

Appendices

Appendix 1: Proposed 40mph Speed limit south of Quendon (Public Notice and Plan)

Public notice

The Essex County Council (Various Roads, Newport, Stansted Mountfitchet, Ugley, Quendon and Rickling) (Combined Speed Limit) Order 20**

Notice is hereby given that the Essex County Council proposes to make the above Order under Sections 81, 82(2) and 83(2) and 84(1) and (2) and Parts III and IV of Schedule 9 to the Road Traffic Regulation Act 1984.

Effect of the order: To introduce a 40MPH speed limit on the following lengths of B1383 Cambridge Road in the District of Uttlesford (the road is currently 50MPH):

Road	Description
B1383 Cambridge Road, Quendon	From a point approximately 129 metres south of the southern kerb line of Venter Road, north for approximately 293 metres.
B1383 Cambridge Road, Newport	From a point approximately 22 metres south of the southern kerb line of Salmon Field, north for approximately 287 metres.

'The Essex County Council (Various Roads, Various Parishes, Uttlesford) (Restricted Road, 40MPH & 50MPH Speed Limit) 2018' is hereby revoked, the restriction will continue in force by virtue of the new order.

'The Essex County Council (Various Villages, Uttlesford District) (50MPH Speed Limit Order) Order 1999' is hereby revoked.

Further details: A copy of the draft Order, a copy of this notice, a copy of the orders to be revoked, plans illustrating the proposal and the Statement of Reasons may be examined at all reasonable hours at Essex County Council, County Hall E block main reception, Market Road, Chelmsford; Uttlesford District Council, Council Offices, London Road, Stansted Library, Crafton Green, Chapel Hill, Stansted Mountfitchet. These documents are also available via the Essex Highways website: <http://www.essexhighways.org/Transport-and-Roads/Highway-Schemes-and-Developments/Traffic-Regulation-Orders.aspx>

Objections: Anyone who wishes to object to the proposed order, should send the grounds for their objection in writing to 'TRO Comments, Network Assurance, A2 Annexe Seax House, County Hall, Victoria Road South, Chelmsford, Essex, CM1 1QH' or e-mail to TrafficRegulation.Order@essexhighways.org quoting reference TRAF/7201, by 28 February 2020.

Dated: 6 February 2020

County Hall,
Chelmsford

Essex County Council
Network Assurance



Essex County Council



B1383 CAMBRIDGE ROAD

HALLFIELD

START OF EXISTING
30mph SPEED LIMIT

BLUEBELL DRIVE

293m

VENTNOR ROAD

START OF 40mph
BUFFER ZONE

B1383 CAMBRIDGE ROAD

Appendix 2: Traffic Survey Data

PROJECT 17288 QUENDON
LOCATION ATC01 - B1383 Cambridge Rd (N), Quendon
LOC. DESC. 160m SW of j/w Newport Drive
START DATE Tue 19 Sep, 2017
END DATE Mon 25 Sep, 2017
SPEED LIMIT 50mph
SURVEY TYPE 7-day ATC, 15min periods, 10 veh. classes



A 7-day automatic traffic count on B1383 Cambridge Rd (N), Quendon, commencing Tue 19 Sep 2017, recorded a total of 69,506 vehicles. The posted speed limit of 50mph was exceeded by 37.7% of vehicles, and the seasonally adjusted, combined AADT value is 9,753 (see Equipment & Methodology below).

SUMMARY

COMBINED

Total recorded volume	69,506
Avg daily volume (based on 7 days)	9,929.4
Average daily speed (7 days)	49.8mph
Average daily 85%ile (7 days)	55.1mph
AADT (annual average daily traffic)	9,753

Avg weekday volume (Mon-Fri, 24hrs)	10,354.8
Avg weekday speed (Mon-Fri, 24hrs)	49.8mph
Avg 12hr weekday volume (Mon-Fri, 0700-1900)	8,463.4
Avg 12hr weekday speed (Mon-Fri, 0700-1900)	48.3mph

The combined summary on the left shows the total volumes, average speeds, AADT and 85%iles recorded in both directions from all the recorded data. Speeding vehicles are defined as those travelling 51mph and above.

The summaries below provide directionalised details including speeding percentages and weekday daytime details.

SOUTHWESTBOUND ↙

Total recorded volume	35,592
Avg daily volume (based on 7 days)	5,084.6
Average daily speed (7 days)	51.9mph
Average daily 85%ile (7 days)	57.7mph
% of vehicles exceeding 50mph	53.1%

Avg weekday volume (Mon-Fri, 24hrs)	5,267.2
Avg weekday speed (Mon-Fri, 24hrs)	52.0mph
Avg 12hr weekday volume (Mon-Fri, 0700-1900)	4,320.0
Avg 12hr weekday speed (Mon-Fri, 0700-1900)	50.3mph
Avg 12hr weekday 85%ile (Mon-Fri, 0700-1900)	55.7mph

NORTHEASTBOUND ↗

Total recorded volume	33,914
Avg daily volume (based on 7 days)	4,844.9
Average daily speed (7 days)	47.7mph
Average daily 85%ile (7 days)	52.5mph
% of vehicles exceeding 50mph	22.3%

Avg weekday volume (Mon-Fri, 24hrs)	5,087.6
Avg weekday speed (Mon-Fri, 24hrs)	47.7mph
Avg 12hr weekday volume (Mon-Fri, 0700-1900)	4,143.4
Avg 12hr weekday speed (Mon-Fri, 0700-1900)	46.2mph
Avg 12hr weekday 85%ile (Mon-Fri, 0700-1900)	50.9mph

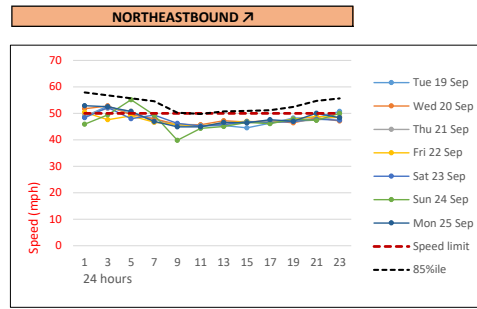
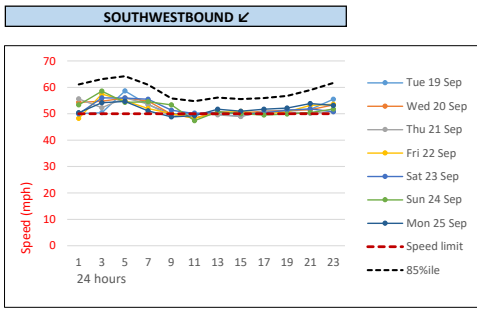
SITE LOCATION



Map © OpenStreetMap contributors

Location	B1383 Cambridge Rd (N), Quendon
Desc.	160m SW of j/w Newport Drive
OSGR	551865, 231199
Lat, lng.	51.958544, 0.208777
Project & site	17288-01
PSL	50mph
Bus route	Yes
Direction 1	Southwestbound ↙
Direction 2	Northeastbound ↗

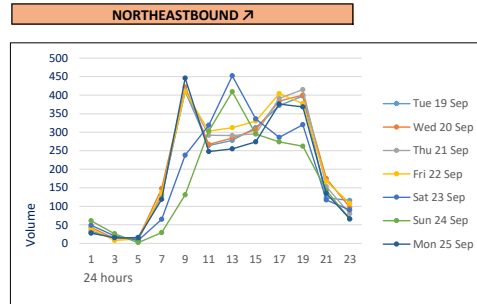
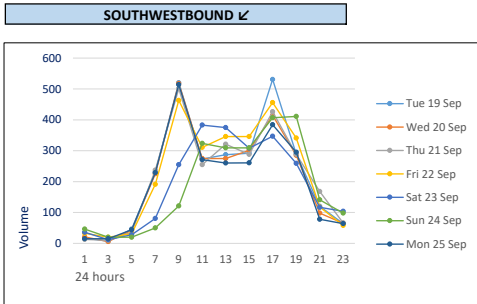
DAILY SPEEDS



Average daily speeds (solid thin colours) and 85thile (dashed black) compared against 50mph posted speed limit (dashed red). The 85thile is the speed at which 85% of all vehicles are observed to travel under free flowing conditions. A minimum of ten vehicles per speed bin is required for this calculation, hence the overnight low-volume 85thile values may be zero.

The peak average southwestbound daytime speed was 57.3mph at 07:00 on Sun 24 Sep, whilst the peak average northeastbound speed was 51.8mph at 07:00 on Sun 24 Sep (based on 15min averages between 0700 & 1900).

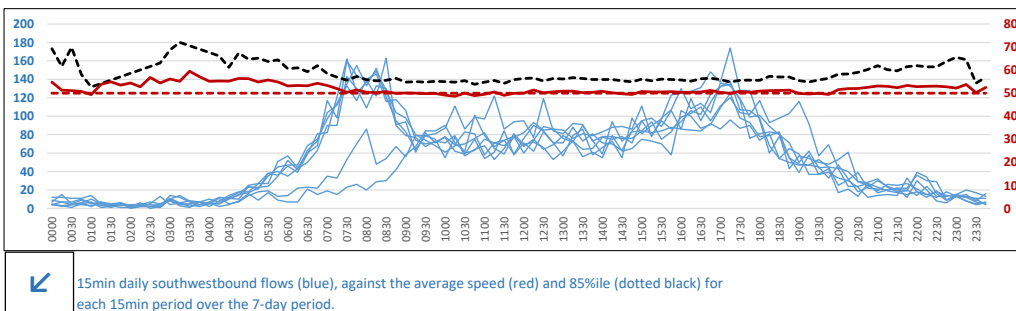
HOURLY VOLUMES



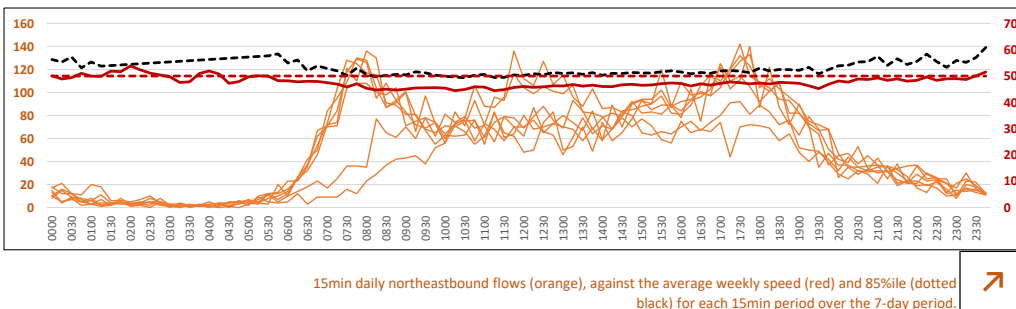
Hourly southwestbound traffic volumes over each 24hr period for 7 days from all available data.

Hourly northeastbound traffic volumes over each 24hr period for 7 days from all available data.

15min VOL & SPEED

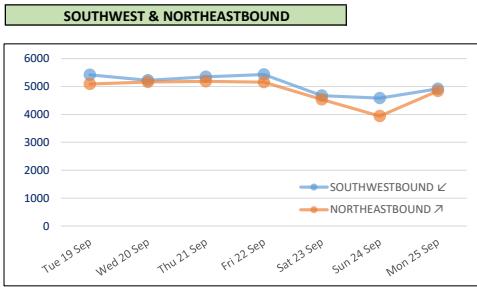


15min daily southwestbound flows (blue), against the average speed (red) and 85thile (dotted black) for each 15min period over the 7-day period.



15min daily northeastbound flows (orange), against the average weekly speed (red) and 85thile (dotted black) for each 15min period over the 7-day period.

DAILY VOLUMES



Total 24hr southwestbound (blue) and northeastbound (orange) traffic volumes over 7 consecutive days from all available data.

As can be expected, the lowest volumes were recorded on the Sunday, whilst the highest was on the Friday.

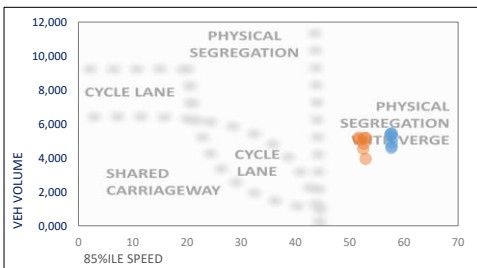
7-DAY AVERAGE CLASSES

SOUTHWESTBOUND 7-DAY AVG ↙						
TIME	MOTOR CYCLES	CARS / LGV1	LGV2 / MGW	HGV RIGID	HGV ARTIC'D	TOTAL
0000	0.4	22.1	3.3	0.0	0.0	25.9
0100	0.0	15.4	3.1	0.3	0.0	18.9
0200	0.0	11.0	1.6	0.0	0.3	12.9
0300	0.6	24.0	2.1	0.0	0.3	27.0
0400	0.3	32.4	2.6	0.0	0.0	35.3
0500	1.3	90.1	9.6	0.4	0.1	101.6
0600	3.4	152.6	20.7	0.6	0.3	177.6
0700	4.0	347.7	31.0	2.3	1.1	386.1
0800	2.9	373.4	33.0	1.9	2.0	413.1
0900	6.3	268.4	27.9	0.7	1.7	305.0
1000	4.6	260.9	29.7	2.3	1.4	298.9
1100	3.1	257.0	29.1	3.3	1.6	294.1
1200	2.7	274.1	29.9	2.3	1.4	310.4
1300	2.7	266.1	27.1	2.0	1.4	299.4
1400	2.7	267.7	25.7	2.1	2.4	300.7
1500	2.6	319.0	28.3	2.7	1.4	354.0
1600	4.3	388.0	29.9	0.6	1.0	423.7
1700	5.4	427.4	25.7	0.6	0.7	459.9
1800	3.0	293.0	13.0	0.3	0.4	309.7
1900	1.9	193.9	12.0	0.0	0.6	208.3
2000	0.1	114.0	5.4	0.0	0.4	120.0
2100	0.4	80.0	3.7	0.0	0.0	84.1
2200	0.0	69.9	4.1	0.0	0.1	74.1
2300	0.3	41.0	2.0	0.1	0.4	43.9
12hr TTL	44.3	3742.9	330.3	21.0	16.7	4155.1
24hr TTL	53.0	4589.3	400.6	22.4	19.3	5084.6
1%	90%	8%	0%	0%		

NORTHEASTBOUND 7-DAY AVG ↗						
TIME	MOTOR CYCLES	CARS / LGV1	LGV2 / MGW	HGV RIGID	HGV ARTIC'D	TOTAL
0000	0.1	36.0	4.0	0.0	0.0	40.1
0100	0.0	19.9	1.7	0.0	0.6	22.1
0200	0.0	15.0	1.1	0.0	0.1	16.3
0300	0.0	6.0	1.1	0.0	0.0	7.1
0400	0.0	9.0	1.9	0.0	0.0	10.9
0500	0.0	23.7	5.1	0.6	0.1	29.6
0600	1.3	93.6	10.9	1.7	0.7	108.1
0700	1.4	276.4	24.3	2.6	0.9	305.6
0800	8.6	313.4	27.7	1.4	1.6	352.7
0900	5.1	243.1	30.3	2.4	1.6	282.6
1000	5.6	243.1	29.9	4.0	2.6	285.1
1100	3.3	272.3	28.4	2.7	1.3	308.0
1200	3.0	292.9	25.9	3.0	1.1	325.9
1300	3.1	272.0	24.3	3.4	1.0	303.9
1400	2.0	276.7	24.3	3.3	0.9	307.1
1500	3.0	303.4	24.4	1.1	1.9	333.9
1600	2.6	329.7	21.4	1.1	0.4	355.3
1700	2.7	401.9	20.4	0.3	0.9	426.1
1800	4.4	346.0	10.9	0.6	1.0	362.9
1900	1.9	235.1	8.1	0.1	0.3	245.6
2000	0.6	139.9	4.1	0.0	0.3	144.9
2100	0.6	112.6	5.1	0.1	0.7	119.1
2200	1.0	85.4	2.3	0.1	0.1	89.0
2300	0.7	59.4	2.6	0.0	0.3	63.0
12hr TTL	44.9	3571.0	292.1	26.0	15.0	3949.0
24hr TTL	51.0	4406.6	340.3	28.7	18.3	4844.9
1%	91%	7%	1%	0%		

Average daily southwestbound and northeastbound volumes by class (condensed to the AQMA scheme), including 12hr totals for 0700-1900 and overall average percentages. Calculated from all available data over 7 days.

CYCLE PROVISION



The diagram compares total daily traffic flow (vertical axis) against the average daily 85%ile speed (horizontal axis) to demonstrate cyclist and vulnerable user considerations.

The guidelines are based on the Sustrans Design Manual (Apr 2014); Understanding User Needs, part 2.

Valid 85%iles are required to plot the graph.

METHODOLOGY

Equipment & methodology

Automatic traffic counts are undertaken using a pair of pneumatic tubes installed securely across the carriageway, one metre apart, recording air pulses to determine vehicle speed, class and volume. The ATC equipment generally remains in place for a consecutive seven day period, and the data analysed post-survey.

In queuing conditions, the accuracy of ATC recording equipment will reduce as follows;

- 20 – 30mph: potential reduction of 9% accuracy in volume values
- 10 – 20mph: potential reduction of 26% accuracy in volume values
- 00 – 10mph: potential reduction of 39% accuracy in volume values

These figures are based on multiple ATC results compared against accepted reference values from resilient manual counts.

AADTs are calculated using the seasonal COBA methodology; DMRB Vol. 13, Pt 4: Traffic Input To COBA, with formulae available in the (hidden) config worksheet.

Weather & environmental

Inclement conditions during winter months or outbreaks of unseasonable weather may affect survey data collection. This can result in distorted traffic flows or unusable data and should be considered prior to survey approval. Although forecast checks are made prior to the survey commencing, Essex Highways cannot be held responsible for the forecast accuracy.

Equipment damage & failure

Although checked intermittently the equipment remains unmanned for much of the duration of the survey, and can potentially be interfered with, vandalised, damaged or stolen and Essex Highways cannot be held responsible for any periods where data has not been captured.

The equipment is located in accordance with the details provided by the client and Essex Highways cannot be held responsible for the accuracy of the data or loss of equipment due to theft and vandalism.

Roadworks & events

Where possible, roadworks checks are made 10 days before, and 48 hours before, the survey commences. Additionally, influencing major local events are also monitored, covering the immediate vicinity of the surveys and any routes likely to affect the outcome of the survey.

CLASS	ABBREV.	DESCRIPTION	LENGTH	COBA	AQMA	MANUAL
1	MC	Motorcycle	SHORT Up to 5.5m	N/A	MC	MC
2	SV	Cars, taxis, 4WD, vans		CAR & LGV	CAR	CAR & LGV1
3	SVT	Class 2 plus trailer	MEDIUM 5.5m to 14.5m	OGV1 & PSV	LGV & MGW	LGV2 & PSV
4	TB2	2 axle truck / bus		OGV1	MGV & PSV	
5	TB3	3 axle truck / bus			HGV RIGID	HGV1
6	T4	4 axle truck	LONG 11.5m to 19.0m	OGV2	HGV ARTIC	HGV2
7	ART3	3 axle articulated				
8	ART4	4 axle articulated				
9	ART5	5 axle articulated				
10	ART6	6+ axle articulated				

Vehicle classifications

Vehicles recorded by the ATC are placed into one of ten classes based on axle spacing and pattern. This scheme is based on the AustRoad 94 algorithm and modified for UK traffic, referred to as ARX. The table on the left aligns the ARX classifications with the COBA Chapter 8 (Vol 13, Sec 1) classifications, AQMA (air quality management standard) and the Essex 9-class, as used in manual junction counts undertaken by Essex Highways.

Under adverse conditions the accuracy of ATC classifications will deteriorate and an appropriate link count should be used for validation.

Disclaimer

Although every attempt is made to achieve accuracy, neither Essex County Council nor Essex Highways may be held liable for errors of fact or interpretation.

Generated 27 Sep 2017 v6.2

17288-01 - B1383 Cambridge Rd (N) QUENDON - SEP 2017 (ATC).xlsx



PROJECT 17288 QUENDON
LOCATION ATC02 - B1383 Cambridge Rd, Quendon
LOC. DESC. TP adj. property no. 4
START DATE Tue 19 Sep, 2017
END DATE Mon 25 Sep, 2017
SPEED LIMIT 30mph
SURVEY TYPE 7-day ATC, 15min periods, 10 veh. classes



A 7-day automatic traffic count on B1383 Cambridge Rd, Quendon, commencing Tue 19 Sep 2017, recorded a total of 69,540 vehicles. The posted speed limit of 30mph was exceeded by 15.6% of vehicles, and the seasonally adjusted, combined AADT value is 9,755 (see Equipment & Methodology below).

SUMMARY

COMBINED

Total recorded volume	69,540
Avg daily volume (based on 7 days)	9,934.3
Average daily speed (7 days)	28.2mph
Average daily 85%ile (7 days)	31.3mph
AADT (annual average daily traffic)	9,755

Avg weekday volume (Mon-Fri, 24hrs)	10,333.4
Avg weekday speed (Mon-Fri, 24hrs)	28.2mph
Avg 12hr weekday volume (Mon-Fri, 0700-1900)	8,439.4
Avg 12hr weekday speed (Mon-Fri, 0700-1900)	26.1mph

The combined summary on the left shows the total volumes, average speeds, AADT and 85%iles recorded in both directions from all the recorded data. Speeding vehicles are defined as those travelling 31mph and above.

The summaries below provide directionalised details including speeding percentages and weekday daytime details.

SOUTHBOUND ↓

Total recorded volume	35,226
Avg daily volume (based on 7 days)	5,032.3
Average daily speed (7 days)	28.1mph
Average daily 85%ile (7 days)	31.5mph
% of vehicles exceeding 30mph	16.3%

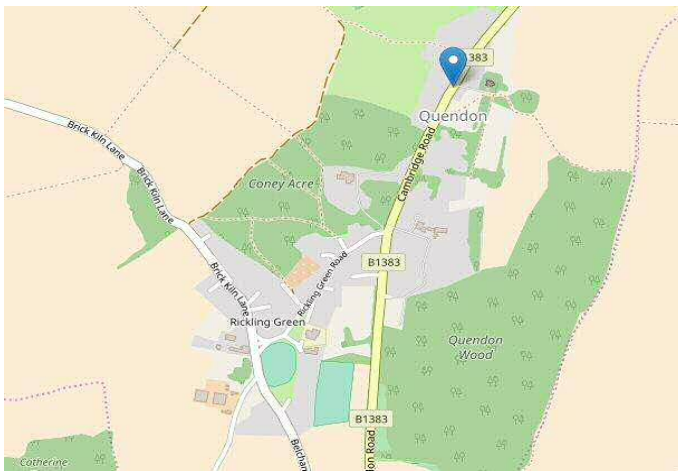
Avg weekday volume (Mon-Fri, 24hrs)	5,207.4
Avg weekday speed (Mon-Fri, 24hrs)	28.1mph
Avg 12hr weekday volume (Mon-Fri, 0700-1900)	4,265.4
Avg 12hr weekday speed (Mon-Fri, 0700-1900)	26.0mph
Avg 12hr weekday 85%ile (Mon-Fri, 0700-1900)	29.6mph

NORTHBOUND ↑

Total recorded volume	34,314
Avg daily volume (based on 7 days)	4,902.0
Average daily speed (7 days)	28.4mph
Average daily 85%ile (7 days)	31.0mph
% of vehicles exceeding 30mph	14.9%

Avg weekday volume (Mon-Fri, 24hrs)	5,126.0
Avg weekday speed (Mon-Fri, 24hrs)	28.4mph
Avg 12hr weekday volume (Mon-Fri, 0700-1900)	4,174.0
Avg 12hr weekday speed (Mon-Fri, 0700-1900)	26.2mph
Avg 12hr weekday 85%ile (Mon-Fri, 0700-1900)	29.2mph

SITE LOCATION



Map © OpenStreetMap contributors

Location B1383 Cambridge Rd, Quendon

Desc. TP adj. property no. 4

OSGR 551454, 230647

Lat, lng. 51.953696, 0.202550

Project & site 17288-02

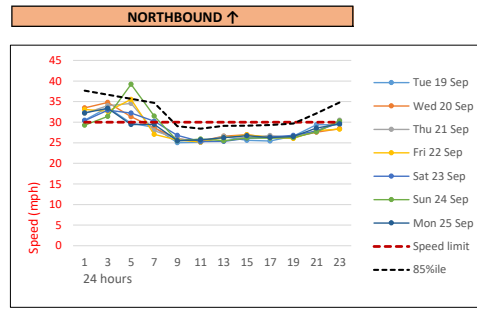
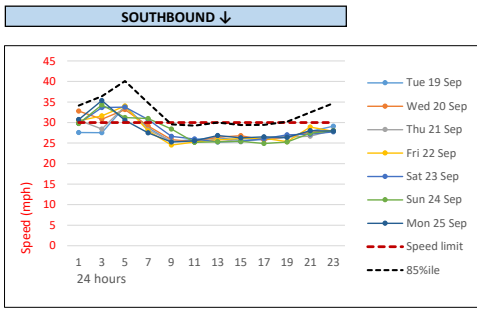
PSL 30mph

Bus route Yes

Direction 1 Southbound ↓

Direction 2 Northbound ↑

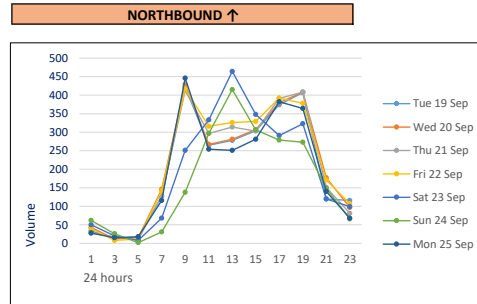
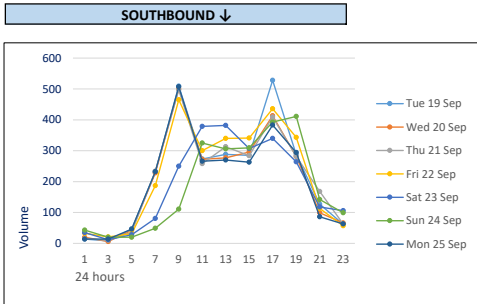
DAILY SPEEDS



Average daily speeds (solid thin colours) and 85thile (dashed black) compared against 30mph posted speed limit (dashed red). The 85thile is the speed at which 85% of all vehicles are observed to travel under free flowing conditions. A minimum of ten vehicles per speed bin is required for this calculation, hence the overnight low-volume 85thile values may be zero.

The peak average southbound daytime speed was 31.9mph at 07:45 on Sun 24 Sep, whilst the peak average northbound speed was 31.7mph at 07:45 on Sun 24 Sep (based on 15min averages between 0700 & 1900).

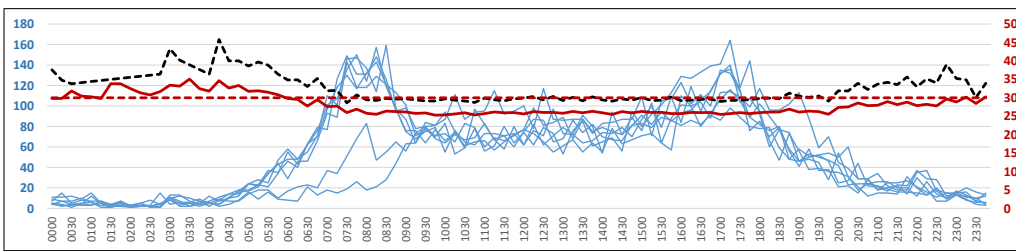
HOURLY VOLUMES



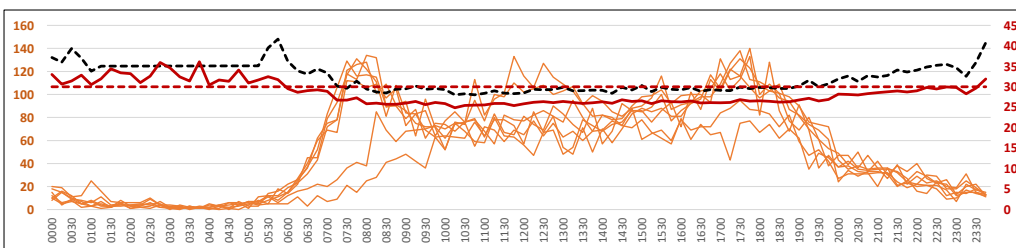
Hourly southbound traffic volumes over each 24hr period for 7 days from all available data.

Hourly northbound traffic volumes over each 24hr period for 7 days from all available data.

15min VOL & SPEED

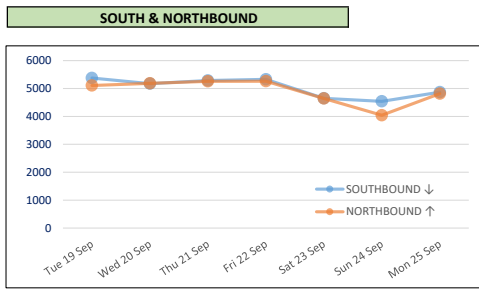


15min daily southbound flows (blue), against the average speed (red) and 85thile (dotted black) for each 15min period over the 7-day period.



15min daily northbound flows (orange), against the average weekly speed (red) and 85thile (dotted black) for each 15min period over the 7-day period.

DAILY VOLUMES



Total 24hr southbound (blue) and northbound (orange) traffic volumes over 7 consecutive days from all available data.

As can be expected, the lowest volumes were recorded on the Sunday, whilst the highest was on the Friday.

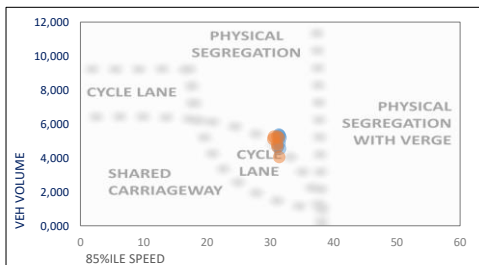
7-DAY AVERAGE CLASSES

SOUTHBOUND 7-DAY AVG ↓						
TIME	MOTOR CYCLES	CARS / LGV1	LGV2 / MGVS	HGV RIGID	HGV ARTIC'D	TOTAL
0000	0.4	23.1	1.1	0.1	0.0	24.9
0100	0.0	18.1	1.3	0.0	0.0	19.4
0200	0.0	13.0	0.0	0.0	0.0	13.0
0300	0.6	26.0	0.3	0.0	0.1	27.0
0400	0.4	34.7	0.4	0.0	0.0	35.6
0500	1.4	93.6	2.7	0.4	0.1	98.3
0600	3.7	166.1	6.4	1.0	0.1	177.4
0700	5.0	362.4	8.1	2.7	0.9	379.1
0800	3.0	390.1	9.4	2.0	1.0	405.6
0900	6.0	283.7	10.1	1.1	1.3	302.3
1000	5.9	277.6	10.9	1.9	0.0	296.1
1100	4.6	272.7	11.0	2.6	0.9	291.7
1200	3.7	292.4	10.6	2.3	1.9	310.9
1300	3.4	278.7	11.3	3.3	0.6	297.3
1400	3.0	279.0	11.4	2.9	1.6	297.9
1500	4.6	329.9	9.6	3.6	0.7	348.3
1600	4.9	399.4	8.3	1.6	0.4	414.6
1700	7.9	438.7	7.6	0.3	0.3	454.7
1800	4.0	300.3	3.9	0.4	0.3	308.9
1900	2.1	200.0	4.0	0.1	0.1	206.4
2000	0.6	120.1	0.9	0.1	0.1	121.9
2100	0.9	81.0	1.6	0.0	0.0	83.4
2200	0.1	72.1	1.3	0.0	0.1	73.7
2300	0.4	42.6	0.9	0.1	0.0	44.0
12hr TTL	55.9	3905.0	112.1	24.6	9.7	4107.3
24hr TTL	66.6	4795.6	133.0	26.6	10.6	5032.3
	1%	95%	3%	1%	0%	

NORTHBOUND 7-DAY AVG ↑						
TIME	MOTOR CYCLES	CARS / LGV1	LGV2 / MGVS	HGV RIGID	HGV ARTIC'D	TOTAL
0000	0.1	38.6	1.7	0.0	0.0	40.4
0100	0.0	22.3	0.7	0.0	0.1	23.1
0200	0.0	15.7	0.4	0.0	0.1	16.3
0300	0.1	6.3	0.9	0.0	0.0	7.3
0400	0.0	10.7	1.0	0.0	0.0	11.7
0500	0.3	29.0	1.4	0.6	0.1	31.4
0600	1.6	100.9	4.1	1.6	0.1	108.3
0700	2.3	294.0	9.0	3.4	1.1	309.9
0800	8.6	334.4	13.0	2.1	1.1	359.3
0900	4.6	262.7	15.6	2.4	1.4	286.7
1000	4.6	263.1	16.1	4.6	1.4	289.9
1100	3.1	289.7	15.7	3.0	0.9	312.4
1200	3.6	313.9	11.3	3.1	0.9	332.7
1300	3.1	289.4	10.6	3.6	0.6	307.3
1400	2.6	292.4	12.7	3.0	0.4	311.1
1500	5.1	315.6	10.4	1.7	1.0	333.9
1600	3.4	341.6	8.7	1.0	0.9	355.6
1700	2.4	417.3	7.0	0.9	0.7	428.3
1800	4.6	355.6	4.6	0.7	0.4	365.9
1900	2.4	244.0	2.6	0.1	0.1	249.3
2000	1.1	143.9	1.6	0.0	0.1	146.7
2100	1.4	115.7	2.4	0.1	0.4	120.1
2200	1.4	87.9	1.0	0.1	0.1	90.6
2300	1.3	60.6	1.7	0.0	0.3	63.9
12hr TTL	48.0	3769.7	134.7	29.6	10.9	3992.9
24hr TTL	57.9	4645.1	154.3	32.1	12.6	4902.0
	1%	95%	3%	1%	0%	

Average daily southbound and northbound volumes by class (condensed to the AQMA scheme), including 12hr totals for 0700-1900 and overall average percentages. Calculated from all available data over 7 days.

CYCLE PROVISION



The diagram compares total daily traffic flow (vertical axis) against the average daily 85th percentile speed (horizontal axis) to demonstrate cyclist and vulnerable user considerations.

The guidelines are based on the Sustrans Design Manual (Apr 2014); Understanding User Needs, part 2.

Valid 85th percentiles are required to plot the graph.

METHODOLOGY

Equipment & methodology

Automatic traffic counts are undertaken using a pair of pneumatic tubes installed securely across the carriageway, one metre apart, recording air pulses to determine vehicle speed, class and volume. The ATC equipment generally remains in place for a consecutive seven day period, and the data analysed post-survey.

In queuing conditions, the accuracy of ATC recording equipment will reduce as follows;

- 20 – 30mph: potential reduction of 9% accuracy in volume values
- 10 – 20mph: potential reduction of 26% accuracy in volume values
- 00 – 10mph: potential reduction of 39% accuracy in volume values

These figures are based on multiple ATC results compared against accepted reference values from resilient manual counts.

AADTs are calculated using the seasonal COBA methodology; DMRB Vol. 13, Pt 4: Traffic Input To COBA, with formulae available in the (hidden) config worksheet.

Weather & environmental

Inclement conditions during winter months or outbreaks of unseasonable weather may affect survey data collection. This can result in distorted traffic flows or unusable data and should be considered prior to survey approval. Although forecast checks are made prior to the survey commencing, Essex Highways cannot be held responsible for the forecast accuracy.

Equipment damage & failure

Although checked intermittently the equipment remains unmanned for much of the duration of the survey, and can potentially be interfered with, vandalised, damaged or stolen and Essex Highways cannot be held responsible for any periods where data has not been captured.

The equipment is located in accordance with the details provided by the client and Essex Highways cannot be held responsible for the accuracy of the data or loss of equipment due to theft and vandalism.

Roadworks & events

Where possible, roadworks checks are made 10 days before, and 48 hours before, the survey commences. Additionally, influencing major local events are also monitored, covering the immediate vicinity of the surveys and any routes likely to affect the outcome of the survey.

CLASS	ABBREV.	DESCRIPTION	LENGTH	COBA	AQMA	MANUAL
1	MC	Motorcycle	SHORT Up to 5.5m	N/A	MC	MC
2	SV	Cars, taxis, 4WD, vans		CAR & LGV	CAR	CAR & LGV1
3	SVT	Class 2 plus trailer	MEDIUM 5.5m to 14.5m	OGV1 & PSV	LGV & MGW	LGV2 & PSV
4	TB2	2 axle truck / bus		OGV1	MGV & PSV	
5	TB3	3 axle truck / bus			HGV RIGID	HGV1
6	T4	4 axle truck	LONG 11.5m to 19.0m	OGV2	HGV ARTIC	HGV2
7	ART3	3 axle articulated				
8	ART4	4 axle articulated				
9	ART5	5 axle articulated				
10	ART6	6+ axle articulated				

Vehicle classifications

Vehicles recorded by the ATC are placed into one of ten classes based on axle spacing and pattern. This scheme is based on the AustRoad 94 algorithm and modified for UK traffic, referred to as ARX. The table on the left aligns the ARX classifications with the COBA Chapter 8 (Vol 13, Sec 1) classifications, AQMA (air quality management standard) and the Essex 9-class, as used in manual junction counts undertaken by Essex Highways.

Under adverse conditions the accuracy of ATC classifications will deteriorate and an appropriate link count should be used for validation.

Disclaimer

Although every attempt is made to achieve accuracy, neither Essex County Council nor Essex Highways may be held liable for errors of fact or interpretation.

Generated 27 Sep 2017 v6.2

17288-02 - B1383 Cambridge Rd QUENDON - SEP 2017 (ATC).xlsx



PROJECT 17288 QUENDON
LOCATION ATC03 - B1383 Cambridge Rd (S), Quendon
LOC. DESC. Existing VAS, 80m S of j/w Rickling Green Rd
START DATE Tue 19 Sep, 2017
END DATE Mon 25 Sep, 2017
SPEED LIMIT 30mph
SURVEY TYPE 7-day ATC, 15min periods, 10 veh. classes



A 7-day automatic traffic count on B1383 Cambridge Rd (S), Quendon, commencing Tue 19 Sep 2017, recorded a total of 68,488 vehicles. The posted speed limit of 30mph was exceeded by 70.7% of vehicles, and the seasonally adjusted, combined AADT value is 9,598 (see Equipment & Methodology below).

SUMMARY

COMBINED

Total recorded volume	68,488
Avg daily volume (based on 7 days)	9,784.0
Average daily speed (7 days)	35.2mph
Average daily 85%ile (7 days)	39.3mph
AADT (annual average daily traffic)	9,598

Avg weekday volume (Mon-Fri, 24hrs)	10,152.4
Avg weekday speed (Mon-Fri, 24hrs)	35.0mph
Avg 12hr weekday volume (Mon-Fri, 0700-1900)	8,258.4
Avg 12hr weekday speed (Mon-Fri, 0700-1900)	31.9mph

The combined summary on the left shows the total volumes, average speeds, AADT and 85%iles recorded in both directions from all the recorded data. Speeding vehicles are defined as those travelling 31mph and above.

The summaries below provide directionalised details including speeding percentages and weekday daytime details.

SOUTHBOUND ↓

Total recorded volume	35,212
Avg daily volume (based on 7 days)	5,030.3
Average daily speed (7 days)	36.1mph
Average daily 85%ile (7 days)	40.4mph
% of vehicles exceeding 30mph	73.5%

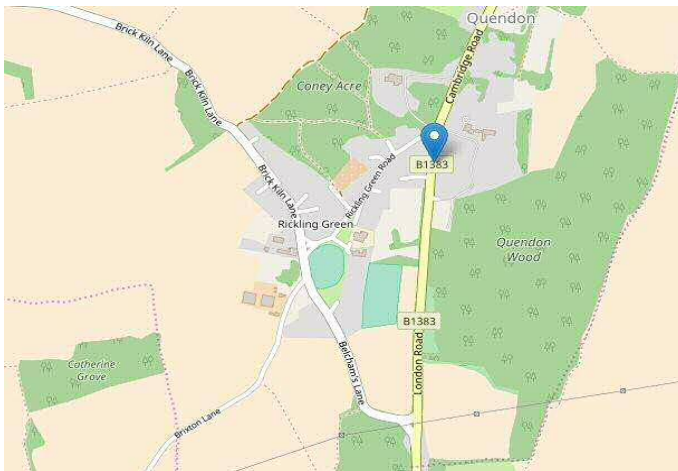
Avg weekday volume (Mon-Fri, 24hrs)	5,200.4
Avg weekday speed (Mon-Fri, 24hrs)	35.8mph
Avg 12hr weekday volume (Mon-Fri, 0700-1900)	4,258.4
Avg 12hr weekday speed (Mon-Fri, 0700-1900)	32.2mph
Avg 12hr weekday 85%ile (Mon-Fri, 0700-1900)	36.9mph

NORTHBOUND ↑

Total recorded volume	33,276
Avg daily volume (based on 7 days)	4,753.7
Average daily speed (7 days)	34.4mph
Average daily 85%ile (7 days)	38.2mph
% of vehicles exceeding 30mph	67.9%

Avg weekday volume (Mon-Fri, 24hrs)	4,952.0
Avg weekday speed (Mon-Fri, 24hrs)	34.2mph
Avg 12hr weekday volume (Mon-Fri, 0700-1900)	4,000.0
Avg 12hr weekday speed (Mon-Fri, 0700-1900)	31.7mph
Avg 12hr weekday 85%ile (Mon-Fri, 0700-1900)	36.0mph

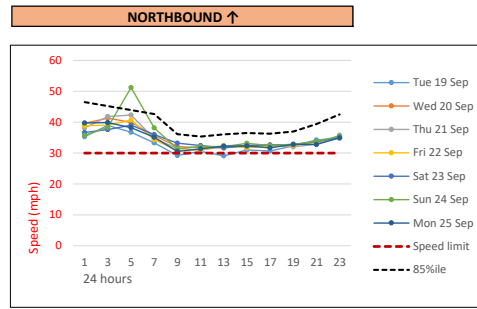
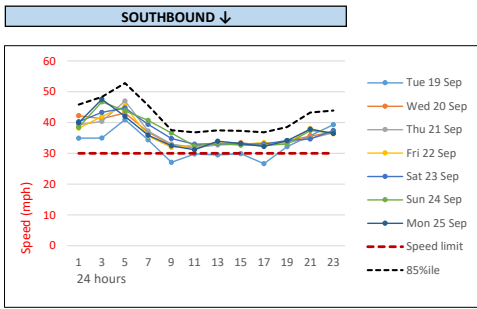
SITE LOCATION



Map © OpenStreetMap contributors

Location	B1383 Cambridge Rd (S), Quendon
Desc.	Existing VAS, 80m S of j/w Rickling Green Rd
OSGR	551292, 230136
Lat, lng.	51.949149, 0.199969
Project & site	17288-03
PSL	30mph
Bus route	Yes
Direction 1	Southbound ↓
Direction 2	Northbound ↑

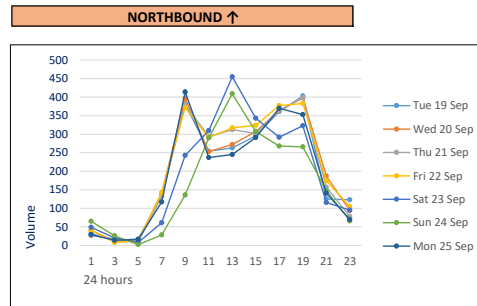
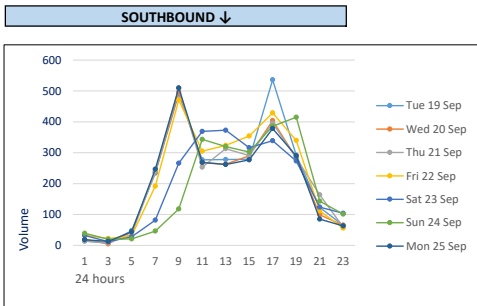
DAILY SPEEDS



Average daily speeds (solid thin colours) and 85%ile (dashed black) compared against 30mph posted speed limit (dashed red). The 85%ile is the speed at which 85% of all vehicles are observed to travel under free flowing conditions. A minimum of ten vehicles per speed bin is required for this calculation, hence the overnight low-volume 85%ile values may be zero.

The peak average southbound daytime speed was 47.4mph at 07:00 on Sun 24 Sep, whilst the peak average northbound speed was 41.1mph at 07:00 on Sun 24 Sep (based on 15min averages between 0700 & 1900).

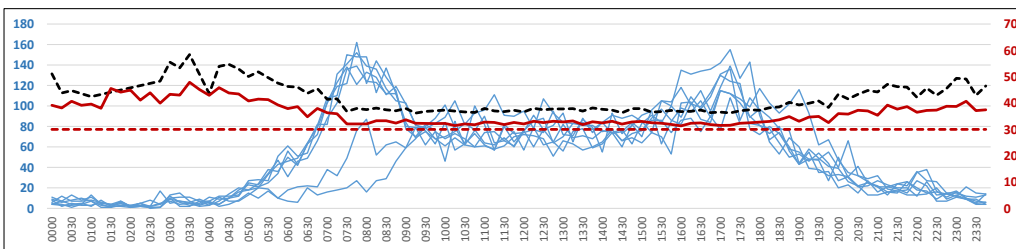
HOURLY VOLUMES



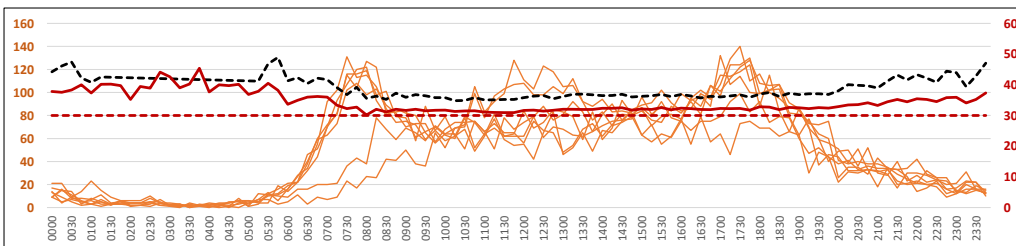
↓ Hourly southbound traffic volumes over each 24hr period for 7 days from all available data.

↑ Hourly northbound traffic volumes over each 24hr period for 7 days from all available data.

15min VOL & SPEED

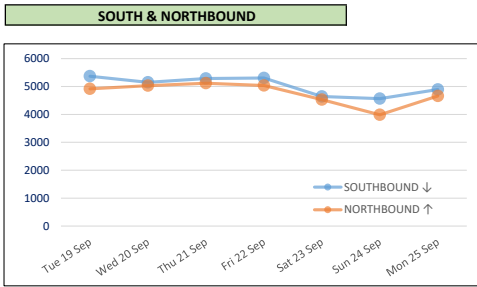


↓ 15min daily southbound flows (blue), against the average speed (red) and 85%ile (dotted black) for each 15min period over the 7-day period.



↑ 15min daily northbound flows (orange), against the average weekly speed (red) and 85%ile (dotted black) for each 15min period over the 7-day period.

DAILY VOLUMES



Total 24hr southbound (blue) and northbound (orange) traffic volumes over 7 consecutive days from all available data.

As can be expected, the lowest volumes were recorded on the Sunday, whilst the highest was on the Thursday.

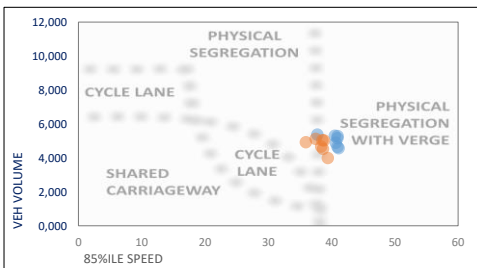
7-DAY AVERAGE CLASSES

SOUTHBOUND 7-DAY AVG ↓						
TIME	MOTOR CYCLES	CARS / LGV1	LGV2 / MGVS	HGV RIGID	HGV ARTIC'D	TOTAL
0000	0.4	21.0	2.9	0.0	0.0	24.3
0100	0.0	16.1	3.0	0.0	0.0	19.1
0200	0.0	11.0	1.1	0.0	0.3	12.4
0300	0.6	24.9	2.0	0.0	0.3	27.7
0400	0.3	33.1	2.6	0.0	0.0	36.0
0500	1.4	90.6	8.7	0.4	0.1	101.3
0600	3.0	160.3	17.9	0.4	0.7	182.3
0700	3.7	358.0	28.6	2.7	0.7	393.7
0800	2.7	373.7	28.0	3.3	1.1	408.9
0900	5.4	274.9	24.1	1.0	1.1	306.6
1000	4.4	265.0	25.3	1.7	1.3	297.7
1100	2.4	258.1	24.1	2.6	1.6	288.9
1200	2.6	272.1	26.1	1.9	2.0	304.7
1300	1.7	266.3	23.6	3.3	1.7	296.6
1400	2.1	267.7	25.7	3.3	2.4	301.3
1500	2.7	308.0	21.3	3.6	1.7	337.3
1600	3.3	378.3	25.1	1.9	1.1	409.7
1700	4.4	421.7	21.7	1.1	0.7	449.7
1800	2.6	295.0	12.4	0.1	0.7	310.9
1900	1.6	193.9	9.0	0.0	0.7	205.1
2000	0.0	116.9	4.0	0.0	0.6	121.4
2100	0.7	75.4	3.4	0.0	0.0	79.6
2200	0.0	69.7	3.4	0.0	0.1	73.3
2300	0.3	39.6	1.6	0.1	0.3	41.9
12hr TTL	38.1	3738.9	286.1	26.4	16.3	4105.9
24hr TTL	46.4	4591.3	345.7	27.4	19.4	5030.3
1%	91%	7%	1%	0%		

NORTHBOUND 7-DAY AVG ↑						
TIME	MOTOR CYCLES	CARS / LGV1	LGV2 / MGVS	HGV RIGID	HGV ARTIC'D	TOTAL
0000	0.1	36.1	4.1	0.0	0.0	40.4
0100	0.0	20.7	1.7	0.0	0.4	22.9
0200	0.0	14.6	1.1	0.0	0.1	15.9
0300	0.0	6.1	1.3	0.0	0.0	7.4
0400	0.0	9.1	2.0	0.0	0.0	11.1
0500	0.0	24.7	5.0	0.6	0.3	30.6
0600	1.3	92.9	10.9	2.1	0.7	107.9
0700	1.4	273.6	22.6	2.0	1.3	300.9
0800	8.3	295.4	24.9	1.3	2.0	331.9
0900	3.7	230.0	27.1	2.4	1.6	264.9
1000	4.6	237.1	27.6	4.3	2.0	275.6
1100	2.6	266.3	26.0	3.1	1.7	299.7
1200	2.7	293.0	24.7	2.7	1.6	324.7
1300	3.6	270.6	22.3	3.3	1.7	301.4
1400	1.9	280.9	23.6	3.0	0.6	309.9
1500	3.1	283.1	23.9	1.6	1.7	313.4
1600	2.4	320.3	17.9	1.1	0.4	342.1
1700	3.0	401.9	16.7	0.6	0.6	422.7
1800	4.4	343.9	11.3	0.4	0.7	360.7
1900	1.9	236.3	7.4	0.0	0.4	246.0
2000	0.6	145.3	3.6	0.0	0.3	149.7
2100	0.7	112.3	4.3	0.1	0.9	118.3
2200	1.0	86.6	2.1	0.3	0.1	90.1
2300	0.7	62.1	2.4	0.0	0.3	65.6
12hr TTL	41.7	3496.0	268.4	25.9	15.9	3847.9
24hr TTL	48.0	4342.9	314.4	29.0	19.4	4753.7
1%	91%	7%	1%	0%		

Average daily southbound and northbound volumes by class (condensed to the AQMA scheme), including 12hr totals for 0700-1900 and overall average percentages. Calculated from all available data over 7 days.

CYCLE PROVISION



The diagram compares total daily traffic flow (vertical axis) against the average daily 85%ile speed (horizontal axis) to demonstrate cyclist and vulnerable user considerations.

The guidelines are based on the Sustrans Design Manual (Apr 2014); Understanding User Needs, part 2.

Valid 85%iles are required to plot the graph.

METHODOLOGY

Equipment & methodology

Automatic traffic counts are undertaken using a pair of pneumatic tubes installed securely across the carriageway, one metre apart, recording air pulses to determine vehicle speed, class and volume. The ATC equipment generally remains in place for a consecutive seven day period, and the data analysed post-survey.

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- 20 – 30mph: potential reduction of 9% accuracy in volume values
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These figures are based on multiple ATC results compared against accepted reference values from resilient manual counts.

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Inclement conditions during winter months or outbreaks of unseasonable weather may affect survey data collection. This can result in distorted traffic flows or unusable data and should be considered prior to survey approval. Although forecast checks are made prior to the survey commencing, Essex Highways cannot be held responsible for the forecast accuracy.

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CLASS	ABBREV.	DESCRIPTION	LENGTH	COBA	AQMA	MANUAL
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2	SV	Cars, taxis, 4WD, vans		CAR & LGV	CAR	CAR & LGV1
3	SVT	Class 2 plus trailer	MEDIUM 5.5m to 14.5m	OGV1 & PSV	LGV & MGW	LGV2 & PSV
4	TB2	2 axle truck / bus		OGV1	MGV & PSV	
5	TB3	3 axle truck / bus			HGV RIGID	HGV1
6	T4	4 axle truck	LONG 11.5m to 19.0m	OGV2	HGV ARTIC	HGV2
7	ART3	3 axle articulated				
8	ART4	4 axle articulated				
9	ART5	5 axle articulated				
10	ART6	6+ axle articulated				

Vehicle classifications

Vehicles recorded by the ATC are placed into one of ten classes based on axle spacing and pattern. This scheme is based on the AustRoad 94 algorithm and modified for UK traffic, referred to as ARX. The table on the left aligns the ARX classifications with the COBA Chapter 8 (Vol 13, Sec 1) classifications, AQMA (air quality management standard) and the Essex 9-class, as used in manual junction counts undertaken by Essex Highways.

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17288-03 - B1383 Cambridge Rd (S) QUENDON - SEP 2017 (ATC).xlsx



PROJECT 18356 QUENDON
LOCATION ATC01 - B1383 Cambridge Rd, Quendon
LOC. DESC. End of lay-by, 360m N of j/w Belchams Ln
START DATE Fri 28 Sep, 2018
END DATE Thu 04 Oct, 2018
SPEED LIMIT 50mph
SURVEY TYPE 7-day ATC, 15min periods, 10 veh. classes



7-DAY AUTOMATIC TRAFFIC COUNT

A 7-day automatic traffic count on B1383 Cambridge Rd, Quendon, commencing Fri 28 Sep 2018, recorded a total of 64,468 vehicles. The posted speed limit of 50mph was exceeded by 13.8% of vehicles, and the seasonally adjusted, combined AADT value is 9,064 (see 'Equipment & methodology' below).

The combined summary on the left shows the total volumes, average speeds, AADT and 85%iles recorded in both directions from all the recorded data, plus the Mon-Fri peak periods. Speeding vehicles are defined as those travelling 51mph and above.

The summaries below provide directionalised details including speeding percentages and weekday daytime details.

SUMMARY

COMBINED SOUTH- & NORTHBOUND

Total recorded volume	64,468
Avg daily volume (based on 7 days)	9,209.7
Average daily speed (7 days)	46.3mph
Average daily 85%ile (7 days)	50.7mph
AADT (annual average daily traffic)	9,064

Avg weekday volume (Mon-Fri, 24hrs)	9,846.2
Avg weekday speed (Mon-Fri, 24hrs)	46.3mph
Avg 12hr weekday volume (Mon-Fri, 0700-1900)	8,112.0
Avg 12hr weekday speed (Mon-Fri, 0700-1900)	43.9mph

SOUTHBOUND



Total recorded volume	32,733
Avg daily volume (based on 7 days)	4,676.1
Average daily speed (7 days)	45.8mph
Average daily 85%ile (7 days)	50.4mph
% of vehicles exceeding 50mph	11.9%

Avg weekday volume (Mon-Fri, 24hrs)	4,983.0
Avg weekday speed (Mon-Fri, 24hrs)	45.8mph
Avg 12hr weekday volume (Mon-Fri, 0700-1900)	4,113.4
Avg 12hr weekday speed (Mon-Fri, 0700-1900)	43.2mph
Avg 12hr weekday 85%ile (Mon-Fri, 0700-1900)	48.2mph
AM avg peak vol period (Mon-Fri)	07:30 to 07:45
PM avg peak vol period (Mon-Fri)	17:15 to 17:30

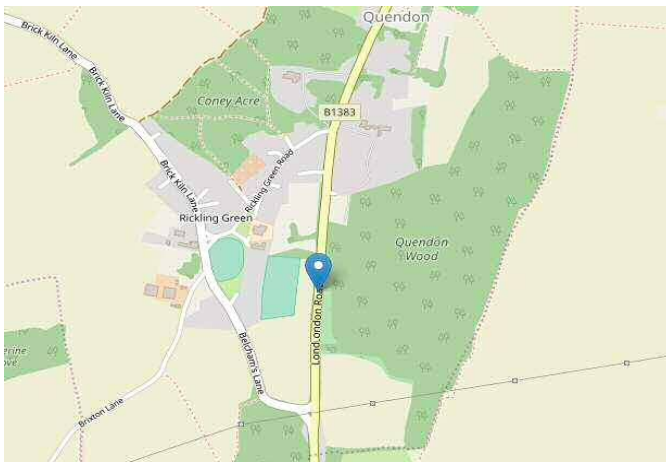
NORTHBOUND



Total recorded volume	31,735
Avg daily volume (based on 7 days)	4,533.6
Average daily speed (7 days)	46.9mph
Average daily 85%ile (7 days)	51.1mph
% of vehicles exceeding 50mph	15.8%

Avg weekday volume (Mon-Fri, 24hrs)	4,863.2
Avg weekday speed (Mon-Fri, 24hrs)	46.7mph
Avg 12hr weekday volume (Mon-Fri, 0700-1900)	3,998.6
Avg 12hr weekday speed (Mon-Fri, 0700-1900)	44.5mph
Avg 12hr weekday 85%ile (Mon-Fri, 0700-1900)	49.3mph
AM avg peak vol period (Mon-Fri)	07:45 to 08:00
PM avg peak vol period (Mon-Fri)	17:30 to 17:45

SITE LOCATION



Map © OpenStreetMap contributors

LOCATION B1383 Cambridge Rd, Quendon

DESC. End of lay-by, 360m N of j/w Belchams Ln

DATES Fri 28 Sep to Thu 04 Oct inc.

OSGR 551269, 229736

LAT / LNG 51.945558, 0.199471

PROJECT & SITE 18356-01

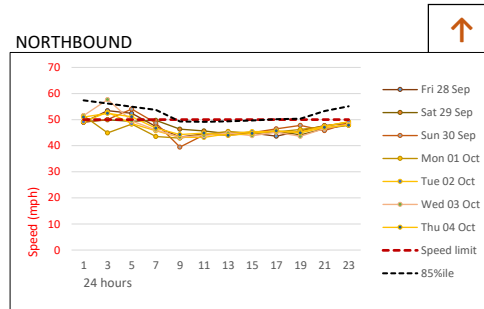
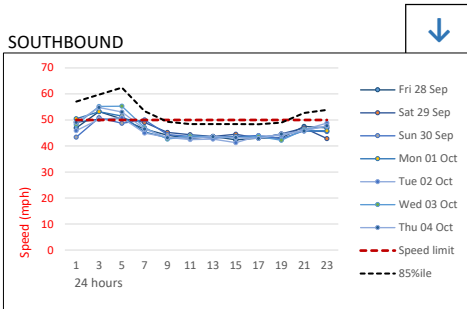
PSL 50mph

BUS ROUTE Yes

DIRECTION 1 Southbound ↓

DIRECTION 2 ↑ Northbound

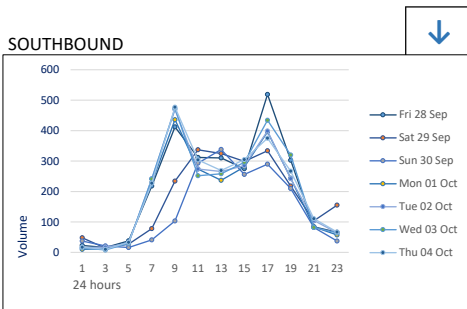
HOURLY SPEEDS



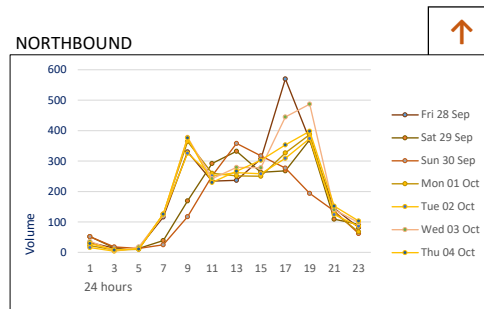
Average hourly speeds (solid thin colours) and 85%ile (dashed black) compared against 50mph posted speed limit (dashed red). The 85%ile is the speed at which 85% of all vehicles are observed to travel under free flowing conditions. A minimum of ten vehicles per speed bin is required for this calculation, hence the overnight low-volume 85%ile values may be zero.

The peak average southbound daytime speed was 50.7mph at 07:30 on Sun 30 Sep, whilst the peak average northbound speed was 49.4mph at 07:30 on Sat 29 Sep (based on 15min averages between 0700 & 1900).

HOURLY VOLUMES

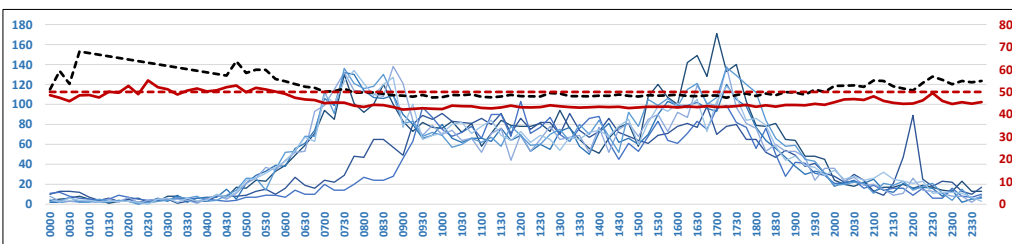


Hourly southbound traffic volumes over each 24hr period for 7 days from all available data.

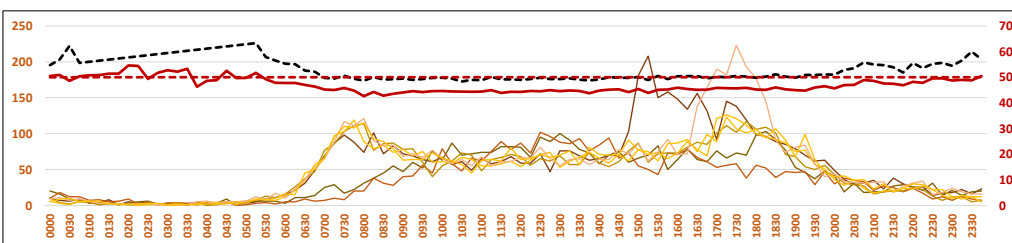


Hourly northbound traffic volumes over each 24hr period for 7 days from all available data.

15min VOL & SPEED



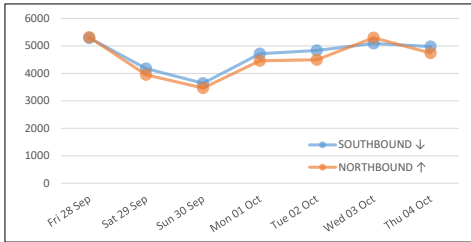
15min daily southbound flows (blue), against the average speed (red) and 85%ile (dotted black) for each 15min period over the 7-day period.



15min daily northbound flows (orange), against the average weekly speed (red) and 85%ile (dotted black) for each 15min period over the 7-day period.

DAILY VOLUMES

SOUTH & NORTHBOUND



Total 24hr southbound (blue) and northbound (orange) traffic volumes over 7 consecutive days from all available data.

As can be expected, the lowest volumes were recorded on the Sunday, whilst the highest was on the Friday.

5-DAY AVERAGE CLASSES

SOUTHBOUND WEEK-DAY AVG

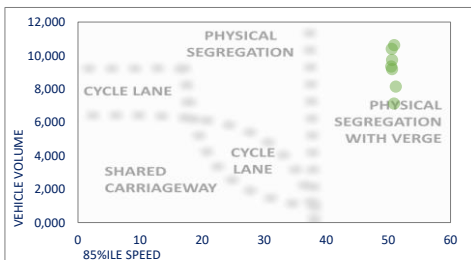
TIME	MOTOR CYCLES	CARS / LGV1	LGV2 / MGVS	HGV RIGID	HGV ARTIC'D	TOTAL
0000	0.0	13.6	2.4	0.0	0.2	16.2
0100	0.0	10.6	1.6	0.0	0.0	12.2
0200	0.0	11.4	1.2	0.0	0.0	12.6
0300	0.0	18.8	1.2	0.0	0.0	20.0
0400	0.0	32.0	0.8	0.2	0.0	33.0
0500	1.0	101.4	8.4	0.0	0.2	111.0
0600	2.8	202.0	24.6	0.8	1.2	231.4
0700	3.6	416.2	30.0	2.0	1.4	453.2
0800	4.0	414.2	31.0	1.4	2.8	453.4
0900	2.6	274.8	31.8	5.6	2.8	317.6
1000	0.8	243.4	32.4	3.0	3.6	283.2
1100	1.4	238.0	28.4	2.0	3.0	272.8
1200	2.2	230.6	31.2	2.4	1.6	268.0
1300	2.0	233.0	29.0	2.8	2.8	269.6
1400	1.0	253.4	25.6	5.2	3.2	288.4
1500	1.4	315.6	27.6	1.8	4.2	350.6
1600	5.0	387.2	28.8	1.2	2.4	424.6
1700	2.2	429.4	23.2	0.8	1.2	456.8
1800	1.2	262.2	10.6	0.0	1.2	275.2
1900	3.4	154.2	7.2	0.2	0.6	165.6
2000	2.4	85.6	4.4	0.2	0.6	93.2
2100	1.0	70.6	3.0	0.2	0.0	74.8
2200	1.0	61.0	1.4	0.0	0.2	63.6
2300	0.0	32.4	3.4	0.0	0.2	36.0
12hr TTL	27.4	3698.0	329.6	28.2	30.2	4113.4
24hr TTL	39.0	4491.6	389.2	29.8	33.4	4983.0
1%	90%	8%	1%	1%		

NORTHBOUND WEEK-DAY AVG

TIME	MOTOR CYCLES	CARS / LGV1	LGV2 / MGVS	HGV RIGID	HGV ARTIC'D	TOTAL
0000	0.0	25.2	1.8	0.0	0.0	27.0
0100	0.2	11.0	2.4	0.0	0.0	13.6
0200	0.0	6.4	1.6	0.0	0.0	8.0
0300	0.2	4.4	2.0	0.0	0.2	6.8
0400	0.0	12.6	1.2	0.0	0.0	13.8
0500	0.0	28.6	4.0	0.0	0.8	33.4
0600	1.8	99.8	20.0	0.6	0.8	123.0
0700	2.8	332.4	33.6	0.6	3.6	373.0
0800	2.4	309.6	34.0	5.6	3.2	354.8
0900	1.2	222.6	40.6	3.4	2.8	270.6
1000	1.8	207.2	29.2	2.8	2.4	243.4
1100	1.2	214.8	27.6	3.0	2.6	249.2
1200	2.0	223.0	30.0	2.4	1.8	259.2
1300	2.2	232.0	23.4	3.4	3.4	264.4
1400	1.2	246.6	26.2	3.6	1.6	279.2
1500	1.6	336.6	34.8	1.2	4.2	378.4
1600	3.2	364.6	28.6	1.0	3.4	400.8
1700	7.0	484.4	28.4	0.2	2.6	522.6
1800	7.2	383.4	11.8	0.0	0.6	403.0
1900	2.0	250.0	7.6	0.0	0.8	260.4
2000	0.6	135.0	2.4	0.0	0.2	138.2
2100	0.2	94.2	3.4	0.0	0.0	97.8
2200	0.2	84.4	2.6	0.0	0.2	87.4
2300	0.6	53.0	1.0	0.0	0.6	55.2
12hr TTL	33.8	3557.2	348.2	27.2	32.2	3998.6
24hr TTL	39.6	4361.8	398.2	27.8	35.8	4863.2
1%	90%	8%	1%	1%		

Average weekday southbound and northbound volumes by class (condensed to the AQMA scheme), including 12hr totals for 0700-1900 and overall average percentages. Calculated from all available data over 5 weekdays. See 'Equipment & Methodology' below for accuracy details.

CYCLE PROVISION



The diagram compares total daily traffic flow (vertical axis) against the average daily 85%ile speed (horizontal axis) to demonstrate cyclist and vulnerable user considerations.

The guidelines are based on the Sustrans Design Manual (Apr 2014); Understanding User Needs, part 2.

Valid 85%iles are required to plot the graph.

METHODOLOGY

Equipment & methodology

Automatic traffic counts are undertaken using a pair of pneumatic tubes installed securely across the carriageway, one metre apart, recording air pulses to determine vehicle speed, class and volume. The ATC equipment generally remains in place for a consecutive seven day period, and the data analysed post-survey.

In queuing conditions, the accuracy of ATC recording equipment may reduce as follows;

- 20 – 30mph: potential reduction of 9% accuracy in volume values
- 10 – 20mph: potential reduction of 26% accuracy in volume values
- 00 – 10mph: potential reduction of 39% accuracy in volume values

These figures are based on multiple ATC results compared against accepted reference values from resilient manual counts.

AADTs are calculated using the seasonal COBA methodology; DMRB Vol. 13, Pt 4: Traffic Input To COBA, with formulae available in the (hidden) config worksheet.

Weather & environmental

Inclement conditions during winter months or outbreaks of unseasonable weather may affect survey data collection. This can result in distorted traffic flows or unusable data and should be considered prior to survey approval. Although forecast checks are made prior to the survey commencing, Essex Highways cannot be held responsible for the forecast accuracy.

CLASS	ABBREV.	DESCRIPTION	LENGTH	COBA	AQMA	MANUAL
1	MC	Motorcycle	SHORT Up to 5.5m	N/A	MC	MC
2	SV	Cars, taxis, 4WD, vans		CAR & LGV	CAR	CAR & LGV1
3	SVT	Class 2 plus trailer	MEDIUM 5.5m to 14.5m	OGV1 & PSV	LGV & MGW	LGV2 & PSV
4	TB2	2 axle truck / bus		OGV1		MGV & PSV
5	TB3	3 axle truck / bus			HGV RIGID	HGV1
6	T4	4 axle truck				
7	ART3	3 axle articulated	LONG 11.5m to 19.0m	OGV2	HGV ARTIC	HGV2
8	ART4	4 axle articulated				
9	ART5	5 axle articulated				
10	ART6	6+ axle articulated				

Generated 09 Oct 2018 v6.9c

18356-01 - B1383 Cambridge Rd QUENDON - SEP 2018 (ATC).xlsx

Equipment damage & failure

Although checked intermittently the equipment remains unmanned for much of the duration of the survey, and can potentially be interfered with, vandalised, damaged or stolen and Essex Highways cannot be held responsible for any periods where data has not been captured.

The equipment is located in accordance with the details provided by the client and Essex Highways cannot be held responsible for the accuracy of the data or loss of equipment due to theft and vandalism.

Roadworks & events

Where possible, roadworks checks are made 10 days before, and 48 hours before, the survey commences. Additionally, influencing major local events are also monitored, covering the immediate vicinity of the surveys and any routes likely to affect the outcome of the survey.

Vehicle classifications

Vehicles recorded by the ATC are placed into one of ten classes based on axle spacing and pattern. This scheme is based on the AustRoad 94 algorithm and modified for UK traffic, referred to as ARX. The table on the left aligns the ARX classifications with the COBA Chapter 8 (Vol 13, Sec 1) classifications, AQMA (air quality management standard) and the Essex 9-class, as used in manual junction counts undertaken by Essex Highways.

Under adverse conditions the accuracy of ATC classifications will deteriorate and an appropriate link count should be used for validation.

Disclaimer

Although every attempt is made to achieve accuracy, neither Essex County Council nor Essex Highways may be held liable for errors of fact or interpretation.



Appendix 1.0

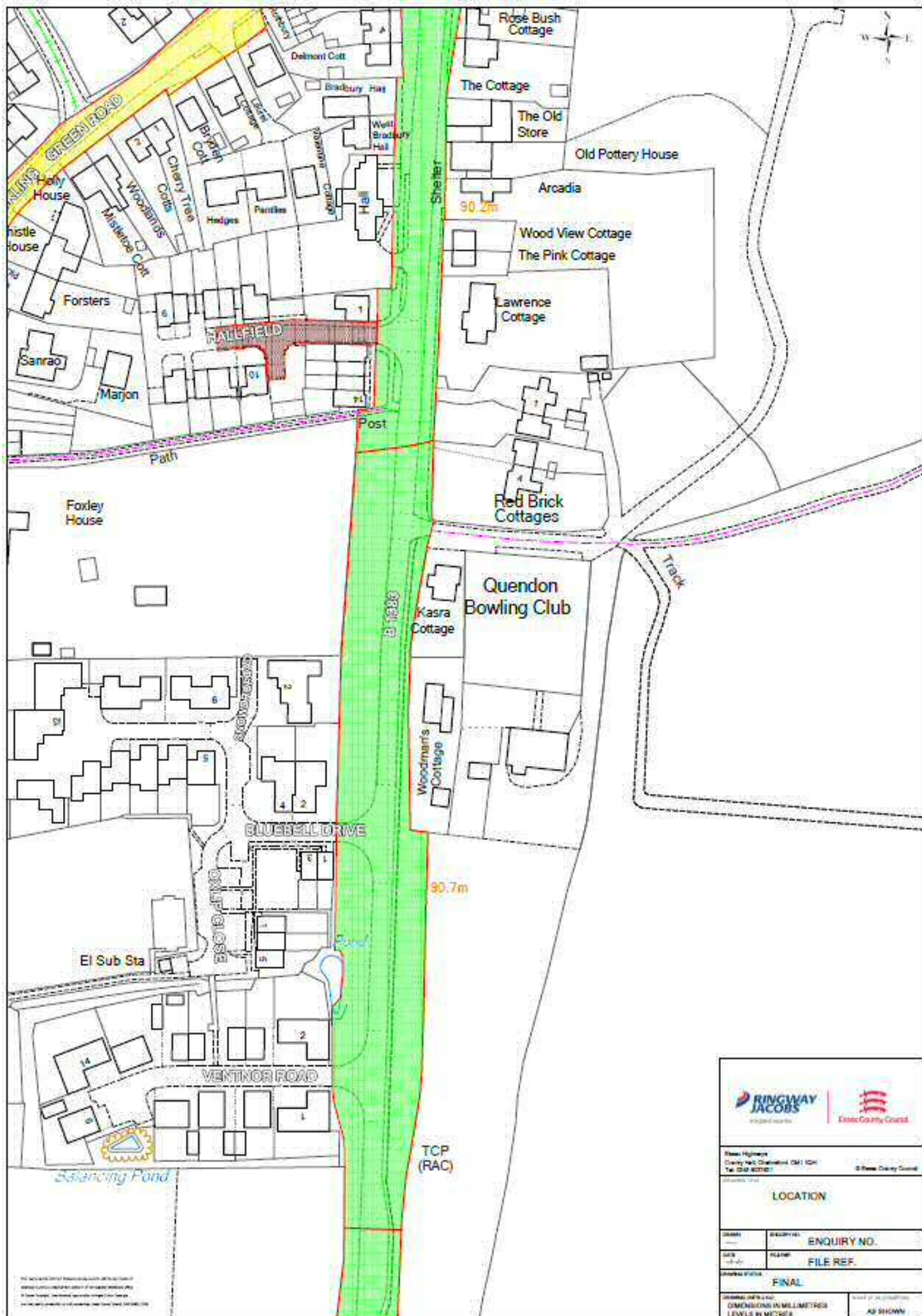
Quendon & Rickling Collated Community Speed Watch Data

Date	25.09.2018	11.12.2018	23.01.2019	27.01.2019	05.02.2019	14.02.2019	24.02.2019	27.02.2019	07.03.2019	26.03.2019	07.04.2019	03.05.2019	15.05.2019	22.05.2019	20.06.2019	01.08.2019	29.08.2019	26.09.2019	21.01.2020	06.02.2020	12.02.2020	
Time	16:25-18:55	14:05-15:32	14:05-15:05	12:17-13:32	14:54-15:36	14:44-16:05	11:45-13:05	14:43-15:42	14:54-16:01	14:50-15:39	11:10-12:40	16:04-17:00	16:02-17:01	18:05-19:30	18:00-19:00	18:02-19:30	16:12-19:43	15:15-16:15	15:15-16:17	14:39-15:52	14:43-15:55	
Speed																						
36	6	4	2	9	1	7	6	6	2	3	3	3	5	12	5	8	17	5	6	10	6	
37	6	6	5	2	8	7	2	3	6	1	3	14	8	4	5	2	10	5	8	7	4	
38	14		2	4	6	5	8	6	7	1	3	7	6	9	2	9	11	5	4	2	7	
39	6	1	1	1	1	5	3	4	3	1	2	3	6	3	1	8	5	2	3	4	4	
40	8	2	1	5	2	6	2	1	3	1		4	3	3	6	2	7	1	1	2	5	
41	9			1		4	2	2	2	2	2		1	2	2	1	2	5	1	2	1	
42	4	1			1	2	3	4		1	3	1		1	2	2	2	1			2	
43	6			3	1	1	1	1				1	1	2		3	3			1	1	
44		1			1	3	2		3		1	2	1		1	1	1			2	2	
45	1				1	2			1	1		2		1	1	3						
46	3			2		2	1	1	2					1		1	3		1		1	
47			1	1	1																1	
48				1			1	2						2			2					
49						3		1					1									
50					1	1								1								
51						2																
52				1													1					
53			1																			
54																						
55										1												
56																						
57																						
58																						
59																						
60																						
61																						
62																						
63														1								
Total	63	15	13	30	24	50	31	31	29	12	17	37	32	42	25	40	64	24	27	33	29	
No Tax				1	2								3	4	1							
No MOT				8	1	1		3					1				1	1		1		
Total No of Vehicles recorded speed				668																		

Date: 15.02.2020			
Time duration: 12.25-13.20			
Location: CSW121 (Quendon & Rickling, Fountain located on the B1383, Cambridge Rd)			
Speed Limit: 30mph			
Speed (MPH)	No. of Vehicles recorded		
< 30-35	405		
36	17		
37	19		
38	12		
39	19		
40	10		
41-45	35		
46-50	9		
51-55	2		

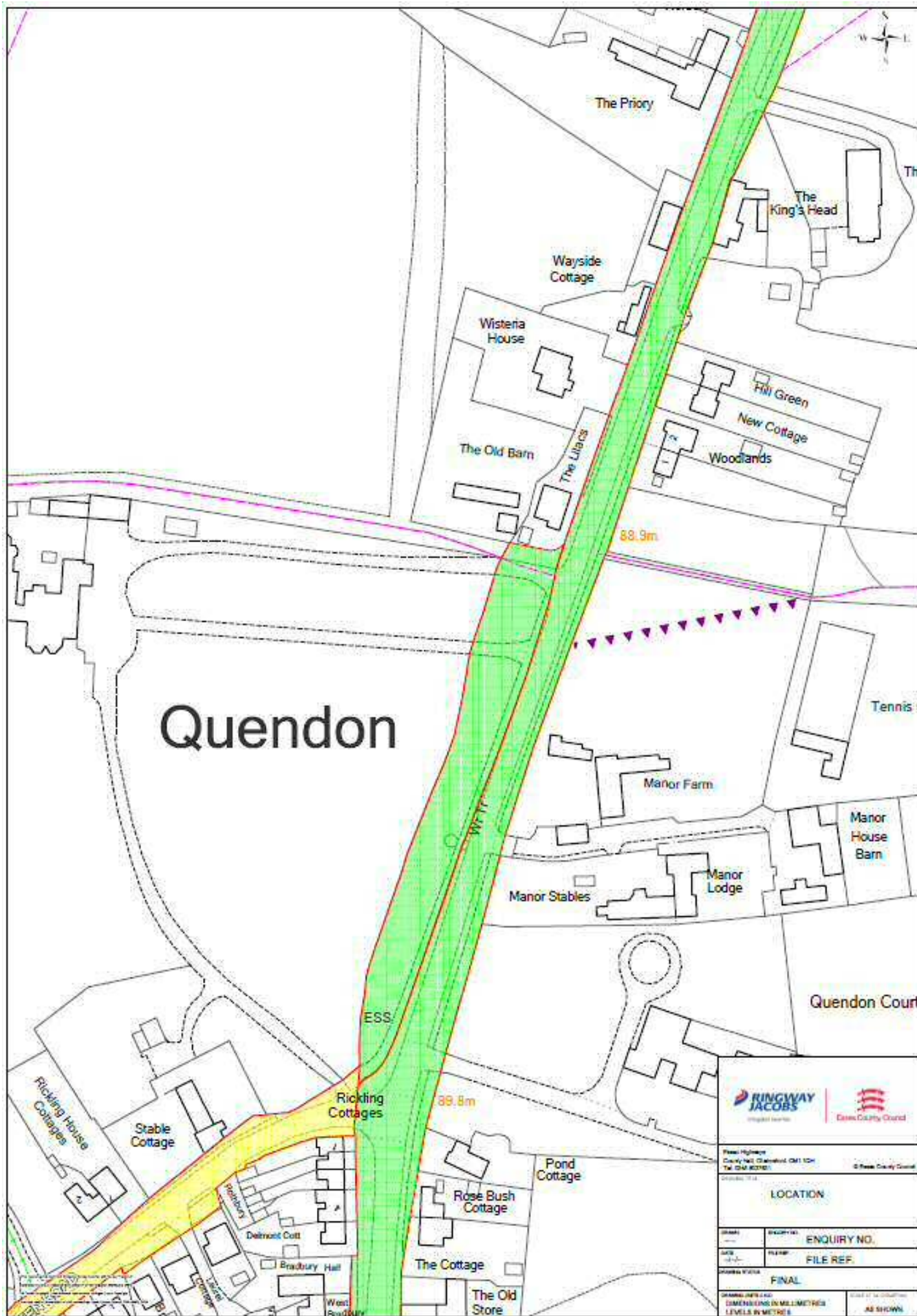
Date: 16.02.2020			
Time duration: 17.36 - 18.09			
Location: CSW121 (Quendon & Rickling, B1383, Cambridge Rd)			
Speed Limit: 30mph			
Speed (MPH)	No. of Vehicles recorded		
< 30-35	123		
36	6		
37	16		
38	8		
39	3		
40	2		
41-45	14		
46-50	4		
51-55	1		

Appendix 3: Highways Land Ownership



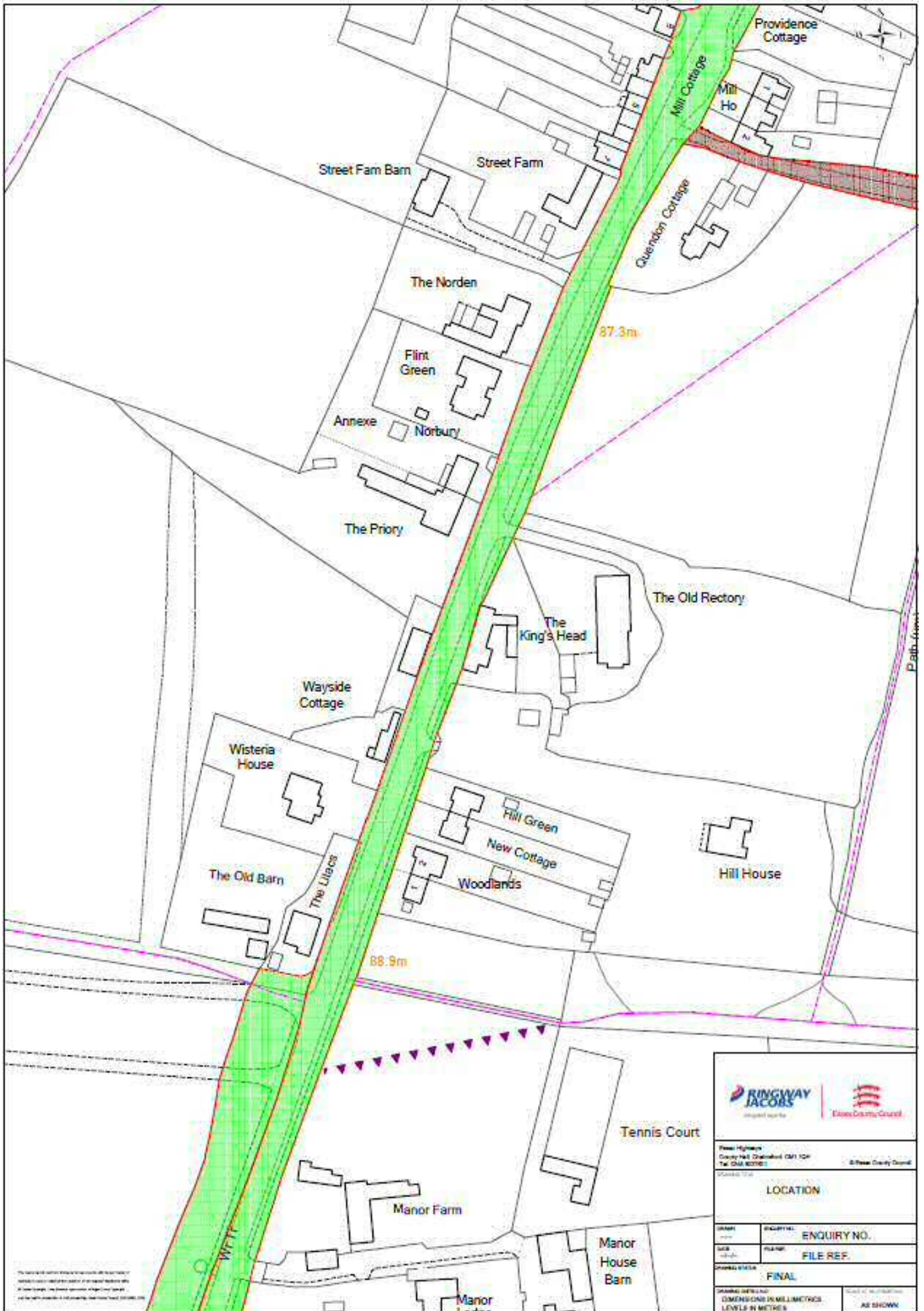
 	
<small>Phase Highway County Hall, Exmouth, EX1 1QH Tel: 01392 820000</small>	
LOCATION	
<small>DATE</small> <small>12/11/2023</small>	<small>ENQUIRY NO.</small> <small>23/001</small>
<small>FILE</small> <small>23/001</small>	<small>FILE REF.</small> <small>23/001</small>
FINAL	
<small>DRAWN AND CHECKED BY</small> <small>DM</small>	<small>SCALE</small> <small>AS SHOWN</small>

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Quendon

<small>Phase Highway County Hall, Dorchester, DT1 1DH Tel: 01306 832001</small>	
LOCATION	
<small>DATE:</small> <small>SCALE:</small> <small>STATUS:</small>	ENQUIRY NO. FILE REF. FINAL
<small>DRAWN BY: JRS DIMENSIONS IN MILLIMETRES LEVELS IN METRES</small>	
<small>AS SHOWN</small>	



 	
<small>Essex Highways County Hall, Chelmsford CM1 1QP Tel: 0206 820001</small>	
LOCATION	
<small>DATE</small>	<small>ENQUIRY NO.</small>
<small>DATE</small>	<small>FILE REF.</small>
FINAL	
<small>DRAWING SHEET NO.</small>	<small>SCALE OF THIS DRAWING</small>
<small>DIMENSIONS IN MILLIMETRES</small>	<small>AS SHOWN</small>
<small>LEVELS IN METRES</small>	

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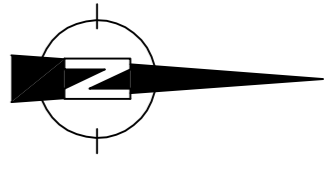
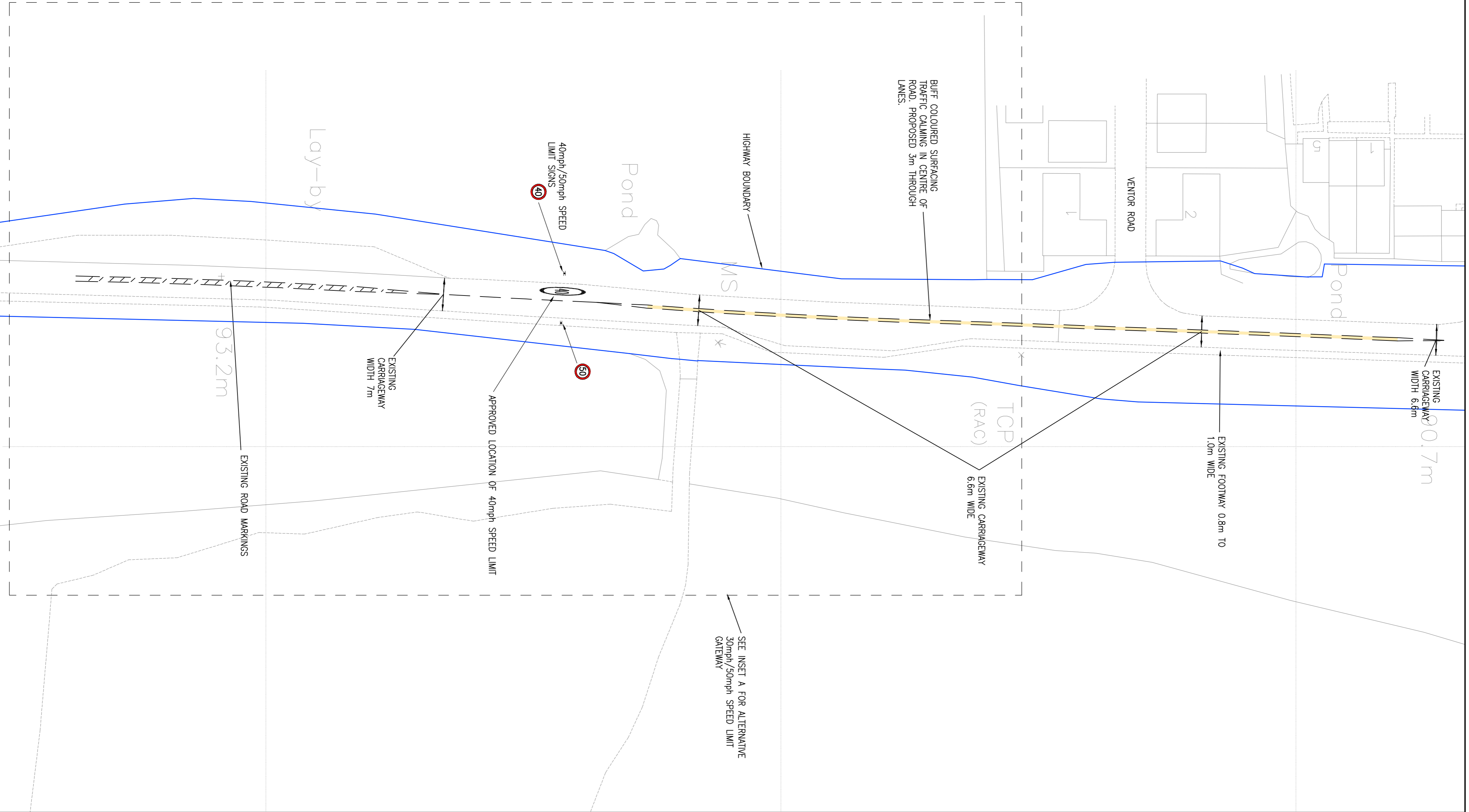
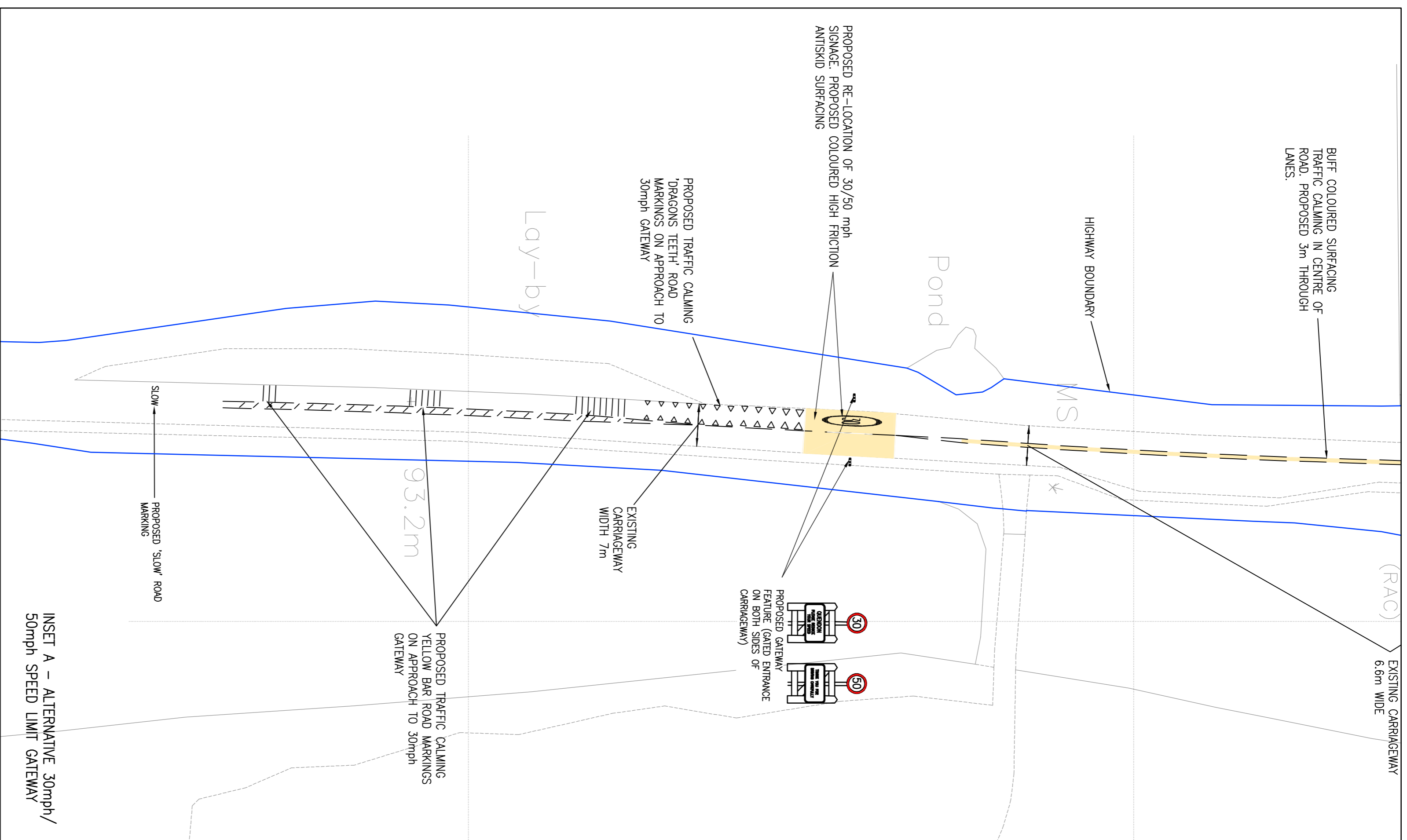
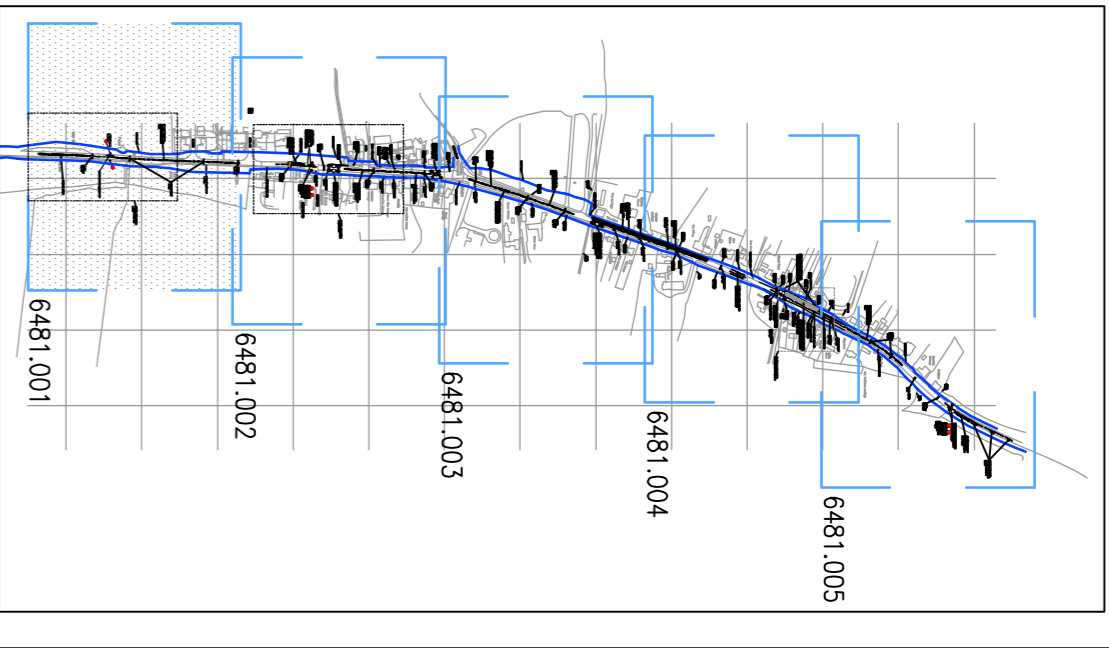
 	
<small>Ringway Jacobs County Hall, Dorchester, DT1 1QH Tel: 01306 82000</small>	
LOCATION	
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<small>DATE</small> 12/10/2023	<small>FILE REF.</small>
FINAL	
<small>DRAWING SHEET NO.</small> 	<small>DATE OF REVISION</small>
<small>DIMENSIONS IN MILLIMETRES LEVELS IN METRES</small>	<small>AS SHOWN</small>

Appendix 4: Stage 1 Safety Audit [to be added]

Appendix 5: Communication with Essex Highways [to be added]

Drawings

6481-001B (lay-by south of village to south of Bluebell Drive)



NO	DATE	DESCRIPTION	BY	CHECKED
1	2020	APPROVED FOR TENDER	JGP	RBH
2	2020	ISSUED FOR CONSTRUCTION	JGP	RBH
3	2020	ISSUED FOR CONSTRUCTION	JGP	RBH

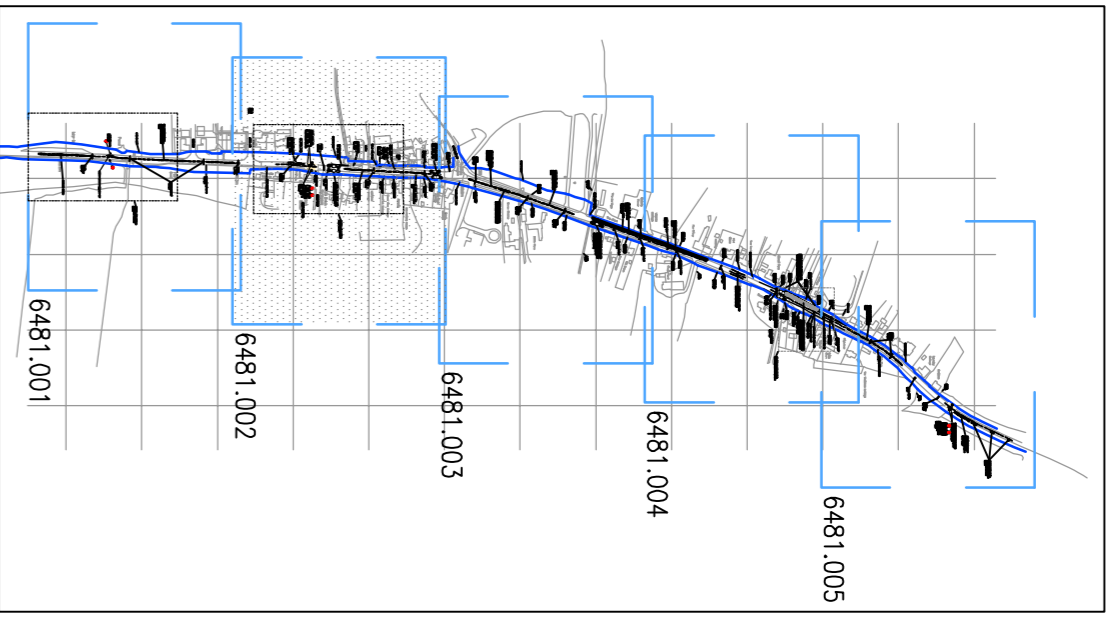
STUART MICHAEL ASSOCIATES
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Combe House, Combe Square, Thurston, Berkshire RG19 4JF
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F: 01253 861 715 W: www.stuartmichael.co.uk

QUENDON VILLAGE

PRELIMINARY HIGHWAY WORKS ON
THE B1383

6481-002B (south of Bluebell Drive to north of Village Hall)



- NOTES:
- ROAD DRAINAGE TO BE CHECKED AND ADJUSTED TO SUIT PROPOSED KERB REALIGNMENT.

APPROVED OVER-SPEED LIMIT AND NOTICED		20'	30'	17.5m/28'
A	30	20'	30'	17.5m/28'
B	30	20'	30'	17.5m/28'
WATER WORKINGS TO TOYOTA PROVISION				
REVISIONS				
No.	Description	Drawn by	Checked by	Date
1	Standard to 5154			
2	Revised to 5154			
3	Standard to 5154			
4	Standard to 5154			
5	Standard to 5154			
6	Standard to 5154			
7	Standard to 5154			
8	Standard to 5154			
9	Standard to 5154			
10	Standard to 5154			

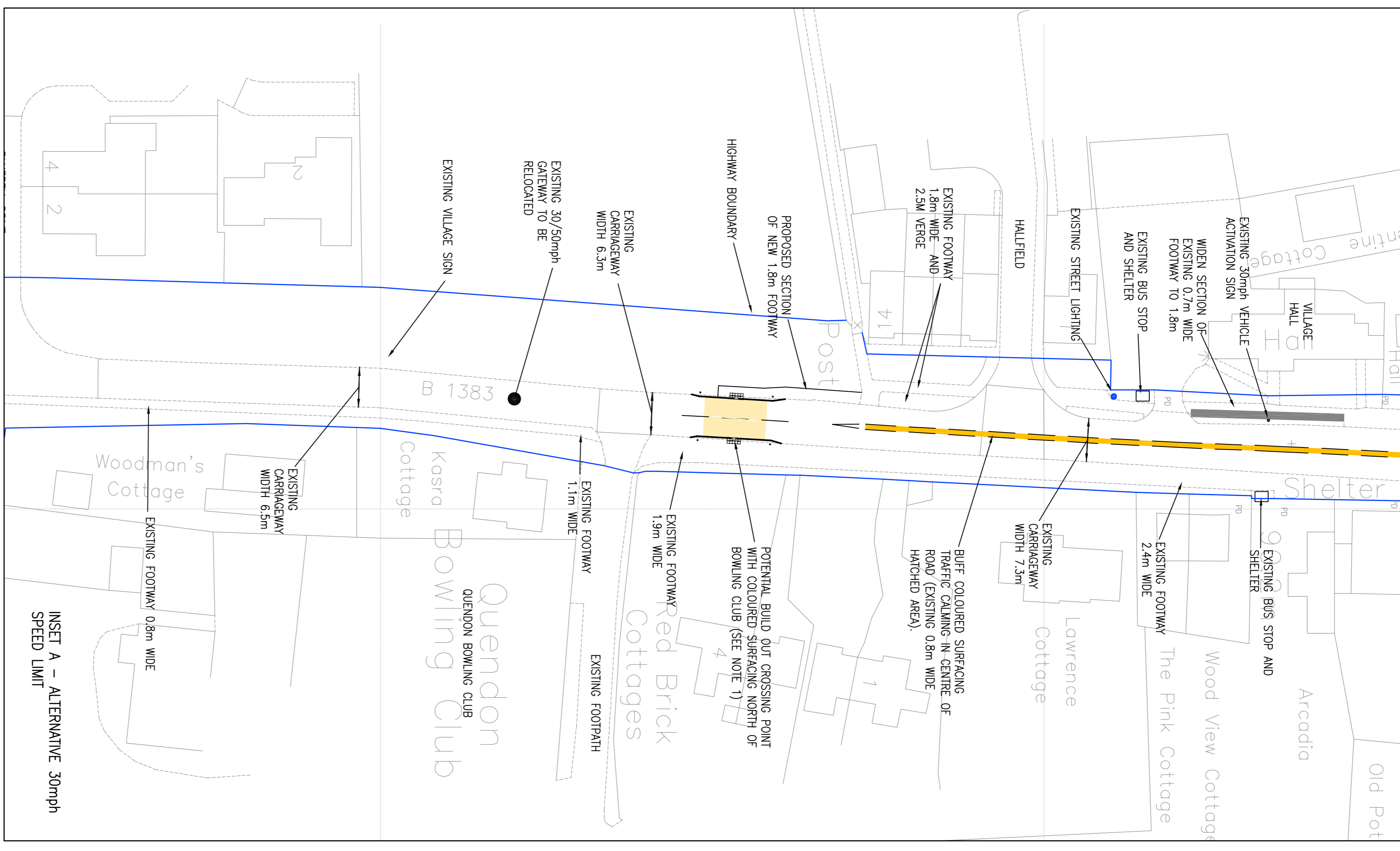
Stuart Michael Associates Ltd
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 F: 01635 961 715 W: www.stuartmichael.co.uk

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 CONSULTING ENGINEERS

QUENDON VILLAGE

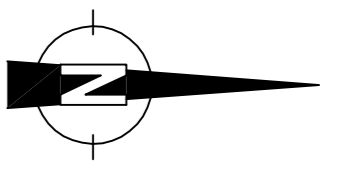
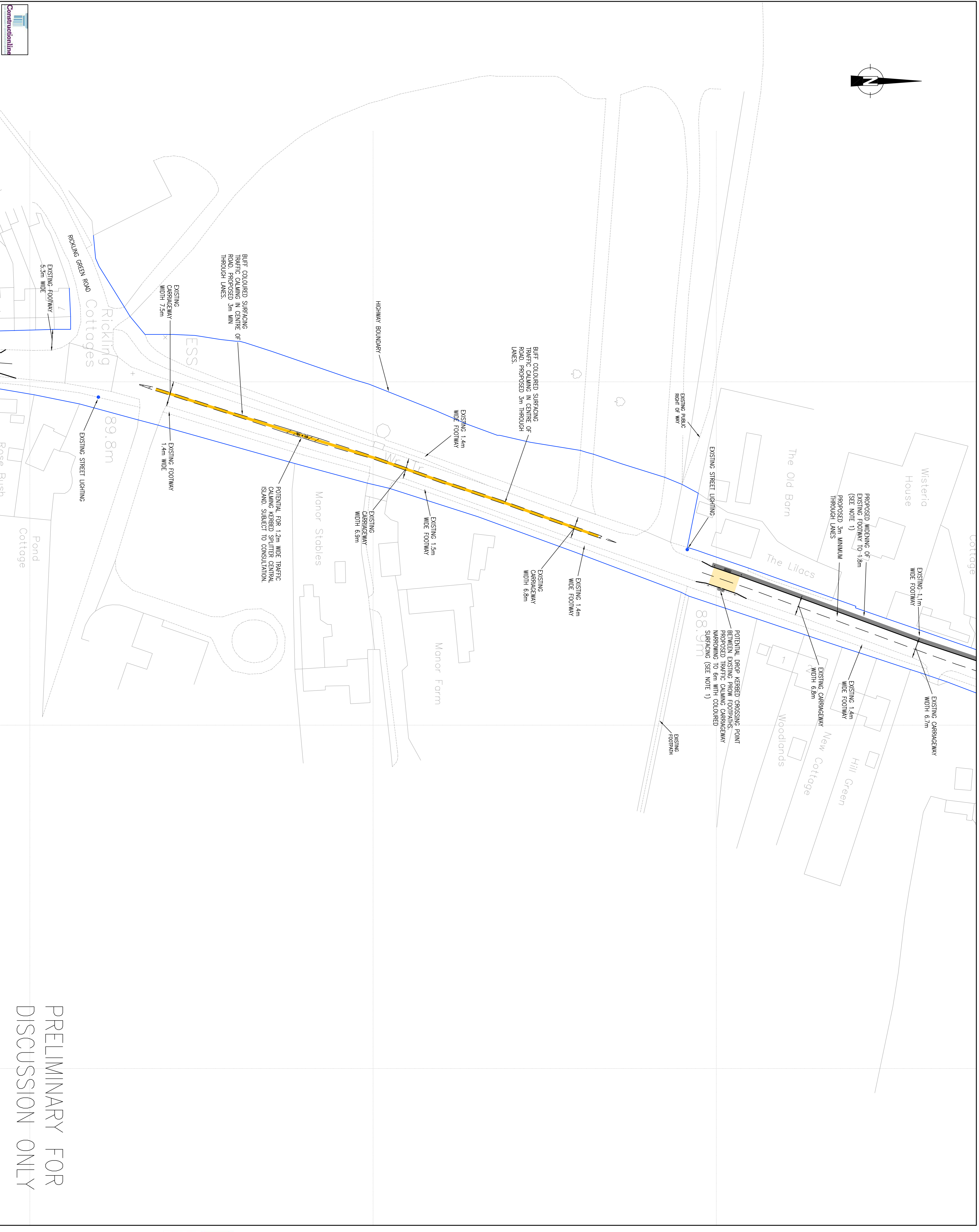
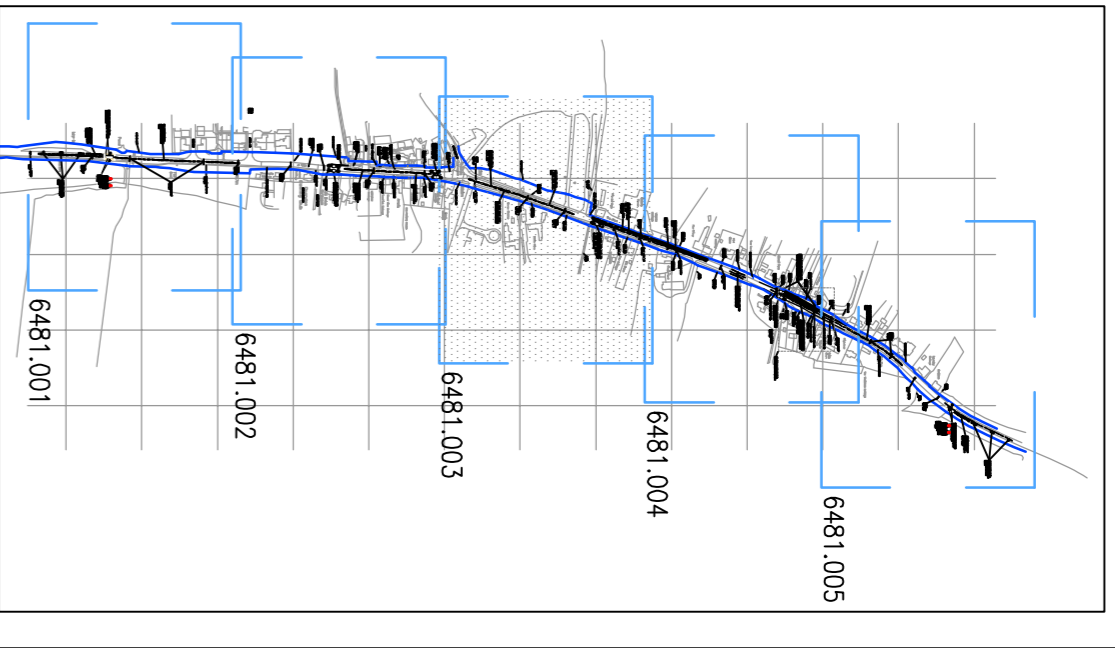
PRELIMINARY HIGHWAY WORKS ON THE B1383

DATE: MAY 2020
 DRAWN BY: JCP
 CHECKED BY: BRB
 SCALE: 1:500
 SHEET NO: 01
 TOTAL SHEETS: 01



PRELIMINARY FOR DISCUSSION ONLY

6481-003A (north of Village Hall to Wisteria House)



PRELIMINARY FOR
DISCUSSION ONLY

NO	DESCRIPTION	DATE	BY	CHKD
1	WORK AMENDMENT TO PROPOSED TRAFFIC CALMING	20/05	BRB	20/05/20
REVISIONS				
REVISION NO.	DESCRIPTION	DATE	BY	CHKD
1	Standard for S104			
2	Revised for Review			
3	Standard for CDB			
4	Standard for Completion			
5	Standard for 2D/3D			
DRAWING STATUS				
DESIGNED BY	DATE	CHECKED BY	DATE	STATUS

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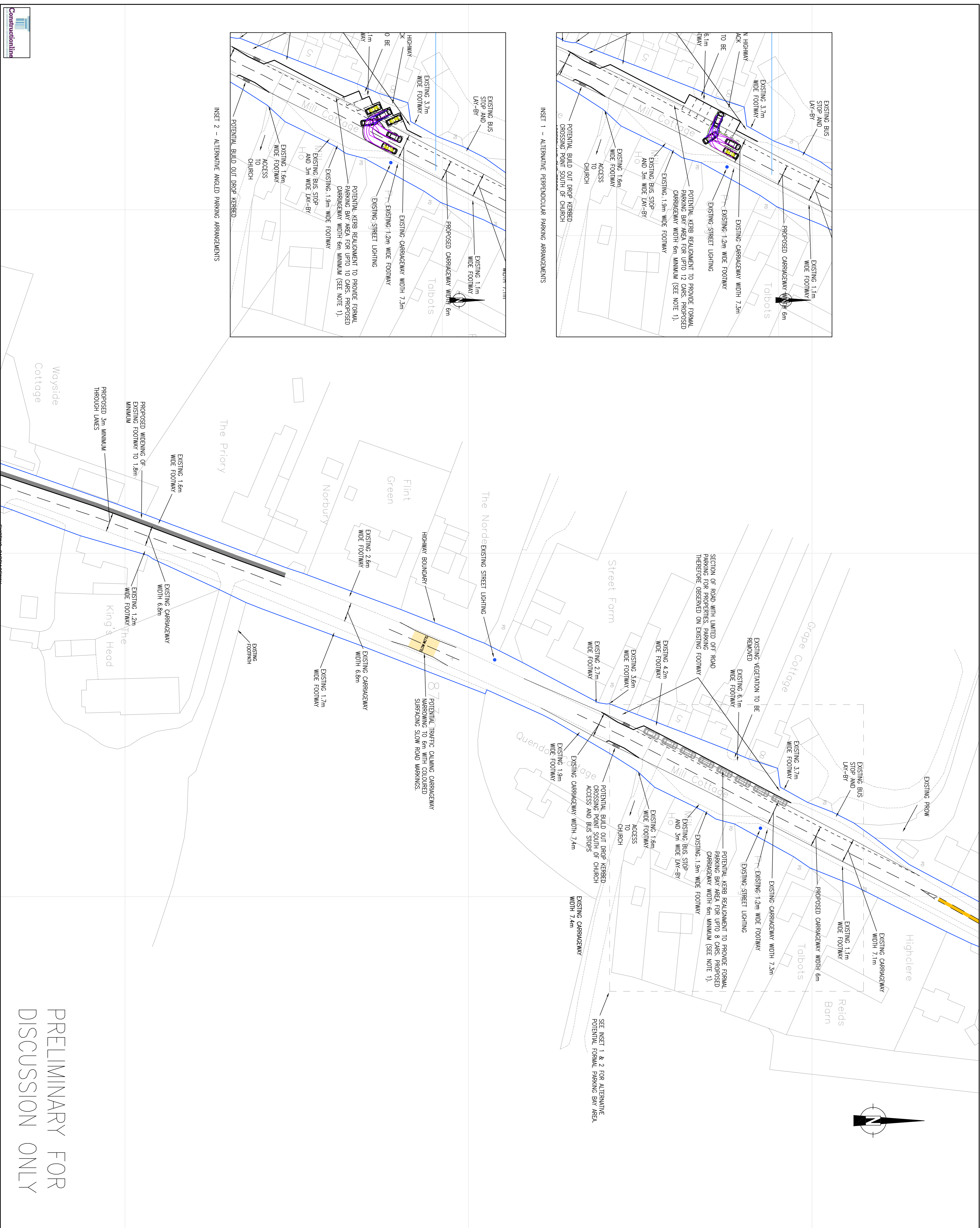
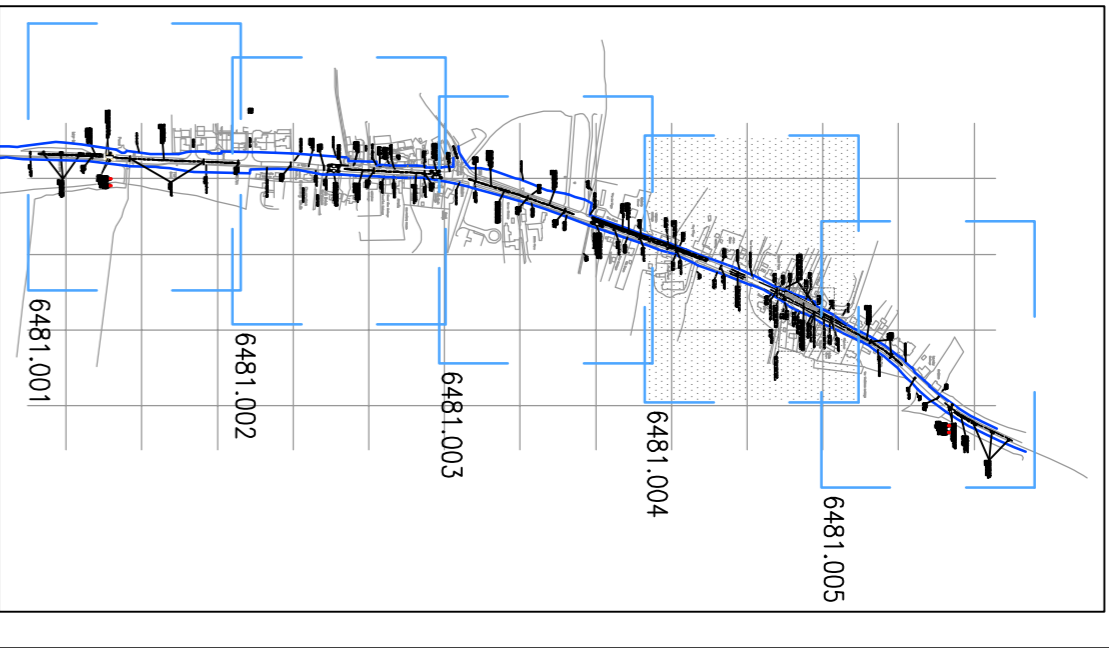
QUENDON VILLAGE
PRELIMINARY HIGHWAY WORKS ON
THE B1383

DATE: MAY 2020
SCALE: 1:500
DRAWING NO: 6481.003
PROJECT NO: JQP
DRAWN BY: BRB
CHECKED BY: BRB
DATE: 15/05/20
STATUS: A1

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6481-004A (Wisteria House to north of Waterbutt Cottages)

DRAWING LOCATION PLAN



PRELIMINARY FOR
 DISCUSSION ONLY

NO	DESCRIPTION	DATE	BY	CHECKED
1	PROPOSED PARKING BAY AREA AND KERB	20/05/20	JGP	BRB
2	REVISION			

STUART MICHAEL ASSOCIATES
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QUENDON VILLAGE
 PRELIMINARY HIGHWAY WORKS ON
 THE B1383

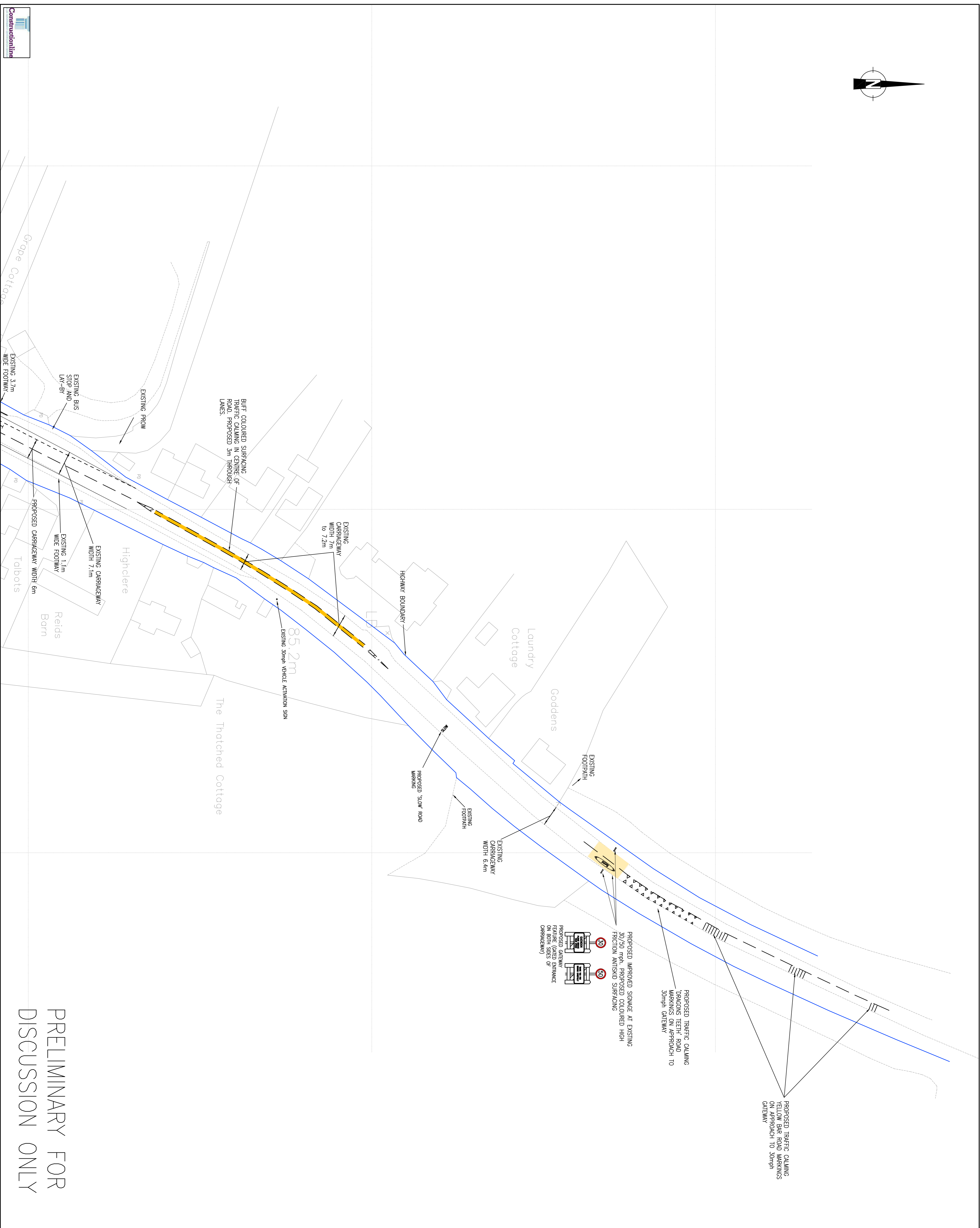
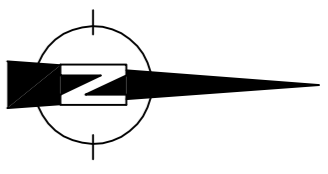
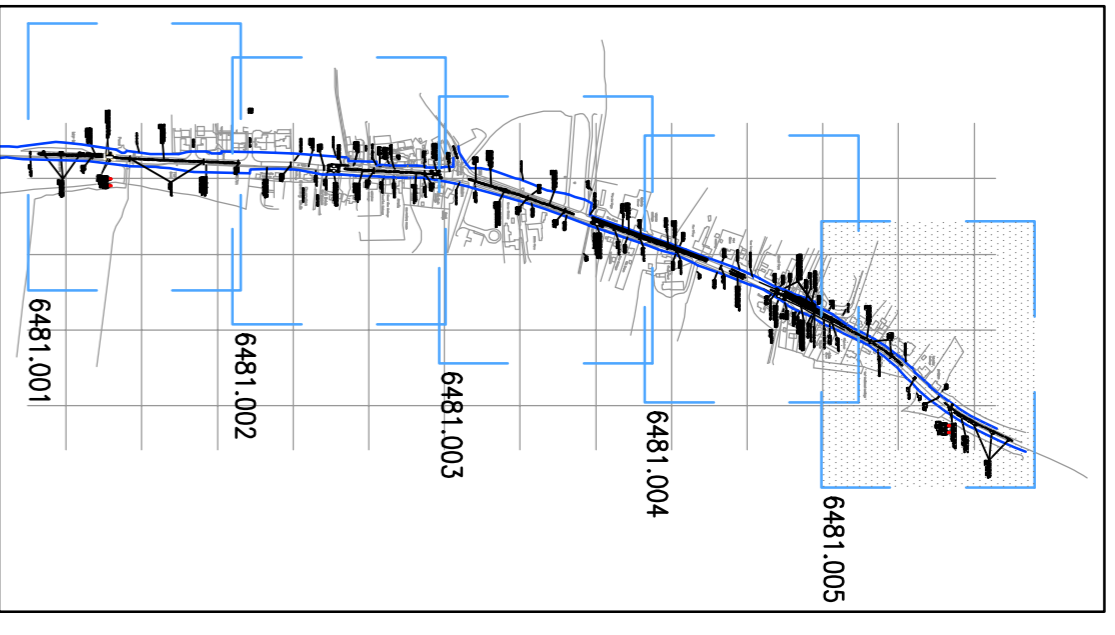
DATE: MAY 2020
 DRAWN BY: JGP
 CHECKED BY: BRB
 SCALE: 1:500
 DRAWING NO: 6481.004



6481-005

(north of Waterbutt Cottages to north of village)

DRAWING LOCATION PLAN



PRELIMINARY FOR
 DISCUSSION ONLY

REV	DESCRIPTION	DATE	BY	CHECKED

REVISION	DATE	BY	CHECKED

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PROJECT TITLE
 QUEENDON VILLAGE

PRELIMINARY HIGHWAY WORKS ON
 THE B1383

DATE MAY 2020 DRAWN BY JCP CHECKED BY BRB SCALE 1:500
 DRAWING NO. 6481.005 SHEET NO. 01 OF 01

