, Springfield	Springfield	Apr 2016	24/04/2014	LCHE144006	Cycling	Phase 2 of scheme to rebuild and widen northern access ramp to retail park	£40,000	Delay due to Legal team resolving private land ownership issue
43	PROW Ftp 18 Springfield	Springfield	TBC	24/04/2014	LCHE148005	Public right of way	Surfacing of footpath	£15,000	
44	Sites to be confirmed	various	TBC	09/07/2014	LCHE142046	Traffic Management	recommendation for monies to be retained by panel to allow approved schemes to be topped up	£50,000	
45	Main Road, Woodham Ferrers	Woodham Ferrers	Oct 2015	09/07/2014	LCHE142044	Traffic Management	WigWag (flashing warning) signs outside school	£8,500	
46	PROW 40 South Woodham Ferrers	Woodham Ferrers	Mar 2015	09/07/2014	LCHE148004	Public right of way	Surface improvements to PROW, top up required to original £4,000 recommendation	£3,000	Completed
47	Hylands School Chelmsford Rd	Writtle	Aug 2015	24/04/2014	LCHE142018	Traffic Management	Construction of widened footpath outside school at bus stop and side/widen existing footways from Writtle to School	£14,500	Scheme started but stopped due to shallow cables and water ingress issues. Due to re-start but scheme top-up of £16k required to address cables and drainage
48	Hylands School Chelmsford Road/Writtle Road, Writtle	Writtle	Mar 2015	09/07/2014	LCHE142035	Traffic Management	SLOW road markings at existing advanced school signage	£1,000	Completed
49	O/s Hylands School, Chelmsford Road, Chelmsford	Writtle	Jun 2015	24/09/2014	LCHE142049	Traffic Management	Wig-Wag flashing warning lights - Additional measures in support of LCHE142018, footway widening and LCHE142035 SLOW road markings at School signs	£7,000	
2015/16 Approved Schemes									
50	Parkway/Moulsham Street Pedestrian Crossing - Red surfacing on crossing carpet/relocation of existing stop lines	Chelmsford Non Parished	Sep 2015	22/04/2015	LCHE151007	Safer Roads	Red surfacing on crossing carpet/relocation of existing stop lines	£5,000	
51	Parkway/Moulsham Street Pedestrian Crossing - Pedestrian Countdown timers	Chelmsford Non Parished	TBC	22/04/2015	LCHE151010	Safer Roads	Pedestrian Countdown timers for pedestrian crossing - To show Countdown immediately after end of Green Man to show time left before Red Man appears	£60,000	
52	Old Moulsham - 20 mph zone/limit	Chelmsford Non Parished	TBC	22/04/2015	LCHE152057	Traffic Management	20 mph zone/limit - Moulsham Drive/Lady Lane/Hamlet Road/St Johns Road/Vicarage Road/Moulsham Street	£26,500	
53	Springfield Allied Estate - Improvements to 20mph signage/roundels	Chelmsford Non Parished	TBC	22/04/2015	LCHE152069	Traffic Management	Improvements to existing 20 mph signage/roundel road markings - (Sandford Road/Chelmer Road/Springfield Road/Hill Road/Navigation Road)	£3,000	
54	Lawn Lane/Waveney Drive -Improved cycle crossing point	Chelmsford Non Parished	TBC	22/04/2015	LCHE154001	Cycling	Improved cycle crossing point and continuity of cycle network to Springfield	£5,000	
55	Melbourne Avenue - CH17 Cycleway/footway	Chelmsford Non Parished	Jan 2016	22/04/2015	LCHE154007	Cycling	Scheme CH17 - convert southern footway to cycleway/footway (Chignal Road to North Avenue)	£25,000	
56	Princes Road - CH34 Convert/widen footway to cycleway/footway	Chelmsford Non Parished	Feb 2016	22/04/2015	LCHE154009	Cycling	Scheme CH34 - convert and widen footway (opposite Moulsham School to Lid)	£95,000	See Design in Design & feasibility Studies Report
57	Portway Bus Stop, Kingsford Drive - Extend bus cage	Chelmsford Non Parished	TBC	22/04/2015	LCHE155015	Bus Stop Improvement	Extend bus cage to 19 metres - Stop ID KINGDR2	£2,500	Passenger Transport team advise works to now be done as part of carriageway resurfacing scheme
58	Penny Royal Road - Footway	Danbury	Feb 2016	22/04/2015	LCHE153002	Walking	Footway to link two parts of Danbury - Penny Royal Road (Mayes Lane to Woodhill Road)	£66,000	
59	Adjacent Dovedale Close Bus Stop, Downham Road - replace old shelter	Ramsden Heath	TBC	22/04/2015	LCHE155016	Bus Stop Improvement	Replace old Parish Shelter, new shelter to remain property of Parish Council - Stop ID IM445b	£9,000	
60	The Turnpike Bus Stop, Woodham Road - Replace shelter	Rettendon	TBC	22/04/2015	LCHE155014	Bus Stop Improvement	Replacement bus shelter - Stop ID 089004001	£9,000	
61	Opposite Cross Keys, Roxwell Road - Replace shelter	Roxwell	TBC	22/04/2015	LCHE155018	Bus Stop Improvement	Replace damaged shelter - Stop ID IM1148	£7,500	
62	A132 Burnham Road - Extension of 40 mph speed limit	South Woodham Ferrers	TBC	22/04/2015	LCHE152079	Traffic Management	Extension of 40 mph speed limit, reposition Town nameplate, SLOW road markings	£10,000	
2015/16 Revenue Schemes									
63	Survey Works	Various TBC	tabs	22/04/2015	LCHE152007	Traffic Management	Ad Hoc Survey Works - Automatic Traffic Counts/Degree of Pedestrian Conflict Surveys/Road Safety Assessments	£10,000	

Chelmsford City Local Highways Panel - Approved Works Programme (May 2015)

Approved Schemes - Designs & Feasibility Studies

Scheme key	Completed	Cancelled	March Panel First priority	March Panel Second Priority
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Ref.No.	Task Name	Parish	Finish	CMA Approved	Cost Code	Scheme type	Works Description	Budget	Comments
2013/14 Approved Schemes									
1	West End of Chelmsford	Chelmsford Non Parished	Mar 2015	12/09/2013	LCHE132056	Traffic Management	Improved Signing to West End of Chelmsford - Design only - To review current designs/assess proposed locations and provide target cost for overall scheme	£3,500	CCC officers now working with WEBA/Councillors to look at signage improvements. Wayfinder signing with CCC.
2	Melbourne Avenue, Chelmsford	Chelmsford Non Parished	Jul 2015	12/09/2013	LCHE134006	Cycling	CH17 - Design only of cycling scheme (£25k)	£3,000	
3	Westway, Chelmsford	Chelmsford Non Parished	Jun 2015	12/09/2013	LCHE134007	Cycling	CH35 - Design only of cycling scheme (£225K)	£4,000	See Design in Design & feasibility Studies Report
4	Princess Road, Chelmsford	Chelmsford Non Parished	Feb 2015	12/09/2013	LCHE134009	Cycling	CH34 - Design only of Cycling Scheme (£95k)	£5,000	See Design in Design & feasibility Studies Report
2014/15 Approved Schemes									
5	Leighams Rd nr Leighams Farm	Bicknacre	Jun 2015	24/04/2014	LCHE141001	Safer Roads	Scheme design - signage and road markings	£500	
6	Hammonds Rd Little Baddow/Church Rd	Boreham	Mar 2015	24/04/2014	LCHE142008	Traffic Management	Feasibility study into flood warning improvements	£10,000	See Study in Design & feasibility Studies Report
7	PROW Ftp 95 Chelmsford	Chelmsford Non Parished	TBC	24/04/2014	LCHE148002	Public right of way	Investigation into installing drainage in existing surfaced city centre footpath	£5,000	
8	High Street	Chelmsford Non Parished	Jul 2015	18/11/2014	LCHE144011	Cycling	Feasibility study to consider a cycle route through Chelmsford on a north-south alignment but avoiding the High Street.	£5,000	
9	PROW Ftp 13 Good Easter	Good Easter	TBC	24/04/2014	LCHE148001	Public right of way	Investigation into revetment between River Can and existing footpath	£5,000	
10	Paper Mill Bridge North Hill j/w Moden Hall Lane	Little Baddow	Mar 2015	24/04/2014	LCHE142009	Traffic Management	Feasibility study into flood warning improvements	£10,000	See Study in Design & feasibility Studies Report
11	King Edwards Rd, South Woodham Ferrers	South Woodham Ferrers	Jul 2015	24/04/2014	LCHE142013	Traffic Management	Feasibility study into traffic claiming options, suitable for bus service	£3,500	
12	Sites currently being identified within Chelmsford	Various TBC	Jun 2015	09/07/2014	LCHE141004	Safer Roads	Design of Casualty reduction sites for 2025/16 implementation	£28,000	
13	Ongar Rd/Lordship Rd, Writtle	Writtle	Jun 2015	24/04/2014	LCHE142014	Traffic Management	Route enhancement study to consider footway/carriageway surfacing, lining, signing, lighting, also construction of lay-by near Doctors surgery	£32,500	Lay-by to be progressed, study due back end of June
2015/16 Approved Schemes									
14	Lodge Road - Passing Bays	Bicknacre	Jul 2015	22/04/2015	LCHE152025	Traffic Management	Detailed design of passing bays (Was reference LCHE152025)	£3,000	
15	Waterhouse Lane - Junction Improvements	Chelmsford Non Parished	Aug 2015	22/04/2015	LCHE152075	Traffic Management	Detailed design of junction improvements at Waterhouse Lane j/w Beeches Drive & Forest Drive	£3,000	
16	Chelmer Park Cycle Route, Beehive Lane - Design of cycleway/footway	Galleywood	Sep 2015	22/04/2015	LCHE154002	Cycling	Design of cycleway/footway - Between Skinners Lane and Chelmer Car Park	£5,000	
17	B1008 Chelmsford Road - Improvements to bend ahead warning signs	Great Waltham	Jun 2015	22/04/2015	LCHE151008	Safer Roads	Design - Improvements to bend ahead warning signs and investigate carriageway widening - Ford End to Barnston	£3,000	Scheme now on Potential Scheme list £28k
18	Opposite the Railway Station - Design of raised kerbs	South Woodham Ferrers	TBC	22/04/2015	LCHE155013	Bus Stop Improvement	Design of raised kerbs -Stop ID IM2262b	£5,000	
19	Springfield Green/Timson's Lane - Study to consider connection of existing routes	Springfield	Sep 2015	22/04/2015	LCHE154004	Cycling	Feasibility study to consider connection of existing cycle routes - Eastern ends of Springfield Green/Timson's Lane	£5,000	
20	Casualty Reduction Reports/Designs 2016/17 - Sites TBC	Various TBC	TBC	22/04/2015	LCHE151001	Safer Roads	Casualty Reduction Reports/Designs for 2016/17 - Sites TBC	£28,000	

From the schemes recommendations made by the Panel in 2014/15 schemes to the value of £630,000 have been re-profiled and are now being delivered in 2015/16. The Chelmsford City Local Highways Panel has a 2015/16 Capital Budget of £1,000,000 and at the March 2015 meeting the Panel made additional recommendations for the remainder of the 2015/16 Capital Budget.

When considering the schemes on the Potential Scheme List, if the Panel wish to make any scheme recommendations from it they would be asked to prioritise which schemes on the Approved Works Programme can be slipped into 2016/17 to accommodate them.

On the Potential Schemes List Version 24 there are currently potential schemes with an estimated cost of £1,118,790, as shown in the summary below:

2015/16 Potential Schemes List (Version 24)		
Scheme Type	Page number	Total Estimated Costs
Traffic Management	2 to 12	£298,750
Walking	13	£10,000
Passenger Transport	14	£17,500
School Crossing Patrol	15	£23,000
Public Rights of Way	16	£30,000
Cycling	17	£588,140
Safer Roads	18	£151,400
		£1,118,790

On the Potential Schemes List the RAG column acknowledges the status of the scheme request as shown below:

RAG Status	Description of RAG status
G	A higher priority feasible scheme against strategic criteria
A	A lower priority feasible scheme against strategic criteria or may require additional Cabinet Member approval
R	A scheme which is against policy or where there is no appropriate engineering solution
TBC	A scheme pending validation

Chelmsford City Local Highways Panel - Potential Schemes List (Version 24)

Traffic Management

Total Value of schemes	£298,750
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Comments Key	March Panel First priority	March Panel Second Priority
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Ref	Location	Description	Problem	Requested by	Parish	Scheme Category	Scheme stage	Cost Code	Estimated cost	Comments	RAG
1	Priory Road, Bicknacre	Bend warning signs	Lack of bend warning signs	Parish Council	Bicknacre	Traffic Management	Total scheme	LCHE142058	£1,000	Validation -sign improvements	G
2	Lodge Road, Bicknacre	Provision of passing bays - Option 2 - Formalise existing parking near Leighams Road initial estimate £4,500 next stage detailed design	Narrow road problems when two vehicles try to pass each other	Parish Council	Bicknacre	Traffic Management	Design	LCHE132025	£4,500	Technical Note previously shared with Panel March 2015	G
3	Hammonds Road/Church Road, Little Baddow to Boreham	Traffic Management improvements	Speed of traffic	Parish Council	Boreham	Traffic Management	Total scheme	LCHE142055	TBC	In validation	TBC
4	Generals Lane to New Hall School, Boreham	Traffic Management Improvements -widen road/passing bays/speed limit reduction	Speed/volume of traffic	Councillor	Boreham	Traffic Management	Total scheme	LCHE142057	NA	Validation - Possible adjacent housing development in future will effect road. Also request to widen road will then speed up traffic	R
5	Brick House Lane, Boreham	Passing Bay signage to identify passing bay	Vehicles routinely park in passing bay causing an obstruction	Parish Council	Boreham	Traffic Management	Total Scheme	LCHE152014	TBC	In validation	TBC
6	Patching Hall Lane jw B1008 Broomfield Road, Broomfield	Signal upgrade to allow left turn out/right turn in phase and extension of two lane section	Improvements at permanent signals	Councillor	Broomfield	Traffic Management	Total scheme	LCHE132069	TBC	Validation waiting on ITS and developers works	TBC

Chelmsford City Local Highways Panel - Potential Schemes List (Version 24)

Total Value of schemes	£298,750
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Comments Key	March Panel First priority	March Panel Second Priority
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Ref	Location	Description	Problem	Requested by	Parish	Scheme Category	Scheme stage	Cost Code	Estimated cost	Comments	RAG
7	Main Road nr jw Erick Avenue, Broomfield	Improvements to pedestrian crossing	Consideration of pedestrian crossing improvements	Parish Council	Broomfield	Traffic Management	Total scheme	LCHE142081	TBC	Road Safety Assessment - Option 1 Signalise Crossing point, Option 2 (recommended by assessment) upgrade crossing point. Currently awaiting costings for each option.	TBC
8	County High School, Broomfield Road, Chelmsford	Pedestrian guard rail opp. Pedestrian exit of school	Lack of pedestrian guard rail	Councillor	Chelmsford Non Parished	Traffic Management	Total scheme	LCHE142063	£3,000	Validation - guard rail improvements	G
9	Gunson Gate off Loftin Road, Chelmsford	Improvements to bus gateway and bus stops	Two bus stops opposite each other causing problems	Councillor	Chelmsford Non Parished	Traffic Management	Total scheme	LCHE142064	TBC	In validation	TBC
10	Sandford Road, Chelmsford	Pedestrian crossing improvements	Lack of pedestrian crossing facilities	Councillor	Chelmsford Non Parished	Traffic Management	Total scheme	LCHE142068	NA	Validation - PV ² survey score 0.109 x10 ⁸ , too low for pedestrian crossing, speed compliance on road good mean average eastbound speed 22.7 mph and west bound 24.8mph in 30 mph posted limit	R
11	Our Lady Immaculate School, New London Road, Chelmsford	Pedestrian access improvements - guard rail/raise kerbs option 1	Lack of pedestrian guard rail	Councillor	Chelmsford Non Parished	Traffic Management	Total scheme	LCHE142050	£2,500	Validation - guard rail improvements	G
12	Our Lady Immaculate School, New London Road, Chelmsford	Pedestrian access improvements - guard rail/raise kerbs option 2	Lack of pedestrian guard rail	Councillor	Chelmsford Non Parished	Traffic Management	Total scheme	LCHE142051	£7,000	Validation - guard rail improvements	G

Chelmsford City Local Highways Panel - Potential Schemes List (Version 24)

Total Value of schemes	£298,750
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Comments Key	March Panel First priority	March Panel Second Priority
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Ref	Location	Description	Problem	Requested by	Parish	Scheme Category	Scheme stage	Cost Code	Estimated cost	Comments	RAG
13	Danbury Vale, Danbury	Flood alleviation works - study into ground investigation/infiltration testing to determine number of soak ways and size	Flooding	Parish Council	Chelmsford Non Parished	Traffic Management	Feasibility	LCHE142052	£7,500	Validation - guard rail improvements	G
14	The Common, East Hanningfield	Traffic Management Improvements	Speed of traffic	Parish Council	Chelmsford Non Parished	Traffic Management	Total scheme	LCHE142022	TBC	In validation	TBC
15	West End of Chelmsford	Signage improvements to West End	Lack of signs to West End	Business Association	Chelmsford Non Parished	Traffic Management	Total scheme	LCHE132056	TBC	In design	TBC
16	Railway Bridge, Arbour Lane, Chelmsford	Footway widening works - recommendation to cut back vegetation and improve footway surface condition	Narrow footway for pedestrians	Councillor	Chelmsford Non Parished	Traffic Management	Feasibility	LCHE142045	N/A	Technical Note previously shared with Panel March 2015	TBC
17	Essex Records Office, Chelmsford	Signage improvements to vehicular access to ERO on Navigation Road and outside pedestrian entrance to ERO	Lack of signage	Councillor	Chelmsford Non Parished	Traffic Management	Total scheme	LCHE142085	TBC	In validation	TBC
18	Wood Street, Chelmsford Nr parade of shops	Pedestrian crossing improvements	lack of pedestrian crossing facilities	Councillor	Chelmsford Non Parished	Traffic Management	Total scheme	LCHE142091	TBC	In validation PV ² to be carried out	TBC
19	Waterson Vale, Chelmsford	Traffic management improvements to enforce 20mph zone	Speed of traffic	Councillor	Chelmsford Non Parished	Traffic Management	Total scheme	LCHE142093	£1,500	Validation - speed data near Burghley Way SE 20.4mph and NW 18.7mph, near Chislett Row S 1839 mph and N18.4 mph. good compliance. Suggestion of 20 mph speed roundels at start of 20 mph limit and signage improvements	G
20	Westway j/w Robjohns Road, Chelmsford	Yellow box junction	vehicles turning obstruct junction	Councillor	Chelmsford Non Parished	Traffic Management	Total scheme	LCHE142053	£3,000	Validation - recommends box junction	G

Chelmsford City Local Highways Panel - Potential Schemes List (Version 24)

Total Value of schemes £298,750

Comments Key March Panel First priority March Panel Second Priority

Ref	Location	Description	Problem	Requested by	Parish	Scheme Category	Scheme stage	Cost Code	Estimated cost	Comments	RAG
21	A1060 Roxwell Road (junction with Lordship Road to 88 Roxwell Road) Chelmsford	Request to reduce speed limit from 60mph to 40 mph	Speed of traffic	Councillor	Chelmsford Non Parished	Traffic Management	Total Scheme	LCHE152006	NA	Validation - Automatic traffic counts show good compliance with 60 mph speed limit and does fall below 40 mph. This is a Priority Route on our Functional Route Hierarchy, to keep traffic free flowing/avoiding congestion, which could result if the road had a 40mph speed limit.	TBC
22	Park Avenue, Chelmsford	Cars mounting pavement causing conflict with pedestrians	Cars park on one side of road and when two vehicles try to pass, they routinely mount the pavement	Councillor	Chelmsford Non Parished	Traffic Management	Total Scheme	LCHE152016	TBC	In Validation	G
23	North Avenue, Chelmsford	Pedestrian crossing improvements	Difficult for pedestrians to cross road.	Councillor	Chelmsford Non Parished	Traffic Management	Feasibility	LCHE142059	£3,000	Validation - PV ² survey data 0.771x10 ⁸ , crossing warranted. Recommendation for feasibility study due to complexities of site	G
24	O/s 148 Kings Road, Chelmsford	footway improvements	No footway across verge	Councillor	Chelmsford Non Parished	Traffic Management	Total Scheme	LCHE142074	£10,000	Validation recommends - dropped kerb/tactile paving on both sides of road.	G
25	Dyers Hall to Cricket Ground, Mashbury Road, Chignal	Creation of three passing places on narrow road	Narrow road, vehicles damaging verges	Parish Council	Chignal	Traffic Management	Total Scheme	LCHE142032	£30,000	Following scheme re-design now needs top up £30k	G
26	Sporhams Lane, Danbury	Width restriction on road, to prevent goods vehicles damaging verges	Vehicles damaging verges	Parish Council	Danbury	Traffic Management	Total scheme	LCHE142092	TBC	In validation	TBC

Chelmsford City Local Highways Panel - Potential Schemes List (Version 24)

Total Value of schemes £298,750

Comments Key March Panel First priority March Panel Second Priority

Ref	Location	Description	Problem	Requested by	Parish	Scheme Category	Scheme stage	Cost Code	Estimated cost	Comments	RAG
27	Stock Road/ Watchouse Road, Galleywood	Signs to heritage centre	Lack of signs	Parish Council	Galleywood	Traffic Management	Total scheme	LCHE142067	NA	Validation - centre mainly used by local residents and therefore to try to reduce sign clutter it is recommended not to install these signs	R
28	Galleywood Road nr Fowlers Court, Galleywood	Speed reduction 40 mph to 30 mph	Speed of traffic	Councillor	Galleywood	Traffic Management	Total scheme	LCHE142082	NA	Validation - Mean average speeds, 40 mph posted limit North location - southbound 34.2mph and north bound 34.4mph, South location - south bound 37.2mph and north bound 36.6mph. Good compliance	R
29	Galleywood Road nr Fowlers Court, Galleywood	Pedestrian crossing	Lack of pedestrian crossing facilities	Councillor	Galleywood	Traffic Management	Total scheme	LCHE142082	NA	Validation - PV ² results 0.005x10 ⁸ , too low for pedestrian crossing. Road too narrow for pedestrian refuge island	R
30	The Street jw Stock Road, Galleywood	Junction protection parking restrictions	Parking improvements	Parish Council	Galleywood	Traffic Management	Total scheme	LCHE142098	TBC	In validation	TBC
31	Barnard Road, Galleywood	20 mph speed limit, especially o/s St Michael's CE Junior and Galleywood Infants schools	Speed of traffic following installation of recent parking restrictions	Parish Council	Galleywood	Traffic Management	Total Scheme	LCHE152013	TBC	In validation	TBC
32	Glovers Estate - (Brickbarns, Castlefield, Glovers, Permain's), Great Leighs	20 mph speed limit	Speed of traffic	Councillor	Great Leighs	Traffic Management	Total scheme	LCHE142079	TBC	In validation	TBC

Chelmsford City Local Highways Panel - Potential Schemes List (Version 24)

Total Value of schemes **£298,750**

Comments Key March Panel First priority March Panel Second Priority

Ref	Location	Description	Problem	Requested by	Parish	Scheme Category	Scheme stage	Cost Code	Estimated cost	Comments	RAG
33	Main Road, Howe Street	SID socket/pole	Speed of traffic	Parish Council	Great Waltham	Traffic Management	Total scheme	LCHE142070	£500	Validation - posted speed limit 30 mph, mean average speed south-east bound 36.7mph, north-west bound 36.1mph. Mean average speed +5mph over posted speed limit	G
34	Chelmsford Road, Minnow End	SID socket/pole	Speed of traffic	Parish Council	Great Waltham	Traffic Management	Total scheme	LCHE142071	TBC	In validation	TBC
35	South Street, Great Waltham	Pedestrian guard rail at footpath/carriageway	Lack of pedestrian guard rail	Parish Council	Great Waltham	Traffic Management	Total scheme	LCHE142072	£3,000	Validation suggests staggered guard rail on footpath	G
36	South Street, Great Waltham	Speed Indicator Device pole to allow rotation of existing unit	Speed of traffic	Parish Council	Great Waltham	Traffic Management	Total Scheme	LCHE142073	£750	Validation - recorded speeds NE bound 31.8mph & SW bound 32.0 mph, with evidence of speeding. Recommend SID pole installed	G
37	Highwood Road, Loves Green, Highwood	Traffic management improvements - Remove centre white line/renew SLOW road markings/build outs at school with priority flow, estimated cost £8,500 next stage detailed design	Speed of traffic	Parish Council	Highwood	Traffic Management	Design	LCHE142038	£3,000	Technical Note previously shared with Panel March 2015	G
38	Highwood Road, Edney Common	Traffic management improvements - Remove centre white line/renew SLOW road markings/build outs at play ground/public house with priority flow, estimated cost £8,500 next stage detailed design	Speed of traffic	Parish Council	Highwood	Traffic Management	Design	LCHE142039	£3,000	Technical Note previously shared with Panel March 2015	G

Chelmsford City Local Highways Panel - Potential Schemes List (Version 24)

Total Value of schemes	£298,750
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Comments Key	March Panel First priority	March Panel Second Priority
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Ref	Location	Description	Problem	Requested by	Parish	Scheme Category	Scheme stage	Cost Code	Estimated cost	Comments	RAG
39	Highwood Road Edney Common to Loves Green, including St Peter Church	Pedestrian footway- 1.2m walkable verge, crossing point at Highwood Road and removal of informal layby at St Peters Church, estimated cost £105,000 next stage detailed design	Lack of footway/walkable verge	Parish Council	Highwood	Traffic Management	Design	LCHE142040	£3,500	Technical Note previously shared with Panel March 2015	G
40	Paper Mill Bridge North Hill j/w Moden Hall Lane, Little Baddow	Flood Warning Improvement measures - flood gauges, flood sensors, verge marker posts, upgraded signs and ditch/vegetation clearance	Flooding Improvement Measures following feasibility study under LCHE142009	Parish Council	Little Baddow	Traffic Management	Total scheme	LCHE152003	£25,000	Feasibility study previously shared with Panel March 2015	G
41	Hammonds Road/Church Road, Little Baddow/Boreham	Flood Warning Improvement measures - flood gauges, flood sensors, verge marker posts, upgraded signs and ditch/vegetation clearance	Flooding Improvement Measures following feasibility study under LCHE142008	Parish Council	Little Baddow	Traffic Management	Total Scheme	LCHE152010	£25,000	Feasibility study available in Designs & Feasibility Reports	G
42	B1002 Main Road, Wantz Road/Writtle Road, Margaretting	Reduction from 40 mph to 30 mph	Speed of traffic	Parish Council	Margaretting	Traffic Management	Total scheme	LCHE132059	TBC	In validation	TBC
43	Dowsetts Lane (Norton Place to Woodside), Ramsden Heath	Traffic Management Improvements	Speed of traffic	Councillor	Ramsden Heath	Traffic Management	Total Scheme	LCHE152011	TBC	In validation	TBC
44	A1245/A132 Roundabout, Rettendon	Lane marking on RAB - Option 1 - Guidance lane marking on RAB and additional signs on A132 Option 2 - As option 1 but with lead in road markings	Improvements to lane markings	Parish Council	Rettendon	Traffic Management	Total scheme	LCHE142019	£17,500	Technical Note previously shared with Panel March 2015	G
45	Maltings Road, Rettendon	Traffic management improvements to single track road	Speed of traffic	Parish Council	Rettendon	Traffic Management	Total scheme	LCHE142084	TBC	In validation	TBC

Chelmsford City Local Highways Panel - Potential Schemes List (Version 24)

Total Value of schemes	£298,750
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Comments Key	March Panel First priority	March Panel Second Priority
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Ref	Location	Description	Problem	Requested by	Parish	Scheme Category	Scheme stage	Cost Code	Estimated cost	Comments	RAG
46	Bridge over River Crouch, Hawk Hill, Battlesbridge	Signalisation of priority working over bridge	Frequently two cars try to cross bridge at same time causing a "face to face" stand off in middle of bridge	Parish Council	Rettendon	Traffic Management	Feasibility	LCHE152001	£2,000	Validation - Signalisation of bridge could cost £160k, it is first advised to carry out Road Safety Assessment of proposal to address any safety concerns/risks of signalisation. Also existing scheme LCHE142030 to improve signage on bridge.	G
47	Woodhill Road (S/O Sandon School), Sandon	Bollards to prevent verge parking	vehicles parking on footway	Parish Council	Sandon	Traffic Management	Total scheme	LCHE142065	£10,500	Validation - bollards/footway improvements	G
48	Sporhams Lane, Sandon	Suggestion to be classified as a Quieter Lane	Narrow lane, often used as a "rat run" or short cut	Parish Council	Sandon	Traffic Management	Total Scheme	LCHE152012	TBC	In validation	TBC
49	King Edwards Road, South Woodham Ferrers	Traffic management improvements suitable for bus service	Speed of traffic	Town Council	South Woodham Ferrers	Traffic Management	Total scheme	LCHE142013	TBC	Awaiting results of feasibility study	TBC
50	Springfield Green, Springfield	Pedestrian crossing facility	Lack of pedestrian crossing facilities	Councillor	Springfield	Traffic Management	Total scheme	LCHE142060	£40,000	Validation - PV ² data 0.249x10 ^{^8} , therefore upgrade to zebra crossing	G
51	Stump Lane, Springfield	Pedestrian crossing facility	Lack of pedestrian crossing facilities	Councillor	Springfield	Traffic Management	Total scheme	LCHE142061	NA	Validation - PV ² data 0.029x10 ^{^8} , recommendation not to proceed with crossing also poor visibility of crossing point	R

Chelmsford City Local Highways Panel - Potential Schemes List (Version 24)

Total Value of schemes **£298,750**

Comments Key **March Panel First priority** **March Panel Second Priority**

Ref	Location	Description	Problem	Requested by	Parish	Scheme Category	Scheme stage	Cost Code	Estimated cost	Comments	RAG
52	Tyrells School, Springfield - Tavistock Rd/Bodmin Rd/Taunton Rd, Springfield	20 mph zone	Speed of traffic	Councillor	Springfield	Traffic Management	Feasibility	LCHE142066	£5,000	Validation - Feasibility study/residents consultation into 20 mph zone (with traffic calming/TRO) or 20 mph speed limit (lit terminal signs/repeaters/TRO)	G
53	Pollards Green, Springfield	20 mph speed limit	Speed of traffic	Parish Council	Springfield	Traffic Management	Total scheme	LCHE132064	TBC	In validation	TBC
54	Chancellor Avenue j/w Chelmer Village Way, Springfield	Pedestrian guard rail	Lack of pedestrian guard rail	Parish Council	Springfield	Traffic Management	Total Scheme	LCHE152009	TBC	In validation	TBC
55	Honeypot Lane, Stock	Speed reduction 60mph to 40mph	Speed of traffic	Parish Council	Stock	Traffic Management	Total scheme	LCHE142056	£8,000	Validation - in 60mph limit, mean average speeds north/northeast bound 29.7mph/25.1mph and south/south-east bound 31.7 mph/26.7mph. Speeds below 40 mph, due to embankment locating repeater signs could be problematic	G
56	High Street, Stock	Route enhancement study	Speed of traffic	Parish Council	Stock	Traffic Management	Total scheme	LCHE132043	£3,000	Study suggested following request for 20 mph speed limit/average speed camera	G
57	Buttsbury Bridge, Stock	Bridge Improvements - Option1	Narrow bridge, routinely damaged	Parish Council	Stock	Traffic Management	Total scheme	LCHE142080	£6,500	Feasibility study previously shared with Panel March 2015	G
58	Buttsbury Bridge, Stock	Bridge Improvements - Option2	Narrow bridge, routinely damaged	Parish Council	Stock	Traffic Management	Total scheme	LCHE142080	£8,800	Feasibility study previously shared with Panel March	G
59	Buttsbury Bridge, Stock	Bridge Improvements - Option3	Narrow bridge, routinely damaged	Parish Council	Stock	Traffic Management	Total scheme	LCHE142080	£17,700	Feasibility study previously shared with Panel March	G

Chelmsford City Local Highways Panel - Potential Schemes List (Version 24)

Total Value of schemes	£298,750
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Comments Key	March Panel First priority	March Panel Second Priority
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Ref	Location	Description	Problem	Requested by	Parish	Scheme Category	Scheme stage	Cost Code	Estimated cost	Comments	RAG
60	Mill Road j/w High Street, Stock	Signage improvements, often several a-boards at this location	Lack of signage	Parish Council	Stock	Traffic Management	Total scheme	LCHE142086	NA	Validation - against ECC policy to sign businesses and goes against DfT guidelines on signage clutter. Possible enforcement if a-boards distracting	R
61	B1007 east of jw Downham Road, Stock	Speed reduction from 60 mph to 30mph	Speed of traffic	Parish Council	Stock	Traffic Management	Total scheme	LCHE142087	TBC	In validation - speed data feeding into validation	TBC
62	Mill Road to jw Downham Road, Stock	Speed reduction from 60mph to 40mph	Speed of traffic	Parish Council	Stock	Traffic Management	Total scheme	LCHE142088	TBC	In validation - speed data feeding into validation	TBC
63	Brookmans Road jw Back Lane, Stock	Bollards on verge to prevent verge damage	Vehicles damaging verge	Parish Council	Stock	Traffic Management	Total scheme	LCHE142089	£25,000	Validation - Option 1 approach Parking partnership for junction protection parking restrictions, Option 2 reduce width of verge, install HGV overrun to allow easier turning for larger vehicles	G
64	St Marys Church, Ingatestone Road, Buttsbury	Bend improvements	Bend needs highlighting	Parish Council	Stock	Traffic Management	Total scheme	LCHE142090	£2,000	Validation - recent Safer Roads scheme carried out, could install Chevron sign on island to warn drivers of bend travelling south	G
65	Church Road, West Hanningfield	Traffic management improvements to address speed of traffic	Speed of traffic	Parish Council	West Hanningfield	Traffic Management	Total scheme	LCHE142097	TBC	In validation	TBC

Chelmsford City Local Highways Panel - Potential Schemes List (Version 24)

Total Value of schemes	£298,750
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Comments Key	March Panel First priority	March Panel Second Priority
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Ref	Location	Description	Problem	Requested by	Parish	Scheme Category	Scheme stage	Cost Code	Estimated cost	Comments	RAG
66	Lordship Road, Writtle	Extension of 30 mph speed limit	Speed of traffic	Parish Council	Writtle	Traffic Management	Total scheme	LCHE142062	NA	Validation - speed data within 40 mph limit at two locations south bound 37.6mph and 38.2 mph and north bound 37.3 mph and 38.0 mph, good compliance. Also deemed not appropriate for 30 mph limit during 2011 Speed Limit review	R
67	Ongar Road/Lordship Road, Writtle	Route enhancement study	Speed/volume of traffic	Parish Council	Writtle	Traffic Management	Total scheme	LCHE142014	TBC	Awaiting results of enhancement study	R
68	Bus Stop Opposite Hyland's School, Chelmsford Road, Writtle	Pedestrian crossing improvements	lack of pedestrian crossing facilities	Parish Council	Writtle	Traffic Management	Total Scheme	LCHE152008	TBC	In validation	TBC
69	Hylands School Chelmsford Rd	Construction of widened footpath outside school at bus stop and side/widen existing footways from Writtle to School	Narrow footway for pedestrians	Parish Council	Writtle	Traffic Management	Total Scheme	LCHE142018	£16,000	Scheme started but stopped due to shallow cables and water ingress issues. Due to re-start but scheme top-up of £16k required to address cables and drainage.	G

Chelmsford City Local Highways Panel - Potential Schemes List (Version 24)

Walking

Total Value of schemes	£10,000
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Comments Key	March Panel First priority	March Panel Second Priority
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Ref	Location	Description	Problem	Requested by	Parish	Scheme Category	Scheme stage	Cost Code	Estimated cost	Comments	RAG
1	O/s 148, Kings Road, Chelmsford	Footway crossing verge	Pedestrian footway improvements	Councillor	Chelmsford Non Parished	Walking	Total scheme	LCHE153001	£10,000	Validation - crossing point with dropped kerbs	G

Chelmsford City Local Highways Panel - Potential Schemes List (Version 24)

Passenger Transport

Total Value of schemes	£17,500
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Comments Key	March Panel First priority	March Panel Second Priority
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Ref	Location	Description	Problem	Requested by	Parish	Scheme Category	Scheme stage	Cost Code	Estimated cost	Comments	RAG
1	Outside United Reformed Church, North Avenue, Chelmsford	Relocate bus cage to prevent obstruction to Church Car Park	Existing cage can obstruction to car park entrance	Councillor	Chelmsford Non Parished	Passenger Transport	Total scheme	LCHE155002	NA	Scheme now being carried out as part of a maintenance scheme	R
2	The Blue Lion, Baddow Road, Great Baddow	Bus stop number 3408707 - Parish Request for replacement wooden shelter with seating	Parish Council request	Passenger Transport team	Great Baddow	Passenger Transport	Total scheme	LCHE155001	£12,000		G
3	Beehive Lane jw Firecrest, Chelmsford	Improvements to junction to allow larger busses to use it	Larger buses are damaging the junction	Passenger Transport team	Great Baddow	Passenger Transport	Feasibility	LCHE155019	£3,000	Validation recommends feasibility study into junction improvements.	G
4	Dovedale Close Bus Stop, Downham Road, Ramsden Heath	Stop ID07010003 - Bus Cage 19 metres	Bus stop improvement	Passenger Transport team	Ramsden Heath	Passenger Transport	Total scheme	LCHE145017	£2,500	Cars are parking either side of the existing bus cage but the cage is too short to allow the bus to access & exist the stop. Passengers having to alight/board bus on road and cannot sue raised kerbs at stop	G

Chelmsford City Local Highways Panel - Potential Schemes List (Version 24)

School Crossing Patrols

Total Value of schemes	£23,000
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Comments Key	March Panel First priority	March Panel Second Priority
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Ref	Location	Description	Problem	Requested by	Parish	Scheme Category	Scheme stage	Cost Code	Estimated cost	Comments	RAG
1	Melbourne Avenue Chelmsford RAB jw West Avenue/North Avenue	Pedestrian guard rail at raised table	Lack of pedestrian guard rail	Councillor	Chelmsford Non Parished	School Crossing Patrols	Total scheme	LCHE146001	£11,500	Validation - Pedestrian guard rail at corssing point and improvements to tactile paving	G
2	Kings Road Primary School on Kings Road, Chelmsford	Dropped kerb for crossing patrol site	Existing crossing point opposite access road, with no dropped kerbs on one side	School Crossing Patrol team	Chelmsford Non Parished	School Crossing Patrols	Total scheme	LCHE146002	£8,000	Validation - dropped kerbs/tactile paving on both sides of crossing point	G
3	Kings Road Primary School on Corporation Road, Chelmsford	Bollards on service road to be relocated to prevent parking	Crossing Patrol improvement	School Crossing Patrol team	Chelmsford Non Parished	School Crossing Patrols	Total scheme	LCHE146003	TBC	In validation	
4	Beehive Lane nr Honeypots, Chelmsford	Changes to pedestrian guard rail on footway	Pedestrian guard rail in wrong location will not allow dropped kerbs/tactile paving	School Crossing Patrol team	Chelmsford Non Parished	School Crossing Patrols	Total scheme	LCHE146004	£3,500	Validation - to relocate patrol away from existing location to allow dropped crossings/tactile paving	G

Chelmsford City Local Highways Panel - Potential Schemes List (Version 24)

Public Rights of Way

Total Value of schemes	£30,000
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Comments Key	March Panel First priority	March Panel Second Priority
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Ref	Location	Description	Problem	Requested by	Parish	Scheme Category	Scheme stage	Cost Code	Estimated cost	Comments	RAG
1	PRoW Footpath 5 Hollow Lane, Broomfield	Drainage improvements - ditch clearance/cut back vegetation/replace culvert	PROW improvement	PRoW team	Broomfield	Public Rights of Way	Total scheme	LCHE148008	£25,000		G
2	PROW Footpath 95 Chelmsford	Investigation on-going into installing drainage in existing surfaced city centre footpath	PROW improvement	PRoW team	Chelmsford Non Parished	Public Rights of Way	Total scheme	LCHE148002	TBC	Awaiting results of investigation	TBC
3	PROW Footpath 13 Good Easter	Investigation on-going into revetment between River Can and existing footpath	PROW improvement	PRoW team	Good Easter	Public Rights of Way	Total scheme	LCHE148001	TBC	Awaiting results of investigation	TBC
4	PRoW Footpath 33, Downham, South Hanningfield	Surface improvements - 270m with a width of 1 to 1.5m, laying road planings	PROW improvement	PRoW team	South Hanningfield	Public Rights of Way	Total scheme	LCHE148009	£5,000		G

Chelmsford City Local Highways Panel - Potential Schemes List (Version 24)

Cycling

Total Value of schemes	£588,140
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Comments Key	March Panel First priority	March Panel Second Priority
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Ref	Location	Description	Problem	Requested by	Parish	Scheme Category	Scheme stage	Cost Code	Estimated cost	Comments	RAG
1	Westway, Chelmsford	CH35 - Off Road route on western footway between A141 and Writtle Road - design previously funded	Cycling route improvement	Cycling team	Chelmsford Non Parished	Cycling	Total scheme	LCHE144009	£150,000	Cycling team looking at sources of funding. Design in Feasibility and Design Reports	A
2	High Street, Chelmsford	Panel has funded feasibility study into south-north cycling through Chelmsford avoiding High Street - study results awaited	Cycling route improvement	Cycling team	Chelmsford Non Parished	Cycling	Total scheme	LCHE144011	TBC	Awaiting results of feasibility study	
3	Longstombs Cycleway, Chelmsford	Create shared footway/cycleway	Improvements to National Cycle Route 13, along busy section of Longstombs	Cycling team	Chelmsford Non Parished	Cycling	Total scheme	LCHE154003	£100,000		G
4	West Park, Chelmsford	Install a 3.5m replacement bridge on existing alignment	Design of replacement footbridge currently not part of Highways Network, which would need to be addressed	Cycling team	Chelmsford Non Parished	Cycling	Design	LCHE154006	£65,000		G
5	Lawn Lane/ Waveney Drive, Chelmsford	Unsegregated shared footway/cycleway & advisory cycle lane	Lack of connectivity/ continuity of cycle network into Springfield	Cycling team	Chelmsford Non Parished	Cycling	Implementation	LCHE154010	£40,000		G
6	White Hart Lane (Sainsbury's) to Beaulieu Park, Springfield	Phase 2B - Raise bridge parapet, Phase 2C - widen footway bridge to School access, Phase 2D - TRO/Tactile paving/Signs	To allow completion of cycleway/footway connection	Cycling team	Springfield	Cycling	Total Scheme	LCHE144004	£225,000	To complete cycleway/footway	G
7	Writtle Route, Writtle	Solar lights/studs at 10m intervals	Mainly rural unlit route	Cycling team	Writtle	Cycling	Total scheme	LCHE154005	£8,140		G

Chelmsford City Local Highways Panel - Potential Schemes List (Version 24)

Safer Roads

Total Value of schemes	£151,400
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Comments Key	March Panel First priority	March Panel Second Priority
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Ref	Location	Description	Problem	Requested by	Parish	Scheme Category	Scheme stage	Cost Code	Allocated Budget	Comments	RAG
1	Near Leighams Farm, Leighams Road, Bicknacre	Design on-going for signage and road marking improvements - awaiting results of design	Casualty Reduction Scheme	Safer roads team	Bicknacre	Safer Roads	Total scheme	LCHE141001	TBC	In design	TBC
2	A414 Three Mile Hill junction with A12 Junction 15, Chelmsford	Investigate junction improvements - signage and vegetation clearance	Casualty Reduction Scheme	Safer roads team	Chelmsford Non Parished	Safer Roads	Total scheme	LCHE151005	£25,000	Scheme costs cover electrical connections, passively safe posts and lighting units	G
3	A414 Main Road near The Griffin Public House, Danbury	Investigate bend improvements - signage and lining	Casualty Reduction Scheme	Safer roads team	Danbury	Safer Roads	Total scheme	LCHE151006	£7,400	Scheme costs cover electrical connections, passively safe posts and lighting units	G
4	B1008 Chelmsford Road, Ford End to Barnston	Improvements to existing bend ahead warning signs and investigation of carriageway widening	Casualty Reduction Scheme	Safer roads team	Great Waltham	Safer Roads	Implementation	LCHE151008	£28,000	Scheme now designed and costed	G
5	A132 Runwell Road junction with A130 northbound slip road, Runwell	Investigate signal timing and vegetation clearance	Casualty Reduction Scheme	Safer roads team	Runwell	Safer Roads	Total scheme	LCHE151002	£3,000	Scheme in design, original estimate £3k	G
6	Church Lane junction with Lawn Lane, Springfield	Investigate cycle link improvements and junction design	Casualty Reduction Scheme	Safer roads team	Springfield	Safer Roads	Total scheme	LCHE151003	£58,000	Scheme in design, original estimate £58k	G
7	B1007 High Street near junction with Common Road, Stock	Investigate widening footway and clearing vegetation	Casualty Reduction Scheme	Safer roads team	Stock	Safer Roads	Total scheme	LCHE151004	£30,000	Scheme design available in Feasibility & Design Reports	G

Chelmsford City Local Highways Panel

Design/Feasibility Studies Reports – June 2015

The following Feasibility Studies/Designs/Additional Information are attached for the information of the Panel.

Page 2 to 3

From Approved Works Programme – Recommended Schemes - In Progress
Scheme 56 – LCHE154009 - Princes Road, Chelmsford
Design of cycleway/footway done under LCHE134009

Also under –

From Approved Works Programme – Recommended Schemes -Designs & Feasibility
Scheme 4 – LCHE134009 – Princes Road, Chelmsford
Design of cycling scheme, scheme funded under LCHE154009

Page 4

From Approved Works Programme – Recommended Schemes - Designs & Feasibility
Scheme 3 – LCHE134007 – Westway, Chelmsford
Design of cycling scheme, implementation on Potential Schemes List

Also under –

Potential Schemes List – Cycling
Scheme 1 – LCHE144009 – Westway Chelmsford
Design of cycleway

Page 5 to 41

Approved Works Programme – Recommended Schemes - Designs & Feasibility
Scheme 6 – LCHE142008 – Hammonds Road/Church Road, Little Baddow
Feasibility Study – Flood Warning improvements

Page 42 to 59

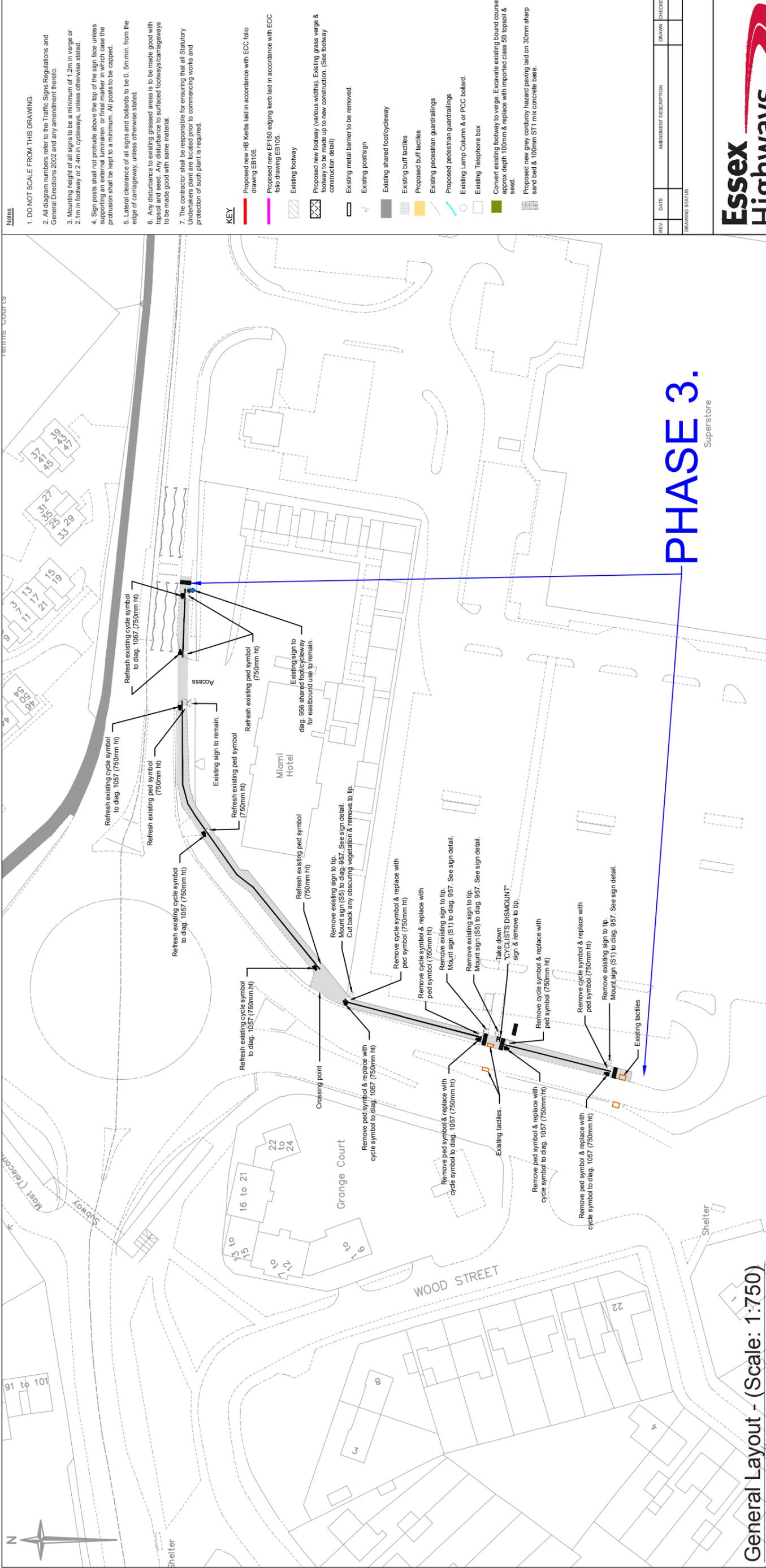
Potential Schemes List – Traffic Management
Scheme 7 – LCHE142081 – Main Road near Erick Avenue, Broomfield
Road Safety Assessment – Pedestrian Crossing

Page 60

Potential Schemes List – Safer Roads
Scheme 6 – LCHE151003 – Church Lane/Lawn Lane, Chelmsford
Design of cycleway improvements

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Potential Schemes List – Safer Roads
Scheme 7 – LCHE151004 – B1007 High Street near junction with Common Road
Stock
Design of footway widening



General Layout - (Scale: 1:750)
Sign, Post & Foundation Detail

PHASE 3.
Superstore

Typical shared cycle / footway construction details - Section A-A - NTS

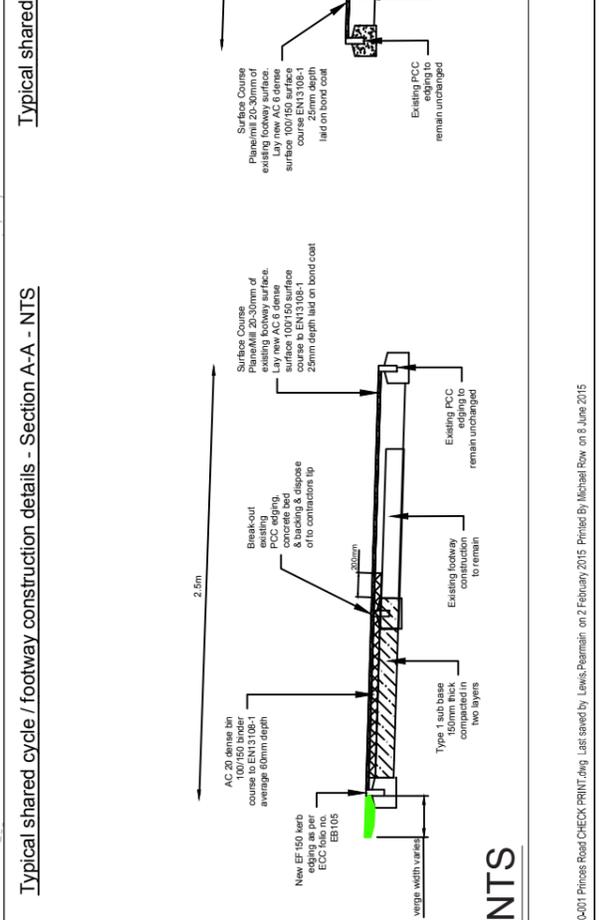
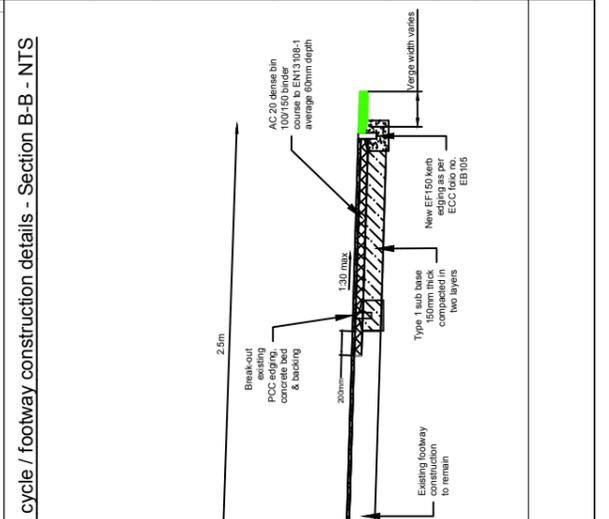
Typical shared cycle / footway construction details - Section B-B - NTS

NOTES

- DO NOT SCALE FROM THIS DRAWING.
- All diagram numbers refer to the Traffic Signs Regulations and General Directions 2002 and any amendment thereto.
- Mounting height of all signs to be a minimum of 1.2m in verge or 2.1m in roadway or 2.4m in cycleways, unless otherwise stated.
- Sign posts shall not protrude above the top of the sign face unless additional or supplementary signs are mounted on the post. The protrusion shall be kept to a minimum. All posts to be capped.
- Lateral clearance of all signs and bollards to be 0.5m min. from the edge of carriageway, unless otherwise stated.
- Any disturbance to existing grassed areas is to be made good with topsoil and seed. Any disturbance to surfaced footways/carriageways to be made good with same material.
- The contractor shall be responsible for ensuring that all Statutory Undertakers plants are located prior to commencing works and protection of such plant is required.

KEY

- Proposed new HB Kerbs laid in accordance with ECC folio drawing EB105.
- Proposed new EF150 edging kerb laid in accordance with ECC folio drawing EB105.
- Existing footway
- Proposed new footway (various widths). Existing grass verge & footway to be made up to new construction. (See footway construction detail)
- Existing metal barrier to be removed.
- Existing post/sign
- Existing shared foot/cycleway
- Existing buff facilities
- Proposed buff facilities
- Existing pedestrian guardrailings
- Proposed pedestrian guardrailings
- Existing Lamp Column & or PCC bollard.
- Existing Telephone box
- Convert existing footway to verge. Excavate existing bound course approx. depth 100mm & replace with imported class 5B topsoil & seed.
- Proposed new grey corduroy hazard paving laid on 30mm sharp sand bed & 100mm S11 mix concrete base.



General Layout - (Scale: 1:750)
Sign, Post & Foundation Detail

Sign A

Sign B

Scheme Ref.	DC1745	Sign Reference	966 Updated	X - height	Z5
Letter colour	WHITE	SIGN FACE			
Background	BLUE	Width	420mm		
Border	WHITE	Height	195mm		
Material	See Ref (1288-1289)	Area	0.084sq.m		

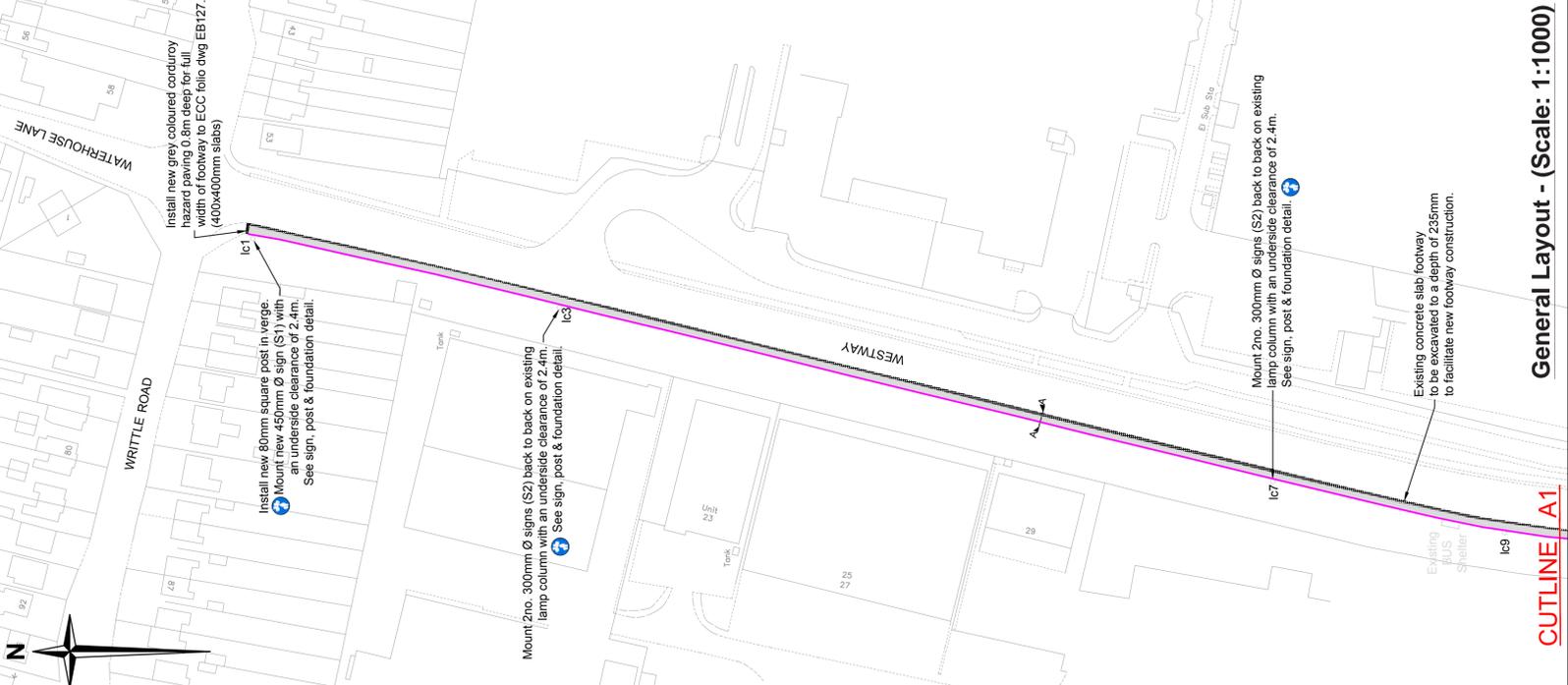
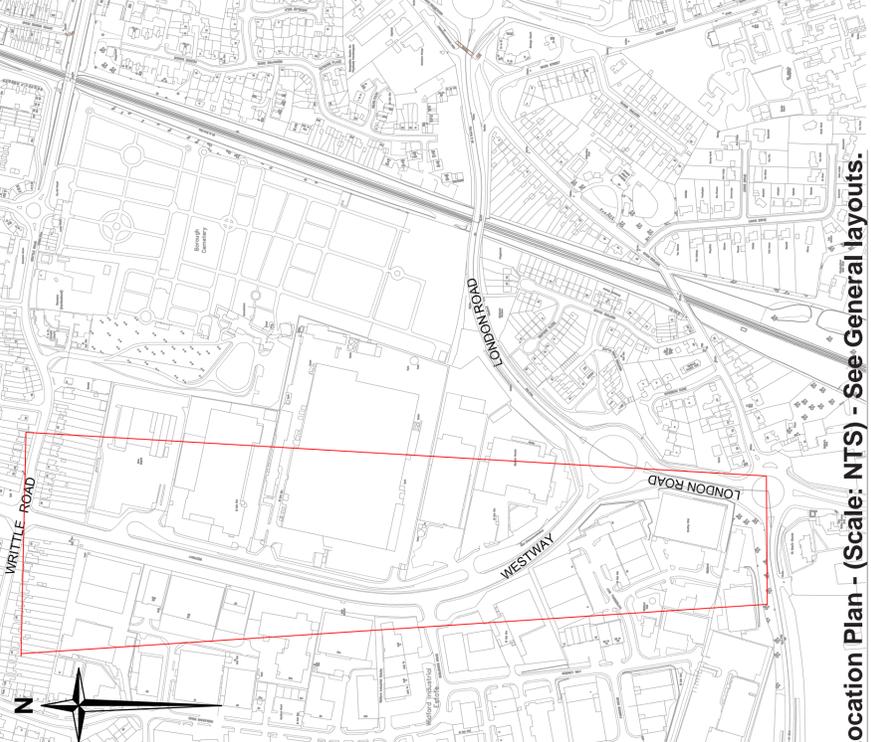
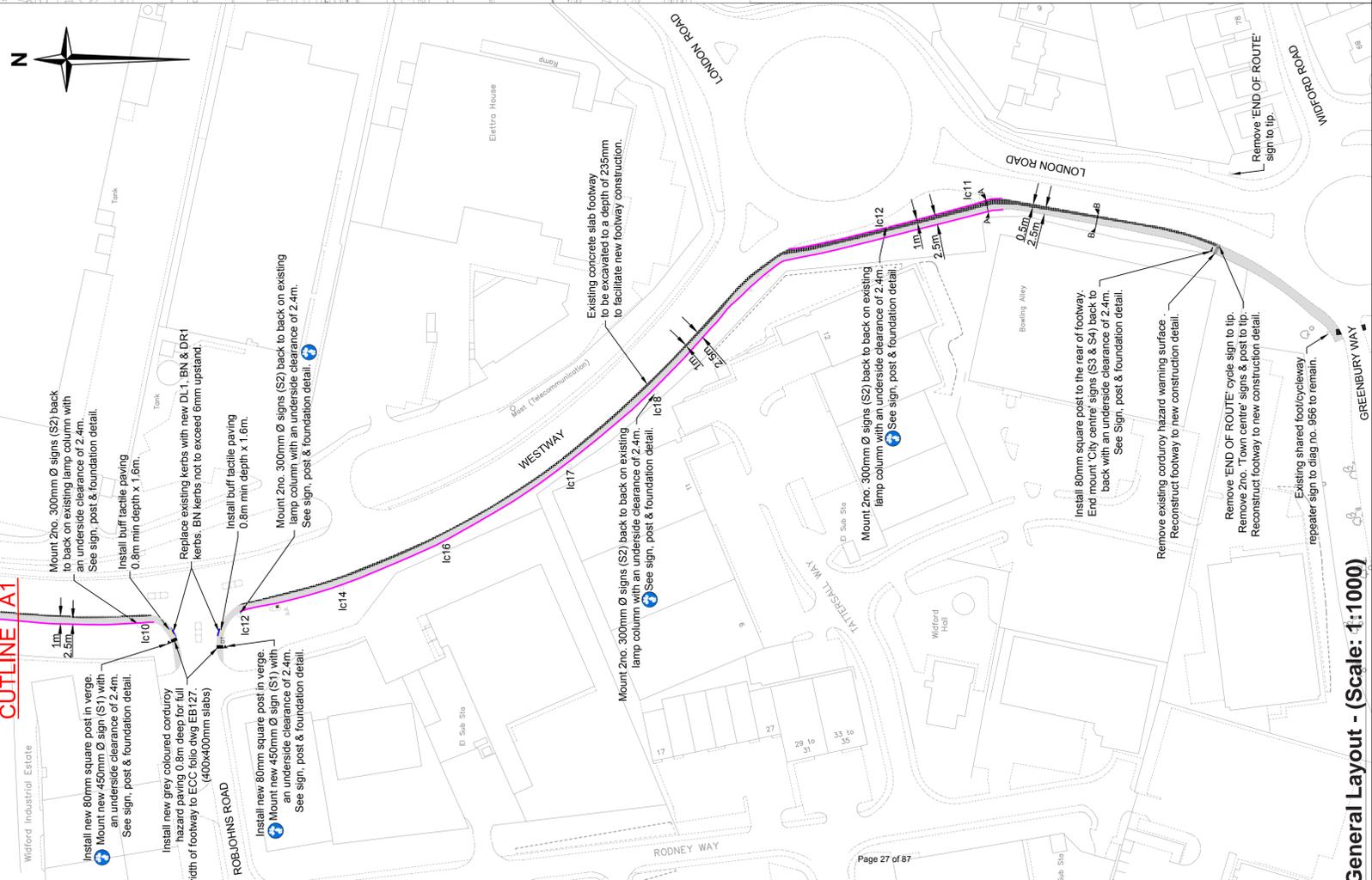
Sign Reference	956	Height	450mm	Width	450mm	Area	0.202sq.m	Material	See Ref (1288-1289)	Mount Height	2400	Area	0.084sq.m
POST(S) & FOUNDATIONS		Mounting Height	2400mm	Bases	Incl'd/Excl'd								
		Number	1	Base Width	600mm								
		Size	76mm	Base Length	600mm								
		Length	3550mm	Base Depth	600mm								
		Centre	N/A	Base Vol. o/a	0.216 m ³								
		Illumination	No	Earth Cover	100mm								

NTS

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File Location N:\9 Trans Imp\DC1\Projects\DC Scheme Files\2014-15\DC3186 - Princess Road, Chelmsford Cycle scheme3 - Drawing Records\DC3186-00-01 Princess Road CHECK PRINT.dwg. Last saved by: Lewis.Pearman on 2 February 2015. Printed by: Michael Row on 6 June 2015.

CUTLINE A1

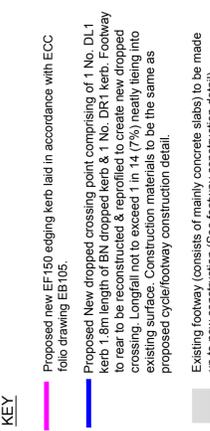


- NOTES**
- DO NOT SCALE FROM THIS DRAWING.
 - All diagram numbers refer to the Traffic Signs Regulations and General Directions 2002 and any amendment thereto.
 - Mounting height of all signs to be a minimum of 1.2m in verge or 2.1m in footway or 2.4m in cycleways, unless otherwise stated.
 - Sign posts shall not protrude above the top of the sign face. All posts to be capped.
 - Lateral clearance of all signs and bollards to be 0.5m minimum from the edge of carriageway, unless otherwise stated.
 - Any disturbance to existing grassed areas is to be made good with topsoil and seed. Any disturbance to surfaced footways/cycleways/kerbs is to be made good with same material.
 - Cut back any overhanging vegetation along the new shared foot/cycleway.
 - The contractor shall be responsible for ensuring that all Statutory Undertakers plant are located prior to commencing works and protection of such plant is required.

- KEY**
- Proposed new EF160 edging kerb laid in accordance with ECC folio drawing EB105.
 - Proposed New dropped crossing point comprising of 1 No. DL1 kerb 1.8m length of BN dropped kerb & 1 No. DR1 kerb. Footway to rear to be reconstructed & repurfed to create new dropped crossing. Longfall not to exceed 1 in 14 (7%) neatly lying into existing surface. Construction materials to be the same as proposed cycle/footway construction detail.
 - Existing footway (consists of mainly concrete slabs) to be made up to new construction (See footway construction detail)
 - Proposed new footway widening (various widths) Existing grass verge to be made up to new construction (See footway construction detail)
 - Existing post & sign
 - Existing posts & sign
 - New post & sign
 - New corduroy hazard warning surface to ECC Folio dwg EB127
 - New buff facilities to be installed
 - Existing traffic lights camera
 - Existing BT
 - Existing buff facilities to remain
 - Existing lamp columns - with reference numbers
 - Existing pedestrian refuge island

DRAWING STATUS

REV	DATE	AMENDMENT DESCRIPTION	DRAWN	CHECKED



Chelmsford - LHP
 Westway & London Rd
 Chelmsford
 LCHE134007

APPROVED

Unsegregated Shared Cycle/Footway
 General Arrangement

DRAWING TITLE

DESIGNED	DRAWN	CHECKED	REVIEWED	APPROVED
LMP	LMP	JAL	LMP	MBS

DATE	DATE	DATE	DATE	DATE
NOV 14	MAY 15	MAY 15	MAY 15	JUN 15

SCALE AT A1 (1:180x44mm)

DRAWING UNITS: DIMENSIONS IN MILLIMETRES AS SHOWN

DRAWING NO. DC1-3187-11-001

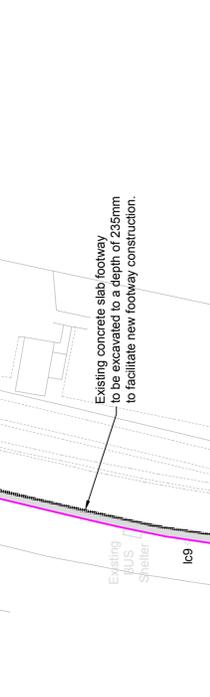


Sign Reference 956

Height	300mm
Width	300mm
Area	0.07 sq.m
Material	Class RA2 (12899-1:2007)
Mount Height	2400

Sign Reference 956

Height	450mm
Width	450mm
Area	0.10sq.m
Material	Class RA2 (12899-1:2007)
Mount Height	2400

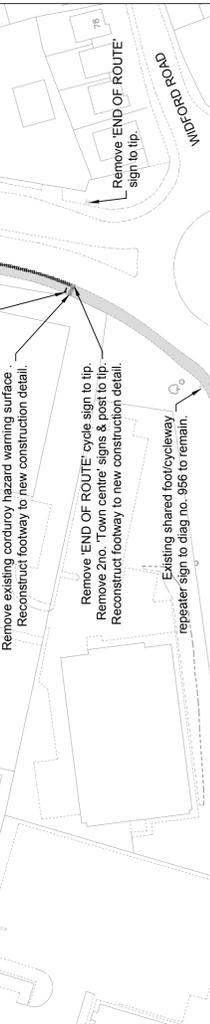


POST(S) & FOUNDATIONS

Mounting Number	Height	Bases	Individual
1	2400mm	Base Width 350mm Base Length 600mm	350mm 600mm
2	80mm	Base Length 600mm Base Depth 600mm	600mm 600mm
Centres	N/A	Base Vol. o/a 0.126 m ³ Earth Cover 100mm	0.126 m ³ 100MM
Clearance of foundation			100MM

S3 & S4 Installation detail.

POST(S) & FOUNDATIONS	Bases	Individual
Mounting Number 1	Base Width 350mm Base Length 600mm	350mm 600mm
Size	Base Length 600mm Base Depth 600mm	600mm 600mm
Centres	Base Vol. o/a 0.126 m ³ Earth Cover 100mm	0.126 m ³ 100mm
Clearance of foundation		100MM



NTS

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Feasibility Study

Hammonds Road, Chelmsford Flood Warning Improvement

Job Number:	DC3139
Doc Ref:	Feasibility Report
Author:	Adjeley Dsane

Document History

Revision	Purpose	Originated	Checked	Approved	Date
N/A	Draft for approval	ADJ	SM	CB	30-Mar-2015

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1. Introduction

1.1. *Project Background*

Funding of £10,000 was approved by the Chelmsford Local Highways Panel to investigate the existing flood warning signage at Hammonds Road / Church Road, Chelmsford. The Parish Council has identified flooding problems with the River Chelmer crossing both Hammonds Road in Little Baddow and Church Road in Boreham.

The Parish Council state that currently volunteers put up “Road Closed” signs during a flood occurrence, resulting in delays to traffic when flooding occurs overnight or the volunteers are not available.

They have also identified an issue with a lack of edge of carriageway marker posts and depth gauges of any standing water on the road. They state that since 2010, the Fire Service has been called six times to instances of flooding.

This feasibility study is therefore intended to review the existing flood warning signage and recommend improvement measures at locations where road users have access to alternative routes in the event of a flood.

These Improvement Measures include

1. Install depth gauges (Diag. 826) and marker posts (Diag. 561) at appropriate locations.
2. Consider automated wigwag signage (when in flood conditions) at appropriate locations (suggest Junction of Hammonds Road / Church Road or Hammonds Road / Phillow Barns Access and Church Road/Plantation Road and North Hill/Spring Close).

The Design team are required to:

- Carry out a Highway Boundary/Stats search on the proposal site
- Determine whether any progress has been made on a Countywide approach and consider this as well as incorporate the situation into the report
- Carry out a site visit and investigate the proposal, make a proposal recommendation
- Ensure Client/Network Management/HLO are happy with the proposal
- Produce a feasibility report for issue to the Local Highway Panel

20No. known customer complaints are recorded on Confirm relating to flooding issues at and close to Hammonds Road junction with Church Road, Chelmsford.

This scheme has the backing of the Chelmsford Local Highways Panel.

2. Existing Conditions

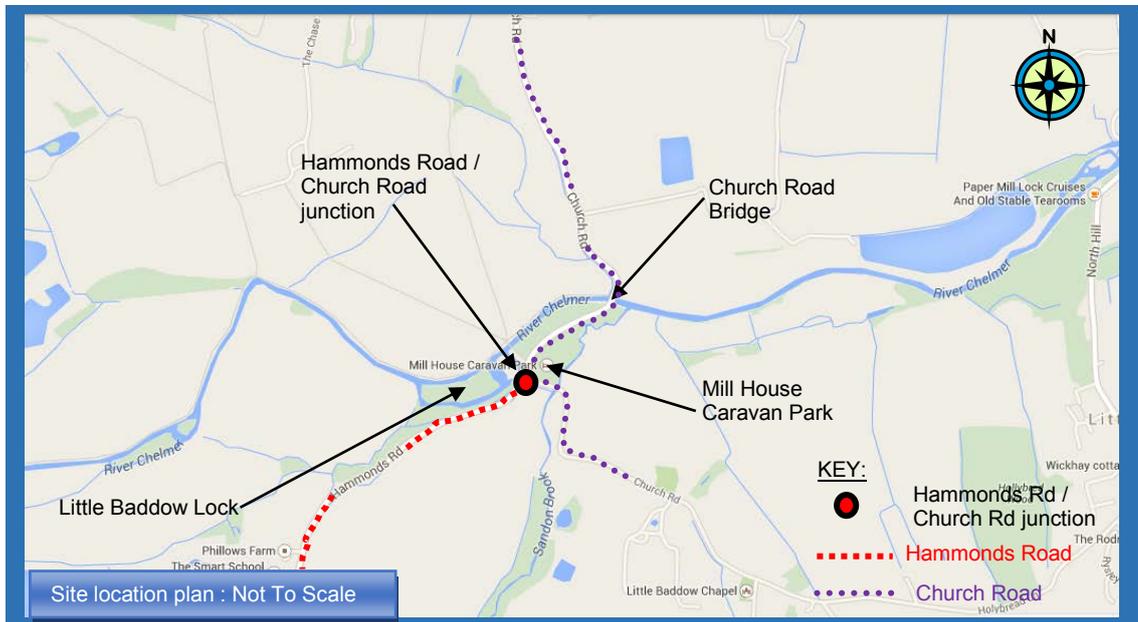
2.1 Location

Hammonds Road at Church Road junction is located east of Little Baddow Lock and just south of Boreham.

The section of highway believed to be affected when the River Chelmer floods, extends from Hammonds Road / Church Road junction and continues southwest along Hammonds Road for approximately 1km and along Church Road in the north-easterly direction for approximately 0.6km.

The River Chelmer crosses Church Road 0.5km northeast of the junction with Hammonds Road.

Both Hammonds Road and Church Road are rural single carriageways varying between 4m and 6m in width, without footways, except at the narrow bridge over the River Chelmer (Church Road) where a 1m footway forming part of the bridge deck exists.

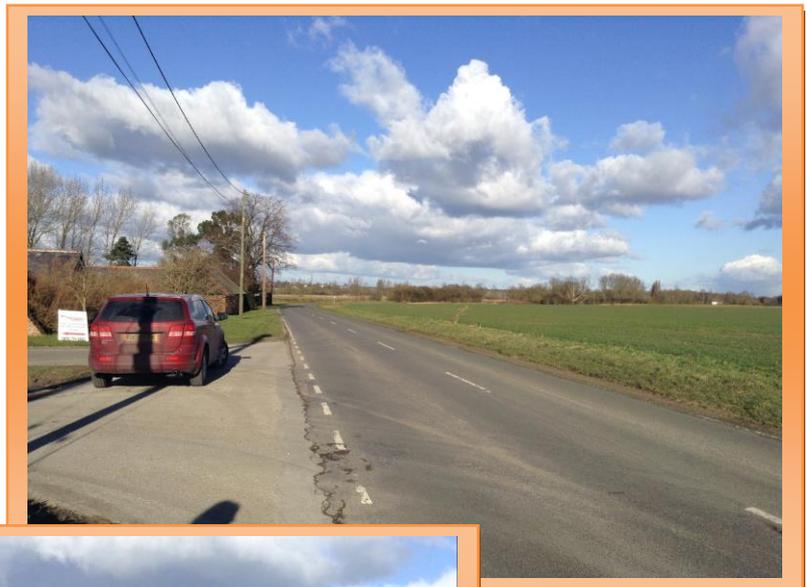


2.2 Land Use

Hammonds Road:

- Hammonds Road is a two-way single carriageway, predominantly rural with highway ditches on both sides.
- It links the A12 at the south to Little Baddow in the north.
- Little Baddow Public Footpaths Nos. 11 and 15 crosses Hammonds Road at two locations.
- The existing characteristics along Hammonds Road is a mixture of accesses to farms.

Hammonds Road at
Phillows Farm



Church Road:

- Church Road is a two-way single carriageway, predominantly rural, with Mill House Caravan Park and Little Baddow Lock accesses at it's junction with Hammonds Road.
- It joins up with Main Road (parallel to the A12) in the north and Hammonds Road in the south.
- Little Baddow Public Footpaths No. 78 and Boreham Public Footpaths Nos. 33 and 40 crosses Church Road with Boreham Public Footpaths Nos. 37 and 43 crossing Church Road at the bridge.
- There are highway ditches on both sides of the road.
- The existing characteristics along Church Road is a mixture of accesses to farms, the lock and residential properties, with a small amount of on-road parking just north of the bridge.



Church Road approach to Hammonds Road junction.

Church Road northbound approach to Church Road bridge.



3. Site Observations

3.1. *Site Visit: 05 February 2015 at 13:40 pm*

The following observations were made:-



Adjacent ditches on both sites of Church Road and Hammonds Road had been recently cleared with the spoil from the clearance piled up on adjacent verge.

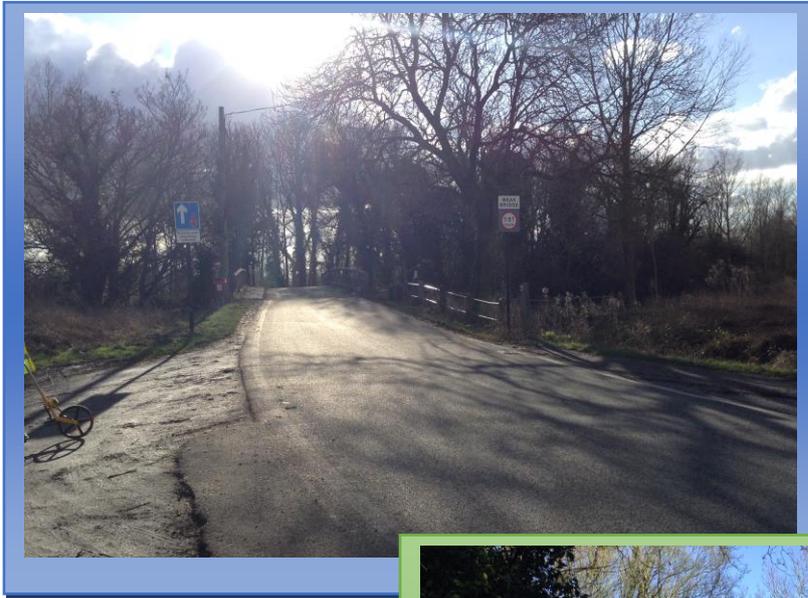




Church Road / Hammonds Road junction markings worn.

Existing road markings worn.





The 'Weak Bridge' signage 7.5t to TSRGD diagram 626.2A at the southbound approach to the bridge.



The 'Weak Bridge' sign is missing from the post at the northbound approach to the bridge



Vegetation obscuring village direction sign.

- Hammonds Road, Church Road and its approaches are within the national speed limit (60mph).
- Road gullies are present both sides of the junction and bridge.
- Public Footpaths Nos. 37 and 43 cross Church Road at both the north and south side of the bridge.



- No street lighting was present, except at the north end of Church Road from Walkfares to the B1137 Main Road.

3.2. *Existing Statutory Services*

During the site visit some statutory undertakers apparatus such as over-ground British Telecom (BT), gas service distribution, manhole covers, surface / storm water drainage (road gullies), etc. were identified.

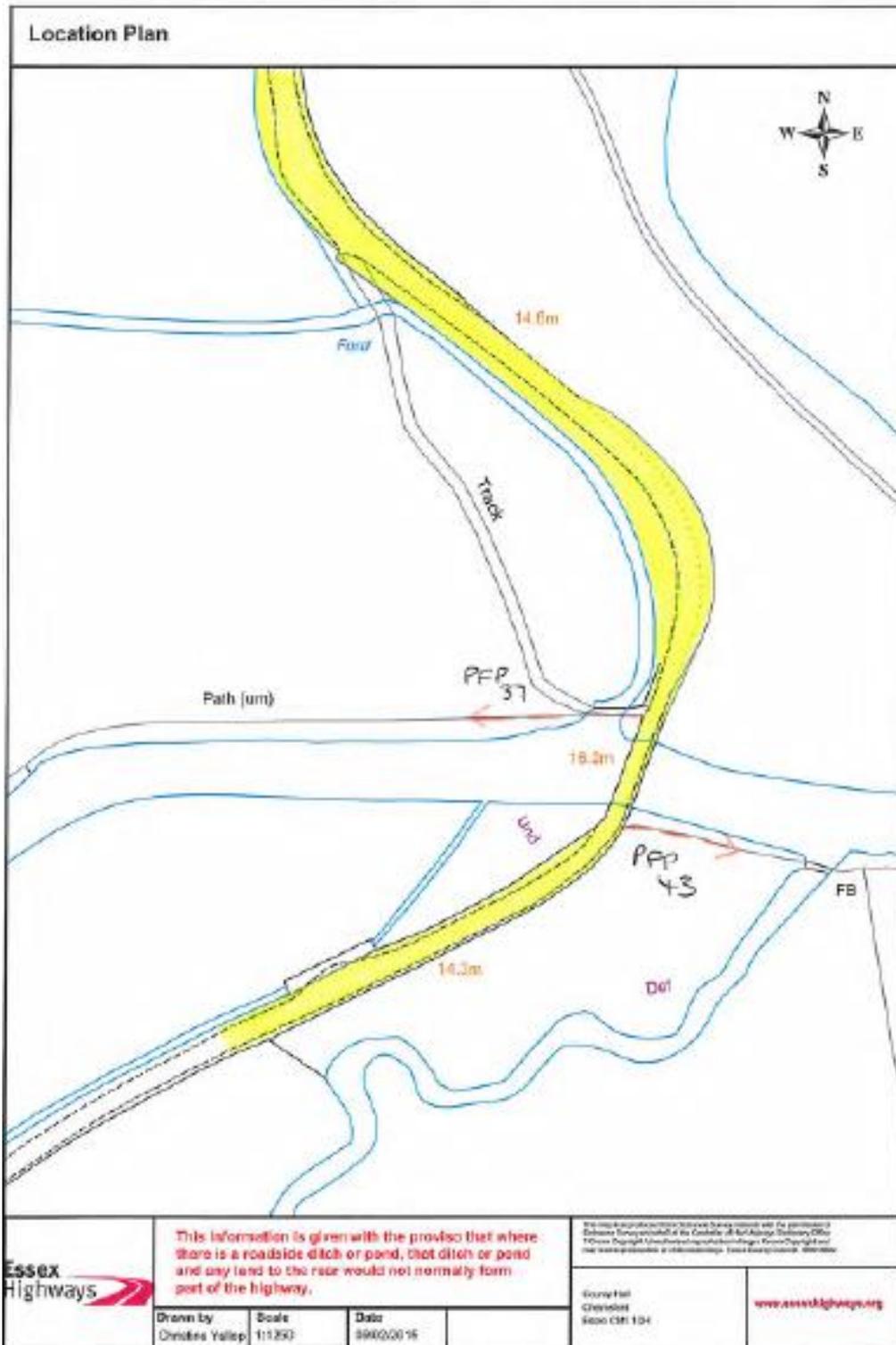
Initial searches of service providers were carried out as part of this study to ascertain the presence of existing apparatus. Copies of these plans, showing the indicative location of the buried services is provided in Appendix E.

The following list shows existing ‘statutory undertakers apparatus’ received as present within Church Road section of the bridge and it’s approaches.

Plans submitted by these companies are given without warranty and the accuracy thereof can not be anticipated.

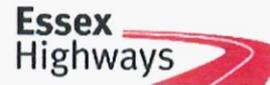
<u>Location</u>	<u>Service</u>	<u>Status</u>
Hammonds Road / Church Road	BT - (over-ground and underground) service	Present
	Electric National Grid / UKPN	Assumed – evidence on site. No records received
	Essex & Suffolk Water - distribution mains	Assumed – evidence on site. No records received
	Highway drainage – gullies present	Assumed – evidence on site. No records received

3.3. Highway Boundary



3.4. Pre-construction information

BP Ref	Reviewed by Date	Owner
4.2	22/07/2015	CDM and H&S Advisor
Title		
Pre-Construction Information and Traffic Management Assessment Form		



PRE-CONSTRUCTION INFORMATION					
Location of works:	Hammonds Road / Church Road		Parish / Town:	Little Baddow	
Description of works:	Feasibility Report – Flood Warning		Confirm Job Number:		
Allowed Working Time: 09:30-15:30; nights only; any time etc.	Anytime		Date / Time of assessment:	05/02/15 13:40	
Nature of Site					
Conservation Area / Listed Building	Y	N	Contact District Council	Highway Pumps	Y N Contact Structures Team
Protected Lane / Verge / SSSI etc	Y	N	Consideration of works	Traffic Sensitive Street	Y N Consider working times
School Crossing Patrol	Y	N	Contact SCP Team	Carriageway - Rural / Urban / PROW	
Critical Road Markings	Y	N	e.g. Safety Camera etc	Frontages - Residential / Commercial / Mixed / Rural	
Structures / Bridges	Y	N	Contact Structures Team	Single Carriageway / Dual Carriageway / Single Track / Other	
Site Specific Hazards			If YES, hazard type, who actions and the control measures taken or suggested		
	Y / N		Description of Hazard	Action By	Control Measure
Is the visibility obscured approaching the TM? (Incl. junctions & road alignment)	Y	N	Bend in road	OPS	Use advance warning signs
Are there any overhead Electric cables? Provide height where possible and whether parallel or crossing	Y	N	Parallel and crossing	Designer	GS6 required
Are any railway crossings affected? (Within 500m of works?)	Y	N			
Is the area concerned susceptible to adverse weather (Flooding, Ice, wind etc)	Y	N	Flooding of River Chelmer	OPS	Use appropriate TM to sign and guard works area
Are the works near open water / ditches / fords etc?. (Access? – Slopes, Banks, Wing walls etc)	Y	N	River / slopes/ ditches / large reservoir present	OPS	Use appropriate TM to sign and guard works area
Are there any traffic signal / survey loops, or weather stations etc nearby?	Y	N			
Are there any specific site access problems or restrictions? (Confined Spaces?)	Y	N	Narrow / Weak bridge (7.5t) restriction	OPS	Use appropriate TM and plant
Are pedestrian crossings, facilities, or movements affected?	Y	N	Pedestrians walk in road	OPS	Provide appropriate TM
Do buildings, walls or other structures abut works? Consider stability etc	Y	N	Bridge / parapet	OPS	Use appropriate TM and plant
Are any bus stops or routes affected?	Y	N			
Are existing or new hazardous materials present? (e.g. new or trial products)	Y	N			
Site specific hazards / Comments in addition to above / Comments from Traffic Management Assessment Form (Including information relating to previous schemes and other H&S records held) Use continuation sheets as required			Priority Working traffic control operation at bridge		
Welfare arrangements (Incl. Location)			N/A		
Is utility information required? Y/N			Yes		
If No – why not?					
Utility information is not required for works involving no excavation or specific minor excavation. Evidence on site should still be indicated.					
Utility	Evidence on site (Tick)	Records Supplied to Contractor (Tick)	Designers comments on records		
BT Overhead / Underground / Fibre	√	√	O, U or Both?		
UKPN Electricity Overhead / Underground HV/LV			O, U or Both? HV / LV?		
Transco Gas – Low, Medium, Inter or High			Low, Medium, Intermediate, High		
Other Gas – Local supply – GTC, ES etc.					
Cable TV / Other Telecoms					
Electricity National Grid (Transmission)	√	√			
Water Supply – ESW, Affinity, Thames		√			
Drainage – Sewerage & Storm Water	√				
Pipelines (Oil, gas etc)					
Street Lighting					
Traffic Signals					
Other - Private, CCTV etc					
Originator's Name	Catherine Bottoms		Originator's Signature	C Bottoms	Date: 05/02/15

Date last printed 30/03/2015

Version No 14.0

BP Ref	Reviewed by Date	Owner
4.2	22/07/2015	CDM and H&S Advisor
Title		
Pre-Construction Information and Traffic Management Assessment Form		



TRAFFIC MANAGEMENT ASSESSMENT FORM

PART ONE: Existing Carriageway Conditions (All widths in metres – MINIMUM WIDTHS, all traffic counts over 3 mins)

Speed limit of road	60	Carriageway Width (Min)	5m	Traffic Count	0	HGV's / Buses Count	0
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PART TWO: Existing Footway and/or Cycleway Conditions (All widths in metres – MINIMUM WIDTHS, all counts over 3 mins)

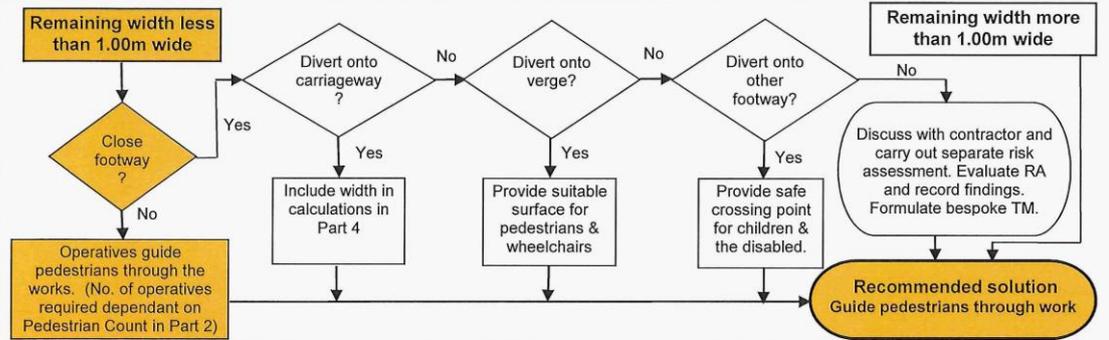
Footway Width	1.0 @ bridge	Cycleway Width	N/A	Verge Width	N/A	Pedestrian Count	1 man with dogs
---------------	--------------	----------------	-----	-------------	-----	------------------	-----------------

PART THREE: Pedestrian Routing

Refer to pages 28-34 of Safety at Street Works and Road Works Code of Practice for more detailed guidelines.

Remaining width available during the works (Allow for Materials, Plant, Vehicles, working area and safety zone based on speed limit of road)

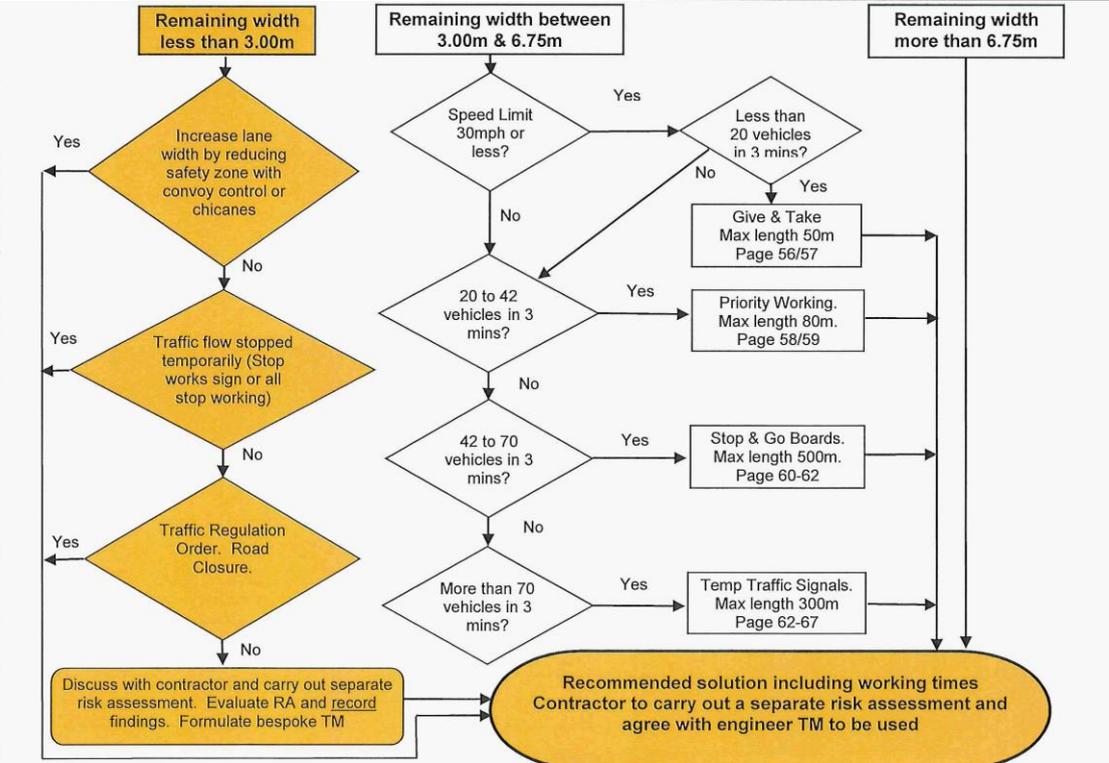
No footway present



PART FOUR: Carriageway Traffic Management

Page numbers refer to Safety at Street Works and Road Works Code of Practice. See also pages 52 – 55 for more detailed guidelines

Remaining width available during the works (Allow for Materials, Plant, Vehicles, working area, pedestrian area and safety zone based on speed limit of road)



Highlight decision path through flowchart. Recommended solution should indicate Type of Traffic Control NOT a specific layout. Updated to 2012 Red Book

3.5. Scheme Validation Assessment Outcome and Recommendations

..... The Parish Council has identified a flooding problem with the River Chelmer on both Hammonds Road, Little Baddow and Church Road, Boreham. The Parish Council state that currently volunteers put up "Road Closed" signs, though there can be delays if the flooding occurs overnight or the volunteers are not available. They have also identified an issue with a lack of edge of carriageway markers and depth gauges of any standing water on the road. They state that since 2010, the Fire Service has been called six times to instances of flooding.

Improvement Measures

- 1) Install depth gauges (Dia 826) and marker posts (Dia 561) at appropriate locations
- 2) Consider automated wigwag signage (when in flood conditions) at appropriate locations (suggest Junction of Hammonds Road/Church Road or Hammonds Road/Phillow Barns Access and Church Road/Plantation Road and North Hill/Spring Close.

Maintenance Issues

- 1) Replace missing signage "!" Sign (Dia 562) with "Road liable to flooding" plate (Dia 563).
- 2) Cut back vegetation obstructing forward visibility (both approached to bridge)
- 3) Refresh carriageway lines and markings
- 4) Refresh Give Way lines at bridge
- 5) Refresh SLOW markings

Network Management comments

Items 1 and 2 (Improvement measures) are bigger than just a request from the parish there needs to be a strategic steer as to the direction for sites liable to flood Buttsbury, Stroud, Great Baddow and several more; then there are those that flood due to increasing rain levels and high water tables but may not flood during dry spells for several years such as Heybridge and Hullbridge Roads. This issue needs to be raised through to commissioning it is not something we can do as part of the validation process it a small project in its own right that we are treating piecemeal currently.

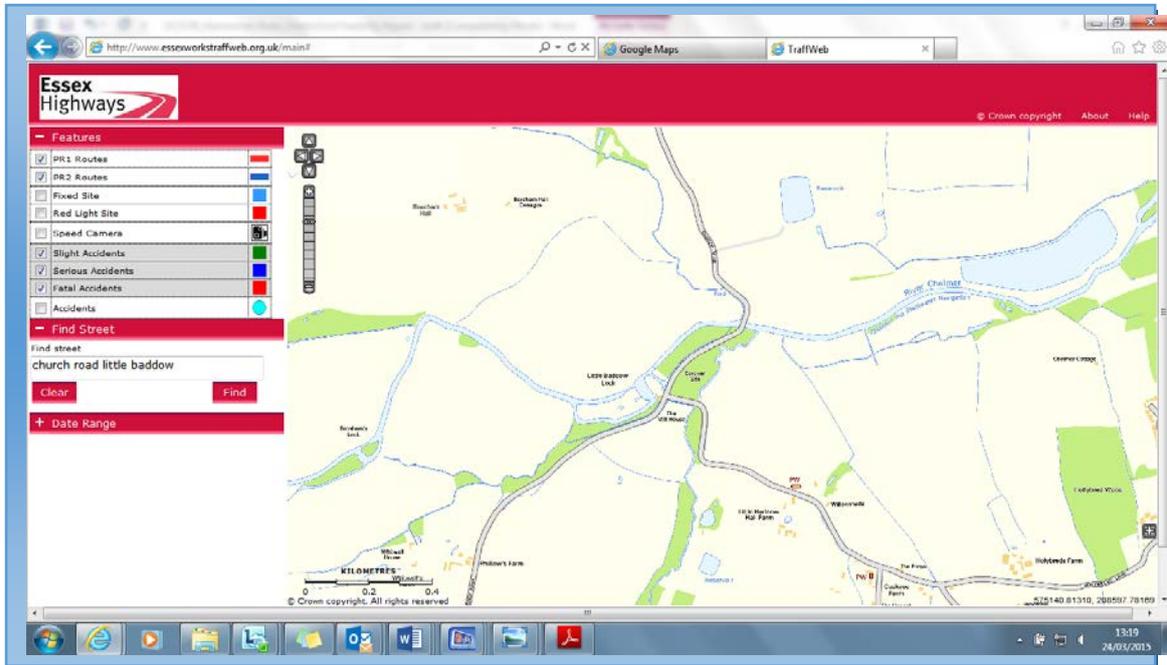
Matters to be considered

This LHP request is warranted at this location, but it is also a county wide issue that should be addressed on that basis; I believe similar work is being undertaken in the Colchester District with the Stroud at Mersea Island; automated wigwag signage linked either to local flood sensors (or EA's sensors) or directly to Control Rooms via mobile / internet technology.

DfT authorisation for this new type of sign arrangement would be required. (Liaise with Tim Olley)

Perhaps all LHPs with Flooding Issues should contribute to funding a resolution to this issue?

3.6. Collision Plot Dec. 2010 – 2014 (Extracted from Essex TraffWeb)



**The above collision plot shows there have not been any Personal Injury Collisions (PIC) in the last 5 years*

3.7. *Customer Flood Reporting Record - obtained from 'CONFIRM'*

	CONFIRM enquiry No.	Customer Type	Location	Date reported
1	2383778	Internal member of staff	Hammonds Rd and Church Rd approaches to Plantation Rd junction	Feb-15
2	2376777	Emergency services - Police	All approaches to Hammonds Rd / Church Rd junction	Jan-15
3	2371089	Emergency services - Police	“	Nov-14
4	2370750	Emergency services - Police	“	Nov-14
5	2362749	Emergency services - Police	“	Oct-14
6	2297750	Member of public	“	Feb-14
7	2296728	Emergency services - Police	Hammonds Rd approach to Hurrells Ln junction	Jan-14
8	2296548	Member of public	All approaches to Hammonds Rd / Church Rd junction	Jan-14
9	2290932	Emergency services - Police	Church Rd approach to Church Road Bridge	Jan-14
10	2682448	Emergency services - Police	“	Oct-13
11	30771998	Emergency services - Police	Hammonds Rd, from Sandon Park and Ride to	Apr-12
12	3020238	Emergency services - Police	All approaches from Boreham to Danbury	Mar-10
13	3020209	Member of public	Hammonds Road	Mar-10
14	3010865	Emergency services - Police	Hammonds Road	Nov-09
15	1948986	Councillor	All approaches to Hammonds Rd / Church Rd / North Hill	Mar-13
16	1828450	Member of public	Church Road Bridge approaches	Mar-10
17	1827757	Member of public	Paper Mill / Little Baddow Lock area	Feb-10
18	1827576	Emergency services - Police	“	Feb-10
19	97134	Member of public	Hammonds Road	Nov-12
20	45297	Emergency services - Fire	Paper Mill / Little Baddow Lock area	Jan-11

4. Consultation

4.1. *Environment Agency – response 10/03/15*

“Following our conversation earlier, attached are a couple of documents that my colleagues in Dorset sent to me in 2013 regarding road signs for flooded roads.

We have discussed this in Essex as a group of emergency planners in the Local Resilience Forum back in 2013 but did not reach a definitive conclusion on it.

There are a lot of locations in Essex where roads can be impassable due to high flows in rivers or through surface water flooding.

It is difficult to link them directly to our warning service as it may be that the road is badly affected but the river levels below our Flood Alert or Flood Warning thresholds.

Another thing to think about is causeways. The access roads over to Mersea Island and to Wallasea Island also flood with tidal water. Mersea Island floods at a level just below our Flood alert level for that part of the coast and Wallasea Island starts to flood just at our Flood Alert level.

Triggers could include physical triggers such as putting your own level gauges in rivers and deciding at what level the road downstream may become impassable.

Another option could be to activate signs in the usual ‘Hotspots’ at a set intensity of rainfall or even the forecast of heavy thunderstorms. So you could have signs that say something like “Warning this road can flood during thunderstorms” a bit like the Road liable to Flooding signs you see sometimes at the roadside but interactive.

Hopefully that is useful information and please do give me a call to discuss further if you like.

These locations form part of the Chelmer & Blackwater Navigation. Assets and conveyance are maintained by IWA Essex Waterways Ltd.

4.2. Inland Waterways Authority (IWA) – Essex Waterways Ltd – 06/03/15

“The public highway in both the locations to which you refer is subject to regular flooding and the occurrence seems to have been more regular in recent years and more rapid. We believe this is probably due to increased development upstream. A similar situation occurs at The Causeway, Ulting, CM9 6RA which you do not mention.

We do not have historical flood data, but you may find that the Environment Agency can assist. It may also be of interest that they operate gauging stations upstream in Chelmsford and above that measure flows and thus help predict what is likely to happen downstream.

Our local knowledge relates to the areas that are inundated first in flood conditions and often assisting with vehicles caught in the floods. If we can assist with this information, we will be happy to do so.”

4.3. Essex Highways Structures – email response of 06/03/15

“Further to our discussions, Structures do not install depth monitoring or gauges in rivers, nor do we maintain them. Gauges are usually installed by the Environment Agency etc. We would get involved if these gauges were attached to a structure over a river and we would provide technical approval for the installation, i.e. we would approve how the gauge would be attached etc.

We would usually inspect our structures after periods of flooding to ensure that the foundations/abutments/wingwalls and adjacent embankments have not been scoured out/under mined, i.e. the structure could be at potential risk if there is significant scouring etc.”

5. Considerations

5.1. *Existing Problems*

Flooding of the existing public highway can cause many problems such as:

- Serious travel inconvenience for the public leading to road closures and diversion.
- Potholes and pavement failures may be present and concealed under flood waters or camouflaged by reflections off the water surface at night making the road surface look black.
- Carriageway edge not clearly defined.
- Adjacent properties suffer as a result of residual flood water inflow from passing vehicles.
- Drivers / occupants stranded in flood water leading to emergency rescue.
- Damage to vehicle and health risk to occupants is likely to occur.
- The risk of drowning of vehicle occupants and pedestrians.
- IWA perceived problems of “.....*The public highway in both the locations to which you refer is subject to regular flooding and the occurrence seems to have been more regular in recent years and more rapid....*”

5.2. *Essex County Council (ECC) Responsibility*

Obtained from 'Flood and Water Management in Essex' website

As a lead local flood authority, Essex County Council has a role in overseeing the management of local flood risk, including:

- **Groundwater flooding** - caused when heavy or prolonged rainfall makes the groundwater table rise above its normal level.
- **Surface water (rainfall) runoff** - flows from, or over, surfaces such as roads, roofs and patios that cannot easily absorb water.
- **Ordinary watercourses (streams and ditches)** - channels which cannot contain large volumes of surface water runoff during or after heavy rain.

ECC also have the powers and duties to:

- commission works to manage flood risk from surface runoff or groundwater.
- request information from any person in connection with the authority's flood and coastal erosion risk management functions.
- give consent for any changes to ordinary watercourses
- record, investigate and publish reports on significant floods in the county
- record flood assets and identify those responsible for maintaining them
- designate any features which have a significant impact on flood risk so they cannot be removed or replaced without consent
- work with organisations such as the Environment Agency and water companies to develop a local flood risk management strategy for managing surface runoff, groundwater and ordinary watercourses throughout Essex
- ensure that developments drain in a manner which does not increase flood risk elsewhere, as well as trying to reduce the risk of flooding wherever possible.

In keeping with the above commitments, the proposed measures required to manage flood risks for this site should include:

- The provision of improved flood warning signage in advance of the areas of the highway susceptible to flooding, in order to give road users adequate time to make alternative travel arrangements and avoid the site in the event of flooding.

- Provide updates of travel disruptions as a result of road flooding to local radio stations.
- Ensure temporary traffic management / road block signage are in place in the event of flooding.

5.3. *Engaging the community and other statutory bodies*

- To encourage the local residents to register online for flood warnings, where warning messages can be sent direct to mobile phones, SMS text messages, email, etc.
- To provide emergency flood line telephone numbers.
- Engage with the EA, Inland Waterways Association (IWA) – Essex Waterways, the Chelmer and Blackwater Navigation and other statutory bodies.
- Engage with Local Flood Wardens.
- Agree ‘clean up’ of highway, following on from a flood incident with Highways Maintenance.
- Engaging Emergency Services

5.4. *Scheme implementation and success*

- Cost and resource implication
- Network Management’s comments on ‘Matters for consideration’ in design brief – “.....*This LHP request is warranted at this location, but it is also a county wide issue that should be addressed on that basis ...*”
- IWA comments on consultation – “..... *We believe this is probably due to increased development upstream. A similar situation occurs at The Causeway, Ulting, CM9 6RA which you do not mention.....*”
- Location of existing buried statutory undertaker’s apparatus
- Highway boundary

6. Proposals

Based on the feedback received from consultation with Network Management, ECC Structures Team, Environment Agency and the Chelmer and Blackwater Navigation teams:

It is important to note that dealing with this location in isolation will not address the county wide problem that currently exists. The remaining sites within the county should also be subject to flood warning signage improvement.

This will ensure the highway authority is exercising their duty of care by managing flood risks with the introduction of a local control base receiving information from flood sensors to pass on directly to mobile / internet connections for local floodlines and emergency / response units.

6.1. Measures proposed (subject to consultation)

- To install flood depth gauges at appropriate locations.
- To install flood sensors at agreed locations that can provide 'real time' information to flood warning signage and control rooms.
- To install verge marker posts at locations where the edge of carriageway can not be identified on the occasions where flooding occurs.
- To install / upgrade TSRGD advance warning sign 562 and supplementary plate sign diagram 563.
- To replace missing 'Weak Bridge' signage 7.5t to TSRGD diagram 626.2A at the northbound approach to the bridge.
- To cart to tip or remove from site spoil from cleared out ditches to avoid a wash off back into the drainage system.
- To trim back existing vegetation encroaching onto the highway.
- To refresh all existing road markings.

7. Costings

7.1 Information provided by the Environment Agency

Ford Signs Project – Wessex (Blandford) FIM Fact Sheet – Appendix D
Per site and based on the use of an existing control centre / outstation

- Signs supply and installation : £5000 – (Min. of 2 required per site)
- Sensor to outstation: £5000
- Stats relocation None anticipated
- Design Fees: Up to 15% of total works costs

7.2 The total cost of replacing flood gauges and marker posts

Approximate estimate based on Essex Highways direct labour costs per site

- Total cost: £5000
- Stats relocation None anticipated
- Design Fees: Up to 15% of total works costs

8. Recommendations

8.1. Measures to be introduced subject to consultation

- Our recommendation is that flood sensors / detectors are installed at Hammonds Road / Church Road junction and its approaches and that advance flood activated warning signs are located at Hammonds Road outside Phillows Farm in the south and Church Road junction with Plantation Road in the north.

Refer to Appendix A: Proposed Measures, Drawing No. DC1-3139-00-002

- These sensors are able to transmit information / messages that will activate 'Flood Warning' signs at agreed locations whilst also providing 'Real Time' information to a Control Room for distribution.

Please note that this feasibility report has not given consideration to who or where these Flood Activated Warning telematics will be operated from and that any detail design, must incorporate discussions (with e.g. ECC Traffic Control Centre, EH Intelligent Traffic System (ITS), etc. teams) for method of transmission, operation and long term maintenance of equipment.

- To install flood gauges using in durable material.
- To install verge marker posts in solid footing to avoid foundation wash off.
- To engage with EA, ECC Flood Management in Essex and other statutory authorities.

9. Appendix A: Proposed Measures

10. Appendix B: Solagen's Combined Flood Warning Sign and Sensor

ENVIRONMENTAL SENSORS FLOOD SENSOR

Solagen's Flood Sensor utilizes a pole mounted sensor, positioned at the desired detection point. When the water touches the sensor level, this will activate the customer chosen sign or change the mode/speed threshold of the SAS unit. This product is also equipped with adjustable on and off delays making it perfect for fords, rivers and areas where the risk of flood warrants an advanced warning for the motorist.



Combined sensor and LED sign face

The Flood Detector can be used in conjunction with all Solagen's highly visible sign face options such as SAS speed roundels, warning triangles and Dual Flash IQ flashing pulks.

Sentient and TCX Download compatible

This product can include Solagen's TCX Download or Sentient for data collection and retrieval. Please see pages 20 and 21 for more information.



11. Appendix C: Hydro-Logic Services: Flood Warning Systems and Solutions



Capability

Flood Warning Systems and Solutions

Overview

Hydro-Logic Services have become leaders in Flood Warning Systems with over 300 sites providing practical and timely warnings for councils and communities throughout the UK. Forming an integral part of our wider flood related services are our warning systems. These are based around our sister company's low cost telemetry logger and provide text message and email alarms to key maintenance staff or those at risk of flooding.

Many communities have flood barriers and sandbags to protect properties from surface water flooding. Our systems are designed to provide timely warnings of rising levels to assist flood wardens and homeowners of when to take action. Multiple thresholds can provide phase alert systems.

Installation

Hydro-Logic Services install low key systems often in protected areas, all our installs are designed to be as unobtrusive as possible to minimise vandalism risk and protect local aesthetics. Surface water flooding often occurs at channel constrictions such as culverts or trash screens, these can cause debris build up increasing the risk of flooding. Our systems allow differential levels to be calculated by monitoring waters upstream and downstream of a screen to allow blockage to be assessed.

Triggers and Warnings

Once a water level threshold is passed the system will trigger a dial out to our dedicated servers, these automatically commence a cascade of warning alarms. These can be sent as emails, text messages and even received by landline phones. Each message is time stamped and will inform the receiver of which water level has been exceeded. This is usually referenced to a gaugeboard to allow a visual check. Further alarms can be sent as levels recede.



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12. Appendix D: Environment Agency – Ford Fact Sheet

13. Appendix E: Stats Plans

Ford Signs Project - Wessex (Blandford) FIM



Background

In flood events over recent months the South West has experienced scores of incidents where people have driven through flood waters have had to be rescued from vehicles that have become stranded in often dangerous flood waters and required rescuing. Not only is this a vast expense to the Emergency Services but also poses a very real risk to life and indeed this winter at least 5 people have lost their lives due to flood water on fords/roads. Every year fatalities under distressing circumstances such as these are recorded.

Corporate Strategy

The work intended in this project is related to the Environment Agency's Corporate Strategy, in particular working towards reducing flood risk in a range of ways and providing a fit-for-purpose Flood Warning Service. It will contribute to the following Environment Agency targets:

1. Work towards "Reducing Flood Risk" in support of the delivery of the Environment Agency's Corporate Strategy for 2006-2011 'Create a Better Place'.
2. Comply with Service Level Agreements for 2009/10, namely FCRM20 (ensuring appropriate action is taken) and FCRM30 (to help provide an accurate, reliable and timely (ART) targeted flood warning service).

Specifically target an identified community by utilising other methods of dissemination following Operational Instruction 141_05 and 137_05.

3. Contribute to our Rapid Response Catchments project; Fords were highlighted by the Regional Advisory Panel as high risk sites. This project will aid the objectives as identified in Operational Instruction 1131_08.

The project is a partnership with Dorset County Highways and Dorset Fire and Rescue who have accumulated detailed records of call out to 'black spots' involving water rescue from vehicles. Using this data we will decide on the most appropriate locations to trial the signs.

Once operational, Highways will take over maintenance of the signs and after evaluation the aim will be for them to install further signage on fords/roads in future years. Highways are keen to host a webpage where the public can see problem areas and plan to avoid disrupted roads which this will feed into. Live feed to Sat Nav providers is being investigated.

An initial site has been selected in liaison with the partners. The ford, in Fifehead Neville, is the site of a tragic fatality in 2003/4, where a car was swept away and became wedged under a footbridge just downstream.

Dorset Fire & Rescue will promote the signs/message as part of their campaigns and will aid their considerable expertise in awareness raising as part of an ongoing joint campaign.



The EA will operate and maintain the River Level measurement equipment and associated Telemetry.

The Technology

The project will be using a specialist company (Scrimsign) to design, manufacture and install the signs. This company provided the warning signs installed at Chiswell, where the road can be closed remotely when a Severe flood warning is issued. The equipment is both



reliable and rugged. It has been in place at Chiswell for four years and there has been a zero failure rate for any of the three signs located there. The company manufacture interactive signs for Caledonian McBain who operate the ferry service to the Hebrides. The signs are manufactured to Highways standards and are certificated to TR2157A and TR2505A.

Connected to traditional river level telemetry installed at the location, the signs will normally be

activated by oncoming vehicles to indicate that there is a Ford ahead, simply displaying the word "FORD". Location of the signs will be such that motorists will have the opportunity to alter their route before being committed. Data retrieved from the telemetered outstations will

provide useful additional information for the Flood Warning service, specifically Fifehead Neville will show us water levels for the Divilish Brook which is a tributary of the River Stour.

Once river levels have triggered a preset response the telemetry will alarm out as normal, but will also send a radio message to the sign – switching it on. The sign will then change to a pulsed message “FLOOD”.

The sign will communicate via the web and it's status will be displayed on Highway's own webpage. This feed will also go directly to the EA Area Incident room. It is important that current status is remotely displayed in order to avoid loss of reputation, in the event of an error it will be possible to remotely override the system.

The equipment can either use mains or can be operated by a battery with solar / wind power. It is equipped with GSM / radio comms and uses a high visibility LED display.



Benefit / cost

The cost per sign is about £5000 installed, usually two signs will be required at each location, along with a simple telemetry outstation costing a further £5000 giving a total cost per site of about £15,000. The agency would be liable for ongoing maintenance of the outstation (not the signs).

The cost, according to Fire & Rescue figures per call out to a water rescue is approximately



£3000. In simple terms the pay back is achieved after five call outs. There are many locations that exceed this number in an average winter.

However the 'value of preventing a fatality' (VPF) in the UK is commonly estimated to be £1m. This equates to 66 installations....

Additional costs include the damage to vehicles, cars immersed to any significant depth are often considered a right off – this could be equivalent to typical flood damage to a

property. There are other costs including time lost to emergency services when they could be attending less preventable incidents

Public awareness campaign Think don't Sink

Environment Agency launches 'Think Don't Sink' campaign as 79 drivers get trapped in their cars.

(A press statement announcing the launch of an awareness raising campaign)

The Environment Agency has teamed up with Dorset County Council and Dorset Fire & Rescue Service to try and stop drivers risking their lives by driving through flood water and fords.

Just over a week ago, 79 drivers were rescued from their vehicles by fire fighters in Cornwall, Devon and Somerset during torrential rain, which hit many parts of the South West.

"It really isn't an exaggeration to say that if you chance it and drive through a flooded road, you are putting lives at risk" said Katie Jay from the Environment Agency.

"It is tempting to think you're safe from the dangers of flood water in some big vehicles like 4x4s and vans, but the fact is: you aren't. You only have to see how many people were rescued by fire fighters last weekend and during the recent Ottery St Mary incident - where 14 people were saved from their flooded cars - to understand just how many people do risk it. Lives can be saved if drivers take the simple message: 'Think, Don't Sink' to heart."

The Environment Agency is working closely with Dorset County Council's highways team on a groundbreaking initiative to improve safety around fords in Dorset.

Trials of new interactive warnings signs are just about to begin. The hi tech signs will be placed at road junctions near fords, and will be activated if flood water has made the fords too dangerous to cross.

These signs are similar to speed signs - which flash to warn drivers of speed limits - and will be placed far enough from fords to give drivers enough time to stop, turn around and find a different route.

This is unique. It's the only trial of its kind in the South West.

Geoffrey Brierley, Dorset County Council Cabinet member for transport said:

"Dorset County Council is keen to work with all agencies in its attempts to improve general road safety. Working with the Environment Agency on worthwhile initiatives like the enhanced signing of fords is just one. Each year unnecessary problems are created when drivers endeavour to cross fords when the flow of water is too great, get stranded and require the attendance of the emergency services. The use of interactive signing to better highlight the status of a impassable fords is being trialled to help reduce the number of incidents associated with drivers who try to cross when water levels are too deep."



Bob Hark from Dorset Fire and Rescue Service said: "Dorset Fire and Rescue Service fully supports this campaign. Motorists who drive into flood water are taking unnecessary risks with their own safety. If they then break down and need to be rescued, such as we experienced last weekend in north Dorset for example, they are tying up vital emergency vehicles and crews through their poor decision making. This joint-agency approach to raising public awareness is an excellent initiative."

People should bear in mind the following safety tips:

- Do not attempt to drive through flooded roads or fords.
- Your vehicle may be swept-away or become stranded.
- Vehicles can float away in just two feet of water.
- Moving water generates huge forces - even when it is flowing at relatively slow speeds.
- Water is often deeper than it looks and may be moving quite fast.
- If your vehicle stalls, leave it immediately if safe to do so and seek higher ground.
- Do not travel in heavy rain storms unless absolutely necessary. Keep an eye on weather reports on local television or listen to local radio.
- During a storm only call the emergency services for immediate assistance if there is a risk to life.
- Phone Floodline on 0845 988 1188 for up to date flood information.

Contact

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South West Think Don't Sink	Ronnie Jones	07989 974603
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Road Safety Assessment

LCHE132080 Main Road, Broomfield, Zebra Crossing near junction
with Erick Avenue Date March 2015



Document Control Sheet

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 - 4.2 Option 2
- 5 Observations**
- 6 Conclusions & Recommendations**

1 Introduction

1.1 Justification (extract from scheme validation dated 11/11/2013)

Local Councillors have expressed concern that the existing zebra crossing on Main Road near its junction with Erick Avenue is dangerous as they believe it is difficult for motorists to see it. The lights of the crossing are aligned with or partially hidden by telegraph poles. They have suggested replacing this with a controlled pelican crossing, which they maintain would be more effective as –

- A controlled crossing would be easier to see
- Taken more seriously by road users
- Be safer for pedestrians

1.2 Site description (extract from scheme validation dated 11/11/2013)

The site was visited on 9th December 2013. A very busy residential road with bus routes, no evidence of speeding vehicles. A few parked vehicles and a few pedestrians at time of visit. Faded DYs and carriageway lines are evident. The visibility of the zebra crossing is impaired; modupost lights out; indeed the general condition of the whole facility is possible not being maintained in accordance with the Regulations.

From one direction the zebra beacon is obscured due to an Electricity Pole and from the other direction the other zebra beacon is obscured by street furniture and encroaching and overgrowing vegetation. This is a serious maintenance issue and should be reported to the EH maintenance team for priority action, longer term the highway boundary should be checked and the hedge ownership confirmed and if appropriate the landowner should be contacted and reminded of their obligation to maintain their hedge and not let it encroach onto the highway. The zebra crossing markings are in poor condition and I doubt whether the street lighting is sufficient to give 100Lux luminaries on the zebra mat.

There is advanced warning sign for the crossing on column S3 heading south on Broomfield Road.

Good forward visibility from both directions of the crossing point from drivers view.

2 Collision Analysis

A ten-year review of Personal Injury Collisions ending 28th February 2015 within a 200m radius of the existing pedestrian crossing showed 11 collisions recorded with 1 being serious and 10 being slight . There was only one collision which occurred at the existing crossing that involved a pedestrian (November 2010, Serious) which is summarised below in bold:

Date	Collision Description	Severity	Rd Surface	Time
14/03/2005	Both vehicles travelling on Main Road towards Chelmsford, vehicle 1 in slow moving traffic vehicle 2 formed part of the traffic but then turned right across the path of vehicle 1. Vehicle 1 was overtaking on the zig zag approach lines to the zebra crossing.	Slight	Dry	12:37
01/04/2005	Vehicle 1 travelling on Broomfield Road towards Great Waltham. Rider lost control and fell off. Traffic very light. Road surface damp. Visibility fair, patchy fog.	Slight	Wet/Damp	02:41
17/06/2005	Vehicle 3 stopped to turn right into Saxon Way & vehicle 2 stopped behind. Vehicle 4 stopped behind vehicle 2 vehicle 1 did not stop in time colliding into vehicle 4 which in turn collided into vehicle 2. Vehicle 3 had turned right by this point	Slight	Dry	12:00
17/11/2006	Vehicle 1 pulled out of the petrol station (Esso) forecourt turning right onto Main Road and collided with vehicle 2 which was travelling on Main Road	Slight	Wet/Damp	18:02
10/05/2007	B1008 Main Road exit of Esso garage on pavement vehicle 2 (pedal cycle) riding along pavement past the exit & vehicle 1 hit vehicle 2 whilst on his bike knocking him completely off.	Slight	Dry	08:15
10/08/2007	Vehicle 2 travelling down Broomfield road in the general direction of Chelmsford town centre. Vehicle 2 slows down for a build-up of traffic. Vehicle 1 fails to stop in time and collides with back of vehicle 2.	Slight	Dry	17:55
22/08/2007	Vehicle 2 was parked stationary. Vehicle 1 has reversed and collided into the rear of vehicle 2. no damage has been caused but casualty 1 and 2 who were in vehicle 2 have sustained slight injuries. Vehicle 1 drove off from scene,	Slight	Wet/Damp	12:45

	no details exchanged.			
17/09/2008	Vehicle 2 was travelling towards Chelmer Valley school. Vehicle 1 pulled out of the Esso petrol garage turning right heading in the same direction. Vehicle 2 was hit by vehicle 1. Vehicle 1 left the scene without stopping.	Slight	Dry	08:10
21/11/2010	As pedestrian was on pedestrian crossing, Vehicle 1 collided into pedestrian Vehicle 1 stopped and occupants got out to check on the pedestrian. Pedestrian stated at the time he felt fine and didn't take details of driver or vehicle. Later on his leg hurt and went to hospital. At the time vehicle 1 was heading north.	Serious	Dry	19:15
26/11/2010	Vehicle 1 was travelling towards Chelmsford town, the driver blacked out and collided with vehicles 2 and 3 who were stationary. Opposite Clobbs Yard junction with Main Road	Slight	Dry	19:03
18/09/2012	Vehicle 1 (powered two wheeler) travelling from direction of Broomfield hospital towards Chelmsford town centre. Vehicle 2 travelling from town centre, turning right into Hyundai car dealership. Vehicle 1 overtakes two vehicles and pulls into path of vehicle 2. Minor injury to rider vehicle 1. Occurred on o/s 74 Main Road	Slight	Dry	13:29

Looking at the collision history for this area, only two collisions occurred within the vicinity of the existing Zebra crossing. One involved a motor vehicle striking a pedestrian using the crossing. The second collision involved a powered two wheeler overtaking two parked vehicles and colliding with a vehicle turning right into the Hyundai Car dealerships entrance which is situated north east of the Zebra crossing. The remaining nine collisions vary in their type and location with three occurring at the exit of the Esso Service station.

Although there are a number of collisions within the area, looking at a 5 year collision pattern there are no clusters within this area and it would not be considered for amendment as part of Essex Highways Casualty Reduction programme.

3 Traffic Assessment

A seven-day Automatic Traffic Count was carried out at the beginning of March 2014, 17m north of the junction of Main Road and Erick Avenue, north of the existing Zebra Crossing facility.

The majority of vehicle speeds were recorded north-bound with a mean speed of 27.9mph (85%ile 31mph),and south-bound with a mean speed of 27.1mph (85%ile 30.4mph).

The total daily south-bound volume is 9644 vpd and north-bound 9347vpd

It is also worth noting that 5% of vehicles north-bound and south-bound were recorded as 2-axle truck or bus. Everything else was classified as car, taxi, four wheel drive or motorcycle.

During the site visit there were a number of larger vehicles observed crossing through the site to access the Esso service station to the south. There were no pedestrians observed using the crossing facility during the site visit.

ATC Summary

COMBINED

Total recorded volume	132,940.0
Average daily volume (7 days)	18,991.4
Avg weekday volume (Mon - Fri)	20,628.0
Average daily speed	27.5mph
Average daily 85%ile	30.7mph

The combined summary on the left shows the total volumes and average speeds recorded in both directions (southbound & northbound) from all the recorded data.

SOUTHBOUND

Total recorded volume	67,510.0
Average daily volume (7 days)	9,644.3
Avg weekday vol (Mon - Fri)	10,510.2
Average daily speed	27.1mph
Average daily 85%ile	30.4mph
% of vehicles exceeding 30mph	13.9%
% of HGVs (4+ axles)	0.4%
Percentage of total volume	50.8%
Total no. vehs within bus class	3,094.0

NORTHBOUND

Total recorded volume	65,430.0
Average daily volume (7 days)	9,347.1
Avg weekday vol (Mon - Fri)	10,117.8
Average daily speed	27.9mph
Average daily 85%ile	31.0mph
% of vehicles exceeding 30mph	18.1%
% of HGVs (4+ axles)	0.3%
Percentage of total volume	49.2%
Total no. vehs within bus class	3,085.0

Vehicle classes

SOUTHBOUND						
TIME	Motor cycles	Cars / Taxis	LGV / MGW	HGV Rigid	HGV Artic	TOTAL
0000	0	66	4	0	0	70
0100	0	32	5	1	0	38
0200	0	21	4	1	0	27
0300	1	20	3	0	0	24
0400	1	30	3	0	0	34
0500	4	98	15	1	1	119
0600	10	234	21	1	1	267
0700	12	554	25	14	8	614
0800	8	535	28	11	8	590
0900	5	542	30	10	2	589
1000	5	550	37	13	7	612
1100	4	563	37	11	4	619
1200	4	582	36	16	2	640
1300	7	530	29	15	11	591
1400	5	599	30	18	5	657
1500	6	644	26	30	5	711
1600	6	734	26	24	6	797
1700	11	687	23	16	5	742
1800	6	545	21	20	2	594
1900	3	444	21	7	1	477
2000	4	427	14	5	2	453
2100	3	336	11	3	3	356
2200	2	165	7	2	0	175
2300	1	91	7	1	0	100
12hr TT	79	7066	348	198	65	7756
24hr TT	109	9031	463	220	73	9895
	1%	91%	5%	2%	1%	

NORTHBOUND						
TIME	Motor cycles	Cars / Taxis	LGV / MGW	HGV Rigid	HGV Artic	TOTAL
0000	0	57	4	1	0	63
0100	0	28	5	0	1	34
0200	0	20	3	0	0	23
0300	0	21	5	0	0	26
0400	0	17	4	0	0	21
0500	2	50	8	0	0	60
0600	6	306	19	1	1	333
0700	10	609	19	7	9	653
0800	9	613	22	15	12	672
0900	4	548	37	13	4	605
1000	6	485	35	9	13	548
1100	5	498	37	10	3	553
1200	3	515	35	8	3	565
1300	4	613	33	6	8	664
1400	4	607	33	5	4	654
1500	5	575	26	12	10	629
1600	7	569	30	7	4	616
1700	11	574	25	8	8	627
1800	11	609	25	3	4	652
1900	10	504	17	5	2	538
2000	6	390	14	2	1	413
2100	4	265	9	1	1	281
2200	3	169	9	1	0	183
2300	2	100	6	0	0	108
12hr TT	79	6816	358	103	82	7438
24hr TT	114	8745	460	114	88	9520
	1%	92%	5%	1%	1%	

Average daily southbound and northbound volumes by class (condensed to the AQMA scheme), including totals for 0700-1900 and overall average percentages. Calculated from all available data.

4 Remedial Option (Scheme Validation Request 11/11/13)

4.1 Option 1,

Replace the existing zebra crossing with signalised crossing point, the scheme would need to consist of the following to confirm with current standards.

- New dropped kerbing
- New tactile paving
- New drainage
- New signal heads and push button controllers,
- Advanced signing to provide advanced warning to motorists of facility
- Resurfacing of existing highway to ensure a wearing course with a skid resistance of 65psv, or the application of high friction surfacing to obtain a skid resistance of 65psv on both approaches.
- The installation of a controller box
- The installation of a service bay to allow maintenance vehicles to maintain the crossing.
- New cranked posts to ensure that signal heads do not pose a hazard to passing motorists.
- Removal of foliage from the garden of House 2C Erick Avenue.

4.2 Option 2.

It would be possible to upgrade the existing zebra crossing to a refurbished zebra crossing. (This option suggested by Road Safety Engineer).

- Amending the existing poles
- Amending the advanced signing to warn motorists of the crossing.
- Resurfacing the approaches to the crossing with either buff high friction surfacing, or resurfacing and rolling in a different coloured aggregate to give a colour separation, making it easier for motorists to view the approach to the crossing.

5 Observations

A safety assessment was completed on site on 12th March 2015 between 11:30 am and 12:00, the following site observations were noted as follows:

5.1 Location: At the existing crossing is in close proximity to Hyundai dealership



Image 1: View of Hyundai dealership access

Issue: The existing crossing is situated next to the vehicular access to a Hyundai dealership, it was noted that at peak times vehicles wishing to turn right into the dealership cause vehicles to queue behind and across the existing crossing point.

5.2 Location: At the existing crossing point.

Issue: The existing zebra globes are obscured by telegraph/ utility poles, the eastern globe is obscured to traffic heading north and the western ones to southbound traffic.

5.3 Location: Footway on eastern side of Main Road



Image 2: View of existing utilities and footway width.

Issue: There is limited footway width by the existing telegraph pole. If a new post for a signal head is installed this will be reduced. This may be alleviated by using cranked posts, but still may pose a hazard to wheelchair users accessing the crossing.

5.4 Location: The Hyundai car dealership vehicular access.



Image 3: View of existing utilities and footway width.

Issue: The visibility from the Hyundai car dealership is currently obscured by parked vehicles (to the north), utilities and the existing zebra crossing posts and globes sited within the visibility splay making it difficult for motorists to exit onto the highway. This issue would be compounded if a new crossing signal head was installed.

5.5 Location: The existing zebra crossing western pole and globe



Image 4: View of existing foliage obscuring visibility.

Issue: The existing pole and globe on the western side of Broomfield Road is obscured by the telegraph pole and the existing vegetation from the garden of House 2C Erick Avenue. This issue will still pose a problem if a new signal head is installed.

5.6 Location: The existing zebra crossing western footway



Image 5: View of existing utilities cover within footway at crossing point.

Issue: The existing utility box on the western side of Broomfield Road may cause an issue with a new signal head location. As a new cranked post will need to have 450mm clearance minimum from the edge of the carriageway; the footway width will be reduced, this is compounded by a utility box at the rear of the footway, and this may be an issue for wheelchair users.

5.7 Location: On the approaches to the existing crossing.



Image 6: View of rutting of existing carriageway.

Issue: The existing road condition is scuffed and rutted. This will be an issue in adverse weather conditions as vehicles will not be able to stop for pedestrians crossing. It is recommended that a Scrim survey is undertaken to see if skid resistance is adequate, if it is not the approaches should be resurfaced using a psv 65 stone.

5.8 Location: On the approaches to the existing crossing.

Issue: There is no HFS on the approaches to the existing crossing in either direction, laying HFS would not only provide the recommended skid resistance appropriate for the approaches to a pedestrian crossing, but would (if using a coloured surfacing such as buff), provide a colour separation between the existing highway.

5.9 Location: At the existing crossing point on both sides of the highway.

Issue: There is no positive drainage at the crossing point on either side of the highway, although the long fall of the road itself is good, it would be best practice to install additional drainage as part of any future scheme at the dropped kerbing.

5.10 Location: At the property driveway of 87 Broomfield Road.

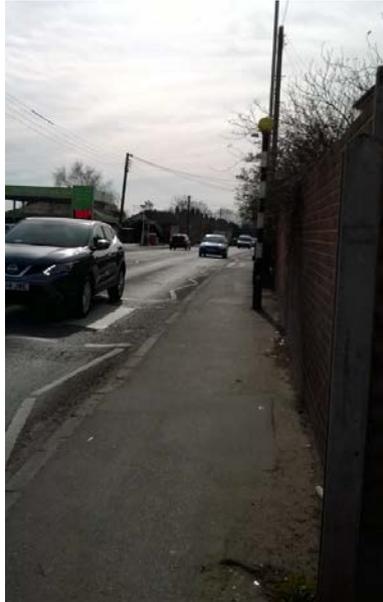


Image 7: View from 87 Broomfield Road looking south.

Issue: Vehicles exiting from property 87 Broomfield Road looking south would have their visibility obscured by a new signal head on the western side of the carriageway.

5.11 Location: At the junction of Erick Avenue and Main Road.

Issue: Vehicles exiting from Erick Avenue will have their visibility looking north obscured by a new signal head on the western side of Main Road.

5.12 Location: The existing street lighting on the Western side of Main Road.

Issue: Although the safety check was completed during a daytime visit, looking at the age and locations of the existing street lighting, it is believed that this may be inadequate for the existing crossing point.

5.13 Location: On the northbound approach to the zebra crossing on Main Road

Issue: There is no advanced warning for the existing crossing on the north bound approach to the crossing. Although forward visibility is good towards the crossing point, during peak traffic times the area is busy with motorists using the service station south of the crossing point.

5.14 Location: At the entrance to the Hyundai car dealership.

Issue: Although it wasn't observed on site, it is assumed that the Hyundai car dealership will be serviced by car transporters. Provision should be made for car transporters using the Hyundai access for the car dealership. It is likely that a car transporter would over run the footway area within the vicinity of the existing crossing.

6 Conclusions & Recommendations

The scheme validation report (2013) states that the existing zebra crossing on Main Road near its junction with Erick Avenue is dangerous as it is difficult for motorists to see. The lights of the crossing are aligned with or partially hidden by telegraph poles.

Crossings are provided as amenities to give access and easier movement to pedestrians. Generally the provision of crossings should be targeted at the needs of those people who experience most difficulty and danger. It should not be assumed that the provision of a crossing alone will necessarily lead to a reduction in road collisions.

The introduction of a puffin crossing would not guarantee a reduction in collisions in this area, empirical data would suggest that at least one shunt (nose to tail) collision would occur per annum at a signalised crossing.

The existing Zebra crossing location is not ideal due to its proximity to the junction of Main Road and Erick Avenue, the Esso Services Station, and the Hyundai Car dealership. Any pedestrian standing to cross in this area will be in the visibility splay of most of these areas. The installation of larger diameter posts for signal heads will also significantly reduce the visibility splays of these various locations.

Looking at the traffic data and pedestrian counts it is recommended that a zebra crossing is the most suitable type of pedestrian crossing for this location, the existing traffic speeds are at 27mph, it is recommended that traffic speeds of 35mph and over are suitable for signalised crossings. The installation of a signal controlled crossing may see a rise in mean speeds as motorists will only have to give way to pedestrians during a red phase. Currently the onus is on the motorists to look out for pedestrians using the crossing which may explain the low traffic speeds.

The relatively low footfall would also suggest that a signalised crossing is not needed, at present the existing crossing has little impact on the traffic flows through the area, if a facility is installed that is perceived as not being needed by motorists it may lead to it being abused or ignored.

It is recommended that improvements to the existing crossing are made to improve its conspicuity (see option 2), or that the proposal for a crossing should be relocated to a more suitable location where a higher pedestrian footfall is expected and where the masking of junction visibility is minimal. The crossing could be re sited to the south of the Esso Service station or to the north of the Hyundai car dealership.





- Notes**
- DO NOT SCALE FROM THIS DRAWING.
 - This drawing is to be read in conjunction with the other contract documents.
 - All diagram numbers refer to the Traffic Signs Regulations and General Directions 2002 and any amendment thereto.
 - Mounting height of all signs to be a minimum of 1.2m in verge or 2.1m in roadway or 2.4m in cycleways, unless otherwise stated.
 - Sign posts shall not protrude above the top of the sign face. All posts to be capped.
 - Lateral clearance of all signs and bollards to be 0.45m min. from the edge of carriageway, unless otherwise stated.
 - Any disturbance to existing grassed areas is to be made good with topsoil and seed.

- Key**
- Highway boundary
 - Existing footway - Plane/mill 25mm of existing footway surface. Lay new AC 6 dense surface 100/150 surface course. EN13108-1 25mm depth laid on bond coat. (See typical footway construction detail).
 - New signs.
 - Existing verge to be made up to new construction (See typical footway construction detail).
 - Existing gravel to be resurfaced using hot rolled asphalt/bitumen material.

REV.	DATE	AMENDMENT DESCRIPTION	DRAWN	CHECKED

DRAWING STATUS

Detailed Design

Essex Highways

Ringway Jacobs working in partnership with **Essex County Council**

Mark Rowe, Service Director, Essex Highways
County Hall, Chelmsford, CM1 1QH
Tel: 0845 6037631

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APPROVED

Proposed Footway/surfacing Improvements
General Arrangement

LHP - High Street j/w Common Road, Stock
LCHE141004

DRAWING TITLE

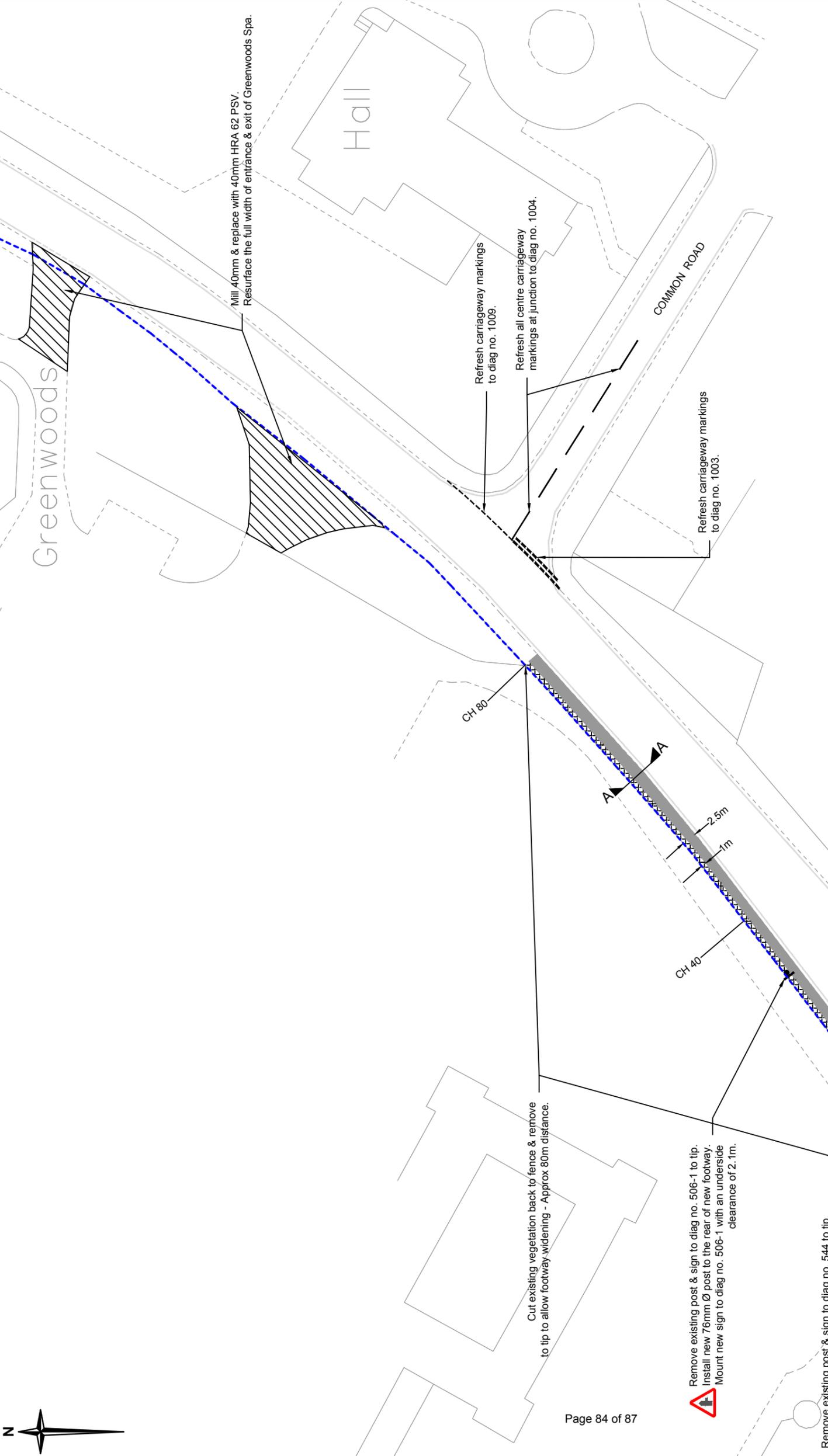
DESIGNED	DRAWN	CHECKED	REVIEWED	APPROVED
LMP	LMP	JAL	LMP	MBS

DATE	DATE	DATE	DATE	DATE
MAY 15	MAY 15	MAY 15	MAY 15	JUN 15

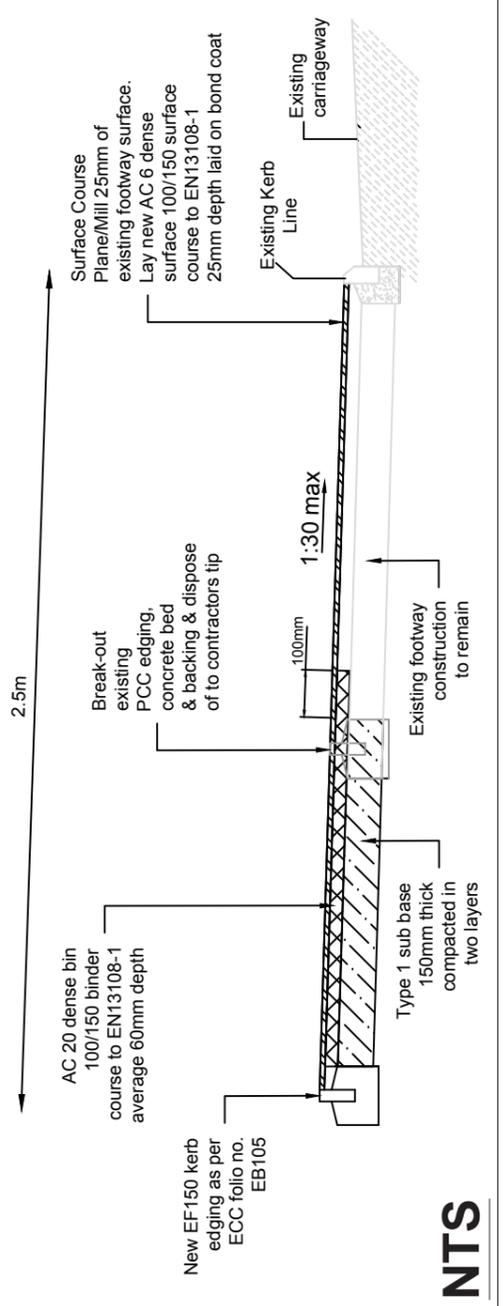
DRAWING UNITS/SCALE
DIMENSIONS IN MILLIMETRES
LEVELS IN METRES

SCALE AT (1:100/250 (mm))
AS SHOWN

DRAWING NO. DC1-3491-11-001
REV.



Typical footway construction detail - Section A-A - NTS



General Layout - (Scale: 1:250)

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Chelmsford City Highway Rangers - Works Summary February 2015

Job No.	Date	Parish	Street	Works	Date Completed
535	29/01/2015	Galleywood	Roughtons	Side footways	03/02/2015
536	29/01/2015	Runwell	Viking Way & Regency Close	Cut back vegetation from alleyway	04/02/2015
CCC Raised		South Woodham Ferrers	Berry Vale/Melville Heath	Cut back vegetation from footway	04/02/2015
CCC Raised		Chelmsford	Broomfield Road	Clean graffiti from street furniture	04/02/2015
CCC Raised		Chelmsford	Parkway	Cut back vegetation from footway	05/02/2015
CCC Raised		South Woodham Ferrers	Brent Avenue/Dunlin Close	Clear vegetation/leaves	06/02/2015
CCC Raised		Chelmsford	Rothmans Place	Litter pick hedge/cut back vegetation	06/02/2015
CCC Raised		South Woodham Ferrers	Brent Avenue/Dunlin Close	Clear vegetation/leaves	09/02/2015
CCC Raised		Chelmsford	Bryant Link	Repair grass verge	10/02/2015
CCC Raised		Little Waltham	Belstead Farm Lane	Sign maintenance	10/02/2015
537	29/01/2015	Little Waltham	Back lane	Cut back vegetation/hedge	Awaiting update
538	06/02/2015	Sandon	Sporhams Lane	Cut back vegetation/hedge	10/02/2015
CCC Raised		Chelmsford	A12 layby	Remove damaged street furniture	11/02/2015
CCC Raised		Runwell	Brock Hill	Clear debris and cut back vegetation	11/02/2015
CCC Raised		Chelmsford	Baddow Park Farm/the Chase	Put up No fly tipping sign	12/02/2015
CCC Raised		Chelmsford	College Wood/Nicleby Road/Madeline Place	Clear leaves, drains & footway	12/02/2015
CCC Raised		Chelmsford	Ingatestone Road	Litter pick verge	12/02/2015
CCC Raised		Chelmsford	Ingatestone Road	Litter pick verge	13/02/2015
CCC Raised		Margaretting	Various Parish Roads	Sign maintenance/remove fly posters	13/02/2015

Chelmsford City Highway Rangers - Works Summary February 2015

Job No.	Date	Parish	Street	Works	Date Completed
CCC Raised		Chelmsford	Oaklands Park/Melbourne Stadium	Street furniture maintenance	16/02/2015
539	12/02/2015	Great Baddow	Pawle Close	Cut back vegetation/hedge	17/02/2015
CCC Raised		South Woodham Ferrers	Tanners Way	Clear debris/leaf mulch	17/02/2015
CCC Raised		Chelmsford	Cherwell Drive	Cut back vegetation & litter pick	18/02/2015
CCC Raised		South Woodham Ferrers	Celebourne Street	Cut back vegetation/arboriculture inspection on tree needed	18/02/2015
CCC Raised		Chelmsford	Avenues footpaths	Cut back vegetation/remove graffiti/litter pick	19/02/2015
CCC Raised		Chelmsford	Avenues footpaths	Cut back vegetation/remove graffiti/litter pick	20/02/2015
CCC Raised		Chelmsford	Springfield Lane Opp Aldi store	Clean bus stop	20/02/2015
CCC Raised		Chelmsford	Chelmer Road	Clear litter from hedges	20/02/2015
CCC Raised		Chelmsford	A138	Cut back vegetation/litter pick	23/02/2015
CCC Raised		Chelmsford	A138	Cut back vegetation/litter pick	24/02/2015
CCC Raised		Boreham	Various Parish Roads	Sign/Street Furniture maintenance	25/02/2015
CCC Raised		Chelmsford	Springfield Road, R/o Police HQ	Clear debris	25/02/2015
CCC Raised		Little Baddow	The Ridge	Sign maintenance	26/02/2015
CCC Raised		Galleywood	Watchouse Road	Sign maintenance	26/02/2015
CCC Raised		Chelmsford	1-22 Old Court Arbour Lane	Sign maintenance	26/02/2015
CCC Raised		Chelmsford	Crown Passage, High Street & Tindall Street	Sign maintenance	26/02/2015
CCC Raised		Chelmsford	Shire Passage, High Street & Tindall Street	Sign maintenance	26/02/2015
CCC Raised		Danbury	Hyde Lane/Slough Road	Cut back vegetation	27/02/2015

Chelmsford City Highway Rangers - Works Summary February 2015

Job No.	Date	Parish	Street	Works	Date Completed
CCC Raised		Galleywood	Well Lane	Clear debris	27/02/2015
CCC Raised		Chelmsford	Mace Walk	Sign maintenance	27/02/2015
CCC Raised		Chelmsford	Redmayne Drive	Sign maintenance	27/02/2015
540	27/02/2015	Chelmsford	Cumberland Crescent o/s & opp 49	Cut back vegetation/hedge	Awaiting update
541a	15/04/2015	Rettendon	Main Road - Layby	Cut back vegetation/hedge & clear debris from headwall	Awaiting update
541b	08/05/2015	Writtle	Chelmsford Road, Hylands School to Blue Mills B	Cut back vegetation & side footways	Awaiting update
542	11/05/2015	Galleywood	Watchouse Road	Cut back vegetation/hedge	Awaiting update
543	11/05/2015	Chelmsford	Chelmer Valley, Bunny Walk	Sign maintenance	Awaiting update
544	18/05/2015	Chelmsford	Chignal Road	Cut back vegetation/hedge	Awaiting update
545	18/05/2015	Great Baddow	Sandford Mill lane	Cut back vegetation	Awaiting update