HIGHWAYS AND TRANSPORT

Taking Action on School Journeys

Chapmanslade Primary School

Wiltshire Council

Contents

1	In	troduction and Background	3
2	Da	ata Collection	4
	2.1	School Travel Plan Review	4
	2.2	Collision data	5
	2.3	Speed data	5
	2.4	Additional observations	
3	Ar	nalysis	
	3.1	Review of 2010 proposals	
	3.2	Replacement of wig-wags with a part-time advisory 20mph limit	
	3.3	Installation of bollards to prevent footway over-runs.	
4	Re	ecommendations	
5	Co	ostings	
6	Ap	opendices	

1 Introduction and Background

This report is in response to a Taking Action on School Journeys (TAOSJ) funding application by Chapmanslade Primary School for highway measures to improve road safety for pupils on the school journey. The school is aiming for a safer pedestrian environment on the High Street and has specifically requested investigations into providing the following:

- A review of the measures proposed in the TAOSJ feasibility report produced in 2010, which included two informal crossing points and school keep clear markings;
- Replacement of existing wig-wags with signs advertising a part-time advisory 20mph speed limit;
- Installation of bollards to prevent vehicles overrunning the pavement in the vicinity of the entrance to the Three Horseshoes public house car park.

An initial meeting, attended by Robert Cottrell (Headteacher), Philip Holihead (parish councillor), Julian House (resident), Minnie House (chair of governors and parish clerk), Bill Parks (Wiltshire Councillor), Kate Davey (traffic engineer, Wiltshire Council) and Ruth Durrant (school travel plan adviser, Wiltshire Council) was held on 9th May 2023 to gain a greater insight into the issues faced by pupils at the start and end of the school day.

2 Data Collection

2.1 School Travel Plan Review

Chapmanslade Primary School is situated in the centre of the village of Chapmanslade on the A3098 between Westbury and Frome, close to the Wiltshire/Somerset border. The school has 99 pupils on roll and the catchment area comprises the parishes of Chapmanslade and Corsley. Out-of-catchment pupils also come from the nearby towns of Warminster, Westbury and Frome. The Busy Bees pre-school, under separate management, is adjacent to the school in a temporary classroom on part of the school field and shares the school entrance way, although users primarily use the church pathway. The school has arranged with the Three Horseshoes public house for parents to use the car park as a park-and-stride facility. There is no public transport serving the school. As can be seen from figure 1 below, almost 30% of pupils live within half a mile of the school, but over 40% live more than two miles from the school.



Figure 1: Distance from school (October 2022 school census data)

A parental survey of actual and preferred modes of travel was also undertaken in September 2022, with a return rate of 57%. Almost 70% of respondents drove their children to school, with 31% of the responding families living in the village. Parents stated that their travel choices were a result of being the most appropriate for the distance and there being no reasonable alternatives available. The results of the survey can be seen in figure 2 overleaf.



Figure 2: Parental Survey: Actual and Preferred Mode of Transport

2.2 Collision data

An investigation of the Police collision database shows that there have been two collisions resulting in slight injury on the High Street within the 36-month period preceding the preparation of this report, neither of which was on a school-related journey. Table 1 below summarises the details.

Location	Date	Severity	Description
A3098 High Street at junction with Cley Hill Gardens	11.12.2021	Slight	Vehicle 1 pulled out of Cley Hill Gardens into High Street in path of vehicle 2 resulting in collision
Huntenhull Lane	27.6.2021	Slight	Vehicle 2 travelling north-east slowed for road narrowing and vehicle 1 travelling south-west attempted to stop, skidded and collided with front of vehicle 2.

Table 1: Collision data information

2.3 Speed data

For the purposes of this report and to gain a better understanding of vehicle speeds, two traffic surveys were undertaken between 6 and 12 June 2023. The locations and data are shown in figure 3 and table 2 overleaf.



Figure 3: Locations of traffic surveys

	Site 1 East-bound	Site 1 West-bound
Mean Speed (mph)	28.0	28.9
85 th % ile (mph)	32.0	32.0
Traffic Volume (7 day ave per day)	2666	2313

	Site 2 East-bound	Site 2 West-bound
Mean Speed (mph)	21.1	23.9
85 th % ile (mph)	27.7	28.7
Traffic Volume (7 day ave per day)	2687	2297

Table 2: Traffic survey data June 2023

As a road closure of the northbound sliproad from the A36 to the A3098 was in place in June and may have disrupted the survey data, a decision was made to undertake a further data collection in September 2023 and compare the difference between the two sets of data. The results of the September data collection are shown in the tables below.

	Site 1 East-bound	Site 1 West-bound
Mean Speed (mph)	27.7	29.1
85 th % ile (mph)	31.7	33.3
Traffic Volume (7 day ave per day)	2594	2702

	Site 2 East-bound	Site 2 West-bound
Mean Speed (mph)	20.9	23.9
85 th % ile (mph)	25.4	28.9
Traffic Volume (7 day ave per day)	2659	2726

Table 3: Traffic survey data September 2023

Comparing the two data sets, it can be seen that in September there was an increase in westbound vehicle volumes of just over 16% at site 1 and approximately 18% at site 2. Gaps in traffic are roughly similar in the morning peak and there is a small reduction of 0.4 seconds in the afternoon peak.

A pedestrian count survey was undertaken on 6 June 2023 to establish the numbers of pedestrians crossing the High Street in three locations, which are indicated in figure 4 below. The survey was carried out between 7pm and 7am. Pedestrian numbers were recorded for the twelve-hour period. A summary of the results is shown in table 4 overleaf.



This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or Civil Proceedings.

Figure 4: Locations of pedestrian survey (June 2023)

	SOUTH	BOUND	NORTH		
	AM (07.00-13.00)	PM (13.00-19.00)	AM (07.00-13.00)	PM (13.00-19.00)	ZONE TOTAL
Zone A	7	40	18	14	79
Zone B	15	10	7	12	44
Zone C	9	16	16	13	54

Table 4: Pedestrian survey data June 2023

The repeated September data collection included a pedestrian survey. A summary of the results is shown in table 5 overleaf.

	SOUTH	BOUND	NORTH		
	AM PM (07.00-13.00) (13.00-19.00)		AM (07.00-13.00)	PM (13.00-19.00)	ZONE TOTAL
Zone A	21	58	58	38	175
Zone B	5	24	4	4	37
Zone C	18	25	25	16	84

Table 5: pedestrian survey September 2023

It can be seen by comparing the two data sets that there has been a significant increase in numbers in zones A and C with a small reduction in zone B. It is felt that this increase cannot be accounted for by the removal of the diversion but may be due to the fact that June pedestrian crossing movements may not represent typical movements for the rest of the academic year due to pupils being away from school for a variety of reasons. It was also noted that the busiest crossing movement in September was further west, as shown in the plan below.



This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or Civil Proceedings.

Figure 5: Locations of pedestrian survey (September 2023)

2.4 Additional observations

Two site visits were carried out on Wednesday 7^{th} June between 8:00 - 9:00 am and 2:30 - 3:30 pm to observe the current school journeys in operation as well as associated traffic movements. These visits have helped to gain an understanding of the concerns raised by the school and the parish council as part of the TAOSJ application.

The school is located in Chapmanslade on the A3098. There are warning signs on both approaches to the school with fully functioning amber wig-wag light units. There was a constant flow of traffic in both directions throughout the course of the visits. This included school vehicular traffic, through vehicular traffic, and HGV and farm traffic. A substantial amount of on-street parking took place at regular points along the A3098 in the vicinity of the school. During the afternoon visit, on-street parking increased further and there was increased conflict between vehicles and pedestrians. In one incident, a van travelling east overtook a vehicle waiting between parked vehicles to allow westbound traffic to pass.

The majority of drivers were seen successfully negotiating a give/take informal system between the parked vehicles, but some attempted three-point turns in the carriageway and mounted the footway to negotiate their way along the route. During the afternoon visit there was an increase in vehicles mounting the footway.

Existing footways are intermittent on each side of the A3098 resulting in the need to cross the A3098 several times on some routes to school. The main pedestrian crossing points were observed to be to the east of the school adjacent to The Three Horseshoes Public House and to the west of the school adjacent to property number 95 where the footway terminates.

During the morning and afternoon visit, a number of parents/carers were observed parking in the public house car park and crossing the A3098 to walk pupils to the school gate. A number of pupils walked continuously along the footway on the north side of the A3098 from the Wood Lane direction. During the afternoon visit a local bus was witnessed stopping adjacent to the pub and secondary school children disembarked.

At the time of the visits the Traffic Survey equipment was in place on both approaches to the school entrance.



Photo 1: On street parking east of school entrance on morning visit



Photo 2: On street parking east of school entrance on afternoon visit



Photo 3 On street parking at school entrance on morning visit



Photo 4: On street parking at school entrance on afternoon visit



Photo 5: Pedestrian crossing point west of school entrance



Photo 6: Pedestrian crossing point east of the school entrance near to pub car park



Photo 7: Location of traffic survey equipment and existing school warning sign west of school



Photo 8: Location of traffic survey equipment and existing school warning sign east of school

3 Analysis

3.1 Review of 2010 proposals

In 2010, a feasibility study was carried out as a result of the school's TAOSJ application. The study proposed a priority system with a build-out and school keep clear marking to facilitate safer pedestrian crossing movements across the A3098. A plan of the proposals from 2010 is attached at **Appendix 4**. However, the scheme did not go ahead as the school and the parish council failed to reach agreement on the proposals.

The school and parish council are now working together with the aim of improving the school journey for those going to Chapmanslade Primary School and have requested that the recommendations in the 2010 study are revisited. As a result, the two sets of data on pedestrian crossing movements have been interrogated and the two tables below outline the crossing movements for the four busiest hours over the twelve-hour period, counting vulnerable pedestrians as 2, i.e. those under 16 years old and those over the age of 65.

Zone	0800 - 0900	1100 – 1200	1500 – 1600	1700 – 1800	Average	Justification
Α	16	6	59	10	22.75	No

Table 6: Pedestrian survey data in Zone A (June 2023)

Zone			1300 – 1400			Justification
Α	17	17 89		106	58	Yes

Table 7: Pedestrian survey data in zone A (September 2023)

There are a number of factors to be taken into consideration when investigating the feasibility of installing a formal pedestrian crossing. Formal crossings include 'zebra' and 'signal controlled' facilities such as Puffin and Toucan. The type of formal pedestrian crossing is determined by vehicle speeds and pedestrian movements along with the existing surrounding environment and road geometry.

The traffic survey data collected during June and September 2023 indicate a difference in vehicle volumes with an increase in September on westbound movements. It is considered this is mainly as a result of the road closure on the nearby A36 slip road and associated diversion route during the period of data collection in June. The 85th percentile speeds in June and September are all less than the required 35mph for the introduction of a Zebra Crossing. Signal controlled crossing are predominantly used where speeds are higher and pedestrian flows are higher throughout the day.

A review of both sets of pedestrian data show a significant difference in numbers, with September 2023 data confirming that the busiest crossing point in Zone A does meet the Wiltshire Council criteria for a formal pedestrian crossing to be considered. Following analysis of these data, a further site visit was undertaken to complete a Site Assessment Record; please see **Appendix 5** for full details. The Site Assessment Record takes into account all the site characteristics to determine if the installation of a formal pedestrian crossing is feasible.

The assessment highlighted the need for a street lighting assessment to be completed at this site. There are good visibility distances on the south side of the A3098 but the north side is severely restricted due to

regular on-street parking, property walls and vegetation. The recommended build out would substantially improve visibility on the north side and result in a reduction in the time taken to across the A3098.

The geometry of the road and footways at this site is such that on the south side especially there is very limited footway space to allow for the required infrastructure of a formal crossing. Adjacent property frontage and windows also need to be taken into consideration as a formal zebra crossing requires the installation of flashing orange "Belisha" beacons which can be considered to cause severe visual intrusion. Another requirement for a formal zebra crossing is the controlled zone (zig zag markings) which would have a much greater impact for on-street parking capacity than the recommended build-out.

After reviewing the data collected in September 2023, the significant increase in crossing movements is specifically between the hours of 08:00 - 09:00 and 15:00 - 16:00, which is to be expected given that it is in line with the start and finish times of the school day. Throughout the rest of the assessment period, the pedestrian movements are low and infrequent, and it should be noted that formal pedestrian crossings do not make crossing the road safer by default. Badly sited, underused, or misused crossings can detract from road safety, as can an inappropriate choice of crossing facility.

Pedestrian crossings and their associated equipment together with signs and road markings can obstruct footways, increase visual intrusion, and impose restrictions on parking and loading which can have a negative effect on the surrounding environment. Taking into consideration all of the points raised above, it is considered infeasible to implement a formal pedestrian crossing at this site, and therefore the implementation of a pedestrian build-out in conjunction with an informal crossing point and improved street lighting is recommended, along with a further informal crossing point further east of the school entrance in the vicinity of the public house; please refer to **Appendix 1** and **Appendix 2** for full details.

3.2 Replacement of wig-wags with a part-time advisory 20mph limit

The area outside Chapmanslade Primary School and on the approaches either side of the school may benefit from a part time advisory 20mph speed restriction, operating at school start and finish times.

A part time advisory 20mph speed restriction is indicated by flashing amber hazard warning lights, accompanied by a school warning sign on the approach to the school. They are only in operation before and after school, beyond these times or outside of school term times, the speed limit remains at 30mph.

This type of advisory speed restriction is used to make drivers aware of the appropriate speed for their surroundings at times when there may be increased pedestrian, cycling or scooting activity outside the school. An advisory 20mph speed restriction is not supported by a Traffic Regulation Order and can be implemented more quickly compared to a standard permanent speed limit.

The signs could be located on each approach to the school approximately where the existing school warning signs are situated. Figure 5 below is an example of the signs used in this kind of speed restriction:



Sign Size: Approx. Height: 1550mm Approx. Width: 883mm

Figure 6: Advisory part time 20mph sign

There is an existing SLOW road marking alongside the existing warning sign on the eastbound approach to the school which has been refreshed as part of the recent resurfacing works on the A3098. It is worthwhile considering providing the same road marking adjacent to the proposed signs on the westbound approach for consistency in the road safety message and to raise awareness to drivers of the hazards ahead; please refer to **Appendix 3** for full details.

3.3 Installation of bollards to prevent footway over-runs.

A request for the installation of bollards along the footway west of the entrance to The Three Horseshoes public house in the vicinity of properties 68A to 68C High Street has been investigated to prevent vehicles overrunning the footway.

The provision of bollards requires a minimum footway width of 1.8m in order to provide accessibility for all users, as well as a sufficient safe distance from the edge of the carriageway. The width of the footway along this section of High Street is insufficient to allow the installation of bollards and continue to provide sufficient width for accessibility within the extents of the existing highway boundary.

There is an extended surface width beyond the extent of the highway boundary, however in order to utilitise this extended width to allow the installation of bollards, the area would need to be designated as part of the public highway. This would involve a lengthy and potentially costly legal process and require the agreement of all property owners to progress. Therefore, it is not recommended to be a viable option at this time. Please refer to figure 6 overleaf for the existing highway boundary highlighted in red.



 $\textcircled{\sc crown}$ Copyright and database rights 2023 Ordnance Survey 100049050

Figure 7: Extract of existing highway boundary extent

4 Recommendations

It is recommended that the following improvements are taken forward for funding consideration:

- Pedestrian build out with informal crossing point along with associated electrical and drainage works in the vicinity of property number 95 High Street, Chapmanslade, please refer to Appendix 1;
- School keep clear marking outside Chapmanslade Primary School entrance, please refer to **Appendix 1**;
- Informal crossing point in the vicinity of property number 91 High Street, Chapmanslade, please refer to **Appendix 2**;
- Advisory 20mph part time restriction with adjacent road markings along High Street, Chapmanslade, please refer to **Appendix 3**.

5 Costings

The costs associated with the introduction of the above improvements are approximately £65,000. This includes:

Description	Cost
Temporary Traffic Management (including road closure)	£10,000
Pedestrian build out construction	£40,000
Informal crossing point construction	£3,000
Advisory 20mph restriction	£7,000
Legal Traffic Regulation Orders	£5,000
Total	£65,000

6 Appendices





					1			
SCALES: DRAWING No FILE REF:	DRAWING TI	PROJECT:	SEP 23	O □ m -	n	and Unaut	This ma with the	NOTES:
NOT TO SCALE SHEET SIZE: A3 2. 2023-035/KAD/CHAP/D002 REVISION: 0 LITETISCHEMESPECIFICITAOSJ2023-XICHAPMANISLADE DESIGN	Chapmanslade Primary School TAOSJ Feasibility Study TITLE: A3098 High Street - Informal Crossing Point Preliminary Design	VDIX	KAD *** *** ORIGINAL		Traffic & Network Management County Hall, Bythesea Road, Trowbridge Wiltshire, BA14 8JD Tel: 0300 4560100 Website: www.wiltshire.gov.uk	Unauthorised reproduction infinitions Crown Copyright and may lead to prosecution or Civil Proceedings. Wiltshire Council (100049050) 2023 Viltshire Council (100049050) 2023	This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown covright.	



			50c	200	appor	J	<u> </u>	F		1 40 1 40		65		
FILE REF: L:TETISCHEMESPECIFICITACSJ23-24/CHAPMANSLADE/DESIGN	NOT TO SCALE No. 2023-035/KAD/CHAP/D003	DRAWING TITLE: A3098 High Street - Advisory 20 Preliminary Design	PROJECT: Chapmanslade Primary School TAOSJ Feasibility Study	APPENDIX 3	REV DATE DRAWN OHEOX APPRV DESCRIPTION DRAWING PURPOSE:			m	F	unty Hall, Bythesea Wiltshire, BA Tel: 0300 45 Website: www.wilt	Traffic & Network Management	This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or Civil Proceedings. Witishile Council (100049050) 2023	ARE INDICATIVE ONLY	NOTES:



SITE ASSESSMENT RECORD

Site Characteristics								
Site Location: A3098 High Street, Chapmanslade								
Carriageway Type:	Single One-Way	Double Two-Way						
	No. of Lanes: 2							
Carriageway Width:	6.4m	6.4m						
Footway Width:	Side one (north): 1.5m		Side two (south): 1.3m					
Refuge Island:	Yes /No							
Road Lighting Standard	– BS5489 classifica	ation						
Is lighting below/above sta	andard? Below							
Full assessment needed?	Yes							
Are amendments to lightir	ng needed? Yes							
Minimum visibility								
<u>North side:</u> Pedestrian to vehicle:								
Vehicle to crossing: Out of Village:60m Into Village: 10m* (westbound) (eastbound)								
*Visibility splays severely impacted by on street parking which is a regular occurrence at this location. The introduction of a build-out would improve visibility.								
South side:Pedestrian to vehicle:Out of Village:150m (westbound)Into Village: 130m (eastbound)								

Vehicle to crossing:	Out of Village:150m	Into Village: 150m
	(westbound)	(eastbound)

Waiting/Loading/Stopping restrictions

At prospective site?	Yes /No	Double Yellows?	Yes /No
Within 50m of site?	Yes/ No	Double Yellows?	Yes /No

School keep clear marking situated within 50m of site.

Public Transport stopping points

At prospective site?	Yes /No
----------------------	--------------------

Within 50m of site? Yes/No

If yes provide details of approx locations etc: N/A

Nearby junctions

Distance to significant traffic junction	Into Village:	205m to Wood Lane	
	(eastbound)		

Out of Village: 240m to Forest Walk (westbound)

Other Crossings

Distance to next crossing:

Into Village: None Type: N/A (eastbound)

Out of Village: None Type: N/A (westbound)

School crossing patrol

Distance if less than 100m: None

Carriageway skid risk

Does surface meet skid resistance requirements

Yes/No (Visual only) A3098 recently resurfaced.

Surroundings (entrances within 100m)

Hospital/Sheltered Housing etc	Yes /No
School	Yes/ No
Post Office	Yes /No
Railway/Bus Station	Yes /No
Pedestrian leisure/shopping area	Yes /No
Sports stadium/entertainment venue	Yes /No
Junction with cycle route	Yes /No
Equestrian centre/junction with bridal path	Yes /No
Others – car park	Yes /No

CROSSING TRAFFIC INFORMATION

Flow and Composition

Pedestrian Count:	See separate data within feasibility report.			
Prams/Pushchairs:	As above			
Elderly:	As above			
Unaccompanied young children:	As above			
Disabled:	As above			
Crossing cyclist:	As above			
Equestrians:	As above			
Others:	As above			

Time to cross road

Able pedestrians	5 – 8 seconds				
Elderly or disabled	12 – 15 seconds				
Difficulty of crossing					
Able pedestrians	Low	Average	High		
Elderly/Disabled	Low	Average	High		
Latent Crossing Demand					
Estimate	Unlikely	Likely	Very Likely		

OTHER NOTES

- Existing school warning signs on both approaches to site, these will be upgraded to an advisory 20mph speed limit as part of the TAOSJ project.
- Regular on street parking at intermittent points along the A3098 with regular parking on the north side in vicinity of school entrance.
- Existing 30mph speed limit by virtue of street lighting but is sparse in vicinity of assessed site.
- There is a recommendation within the TAOSJ feasibility report to implement a pedestrian build out on the north side of the A3098 at this site.
- There is a recommendation for a further informal crossing point near The Three Horseshoes public house where parent's park and walk to school.
- The assessed site is directly outside property frontage and windows.