Appendix 1

Tony Wares

From: Tony Wares
Sent: 16 December 2021 09:55
To: 'Stephen Gee'
Subject: RE: Goring appeal
Attachments: RE: AWAP/0035/21 - Land North-west of Goring Station, Goring-by-Sea, West Sussex

Stephen,

Further to our telephone conversation, please find attached an e-mail that contains a wetransfer link that contains information sent to National Highways earlier this month.

I shall send you a copy of the SoCG asap.

Kind regards

Tony

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA

d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 14 December 2021 13:03
To: Tony Wares <twares@milestonetp.co.uk>
Subject: RE: Goring appeal

Are you free for a call?
Whats the best number to get you on today?

Stephen

From: Tony Wares <twares@milestonetp.co.uk>
Sent: 14 December 2021 11:13
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Subject: RE: Goring appeal

Stephen,

Further to our e-mail correspondence last week, please find below a wetransfer link to updated VISSIM Modelling 2033 results / output files and videos, which reflect the revised WBC Local Plan flows and the latest Stage 1 Road Safety Audit (RSA) revisions to the '*Goring Crossroads*' (northern roundabout) and '*Goring Way*' (southern roundabout) junctions. In addition, I have included a copy of the Traffic Flow Diagram which includes all of the WBC Local Plan site allocations.

https://we.tl/t-j8jBlCXZpk

With regards to your questions on the RSA, I can confirm:

- When incorporating the Auditor's recommendation to amend the arrow road markings (i.e. guide traffic turning left and continuing straight to approach the northern roundabout in Lane 1, and right turning traffic-only to approach in Lane 2), it is evident that the average vehicle queues on Titnore Lane (northern arm) and A259 Littlehampton Road (western arm) significantly drop in the 2033 baseline + mitigation scenario during the AM and PM peak hour period.
- The lane width reductions, as suggested by the Auditor for the southern roundabout does not lead to a material worsening of conditions. Whilst there is an increase in queues on the A259 Goring Way (West) arm of the southern roundabout under the 2033 baseline + mitigation scenario during the AM peak hour period, the journey times from this approach to other points in the network only marginally worsen (+6 secs).

In summary, the updated modelling results reveal: -

1. A slight deterioration in conditions during the 2033 baseline + mitigation scenario during the AM peak hour period, when compared with the 2033 baseline situation on the A259 Littlehampton Road approach (western arm) of the northern roundabout and The Strand approach to the A259 Goring Street. There is also an increase in queues on the A259 Goring Way (West) approach of the southern roundabout in the 2033 baseline + mitigation scenario. However, the journey times from this approach to other points in the network only marginally worsen (+6 seconds). However, all other junction approaches to the site's proposed roundabout and southern roundabout, conditions are either an improvement over baseline or broadly comparable. The small reduction in overall network speeds (1-kph) can be attributed to the conditions on the above-mentioned approaches.

2. During the PM peak conditions will improve with mitigation over the 2033 Baseline on all approaches to junctions within the network modelled except for the A259 Littlehampton Road (western arm) of the northern roundabout. The average network speeds increase by 4-kph, and this situation is likely to hold true throughout the off-peak periods as well.

3. The queue conditions on the A259 Littlehampton Road and The Strand approaches in the AM peak as reported by VISSIM are likely to be pessimistic as future traffic flows are input to VISSIM on a fixed routing basis and it is assumed that capacity restraint on routes will not impact upon driver decisions. In other words, the VISSIM model assumes that drivers will still use a route at a given time even though they know they will be delayed, and even if there is alternative route that may be quicker. In reality, drivers on the A259 or The Strand will perceive the congestion and either choose a different route or set out at a different time. In this situation alternative routes are available. The primary purpose of VISSIM was to investigate the potential for blockbacks between junctions, and not to assess the impact of multi-routing traffic.

4. The benefits associated capacity enhancements at junctions as proposed will be realised for the majority of the day, except perhaps during the AM peak on the above-mentioned approaches. Of course, this assumes car drivers will choose to accept the conditions. The safety benefits associated with the provision of the site's proposed access roundabout, and simplification of The Strand junction will be realised over the whole day, and the same with the benefits generated by the pedestrian /cyclist measures along the A259 Goring Street and the A2032 Littlehampton Road.

If you have any questions and wish to discuss further, please do not hesitate to contact me on 07734 452030.

Kind regards

Tony

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA

d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 07 December 2021 11:51
To: Tony Wares <twares@milestonetp.co.uk>
Subject: Goring appeal

Tony,
To summarise our call:

Latest Position
Following the provision of the VISSIM modelling and an initial review WSCC Highways are of the opinion that:

Reason for Refusal 3 would no longer be supported – The VISSIM Model demonstrates the site access would work within capacity.

Reason for Refusal 4 would continue to be supported.

SOCG
I'm happy to discuss/sign a statement of common ground once produced on the agreed matters.

RSA questions
Titnore Lane A.5 Right turns only on right hand turn lane, how does this effect the VISSIM Model in which the inside lane is left turn only? (the left hand turns are higher than the right hand turns)

Confirm the lane width reductions proposed by the auditors do not reduce the capacity in VISSIM.

Happy to discuss if required.

STephen

Stephen Gee | Principal Planner County Highways (Development Management), Planning Services, West Sussex County Council | Location: Ground Floor, Northleigh, County Hall, Chichester, PO19 1RH | Internal 23306 | External 0330 222 3306 | E-mail: Stephen.Gee@westsussex.gov.uk

Tony Wares

From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 14 December 2021 13:03
To: Tony Wares
Subject: RE: Goring appeal

Follow Up Flag: Follow up
Flag Status: Completed

Are you free for a call?
Whats the best number to get you on today?

Stephen

From: Tony Wares <twares@milestonetp.co.uk>
Sent: 14 December 2021 11:13
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Subject: RE: Goring appeal

Stephen,

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https://we.tl/t-j8jBlCXZpk

With regards to your questions on the RSA, I can confirm:

- When incorporating the Auditor's recommendation to amend the arrow road markings (i.e. guide traffic turning left and continuing straight to approach the northern roundabout in Lane 1, and right turning traffic-only to approach in Lane 2), it is evident that the average vehicle queues on Titnore Lane (northern arm) and A259 Littlehampton Road (western arm) significantly drop in the 2033 baseline + mitigation scenario during the AM and PM peak hour period.
- The lane width reductions, as suggested by the Auditor for the southern roundabout does not lead to a material worsening of conditions. Whilst there is an increase in queues on the A259 Goring Way (West) arm of the southern roundabout under the 2033 baseline + mitigation scenario during the AM peak hour period, the journey times from this approach to other points in the network only marginally worsen (+6 secs).

In summary, the updated modelling results reveal: -

1. A slight deterioration in conditions during the 2033 baseline + mitigation scenario during the AM peak hour period, when compared with the 2033 baseline situation on the A259 Littlehampton Road approach (western arm) of the northern roundabout and The Strand approach to the A259 Goring Street. There is also an increase in queues on the A259 Goring Way (West) approach of the southern roundabout in the 2033 baseline + mitigation scenario. However, the journey times from this approach to other points in the network only marginally worsen (+6 seconds). However, all other junction approaches to the site's proposed roundabout and southern roundabout, conditions are either an improvement over baseline or broadly comparable. The small reduction in overall network speeds (1-kph) can be attributed to the conditions on the above-mentioned approaches.

2. During the PM peak conditions will improve with mitigation over the 2033 Baseline on all approaches to junctions within the network modelled except for the A259 Littlehampton Road (western arm) of the northern roundabout.

The average network speeds increase by 4-kph, and this situation is likely to hold true throughout the off-peak periods as well.

3. The queue conditions on the A259 Littlehampton Road and The Strand approaches in the AM peak as reported by VISSIM are likely to be pessimistic as future traffic flows are input to VISSIM on a fixed routing basis and it is assumed that capacity restraint on routes will not impact upon driver decisions. In other words, the VISSIM model assumes that drivers will still use a route at a given time even though they know they will be delayed, and even if there is alternative route that may be quicker. In reality, drivers on the A259 or The Strand will perceive the congestion and either choose a different route or set out at a different time. In this situation alternative routes are available. The primary purpose of VISSIM was to investigate the potential for blockbacks between junctions, and not to assess the impact of multi-routing traffic.

4. The benefits associated capacity enhancements at junctions as proposed will be realised for the majority of the day, except perhaps during the AM peak on the above-mentioned approaches. Of course, this assumes car drivers will choose to accept the conditions. The safety benefits associated with the provision of the site's proposed access roundabout, and simplification of The Strand junction will be realised over the whole day, and the same with the benefits generated by the pedestrian /cyclist measures along the A259 Goring Street and the A2032 Littlehampton Road.

If you have any questions and wish to discuss further, please do not hesitate to contact me on 07734 452030.

Kind regards

Tony

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA

d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 07 December 2021 11:51
To: Tony Wares <twares@milestonetp.co.uk>
Subject: Goring appeal

Tony,
To summarise our call:

Latest Position
Following the provision of the VISSIM modelling and an initial review WSCC Highways are of the opinion that:

Reason for Refusal 3 would no longer be supported – The VISSIM Model demonstrates the site access would work within capacity.

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Confirm the lane width reductions proposed by the auditors do not reduce the capacity in VISSIM.

Happy to discuss if required.

STephen

Stephen Gee | Principal Planner County Highways (Development Management), Planning Services, West Sussex County Council | Location: Ground Floor, Northleigh, County Hall, Chichester, PO19 1RH | Internal 23306 | External 0330 222 3306 | E-mail: Stephen.Gee@westsussex.gov.uk

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Tony Wares

From: Tony Wares
Sent: 06 December 2021 08:18
To: 'Stephen Gee'
Subject: RE: Land North West Of Goring Railway Station Goring Street Worthing
Attachments: 2021-12-02 RSA1 Designer's Response_Proposed Highway Works at the Goring Crossways Roundabout_RSA-21-144-3_18-122.docx; 2021-12-02 RSA1 Designer's Response_Proposed Access Roundabout and associated Highway Works, A259 Goring Street_RSA-21-145-3_18-122.docx; 2021-12-02 RSA1 Designer's Response_Proposed Highway and Footway and Cycleway Works at the Goring Crossways Roundabout_RSA-21-146-3_18-122.docx; 2021-12-02 RSA1 Designer's Response_Proposed Highway Works at the Goring Crossways Roundabout_RSA-21-147-3_18-122.docx

Stephen,

As requested, please find attached word versions of the documents.

Kind regards

Tony

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA

d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 06 December 2021 08:12
To: Tony Wares <twares@milestonetp.co.uk>
Subject: RE: Land North West Of Goring Railway Station Goring Street Worthing

Tony.
I'm unable to open the docs as the file name is too long for my system to handle.
Also they will need to be word documents to enable me to type the overseeing organisation response in.

Regards

Stephen

From: Tony Wares <twares@milestonetp.co.uk>
Sent: 03 December 2021 15:55
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Cc: Clark, Robert <robert.clark@persimmonhomes.com>; john@etc-transport.com
Subject: RE: Land North West Of Goring Railway Station Goring Street Worthing

Stephen,

As requested, please find wetransfer link to GG119 Appendix F compliant designers' responses in relation to the Stage 1 RSAs.

https://we.tl/t-oGg9WxrNA6

Are you able to confirm if WSCC Highways intend to maintain their objections to the development proposals?

Kind regards

Tony

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA

d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 30 November 2021 10:35
To: Tony Wares <twares@milestonetp.co.uk>
Cc: Clark, Robert <robert.clark@persimmonhomes.com>; john@etc-transport.com
Subject: RE: Land North West Of Goring Railway Station Goring Street Worthing

Tony
Additional Information received.

The RSAs should have GG119 Appendix F compliant designers responses produced to enable WSCC commentary and Agreed Actions to be produced.

Ill come back to you on the wider issues once I have reviewed the information.

Regards

Stephen

From: Tony Wares <twares@milestonetp.co.uk>
Sent: 29 November 2021 18:14
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Cc: Clark, Robert <robert.clark@persimmonhomes.com>; john@etc-transport.com
Subject: RE: Land North West Of Goring Railway Station Goring Street Worthing

Stephen,

Further to our correspondence earlier this month, please find below a wetransfer link that contains the following information: -

https://we.tl/t-Pgh8VrhmVz

VISSIM

- Updated VISSIM results in the form of comparison tables for the weekday AM and PM 2033 Baseline, and 2033 + Mitigation + Development VISSIM model runs.
    - The results include all of Worthing Borough Council's (WBC's) Site Allocations, as set out in the Draft Worthing Local Plan (January 2021). In accordance with that previously agreed, Sites A4 (Stoke Abbott

Road) and A8 (HMRC Offices, Barrington Road) have been excluded from the assessment due to the consented schemes resulting in there being a substantial net reduction in vehicular trips during the weekday AM and PM peak hour periods, respectively.

- Videos of the VISSIM modelling results can be accessed via the weblinks below.
    - Base AM
      https://youtu.be/n3RONdJg3vc
    - Base PM
      https://youtu.be/6o_tVPJt7vY
    - AM with mitigation
      https://youtu.be/2zSijxunylY
    - PM with mitigation
      https://youtu.be/S_yxgZqojOk
- The VISSIM model files and other input data can be found under the weblink below:
  https://www.uschovna.cz/en/zasilka/SJHHI6BLWRANV6SA-KUG

Stage 1 Road Safety Audits

- Stage 1 Road Safety Audits (RSAs) and Designer's Responses for the following:
    - The proposed highway works at the roundabout of A259 Goring Street, and Titnore Lane (Based on RSA-20-027 and Drawing No. 18122/002 Rev B).
    - The proposed access roundabout and associated highway works along the A259 Goring Street (based on RSA-20-027 and Drawing No. 18122/001 Rev C).
    - The proposed highway works at the '*Goring Crossroads*' (northern) roundabout junction including pedestrian / cyclist improvements and provision of Toucan crossing facility (based on Drawing No. 18122/006).
    - The proposed highway works at the '*Goring Way*' (southern) roundabout junction of the A259 Goring Street / Goring Way and Aldsworth Avenue (based on Drawing No. 18122/003 Rev B).

In terms of the results, the network performance worsens in both baseline and with mitigation VISSIM runs when compared with the previous results. This is not surprising as of course traffic flows increase.

In summary the results indicate in the 2033 mitigated situation with development:

AM 2033 with development and mitigation:

- Increased queues on the A259 Littlehampton Road and on Titmore Lane, but at the same time, significant reductions on A2032 Littlehampton Road approach and some reduction on the A259 Goring Street approach.
- Increased queues on the Strand approach to the junction of the A259 Goring Street.
- Improved queue conditions at the site's junction with the A259 Goring Street.
- Increased queues on Goring Way (west) but slight improvements on the other approaches to the '*Goring Way*' (southern) roundabout junction.
- Increased travel times for traffic travelling between the A259 Littlehampton Road and the southern roundabout- principally caused by the increased delays on the A259 Littlehampton Road approach to the roundabout.
- In relation to the Strand there is a substantial increase in travel time on the sample route from the Strand to A259 Littlehampton Road. Result of longer Qs on the approach and requirement for Strand traffic to U turn at the new access roundabout and then head north.
- In terms of network performance there is a small decrease in average vehicle speeds from 18-kph to 17-kph.

PM 2033 with development and mitigation:

- Increased queues on the A259 Littlehampton Road, but at the same time, significant queue reductions on A2032 Littlehampton Road and A259 Goring Street approaches of the northern roundabout junction.
- Improved queue conditions at the Strand / A259 Goring Street junction.
- Improved queue conditions at the site's proposed access junction.
- Improved conditions at the '*Goring Way*' (southern) roundabout junction.

- Increased travel time for traffic travelling between the A259 Littlehampton Road and the 'Goring Way' (southern) roundabout junction, but reduced travel times on all other routes.
- In terms of network performance there is an increase in average speeds from 26-kph to 28-kph.

In summary, the results indicate with development and mitigation a deterioration in conditions in the AM peak hour, but mainly relating to the A259 Littlehampton Road and Strand approaches, overall leading to a small reduction in average network vehicle speeds.

During the PM peak hour, the results indicate on balance improved traffic conditions (but Q conditions on the A259 Littlehampton Road approach of course still deteriorating), with an increase in average network speeds.

Conditions on the local highway network for the remainder of the day will be improved with the added benefits of improved safety at the site's proposed roundabout junction and modified The Strand / A259 Goring Street junction (i.e. '*left-in*' / '*left-out*'), as well as the benefits to pedestrians and cyclists associated with the proposed package of enhancement measures (i.e. segregated foot / cycleways and crossing facilities etc).

As mentioned previously, the increase in max queues on the western arm (A259 Littlehampton Road) of the '*Goring Crossroads*' junction is due in part to the proposed alterations to The Strand junction ('*left-in*' and '*left-out*' – only), which would be delivered as part of the development proposals. The proposed prohibition of right-turn manoeuvres would encourage car drivers traveling from the south to undertake U-turn manoeuvres at the 'Goring Crossroads' roundabout junction in order to gain access to The Strand.

It should be noted that the microsimulation model covers a limited part of the local highway network on which development traffic will be most concentrated. It does not allow for the wider area network routing changes, which may arise over time in response to congestion.

As currently modelled, traffic demand is assumed to follow a fixed route, and even if the demand exceeds the capacity that is actually available on a given approach, then traffic will continue to join the back of the queue that simply gets longer and longer. In reality of course motorised users will react to the delays they perceive and choose an alternative route or time or even mode of travel. In other words, a somewhat pessimistic picture of queue conditions may be created in the model.

The same pessimistic result applies to the Strand approach with residents leaving via the Strand who when faced with potential for queues and delays, will always have the opportunity to either re-route north (more likely given that the route to Littelehampton Road / north from the Strand will require a U-turn at the new access roundabout) or east via the extensive estate road network, or adjust their time of departure. Again, the VISSIM makes no allowance for this.

The results of the VISSIM modelling should also be examined in context with the site's highly accessible location to alternative modes to the private car, as well as the proposed mitigation schemes for the '*Goring Crossroads*' and '*Goring Way*' roundabout junctions, and substantial enhancements to the pedestrian and cycling infrastructure (now including the at grade Toucan crossing on the A2032 approach to the Goring Crossroads junction), which would be delivered as part of the development proposals.

The combination of both the site's highly accessible location and package of mitigation measures would provide a more balanced travel demand for future households / end-users of the development proposals and wider community of Goring-by-Sea, in accordance with the main aspirations of national and local planning policy.

In light of the updated VISSIM modelling results that show a worsening in the AM peak, and the proposed pedestrian / cycle infrastructure measure, please can you confirm if WSCC Highways will be sustaining their objections to the development proposals on traffic impact grounds?

Please do not hesitate to contact me on 01483 397881 if you have any questions and require additional information.

Kind regards

Tony

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA

d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

From: Tony Wares
Sent: 19 November 2021 17:24
To: 'Stephen Gee' <Stephen.Gee@westsussex.gov.uk>; Clark, Robert <robert.clark@persimmonhomes.com>
Subject: RE: Land North West Of Goring Railway Station Goring Street Worthing

Stephen,

I'll be receiving a copy of the Stage 1 Road Safety Audits from the independent Auditor next week.

This together with the results of the updated modelling including the scenario that includes the Draft Worthing Local Plan site allocations will be issued to you next week for review / comment.

Kind regards

Tony

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA

d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 19 November 2021 13:25
To: Tony Wares <twares@milestonetp.co.uk>; Clark, Robert <robert.clark@persimmonhomes.com>
Subject: RE: Land North West Of Goring Railway Station Goring Street Worthing

Tony / Rob
Are you able to advise if/when the further information requested below will be provided.

Regards

Stephen

From: Stephen Gee
Sent: 21 October 2021 13:49
To: Tony Wares <twares@milestonetp.co.uk>
Subject: RE: Land North West Of Goring Railway Station Goring Street Worthing

Tony
As discussed earlier.

The transport reasons for refusals were based on a lack of information rather than the presented impact. Following the provision of the revised modelling including all proposed allocations within the Worthing Local Plan I will then review the modelling results / noting the additional sustainable transport infrastructure.

Stage 1 RSA
It would be beneficial to have the signalised crossing and additional sustainable transport infrastructure leading to the college safety audited.

Appeal Statement of Common Ground
It would be beneficial to start working on what details are agreed at the moment.

Regards

Stephen

From: Tony Wares <twares@milestonetp.co.uk>
Sent: 21 October 2021 10:58
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Subject: RE: Land North West Of Goring Railway Station Goring Street Worthing

Stephen,

Thank you for the reply and confirmation that the model is fit for purpose.

I imagine the re-run of the VISSIM model to include the other Draft Worthing Local Plan sites would generally show the same outcomes, but marginally worse conditions for the baseline and mitigated situations.

In light of the VISSIM model results that show a worsening in the AM peak, and the proposed pedestrian / cycle infrastructure measure, please can you confirm if WSCC Highways will be sustaining their objections to the development proposals on traffic impact grounds?

Kind regards

Tony

Tony Wares
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Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA

d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 20 October 2021 14:51
To: Tony Wares <twares@milestonetp.co.uk>
Subject: RE: Land North West Of Goring Railway Station Goring Street Worthing

Tony

Scenario
The original scenario was agreed based on the confirmation provided that the site was seeking approval prior to the local plan submission (and as such only considered those sites with approval or had submitted an application). Now that the plan has been submitted this would change the assessment required to include the proposed allocations.

Apart from the A9 site (Lyndhurst Road) im not aware that the any of the other sites have submitted apps (but please check with Worthing as the LPA)

Modelling
I can confirm the additional information presented was acceptable and that the model is fit for purpose.

Happy to discuss.

Stephen

From: Tony Wares <twares@milestonetp.co.uk>
Sent: 13 October 2021 12:30
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Cc: john@etc-transport.com
Subject: RE: Land North West Of Goring Railway Station Goring Street Worthing

Stephen,

I can confirm that ETC will respond to WSP's points relating to the desired speed decision on the model and reproduction of the results for the '*2033 Base*' scenarios in due course.

With regards to your request to prepare an additional future year scenario that includes the proposed development and the Worthing Local Plan site allocations, this would be contrary to the approach that was agreed with WSCC Highways when preparing the Transport Assessment Addendum and VISSIM Model.

Most notably, to minimise the potential for '*double counting*' the impact of the Worthing Local Plan site allocations on the local highway network, the agreed approach comprised a 2020 Base + TEMPro (unadjusted) + Worthing Local Plan sites, which benefited from having consent or were registered as 'live' planning applications. It is therefore likely that the inclusion of the 2020 Base + TEMPro Growth Factors (unadjusted) + Worthing Local Plan Site Allocations would over-estimate the impact on the local highway network.

When reviewing Chapter 4 of the Draft Worthing Local Plan Site Allocations, I note that of the 15 sites, 5 (i.e. A4 Civic Centre, Stoke Abbott Road; A6 Fulbeck Avenue; A8 HMRC Offices, Barrington Road; A12 Teville Gate; and A14 Union Place) have already been included in the VISSIM Model. Of the remaining 10 sites (A1 Beeches Avenue; A2 Caravan Club, Titnore Way; A3 Centenary House; A5 Decoy Farm; A7 Grafton; A9 Lyndhurst Road; A10 Martlets Way; A11 Stagecoach, Marine Parade; A13 Titnore Lane; A15 Upper Brighton Road), the quantum of residential units and employment floorspace being promoted in the Draft Worthing Local Plan is slightly different to that promoted in the Worthing Local Plan Transport Study (August 2018). Please see attached spreadsheet.

Please can you confirm if an updated Transport Assessment has been undertaken in support of the remaining 10 Site Allocations in the Draft Worthing Local Plan. If so, please can you provide a copy so that I can extract the anticipated traffic generation.

Regards

Tony

Tony Wares
Milestone Transport Planning Ltd

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d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 12 October 2021 10:11
To: Tony Wares <twares@milestonetp.co.uk>
Subject: Land North West Of Goring Railway Station Goring Street Worthing

Tony,

Ive now had the report back from our consultants (attached) and is summarised as:
The applicant made a good effort to improve the model, but there are still two areas where further clarification is needed. The first is regarding the placement of a desired speed decision in the model which seems excessively low; and the other is that we were unable to reproduce the results they provided with the model for the '2033 Base' scenario. These concerns are detailed in the report.

Are you able to address these points.

Another issue to highlight is now that the Worthing Local Plan has been submitted for examination and as such has some material planning weight then their should be an additional future year scenario provided that includes the development and full local plan allocations.

Regards

Stephen

Stephen Gee | Principal Planner County Highways (Development Management), Planning Services, West Sussex County Council | Location: Ground Floor, Northleigh, County Hall, Chichester, PO19 1RH | Internal 23306 | External 0330 222 3306 | E-mail: Stephen.Gee@westsussex.gov.uk

Tony Wares

From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 25 November 2021 10:36
To: Tony Wares
Subject: RE: Land North West Of Goring Railway Station Goring Street Worthing

Follow Up Flag: Follow up
Flag Status: Completed

Tony,
From an initial view it looks acceptable.

A10 may be over assigning vehicles through the study area as the A2032 route could arguably be split along Shaftsbury Avenue.. upto you if you wish to amend or present a robust scenario.

Regards

Stephen

From: Tony Wares <twares@milestonetp.co.uk>
Sent: 23 November 2021 08:57
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Subject: RE: Land North West Of Goring Railway Station Goring Street Worthing

Stephen

Further to our e-mail correspondence last month, I have compiled a spreadsheet (see wetransfer link below) that sets out the anticipated vehicular trip generation, distribution, and assignment assumptions for each of the Site Allocations within the Draft Worthing Local Plan. I would be grateful if you could review and confirm that the approach is acceptable.

https://we.tl/t-LHJrD2emjG

In addition, I shall be issuing the modelling results including the scenario that includes the Draft Worthing Local Plan site allocations and updated Stage 1 Road Safety Audits (RSAs) to you later this week.

Kind regards

Tony

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA

d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 21 October 2021 13:49
To: Tony Wares <twares@milestonetp.co.uk>
Subject: RE: Land North West Of Goring Railway Station Goring Street Worthing

Tony
As discussed earlier.

The transport reasons for refusals were based on a lack of information rather than the presented impact. Following the provision of the revised modelling including all proposed allocations within the Worthing Local Plan I will then review the modelling results / noting the additional sustainable transport infrastructure.

Stage 1 RSA
It would be beneficial to have the signalised crossing and additional sustainable transport infrastructure leading to the college safety audited.

Appeal Statement of Common Ground
It would be beneficial to start working on what details are agreed at the moment.

Regards

Stephen

From: Tony Wares <twares@milestonetp.co.uk>
Sent: 21 October 2021 10:58
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Subject: RE: Land North West Of Goring Railway Station Goring Street Worthing

Stephen,

Thank you for the reply and confirmation that the model is fit for purpose.

I imagine the re-run of the VISSIM model to include the other Draft Worthing Local Plan sites would generally show the same outcomes, but marginally worse conditions for the baseline and mitigated situations.

In light of the VISSIM model results that show a worsening in the AM peak, and the proposed pedestrian / cycle infrastructure measure, please can you confirm if WSCC Highways will be sustaining their objections to the development proposals on traffic impact grounds?

Kind regards

Tony

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA

d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 20 October 2021 14:51
To: Tony Wares <twares@milestonetp.co.uk>
Subject: RE: Land North West Of Goring Railway Station Goring Street Worthing

Tony

Scenario
The original scenario was agreed based on the confirmation provided that the site was seeking approval prior to the local plan submission (and as such only considered those sites with approval or had submitted an application). Now that the plan has been submitted this would change the assessment required to include the proposed allocations.

Apart from the A9 site (Lyndhurst Road) im not aware that the any of the other sites have submitted apps (but please check with Worthing as the LPA)

Modelling
I can confirm the additional information presented was acceptable and that the model is fit for purpose.

Happy to discuss.

Stephen

From: Tony Wares <twares@milestonetp.co.uk>
Sent: 13 October 2021 12:30
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Cc: john@etc-transport.com
Subject: RE: Land North West Of Goring Railway Station Goring Street Worthing

Stephen,

I can confirm that ETC will respond to WSP's points relating to the desired speed decision on the model and reproduction of the results for the '*2033 Base*' scenarios in due course.

With regards to your request to prepare an additional future year scenario that includes the proposed development and the Worthing Local Plan site allocations, this would be contrary to the approach that was agreed with WSCC Highways when preparing the Transport Assessment Addendum and VISSIM Model.

Most notably, to minimise the potential for '*double counting*' the impact of the Worthing Local Plan site allocations on the local highway network, the agreed approach comprised a 2020 Base + TEMPro (unadjusted) + Worthing Local Plan sites, which benefited from having consent or were registered as 'live' planning applications. It is therefore likely that the inclusion of the 2020 Base + TEMPro Growth Factors (unadjusted) + Worthing Local Plan Site Allocations would over-estimate the impact on the local highway network.

When reviewing Chapter 4 of the Draft Worthing Local Plan Site Allocations, I note that of the 15 sites, 5 (i.e. A4 Civic Centre, Stoke Abbott Road; A6 Fulbeck Avenue; A8 HMRC Offices, Barrington Road; A12 Teville Gate; and A14 Union Place) have already been included in the VISSIM Model. Of the remaining 10 sites (A1 Beeches Avenue; A2 Caravan Club, Titnore Way; A3 Centenary House; A5 Decoy Farm; A7 Grafton; A9 Lyndhurst Road; A10 Martlets Way; A11 Stagecoach, Marine Parade; A13 Titnore Lane; A15 Upper Brighton Road), the quantum of residential units and employment floorspace being promoted in the Draft Worthing Local Plan is slightly different to that promoted in the Worthing Local Plan Transport Study (August 2018). Please see attached spreadsheet.

Please can you confirm if an updated Transport Assessment has been undertaken in support of the remaining 10 Site Allocations in the Draft Worthing Local Plan. If so, please can you provide a copy so that I can extract the anticipated traffic generation.

Regards

Tony

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA

d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 12 October 2021 10:11
To: Tony Wares <twares@milestonetp.co.uk>
Subject: Land North West Of Goring Railway Station Goring Street Worthing

Tony,

Ive now had the report back from our consultants (attached) and is summarised as:
The applicant made a good effort to improve the model, but there are still two areas where further clarification is needed. The first is regarding the placement of a desired speed decision in the model which seems excessively low; and the other is that we were unable to reproduce the results they provided with the model for the '2033 Base' scenario. These concerns are detailed in the report.

Are you able to address these points.

Another issue to highlight is now that the Worthing Local Plan has been submitted for examination and as such has some material planning weight then their should be an additional future year scenario provided that includes the development and full local plan allocations.

Regards

Stephen

Stephen Gee | Principal Planner County Highways (Development Management), Planning Services, West Sussex County Council | Location: Ground Floor, Northleigh, County Hall, Chichester, PO19 1RH | Internal 23306 | External 0330 222 3306 | E-mail: Stephen.Gee@westsussex.gov.uk

Tony Wares

From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 20 October 2021 14:51
To: Tony Wares
Subject: RE: Land North West Of Goring Railway Station Goring Street Worthing

Follow Up Flag: Follow up
Flag Status: Flagged

Tony

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I can confirm the additional information presented was acceptable and that the model is fit for purpose.

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Stephen

From: Tony Wares <twares@milestonetp.co.uk>
Sent: 13 October 2021 12:30
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Cc: john@etc-transport.com
Subject: RE: Land North West Of Goring Railway Station Goring Street Worthing

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Most notably, to minimise the potential for '*double counting*' the impact of the Worthing Local Plan site allocations on the local highway network, the agreed approach comprised a 2020 Base + TEMPro (unadjusted) + Worthing Local Plan sites, which benefited from having consent or were registered as 'live' planning applications. It is therefore likely that the inclusion of the 2020 Base + TEMPro Growth Factors (unadjusted) + Worthing Local Plan Site Allocations would over-estimate the impact on the local highway network.

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A13 Titnore Lane; A15 Upper Brighton Road), the quantum of residential units and employment floorspace being promoted in the Draft Worthing Local Plan is slightly different to that promoted in the Worthing Local Plan Transport Study (August 2018). Please see attached spreadsheet.

Please can you confirm if an updated Transport Assessment has been undertaken in support of the remaining 10 Site Allocations in the Draft Worthing Local Plan. If so, please can you provide a copy so that I can extract the anticipated traffic generation.

Regards

Tony

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA

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e: twares@milestonetp.co.uk
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From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 12 October 2021 10:11
To: Tony Wares <twares@milestonetp.co.uk>
Subject: Land North West Of Goring Railway Station Goring Street Worthing

Tony,

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The applicant made a good effort to improve the model, but there are still two areas where further clarification is needed. The first is regarding the placement of a desired speed decision in the model which seems excessively low; and the other is that we were unable to reproduce the results they provided with the model for the '2033 Base' scenario. These concerns are detailed in the report.

Are you able to address these points.

Another issue to highlight is now that the Worthing Local Plan has been submitted for examination and as such has some material planning weight then their should be an additional future year scenario provided that includes the development and full local plan allocations.

Regards

Stephen

Stephen Gee | Principal Planner County Highways (Development Management), Planning Services, West Sussex County Council | Location: Ground Floor, Northleigh, County Hall, Chichester, PO19 1RH | Internal 23306 | External 0330 222 3306 | E-mail: Stephen.Gee@westsussex.gov.uk

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of its content. West Sussex County Council takes steps to ensure emails and attachments are virus-free but you should carry out your own checks before opening any attachment.

Tony Wares

From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 03 September 2021 09:36
To: Tony Wares
Cc: Clark, Robert; 'David Hutchison'; john@etc-transport.com
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Follow Up Flag: Follow up
Flag Status: Completed

Tony,
I can confirm receipt of the additional information. I am going to need WSP to check over the changes again so will come back to you once this is done.

Regards

Stephen
-----Original Message-----
From: Tony Wares <twares@milestonetp.co.uk>
Sent: 27 August 2021 16:55
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Cc: Clark, Robert <robert.clark@persimmonhomes.com>; 'David Hutchison' <david.hutchison@pegasusgroup.co.uk>; john@etc-transport.com
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Stephen,
Further to our correspondence last month, please find below a wetransfer link that contains the following information: -

. ETC Response to WSP VISSIM Model Review Report (August 2021).
o 2018 Baseline Traffic Flows Validation (Appendix A1).
o Travel Times from TomTom (Appendix A2).
o MTP Technical Note on Highways & Transport detailing trip generation, trip distribution, and methodology for uplifting the traffic flows from 2018 to 2033, including agreement with WSCC Highways and Worthing Borough Council (WBC) on committed development and highway improvement schemes (Appendix A3 of ETC's Response to WSP VISSIM Model Review Report.
o Proposed Pedestrian and Cycle Enhancements (Appendix A4).
o VISSIM Results for '2033 with Development Mitigation Measures' (Appendix A5).

https://we.tl/t-tmYAU2KbdY
The VISSIM Model been validated once more through using not only the observed traffic count and queue length data obtained from the 2018 baseline surveys, but also travel time data from the actual day of the surveys supplied by Tom Tom.
As demonstrated in ETC's Response, the VISSIM model has now been fully updated to take account of the previously identified issues, most notably: -

. Built link and connector structure does not reflect allowed turning movements.
. Improper use of reduced speed areas.
. Omission of public transport routes and stops.
. Omission of desired speed decision and improper network entry speeds.
. Improper use of conflict areas.
. Omission of signalised pedestrian crossing in the model.

The results of the updated micro-simulation modelling demonstrate that when comparing the '2033 base' with the '2033 base + development + mitigation' scenarios (Appendix A5), the overall level of network delays (indicated by

the 'Delay Tot (All)' column) comprising the A259 Goring Street, 'Goring Crossroads' (northern roundabout) and 'Goring Way' roundabout junctions, increases only marginally from 1970514 seconds to 199070 seconds during the AM peak period nb includes the additional development traffic. However, the average network delays reduce from 375 seconds to 334 seconds per vehicle.

The model indicates that longer queues form (a 57-vehicle increase) on the western A259 Littlehampton approach to the 'Goring Crossroads' junction during the AM peak. Also, when activated, there is potential for the relocated Toucan crossing on the A259 to generate slow-moving / stopping traffic that backs-up through the site's proposed roundabout junction, up to The Strand junction.

Notwithstanding this, it should be noted that there would be minimal / no impacts and quite often significant reductions in queues and delays on the majority of the approach arms to the improved roundabouts during the weekday AM peak hour period. Most notably, the max queue length of the eastern (A2032 Littlehampton Road) and southern (A259 Goring Street) arms would decrease by 51 and 16 vehicles, respectively. Material decreases in max queue lengths would also be experienced on the southern (Aldsworth Avenue) and western (A259 Goring Way E) arms of the 'Goring Way' roundabout junction.

During the PM peak hour period there is a reduction in overall network delays from 138347 seconds to 1204943 seconds and, with the exception of the western arm (A259 Littlehampton Road) of the 'Goring Crossroads' roundabout junction, there would be minimal / no impacts and significant reductions in the max queues on other approach arms. Most notably, the max queue length of the eastern (A2032 Littlehampton Road) and southern (A259 Goring Street) arms would decrease by 108 and 24 vehicles, respectively.

When examining the performance of the local highway network, the results of the VISSIM Model demonstrate that the average speeds would remain constant at 20-kph during the weekday AM peak hour period and increase from 29-kph to 32-kph during the PM peak hour period.

It also seems that the latent delays (otherwise unrecorded delay to vehicles prevented from entering the network by queues) in the AM peak are substantially reduced in the AM peak in particular with mitigation.

The network distance and travel time totals would increase during the AM peak hour period, and this is predominantly due to there being more vehicles on the local network in association with the development proposals.

It is clear that the increases in max queue lengths and delays on the western arm (A259 Littlehampton Road) and to a lesser extent on the eastern (Goring Way W) and northern (A259 Goring Street) arms of the 'Goring Crossroads' and 'Goring Way' roundabout junctions would be restricted to the weekday AM peak hour period-only.

As mentioned previously, the increase in max queues on the western arm (A259 Littlehampton Road) of the 'Goring Crossroads' junction is due in part to the proposed alterations to The Strand junction ('left-in' and 'left-out' - only), which would be delivered as part of the development proposals. The proposed prohibition of right-turn manoeuvres would encourage car drivers traveling from the south to undertake U-turn manoeuvres at the 'Goring Crossroads' roundabout junction in order to gain access to The Strand.

It should be noted the microsimulation model covers a limited part of the local highway network on which development traffic will be most concentrated. It does not allow for the wider area network routing changes, which may arise over time in response to congestion.

As currently modelled, traffic demand is assumed to follow a fixed route, and even if the demand exceeds the capacity that is actually available on a given approach, then traffic will continue to join the back of the queue that simply gets longer and longer. In reality of course motorised users will react to the delays they perceive and choose an alternative route or time or even mode of travel. In other words, a somewhat pessimistic picture of queue conditions may be created in the model.

The results of the VISSIM model should also be examined in context with the site's highly accessible location to alternative modes to the private car, as well as the proposed mitigation schemes for the 'Goring Crossroads' and 'Goring Way' roundabout junctions, and substantial enhancements to the pedestrian and cycling infrastructure (now including the at grade Toucan crossing on the A2032 approach to the Goring Crossroads junction), which would be delivered as part of the development proposals. The combination of both the site's highly accessible location and package of mitigation measures would provide a more balanced travel demand for future households / end-users of the development proposals and wider community of Goring-by-Sea, in accordance with the main aspirations of national and local planning policy.

Kind regards

Tony

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA
d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

-----Original Message-----
From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 08 July 2021 10:18
To: Tony Wares <twares@milestonetp.co.uk>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Tony,
Attached is the review that has been undertaken on behalf of WSCC which identifies a number of issues with the development of the model that require addressing before it can be deemed fit for use to support the application.

If you need any clarification on any of the points within the attached then please come back (probably easiest by email so they can be easily relaid)

Regards

Stephen

-----Original Message-----
From: Tony Wares <twares@milestonetp.co.uk>
Sent: 07 July 2021 12:23
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Subject: FW: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Stephen,

Thank you for the update.

Kind regards

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA
d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

-----Original Message-----
From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 07 July 2021 12:14

To: Tony Wares <twares@milestonetp.co.uk>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Tony,
Ive got the review now, will digest it and come back to you tomorrow.

Stephen

-----Original Message-----
From: Tony Wares <twares@milestonetp.co.uk>
Sent: 01 July 2021 15:52
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Subject: FW: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Stephen,

I hope you are well.

Further to our e-mail correspondence last week, I wondered if you've received any feedback from WSP.

Kind regards

Tony

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA
d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

-----Original Message-----
From: Tony Wares
Sent: 24 June 2021 11:49
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Stephen,

As requested, please find attached.

Many thanks

Tony

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA

d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

-----Original Message-----
From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 24 June 2021 09:26
To: Tony Wares <twares@milestonetp.co.uk>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Tony,
Ive had the below request, Are you able to provide.
Thanks

Stephen

Could I please request the following files from ETC, which requires to check the model against the used background images and mitigation scheme:
. Promap-187661-268320-720-0.DWG
. 1.jpg
. 2.jpg
. 3.jpg
. 18122 - 001 RevC -em.dwg
. 18122 - 002 - RevB-em.dwg
. 18122 - 003 - RevB-em.dwg

-----Original Message-----
From: Tony Wares <twares@milestonetp.co.uk>
Sent: 21 June 2021 10:41
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Stephen,

Thank you for the update and confirmation on fee.

Kind regards

Tony

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA
d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

-----Original Message-----
From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 21 June 2021 08:29

To: Tony Wares <twares@milestonetp.co.uk>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Tony,
Just to update you, WSP have now been commissioned to review the model, hopefully this will be back with me next week.
The pre app fee will be the £2,420 plus VAT As the cost of the review exceeds this.

Regards

Stephen

-----Original Message-----
From: Tony Wares <twares@milestonetp.co.uk>
Sent: 15 June 2021 10:39
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Hi Stephen,

Thank you for the reply / update.

Kind regards

Tony

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA
d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

-----Original Message-----
From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 14 June 2021 15:33
To: Tony Wares <twares@milestonetp.co.uk>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Tony,
I had chased WSP up this morning as I was expecting a reply last week but never received one.
In terms of costs I'm anticipating it being in the maximum of £2,420 plus VAT Bracket but will confirm once I've received the info from WSP.
Stephen

-----Original Message-----
From: Tony Wares <twares@milestonetp.co.uk>
Sent: 14 June 2021 15:29
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>

Subject: FW: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Hi Stephen,

I hope you are well.

Further to our e-mail correspondence last month, please can you confirm WSCC's Pre-Application Fee for reviewing the VISSIM Model and Validation Report prepared by ETC Transport.

Please can you confirm the timescales for when WSP will be able to provide feedback from the review.

Kind regards

Tony

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA
d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

-----Original Message-----
From: Tony Wares
Sent: 27 May 2021 16:25
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Hi Stephen,

Many thanks for the signal timing data.

In addition, would be able to confirm WSCC's pre-application fee. Once confirmed, I'll let Rob know.

Kind regards

Tony

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA
d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

-----Original Message-----
From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 27 May 2021 16:22

To: Tony Wares <twares@milestonetp.co.uk>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Tony,
From the signals team:

The VA max for this site is set at 40 seconds & the Maximum crossing time is 9 seconds. This crossing time can be less, due to it being a Puffin crossing.

Regards

Stephen

-----Original Message-----
From: Tony Wares <twares@milestonetp.co.uk>
Sent: 27 May 2021 15:35
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Hi Stephen,

Further to our recent e-mail correspondence, please can you provide a copy of the signal timing data for the existing pedestrian crossing along the A259 Goring Street.

Please let me know if there is a cost for obtaining this data.

Thank you in advance for your help.

Kind regards

Tony

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA
d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

-----Original Message-----
From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 12 May 2021 07:47
To: Tony Wares <twares@milestonetp.co.uk>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Tony,
I've received the following comments from others here at WSCC, as highlighted below by the signals team id be interested to see the modelling of such a facility.
Stephen

Signals team
Looking at this purely from the position of site criteria then there doesn't seem to be any reason why the crossing couldn't be installed at this proposed location. It would be beneficial to see copies of any LinSig models that have been produced showing the impact the crossing has on a very busy roundabout. Given its location; on the main pedestrian route between Goring Station and Northbrook College, I imagine it will be heavily used and as such negatively impact traffic flows, increasing congestion and air pollution. It is my suspicion though, that the delays and queues created will have such an impact that mean this crossing option is not suitable.

It would be the recommendation of the Traffic Signals team that the existing bridge is retained, keeping pedestrians and vehicles separated. The introduction of an at grade crossing could increase low speed accidents and has the potential for conflict of a vehicle and pedestrian/cyclist if a vehicle fails to stop or a pedestrian walks on red. Given the proposed location, close to a roundabout, speeds may be higher resulting in a serious incident.

Policy Team and Local improvements officer
. To what extend to do the proposals align with LTN 1/20?
. Is there scope for closer alignment with LTN 1/20 (i.e. providing segregated ped and cycle facilities)? There would appear to be space to do so south of the roundabout and possibly to the north too. N.B. LTN 1/20 discourages provision of shared cycleway footways, particularly where footfall is expected to be greater than 300 pedestrians per hour. The proximity of the Northbrook could see this threshold reached. Should the number of cyclists expected exceed 300 per hour, and should the 300 pedestrians threshold not be exceeded, then the minimum width for a share path is 4.5m (see LTN 1/20 section 6.5)
. Would there be scope to provide a straight-through Toucan rather than a staggered one? This would be easier for cyclists to navigate. Would suggest you consult the signals team as the proposed location is on a dual carriageway close to a roundabout.

-----Original Message-----
From: Tony Wares <twares@milestonetp.co.uk>
Sent: 07 May 2021 15:29
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Subject: FW: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Hi Stephen,

I hope you are well.

I wondered if you had received any further feedback from your colleagues in the signals team re the proposed pedestrian and cycle enhancements plan?

If so, please can you forward these onto me for review.

Kind regards

Tony

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA
d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

-----Original Message-----
From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 28 April 2021 07:42
To: Tony Wares <twares@milestonetp.co.uk>
Cc: Clark, Robert <robert.clark@persimmonhomes.com>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Tony
As discussed yesterday I have now spoken to WSP who would undertake the model review on WSCC behalf.
The following information would be required:
Modelling Files
Local Model Validation Report
Base Model Runs
(as well as vehicle flows/highway drawings which I already have available)

With regard to the reduction in fee - the modelling review alone is likely to exceed the sum of the pre app fee and as such we would not be able to offer any reduction.

Regards

Stephen

-----Original Message-----
From: Tony Wares <twares@milestonetp.co.uk>
Sent: 26 April 2021 10:39
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Cc: Clark, Robert <robert.clark@persimmonhomes.com>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Stephen,

Thank you for the reply.

I look forward to receiving feedback this week.

Kind regards

Tony

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA
d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

-----Original Message-----
From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>

Sent: 26 April 2021 07:48
To: Tony Wares <twares@milestonetp.co.uk>
Cc: Clark, Robert <robert.clark@persimmonhomes.com>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Tony,
Sorry not to get back to you last week, I had IT issues so haven't been able to get in contact with WSP. Im aiming to do this week and will update when I have more info.

Regards

Stephen

-----Original Message-----
From: Tony Wares <twares@milestonetp.co.uk>
Sent: 21 April 2021 11:18
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Cc: Clark, Robert <robert.clark@persimmonhomes.com>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Stephen,

Further to our e-mail correspondence last week, I wondered if you're able to confirm the costs of the pre-app and if you've received any comments on the proposed walk / cycle enhancement plan.

Kind regards

Tony

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA
d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

-----Original Message-----
From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 16 April 2021 05:57
To: Tony Wares <twares@milestonetp.co.uk>
Cc: Clark, Robert <robert.clark@persimmonhomes.com>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Tony,
Thanks for submitting the pre app.
I'm currently contacting WSP to get their requirements and costs to check the modelling. The charge for the pre app will really be driven by what this comes back with.
I have also sent the cycling infrastructure drawing to colleagues for their thoughts.

Hopefully I'll be able to come back to you next week with further details.

Stephen

-----Original Message-----
From: Tony Wares <twares@milestonetp.co.uk>
Sent: 13 April 2021 18:21
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Cc: Clark, Robert <robert.clark@persimmonhomes.com>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Stephen

Thank you for the reply.

Further to our e-mail correspondence last week, I have requested additional pre-application advice (Level 3) via WSCC's website and received a response from your colleague, Karla Overington confirming the fee to be £2,904.00 (including VAT). I wondered if there is any scope to reduce this fee.

Please find attached Drawing No. 18-120/006 that shows the proposed enhancements to the pedestrian and cycle environment within the vicinity of the site and 4-arm 'Goring Crossroads' roundabout junction. The proposed Stage 1 enhancements comprise of the following: -

. The provision of a new shared foot / cycleway measuring 3.0-metres in width located along the eastern side of the A259 Goring Street, extending from the modified 'left-in' and 'left-out' junction with The Strand to the southern side of the A2032.
. The existing footbridge would be removed and replaced with a shared foot / cycleway along the southern side of the A2032. This would connect to a new staggered Toucan crossing facility, providing safe and convenient access on-foot and by cycle for all users (including mobility impaired) to the northern and southern sides of the A2032. Pedestrian guard railing would be provided to deter pedestrians from crossing the carriageway either side of the Toucan crossing facility.
. The existing shared foot / cycleway along the northern side of the A2032 would be extended around the north-eastern corner of the 4-arm 'Goring Crossroads' junction and beyond the access of Northbrook Metropolitan College, where it would adjoin to an uncontrolled pedestrian crossing and section of new footway located to the south of the access to The Swallows Return public house.

I have liaised with ETC Transport to obtain a copy of the VISSIM Model. ETC can send a report with the information, parameters, screenshots in the format of the sample attached. Please can you confirm if this is acceptable to WSCC / WSP.

I would be grateful for your thoughts on the proposed enhancements and format of the VISSIM model, prior to organising a pre-application meeting.

Please do not hesitate to contact me on 01483 397881 if you wish to discuss further.

Kind regards

Tony

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA
d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

-----Original Message-----
From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 06 April 2021 08:59
To: Tony Wares <twares@milestonetp.co.uk>
Cc: Clark, Robert <robert.clark@persimmonhomes.com>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Tony,
As the application has been refused the model wont be reviewed. We did discuss the possibility of another pre app to consider reviewing it outside of any appeal/resubmission/Local plan reps.
Also I'm not sure I ever received full details of the model build (only outputs).

Regards

Stephen

-----Original Message-----
From: Tony Wares <twares@milestonetp.co.uk>
Sent: 06 April 2021 08:54
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Subject: FW: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Hi Stephen,

I hope you are well.

Further to our e-mail correspondence last month, please can you provide an update on whether the VISSIM modelling has been reviewed by WSCC's appointed consultants.

Kind regards

Tony

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA
d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

-----Original Message-----
From: Tony Wares
Sent: 03 March 2021 10:13
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Stephen

Thank you for your time yesterday afternoon.

As discussed, please find attached a copy of the VISSIM results based on queue lengths on the junction approaches during the AM and PM peaks.

In addition, I have attached a copy of the Transport Assessment Addendum prepared in response to Highways England's consultation response and updated version of Drawing 18122/SK11 Rev A that shows the provision of a pedestrian / cycle link in the north-west corner of the site.

Please do not hesitate to contact me if you require additional information.

Kind regards

Tony

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA
d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

-----Original Message-----
From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 26 February 2021 07:22
To: Tony Wares <twares@milestonetp.co.uk>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Tony,
Sorry to be a pain but ive been requested to attend a planning committee on Tuesday at 10.
Is it possible to move to 9am or 2.30?

Stephen

-----Original Message-----
From: Tony Wares <twares@milestonetp.co.uk>
Sent: 25 February 2021 08:50
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Great, I'll suggest 10:00.

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA
d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk

w: www.milestonetp.co.uk

-----Original Message-----
From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 25 February 2021 08:42
To: Tony Wares <twares@milestonetp.co.uk>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Tony,
AM works best for me.

Stephen
-----Original Message-----
From: Tony Wares <twares@milestonetp.co.uk>
Sent: 25 February 2021 08:29
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Stephen,

I'll shall send over the traffic flow diagrams tomorrow, but let's arrange the meeting for next Tuesday.

Please can you let me know what time would be convenient and I'll send an MS Teams invite as well as check Rob's availability.

Kind regards

Tony

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA
d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

-----Original Message-----
From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 23 February 2021 13:56
To: Tony Wares <twares@milestonetp.co.uk>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Tony,
Sorry it's the vehicle flow diagrams I meant as junction plots, (so I can check the input flows in the modelling).
I'm available on Thursday this week for a catch up or next Tuesday. (I've got a fair bit of leave over the next few weeks)

Stephen

-----Original Message-----

From: Tony Wares <twares@milestonetp.co.uk>
Sent: 22 February 2021 14:34
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Cc: Clark, Robert <robert.clark@persimmonhomes.com>; 'David Hutchison' <david.hutchison@pegasusgroup.co.uk>; Gary Peck <gary.peck@adur-worthing.gov.uk>; James Appleton <james.appleton@adur-worthing.gov.uk>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Stephen

Thank you for the reply.

As requested, please find attached a copy of the revised junction plot (Drawing No. 18-122/001 Rev C) for the proposed mitigation for the southern roundabout junction (Goring Way).

I can confirm that the consented developments within Arun District Council (ADC) have been included in the assessments. For reference, this included the 6 sites served off Roundstone Lane (Manor Nurseries, Swanbourne Park, Pound Place Nursing Homes, Worthing Rugby Club, Cresswell Park, and the Quiet Waters scheme).

I shall request the Stage 1 Road Safety Auditor (RSA) to provide updated comments on the latest design of the site's proposed access and enhanced mitigation for the southern roundabout junction.

In addition, I believe there would be merit in organising a MS Teams meeting this week to discuss the key conclusions of the Transport Assessment Addendum note. Please can you confirm your availability this week.

Please do not hesitate to contact me on 01483 397881 if you have any questions / require additional information.

Regards

Tony

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA
d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

-----Original Message-----
From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 19 February 2021 10:50
To: Tony Wares <twares@milestonetp.co.uk>
Cc: Clark, Robert <robert.clark@persimmonhomes.com>; 'David Hutchison' <david.hutchison@pegasusgroup.co.uk>; Gary Peck <gary.peck@adur-worthing.gov.uk>; James Appleton <james.appleton@adur-worthing.gov.uk>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Tony,
Ive only had a brief look at this so far but have identified the following information requirements before its even worth looking at the junction modelling provided / commissioning someone to review the micro sim (once this is received.)

- Revised junction plots;
- Confirmation if consented development within Arun is still included as the doc only states Tempro + the permissions within Worthing;

Its also worth noting the revised schemes will require RSA.

Regards

Stephen

-----Original Message-----
From: Tony Wares <twares@milestonetp.co.uk>
Sent: 10 February 2021 12:59
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Cc: Clark, Robert <robert.clark@persimmonhomes.com>; 'David Hutchison' <david.hutchison@pegasusgroup.co.uk>
Subject: FW: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Good afternoon Stephen,

I hope you safe and well.

Further to our e-mail correspondence last year, please find below a wetransfer link to a draft version of the Transport Assessment Addendum (TAA) report that has been prepared to address WSCC Highways Consultation Response in support of the above-mentioned planning application.

https://we.tl/t-rhFGArDRjk

Milestone Transport Planning (MTP) have instructed a sub-consultant to prepare a VISSIM model examining the future performance of the site's proposed access and inter-connectivity with the modified junction of The A259 Goring Street / The Strand and roundabout junctions to the north (Goring Crossways) and south (Goring Way). I am hopeful of receiving the results of the VISSIM model by the end of this week. Once this has been received, I shall send a final version of the TAA to you for review / comment.

However, in the meantime, I would be grateful if you could review the TAA and let me know if you have any comments before the end of this week.

In addition, a separate TAA report has been prepared to address Highways England's (HE's) consultation response. A further response will be prepared and submitted to address Network Rail's response.

Thank you in advance for your help.

Kind regards

Tony

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA
d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

-----Original Message-----
From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 01 December 2020 13:34
To: Olivia Hennessy <ohennessy@milestonetp.co.uk>; Tony Wares <twares@milestonetp.co.uk>
Cc: Zac Michaelides <zmichaelides@milestonetp.co.uk>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Olivia,

Im happy to agree the below/attached approach as acceptable.

Regards

Stephen

-----Original Message-----
From: Olivia Hennessy <ohennessy@milestonetp.co.uk>
Sent: 25 November 2020 15:03
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>; Tony Wares <twares@milestonetp.co.uk>
Cc: Zac Michaelides <zmichaelides@milestonetp.co.uk>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Hi Stephen,

I hope you are well.

Further to your email dated 4th November, MTP have liaised with Gary Peck at WBC and removed sites, which do not benefit from having a planning consent or are 'live' applications. As shown on the attached spreadsheet, a total of 6 WBC Local Plan sites have been approved or have a 'live' application. These are as follows:

- Union Place;
- Teville Gate;
- HMRC Officer, Barrington Road;
- Land South of Stoke Abbott Road;
- Land west of Fulbeck Avenue; and
- Land north of West Durrington.

The remaining WBC LTS sites have been removed from the highway impact assessment.

When reviewing the Transport Assessments (TAs), prepared in support of each of the 6 sites, in comparison with the information set out in Appendix D of the Worthing Local Plan Transport Study, it is eident that there are significant differences with regards to number of residential units / quantum of commercial floorspace and associated vehicular traffic movements, which are likely to be generated during the weekday AM (08:00 - 09:00) and PM (17:00 - 18:00) peak hour periods, respectively.

As shown on the attached spreadsheet 'WBC Local Plan Sites - Planning Status Oct 2020', when combining each of the 6 sites, there would a cumulative decrease in the order of circa 311 and 918 two-way vehicular movements during the AM and PM peak hour periods, respectively. Consequently, MTP's submitted TA over-estimates the vehicular traffic generating potential of the 6 WBC sites.

In order to present a more accurate trip generation for the consented / live WBC sites, I have extracted the proposed vehicular trip generation from each of the submitted TAs and then undertaken an origin destination assessment using 2011 census data for the MSOA of each development to inform the distribution of trips on the local highway network. Please see assumptions spreadsheet titled '18-122 Committed Development Info and Flows'.

It is noteworthy that within the TA for the approved Teville Gate development, only vehicular trips in association with the residential aspect were distributed onto the local highway network. It was concluded that the commercial and leisure uses would have limited impact during the weekday AM and PM peak hour periods. Further, the small number of trips associated with these uses would disperse across the local highway network.

In addition, given that the recently approved development at Stoke Abbott Road involves the consolidation of existing Primary Care (GP and Nursing Practice), Community Services, Dentistry, Mental Health Services, ancillary pharmacy and office floorspace from elsewhere in Worthing town centre, I would argue that the associated vehicular traffic movements would not constitute 'new trips', as they would already be present on the local highway network. Therefore, this site has been removed from the highway impact assessment.

In addition, for the Union Place and HMRC Offices as presented within both developments TA's, only the residential trip generation has been assessed and distributed onto the network.

I would be grateful if you could confirm that the assumptions / approach outlined above is acceptable to WSCC Highways.

I look forward to hearing from you.

Kind regards,

Olivia

Olivia Hennessy
Milestone Transport Planning Ltd

Abbey House,
282 Farnborough Road,
Farnborough, Hants, GU14 7NA
d: 01483 397885 | t: 01483 397888 |

e: ohennessy@milestonetp.co.uk
w: www.milestonetp.co.uk

-----Original Message-----
From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 04 November 2020 13:41
To: Tony Wares <twares@milestonetp.co.uk>
Cc: Zac Michaelides <zmichaelides@milestonetp.co.uk>; Olivia Hennessy <ohennessy@milestonetp.co.uk>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Tony,

As discussed yesterday, utilising alternative assumptions should not result in a TEMPRO growth rate lower than 1 as there is no apparent reason for jobs or the number of households to decline in comparison to the base year scenario.

The presented figures would also indicate the Local Plan dwellings have been completely deducted from the 2018 scenario and takes no account of build out rates.

As a way forward and following comments yesterday that the purpose of the TA is solely to achieve a current planning permission rather than an allocation in the local plan the following is recommended.

- Base year + TEMPRO + consented developments (no local plan proposed allocations (yellow in the spreadsheet) I would recommend that you check consented developments with the LPA.

This would create a small element of double counting of the consented development (but not to the level of within the TA runs)

A further sensitivity test could be undertaken with reduced TEMPRO growth if an agreeable level is presented.

Regards

Stephen

-----Original Message-----
From: Tony Wares <twares@milestonetp.co.uk>
Sent: 30 October 2020 15:23
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Cc: Zac Michaelides <zmichaelides@milestonetp.co.uk>; Olivia Hennessy <ohennessy@milestonetp.co.uk>
Subject: FW: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Stephen,

Thank you for your time yesterday morning.

Further to our discussion, I have conducted a review of WBC's Planning Portal to establish, which of the sites identified in the Worthing Local Plan Transport Assessment (August 2018) have been approved / current 'live' planning applications.

As shown on the attached spreadsheet, 14 of the 19 sites do not benefit from planning approval or have been submitted as 'live' planning applications. Those sites, which do benefit from planning consent equate to 1,168-units.

Based on this figure, the modified TEMPro Growth Factors are as follows: -

. 2018-2024 AM Peak - 0.7505
. 2018-2024 PM Peak - 0.6821
. 2018-2033 AM Peak - 0.7925
. 2018-2033 PM Peak - 0.7172

The inclusion of the above-mentioned TEMPro Growth Factors in combination with the anticipated trip generation of the 19 WBC sites will not result in 'double counting'. Further, and for robustness, the trip generation of the 5 sites, which do benefit from planning approval / 'live' planning applications will be based on the net impact data presented within each submitted TA.

Please can you review and confirm the approach outlined above is acceptable to WSCC Highways. I shall then liaise with WBC's Planning Officer (Gary Peck) to confirm that he is happy with my summary on WBC's sites.

If you wish to discuss further, please do not hesitate to contact me on 01483 397881.

Thank you in advance for your help.

Kind regards

Tony
Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA
d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

-----Original Message-----
From: Tony Wares
Sent: 26 October 2020 12:53
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Stephen,

Thank you for the reply.

Further to our e-mail correspondence last month, please find attached Drawing No. 18122/SK11 that shows a proposed pedestrian / cycle link that connects the north-west corner of the proposed residential development with the existing off-carriageway shared pedestrian / cycle link along the A259 Littlehampton Road and existing bridleway (No. 2135) and sports pitches via the uncontrolled crossing.

With regards to your comments on public transport, the attached plan summarises enhancements (i.e. provision of sheltered seating and 'real time' information) to local bus stops served by the 700 Coastliner service.

Whilst these are beyond the recommended walk distance (i.e. 400-metres) as set out in The Chartered Institution of Highways & Transportation's (CIHT's) 'Buses in Urban Developments' (January 2018) guidance for single high-frequency routes (every 12 minutes or better), and have undertaken an initial audit, there is scope to enhance the following bus stops: -

. Goring Street - provide sheltered seating / 'real-time' information.
. Ferring, War Memorial - install 'real time' information.

When examining the other bus stops along Goring Way, Sea Lane, Ferring Street and Langbury Lane, there is limited scope to relocate bus cages, provide sheltered seating and 'real-time' information, particularly for those located nearest to the site's south-western and north-western corners. Pedestrian access to Goring rail station and the nearest bus stops (i.e. Goring Street), served by the 700 Coastliner bus service would be enhanced through the widening of the proposed footway along the eastern side of Goring Street (minor), as shown on Drawing No. 18122/001 Rev A.

The applicant is willing to implement the above-mentioned enhancements. However, I would be grateful if you could provide costings for the provision of shelters and 'real-time' information.

In addition, please can you let me know your telephone number so that I can have a further discussion on the potential exclusion of WBC Local Plan sites, which are unlikely to come forwards in the period, as well as modifications to the TEMPRO Growth Factors.

Thank you in advance for your help.

Kind regards

Tony

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA
d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

-----Original Message-----
From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 24 September 2020 13:20
To: Tony Wares <twares@milestonetp.co.uk>
Cc: Zac Michaelides <zmichaelides@milestonetp.co.uk>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Tony,
My key requirement would be that cycle links are provided (by whatever means). In discussions my rights of way colleagues it was highlighted the bridleway to the north of the A259 which could provide an appropriate link for a bridleway to connect into and provide access onto the snpa and highdown hill.

Regards

Stephen
-----Original Message-----
From: Tony Wares <twares@milestonetp.co.uk>
Sent: 23 September 2020 08:57
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Cc: Zac Michaelides <zmichaelides@milestonetp.co.uk>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Stephen,

Thank you for the consultation response.

With regards to your comment on the proposed bridleway link to the north-west of the site across Ferring Rife to form a connection with the existing crossing along the A259 Littlehampton Road, please can you confirm whether this would operate solely as ped / cycle link, as it is unlikely to be used by equestrians.

Please do not hesitate to contact me on 01483 397881.

Kind regards

Tony

Tony Wares

Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA
d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

-----Original Message-----
From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 10 September 2020 11:44
To: Tony Wares <twares@milestonetp.co.uk>
Cc: Clark, Robert <robert.clark@persimmonhomes.com>
Subject: FW: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Tony,
As discussed yesterday here is a copy of the response I have just sent to Worthing.

If you want to discuss any approach to responding to the concerns then Im happy to have further discussions.

Also attached is the Residential TP guidance that is referred to in my response.

Regards

Stephen

-----Original Message-----
From: planninghighways@westsussex.gov.uk <planninghighways@westsussex.gov.uk>
Sent: 10 September 2020 11:39
To: planning@adur-worthing.gov.uk
Cc: gary.peck@adur-worthing.gov.uk
Subject: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Please could the attached response be distributed to the relevant case officer.

Regards

Stephen Gee

If you wish to reply to this email, please contact the officer directly.

Tony Wares

From: Tony Wares
Sent: 26 May 2021 15:32
To: Stephen Gee
Cc: Clark, Robert; 'David Hutchison'
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex
Attachments: Pedestrian Crossing Staggered A2032.doc

Stephen,
Further to our correspondence earlier this month, please see below my thoughts on comments from WSCC's Signal and Policy Team regarding the proposed pedestrian and cycle enhancements.

- A LinSig assessment (see attached) has been undertaken to establish the potential impact of the proposed Toucan crossing facility on the operation of the 'Goring Crossroads' (northern roundabout) during the '2033 with development and mitigation' scenarios for the AM and PM peak hour periods. The results demonstrate that the Toucan crossing would not have an adverse impact on the operation of the roundabout junction during the weekday AM (08:00 – 09:00) and PM (17:00 – 18:00) peak hour periods, respectively.
- As shown on the attached output, based on the robust assumption that the pedestrian / cycle demand will be constant (i.e. activated to show red to vehicular traffic every 90 seconds), there would be a maximum queue of 7.4 and 6.4 vehicles along the inside lane of the A2032 Littlehampton Road (eastern arm) between the roundabout junction and Toucan crossing facility.
- When applying the average car length and spacing assumptions within the LinSig model (i.e. 5.75-metres) to the mean maximum queue, a distance of 42 and 38-metres would be required to accommodate this demand on the inside lane of the A2030 Littlehampton Road (eastern arm of roundabout junction). As shown on Drawing No. 18122/006 (see attached), there is sufficient distance to the west of the Toucan crossing facility to accommodate the anticipated number of queuing vehicles.
- Based on my own on-site observations, the footway along the A259 Goring Street and A2032 between Goring rail station and Northbrook College is predominately used by students with movements coinciding with the arrivals of trains to the station. It is therefore unlikely that the demand for the Toucan crossing would exceed the assumption (i.e. activated every 90 seconds) during the weekday AM and PM peak hour periods.
- Unlike the current footbridge, the provision of an at-grade Toucan crossing would cater for all users including mobility impaired / wheelchair users, and therefore accords with the Equality Act. It would also provide a safe means of crossing for students, some of which do not use the footbridge to cross the dual carriageway.
- An at-grade facility is located along the A2032 Littlehampton Road circa 640-metres to the north-east of the 'Goring Crossroads' roundabout junction. This highway link would experience the same volume of vehicular traffic and pedestrian / cycle movements. A review of the Crashmap website demonstrates that only two accidents have occurred on the eastbound arm of the A2032 Littlehampton Road / Yeoman Road / Palatine Road over the past 5-years. With this in mind, the provision of a new Toucan crossing at the 'Goring Crossroads' roundabout junction is unlikely to have an adverse impact on pedestrian safety.
- No observational surveys were undertaken as part of the submitted TA to establish the total number of pedestrian and cycle movements along the eastern side of the A259 Goring Street. However, due to the staggered start times of Northbrook College, I'm not sure whether the threshold of 300 pedestrian movements would be exceeded. Please can you confirm whether WSCC Highways have pedestrian and cycle count data for this highway link.
- There would appear to be insufficient space to provide a continuous 4.5-metre shared foot / cycleway along the eastern side of the A259 Goring Street and the southern side of the A2032 Littlehampton Road, up to the proposed Toucan crossing, whilst also retaining the footbridge. The suggestion to provide a straight-through Toucan crossing as opposed to a staggered facility would require an excessive amount of crossing time for pedestrians and increase the mean maximum queue on the eastbound arm of the roundabout junction. Consequently, a staggered Toucan crossing facility would be more appropriate.

If you require additional information or have any questions, please do not hesitate to contact me on 01483 397881.
Kind regards

Tony

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA
d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

-----Original Message-----
From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 12 May 2021 07:47
To: Tony Wares <twares@milestonetp.co.uk>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Tony,
I've received the following comments from others here at WSCC, as highlighted below by the signals team id be interested to see the modelling of such a facility.
Stephen

Signals team
Looking at this purely from the position of site criteria then there doesn't seem to be any reason why the crossing couldn't be installed at this proposed location. It would be beneficial to see copies of any LinSig models that have been produced showing the impact the crossing has on a very busy roundabout. Given its location; on the main pedestrian route between Goring Station and Northbrook College, I imagine it will be heavily used and as such negatively impact traffic flows, increasing congestion and air pollution. It is my suspicion though, that the delays and queues created will have such an impact that mean this crossing option is not suitable.

It would be the recommendation of the Traffic Signals team that the existing bridge is retained, keeping pedestrians and vehicles separated. The introduction of an at grade crossing could increase low speed accidents and has the potential for conflict of a vehicle and pedestrian/cyclist if a vehicle fails to stop or a pedestrian walks on red. Given the proposed location, close to a roundabout, speeds may be higher resulting in a serious incident.

Policy Team and Local improvements officer
. To what extend to do the proposals align with LTN 1/20?
. Is there scope for closer alignment with LTN 1/20 (i.e. providing segregated ped and cycle facilities)? There would appear to be space to do so south of the roundabout and possibly to the north too. N.B. LTN 1/20 discourages provision of shared cycleway footways, particularly where footfall is expected to be greater than 300 pedestrians per hour. The proximity of the Northbrook could see this threshold reached. Should the number of cyclists expected exceed 300 per hour, and should the 300 pedestrians threshold not be exceeded, then the minimum width for a share path is 4.5m (see LTN 1/20 section 6.5)
. Would there be scope to provide a straight-through Toucan rather than a staggered one? This would be easier for cyclists to navigate. Would suggest you consult the signals team as the proposed location is on a dual carriageway close to a roundabout.

-----Original Message-----
From: Tony Wares <twares@milestonetp.co.uk>
Sent: 07 May 2021 15:29
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>

Subject: FW: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Hi Stephen,

I hope you are well.

I wondered if you had received any further feedback from your colleagues in the signals team re the proposed pedestrian and cycle enhancements plan?

If so, please can you forward these onto me for review.

Kind regards

Tony

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA
d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

-----Original Message-----
From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 28 April 2021 07:42
To: Tony Wares <twares@milestonetp.co.uk>
Cc: Clark, Robert <robert.clark@persimmonhomes.com>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Tony
As discussed yesterday I have now spoken to WSP who would undertake the model review on WSCC behalf.
The following information would be required:
Modelling Files
Local Model Validation Report
Base Model Runs
(as well as vehicle flows/highway drawings which I already have available)

With regard to the reduction in fee - the modelling review alone is likely to exceed the sum of the pre app fee and as such we would not be able to offer any reduction.

Regards

Stephen

-----Original Message-----
From: Tony Wares <twares@milestonetp.co.uk>
Sent: 26 April 2021 10:39
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Cc: Clark, Robert <robert.clark@persimmonhomes.com>

Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Stephen,

Thank you for the reply.

I look forward to receiving feedback this week.

Kind regards

Tony

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA
d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

-----Original Message-----
From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 26 April 2021 07:48
To: Tony Wares <twares@milestonetp.co.uk>
Cc: Clark, Robert <robert.clark@persimmonhomes.com>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Tony,
Sorry not to get back to you last week, I had IT issues so haven't been able to get in contact with WSP. Im aiming to do this week and will update when I have more info.

Regards

Stephen

-----Original Message-----
From: Tony Wares <twares@milestonetp.co.uk>
Sent: 21 April 2021 11:18
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Cc: Clark, Robert <robert.clark@persimmonhomes.com>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Stephen,

Further to our e-mail correspondence last week, I wondered if you're able to confirm the costs of the pre-app and if you've received any comments on the proposed walk / cycle enhancement plan.

Kind regards

Tony

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA
d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

-----Original Message-----
From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 16 April 2021 05:57
To: Tony Wares <twares@milestonetp.co.uk>
Cc: Clark, Robert <robert.clark@persimmonhomes.com>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Tony,
Thanks for submitting the pre app.
I'm currently contacting WSP to get their requirements and costs to check the modelling. The charge for the pre app will really be driven by what this comes back with.
I have also sent the cycling infrastructure drawing to colleagues for their thoughts.

Hopefully I'll be able to come back to you next week with further details.

Stephen

-----Original Message-----
From: Tony Wares <twares@milestonetp.co.uk>
Sent: 13 April 2021 18:21
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Cc: Clark, Robert <robert.clark@persimmonhomes.com>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Stephen

Thank you for the reply.

Further to our e-mail correspondence last week, I have requested additional pre-application advice (Level 3) via WSCC's website and received a response from your colleague, Karla Overington confirming the fee to be £2,904.00 (including VAT). I wondered if there is any scope to reduce this fee.

Please find attached Drawing No. 18-120/006 that shows the proposed enhancements to the pedestrian and cycle environment within the vicinity of the site and 4-arm 'Goring Crossroads' roundabout junction. The proposed Stage 1 enhancements comprise of the following: -

. The provision of a new shared foot / cycleway measuring 3.0-metres in width located along the eastern side of the A259 Goring Street, extending from the modified 'left-in' and 'left-out' junction with The Strand to the southern side of the A2032.
. The existing footbridge would be removed and replaced with a shared foot / cycleway along the southern side of the A2032. This would connect to a new staggered Toucan crossing facility, providing safe and convenient access on-foot and by cycle for all users (including mobility impaired) to the northern and southern sides of the A2032. Pedestrian guard railing would be provided to deter pedestrians from crossing the carriageway either side of the Toucan crossing facility.

. The existing shared foot / cycleway along the northern side of the A2032 would be extended around the north-eastern corner of the 4-arm 'Goring Crossroads' junction and beyond the access of Northbrook Metropolitan College, where it would adjoin to an uncontrolled pedestrian crossing and section of new footway located to the south of the access to The Swallows Return public house.

I have liaised with ETC Transport to obtain a copy of the VISSIM Model. ETC can send a report with the information, parameters, screenshots in the format of the sample attached. Please can you confirm if this is acceptable to WSCC / WSP.

I would be grateful for your thoughts on the proposed enhancements and format of the VISSIM model, prior to organising a pre-application meeting.

Please do not hesitate to contact me on 01483 397881 if you wish to discuss further.

Kind regards

Tony

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA
d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

-----Original Message-----
From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 06 April 2021 08:59
To: Tony Wares <twares@milestonetp.co.uk>
Cc: Clark, Robert <robert.clark@persimmonhomes.com>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Tony,
As the application has been refused the model wont be reviewed. We did discuss the possibility of another pre app to consider reviewing it outside of any appeal/resubmission/Local plan reps.
Also I'm not sure I ever received full details of the model build (only outputs).

Regards

Stephen

-----Original Message-----
From: Tony Wares <twares@milestonetp.co.uk>
Sent: 06 April 2021 08:54
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Subject: FW: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Hi Stephen,

I hope you are well.

Further to our e-mail correspondence last month, please can you provide an update on whether the VISSIM modelling has been reviewed by WSCC's appointed consultants.

Kind regards

Tony

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA
d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

-----Original Message-----
From: Tony Wares
Sent: 03 March 2021 10:13
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Stephen

Thank you for your time yesterday afternoon.

As discussed, please find attached a copy of the VISSIM results based on queue lengths on the junction approaches during the AM and PM peaks.

In addition, I have attached a copy of the Transport Assessment Addendum prepared in response to Highways England's consultation response and updated version of Drawing 18122/SK11 Rev A that shows the provision of a pedestrian / cycle link in the north-west corner of the site.

Please do not hesitate to contact me if you require additional information.

Kind regards

Tony

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA
d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

-----Original Message-----
From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 26 February 2021 07:22
To: Tony Wares <twares@milestonetp.co.uk>

Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Tony,
Sorry to be a pain but ive been requested to attend a planning committee on Tuesday at 10.
Is it possible to move to 9am or 2.30?

Stephen

-----Original Message-----
From: Tony Wares <twares@milestonetp.co.uk>
Sent: 25 February 2021 08:50
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Great, I'll suggest 10:00.

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA
d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

-----Original Message-----
From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 25 February 2021 08:42
To: Tony Wares <twares@milestonetp.co.uk>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Tony,
AM works best for me.

Stephen
-----Original Message-----
From: Tony Wares <twares@milestonetp.co.uk>
Sent: 25 February 2021 08:29
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Stephen,

I'll shall send over the traffic flow diagrams tomorrow, but let's arrange the meeting for next Tuesday.

Please can you let me know what time would be convenient and I'll send an MS Teams invite as well as check Rob's availability.

Kind regards

Tony

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA
d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

-----Original Message-----
From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 23 February 2021 13:56
To: Tony Wares <twares@milestonetp.co.uk>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Tony,
Sorry it's the vehicle flow diagrams I meant as junction plots, (so I can check the input flows in the modelling).
I'm available on Thursday this week for a catch up or next Tuesday. (I've got a fair bit of leave over the next few weeks)

Stephen

-----Original Message-----
From: Tony Wares <twares@milestonetp.co.uk>
Sent: 22 February 2021 14:34
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Cc: Clark, Robert <robert.clark@persimmonhomes.com>; 'David Hutchison' <david.hutchison@pegasusgroup.co.uk>; Gary Peck <gary.peck@adur-worthing.gov.uk>; James Appleton <james.appleton@adur-worthing.gov.uk>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Stephen

Thank you for the reply.

As requested, please find attached a copy of the revised junction plot (Drawing No. 18-122/001 Rev C) for the proposed mitigation for the southern roundabout junction (Goring Way).

I can confirm that the consented developments within Arun District Council (ADC) have been included in the assessments. For reference, this included the 6 sites served off Roundstone Lane (Manor Nurseries, Swanbourne Park, Pound Place Nursing Homes, Worthing Rugby Club, Cresswell Park, and the Quiet Waters scheme).

I shall request the Stage 1 Road Safety Auditor (RSA) to provide updated comments on the latest design of the site's proposed access and enhanced mitigation for the southern roundabout junction.

In addition, I believe there would be merit in organising a MS Teams meeting this week to discuss the key conclusions of the Transport Assessment Addendum note. Please can you confirm your availability this week.

Please do not hesitate to contact me on 01483 397881 if you have any questions / require additional information.

Regards

Tony

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA
d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

-----Original Message-----
From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 19 February 2021 10:50
To: Tony Wares <twares@milestonetp.co.uk>
Cc: Clark, Robert <robert.clark@persimmonhomes.com>; 'David Hutchison' <david.hutchison@pegasusgroup.co.uk>; Gary Peck <gary.peck@adur-worthing.gov.uk>; James Appleton <james.appleton@adur-worthing.gov.uk>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Tony,
Ive only had a brief look at this so far but have identified the following information requirements before its even worth looking at the junction modelling provided / commissioning someone to review the micro sim (once this is received.)
- Revised junction plots;
- Confirmation if consented development within Arun is still included as the doc only states Tempro + the permissions within Worthing;

Its also worth noting the revised schemes will require RSA.

Regards

Stephen

-----Original Message-----
From: Tony Wares <twares@milestonetp.co.uk>
Sent: 10 February 2021 12:59
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Cc: Clark, Robert <robert.clark@persimmonhomes.com>; 'David Hutchison' <david.hutchison@pegasusgroup.co.uk>
Subject: FW: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Good afternoon Stephen,

I hope you safe and well.

Further to our e-mail correspondence last year, please find below a wetransfer link to a draft version of the Transport Assessment Addendum (TAA) report that has been prepared to address WSCC Highways Consultation Response in support of the above-mentioned planning application.

https://we.tl/t-rhFGArDRjk

Milestone Transport Planning (MTP) have instructed a sub-consultant to prepare a VISSIM model examining the future performance of the site's proposed access and inter-connectivity with the modified junction of The A259

Goring Street / The Strand and roundabout junctions to the north (Goring Crossways) and south (Goring Way). I am hopeful of receiving the results of the VISSIM model by the end of this week. Once this has been received, I shall send a final version of the TAA to you for review / comment.

However, in the meantime, I would be grateful if you could review the TAA and let me know if you have any comments before the end of this week.

In addition, a separate TAA report has been prepared to address Highways England's (HE's) consultation response. A further response will be prepared and submitted to address Network Rail's response.

Thank you in advance for your help.

Kind regards

Tony

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA
d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

-----Original Message-----
From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 01 December 2020 13:34
To: Olivia Hennessy <ohennessy@milestonetp.co.uk>; Tony Wares <twares@milestonetp.co.uk>
Cc: Zac Michaelides <zmichaelides@milestonetp.co.uk>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Olivia,

Im happy to agree the below/attached approach as acceptable.

Regards

Stephen

-----Original Message-----
From: Olivia Hennessy <ohennessy@milestonetp.co.uk>
Sent: 25 November 2020 15:03
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>; Tony Wares <twares@milestonetp.co.uk>
Cc: Zac Michaelides <zmichaelides@milestonetp.co.uk>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Hi Stephen,

I hope you are well.

Further to your email dated 4th November, MTP have liaised with Gary Peck at WBC and removed sites, which do not benefit from having a planning consent or are 'live' applications. As shown on the attached spreadsheet, a total of 6 WBC Local Plan sites have been approved or have a 'live' application. These are as follows:

- Union Place;
- Teville Gate;
- HMRC Officer, Barrington Road;
- Land South of Stoke Abbott Road;
- Land west of Fulbeck Avenue; and
- Land north of West Durrington.

The remaining WBC LTS sites have been removed from the highway impact assessment.

When reviewing the Transport Assessments (TAs), prepared in support of each of the 6 sites, in comparison with the information set out in Appendix D of the Worthing Local Plan Transport Study, it is eident that there are significant differences with regards to number of residential units / quantum of commercial floorspace and associated vehicular traffic movements, which are likely to be generated during the weekday AM (08:00 - 09:00) and PM (17:00 - 18:00) peak hour periods, respectively.

As shown on the attached spreadsheet 'WBC Local Plan Sites - Planning Status Oct 2020', when combining each of the 6 sites, there would a cumulative decrease in the order of circa 311 and 918 two-way vehicular movements during the AM and PM peak hour periods, respectively. Consequently, MTP's submitted TA over-estimates the vehicular traffic generating potential of the 6 WBC sites.

In order to present a more accurate trip generation for the consented / live WBC sites, I have extracted the proposed vehicular trip generation from each of the submitted TAs and then undertaken an origin destination assessment using 2011 census data for the MSOA of each development to inform the distribution of trips on the local highway network. Please see assumptions spreadsheet titled '18-122 Committed Development Info and Flows'.

It is noteworthy that within the TA for the approved Teville Gate development, only vehicular trips in association with the residential aspect were distributed onto the local highway network. It was concluded that the commercial and leisure uses would have limited impact during the weekday AM and PM peak hour periods. Further, the small number of trips associated with these uses would disperse across the local highway network.

In addition, given that the recently approved development at Stoke Abbott Road involves the consolidation of existing Primary Care (GP and Nursing Practice), Community Services, Dentistry, Mental Health Services, ancillary pharmacy and office floorspace from elsewhere in Worthing town centre, I would argue that the associated vehicular traffic movements would not constitute 'new trips', as they would already be present on the local highway network. Therefore, this site has been removed from the highway impact assessment.

In addition, for the Union Place and HMRC Offices as presented within both developments TA's, only the residential trip generation has been assessed and distributed onto the network.

I would be grateful if you could confirm that the assumptions / approach outlined above is acceptable to WSCC Highways.

I look forward to hearing from you.

Kind regards,

Olivia

Olivia Hennessy
Milestone Transport Planning Ltd

Abbey House,

282 Farnborough Road,
Farnborough, Hants, GU14 7NA
d: 01483 397885 | t: 01483 397888 |

e: ohennessy@milestonetp.co.uk
w: www.milestonetp.co.uk

-----Original Message-----
From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 04 November 2020 13:41
To: Tony Wares <twares@milestonetp.co.uk>
Cc: Zac Michaelides <zmichaelides@milestonetp.co.uk>; Olivia Hennessy <ohennessy@milestonetp.co.uk>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Tony,

As discussed yesterday, utilising alternative assumptions should not result in a TEMPRO growth rate lower than 1 as there is no apparent reason for jobs or the number of households to decline in comparison to the base year scenario.
The presented figures would also indicate the Local Plan dwellings have been completely deducted from the 2018 scenario and takes no account of build out rates.

As a way forward and following comments yesterday that the purpose of the TA is solely to achieve a current planning permission rather than an allocation in the local plan the following is recommended.

- Base year + TEMPRO + consented developments (no local plan proposed allocations (yellow in the spreadsheet) I would recommend that you check consented developments with the LPA.

This would create a small element of double counting of the consented development (but not to the level of within the TA runs)

A further sensitivity test could be undertaken with reduced TEMPRO growth if an agreeable level is presented.

Regards

Stephen

-----Original Message-----
From: Tony Wares <twares@milestonetp.co.uk>
Sent: 30 October 2020 15:23
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Cc: Zac Michaelides <zmichaelides@milestonetp.co.uk>; Olivia Hennessy <ohennessy@milestonetp.co.uk>
Subject: FW: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Stephen,

Thank you for your time yesterday morning.

Further to our discussion, I have conducted a review of WBC's Planning Portal to establish, which of the sites identified in the Worthing Local Plan Transport Assessment (August 2018) have been approved / current 'live' planning applications.

As shown on the attached spreadsheet, 14 of the 19 sites do not benefit from planning approval or have been submitted as 'live' planning applications. Those sites, which do benefit from planning consent equate to 1,168-units.

Based on this figure, the modified TEMPro Growth Factors are as follows: -

. 2018-2024 AM Peak - 0.7505
. 2018-2024 PM Peak - 0.6821
. 2018-2033 AM Peak - 0.7925
. 2018-2033 PM Peak - 0.7172

The inclusion of the above-mentioned TEMPro Growth Factors in combination with the anticipated trip generation of the 19 WBC sites will not result in 'double counting'. Further, and for robustness, the trip generation of the 5 sites, which do benefit from planning approval / 'live' planning applications will be based on the net impact data presented within each submitted TA.

Please can you review and confirm the approach outlined above is acceptable to WSCC Highways. I shall then liaise with WBC's Planning Officer (Gary Peck) to confirm that he is happy with my summary on WBC's sites.

If you wish to discuss further, please do not hesitate to contact me on 01483 397881.

Thank you in advance for your help.

Kind regards

Tony
Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA
d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

-----Original Message-----
From: Tony Wares
Sent: 26 October 2020 12:53
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Stephen,

Thank you for the reply.

Further to our e-mail correspondence last month, please find attached Drawing No. 18122/SK11 that shows a proposed pedestrian / cycle link that connects the north-west corner of the proposed residential development with the existing off-carriageway shared pedestrian / cycle link along the A259 Littlehampton Road and existing bridleway (No. 2135) and sports pitches via the uncontrolled crossing.

With regards to your comments on public transport, the attached plan summarises enhancements (i.e. provision of sheltered seating and 'real time' information) to local bus stops served by the 700 Coastliner service.

Whilst these are beyond the recommended walk distance (i.e. 400-metres) as set out in The Chartered Institution of Highways & Transportation's (CIHT's) 'Buses in Urban Developments' (January 2018) guidance for single high-frequency routes (every 12 minutes or better), and have undertaken an initial audit, there is scope to enhance the following bus stops: -

. Goring Street - provide sheltered seating / 'real-time' information.
. Ferring, War Memorial - install 'real time' information.

When examining the other bus stops along Goring Way, Sea Lane, Ferring Street and Langbury Lane, there is limited scope to relocate bus cages, provide sheltered seating and 'real-time' information, particularly for those located nearest to the site's south-western and north-western corners. Pedestrian access to Goring rail station and the nearest bus stops (i.e. Goring Street), served by the 700 Coastliner bus service would be enhanced through the widening of the proposed footway along the eastern side of Goring Street (minor), as shown on Drawing No. 18122/001 Rev A.

The applicant is willing to implement the above-mentioned enhancements. However, I would be grateful if you could provide costings for the provision of shelters and 'real-time' information.

In addition, please can you let me know your telephone number so that I can have a further discussion on the potential exclusion of WBC Local Plan sites, which are unlikely to come forwards in the period, as well as modifications to the TEMPRO Growth Factors.

Thank you in advance for your help.

Kind regards

Tony

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA
d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

-----Original Message-----
From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 24 September 2020 13:20
To: Tony Wares <twares@milestonetp.co.uk>
Cc: Zac Michaelides <zmichaelides@milestonetp.co.uk>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Tony,

My key requirement would be that cycle links are provided (by whatever means). In discussions my rights of way colleagues it was highlighted the bridleway to the north of the A259 which could provide an appropriate link for a bridleway to connect into and provide access onto the snpa and highdown hill.

Regards

Stephen
-----Original Message-----
From: Tony Wares <twares@milestonetp.co.uk>
Sent: 23 September 2020 08:57
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Cc: Zac Michaelides <zmichaelides@milestonetp.co.uk>
Subject: RE: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Stephen,

Thank you for the consultation response.

With regards to your comment on the proposed bridleway link to the north-west of the site across Ferring Rife to form a connection with the existing crossing along the A259 Littlehampton Road, please can you confirm whether this would operate solely as ped / cycle link, as it is unlikely to be used by equestrians.

Please do not hesitate to contact me on 01483 397881.

Kind regards

Tony

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA
d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

-----Original Message-----
From: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Sent: 10 September 2020 11:44
To: Tony Wares <twares@milestonetp.co.uk>
Cc: Clark, Robert <robert.clark@persimmonhomes.com>
Subject: FW: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Tony,
As discussed yesterday here is a copy of the response I have just sent to Worthing.

If you want to discuss any approach to responding to the concerns then Im happy to have further discussions.

Also attached is the Residential TP guidance that is referred to in my response.

Regards

Stephen

-----Original Message-----
From: planninghighways@westsussex.gov.uk <planninghighways@westsussex.gov.uk>
Sent: 10 September 2020 11:39
To: planning@adur-worthing.gov.uk
Cc: gary.peck@adur-worthing.gov.uk
Subject: Response To Application Number AWDM/1264/20 at Land North West Of Goring Railway Station Goring Street Worthing West Sussex

Please could the attached response be distributed to the relevant case officer.

Regards

Stephen Gee

If you wish to reply to this email, please contact the officer directly.

Appendix 2

Appendix 2: Summary of Key National, Regional and Local Planning Policies and Other Documents Relevant to the Highway and Transportation Aspects of the Development Proposals

Pre-Application Technical Note – Highways & Transport

Prepared on behalf of Persimmon Homes Thames Valley

December 2021

National Planning Policy

National Planning Policy Framework (July 2021)

The Ministry of Planning, Communities and Local Government (MHCLG) initially published the National Planning Policy Framework (NPPF) in March 2012. This document was revised in July 2018, and updated in February 2018, and July 2021, respectively.

Promoting sustainable transport is a key thread of the NPPF and paragraph 104 highlights the importance of considering transport issues from the earliest stages of development proposals to ensure that:

- *"a) the potential impacts of development on transport networks can be addressed;*
- *b) opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised – for example in relation to the scale, location or density of development that can be accommodated;*
- *c) opportunities to promote walking, cycling and public transport use are identified and pursued;*
- *d) the environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains; and*
- *e) patterns of movement, streets, parking and other transport considerations are integral to the design of schemes, and contribute to making high quality places."*

Paragraph 105 goes on to state that "*The planning system should actively manage patterns of growth in support of these objectives. Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes…"*

Paragraph 110 states that *"in assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:*

- *a) appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;*
- *b) safe and suitable access to the site can be achieved for all users;*

- *c) the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code; and*
- *d) any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree."*

Paragraph 111 continues to state that '*...development should only be prevented or refused on highway grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe*'.

Paragraph 112 requires that "*applications for development should:*

- *a) give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second - so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;*
- *b) address the needs of people with disabilities and reduced mobility in relation to all modes of transport;*
- *c) create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;*
- *d) allow for the efficient delivery of goods, and access by service and emergency vehicles; and*
- *e) be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations."*

Regional Planning Policy Framework

West Sussex Transport Plan 2011 – 2026 (February 2011)

The West Sussex County Council (WSCC) Local Transport Plan 3 (LTP3) was published in February 2011 and sets out a long-term strategy and implementation plan for making improvements to the transport system throughout the county over a 15-year period. The plan includes 4 strategies to guide WSCC's approach for maintaining, managing and investing in transport and achieving the main objective of improving the quality of life for West Sussex residents.

The overall vision of LTP3, as set out in Part 1 - Long Term Strategy is "to achieve efficient, safe and less congested transport networks, which contribute towards:

- *a more competitive and thriving economy;*
- *reductions in emissions;*
- *improved access to services;*
- *jobs and housing, especially for those in need; and*
- *improved quality of life for all those who live and work within our beautiful and unique County."*

To ensure that identified transport issues are tackled, Part 2 of the LTP3 (Implementation Plan) states the requirement for new development schemes to contribute and support the following objectives:

- *"increasing use of sustainable modes of transport.*
- *improving network efficiency in order to reduce emissions and delays.*
- *improving safety for all road users.*
- *reducing the impact of HGVs on the local community, but in such a way that will support the local economy.*
- *reducing the need to travel."*

More specifically, Part 2 of the LTP3 sets out a number of aims for Worthing that include -

- *"Maintaining roads and public rights of way to a good standard.*
- *All new development should be designed to promote 'local living', for example shops, jobs and homes all being within easy reach of each other.*
- *All development should provide secure cycle parking to meet the needs of the development and be within close proximity to public transport.*
- *Parking provision at new residential development should provide enough spaces to accommodate the expected number of vehicles at the site or provide measures such as car clubs, which reduce the number of vehicles to match the space available.*
- *Encouraging sustainable travel by improving the existing cycle and pedestrian network through improved signage, connecting routes where appropriate and repairing and maintaining surfaces.*
- *Improving pedestrian accessibility throughout the Borough by enhancing existing pedestrian crossings, and providing new pedestrian crossing facilities at identified key locations.*
- *Promoting sustainable transport choices through projects such as Safer Routes to School.*
- *Manage on-street parking to compliment off-street parking provision and reduce the impact of visitor and commuter parking on residential areas."*

West Sussex Walking and Cycling Strategy 2016-2026 (April 2017)

The West Sussex '*Walking and Cycling Strategy (2016-2026*' was published in April 2017 and outlines the design and safety principles for walking and cycling that both the County Council and developers will be expected to follow, when implementing infrastructure schemes. The strategy also provides a mechanism by which schemes can be identified and prioritised, thereby enabling the County Council to direct future investment (such as contributions from future development) and support future funding bids.

The '*Walking and Cycling Strategy*' aims to:

- *"Double levels of cycling by 2025,*
- *Reduce each year the rate of cyclists killed or injured on English roads,*
- *Reverse the decline in walking activity, and*
- *Increase the percentage of children aged 5-10 who usually walk to school."*

The objectives of the strategy are to: -

- *"Ensure that cycling and walking are recognised as important travel modes and therefore part of the transport mix.*
- *Make cycling and walking the natural choice for shorter journeys (such as journeys to school), or as part of a longer journey.*
- *Reduce the number of cyclists and pedestrians that are killed or seriously injured on our roads.*
- *Support economic development by facilitating travel to work and services without a car.*
- *Reduce congestion and pollution by encouraging and enabling people to travel without a car.*
- *Increase levels of physical activity to help to improve physical health.*
- *Help to maintain good mental health and staying independent later in life.*
- *Increase the vitality of communities by improving access by bicycle and on foot.*
- *Help people to access rural areas and enjoy walking and cycling."*

Within Section 3 of the document, it is recognised that the number of cyclists injured in both West Sussex and nationally has increased significantly, primarily due to the growth in vehicular traffic and people travelling by cycle, as opposed to cycling becoming inherently more dangerous. It is further recognised that cycling is more prevalent in urban areas, particularly at junctions. Consequently, to prevent further collisions, infrastructural improvements are required to deliver:

- *Segregated paths following major high speed (40 mph+) corridors,*
- *Leisure facilities that are mainly off-road or less busy lanes,*
- *A safer built-up environment based on area wide safety management and,*
- *Where appropriate, reallocation of road space to create improved facilities.*

In assessing the likely demand for new infrastructure and the characteristics and needs of users, Section 3 of the document states the following design principles will apply:

- *"Cycling and walking are recognised a key part of the transport mix,*
- *All new (development) and improvement / maintenance schemes will consider, and wherever possible prioritise, the needs of cyclists and walkers,*
- *The differing needs of users will be recognised in the design of routes and those needs will, wherever possible, be incorporated e.g. people with pushchairs, equestrians etc.*
- *Deliver sound economic and other benefits with key determinants including:*
    - *Supporting economic growth*
    - *Supporting future development*
    - *Accessibility*
    - *Health*
    - *Air quality*
    - *Carbon reduction*
    - *Safety*
    - *Reducing traffic congestion and delay."*

Section 4 titled '*Supporting Activities*' states that WSCC would continue to work "in partnership with the Local Planning Authorities to secure and agree Travel Plans for appropriate new employment and residential development sites.

Appendix 1 of the '*Walking and Cycling Strategy*' contains a full list of schemes entered by stakeholders sub-divided by scheme type and prioritised high to low by Sutras' Rate tool ranking. Under inter-community leisure cycle schemes, there is an aspiration to provide a cycle route from Goring Station to Patching via Highdown Hill comprising a segregated cycle / walking shared path from Goring station via Goring Crossways, A259 crossing improvements, Highdown Hill bridleway upgrade into SDNP, A280 crossing improvements to Selden / Patching village. It states the delivery of some elements could be included in A259 Highway Scheme.

Local Planning Policy Framework

Worthing Borough Council's Core Strategy (April 2011)

The Worthing Core Strategy was adopted by WBC on 12th April 2011 and forms part of the Local Development Framework used to guide planning and development in the Borough up to 2026 as well as inform decision making on all planning applications.

The vision, as set out in Section 4 of the Core Strategy is that *"by 2026 Worthing will have developed as a town with a healthy and diverse population that contributes fully to its future economic growth and prosperity. Development has provided the impetus for regeneration to ensure that Worthing plays a leading role within the wider sub-region."*

Policy 19 of the Core Strategy concerning Sustainable Travel states that "the Council will work closely with its transport partners to produce a consistent and integrated approach to spatial planning and transport strategies. Utilising common priorities and goals set out in the Statement of Common Ground and the Local Transport Plan will ensure that the travelling environment for residents and visitors is safe, accessible and sustainable. This will be achieved by:

- *Supporting continued improvements to public transport services*
- *Improving walking and cycling networks to create sustainable links between the town centre and suburbs*
- *Producing a car parking strategy for the town centre which will provide a balance between parking demand and overall provision, which will maintain the economic viability of the town centre, whilst promoting it as an area which is safe and accessible for pedestrians and cyclists.*

It further states *"the demands that users have for local public transport services and the impacts that car users have on the surrounding road network will be assessed for all new development. Developer contributions will be sought to implement any necessary measures to reduce local road congestion."*

In addition, Policy 19 states *"major new developments will require the provision of a Transport Assessment, which will specify how it will affect the surrounding transport environment and how it can mitigate against any adverse effects. Where appropriate, new development will require the provision of a Travel Plan and / or a Transport Assessment, which will need to demonstrate what infrastructure is needed to promote the priorities set out in the Local Transport Plan and the Statement of Common Ground."*

Worthing's Local Plan 2003 'Saved' Polices (2007)

Prior to the adoption of WBC's Local Development Framework, Worthing's Local Plan was adopted in September 2003 to provide the main planning framework for the Borough to 2006. However, following changes in legislation and the adoption of the Core Strategy in April 2011, the majority of the Local Plan policies have been superseded or deleted.

In 2004 the Planning and Compulsory Purchase Act specified a period (up to 2007) in which transitional arrangements could be set-up to avoid a policy vacuum during the preparation of emerging Local Development Framework documents. The Secretary of State for Communities and Local Government (DCLG) subsequently allowed Local Planning Authorities to '*save*' specific policies beyond this date. Of the 154 policies set out in Worthing's Local Plan, a total of 29 were '*saved*' to assess development proposals.

Of relevance to the transport and highways aspects of the mixed-use development proposals, Policy TR4 states the requirement for "*development proposals at or on a site adjacent to a railway station should facilitate better interchange facilities with other transport modes and improved rail passenger facilities, as appropriate, and such proposals will be permitted, subject to compliance with all other relevant policies of this Plan.*"

Regarding on-site parking provision, Policy TR9 states that "the consideration of the need for on-site parking provision will be based on the standards in operation at the time of submission of the planning application. Provision in excess of these standards will not be allowed."

It further states "in considering the acceptability of the extent of any reduced on-site parking provision, regard will be given to environmental and highway safety considerations together with the following factors: -

- *i) the availability, type and proximity of public parking;*
- *ii) the availability and proximity of alternative means of transport;*
- *iii) potential highway safety problems;*
- *iv) potential harm arising from the parking demand being accommodated elsewhere;*
- *v) the extent and nature of on street parking restrictions in the vicinity;*
- *vi) the type and scale of development proposed;*
- *vii) the relationship of the proposal with, and the proximity to nearby land uses."*

Other Relevant Documents

Worthing Local Cycling and Walking Infrastructure Plan

In line with the DfT's Cycling and Walking Investment Strategy (CWIS), the Adur and Worthing Council's *'Local Cycling and Walking Infrastructure Plan'* (LCWIP), prepared by Adur & Worthing Councils (A&WC), Sustrans and Transport Initiatives sets a strategy for making cycling and walking the natural choice for shorter journeys. The document supports the development of safe routes for cycling and walking and to increase the uptake of active travel modes within Adur District and Worthing Borough.

The vision of the LCWIP is *"to create a place where walking and cycling becomes the preferred way of moving around Adur and Worthing."* This is encapsulated within the broader vision of creating *"liveable neighbourhoods, commercial, leisure and retail spaces where people want to spend time and where people feel confident to cycle and walk, and parents feel it is safe for children to play without constant supervision."*

The ambition to encourage greater levels of '*active*' travel will be achieved through '*Better Safety*' (a safe and reliable way to travel for short journeys). '*Better Mobility*' (more people cycling and walking – easy, normal, and enjoyable), and '*Better Streets*' (Places that have cycling and walking at their heart).

The scope of the LCWIP is limited to utility trips to work, education and shopping of up to 5.0-kilometres. The approach taken by Sustrans involved conducting a review of all existing identified schemes and proposals in each of the towns in A&WC, followed by identification of gaps in the network with support from local stakeholders and surveying potential routes on foot and cycle. Transport Initiatives role involved analysing the results of consultations, revising the cycling, and walking network plans, and producing the final LCWIP document.

Within the LCWIP, the main existing cycle routes were identified as National Cycle Network (NCN) Route 2 along the seafront between West Worthing and Hove and the Downs Link (NCN Route 223) on the former railway line between Steyning and Shoreham. It was further noted that were some poorer quality routes in Worthing, which comprise narrow advisory cycle lane on busy streets such as the A259 Goring Road.

The LCWIP proposes a secondary cycle route (number 300) measuring approximately 2.9-kilometres in length that extends from West Durrington to the Seafront via a number of key local destinations including Northbrook College and St Oscar Romero High School. Most notably, the LCWIP identified the A2032 Goring Crossways crossing and highway widths as being important issues to address.

As outlined previously, the proposed access strategy incorporates the provision of a two-way segregated cycleways along the eastern side of the A259 Goring Street and either side of the internal access road (including the diverted section of Minor Goring Street). This together with the provision of a Toucan crossing facility along the A259 Goring Street would significantly contribute towards enhancing links to local educational facilities (i.e. St. Oscar Romero Catholic School, Ferring Church of England Primary School, Northbrook College) and major employment opportunities (Martlets Trading Estate) available in Goring-by-Sea, West Durrington and Worthing.

The delivery of new high-quality foot and cycleway infrastructure connecting the residential-led mixed-use development to the surrounding area would in conjunction with a package of '*softer*' measures set out in the Residential Travel Plan (RTP) encourage future households, visitors, and members of the wider community including those with disabilities / health conditions to adopt long-term sustainable travel patterns and behaviour in favour of the private car for various journey purposes.

Appendix 3

Tony Wares

From: Bowie, David <David.Bowie@highwaysengland.co.uk>
Sent: 16 December 2021 12:35
To: Tony Wares; Cleaver, Elizabeth
Cc: Clark, Robert; 'David Hutchison'; Gary Peck; Stephen Gee; Planning SE; SouthEast_HESPA
Subject: RE: AWAP/0035/21 - Land North-west of Goring Station, Goring-by-Sea, West Sussex

Good afternoon Tony,

I apologise for the delay in our response but we have had a relatively short time, all matters considered, to review your further submissions and reach a definitive conclusion over the impacts of the appeal site on the safe and efficient operation of our network. In this instance the A27 Trunk Road.

Having reviewed your submissions we note that the impacts of the appeal site can be accommodated within the planned improvements to the A27/A280 dumbell junction. The appeal site therefore relies upon these improvements and we will therefore require these to be delivered prior to any occupancy on the site. Hence we will withdraw our objection and replace it with a conditional requirement.

I trust that this adequately explains and happy to discuss further if required.

Kind regards

David
David Bowie
Area 4 Spatial Planning Manager (Acting)
Tel: +44 (0) 7900 056130
National Highways | Bridge House | 1 Walnut Tree Close | Guildford | Surrey | GU1 4LZ
Web: http://www.highwaysengland.co.uk
Please note that for the foreseeable future we are all working from home. All meetings will be via telephone, Skype or similar. We will continue to seek to work to our statutory and other deadlines. In case of IT or other issues, as a precaution, please copy all emails to PlanningSE@highwaysengland.co.uk . Thank you.

From: Tony Wares [mailto:twares@milestonetp.co.uk]
Sent: 16 December 2021 11:58
To: Bowie, David <David.Bowie@highwaysengland.co.uk>; Cleaver, Elizabeth <Elizabeth.Cleaver@highwaysengland.co.uk>
Cc: Clark, Robert <robert.clark@persimmonhomes.com>; 'David Hutchison' <david.hutchison@pegasusgroup.co.uk>
Subject: FW: AWAP/0035/21 - Land North-west of Goring Station, Goring-by-Sea, West Sussex
Importance: High

Dear David and Elizabeth,

Please can you confirm, as a matter of urgency, if National Highways will be maintaining their objections to the development proposals?

Kind regards

Tony

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA

d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

From: Tony Wares
Sent: 16 December 2021 09:49
To: 'Cleaver, Elizabeth' <Elizabeth.Cleaver@highwaysengland.co.uk>
Subject: RE: AWAP/0035/21 - Land North-west of Goring Station, Goring-by-Sea, West Sussex

Dear Elizabeth,

As requested, please find below a wetransfer link:

https://we.tl/t-2Lp7fK0V45

To date, I have not received a response from your colleague, David Bowie at National Highways to my e-mail dated 2nd December 2021.

Please can you confirm National Highways position / recommendation to the Inspectorate.

Kind regards

Tony

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA

d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

From: Cleaver, Elizabeth <Elizabeth.Cleaver@highwaysengland.co.uk>
Sent: 16 December 2021 09:28
To: Tony Wares <twares@milestonetp.co.uk>
Subject: RE: AWAP/0035/21 - Land North-west of Goring Station, Goring-by-Sea, West Sussex

Dear Tony

Please could you re-send me this link? I would like to save these files for our records.

Thank you for your help!

Kind regards

Elizabeth Cleaver, Assistant Spatial Planning Manager
National Highways | Bridge House | 1 Walnut Tree Close | Guildford | Surrey | GU1 4LZ
Web: http://nationalhighways.co.uk/

From: Tony Wares <twares@milestonetp.co.uk>
Sent: 02 December 2021 15:12
To: Bowie, David <David.Bowie@highwaysengland.co.uk>
Cc: Planning SE <planningse@highwaysengland.co.uk>; Cleaver, Elizabeth <Elizabeth.Cleaver@highwaysengland.co.uk>; Bown, Kevin <Kevin.Bown@highwaysengland.co.uk>; JONES Derek <djones1@systra.com>; Chiu, Kelly <Kelly.Chiu@highwaysengland.co.uk>; SouthEast_HESPA@systra.com; Spatial Planning <SpatialPlanning@highwaysengland.co.uk>; James Appleton <james.appleton@adur-worthing.gov.uk>; Gary Peck <gary.peck@adur-worthing.gov.uk>; Clark, Robert <robert.clark@persimmonhomes.com>; Edward Hill <EHill@milestonetp.co.uk>
Subject: RE: AWAP/0035/21 - Land North-west of Goring Station, Goring-by-Sea, West Sussex

Dear David,

Further to our e-mail correspondence, please find below a wetransfer link to an updated version of the Transport Assessment Addendum that addresses your comments.

In addition, I have included the Junction 9 model files for both the revised methodology and updated modelling assessment that includes all of the WBC Local Plan sites.

https://we.tl/t-aG50koGNgT

Please do not hesitate to contact me on 01483 397881 if you have any questions / require additional information.

Kind regards

Tony

Tony Wares
Milestone Transport Planning Ltd

Abbey House, 282 Farnborough Road,
Farnborough, Hants, GU14 7NA

d: 01483 397881 | t: 01483 397888

e: twares@milestonetp.co.uk
w: www.milestonetp.co.uk

From: Bowie, David <David.Bowie@highwaysengland.co.uk>
Sent: 03 November 2021 13:40
To: Tony Wares <twares@milestonetp.co.uk>
Cc: Planning SE <planningse@highwaysengland.co.uk>; Cleaver, Elizabeth <Elizabeth.Cleaver@highwaysengland.co.uk>; Bown, Kevin <Kevin.Bown@highwaysengland.co.uk>; JONES Derek <djones1@systra.com>; Chiu, Kelly <Kelly.Chiu@highwaysengland.co.uk>; SouthEast_HESPA@systra.com; Spatial Planning <SpatialPlanning@highwaysengland.co.uk>; James Appleton <james.appleton@adur-worthing.gov.uk>; Gary Peck <gary.peck@adur-worthing.gov.uk>
Subject: AWAP/0035/21 - Land North-west of Goring Station, Goring-by-Sea, West Sussex

For attention of:	Mr Tony Wares

Site:	Land North-west of Goring Station, Goring-by-Sea, West Sussex
Proposal:	Mixed use development comprising up to 475 dwellings along with associated access, internal roads and footpaths, car parking, public open space, landscaping, local centre (uses including A1, A2, A3, A4, A5, D1, D2, as proposed to be amended to use classes E, F and Sui Generis) with associated car parking, car parking for the adjacent railway station, undergrounding of overhead HV cables and other supporting infrastructure and utilities (Outline with all matters reserved)
Your Reference:	AWAP/0035/21
National Highways' Reference:	90124 / #15060

Dear Tony,

Further to our previous communications with regard to Land North-west of Goring Station, Goring-by-Sea, West Sussex planning application AWAP/0035/21 which was subsequently refused by the council on matters including traffic, I am advised that the proposal is now at appeal. Previously because of the refusal and our Team work load I refrained from reviewing your Transport Assessment Addendum (TAA), dated March 2021, which sort to address my concerns with the application in its then present form. I have now reviewed your Addendum Report.

National Highways (formerly Highways England) has been appointed by the Secretary of State for Transport as strategic high way company under the provisions of the Infrastructure Act 2015 and is the highway authority, traffic authority and street authority for the strategic road network (SRN). The SRN is a critical national asset and as such we work to ensure that it operates and is managed in the public interest, both in respect of current activities and needs as well as in providing effective stewardship of its long-term operation and integrity.

We will be concerned with proposals that have the potential to impact on the safe and efficient operation of the SRN, in this case the A27 Worthing.

Following my review of your TAA document please note the following comments:

Baseline Highway Conditions

We see that the Personal Injury Accident analysis has been extended to cover the entire section of Titnore Lane and the A280 / A27 Titnore Lane dumbbell roundabout junction, as requested. However, until the implications of the proposed development on the SRN are agreed and understood, we cannot comment at this point as to whether the proposed development would be likely to exacerbate existing accident types and patterns.

Action: When the implications of the proposed development on the SRN are agreed and understood, we will provide further comment as to whether the proposed development would be likely to exacerbate existing accident types and patterns.

Proposed Residential Vehicular Trip Generation

The TAA states that a residential development scenario of 505 units was used in the original TA's Highway and Traffic Impact Assessments for robustness. We note that you have presented equivalent multi-modal trip generation figures for this 505 unit scenario in Table 1 of the TAA, as requested by us.

We observe that both this TAA and the revised TAA for WSCC are now based on a residential development scenario of 475 units for which consent is being sought. This matter is now closed.

Proposed Total Vehicular Trip Generation

We see that the total development flows presented in Table 6.9 and Figures 20 and 21 of the TA have now been superseded and that the total number of vehicular movements expected to be generated by the proposals is now presented in Table 2 of the TAA. This is accepted.

Future Year Scenarios

The traffic growth figures taken from TEMPro and applied to the baseline traffic scenarios have now been derived using 'Trunk' road growth rates, as requested by us. We welcome the data provided in Table 3 of the TAA providing details of the minor impacts of this change on traffic flows.

Action: We reserve comment on this matter until such time our action points with regards to background growth have been satisfactorily resolved.

Development Trip Distribution/Assignment

We welcome that trips to Chichester and Horsham are likely to take place via Titnore Lane/A27(W) and Titnore Lane/A280(N) respectively. Whilst the revised trip distribution figures are presented in Appendix 4 of the TAA, traffic flow diagrams showing how these traffic re-allocations are distributed around the local road network need to be provided to allow ease of identification of where changes to traffic flows have occurred.

Action: Whilst the revised trip distribution figures are presented in Appendix 4 of the TAA, traffic flow diagrams showing how these traffic re-allocations are distributed around the local road network need to be provided to allow ease of identification of where changes to traffic flows have occurred.

Background Growth

The TAA states that you were asked by WSCC to re-assess the level of background traffic growth by removing a number of Worthing BC Local Plan sites from the highway and traffic assessments, in order to avoid 'double counting' or over-estimation of the impact of Local Plan sites on the local highway network. This methodology has resulted in inclusion of only 6 out of 19 Local Plan sites in the assessment. This revised methodology will also impact on the assessment at the SRN junction of A27 / A280 / Titnore Lane. Evidence needs to be provided on how the traffic flows derived from this methodology compare with those presented in the original TA at this junction, in order to allow us to assess the change in traffic impacts of the new assessment methodology. Never the less it should be noted that for the SRN, DfT Circular 2/2013 requires an assessment of end of Local Plan Period with full build out of all allocated sites in the Plan. As you are aware the Local Plan is now at Examination in Public and therefore we must assume that the plan is sound until advised otherwise.

Action: Evidence is required to confirm that WSCC have accepted the revised methodology with regards to background growth. Also, evidence needs to be provided on how the traffic flows derived from this methodology compare with those presented in the original TA at this junction, in order to allow us to assess the change in traffic impacts of the new assessment methodology. The requirement of DfT Circular 2/2013 needs to be robustly demonstrated.

Junction Modelling

We note your clarification of the differences between the 2031 base traffic scenario from the Land North of Water Lane TA and the 2033 base scenario from the original MTS TA.

Table 7.14 from the original TA compares the 2033 Base case with a 2033 Base + Development scenario at the Arundel Road/A280/A27 junction, which shows the A27 off-slip to operate better in the AM with development, despite an increase in traffic flows. The TAA attributes this anomaly to the Junctions 9 software assuming that two vehicles can enter the roundabout from the slip road at the same time. The outcome of improved performance at this junction still appears unlikely and we therefore request the opportunity to perform our own review of the Junctions 9 modelling files, to ensure we can be satisfied that the model gives an accurate representation of current junction performance and that the junction will operate effectively.

Action: Junctions 9 model files and outputs are requested for our review.

Updated Junction Modelling

We observe that updated junction modelling has been carried out to reflect a committed improvement for the A280/A27/Titnore Lane dumbbell roundabout.

Table 9 of the TAA presents a summary of the outputs of the updated junction modelling at the A280/A27/Titnore Lane junction. The table shows the A280 south-western approach to operate more effectively in the AM with the development than without. This is an unlikely outcome which requires further investigation. We therefore request the opportunity to perform our own review the Junctions 9 modelling files and outputs for this junction.

Action: Junctions 9 model files and outputs are requested for our review.

Conclusion

Regrettably, as it stands the TAA does not provide us with sufficient detail to fully demonstrate that the development would not have a severe impact on the SRN. Therefore at this time we will be making a recommendation for refusal to the Inspectorate. However, we would welcome the opportunity to work with you to develop the proposals for this site, to ensure that that they do not have a detrimental impact on the SRN. As time is short with exchange of evidence set just prior to Christmas it would be beneficial to agree as much as we can if not all outstanding matters such that we can enter a Statement of Common Ground. I therefore encourage you to consider the above matters and come back to me a soon as practicable to ensure we both avoid potentially abortive work. I spoke with your client Mr Clarke yesterday on this matter at Worthing Local Plan EIP but unfortunately I do not have his email address to copy this communication so would be most grateful if you could forward for me please as he requested a copy.

If you have any queries, please do not hesitate to contact us at planningse@highwaysengland.co.uk.

Kind regards

David
David Bowie
Area 4 Spatial Planning Manager (Acting)
Tel: +44 (0) 7900 056130

National Highways | Bridge House | 1 Walnut Tree Close | Guildford | Surrey | GU1 4LZ
Web: http://www.highwaysengland.co.uk
Please note that for the foreseeable future we are all working from home. All meetings will be via telephone, Skype or similar. We will continue to seek to work to our statutory and other deadlines. In case of IT or other issues, as a precaution, please copy all emails to PlanningSE@highwaysengland.co.uk . Thank you.

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Appendix 4

WBC Local Plan Sites Included in Transport Assessment

Worthing Local Plan Transport Assessment Sites	Site Name	Development	Vehicular Traffic Movements						Vehicular Traffic Movements (Adjusted to Reflect New Trips / Net Impact)					
			AM Peak			PM Peak			AM Peak			PM Peak		
			Arrivals	Departures	Total	Arrivals	Departures	Total	Arrivals	Departures	Total	Arrivals	Departures	Total
1	Stagecoach, Marine Parade	60 units (Class C3)	5	12	17	10	5	15	5	12	17	10	5	15
2	Grafton	150 units (Class C3) and 2,979 sq.m of retail (Class A1)	16 (12)	30 (30)	0	54 (25)	45 (12)	0	12	30	42	25	12	37
3	Union Place	250 units (Class C3); 2322 sq.m of retail (Class A1); and 6,000 sq.m of leisure (Class D2)	38 (20)	64 (51)	0	162 (42)	131 (21)	0	20	51	71	42	21	63
4	Teville Gate	450 units (Class C3); 2,780 sq.m (Class B1); 12,000 sq.m of retail (Class A1); and 11,000 sq.m of leisure (Class D2)	89 (43)	119 (94)	0	374 (77)	332 (45)	0	43	94	137	77	45	122
5	British Gas Site, Lyndhurst Road	85 units (Class C3)	11	34	45	28	17	45	11	34	45	28	17	45
6	Martlets Way	50 units (Class C3); 2,700 sq.m of office (Class B1); and 2,700 sq.m of industrial (Class Uses B2 / B8)	57	32	89	25	50	75	57	32	89	25	50	75
7	Decoy Farm	21,200 sq.m of office (Class B1) and 28,800 sq.m of commercial (Class Uses B2 / B8)	418	103	521	71	336	407	418	103	521	71	336	407
8	HMRC Offices, Barrington Road	500 units (Class C3); 9,300 sq.m of office (Class B1); and 9,300 sq.m of industrial (Use Class B2 / B8)	240	240	480	195	240	435	240	240	480	195	240	435
9	Centenary House	100 units (Class C3) and 2,740 sq.m of food retail (Class A1)	141 (13)	126 (40)	0	223 (33)	217 (20)	0	13	40	53	33	20	53
10	Land South of Stoke Abbott Road	64 units (Class C3) and 720 sq.m of GP Surgery (Class D1)	31	25	56	24	24	48	31	25	56	24	24	48
11	Worthing Leisure Centre	160 units (Class C3) and 3,566 sq.m of leisure centre (Class D2)	40 (21)	80 (64)	0	93 (53)	75 (33)	0	21	64	85	53	75	128
12	North of Beeches Avenue	90 units (Class C3)	12	36	48	30	18	48	12	36	48	30	18	48
13	Worthing United FC	60 units (Class C3)	8	24	32	20	12	32	8	24	32	20	12	32
14	Upper Brighton Road	123 units (Class C3)	16	49	65	41	25	66	16	49	65	41	25	66
15	Goring – Ferring Gap	354 units (Class C3)	47	141	188	118	72	190	47	141	188	118	72	190
16	Caravan Club, Titnore Way	75 units (Class C3)	10	30	40	25	15	40	10	30	40	25	15	40
17	West of Fulbeck Avenue	40 units (Class C3)	5	16	21	13	8	21	5	16	21	13	8	21
18	North of West Durrington	240 units (Class C3)	32	96	128	80	49	129	32	96	128	80	49	129
19	Land East of Titnore Lane	126 units (Class C3)	17	50	67	42	26	68	17	50	67	42	26	68
TOTAL			**1233**	**1307**	**2540**	**1628**	**1697**	**3325**	**1018**	**1167**	**2185**	**952**	**1070**	**2022**

Other Sites in Arun District Included in Transport Assessment

Arun District Council Sites	Site Name	Development	Vehicular Traffic Movements					
			AM Peak			PM Peak		
			Arrivals	Departures	Total	Arrivals	Departures	Total
1	Land North of Water Lane, Angmering	525 units (Class C3); 6,000 sq.m (Class B1).	146	183	329	153	156	309
2	Land South of Water Lane, Angmering	175 residential units (Class C3)	22	53	75	48	29	77
3	Manor Nurseries	32 units (Class C3)	4	11	15	10	6	16
4	Swanbourne Park: Barrat Homes	100% occupied at time of 2018 baseline traffic surveys	0	0	0	0	0	0
5	Pound Place Nursing Home	(62-Beds)	7	4	11	3	6	9
6	Worthing Rugby Club	245 units (Class C3)	38	108	146	104	57	161
7	Cresswell Park: Cala Homes	246 (Class C3) - 56% unoccupied at time of 2018 baseline traffic surveys	22	60	82	58	32	90
8	Quiet Waters Scheme	30 units (Class C3)	5	14	19	13	7	20
TOTAL			**244**	**433**	**677**	**389**	**293**	**682**

WBC Local Plan Sites Included in VISSIM Re-Run.

Draft Worthing Local Plan Site Allocations	Site Name	Development	Vehicular Traffic Movements						Vehicular Traffic Movements (Adjusted to Reflect New Trips / Net Impact)					
			AM Peak			PM Peak			AM Peak			PM Peak		
			Arrivals	Departures	Total	Arrivals	Departures	Total	Arrivals	Departures	Total	Arrivals	Departures	Total
A1	Beeches Avenue	90 residential units (Use Class C3)	12	36	48	30	18	48	12	36	48	30	18	48
A2	Caravan Club, Titnore Lane	100 residential units (Use Class C3)	13	40	53	33	20	53	13	40	53	33	20	53
A3	Centenary House	250 residential units (Use Class C3) & 10,000 sqm employment floorpsace	33	100	133	83	50	133	33	100	133	83	50	133
A4	Stoke Abbott Road	Integrated Health Hub	101	51	152	60	88	148	0	0	0	0	0	0
A5	Decoy Farm	Minimum of 18,000 sqm employment land	150	37	188	26	121	147	150	37	188	26	121	147
A6	Land West of Fulbeck Avenue	120 residential units (Use Class C3)	8	33	41	31	14	45	8	33	41	31	14	45
A7	Grafton	150 residential units (Use Class C3) & 2500 sqm commercial	12	30	42	25	12	37	12	30	42	25	12	37
A8	HMRC Offices, Barrington Road	250 residential units & provision of care home/sheltered accommodation	28	124	152	101	42	143	-328	92	-236	59	-207	-148
A9	Lyndhurst Road	209 residential units (Use Class C3)	9	47	56	33	17	50	9	47	56	33	17	50
A10	Martlets Way	10,000 sqm employment	98	41	139	31	85	116	98	41	139	31	85	116
A11	Stagecoach Marine Parade	60 residential units (Use Class C3) & 2000 sqm commercial	5	12	17	10	5	15	5	12	17	10	5	15
A12	Teville Gate	250 residential units (Use Class C3) & 4000 sqm commercial	14	50	64	45	23	68	14	50	64	45	23	68
A13	Titnore Lane	60 residential units (Use Class C3)	8	24	32	20	12	32	8	24	32	20	12	32
A14	Union Place	150 residential units (Use Class C3) and 700 sqm leisure / commercial	1	23	24	21	13	34	1	23	24	21	13	34
A15	Upper Brighton Road	123 residential units (Use Class C3)	16	49	65	41	25	66	16	49	65	41	25	66
	Land North of West Durrington	240 residential units (Use Class C3)	36	87	123	91	55	146	36	87	123	91	55	146
TOTAL			**510**	**697**	**1206**	**590**	**546**	**1136**	**89**	**701**	**789**	**579**	**264**	**843**

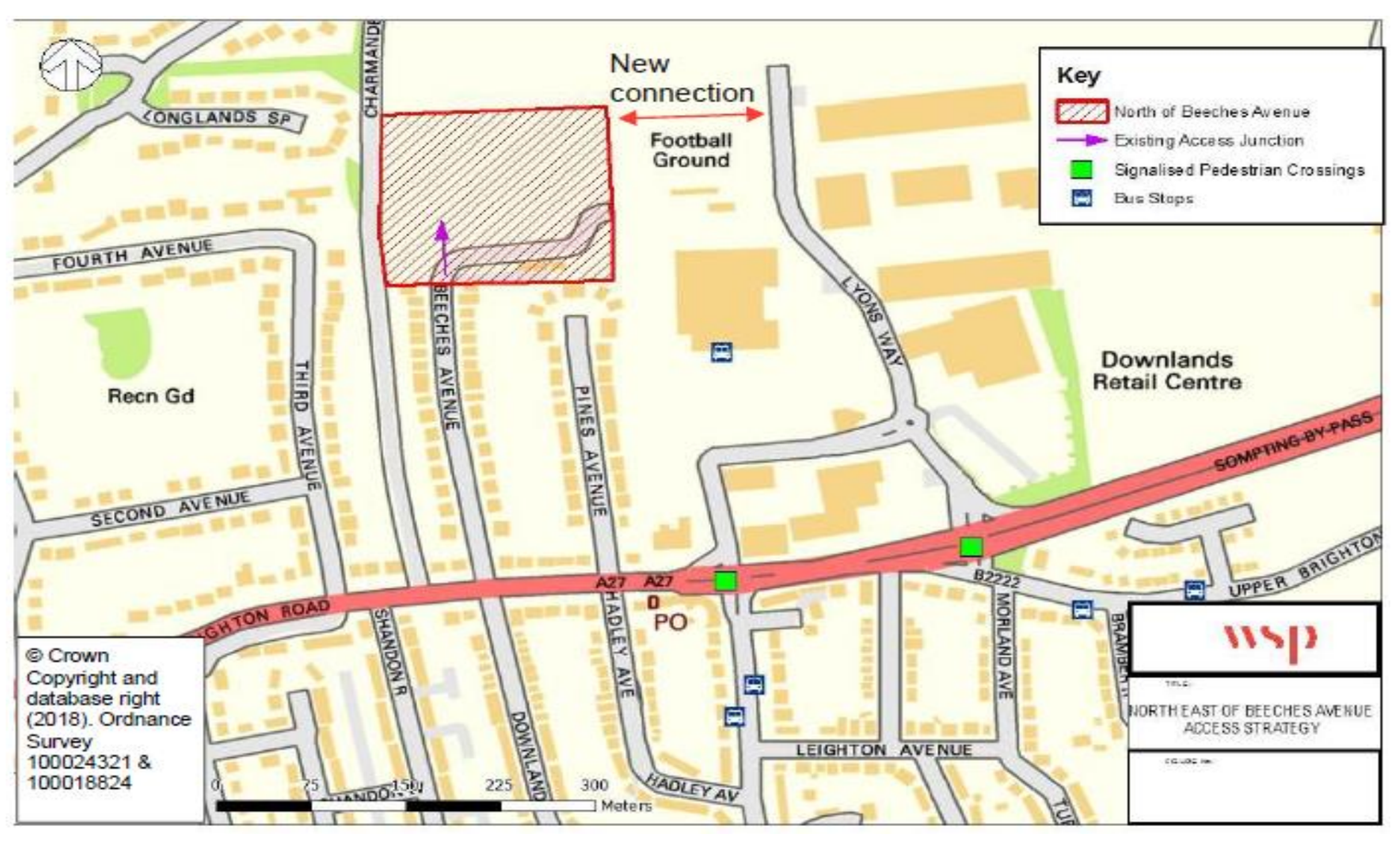
Legend	
	To be included in VISSIM model re-run
	Sites excluded from VISSIM model
	Sites included in original VISSIM model run.

Beeches Avenue	WORTHING 004

Type	Promoted	Consented
Residential	90	-

Trip Generation

Promoted Vehicular Trips			
AM		PM	
Arrivals	Departures	Arrivals	Departures
12	36	30	18



Trip Distribution

WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)

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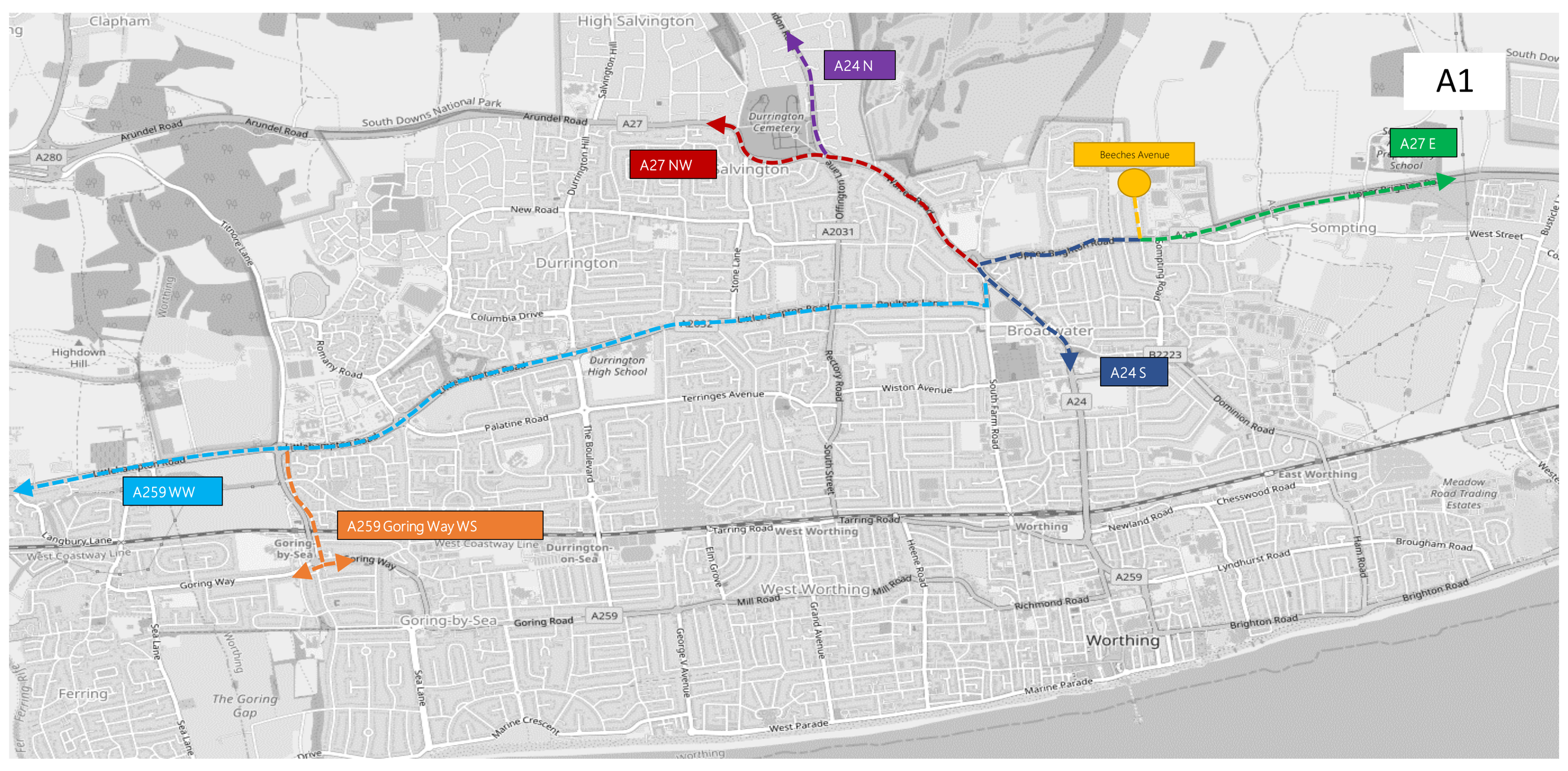
population	All usual residents aged 16 and over in employment the week before the census
units	Persons
date	2011
usual residence	E02006624 : Worthing 004 (2011 super output area - middle layer)

Place of work : 2011 super output area	Location	Driving a car or van	Route				Share	
			Route 1	Weight	Route 2	Weight	Main	Alt
E02006621 : Worthing 001	High Salvington	39	NW				2.0%	-
E02006622 : Worthing 002	Ashacre Ln	30	-				1.5%	-
E02006623 : Worthing 003	Durrington	41	-				2.1%	-
E02006624 : Worthing 004	First Ave	74	-				3.8%	-
E02006625 : Worthing 005	Penfold Rd	79	-				4.0%	-
E02006626 : Worthing 006	Northbrook College	53	W				2.7%	-
E02006627 : Worthing 007	Terringes Ave	60	S				3.1%	-
E02006628 : Worthing 008	West Court Road	69	S				3.5%	-
E02006629 : Worthing 009	Meadow Rd Trading Estates	57	E				2.9%	-
E02006630 : Worthing 010	Heene Rd	52	S				2.7%	-
E02006631 : Worthing 011	Wallace Ave	342	S				17.5%	-
E02006632 : Worthing 012	Hailsham Rd	24	S				1.2%	-
E02006633 : Worthing 013	Goring Centre	85	WS				4.4%	-
E02006542 : Arun 001	Arundel	7	NW				0.4%	-
E02006543 : Arun 002	Patching/Findon	28	N				1.4%	-
E02006544 : Arun 003	Eastergate	3	NW				0.2%	-
E02006545 : Arun 004	North Littlehampton	26	NW	0.5	WW	0.5	0.7%	0.67%
E02006546 : Arun 005	Angmering	8	NW				0.4%	-
E02006547 : Arun 006	Yapton	7	NW				0.4%	-
E02006548 : Arun 007	Rustington	16	WW				0.8%	-
E02006549 : Arun 008	Ferring	13	WS				0.7%	-
E02006550 : Arun 009	Littlehampton Academy	3	NW				0.2%	-
E02006551 : Arun 010	Rustington/Ferring	13	WW				0.7%	-
E02006552 : Arun 011	Littlehampton Centre	12	NW				0.6%	-
E02006553 : Arun 012	North Bersted	4	NW				0.2%	-
E02006555 : Arun 014	Bognor Regis Hospital	9	NW				0.5%	-
E02006556 : Arun 015	Felpham	3	NW				0.2%	-
E02006558 : Arun 017	Bognor Regis	4	NW				0.2%	-
E02006560 : Arun 019	Nytimber	1	N				0.1%	-
	Lancing	170	E				8.7%	-
	Brighton	147	E				7.5%	-
	Horsham	120	N				6.2%	-
	Sussex	66	E				3.4%	-
	Crawley	54	E				2.8%	-
	Chichester	47	NW				2.4%	-
	Surrey	35	E				1.8%	-
	London	34	E				1.7%	-
	Lewes	26	E				1.3%	-
	Gatwick	18	E				0.9%	-
	Kent	14	E				0.7%	-
	Hants	9	NW				0.5%	-
	Havant	8	NW				0.4%	-
	North	7	E				0.4%	-
	Eastbourne	7	E				0.4%	-
	Norfolk	7	E				0.4%	-
	Portsmouth	4	NW				0.2%	-
	Berks	3	E				0.2%	-
	Fareham	3	NW				0.2%	-
	Essex	2	E				0.1%	-
	Southampton	2	NW				0.1%	-
	Cornwall	2	NW				0.1%	-
	Oxford	2	E				0.1%	-
	Dorset	1	NW				0.1%	-
	Wales	1	E				0.1%	-
TOTAL	1,951	1,951					99.3%	

Direction	%	Route	AM Peak		PM Peak	
			Arrivals	Departures	Arrivals	Departures
N	7.6%	Beeches Avenue / A27 Upper Brighton Road / A27 Warren Road / A24 Findon Road	0	3	2	1
E	33.3%	Beeches Avenue / A27 Upper Brighton Road / Sompting By-Pass	0	12	10	6
S	28.0%	Beeches Avenue / A27 Upper Brighton Road / A24 Broadwater Street West	0	10	8	5
W	2.7%	Beeches Avenue / A27 Upper Brighton Road	0	1	1	0
WW	2.2%	Beeches Avenue / A27 Upper Brighton Road / A2032 Poulters Lane / A2032 Littlehampton Road	0	1	1	0
NW	9.6%	Beeches Avenue / A27 Upper Brighton Road / A27 Warren Road / A27 Crockhurst Hill	0	3	3	2
WS	5.0%	Beeches Avenue / A27 Upper Brighton Road / A2032 Poulters Lane / Littlehampton Road / A259 Goring Street	0	2	2	1
-	11.5%		0	0	0	0
TOTAL	100%		0	32	27	16
			0	**4**	**3**	**2**



Caravan Club, Titnore Lane

Type	Promoted	Consented
Residential	100	-

Trip Rates

Promoted Vehicular Trips			
AM		PM	
Arrivals	Departures	Arrivals	Departures
0.133	0.400	0.333	0.200

Trip Generation

Promoted Vehicular Trips			
AM		PM	
Arrivals	Departures	Arrivals	Departures
13	40	33	20

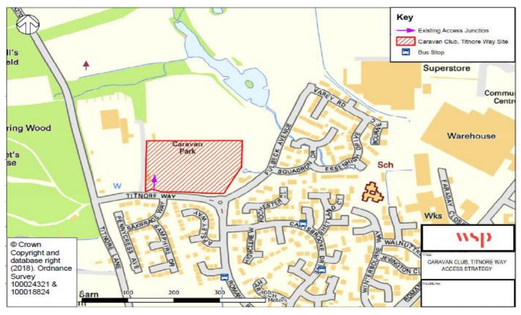
Trip Distribution

WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)

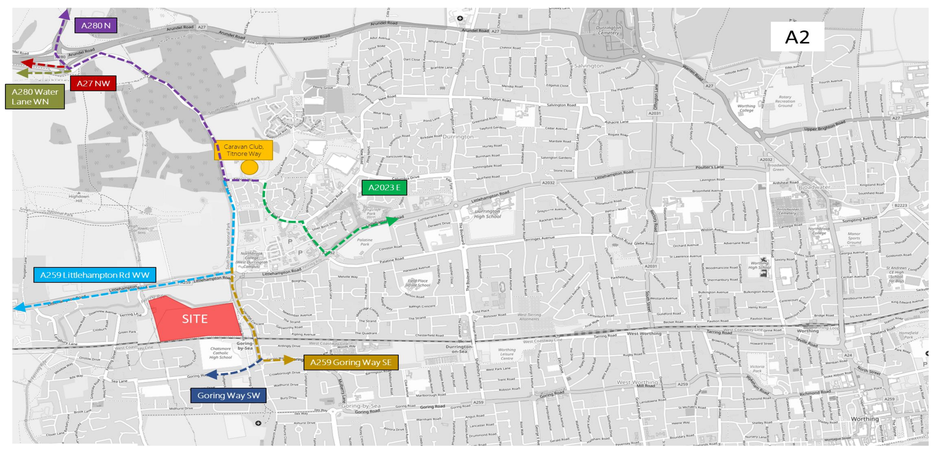
population	All usual residents aged 16 and over in employment the week before the census
units	Persons
date	2011
usual residence	E02006626 : Worthing 006 (2011 super output area - middle layer)

Place of Work : 2011 Super Output Area - Middle Layer	Location	Driving a car or van	Route				Share	
			Route 1	Weight	Route 2	Weight	Main	Alt
E02006621 : Worthing 001	High Salvington	42	E				2.3%	-
E02006622 : Worthing 002	Ashacre Ln	24	E				1.3%	-
E02006623 : Worthing 003	Durrington	76	E				4.2%	-
E02006624 : Worthing 004	First Ave	35	E				1.9%	-
E02006625 : Worthing 005	Penfold Rd	88	E				4.9%	-
E02006626 : Worthing 006	Northbrook College	53	S	0.7	E	0.3	2.1%	0.88%
E02006627 : Worthing 007	Terringes Ave	46	E				2.6%	-
E02006628 : Worthing 008	West Court Road	33	E				1.8%	-
E02006629 : Worthing 009	Meadow Rd Trading Estates	61	E				3.4%	-
E02006630 : Worthing 010	Heene Rd	46	E				2.6%	-
E02006631 : Worthing 011	Wallace Ave	288	E	0.5	SE	0.5	8.0%	8.01%
E02006632 : Worthing 012	Hailsham Rd	35	E	0.5	SE	0.5	1.0%	0.97%
E02006633 : Worthing 013	Goring Centre	88	SE				4.9%	-
E02006542 : Arun 001	Arundel	11	NW				0.6%	-
E02006543 : Arun 002	Patching/Findon	23	N	0.5	NE	0.5	0.6%	0.64%
E02006544 : Arun 003	Eastergate	9	N				0.5%	-
E02006545 : Arun 004	North Littlehampton	30	WN	0.5	WW	0.5	0.8%	0.83%
E02006546 : Arun 005	Angmering	25	WN				1.4%	-
E02006547 : Arun 006	Yapton	16	NW	0.5	WW	0.5	0.4%	0.44%
E02006548 : Arun 007	Rustington	24	WW				1.3%	-
E02006549 : Arun 008	Ferring	30	SW				1.7%	-
E02006550 : Arun 009	Littlehampton Academy	15	WW				0.8%	-
E02006551 : Arun 010	Rustington/Ferring	11	WW				0.6%	-
E02006552 : Arun 011	Littlehampton Centre	27	WW				1.5%	-
E02006553 : Arun 012	North Bersted	2	NW	0.6	WW	0.4	0.1%	0.04%
E02006555 : Arun 014	Bognor Regis Hospital	1	NW	0.6	WW	0.4	0.0%	0.02%
E02006556 : Arun 015	Felpham	4	WW	0.5	NW	0.5	0.1%	0.11%
E02006557 : Arun 016	Bognor Regis	1	NW	0.6	WW	0.4	0.0%	0.02%
E02006558 : Arun 017	Bognor Regis	5	NW	0.6	WW	0.4	0.2%	0.11%
	Horsham	133	N				7.4%	-
	Brighton	94	E				5.2%	-
	Adur	78	E				4.3%	-
	Crawley	52	N	0.5	E	0.5	1.4%	1.45%
	Chichester	42	NW				2.3%	-
	Lancing	41	E				2.3%	-
	Surrey	40	N				2.2%	-
	Mid Sussex	34	E				1.9%	-
	London	29	N				1.6%	-
	Lewes	24	E				1.3%	-
	Gatwick	18	N	0.5	E	0.5	0.5%	0.50%
	Hampshire	9	NW				0.5%	-
	Kent	8	E				0.4%	-
	Norwich	6	N				0.3%	-
	Hertfordshire	5	N				0.3%	-
	Portsmouth	5	NW				0.3%	-
	Havant	3	NW				0.2%	-
	Nottinghamshire	3	N				0.2%	-
	Liverpool	2	N				0.1%	-
	Norfolk	2	E				0.1%	-
	Gosport	2	NW				0.1%	-
	Winchester	2	NW				0.1%	-
	Wiltshire	2	NW				0.1%	-
	Basingstoke	2	NW				0.1%	-
	Cornwall	2	NW				0.1%	-
	Tyne and Wear	1	N				0.1%	-
	Cheshire	1	N				0.1%	-
	Northamptonshire	1	N				0.1%	-
	Warwickshire	1	N	0.6	NW	0.4	0.0%	0.02%
	West Midlands	1	N	0.6	NW	0.4	0.0%	0.02%
	Essex	1	N	0.5	E	0.5	0.0%	0.03%
	Berkshire	1	N				0.1%	-
	Buckinghamshire	1	N				0.1%	-
	Eastbourne	1	E				0.1%	-
	Oxfordshire	1	N				0.1%	-
	Wales	1	NW				0.1%	-
TOTAL		1,798					85.9%	14.1%

100.0%



Direction	%	Route	AM Peak		PM Peak	
			Arrivals	Departures	Arrivals	Departures
N	15.6%	Titnore Lane / A280 Long Furlough	2	6	5	3
NE	0.6%	Titnore Lane / A27 Arundel Road [EB]	0	0	0	0
E	52.6%	Titnore Way/ Romany Road/ Yeoman Road/ A2032 Littlehampton Road	7	21	18	11
WW	5.9%	Titnore Lane / A259 Littlehampton Road	1	2	2	1
NW	5.4%	Titnore Lane / A27 Arundel Road [WB]	1	2	2	1
WN	2.2%	Titnore Way / A280 Water Lane	0	1	1	0
S	2.1%	Titnore Way SB	0	1	1	0
SE	13.9%	Titnore Way / A259 [Goring Street / Goring Way]	2	6	5	3
SW	1.7%	Titnore Way / A259 Goring Street / Goring Way WB	0	1	1	0
TOTAL	100%		13	40	33	20
			4	**12**	**10**	**6**



Centenary House	WORTHING 003

Type	Promoted	Consented
Residential	250	-
Commercial Retail	10,000 sqm employment floorpsace	

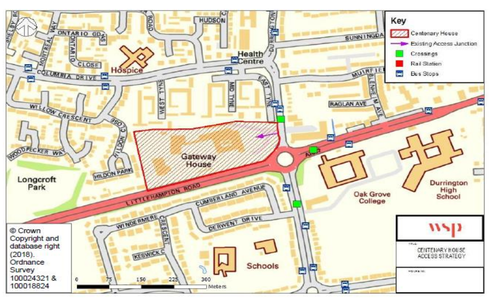
Trip Rates

Promoted Vehicular Trips			
AM		PM	
Arrivals	Departures	Arrivals	Departures
0.133	0.400	0.333	0.200

Trip Generation

Promoted Vehicular Trips			
AM		PM	
Arrivals	Departures	Arrivals	Departures
33	100	83	50

Trip Distribution



WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)
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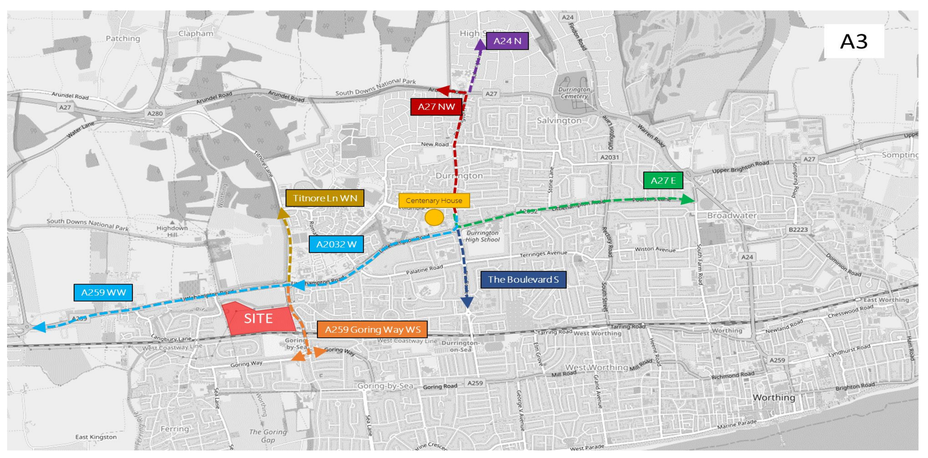
population	All usual residents aged 16 and over in employment the week before the census
units	Persons
date	2011
usual residence	E02006623 : Worthing 003 (2011 super output area - middle layer)

Place of Work : 2011 Super Output Area - Middle Layer	Location	Driving a car or van	Route				Share Main	Share Alt
			Route 1	Weight	Route 2	Weight		
E02006621 : Worthing 001	High Salvington	36	N				1.74%	-
E02006622 : Worthing 002	Ashacre Ln	25	E				1.21%	-
E02006623 : Worthing 003	Durrington	94	n/a				4.55%	-
E02006624 : Worthing 004	First Ave	51	E				2.47%	-
E02006625 : Worthing 005	Penfold Rd	103	E				4.98%	-
E02006626 : Worthing 006	Northbrook College	55	W				2.66%	-
E02006627 : Worthing 007	Terringes Ave	86	S				4.16%	-
E02006628 : Worthing 008	West Court Road	40	E				1.94%	-
E02006629 : Worthing 009	Meadow Rd Trading Estates	73	E				3.53%	-
E02006630 : Worthing 010	Heene Rd	68	S				3.29%	-
E02006631 : Worthing 011	Wallace Ave	321	S				15.53%	-
E02006632 : Worthing 012	Hailsham Rd	31	S				1.50%	-
E02006633 : Worthing 013	Goring Centre	127	S	0.5	WS	0.5	3.07%	3.07%
E02006542 : Arun 001	Arundel	4	NW				0.19%	-
E02006543 : Arun 002	Patching/Findon	36	WN				1.74%	-
E02006544 : Arun 003	Eastergate	7	WW				0.34%	-
E02006545 : Arun 004	North Littlehampton	30	WW				1.45%	-
E02006546 : Arun 005	Angmering	32	WN	0.5	WW	0.5	0.77%	0.77%
E02006547 : Arun 006	Yapton	9	WW	0.5	NW	0.5	0.22%	0.22%
E02006548 : Arun 007	Rustington	17	WW				0.82%	-
E02006549 : Arun 008	Ferring	31	WS				1.50%	-
E02006550 : Arun 009	Littlehampton Academy	8	WW				0.39%	-
E02006551 : Arun 010	Rustington/Angmering	13	WW				0.63%	-
E02006552 : Arun 011	Littlehampton Centre	22	WW				1.06%	-
E02006553 : Arun 012	North Bersted	4	WW	0.5	NW	0.5	0.10%	0.10%
E02006554 : Arun 013	Middleton on Sea	1	WW				0.05%	-
E02006555 : Arun 014	Bognor Regis Hospital	8	WW	0.5	NW	0.5	0.19%	0.19%
E02006556 : Arun 015	Felpham	1	WW	0.5	NW	0.5	0.02%	0.02%
E02006558 : Arun 017	Bognor Regis	10	WW	0.5	NW	0.5	0.24%	0.24%
	Lancing	146	E				7.06%	-
	Horsham	141	E				6.82%	-
	Brighton	131	E				6.34%	-
	Crawley	59	NW				2.85%	-
	Chichester	51	E				2.47%	-
	Surrey	34	E				1.64%	-
	Gatwick	31	E				1.50%	-
	Sussex	31	E				1.50%	-
	London	23	E				1.11%	-
	Lewes	16	E				0.77%	-
	Guildford	10	E				0.48%	-
	North	9	E				0.44%	-
	Kent	7	E				0.34%	-
	Berks	4	E				0.19%	-
	Essex	4	E				0.19%	-
	Hants	4	NW	0.5	E	0.5	0.10%	0.10%
	Fareham	3	NW				0.15%	-
	Havant	3	NW				0.15%	-
	Norfolk	3	E				0.15%	-
	Oxford	3	E				0.15%	-
	Bucks	2	E				0.10%	-
	Croydon	2	E				0.10%	-
	Wilts	2	NW				0.10%	-
	Devon	1	NW				0.05%	-
	Eastbourne	1	E				0.05%	-
	Petersfield	1	NW				0.05%	-
	Portsmouth	1	NW				0.05%	-
	Southampton	1	NW				0.05%	-
TOTAL		2,067					95.3%	4.7%

Direction	%	Route	AM Peak		PM Peak	
			Arrivals	Departures	Arrivals	Departures
N	1.7%	Durrington Lane / Durrington Hill / Salvington Hill	1	2	1	1
NW	4.5%	Durrington Lane / Durrington Hill / A27 Arundel Road	2	5	4	2
E	45.6%	Durrington Lane / A2032 Littlehampton Road / A2032 Poulters Lane	15	46	38	23
S	27.6%	Durrington Lane / The Boulevard	9	28	23	14
W	2.7%	Durrington Lane / A2032 Littlehampton Road	1	3	2	1
WW	6.3%	Durrington Lane / A2032 Littlehampton Road / A259 Littlehampton Road	2	6	5	3
WS	4.6%	Durrington Lane / A2032 Littlehampton Road / A259 Goring Street	2	5	4	2
WN	2.5%	Durrington Lane / A2032 Littlehampton Road / Titnore Lane	1	3	2	1
-	0.0%	Output Area same as site	0	0	0	0
TOTAL	96%		32	96	80	48
			5	16	13	8

100.00%

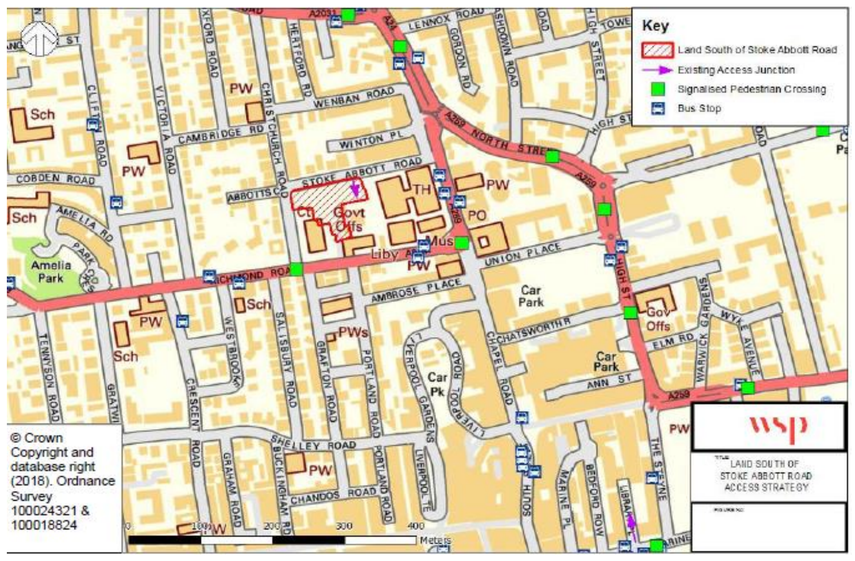


Stoke Abbott Road		
Type	Promoted	Consented
Residential	64	-
GP Surgery	720 sqm	Integrated care centre 6,239 sqm
*WBC Local Transport Study (WSP, August 2018)		
**Consented Development Planning Reference: AWDM/0805/20		

Trip Generation

Promoted Vehicular Trips			
AM		PM	
Arrivals	Departures	Arrivals	Departures
31	25	24	24

Consented Development Vehicular Trips			
AM Peak		PM Peak	
Arrivals	Departures	Arrivals	Departures
101	51	60	88



Decoy Farm

Type	Promoted	Consented
Commercial	Minimum of 18,000 sqm employment land	-

Trip Rates

Promoted Vehicular Trips			
AM		PM	
Arrivals	Departures	Arrivals	Departures
0.836	0.206	0.142	0.672

Trip Generation

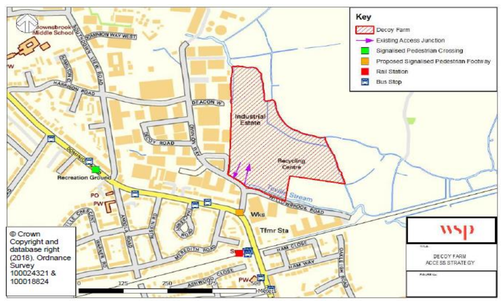
Promoted Vehicular Trips			
AM		PM	
Arrivals	Departures	Arrivals	Departures
150	37	26	121

Trip Distribution

WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)

population	All usual residents aged 16 and over in employment the week before the census
units	Persons
date	2011
place of work	E02006629 : Worthing 009 (2011 super output area - middle layer)

usual residence : 2011 super output area - middle layer	Location	Driving a car or van	Route				Share Main	Share Alt
			Route 1	Weight	Route 2	Weight		
E02006621 : Worthing 001	High Salvington	32	NW				2.04%	-
E02006622 : Worthing 002	Ashacre Ln	65	n/a				4.14%	-
E02006623 : Worthing 003	Durrington	73	n/a				4.65%	-
E02006624 : Worthing 004	First Ave	57	n/a				3.63%	-
E02006625 : Worthing 005	Penfold Rd	80	n/a				5.09%	-
E02006626 : Worthing 006	Northbrook College	61	W				3.88%	-
E02006627 : Worthing 007	Terringes Ave	69	n/a				4.39%	-
E02006628 : Worthing 008	West Court Road	62	n/a				3.95%	-
E02006629 : Worthing 009	**Meadow Rd Trading Estates**	**70**	n/a				4.46%	-
E02006630 : Worthing 010	Heene Rd	53	n/a				3.37%	-
E02006631 : Worthing 011	Wallace Ave	50	n/a				3.18%	-
E02006632 : Worthing 012	Hailsham Rd	46	n/a				2.93%	-
E02006633 : Worthing 013	Goring Centre	32	n/a				2.04%	-
E02006542 : Arun 001	Arundel	2	NW				0.13%	-
E02006543 : Arun 002	Patching/Findon	20	N				1.27%	-
E02006544 : Arun 003	Eastergate	6	NW	0.5	WW	0.5	0.19%	0.19%
E02006545 : Arun 004	North Littlehampton	23	WW				1.46%	-
E02006546 : Arun 005	Angmering	26	WW				1.65%	-
E02006547 : Arun 006	Yapton	2	WW	0.5	NW	0.5	0.06%	0.06%
E02006548 : Arun 007	Rustington	25	WW				1.59%	-
E02006549 : Arun 008	Ferring	20	S				1.27%	-
E02006550 : Arun 009	Littlehampton Academy	23	WW				1.46%	-
E02006551 : Arun 010	East Preston	19	WW				1.21%	-
E02006552 : Arun 011	Littlehampton Centre	13	WW				0.83%	-
E02006553 : Arun 012	North Bersted	6	NW				0.38%	-
E02006554 : Arun 013	Middleton on Sea	4	WW	0.5	NW	0.5	0.13%	0.13%
E02006555 : Arun 014	Bognor Regis Hospital	3	WW	0.5	NW	0.5	0.10%	0.10%
E02006556 : Arun 015	Felpham	7	WW	0.5	NW	0.5	0.22%	0.22%
E02006557 : Arun 016	Bognor Regis (Hawthorn Rd)	8	WW				0.51%	-
E02006558 : Arun 017	Bognor Regis	5	WW				0.32%	-
E02006559 : Arun 018	Aldwick	4	WW	0.5	NW	0.5	0.13%	0.13%
E02006560 : Arun 019	Nytimber	3	N				0.19%	-
	Lancing	220	E				14.00%	-
	Brighton	153	E				9.74%	-
	Horsham	69	N				4.39%	-
	Sussex	28	E				1.78%	-
	Kent	20	E				1.27%	-
	Chichester	20	NW				1.27%	-
	Lewes	18	E				1.15%	-
	Surrey	13	N	0.5	E	0.5	0.41%	0.41%
	Crawley	12	E				0.76%	-
	Eastbourne	11	E				0.70%	-
	London	9	E				0.57%	-
	North	10	E				0.64%	-
	Portsmouth	6	NW				0.38%	-
	Hants	3	NW				0.19%	-
	Dorset	2	NW				0.13%	-
	Wales	2	NW				0.13%	-
	Berks	1	N	0.5	NW	0.5	0.03%	0.03%
	Isle of Wight	1	NW				0.06%	-
	Fareham	1	NW				0.06%	-
	Havant	1	Nw				0.06%	-
	Somerset	1	NW				0.06%	-
	Oxford	1	NW				0.06%	-
TOTAL		1,571					98.7%	1.3%



Direction	%	Route	AM Peak		PM Peak	
			Arrivals	Departures	Arrivals	Departures
N	6.3%	A24 / A27 / Sompting Avenue / Dominion Road	9	2	2	8
NW	5.8%	A27 / Sompting Avenue / Dominion Road	9	2	1	7
E	31.0%	A27 Upper Brighton Road, Sompting Road, Dominion Road	47	11	8	37
WS	1.3%	A259 Goring Way / A259 Goring Street / A2032 Littlehampton Road	2	0	0	2
W	3.9%	A2032 Littlehampton Road / A2032 / Poulters Lane/ Ardsheal Rd / A24 / Dominion Way	6	1	1	5
WW	9.9%	A259 Littlehampton Road / A2032 / Poulters Lane / Ardsheal Rd / A24 / Dominion Way	15	4	3	12
N/A	41.8%		63	15	11	51
TOTAL	100%		150	37	26	121
			17	4	3	14

100.00%

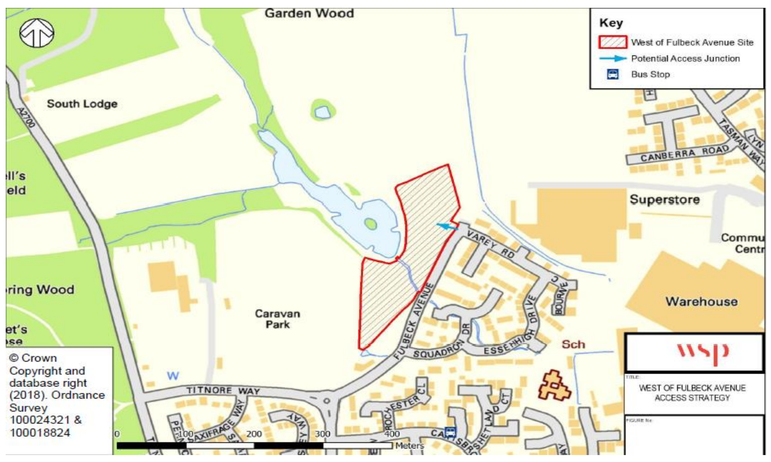
Land West of Fulbeck Avenue		
Type	Promoted	Consented
Residential	40	152
*WBC Local Transport Study (WSP, August 2018)		
**Consented Development Planning Reference: AWDM/0166/20		

Trip Generation

Promoted Vehicular Trips			
AM		PM	
Arrivals	Departures	Arrivals	Departures
5	16	13	8

Consented Residential Vehicular Trips			
AM Peak		PM Peak	
Arrivals	Departures	Arrivals	Departures
8	33	31	14

Trip Distribution



WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)
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population	All usual residents aged 16 and over in employment the week before the census
units	Persons
date	2011
method of travel to work	Driving a car or van

Place of Work	Usual Residence		Route	AM Peak		PM Peak	
	E02006626 : Worthing 006			Arrivals	Departures	Arrivals	Departures
E02006621 : Worthing 001	42	2.4%	not via assessed site network	0	1	1	0
E02006622 : Worthing 002	24	1.4%	not via assessed site network	0	0	0	0
E02006623 : Worthing 003	76	4.4%	not via assessed site network	0	1	1	1
E02006624 : Worthing 004	35	2.0%	not via assessed site network	0	1	1	0
E02006625 : Worthing 005	88	5.1%	not via assessed site network	0	2	2	1
E02006626 : Worthing 006	53	3.0%	25% Titnore Ln (S) / Goring Street (S) /	0	1	1	0
E02006627 : Worthing 007	46	2.6%	not via assessed site network	0	1	1	0
E02006628 : Worthing 008	33	1.9%	not via assessed site network	0	1	1	0
E02006629 : Worthing 009	61	3.5%	not via assessed site network	0	1	1	0
E02006630 : Worthing 010	46	2.6%	not via assessed site network	0	1	1	0
E02006631 : Worthing 011	288	16.6%	not via assessed site network	1	5	5	2
E02006632 : Worthing 012	35	2.0%	not via assessed site network	0	1	1	0
E02006633 : Worthing 013	88	5.1%	100% Titnore Ln (S) / A259 (S) 75% A259 (E) 25% Aldsworth Avenue (S)	0	2	2	1
Adur	119	6.8%	not via assessed site network	1	2	2	1
Arun	234	13.4%	50% Titnore Ln (S) / A259 (W) 50% Titnore Ln (N) / A27 (W)	1	4	4	2
Ashford	1	0.1%	100% Titnore Ln (N) / A280 (N)	0	0	0	0
Basingstoke and Deane	2	0.1%	100% Titnore Ln (N) / A27 (W)	0	0	0	0
Bracknell Forest	1	0.1%	100% Titnore Ln (N) / A280 (N)	0	0	0	0
Brighton and Hove	94	5.4%	not via assessed site network	0	2	2	1
Canterbury	1	0.1%	100% Titnore Ln (N) / A280 (N)	0	0	0	0
Chichester	42	2.4%	50% Titnore Ln (S) / A259 (W)	0	1	1	0
Crawley	70	4.0%	100% Titnore Ln (N) / A280 (N)	0	1	1	1
East Hampshire	1	0.1%	100% Titnore Ln (N) / A27 (W)	0	0	0	0
Eastbourne	1	0.1%	not via assessed site network	0	0	0	0
Eastleigh	1	0.1%	100% Titnore Ln (N) / A27 (W)	0	0	0	0
Elmbridge	1	0.1%	100% Titnore Ln (N) / A280 (N)	0	0	0	0
Fareham	2	0.1%	100% Titnore Ln (N) / A27 (W)	0	0	0	0
Gosport	3	0.2%	100% Titnore Ln (N) / A27 (W)	0	0	0	0
Guildford	7	0.4%	100% Titnore Ln (N) / A280 (N)	0	0	0	0
Hart	1	0.1%	100% Titnore Ln (N) / A27 (W)	0	0	0	0
Havant	3	0.2%	100% Titnore Ln (N) / A27 (W)	0	0	0	0
Horsham	133	7.6%	100% Titnore Ln (N) / A280 (N)	1	3	2	1
Lewes	24	1.4%	not via assessed site network	0	0	0	0
Maidstone	1	0.1%	100% Titnore Ln (N) / A280 (N)	0	0	0	0
Mid Sussex	34	2.0%	100% Titnore Ln (N) / A280 (N)	0	1	1	0
Mole Valley	8	0.5%	100% Titnore Ln (N) / A280 (N)	0	0	0	0
New Forest	1	0.1%	100% Titnore Ln (N) / A27 (W)	0	0	0	0
Oxford	1	0.1%	100% Titnore Ln (N) / A280 (N)	0	0	0	0
Portsmouth	5	0.3%	100% Titnore Ln (N) / A27 (W)	0	0	0	0
Reigate and Banstead	12	0.7%	100% Titnore Ln (N) / A280 (N)	0	0	0	0
Runnymede	2	0.1%	100% Titnore Ln (N) / A280 (N)	0	0	0	0
Rushmoor	1	0.1%	100% Titnore Ln (N) / A27 (W)	0	0	0	0
Sevenoaks	4	0.2%	not via assessed site network	0	0	0	0
South Bucks	1	0.1%	not via assessed site network	0	0	0	0
Tandridge	2	0.1%	not via assessed site network	0	0	0	0
Tonbridge and Malling	1	0.1%	not via assessed site network	0	0	0	0
Waverley	6	0.3%	not via assessed site network	0	0	0	0
Winchester	3	0.2%	not via assessed site network	0	0	0	0
Woking	2	0.1%	not via assessed site network	0	0	0	0
TOTAL	1,740	100.0%		8	33	31	14

Route	AM Peak		PM Peak	
	Arrivals	Departures	Arrivals	Departures
25% Titnore Ln (S) / Goring Street (S) / The Strand	0	0	0	0
75% Titnore Ln (S) / A259 (S) / A259 (E)	0	2	2	1
25% Titnore Ln (S) / A259 (S) / Aldsworth Avenue	0	1	1	0
50% Titnore Ln (S) / A259 (W)	1	3	3	1
50% Titnore Ln (N) / A27 (W)	1	2	2	1
100% Titnore Ln (N) / A27 (W)	0	0	0	0
100% Titnore Ln (N) / A280 (N)	1	5	4	2

Grafton

Type	Promoted	Consented
Residential	150	
Commercial	2500 sqm commercial	-

Trip Rates

Promoted Vehicular Trips			
AM		PM	
Arrivals	Departures	Arrivals	Departures
0.083	0.200	0.167	0.083

Trip Generation

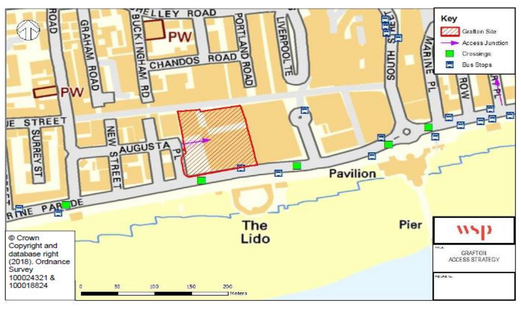
Promoted Vehicular Trips			
AM		PM	
Arrivals	Departures	Arrivals	Departures
12	30	25	12

Trip Distribution

WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)
ONS Crown Copyright Reserved [from Nomis on 17 November 2021]

population	All usual residents aged 16 and over inEmployment the week before the census
units	Persons
date	2011
usual residence	E02006631 : Worthing 011 (2011 super output area - middle layer)

Place of work : 2011 super output area - middle layer	Location	Driving a car or van	Route				Share Main	Share Alt
			Route 1	Weight	Route 2	Weight		
E02006621 : Worthing 001	High Salvington	26	N				1.68%	-
E02006622 : Worthing 002	Ashacre Ln	11	n/a				0.71%	-
E02006623 : Worthing 003	Durrington	39	n/a				2.52%	-
E02006624 : Worthing 004	First Ave	21	n/a				1.36%	-
E02006625 : Worthing 005	Penfold Rd	74	n/a				4.78%	-
E02006626 : Worthing 006	Northbrook College/Romany Rd	35	W	0.5	n/a	0.5	1.13%	1.13%
E02006627 : Worthing 007	**Terringes Ave**	**31**	-				2.00%	-
E02006628 : Worthing 008	West Court Road	37	n/a				2.39%	-
E02006629 : Worthing 009	Meadow Rd TradingEstates	50	n/a				3.23%	-
E02006630 : Worthing 010	Heene Rd	40	n/a				2.58%	-
E02006631 : Worthing 011	Wallace Ave	163	n/a				10.53%	-
E02006632 : Worthing 012	Hailsham Rd	24	n/a				1.55%	-
E02006633 : Worthing 013	Goring Centre	47	n/a				3.04%	-
E02006542 : Arun 001	Arundel	7	WN				0.45%	-
E02006543 : Arun 002	Patching/Findon	13	N				0.84%	-
E02006544 : Arun 003	Eastergate	11	WN				0.71%	-
E02006545 : Arun 004	North Littlehampton	27	WW	0.6	WN	0.4	1.05%	0.70%
E02006546 : Arun 005	Angmering	18	WN1				1.16%	-
E02006547 : Arun 006	Yapton	7	WN				0.45%	-
E02006548 : Arun 007	Rustington	14	WW				0.90%	-
E02006549 : Arun 008	Ferring	10	W				0.65%	-
E02006550 : Arun 009	Littlehampton Academy	18	WW				1.16%	-
E02006551 : Arun 010	Rustington/Angmering	9	WW				0.58%	-
E02006552 : Arun 011	Littlehampton Centre	20	WW				1.29%	-
E02006553 : Arun 012	North Bersted	2	WN	0.6	WW	0.4	0.08%	0.05%
E02006554 : Arun 013	Middleton on Sea	4	WW				0.26%	-
E02006555 : Arun 014	Bognor Regis Hospital	6	WW	0.5	WN	0.5	0.19%	0.19%
E02006556 : Arun 015	Felpham	2	WW				0.13%	-
E02006557 : Arun 016	Bognor Regis (Hawthorn Rd)	1	WN	0.5	WW	0.5	0.03%	0.03%
E02006558 : Arun 017	Bognor Regis	10	WW	0.5	WN	0.5	0.32%	
	Brighton	169	E				10.92%	-
	Lancing	165	E				10.66%	-
	Horsham	144	N				9.30%	-
	Gatwick	54	E	0.6	N	0.4	2.09%	1.40%
	Sussex	52	N	0.5	E	0.5	1.68%	1.68%
	London	39	E	0.6	N	0.4	1.51%	1.01%
	Surrey	38	N				2.45%	-
	Chichester	32	E				2.07%	-
	Lewes	20	E				1.29%	-
	Hants	14	WN				0.90%	-
	North	13	E				0.84%	-
	Kent	8	E				0.52%	-
	Berks	6	E	0.6	N	0.4	0.23%	0.16%
	Midlands	4	E	0.6	N	0.4	0.16%	0.10%
	Herts	3	E	0.6	N	0.4	0.12%	0.08%
	Crawley	2	E				0.13%	-
	Eastbourne	2	E				0.13%	-
	Havant	2	WN				0.13%	-
	Portsmouth	2	WN				0.13%	-
	Bucks	1	E				0.06%	-
	Wilts	1	WN	0.6	E	0.4	0.04%	0.03%
TOTAL		1,548					93.1%	6.6%

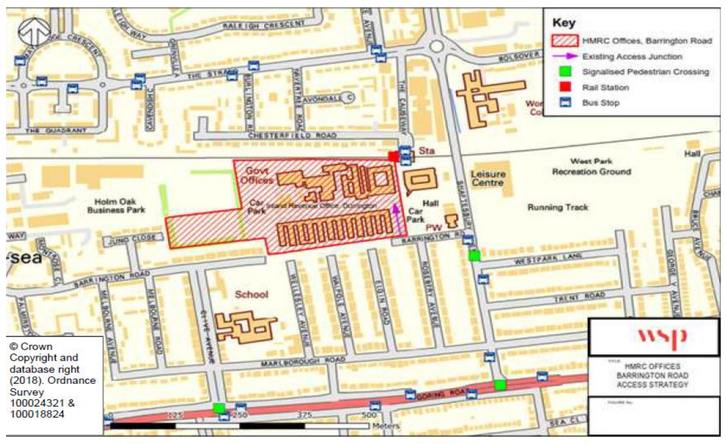


Direction	%	Route	AM Peak		PM Peak	
			Arrivals	Departures	Arrivals	Departures
N	17.6%	The Crescent, Clifton Road, South Farm Road, A2032, A24 Findon Road	2	5	4	2
E	33.5%	Marine Parade, The Steyne, A259 Brighton Road	4	10	8	4
W	2.9%	Marine Parade, West Parade, King George V Avenue, A259 Goring Road, Mulberry Lane, Goring Way	0	1	1	0
WW	6.8%	Marine Parade, West Parade, King George V Avenue, A259 Goring Road, Mulberry Lane, Goring Street, A259 Littlehampton Rd	1	2	2	1
WN	3.0%	Marine Parade, West Parade, King George V Avenue, A259 Goring Road, Mulberry Lane, Goring Street, Titnore Lane, A27 WB	0	1	1	0
WN1	1.2%	Marine Parade, West Parade, King George V Avenue, A259 Goring Road, Mulberry Lane, Goring Street, Titnore Lane, A280 Water Lane	0	0	0	0
-	2.0%		0	1	1	0
n/a	32.7%	Does not interact in area near to proposed site	4	10	8	4
TOTAL	100%		12	30	25	12
			2	4	3	2

99.68%

HMRC Offices, Barrington Road

Land Use	Promoted	Consented
Residential	500	296 units
Office	9,300 sqm	-
Industrial	9,300 sqm	-
Commercial		68 bed car home and 160 sqm of flexible A1 - A4
*WBC Local Transport Study (WSP, August 2018)		
**Consented Development Planning Reference: AWDM/1979/19		



Trip Generation

Promoted Vehicular Trips			
AM		PM	
Arrivals	Departures	Arrivals	Departures
240	270	195	240

Consented Total Residential Vehicular Trips Option A			
AM Peak		PM Peak	
Arrivals	Departures	Arrivals	Departures
28	124	101	42
Paragraph 6.13 "the peak hour vehicle trip generation assocaited with the flexible retail space has not been considered any further in this report".			
Paragraph 6.48 only assesses the potential traffic effect of residential development			

Consented Care Home Vehicular Trips			
AM Peak		PM Peak	
Arrivals	Departures	Arrivals	Departures
6	4	3	6

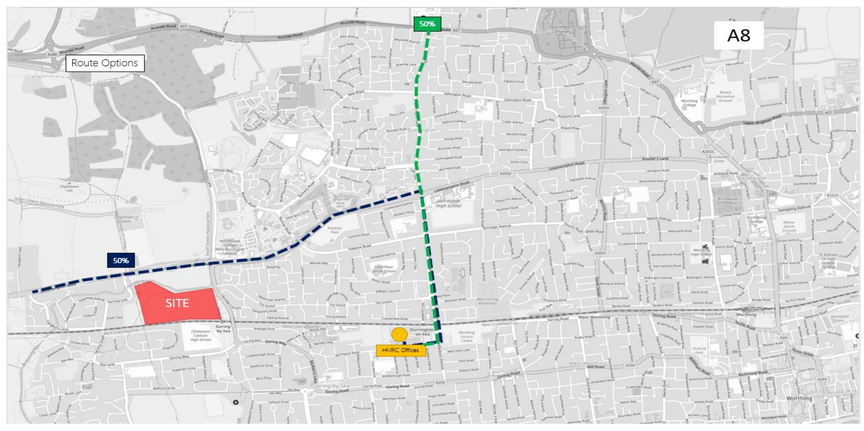
Trip Distribution

WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)
ONS Crown Copyright Reserved [from Nomis on 10 January 2019]

population	All usual residents aged 16 and over in employment the week before the census
units	Persons
date	2011
method of travel to work	Driving a car or van

Place of Work	Usual Residence		Route	AM Peak		PM Peak	
	E02006633 : Worthing 013			Arrivals	Departures	Arrivals	Departures
E02006621 : Worthing 001	18	1.0%	not via assessed site network	0	1	1	0
E02006622 : Worthing 002	14	0.8%	not via assessed site network	0	1	1	0
E02006623 : Worthing 003	69	4.0%	not via assessed site network	1	5	4	2
E02006624 : Worthing 004	38	2.2%	not via assessed site network	1	3	2	1
E02006625 : Worthing 005	84	4.8%	not via assessed site network	1	6	5	2
E02006626 : Worthing 006	62	3.6%	not via assessed site network	1	4	4	2
E02006627 : Worthing 007	62	3.6%	not via assessed site network	1	4	4	2
E02006628 : Worthing 008	48	2.8%	not via assessed site network	1	3	3	1
E02006629 : Worthing 009	32	1.8%	not via assessed site network	1	2	2	1
E02006630 : Worthing 010	63	3.6%	not via assessed site network	1	5	4	2
E02006631 : Worthing 011	277	16.0%	not via assessed site network	4	20	16	7
E02006632 : Worthing 012	37	2.1%	not via assessed site network	1	3	2	1
E02006633 : Worthing 013	163	9.4%	not via assessed site network	3	12	9	4
Adur	97	5.6%	not via assessed site network	2	7	6	2
Arun	238	13.7%	50% A2032 / A259 (W)	4	17	14	6
Ashford	1	0.1%	not via assessed site network	0	0	0	0
Basingstoke and Deane	3	0.2%	not via assessed site network	0	0	0	0
Bracknell Forest	1	0.1%	not via assessed site network	0	0	0	0
Brighton and Hove	92	5.3%	not via assessed site network	1	7	5	2
Chichester	51	2.9%	not via assessed site network	1	4	3	1
Crawley	58	3.3%	not via assessed site network	1	4	3	1
East Hampshire	2	0.1%	not via assessed site network	0	0	0	0
Eastbourne	3	0.2%	not via assessed site network	0	0	0	0
Eastleigh	3	0.2%	not via assessed site network	0	0	0	0
Elmbridge	6	0.3%	not via assessed site network	0	0	0	0
Epsom and Ewell	1	0.1%	not via assessed site network	0	0	0	0
Fareham	2	0.1%	not via assessed site network	0	0	0	0
Guildford	6	0.3%	not via assessed site network	0	0	0	0
Hastings	1	0.1%	not via assessed site network	0	0	0	0
Havant	3	0.2%	not via assessed site network	0	0	0	0
Horsham	95	5.5%	not via assessed site network	2	7	6	2
Lewes	26	1.5%	not via assessed site network	0	2	2	1
Maidstone	1	0.1%	not via assessed site network	0	0	0	0
Medway	2	0.1%	not via assessed site network	0	0	0	0
Mid Sussex	33	1.9%	not via assessed site network	1	2	2	1
Mole Valley	4	0.2%	not via assessed site network	0	0	0	0
Portsmouth	3	0.2%	not via assessed site network	0	0	0	0
Reigate and Banstead	7	0.4%	not via assessed site network	0	1	0	0
Runnymede	1	0.1%	not via assessed site network	0	0	0	0
Rushmoor	2	0.1%	not via assessed site network	0	0	0	0
Sevenoaks	1	0.1%	not via assessed site network	0	0	0	0
Slough	1	0.1%	not via assessed site network	0	0	0	0
Southampton	3	0.2%	not via assessed site network	0	0	0	0
Tandridge	6	0.3%	not via assessed site network	0	0	0	0
Test Valley	1	0.1%	not via assessed site network	0	0	0	0
Tonbridge and Malling	2	0.1%	not via assessed site network	0	0	0	0
Waverley	2	0.1%	not via assessed site network	0	0	0	0
Wealden	4	0.2%	not via assessed site network	0	0	0	0
West Berkshire	1	0.1%	not via assessed site network	0	0	0	0
Winchester	1	0.1%	not via assessed site network	0	0	0	0
Windsor and Maidenhead	1	0.1%	not via assessed site network	0	0	0	0
Wokingham	1	0.1%	not via assessed site network	0	0	0	0
TOTAL	1,733	100.0%		28	124	101	42

Route	AM Peak		PM Peak	
	Arrivals	Departures	Arrivals	Departures
50% A2032 / A259 (W)	2	9	7	3



Lyndhurst Road

Type	Promoted	Consented
Residential	209	

*TA prepared by Iceni Projects Limited on behalf of St William Homes LLP (July 2021)

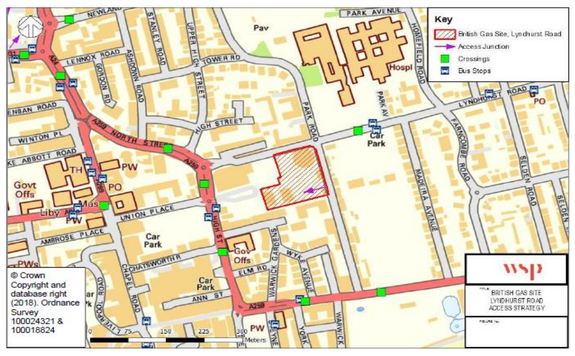
Trip Rates

Promoted Vehicular Trip Rates			
AM		PM	
Arrivals	Departures	Arrivals	Departures
0.043	0.225	0.158	0.081

Trip Generation

Promoted Vehicular Trips			
AM		PM	
Arrivals	Departures	Arrivals	Departures
9	47	33	17

Trip Distribution



WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)
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population	All usual residents aged 16 and over in employment the week before the census
units	Persons
date	2011
usual residence	E02006631 : Worthing 011 (2011 super output area - middle layer)

Place of work : 2011 super output area - middle layer	Location	Driving a car or van	Route				Share Main	Share Alt
			Route 1	Weight	Route 2	Weight		
E02006621 : Worthing 001	High Salvington	26	N				1.68%	-
E02006622 : Worthing 002	Ashacre Ln	11	n/a				0.71%	-
E02006623 : Worthing 003	Durrington	39	n/a				2.52%	-
E02006624 : Worthing 004	First Ave	21	n/a				1.36%	-
E02006625 : Worthing 005	Penfold Rd	74	n/a				4.78%	-
E02006626 : Worthing 006	Northbrook College/Romany Rd	35	W	0.5			2.26%	-
E02006627 : Worthing 007	**Terringes Ave**	31	-				2.00%	-
E02006628 : Worthing 008	West Court Road	37	n/a				2.39%	-
E02006629 : Worthing 009	Meadow Rd TradingEstates	50	n/a				3.23%	-
E02006630 : Worthing 010	Heene Rd	40	n/a				2.58%	-
E02006631 : Worthing 011	Wallace Ave	163	n/a				10.53%	-
E02006632 : Worthing 012	Hailsham Rd	24	n/a				1.55%	-
E02006633 : Worthing 013	Goring Centre	47	n/a				3.04%	-
E02006542 : Arun 001	Arundel	7	NW	0.6	WW	0.4	0.27%	0.18%
E02006543 : Arun 002	Patching/Findon	13	N				0.84%	-
E02006544 : Arun 003	Eastergate	11	NW	0.6	WW	0.4	0.43%	0.28%
E02006545 : Arun 004	North Littlehampton	27	WW	0.6	NW	0.4	1.05%	0.70%
E02006546 : Arun 005	**Angmering**	18	NW	0.5	WN1	0.5	0.58%	0.58%
E02006547 : Arun 006	Yapton	7	NW	0.5	WW	0.5	0.23%	0.23%
E02006548 : Arun 007	Rustington	14	WW	0.5	SW	0.5	0.45%	0.45%
E02006549 : Arun 008	Ferring	10	WS				0.65%	-
E02006550 : Arun 009	Littlehampton Academy	18	WW				1.16%	-
E02006551 : Arun 010	Rustington/Angmering	9	WW	0.5	SW	0.5	0.29%	0.29%
E02006552 : Arun 011	Littlehampton Centre	20	WW	0.5	SW	0.5	0.65%	0.65%
E02006553 : Arun 012	North Bersted	2	NW	0.6	WW	0.4	0.08%	0.05%
E02006554 : Arun 013	Middleton on Sea	4	WW	0.6	NW	0.4	0.16%	0.10%
E02006555 : Arun 014	Bognor Regis Hospital	6	NW	0.5	WW	0.5	0.19%	0.19%
E02006556 : Arun 015	Felpham	2	WW	0.5	NW	0.5	0.06%	0.06%
E02006557 : Arun 016	Bognor Regis (Hawthorn Rd)	1	NW	0.5	WW	0.5	0.03%	0.03%
E02006558 : Arun 017	Bognor Regis	10	WW	0.5	NW	0.5	0.32%	0.32%
	Brighton	169	E				10.92%	-
	Lancing	165	E				10.66%	-
	Horsham	144	N				9.30%	-
	Gatwick	54	E	0.6	N	0.4	2.09%	1.40%
	Sussex	52	N	0.5	E	0.5	1.68%	1.68%
	London	39	E	0.6	N	0.4	1.51%	1.01%
	Surrey	38	N	0.5	E	0.5	1.23%	1.23%
	Chichester	32	E				2.07%	-
	Lewes	20	E				1.29%	-
	Hants	14	N				0.90%	-
	North	13	E				0.84%	-
	Kent	8	E				0.52%	-
	Berks	6	E	0.6	N	0.4	0.23%	0.16%
	Midlands	4	E	0.6	N	0.4	0.16%	0.10%
	Herts	3	E	0.6	N	0.4	0.12%	0.08%
	Crawley	2	E				0.13%	-
	Eastbourne	2	E				0.13%	-
	Havant	2	NW				0.13%	-
	Portsmouth	2	NW				0.13%	-
	Bucks	1	E				0.06%	-
	Wilts	1	NW	0.6	N	0.4	0.04%	0.03%
TOTAL		1,548					90.2%	9.8%

Direction	%	Route	AM Peak		PM Peak	
			Arrivals	Departures	Arrivals	Departures
N	18.4%	A24 [North Street, Broadwater Rd, Broadwater St West, Warren Rd, Findon Rd]	2	9	6	3
E	33.6%	Lyndhurst Road, St George's Road, A259 Brighton Road	3	16	11	6
NW	3.3%	A24 [North Street, Broadwater Rd, Broadwater St West, Warren Rd] A27 Arundel Road	0	2	1	1
W	2.3%	A24 [North Street, Broadwater Rd] Ardsheal Rd, A2032 [Poulters Lane, Littlehampton Road]	0	1	1	0
WW	5.1%	A24 [North Street, Broadwater Rd] Ardsheal Rd, A2032 [Poulters Lane, Littlehampton Road] A259 Littlehampton Rd	0	2	2	1
WN1	0.6%	A24 [North Street, Broadwater Rd] Ardsheal Rd, A2032 [Poulters Lane, Littlehampton Road], Titnore Lane, A280 Water Lane	0	0	0	0
WS	0.6%	A24 North Street, A259 [Chapel Road, Richmond Rd, Wykeham Rd, Mill Rd, Goring Road, Mulberry Lane] Goring Way	0	0	0	0
SW	1.4%	A24 North Street, A259 [Chapel Road, Richmond Rd, Wykeham Rd, Mill Rd, Goring Road, Mulberry Lane, Goring Street, Littlehampton Rd]	0	1	0	0
-	2.0%		0	1	1	0
n/a	32.7%	Does not interact in area near to proposed site	3	15	11	6
TOTAL	100.00%		9	47	33	17
			1	5	3	2

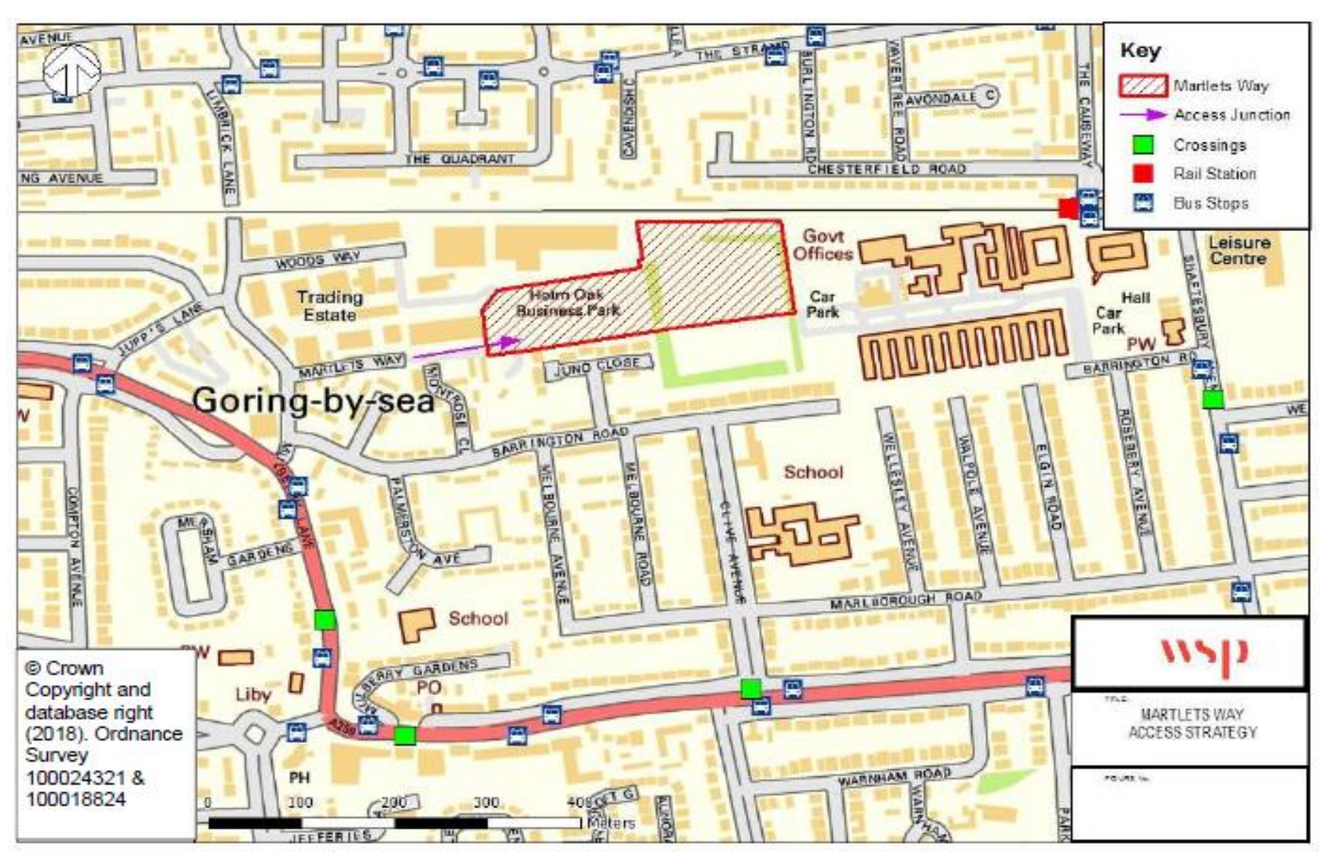
100.00%

Martlets Way

Type	Promoted	Consented
Commercial	10,000 sqm employment	

Trip Rates

Promoted Vehicular Trip Rates			
AM		PM	
Arrivals	Departures	Arrivals	Departures
0.979	0.407	0.308	0.849



Trip Generation

Promoted Vehicular Trips			
AM		PM	
Arrivals	Departures	Arrivals	Departures
98	41	31	85

Trip Distribution

WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)

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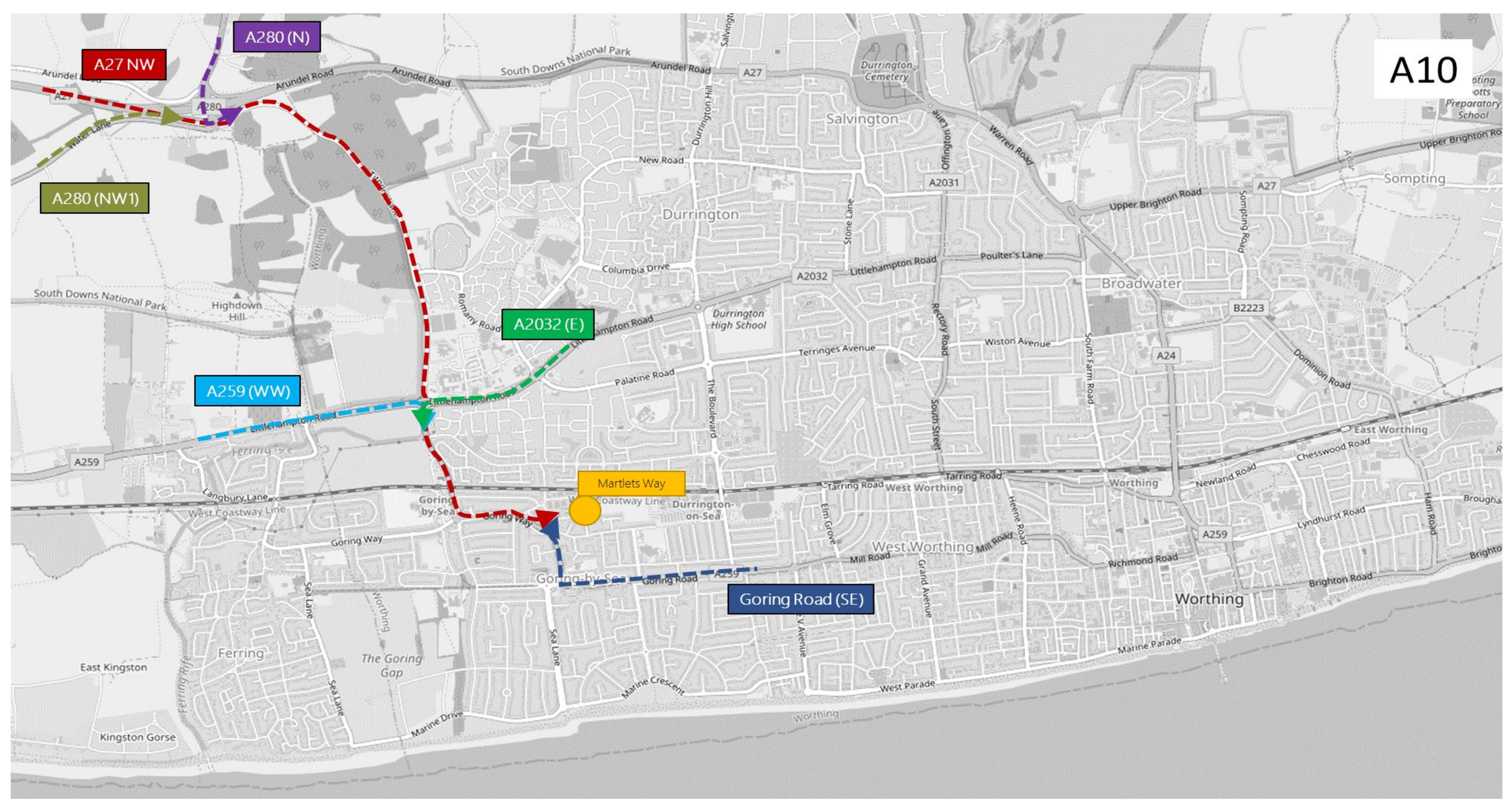
population	All usual residents aged 16 and over in employment the week before the census
units	Persons
date	2011
usual residence	E02006633 : Worthing 013 (2011 super output area - middle layer)

Place of work : 2011 super output area - middle layer	Location	Driving a car or van	Route				Share Main	Share Alt
			Route 1	Weight	Route 2	Weight		
E02006621 : Worthing 001	High Salvington	85	E				3.99%	-
E02006622 : Worthing 002	Ashacre Ln	76	E	0.5	SE	0.5	1.79%	1.79%
E02006623 : Worthing 003	Durrington	127	N1				5.97%	-
E02006624 : Worthing 004	First Ave	85	E				3.99%	-
E02006625 : Worthing 005	Penfold Rd	77	E				3.62%	-
E02006626 : Worthing 006	Northbrook College/Romany Rd	88	E				4.14%	-
E02006627 : Worthing 007	Terringes Ave	92	E	0.5	SE	0.5	2.16%	2.16%
E02006628 : Worthing 008	West Court Road	76	SE	0.6	E	0.4	2.14%	1.43%
E02006629 : Worthing 009	Meadow Rd TradingEstates	43	SE	0.5	E	0.5	1.01%	1.01%
E02006630 : Worthing 010	Heene Rd	56	SE				2.63%	-
E02006631 : Worthing 011	Wallace Ave	47	SE				2.21%	-
E02006632 : Worthing 012	Hailsham Rd	85	SE				3.99%	-
E02006633 : Worthing 013	Goring Centre	163	SE				7.66%	-
E02006542 : Arun 001	Arundel	20	NW				0.94%	-
E02006543 : Arun 002	Patching/Findon	45	N	0.5	E	0.5	1.06%	1.06%
E02006544 : Arun 003	Eastergate	13	NW				0.61%	-
E02006545 : Arun 004	North Littlehampton	53	WW				2.49%	-
E02006546 : Arun 005	Angmering	78	NW1				3.67%	-
E02006547 : Arun 006	Yapton	10	WW				0.47%	-
E02006548 : Arun 007	Rustington	77	WW				3.62%	-
E02006549 : Arun 008	Ferring	57	W				2.68%	-
E02006550 : Arun 009	Littlehampton Academy	61	WW				2.87%	-
E02006551 : Arun 010	Rustington/Ferring	42	WW				1.97%	-
E02006552 : Arun 011	Littlehampton Centre	21	WW				0.99%	-
E02006553 : Arun 012	North Bersted	4	WW	0.5	NW	0.5	0.09%	0.09%
E02006554 : Arun 013	Middleton on Sea	12	WW				0.56%	-
E02006555 : Arun 014	Bognor Regis Hospital	6	WW				0.28%	-
E02006556 : Arun 015	Felpham	16	WW				0.75%	-
E02006557 : Arun 016	Bognor Regis (Hawthorn Rd)	12	WW				0.56%	-
E02006558 : Arun 017	Bognor Regis	9	WW				0.42%	-
E02006559 : Arun 018	Aldwick	6	NW	0.6	WW	0.4	0.17%	0.11%
E02006560 : Arun 019	Nyetimber	6	N	0.5	E	0.5	0.14%	0.14%
	Adur	187	E				8.79%	-
	Brighton	95	E				4.46%	-
	Horsham	82	N				3.85%	-
	Chichester	23	NW				1.08%	-
	Mid Sussex	17	E				0.80%	-
	Hants	12	NW				0.56%	-
	Crawley	8	N				0.38%	-
	Surrey	7	N				0.33%	-
	Lewes	6	E				0.28%	-
	East Sussex	5	E				0.23%	-
	London	5	N				0.23%	-
	Lancashire	4	N				0.19%	-
	Kent	4	N				0.19%	-
	Dorset	4	NW				0.19%	-
	Hastings	3	E				0.14%	-
	Tyne and Wear	2	N				0.09%	-
	Warwickshire	2	N				0.09%	-
	Worcestershire	2	N				0.09%	-
	Southampton	2	NW				0.09%	-
	Bristol	2	NW				0.09%	-
	County Durham	1	N				0.05%	-
	North Tyneside	1	N				0.05%	-
	Cumbria	1	N				0.05%	-
	Birmingham	1	N				0.05%	-
	Berkshire	1	NW				0.05%	-
	Eastbourne	1	E				0.05%	-
	Oxfordshire	1	N				0.05%	-
	Wales	1	NW				0.05%	-
TOTAL		2128					92.2%	7.8%

Direction	%	Route	AM Peak		PM Peak	
			Arrivals	Departures	Arrivals	Departures
N	6.9%	A259 [Goring Way / Goring Street] / Titnore Lane / A280 Long Furlong	7	3	2	6
N1	6.0%	A259 [Goring Way / Goring Street] / Titnore Lane	6	2	2	5
NW	3.9%	A259 [Goring Way / Goring Street] / Titnore Lane / A27 Arundel Rd	4	2	1	3
NW1	3.7%	A259 [Goring Way / Goring Street] / Titnore Lane / A280 Water Lane	4	1	1	3
E	38.1%	A259 [Goring Way / Goring Street] A2032 Littlehampton Road [EB]	37	16	12	32
SE	23.6%	Mulberry Ln / A259 Goring Road	23	10	7	20
W	2.7%	A259 Goring Way / Goring Way [EB]	3	1	1	2
WW	15.2%	A259 [Goring Way / Goring Street] A259 Littlehampton Road	15	6	5	13
TOTAL	100%		98	41	31	85
			72	**30**	**23**	**63**



Stagecoach Marine Parade

Type	Promoted	Consented
Residential	60	
Commercial Retail	2000	

Trip Rates

Promoted Vehicular Trip Rates			
AM		PM	
Arrivals	Departures	Arrivals	Departures
0.083	0.200	0.167	0.083

Trip Generation

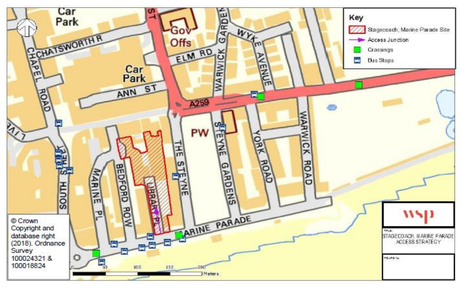
Promoted Vehicular Trips			
AM		PM	
Arrivals	Departures	Arrivals	Departures
5	12	10	5

Trip Distribution

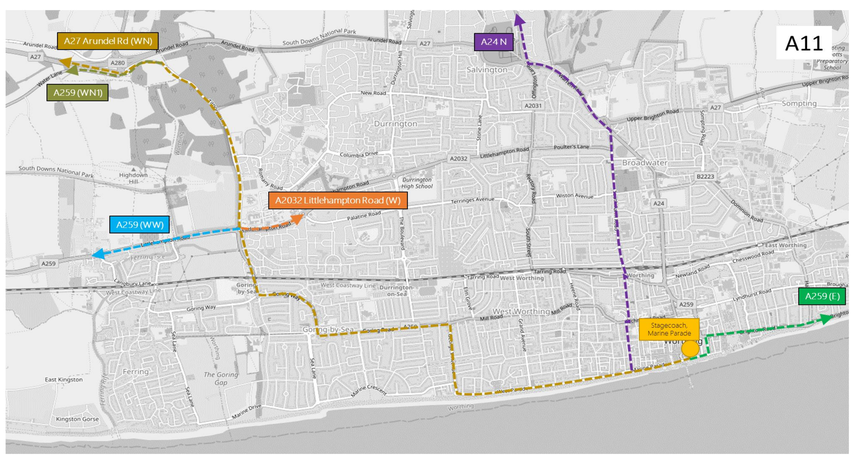
WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)

population	All usual residents aged 16 and over in employment the week before the census
units	Persons
date	2011
usual residence	E02006631 : Worthing 011 (2011 super output area - middle layer)

Place of work : 2011 super output area - middle layer	Location	Driving a car or van	Route				Share Main	Share Alt
			Route 1	Weight	Route 2	Weight		
E02006621 : Worthing 001	High Salvington	26	N				1.68%	-
E02006622 : Worthing 002	Ashacre Ln	11	n/a				0.71%	-
E02006623 : Worthing 003	Durrington	39	n/a				2.52%	-
E02006624 : Worthing 004	First Ave	21	n/a				1.36%	-
E02006625 : Worthing 005	Penfold Rd	74	n/a				4.78%	-
E02006626 : Worthing 006	Northbrook College/Romany Rd	35	W	0.5	n/a	0.5	1.13%	1.13%
E02006627 : Worthing 007	**Terringes Ave**	31	-				2.00%	-
E02006628 : Worthing 008	West Court Road	37	n/a				2.39%	-
E02006629 : Worthing 009	Meadow Rd TradingEstates	50	n/a				3.23%	-
E02006630 : Worthing 010	Heene Rd	40	n/a				2.58%	-
E02006631 : Worthing 011	Wallace Ave	163	n/a				10.53%	-
E02006632 : Worthing 012	Hailsham Rd	24	n/a				1.55%	-
E02006633 : Worthing 013	Goring Centre	47	n/a				3.04%	-
E02006542 : Arun 001	Arundel	7	WN				0.45%	-
E02006543 : Arun 002	Patching/Findon	13	N				0.84%	-
E02006544 : Arun 003	Eastergate	11	WN				0.71%	-
E02006545 : Arun 004	North Littlehampton	27	WW	0.6	WN	0.4	1.05%	0.70%
E02006546 : Arun 005	**Angmering**	18	WN1				1.16%	-
E02006547 : Arun 006	Yapton	7	WN				0.45%	-
E02006548 : Arun 007	Rustington	14	WW				0.90%	-
E02006549 : Arun 008	Ferring	10	W				0.65%	-
E02006550 : Arun 009	Littlehampton Academy	18	WW				1.16%	-
E02006551 : Arun 010	Rustington/Angmering	9	WW				0.58%	-
E02006552 : Arun 011	Littlehampton Centre	20	WW				1.29%	-
E02006553 : Arun 012	North Bersted	2	WN	0.6	WW	0.4	0.08%	0.05%
E02006554 : Arun 013	Middleton on Sea	4	WW				0.26%	-
E02006555 : Arun 014	Bognor Regis Hospital	6	WW	0.5	WN	0.5	0.19%	0.19%
E02006556 : Arun 015	Felpham	2	WW				0.13%	-
E02006557 : Arun 016	Bognor Regis (Hawthorn Rd)	1	WN	0.5	WW	0.5	0.03%	0.03%
E02006558 : Arun 017	Bognor Regis	10	WW	0.5	WN	0.5	0.32%	0.32%
	Brighton	169	E				10.92%	-
	Lancing	165	E				10.66%	-
	Horsham	144	N				9.30%	-
	Gatwick	54	E	0.6	N	0.4	2.09%	1.40%
	Sussex	52	N	0.5	E	0.5	1.68%	1.68%
	London	39	E	0.6	N	0.4	1.51%	1.01%
	Surrey	38	N				2.45%	-
	Chichester	32	E				2.07%	-
	Lewes	20	E				1.29%	-
	Hants	14	WN				0.90%	-
	North	13	E				0.84%	-
	Kent	8	E				0.52%	-
	Berks	6	E	0.6	N	0.4	0.23%	0.16%
	Midlands	4	E	0.6	N	0.4	0.16%	0.10%
	Herts	3	E	0.6	N	0.4	0.12%	0.08%
	Crawley	2	E				0.13%	-
	Eastbourne	2	E				0.13%	-
	Havant	2	WN				0.13%	-
	Portsmouth	2	WN				0.13%	-
	Bucks	1	E				0.06%	-
	Wilts	1	WN	0.6	E	0.4	0.04%	0.03%
TOTAL		1,548					**93.1%**	



Direction	%	Route	AM Peak		PM Peak	
			Arrivals	Departures	Arrivals	Departures
N	18.7%	The Crescent, Clifton Road, South Farm Road, A2032, A24 Findon Road	1	2	2	1
E	32.4%	Marine Parade, The Steyne, A259 Brighton Road	2	4	3	2
W	1.8%	Marine Parade, West Parade, King George V Avenue, A259 Goring Road, Mulberry Lane, Goring Way	0	0	0	0
WW	6.0%	Marine Parade, West Parade, King George V Avenue, A259 Goring Road, Mulberry Lane, Goring Street, A259 Littlehampton Rd	0	1	1	0
WN	4.1%	Marine Parade, West Parade, King George V Avenue, A259 Goring Road, Mulberry Lane, Goring Street, Titnore Lane, A27 WB	0	0	0	0
WN1	1.2%	Marine Parade, West Parade, King George V Avenue, A259 Goring Road, Mulberry Lane, Goring Street, Titnore Lane, A280 Water Lane	0	0	0	0
-	2.0%	Same Output area to site	0	0	0	0
n/a	33.8%	Does not interact in area near to proposed site	2	4	3	2
TOTAL	100%		5	12	10	5
			1	2	1	1



Teville Gate

Land Use	Promoted*	Consented**
Residential	450	378 units
Office	2,780 sqm	-
Retail	12,000 sqm	989 sqm of flexible retail units and discount food store (1,814 sqm)
Leisure	11,000 sqm	83-bed hotel and a gym
*WBC Local Transport Study (WSP, August 2018)		
**Consented Development Planning Reference: AWDM/0325/19		

Trip Generation

Promoted Vehicular Trips			
AM		PM	
Arrivals	Departures	Arrivals	Departures
89 (43)	119 (94)	374 (77)	332 (45)
Note: all trips (new trips)			

Consented Total Residential Vehicular Trips			
AM Peak		PM Peak	
Arrivals	Departures	Arrivals	Departures
14	50	45	23

Consented Discount Food Store Vehicular Trips (20% New)			
AM Peak		PM Peak	
Arrivals	Departures	Arrivals	Departures
6	5	12	13

Paragraph 5.3.3 of TA "it is expected that all trips assocaited with the non-food retail units are ancillary to the proposed development and will be linked/pass-by trips.

Consented Total Gym Vehicular Trips			
AM Peak		PM Peak	
Arrivals	Departures	Arrivals	Departures
1	1	8	3

Consented Total Hotel Vehicular Trips			
AM Peak		PM Peak	
Arrivals	Departures	Arrivals	Departures
1	2	3	1

Consented Total Vehicular Trips			
AM Peak		PM Peak	
Arrivals	Departures	Arrivals	Departures
22	58	68	40

Trip Distribution

WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)
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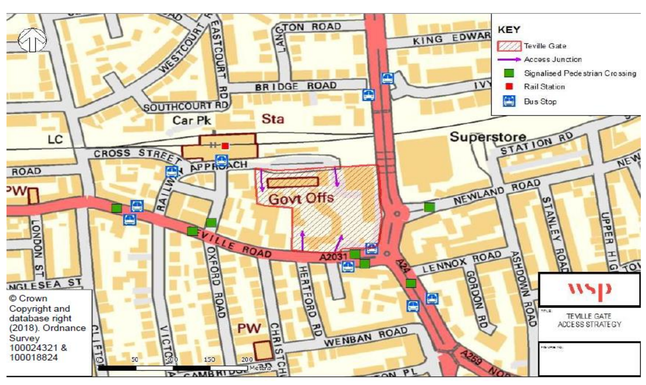
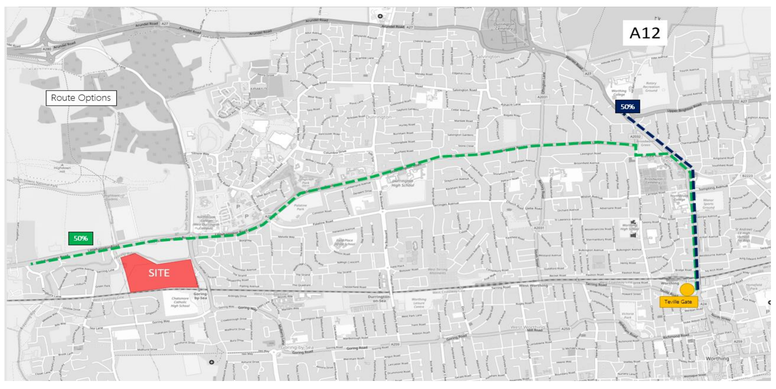
population	All usual residents aged 16 and over in employment the week before the census
units	Persons
date	2011
method of travel to work	Driving a car or van

Place of work	Usual Residence		Route	Residential			
	E02006630 : Worthing 010			AM Peak		PM Peak	
				Arrivals	Departures	Arrivals	Departures
E02006621 : Worthing 001	23	1.5%	not via assessed site network	0	1	1	0
E02006622 : Worthing 002	11	0.7%	not via assessed site network	0	0	0	0
E02006623 : Worthing 003	52	3.5%	not via assessed site network	0	2	2	1
E02006624 : Worthing 004	29	1.9%	not via assessed site network	0	1	1	0
E02006625 : Worthing 005	76	5.0%	not via assessed site network	1	3	2	1
E02006626 : Worthing 006	39	2.6%	not via assessed site network	0	1	1	1
E02006627 : Worthing 007	58	3.8%	not via assessed site network	1	2	2	1
E02006628 : Worthing 008	31	2.1%	not via assessed site network	0	1	1	0
E02006629 : Worthing 009	53	3.5%	not via assessed site network	0	2	2	1
E02006630 : Worthing 010	52	3.5%	not via assessed site network	0	2	2	1
E02006631 : Worthing 011	181	12.0%	not via assessed site network	2	6	5	3
E02006632 : Worthing 012	24	1.6%	not via assessed site network	0	1	1	0
E02006633 : Worthing 013	56	3.7%	not via assessed site network	1	2	2	1
Adur	144	9.6%	not via assessed site network	1	5	4	2
Arun	147	9.8%	50% A2032 / A259 (W)	1	5	4	2
Basingstoke and Deane	2	0.1%	not via assessed site network	0	0	0	0
Brighton and Hove	174	11.5%	not via assessed site network	2	6	5	3
Chichester	59	3.9%	not via assessed site network	1	2	2	1
Crawley	55	3.6%	not via assessed site network	1	2	2	1
Dover	1	0.1%	not via assessed site network	0	0	0	0
East Hampshire	1	0.1%	not via assessed site network	0	0	0	0
Eastbourne	1	0.1%	not via assessed site network	0	0	0	0
Eastleigh	1	0.1%	not via assessed site network	0	0	0	0
Elmbridge	3	0.2%	not via assessed site network	0	0	0	0
Epsom and Ewell	2	0.1%	not via assessed site network	0	0	0	0
Fareham	2	0.1%	not via assessed site network	0	0	0	0
Gravesham	1	0.1%	not via assessed site network	0	0	0	0
Guildford	8	0.5%	not via assessed site network	0	0	0	0
Hart	1	0.1%	not via assessed site network	0	0	0	0
Hastings	1	0.1%	not via assessed site network	0	0	0	0
Horsham	102	6.8%	not via assessed site network	1	3	3	2
Lewes	29	1.9%	not via assessed site network	0	1	1	0
Maidstone	1	0.1%	not via assessed site network	0	0	0	0
Mid Sussex	34	2.3%	not via assessed site network	0	1	1	1
Milton Keynes	1	0.1%	not via assessed site network	0	0	0	0
Mole Valley	11	0.7%	not via assessed site network	0	0	0	0
New Forest	2	0.1%	not via assessed site network	0	0	0	0
Oxford	0	0.0%	not via assessed site network	0	0	0	0
Portsmouth	6	0.4%	not via assessed site network	0	0	0	0
Reigate and Banstead	7	0.5%	not via assessed site network	0	0	0	0
Rother	2	0.1%	not via assessed site network	0	0	0	0
Rushmoor	1	0.1%	not via assessed site network	0	0	0	0
Sevenoaks	3	0.2%	not via assessed site network	0	0	0	0
Southampton	3	0.2%	not via assessed site network	0	0	0	0
Spelthorne	1	0.1%	not via assessed site network	0	0	0	0
Surrey Heath	1	0.1%	not via assessed site network	0	0	0	0
Tandridge	1	0.1%	not via assessed site network	0	0	0	0
Waverley	3	0.2%	not via assessed site network	0	0	0	0
Wealden	5	0.3%	not via assessed site network	0	0	0	0
Winchester	2	0.1%	not via assessed site network	0	0	0	0
Windsor and Maidenhead	1	0.1%	not via assessed site network	0	0	0	0
Wycombe	3	0.2%	not via assessed site network	0	0	0	0
TOTAL	1,507	100.0%		14	50	45	23



The commercial and leisure uses have not been distributed onto the network as these will have limited impact within the AM and PM peak hour periods and the small number of trips will disperse across the local highway network and highly unlikley to utilise the assessed network.

Route	Residential			
	AM Peak		PM Peak	
	Arrivals	Departures	Arrivals	Departures
50% A2032 / A259 (W)	1	3	2	1



Titnore Lane

Type	Promoted	Consented
Residential	60	-

Trip Rates

Promoted Vehicular Trip Rates			
AM		PM	
Arrivals	Departures	Arrivals	Departures
0.135	0.397	0.333	0.206

Trip Generation

Promoted Vehicular Trips			
AM		PM	
Arrivals	Departures	Arrivals	Departures
8	24	20	12

Trip Distribution

WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)
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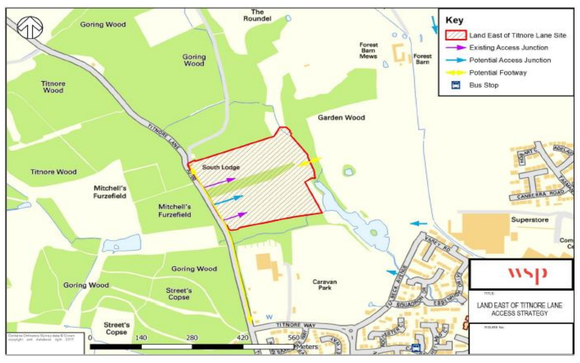
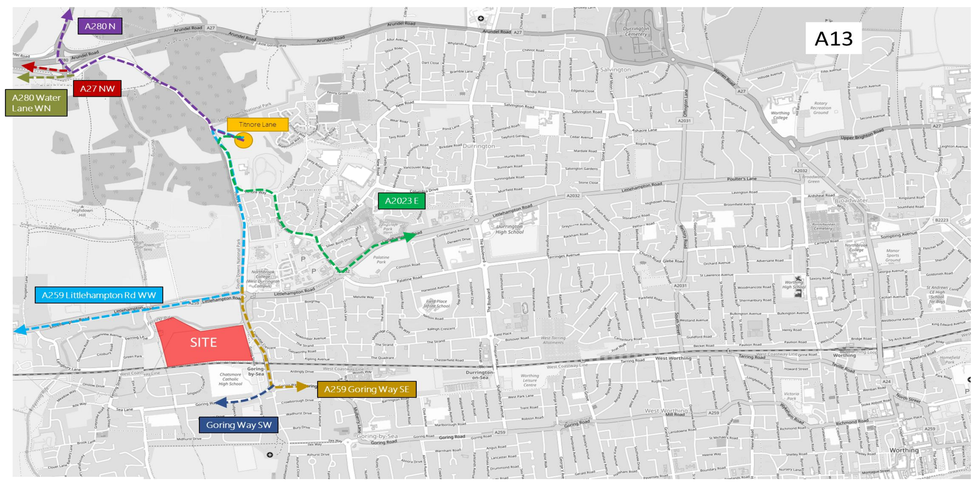
population	All usual residents aged 16 and over in employment the week before the census
units	Persons
date	2011
usual residence	E02006626 : Worthing 006 (2011 super output area - middle layer)

Place of Work : 2011 Super Output Area - Middle Layer	Location	Driving a car or van	Route				Share	
			Route 1	Weigh t	Route 2	Weight	Main	Alt
E02006621 : Worthing 001	High Salvington	42	E				2.3%	-
E02006622 : Worthing 002	Ashacre Ln	24	E				1.3%	-
E02006623 : Worthing 003	Durrington	76	E				4.2%	-
E02006624 : Worthing 004	First Ave	35	E				1.9%	-
E02006625 : Worthing 005	Penfold Rd	88	E				4.9%	-
E02006626 : Worthing 006	Northbrook College	53	S	0.7	E	0.3	2.1%	0.88%
E02006627 : Worthing 007	Terringes Ave	46	E				2.6%	-
E02006628 : Worthing 008	West Court Road	33	E				1.8%	-
E02006629 : Worthing 009	Meadow Rd Trading Estates	61	E				3.4%	-
E02006630 : Worthing 010	Heene Rd	46	E				2.6%	-
E02006631 : Worthing 011	Wallace Ave	288	E	0.5	S	0.5	8.0%	8.01%
E02006632 : Worthing 012	Hailsham Rd	35	E	0.5	SE	0.5	1.0%	0.97%
E02006633 : Worthing 013	Goring Centre	88	SE				4.9%	-
E02006542 : Arun 001	Arundel	11	NW				0.6%	-
E02006543 : Arun 002	Patching/Findon	23	N	0.5	NE	0.5	0.6%	0.64%
E02006544 : Arun 003	Eastergate	9	N				0.5%	-
E02006545 : Arun 004	North Littlehampton	30	WN	0.5	WW	0.5	0.8%	0.83%
E02006546 : Arun 005	Angmering	25	WN				1.4%	-
E02006547 : Arun 006	Yapton	16	NW	0.5	WW	0.5	0.4%	0.44%
E02006548 : Arun 007	Rustington	24	WW				1.3%	-
E02006549 : Arun 008	Ferring	30	S				1.7%	-
E02006550 : Arun 009	Littlehampton Academy	15	WW				0.8%	-
E02006551 : Arun 010	Rustington/Ferring	11	WW				0.6%	-
E02006552 : Arun 011	Littlehampton Centre	27	WW				1.5%	-
E02006553 : Arun 012	North Bersted	2	NW	0.6	WW	0.4	0.1%	0.04%
E02006555 : Arun 014	Bognor Regis Hospital	1	NW	0.6	WW	0.4	0.0%	0.02%
E02006556 : Arun 015	Felpham	4	WW	0.5	NW	0.5	0.1%	0.11%
E02006557 : Arun 016	Bognor Regis	1	NW	0.6	WW	0.4	0.0%	0.02%
E02006558 : Arun 017	Bognor Regis	5	NW	0.6	WW	0.4	0.2%	0.11%
	Horsham	133	N				7.4%	-
	Brighton	94	E				5.2%	-
	Adur	78	E				4.3%	-
	Crawley	52	N	0.5	E	0.5	1.4%	1.45%
	Chichester	42	NW				2.3%	-
	Lancing	41	E				2.3%	-
	Surrey	40	N				2.2%	-
	Mid Sussex	34	E				1.9%	-
	London	29	N				1.6%	-
	Lewes	24	E				1.3%	-
	Gatwick	18	N	0.5	E	0.5	0.5%	0.50%
	Hampshire	9	NW				0.5%	-
	Kent	8	E				0.4%	-
	Norwich	6	N				0.3%	-
	Hertfordshire	5	N				0.3%	-
	Portsmouth	5	NW				0.3%	-
	Havant	3	NW				0.2%	-
	Nottinghamshire	3	N				0.2%	-
	Liverpool	2	N				0.1%	-
	Norfolk	2	E				0.1%	-
	Gosport	2	NW				0.1%	-
	Winchester	2	NW				0.1%	-
	Wiltshire	2	NW				0.1%	-
	Basingstoke	2	NW				0.1%	-
	Cornwall	2	NW				0.1%	-
	Tyne and Wear	1	N				0.1%	-
	Cheshire	1	N				0.1%	-
	Northamptonshire	1	N				0.1%	-
	Warwickshire	1	N	0.6	NW	0.4	0.0%	0.02%
	West Midlands	1	N	0.6	NW	0.4	0.0%	0.02%
	Essex	1	N	0.5	E	0.5	0.0%	0.03%
	Berkshire	1	N				0.1%	-
	Buckinghamshire	1	N				0.1%	-
	Eastbourne	1	E				0.1%	-
	Oxfordshire	1	N				0.1%	-
	Wales	1	NW				0.1%	-
TOTAL		1,798					85.9%	14.1%



Direction	%	Route	AM Peak		PM Peak	
			Arrivals	Departures	Arrivals	Departures
N	15.6%	Titnore Lane / A280 Long Furlough	1	4	3	2
NE	0.6%	Titnore Lane / A27 Arundel Road [EB]	0	0	0	0
E	52.6%	Titnore Way/ Romany Road/ Yeoman Road/ A2032 Littlehampton Road	4	13	11	7
S	11.7%	Titnore Way / A280 Water Lane	1	3	2	1
WW	5.9%	Titnore Lane / A259 Littlehampton Road	0	1	1	1
NW	5.4%	Titnore Lane / A27 Arundel Road [WB]	0	1	1	1
WN	2.2%	Titnore Lane	0	1	0	0
SE	5.9%	Titnore Way/A259 [Goring Street / Goring Way / Mulberry Lane]	0	1	1	1
TOTAL	100%		8	24	20	12



Union Place

Land Use	Promoted*	Consented**
Residential	250	186 resi
Retail	2322 sqm	611 sqm of commercial floorspace
Leisure	6,000 sqm	90-bed hotel and extension to existing theatre
*WBC Local Transport Study (WSP, August 2018)		
**Consented Development Planning Reference: AWDM/0461/20		

Trip Generation

Promoted Vehicular Trips			
AM		PM	
Arrivals	Departures	Arrivals	Departures
38 (20)	64 (51)	162 (42)	131 (21)
Note: all trips (new trips)			

Consented Residential Vehicular Trips			
AM Peak		PM Peak	
Arrivals	Departures	Arrivals	Departures
11	28	29	20
Paragraph 6.40 of TA "the residential element of the proposals is the only use that has dedicated parking provision and is anticipated to be the only use that is likely to generate new trips to the site. Vehicle movements associated with the other uses (hotel, cinema and commercial) are likely to already be on the network and are able to use the existing range of parking facilities within the vicinity of the site."			

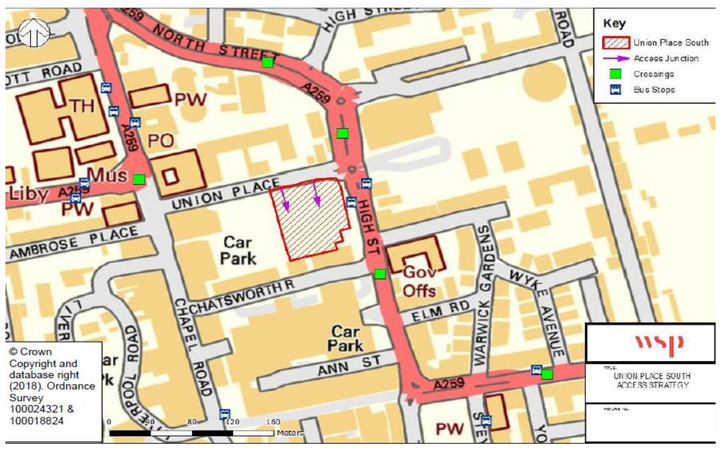
Net Change in Residential Vehicular Trips			
AM Peak		PM Peak	
Arrivals	Departures	Arrivals	Departures
1	23	21	13
Table 6.15 of the TA presents the net change in vehicle trips (existing High Street Car Park compared to Proposed Residential Use).			

Trip Distribution

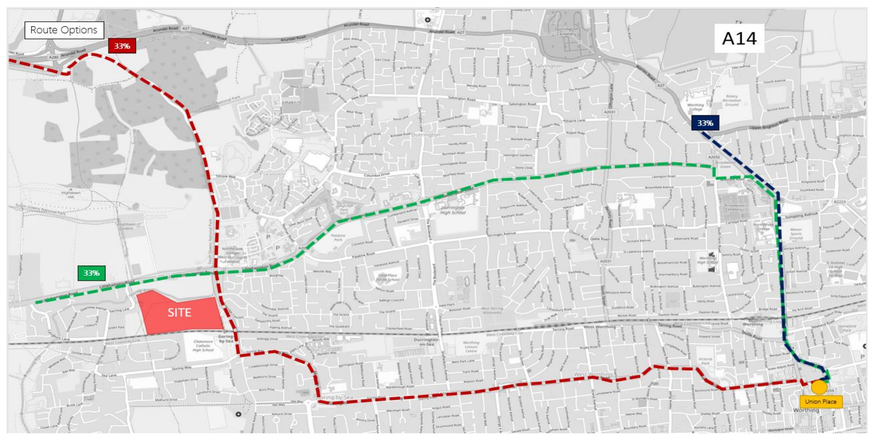
WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)
ONS Crown Copyright Reserved [from Nomis on 10 January 2019]

population	All usual residents aged 16 and over in employment the week before the census
units	Persons
date	2011
method of travel to work	Driving a car or van

Place of Work	Usual Residence		Route	AM Peak		PM Peak	
	E02006631 : Worthing 011			Arrivals	Departures	Arrivals	Departures
E02006621 : Worthing 001	26	1.7%	not via assessed site network	0	0	1	0
E02006622 : Worthing 002	11	0.7%	not via assessed site network	0	0	0	0
E02006623 : Worthing 003	39	2.6%	not via assessed site network	0	1	1	1
E02006624 : Worthing 004	21	1.4%	not via assessed site network	0	0	0	0
E02006625 : Worthing 005	74	5.0%	not via assessed site network	1	1	1	1
E02006626 : Worthing 006	35	2.3%	not via assessed site network	0	1	1	0
E02006627 : Worthing 007	31	2.1%	not via assessed site network	0	1	1	0
E02006628 : Worthing 008	37	2.5%	not via assessed site network	0	1	1	0
E02006629 : Worthing 009	50	3.4%	not via assessed site network	0	1	1	1
E02006630 : Worthing 010	40	2.7%	not via assessed site network	0	1	1	1
E02006631 : Worthing 011	163	10.9%	not via assessed site network	1	3	3	2
E02006632 : Worthing 012	24	1.6%	not via assessed site network	0	0	0	0
E02006633 : Worthing 013	47	3.2%	not via assessed site network	0	1	1	1
Adur	165	11.1%	not via assessed site network	1	3	3	2
Arun	179	12.0%	33% A259 (E) / A259 (N) / Titnore Lane N / A27 (W) 33% A2032 / A259 (W)	1	3	3	2
Basingstoke and Deane	3	0.2%	not via assessed site network	0	0	0	0
Bracknell Forest	1	0.1%	not via assessed site network	0	0	0	0
Brighton and Hove	169	11.3%	not via assessed site network	1	3	3	2
Chichester	32	2.1%	not via assessed site network	0	1	1	0
Chiltern	2	0.1%	not via assessed site network	0	0	0	0
Crawley	56	3.8%	not via assessed site network	0	1	1	1
Eastbourne	2	0.1%	not via assessed site network	0	0	0	0
Eastleigh	2	0.1%	not via assessed site network	0	0	0	0
Elmbridge	2	0.1%	not via assessed site network	0	0	0	0
Epsom and Ewell	1	0.1%	not via assessed site network	0	0	0	0
Fareham	3	0.2%	not via assessed site network	0	0	0	0
Gosport	1	0.1%	not via assessed site network	0	0	0	0
Guildford	8	0.5%	not via assessed site network	0	0	0	0
Havant	2	0.1%	not via assessed site network	0	0	0	0
Horsham	144	9.7%	not via assessed site network	1	3	3	2
Lewes	20	1.3%	not via assessed site network	0	0	0	0
Mid Sussex	45	3.0%	not via assessed site network	0	1	1	1
Milton Keynes	1	0.1%	not via assessed site network	0	0	0	0
Mole Valley	7	0.5%	not via assessed site network	0	0	0	0
Portsmouth	1	0.1%	not via assessed site network	0	0	0	0
Reading	1	0.1%	not via assessed site network	0	0	0	0
Reigate and Banstead	9	0.6%	not via assessed site network	0	0	0	0
Runnymede	1	0.1%	not via assessed site network	0	0	0	0
Sevenoaks	4	0.3%	not via assessed site network	0	0	0	0
South Bucks	1	0.1%	not via assessed site network	0	0	0	0
Tandridge	7	0.5%	not via assessed site network	0	0	0	0
Test Valley	3	0.2%	not via assessed site network	0	0	0	0
Tonbridge and Malling	1	0.1%	not via assessed site network	0	0	0	0
Tunbridge Wells	3	0.2%	not via assessed site network	0	0	0	0
Waverley	2	0.1%	not via assessed site network	0	0	0	0
Wealden	7	0.5%	not via assessed site network	0	0	0	0
Winchester	3	0.2%	not via assessed site network	0	0	0	0
Windsor and Maidenhead	3	0.2%	not via assessed site network	0	0	0	0
Wokingham	1	0.1%	not via assessed site network	0	0	0	0
TOTAL	1,490	100.0%		1	23	21	13



Route	AM Peak		PM Peak	
	Arrivals	Departures	Arrivals	Departures
33% A259 (E) / A259 (N) / Titnore Lane N / A27 (W)	0	1	1	1
33% A2032 / A259 (W)	0	1	1	1



Upper Brighton Road

Type	Promoted	Consented
Residential	123	-

Trip Rates

Promoted Vehicular Trip Rates			
AM		PM	
Arrivals	Departures	Arrivals	Departures
0.130	0.398	0.333	0.203

Trip Generation

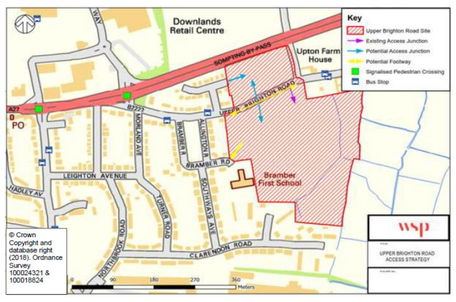
Promoted Vehicular Trips			
AM		PM	
Arrivals	Departures	Arrivals	Departures
16	49	41	25

Trip Distribution

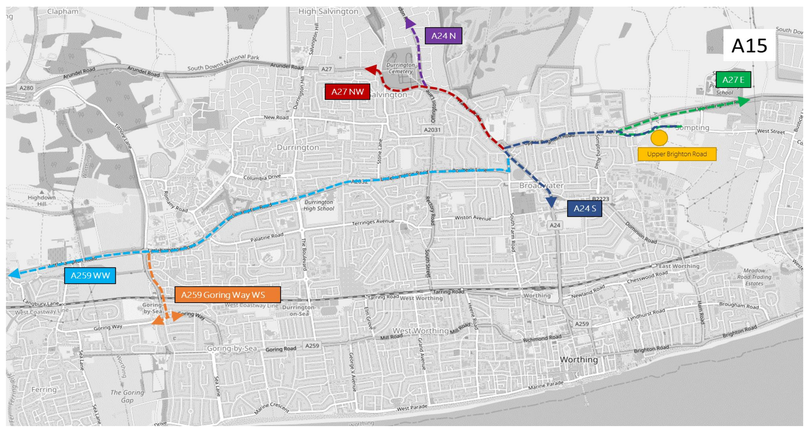
WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)

population	All usual residents aged 16 and over in employment the week before the census
units	Persons
date	2011
usual residence	E02006624 : Worthing 004 (2011 super output area - middle layer)

Place of work : 2011 super output area	Location	Driving a car or van	Route				Share	
			Route 1	Weight	Route 2	Weight	Main	Alt
E02006621 : Worthing 001	High Salvington	39	NW				2.0%	-
E02006622 : Worthing 002	Ashacre Ln	30	-				1.5%	-
E02006623 : Worthing 003	Durrington	41	-				2.1%	-
E02006624 : Worthing 004	First Ave	74	-				3.8%	-
E02006625 : Worthing 005	Penfold Rd	79	-				4.0%	-
E02006626 : Worthing 006	Northbrook College	53	W				2.7%	-
E02006627 : Worthing 007	Terringes Ave	60	S				3.1%	-
E02006628 : Worthing 008	West Court Road	69	S				3.5%	-
E02006629 : Worthing 009	Meadow Rd Trading Estates	57	E				2.9%	-
E02006630 : Worthing 010	Heene Rd	52	S				2.7%	-
E02006631 : Worthing 011	Wallace Ave	342	S				17.5%	-
E02006632 : Worthing 012	Hailsham Rd	24	S				1.2%	-
E02006633 : Worthing 013	Goring Centre	85	WS				4.4%	-
E02006542 : Arun 001	Arundel	7	NW				0.4%	-
E02006543 : Arun 002	Patching/Findon	28	N				1.4%	-
E02006544 : Arun 003	Eastergate	3	NW				0.2%	-
E02006545 : Arun 004	North Littlehampton	26	NW	0.5	WW	0.5	0.7%	0.67%
E02006546 : Arun 005	Angmering	8	NW				0.4%	-
E02006547 : Arun 006	Yapton	7	NW				0.4%	-
E02006548 : Arun 007	Rustington	16	WW				0.8%	-
E02006549 : Arun 008	Ferring	13	WS				0.7%	-
E02006550 : Arun 009	Littlehampton Academy	3	NW				0.2%	-
E02006551 : Arun 010	Rustington/Ferring	13	WW				0.7%	-
E02006552 : Arun 011	Littlehampton Centre	12	NW				0.6%	-
E02006553 : Arun 012	North Bersted	4	NW				0.2%	-
E02006555 : Arun 014	Bognor Regis Hospital	9	NW				0.5%	-
E02006556 : Arun 015	Felpham	3	NW				0.2%	-
E02006558 : Arun 017	Bognor Regis	4	NW				0.2%	-
E02006560 : Arun 019	Nyitimber	1	N				0.1%	-
	Lancing	170	E				8.7%	-
	Brighton	147	E				7.5%	-
	Horsham	120	N				6.2%	-
	Sussex	66	E				3.4%	-
	Crawley	54	E				2.8%	-
	Chichester	47	NW				2.4%	-
	Surrey	35	E				1.8%	-
	London	34	E				1.7%	-
	Lewes	26	E				1.3%	-
	Gatwick	18	E				0.9%	-
	Kent	14	E				0.7%	-
	Hants	9	NW				0.5%	-
	Havant	8	NW				0.4%	-
	North	7	E				0.4%	-
	Eastbourne	7	E				0.4%	-
	Norfolk	7	E				0.4%	-
	Portsmouth	4	NW				0.2%	-
	Berks	3	E				0.2%	-
	Fareham	3	NW				0.2%	-
	Essex	2	E				0.1%	-
	Southampton	2	NW				0.1%	-
	Cornwall	2	NW				0.1%	-
	Oxford	2	E				0.1%	-
	Dorset	1	NW				0.1%	-
	Wales	1	E				0.1%	-
TOTAL		1,951					99.3%	0.7%



Direction	%	Route	AM Peak		PM Peak	
			Arrivals	Departures	Arrivals	Departures
N	7.6%	Upper Brighton Road / A27 Upper Brighton Road / A27 Warren Road / A24 Findon Road	1	4	3	2
E	33.3%	Upper Brighton Road / A27 Upper Brighton Road / Sompting By-Pass	5	16	14	8
S	28.0%	Upper Brighton Road / A27 Upper Brighton Road / A24 Broadwater Street West	4	14	11	7
W	2.7%	Upper Brighton Road / A27 Upper Brighton Road	0	1	1	1
WW	2.2%	Upper Brighton Road / A27 Upper Brighton Road / A2032 Poulters Lane / A2032 Littlehampton Road	0	1	1	1
NW	9.6%	Upper Brighton Road / A27 Upper Brighton Road / A27 Warren Road / A27 Crockhurst Hill	2	5	4	2
WS	5.0%	Upper Brighton Road / A27 Upper Brighton Road / A2032 Poulters Lane / Littlehampton Road / A259 Goring Street	1	2	2	1
-	11.5%		2	6	5	3
TOTAL	100%		16	49	41	25



Land North of West Durrington

Type	Promoted	Consented
Residential	240	240
*WBC Local Transport Study (WSP, August 2018)		
**Consented Development Planning Reference: AWDM/0166/20		

Trip Generation

Promoted Vehicular Trips			
AM		PM	
Arrivals	Departures	Arrivals	Departures
32	96	80	49

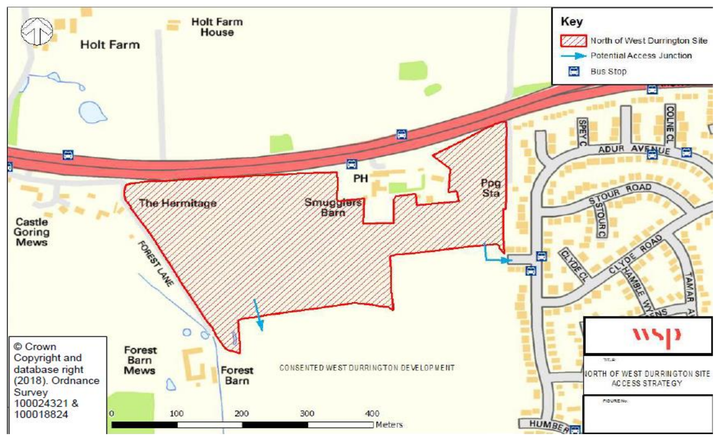
Consented Residential Vehicular Trips			
AM Peak		PM Peak	
Arrivals	Departures	Arrivals	Departures
36	87	91	55

Trip Distribution

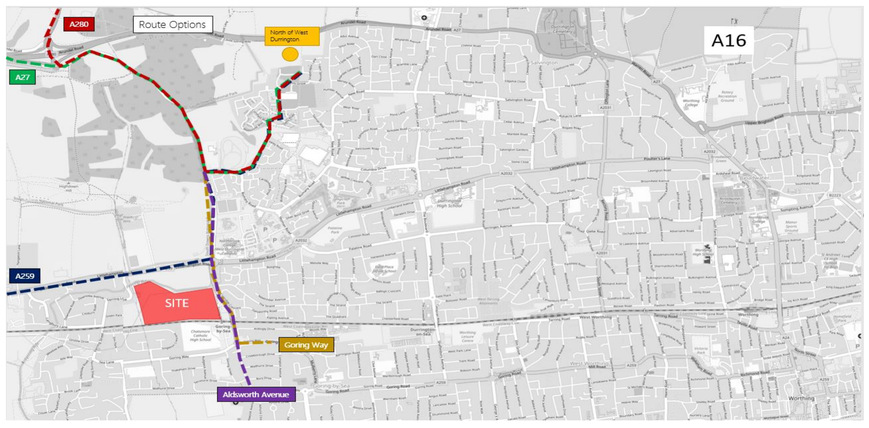
WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)
ONS Crown Copyright Reserved [from Nomis on 10 January 2019]

population	All usual residents aged 16 and over in employment the week before the census
units	Persons
date	2011
method of travel to work	Driving a car or van

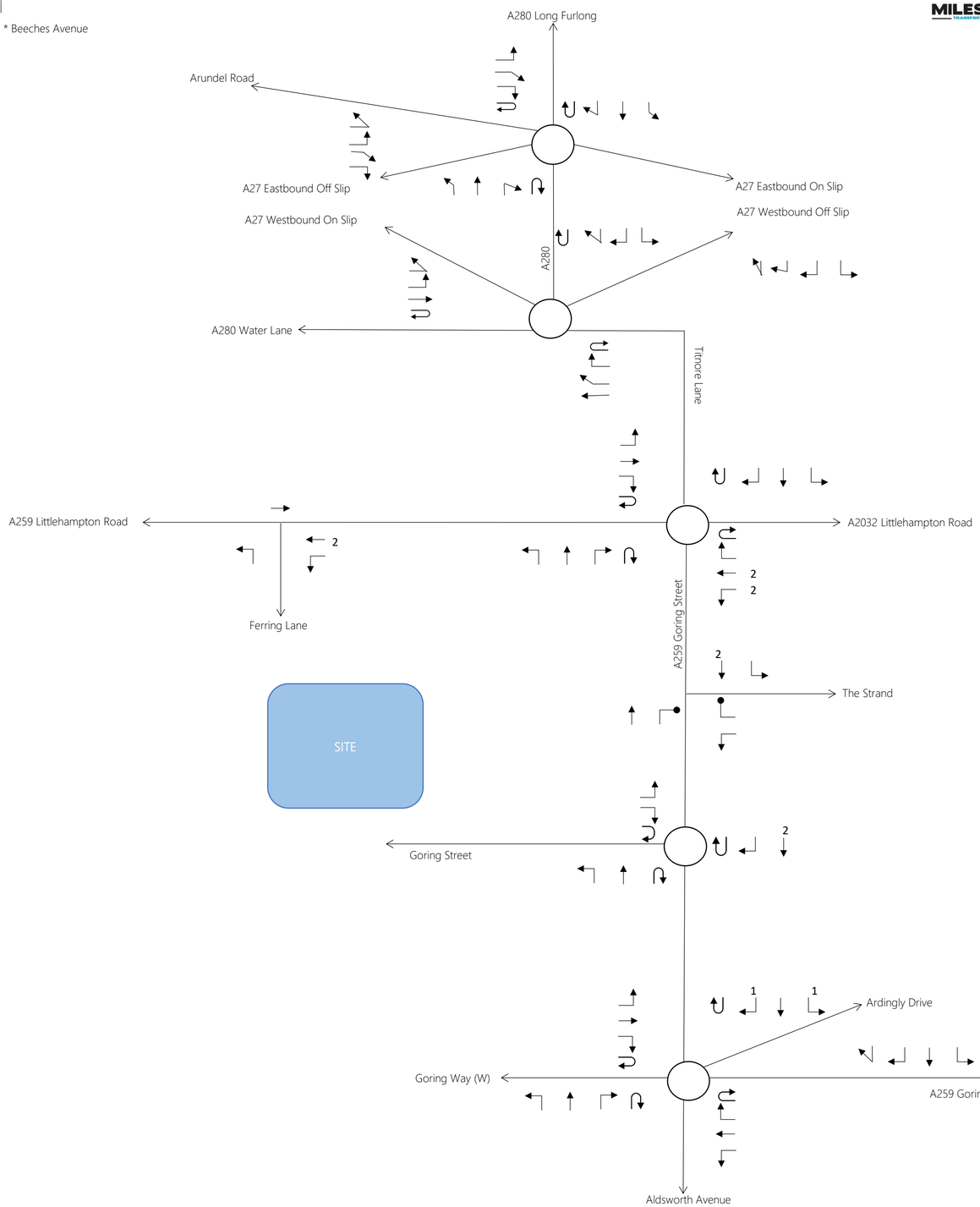
Place of Work	Usual Residence		Route	AM Peak		PM Peak	
	E02006626 : Worthing 006			Arrivals	Departures	Arrivals	Departures
E02006621 : Worthing 001	42	2.4%	not via assessed site network	1	2	2	1
E02006622 : Worthing 002	24	1.4%	not via assessed site network	0	1	1	1
E02006623 : Worthing 003	76	4.4%	not via assessed site network	2	4	4	2
E02006624 : Worthing 004	35	2.0%	not via assessed site network	1	2	2	1
E02006625 : Worthing 005	88	5.1%	not via assessed site network	2	4	5	3
E02006626 : Worthing 006	53	3.0%	not via assessed site network	1	3	3	2
E02006627 : Worthing 007	46	2.6%	not via assessed site network	1	2	2	1
E02006628 : Worthing 008	33	1.9%	not via assessed site network	1	2	2	1
E02006629 : Worthing 009	61	3.5%	not via assessed site network	1	3	3	2
E02006630 : Worthing 010	46	2.6%	not via assessed site network	1	2	2	1
E02006631 : Worthing 011	288	16.6%	not via assessed site network	6	14	15	9
E02006632 : Worthing 012	35	2.0%	not via assessed site network	1	2	2	1
E02006633 : Worthing 013	88	5.1%	50% Titnore Ln (S) / A259 (S) / Goring Way (E)	2	4	5	3
Adur	119	6.8%	not via assessed site network	2	6	6	4
Arun	234	13.4%	50% Titnore Ln (S) / A259 (W) 50% Titnore Ln (N) / A27 (W)	5	12	12	7
Ashford	1	0.1%	100% Titnore Ln (N) / A280 (N)	0	0	0	0
Basingstoke and Deane	2	0.1%	100% Titnore Ln (N) / A27 (W)	0	0	0	0
Bracknell Forest	1	0.1%	not via assessed site network	0	0	0	0
Brighton and Hove	94	5.4%	not via assessed site network	2	5	5	3
Canterbury	1	0.1%	100% Titnore Ln (N) / A280 (N)	0	0	0	0
Chichester	42	2.4%	100% Titnore Ln (N) / A27 (W)	1	2	2	1
Crawley	70	4.0%	100% Titnore Ln (N) / A280 (N)	1	4	4	2
East Hampshire	1	0.1%	100% Titnore Ln (N) / A27 (W)	0	0	0	0
Eastbourne	1	0.1%	not via assessed site network	0	0	0	0
Eastleigh	1	0.1%	100% Titnore Ln (N) / A27 (W)	0	0	0	0
Elmbridge	1	0.1%	100% Titnore Ln (N) / A280 (N)	0	0	0	0
Fareham	2	0.1%	100% Titnore Ln (N) / A27 (W)	0	0	0	0
Gosport	3	0.2%	100% Titnore Ln (N) / A27 (W)	0	0	0	0
Guildford	7	0.4%	100% Titnore Ln (N) / A280 (N)	0	0	0	0
Hart	1	0.1%	100% Titnore Ln (N) / A27 (W)	0	0	0	0
Havant	3	0.2%	100% Titnore Ln (N) / A27 (W)	0	0	0	0
Horsham	133	7.6%	100% Titnore Ln (N) / A280 (N)	3	7	7	4
Lewes	24	1.4%	not via assessed site network	0	1	1	1
Maidstone	1	0.1%	100% Titnore Ln (N) / A280 (N)	0	0	0	0
Mid Sussex	34	2.0%	100% Titnore Ln (N) / A280 (N)	1	2	2	1
Mole Valley	8	0.5%	100% Titnore Ln (N) / A280 (N)	0	0	0	0
New Forest	1	0.1%	100% Titnore Ln (N) / A27 (W)	0	0	0	0
Oxford	1	0.1%	100% Titnore Ln (N) / A280 (N)	0	0	0	0
Portsmouth	5	0.3%	100% Titnore Ln (N) / A27 (W)	0	0	0	0
Reigate and Banstead	12	0.7%	100% Titnore Ln (N) / A280 (N)	0	1	1	0
Runnymede	2	0.1%	100% Titnore Ln (N) / A280 (N)	0	0	0	0
Rushmoor	1	0.1%	100% Titnore Ln (N) / A27 (W)	0	0	0	0
Sevenoaks	4	0.2%	not via assessed site network	0	0	0	0
South Bucks	1	0.1%	not via assessed site network	0	0	0	0
Tandridge	2	0.1%	not via assessed site network	0	0	0	0
Tonbridge and Malling	1	0.1%	not via assessed site network	0	0	0	0
Waverley	6	0.3%	not via assessed site network	0	0	0	0
Winchester	3	0.2%	not via assessed site network	0	0	0	0
Woking	2	0.1%	not via assessed site network	0	0	0	0
TOTAL	1,740	100.0%		36	87	91	55



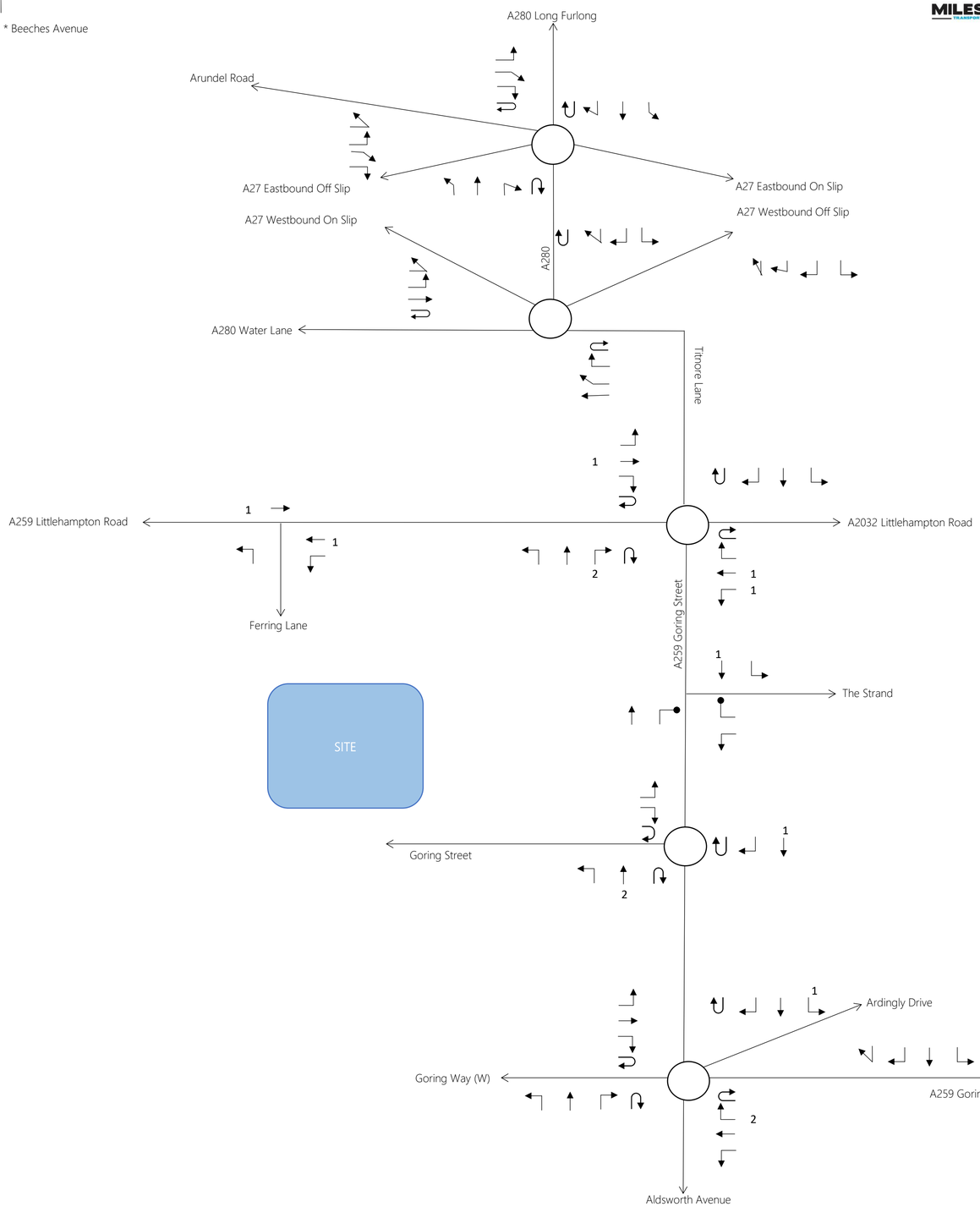
Route	AM Peak		PM Peak	
	Arrivals	Departures	Arrivals	Departures
50% Titnore Ln (S) / A259 (S) / Goring Way (E)	1	2	3	2
50% Titnore Ln (S) / A259 (W)	3	6	6	4
100% Titnore Ln (N) / A27 (W)	1	2	2	1
100% Titnore Ln (N) / A280 (N)	5	14	14	7

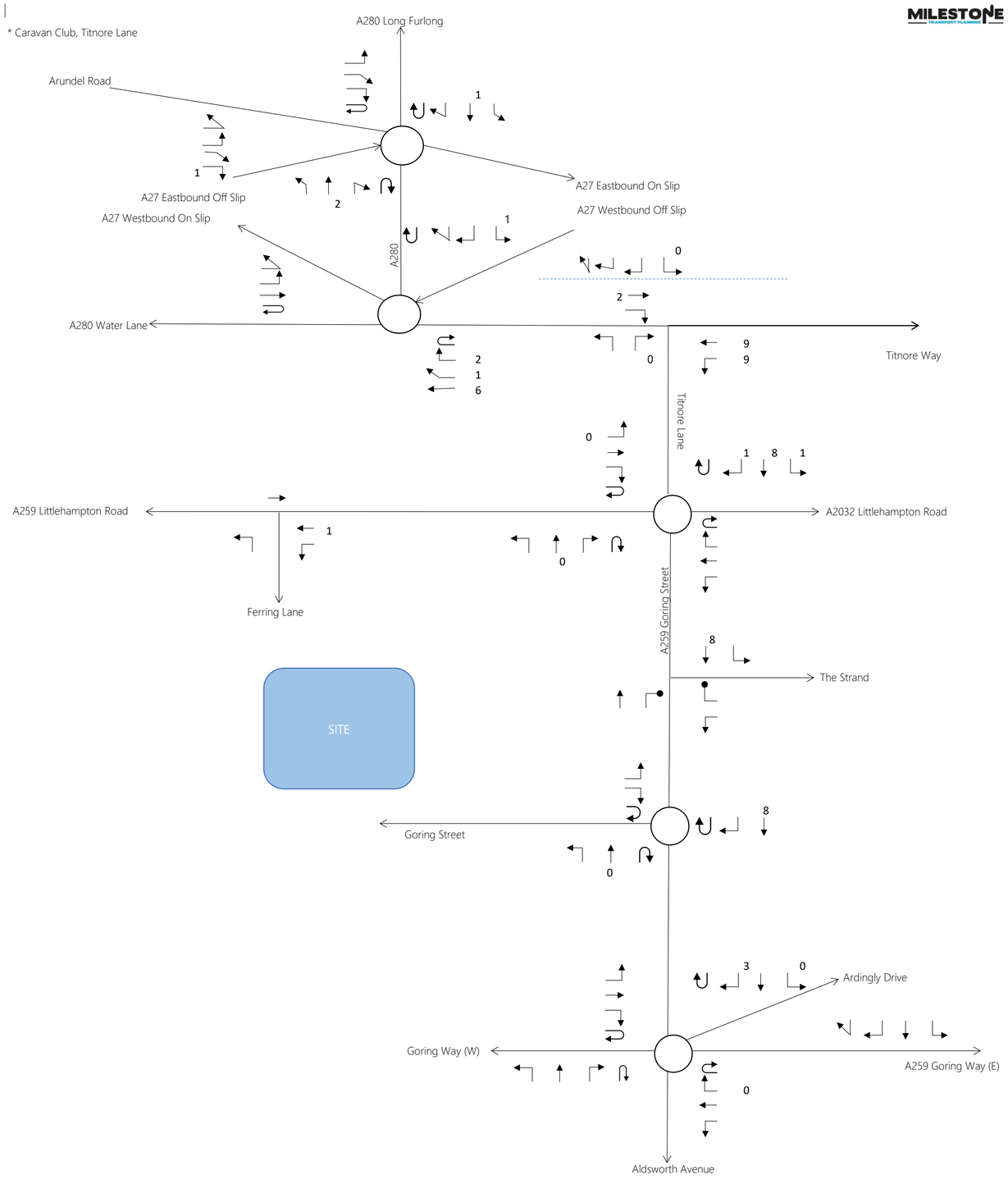


* Beeches Avenue

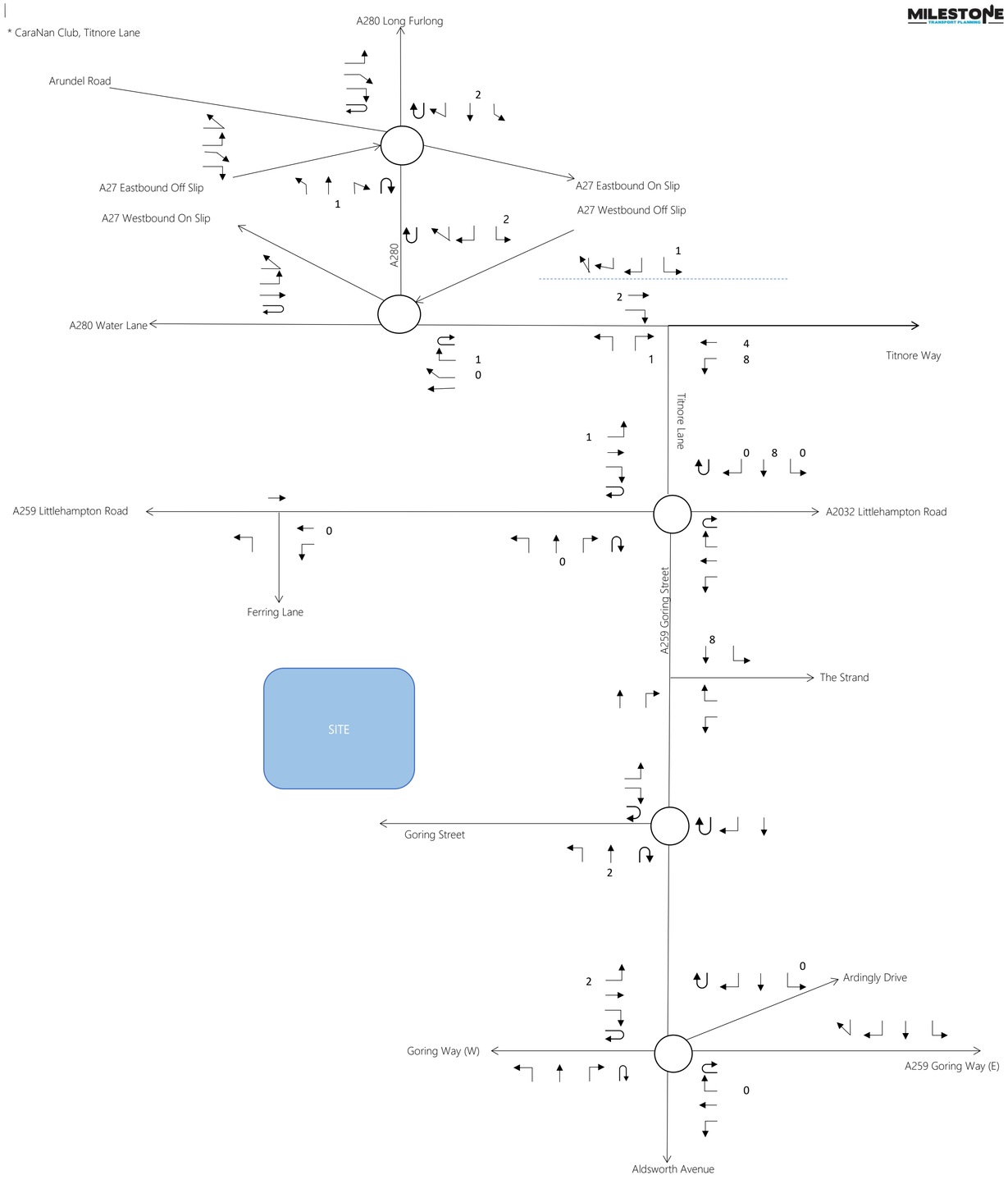


* Beeches Avenue

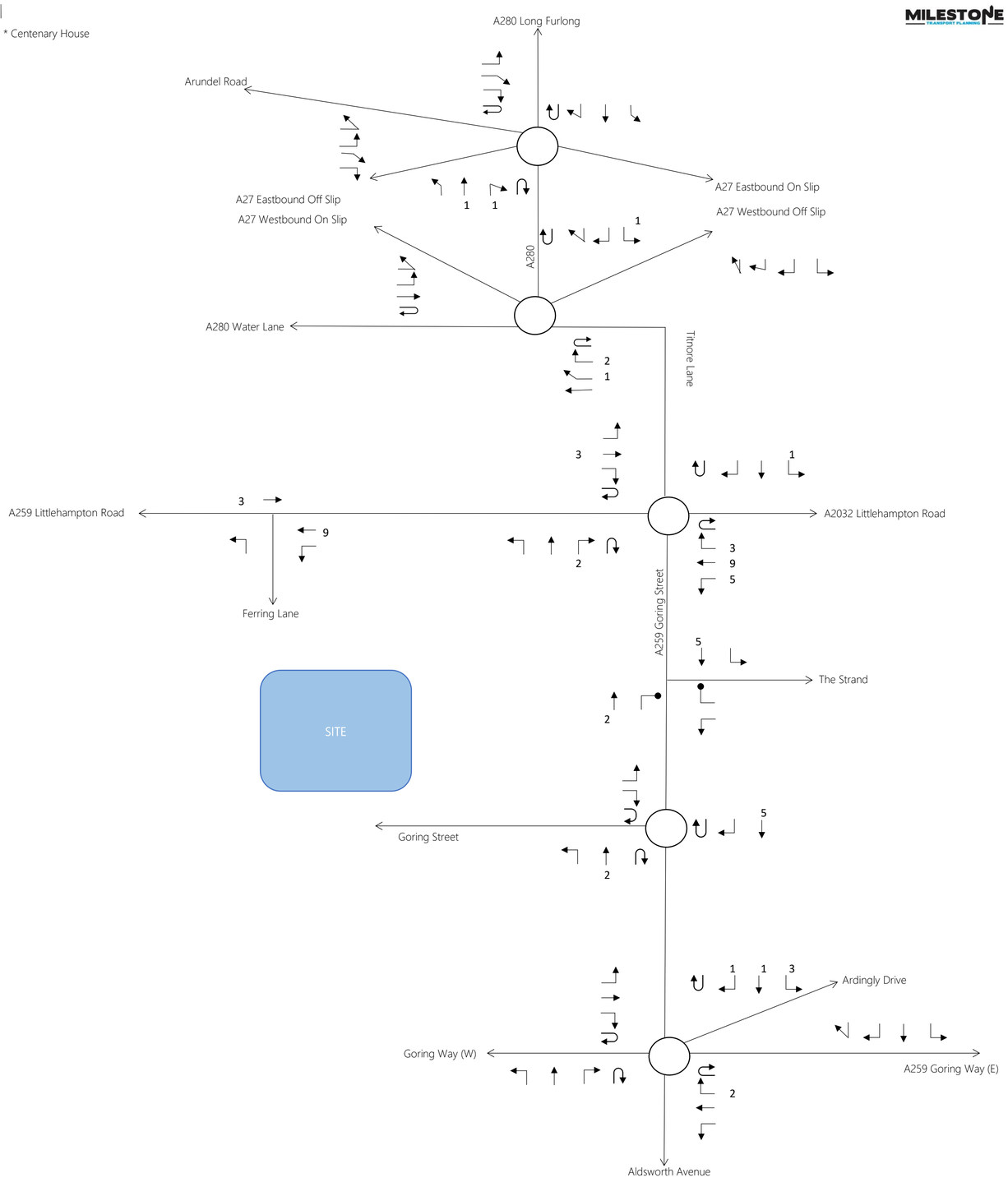



* Caravan Club, Titnore Lane
A280 Long Furlong
Arundel Road
A27 Eastbound Off Slip
A27 Eastbound On Slip
A27 Westbound On Slip
A27 Westbound Off Slip
A280
A280 Water Lane
Titnore Way
Titnore Lane
A259 Littlehampton Road
A2032 Littlehampton Road
Ferring Lane
A259 Goring Street
The Strand
SITE
Goring Street
Ardingly Drive
Goring Way (W)
A259 Goring Way (E)
Aldsworth Avenue

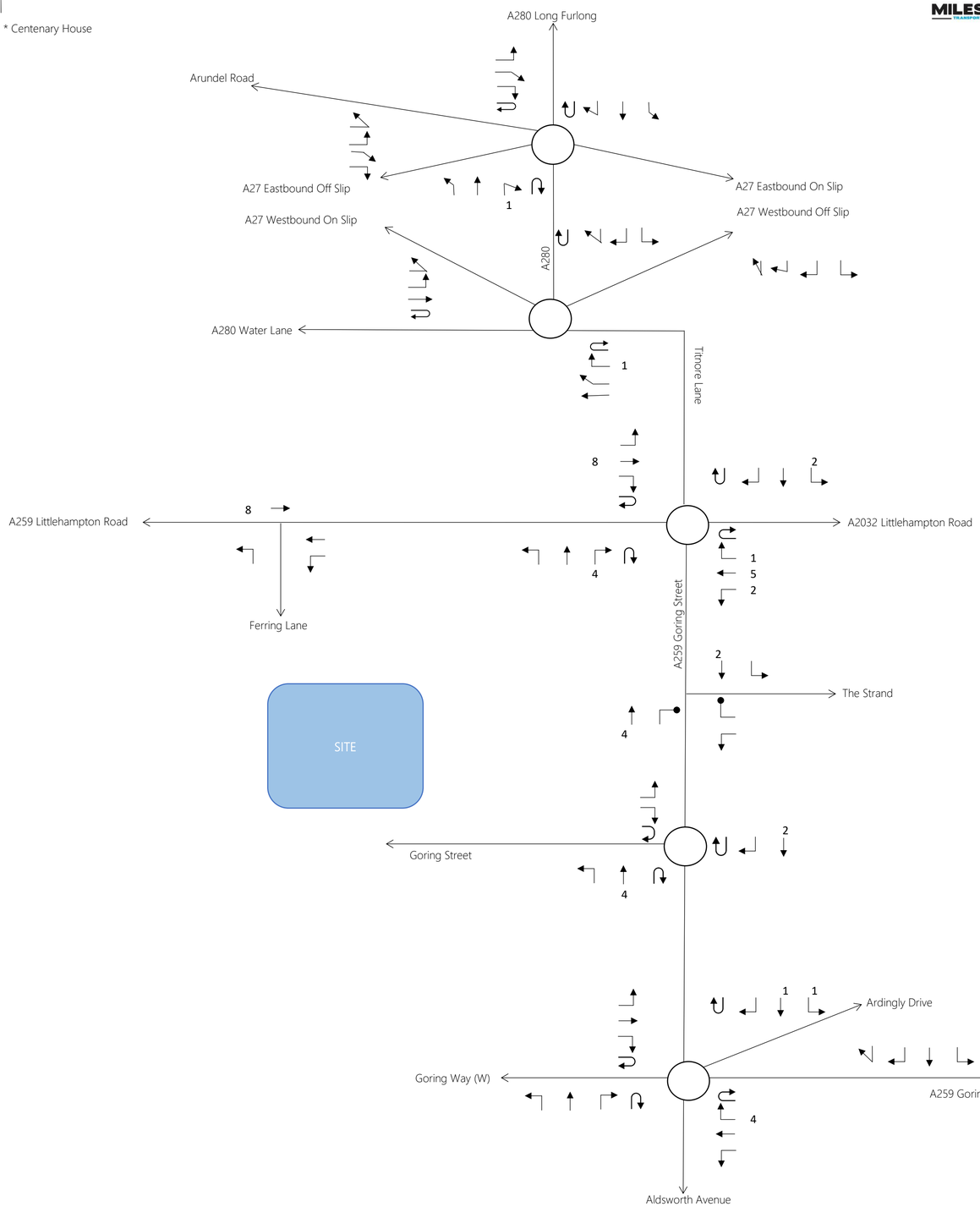
* CaraNan Club, Titnore Lane



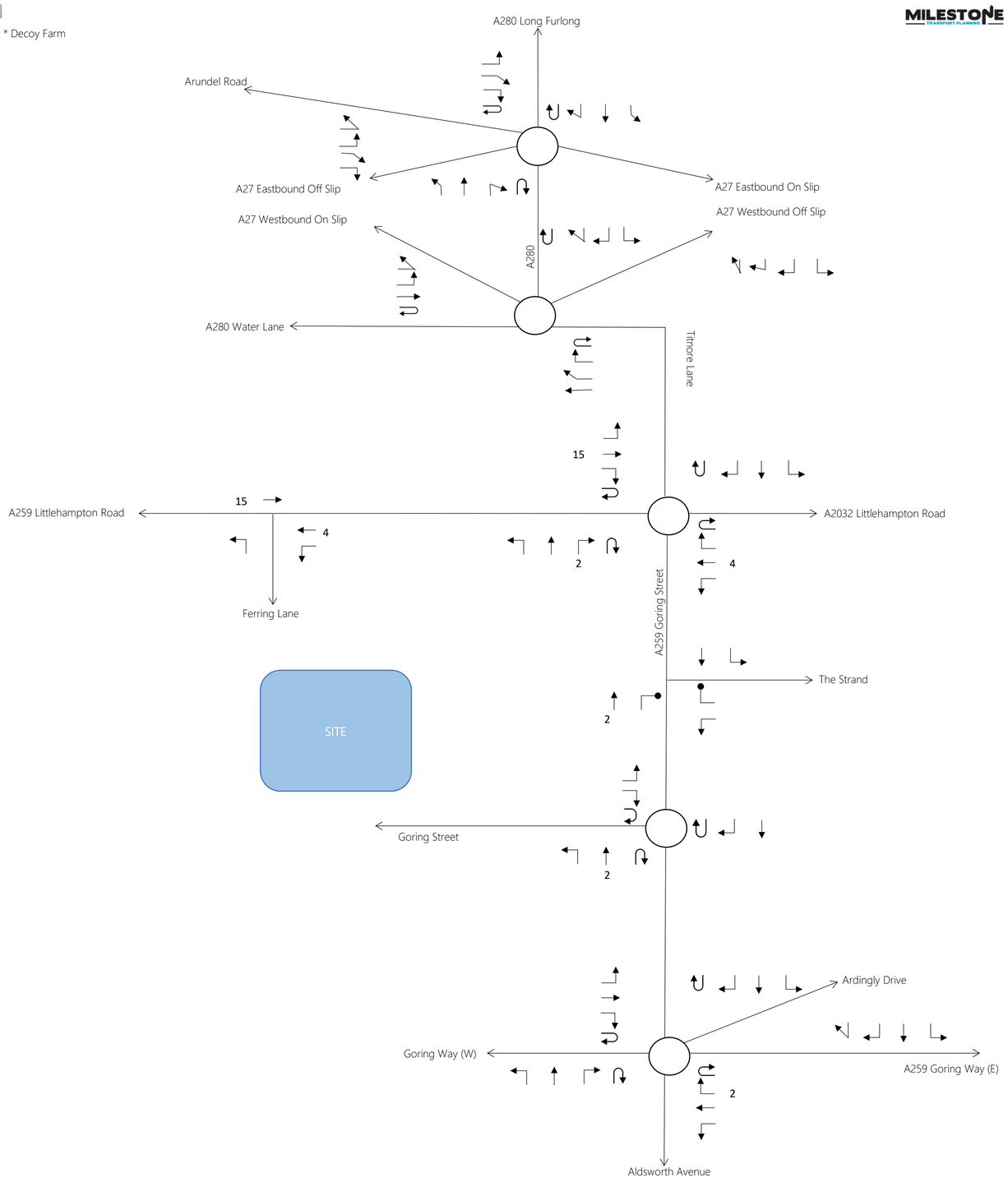
* Centenary House



* Centenary House



* Decoy Farm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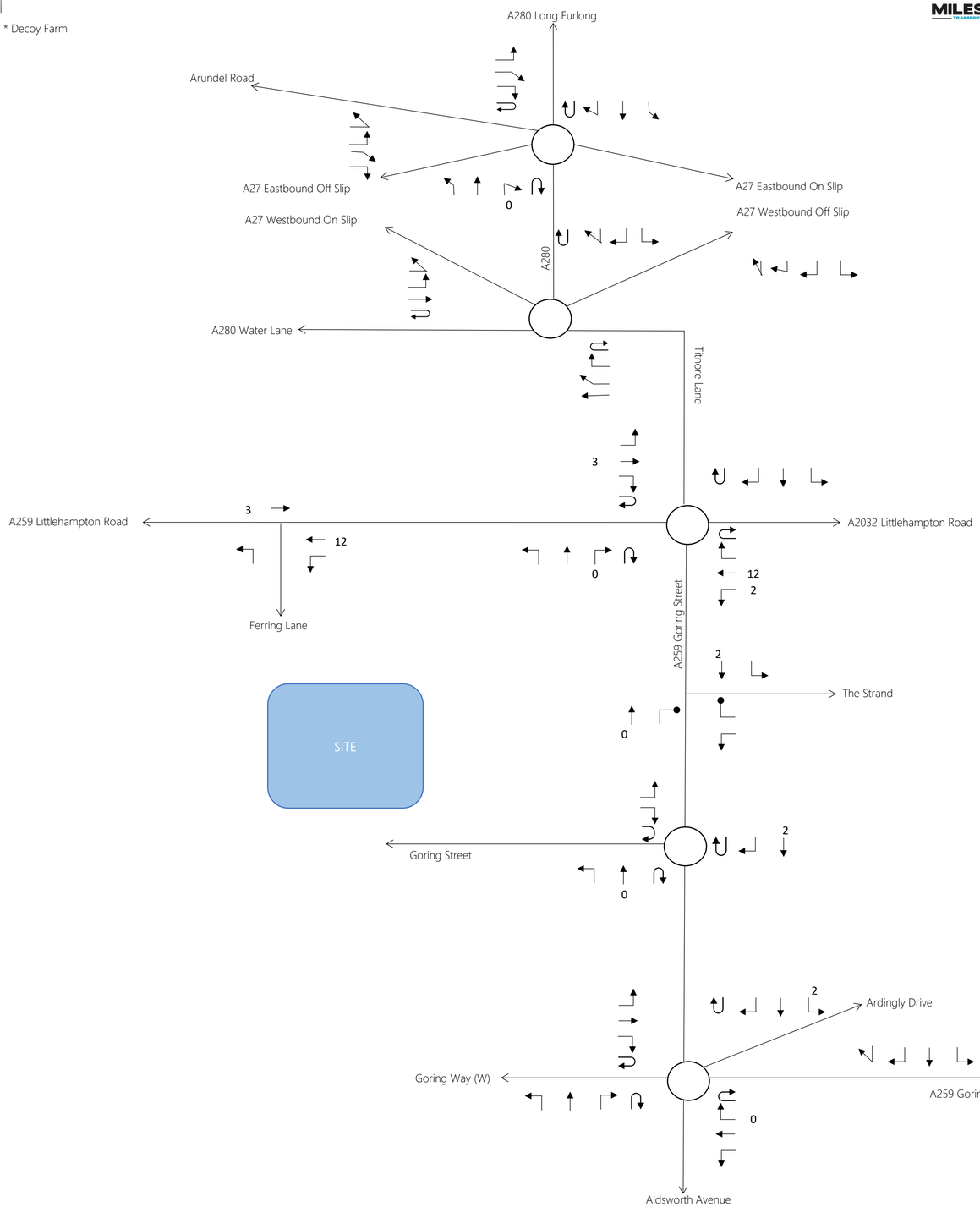
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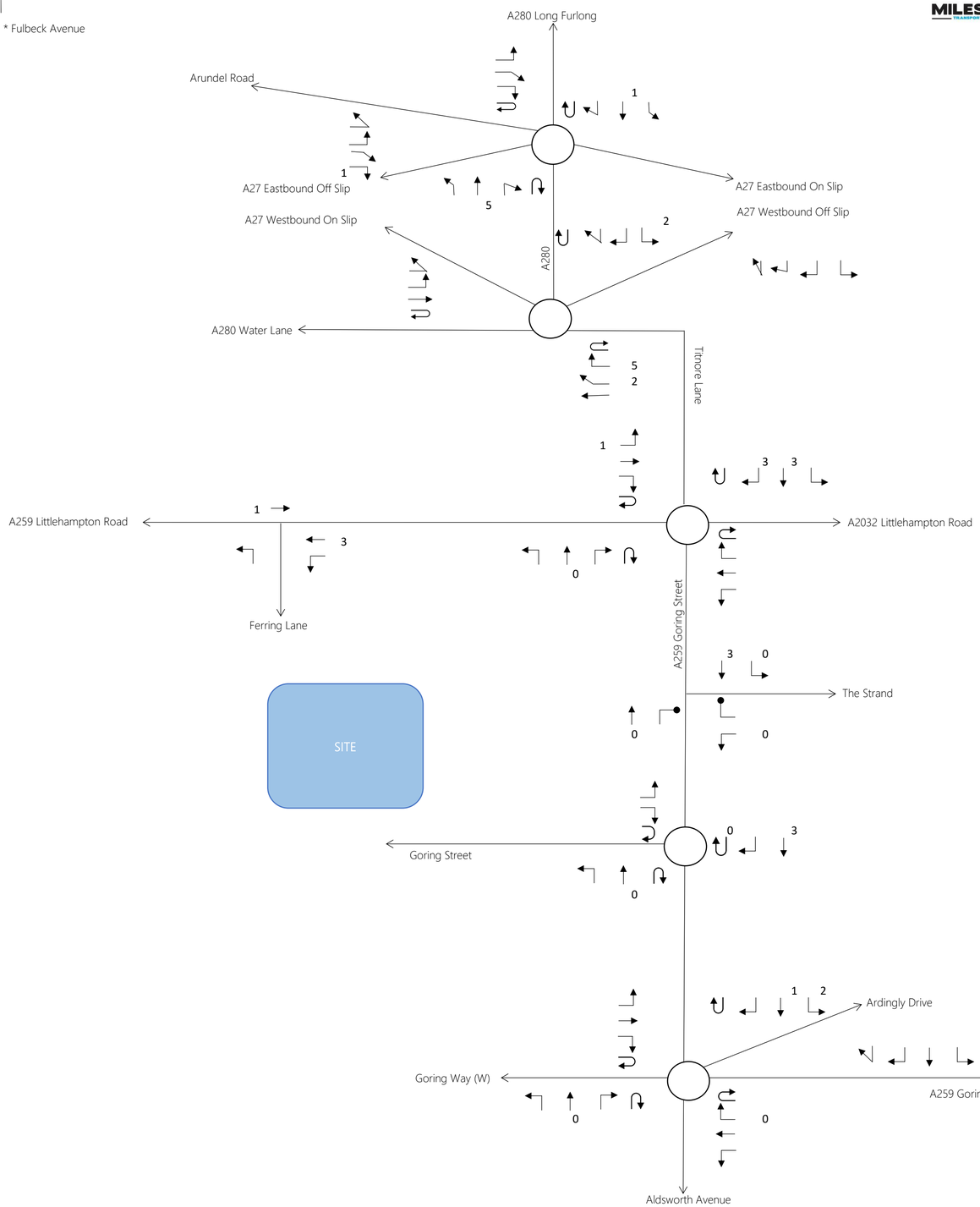

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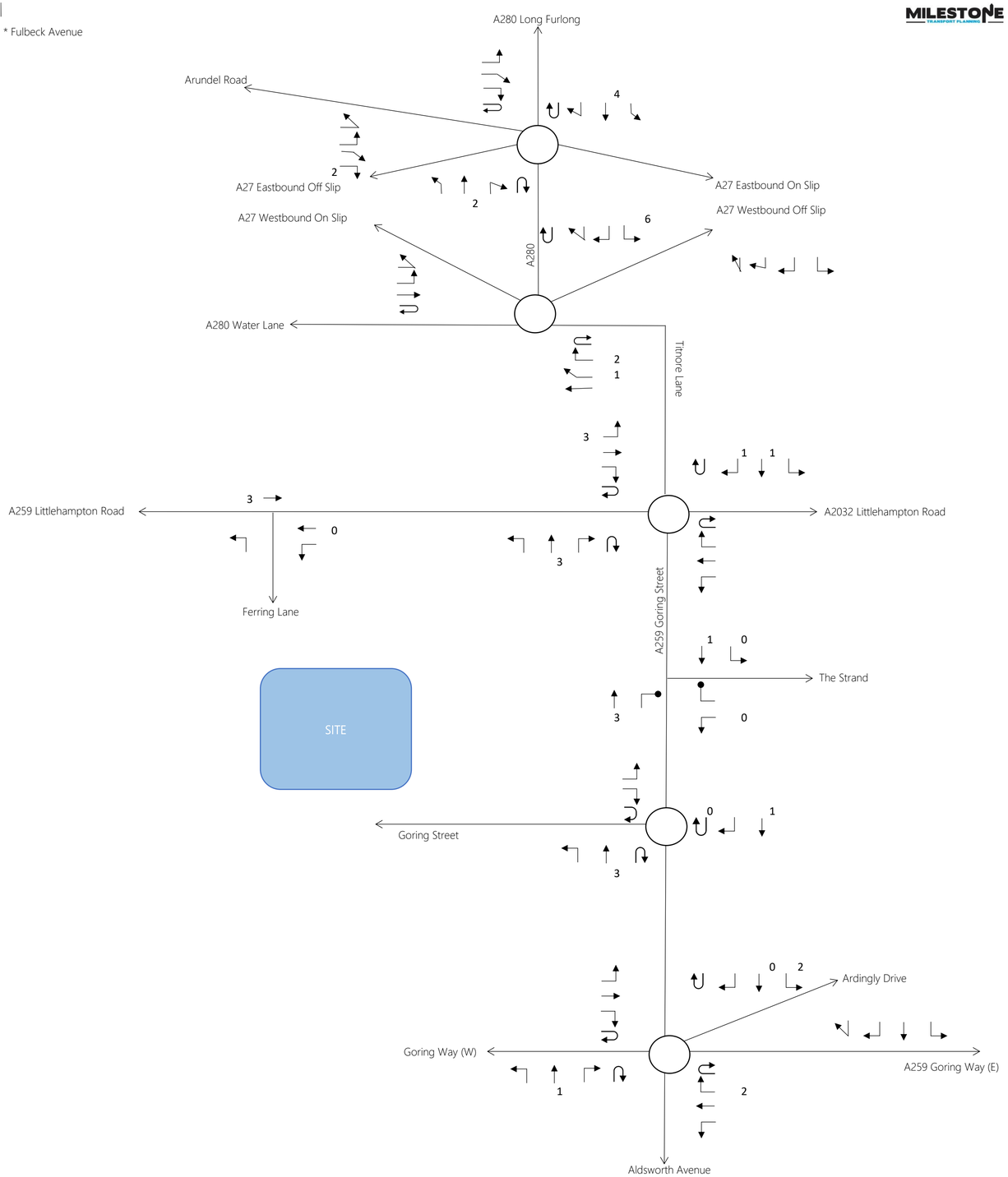

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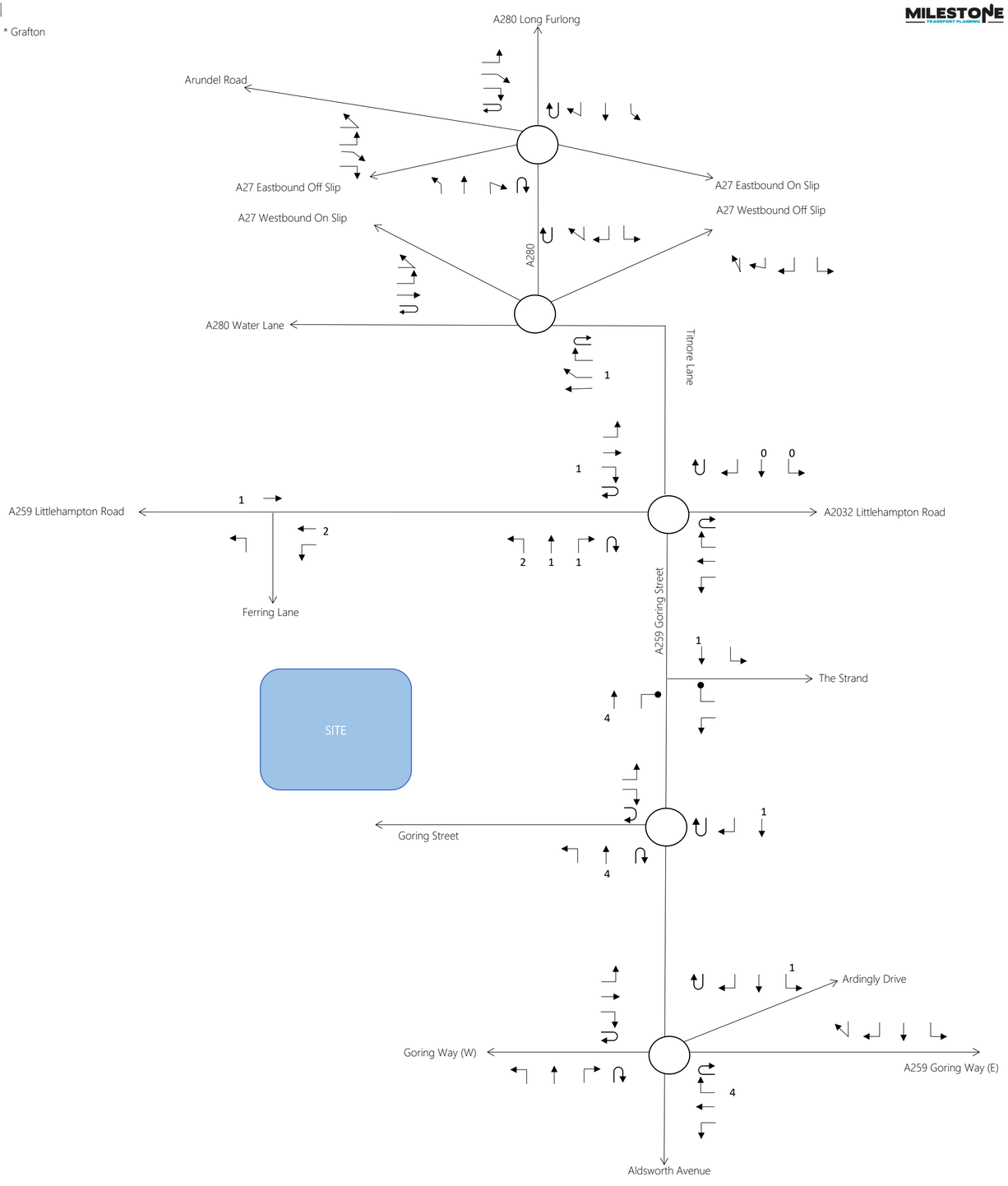
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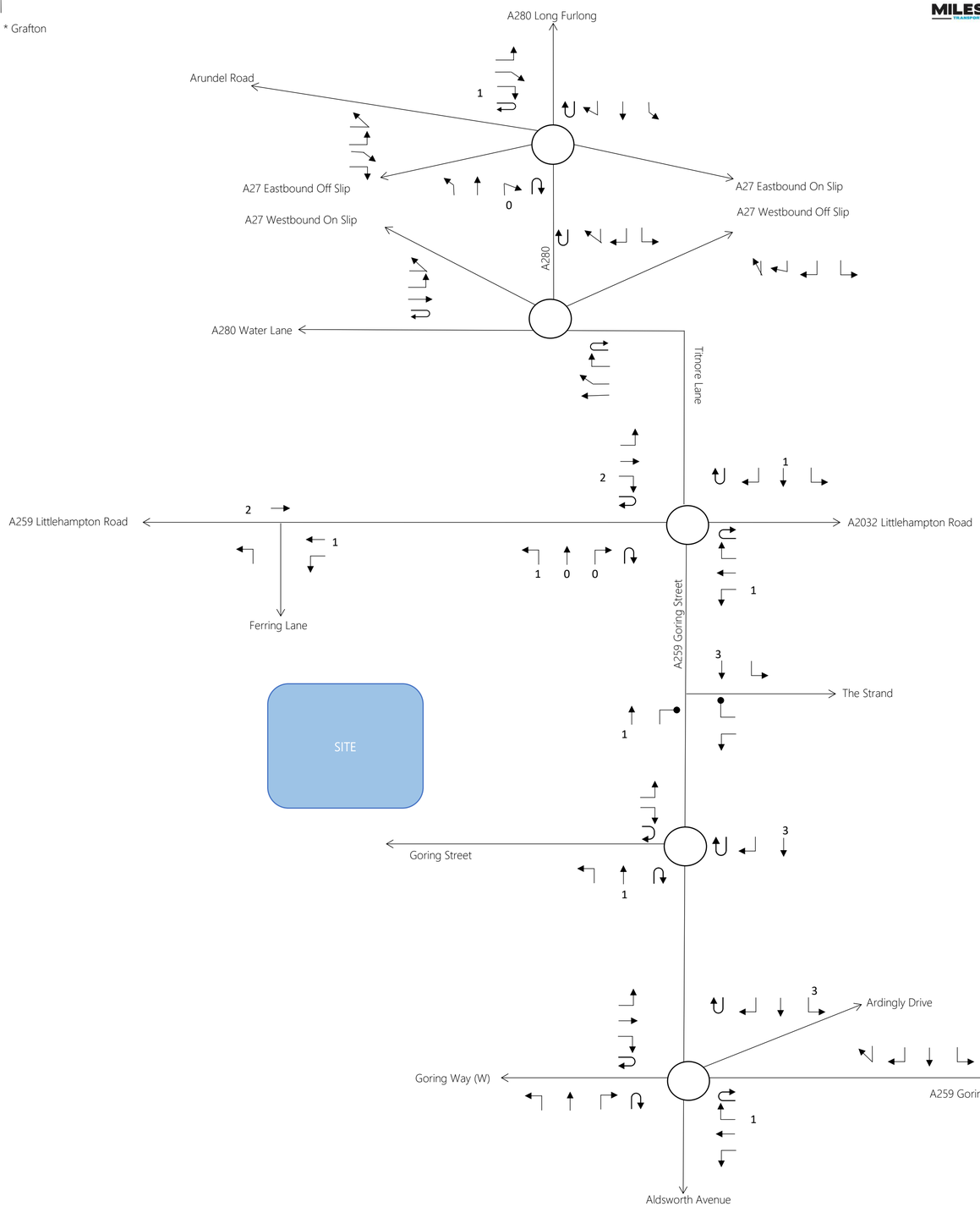
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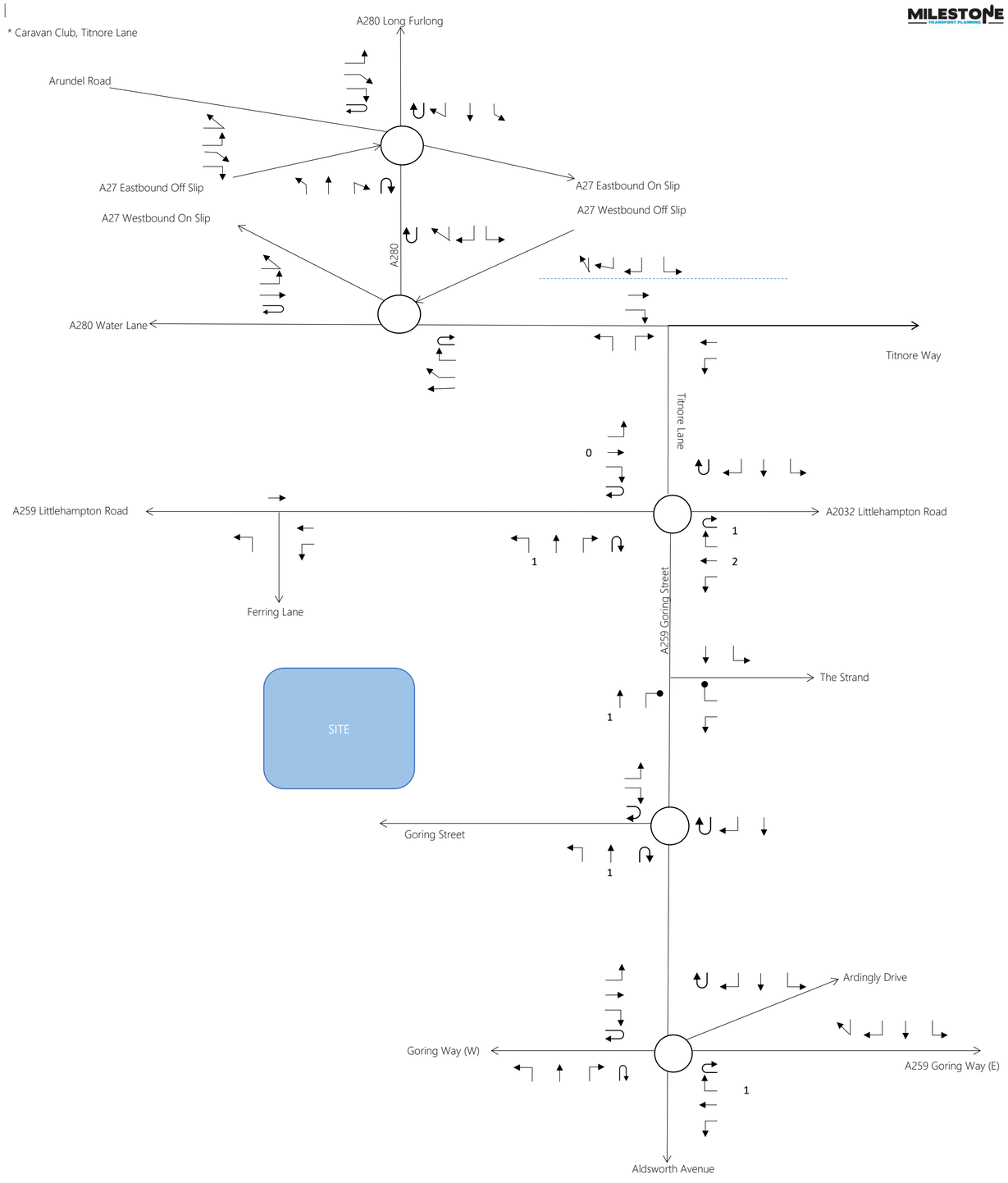
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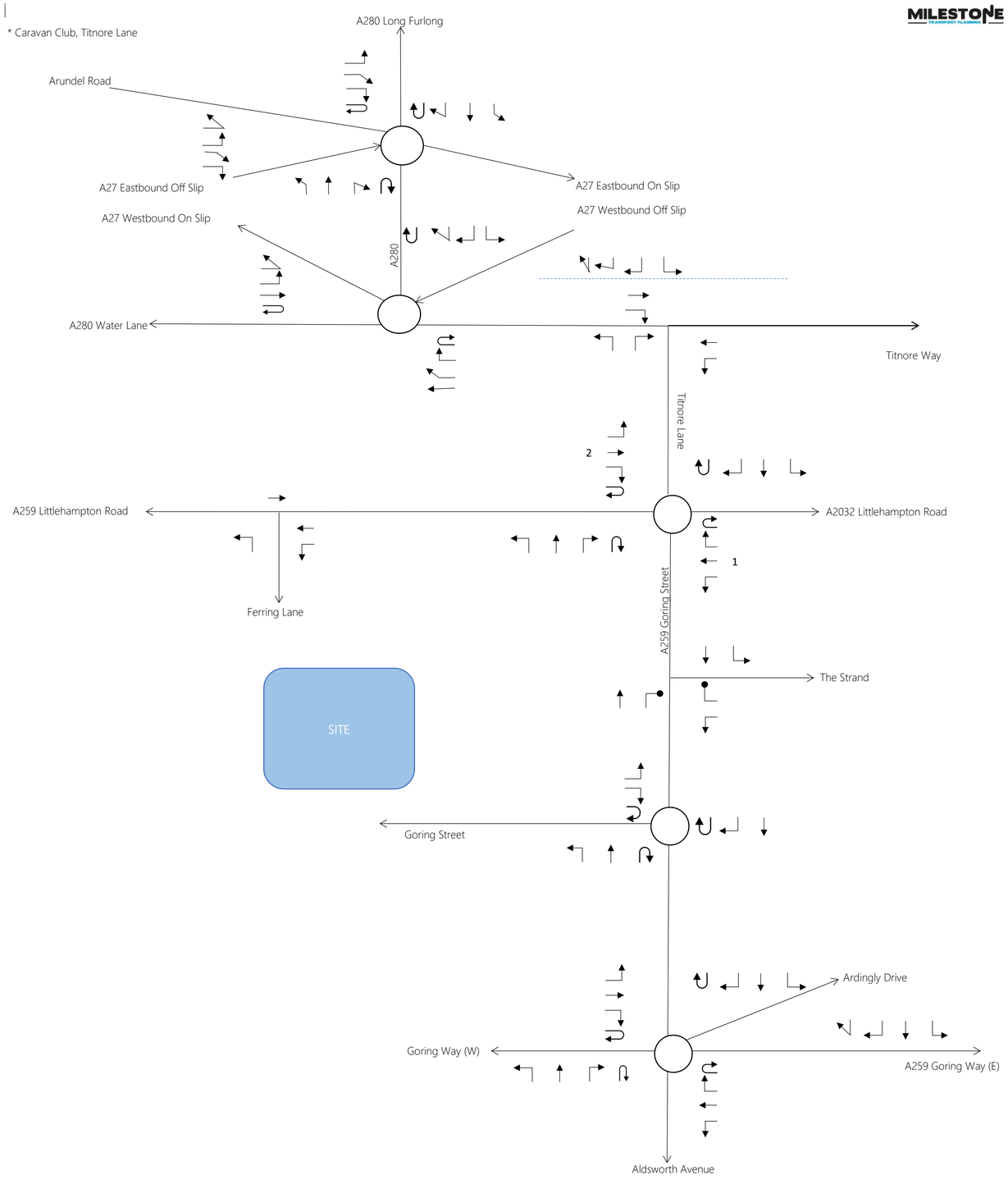
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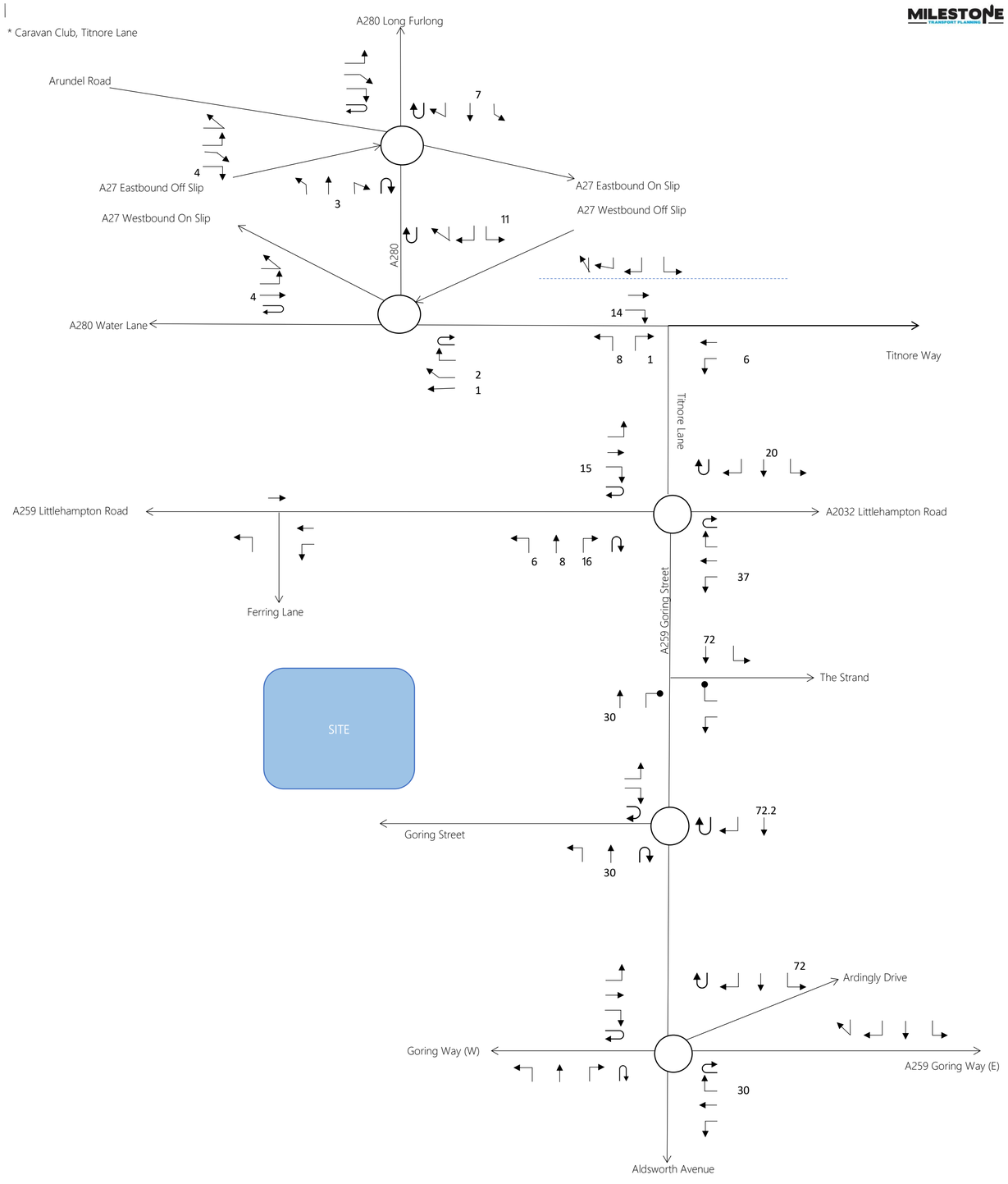
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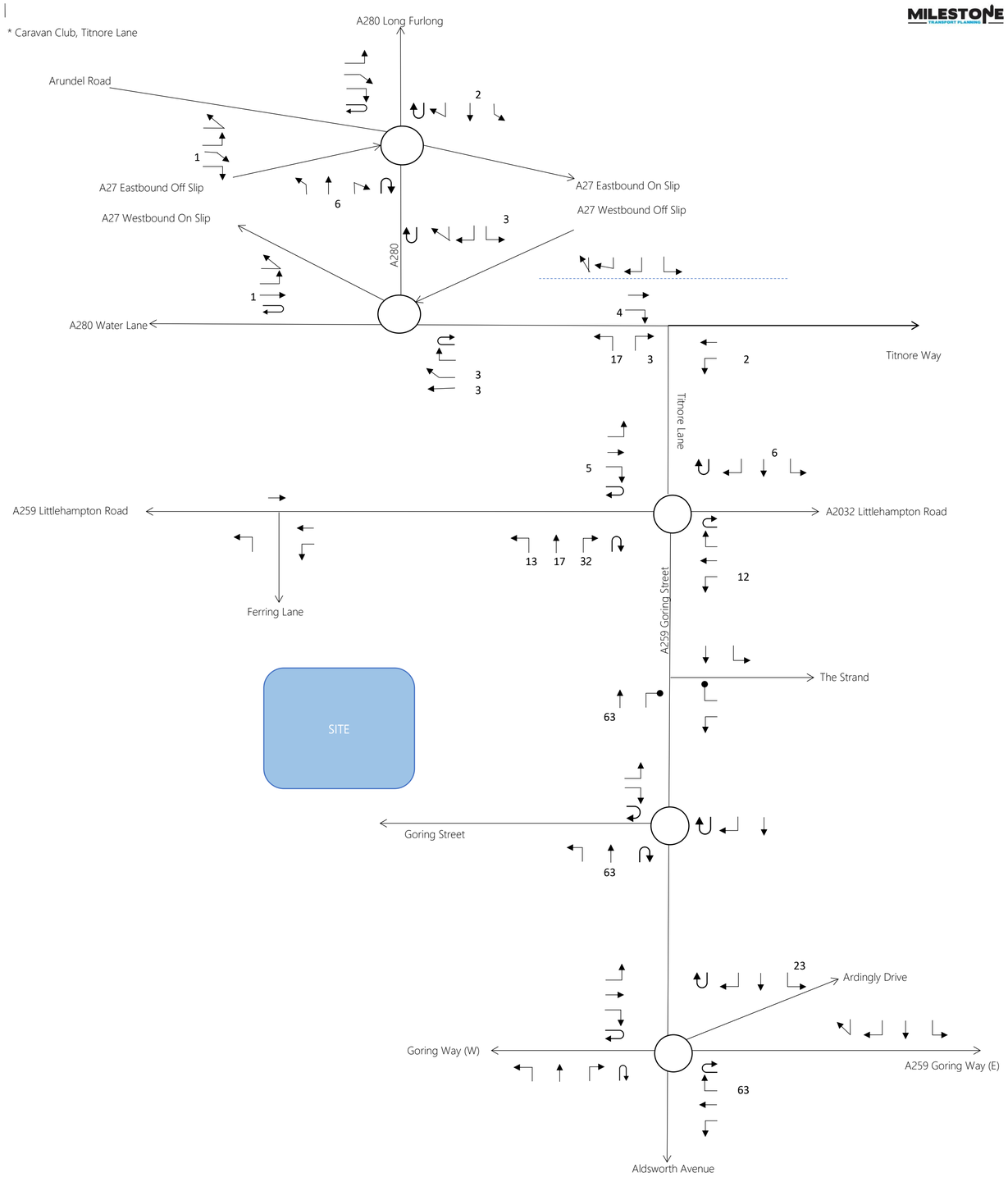
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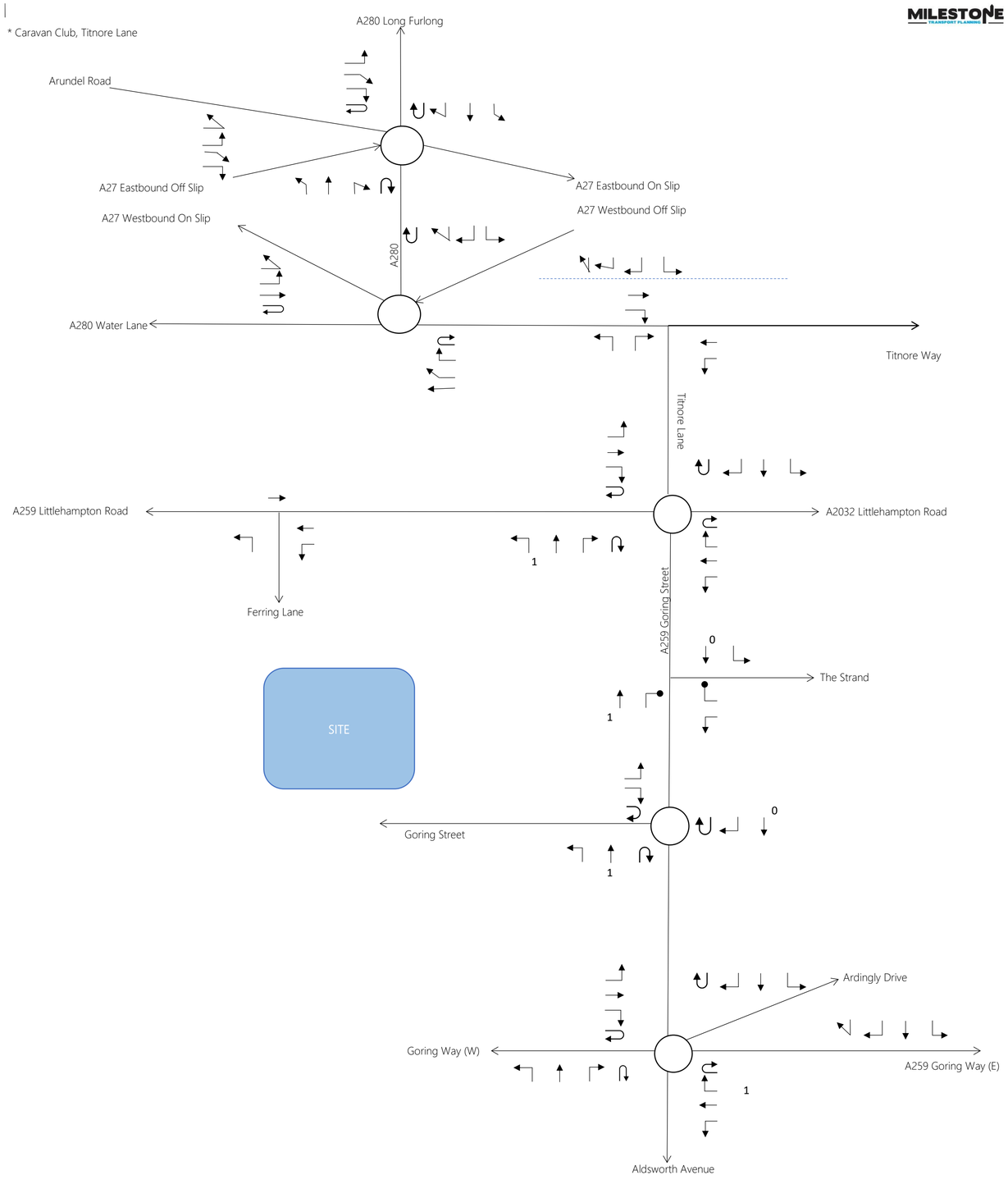
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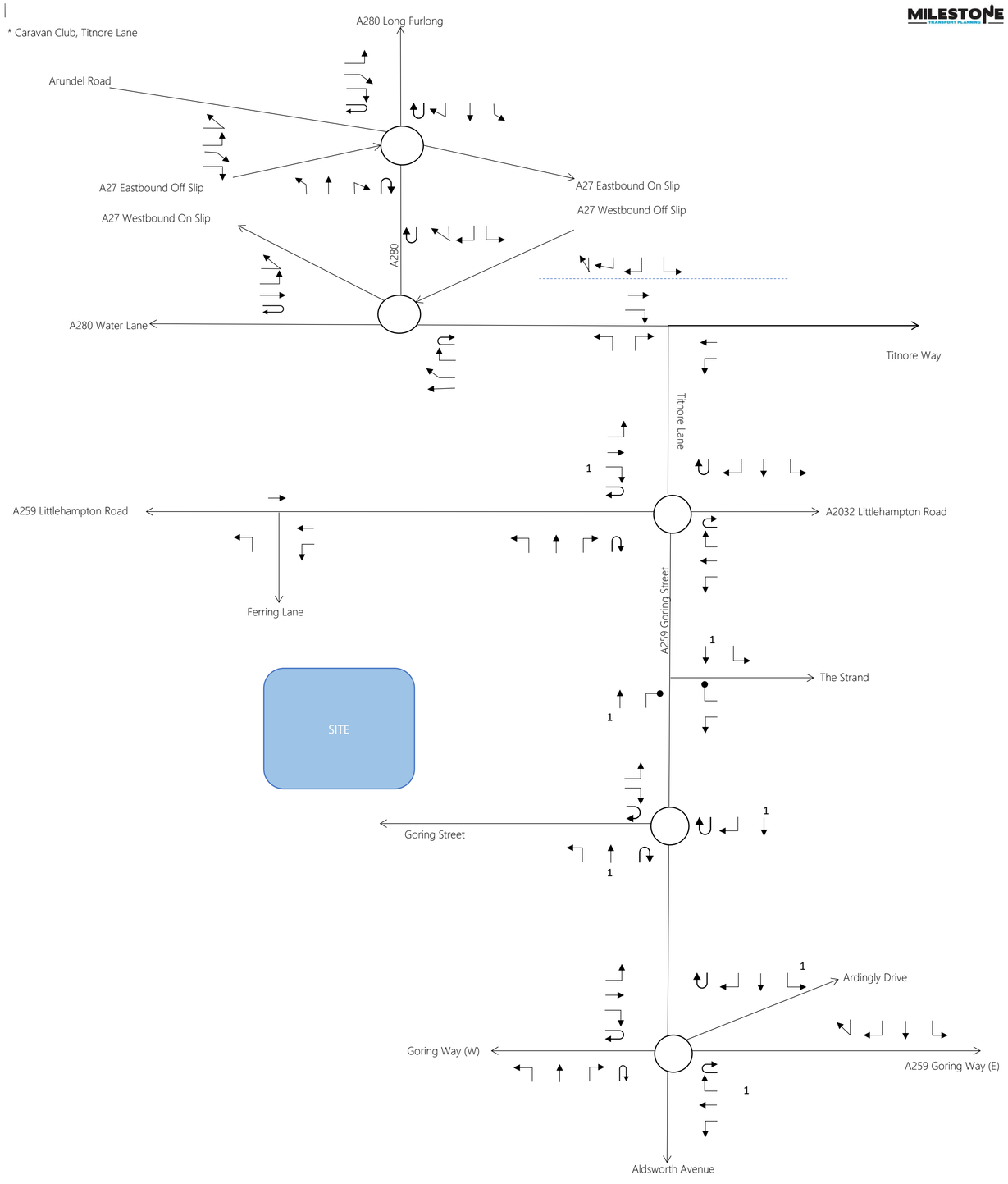
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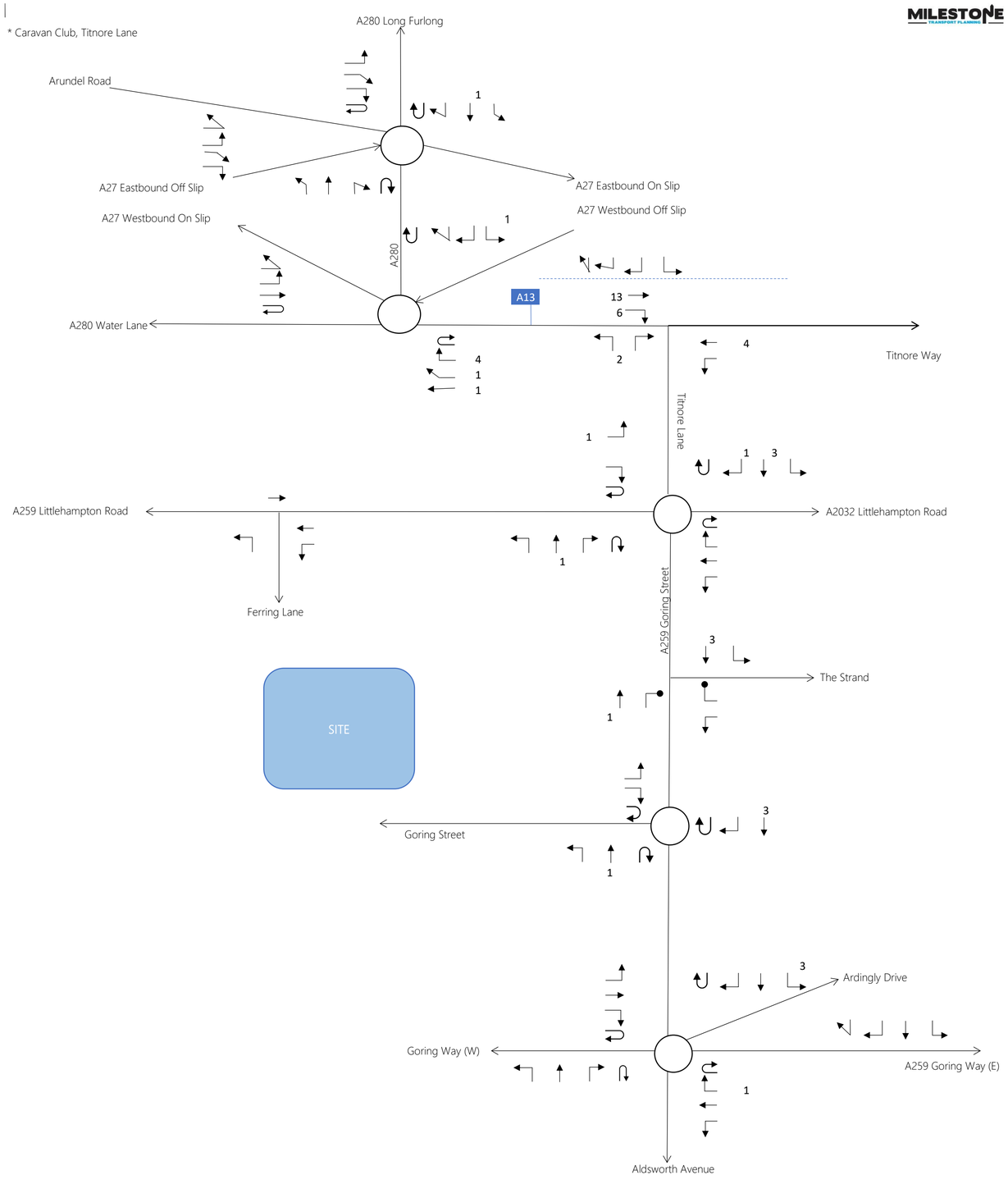
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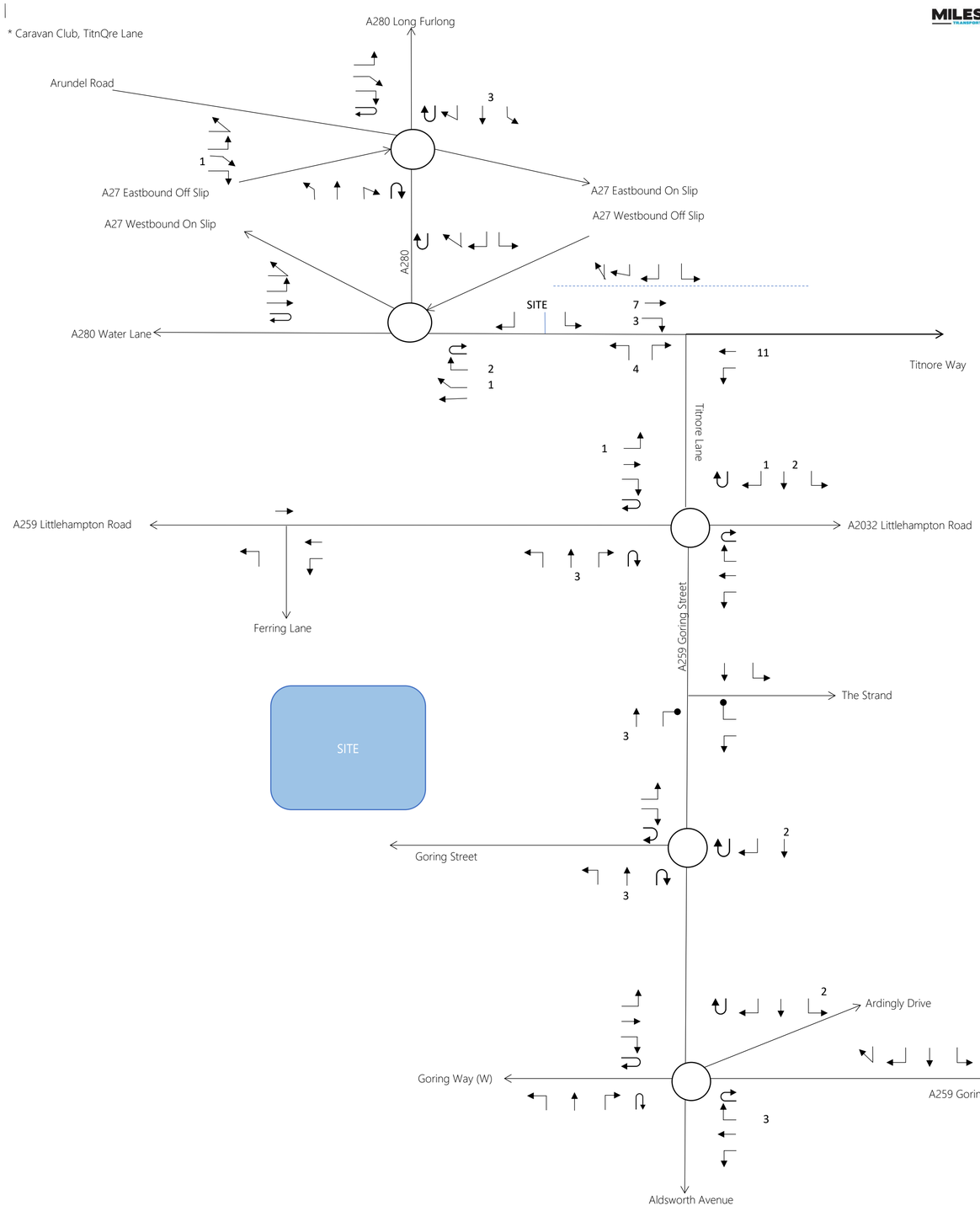
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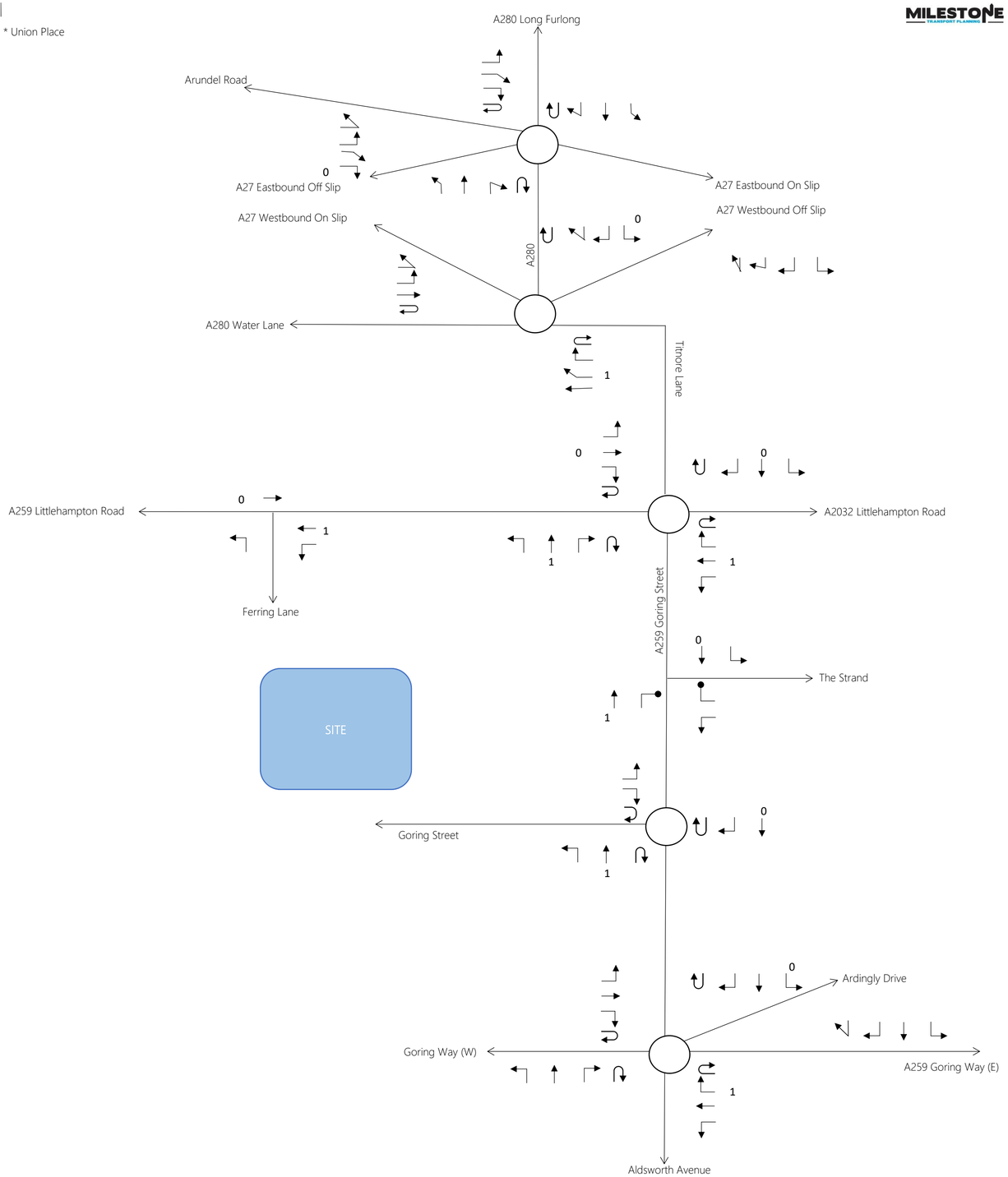
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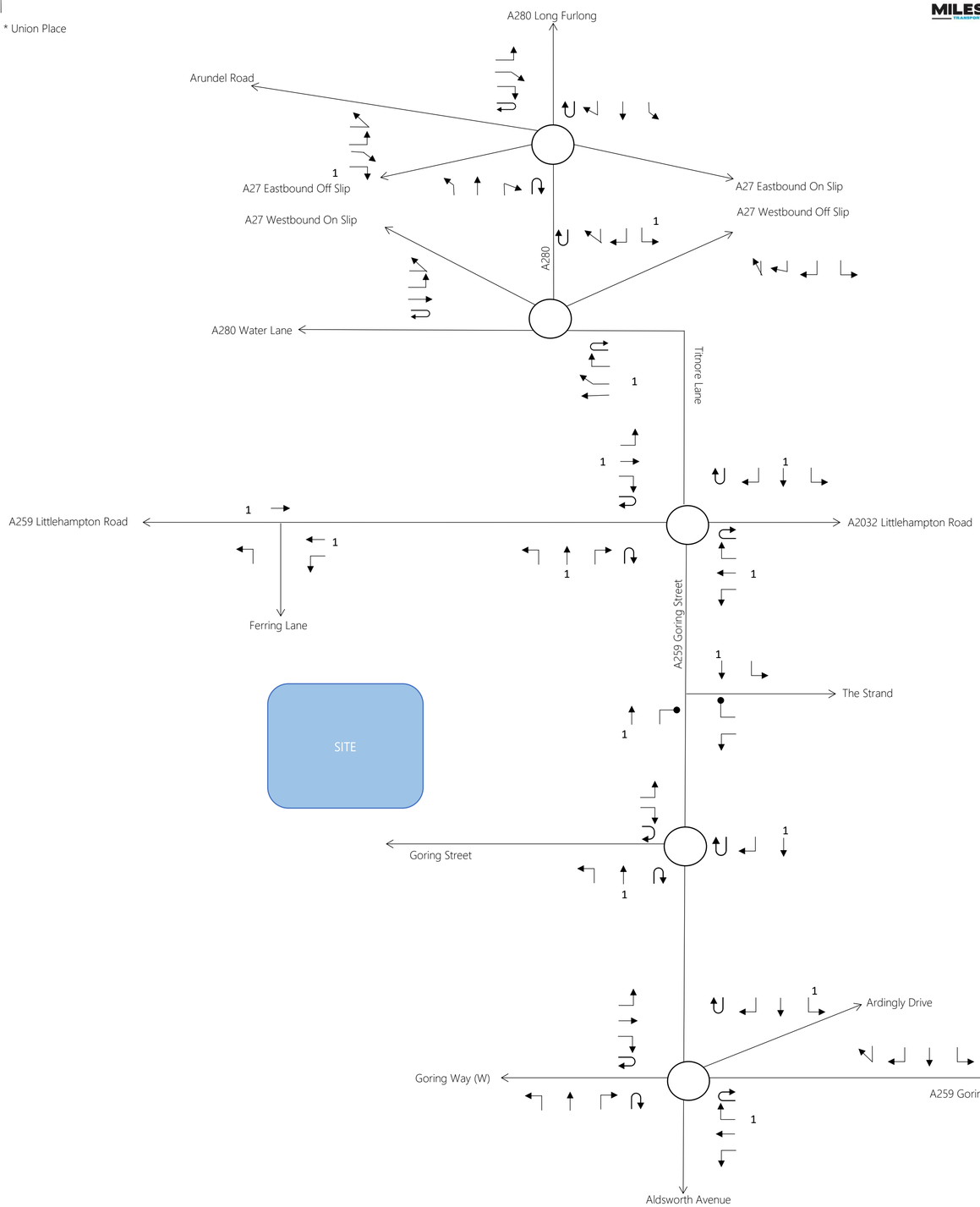
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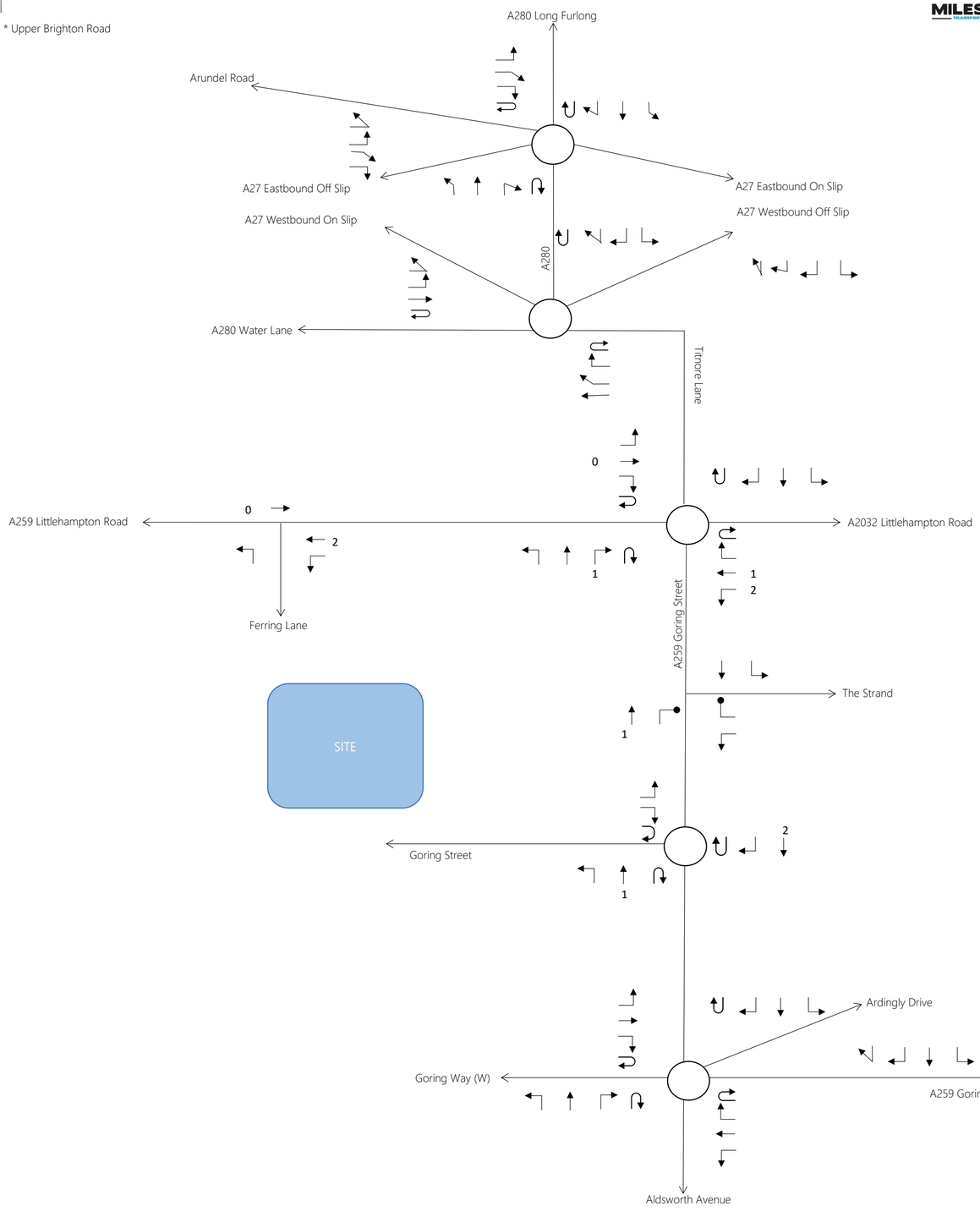

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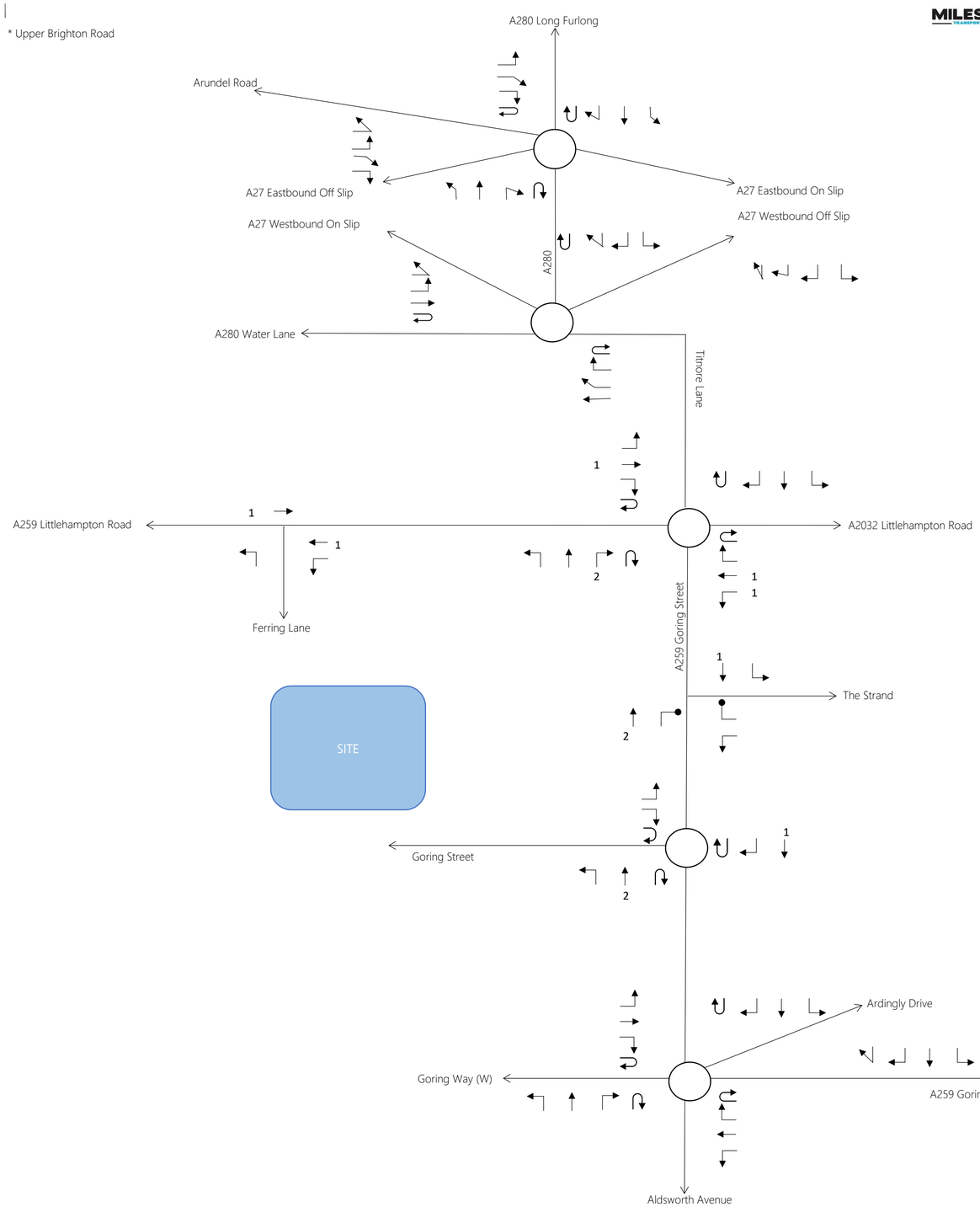

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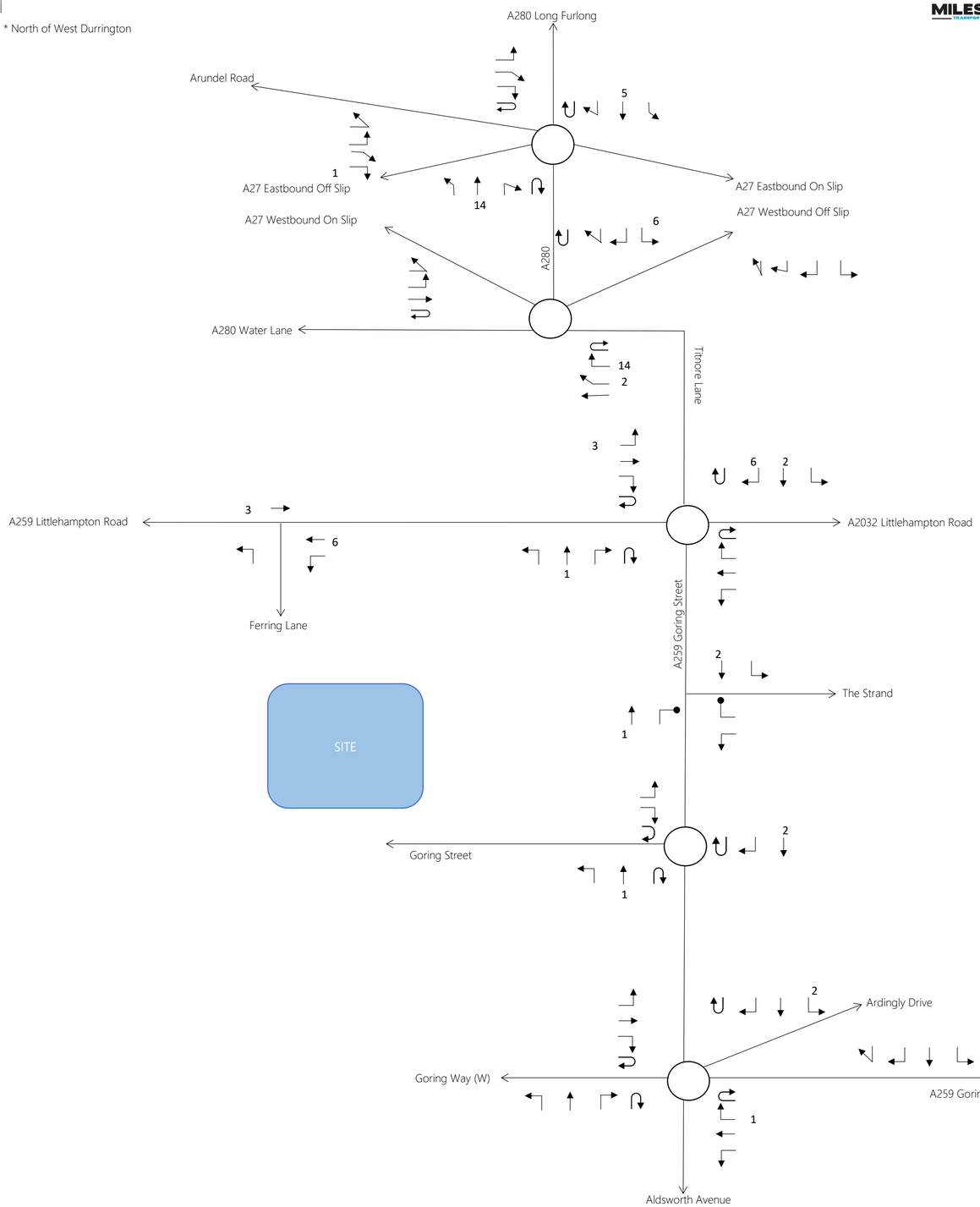

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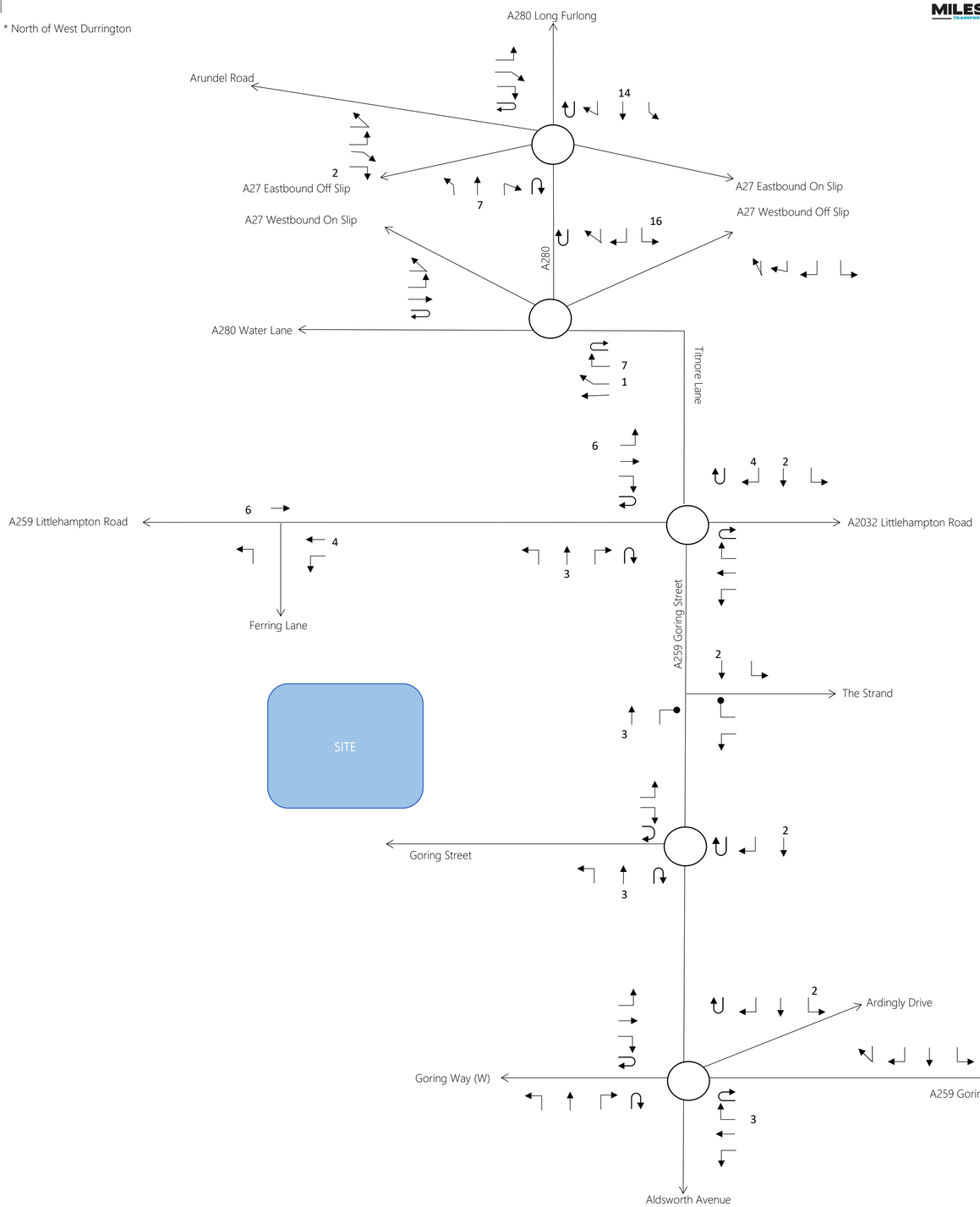

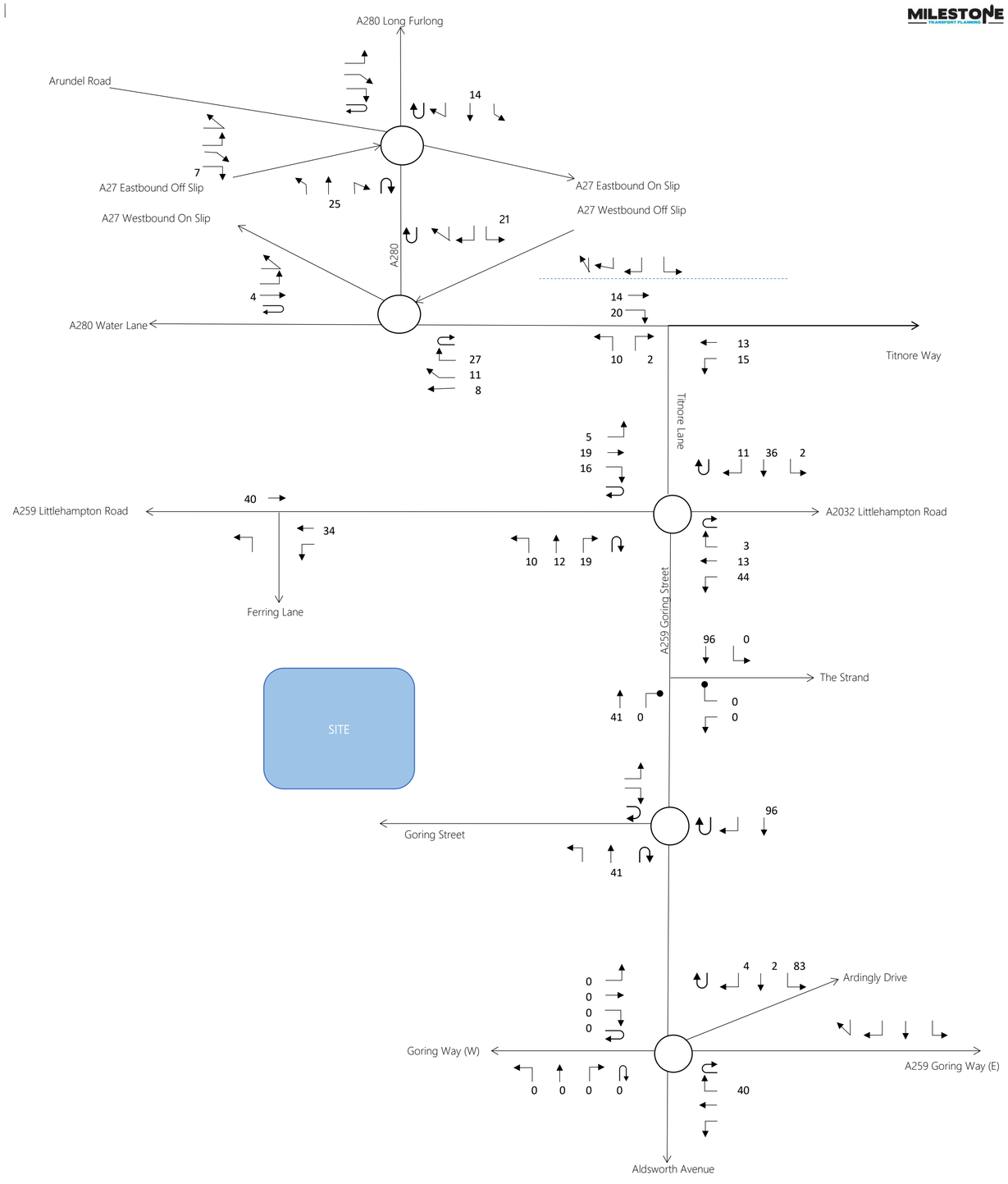
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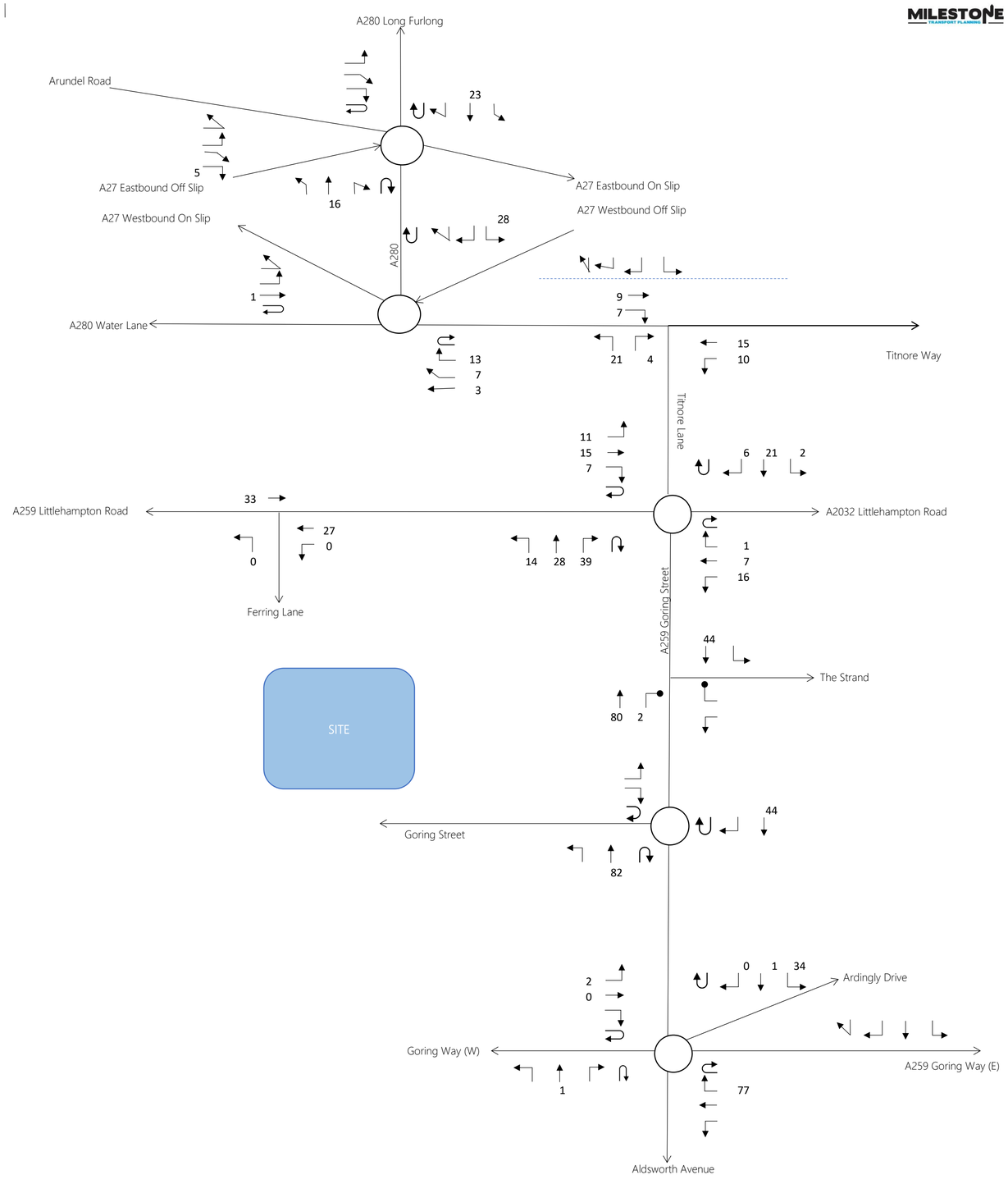
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Appendix 5

Road Safety Audit Report

Incorporating
Stage 1 Completion of Preliminary Design; and
Design Organisation Response to Items Raised.

Proposed Highway Works at the A259 Roundabout with Goring Way and Aldsworth Avenue, Goring by Sea

Client:
Milestone Transport Planning

Client reference:
18122-003B

Fenley
2 Blaenant
Emmer Green
READING
RG4 8PH

E: office@fenley.co.uk
www.fenley.co.uk

Report Status 3

Job no	RSA-21-147	**Issue no**	3	**Date**	November 2021
Prepared by	JJF	**Verified by**	FB	**Approved by**	JJF
Filename and Path	Fenley/Road Safety Audits/RSA-21/RSA-21-147-3				

1.0 PROJECT DETAILS

Report Title:	Stage 1 Road Safety Audit
Date:	November 2021
Document reference and revision:	RSA-21-147-3
Prepared by:	Fenley Road Safety Limited
County Highway Authority:	West Sussex County Council
Design Organisation:	Milestone Transport Planning
Project Sponsor:	Persimmon Homes Thames Valley

REV	ISSUE PURPOSE	AUTHOR	CHECKED	APPROVED	DATE
0	Stage 1 Road Safety Audit drafted for Audit Team discussions	FB			1st November 2021
1	Stage 1 Road Safety Audit finalised and issued to the Design Organisation	JJF	FB	JJF	25th November 2021
2	Stage 1 Road Safety Audit Report format amended to incorporate a row for inclusion of a Design Organisation Response in order to maintain a concise record of items raised	JJF			25th November 2021
3	Design Organisation Response incorporated	Tony Wares on behalf of Milestone Transport Planning			29th November 2021

Contents:

Appendices:

2.0 INTRODUCTION

2.1 This report has been prepared by Fenley Road Safety Limited and results from a Stage 1 Road Safety Audit of proposed highway works to the A259 roundabout with Goring Way and Aldsworth Avenue in Goring-by-Sea. The proposals consist of the widening of the four main arms to extend existing and generate new two-lane approaches as well as the marginal widening of Ardingly Drive which meets the roundabout parallel to the northern arm and is an entry only arm from a residential street that also forms the exit route from the adjacent Tesco Express. It is understood that the scheme has been developed in line with a Junctions 9 / ARCADY assessment in order to mitigate the traffic impact of a mixed-use development of 475 dwellings on lane to the north. The scheme subject to this report are a development of a scheme that was subject to a Stage 1 Road Safety Audit in June 2020.

2.2 The Audit Brief identifies that the proposals do not include any Departures from Standard, whether related to strategic decisions or otherwise.

2.3 This Road Safety Audit was undertaken during November 2021 in accordance with the Road Safety Audit Brief provided, on the 22nd October 2021 by the Design Organisation, Milestone Transport Planning, on behalf of the Project Sponsor, Persimmon Homes Thames Valley. The Road Safety Audit comprised of a site visit as well as an examination of the documents provided which are identified in **Appendix A1**. The Audit Team were satisfied that that the Audit Brief was sufficient for the purpose of the Audit instructed.

2.4 The Road Safety Audit Team has been approved to undertake this Road Safety Audit. The Audit Team consists of the following members:

Audit Team Leader
Jamie Fenning *BSc(Hons), MIHE, MCIHT, MSoRSA, Highways England RSA Certificate of Competency*
Road Safety / Highway Engineer

Audit Team Member
Farouk Bhatti *MCIHT*
Road Safety Auditor

2.5 The site visit associated with this Road Safety Audit was undertaken by the Audit Team Leader and Audit Team Member, during the early afternoon of Thursday 11th June 2020 between 3:30pm and 5pm. The site visit involved walking and driving around the local highway network for a 90-minute period whilst observing local infrastructure and current off-peak traffic conditions. The weather during the site visit was clear with scattered clouds, the road surface was dry and visibility was good. A number of pedestrians and cyclists were observed during the site visit. Vehicular traffic to include motorcycles, cars, passenger service vehicles, light and heavy goods vehicles were also observed.

2.6 The terms of reference of this Road Safety Audit are as described in GG119. The scheme has been examined and this report compiled, only with regard to the safety implications for road users of the scheme as presented. It has not been examined or verified for compliance with any other standards or criteria. However, in order to clearly explain a safety problem or the recommendation to resolve a problem, the Audit Team may on occasion have referred to a design standard for information only. All comments and recommendations are referenced to the design drawings supplied with the Audit Brief and the location of road safety concerns raised have been illustrated beneath the items along with relevant photographs for clarity, where appropriate, as well as on the Location Plan attached at **Appendix A2**.

Design Organisation Response

2.7 In accordance with national standards, this Road Safety Audit was finalised and issued to the Design Organisation as per the Road Safety Audit Report Template within Appendix D of GG119, which can be provided upon request from either the Audit Team or Design Organisation. The format of the Audit Report was subsequently revised to incorporate these paragraphs under the sub-heading as well as sufficient space beneath the items and recommendation, within Section 4, for the inclusion of a Design Organisation Response. This is generally contained within a separate Design Organisation Response Report but is included within this document in order to maintain a single record of all problems, recommendations and responses for the benefit of a concise Road Safety Audit trail to be held on file for Quality Assurance purposes.

2.8 The Design Organisation Response has been prepared by:

Name: Tony Wares
Position / Organisation: Associate Transport Planner, Milestone Transport Planning

2.9 Any drawings or documents associated with the Design Organisation Response are listed at **Appendix C3,** if applicable.

3.0 ITEMS RAISED IN ANY PREVIOUS ROAD SAFETY AUDITS

3.1 Fenley Road Safety Limited undertook a Stage 1 Road Safety Audits of a previous scheme at the junction which raised a number of road safety concerns. This Stage 1 Road Safety Audit has included a thorough assessment of the current proposals and raises any road safety concerns whether previously identified or not.

4.0 ITEMS RAISED AT THIS STAGE 1 ROAD SAFETY AUDIT

A.1	**LOCAL ALIGNMENT**
A.1.1	**PROBLEM**
Location:	A259, east
Summary:	Proposed widening reduces the level of entry deflection
Acc Type:	Vehicle loss of control

The A259 roundabout with Goring Way and Aldsworth Avenue currently benefits from a good level of deflection from each arm except the minor Ardingly Drive. The proposals widen each approach to the roundabout in order to increase the theoretical operation capacity of the roundabout. The proposed widening reduces the amount of deflection that is achievable on entry and through the junction and could therefore increase entry and through speeds which could result in heavy braking leading to loss of control, overshoot and side impact type incidents.

RECOMMENDATION:

It is recommended that an appropriate level of entry deflection is provided

Location Plan:

DESIGN ORGANISATION RESPONSE provided by Milestone Transport Planning on the 29th Nov. '21 following formal issue of this Stage 1 Road Safety Audit on the 25th Nov. '21

It should be noted that the design of the proposed mitigation for the 5-arm A259 Goring Street / Goring Way / Ardingly Drive / Aldsworth Avenue roundabout junction is based on OS mapping as opposed to topographical survey data. In line with the Auditor's recommendation, an appropriate level of entry deflection will be provided as part of the detailed design process

A.2	**GENERAL**
A.2.1	**PROBLEM**
Location:	A259, Goring Way
Summary:	A service cover with insufficient frictional properties may be within the path of vehicles
Acc Type:	Vehicle loss of control

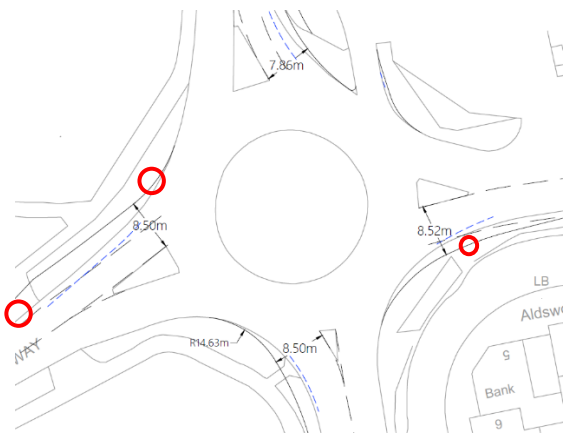
A number of services that are present within the existing footway and verge of the A259 east and Goring Way west approaches to the roundabout with Aldsworth Avenue. The scheme drawing is

based upon Ordnance Survey rather than a topographical survey and as such, does not indicate the location of services. Should covers be situated within the footway / verge that is to become carriageway, there is a risk that the chambers / covers are not sufficient to accommodate the loadings of vehicular traffic and that the frictional surface properties of the covers would be insufficient. Inadequate service covers within a carriageway could lead to failure and loss of control type collisions as well as skidding and overshoot or shunt type collisions.

RECOMMENDATION:

It is recommended that all service covers within the carriageway are relocated or if not possible, benefit from sufficient properties.

Location Plan:



DESIGN ORGANISATION RESPONSE provided by Milestone Transport Planning on the 29th Nov. '21 following formal issue of this Stage 1 Road Safety Audit on the 25th Nov. '21

In line with the Auditor's recommendation, the potential relocation / amendment of all service covers within the carriageway, to ensure that they have sufficient frictional properties will be considered as part of the detailed design stage.

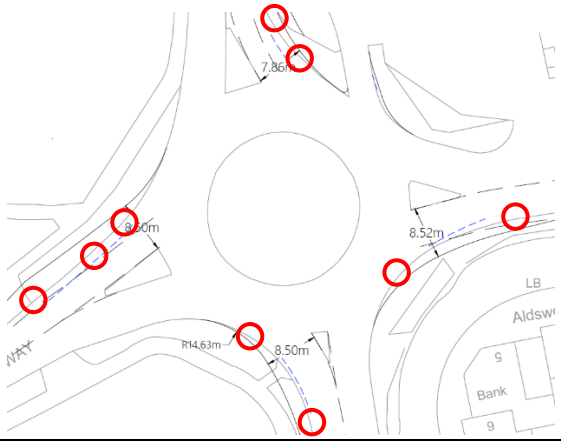
A.2.2	**PROBLEM**
Location:	Roundabout / Scheme
Summary:	Proposed carriageway widening will result in gullies being located within the path of a vehicle
Acc Type:	Vehicle loss of control

The A259 roundabout with Goring Way and Aldsworth Avenue accommodates a network of gullies that are situated along the channel line and cater for surface water that accumulates on the carriageway. The proposals widen the nearside of each lane on approach to the roundabout junction and as such, existing road gullies will be situated within an approach lane and the path of a vehicle approaching the roundabout. A road gully within the path of a vehicle could give rise to loss of control type incidents especially for two wheeled vehicles and vehicles undertaking a braking manoeuvre.

RECOMMENDATION:

It is recommended that road gullies are relocated to the edge of carriageway

Location Plan:



DESIGN ORGANISATION RESPONSE provided by Milestone Transport Planning on the 29th Nov. '21 following formal issue of this Stage 1 Road Safety Audit on the 25th Nov. '21

In line with the Auditor's recommendation, the potential relocation of road gullies to prevent loss of control type incidents, particularly for two-wheeled vehicles and those undertaking a braking manoeuvre will be considered as part of the detailed design stage..

A.2.3	**PROBLEM**
Location:	Roundabout / Scheme
Summary:	Street furniture within the verge will become an obstruction
Acc Type:	Vehicle collisions and loss of control

Street furniture to include signage, telephone / electric cabinets and street lighting columns are present within the existing verge of the A259 roundabout with Goring Way and Aldsworth Avenue. The proposals widen the approach lanes on the nearside where a number of existing items of street furniture are situated. Items of street furniture located within the path of a vehicle or within 450mm of the carriageway and path of a vehicle will be an obstruction to vehicles which could lead to loss of control and sideswipe type collisions when a driver swerves.

RECOMMENDATION:

It is recommended that all street furniture is relocated accordingly and that the street lighting is adequate.

Location Plan:

DESIGN ORGANISATION RESPONSE provided by Milestone Transport Planning on the 29th Nov. '21 following formal issue of this Stage 1 Road Safety Audit on the 25th Nov. '21

In line with the Auditor's recommendation, the potential relocation of street furniture to ensure it is positioned beyond a distance of 450mm from the edge of the carriageway will be considered at the detailed design stage. This will ensure that there are no obstacles to car driver inter-visibility.

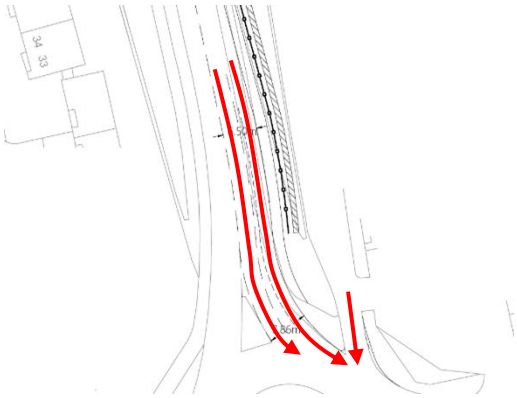
A.3	**JUNCTIONS**
A.3.1	**PROBLEM**
Location:	A259 southbound approach / Ardingly Drive
Summary:	Speeds are likely to increase as a result of the proposed extended southbound two-lane approach
Acc Type:	Vehicle side / rear impact collisions

The A259 roundabout with Goring Way and Aldsworth Avenue accommodates four major arms as well as a fifth entry that joins the circulatory parallel to the northern arm known as Ardingly Drive. Ardingly Drive forms an exit from the residential street as well as from the parking facility associated with a Tesco Express convenience store. The proposals include the widening of each approach to the roundabout to include increasing the existing two-lane tapered southbound entry to provide two 3.25 mere lanes for a distance of 54 metres on approach to the give-way line. The Audit Team have concerns regarding the proximity and alignment of the Ardingly Drive entry to the roundabout in relation to the A259 southbound approach arm and that traffic from each arm will enter the circulatory simultaneously leading to side and rear impact collisions. Although there is no evidence of any road traffic collisions as a result of the proximity of the entries at present, the provision of the two 3.25 metre southbound approach lanes could lead to higher approach and entry speeds leading to reduced gaps for traffic entering the roundabout from Ardingly Drive which could result in traffic attempting to undertake a manoeuvre across the path of an approaching vehicle and side / rear impact collisions.

RECOMMENDATION:

It is recommended that the southbound approach lanes are reduced in width and that adequate visibility is achievable from the Ardingly Drive entry

Location Plan:



DESIGN ORGANISATION RESPONSE provided by Milestone Transport Planning on the 29th Nov. '21 following formal issue of this Stage 1 Road Safety Audit on the 25th Nov. '21

The proposed extension to the two-lane approach is to increase the operational capacity of the roundabout and should not increase approach speeds, nonetheless, the lane widths can be reduced to form two 3 metre lanes during consultations with the County Highway Authority, West Sussex County Council.

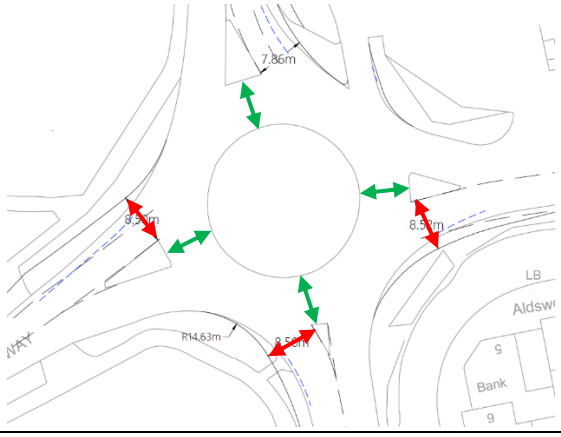
A.3.2	**PROBLEM**
Location:	Each approach
Summary:	Entry lane widths are wider than the circulatory carriageway
Acc Type:	Sideswipe type collisions

The A259 roundabout with Goring Way and Aldsworth Avenue accommodates four major arms as well as a fifth entry that joins the circulatory parallel to the northern arm. The proposals include the widening of each approach to the roundabout providing an 8.52 metre entry from the east and 8.5 metre entries from the south and west whilst retaining the existing 8.08 metre circulatory carriageway. The wide entry lanes could lead to high-speed entries leading to overshoot type collisions and coupled with the retention of the existing 8.08 metre circulatory carriageway, are likely to result in sideswipe type collisions.

RECOMMENDATION:

It is recommended that the proposed entries lanes are reduced in width to 3.5 metres each.

Location Plan:



DESIGN ORGANISATION RESPONSE provided by Milestone Transport Planning on the 29th Nov. '21 following formal issue of this Stage 1 Road Safety Audit on the 25th Nov. '21

The width of the entries was based on data from junction modelling software to optimise for the operational capacity of the existing junction. The entry widths will be reduced to 3.5 metres in accordance with para. 3.14.2 of CD116.

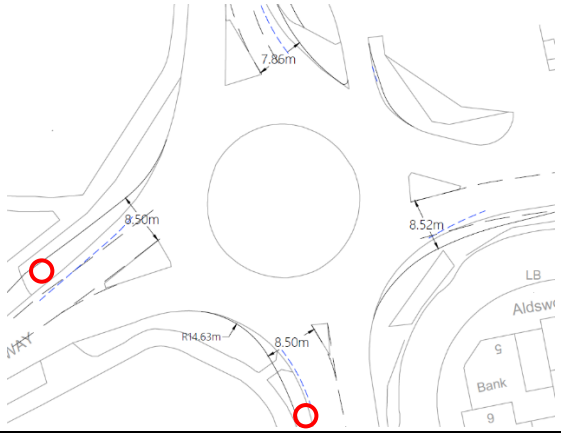
A.3.3	**PROBLEM**
Location:	Each approach
Summary:	Entry lane widths are wider than the circulatory carriageway
Acc Type:	Sideswipe type collisions

The existing Aldsworth Avenue and Goring Way arms of the roundabout junction with the A259, accommodate short two-lane entries with trees accommodated within the verge prior to the tapers. The proposals include the widening of the Aldsworth Avenue and Goring Way approaches to extend the two-lane entries. The carriageway widening is to be provided on the nearside where mature trees are present. The trees are likely to be within the carriageway or within 450mm of the path of a passing vehicle and will be an obstruction which could lead to sideswipes where traffic serves as well as loss of control type collisions.

RECOMMENDATION:

It is recommended that the proposed carriageway remains at least 450mm from the trunk of any trees that are present.

Location Plan:



DESIGN ORGANISATION RESPONSE provided by Milestone Transport Planning on the 29th Nov. '21 following formal issue of this Stage 1 Road Safety Audit on the 25th Nov. '21

The scheme drawing is currently based on ordnance survey data that does not indicate the location of trees, the reduction in lane widths as a result of items A.3.2 will reduce the impact on the existing trees. However, during the detailed design process, a topographical survey will be undertaken and the scheme modified to ensure that any trees that are subject to a Tree Preservation Order or are of significant importance, are retained. The scheme developed at this stage, is to identify that improvements can be made to the junction to mitigate any traffic generated by the associated development can be mitigated and improve the significant congestion that is currently observed.

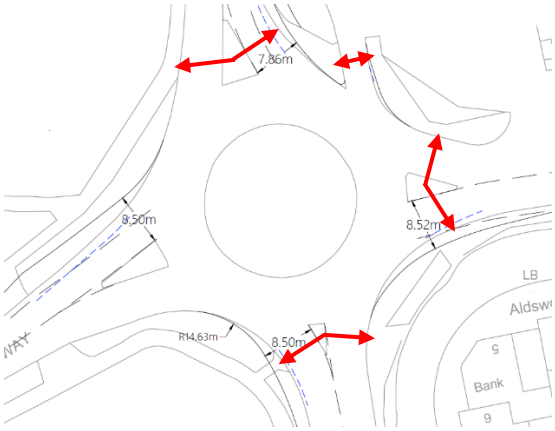
A.4	WALKING CYCLING AND HORSE RIDING
A.4.1	PROBLEM
Location:	Roundabout / Scheme
Summary:	Full height kerbs will be an obstruction to pedestrians especially the mobility impaired
Acc Type:	Vehicle pedestrian and pedestrian trips and falls

The A259 roundabout with Goring Way and Aldsworth Avenue accommodates a footway along both side of the carriageway on each arm, albeit some behind verges. Dropped kerbs are provided along pedestrian desire lines with refuges accommodated within the splitter islands of the northern eastern and southern arms. The proposals increase the carriageway width on each approach to the roundabout; however, the scheme drawings do not identify that dropped kerbs are to be reinstalled. Whilst full height kerbs will become an obstruction to pedestrians particularly the mobility impaired or those walking with buggies and children on a scooter, the lack of a tactile warning could result in a visually impaired pedestrian entering the carriageway when it is not safe to do so which raises the risk of a vehicle-pedestrian collision.

RECOMMENDATION:

It is recommended that dropped kerbs with a maximum upstand of 6mm and tactile paving are provided where appropriate.

Location Plan:



DESIGN ORGANISATION RESPONSE provided by Milestone Transport Planning on the 29th Nov. '21 following formal issue of this Stage 1 Road Safety Audit on the 25th Nov. '21

In accordance with the Auditor's recommendation, dropped kerbs with a maximum upstand of 6mm and tactile paving will be provided at dedicated pedestrian crossing points. This will ensure there are no obstructions to pedestrians, particularly mobility impaired or those walking with buggies and children on scooters. Notwithstanding the above, the provision of dropped kerbs and tactile paving tiles will be considered at the detailed design stage.

A.5	ROAD SIGNS, CARRIAGEWAY MARKINGS AND LIGHTING
A.5.1	PROBLEM
Location:	Roundabout / Scheme
Summary:	Full height kerbs will be an obstruction to pedestrians especially the mobility impaired
Acc Type:	Overshoots

The A259 roundabout with Goring Way and Aldsworth Avenue currently accommodates short two lane entries. The proposals include the widening of each arm of the junction in order to extend the approach lanes, however, no lane markings are detailed on the scheme drawing on the northbound or westbound approaches. The wide approach and entry lanes are likely to lead to vehicles gaining speed on approach and could result in overshoot type collisions.

RECOMMENDATION:

It is recommended that the northbound and westbound entries include the provision of lane markings

Location Plan:

DESIGN ORGANISATION RESPONSE provided by Milestone Transport Planning on the 29th Nov. '21 following formal issue of this Stage 1 Road Safety Audit on the 25th Nov. '21

The proposed works include the provision of two-lane entries on each of the four major arms of the junction, the scheme drawing will be updated during detail design.

5.0 STAGE 1 ROAD SAFETY AUDIT TEAM STATEMENT

5.1 We certify that this Road Safety Audit has been carried out in accordance with GG119.

Audit Team Leader

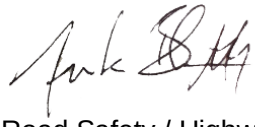
Name: **Jamie Fenning** *BSc (Hons), MIHE, MCIHT, MSoRSA, HE RSA Certificate of Competency*

Signed: 

Position: Road Safety / Highway Engineer
Organisation: Fenley Road Safety Limited
Date: 25th November 2021

Audit Team Member

Name: **Farouk Bhatti** *MCIHT*

Signed: 

Position: Road Safety / Highway Engineer
Organisation: Fenley Road Safety Limited
Date: 25th November 2021

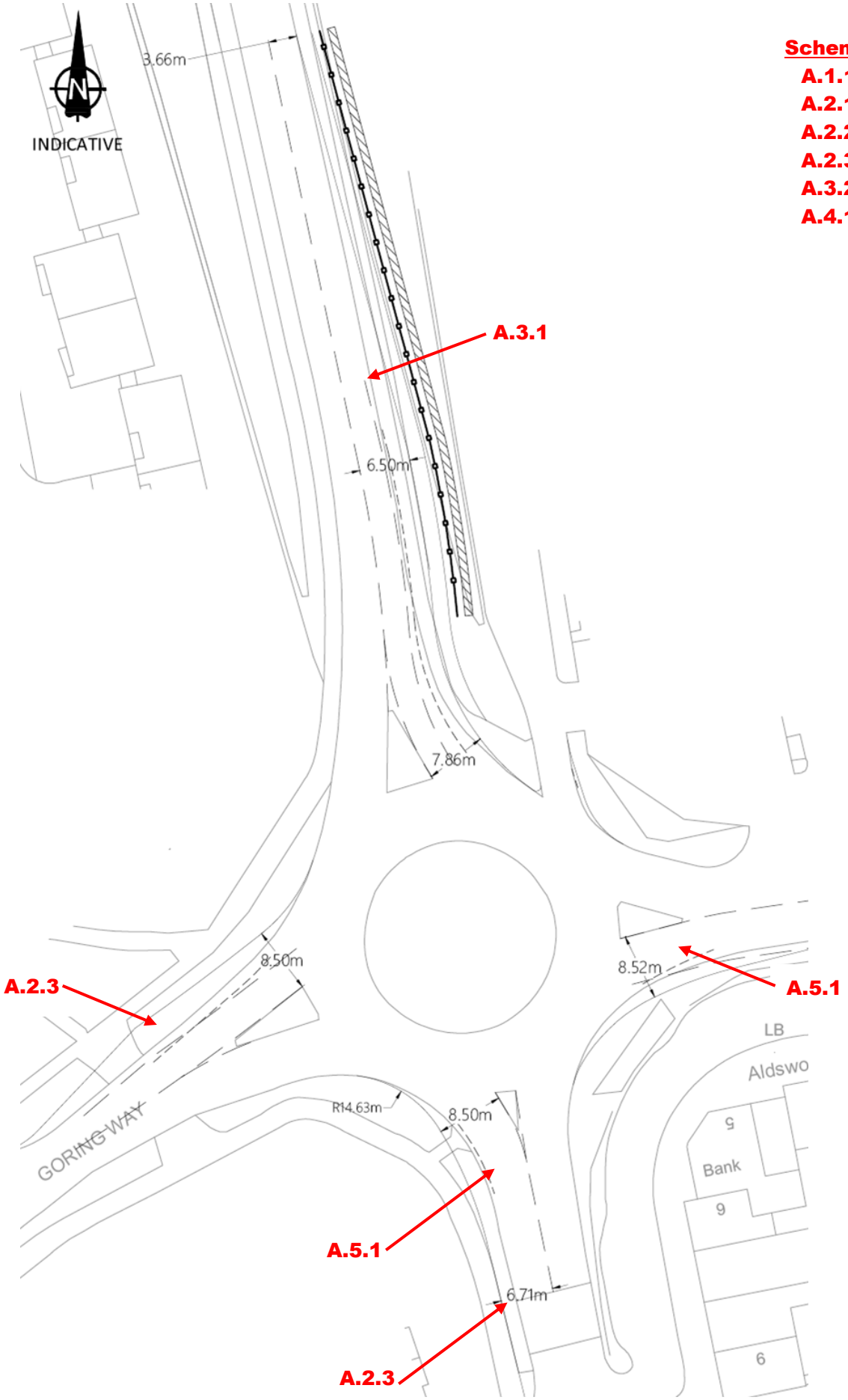
Appendix A1

Documents and Drawings provided for this Stage 1 Road Safety Audit

Audit Stage	Doc. No.	Rev	Title
Stage 1	Email dated 5th June '20		Stage 1 Road Safety Audit Brief
	Collision Report 01/09/2014-31/08/2019	-	Chatsmore Farm – Goring - Milestone
	-	-	PIA Data Analysis
	Dwg No.	Rev	Title
	18122-003	B	Proposed Southern Roundabout Mitigation Measures

Appendix A2

Item Location Plan


Scheme
A.1.1
A.2.1
A.2.2
A.2.3
A.3.2
A.4.1
INDICATIVE
3.66m
A.3.1
6.50m
7.86m
8.50m
A.2.3
8.52m
A.5.1
LB
Aldswo
GORING WAY
R14.63m
8.50m
Bank
9
A.5.1
6.71m
A.2.3
6

Appendix A3

Drawings associated with the Design Organisation Response

Audit Stage	Drawing No.	Rev	Title
Stage 1			


fenley

Road Safety Audit Report

Incorporating
Stage 1 Completion of Preliminary Design; and
Design Organisation Response to Items Raised.

Proposed Highway Works at the Goring Crossways Roundabout Goring by Sea

Client:
Milestone Transport Planning

Client reference:
18122-002B

Fenley
2 Blaenant
Emmer Green
READING
RG4 8PH

E: office@fenley.co.uk
www.fenley.co.uk

Report Status 3

Job no	RSA-21-144	**Issue no**	3	**Date**	November 2021
Prepared by	JJF	**Verified by**	FB	**Approved by**	JJF
Filename and Path	Fenley/Road Safety Audits/RSA-21/RSA-21-144-3				

1.0 PROJECT DETAILS

Report Title:	Stage 1 Road Safety Audit
Date:	November 2021
Document reference and revision:	RSA-21-144-3
Prepared by:	Fenley Road Safety Limited
County Highway Authority:	West Sussex County Council
Design Organisation:	Milestone Transport Planning
Project Sponsor:	Persimmon Homes Thames Valley

REV	ISSUE PURPOSE	AUTHOR	CHECKED	APPROVED	DATE
0	Stage 1 Road Safety Audit drafted for Audit Team discussions	FB			1st November 2021
1	Stage 1 Road Safety Audit finalised and issued to the Design Organisation	JJF	FB	JJF	25th November 2021
2	Stage 1 Road Safety Audit Report format amended to incorporate a row for inclusion of a Design Organisation Response in order to maintain a concise record of items raised	JJF			25th November 2021
3	Design Organisation Response incorporated	Tony Wares on behalf of Milestone Transport Planning			29th November 2021

Contents:

Appendices:

2.0 INTRODUCTION

2.1 This report has been prepared by Fenley Road Safety Limited and results from a Stage 1 Road Safety Audit of proposed highway works at the Goring Crossways roundabout in Goring-by-Sea. The proposals consist of widening along the northern arm to provide a two-lane entry, the eastern and southern arms to increase the number of entry arms from two to three and the widening of the southern half of the roundabout. It is understood that the have been developed in line with a junction assessment in order to mitigate the traffic impact of a mixed-use development of 475 dwellings on lane to the southwest of the junction.

2.2 The Audit Brief identifies that the proposals do not include any Departures from Standard, whether related to strategic decisions or otherwise.

2.3 This Road Safety Audit was undertaken during November 2021 in accordance with the Road Safety Audit Brief provided, on the 22nd October 2021 by the Design Organisation, Milestone Transport Planning, on behalf of the Project Sponsor, Persimmon Homes Thames Valley. The Road Safety Audit comprised of a site visit as well as an examination of the documents provided which are identified in **Appendix A1**. The Audit Team were satisfied that that the Audit Brief was sufficient for the purpose of the Audit instructed.

2.4 The Road Safety Audit has been undertaken by an Audit Team whose qualifications and experience accord with the requirements of GG119. The Audit Team consists of the following members:

Audit Team Leader
Jamie Fenning *BSc(Hons), MIHE, MCIHT, MSoRSA, Highways England RSA Certificate of Competency*
Road Safety / Highway Engineer

Audit Team Member
Farouk Bhatti *MCIHT*
Road Safety Auditor

2.5 The site visit associated with this Road Safety Audit was undertaken by the Audit Team Leader and Audit Team Member, during the early afternoon of Thursday 11th June 2020 between 3:30pm and 5pm. The site visit involved walking and driving around the local highway network for a 90-minute period whilst observing local infrastructure and current off-peak traffic conditions. The weather during the site visit was clear with scattered clouds, the road surface was dry and visibility was good. A number of pedestrians and cyclists were observed during the site visit. Vehicular traffic to include motorcycles, cars, passenger service vehicles, light and heavy goods vehicles were also observed.

2.6 The terms of reference of this Road Safety Audit are as described in GG119. The scheme has been examined and this report compiled, only with regard to the safety implications for road users of the scheme as presented. It has not been examined or verified for compliance

with any other standards or criteria. However, in order to clearly explain a safety problem or the recommendation to resolve a problem, the Audit Team may on occasion have referred to a design standard for information only. All comments and recommendations are referenced to the design drawings supplied with the Audit Brief and the location of road safety concerns raised have been illustrated beneath the items along with relevant photographs for clarity, where appropriate, as well as on the Location Plan attached at **Appendix A2**.

2.7 During the site visit associated with this Stage 1 Road Safety Audit, the Audit Team noted that the circulatory carriageway was subject to rutting. It is understood from street view footage on Google, that the circulatory carriageway and each approach has been resurfaced and road markings refreshed. Furthermore, a physical splitter island has been provided on the northern Titnore Lane arm physically segregating traffic entering and exiting the roundabout.

Design Organisation Response

2.8 In accordance with national standards, this Road Safety Audit was finalised and issued to the Design Organisation as per the Road Safety Audit Report Template within Appendix D of GG119, which can be provided upon request from either the Audit Team or Design Organisation. The format of the Audit Report was subsequently revised to incorporate these paragraphs under the sub-heading as well as sufficient space beneath the items and recommendation, within Section 4, for the inclusion of a Design Organisation Response. This is generally contained within a separate Design Organisation Response Report but is included within this document in order to maintain a single record of all problems, recommendations and responses for the benefit of a concise Road Safety Audit trail to be held on file for Quality Assurance purposes.

2.9 The Design Organisation Response has been prepared by:

Name:	Tony Wares
Position / Organisation:	Associate Transport Planner, Milestone Transport Planning

2.10 Any drawings or documents associated with the Design Organisation Response are listed at **Appendix C3,** if applicable.

3.0 ITEMS RAISED IN ANY PREVIOUS ROAD SAFETY AUDITS

3.1 Fenley Road Safety Limited undertook a Stage 1 Road Safety Audit of the current proposals in June 2020. This Stage 1 Road Safety Audit reassesses the entire scheme and raises any road safety concerns that the Audit Team have with the current scheme.

4.0 ITEMS RAISED AT THIS STAGE 1 ROAD SAFETY AUDIT

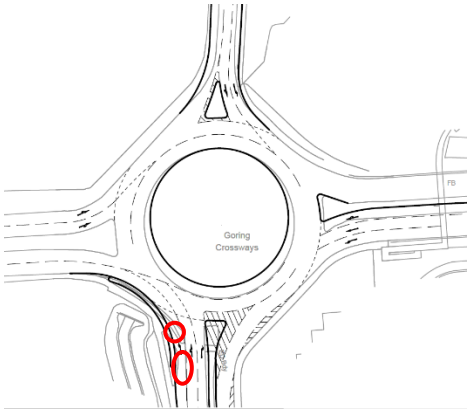
A.1	**LOCAL ALIGNMENT**
	No Road Safety Concerns regarding LOCAL ALIGNMENT have been raised at this stage.
A.2	**GENERAL**
A.2.1	**PROBLEM**
Location:	Southern approach
Summary:	Existing footway service covers will be within the carriageway
Acc Type:	Loss of control

The existing footways and verges in proximity of the Goring Crossways roundabout accommodate a number of utility covers. The scheme drawing is based upon Ordnance Survey rather than a topographical survey and as such, does not indicate the location of services. The site visit associated with this Audit, showed that a number of covers that are currently within the verge, will be situated within the proposed carriageway. Those utility covers may not be sufficient for the loadings of vehicular traffic and are unlikely to benefit from adequate frictional surface properties which could lead to failure and skidding resulting in loss of control type incidents.

RECOMMENDATION:

It is recommended that existing utility covers are relocated or if their relocation is not feasible, adjusted appropriately

Location Plan: (the illustration below does not identify all locations where the road safety concern is present)



DESIGN ORGANISATION RESPONSE provided by Milestone Transport Planning on the 29th Nov. '21 following formal issue of this Stage 1 Road Safety Audit on the 25th Nov. '21

In line with the Auditor's recommendation, the potential relocation / amendment of all service covers within the carriageway, to ensure that they have sufficient loading capabilities and frictional properties will be considered as part of the detailed design stage.

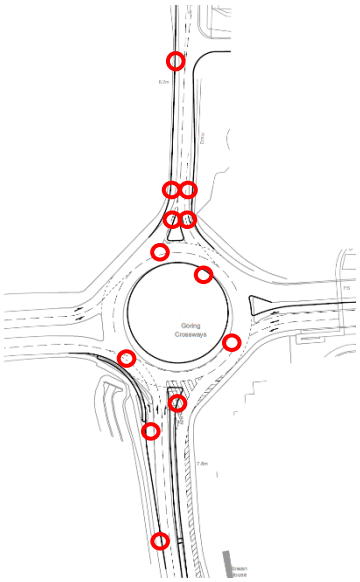
A.2.2	**PROBLEM**
Location:	Roundabout / Scheme
Summary:	Proposed carriageway widening will result in gullies being located within the path of a vehicle
Acc Type:	Loss of control

The Goring Crossways roundabout accommodates a network of road and kerb gullies that cater for surface water that accumulates on the carriageway. The proposals realign and widen the existing carriageways and as such, the amount of surface water that accumulates on the carriageway will increase and the existing road gullies will be situated away from the channel line within the path of a vehicle. No details have been provided at this stage to identify that the existing surface water drainage network is to be modified in accordance with the proposals or that provision will be made to accommodate the additional surface water that is generated. A road gully within the path of a vehicle could give rise to loss of control type incidents especially for two wheeled vehicles and vehicles undertaking a braking manoeuvre and an inadequate surface water network could result in ponding during inclement conditions which would be exacerbated during freezing conditions leading to loss of control type collisions.

RECOMMENDATION:

It is recommended that road gullies are relocated to the edge of carriageway and surface water is drained sufficiently.

Location Plan:



DESIGN ORGANISATION RESPONSE provided by Milestone Transport Planning on the 29th Nov. '21 following formal issue of this Stage 1 Road Safety Audit on the 25th Nov. '21

In line with the Auditor's recommendation, the potential relocation of road gullies to prevent loss of control type incidents, particularly for two-wheeled vehicles and those undertaking a braking manoeuvre will be considered as part of the detailed design stage.

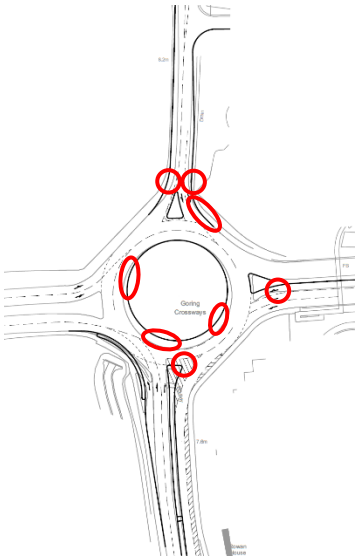
A.2.3	**PROBLEM**
Location:	Roundabout / Scheme
Summary:	Street furniture within the verge will become an obstruction
Acc Type:	Vehicle collisions with obstructions and loss of control

Street furniture to include signage and street lighting columns are present within the existing verges of the A259, A2032 and Titnore Lane as well as the central island of the Goring Crossways roundabout. The proposed highway works reduce the diameter of the central island as well as increase the width and realign the approaches. Following implementation of the proposals, existing items of street furniture will be located within the path of a vehicle or within 450mm of the carriageway. Items of street furniture within 450mm of a live carriageway will become an obstruction to vehicles and if struck, could result in loss of control type colisions.

RECOMMENDATION:

It is recommended that all street furniture is relocated accordingly

Location Plan:



DESIGN ORGANISATION RESPONSE provided by Milestone Transport Planning on the 29th Nov. '21 following formal issue of this Stage 1 Road Safety Audit on the 25th Nov. '21

In line with the Auditor's recommendation, the potential relocation of street furniture to ensure it is positioned beyond a distance of 450mm from the edge of the carriageway will be considered at the detailed design stage. This will ensure that there are no obstacles to car driver inter-visibility.

A.3	**JUNCTIONS**
	No Road Safety Concerns regarding JUNCTIONS have been raised at this stage

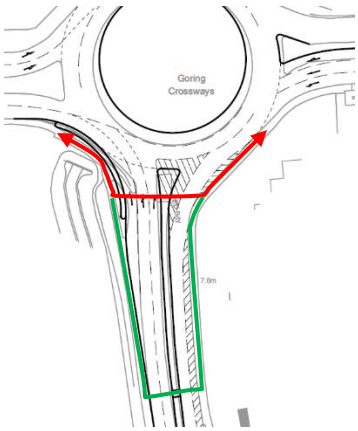
A.4	WALKING CYCLING AND HORSE RIDING
A.4.1	PROBLEM
Location:	A259, Goring Street
Summary:	Pedestrians are likely to follow a desire line and attempt to cross three lanes of traffic
Acc Type:	Vehicle-pedestrian collisions

A footway is present along the southern side of the eastern and western dual carriageway arms of the Crossways Roundabout with an uncontrolled crossing point provided over the southern arm of the A259, Goring Street which accommodates two entry lanes. The proposal illustrated on the scheme drawing increase the width of the southern A259 arm of the roundabout to provide three approach lanes and relocated the uncontrolled crossing some 100 metres to the south of the junction. An item raised in the previous Stage 1 Road Safety Audit highlighted a road safety concern related to pedestrians crossing three lanes of traffic and recommended relocating the crossing further south. The uncontrolled crossing has been relocated, however, it is likely that pedestrians walking between the eastern and western arms of the roundabout will attempt to cross along their desire line rather than diverting to the relocated uncontrolled crossing point. A pedestrian attempt to cross three lanes could lead to vehicle pedestrian collisions for example when congestion is present within the outside lanes and traffic within the central lane is not clearly visible and free flowing.

RECOMMENDATION:

It is recommended that measures are provided to prevent pedestrians from attempting to cross the proposed three lane approach

Location Plan:



DESIGN ORGANISATION RESPONSE provided by Milestone Transport Planning on the 29th Nov. '21 following formal issue of this Stage 1 Road Safety Audit on the 25th Nov. '21

In line with the Auditor's recommendation, pedestrian guard railing would be installed on either side of the A259 Goring Street, to prevent pedestrians from attempting to cross the proposed 3-lane approach. This is shown on Drawing No. 18122/002 Rev D.

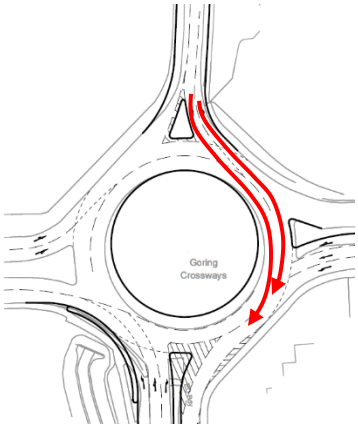
A.5	ROAD SIGNS, CARRIAGEWAY MARKINGS AND LIGHTING
A.5.1	PROBLEM
Location:	Titnore Lane
Summary:	Arrow road markings guide insufficient guidance
Acc Type:	Sideswipes

Although the Titore Lane northern arm of the Goring Crossways Roundabout does not benefit from two marked lane approaches, a taper is accommodated that allows two vehicles to enter the roundabout simultaneously. The proposals widen and realign Titnore Lane on the eastern side from a vehicular access associated with Northbrook Metropolitan College and on the western side from the vehicular access associated with the Swallows Return restaurant, provide two approach lanes that measures approximately 42 metres. The scheme drawing illustrates that the lanes are to be designated with traffic in Lane 1 guided to turn left along the A2032 and Lane 2 guided straight along Goring Street and right along Littlehampton Road. However, the circulatory road markings do not allow for traffic within the inside lane of the circulatory, to continue straight. Southbound traffic is therefore likely to cut across the circulatory and undertake late lane changes which could lead to sideswipe type collisions.

RECOMMENDATION:

It is recommended that the arrow road markings are amended to guide traffic turning left and continuing straight to approach the roundabout in Lane 1 and right turning traffic only, to approach in Lane 2.

Location Plan:



DESIGN ORGANISATION RESPONSE provided by Milestone Transport Planning on the 29th Nov. '21 following formal issue of this Stage 1 Road Safety Audit on the 25th Nov. '21

In accordance with the Auditor's recommendation, the design of the proposed mitigation has been amended to guide traffic on Titnore Lane appropriately. This will prevent the potential for side swipe incidents. This is shown on Drawing No. 18122/002 Rev D.

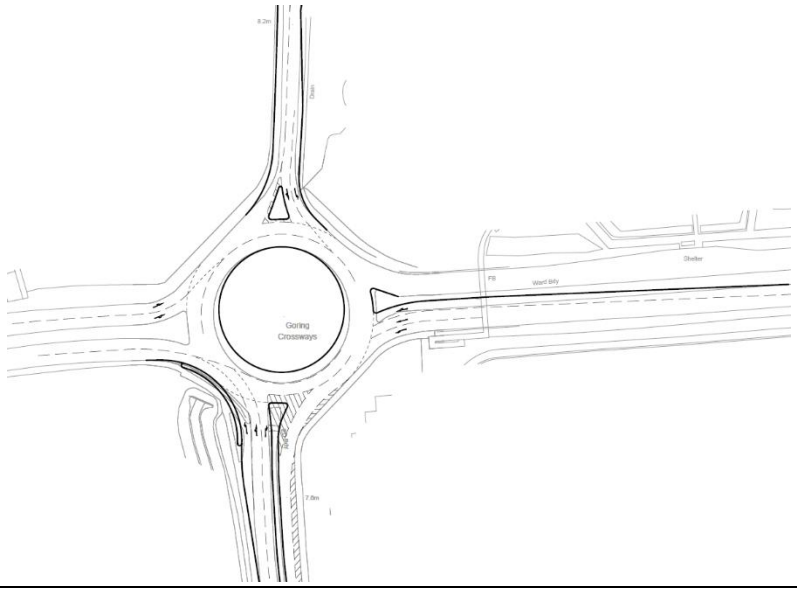
A.5.2	PROBLEM
Location:	Titnore Lane, A2032 and Goring Street approach
Summary:	Approaching traffic may not become aware of the appropriate approach lane
Acc Type:	Sideswipes

The proposals that are subject to this Stage 1 Road safety Audit include widening works to the Titnore Lane, A2032 and Goring Street approaches to the roundabout and designation of lanes. However, no details of the proposed signage is provided at this stage. Traffic approaching the roundabout may therefore enter the incorrect lane and undertake late lane changes which could lead to sideswipe type collisions.

RECOMMENDATION:

It is recommended that advance lane designation signage is provided

Location Plan:



DESIGN ORGANISATION RESPONSE provided by Milestone Transport Planning on the 29th Nov. '21 following formal issue of this Stage 1 Road Safety Audit on the 25th Nov. '21

Appropriate signage will be considered at the detailed design stage of the works.

5.0 STAGE 1 ROAD SAFETY AUDIT TEAM STATEMENT

5.1 We certify that this Road Safety Audit has been carried out in accordance with GG119.

Audit Team Leader

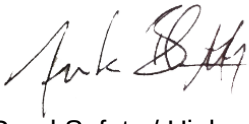
Name: **Jamie Fenning** *BSc (Hons), MIHE, MCIHT, MSoRSA, HE RSA Certificate of Competency*

Signed: 

Position: Road Safety / Highway Engineer
Organisation: Fenley Road Safety Limited
Date: 25th November 2021

Audit Team Member

Name: **Farouk Bhatti** *MCIHT*

Signed: 

Position: Road Safety / Highway Engineer
Organisation: Fenley Road Safety Limited
Date: 25th November 2021

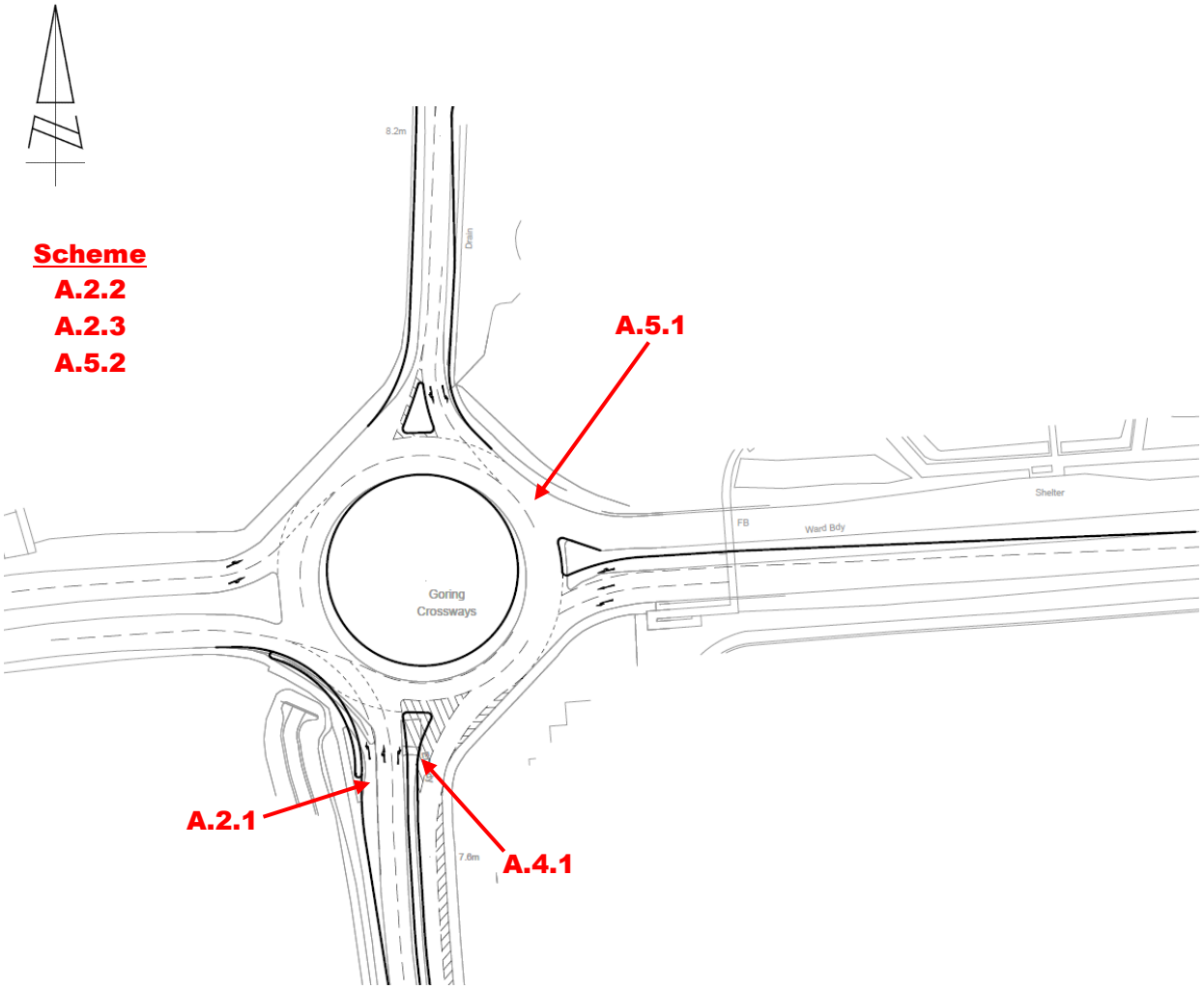
Appendix A1

Documents and Drawings provided for this Stage 1 Road Safety Audit

Audit Stage	Doc. No.	Rev	Title
Stage 1	Email dated 22nd Oct. '21		Stage 1 Road Safety Audit Brief
	Collision Report 01/09/2014-31/08/2019	-	Chatsmore Farm – Goring - Milestone
	-	-	PIA Data Analysis
	Dwg No.	Rev	Title
	18122-002	B	Proposed Northern Roundabout Mitigation Measures

Appendix A2

Item Location Plan

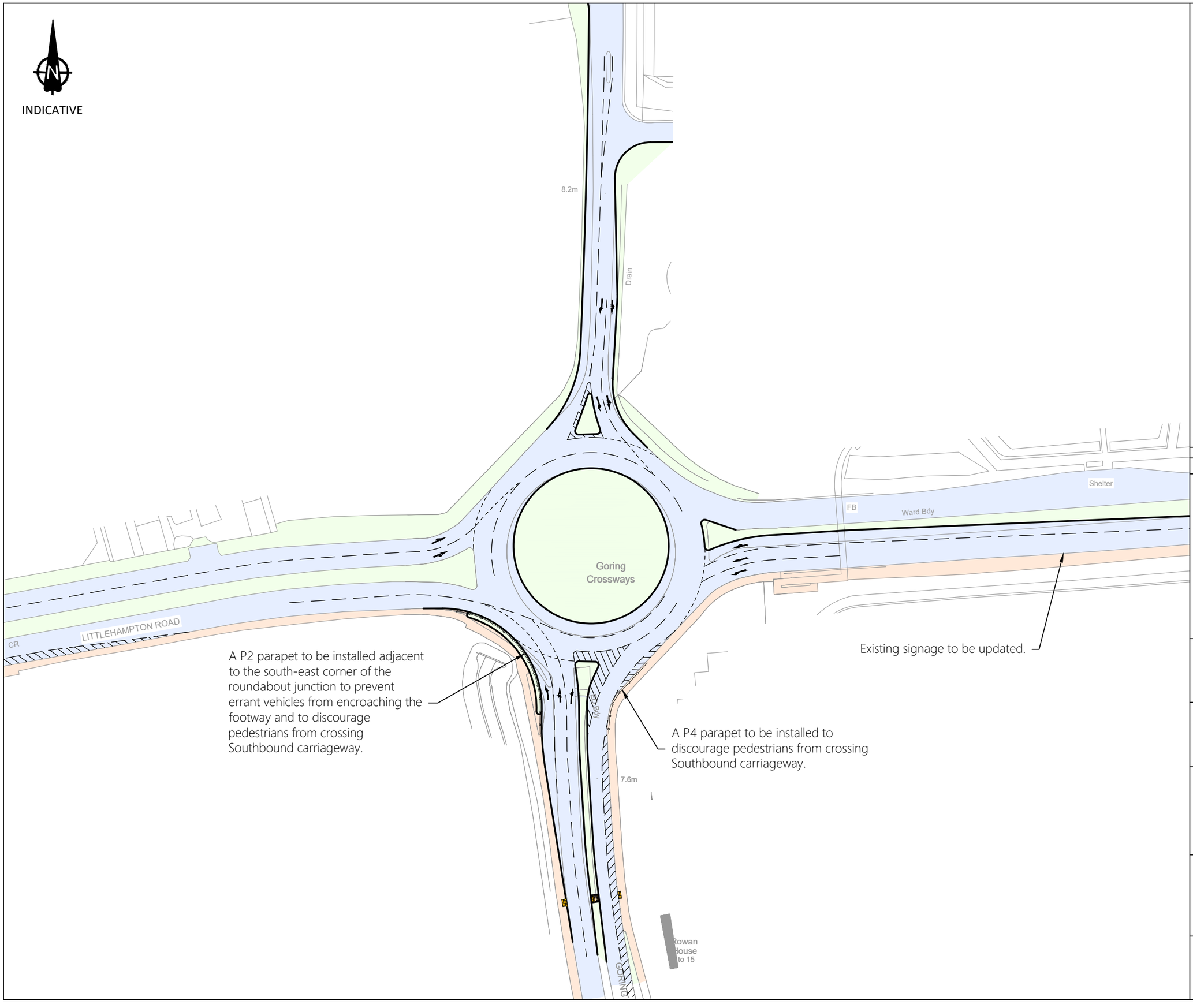

Scheme
A.2.2
A.2.3
A.5.2
A.5.1
A.2.1
A.4.1
Goring
Crossways
8.2m
7.6m
Drain
Shelter
FB
Ward Bdy

Appendix A3

Drawings associated with the Design Organisation Response

Audit Stage	Drawing No.	Rev	Title
Stage 1	18122/002	D	Proposed Northern Roundabout Mitigation Measures

INDICATIVE



A P2 parapet to be installed adjacent to the south-east corner of the roundabout junction to prevent errant vehicles from encroaching the footway and to discourage pedestrians from crossing Southbound carriageway.

A P4 parapet to be installed to discourage pedestrians from crossing Southbound carriageway.

Existing signage to be updated.

Notes

1. Do not scale from this drawing. All dimensions shown are in metres unless noted otherwise.

Drawing Revisions

Rev:	Drn:	Date:	Details	Chk:
-	ZM	02/04/2020	First issue	TW
A	ZM	03/07/2020	Revised drawing	TW
B	ZM	10/07/2020	Revised drawing	TW
C	DC	24/06/2021	Revised layout	TW
D	BM	29/11/2021	Revised layout	TW

Client

Persimmon Homes Ltd (Thames Valley)

Project

Land North West of Goring Station, Goring by Sea

Title

Proposed Northern Roundabout Mitigation Measures

MILESTONE TRANSPORT PLANNING
Abbey House, 282 Farnborough Rd, Farnborough, Hants GU14 7NA
Tel: 01483 397888
Gateshead IBC, Mulgrave Terrace, Gateshead, NE8 1AN
Tel: 0191 338 7220
web: www.milestonetp.co.uk

Drawing Number: 18122-002

Scale: 1:1000 @ A3

Revision: D


fenley

Road Safety Audit Report

Incorporating
Stage 1 Completion of Preliminary Design; and
Design Organisation Response to Items Raised.

Proposed Access Roundabout and associated Highway Works, A259 Goring Street Goring by Sea

Client:
Milestone Transport Planning

Client reference:
18122-001C

Fenley
2 Blaenant
Emmer Green
READING
RG4 8PH

E: office@fenley.co.uk
www.fenley.co.uk

Report Status 3

Job no	RSA-21-145	**Issue no**	3	**Date**	November 2021
Prepared by	JJF	**Verified by**	FB	**Approved by**	JJF
Filename and Path	Fenley/Road Safety Audits/RSA-21/RSA-21-145-3				

1.0 PROJECT DETAILS

Report Title:	Stage 1 Road Safety Audit
Date:	November 2021
Document reference and revision:	RSA-21-145-3
Prepared by:	Fenley Road Safety Limited
County Highway Authority:	West Sussex County Council
Design Organisation:	Milestone Transport Planning
Project Sponsor:	Persimmon Homes Thames Valley

REV	ISSUE PURPOSE	AUTHOR	CHECKED	APPROVED	DATE
0	Stage 1 Road Safety Audit drafted for Audit Team discussions	FB			1st November 2021
1	Stage 1 Road Safety Audit finalised and issued to the Design Organisation	JJF	FB	JJF	25th November 2021
2	Stage 1 Road Safety Audit Report format amended to incorporate a row for inclusion of a Design Organisation Response in order to maintain a concise record of items raised	JJF			25th November 2021
3	Design Organisation Response incorporated	Tony Wares on behalf of Milestone Transport Planning			29th November 2021

Contents:

Appendices:

2.0 INTRODUCTION

2.1 This report has been prepared by Fenley Road Safety Limited and results from a Stage 1 Road Safety Audit of proposed highway access off and associated works along the A259 in Goring-by-Sea. The scheme is to facilitate a mixed-use development consisting of circa 475 dwellings and a local centre with a parking facility to also serve Goring-by-Sea railway station. The proposals consist of the provision of a 40 mere ICD 3-arm access roundabout along the A259, the modification of The Strand priority junction with the A259 to a left in left out, the diversion of the northern end of Goring Street to meet the proposed access road with a shared footway cycleway provided along the existing, the relocation of a Toucan crossing along the A259 Goring Street approximately 70-metres south of the existing facility, the provision of a raised table at the junction of Goring Street with the private access to a number of residential buildings and the provision of a parking facility to serve the station and local centre accessed via a priority junction along Goring Street. This Stage 1 Road Safety Audit is a revision of one previously undertaken, RSA-20-027 in July 2020.

2.2 The Audit Brief identifies that the proposals do not include any Departures from Standard, whether related to strategic decisions or otherwise.

2.3 This Road Safety Audit was undertaken during November 2021 in accordance with the Road Safety Audit Brief provided, on the 22nd October 2021 by the Design Organisation, Milestone Transport Planning, on behalf of the Project Sponsor, Persimmon Homes Thames Valley. The Road Safety Audit comprised of a site visit as well as an examination of the documents provided which are identified in **Appendix A1**. The Audit Team were satisfied that that the Audit Brief was sufficient for the purpose of the Audit instructed.

2.4 The Road Safety Audit Team has been approved to undertake this Road Safety Audit. The Audit Team consists of the following members:

Audit Team Leader
Jamie Fenning *BSc(Hons), MIHE, MCIHT, MSoRSA, Highways England RSA Certificate of Competency*
Road Safety / Highway Engineer

Audit Team Member
Farouk Bhatti *MCIHT*
Road Safety Auditor

2.5 The site visit associated with this Road Safety Audit was undertaken by the Audit Team Leader and Audit Team Member, during the early afternoon of Thursday 11th June 2020 between 3:30pm and 5pm. The site visit involved walking and driving around the local highway network for a 90-minute period whilst observing local infrastructure and current off-peak traffic conditions. The weather during the site visit was clear with scattered clouds, the road surface was dry and visibility was good. A number of pedestrians and cyclists were

observed during the site visit. Vehicular traffic to include motorcycles, cars, passenger service vehicles, light and heavy goods vehicles were also observed.

2.6 The terms of reference of this Road Safety Audit are as described in GG119. The scheme has been examined and this report compiled, only with regard to the safety implications for road users of the scheme as presented. It has not been examined or verified for compliance with any other standards or criteria. However, in order to clearly explain a safety problem or the recommendation to resolve a problem, the Audit Team may on occasion have referred to a design standard for information only. All comments and recommendations are referenced to the design drawings supplied with the Audit Brief and the location of road safety concerns raised have been illustrated beneath the items along with relevant photographs for clarity, where appropriate, as well as on the Location Plan attached at **Appendix A2**.

Design Organisation Response

2.7 In accordance with national standards, this Road Safety Audit was finalised and issued to the Design Organisation as per the Road Safety Audit Report Template within Appendix D of GG119, which can be provided upon request from either the Audit Team or Design Organisation. The format of the Audit Report was subsequently revised to incorporate these paragraphs under the sub-heading as well as sufficient space beneath the items and recommendation, within Section 4, for the inclusion of a Design Organisation Response. This is generally contained within a separate Design Organisation Response Report but is included within this document in order to maintain a single record of all problems, recommendations and responses for the benefit of a concise Road Safety Audit trail to be held on file for Quality Assurance purposes.

2.8 The Design Organisation Response has been prepared by:

Name: Tony Wares

Position / Organisation: Associate Transport Planner, Milestone Transport Planning

2.9 Any drawings or documents associated with the Design Organisation Response are listed at **Appendix C3,** if applicable.

3.0 ITEMS RAISED IN ANY PREVIOUS ROAD SAFETY AUDITS

3.1 Fenley Road Safety Limited undertook a Stage 1 Road Safety Audit of a previous revision of the current proposals in June 2020. This Stage 1 Road Safety Audit reassesses the entire scheme and raises any road safety concerns that the Audit Team have with the current scheme.

4.0 ITEMS RAISED AT THIS STAGE 1 ROAD SAFETY AUDIT

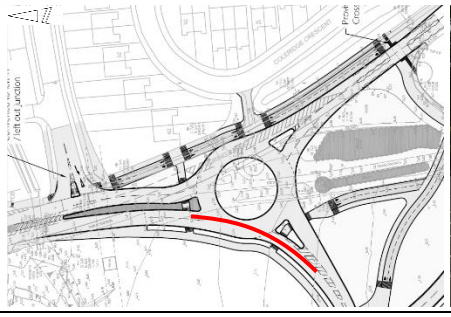
A.1	**LOCAL ALIGNMENT**
A.1.1	**PROBLEM**
Location:	Proposed primary access road
Summary:	Vehicles travelling from the proposed development can enter and travel through the proposed roundabout at speed
Acc Type:	Loss of control

The A259 is subject to a 40mph speed limit. It is proposed to provide a three arm 40 metre ICD roundabout along the A259 that allows access to a development of 475 dwellings and associated facilities. The A259 is to be realigned on approach to the roundabout to ensure that a good level of deflection is achieved, however, the proposed development arm meets the roundabout at a slack angle with a large entry radius that allows for an approaching vehicle, to take a racing line to the A259 north. The lack of deflection is likely to result in high-speed entries as well as through movements which could give rise to loss of control type incidents.

RECOMMENDATION:

It is recommended that sufficient deflection is provided or a traffic calming feature is situated along the proposed access road in order to ensure vehicles cannot enter the roundabout at high speeds.

Location Plan:



DESIGN ORGANISATION RESPONSE provided by Milestone Transport Planning on the 29th Nov. '21 following formal issue of this Stage 1 Road Safety Audit on the 25th Nov. '21

As shown on Drawing No.'s 18122/001 Rev C and 18122/SK10 Rev A (attached), the design of the site's proposed access achieves a level of deflection below 100-metres, in line with DMRBS *'CD 116 Geometric design of roundabouts*' document. Consequently, this will reduce the risk of loss of control type incidents.

A.2	**GENERAL**
A.2.1	**PROBLEM**
Location:	Scheme
Summary:	Existing utility covers will be an obstruction to vehicles
Acc Type:	Loss of control

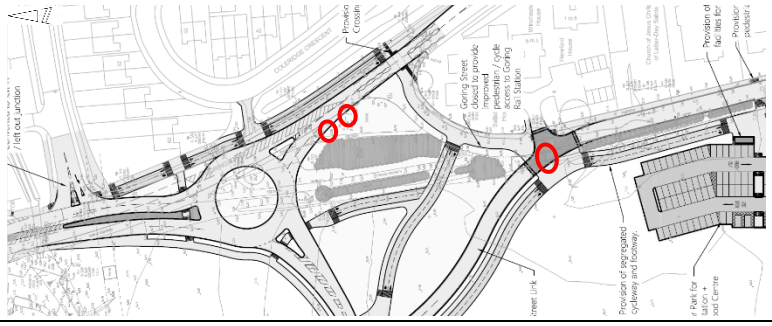
The existing footways and verges in proximity of the Goring Street accommodate a number of utility covers. Covers that are currently situated within a verge / footway are unlikely have been

constructed with adequate loading capabilities or frictional properties. A vehicle travelling across insufficient utility covers could lead to loss of control type collisions due to failure and skidding.

RECOMMENDATION:

It is recommended that existing utility covers are relocated / adjusted appropriately with sufficient frictional properties

Location Plan: (the illustration below does not identify all locations where the road safety concern is present)



DESIGN ORGANISATION RESPONSE provided by Milestone Transport Planning on the 29th Nov. '21 following formal issue of this Stage 1 Road Safety Audit on the 25th Nov. '21

In accordance with the Auditor's recommendations, the relocation / adjustment of existing utility covers will be considered as part of the Detailed Design process.

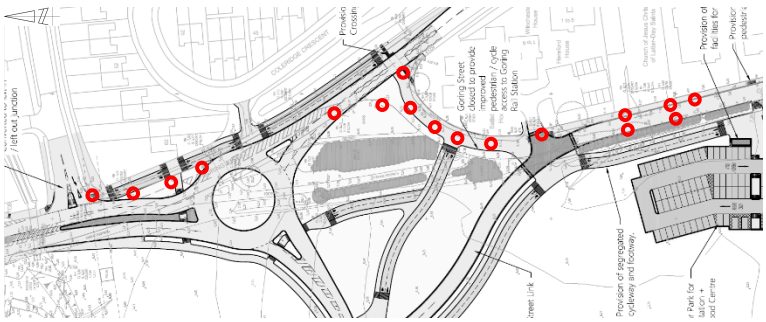
A.2.2	**PROBLEM**
Location:	Scheme
Summary:	Existing road gullies will be within the path of vehicles
Acc Type:	Loss of control

In proximity of the proposed highway works, the A259 and the minor arm of Goring Street accommodate a drainage network that caters for surface water that accumulates on the carriageway. The proposals include the provision of a 3-arm roundabout junction in order to serve as the primary access to a development of 475 dwellings as well as associated facilities and the realignment of Goring Street. At this stage, no details have been provided to identify that the existing surface water drainage network is to be modified in accordance with the proposals or that provisions will be made to accommodate the additional surface water that is generated. An inadequate drainage network could result in ponding during inclement conditions which may lead to loss of control type incidents which would be exacerbated during freezing conditions.

RECOMMENDATION:

It is recommended that an adequate surface water drainage network is provided.

Location Plan:



DESIGN ORGANISATION RESPONSE provided by Milestone Transport Planning on the 29th Nov. '21 following formal issue of this Stage 1 Road Safety Audit on the 25th Nov. '21

In accordance with the Auditor's comments, adequate surface water drainage will be considered as part of the detailed design stage.

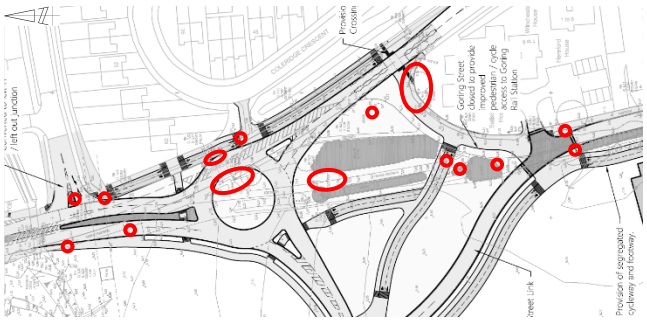
A.2.3	**PROBLEM**
Location:	Scheme
Summary:	Street furniture within the verge will become an obstruction
Acc Type:	Loss of control

Street furniture to include signage and street lighting columns are present within the existing verge along the A259 and Goring Street. The proposals subject to this Stage 1 Road Safety Audit, include the provision of a 40 metre ICD 3-arm roundabout junction and realign the A259 approaches as well as Goring Street. Items of street furniture within 450mm of a live carriageway will become an obstruction to vehicles and could lead to loss of control collisions as a result of street furniture strikes.

RECOMMENDATION:

It is recommended that all street furniture is relocated accordingly

Location Plan:



DESIGN ORGANISATION RESPONSE provided by Milestone Transport Planning on the 29th Nov. '21 following formal issue of this Stage 1 Road Safety Audit on the 25th Nov. '21

In line with the Auditor's comments, all street furniture within a 450mm distance of the carriageway will be relocated to ensure that there are no obstructions to motorised users undertaking various manoeuvres. This aspect will be considered as part of the detailed design.

A.3	**JUNCTIONS**

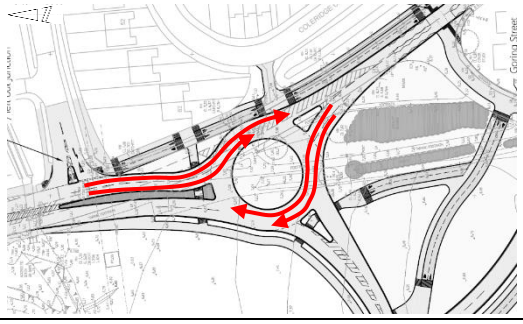
A.3.1	**PROBLEM**
Location:	Proposed roundabout
Summary:	Inadequate circulatory carriageway to accommodate a vehicle alongside a HGV
Acc Type:	Vehicle sideswipes

The proposals include the provision of a 40 metre ICD roundabout that accommodates a 25 metre central island, a 7.5 metre circulatory carriageway and two lane approaches along the A259. No swept path analysis has been provided with the Audit Brief, however, the Audit Team have concerns with regard to the movement of HGV's. A 7.5 metre circulatory carriageway is unlikely to be adequate for an HGV and smaller vehicle to travel side by side following entry. A vehicle attempting to pass an HGV on the circulatory is likely to lead to sideswipe type collisions.

RECOMMENDATION:

It is recommended that the proposals allow for the expected movements.

Location Plan:



DESIGN ORGANISATION RESPONSE provided by Milestone Transport Planning on the 29th Nov. '21 following formal issue of this Stage 1 Road Safety Audit on the 25th Nov. '21

Accepted, however, HGV traffic flows along this section of the A259 Goring Street are not high and due to the proposed alignment to maximise deflection, any large vehicles will be required to encroach the entire width of each entry when manoeuvring and as such, it will not be possible for a vehicle to approach or travel around the roundabout side by side mitigating the road safety concern raised. Should the County Highway Authority raise a similar concern through consultations at the detail design stage, an overrun area can be provided on the central island.

A.4	**WALKING CYCLING AND HORSE RIDING**
A.4.1	**PROBLEM**
Location:	Goring Street
Summary:	Visually impaired pedestrians could step into the path of a cyclist without warning
Acc Type:	Cyclist-pedestrian collisions

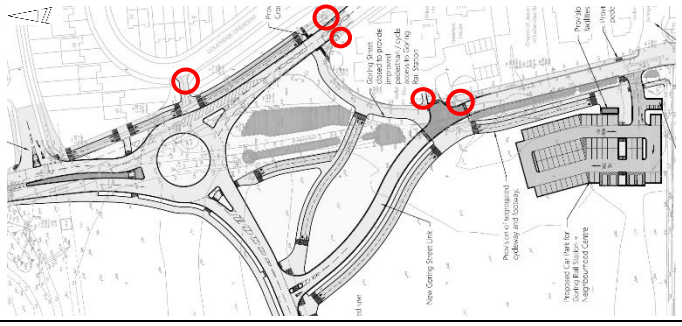
The proposals include the provision of a shared 3.0 metre footway / cycleways as well as a 2.0 metre footway and links to an existing footway. The scheme drawing provided with the Audit Brief, identifies that tactile paving is to be provided at crossing points, albeit an insufficient depth at direct crossings, however, no tactile warning is provided for visually impaired pedestrians travelling between a footway and a share footway cycleway. As such, there is a risk that pedestrians will

not become aware of the potential for cyclists and could step into their path which could give rise to cyclist pedestrian collisions.

RECOMMENDATION:

It is recommended that tactile paving is provided in accordance with national guidance.

Location Plan:



DESIGN ORGANISATION RESPONSE provided by Milestone Transport Planning on the 29th Nov. '21 following formal issue of this Stage 1 Road Safety Audit on the 25th Nov. '21

As shown on Drawing No. 18122/001 Rev C (attached), the design of the proposed access arrangements has been amended to incorporate tactile paving of sufficient depth at designated crossing points as well as tactile warning for visually impaired pedestrians travelling between the footway and shared foot / cycleway, in accordance with national guidance. This will ensure pedestrians are made aware of the potential of cyclists using the shared foot / cycleway and substantially minimise cyclist / pedestrian collisions.

A.5	ROAD SIGNS, CARRIAGEWAY MARKINGS AND LIGHTING
	No Road Safety Concerns regarding ROAD SIGNS, CARRIAGEWAY MARKINGS AND LIGHTING have been raised at this stage

5.0 STAGE 1 ROAD SAFETY AUDIT TEAM STATEMENT

5.1 We certify that this Road Safety Audit has been carried out in accordance with GG119.

Audit Team Leader

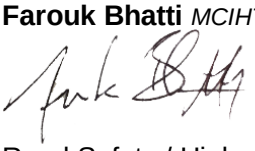
Name: **Jamie Fenning** *BSc (Hons), MIHE, MCIHT, MSoRSA, HE RSA Certificate of Competency*

Signed: 

Position: Road Safety / Highway Engineer
Organisation: Fenley Road Safety Limited
Date: 25th November 2021

Audit Team Member

Name: **Farouk Bhatti** *MCIHT*

Signed: 

Position: Road Safety / Highway Engineer
Organisation: Fenley Road Safety Limited
Date: 25th November 2021

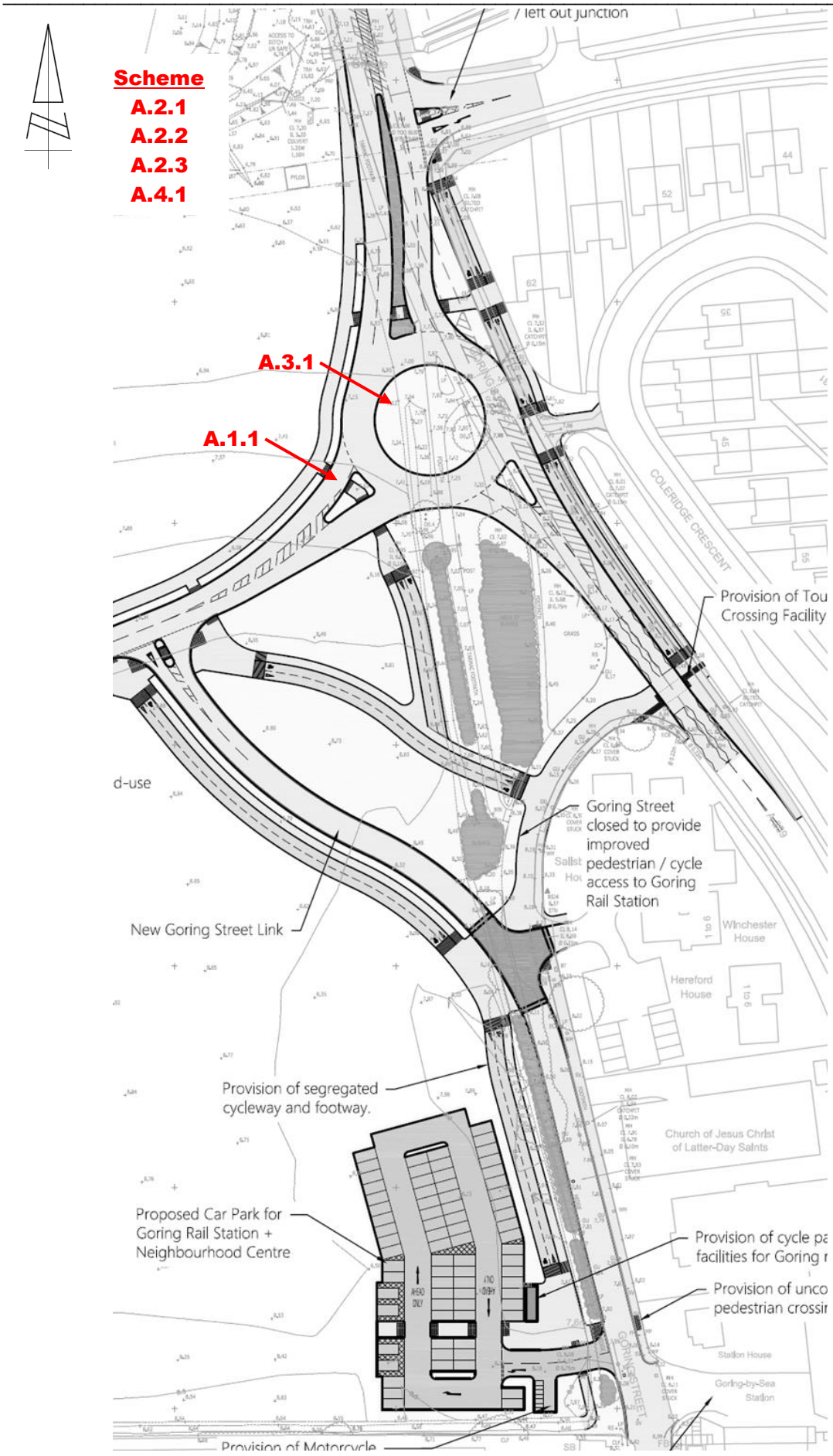
Appendix A1

Documents and Drawings provided for this Stage 1 Road Safety Audit

Audit Stage	Doc. No.	Rev	Title
Stage 1	Email dated 22nd Oct. '21		Stage 1 Road Safety Audit Brief
	Collision Report 01/09/2014-31/08/2019	-	Chatsmore Farm – Goring - Milestone
	-	-	PIA Data Analysis
	Dwg No.	Rev	Title
	18122-001	C	Proposed Access Strategy

Appendix A2

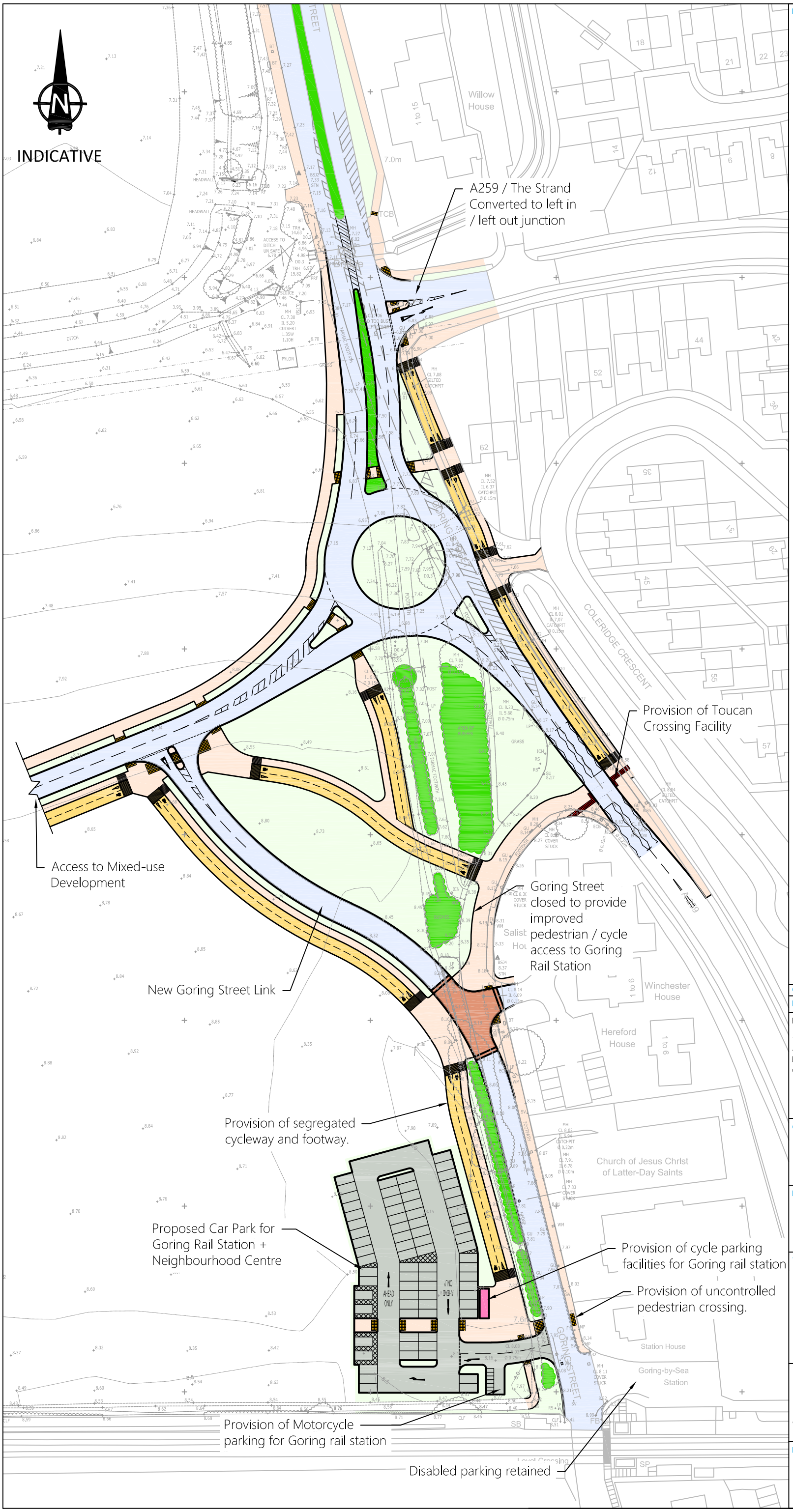
Item Location Plan


Scheme
A.2.1
A.2.2
A.2.3
A.4.1
A.3.1
A.1.1
left out junction
COLERIDGE CRESCENT
Provision of Tou
Crossing Facility
d-use
Goring Street
closed to provide
improved
pedestrian / cycle
access to Goring
Rail Station
New Goring Street Link
Winchester
House
Hereford
House
Provision of segregated
cycleway and footway.
Church of Jesus Christ
of Latter-Day Saints
Proposed Car Park for
Goring Rail Station +
Neighbourhood Centre
Provision of cycle pa
facilities for Goring r
Provision of unco
pedestrian crossi
Station House
Goring-by-Sea
Station
Provision of Motorcycle

Appendix A3

Drawings associated with the Design Organisation Response

Audit Stage	Drawing No.	Rev	Title
Stage 1	18122/001	C	Proposed Access Strategy
	18122/SK10	A	Proposed Deflection – Site Access Roundabout



Notes

1. Do not scale from this drawing. All dimensions shown are in metres unless noted otherwise.
2. This drawing has been based upon topographical survey information produced by others and Milestone Transport Planning cannot be held responsible for any discrepancies which may arise because of it.

Key

- Footway
- Segregated 2-way Cycleway
- Verge
- Existing vegetation to remain

Drawing Revisions

Rev:	Drn:	Date:	Details	Chk:
-	IP	12/02/2019	First issue	TW
A	ZM	03/07/2020	Revised drawing	TW
B	ZM	16/11/2020	Inclusion of segregated cycleway	TW
C	DC	09/12/2020	Updated Cycleway and Car Park Layout	TW

Client

Persimmon Homes Ltd
(Thames Valley)

Project

Land North West of Goring Station, Goring by Sea

Title

Proposed Access Strategy

MILESTONE TRANSPORT PLANNING
7 Wey Court, Mary Road, Guildford, Surrey, GU1 4QU Tel: 01483 397888
Gateshead IBC, Mulgrave Terrace, Gateshead, NE8 1AN Tel: 0191 338 7220
web: www.milestonetp.co.uk

Drawing Number:

18122-001

Scale:

1,000 @ A3

Revision:

C

INDICATIVE

Deflection below 100-metres in line with DMRBS '*CD 116 Geometric design of roundabouts*' document.

R99.52

R94.30

R94.87

Notes

1. Do not scale from this drawing. All dimensions shown are in metres unless noted otherwise.

Drawing Revisions

Rev:	Drn:	Date:	Details	Chk:
-	ZM	03/07/2020	First issue	TW
A	EH	29/11/2021	Updated Layout Plan	TW

Client

Persimmon Homes Ltd (Thames Valley)

Project

Land at Chatsmore Farm, Goring by Sea

Title

Proposed Deflection - Site Access Roundabout

MILESTONE TRANSPORT PLANNING
Abbey House, 282 Farnborough Rd, Farnborough, Hants GU14 7NA
Tel: 01483 397888
Gateshead IBC, Mulgrave Terrace, Gateshead, NE8 1AN
Tel: 0191 338 7220
web: www.milestonetp.co.uk

Drawing Number: 18122-SK10

Scale: 1:500 @ A3

Revision: A


fenley

Road Safety Audit Report

Incorporating
Stage 1 Completion of Preliminary Design; and
Design Organisation Response to Items Raised.

Proposed Highway and Footway / Cycleway Works at the Goring Crossways Roundabout Goring by Sea

Client:
Milestone Transport Planning

Client reference:
18122-006

Fenley
2 Blaenant
Emmer Green
READING
RG4 8PH

E: office@fenley.co.uk
www.fenley.co.uk

Report Status 3

Job no	**RSA-21-146**	**Issue no**	3	**Date**	November 2021
Prepared by	JJF	**Verified by**	FB	**Approved by**	JJF
Filename and Path	Fenley/Road Safety Audits/RSA-21/RSA-21-146-3				

1.0 PROJECT DETAILS

Report Title:	Stage 1 Road Safety Audit
Date:	November 2021
Document reference and revision:	RSA-21-146-3
Prepared by:	Fenley Road Safety Limited
County Highway Authority:	West Sussex County Council
Design Organisation:	Milestone Transport Planning
Project Sponsor:	Persimmon Homes Thames Valley

REV	ISSUE PURPOSE	AUTHOR	CHECKED	APPROVED	DATE
0	Stage 1 Road Safety Audit drafted for Audit Team discussions	FB			1st November 2021
1	Stage 1 Road Safety Audit finalised and issued to the Design Organisation	JJF	FB	JJF	25th November 2021
2	Stage 1 Road Safety Audit Report format amended to incorporate a row for inclusion of a Design Organisation Response in order to maintain a concise record of items raised	JJF			25th November 2021
3	Design Organisation Response incorporated	Tony Wares on behalf of Milestone Transport Planning			29th November 2021

Contents:

Appendices:

2.0 INTRODUCTION

2.1 This report has been prepared by Fenley Road Safety Limited and results from a Stage 1 Road Safety Audit of proposed highway and footway / cycleway works at the Goring Crossways roundabout in Goring-by-Sea. The proposed highway works consist of widening along the northern arm to extend the existing two-lane entry, the eastern and southern arms to increase the number of entry arms from two to three and the widening of the southern half of the roundabout. The footway cycleway works include a proposed toucan crossing along the eastern A2032 arm with links to the existing facility to the east and a footway cycleway link to the west along Titnore Lane between the crossing and access associated with the Swallows Return restaurant to include an uncontrolled crossing with refuge. It is understood that the have been developed in line with a junction assessment in order to mitigate the traffic impact of a mixed-use development of 475 dwellings on lane to the southwest of the junction.

2.2 The Audit Brief identifies that the proposals do not include any Departures from Standard, whether related to strategic decisions or otherwise.

2.3 This Road Safety Audit was undertaken during November 2021 in accordance with the Road Safety Audit Brief provided, on the 22nd October 2021 by the Design Organisation, Milestone Transport Planning, on behalf of the Project Sponsor, Persimmon Homes Thames Valley. The Road Safety Audit comprised of a site visit as well as an examination of the documents provided which are identified in **Appendix A1**. The Audit Team were satisfied that that the Audit Brief was sufficient for the purpose of the Audit instructed.

2.4 The Road Safety Audit has been undertaken by an Audit Team whose qualifications and experience accord with the requirements of GG119. The Audit Team consists of the following members:

Audit Team Leader
Jamie Fenning *BSc(Hons), MIHE, MCIHT, MSoRSA, Highways England RSA Certificate of Competency*
Road Safety / Highway Engineer

Audit Team Member
Farouk Bhatti *MCIHT*
Road Safety Auditor

2.5 The site visit associated with this Road Safety Audit was undertaken by the Audit Team Leader and Audit Team Member, during the early afternoon of Thursday 11th June 2020 between 3:30pm and 5pm. The site visit involved walking and driving around the local highway network for a 90-minute period whilst observing local infrastructure and current off-peak traffic conditions. The weather during the site visit was clear with scattered clouds, the road surface was dry and visibility was good. A number of pedestrians and cyclists were

observed during the site visit. Vehicular traffic to include motorcycles, cars, passenger service vehicles, light and heavy goods vehicles were also observed.

2.6 The terms of reference of this Road Safety Audit are as described in GG119. The scheme has been examined and this report compiled, only with regard to the safety implications for road users of the scheme as presented. It has not been examined or verified for compliance with any other standards or criteria. However, in order to clearly explain a safety problem or the recommendation to resolve a problem, the Audit Team may on occasion have referred to a design standard for information only. All comments and recommendations are referenced to the design drawings supplied with the Audit Brief and the location of road safety concerns raised have been illustrated beneath the items along with relevant photographs for clarity, where appropriate, as well as on the Location Plan attached at **Appendix A2**.

2.7 During the site visit associated with this Stage 1 Road Safety Audit, the Audit Team noted that the circulatory carriageway was subject to rutting. It is understood from street view footage on Google, that the circulatory carriageway and each approach has been resurfaced and road markings refreshed. Furthermore, a physical splitter island has been provided on the northern Titnore Lane arm physically segregating traffic entering and exiting the roundabout.

Design Organisation Response

2.8 In accordance with national standards, this Road Safety Audit was finalised and issued to the Design Organisation as per the Road Safety Audit Report Template within Appendix D of GG119, which can be provided upon request from either the Audit Team or Design Organisation. The format of the Audit Report was subsequently revised to incorporate these paragraphs under the sub-heading as well as sufficient space beneath the items and recommendation, within Section 4, for the inclusion of a Design Organisation Response. This is generally contained within a separate Design Organisation Response Report but is included within this document in order to maintain a single record of all problems, recommendations and responses for the benefit of a concise Road Safety Audit trail to be held on file for Quality Assurance purposes.

2.9 The Design Organisation Response has been prepared by:

Name: Tony Wares
Position / Organisation: Associate Transport Planner, Milestone Transport Planning

2.10 Any drawings or documents associated with the Design Organisation Response are listed at **Appendix C3,** if applicable.

3.0 ITEMS RAISED IN ANY PREVIOUS ROAD SAFETY AUDITS

3.1 Fenley Road Safety Limited undertook a Stage 1 Road Safety Audit of the current proposals in June 2020. This Stage 1 Road Safety Audit reassesses the entire scheme and raises any road safety concerns that the Audit Team have with the current scheme.

4.0 ITEMS RAISED AT THIS STAGE 1 ROAD SAFETY AUDIT

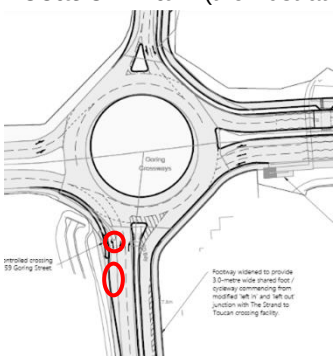
A.1	**LOCAL ALIGNMENT**
	No Road Safety Concerns regarding LOCAL ALIGNMENT have been raised at this stage.
A.2	**GENERAL**
A.2.1	**PROBLEM**
Location:	Southern approach
Summary:	Existing footway service covers will be within the carriageway
Acc Type:	Loss of control

The existing footways and verges in proximity of the Goring Crossways roundabout accommodate a number of utility covers. The scheme drawing is based upon Ordnance Survey rather than a topographical survey and as such, does not indicate the location of services. Should covers be situated within the carriageway and their loading capacity or frictional surface properties be insufficient, there could be a rise in loss of control type incidents.

RECOMMENDATION:

It is recommended that existing utility covers are relocated or if their relocation is not feasible, the loading capacity of all service covers is adequate and the surface benefits from sufficient frictional properties.

Location Plan: (the illustration below does not identify all locations where the road safety concern is present)



DESIGN ORGANISATION RESPONSE provided by Milestone Transport Planning on the 29th Nov. '21 following formal issue of this Stage 1 Road Safety Audit on the 25th Nov. '21

In line with the Auditor's recommendation, the potential relocation / amendment of all service covers within the carriageway, to ensure that they have sufficient loading capabilities and frictional properties will be considered as part of the detailed design stage.

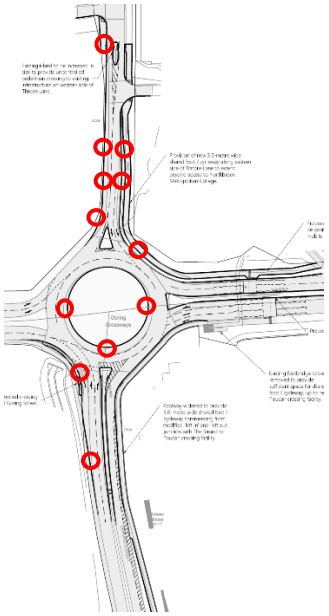
A.2.2	**PROBLEM**
Location:	Roundabout / Scheme
Summary:	Proposed carriageway widening will result in gullies being located within the path of a vehicle
Acc Type:	Loss of control

The Goring Crossways roundabout accommodates a network of road and kerb gullies that cater for surface water that accumulates on the carriageway. The proposals realign and widen the existing carriageways and as such, the amount of surface water that accumulates on the carriageway will increase and existing road gullies will be situated away from the channel line and within the path of a vehicle. No details have been provided to identify that the existing surface water drainage network is to be modified in accordance with the proposals or that provision will be made to accommodate the additional surface water that is generated. A road gully within the path of a vehicle could give rise to loss of control type incidents especially for two wheeled vehicles and vehicles undertaking a braking manoeuvre and an inadequate surface water network could result in ponding during inclement conditions which would be exacerbated during freezing conditions.

RECOMMENDATION:

It is recommended that road gullies are relocated to the edge of carriageway and surface water is drained sufficiently.

Location Plan:



DESIGN ORGANISATION RESPONSE provided by Milestone Transport Planning on the 29th Nov. '21 following formal issue of this Stage 1 Road Safety Audit on the 25th Nov. '21

In line with the Auditor's recommendation, the potential relocation of road gullies to prevent loss of control type incidents, particularly for two-wheeled vehicles and those undertaking a braking manoeuvre will be considered as part of the detailed design stage.

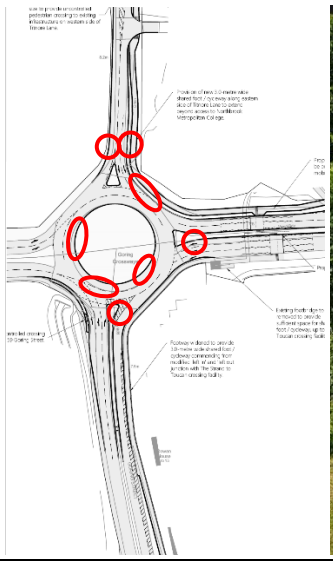
A.2.3	**PROBLEM**
Location:	Roundabout / Scheme
Summary:	Street furniture within the verge will become an obstruction
Acc Type:	Vehicle collisions with obstructions and loss of control

Street furniture to include signage and street lighting columns are present within the existing verges of the A259, A2032 and Titnore Lane as well as the central island of the Goring Crossways roundabout. The proposed highway works reduce the diameter of the central island as well as increase the width and realign the approaches. Following implementation of the proposals, existing items of street furniture will be located within the path of a vehicle or within 450mm of the carriageway. Items of street furniture within 450mm of a live carriageway will become an obstruction to vehicles.

RECOMMENDATION:

It is recommended that all street furniture is relocated accordingly

Location Plan:



DESIGN ORGANISATION RESPONSE provided by Milestone Transport Planning on the 29th Nov. '21 following formal issue of this Stage 1 Road Safety Audit on the 25th Nov. '21

In line with the Auditor's recommendation, the potential relocation of street furniture to ensure it is positioned beyond a distance of 450mm from the edge of the carriageway will be considered at the detailed design stage. This will ensure that there are no obstacles to car driver inter-visibility.

A.3	**JUNCTIONS**
	No Road Safety Concerns regarding JUNCTIONS have been raised at this stage

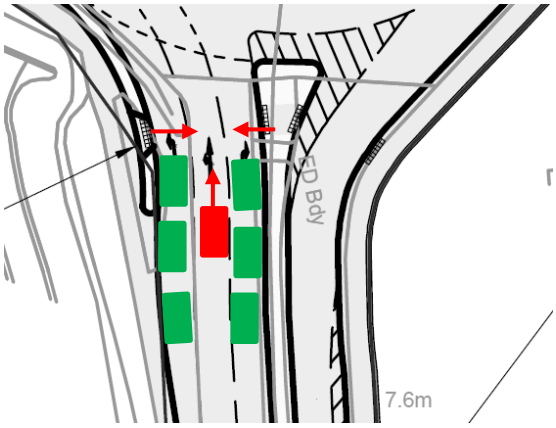
A.4	WALKING CYCLING AND HORSE RIDING
A.4.1	PROBLEM
Location:	A259, Goring Street
Summary:	Pedestrians will be required to cross three lanes of traffic
Acc Type:	Vehicle-pedestrian collisions

A footway is present along the southern side of the eastern and western dual carriageway arms with an uncontrolled crossing point provided over the southern arm of the A259, Goring Street which accommodates two entry lanes. The proposal illustrated on the scheme drawing increase the width of the southern A259 arm of the roundabout to provide three approach lanes and identify that the location of the uncontrolled crossing point is to be retained. A pedestrian wishing to travel between the existing footways may attempt to cross the three lanes it is not safe to do so, for example when congestion is present within the outside lanes and traffic within the central lane is not clearly visible and free flowing, which could result in a vehicle pedestrian collision.

RECOMMENDATION:

It is recommended that the uncontrolled crossing point is relocated further south prior to the three-lane approach.

Location Plan:



DESIGN ORGANISATION RESPONSE provided by Milestone Transport Planning on the 29th Nov. '21 following formal issue of this Stage 1 Road Safety Audit on the 25th Nov. '21

In line with the Auditor's recommendation, and as shown on Drawing No. 18122/002 Rev D, an uncontrolled crossing point will be provided to the south of the three-lane approach of the Goring Crossways roundabout junction. This facility will minimise the potential occurrence of pedestrian / vehicle collisions along the A259 Goring Street.

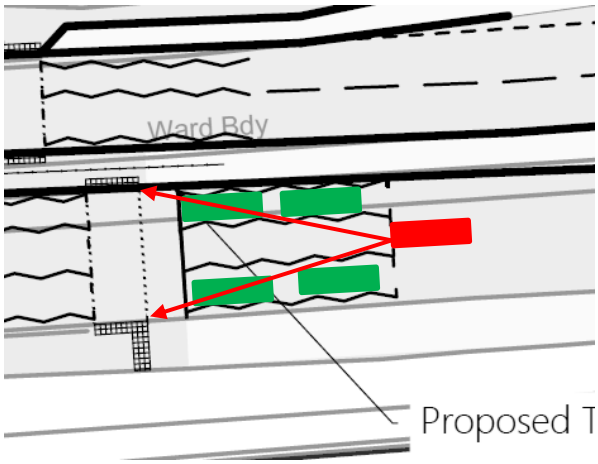
A.4.2	PROBLEM
Location:	A259, Goring Street
Summary:	Westbound traffic may not become aware of the proposed signals
Acc Type:	Vehicle-pedestrian collisions

The proposal illustrated on the scheme drawing include the widening of the westbound approach to the roundabout to increase the number of lanes from two to three and provide a toucan crossing. The Audit Team have concerns that the traffic signals will not be clear tp the driver of a vehicle approaching the controlled crossing in the central lane when high sided vehicles are present within lanes 1 and 3. Should the signals not be clear, there is a risk that traffic will not stop when required to do so and will continue into the path of a pedestrian or cyclist on the crossing leading to a vehicle non-motorised use collision.

RECOMMENDATION:

It is recommended that the traffic signals are clear to approaching drivers

Location Plan:



DESIGN ORGANISATION RESPONSE provided by Milestone Transport Planning on the 29th Nov. '21 following formal issue of this Stage 1 Road Safety Audit on the 25th Nov. '21

In line with the Auditor's recommendation, additional high-level signal heads would be provided. These will be considered further at the detailed design stage.

A.5	ROAD SIGNS, CARRIAGEWAY MARKINGS AND LIGHTING
A.5.1	PROBLEM
Location:	Titnore Lane
Summary:	Arrow road markings guide insufficient guidance
Acc Type:	Sideswipes

Although the Titore Lane northern arm of the Goring Crossways Roundabout does not benefit from two marked lane approaches, a taper is accommodated that allows two vehicles to enter the roundabout simultaneously. The proposals widen and realign Titnore Lane on the eastern side from a vehicular access associated with Northbrook Metropolitan College and on the western side from the vehicular access associated with the Swallows Return restaurant, provide two approach lanes that measures approximately 42 metres. The scheme drawing illustrates that the lanes are to be designated with traffic in Lane 1 guided to turn left along the A2032 and Lane 2 guided straight along Goring Street and right along Littlehampton Road. However, the circulatory road markings do not allow for traffic within the inside lane of the circulatory, to continue straight. Southbound traffic is therefore likely to cut across the circulatory and undertake late lane changes which could lead to sideswipe type collisions.

RECOMMENDATION:

It is recommended that the arrow road markings are amended to guide traffic turning left and continuing straight to approach the roundabout in Lane 1 and right turning traffic only, to approach in Lane 2.

Location Plan:

DESIGN ORGANISATION RESPONSE provided by Milestone Transport Planning on the 29th Nov. '21 following formal issue of this Stage 1 Road Safety Audit on the 25th Nov. '21

In accordance with the Auditor's recommendation, the design of the proposed mitigation has been amended to guide traffic on Titnore Lane appropriately. This will prevent the potential for side swipe incidents.

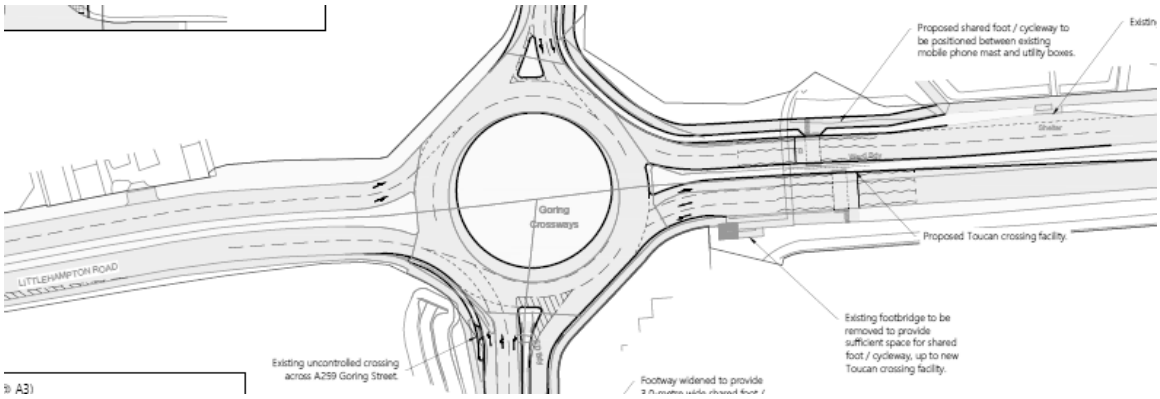
A.5.2	**PROBLEM**
Location:	Titnore Lane, A2032 and Goring Street approach
Summary:	Approaching traffic may not become aware of the appropriate approach lane
Acc Type:	Sideswipes

The proposals that are subject to this Stage 1 Road safety Audit include widening works to the Titnore Lane, A2032 and Goring Street approaches to the roundabout and designation of lanes. However, no details of the proposed signage is provided at this stage. Traffic approaching the roundabout may therefore enter the incorrect lane and undertake late lane changes which could lead to sideswipe type collisions.

RECOMMENDATION:

It is recommended that advance lane designation signage is provided

Location Plan:



DESIGN ORGANISATION RESPONSE provided by Milestone Transport Planning on the 29th Nov. '21 following formal issue of this Stage 1 Road Safety Audit on the 25th Nov. '21

Appropriate signage will be considered at the detailed design stage of the works.

5.0 STAGE 1 ROAD SAFETY AUDIT TEAM STATEMENT

5.1 We certify that this Road Safety Audit has been carried out in accordance with GG119.

Audit Team Leader

Name: **Jamie Fenning** *BSc (Hons), MIHE, MCIHT, MSoRSA, HE RSA Certificate of Competency*

Signed: 

Position: Road Safety / Highway Engineer
Organisation: Fenley Road Safety Limited
Date: 25th November 2021

Audit Team Member

Name: **Farouk Bhatti** *MCIHT*

Signed: 

Position: Road Safety / Highway Engineer
Organisation: Fenley Road Safety Limited
Date: 25th November 2021

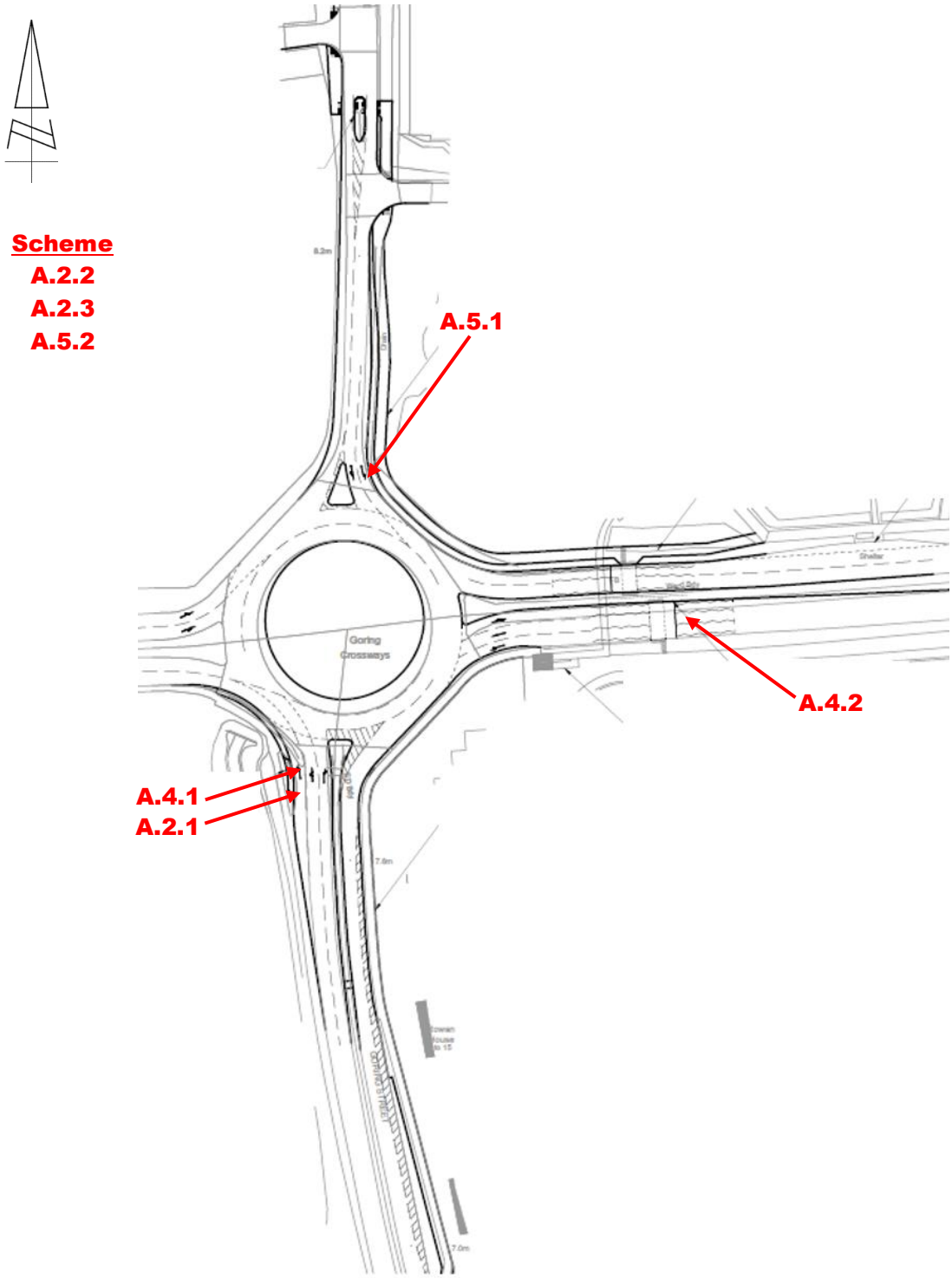
Appendix A1

Documents and Drawings provided for this Stage 1 Road Safety Audit

Audit Stage	Doc. No.	Rev	Title
Stage 1	Email dated 22nd Oct. '21		Stage 1 Road Safety Audit Brief
	Collision Report 01/09/2014-31/08/2019	-	Chatsmore Farm – Goring - Milestone
	-	-	PIA Data Analysis
	Dwg No.	Rev	Title
	18122-006	-	Proposed Pedestrian and Cycle Enhancements

Appendix A2

Item Location Plan

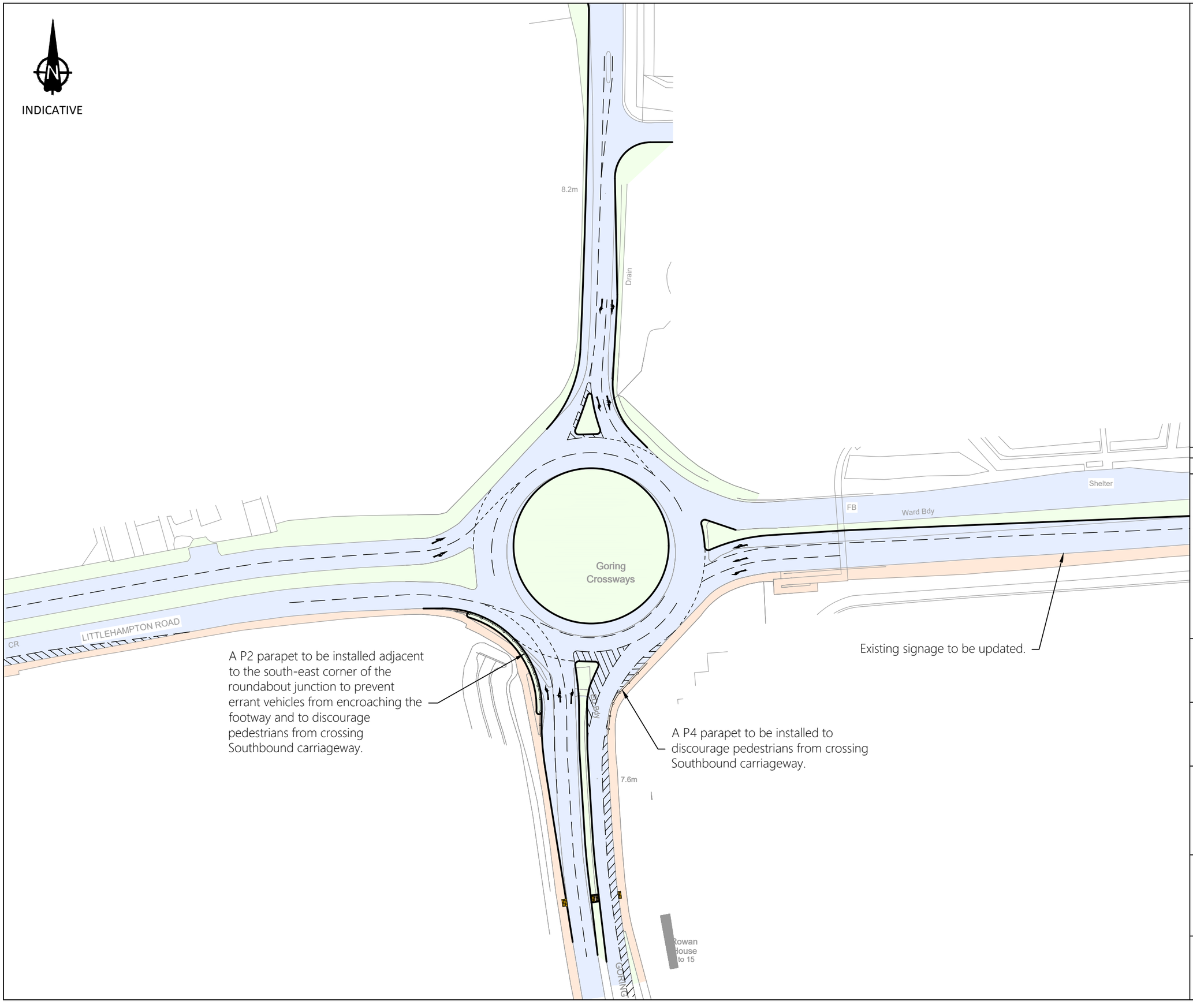

Scheme
A.2.2
A.2.3
A.5.2
A.5.1
A.4.2
A.4.1
A.2.1
Goring Crossways

Appendix A3

Drawings associated with the Design Organisation Response

Audit Stage	Drawing No.	Rev	Title
Stage 1	18122/002	D	Proposed Northern Roundabout Mitigation Measures

INDICATIVE



A P2 parapet to be installed adjacent to the south-east corner of the roundabout junction to prevent errant vehicles from encroaching the footway and to discourage pedestrians from crossing Southbound carriageway.

A P4 parapet to be installed to discourage pedestrians from crossing Southbound carriageway.

Existing signage to be updated.

Notes

1. Do not scale from this drawing. All dimensions shown are in metres unless noted otherwise.

Drawing Revisions

Rev:	Drn:	Date:	Details	Chk:
-	ZM	02/04/2020	First issue	TW
A	ZM	03/07/2020	Revised drawing	TW
B	ZM	10/07/2020	Revised drawing	TW
C	DC	24/06/2021	Revised layout	TW
D	BM	29/11/2021	Revised layout	TW

Client

Persimmon Homes Ltd (Thames Valley)

Project

Land North West of Goring Station, Goring by Sea

Title

Proposed Northern Roundabout Mitigation Measures

MILESTONE TRANSPORT PLANNING
Abbey House, 282 Farnborough Rd, Farnborough, Hants GU14 7NA
Tel: 01483 397888
Gateshead IBC, Mulgrave Terrace, Gateshead, NE8 1AN
Tel: 0191 338 7220
web: www.milestonetp.co.uk

Drawing Number: 18122-002

Scale: 1:1000 @ A3

Revision: D


fenley

Road Safety Audit Response for Stage 1 Road Safety Audit (GG 119 Appendix F)

F1 Project Details

Table F.1 Project Details

Report Title:	Stage 1 Road Safety Audit Designer's Response
Date:	29 November 2021
Document Reference and Revision:	18-122_RSA1_Response
Prepared By:	Milestone Transport Planning Limited
On Behalf of:	Persimmon Homes Thames Valley

Table F.2 Authorisation Sheet

Project:	Land North West of Goring Station, Goring-by-Sea, West Sussex
Report Title:	Stage 1 Road Safety Audit Response
Prepared by:	
Name:	Tony Wares
Position:	Associate Director
Signed:	
Organisation:	Milestone Transport Planning Limited
Date:	29 November 2021
Approved by:	
Name:	
Position:	
Signed:	
Organisation:	
Date:	

F2 Introduction

Summary of Scheme

The proposed highway works as shown on Drawing No. 18122/006 consist of widening along the northern arm to extend the existing two-lane entry, the eastern and southern arms to increase the number of entry arms from two to three and the widening of the southern half of the roundabout.

The footway cycleway works include a proposed toucan crossing along the eastern A2032 arm with links to the existing facility to the east and a footway cycleway link to the west along Titnore Lane between the crossing and access associated with the Swallows Return restaurant to include an uncontrolled crossing with refuge.

Stage of the RSA:

Stage 1

Date / reference of the RSA Report:

Date: 29 November 2021

RSA Report Reference: Version 1.0

Details of the representatives from the design organisation who prepared the RSA Response Report:

Tony Wares, Milestone Transport Planning, Associate Director

F3 Key Personnel

Table F.3 Key Personnel

Overseeing Organisation:	West Sussex County Council
County Highway Authority:	West Sussex County Council
RSA Team:	Fenley Road Safety Limited
Design Organisation:	Milestone Transport Planning Limited

F4 Road Safety Audit Decision Log

Table F.4 Road Safety Audit Decision Log

A.1 Local Alignment (Drawing No. 18122/006)	
RSA Problem	No road safety concerns regarding local alignment have been raised at this stage.
RSA Recommendation	N/A
Design Organisation Response	N/A
Overseeing Organisation Response	N/A
Design Organisation Response	N/A
Agreed RSA Action	N/A

A.2: General - A.2.1: Problem – Location: Southern approach – Summary: Existing footway service covers will be within the carriageway - Acc Type: Loss of control	
RSA Problem	The existing footways and verges in proximity of the Goring Crossways roundabout accommodate a number of utility covers. The scheme drawing is based upon Ordnance Survey rather than a topographical survey and as such, does not indicate the location of services. Should covers be situated within the carriageway and their loading capacity or frictional surface properties be insufficient, there could be a rise in loss of control type incidents.
RSA Recommendation	It is recommended that existing utility covers are relocated or if their relocation is not feasible, the loading capacity of all service covers is adequate and the surface benefits from sufficient frictional properties.
Design Organisation Response	In line with the Auditor's recommendation, the potential relocation / amendment of all service covers within the carriageway, to ensure that they have sufficient loading capabilities and frictional properties will be considered as part of the detailed design stage.
Overseeing Organisation Response	
Agreed RSA Action	

A.2: General - A.2.2: Problem – Location: Roundabout / Scheme– Summary: Proposed carriageway widening will result in gullies being located within the path of a vehicle- Acc Type: Loss of control	
RSA Problem	The Goring Crossways roundabout accommodates a network of road and kerb gullies that cater for surface water that accumulates on the carriageway. The proposals realign and widen the existing carriageways and as such, the amount of surface water that accumulates on the carriageway will increase and existing road gullies will be situated away from the channel line and within the path of a vehicle. No details have been provided to identify that the existing surface water drainage network is to be modified in accordance with the proposals or that provision will be made to accommodate the additional surface water that is generated. A road gully within the path of a vehicle could give rise to loss of control type incidents especially for two wheeled vehicles and vehicles undertaking a braking manoeuvre and an inadequate surface water network could result in ponding during inclement conditions which would be exacerbated during freezing conditions.
RSA Recommendation	It is recommended that road gullies are relocated to the edge of carriageway and surface water is drained sufficiently.
Design Organisation Response	In line with the Auditor's recommendation, the potential relocation of road gullies to prevent loss of control type incidents, particularly for two-wheeled vehicles and those undertaking a braking manoeuvre will be considered as part of the detailed design stage.
Overseeing Organisation Response	
Agreed RSA Action	

A.2: General - A.2.3: Problem – Location: Roundabout / Scheme – Summary: Street furniture within the verge will become an obstruction - Acc Type: Vehicle collisions with obstructions and loss of control	
RSA Problem	Street furniture to include signage and street lighting columns are present within the existing verges of the A259, A2032 and Titnore Lane as well as the central island of the Goring Crossways roundabout. The proposed highway works reduce the diameter of the central island as well as increase the width and realign the approaches. Following implementation of the proposals, existing items of street furniture will be located within the path of a vehicle or within 450mm of the carriageway. Items of street furniture within 450mm of a live carriageway will become an obstruction to vehicles.
RSA Recommendation	It is recommended that all street furniture is relocated accordingly.
Design Organisation Response	In line with the Auditor's recommendation, the potential relocation of street furniture to ensure it is positioned beyond a distance of 450mm from the edge of the carriageway will be considered at the detailed design stage. This will ensure that there are no obstacles to car driver inter-visibility.
Overseeing Organisation Response	
Agreed RSA Action	

A.3: Junctions	
RSA Problem	No road safety concerns regarding JUNCTIONS have been raised at this stage.
RSA Recommendation	N/A
Design Organisation Response	N/A
Overseeing Organisation Response	N/A
Agreed RSA Action	N/A

A.4: Walking Cycling and Horse Riding - A.4.1: Problem – Location: A259, Goring Street - Summary: Pedestrians will be required to cross three lanes of traffic – Acc Type: Vehicle-pedestrian collisions	
RSA Problem	A footway is present along the southern side of the eastern and western dual carriageway arms with an uncontrolled crossing point provided over the southern arm of the A259, Goring Street which accommodates two entry lanes. The proposal illustrated on the scheme drawing increase the width of the southern A259 arm of the roundabout to provide three approach lanes and identify that the location of the uncontrolled crossing point is to be retained. A pedestrian wishing to travel between the existing footways may attempt to cross the three lanes it is not safe to do so, for example when congestion is present within the outside lanes and traffic within the central lane is not clearly visible and free flowing, which could result in a vehicle pedestrian collision.
RSA Recommendation	It is recommended that the uncontrolled crossing point is relocated further south prior to the three-lane approach.
Design Organisation Response	In line with the Auditor's recommendation, and as shown on Drawing No. 18122/002 Rev D (attached), an uncontrolled crossing point will be provided to the south of the three-lane approach of the Goring Crossways roundabout junction. This facility will minimise the potential occurrence of pedestrian / vehicle collisions along the A259 Goring Street.
Overseeing Organisation Response	
Agreed RSA Action	

A.4: Walking Cycling and Horse Riding - A.4.2: Problem – Location: A259, Goring Street - Summary: Westbound traffic may not become aware of the proposed signals – Acc Type: Vehicle-pedestrian collisions	
RSA Problem	The proposal illustrated on the scheme drawing include the widening of the westbound approach to the roundabout to increase the number of lanes from two to three and provide a toucan crossing. The Audit Team have concerns that the traffic signals will not be clear tp the driver of a vehicle approaching the controlled crossing in the central lane when high sided vehicles are present within lanes 1 and 3. Should the signals not be clear, there is a risk that traffic will not stop when required to do so and will continue into the path of a pedestrian or cyclist on the crossing leading to a vehicle non-motorised use collision.
RSA Recommendation	It is recommended that the traffic signals are clear to approaching drivers.
Design Organisation Response	In line with the Auditor's recommendation, additional high-level signal heads would be provided. These will be considered further at the detailed design stage.
Overseeing Organisation Response	
Agreed RSA Action	

A.5: Road Signs, Carriageway Markings and Lighting - A.5.1: Problem – Location: Titnore Lane - Summary: Arrow road markings guide insufficient guidance - Acc Type: Sideswipes	
RSA Problem	Although the Titnore Lane northern arm of the Goring Crossways Roundabout does not benefit from two marked lane approaches, a taper is accommodated that allows two vehicles to enter the roundabout simultaneously. The proposals widen and realign Titnore Lane on the eastern side from a vehicular access associated with Northbrook Metropolitan College and on the western side from the vehicular access associated with the Swallows Return restaurant, provide two approach lanes that measures approximately 42 metres. The scheme drawing illustrates that the lanes are to be designated with traffic in Lane 1 guided to turn left along the A2032 and Lane 2 guided straight along Goring Street and right along Littlehampton Road. However, the circulatory road markings do not allow for traffic within the inside lane of the circulatory, to continue straight. Southbound traffic is therefore likely to cut across the circulatory and undertake late lane changes which could lead to sideswipe type collisions.
RSA Recommendation	It is recommended that the arrow road markings are amended to guide traffic turning left and continuing straight to approach the roundabout in Lane 1 and right turning traffic only, to approach in Lane 2.
Design Organisation Response	In accordance with the Auditor's recommendation, the design of the proposed mitigation has been amended to guide traffic on Titnore Lane appropriately. This will prevent the potential for side swipe incidents.
Overseeing Organisation Response	
Agreed RSA Action	

A.5: Road Signs, Carriageway Markings and Lighting - A.5.1: Problem – Location: Titnore Lane, A2032 and Goring Street approach - Summary: Approaching traffic may not become aware of the appropriate approach lane - Acc Type: Sideswipes	
RSA Problem	The proposals that are subject to this Stage 1 Road safety Audit include widening works to the Titnore Lane, A2032 and Goring Street approaches to the roundabout and designation of lanes. However, no details of the proposed signage is provided at this stage. Traffic approaching the roundabout may therefore enter the incorrect lane and undertake late lane changes which could lead to sideswipe type collisions.
RSA Recommendation	It is recommended that advance lane designation signage is provided.
Design Organisation Response	Appropriate signage will be considered at the detailed design stage of the works.
Overseeing Organisation Response	
Agreed RSA Action	

F5 Design Organisation & Overseeing Organisation Statements

Table F.5 Design Organisation Statement

On behalf of the design organisation, I certify that:

1. The RSA actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the overseeing organisation

Name:	Tony Wares
Signed:	
Position:	Associate Director
Organisation:	Milestone Transport Planning Limited
Date:	03 December 2021

Table F.6 Overseeing Organisation Statement

On behalf of the overseeing organisation, I certify that:

1. The RSA actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the design organisation; and
2. The agreed RSA action will be progressed.

Name:	Stephen Gee
Signed:	
Position:	
Organisation:	West Sussex County Council
Date:	

Road Safety Audit Response for Stage 1 Road Safety Audit (GG 119 Appendix F)

F1 Project Details

Table F.1 Project Details

Report Title:	Stage 1 Road Safety Audit Designer's Response
Date:	29 November 2021
Document Reference and Revision:	18-122_RSA1_Response
Prepared By:	Milestone Transport Planning Limited
On Behalf of:	Persimmon Homes Thames Valley

Table F.2 Authorisation Sheet

Project:	Land North West of Goring Station, Goring-by-Sea, West Sussex
Report Title:	Stage 1 Road Safety Audit Response
Prepared by:	
Name:	Tony Wares
Position:	Associate Director
Signed:	
Organisation:	Milestone Transport Planning Limited
Date:	29 November 2021
Approved by:	
Name:	
Position:	
Signed:	
Organisation:	
Date:	

F2 Introduction

Summary of Scheme

The proposed highway works, as shown on Drawing No. 18122/002 Rev B comprise the widening of the northern arm (Titnore Lane) of the 4-arm roundabout junction of the A259 Littlehampton Road / Goring Street, A2032 and Titnore Lane ('*Goring Crossroads*') to provide a two-lane entry. The works also involve the widening of the eastern (A2032 Littlehampton Road) and southern (A259 Goring Street) arms to increase the number of entry arms from two to three, and the southern half of the roundabout to accommodate three circulatory lanes.

The proposed highway works have been developed in line with a junction capacity assessment in order to mitigate the traffic impact of a mixed-use development of 475 dwellings on lane to the southwest of the junction.

Stage of the RSA:

Stage 1

Date / reference of the RSA Report:

Date: 29 November 2021

RSA Report Reference: Version 1.0

Details of the representatives from the design organisation who prepared the RSA Response Report:

Tony Wares, Milestone Transport Planning, Associate Director

F3 Key Personnel

Table F.3 Key Personnel

Overseeing Organisation:	West Sussex County Council
County Highway Authority:	West Sussex County Council
RSA Team:	Fenley Road Safety Limited
Design Organisation:	Milestone Transport Planning Limited

F4 Road Safety Audit Decision Log

Table F.4 Road Safety Audit Decision Log

A.1 Local Alignment (Drawing No. 18122/002 Rev B)	
RSA Problem	No road safety concerns regarding local alignment have been raised at this stage.
RSA Recommendation	N/A
Design Organisation Response	N/A
Overseeing Organisation Response	N/A
Design Organisation Response	N/A
Agreed RSA Action	N/A

A.2: General - A.2.1: Problem – Location: Southern Approach – Summary: Existing footway service covers will be within the carriageway - Acc Type: Loss of Control	
RSA Problem	The existing footways and verges in proximity of the Goring Crossways roundabout accommodate a number of utility covers. The scheme drawing is based upon Ordnance Survey rather than a topographical survey and as such, does not indicate the location of services. The site visit associated with this Audit, showed that a number of covers that are currently within the verge, will be situated within the proposed carriageway. Those utility covers may not be sufficient for the loadings of vehicular traffic and are unlikely to benefit from adequate frictional surface properties which could lead to failure and skidding resulting in loss of control type incidents.
RSA Recommendation	It is recommended that existing utility covers are relocated or if their relocation is not feasible, adjusted appropriately.
Design Organisation Response	In line with the Auditor's recommendation, the potential relocation / amendment of all service covers within the carriageway, to ensure that they have sufficient loading capabilities and frictional properties will be considered as part of the detailed design stage.
Overseeing Organisation Response	
Agreed RSA Action	

A.2: General - A.2.2: Problem – Location: Roundabout / Scheme – Summary: Proposed carriageway widening will result in gullies being located within the path of a vehicle - - Acc Type: Loss of Control	
RSA Problem	The Goring Crossways roundabout accommodates a network of road and kerb gullies that cater for surface water that accumulates on the carriageway. The proposals realign and widen the existing carriageways and as such, the amount of surface water that accumulates on the carriageway will increase and the existing road gullies will be situated away from the channel line within the path of a vehicle. No details have been provided at this stage to identify that the existing surface water drainage network is to be modified in accordance with the proposals or that provision will be made to accommodate the additional surface water that is generated. A road gully within the path of a vehicle could give rise to loss of control type incidents especially for two wheeled vehicles and vehicles undertaking a braking manoeuvre and an inadequate surface water network could result in ponding during inclement conditions which would be exacerbated during freezing conditions leading to loss of control type collisions.
RSA Recommendation	It is recommended that road gullies are relocated to the edge of carriageway and surface water is drained sufficiently.
Design Organisation Response	In line with the Auditor's recommendation, the potential relocation of road gullies to prevent loss of control type incidents, particularly for two-wheeled vehicles and those undertaking a braking manoeuvre will be considered as part of the detailed design stage.
Overseeing Organisation Response	
Agreed RSA Action	

A.2: General - A.2.3: Problem - Location: Roundabout / Scheme – Summary: Street furniture within the verge will become an obstruction - Acc Type: Vehicle collisions with obstructions and loss of control	
RSA Problem	Street furniture to include signage and street lighting columns are present within the existing verges of the A259, A2032 and Titnore Lane as well as the central island of the Goring Crossways roundabout. The proposed highway works reduce the diameter of the central island as well as increase the width and realign the approaches. Following implementation of the proposals, existing items of street furniture will be located within the path of a vehicle or within 450mm of the carriageway. Items of street furniture within 450mm of a live carriageway will become an obstruction to vehicles and if struck, could result in loss of control type collisions.
RSA Recommendation	It is recommended that all street furniture is relocated accordingly.
Design Organisation Response	In line with the Auditor's recommendation, the potential relocation of street furniture to ensure it is positioned beyond a distance of 450mm from the edge of the carriageway will be considered at the detailed design stage. This will ensure that there are no obstacles to car driver inter-visibility.
Overseeing Organisation Response	
Agreed RSA Action	

A.3: Junctions	
RSA Problem	No road safety concerns regarding JUNCTIONS have been raised at this stage.
RSA Recommendation	N/A
Design Organisation Response	N/A
Overseeing Organisation Response	N/A
Agreed RSA Action	N/A

A.4: Walking Cycling and Horse Riding - A.4.1: Problem – Location: A259, Goring Street - Summary: Pedestrians are likely to follow a desire line and attempt to cross three lanes of traffic – Acc Type: Vehicle-pedestrian collisions	
RSA Problem	A footway is present along the southern side of the eastern and western dual carriageway arms of the Crossways Roundabout with an uncontrolled crossing point provided over the southern arm of the A259, Goring Street which accommodates two entry lanes. The proposal illustrated on the scheme drawing increase the width of the southern A259 arm of the roundabout to provide three approach lanes and relocated the uncontrolled crossing some 100 metres to the south of the junction. An item raised in the previous Stage 1 Road Safety Audit highlighted a road safety concern related to pedestrians crossing three lanes of traffic and recommended relocating the crossing further south. The uncontrolled crossing has been relocated; however, it is likely that pedestrians walking between the eastern and western arms of the roundabout will attempt to cross along their desire line rather than diverting to the relocated uncontrolled crossing point. A pedestrian attempt to cross three lanes could lead to vehicle pedestrian collisions for example when congestion is present within the outside lanes and traffic within the central lane is not clearly visible and free flowing.
RSA Recommendation	It is recommended that measures are provided to prevent pedestrians from attempting to cross the proposed three lane approach.
Design Organisation Response	In line with the Auditor's recommendation, pedestrian guard railing would be installed on either side of the A259 Goring Street, to prevent pedestrians from attempting to cross the proposed 3-lane approach. This is shown on Drawing No. 18122/002 Rev D, attached at Appendix A3.
Overseeing Organisation Response	
Agreed RSA Action	

A.5: Road Signs, Carriageway Markings and Lighting - A.5.1: Problem – Location: Titnore Lane - Summary: Arrow road markings guide insufficient guidance - Acc Type: Sideswipes	
RSA Problem	Although the Titore Lane northern arm of the Goring Crossways Roundabout does not benefit from two marked lane approaches, a taper is accommodated that allows two vehicles to enter the roundabout simultaneously. The proposals widen and realign Titnore Lane on the eastern side from a vehicular access associated with Northbrook Metropolitan College and on the western side from the vehicular access associated with the Swallows Return restaurant, provide two approach lanes that measures approximately 42 metres. The scheme drawing illustrates that the lanes are to be designated with traffic in Lane 1 guided to turn left along the A2032 and Lane 2 guided straight along Goring Street and right along Littlehampton Road. However, the circulatory road markings do not allow for traffic within the inside lane of the circulatory, to continue straight. Southbound traffic is therefore likely to cut across the circulatory and undertake late lane changes which could lead to sideswipe type collisions.
RSA Recommendation	It is recommended that the arrow road markings are amended to guide traffic turning left and continuing straight to approach the roundabout in Lane 1 and right turning traffic only, to approach in Lane 2.
Design Organisation Response	In accordance with the Auditor's recommendation, the design of the proposed mitigation has been amended to guide traffic on Titnore Lane appropriately. This will prevent the potential for side swipe incidents. This is shown on Drawing No. 18122/002 Rev D, attached at Appendix A3.
Overseeing Organisation Response	
Agreed RSA Action	

A.5: Road Signs, Carriageway Markings and Lighting - A.5.2: Problem – Location: Titnore Lane, A2032 and Goring Street approach - Approaching traffic may not become aware of the appropriate approach lane - Acc Type: Sideswipes	
RSA Problem	The proposals that are subject to this Stage 1 Road safety Audit include widening works to the Titnore Lane, A2032 and Goring Street approaches to the roundabout and designation of lanes. However, no details of the proposed signage is provided at this stage. Traffic approaching the roundabout may therefore enter the incorrect lane and undertake late lane changes which could lead to sideswipe type collisions.
RSA Recommendation	It is recommended that advance lane designation signage is provided.
Design Organisation Response	Appropriate signage will be considered at the detailed design stage of the works.
Overseeing Organisation Response	
Agreed RSA Action	

3.0: Items raised at previous Road Safety Audit A Stage 1 RSA (Reference: RSA-20-028) was undertaken by Fenley Road Safety Limited of the proposed highway works at the Goring Crossways roundabout in Goring-by-Sea on 19th June 2020. The following issues were raised as part of the previous Stage 1 RSA and are included here where they also apply to the latest design (other issues have been omitted where they are not relevant or applicable to the latest design).	
RSA Problem	A.1: Local Alignment - A.1.1: Problem – Location: Scheme – Summary: Insufficient space may be provided to allow for expected vehicle manoeuvres – Acc Type: Sideswipes The Goring Crossways roundabout is subject a 40mph speed limit along with the southern Goring Street arm, the northern Titnore Lane approach is a single carriageway derestricted rural road, and the eastern and western dual carriageway approaches are subject to a 50mph speed limit. The scheme drawings provided with the Audit Brief, identify that the two entry lanes from the north are to be extended, both the two-lane eastern and southern arms are to be increased to provide three lane entries and that the southern section of the circulatory is to be widened to accommodate three lanes. No details have been provided to identify that proposals are adequate to accommodate the expected vehicles and manoeuvres simultaneously. Should insufficient space be available for the expected vehicles to manoeuvre, there is likely to be an increase in sideswipe type incidents.
RSA Recommendation	It is recommended that the proposals are adequate to accommodate the expected vehicles.
Design Organisation Response	In accordance with the Auditor's recommendation, and as shown on Drawing No. 18122/TK01 (attached), swept-path analyses has been undertaken to demonstrate that the proposed mitigation for the Goring Crossways roundabout junction can accommodate various sized vehicles in a safe and convenient manner, thereby reducing the potential for sideswipe type of incidents.
Overseeing Organisation Response	
Agreed RSA Action	

RSA Problem	A.1: Local Alignment - A.1.2: Problem – Location: A259 south – Summary: Southern exit radius - Acc Type: Loss of control Goring Crossways roundabout is subject a 40mph speed limit and currently accommodates two lane entries on each approach with a single lane exit to the north and south as well as two lane exit to the dual carriageway to the east and west. The kerbing associated with the southern exit from the roundabout forms a tight radius, however existing edge of carriageway road markings and associated hatching, increase the radius to a suitable degree. The proposals provide widening works in order to increase the capacity of the junction and mitigate the traffic impact of a mixed-use development on land to the south. The scheme drawing provided with the Audit Brief, identifies that the edge of carriageway road marking and hatching that is present on the offside of the southern arm is to be remain but the markings on the nearside are not to be re-provided. The removal of the existing road markings on the nearside of the carriageway increases the likelihood of a vehicle exiting the roundabout tight to the nearside. A vehicle following the tight radius along a carriageway with a speed limit of 40mph, could result in a loss of control type incident.
RSA Recommendation	It is recommended that the existing road markings, are retained.
Design Organisation Response	In accordance with the Auditor's recommendation, and as shown on Drawing No. 18122/002 Rev A (attached), the design of the proposed mitigation includes road markings / hatching on the nearside of the southern arm of the Goring Crossways roundabout junction. Consequently, this will reduce the likelihood of a vehicle exiting the roundabout tight to the nearside and potential occurrence of loss of control type incidents.
Overseeing Organisation Response	
Agreed RSA Action	

RSA Problem	A.2: General - A.2.1 Problem – Location: Southern approach – Summary: Existing footway service covers will be within the carriageway - - Acc Type: Loss of control The existing footways and verges in proximity of the Goring Crossways roundabout accommodate a number of utility covers. The scheme drawing is based upon Ordnance Survey rather than a topographical survey and as such, does not indicate the location of services. Should covers be situated within the carriageway and their frictional surface properties be insufficient, there could be a rise in loss of control type incidents.
RSA Recommendation	It is recommended that all service covers within the carriageway provide sufficient frictional properties if their relocation is not feasible.
Design Organisation Response	In line with the Auditor's recommendation, the potential relocation / amendment of all service covers within the carriageway, to ensure that they have sufficient frictional properties will be considered as part of the detailed design stage.
Overseeing Organisation Response	
Agreed RSA Action	

RSA Problem	A.2: General - A.2.2 Problem – Location: Roundabout / Scheme – Summary: Proposed carriageway widening will result in gullies being located within the path of a vehicle - Acc Type: Loss of control The Goring Crossways roundabout accommodates a network of road and kerb gullies that cater for surface water that accumulates on the carriageway. The proposals realign and widen the existing carriageways and as such, the amount of surface water that accumulates on the carriageway will increase and existing road gullies will be situated away from the channel line and within the path of a vehicle. No details have been provided to identify that the existing surface water drainage network is to be modified in accordance with the proposals or that provision will be made to accommodate the additional surface water that is generated. A road gully within the path of a vehicle could give rise to loss of control type incidents especially for two wheeled vehicles and vehicles undertaking a braking manoeuvre and an inadequate surface water network could result in ponding during inclement conditions which would be exacerbated during freezing conditions.
RSA Recommendation	It is recommended that road gullies are relocated to the edge of carriageway and surface water is drained sufficiently.
Design Organisation Response	In line with the Auditor's recommendation, the potential relocation of road gullies to prevent loss of control type incidents, particularly for two-wheeled vehicles and those undertaking a braking manoeuvre will be considered as part of the detailed design stage.
Overseeing Organisation Response	
Agreed RSA Action	

RSA Problem	A.2: General - A.2.3 Problem – Location: Roundabout / Scheme – Summary: Street furniture within the verge will become an obstruction - Acc Type: Vehicle collisions with obstructions and loss of control Street furniture to include signage and street lighting columns are present within the existing verges of the A259, A2032 and Titnore Lane as well as the central island of the Goring Crossways roundabout. The proposed highway works reduce the diameter of the central island as well as increase the width and realign the approaches. Following implementation of the proposals, existing items of street furniture will be located within the path of a vehicle or within 450mm of the carriageway. Items of street furniture within 450mm of a live carriageway will become an obstruction to vehicles.
RSA Recommendation	It is recommended that all street furniture is relocated accordingly.
Design Organisation Response	In line with the Auditor's recommendation, the potential relocation of street furniture to ensure it is positioned beyond a distance of 450mm from the edge of the carriageway will be considered at the detailed design stage. This will ensure that there are no obstacles to car driver inter-visibility.
Overseeing Organisation Response	
Agreed RSA Action	

RSA Problem	A.2: General - A.2.4 Problem – Location: A2032, A259 Goring Street – Summary: Errant vehicles could enter the footway - Acc Type: Vehicle pedestrian collision The Goring Crossways roundabout forms the junction of the A259 with the A2032 and Titnore Lane which accommodates a footway either side of the southern A259 arm which wraps around the corner radii with a Vehicle Restraint System (VRS) present on the southeast. The VRS protects pedestrians from errant vehicles travelling from the eastern A2032 dual carriageway to the A259 western dual carriageway. The proposals widen the southern approach and circulatory carriageway slackening the level of deflection for westbound vehicles which could increase entry and through speeds and give rise to loss of control type incidents resulting in errant vehicles travelling towards the footway.
RSA Recommendation	It is recommended that a VRS is installed to prevent errant vehicles from encroaching the footway.
Design Organisation Response	In line with the Auditor's recommendation, and as shown on Drawing No. 18122/002 Rev A, a VRS will be installed adjacent to the southeast corner of the roundabout junction, to prevent errant vehicles from encroaching onto the footway.
Overseeing Organisation Response	
Agreed RSA Action	

RSA Problem	A.3: Junctions - No Road Safety Concerns regarding JUNCTIONS have been raised at this stage.
RSA Recommendation	
Design Organisation Response	
Overseeing Organisation Response	
Agreed RSA Action	

RSA Problem	A.4: Walking Cycling and Horse Riding - A.4.1 Problem – Location: A259, Goring Street – Summary: Pedestrians will be required to cross three lanes of traffic - Acc Type: Vehicle-pedestrian collisions A footway is present along the southern side of the eastern and western dual carriageway arms with an uncontrolled crossing point provided over the southern arm of the A259, Goring Street which accommodates two entry lanes. The proposal illustrated on the scheme drawing increase the width of the southern A259 arm of the roundabout to provide three approach lanes and identify that the location of the uncontrolled crossing point is to be retained. A pedestrian wishing to travel between the existing footways may attempt to cross the three lanes it is not safe to do so, for example when congestion is present within the outside lanes and traffic within the central lane is not clearly visible and free flowing, which could result in a vehicle pedestrian collision.
RSA Recommendation	It is recommended that the uncontrolled crossing point is relocated further south prior to the three-lane approach.
Design Organisation Response	In line with the Auditor's recommendation, and as shown on Drawing No. 18122/002 Rev A (attached), an uncontrolled crossing point will be provided to the south of the three-lane approach of the Goring Crossways roundabout junction. This facility will minimise the potential occurrence of pedestrian / vehicle collisions along the A259 Goring Street.
Overseeing Organisation Response	
Agreed RSA Action	

RSA Problem	A.5: Road Signs, Carriageway Markings and Lighting - A.5.1 Problem – Location: Southern half of the circulatory – Summary: Circulatory road markings guide traffic inappropriately - Acc Type: Sideswipes The Goring Crossways roundabout currently accommodates two lane entries and sufficient width for two vehicles side by side on the circulatory. The proposals widen both the two-lane eastern and southern arms as well as the southern half of the circulatory, to provide three lane entries. Besides the road centreline markings, no further guidance is provided to identify which lane is for which exit and as such, the proposals could give rise to vehicles in any circulatory lane attempting to cross the path of an adjacent vehicle to exit and side swipe type incidents. Moreover, three circulatory lanes are provided on the southwestern quadrant which merges to two in the northwestern quadrant.
RSA Recommendation	It is recommended that the road markings are amended, and signage is provided to ensure vehicles are guided sufficiently.
Design Organisation Response	In accordance with the Auditor's recommendation, and as shown on Drawing No. 18122 Rev A (attached), the design of the proposed mitigation has been amended to include the provision of road markings and signage, to enable motorised users to identify lanes for various exits. This will prevent the potential for side swipe incidents.
Overseeing Organisation Response	
Agreed RSA Action	

F5 Design Organisation & Overseeing Organisation Statements

Table F.5 Design Organisation Statement

On behalf of the design organisation, I certify that:

1. The RSA actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the overseeing organisation

Name:	Tony Wares
Signed:	
Position:	Associate Director
Organisation:	Milestone Transport Planning Limited
Date:	03 December 2021

Table F.6 Overseeing Organisation Statement

On behalf of the overseeing organisation, I certify that:

1. The RSA actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the design organisation; and
2. The agreed RSA action will be progressed.

Name:	Stephen Gee
Signed:	
Position:	
Organisation:	West Sussex County Council
Date:	

Road Safety Audit Response for Stage 1 Road Safety Audit (GG 119 Appendix F)

F1 Project Details

Table F.1 Project Details

Report Title:	Stage 1 Road Safety Audit Designer's Response
Date:	29 November 2021
Document Reference and Revision:	18-122_RSA1_Response
Prepared By:	Milestone Transport Planning Limited
On Behalf of:	Persimmon Homes Thames Valley

Table F.2 Authorisation Sheet

Project:	Land North West of Goring Station, Goring-by-Sea, West Sussex
Report Title:	Stage 1 Road Safety Audit Response
Prepared by:	
Name:	Tony Wares
Position:	Associate Director
Signed:	
Organisation:	Milestone Transport Planning Limited
Date:	29 November 2021
Approved by:	
Name:	
Position:	
Signed:	
Organisation:	
Date:	

F2 Introduction

Summary of Scheme

The proposals, as shown on Drawing No. 18122/003 Rev B comprise of the widening of the four main arms of the A259 Goring Street / Goring Way / Aldsworth Avenue / Ardingly Drive / Goring Way ('*Goring Way*' roundabout junction, to extend existing and generate new two-lane approaches as well as the marginal widening of Ardingly Drive. which meets the roundabout parallel to the northern arm and is an entry only arm from a residential street that also forms the exit route from the adjacent Tesco Express.

The scheme has been developed in line with a Junctions 9 / ARCADY assessment in order to mitigate the traffic impact of a mixed-use development of 475 dwellings on lane to the north. The scheme subject to this report are a development of a scheme that was subject to a Stage 1 Road Safety Audit in June 2020.

Stage of the RSA:

Stage 1

Date / reference of the RSA Report:

Date: 29 November 2021

RSA Report Reference: Version 1.0

Details of the representatives from the design organisation who prepared the RSA Response Report:

Tony Wares, Milestone Transport Planning, Associate Director

F3 Key Personnel

Table F.3 Key Personnel

Overseeing Organisation:	West Sussex County Council
County Highway Authority:	West Sussex County Council
RSA Team:	Fenley Road Safety Limited
Design Organisation:	Milestone Transport Planning Limited

F4 Road Safety Audit Decision Log

Table F.4 Road Safety Audit Decision Log

A.1: Local Alignment - A.1.1: Problem – Location: A259, east – Summary: Proposed widening reduces the level of entry deflection - Acc Type: Vehicle loss of control	
RSA Problem	The A259 roundabout with Goring Way and Aldsworth Avenue currently benefits from a good level of deflection from each arm except the minor Ardingly Drive. The proposals widen each approach to the roundabout in order to increase the theoretical operation capacity of the roundabout. The proposed widening reduces the amount of deflection that is achievable on entry and through the junction and could therefore increase entry and through speeds which could result in heavy braking leading to loss of control, overshoot and side impact type incidents.
RSA Recommendation	It is recommended that an appropriate level of entry deflection is provided.
Design Organisation Response	It should be noted that the design of the proposed mitigation for the 5-arm A259 Goring Street / Goring Way / Ardingly Drive / Aldsworth Avenue roundabout junction is based on OS mapping as opposed to topographical survey data. In line with the Auditor's recommendation, an appropriate level of entry deflection will be provided as part of the detailed design process.
Overseeing Organisation Response	
Design Organisation Response	
Agreed RSA Action	

A.2: General - A.2.1: Problem – Location: A259, Goring Way – Summary: A service cover with insufficient frictional properties may be within the path of vehicles - Acc Type: Vehicle loss of control	
RSA Problem	A number of services that are present within the existing footway and verge of the A259 east and Goring Way west approaches to the roundabout with Aldsworth Avenue. The scheme drawing is based upon Ordnance Survey rather than a topographical survey and as such, does not indicate the location of services. Should covers be situated within the footway / verge that is to become carriageway, there is a risk that the chambers / covers are not sufficient to accommodate the loadings of vehicular traffic and that the frictional surface properties of the covers would be insufficient. Inadequate service covers within a carriageway could lead to failure and loss of control type collisions as well as skidding and overshoot or shunt type collisions.
RSA Recommendation	It is recommended that all service covers within the carriageway are relocated or if not possible, benefit from sufficient properties.
Design Organisation Response	In line with the Auditor's recommendation, the potential relocation / amendment of all service covers within the carriageway, to ensure that they have sufficient frictional properties will be considered as part of the detailed design stage.
Overseeing Organisation Response	
Agreed RSA Action	

A.2: General - A.2.2: Problem – Location: Roundabout / Scheme – Summary: Proposed carriageway widening will result in gullies being located within the path of a vehicle - Acc Type: Vehicle loss of control	
RSA Problem	The A259 roundabout with Goring Way and Aldsworth Avenue accommodates a network of gullies that are situated along the channel line and cater for surface water that accumulates on the carriageway. The proposals widen the nearside of each lane on approach to the roundabout junction and as such, existing road gullies will be situated within an approach lane and the path of a vehicle approaching the roundabout. A road gully within the path of a vehicle could give rise to loss of control type incidents especially for two wheeled vehicles and vehicles undertaking a braking manoeuvre.
RSA Recommendation	It is recommended that road gullies are relocated to the edge of carriageway.
Design Organisation Response	In line with the Auditor's recommendation, the potential relocation of road gullies to prevent loss of control type incidents, particularly for two-wheeled vehicles and those undertaking a braking manoeuvre will be considered as part of the detailed design stage.
Overseeing Organisation Response	
Agreed RSA Action	

A.2: General - A.2.3: Problem – Location: Roundabout / Scheme – Summary: Street furniture within the verge will become an obstruction- Acc Type: Vehicle collisions and loss of control	
RSA Problem	Street furniture to include signage, telephone / electric cabinets and street lighting columns are present within the existing verge of the A259 roundabout with Goring Way and Aldsworth Avenue. The proposals widen the approach lanes on the nearside where a number of existing items of street furniture are situated. Items of street furniture located within the path of a vehicle or within 450mm of the carriageway and path of a vehicle will be an obstruction to vehicles which could lead to loss of control and sideswipe type collisions when a driver swerves.
RSA Recommendation	It is recommended that all street furniture is relocated accordingly and that the street lighting is adequate.
Design Organisation Response	In line with the Auditor's recommendation, the potential relocation of street furniture to ensure it is positioned beyond a distance of 450mm from the edge of the carriageway will be considered at the detailed design stage. This will ensure that there are no obstacles to car driver inter-visibility.
Overseeing Organisation Response	
Agreed RSA Action	

A.3: Junctions - A.3.1: Problem – Location: A259 southbound approach / Ardingly Drive– Summary: Speeds are likely to increase as a result of the proposed extended southbound two-lane approach - Acc Type: Vehicle side / rear impact collisions	
RSA Problem	The A259 roundabout with Goring Way and Aldsworth Avenue accommodates four major arms as well as a fifth entry that joins the circulatory parallel to the northern arm known as Ardingly Drive. Ardingly Drive forms an exit from the residential street as well as from the parking facility associated with a Tesco Express convenience store. The proposals include the widening of each approach to the roundabout to include increasing the existing two-lane tapered southbound entry to provide two 3.25 mere lanes for a distance of 54 metres on approach to the give-way line. The Audit Team have concerns regarding the proximity and alignment of the Ardingly Drive entry to the roundabout in relation to the A259 southbound approach arm and that traffic from each arm will enter the circulatory simultaneously leading to side and rear impact collisions. Although there is no evidence of any road traffic collisions as a result of the proximity of the entries at present, the provision of the two 3.25 metre southbound approach lanes could lead to higher approach and entry speeds leading to reduced gaps for traffic entering the roundabout from Ardingly Drive which could result in traffic attempting to undertake a manoeuvre across the path of an approaching vehicle and side / rear impact collisions.
RSA Recommendation	It is recommended that the southbound approach lanes are reduced in width and that adequate visibility is achievable from the Ardingly Drive entry.
Design Organisation Response	The proposed extension to the two-lane approach is to increase the operational capacity of the roundabout and should not increase approach speeds, nonetheless, the lane widths can be reduced to form two 3 metre lanes during consultations with the County Highway Authority, West Sussex County Council.
Overseeing Organisation Response	
Agreed RSA Action	

A.3: Junctions - A.3.2 Problem – Location: Each approach – Summary: Entry lane widths are wider than the circulatory carriageway - Acc Type: Sideswipe type collisions	
RSA Problem	The A259 roundabout with Goring Way and Aldsworth Avenue accommodates four major arms as well as a fifth entry that joins the circulatory parallel to the northern arm. The proposals include the widening of each approach to the roundabout providing an 8.52 metre entry from the east and 8.5 metre entries from the south and west whilst retaining the existing 8.08 metre circulatory carriageway. The wide entry lanes could lead to high-speed entries leading to overshoot type collisions and coupled with the retention of the existing 8.08 metre circulatory carriageway, are likely to result in sideswipe type collisions.
RSA Recommendation	It is recommended that the proposed entries lanes are reduced in width to 3.5 metres each.
Design Organisation Response	The width of the entries was based on data from junction modelling software to optimise for the operational capacity of the existing junction. The entry widths will be reduced to 3.5 metres in accordance with para. 3.14.2 of CD116.
Overseeing Organisation Response	
Agreed RSA Action	

A.3: Junctions - A.3.3 Problem – Location: Each approach – Summary: Entry lane widths are wider than the circulatory carriageway - Acc Type: Sideswipe type collisions	
RSA Problem	The A259 roundabout with Goring Way and Aldsworth Avenue accommodates four major arms as well as a fifth entry that joins the circulatory parallel to the northern arm. The proposals include the widening of each approach to the roundabout providing an 8.52 metre entry from the east and 8.5 metre entries from the south and west whilst retaining the existing 8.08 metre circulatory carriageway. The wide entry lanes could lead to high-speed entries leading to overshoot type collisions and coupled with the retention of the existing 8.08 metre circulatory carriageway, are likely to result in sideswipe type collisions.
RSA Recommendation	It is recommended that the proposed carriageway remains at least 450mm from the trunk of any trees that are present.
Design Organisation Response	The scheme drawing is currently based on ordnance survey data that does not indicate the location of trees, the reduction in lane widths as a result of items A.3.2 will reduce the impact on the existing trees. However, during the detailed design process, a topographical survey will be undertaken, and the scheme modified to ensure that any trees that are subject to a Tree Preservation Order or are of significant importance, are retained. The scheme developed at this stage, is to identify that improvements can be made to the junction to mitigate any traffic generated by the associated development can be mitigated and improve the significant congestion that is currently observed.
Overseeing Organisation Response	
Agreed RSA Action	

A.4: Walking Cycling and Horse Riding - A.4.1: Problem – Location: Roundabout / Scheme - Summary: Full height kerbs will be an obstruction to pedestrians especially the mobility impaired – Acc Type: Vehicle pedestrian and pedestrian trips and falls	
RSA Problem	The A259 roundabout with Goring Way and Aldsworth Avenue accommodates a footway along both side of the carriageway on each arm, albeit some behind verges. Dropped kerbs are provided along pedestrian desire lines with refuges accommodated within the splitter islands of the northern eastern and southern arms. The proposals increase the carriageway width on each approach to the roundabout; however, the scheme drawings do not identify that dropped kerbs are to be reinstalled. Whilst full height kerbs will become an obstruction to pedestrians particularly the mobility impaired or those walking with buggies and children on a scooter, the lack of a tactile warning could result in a visually impaired pedestrian entering the carriageway when it is not safe to do so which raises the risk of a vehicle-pedestrian collision.
RSA Recommendation	It is recommended that dropped kerbs with a maximum upstand of 6mm and tactile paving are provided where appropriate.
Design Organisation Response	In accordance with the Auditor's recommendation, dropped kerbs with a maximum upstand of 6mm and tactile paving will be provided at dedicated pedestrian crossing points. This will ensure there are no obstructions to pedestrians, particularly mobility impaired or those walking with buggies and children on scooters. Notwithstanding the above, the provision of dropped kerbs and tactile paving tiles will be considered at the detailed design stage.
Overseeing Organisation Response	
Agreed RSA Action	

A.5: Road Signs, Carriageway Markings and Lighting - A.5.1: Problem – Location: Roundabout / Scheme - Summary: Full height kerbs will be an obstruction to pedestrians especially the mobility impaired - Acc Type: Overshoots	
RSA Problem	The A259 roundabout with Goring Way and Aldsworth Avenue currently accommodates short two-lane entries. The proposals include the widening of each arm of the junction in order to extend the approach lanes, however, no lane markings are detailed on the scheme drawing on the northbound or westbound approaches. The wide approach and entry lanes are likely to lead to vehicles gaining speed on approach and could result in overshoot type collisions.
RSA Recommendation	It is recommended that the northbound and westbound entries include the provision of lane markings.
Design Organisation Response	The proposed works include the provision of two-lane entries on each of the four major arms of the junction, the scheme drawing will be updated during detailed design.
Overseeing Organisation Response	
Agreed RSA Action	

3.0: Items raised at previous Road Safety Audits A Stage 1 RSA (Reference: RSA-20-029) was undertaken by Fenley Road Safety Limited of the proposed highway works at the Gring Way roundabout junction in Goring-by-Sea on 19th June 2020. The following issues were raised as part of the previous Stage 1 RSA and are included here where they also apply to the latest design (other issues have been omitted where they are not relevant or applicable to the latest design).	
RSA Problem	A.1: Local Alignment - A.1.1: Problem – Location: A259, east – Summary: Proposed widening reduces the level of entry deflection – Acc Type: Vehicle loss of control The A259 roundabout with Goring Way and Aldsworth Avenue currently benefits from a good level of deflection from each arm except the minor Ardingly Drive. The proposals widen each approach to the roundabout in order to increase the theoretical operation capacity of the roundabout. The scheme drawings illustrate that the A259 westbound approach is to be widened by approximately 1.5 metres. Widening of this degree will reduce the amount of deflection achievable and could therefore increase entry speeds which could result in heavy braking, overshoot and side impact type incidents.
RSA Recommendation	It is recommended that an appropriate level of entry deflection is provided.
Design Organisation Response	It should be noted that the design of the proposed mitigation for the 5-arm A259 Goring Street / Goring Way / Ardingly Drive / Aldsworth Avenue roundabout junction is based on OS mapping as opposed to topographical survey data. In line with the Auditor's recommendation, an appropriate level of entry deflection will be provided as part of the detailed design process.
Overseeing Organisation Response	
Agreed RSA Action	

RSA Problem	A.2: General - A.2.1 Problem – Location: A259, Goring Way - Summary: A service cover with insufficient frictional properties may be within the path of vehicles - Acc Type: Vehicle loss of control A number of services that are present within the existing footway and verge of the A259 east and Goring Way west approaches to the roundabout with Aldsworth Avenue. The scheme drawing is based upon Ordnance Survey rather than a topographical survey and as such, does not indicate the location of services; however, should covers be situated within the carriageway and their frictional surface properties be insufficient, there could be a rise in loss of control type incidents.
RSA Recommendation	It is recommended that all service covers within the carriageway provide sufficient frictional properties if their relocation is not feasible.
Design Organisation Response	In line with the Auditor's recommendation, the potential relocation / amendment of all service covers within the carriageway, to ensure that they have sufficient frictional properties will be considered as part of the detailed design stage.
Overseeing Organisation Response	
Agreed RSA Action	

RSA Problem	A.2: General - A.2.2 Problem – Location: Roundabout / Scheme - Summary: Proposed carriageway widening will result in gullies being located within the path of a vehicle - Acc Type: Vehicle loss of control The A259 roundabout with Goring Way and Aldsworth Avenue accommodates a network of gullies that are situated along the channel line and cater for surface water that accumulates on the carriageway. The proposals widen the nearside of each lane on approach to the roundabout junction by up to 1.5 metres and as such, existing road gullies will be situated away from the channel line and within the path of a vehicle approaching the roundabout. A road gully within the path of a vehicle could give rise to loss of control type incidents especially for two wheeled vehicles and vehicles undertaking a braking manoeuvre.
RSA Recommendation	It is recommended that road gullies are relocated to the edge of carriageway.
Design Organisation Response	In line with the Auditor's recommendation, the potential relocation of road gullies to prevent loss of control type incidents, particularly for two-wheeled vehicles and those undertaking a braking manoeuvre will be considered as part of the detailed design stage.
Overseeing Organisation Response	
Agreed RSA Action	

RSA Problem	A.2: General - A.2.3 Problem – Location: Roundabout / Scheme - Summary: Street furniture within the verge will become an obstruction - Acc Type: Vehicle collisions and loss of control Street furniture to include signage, telephone / electric cabinets and street lighting columns are present within the existing verge of the A259 roundabout with Goring Way and Aldsworth Avenue. The proposals realign nearside of each lane on approach to the roundabout such that the existing items of street furniture will be located within the path of a vehicle or within 450mm of the carriageway and path of a vehicle. Items of street furniture within 450mm of a live carriageway will become an obstruction to vehicles.
RSA Recommendation	It is recommended that all street furniture is relocated accordingly.
Design Organisation Response	In line with the Auditor's recommendation, the potential relocation of street furniture to ensure it is positioned beyond a distance of 450mm from the edge of the carriageway will be considered at the detailed design stage. This will ensure that there are no obstacles to car driver inter-visibility.
Overseeing Organisation Response	
Agreed RSA Action	

RSA Problem	A.3: Junctions - No Road Safety Concerns regarding JUNCTIONS have been raised at this stage.
RSA Recommendation	
Design Organisation Response	
Overseeing Organisation Response	
Agreed RSA Action	

RSA Problem	A.4: Walking Cycling and Horse Riding - A.4.1 Problem – Location: Roundabout / Scheme – Summary: Full height kerbs will be an obstruction to pedestrians especially the mobility impaired - Acc Type: Vehicle pedestrian and pedestrian trips and falls The A259 roundabout with Goring Way and Aldsworth Avenue provides a footway along each side of the carriageway, albeit some behind verges, which benefit from dropped kerbs at pedestrian crossing points. The proposals increase the width and realign each arm of the roundabout; however, the scheme drawings do not identify that dropped kerbs are to be reinstalled and provided where pedestrians are likely to cross. Whilst full height kerbs will become an obstruction to pedestrians particularly the mobility impaired or those walking with buggies and children on a scooter, the lack of a tactile warning could result in a visually impaired pedestrian entering the carriageway when it is not safe to do so which raises the risk of a vehicle-pedestrian collision.
RSA Recommendation	It is recommended that dropped kerbs with a maximum upstand of 6mm and tactile paving are provided where appropriate.
Design Organisation Response	In accordance with the Auditor's recommendation, and as shown on Drawing No. 18122/003 Rev A, dropped kerbs with a maximum upstand of 6mm and tactile paving will be provided at dedicated pedestrian crossing points. This will ensure there are no obstructions to pedestrians, particularly mobility impaired or those walking with buggies and children on scooters. Notwithstanding the above, the provision of dropped kerbs and tactile paving tiles will be considered at the detailed design stage.
Overseeing Organisation Response	
Agreed RSA Action	

RSA Problem	A.5: Road Signs, Carriageway Markings and Lighting - No Road Safety Concerns regarding ROAD SIGNS, CARRIAGEWAY MARKINGS AND LIGHTING have been raised at this stage.
RSA Recommendation	
Design Organisation Response	
Overseeing Organisation Response	
Agreed RSA Action	

F5 Design Organisation & Overseeing Organisation Statements

Table F.5 Design Organisation Statement

On behalf of the design organisation I certify that:

1. The RSA actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the overseeing organisation

Name:	Tony wares
Signed:	
Position:	Associate Director
Organisation:	Milestone Transport Planning Limited
Date:	29 November 2021

Table F.6 Overseeing Organisation Statement

On behalf of the overseeing organisation I certify that:

1. The RSA actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the design organisation; and
2. The agreed RSA action will be progressed.

Name:	Stephen Gee
Signed:	
Position:	
Organisation:	West Sussex County Council
Date:	

Road Safety Audit Response for Stage 1 Road Safety Audit (GG 119 Appendix F)

F1 Project Details

Table F.1 Project Details

Report Title:	Stage 1 Road Safety Audit Designer's Response
Date:	29 November 2021
Document Reference and Revision:	18-122_RSA1_Response
Prepared By:	Milestone Transport Planning Limited
On Behalf of:	Persimmon Homes Thames Valley

Table F.2 Authorisation Sheet

Project:	Land North West of Goring Station, Goring-by-Sea, West Sussex
Report Title:	Stage 1 Road Safety Audit Response
Prepared by:	
Name:	Tony Wares
Position:	Associate Director
Signed:	
Organisation:	Milestone Transport Planning Limited
Date:	29 November 2021
Approved by:	
Name:	
Position:	
Signed:	
Organisation:	
Date:	

F2 Introduction

Summary of Scheme

The proposed highway works, as shown on Drawing No. 18122/001 Rev C comprise of the provision of a 40-metre ICD 3-arm access roundabout junction along the A259 Goring Street, the modification of The Strand priority junction with the A259 to a 'left-in' and 'left-out' arrangement, the diversion of the northern end of Goring Street (Minor) to meet the proposed access road with a shared footway cycleway provided along the existing, the relocation of a Toucan crossing along the A259 Goring Street approximately 70-metres south of the existing facility, the provision of a raised table at the junction of Goring Street with the private access to a number of residential buildings and the provision of a parking facility to serve the station and local centre accessed via a priority junction along Goring Street. This Stage 1 Road Safety Audit is a revision of one previously undertaken, RSA-20-027 in July 2020.

Stage of the RSA:

Stage 1

Date / reference of the RSA Report:

Date: 29 November 2021

RSA Report Reference: Version 1.0

Details of the representatives from the design organisation who prepared the RSA Response Report:

Tony Wares, Milestone Transport Planning, Associate Director

F3 Key Personnel

Table F.3 Key Personnel

Overseeing Organisation:	West Sussex County Council
County Highway Authority:	West Sussex County Council
RSA Team:	Fenley Road Safety Limited
Design Organisation:	Milestone Transport Planning Limited

F4 Road Safety Audit Decision Log

Table F.4 Road Safety Audit Decision Log

A.1 Local Alignment – A.1.1 Problem – Location: Proposed primary access road - Summary: Vehicles travelling from the proposed development can enter and travel through the proposed roundabout at speed - Acc Type: Loss of Control	
RSA Problem	The A259 is subject to a 40mph speed limit. It is proposed to provide a three arm 40 metre ICD roundabout along the A259 that allows access to a development of 475 dwellings and associated facilities. The A259 is to be realigned on approach to the roundabout to ensure that a good level of deflection is achieved, however, the proposed development arm meets the roundabout at a slack angle with a large entry radius that allows for an approaching vehicle, to take a racing line to the A259 north. The lack of deflection is likely to result in high-speed entries as well as through movements which could give rise to loss of control type incidents.
RSA Recommendation	It is recommended that sufficient deflection is provided or a traffic calming feature is situated along the proposed access road in order to ensure vehicles cannot enter the roundabout at high speeds.
Design Organisation Response	As shown on Drawing No.'s 18122/001 Rev A and 18122/SK10 Rev A (attached), the design of the site's proposed access achieves a level of deflection below 100-metres, in line with DMRBS 'CD 116 Geometric design of roundabouts' document. Consequently, this will reduce the risk of loss of control type incidents.
Overseeing Organisation Response	
Design Organisation Response	
Agreed RSA Action	

A.2: General - A.2.1 Problem – Location: Scheme- Summary: Existing utility covers will be an obstruction to vehicles - Acc Type: Loss of Control	
RSA Problem	The existing footways and verges in proximity of the Goring Street accommodate a number of utility covers. Covers that are currently situated within a verge / footway are unlikely have been constructed with adequate loading capabilities or frictional properties. A vehicle travelling across insufficient utility covers could lead to loss of control type collisions due to failure and skidding.
RSA Recommendation	It is recommended that existing utility covers are relocated / adjusted appropriately with sufficient frictional properties.
Design Organisation Response	In accordance with the Auditor's recommendations, the relocation / adjustment of existing utility covers will be considered as part of the Detailed Design process.
Overseeing Organisation Response	
Agreed RSA Action	

A.2: General - A.2.2 Problem – Location: Scheme- Summary: Existing road gullies will be within the path of vehicles - Acc Type: Loss of Control	
RSA Problem	In proximity of the proposed highway works, the A259 and the minor arm of Goring Street accommodate a drainage network that caters for surface water that accumulates on the carriageway. The proposals include the provision of a 3-arm roundabout junction in order to serve as the primary access to a development of 475 dwellings as well as associated facilities and the realignment of Goring Street. At this stage, no details have been provided to identify that the existing surface water drainage network is to be modified in accordance with the proposals or that provisions will be made to accommodate the additional surface water that is generated. An inadequate drainage network could result in ponding during inclement conditions which may lead to loss of control type incidents which would be exacerbated during freezing conditions.
RSA Recommendation	It is recommended that an adequate surface water drainage network is provided.
Design Organisation Response	In accordance with the Auditor's comments, adequate surface water drainage will be considered as part of the detailed design stage.
Overseeing Organisation Response	
Agreed RSA Action	

A.2: General - A.2.3 Problem – Location: Scheme- Summary: Street furniture within the verge will become an obstruction - Acc Type: Loss of Control	
RSA Problem	Street furniture to include signage and street lighting columns are present within the existing verge along the A259 and Goring Street. The proposals subject to this Stage 1 Road Safety Audit, include the provision of a 40 metre ICD 3-arm roundabout junction and realign the A259 approaches as well as Goring Street. Items of street furniture within 450mm of a live carriageway will become an obstruction to vehicles and could lead to loss of control collisions as a result of street furniture strikes.
RSA Recommendation	It is recommended that all street furniture is relocated accordingly.
Design Organisation Response	In line with the Auditor's comments, all street furniture within a 450mm distance of the carriageway will be relocated to ensure that there are no obstructions to motorised users undertaking various manoeuvres. This aspect will be considered as part of the detailed design.
Overseeing Organisation Response	
Agreed RSA Action	

A.3: Junctions - A.3.1 Problem – Location: Proposed roundabout - Summary: Inadequate circulatory carriageway to accommodate a vehicle alongside a HGV - Acc Type: Vehicle sideswipes	
RSA Problem	The proposals include the provision of a 40 metre ICD roundabout that accommodates a 25-metre central island, a 7.5 metre circulatory carriageway and two-lane approaches along the A259. No swept path analysis has been provided with the Audit Brief, however, the Audit Team have concerns with regard to the movement of HGV's. A 7.5 metre circulatory carriageway is unlikely to be adequate for an HGV and smaller vehicle to travel side by side following entry. A vehicle attempting to pass an HGV on the circulatory is likely to lead to sideswipe type collisions.
RSA Recommendation	It is recommended that the proposals allow for the expected movements.
Design Organisation Response	Accepted, however, HGV traffic flows along this section of the A259 Goring Street are not high and due to the proposed alignment to maximise deflection, any large vehicles will be required to encroach the entire width of each entry when manoeuvring and as such, it will not be possible for a vehicle to approach or travel around the roundabout side by side mitigating the road safety concern raised. Should the County Highway Authority raise a similar concern through consultations at the detail design stage, an overrun area can be provided on the central island.
Overseeing Organisation Response	
Agreed RSA Action	

A.4: Walking Cycling and Horse Riding - A.4.1: Problem – Location: Goring Street - Summary: Visually impaired pedestrians could step into the path of a cyclist without warning – Acc Type: Cyclist-pedestrian collisions	
RSA Problem	The proposals include the provision of a shared 3.0 metre footway / cycleways as well as a 2.0 metre footway and links to an existing footway. The scheme drawing provided with the Audit Brief, identifies that tactile paving is to be provided at crossing points, albeit an insufficient depth at direct crossings, however, no tactile warning is provided for visually impaired pedestrians travelling between a footway and a share footway cycleway. As such, there is a risk that pedestrians will not become aware of the potential for cyclists and could step into their path which could give rise to cyclist pedestrian collisions.
RSA Recommendation	It is recommended that tactile paving is provided in accordance with national guidance.
Design Organisation Response	As shown on Drawing No. 18122/001 Rev C (attached), the design of the proposed access arrangements has been amended to incorporate tactile paving of sufficient depth at designated crossing points as well as tactile warning for visually impaired pedestrians travelling between the footway and shared foot / cycleway, in accordance with national guidance. This will ensure pedestrians are made aware of the potential of cyclists using the shared foot / cycleway and substantially minimise cyclist / pedestrian collisions.
Overseeing Organisation Response	
Agreed RSA Action	

A.5: Road Signs, Carriageway Markings and Lighting	
RSA Problem	No road safety concerns regarding JUNCTIONS have been raised at this stage.
RSA Recommendation	
Design Organisation Response	
Overseeing Organisation Response	
Agreed RSA Action	

3.0: Items raised at previous Road Safety Audits A Stage 1 RSA (Reference: RSA-20-027) was undertaken by Fenley Road Safety Limited of the proposed highway works at the site's proposed access roundabout on 19th June 2020. The following issues were raised as part of the previous Stage 1 RSA and are included here where they also apply to the latest design (other issues have been omitted where they are not relevant or applicable to the latest design).	
RSA Problem	A.1: Local Alignment - A.1.1: Problem – Location: Proposed primary access road – Summary: Vehicles travelling from the proposed development can entre and travel through the proposed roundabout at speed – Acc Type: Sideswipes The A259 is subject to a 40mph speed limit. It is proposed to provide a three arm 40 metre ICD roundabout along the A259 that allows access to a development of 505 dwellings and associated facilities. The A259 is to be realigned on approach to the roundabout to ensure that a good level of deflection is achieved, however, the proposed development arm meets the roundabout at a slack angle with a large entry radius that allows for an approaching vehicle, to take a racing line to the A259 north. The lack of deflection is likely to result in high-speed entries as well as through movements which could give rise to loss of control type incidents.
RSA Recommendation	It is recommended that sufficient deflection is provided or a traffic calming feature is situated along the proposed access road in order to ensure vehicles cannot enter the roundabout at high speeds.
Design Organisation Response	As shown on Drawing No.'s 18122/001 Rev A and 18122/SK10 Rev A (attached), the design of the site's proposed access achieves a level of deflection below 100-metres, in line with DMRBS 'CD 116 Geometric design of roundabouts' document. Consequently, this will reduce the risk of loss of control type incidents.
Overseeing Organisation Response	
Agreed RSA Action	

RSA Problem	A.1: Local Alignment - A.1.2: Problem – Location: Goring Street, Goring-by-Sea Station – Summary: Proposed works do not allow for a smooth transition to / from the level crossing – Acc Type: Loss of control, cyclist fall and train strike Goring Street provides access to Goring-by-Sea Station car park and a level crossing allowing access across the rail network. The Audit Brief provided to undertake this Stage 1 Road Safety Audit, identifies that a raised table is to be provided at the junction of the existing station car park that is to be retained for mobility impaired drivers, just north of the level crossing. It is understood that the raised table acts as a traffic calming feature to reduce speeds and provide pedestrians with priority, however, vehicles and cyclists travelling to and from the level crossing will be faced with a ramp as well as a change in priorities immediately prior to entry or upon exit from the feature. No details have been provided to identify the gradient or level difference of the ramp, however the raised table and change in priorities, could give rise to drivers stopping abruptly immediately adjacent to the existing level crossing resulting in shunt type incidents as well as delays in users leaving the level crossing prior to the barriers closing and train strikes.
RSA Recommendation	It is recommended that the carriageway is retained in order to ensure no delays are observed clearing the level crossing.
Design Organisation Response	In line with the Auditor's recommendation, and as shown on Drawing No. 18122/001 Rev A (attached), the raised table feature has been removed from the design of the proposed access arrangement. In so doing, this will prevent motorised and non-motorised users from stopping abruptly immediately adjacent to the existing level crossing and, as a consequence reduce the risk of 'rear' shunt collisions and associated delays in delays.
Overseeing Organisation Response	
Agreed RSA Action	

RSA Problem	A.2: General - A.2.1 Problem – Location: Scheme – Summary: Existing utility covers will be an obstruction to vehicles - Acc Type: Loss of control The existing footways and verges in proximity of the Goring Street accommodate a number of utility covers. Covers situated within the area of the works and not be adjusted properly or their frictional surface properties be insufficient, there could be a rise in loss of control type incidents.
RSA Recommendation	It is recommended that existing utility covers are relocated / adjusted appropriately with sufficient frictional properties.
Design Organisation Response	In accordance with the Auditor's recommendations, the relocation / adjustment of existing utility covers will be considered as part of the Detailed Design process.
Overseeing Organisation Response	
Agreed RSA Action	

RSA Problem	A.2: General - A.2.2 Problem – Location: Scheme – Summary: Existing road gullies will be within the path of vehicles - Acc Type: Loss of control In proximity of the proposed highway works, the A259 and the minor arm of Goring Street accommodate a drainage network that caters for surface water that accumulates on the carriageway. The proposals include the provision of a 3-arm roundabout junction in order to serve as the primary access to a development of 505 dwellings as well as associated facilities and the closure of the existing Goring Street priority junction with the A259. At this stage, no details have been provided to identify that the existing surface water drainage network is to be modified in accordance with the proposals or that provisions will be made to accommodate the additional surface water that is generated. An inadequate drainage network could result in ponding during inclement conditions which may give rise to loss of control type incidents which would be exacerbated during freezing conditions.
RSA Recommendation	It is recommended that an adequate surface water drainage network is provided.
Design Organisation Response	In accordance with the Auditor's comments, adequate surface water drainage will be considered as part of the detailed design stage.
Overseeing Organisation Response	
Agreed RSA Action	

RSA Problem	A.2: General - A.2.3 Problem – Location: Scheme – Summary: Street furniture within the verge will become an obstruction - Acc Type: Loss of control Street furniture to include signage and street lighting columns are present within the existing verge along the A259 and Goring Street. The proposals subject to this Stage 1 Road Safety Audit, include the provision of a 40 metre ICD 3-arm roundabout junction and realign the A259 approaches as well as Goring Street. Items of street furniture within 450mm of a live carriageway will become an obstruction to vehicles.
RSA Recommendation	It is recommended that all street furniture is relocated accordingly.
Design Organisation Response	In line with the Auditor's comments, all street furniture within a 450mm distance of the carriageway will be relocated to ensure that there are no obstructions to motorised users undertaking various manoeuvres. This aspect will be considered as part of the detailed design.
Overseeing Organisation Response	
Agreed RSA Action	

RSA Problem	A.3: Junctions - A.3.1 Problem – Location: Goring-by-Sea Station – Summary: Visibility at the proposed parking facility may become restricted - Acc Side or rear impact collisions As existing, Goring Street provides a footway along the eastern side of the carriageway and a accommodates dense vegetation abutting the carriageway, to the west. The proposals provide a simple priority access off the western side of Goring Street that allows access to a parking facility for the proposed local centre and existing station. The scheme drawings provided with the Audit Brief, does not illustrate visibility splays from the access which are likely to be restricted by vegetation unless cleared. Restricted visibility from or to a priority access could give rise to a vehicle attempting to exit when it is not safe to do so and side / rear impact collisions.
RSA Recommendation	It is recommended that vegetation within visibility splays is maintained below 600mm in height.
Design Organisation Response	As per the Auditor's recommendation, Drawing No. 18122/004 (attached) demonstrates that visibility splays measuring 2.4-metres (X-distance) x 43.0-metres (Y-distance) can be achieved to the left and right of the simple priority access of the proposed on-site car parking facility. Vegetation on either side of the proposed simple priority access will be regularly maintained to a height below 600mm, to ensure motorists benefit from having adequate inter-visibility with other motorised and non-motorised users. Consequently, this will substantially reduce the potential risk of side / rear impact collisions.
Overseeing Organisation Response	
Agreed RSA Action	

RSA Problem	A.4: Walking Cycling and Horse Riding - A.4.1 Problem – Location: Goring-by-Sea Station – Summary: Pedestrians are likely to access the raised table from the Station forecourt - Acc Type: Pedestrian trip and fall No level route is provided for pedestrians travelling between the western side of Goring Street and Goring-by-Sea Station. As such pedestrians utilising the existing footpath that runs to the north of the rail tracks to the west, are required to step up / down full height kerbs. The proposals subject to this Stage 1 Road Safety Audit, include the provision of a raised table immediately to the north of the existing level crossing and a wide shared pedestrian cyclist area between the raised table and a proposed parking facility. Pedestrians traveling between the proposed parking facility footpath will therefore have level access to Goring Street, however, pedestrians will be required to funnel onto a narrow section of footway fronting the Station or travel down / up the ramp associated with the raised table. Pedestrians travelling up / down a ramp, could give rise to trips and falls.
RSA Recommendation	It is recommended that a safe level pedestrian route between the parking facility and station that is of sufficient width to cater for the demand, is provided.
Design Organisation Response	In accordance with the Auditor's comments, an uncontrolled crossing together with a change in surface treatment material will be incorporated into the design to provide a safe and convenient pedestrian route for future end-users travelling from the proposed residential-led mixed use development to Goring rail station. In addition, it is proposed that the station forecourt is designed as a shared space to ensure pedestrians are afforded priority over motorised users accessing the car park. This facility comprises of 11 spaces and is unlikely to generate a significant number of vehicular movements over the course of a typical weekday, thereby making it appropriate to be designed as a shared space.
Overseeing Organisation Response	
Agreed RSA Action	

RSA Problem	A.4.2: Walking Cycling and Horse Riding - A.4.1 Problem – Location: Goring Street – Summary: Visually impaired pedestrians could step into the path of a cyclist without warning - Acc Type: Cyclist-pedestrian collisions The proposals include the provision of a shared 3.0 metre footway / cycleways as well as a 2.0 metre footway and links to an existing footway. The scheme drawing provided with the Audit Brief, identifies that tactile paving is to be provided at crossing points, albeit an insufficient depth at direct crossings, however, no tactile warning is provided for visually impaired pedestrians travelling between a footway and a share footway cycleway. As such, there is a risk that pedestrians will not become aware of the potential for cyclists and could step into their path which could give rise to cyclist pedestrian collisions.
RSA Recommendation	It is recommended that tactile paving is provided in accordance with national guidance.
Design Organisation Response	As shown on Drawing No. 18122/001 Rev A (attached), the design of the proposed access arrangements has been amended to incorporate tactile paving of sufficient depth at designated crossing points as well as tactile warning for visually impaired pedestrians travelling between the footway and shared foot / cycleway, in accordance with national guidance. This will ensure pedestrians are made aware of the potential of cyclists using the shared foot / cycleway and substantially minimise cyclist / pedestrian collisions.
Overseeing Organisation Response	
Agreed RSA Action	

RSA Problem	A.5: Road Signs, Carriageway Markings and Lighting - No Road Safety Concerns regarding ROAD SIGNS, CARRIAGEWAY MARKINGS AND LIGHTING have been raised at this stage.
RSA Recommendation	
Design Organisation Response	
Overseeing Organisation Response	
Agreed RSA Action	

F5 Design Organisation & Overseeing Organisation Statements

Table F.5 Design Organisation Statement

On behalf of the design organisation I certify that:

1. The RSA actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the overseeing organisation

Name:	Tony Wares
Signed:	
Position:	Associate Director
Organisation:	Milestone Transport Planning Limited
Date:	03 December 2021

Table F.6 Overseeing Organisation Statement

On behalf of the overseeing organisation, I certify that:

1. The RSA actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the design organisation; and
2. The agreed RSA action will be progressed.

Name:	Stephen Gee
Signed:	
Position:	
Organisation:	West Sussex County Council
Date:	

Appendix 6

UPDATED 2033 VISSIM MODEL RESULTS COMPARISONS

2033 AM PEAK FLOW COMPARISON BY TURNING MOVEMENTS								
CROSSROAD	NO.	FROM	TO	DIRECTION FROM	DIRECTION TO	2033 BASE FLOW N [veh]	2033 WITH MITIGATION FLOW N [veh]	DIFFERENCE N [veh]
NOTHERN ROUNABOUT	1	1	2	A259 Littlehampton	Titnore Lane	55	55	0
	2	1	3	A259 Littlehampton	A2032 Littlehampton Road	644	594	-50
	3	1	4	A259 Littlehampton	A259 Goring	520	473	-47
	4	1	1	A259 Littlehampton	A259 Littlehampton	7	11	+4
	5	2	3	Titnore Lane	A2032 Littlehampton Road	64	75	+11
	6	2	4	Titnore Lane	A259 Goring	249	293	+44
	7	2	1	Titnore Lane	A259 Littlehampton	37	45	+8
	8	3	4	A2032 Littlehampton Road	A259 Goring	188	238	+50
	9	3	1	A2032 Littlehampton Road	A259 Littlehampton	595	652	+57
	10	3	2	A2032 Littlehampton Road	Titnore Lane	91	91	0
	11	4	1	A259 Goring	A259 Littlehampton	510	525	+15
	12	4	2	A259 Goring	Titnore Lane	334	392	+58
	13	4	3	A259 Goring	A2032 Littlehampton Road	428	490	+62
	14	4	4	A259 Goring	A259 Goring	0	83 (U-TURNS)	+83
THE STRAND	15	13	14	A259 Goring S	The Strand	96	-	-
	16	13	15	A259 Goring S	A259 Goring N	1219	1496	+277
	17	14	13	The Strand	A259 Goring S	221	178	-43
	18	14	15	The Strand	A259 Goring N	54	-	-
	19	15	14	A259 Goring N	The Strand	32	104	+72
	20	15	13	A259 Goring N	A259 Goring S	922	979	+57
GORING STREET	21	5	6	A259 Goring N	Goring Street	44	77	+33
	22	5	7	A259 Goring N	A259 Goring S	1096	1028	-68
	23	7	6	A259 Goring S	Goring Street	15	46	+31
	24	7	5	A259 Goring S	A259 Goring N	1268	1256	-12
	25	6	5	Goring Street	A259 Goring N	47	192	+145
	26	6	7	Goring Street	A259 Goring S	1	83	+82
	27	5	5	A259 Goring N	A259 Goring N	0	55 (U-TURNS)	+55
SOUTHERN ROUNDABOUT	28	8	9	Goring Way (W)	Aldsworth Avenue	33	31	-2
	29	8	10	Goring Way (W)	A259 Goring Way (E)	215	207	-8
	30	8	11	Goring Way (W)	A259 Goring N	301	278	-23
	31	8	8	Goring Way (W)	Goring Way (W)	8	11	+3
	32	9	8	Aldsworth Avenue	Goring Way (W)	33	36	+3
	33	9	9	Aldsworth Avenue	Aldsworth Avenue	1	3	+2
	34	9	10	Aldsworth Avenue	A259 Goring Way (E)	35	42	+7
	35	9	11	Aldsworth Avenue	A259 Goring N	202	207	+5
	36	10	9	A259 Goring Way (E)	Aldsworth Avenue	10	14	+4
	37	10	8	A259 Goring Way (E)	Goring Way (W)	90	99	+9
	38	10	11	A259 Goring Way (E)	A259 Goring N	739	767	+28
	39	11	10	A259 Goring N	A259 Goring Way (E)	669	700	+31
	40	11	9	A259 Goring N	Aldsworth Avenue	136	133	-3
	41	11	8	A259 Goring N	Goring Way (W)	282	269	-13
	42	11	11	A259 Goring N	A259 Goring N	0	7	+7
	43	12	10	Ardingly Drive	A259 Goring Way (E)	39	40	+1
	44	12	9	Ardingly Drive	Aldsworth Avenue	19	18	-1
	45	12	8	Ardingly Drive	Goring Way (W)	14	15	+1
	46	12	11	Ardingly Drive	A259 Goring N	45	46	+1

2033 PM PEAK FLOW COMPARISON BY TURNING MOVEMENTS								
CROSSROAD	NO.	FROM	TO	DIRECTION FROM	DIRECTION TO	2033 BASE FLOW N [veh]	2033 WITH MITIGATION FLOW N [veh]	DIFFERENCE N
NOTHERN ROUNABOUT	1	1	2	A259 Littlehampton	Titnore Lane	117	107	-10
	2	1	3	A259 Littlehampton	A2032 Littlehampton Road	816	728	-88
	3	1	4	A259 Littlehampton	A259 Goring	595	527	-68
	4	1	1	A259 Littlehampton	A259 Littlehampton	2	9	+7
	5	2	3	Titnore Lane	A2032 Littlehampton Road	99	110	+11
	6	2	4	Titnore Lane	A259 Goring	335	430	+95
	7	2	1	Titnore Lane	A259 Littlehampton	52	63	+11
	8	3	4	A2032 Littlehampton Road	A259 Goring	264	386	+122
	9	3	1	A2032 Littlehampton Road	A259 Littlehampton	750	864	+114
	10	3	2	A2032 Littlehampton Road	Titnore Lane	88	99	+11
	11	4	1	A259 Goring	A259 Littlehampton	516	563	+47
	12	4	2	A259 Goring	Titnore Lane	377	441	+64
	13	4	3	A259 Goring	A2032 Littlehampton Road	267	328	+61
	14	4	4	A259 Goring	A259 Goring	0	138 (U-TURNS)	+138
THE STRAND	15	13	14	A259 Goring S	The Strand	125	-	
	16	13	15	A259 Goring S	A259 Goring N	1120	1469	+349
	17	14	13	The Strand	A259 Goring S	103	149	+46
	18	14	15	The Strand	A259 Goring N	41	-	
	19	15	14	A259 Goring N	The Strand	108	239	+131
	20	15	13	A259 Goring N	A259 Goring S	1086	1241	+155
GORING STREET	21	5	6	A259 Goring N	Goring Street	29	157	+128
	22	5	7	A259 Goring N	A259 Goring S	1159	1194	+35
	23	7	6	A259 Goring S	Goring Street	8	91	+83
	24	7	5	A259 Goring S	A259 Goring N	1215	1298	+83
	25	6	5	Goring Street	A259 Goring N	34	132	+98
	26	6	7	Goring Street	A259 Goring S	3	67	+64
	27	5	5	A259 Goring N	A259 Goring N	0	45 (U-TURNS)	+45
SOUTHERN ROUNDABOUT	28	8	9	Goring Way (W)	Aldsworth Avenue	14	18	+4
	29	8	10	Goring Way (W)	A259 Goring Way (E)	146	184	+38
	30	8	11	Goring Way (W)	A259 Goring N	225	265	+40
	31	8	8	Goring Way (W)	Goring Way (W)	4	8	+4
	32	9	8	Aldsworth Avenue	Goring Way (W)	38	45	+7
	33	9	9	Aldsworth Avenue	Aldsworth Avenue	1	2	+1
	34	9	10	Aldsworth Avenue	A259 Goring Way (E)	31	42	+11
	35	9	11	Aldsworth Avenue	A259 Goring N	186	199	+13
	36	10	9	A259 Goring Way (E)	Aldsworth Avenue	9	13	+4
	37	10	8	A259 Goring Way (E)	Goring Way (W)	103	119	+16
	38	10	11	A259 Goring Way (E)	A259 Goring N	753	843	+90
	39	11	10	A259 Goring N	A259 Goring Way (E)	724	795	+71
	40	11	9	A259 Goring N	Aldsworth Avenue	110	111	+1
	41	11	8	A259 Goring N	Goring Way (W)	335	347	+12
	42	11	11	A259 Goring N	A259 Goring N	0	7	+7
	43	12	10	Ardingly Drive	A259 Goring Way (E)	32	33	+1
	44	12	9	Ardingly Drive	Aldsworth Avenue	6	7	+1
	45	12	8	Ardingly Drive	Goring Way (W)	25	28	+3
	46	12	11	Ardingly Drive	A259 Goring N	70	72	+2

UPDATED 2033 VISSIM MODEL RESULTS COMPARISONS

2033 AM PEAK FLOW COMPARISON				
NO.	ARM	MODELLED FLOW BASE	MODELLED FLOW WITH MITIGATION	FLOW CHANGE
1	NORTHERN ROUNDABOUT	3722	4017	+295
2	THE STRAND	2544	2757	+213
3	GORING STREET	2471	2737	+266
4	SOUTHERN ROUNDABOUT	2871	2945	+74
2033 PM PEAK FLOW COMPARISON				
NO.	ARM	MODELLED FLOW BASE	MODELLED FLOW WITH MITIGATION	FLOW CHANGE
1	NORTHERN ROUNDABOUT	4278	4793	+515
2	THE STRAND	2583	3098	+515
3	GORING STREET	2448	2984	+536
4	SOUTHERN ROUNDABOUT	2812	3172	+360

UPDATED 2033 VISSIM MODEL RESULTS COMPARISONS

2033 AM PEAK QUEUE COMPARISON					
NO.	ARM	BASE		WITH MITIGATION	
		N AVG [veh]	N MAX [veh]	N AVG [veh]	N MAX [veh]
1	A259 Littlehampton Road	193	362	229	425
2	Titnore Lane	32	54	2	10
3	A2032 Littlehampton Road	67	147	60	128
4	A259 Goring Street	2	19	0	13
13	A259 Goring Street S	0	2	0	0
14	The Strand	28	84	56	91
15	A259 Goring Street N	7	35	15	45
5	A259 Goring Street N	0	3	7	9
6	Goring Street	5	12	0	6
7	A259 Goring Street S	1	29	0	6
8	Goring Way (W)	33	67	56	100
9	Aldsworth Avenue	7	22	6	26
10	A259 Goring Way (E)	12	50	9	49
11	A259 Goring Street N	57	75	49	66
12	Ardingly Drive	1	9	3	21

2033 PM PEAK QUEUE COMPARISON					
NO.	ARM	BASE		WITH MITIGATION	
		N AVG [veh]	N MAX [veh]	N AVG [veh]	N MAX [veh]
1	A259 Littlehampton Road	88	163	143	280
2	Titnore Lane	41	77	9	27
3	A2032 Littlehampton Road	61	109	7	28
4	A259 Goring Street	22	35	0	6
13	A259 Goring Street S	1	8	0	1
14	The Strand	3	14	1	7
15	A259 Goring Street N	0	12	0	9
5	A259 Goring Street N	0	2	0	7
6	Goring Street	0	3	0	4
7	A259 Goring Street S	28	65	1	27
8	Goring Way (W)	35	79	7	26
9	Aldsworth Avenue	15	33	12	31
10	A259 Goring Way (E)	82	172	70	161
11	A259 Goring Street N	1	26	2	36
12	Ardingly Drive	0	4	1	4

UPDATED 2033 VISSIM MODEL RESULTS COMPARISONS

2033 AM PEAK TRAVEL TIMES ON SAMPLE ROUTES								
DIRECTION	NO.	FROM	TO	DIRECTION FROM	DIRECTION TO	2033 BASE TT	2033 WITH MITIGATION TT	DIFFERENCE
						T avg [s]	T avg [s]	T [s]
SOUTHBOUND	1	1	10	A259 Littlehampton	A259 Goring Way (E)	933.37	1142.12	+209
	2	2	8	Titnore Lane	Goring Way (W)	404.33	260.76	-144
	3	3	9	A2032 Littlehampton Road	Aldsworth Avenue	240.58	223.68	-17
	4	3	14	A2032 Littlehampton Road	The Strand	104.60	56.90	-48
NORTHBOUND	1	8	2	Goring Way (W)	Titnore Lane	220.18	226.29	+6
	2	9	3	Aldsworth Avenue	A2032 Littlehampton Road	195.14	146.73	-48
	3	10	1	A259 Goring Way (E)	A259 Littlehampton	118.14	111.90	-6
	4	14	3	The Strand	A2032 Littlehampton Road	259.67	519.92	+260

2033 PM PEAK TRAVEL TIMES ON SAMPLE ROUTES								
DIRECTION	NO.	FROM	TO	DIRECTION FROM	DIRECTION TO	2033 BASE TT	2033 WITH MITIGATION TT	DIFFERENCE
						T avg [s]	T avg [s]	T [s]
SOUTHBOUND	1	1	10	A259 Littlehampton	A259 Goring Way (E)	348.03	580.73	+233
	2	2	8	Titnore Lane	Goring Way (W)	311.46	164.21	-147
	3	3	9	A2032 Littlehampton Road	Aldsworth Avenue	155.26	126.65	-29
	4	3	14	A2032 Littlehampton Road	The Strand	98.45	68.38	-30
NORTHBOUND	1	8	2	Goring Way (W)	Titnore Lane	219.84	127.26	-93
	2	9	3	Aldsworth Avenue	A2032 Littlehampton Road	289.86	240.01	-50
	3	10	1	A259 Goring Way (E)	A259 Littlehampton	279.22	182.61	-97
	4	14	3	The Strand	A2032 Littlehampton Road	310.29	92.65	-218

UPDATED 2033 VISSIM MODEL RESULTS COMPARISONS

2033 AM NETWORK PERFORMANCE COMPARISON													
attribute	StopsAvg(All)	SpeedAvg(All)	DelayStopAvg(All)	DistTot(All)	TravTmTot(All)	DelayTot(All)	StopsTot(All)	DelayStopTot(All)	VehAct(All)	VehArr(All)	DelayLatent	DelayAvg(All)	DemandLatent
unit	*N*	*km/h*	*s*	*km*	*s*	*s*	*N*	*s*	*N*	*N*	*s*	*s*	*N*
BASE	31	18	158	15372	3077785	2319149	184842	932760	1388	4505	666	393	2
WITH MITIGATION	31	16	200	15469	3408916	2635758	189714	1228726	1447	4679	80822	430	93

2033 PM NETWORK PERFORMANCE COMPARISON													
attribute	StopsAvg(All)	SpeedAvg(All)	DelayStopAvg(All)	DistTot(All)	TravTmTot(All)	DelayTot(All)	StopsTot(All)	DelayStopTot(All)	VehAct(All)	VehArr(All)	DelayLatent	DelayAvg(All)	DemandLatent
unit	*N*	*km/h*	*s*	*km*	*s*	*s*	*N*	*s*	*N*	*N*	*s*	*s*	*N*
BASE	22	26	89	17292	2440153	1598712	128612	523576	982	4918	11245	271	12
WITH MITIGATION	15	30	78	18143	2196097	1291244	95566	494242	870	5436	4163	204	8

Appendix 6

INDICATIVE

A259 / The Strand
Converted to left in
/ left out junction

Provision of Toucan
Crossing Facility

Access to Mixed-use
Development

Goring Street
closed to provide
improved
pedestrian / cycle
access to Goring
Rail Station

New Goring Street Link

Provision of segregated
cycleway and footway.

Proposed Car Park for
Goring Rail Station +
Neighbourhood Centre

Provision of cycle parking
facilities for Goring rail station

Provision of uncontrolled
pedestrian crossing.

Provision of Motorcycle
parking for Goring rail station

Disabled parking retained

Notes

1. Do not scale from this drawing. All dimensions shown are in metres unless noted otherwise.
2. This drawing has been based upon topographical survey information produced by others and Milestone Transport Planning cannot be held responsible for any discrepancies which may arise because of it.

Key

- Footway
- Segregated 2-way Cycleway
- Verge
- Existing vegetation to remain

Drawing Revisions

Rev:	Drn:	Date:	Details	Chk:
-	IP	12/02/2019	First issue	TW
A	ZM	03/07/2020	Revised drawing	TW
B	ZM	16/11/2020	Inclusion of segregated cycleway	TW
C	DC	09/12/2020	Updated Cycleway and Car Park Layout	TW

Client
Persimmon Homes Ltd
(Thames Valley)

Project
Land North West of Goring Station, Goring by Sea

Title
Proposed Access Strategy

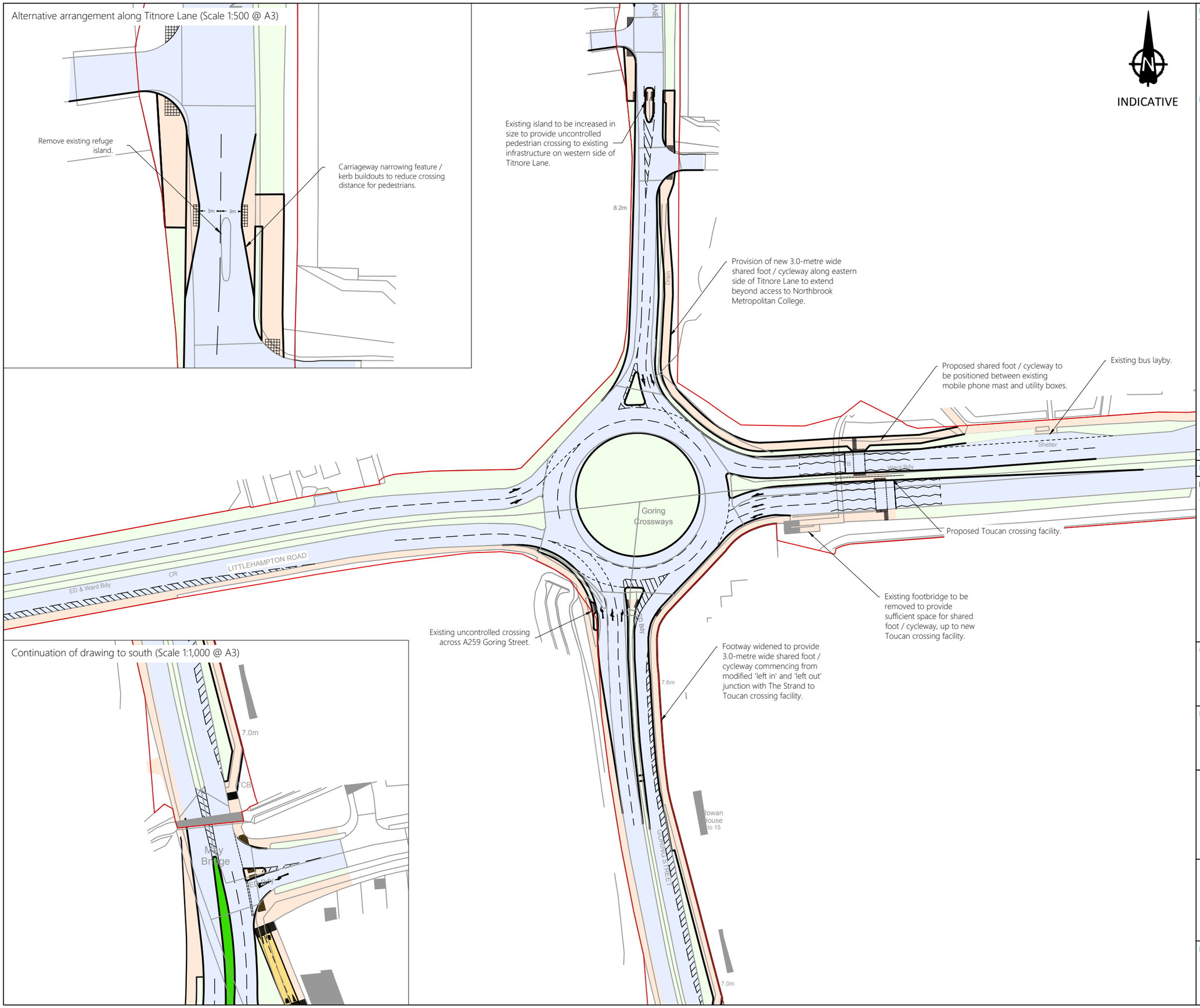
MILESTONE TRANSPORT PLANNING
7 Wey Court, Mary Road, Guildford, Surrey, GU1 4QU Tel: 01483 397888
Gateshead IBC, Mulgrave Terrace, Gateshead, NE8 1AN Tel: 0191 338 7220
web: www.milestonetp.co.uk

Drawing Number:
18122-001

Scale:
1,000 @ A3

Revision:
C

Alternative arrangement along Titnore Lane (Scale 1:500 @ A3)



Continuation of drawing to south (Scale 1:1,000 @ A3)

INDICATIVE

Notes

1. Do not scale from this drawing. All dimensions shown are in metres unless noted otherwise.

Key

- Carriageway
- Shared Foot / Cycleway
- Verge
- Existing Highway Boundary
- Proposed Pedestrian Guard railing

Drawing Revisions

Rev:	Drn:	Date:	Details	Chk:
-	OH	06/04/2021	First issue	TW

Client

Persimmon Homes Ltd (Thames Valley)

Project

Land North West of Goring Station, Goring by Sea

Title

Proposed Pedestrian and Cycle Enhancements

MILESTONE TRANSPORT PLANNING
Abbey House, 282 Farnborough Rd, Farnborough, Hants GU14 7NA
Tel: 01483 397888
Gateshead IBC, Mulgrave Terrace, Gateshead, NE8 1AN
Tel: 0191 338 7220
web: www.milestonetp.co.uk

Drawing Number: 18122/006

Scale: 1:1,250 @ A3

Revision: -

INDICATIVE

PROW Footpath (No. 2139)

PROW Bridleway (No. 2135)

Proposed link compromised of asphalt surfacing.

Upgrade surface of PROW (Path No. 2121_1) to asphalt (to be agreed with WSCC's PRoW Officer).

PROW Footpath (No. 2121_1)

PROW Footpath (No. 2121)

LITTLEHAMPTON ROAD

Notes

1. Do not scale from this drawing. All dimensions shown are in metres unless noted otherwise.
2. This drawing has been based upon topographical survey information produced by others and Milestone Transport Planning cannot be held responsible for any discrepancies which may arise because of it.

Key

- Existing Bridleway (PROW)
- Existing Footpath (PROW)
- Principal Vehicular Route (as per Drawing No. CMP-02 by Thrive Architects)
- Existing Off-Carriageway Shared Pedestrian / Cycle Link
- Existing On-Carriageway Cycle Lane (route recommended for pedal cycles on the main carriageway of a road)
- Proposed Pedestrian / Cycle Link

Drawing Revisions

Rev:	Drn:	Date:	Details	Chk:
-	ZM	24/09/2020	First issue	TW
A	OH	03/03/2021	Amended text	TW

Client

Persimmon Homes Ltd (Thames Valley)

Project

Land North West of Goring Station, Goring by Sea

Title

Proposed Pedestrian / Cycle Link

MILESTONE TRANSPORT PLANNING
Abbey House, 282 Farnborough Rd, Farnborough, Hants GU14 7NA
Tel: 01483 397888
Gateshead IBC, Mulgrave Terrace, Gateshead, NE8 1AN
Tel: 0191 338 7220
web: www.milestonetp.co.uk

Drawing Number: 18122 / SK11

Scale: 1:1,250 @ A1

Revision: A