

CIVIL

PAUL NEWMAN NEW HOMES

2 SPENCER STREET KETTERING NN14 4BX

TRANSPORT SCOPING REPORT

DECEMBER 2023

FW2401_TSR_001 V1

REVISION HISTORY

Revision	Reason for Issue	Author	Checker	Approved	Date
v1	First Issue	JD	CF		22.12.2023

1.0	INTRODUCTION
1.1	SITE LOCATION
1.2	SITE DESCRIPTION
1.3	SITE HISTORY
1.4	EXISTING HIGHWAY NETWORK
1.5	EXISTING SITE ACCESS
1.6	EXISTING PUBLIC TRANSPORT LINKS
1.7	ACCIDENT HISTORY
1.8	EXISTING TRIP GENERATION
2.0	DEVELOPMENT PROPOSALS
2.1	SITE LAYOUT
2.2	VEHICLE PARKING
2.3	CYCLE PARKING
2.4	SITE ACCESS
2.5	ACCESS FOR SUSTAINABLE MODES
2.6	INTERNAL LAYOUT AND SERVICING
2.7	JUNCTION SAFETY
2.8	PROPOSED HIGHWAY IMPROVEMENTS
2.9	VEHICULAR TRIP GENERATION
3.0	CONCLUSIONS

APPENDICES

- Appendix A Site Layout
- Appendix B Vehicle Access
- Appendix C ATC Results
- Appendix D SSD Calculations
- Appendix E TRICS
- Appendix F PROPOSED S38 Adoptable Extents

FIGURES

Figure 1 Site Location Road Map	. 1
Figure 2 Site Location Satellite Image	. 2

1.0 INTRODUCTION

- 1.1.1 Farrow Walsh Ltd has been engaged to produce a Transport Assessment in support of a proposed residential development on land at 2 Spencer Street, Ringstead, Kettering.
- 1.1.2 The purpose of this document is to present the scoping of the scheme with the aim of agreeing the core principles of the Transport Assessment with NNC Highways prior to the provision of a full report.

1.2 SITE LOCATION

- 1.2.1 The site is located at 2 Spencer Street, Ringstead, Kettering, NN14 4BX.
- 1.2.2 The site is located within the village of Ringstead and is 12.70km east of Kettering Town Centre, 8.7km north of Rushden Town Centre and 12km north east of Irthlingborough Town Centre.
- eveli Lake
- 1.2.3 The site location can be seen within Figure 1.

Figure 1 Site Location Road Map



Figure 2 Site Location Satellite Image

1.3 SITE DESCRIPTION

- 1.3.1 The land is currently occupied by an existing animal food manufacturing using and country shop/store to the north and undeveloped land to the south. The northern half of the can be classified as brownfield with the southern half being considered greenfield .
- 1.3.2 Land use can be considered predominantly residential within the vicinity of the site.
- 1.3.3 The site extents can be seen in Figure 2.

1.4 SITE HISTORY

1.4.1 No planning applications for the site are recorded on the North Northamptonshire Council planning portal.

1.5 EXISTING HIGHWAY NETWORK

- 1.5.1 Spencer Street is an adopted road maintained and owned by North Northamptonshire County Council. The carriageway is 4.8m wide with 2.0m wide footway to the northern side and 1.0m wide footway to the southern side. There is no footpath present across the existing site northern boundary due to an existing vehicle crossover.
- 1.5.2 Spencer Street is a Class C Road which is subjected to 30mph speed limits however, due to the presence of existing on street parking, it is expected that vehicles travelling along this road will be travelling at a lower speed.

- 1.5.3 Denford Road is an adopted road maintained and owned by North Northamptonshire County Council. The carriageway varies in width between 6.2m and 6.5m wide with 1.2m wide footways to either side.
- 1.5.4 Denford Road is a Class C Road which is subjected to 30mph speed limits however, due to the presence of existing on street parking, it is expected that vehicles travelling along this road will be travelling at a lower speed.
- 1.5.5 Denford Road also serves as a bus route.
- 1.5.6 Raunds Road to the west of the site is an adopted road maintained and owned by North Northamptonshire County Council. The carriageway is 6.15m wide with 1.35m wide footway to eastern side.
- 1.5.7 Raunds Road is a Class C Road which is subjected to 30mph speed limits for the first 50m south of the junction with Denford Road, to the south of this and alongside the western boudnary of the site the road is subject to National Speed limit restrictions.
- 1.5.8 Raunds Street also serves as a bus route.

1.6 EXISTING SITE ACCESS

- 1.6.1 The existing site is accessed via an existing dropped kerb 27.3m wide along the northern boundary onto Spencer Steet.
- 1.6.2 A secondary access is provided from Denford Road over an existing dropped kerb 10.5m wide.

1.7 EXISTING PUBLIC TRANSPORT LINKS

- 1.7.1 The nearest bus stop in proximity to the site is within 25 metres on the northern boundary of the site on Denford Road.
- 1.7.2 The number 16 service, which is operated by Stagecoach stop at this point, and provide bus services direct into Kettering Town Centre and Raunds Town centre. The service provides buses every at 0708, 1131, 1512 and 1716 Monday Friday and 1131, 1512 and 1737 on Saturdays.
- 1.7.3 The bus stop can be accessed using the public footway on Denford Street.

1.8 ACCIDENT HISTORY

- 1.8.1 Personal Injury Accident (PIA) information has been reviewed from CrashMap.co.uk data for incidents over the previous 5 years adjacent to the site.
- 1.8.2 The records confirm three accidents within 500 metres of the site during the past five years.

- 1.8.3 The first accident was located outside 56 Denford Road 430m to the North at the point of the speed limit change and was classified as Serious. The incident involved a single vehicle with a single casualty.
- 1.8.4 The second accident is located outside number 20 Back Lane 485m to the North and was classified as Serious. The incident involved two vehicles with one casualty.
- 1.8.5 The third accident is located outside number 30 Back Lane 526m to the North and was classified as Slight. The incident involved one vehicle with one casualty.

1.9 EXISTING TRIP GENERATION

1.9.1 An assessment of the existing trip generation for the current land use will be undertaken during the preparation of the Transport Assessment, however the existing facility has not been in use for circa 12 months and therefore the more robust assessment is to consider the current land use using TRICS trip generation software or alternatively assume the existing facility generates no traffic onto the Highway network.

2.0 DEVELOPMENT PROPOSALS

2.1 SITE LAYOUT

- 2.1.1 The layout comprises 29 dwelling houses and 6 flats with associated access and parking infrastructure internal to the site. The residential split is proposed to be into 21 private dwelling houses and 14 affordable housing units.
- 2.1.2 A copy of the current development proposals can be found within Appendix A

2.2 VEHICLE PARKING

- 2.2.1 In accordance with North Northamptonshire County Council vehicle parking standards (2016) resident parking levels are to be provided at a minimum rate one 1 space per 1 bed dwelling, two spaces per 3 bed dwelling and 3 spaces per four plus bed dwellings.
- 2.2.2 This equates to a total of 75 resident parking spaces on the site.
- 2.2.3 In accordance with North Northamptonshire County Council vehicle parking standards visitor parking is suggested at a rate of 1 space per dwelling.
- 2.2.4 This equates to 35 visitor spaces.
- 2.2.5 The current parking arrangement allows for 93 parking spaces, which constitutes 69 parking spaces/ driveway spaces, 15 garage parking spaces (garages to be sized to accommodate standard passenger vehicle) and 9 visitor spaces.
- 2.2.6 The total allowance of 93 spaces provided a total of 84 parking spaces assigned to the dwellings with 9 visitor spaces.
- 2.2.7 The 93 parking spaces identified on the development layout compares to the 75 + 35 = 110 spaces sought by the North Northamptonshire County Council vehicle parking standards.

2.3 CYCLE PARKING

- 2.3.1 In accordance with North Northamptonshire County Council vehicle parking standards (2016) a minimum of 1 cycle space per bedroom should be provided. It is proposed that the parking shall be provided to the individual dwellings within sheds to rear gardens or garages where the plot is provided with one.
- 2.3.2 The flats shall be provided with a sheltered cycle parking facility within the adjacent car parking area, catering for a total of 9 spaces.

2.4 SITE ACCESS

- 2.4.1 The access is proposed to be reconfigured to allow for two new access points created. The first access is off Spender Street and is proposed in the location of the existing dropped kerb with a 6.0m radii / 5.5m wide carriageway / 2m footways to either side to serve 11 plots and 6 flats.
- 2.4.2 Road 1 is proposed to transition into a 7.5m wide shared surface.
- 2.4.3 The second access is proposed off Raunds Road (Road 2) which will serve 18 plots. It is proposed that the road be constructed as 5.5m wide carriageway with 2.0m wide footpaths to either side.
- 2.4.4 A speed survey has been undertaken to assess the existing speeds in Spencer Street and Raunds Road in the vicinity of the junction.
- 2.4.5 Raunds Road recorded 85th percentile speeds of 39mph northbound and 37.4mph southbound.
- 2.4.6 Spencer Street recorded 85th percentile speeds of 23.5mph eastbound and 23.1mph westbound.
- 2.4.7 The speed survey results can be found within Appendix C.
- 2.4.8 An assessment of the visibility splays has been undertaken with calculations found within Appendix D and the plotted splays can be seen on the proposed junction arrangement drawing found within Appendix B.
- 2.4.9 It should be noted that on the basis of the relcoated 30mph zone proposed and a new gateway feature to the south of the site to encourage speed reduction, the visibility splays for Raunds Road have been assessed based on a speed of 30mph.

2.5 ACCESS FOR SUSTAINABLE MODES

- 2.5.1 Access to the proposed development to the North of the site by pedestrians and cyclists would be achieved through the new access onto Spencer Street, and from a new footway cycleway access connecting to Denford Road to serve the southern area with both accessed form the existing footways on Denford Road.
- 2.5.2 Secondary access is provided by utilising the existing footway on Raunds Road, however due to the substandard width of the existing it is anticipated most users will prefer to utilise the footpath route through the site.

2.6 INTERNAL LAYOUT AND SERVICING

2.6.1 It is proposed that the roads within the development will be offered to North Northamptonshire County Council for adoption with private shared drives created off the adoptable highway.

- 2.6.2 The internal layout will be served from the proposed access point located to the northern boundary and western boundary off Spencer Street and Raunds Road respectively, which will provide an adequate turning facility for delivery vehicles and refuse collection vehicles.
- 2.6.3 Vehicle tracking will be provided within the Transport Assessment and we seek clarification from North Northamptonshire County Council of the maximum vehicle size used within the East Northamptonshire district.

2.7 JUNCTION SAFETY

2.7.1 Following inspection of the junctions adjacent to the site it is apparent that all operate within design guidelines and as such it is considered that no detrimental impact to the existing highway network will be introduced through the redevelopment of the site.

2.8 PROPOSED HIGHWAY IMPROVEMENTS

- 2.8.1 It is understood that there are no impending highway improvement schemes proposed adjacent to the application site. This confirmation will be requested from North Northamptonshire County Council before submitting the Transport Assessment.
- 2.8.2 As part of the new access to be provided off Raunds Road it is proposed that the existing 30mph limit is relocated to a point 100m South of the proposed access to the village extents with improvements made to the gateway into the village by the applicant to encourage a reduction in vehicular speed. Traffic Regulation Order updates will be required to amend the speed limit on this road.

2.9 VEHICULAR TRIP GENERATION

- 2.9.1 The proposed development consists of up to 35 market and affordable residential dwellings. The proposed development land use is such that its transport impact is likely to be of greatest significance during the weekday AM and PM peak hours.
- 2.9.2 The TRICS database has been used to derive the predicted vehicular trip generation for the proposed land use category and the predicted vehicular trip generation figures are shown below in Table12. The full TRICS output has been included as Appendix E.

Land Use: Residential – Houses Privately owned		Weekday AM Peak (0800 – 0900)		Weekday PM Peak (1700 – 1800)			
	Arrivals	Departures	Two-way	Arrivals	Departures	Two-way	

Trip Rate per Dwelling	0.079	0.349		0.349	0.238	
Trip Generation	3.0	13.0	16.0	13.0	9.0	21.0

Table 1 - Vehicle Trip Generation

- 2.9.3 Table 1 shows the development traffic generation would be expected to result in a net increase of 16 trips in the AM peak hour and 21 trips in the PM peak hour on the local highway network. This equates to approximately 1 vehicle every 3 minutes during the AM and PM Peaks.
- 2.9.4 The DfT's Guidance for Transport Assessment states that standalone capacity assessments will be necessary if a development 'generates 30 or more 2-way vehicular movements' in the AM or PM peak hour. This guidance has now officially been withdrawn; however, in the absence of further guidance, it is still considered a reasonable basis for assessment. The proposed development is expected to generate 16 traffic movements in the AM peak hour and 21 movements in the PM peak hour, which is under the DfT threshold.
- 2.9.5 It is considered, based on the level of traffic flow proposed, that a detailed traffic impact assessment of the proposed development on the local highway network is not justified or required.

3.0 CONCLUSIONS

- 3.1.1 The proposed development will access onto the highway network in two locations considered appropriate in terms of visibility and road safety and the access positions can be achieved through modification of the existing highway to form a new formal access road.
- 3.1.2 The development would provide a total of 93 parking spaces, which constitute 69 parking spaces/ driveway spaces, 15 garage parking spaces and 9 visitor spaces.
- 3.1.3 There have been 3 Personal Injury Accidents recorded within 500m of the existing site access within the last five years. It is believed the proposed redevelopment would not exacerbate the existing highway safety situation due to the low number of predicted trips generated by the development.

APPENDICES

APPENDIX A – SITE LAYOUT



				Con	oultont		
d, Spencer Street, Ringstead		LEGEND:-			Kevin	R.Twigger & Asso	ciates Ltd
Description Size (Sqft.)	No. Total (Soft)		Denotes Application Boundary		Rusha	Il House, School Road, Brewood, Sta	ffs, ST19 9DS
House 1,755 Bungalow 1,468	1 1,755 1 1,468		Denotes Affordable Housing Units		t	01902 851 641 e admin@krtassoc w www.krtassociates.co.uk	iates.co.uk
House 2,685 Bungalow 866	2 5,370 2 1,732		Affordable Tenure Split: - First Homes: Plots 2, 3, 14 & 15				
House 1,276 House 915 House 1,170	5 6,380 2 1,830 3 3,510		- Shared Ownership: Plots 4, 5, 12 & 13 - Affordable Rented: Plots 6 to 11 inclusive				
House 1,426 House 1,760	3 4,278 1 1,760		Denotes Fuisting Turse to be Detained				
House 1,771	1 1,771 21 29,854	\bigcirc	Denotes Existing Trees to be Retained				
Description Size (Saft.)	No. Total (Soft)		Denotes Existing Hedgerow to be Retained				
Flat 552 Flat 696	3 1,656 3 2,088		Denotes Existing Native Vegetation to be Retained				
House 936 House 787	4 3,744 <u>4 3,148</u> 14 10.636	\bigcirc	Denotes Existing Trees/Vegetation to be Removed				
3	35 40,490	$\overline{\bigcirc}$	Denotes Root Protection Area				
3.99 acres			Denotes Proposed Tree Planting				
13,452 sq.ft/acre							
			Denotes Proposed Soft Landscaping				
			Denotes Proposed Native Hedgerow				
			Denotes Rear Garden Bin Storage Area	С	20.09.23	"not to be scaled note	" removed.
	/.		Denotes Rear Garden Cycle Storage	В	31.08.23	Existing low level wall shown, rear garden fe	along Denford Road encing to plots 17 &
Ť.			Denotes Dear Carden Assess Cata			18 to suit, apartment k	oin storage area
				A	17.08.23	Existing trees / vegeta	ation to be retained
						added to house types	, and affordable
				Rev	Date	Description	IQ.
25							
25					DATI		
25					FAU		MAIN
27 26 26				'	1	NEW HOM	E S
27 3 4 4 4 4 27							
					12 Y	EARLSTONE SQ ASHLAND	UARE
28	a all				MIL	TON KEYNES MI	K6 4AT
					Web:	Tel: 01908 690216 www.paulnewmanhon	nes.co.uk
						_	
28 28				Proje			
				IIDE IR∆	VELOPN	IENTAT	RSTREET
30 30					IGSTEA	D, NORTHAMP	TONSHIRE.
	I.						
31 31							
33 32 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4							
	D			Draw	ing Title:		
32				sit	E LAYO	UT	
	31						
				Draw	n:	Date:	Scale:
				d fro	ost / t.ower		1.200@42
	-						
				Draw	ring No:		Revision:
					o8-42		С
				Draw	ing Status:		
				PL/	ANNING		
				1			

APPENDIX B – VEHICLE ACCESS

SAFETY, HEALTH AND ENVIRONMENTAL HAZARD INFORMATION BOX
THE HAZARDS NOTED BELOW ARE IN ADDITION TO THE NORMAL HAZARDS AND RISKS FACED BY A COMPETENT CONTRACTOR WHEN DEALING WITH THE TYPES OF WORKS DETAILED ON THIS DRAWING.
CONSTRUCTION RISKS
xyz xyz
хуz
MAINTENANCE / CLEANING RISKS
RISK OF INFECTION FROM WASTE WATER.
DEMOLITION RISKS
NONE RELEVANT TO THIS DRAWING.





APPENDIX C – ATC RESULTS

Produced by Road Data Services Ltd.

0-24

Channel 1 - Northbound

	Channel 1 -	Northbound					Vehicle Flow		Week 1
	08/12/2023	09/12/2023	10/12/2023	11/12/2023	12/12/2023	13/12/2023	14/12/2023	Weekday	
Hr Ending	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Average	Average
1	10	40	29	5	9	9	6	8	15
2	7	18	14	4	0	6	7	5	8
3	4	10	14	2	3	5	2	3	6
4	5	5	1	1	9	9	8	6	5
5	9	2	5	5	9	10	10	9	7
6	14	6	3	16	14	9	18	14	11
7	68	22	12	78	75	74	65	72	56
8	175	54	36	194	218	220	218	205	159
9	260	99	59	268	307	352	294	296	234
10	171	133	92	200	185	183	223	192	170
11	172	158	155	132	137	158	195	159	158
12	215	187	191	169	165	170	184	181	183
13	227	214	220	206	208	194	192	205	209
14	224	209	183	174	192	201	200	198	198
15	261	195	164	227	226	210	252	235	219
16	353	195	161	279	279	303	298	302	267
17	424	206	171	330	354	340	369	363	313
18	311	183	154	324	351	282	357	325	280
19	222	170	99	182	228	207	223	212	190
20	187	136	79	132	159	154	141	155	141
21	103	89	53	83	118	117	162	117	104
22	104	95	38	85	76	93	277	127	110
23	91	49	17	45	54	68	183	88	72
24	63	31	13	14	22	22	82	41	35
•		•	•	•	•	•	•	•	
7-19	3015	2003	1685	2685	2850	2820	3005	2875	2580
6-22	3477	2345	1867	3063	3278	3258	3650	3345	2991
6-24	3631	2425	1897	3122	3354	3348	3915	3474	3099



Produced by Road Data Services Ltd.

	Channel 1 - Northbound				Average Speed			
	08/12/2023	09/12/2023	10/12/2023	11/12/2023	12/12/2023	13/12/2023	14/12/2023	
Hr Ending	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	
1	35.2	35.1	35.5	40.5	37.4	40.0	35.7	
2	34.8	36.5	36.3	36.4	-	39.3	35.6	
3	31.5	32.4	36.8	25.8	35.7	37.5	37.8	
4	36.2	34.1	31.9	46.2	38.3	37.2	37.8	
5	34.8	37.7	42.1	35.9	36.3	36.9	36.6	
6	38.0	35.9	35.2	36.1	36.2	37.1	39.2	
7	36.9	33.8	37.8	36.4	36.4	36.4	36.0	
8	33.4	34.4	35.8	33.7	34.4	33.0	33.5	
9	34.0	33.4	35.8	33.2	33.9	32.0	32.5	
10	34.1	33.8	34.3	33.5	33.8	33.5	33.1	
11	33.7	33.7	34.5	34.8	33.5	34.0	32.4	
12	33.2	33.7	34.1	33.5	31.1	33.0	33.6	
13	33.3	33.4	33.2	34.1	33.4	33.2	32.8	
14	33.6	33.8	33.8	33.3	34.8	32.9	33.7	
15	34.2	35.2	35.4	33.7	32.6	33.6	33.0	
16	30.8	33.7	34.0	33.3	32.5	32.3	31.3	
17	30.5	32.6	33.2	33.0	31.3	31.2	31.4	
18	32.4	33.6	33.4	32.4	31.3	32.8	31.3	
19	33.6	33.5	34.7	34.1	32.8	33.8	32.8	
20	33.1	34.7	34.5	35.0	33.5	33.3	33.9	
21	35.6	34.7	36.0	34.0	34.9	34.0	34.9	
22	34.8	33.0	35.4	35.6	33.9	34.8	32.9	
23	36.1	34.1	36.9	37.2	33.3	35.0	34.2	
24	34.9	34.9	38.6	35.8	37.9	36.0	34.5	
10.10	00.4	00.7	04.0	011		00.5	00.0	
10-12	33.4	33.7	34.3	34.1	32.2	33.5	32.9	
14-16	32.3	34.4	34.7	33.5	32.6	32.8	32.1	
0-24	33.2	33.8	34.3	33.7	33.1	33.1	32.9	

Channel 1 - Northbound

Average (ALL) 33.4 Weekday Inter-Peak 32.9 85th Percentile 32.9

	08/12/2023	09/12/2023	10/12/2023	11/12/2023	12/12/2023	13/12/2023	14/12/2023
Hr Ending	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday
1	39.4	40.6	41.3	45.8	45.3	49.2	39.8
2	39.3	45.2	40.0	42.0	-	44.8	42.6
3	35.8	39.8	43.3	26.3	46.6	41.6	44.6
4	43.8	38.9	-	-	45.4	45.4	44.8
5	41.5	48.3	51.3	43.5	41.4	43.8	41.7
6	43.7	41.3	40.1	41.2	42.6	42.7	45.7
7	42.5	39.0	40.9	41.7	41.5	41.7	41.5
8	38.4	40.0	41.0	39.6	39.3	38.2	39.3
9	39.1	38.1	41.2	39.2	39.9	37.8	38.7
10	38.9	38.8	39.7	38.3	38.7	39.0	38.9
11	38.7	39.2	39.2	39.4	38.6	38.3	37.5
12	38.7	39.0	39.9	38.9	36.7	38.6	39.4
13	39.4	38.2	38.6	38.8	38.8	38.2	38.7
14	39.1	38.8	38.5	39.1	39.8	37.9	38.8
15	39.8	40.2	40.4	38.8	37.9	39.3	38.8
16	37.0	38.5	39.4	38.0	39.1	37.4	36.5
17	35.8	37.1	38.5	38.9	36.3	36.4	36.6
18	37.4	39.0	38.5	38.6	36.9	37.6	36.8
19	39.2	39.6	40.2	39.7	38.4	40.0	37.5
20	38.6	40.4	40.1	40.4	38.7	39.1	39.0
21	41.4	39.7	41.0	39.9	40.2	39.4	40.6
22	41.4	39.0	42.3	41.0	39.6	41.1	38.4
23	41.5	39.7	42.3	42.6	39.8	41.0	39.4
24	41.8	40.1	43.6	43.6	41.8	39.8	39.1
10-12	38.7	39.1	39.6	39.2	37.7	38.6	38.4
14-16	38.5	39.4	40.0	38.4	38.7	38.2	37.6
0-24	39.0	39.1	39.7	39.3	38.8	38.7	38.5

85th %ile (ALL)	39.0
Weekday Inter-Peak	38.5

Produced by Road Data Services Ltd.

	Channel 1 - Northbound			S	Week 1		
	08/12/2023	09/12/2023	10/12/2023	11/12/2023	12/12/2023	13/12/2023	14/12/2023
Speed (MPH)	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday
0-30	901	508	341	658	922	854	1073
30-40	2457	1767	1396	2221	2184	2280	2603
40-50	313	224	221	264	279	253	278
50+	9	7	5	12	13	9	12
TOTAL	3680	2506	1963	3155	3398	3396	3966



Produced by Road Data Services Ltd.

Channel 1 -	Northbound			Vehicle Class	Week 1
Classes	Car / LGV /	MGV	OGV1 / Bus	OGV2	TOTAL
Day / Time	Caravan - 1	- 2	- 3,5,6,7,12	- 4,8,9,10,11,13	- 1-13
08/12/2023					
7-19	2710	281	18	6	3015
6-22	3145	308	18	6	3477
6-24	3293	314	18	6	3631
0-24	3338	318	18	-6	3668
09/12/2023					
7-19	1858	139	5	1	2003
6-22	2182	157	5	1	2345
6-24	2255	163	6	1	2425
0-24	2329	170	6	1	2506
10/12/2023					
7-19	1558	124	2	1	1685
6-22	1729	134	3	1	1867
6-24	1756	137	3	1	1897
0-24	1818	141	3	1	1963
11/12/2023					
7-19	2405	269	9	2	2685
6-22	2754	297	10	2	3063
6-24	2813	297	10	2	3122
0-24	2843	300	10	2	3155
12/12/2023					
7-19	2555	277	16	2	2850
6-22	2946	313	17	2	3278
6-24	3020	315	17	2	3354
0-24	3057	322	17	2	3398
13/12/2023					
7-19	2526	275	19	0	2820
6-22	2932	305	21	0	3258
6-24	3016	311	21	0	3348
0-24	3060	315	21	0	3396
14/12/2023					
7-19	2704	277	22	2	3005
6-22	3296	330	22	2	3650
6-24	3541	347	23	4	3915
0-24	3585	353	23	5	3966

Average					
7-19	2331	235	13	2	2580
6-22	2712	263	14	2	2991
6-24	2813	269	14	2	3099
0-24	2861	274	14	1	3150



Produced by Road Data Services Ltd.

0-24

Channel 2 - Southbound

	Channel 2 -	Southbound					Vehicle Flow		Week 1
	08/12/2023	09/12/2023	10/12/2023	11/12/2023	12/12/2023	13/12/2023	14/12/2023	Weekday	
Hr Ending	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Average	Average
1	10	30	24	4	2	4	10	6	12
2	7	10	10	1	1	6	5	4	6
3	5	11	2	4	5	7	10	6	6
4	8	5	0	5	11	8	10	8	7
5	15	7	6	11	15	19	15	15	13
6	54	19	9	42	45	43	50	47	37
7	84	19	19	93	101	108	108	99	76
8	246	59	35	235	273	312	251	263	202
9	258	139	70	297	312	353	340	312	253
10	242	201	138	255	276	230	254	251	228
11	181	196	185	197	185	175	181	184	186
12	197	203	219	189	196	185	238	201	204
13	208	224	193	186	180	199	195	194	198
14	225	191	181	178	215	195	189	200	196
15	256	240	168	214	214	204	191	216	212
16	279	185	165	284	246	273	257	268	241
17	334	164	170	278	290	263	318	297	260
18	256	157	117	272	300	311	321	292	248
19	200	136	89	165	187	194	209	191	169
20	129	101	77	97	153	124	140	129	117
21	82	59	44	61	75	86	97	80	72
22	66	80	54	92	87	92	206	109	97
23	92	54	24	44	62	50	161	82	70
24	39	35	12	7	13	23	54	27	26
7-19	2882	2095	1730	2750	2874	2894	2944	2869	2596
6-22	3243	2354	1924	3093	3290	3304	3495	3285	2958
6-24	3374	2//3	1060	31///	3365	3377	3710	3301	3053



Produced by Road Data Services Ltd.

	Channel 2 - Southbound				Average Speed		Week 1
	08/12/2023	09/12/2023	10/12/2023	11/12/2023	12/12/2023	13/12/2023	14/12/2023
Hr Ending	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday
1	32.0	32.0	34.5	34.6	28.0	34.2	33.7
2	32.9	31.4	34.6	26.9	30.6	31.8	32.9
3	31.5	31.2	33.5	27.8	28.9	31.0	33.3
4	29.4	32.2	-	31.1	32.3	32.4	31.2
5	30.6	28.8	29.6	31.2	33.6	34.1	31.6
6	34.7	30.7	32.8	33.2	34.0	33.4	33.1
7	31.4	30.4	34.0	32.8	31.5	32.4	31.9
8	32.0	31.1	30.7	32.7	32.2	32.1	31.3
9	32.0	32.0	30.6	33.1	32.3	32.2	32.9
10	32.5	32.5	32.8	32.1	32.6	32.3	32.3
11	32.5	32.7	32.6	32.4	32.0	31.6	33.0
12	31.7	32.1	32.5	32.3	32.0	31.8	32.2
13	33.1	32.8	31.9	32.2	32.6	32.6	31.1
14	32.8	33.1	32.9	32.5	32.1	32.1	32.0
15	31.9	33.0	33.0	32.6	32.0	32.8	32.5
16	31.8	32.4	33.5	31.1	32.2	32.4	32.1
17	31.9	32.4	33.4	32.1	31.6	31.8	31.9
18	31.7	32.3	32.4	32.9	31.9	33.3	31.9
19	32.5	32.4	33.0	33.7	32.9	32.9	32.1
20	31.1	32.7	33.4	33.3	31.7	32.0	32.1
21	32.3	30.8	31.7	33.7	31.8	32.6	32.6
22	32.0	32.3	32.9	33.0	33.3	33.2	30.9
23	31.9	33.2	34.5	34.9	32.0	33.1	32.4
24	32.8	32.3	31.9	37.0	33.0	32.3	32.8
10.10	22.4	22.4	22.0	22.2	22.0	04 7	00 F
10-12	32.1	32.4	32.0	32.3	32.0	31.7	32.5
14-10	31.9	32.1	33.Z	31.7	32.1	32.0	32.2
0-24	32.1	32.4	32.7	32.5	32.2	32.4	32.1

Channel 2 - Southbound

Average (ALL) 32.3 Weekday Inter-Peak 32.1 85th Percentile 32.1

	08/12/2023	09/12/2023	10/12/2023	11/12/2023	12/12/2023	13/12/2023	14/12/2023
Hr Ending	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday
1	34.6	37.9	39.4	42.3	28.2	38.5	38.5
2	40.3	36.5	39.3	-	-	37.1	39.2
3	40.3	38.5	37.4	32.6	35.7	35.6	39.1
4	34.4	39.0	-	37.5	37.3	37.2	37.5
5	37.1	32.5	32.6	36.2	38.0	42.7	36.1
6	38.5	35.4	36.2	37.7	39.7	38.3	39.1
7	36.7	38.3	39.9	37.8	37.1	38.2	37.5
8	37.0	37.3	36.3	38.3	36.7	36.6	36.2
9	37.6	38.2	35.8	38.3	38.0	36.7	37.4
10	37.0	37.4	37.9	36.8	38.0	36.6	36.9
11	38.0	37.3	38.0	37.5	37.3	36.7	38.0
12	36.4	37.4	37.3	37.3	36.8	37.1	36.5
13	38.5	37.8	36.4	38.3	37.3	37.7	35.9
14	38.1	38.5	38.0	37.7	36.5	37.4	37.2
15	37.4	37.4	37.9	38.0	36.7	36.9	37.1
16	36.4	36.9	38.3	35.9	36.3	36.7	36.6
17	37.1	37.5	39.6	37.3	36.2	36.4	36.7
18	36.3	38.5	37.3	37.6	36.7	37.7	35.9
19	37.9	37.6	38.6	38.3	38.2	37.5	37.0
20	37.2	38.7	39.2	39.5	36.6	36.9	36.4
21	37.1	35.6	37.8	40.0	37.0	37.7	38.2
22	37.4	38.1	38.2	38.5	38.2	39.2	35.8
23	37.4	38.4	41.3	40.5	39.4	39.6	36.9
24	40.0	37.3	36.9	42.5	40.8	38.3	38.7
10-12	37.2	37.4	37.7	37.3	37.1	36.9	37.1
14-16	37.0	37.1	38.1	36.8	36.5	36.8	36.8
0-24	37.3	37.7	38.0	37.8	37.2	37.3	36.9

85th %ile (ALL)	37.4
Weekday Inter-Peak	36.9

Produced by Road Data Services Ltd.

	Channel 2 - Southbound			S	Week 1		
	08/12/2023	09/12/2023	10/12/2023	11/12/2023	12/12/2023	13/12/2023	14/12/2023
Speed (MPH)	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday
0-30	1086	733	529	858	985	916	1067
30-40	2228	1667	1365	2181	2327	2420	2610
40-50	153	114	110	164	128	120	123
50+	6	11	7	8	4	8	10
TOTAL	3473	2525	2011	3211	3444	3464	3810



Produced by Road Data Services Ltd.

Channel 2 -	Southbound			Vehicle Class	Week 1
Classes	Car / LGV /	MGV	OGV1 / Bus	OGV2	TOTAL
08/12/2023	Caravan - I	- 2	- 3,3,0,7,12	- 4,0,9,10,11,13	- 1-13
7-10	2606	233	/1	2	2882
6-22	2000	265	43	3	3243
6-24	3058	270	43	3	3374
0-24	3139	288	43	3	3473
09/12/2023	0.00				
7-19	1948	127	19	1	2095
6-22	2190	144	19	1	2354
6-24	2275	148	19	1	2443
0-24	2347	157	20	1	2525
10/12/2023					
7-19	1589	127	12	2	1730
6-22	1768	142	12	2	1924
6-24	1802	144	12	2	1960
0-24	1847	150	12	2	2011
11/12/2023					
7-19	2511	181	54	4	2750
6-22	2817	213	59	4	3093
6-24	2868	213	59	4	3144
0-24	2923	225	59	4	3211
12/12/2023					
7-19	2629	196	48	1	2874
6-22	3008	228	53	1	3290
6-24	3076	234	54	1	3365
0-24	3139	250	54	1	3444
13/12/2023					
7-19	2648	144	95	7	2894
6-22	3019	175	103	7	3304
6-24	3086	181	103	7	3377
0-24	3154	199	104	7	3464
14/12/2023					
7-19	2674	157	110	3	2944
6-22	3167	201	123	4	3495
6-24	3371	208	125	6	3710
0-24	3452	225	126	7	3810

Average					
7-19	2372	166	54	3	2596
6-22	2700	195	59	3	2958
6-24	2791	200	59	3	3053
0-24	2857	213	60	4	3134



Produced by Road Data Services Ltd.

0-24

	Channel 1 -	Eastbound					Vehicle Flow		Week 1
1	08/12/2023	09/12/2023	10/12/2023	11/12/2023	12/12/2023	13/12/2023	14/12/2023	Weekday	
Hr Ending	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Average	Average
1	0	0	0	0	0	0	0	0	0
2	0	2	0	0	0	0	0	0	0
3	0	0	1	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	1	0	0	0
7	1	0	0	2	3	5	4	3	2
8	2	3	0	2	2	3	6	3	3
9	6	3	4	10	10	9	6	8	7
10	9	6	12	6	14	18	8	11	10
11	11	5	6	8	8	9	6	8	8
12	7	5	12	12	14	10	4	9	9
13	10	6	10	9	4	10	11	9	9
14	14	4	5	16	7	16	7	12	10
15	12	11	12	5	12	15	16	12	12
16	19	11	6	18	13	11	8	14	12
17	16	4	6	19	18	25	14	18	15
18	8	2	3	13	15	9	16	12	9
19	8	11	4	8	11	10	9	9	9
20	3	3	3	4	7	5	2	4	4
21	5	3	2	4	2	4	8	5	4
22	2	1	1	2	3	3	3	3	2
23	1	2	2	5	2	5	5	4	3
24	5	1	0	1	0	3	1	2	2
7-19	122	71	80	126	128	145	111	126	112
6-22	133	78	86	138	143	162	128	141	124
6-24	139	81	88	144	145	170	134	146	129



Produced by Road Data Services Ltd.

	Channel 1 -	Eastbound			Average Speed Week			
	08/12/2023	09/12/2023	10/12/2023	11/12/2023	12/12/2023	13/12/2023	14/12/2023	
Hr Ending	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	
1	-	-	-	-	-	-	-	
2	-	19.9	-	-	-	-	-	
3	-	-	25.0	-	-	-	-	
4	-	-	-	-	-	-	-	
5	-	-	-	-	-	-	-	
6	-	-	-	-	-	18.3	-	
7	15.7	-	-	19.8	23.9	20.1	23.9	
8	22.5	23.4	-	19.2	18.6	18.4	16.1	
9	21.1	18.1	20.6	16.6	17.6	16.6	19.0	
10	19.6	18.5	18.8	16.7	17.5	16.6	17.5	
11	18.6	16.7	15.6	18.0	17.7	21.1	17.5	
12	17.2	19.5	18.7	19.5	17.5	17.8	15.4	
13	19.6	18.8	17.3	17.4	20.8	19.4	19.1	
14	19.4	18.9	13.5	16.4	19.3	21.4	16.7	
15	19.9	18.2	19.0	21.1	17.0	20.0	19.1	
16	18.0	17.0	18.4	17.4	18.1	18.8	21.6	
17	18.9	16.5	20.0	18.5	22.4	17.7	19.5	
18	19.9	14.9	21.6	21.6	18.4	18.6	18.3	
19	19.7	20.7	20.1	19.7	19.4	18.5	17.8	
20	21.6	14.6	25.5	20.0	24.9	21.9	21.8	
21	19.1	15.5	24.0	20.1	17.3	16.2	19.1	
22	20.2	15.1	20.0	17.0	15.0	18.0	18.1	
23	15.7	22.5	20.4	21.4	21.5	20.8	17.9	
24	17.8	15.2	-	20.2	-	22.9	17.3	
10-12	18.1	18.1	17.7	18.9	17.6	19.4	16.6	
14-16	18.7	17.6	18.8	18.2	17.5	19.5	19.9	
0-24	19.1	18.3	18.9	18.6	19.1	18.9	18.7	

Channel 1 - Eastbound

Average (ALL)	18.8
Weekday Inter-Peak	18.6
85th Percentile	

	08/12/2023	09/12/2023	10/12/2023	11/12/2023	12/12/2023	13/12/2023	14/12/2023
Hr Ending	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday
1	-	-	-	-	-	-	-
2	-	21.8	-	-	-	-	-
3	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-
7	-	-	-	20.6	28.2	23.2	28.8
8	24.4	27.9	-	21.2	19.3	21.4	17.5
9	25.8	18.7	24.4	21.4	20.1	20.4	24.9
10	25.2	19.5	22.7	20.8	22.5	21.1	21.3
11	24.3	21.5	19.2	20.9	20.8	22.7	22.9
12	23.0	22.4	23.8	23.4	22.7	20.2	17.8
13	22.9	22.5	23.4	20.5	22.1	24.8	21.9
14	23.0	21.3	17.8	21.3	24.9	26.1	18.3
15	23.3	20.3	22.7	26.1	22.2	24.7	21.9
16	20.7	21.7	21.4	21.9	22.6	22.1	25.0
17	24.6	19.9	25.6	21.8	27.9	22.7	23.5
18	24.6	19.4	27.4	26.5	22.4	27.3	23.5
19	23.8	24.3	25.3	25.0	22.5	22.4	21.7
20	22.6	21.3	29.8	22.5	31.3	25.0	23.7
21	25.1	21.2	24.9	25.2	24.0	20.0	23.8
22	21.7	-	-	17.1	17.9	21.4	20.6
23	-	29.6	23.7	28.0	25.6	23.2	23.5
24	24.2	-	-	-	-	25.5	-
10-12	23.9	22.3	22.6	22.5	22.1	22.1	21.2
14-16	21.9	21.3	22.3	23.1	22.4	23.7	23.1
0-24	23.8	22.6	24.0	23.2	24.3	23.7	23.0

85th %ile (ALL)	23.5
Weekday Inter-Peak	22.9

Produced by Road Data Services Ltd.

Channel 1 - Eastbound			Speed Summary			Week 1	
	08/12/2023	09/12/2023	10/12/2023	11/12/2023	12/12/2023	13/12/2023	14/12/2023
Speed (MPH)	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday
0-30	139	83	89	143	143	171	134
30-40	0	0	0	1	2	0	0
40-50	0	0	0	0	0	0	0
50+	0	0	0	0	0	0	0
TOTAL	139	83	89	144	145	171	134



Produced by Road Data Services Ltd.

Channel 1 -	Eastbound			Week 1	
Classes	Car / LGV /	MGV	OGV1 / Bus	OGV2	TOTAL
Day / Time	Caravan - 1	- 2	- 3,5,6,7,12	- 4,8,9,10,11,13	- 1-13
08/12/2023					
7-19	107	15	0	0	122
6-22	117	16	0	0	133
6-24	122	17	0	0	139
0-24	122	17	0	0	139
09/12/2023					
7-19	62	9	0	0	71
6-22	69	9	0	0	78
6-24	71	10	0	0	81
0-24	73	10	0	0	83
10/12/2023					
7-19	72	8	0	0	80
6-22	77	9	0	0	86
6-24	78	10	0	0	88
0-24	79	10	0	0	89
11/12/2023					
7-19	111	15	0	0	126
6-22	123	15	0	0	138
6-24	129	15	0	0	144
0-24	129	15	0	0	144
12/12/2023					
7-19	114	14	0	0	128
6-22	127	16	0	0	143
6-24	129	16	0	0	145
0-24	129	16	0	0	145
13/12/2023					
7-19	120	25	0	0	145
6-22	136	26	0	0	162
6-24	143	27	0	0	170
0-24	144	27	0	0	171
14/12/2023					
7-19	101	10	0	0	111
6-22	118	10	0	0	128
6-24	124	10	0	0	134
0-24	124	10	0	0	134

Average					
7-19	98	14	0	0	112
6-22	110	14	0	0	124
6-24	114	15	0	0	129
0-24	114	15	0	0	129



Produced by Road Data Services Ltd.

Channel 2 - Westbound

Vehicle Flow	Week 1

	08/12/2023	09/12/2023	10/12/2023	11/12/2023	12/12/2023	13/12/2023	14/12/2023	Weekday	
Hr Ending	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Average	Average
1	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0
5	1	0	0	0	0	0	0	0	0
6	1	1	0	1	1	1	1	1	1
7	7	1	1	4	10	8	5	7	5
8	5	3	1	9	9	10	14	9	7
9	8	11	9	16	14	10	15	13	12
10	9	7	9	17	9	16	4	11	10
11	16	5	13	10	7	6	7	9	9
12	8	3	5	7	10	9	11	9	8
13	9	7	5	10	5	11	9	9	8
14	11	8	6	9	7	14	7	10	9
15	10	9	9	11	12	14	11	12	11
16	6	5	6	9	10	6	5	7	7
17	6	3	5	7	8	8	9	8	7
18	5	8	2	7	10	10	16	10	8
19	9	5	3	3	6	11	7	7	6
20	2	2	1	5	7	2	4	4	3
21	1	0	1	0	1	1	0	1	1
22	0	1	1	2	2	3	2	2	2
23	0	2	0	1	1	0	3	1	1
24	0	1	0	0	0	0	0	0	0
7-19	102	74	73	115	107	125	115	113	102
6-22	112	78	77	126	127	139	126	126	112
6-24	112	81	77	127	128	139	129	127	113
0-24	114	82	77	128	129	140	130	128	114



Produced by Road Data Services Ltd.

	Channel 2 - Westbound				Average Speed			
	08/12/2023	09/12/2023	10/12/2023	11/12/2023	12/12/2023	13/12/2023	14/12/2023	
Hr Ending	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	
1	-	-	-	-	-	-	-	
2	-	-	-	-	-	-	-	
3	-	-	-	-	-	-	-	
4	-	-	-	-	-	-	-	
5	13.7	-	-	-	-	-	-	
6	14.7	23.3	-	18.4	21.1	21.7	23.8	
7	19.7	6.7	6.6	17.5	18.7	18.2	17.8	
8	19.8	21.5	23.7	19.5	18.4	18.9	18.8	
9	19.9	17.2	15.0	19.5	17.0	16.7	16.5	
10	17.9	20.6	18.0	18.6	19.8	18.3	18.5	
11	17.0	20.8	18.2	18.6	18.1	18.4	18.9	
12	18.0	20.8	18.2	16.7	16.2	18.1	18.5	
13	18.3	17.8	19.3	19.9	16.7	18.2	19.6	
14	19.0	16.5	17.2	17.8	18.8	20.2	16.4	
15	20.4	22.4	20.5	17.2	17.9	18.3	16.3	
16	16.2	15.9	16.5	16.8	18.3	18.8	15.9	
17	18.8	17.2	20.4	18.7	20.5	15.3	16.4	
18	15.8	19.9	14.3	20.2	20.4	18.1	18.4	
19	21.4	17.4	17.7	17.7	19.0	20.1	18.2	
20	21.3	20.5	18.4	20.7	15.0	15.9	20.5	
21	8.3	-	15.9	-	18.6	17.3	-	
22	-	36.6	11.9	25.0	20.7	19.3	15.5	
23	-	17.2	-	28.0	20.3	-	15.8	
24	-	23.4	-	-	-	-	-	
10-12	17.4	20.8	18.2	17.8	17.0	18.2	18.6	
14-16	18.8	20.1	18.9	17.0	18.1	18.5	16.2	
0-24	18.5	19.1	17.8	18.8	18.3	18.4	17.8	

Channel 2 - Westbound

Average (ALL)	18.4
Weekday Inter-Peak	17.8
85th Percentile	

	08/12/2023	09/12/2023	10/12/2023	11/12/2023	12/12/2023	13/12/2023	14/12/2023
Hr Ending	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday
1	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-
7	24.1	-	-	20.9	23.9	24.4	24.8
8	22.4	28.7	-	23.2	23.5	22.5	22.2
9	23.6	19.5	18.3	25.1	22.3	21.2	22.4
10	22.5	24.2	22.3	21.9	25.6	21.7	20.2
11	22.2	23.8	22.4	23.6	20.7	22.4	22.3
12	22.8	24.7	22.6	22.4	20.0	21.9	21.7
13	23.9	20.3	22.0	25.5	18.4	23.6	24.2
14	21.6	21.7	19.8	20.0	24.0	24.0	20.8
15	24.1	26.2	24.8	20.3	19.9	21.7	21.9
16	19.9	20.6	19.3	22.6	24.2	20.4	20.3
17	23.2	22.3	21.9	20.2	25.2	18.5	19.0
18	20.9	25.3	18.4	25.5	23.1	22.8	23.7
19	24.7	23.4	19.4	18.1	22.2	24.2	22.9
20	22.3	21.2	-	25.7	20.1	16.8	23.2
21	-	-	-	-	-	-	-
22	-	-	-	29.4	22.2	25.1	17.5
23	-	18.4	-	-	-	-	21.6
24	-	-	-	-	-	-	-
-							
10-12	22.5	24.2	22.5	23.2	20.5	22.1	21.9
14-16	23.1	25.3	23.2	21.5	22.3	21.5	21.4
0-24	23.2	24.4	22.0	23.5	23.0	22.7	22.6

85th %ile (ALL)	23.1
Weekday Inter-Peak	22.2

Produced by Road Data Services Ltd.

	Channel 2 - Westbound			Speed Summary			Week 1
	08/12/2023	09/12/2023	10/12/2023	11/12/2023	12/12/2023	13/12/2023	14/12/2023
Speed (MPH)	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday
0-30	114	81	77	127	129	140	130
30-40	0	1	0	1	0	0	0
40-50	0	0	0	0	0	0	0
50+	0	0	0	0	0	0	0
TOTAL	114	82	77	128	129	140	130



Produced by Road Data Services Ltd.

Channel 2 -	Westbound			Vehicle Class	Week 1
Classes	Car / LGV / Caravan - 1	MGV	OGV1 / Bus	OGV2	TOTAL
08/12/2023	oururun 1		0,0,0,1,12		
7-19	83	19	0	0	102
6-22	92	20	0	0	112
6-24	92	20	0	0	112
0-24	94	20	0	0	114
09/12/2023					
7-19	66	8	0	0	74
6-22	70	8	0	0	78
6-24	73	8	0	0	81
0-24	74	8	0	0	82
10/12/2023					
7-19	68	5	0	0	73
6-22	72	5	0	0	77
6-24	72	5	0	0	77
0-24	72	5	0	0	77
11/12/2023					
7-19	99	16	0	0	115
6-22	108	18	0	0	126
6-24	109	18	0	0	127
0-24	109	19	0	0	128
12/12/2023					
7-19	97	10	0	0	107
6-22	114	13	0	0	127
6-24	114	14	0	0	128
0-24	115	14	0	0	129
13/12/2023					
7-19	107	17	1	0	125
6-22	119	19	1	0	139
6-24	119	19	1	0	139
0-24	119	20	1	0	140
14/12/2023					
7-19	100	14	1	0	115
6-22	110	15	1	0	126
6-24	113	15	1	0	129
0-24	114	15	1	0	130

Average					
7-19	89	13	0	0	102
6-22	98	14	0	0	112
6-24	99	14	0	0	113
0-24	100	14	0	0	114





Road Data Services Ltd

Class No	Vehicle Description	Class No	Vehicle Description
1	Car, Light Van, Taxi	5	Rigid 2 Axle HGV + 2 Axle (Close coupled) Trailer
1	Light Goods Vehicle	6	Rigid 3 Axle HGV + 2 Axle Drawbar Trailer
1	Car or Light Goods Vehicle + 1 Axle Caravan or Trailer	6	Rigid 3 Axle HGV + 3 Axle Drawbar Trailer
1	Car or Light Goods Vehicle + 2 Axle Caravan or Trailer	7	Artic, 2 Axle Tractor + 1 Axle Semi-Trailer
2	Medium / Large Goods Vehicle	8	Artic, 2 Axle Tractor + 2 Axle Semi-Trailer
3	Rigid 3 Axle Heavy Goods Vehicle	9	Artic, 2 Axle Tractor + 3 Axle Semi-Trailer
3	Rigid 3 Axle Heavy Goods Vehicle	10	Artic, 3 Axle Tractor + 1 Axle Semi-Trailer
4	Rigid 4 Axle Heavy Goods Vehicle	10	Artic, 3 Axle Tractor + 2 Axle Semi-Trailer
4	Rigid 4 Axle Heavy Goods Vehicle	11	Artic, 3 Axle Tractor + 3 Axle Semi-Trailer
5	Rigid 2 Axle HGV + 2 Axle Drawbar Trailer	12	Bus or Coach, 2 Axle
5	Rigid 2 Axle HGV + 3 Axle Drawbar Trailer	12	Bus or cCoach, 3 Axle
5	Rigid 2 Axle HGV + 1 Axle Caravan or Trailer	13	Vehicle with 7 or more Axles

APPENDIX D – SSD CALCULATIONS

Worst Case Traffic on Raunds Road



Stopping Sight Distance Calculator

Formula for calculating SSD (from Manual for Streets 2): SSD = vt + v2/2(d+0.1a)

v = Speed of vehicle (m/s)

t = driver perception-reaction time (seconds)

SSD = vt + v2/2(d+0.1a)d = deceleration rate (m/s) a = longditudinal gradient (%)

Fill in the white boxes only

Enter the vehicle 85%ile speed below





Based on Table 10.1 MfS2

Design speed	Vehicle Type	Reaction Time t (s)	Deceleration rate d (m/s) (ie factor x 9.81)	Standard
	Light vehicles only	1.5	0.450 g	MfS2
60kph and below	Buses and/or HGV's greater than 5% of the traffic	1.5	0.375 g	MfS2
Above 60kph	All vehicles (≤64kph)	2	0.375 g (Absolute minimum)	CD 109
	All vehicles (>64kph)	2	0.250 g (Desirable minimum)	CD 109

NOTE: The adjustment for the bonnet length is only required on the MfS SSD as the MfS formula is calculated from drivers eye. To avoid a collision, the bonnet length must be added.

Worst Case Traffic on Spencer Street



Stopping Sight Distance Calculator

Formula for calculating SSD (from Manual for Streets 2): SSD = vt + v2/2(d+0.1a)

v = Speed of vehicle (m/s)

t = driver perception-reaction time (seconds)

SSD = vt + v2/2(d+0.1a)d = deceleration rate (m/s) a = longditudinal gradient (%)

Fill in the white boxes only

Enter the vehicle 85%ile speed below





Based on Table 10.1 MfS2

Design speed	Vehicle Type	Reaction Time t (s)	Deceleration rate d (m/s) (ie factor x 9.81)	Standard
	Light vehicles only	1.5	0.450 g	MfS2
60kph and below	Buses and/or HGV's greater than 5% of the traffic	1.5	0.375 g	MfS2
Above 60kph	All vehicles (≤64kph)	2	0.375 g (Absolute minimum)	CD 109
	All vehicles (>64kph)	2	0.250 g (Desirable minimum)	CD 109

NOTE: The adjustment for the bonnet length is only required on the MfS SSD as the MfS formula is calculated from drivers eye. To avoid a collision, the bonnet length must be added.

APPENDIX E – TRICS

TRICS 7.10.3 180923 B21.52 Database	e right of TRICS Consortium Limited, 2024. All rights reserved	Friday 08/12/23
FW2401 Denford Road, Ringstead		Page 1
Farrow Walsh Ltd. 62 Highcross Street	Leicester	Licence No: 650801

Calculation Reference: AUDIT-650801-231208-1212

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL Category : M - MIXED PRIVATE/AFFORDABLE HOUSING MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:02SOUTH EASTESEAST SUSSEX

2 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Actual Range: Range Selected by User:	No of Dwellings 16 to 47 (units:) 14 to 47 (units:)
Parking Spaces Range:	All Surveys Included
Parking Spaces per Dwellin	g Range: All Surveys Included
Bedrooms per Dwelling Rar	nge: All Surveys Included
Percentage of dwellings priv	vately owned: All Surveys Included
Public Transport Provision: Selection by:	Include all surveys
Date Range: 01/01/	/15 to 07/09/22
This data displays the rang included in the trip rate cai	e of survey dates selected. Only surveys that were conducted within this date range are lculation.
<u>Selected survey days:</u> Tuesday Wednesday	1 days 1 days
This data displays the num	ber of selected surveys by day of the week.
<u>Selected survey types:</u> Manual count	2 davs
Directional ATC Count	0 days
This data displays the num up to the overall number o are undertaking using mac	ber of manual classified surveys and the number of unclassified ATC surveys, the total adding f surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys hines.
<u>Selected Locations:</u> Neighbourhood Centre (PPS	S6 Local Centre) 2
This data displays the num consist of Free Standing, Ev Not Known.	ber of surveys per main location category within the selected set. The main location categories Idge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and
<u>Selected Location Sub Cate</u> Village	e <u>gories:</u> 2
This data displays the num consist of Commercial Zone Out of Town, High Street a	ber of surveys per location sub-category within the selected set. The location sub-categories e, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, nd No Sub Category.
Inclusion of Servicing Vehic Servicing vehicles Included Servicing vehicles Excluded	<i>cles Counts:</i> 4 days - Selected 6 days - Selected
Secondary Filtering selec	ction:

<u>Use Class:</u> C3

2 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

<u>Population within 500m Range:</u> All Surveys Included

TRICS 7.10.3 180923 B21.52 Database righ	t of TRICS Consortium Limited, 2024. All rights reserved	Friday 08/12/23
FW2401 Denford Road, Ringstead		Page 3
Farrow Walsh Ltd. 62 Highcross Street Leid	ester	Licence No: 650801
5		
Secondary Filtering selection (Cont.):	
Population within 1 mile:		
1,001 to 5,000	2 days	
This data displays the number of selecte	ed surveys within stated 1-mile radii of population.	
Population within 5 miles:		
25,001 to 50,000	2 days	
This data displays the number of selected	ed surveys within stated 5-mile radii of population.	
Cor ouroschip within E milos		
Lato 1 E	1 dovo	
1.1 to 1.5	1 days	
1.0 10 2.0	T uays	
This data displays the number of selection	od surveys within stated ranges of average cars owned per re	sidential dwelling
within a radius of 5-miles of selected su	ruav sitas	siderniar divennig,

<u>Travel Plan:</u>	
Yes	1 days
No	1 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating: No PTAL Present

2 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1	ES-03-M-09 STATION ROAD NORTHIAM	DETACHED/SEMI-DET	EAST SUSSEX	
	Neighbourhood Cent Village	re (PPS6 Local Centre)		
	Total No of Dwellings	S:	16	
	Survey date:	WEDNESDAY	17/05/17	Survey Type: MANUAL
2	ES-03-M-20 HOREBEECH LANE HORAM	MI XED HOUSES & FLA	TS	EAST SUSSEX
	Neighbourhood Cent Village	re (PPS6 Local Centre)		
	Total No of Dwellings	S:	47	
	Survey date:	TUESDAY	<i>05/10/21</i>	Survey Type: MANUAL

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 03 - RESIDENTIAL/M - MIXED PRIVATE/AFFORDABLE HOUSING MULTI - MODAL TOTAL VEHICLES Calculation factor: 1 DWELLS BOLD print indicates peak (busiest) period Total People to Total Vehicles ratio (all time periods and directions): 1.49

		ARRIVALS		[DEPARTURES			TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	32	0.000	2	32	0.302	2	32	0.302
08:00 - 09:00	2	32	0.079	2	32	0.349	2	32	0.428
09:00 - 10:00	2	32	0.175	2	32	0.048	2	32	0.223
10:00 - 11:00	2	32	0.079	2	32	0.063	2	32	0.142
11:00 - 12:00	2	32	0.095	2	32	0.175	2	32	0.270
12:00 - 13:00	2	32	0.079	2	32	0.127	2	32	0.206
13:00 - 14:00	2	32	0.270	2	32	0.175	2	32	0.445
14:00 - 15:00	2	32	0.159	2	32	0.270	2	32	0.429
15:00 - 16:00	2	32	0.460	2	32	0.286	2	32	0.746
16:00 - 17:00	2	32	0.365	2	32	0.159	2	32	0.524
17:00 - 18:00	2	32	0.349	2	32	0.238	2	32	0.587
18:00 - 19:00	2	32	0.302	2	32	0.143	2	32	0.445
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2,412			2.335			4.747

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights and other proprietary notices, and any disclaimer contained thereon.

The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

Parameter summary

Trip rate parameter range selected:	16 - 47 (units:)
Survey date date range:	01/01/15 - 07/09/22
Number of weekdays (Monday-Friday):	2
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

APPENDIX F – PROPOSED S38 ADOPTABLE EXTENTS



General Notes
1. DO NOT SCALE.

- 2. This drawing is to be read in conjunction with all other relevant drawings and details.
- Should there be any conflict between the details indicated on this drawing and those on other drawings the Engineer should be informed PRIOR to construction on site.
- 4. Until technical approval has been obtained from the relevant Authority, it should be understood that all drawings issued are Preliminary and NOT for construction. Should the Contractor commence site work prior to such approval being given it is entirely at their own risk.
- Sketch proposals are for illustrative purposes only and as such are subject to detailed site investigation including ground conditions / contaminants, drainage, design and planning / density negotiations.
- 6. All dimensions are in millimetres unless otherwise stated.

7. The Farrow Walsh Designers Risk Assessments for this project must be reviewed PRIOR to the commencement of any works on site.

NOTES

- 1. This drawing to be read in conjunction with all other relevant Engineers and Architect's details.
- All work is to be carried out in accordance with the current British Standards, codes of practice and building regulations.
 The design of any temporary works required shall be the
- responsibility of the Contractor.4. Do not scale this drawing. All dimensions are in millimetres unless
- noted otherwise. Any discrepancies are to be recorded and reported to the Engineers immediately.5. All work is to be to the satisfaction of the Engineer.
- 6. The Contractor is responsible for and must take all necessary precautions to ensure the stability of the works at all times during construction.
- All workmanship and materials are to be to current British Standards.
 All services are to be located and protected as necessary by the Contractor prior to the commencement of the works.
- Any existing details which are shown on this drawing are for guidance only and are to be checked on site by the Contractor. Any variations are to be recorded and reported to the Engineer immediately.

LEGEND







Vegetation to be cleared for access visibility. Height no greater than 0.6m

Visibility distance subject to 30mph zone change

