

Collision Site Investigation - Bodenham By-Pass

Background

The junction of the C12 and A338 was the subject of a Local Safety Scheme (LSS) in 2011. Analysis of the collisions at the time revealed the majority of collisions were the result of vehicles turning right out of the C12 onto the A338.

Analysing the database today in the 3 years prior to this scheme there were 8 recorded collisions at this junction, 7 of these collisions involved vehicles turning right out of the C12 onto the A338. 5 of these collisions are recorded as resulting in serious personal injury, and 3 were recorded as resulting in slight personal injury.

The work carried out in 2011 reduced the carriageway distance at which vehicles exiting the C12 had to traverse when exiting and introduced a physical traffic island to provide additional protection from the main road traffic along with some alterations to the existing kerblines and road markings to facilitate the introduction of a definitive left turn lane.

Since the LSS took place there have been 6 further recorded collisions 5 involving vehicles turning right out of the C12 onto the A338. 1 of these collisions was fatal, 1 was recorded as resulting in serious personal injury and 4 recorded as resulting in slight personal injury. The investigation by the Police following the fatal collision found the driver to be at fault. He had been to the hospital and had forgotten to put his glasses back on for the return journey, therefore this collision cannot be attributed to the layout of the carriageway.

The previous LSS has been considered a success, whilst there has only been a minor reduction in the total number of collisions there has been a significant reduction in the severity of personal injury caused by the continuing collisions. There is however still a continuing collision record at this junction that needs addressing.

Consultation

The most extreme solution would be to restrict all right turn movements at this location therefore this suggestion was put to the Parish Council as a preliminary idea. A summary of the responses received are in Appendix 1. The overwhelming response was a rejection on the restriction of right turning movements fully supported by the Wiltshire Councillor.

The principal objections to the right turn restriction were;

- The inconvenience caused to those that regularly use the junction, including the emergency services.
- The effects, both practically and economically on the Nunton Farm that operates on both sides of Bodenham by-pass.
- The potential impact on the 44 Bus Service.
- Increased traffic flow around Harnham gyratory.
- Potential for traffic to use alternative/less appropriate locations to make the turn.
- The need to use Odstock hill during snowy/icy conditions when intending to route south along A338.

These are all useful points that, should the collision problem ever necessitate the introduction of such a restriction would need to be mitigated against.

Alternative solutions, all of which have been responded to in Appendix 2 primarily focus on the need to reduce the dual carriageway to a single lane and reduce the speed, both of which are not considered appropriate. Particularly as the majority of collisions would indicate the primary source of error originated with the vehicle exiting the junction. Indeed for north bound vehicles, it is already single lane, as the nearside is for left turning traffic only.

Collision Investigation - common factors

The common factors in the collision history are;

- The vehicles turning right out of the C12 onto the A338 (5)
- The age of the driver, 70+ (1), 80+ (4)
- The collisions occur during the daylight (5)
- The road conditions are dry (5)
- Weekdays (5)
- AM/PM Peak (5)

Recorded Causation Factors

The Police have recorded in all but one collision that the vehicle leaving the C12 was at fault and the reasons given are all associated with failing to give way/failing to look and or failing to judge speed correctly.

The timing of the majority of collisions, during the peak travel times suggest that the problem is volume of traffic rather than speed. At these times, available gaps to cross the A338 will be limited.

The sightlines at the junction have been checked and all comply with the current regulations.

Observation of movement at the junction has shown that vehicles leaving the C12 are often stopping at least a metre or so back from the give-way line. The approach to the junction is on a slight incline, this coupled with the fact that the northern kerblines stop prior to the junction give way marking suggests that drivers do not feel comfortable to pull forward into the correct position so that they are able to obtain optimum sightlines and improve chances of correctly identifying a gap in the traffic. This is likely to be a combination of concern that they may be subject to a collision with a vehicle travelling on the A338 or it could be a result of the psychological impact of the incline and northern kerblines.

Proposed alternative.

It is proposed that a traffic island should be constructed on the northern side of the junction to encourage drivers using the junction to pull up to the give way line as per drawing 2015-171-JW-001. Any island constructed will need to accommodate large vehicles making a left turn from the C12 onto the A338.

Signing From Hospital.

Given that the majority of the collisions take place during peak periods, it is considered advantageous to discourage use of the C12 and promote the alternative route of the A338. This will be done with the introduction of direction sign at the exit of the Hospital, and to encourage Road Safety colleagues to speak to the Hospital about encouraging alternative routes/methods of travel.

Appendix 1

Summary of Collisions 01/06/2011 -01/06/2015

Status	Date	Day	Time	Dark	Road surface	Age driver V1	Address driver V1	Age driver V2	Address driver V2	Summary	Causation Factors listed by Police
Turning Right out of C12 onto A338											
Fatal	10/10/2011	Monday	1738	Daylight	Dry	87	Brockenhurst	31	Laverstock	V1 pulled out of C12 and was struck by V2 travelling towards Salisbury on the A338.	Failed to look. Disobeyed give-way sign. Careless/Reckless Fatal Accident investigation revealed driver of V1 had been to hospital and not put his glasses back on for the return journey.
Serious	17/02/2013	Sunday	1655	Daylight	Dry	88	Breamore	50	Harnham	V1 pulled out of C12 and was struck by V2 travelling towards Salisbury on the A338.	Disobeyed Giveaway signs Failed to look properly. Failed to judge speed correctly
Slight	04/09/2012	Tuesday	1229	Daylight	Dry	87	Woodfalls	70	Pokesdown	V1 pulled out of C12 and was struck by V2 travelling towards Salisbury on the A338.	Failed to look properly Failed to judge speed Disobeyed give-way signs
Slight	05/12/2013	Thursday	1646	Dark	Wet/ Damp	80	Ringwood	41	Salisbury	V1 pulled out of C12 and was struck by V2 travelling towards Salisbury on the A338.	Disobeyed Giveaway signs Failed to look properly. Failed to judge speed correctly
Slight	17/06/2014	Tuesday	1720	Daylight	Dry	73	Nunton	49	Amesbury	V1 pulled out of C12 and was struck by V2 travelling towards Salisbury on the A338.	Disobeyed Giveaway signs Failed to look properly.
Turning Right off of A338 into C12											
Slight	11/11/2011	Friday	0800	Daylight	Dry	58	Hale	17	Britford	V1 travelling from Salisbury turned right to leave main road and was struck by V2	Failed to look Poor turn/manoeuvre

Appendix 2 - Consultation Response and Officer Comment

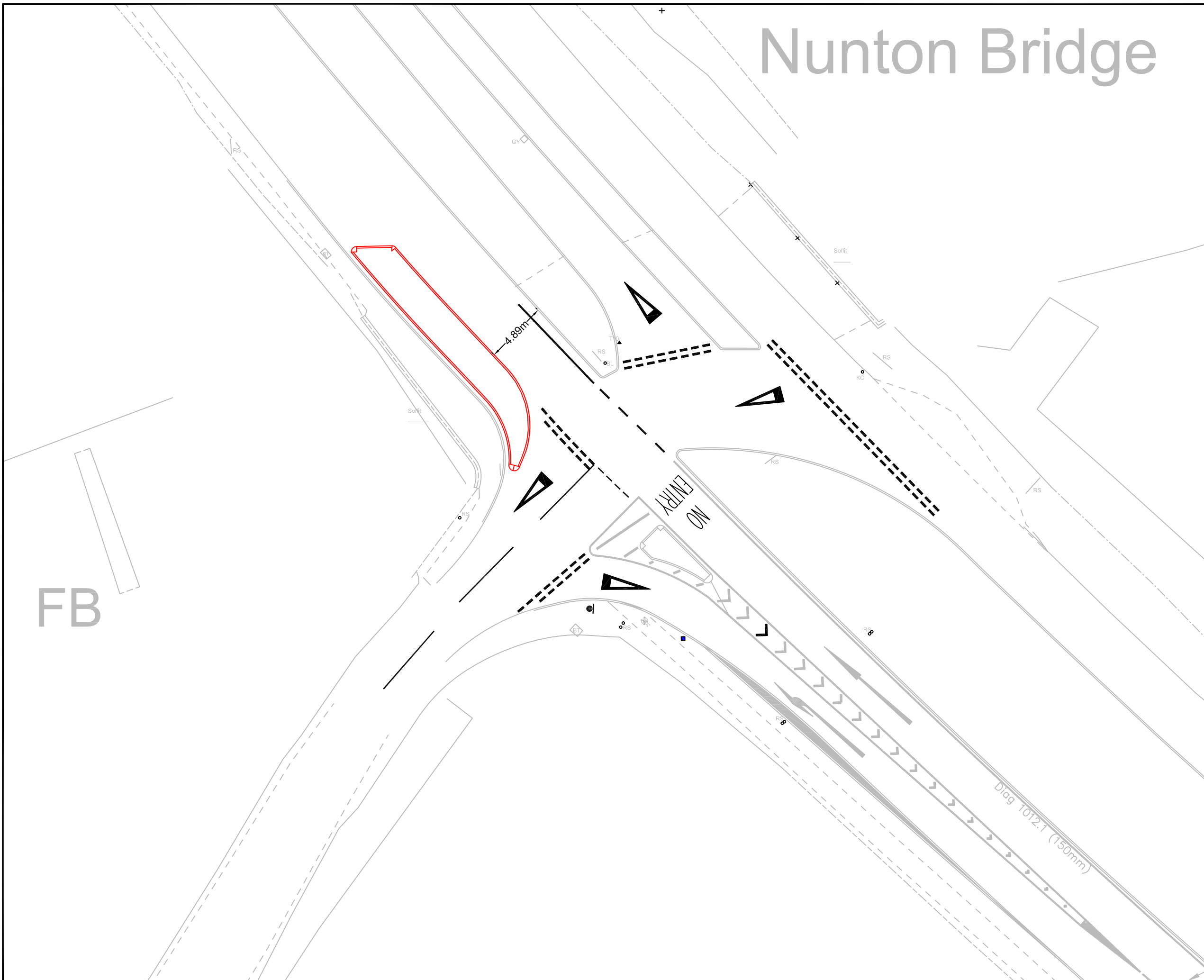
<p>Odstock Parish Council</p>	<p>Concerned about;</p> <ul style="list-style-type: none"> • Inability for emergency services' vehicles to access southbound A338 from the Nunton direction along C12; • Inability and inconvenience for residents of Bodenham and Britford to have vehicular access to C12 when travelling south along the A338; • Inability and inconvenience for residents of Odstock and Nunton to access southbound A338 from C12; • Effect to number 44 bus route; • Significant potential of vehicles to use alternative routes/access to overcome inability to turn right on the junction; • Inability to avoid the Odstock hill during snowy/icy conditions when intending to route south along A338; • Increased traffic flow around the Harnham gyratory. 	<p>Noted</p>
	<p>Alternative Suggestions;</p> <ul style="list-style-type: none"> • Through lane marking (hatching) or physical means, reduce the northbound and southbound carriageways to single carriageway; • Reduce the speed limit between the Britford 30 mph zone and south of the existing dual carriageway to 40 or 50 mph, enforced through permanent speed camera or rigorous enforcement through temporary speed monitoring (Police speed checks and/or Road Safety Partnership); 	<p>The collisions are occurring at the junction of the C12 and A338 which is already single lane, extending this further will have little impact on the collision site.</p> <p>A key factor when setting a speed limit is what the road looks like to the road users, such as its geometry and adjacent land use. Drivers are likely to expect and respect lower limits, and be influenced when deciding on what is an appropriate speed, where they can see there are potential hazards, for example outside schools, in residential areas or villages and in shopping streets. If a speed limit is set in isolation, or is unrealistically low, it is likely to be ineffective and lead to disrespect for the speed limit. As well as requiring significant, and avoidable,</p>

	<ul style="list-style-type: none"> • Lengthen north bound left turn A338 to C12 run off to improve visibility and reduce masking of approaching traffic to those turning right from C12 to A338; • Renew white line marking in the vicinity of the junction; • Replace right turn 'give way' with 'stop' regulation; • Renew/improve cats eyes to improve visibility at night; • Utilise lighting through bollards or street lighting; • Consider prohibiting right turns on southern junction of dual carriageway; • Improve pedestrian safety through better footpaths on the corner of C12/A338 (pedestrian access between 	<p>enforcement costs, this may also result in substantial numbers of drivers continuing to travel at unacceptable speeds, thus increasing the risk of collisions and injuries that are currently occurring.</p> <p>This could not be achieved without significant engineering works to realign the carriageway and is unlikely to have a significant effect.</p> <p>Agreed it was always the intention that this would take place.</p> <p>'Stop' regulations need authorisation from the Department for Transport and have strict guidelines as to where they may be used. This is not an appropriate location and there is no indication that vehicles are overrunning the junction.</p> <p>All but one of the collisions occurred during the daylight hours however the cat eyes will be inspected.</p> <p>See above comment.</p> <p>This is only necessary if the prohibition is introduced on the northbound junction. This junction does not have a history of collisions.</p> <p>This was only possible within the extent of the highway due to the proposed restriction on vehicle movement on the junction.</p>
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	Bodenham and Nunton; this is frequently used by pedestrians).	There is no history of collisions involving pedestrians at this location.
Residents of Nunton	<p>Inconvenience for residents – particularly High School children as the local school is Trafalgar in Downton.</p> <p>Possibility of illegal U-turns</p> <p>Suggests reducing northbound dual carriageway to single.</p> <p>Support OPC's request for more signage.</p>	Noted.
Resident of Nunton	<p>Inconvenience for residents and in particular those using the village hall.</p> <p>Believes all accidents are caused by the speed of traffic on the A338 and the fact that northbound traffic is hidden from cars turning right by those in the left hand filter lane from the A338.</p> <p>Suggests reducing speed limit to 40mph. Reducing to a single carriageway using hatching. Improve lighting in the area as the junction is confusing.</p>	<p>Noted.</p> <p>See above response to OPC.</p>
Cllr Julian Johnson	<p>Concerned that the number of vehicles that would be diverted onto the alternative route through Salisbury would cause problems and great opposition from residents.</p> <p>Would also cause problems for emergency vehicles.</p>	Noted
Resident Odstock	<p>Believes problem is caused by speed of traffic on A338.</p> <p>Supports changing dual carriageway to single and reduction in speed limit.</p> <p>Believes preventing the right turn may lead to some dangerous manoeuvres by those who wish to head south.</p>	See above response to OPC.
Resident Nunton	Believes problem is caused by vehicle speeds on A338 not traffic turning right out of the C12 and this should be reduced.	See above response to OPC.

	Concerned about the effect on the Bus Service.	
Representative of Longford Estates	They own the land either side of the A338. Concerned the proposals are not sympathetic for the residents and businesses of Bodenham, Odstock and Nunton. Believe that other cost effective measures are more appropriate.	Noted.
Parish Councillor	<p>Concerned about inconvenience for residents (long detour) and the effect on agricultural traffic. Concerned about the possibility of illegal u-turns.</p> <p>Believes all accidents are caused by the speed of traffic on the A338 and the fact that northbound traffic is hidden from cars turning right by those in the left hand filter lane from the A338. Suggests reducing dual carriageway to single carriageway and reducing speed limit.</p>	<p>Noted.</p> <p>See response to OPC.</p>
Representative of Nunton Farm	Concerned about the logistical and financial effect it would have on the farm. They have a lot of large agricultural vehicles/machinery that need to make the manoeuvre. The alternative routes are not suitable. Regularly transport cattle/milk to Downton via the A338.	Noted
Representative of Trafalgar School	Concerned about the inconvenience to those that travel to Trafalgar Square using the school bus, and those that visit the school and use this road to avoid the City Centre traffic.	Noted

Nunnton Bridge



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O	24/02/16	JW	DMT	GJR	ORIGINAL
REV	DATE	DRAWN	CHECK	APPRV	DESCRIPTION

PROJECT:
 2015/16 LOCAL SAFETY SCHEME
 A338 BODENHAM BYPASS

DRAWING TITLE:
 PRELIMINARY DESIGN

SCALES:	NTS				
DRAWING No.	2015-171-JW-001	REV:	O		
FILE REF:	X:\Transportation\Wharton\2015-171 Bodenham ByPass\Bodenham By Pass\2.dwg				