

## **Appendix 2:** Review of options regarding the relocation of Zebra Crossing situated at the junction of Victoria Drive/Green Street

### **Document History**

- **Review of options regarding the relocation of Zebra Crossing situated at the Junction of Victoria Drive/Green Street, Eastbourne**
- **Prepared by East Sussex Highways, The Broyle, Ringmer, East Sussex, BN8 5NP**

**This Document has been issued and amended as follows:**

<b>Version</b>	<b>Date</b>	<b>Description</b>	<b>Created by</b>	<b>Verified by</b>	<b>Approved by</b>
<b>1.0</b>	<b>16/08/17</b>	<b>DRAFT For Comment</b>	<b>M.Reid</b>	<b>N.Bodle</b>	<b>C Weedon</b>
<b>1.1</b>	<b>17/08/17</b>	<b>FINAL -</b>	<b>M.Reid</b>	<b>N.Bodle</b>	<b>C.Weedon</b>

## **Section Page**

<b>1.0</b>	<b>Executive Summary</b>	<b>3</b>
<b>2.0</b>	<b>Methodology</b>	<b>4</b>
<b>3.0</b>	<b>Junction Analysis &amp; Information gathering</b>	<b>4</b>
<b>4.0</b>	<b>Pedestrian Crossing Solutions</b>	<b>5</b>
<b>5.0</b>	<b>Conclusion &amp; Recommendations</b>	<b>9</b>

## **Appendices**

**Appendix 1 Pictorial Summary of Traffic Flow Data**

**Appendix 2 : Summary of pedestrian survey data**

## **1.0 Executive Summary**

- 1.1 East Sussex Highways (ESH) has been commissioned by East Sussex County Council (ESCC) to review pedestrian crossing provision in Eastbourne at the Victoria Drive / Green Street junction and the junction of Victoria Drive /Eldon Road. This pedestrian crossing study will identify the most appropriate facilities to aid safe pedestrian movement at these two junctions.
- 1.2 A survey of the study area has been undertaken, by ESH staff. The survey combined map data, accident data, numerous site visits, pedestrian counts, vehicle counts and vehicle turning analysis. Additional information was obtained through joint site visits with local bus operator Stagecoach. Site observations included driving and walking through the junctions in question, enabling a better appreciation of how the identified junctions operate in terms of traffic and pedestrian flow and behaviour.
- 1.3 Eight pedestrian crossing solutions were reviewed for the junction of Victoria Drive/Green Street, with careful consideration to pedestrian and vehicle movements as well as the requirements of bus operators and local businesses.
- 1.4 A recommended design is identified, which will enhance pedestrian crossing provision at the junctions of Victoria Drive/Green Street and Victoria Drive/Eldon Road.

## **2.0 Methodology**

- 2.1 The methodology for reviewing pedestrian crossing facilities is based upon the need to gain an in depth understanding of local transport issues and traffic behaviour. In this case ESH have discussed issues with ESCC, reviewed data and spoke to local businesses and then considered potential pedestrian crossing measures to address the identified issues. It is on this basis, that a three-stage approach has been adopted:

- Stage One - Gather information on the character and context of Victoria Drive and the junctions at Eldon Road and Green Street. The speed of traffic, pedestrian movements and existing accident records through desk based research and information supplied by ESCC.
- Stage Two - Identify potential Pedestrian Crossing Solutions. Review the benefits and disadvantages of installing such measures.
- Stage Three – Identify a preferred Pedestrian Crossing Solution.

### 3.0 Junction analysis & Information gathering

3.1 Victoria Drive is in Eastbourne and falls within the administration area of Eastbourne Borough Council. The junctions examined in this report are located approximately 1.7 miles from Eastbourne Town Centre. The two junctions are situated in a mainly residential area, however they both serve local shops and therefore attract a lot of pedestrians and vehicles.

3.2 Site visits were carried out on the dates listed in the table below:

12.01.17	Designer/Project Manager/ESCC Road Safety
01.02.17	Topographical Survey
13.02.17	Designer/Project Manager/ Stagecoach
27.04.17	Traffic Monitoring
12.05.17	Designer Project Manager
13.06.17	Pedestrian Count undertaken

### 3.3 Existing Crossing Layouts

#### Victoria Drive/Green Street

- Tactile paving
- Dropped kerbs
- 2 x Belisha Beacons (worn)
- Zebra crossing stripes- (worn)



#### Victoria Drive/ Eldon Road

- Tactile paving
- Dropped kerbs
- 3 x Belisha Beacons (worn)
- Zebra crossing stripes- (worn)
- Pedestrian island with lit warning bollard



3.4 Traffic Flow Data: On the 27<sup>th</sup> April 2017 East Sussex County Council Transport Monitoring Team carried out a traffic flow assessment of junctions Victoria Drive/Green Street & Victoria Drive/Eldon Road over a 12hr period, from 7am-7pm. Appendix 1 provides a pictorial summary of the data collected.

3.5 Traffic Queue Count: A queue count was also undertaken on the 27<sup>th</sup> April between 07:00-10:00 and 15:00-18:00 of the junction Victoria Drive/Green Street. Queueing traffic was

recorded along Green Street and Victoria Drive in a southern and northern direction. The longest queue identified on Green Street was 8 vehicles at 08:32. Victoria Drive travelling in a northerly direction recorded a peak queue of 26 vehicles at 15:19, enumerators (who carry out the surveys) noted that the pedestrian crossing seemed to be a significant contribution to the cause of the queue that had formed. Travelling in a southerly direction along Victoria Drive a peak queue of 22 vehicles was noted at 09:08.

- 3.6 **Pedestrian Movement:** On the 13<sup>th</sup> June 2017 a pedestrian movement survey was undertaken. The survey monitored pedestrian movement along Beechy Avenue, Victoria Drive, Green Street, Milton Road and to and from Sainsburys by the junction of Green Street and Victoria Drive. Appendix 2 provides a summary of the data recorded. It is apparent that the primary pedestrian movement from Beechy Avenue is to Green Street, utilising the existing pedestrian crossing. Similarly the main pedestrian movement from Sainsburys is across to Green Street, there are also large pedestrian movements from Green Street to both Beechy Avenue and Sainsburys.
- 3.7 **Accident Data:** Accident data has been obtained from the Sussex Safer Road Partnership and is based on records provided by Sussex Police. The data is the most recent available and covers the period from 01/07/2013- through to 30/06/2016 in the vicinity of the junctions of Victoria Drive/Green Street and Victoria Drive/Eldon Road. Data was reviewed to identify any trends, clustering or causal factors. Over the two year period six accidents were recorded. All six accidents were categorised as slight, Of the three accidents in the vicinity of Victoria Drive/Green Street, one accident was to the south of the junction, occurring at the junction of Victoria Gardens, another accident occurred in Beechy Avenue and was deemed as a pedestrian error, the third accident occurred on the pedestrian crossing in heavy rain and low visibility conditions.

#### 4.0 **Pedestrian Crossing Solutions**

- 4.1 The fundamental and overriding consideration of contemplating a pedestrian facility must be the safety of pedestrians. The justification for any pedestrian crossing must be that it makes crossing the road safer for all non-motorised users. However, the introduction of a pedestrian crossing does not automatically make crossing the road safer. Badly sited, underused or misused crossings can detract from road safety, as can an inappropriate choice of crossing facility. Excessive numbers of crossings along a route may give rise to driver frustration and cause drivers to divert to other streets to avoid the delay, displacing the problem or, even worse, risk increasing noncompliance with the requirements of the crossing. This may result in red light running or failure to give pedestrians priority.
- 4.2 Any crossing must have adequate space for the pedestrian to wait to cross the road, and space to install the necessary equipment without obstruction of the footways. There must be safe routes to continue the journey along the other side of the road. It is also necessary that all formal crossings have adequate footway widths at the crossing location and on the relevant routes in its vicinity.
- 4.3 **Types of pedestrian crossings:**
- a.) **Zebra Crossing:** Broadly speaking, Zebra crossings are considered inappropriate on high speed roads or roads with high volumes of traffic. They can also be inappropriate where heavy flows of pedestrians such as children leaving school would cause unacceptable delays

to drivers. However, in town centres where the desire might be to discourage through traffic, Zebras are preferred especially as they are less visually intrusive than signal controlled crossings. Zebra crossings cause less delay to pedestrians than signal controlled crossings and are therefore considered to be more pedestrian friendly. Zebra crossings can be located on flat topped road humps (speed tables) to form a humped Zebra. This can make it easier for pedestrians to cross especially those with pushchairs or wheelchair users. Traffic speeds are reduced and drivers are more likely to give way to pedestrians. Humped Zebras can only be located where traffic speeds are already relatively low or can be reduced by other traffic calming features. Again, they are suited to town centres or existing traffic calmed areas.

- b.) Puffin crossings: are the most modern type of signal controlled crossing and have been developed to overcome some of the shortcomings of the Pelican. Puffins have a near-side steady red/green man signal which can more easily be seen by pedestrians with sight difficulties. As the pedestrian signals are located on the near side and not visible to a pedestrian on the crossing, there is no confusion or anxiety caused by a flashing green man signal. On crossing, detectors can “see” pedestrians on the crossing and delay the green light to traffic until they have crossed safely. The same detectors will shorten crossing times if the crossing has been completed. The flashing amber signal to drivers is also replaced with the standard traffic light sequence. Kerb side detectors can be included. These devices detect if a pedestrian has moved away after pushing the demand button under which circumstances the demand is cancelled. This avoids the frustration caused to drivers stopped at a crossing by a red light when there are no pedestrians crossing. Currently new Puffins are installed without kerb side detectors but are built so that detectors could be fitted at a later date. Puffins can be located on flat top humps if appropriate.
- c.) Toucan Crossing: them. However, a Toucan is similar to a puffin although can be shared by pedestrians and cyclists. To signify this the pedestrian/cycle signal has a green/red bicycle light signal as well as the usual red and green man light signal. Toucans should only be provided where there is a clear need for cyclists to cross, such as when a cycle route or track has to cross a busy road.
- d.) A pedestrian refuge: is an island in the middle of a carriageway that allows pedestrians to cross the road in stages. Pedestrian refuges can only be used on roads that have sufficient width to meet the minimum lane width and pedestrian refuge requirements. They also act as a road narrowing measure as a proportion of the carriageway is being taken up by the refuge. A refuge benefits pedestrians by allowing them to cross each lane individually rather than together. This speeds up crossing times as pedestrians can cross half the road when there is a gap in one lane of traffic only as opposed to waiting until there was a gap in both lanes simultaneously.

4.4 Below are listed 8 design options to improve the pedestrian crossing facilities at the Junction of Victoria Drive/Green Street, Eastbourne. A summary of the design and the identified advantages and disadvantages of each design option is provided. It is worth noting that for each option a zebra crossing is proposed. This decision has been made for several reasons. It is not permitted to place a Puffin Crossing within 20m of a side road and it is also a requirement that different crossing facilities are not permitted within close proximity to each other. So if the crossing facility near to Green Street was changed to a Puffin Crossing there would be a requirement to change the crossing facility by Eldon Road to a Puffin as

well, increasing expenses considerably. Please note that the designs presented below are an early preliminary design. None of them have been audited under Road Safety criteria. If a decision is made to progress one of these options, the design process will include a Road Safety Audit.

4.5 Option 1: Relocate crossing between entrance and exit of Sainsbury's/ Relocate bus stop utilising a build out into Green Street. Design drawing Located in Appendix 3

This option will necessitate changing the kerb line of Green Street and moving the bus stop currently situated in Green Street. The bus stop will have to be moved further south. A 'Bus Border' will be installed to host the bus stop. This will result in the loss of 1 parking space. When a bus is pulled into the stop, traffic travelling in a southerly direction along Green Street will have to navigate around the bus, coming into conflict with traffic travelling north up Green Street. A review of traffic movement data indicated that during peak periods, up to 6 vehicles a minute travel south bound on Victoria Drive and turn left onto Green Street and that 2 vehicles a minute travel north up Green Street. Therefore vehicle conflict will occur and traffic queues are likely to form. Bus frequency is 1 bus every 10 minutes with an approximate stop period of 1 minute. Stagecoach has indicated that this existing southbound bus stop is used as a 'stop over' for buses ahead of timetable. Discussions with Stagecoach have intimated that this 'stop over' facility may be able to be transferred to the southbound bus stop adjacent to Eldon Road.

Conclusion: During peak periods, when a bus is pulled in at the stop a queue of traffic is likely to form behind the bus. There is a danger that this queue may extend beyond the junction with Victoria Drive and through the relocated zebra crossing as well as affecting the flow of southbound traffic along Victoria Drive. Also, the existing illuminated bus shelter and its associated RTPI sign will require re-locating. For this reason this option is not recommended.

4.6 Option 2: Relocate zebra crossing between entrance and exit of Sainsbury's/ Relocate bus stop utilising a build out into Green Street/ convert northern extent of Green Street to North bound traffic only. Design drawing Located in Appendix 3

This option is as per Option 1 but removes conflict of south bound and north bound traffic occurring when a bus has pulled up to the new stop. However vehicle tracking of buses has shown that parking spaces on Victoria Drive will have to be removed to enable buses to turn right out of Willingdon Road and it is likely that parking spaces in Willingdon Road will also have to be removed. Further design work would need to be carried out to identify how many spaces would be lost and the impact this design would have on traffic flow.

Conclusion: Introducing a one way system at the northern extent of Green Street will mean loss of on street parking which will be unpopular with local businesses. Directing north bound traffic on Green Street into Willingdon Road is likely to prove to be unpopular with the residents and businesses situated along Willingdon Road. Further design work would need to be undertaken to identify the full cost of implementing a one way system in this area. This option will introduce significant changes to the local network, a number of which will be viewed as negative. A strong case would be required to introduce such dramatic changes especially given the relatively good accident record. For these reason this option is not recommended.

- 4.7 Option 3: Relocate zebra crossing between entrance and exit of Sainsbury's/ Relocate bus stop / insert parking spaces within Green Street footway to help maintain on street parking. Design drawing Located in Appendix 3

This option will necessitate changing the kerb line of Green Street and moving the bus stop currently situated in Green Street. The bus stop will have to be moved further south. Discussions with Stagecoach have indicated that the required bus stop length is approximately 31 metres this will mean the loss of 6 parking bays. However it may be possible to insert 3 parking bays into the footway with the proposed bus stop situated adjacent to these parking bays. Albeit unconventional, this has the benefit of limiting the loss of parking spaces to approximately 3 and will maintain the flow of two way traffic even when a bus is pulled into the bus stop. However it will dramatically reduce the footway width in this area to approximately 4.4 metres. Further work will be required to explore the impact on utilities currently situated in the footway to determine the feasibility of this option and likely cost. Further discussions with bus operators will be required to finalise the length required for the bus stop. It is considered that the 31 metre bus stop parking area may be able to be reduced in length after further discussion with the bus operator. It is also worth noting that as mentioned in section 4.4 a Road Safety Audit has not been carried out on this 'unconventional' proposal which may highlight other issues which may affect the feasibility of this design.

Conclusion: The full cost of this option will not be known until further discussions with utility companies are undertaken. Whilst traffic flow will be maintained, a pinch point will be created in the footway, and 3 parking spaces are likely to be lost. This option may prove to be controversial with local businesses, as it will affect the attractiveness of shop frontages and may impact on footfall. For the reasons listed above this option is not recommended.

- 4.8 Option 4: Relocate the zebra crossing north of the junction Beechy Avenue/ Victoria Drive. Design drawing Located in Appendix 3

A review of the site has indicated that there is an opportunity to relocate the current zebra crossing north of the junction with Beechy Avenue. This would require the relocation of the existing bus stop in this area, moving it slightly north. By doing so the new zebra crossing could be located a safe distance from the junction of Beechy Avenue. However Pedestrian movement surveys have indicated that 73% of pedestrians exiting Beechy Avenue head towards Green Street or south down Victoria Drive.

Conclusion: Moving the zebra crossing north of the junction with Beechy Avenue may improve pedestrian safety, if pedestrians were happy to move away from their desire line and cross Victoria Avenue and Milton Road to access the shops on Green Street. It is felt that this is unlikely and the majority of pedestrians would turn right out of Beechy Avenue onto Victoria Drive, following their natural desire line. For this reason this option is not recommended.

- 4.9 Option 5: Introduce a pedestrian island within the existing Zebra Crossing Design drawing Located in Appendix 3

The provision of a pedestrian island within the existing zebra crossing would further enhance the safety of pedestrians utilising this crossing point. In addition to providing a 'refuge' in the centre of the road, research has indicated that pedestrian islands can encourage drivers to slow down. Following a discussion with Sainsbury's and a review of the length of some of their delivery vehicles, it became apparent that large delivery vehicles exiting Sainsbury's car park would not be able to turn north onto Victoria Drive without hitting the proposed pedestrian island. Also, larger vehicles would not be able to turn right out of Beechy Avenue and left out of Milton Road.

Conclusion: Due to the size of Sainsbury's delivery vehicles and the impact of turning movements out of the adjacent side roads, a pedestrian island cannot be located at the existing zebra crossing.

#### 4.10 Option 6: Reverse the entrance and exit to Sainsbury's Design drawing Located in Appendix 3

To ensure that vehicles exiting Sainsbury's have clear visibility it is likely that at least one tree will have to be removed and the existing Double Yellow Lines will have to be extended further south, resulting in the loss of on street parking. National guidelines recommend a visibility splay of a minimum of 70 metres when exiting a side road. Without reducing on street parking visibility for cars exiting Sainsburys would only be 32metres.

It is also believed that an RSA audit might highlight safety concerns, as this arrangement will increase likelihood of traffic conflict between vehicles exiting Green Street and exiting Sainsbury's. East Sussex Highways also believe that drivers travelling south along Victoria Drive wishing to enter Sainsbury's will have their attention diverted from the zebra crossing as they look to turn right into Sainsbury's entrance.

Conclusion: It is recommended that ESCC review this option internally with the Road Safety Team before requesting ESH allocate resources to progres the design of this option. Additionally confirmation from Sainsbury's would need to be sought to determine if they would support the reversal of their accesses.

#### 4.11 Option 7: Relocate zebra crossing between entrance and exit of Sainsbury's/ Relocate bus stop currently in Green Street to Victoria Drive. Design drawing Located in Appendix 3

Based on Option 2 above, this option utilises the existing southbound bus stop in Victoria Drive adjacent to the public conveniences. Whilst overcoming the need for a 'bus border', and therefore maintaining the existing parking arrangement, southbound buses which currently turn left into Green Street would utilise the above bus stop, and associated brick bus shelter, before turning into Willingdon Road. To enable two way traffic flow when a bus is parked at the stop, existing on street parking would have to be removed. It should also be noted visibility for vehicles turning right out of Willingdon Road may be an issue due again to the increased frequency of stationary buses.

Conclusion: Due to the loss of existing parking in Victoria Drive and concerns over visibility for vehicles exiting Willingdon Road on to Victoria Drive this option is not recommended.

#### 4.12 Option 8: Enhancement of the existing zebra crossing facility Design drawing Located in Appendix 3

The existing zebra crossing at the junction of Victoria Drive/Green Street is showing signs of wear, road markings are fading and the belisha beacons are an old model. Enhancement would consist of re-marking the existing road markings, possibly changing the type of belisha beacon, the application of red coloured high-friction surfacing on both approaches and better advanced signing. These changes will encourage drivers to give greater consideration to the crossing and adjust their speed and expectations as they approach the junction.

Conclusion: This option would not impact on current provision of on street parking in the area. Nor will it impact on the operation of the bus stop situated at the junction. The current position of the zebra crossing best facilitates pedestrian movement along identified desire lines. Vehicle movement through the junction will also not be impacted upon. This option will improve the safety of pedestrians utilising the zebra crossing, but will have no negative impact on the current workings of the junction. This option is recommended.

#### 4.13 Option 9: Conversion to a ramped zebra crossing Design drawing Located in Appendix 3

The conversion of the existing zebra crossing at the junction of Victoria Drive/Green Street to a ramped zebra crossing would further enhance the conspicuity of the zebra crossing encouraging drivers to slow down. Design standards require a minimum plateau length on the ramp to be 6m on a bus route. It is also recommended that vertical features are preceded by another feature, hence the provision of gateways on both approaches. The need to provide a minimum plateau length impacts on Sainsbury's OUT only access requiring some re-alignment and agreement with Sainsbury's will be required. Further dialogue will be required with the bus operators who have previously objected to the placement of raised tables on bus routes.

To ensure the longevity of the ramps and improve conspicuity it is recommended that the ramps' construction utilises granite setts. The utilisation of granite setts will increase the construction duration, which may also incorporate a road closure and cause significant delays on the road network.

Conclusion: Due to the volume of traffic, the high frequency of buses, the likely objection from bus operators, the impact on a busy road network in order to achieve ramp longevity, and the need to reach agreement with Sainsbury's on re-aligning their OUT only access, installation of a ramped zebra crossing is not recommended at this location.

#### 4.14 Recommended changes to zebra crossing at Victoria Drive/Eldon Road

A review of the accident data at the location of Victoria Drive/Eldon Road provides no indication that the existing zebra crossing facility is poorly located or insufficient. However the existing zebra crossing is showing early signs of deterioration and would benefit from enhancement. It is proposed that any enhancement work would reflect the enhancement of the zebra crossing at Victoria Drive/Green Street. It is now recognised good practice that pedestrian crossings in close proximity are of a similar style and appearance.

## 5.0 Conclusion and recommendations

5.1 The initial brief for this report was to investigate the suitability of the pedestrian crossings situated at the junctions of Victoria Drive/Green Street & Victoria Drive Eldon Road and explore alternative pedestrian crossing provision solutions.

- 5.2 Through carrying out a number of surveys, analysing vehicle and pedestrian movement and accident records, eight pedestrian crossing solutions for the junction of Victoria Drive/Green Street were explored.
- 5.3 The current position of the zebra crossing situated at the junction of Victoria Drive/Green Street is well utilised. Whilst it's current position is close to the junction of Beechy Avenue and Milton Road and the exit of Sainsburys, it provides a valuable crossing facility for pedestrians wishing to access the businesses situated on Green Street and the bus stop. Moving the zebra crossing further north up Victoria Drive will mean it is not in the pedestrian desire line and will result in pedestrians attempting to cross Victoria Drive at a non-designated crossing point.
- 5.4 Many of the options explored look to relocate the zebra crossing, moving it slightly south and placing it between the entrance and exit of Sainsburys. By doing this the zebra crossing is moved further away from the cross roads of Beechy Avenue/Milton Road/Victoria Drive. However, all options explored have significant impact including loss of parking, significant changes to the road network and could cause delays to traffic movement.
- 5.5 Giving careful consideration to the options explored, it is apparent that the current location for the zebra crossing at Victoria Drive/Green Street minimises the impact of the crossing facility on the road network whilst providing a suitable crossing facility at a highly desirable location. Enhancing the visibility of the Zebra Crossing will further improve the safety of this pedestrian crossing facility whilst allowing the current highway network to support on street parking and significant bus movements, in addition to acting as an important thoroughfare.

**Appendix 1 (of Options Report) Pictorial Summary of Traffic Flow Data**

**V0039 Victoria Drive/Green St, Eastbourne (main junction) - TMC**

Thu Apr 27, 2017

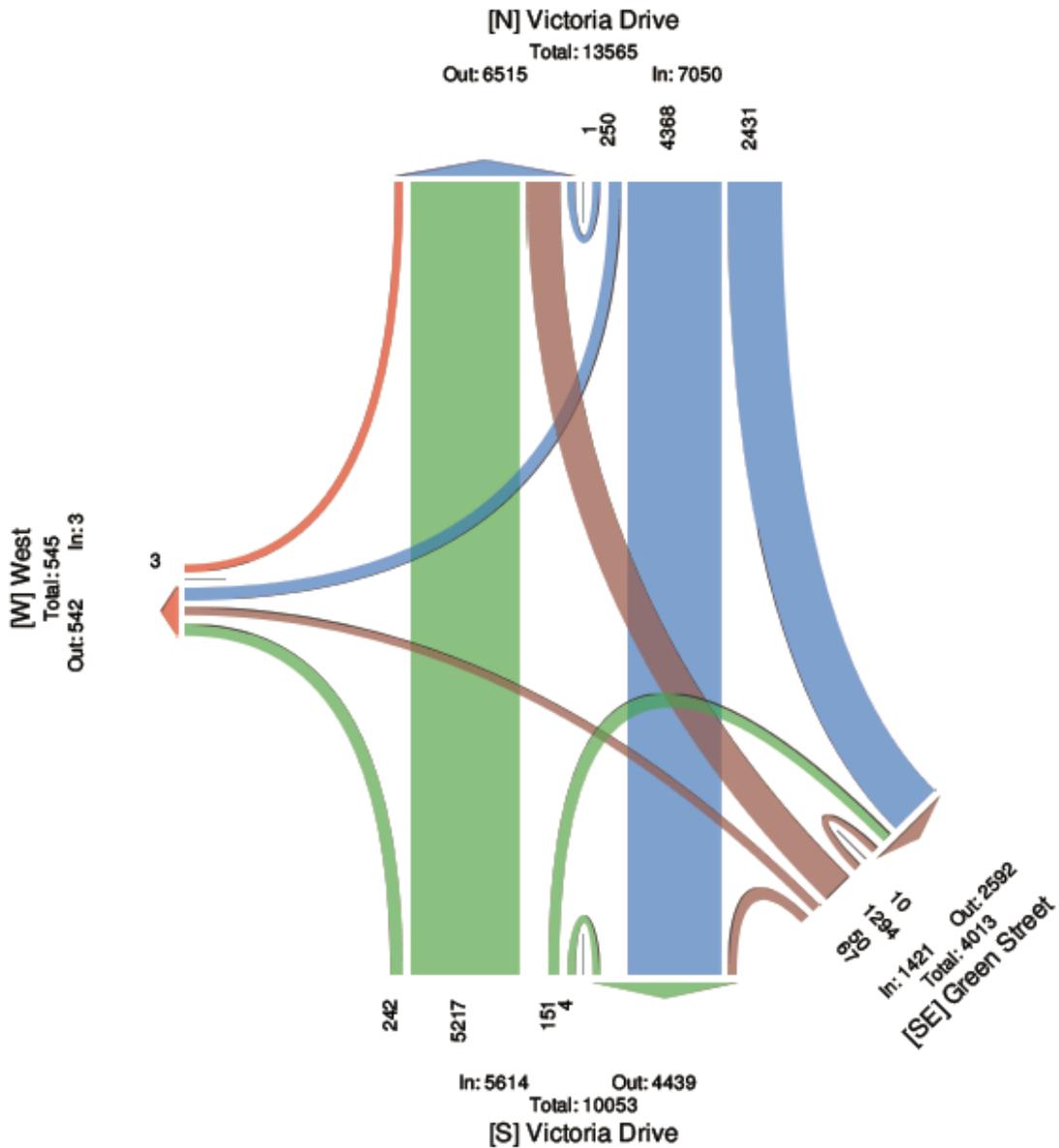
Full Length (7AM-7PM)

All Classes (Motorcycles, Cars, Light Goods Vehicles, Single-Unit Trucks, Articulated Trucks, Buses, Bicycles on Road)

All Movements

ID: 404337, Location: 50.777985, 0.255813, Site Code: V0039

Provided by: Transport Monitoring Team,  
East Sussex County Council  
County Hall, St Anne's Crescent,  
Lewes, ENG, BN7 1UE, GB



**V0040 Victoria Drive/Green St, Eastbourne (lower junction) - TMC**

Thu Apr 27, 2017

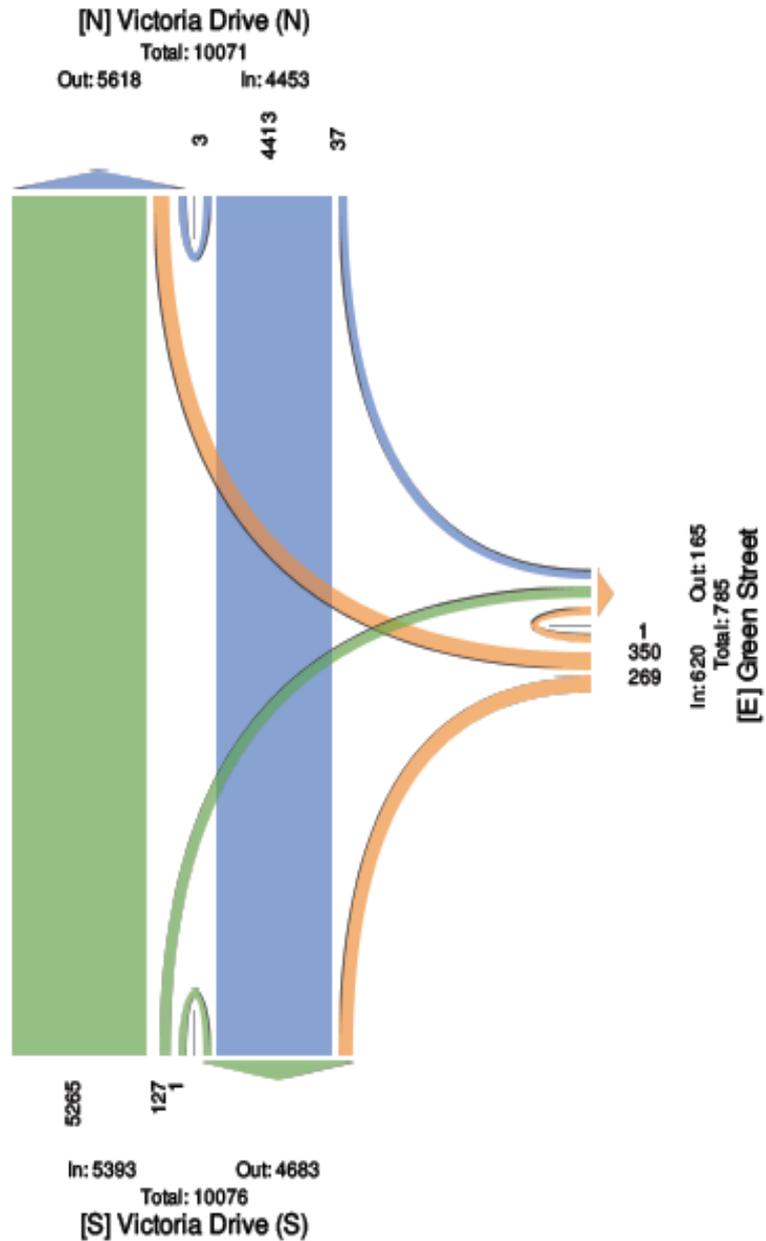
Full Length (7AM-7PM)

All Classes (Motorcycles, Cars, Light Goods Vehicles, Single-Unit Trucks, Articulated Trucks, Buses, Bicycles on Road)

All Movements

ID: 404340, Location: 50.777344, 0.25599, Site Code: V0040

Provided by: Transport Monitoring Team,  
East Sussex County Council  
County Hall, St Anne's Crescent,  
Lewes, ENG, BN7 1UE, GB

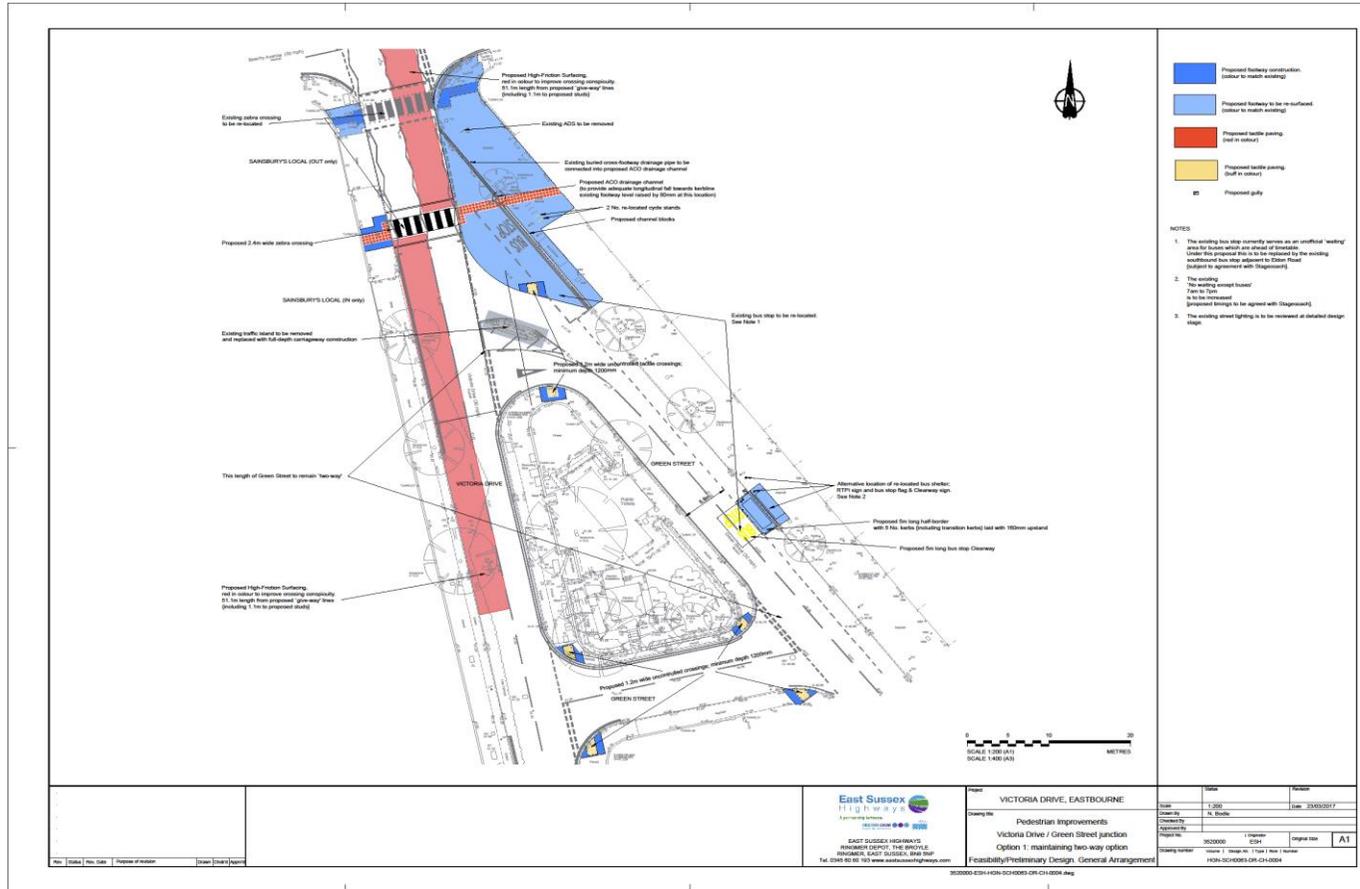


**Appendix 2 : (of Options Report) Summary of pedestrian survey data**

M5884 Pedestrian Count												
Date:	Tuesday 13th June 2017			Weather:	Warm/Sunny			Victoria Drive, Eastbourne				
<b>From Beechy Avenue to:-</b>												
	<b>Victoria Dr (North)</b>		<b>Milton Rd</b>		<b>Green St</b>		<b>Victoria Dr (South)</b>		<b>Sainsburys</b>			
<b>Time</b>	Adult	Child	Adult	Child	Adult	Child	Adult	Child	Adult	Child		
<b>TOTAL</b>	18	12	21	17	186	102	17	12	33	16		
	30		38		288		29		49			
<b>From Victoria Drive (North) to:-</b>												
	<b>Milton Rd</b>		<b>Green St</b>		<b>Victoria Dr (South)</b>		<b>Sainsburys</b>		<b>Beechy Ave</b>			
<b>Time</b>	Adult	Child	Adult	Child	Adult	Child	Adult	Child	Adult	Child		
<b>TOTAL</b>	33	22	216	90	43	49	46	15	41	37		
	55		306		92		61		78			
<b>From Victoria Drive (South) to:-</b>												
	<b>Sainsburys</b>		<b>Beechy Ave</b>		<b>Victoria Dr (North)</b>		<b>Milton Rd</b>		<b>Green St</b>			
<b>Time</b>	Adult	Child	Adult	Child	Adult	Child	Adult	Child	Adult	Child		
<b>TOTAL</b>	82	41	6	0	75	91	6	16	31	12		
	123		6		166		22		43			
<b>From Sainsburys to:-</b>												
	<b>Beechy Ave</b>		<b>Victoria Dr (North)</b>		<b>Milton Rd</b>		<b>Green St</b>		<b>Victoria Dr (South)</b>			
<b>Time</b>	Adult	Child	Adult	Child	Adult	Child	Adult	Child	Adult	Child		
<b>TOTAL</b>	65	10	56	8	25	25	114	13	89	30		
	75		64		50		127		119			
<b>From Milton Road to:-</b>												
	<b>Green St</b>		<b>Victoria Dr (South)</b>		<b>Sainsburys</b>		<b>Beechy Ave</b>		<b>Victoria Dr (North)</b>			
<b>Time</b>	Adult	Child	Adult	Child	Adult	Child	Adult	Child	Adult	Child		
<b>TOTAL</b>	142	37	21	20	22	8	23	8	23	21		
	179		41		30		31		44			
<b>From Green Street to:-</b>												
	<b>Victoria Dr (South)</b>		<b>Sainsburys</b>		<b>Beechy Ave</b>		<b>Victoria Dr (North)</b>		<b>Milton Rd</b>			
<b>Time</b>	Adult	Child	Adult	Child	Adult	Child	Adult	Child	Adult	Child		
<b>TOTAL</b>	24	12	115	15	131	45	209	76	139	31		

### Appendix 3: (Of Options Report) Drawings of options reviewed

### Option 1: Relocate zebra crossing between entrance and exit of Sainsbury's/ Relocate bus stop utilising a build out into Green Street.

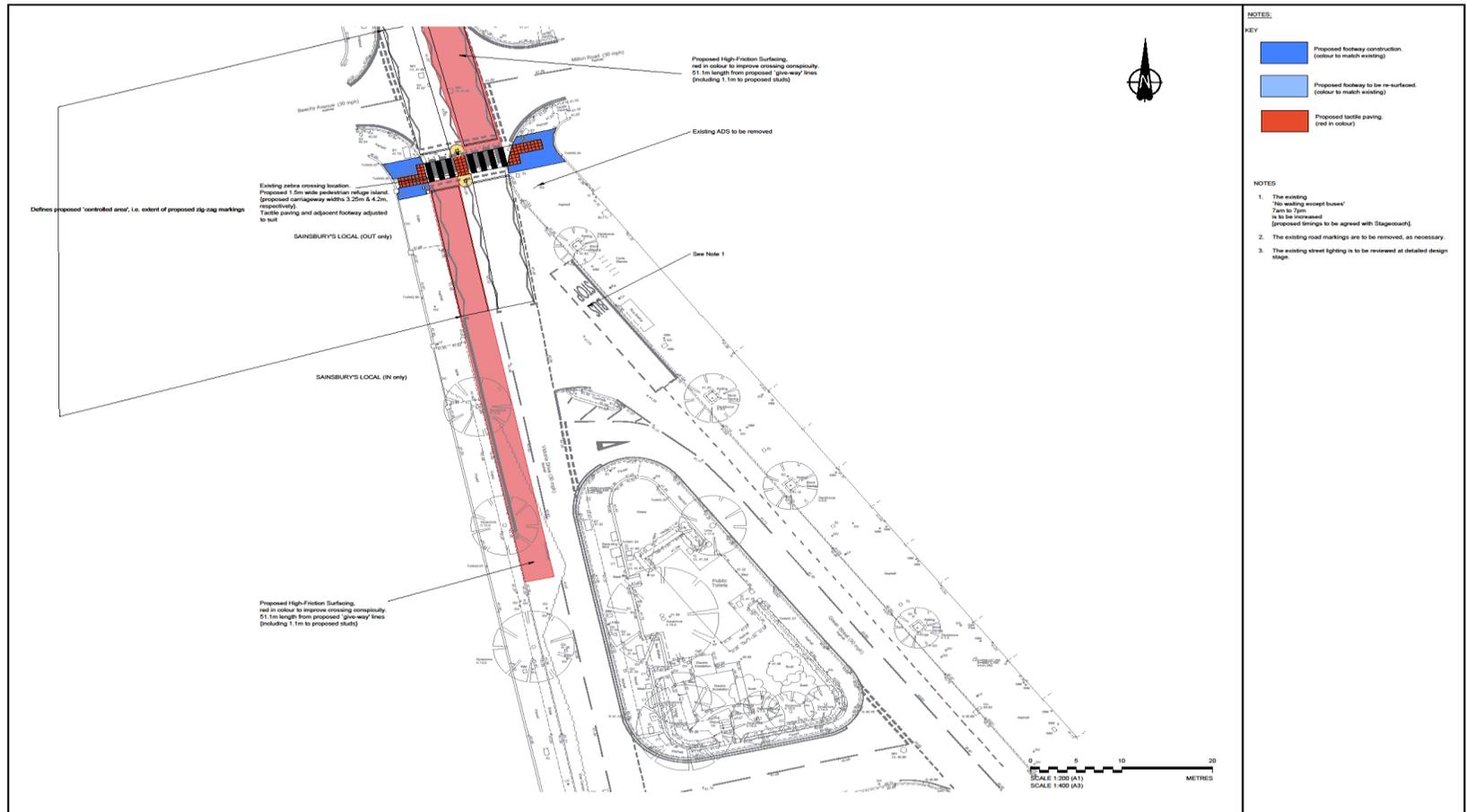








# Option 5: Introduce a pedestrian island within the existing Zebra Crossing



- NOTES:**
- KEY**
- Proposed footway construction (colour to match existing)
  - Proposed footway to be re-surfaced (colour to match existing)
  - Proposed tactile paving (red in colour)
- NOTES**
1. The existing 'No waiting except buses' zone to 7.5m is to be increased [proposed timings to be agreed with Stagecoach]
  2. The existing road markings are to be removed, as necessary.
  3. The existing street lighting is to be reviewed at detailed design stage.

Rev	Status	Rev. Date	Purpose of revision	Drawn (Name)	Appr'd

**KEY PLAN**

**East Sussex Highways**  
A partnership between  
SUSSEX COUNCIL, EAST SUSSEX DISTRICT COUNCIL, AND RINGER DEPOT

**EAST SUSSEX HIGHWAYS**  
RINGER DEPOT, THE BROYLE  
RINGMER, EAST SUSSEX, BN9 0NP  
Tel: 0345 60 80 193 www.eastsussexhighways.com

<b>Project</b>	VICTORIA DRIVE, EASTBOURNE
<b>Drawing title</b>	Pedestrian Improvements Victoria Drive / Green Street junction Option 5: Proposed pedestrian refuge Feasibility/Preliminary Design. General Arrangement

<b>Scale</b>	1:200	<b>Revision</b>	
<b>Drawn By</b>	M. Brodie	<b>Date</b>	04/08/2017
<b>Checked By</b>			
<b>Approved By</b>			
<b>Project No.</b>	3520000	<b>1 Original</b>	
		<b>ESD</b>	
<b>Drawing number</b>	Volume 1 - Design A1, 1 Type 1, Block 1, Number	<b>Original Size</b>	A1
	HGN-SCH0053-DR-CH-0010		



# Option 7: Relocate zebra crossing between entrance and exit of Sainsbury's/ Relocate bus stop currently in Green Street to Victoria Drive.

