



Technical Note

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Land West of the Havant Crematorium, Bartons Road

17-055-009 Rev -

Response to Highway Authority's Comments 09 July 2019

July 2019

Rev	Issue Purpose	Author	Checked	Reviewed	Approved	Date
-	Approval	PL	SW	SW	GAC	18/07/19

1 Introduction

1.1 Introduction

- 1.1.1 Charles & Associates Consulting Engineers Ltd (C&A) submitted a Technical Note (ref 17-055-007) dated May 2019 to Hampshire County Council (HCC) as the local highway authority (LHA) addressing the concerns previously raised by them and providing additional information as requested in relation to the outline planning application known as Land West of Havant Crematorium, Bartons Road (Ref: APP/18/01072).
- 1.1.2 Subsequently, the LHA provided an informal response (via email dated 09 July 2019) confirming that a number of the outstanding matters had been resolved whilst also requesting some further work and amendments. For completeness, the LHA's response is provided in **Appendix A**.
- 1.1.3 This Technical Note (TN) seeks to address any outstanding highways and transport matters relating to the application as per the LHA's latest response. To get a full understanding of the context, reference should be made to the previously submitted Transport Assessment (ref: 17-055-002) and TN.

2 Site Access Arrangements

2.1 Primary Site Access

2.1.1 The LHA requested that the visibility for the primary site access in the vertical plane was shown on a plan to confirm that the visibility is achievable.

2.1.2 **Drawing 17-055-045** has been prepared to demonstrate the above.

2.2 Emergency Access

2.2.1 The LHA requested that the emergency access visibility splay be revised from 90m to 120m based on the 40mph speed limit on Bartons Road.

2.2.2 The Proposed Site Access and Emergency Access drawing (**Drawing 17-055-011**) has been revised to show the 120m visibility splays from the emergency access. The drawing has also been amended to show a 3m wide shared footway/cycleway and 0.5m wide grass strip between the shared footway/cycleway and the carriageway.

2.2.3 **Drawing No. 17-055-043** has also been revised to show that the updated 120m visibility splays from the emergency access can be achieved in the vertical plane.

3 Junction Modelling

3.1 Bartons Road/Petersfield Road Signalised Junction

3.1.1 HCC comment:

"This junction has previously been assessed as part of local developments in the area and is known to be sensitive to small variations in the measured length of the left turn lane flare. The junction has been modelled within your assessment with a flare of 24m (4 PCU's). The left turn lane should actually be measured at 18m (3 PCU's) which has been requested through previous appraisals of the junction. This change should be reflected within an updated model with outputs provided for review."

3.1.2 In response the left turn lane length has been changed to 18m (3 PCUs) in the junction model. The capacity assessment has been rerun using the revised model and the results of this are discussed below with the full LinSig output reports provided in **Appendix B**. It is to be noted that the traffic flows have not changed.

3.1.3 The model has been run for the forecast year in the following scenarios:

- 2023 Baseline (committed developments included);
- 2023 Baseline + Proposed Development (72 Dwellings); and

- 2023 Baseline + Sensitivity Test (150 Dwellings).

3.1.4 It should be noted that the sensitivity test (150 dwellings) has been provided for information only and the application should be considered based upon the impact of the proposed development of 72 dwellings.

3.1.5 The following **Table 3.1** summarises the capacity assessment results for 2023 Baseline scenario.

Table 3.1: 2023 Baseline Results

Arm	AM Peak			PM Peak		
	DoS (%)	Queue (pcu)	Delay (seconds)	DoS (%)	Queue (pcu)	Delay (seconds)
Petersfield Road (N) Left Ahead	88.4	17.8	46.4	91.4	14.4	68.9
Bartons Road	90.9	13.4	48.0	91.0	15.1	37.1
Petersfield Road (S) Ahead	22.8	2.7	5.5	45.1	7.5	12.2
Petersfield Road (S) Right	88.6	14.3	57.3	88.7	14.4	57.6

3.1.6 The model outputs indicate that in the 2023 Baseline scenario the junction will operate slightly over the theoretical capacity with maximum DoS of 90.9% and 91.4% and the maximum queues of 19 and 15 pcus in the AM and PM peak hours respectively. These demonstrate that the junction will start to some experience congestion even without the proposed development.

3.1.7 The following **Table 3.2** summarises the capacity assessment results for 2023 Baseline + proposed development of 72 dwellings.

Table 3.2: 2023 Baseline + Development (72 Dwellings) Results

Arm	AM Peak			PM Peak		
	DoS (%)	Queue (pcu)	Delay (seconds)	DoS (%)	Queue (pcu)	Delay (seconds)
Petersfield Road (N) Left Ahead	91.4	19.1	53.5	92.1	14.8	71.2
Bartons Road	90.7	13.4	46.5	91.6	15.5	38.4
Petersfield Road (S) Ahead	23.1	2.9	5.8	45.1	7.5	12.2
Petersfield Road (S) Right	89.3	14.7	58.9	90.5	15.3	61.7

3.1.8 The model indicates that the proposed development will have negligible impact on the operation of the junction. The resulting maximum DoS are 91.4% and 92.1% in the AM and PM peak hours respectively which are less than a 1% increase compared to the baseline scenario. The development would also result in a maximum increase in queues of 1 pcu only in both the peak hours and a maximum increase in average delays per pcu by 7 and 4 seconds in the AM and PM peak hours respectively.

3.1.9 The following Table 3.3 summarises the capacity assessment results for 2023 Baseline with sensitivity test scenario.

Table 3.3: 2023 Baseline + Sensitivity Test (150 Dwellings) Results

Arm	AM Peak			PM Peak		
	DoS (%)	Queue (pcu)	Delay (seconds)	DoS (%)	Queue (pcu)	Delay (seconds)
Petersfield Road (N) Left Ahead	91.5	19.2	53.8	92.7	15.1	73.0
Bartons Road	93.4	15.1	54.0	92.6	16.3	40.9
Petersfield Road (S) Ahead	23.1	2.9	5.8	45.1	7.5	12.2
Petersfield Road (S) Right	90.1	15.1	60.7	92.2	16.3	66.6

3.1.10 The model indicates that with the development of additional 78 dwellings (total 150 dwellings), the maximum DoS in the AM peak will increase by 2.5% to 93.4% and in the PM peak by 1.3% to 92.7% compared to the baselines. The corresponding maximum increase in queues would be 2 pcus in both the peak hours and the maximum increase in average delays per pcu would be 7 seconds in Bartons Road and 9 seconds in Petersfield Road Right Turn Lane in the AM and PM peak hours respectively. These outputs demonstrate that even with increased development of 150 dwellings, the relative impact in terms of queues and delays are anticipated to be minimal and within the general daily variation of traffic.

3.1.11 Given the above, it is considered that neither the proposed development of up to 72 dwellings, or the sensitivity test which represents the potential future development of additional 78 dwellings on the land to the north of the proposed site, would have a material impact on the operation of the junction; nor would it be considered to have a severe impact in accordance with the National Planning Policy Framework (NPPF).

3.2 Bartons Road/Horndean Road/Emsworth Common Road/Comley Hill Staggered Junction

3.2.1 HCC comment:

“The model files have been reviewed and the following geometric amendments should be made: the width of the carriageway for the major arms should not include elements of the minor arm carriageways, the visibility on Bartons Road is overestimated due to the presence of vegetation, the right turn bay stacking capacity is not considered in the model which ignores the fact that queuing greater than the stacking capacity on the right turn bay will block major arm through-traffic.”

- 3.2.2 The junction model has been amended as per the above comments and rerun for the scenarios as discussed above. The capacity assessment results are summarised below and full PICADY output report provided in **Appendix C**. It should be noted that the model takes account of the two-lane approach on Bartons Road as proposed by Land South of Bartons Road development.
- 3.2.3 The following **Table 3.4** summarises the capacity assessment results for 2023 Baseline scenario.

Table 3.4: 2023 Baseline Results

Arm	AM Peak			PM Peak		
	RFC	Queue (pcu)	Delay (seconds)	RFC	Queue (pcu)	Delay (seconds)
Bartons Road Left Turn	0.18	0.2	10.42	0.26	0.3	11.44
Bartons Road Right Turn	1.34	74.1	625.50	1.05	19.1	165.95
Horndean Road Right Turn	0.22	0.3	10.30	0.04	0.0	7.64
Emsworth Common Road Left Turn	0.07	0.1	14.45	1.11	4.3	424.58
Emsworth Common Road Right Turn	0.78	3.1	43.66	1.11	30.7	222.13
Comley Hill Right Turn	0.24	0.3	9.51	0.20	0.3	9.75

- 3.2.4 The model indicates that the junction will operate over its theoretical capacity in 2023 without the proposed development with an RFC of 1.34 in Bartons Road Right Turn lane in the AM peak and RFCs of 1.11 in Emsworth Common Road left and right turn lanes. The junction will experience maximum queues of up to 74 pcu in the AM peak and 31 pcu in the PM peak. Although it must be noted that PICADY is not able to realistically model the operation of the junction once it exceeds its theoretical capacity and therefore RFCs and queues have a tendency to increase exponentially. As such, after the theoretical capacity of a junction is reached, the outputs should be taken as indicative rather than representative.

3.2.5 The following **Table 3.5** summarises the capacity assessment results for 2023 Baseline with proposed development of 72 dwellings.

Table 3.5: 2023 Baseline + 72 Dwellings Results

Arm	AM Peak			PM Peak		
	RFC	Queue (pcu)	Delay (seconds)	RFC	Queue (pcu)	Delay (seconds)
Bartons Road Left Turn	0.19	0.2	10.55	0.26	0.3	11.53
Bartons Road Right Turn	1.34	75.8	640.72	1.06	20.0	172.14
Horndean Road Right Turn	0.22	0.3	10.34	0.04	0.0	7.65
Emsworth Common Road Left Turn	0.07	0.1	14.60	1.12	4.3	428.95
Emsworth Common Road Right Turn	0.78	3.2	44.11	1.12	31.4	226.39
Comley Hill Right Turn	0.24	0.3	9.53	0.21	0.3	9.86

3.2.6 The model outputs indicate that the proposed development of 72 dwellings will marginally increase the RFCs on Bartons Road and Emsworth Common Road in both the AM and PM peaks compared to the baseline scenario. The development will result in minimal increases in both queues and delays and is therefore considered to have a negligible impact on the operation of the junction relative to the 2023 Baseline.

3.2.7 The following **Table 3.6** summarises the capacity assessment results for 2023 Baseline with sensitivity test scenario.

Table 3.6: 2023 Baseline + Sensitivity Test (150 Dwellings) Results

Arm	AM Peak			PM Peak		
	RFC	Queue (pcu)	Delay (seconds)	RFC	Queue (pcu)	Delay (seconds)
Bartons Road Left Turn	0.20	0.3	10.69	0.27	0.4	11.63
Bartons Road Right Turn	1.36	78.8	665.76	1.07	21.1	182.75
Horndean Road Right Turn	0.22	0.3	10.41	0.04	0.0	7.67
Emsworth Common Road Left Turn	0.08	0.1	15.03	1.12	4.4	437.68

Arm	AM Peak			PM Peak		
	RFC	Queue (pcu)	Delay (seconds)	RFC	Queue (pcu)	Delay (seconds)
Emsworth Common Road Right Turn	0.78	3.3	45.31	1.12	32.8	234.90
Comley Hill Right Turn	0.25	0.3	9.60	0.22	0.3	10.02

- 3.2.8 The model outputs indicate that the impact of development of additional 78 dwellings (150 in total) would also be immaterial on the operation of the junction relative to the baseline conditions. The junction is anticipated to operate with maximum RFCs of 1.36 in Bartons Road right turn lane and 1.12 in Emsworth Common right turn lane in the AM and PM peak respectively, increases of 0.02% and 0.01%. The resulting increases in queues are 5 and 2 pcus and delays are 40 and 13 seconds in the AM and PM peak hours respectively.
- 3.2.9 Although it is acknowledged that this junction will be operating above its theoretical capacity in 2023, this is considered to be an existing issue. The level of impact due to the traffic generated from the proposed development represents an immaterial impact on this junction. The proposed development of 72 dwellings would add less than 0.5% of the total forecast traffic at the junction (an additional 8 two-way movements in AM and PM peak hours). Furthermore, development of 150 dwellings, which includes the potential development of additional 78 dwellings on land to the north, would only add an additional 1% of the total forecast traffic at this junction (additional 18 two-way movements in AM and PM peak hours).
- 3.2.10 Given the above, it is considered that neither scenario would have a severe impact on the operation of this junction in accordance to the NPPF.

4 Travel Plan

4.1 Update to the Framework Travel Plan

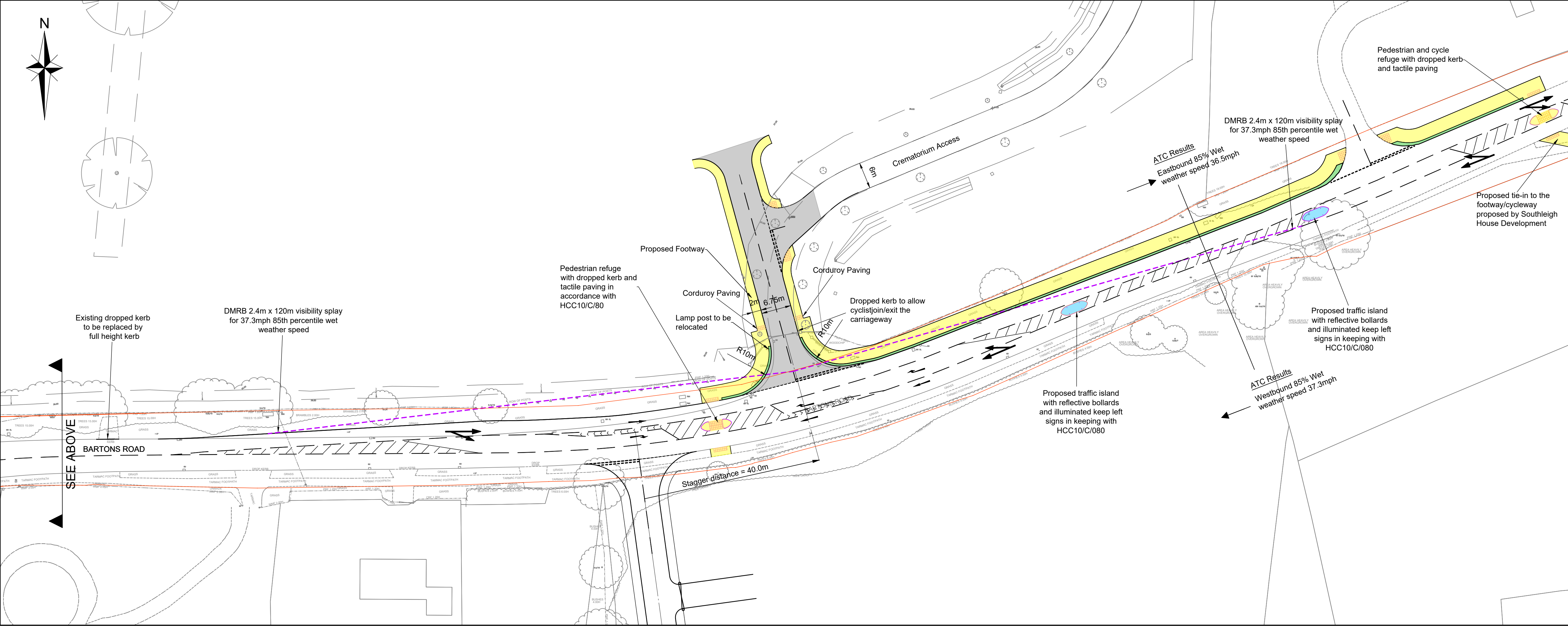
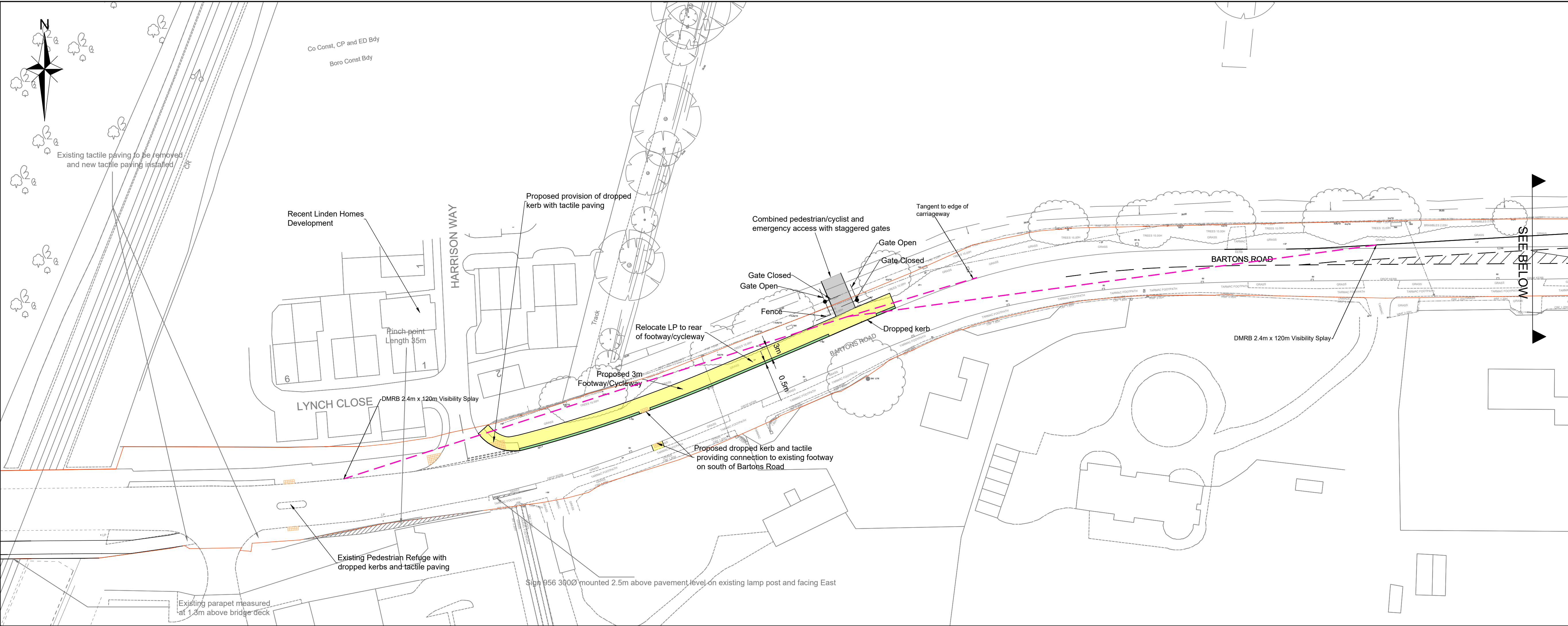
- 4.1.1 The comments with regards to the Framework Travel Plan (FTP) have been reviewed carefully and it is considered given the outline nature of the planning application that details on some of these are not currently essential for the purposes of this FTP; nor have they been fully established at this stage.

- 4.1.2 Additionally, in the context of the applicant being a land-owning farmer with the intention of selling on to a developer, it is considered that the majority of these issues would more appropriately be dealt with by a developer, who would be required to prepare the details for the TP such as appointment of Travel Plan Coordinator, travel incentives, promotion events, etc. during detailed application stage with a Full TP. It is suggested that this could be dealt with by condition.
- 4.1.3 Nonetheless, the FTP has been updated with all of the information considered necessary for an outline application, and as requested, the cover sheet has been updated setting out how the outstanding issues could be addressed at a later stage. Both of these are provided on **Appendix D**.

5 Summary

- 5.1.1 This Technical Note provides further information requested by the HCC, as the local highway authority, and seeks to address the outstanding matters with regards to this application.
- 5.1.2 Additional information or clarification has been provided in this note where requested and it has also been demonstrated that the development proposals would not have a material impact at the junctions identified incorporating the requested changes to modelling input parameters.
- 5.1.3 Following this, it is anticipated that the provision of this further information will satisfy the LHA's requirements and resolve the outstanding highways and transport matters that should lead to any objection to the proposed development.

Drawings



NOTES

KEY

Note1 : The proposed layout assumes prior implementation of the access arrangements as approved for planning application (APP/15/01435) in drawing 14-018-002 and cycle provision improvements as shown in drawing 14-018-015.

Proposed 2m Footway and 3m Footway/Cycleway

Proposed Carriageway

Proposed Traffic Island

Proposed 0.5m Strip between Carriageway and Shared Footway/Cycleway

Highway Boundary

J

Emergency access visibility splay amended.

DK

SAC

SAC

July 19

I

Amended as per HCC comments.

DK

SAC

SAC

May 18

H

Job title and client amended.

PL

SAC

SAC

Nov 18

G

Minor amendments.

PL

SAC

SAC

Oct 18

F

Amended to suit the latest masterplan.

PL

SAC

SAC

Oct 18

E

DMRB 2.4m x 120m visibility splay provided.

PL

TMS

SAC

Sep 18

D

Access narrowed to 5.5m.

PL

TMS

SAC

Aug 18

C

Text amended.

PL

TMS

SAC

July 18

B

Pedestrian crossing revised. Emergency access relocated.

PL

TMS

SAC

June 18

A

Minor amendments

DK

TMS

SAC

May 18

Rev

Amendments

Dm

Chk

App

Date

GA

Consulting Engineers Ltd

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Park Farm
East Malling Trust Estate
Bradbourne Lane
Aylesford
Kent
ME20 4BN
01732 448120

Job Title

Land West of Havant Crematorium
Bartons Road, Havant

Drawing Title

Proposed Site Access and
Emergency Access

Client

White Farming Limited

Scale

1:500@A1

Date

Apr 18

Designed

PL

Drawn

PL

Checked

TMS

Approved

GAC

Job No

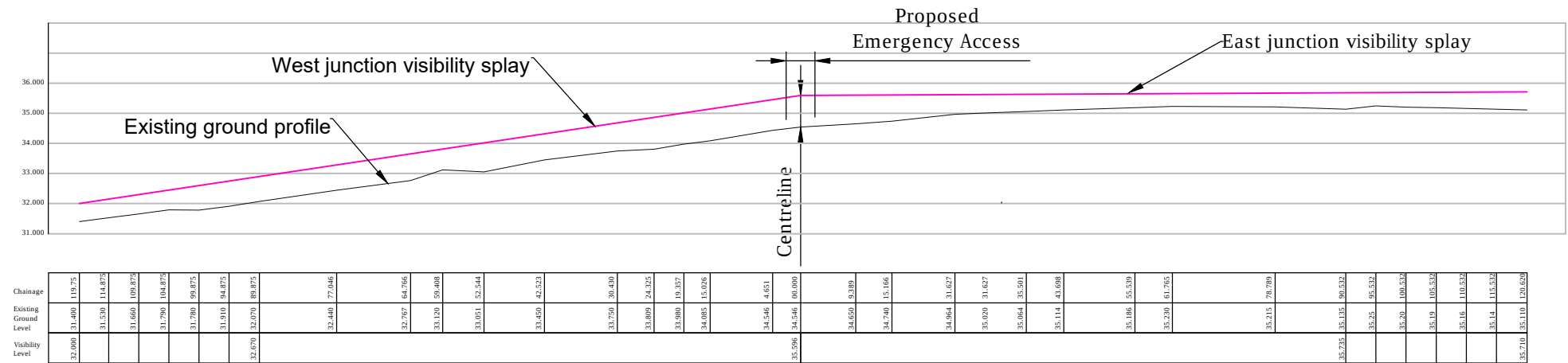
17-055

Drawing No

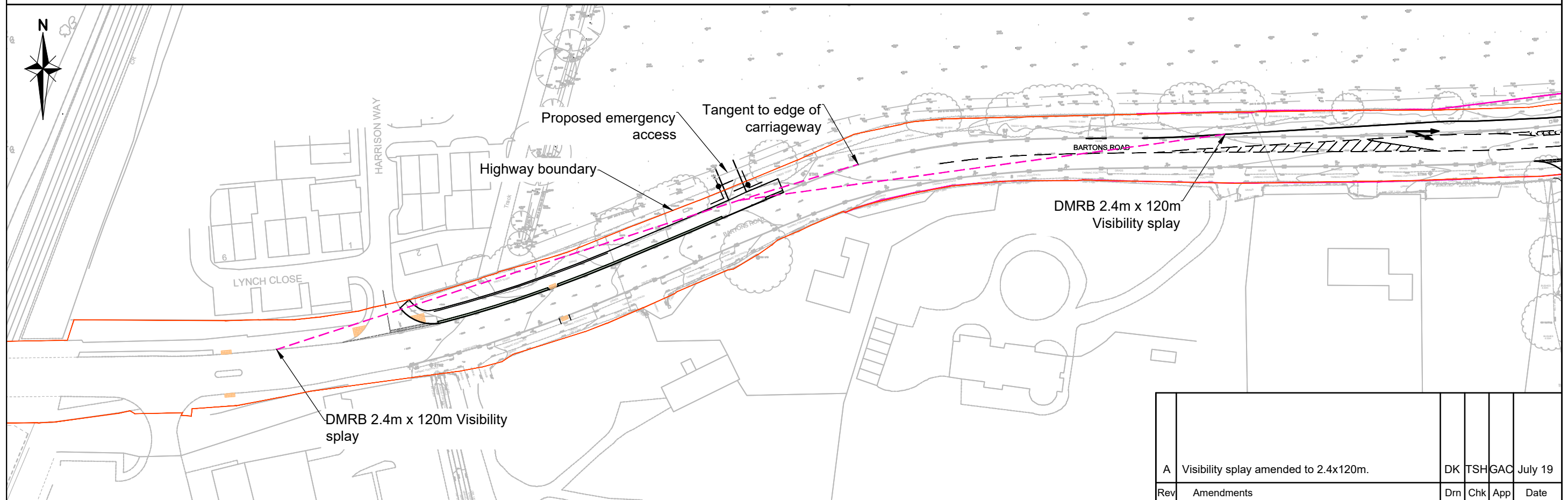
17-055-011

Rev

J



Section through emergency access visibility splay
Scale: Horizontal 1:500
Vertical 1:100



**Charles & Associates**

☒ Issued by
☐ Park House, Park Farm
East Malling Trust Estate
Bradbourne Lane
Aylesford Kent ME20 6SN
01732 448120

Landmark House
Station Road
Hook
Hampshire
RG27 9HA
01256 630420

Job Title

Land West of Havant Crematorium
Bartons Road, Havant

Drawing Title

Emergency Access Visibility
Splay Section

Client

White Farming
Limited

Scale
1:500 @A3

Drawn
DK

Job No
17-055

Date
May 19

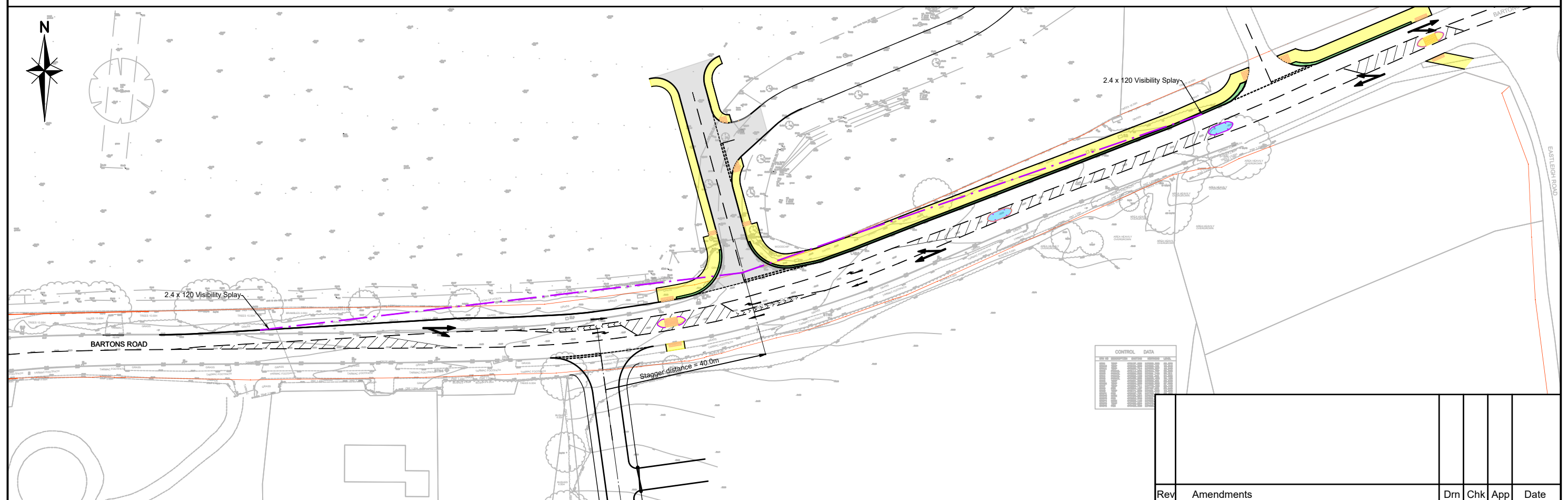
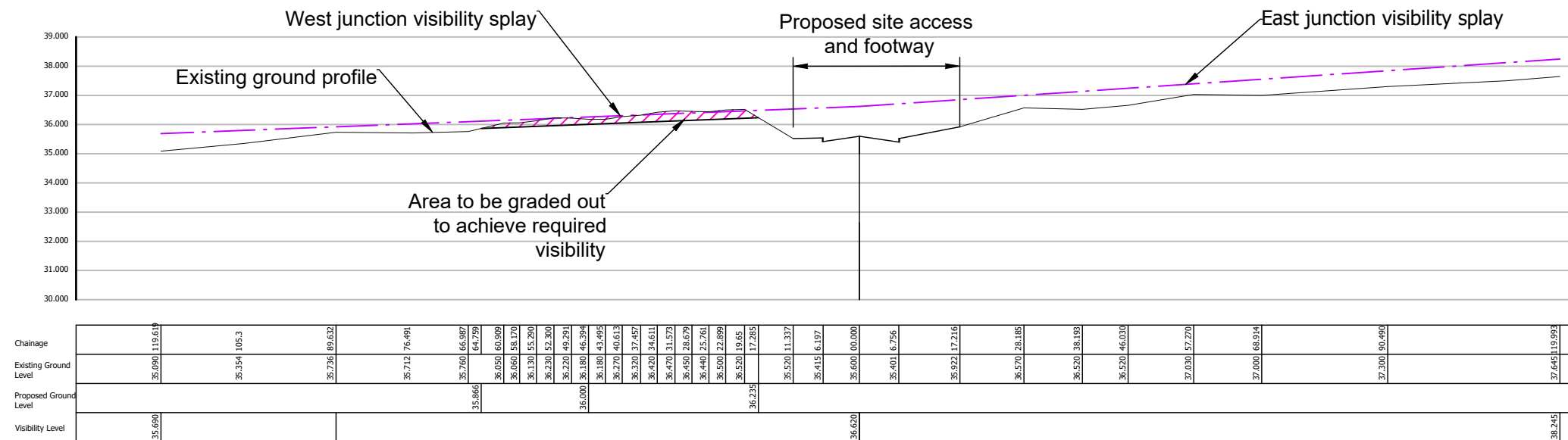
Checked
TSH

Drawing No
17-055-043

Designed
N/A

Approved
GAC

Rev
A



Charles & Associates Issued by ☒ Landmark House Station Road Hook Hampshire RG27 9HA 01256 630420 ☐ Park House, Park Farm East Malling Trust Estate Bradbourne Lane Aylesford Kent ME20 6SN 01732 448120	Job Title Land West of Havant Crematorium Bartons Road, Havant	Client White Farming Limited	Scale 1:500 @A3	Date May 19	Designed N/A
	Drawing Title Proposed Vehicular Access Visibility Splay Section		Drawn DK	Checked TSH	Approved GAC
			Job No 17-055	Drawing No 17-055-045	Rev -

Appendix A Highway Authority's Response (09 July 2019)

Dear Prabin, Glenn,

I have been reviewing the Technical Note you have recently submitted in reply to HCC's formal response to planning ref (APP/19/00007).

Following this review, a number of the outstanding matters have now been resolved. There are a couple of points which will require some further work and I am contacting you to discuss these amendments ahead of issuing a follow up response to the planning authority. I have spoken to the planning officer about this approach and he is happy for us to resolve outstanding matters before the response is issued – I've copied him into this email for information.

I've created a list of the points addressed in your TN below, including those which are now resolved and those which require further work:

- Site Access Arrangements – The shared use provision from the east of the site access is, in principle, considered acceptable and should be delivered via a S278 agreement with the Highway Authority. Similarly, the revised tracking undertaken has been reviewed and considered principally acceptable, although these are subject to change following the implementation of the Land South of Bartons Road access arrangement. Amended tracking/tweaks to the access can be picked up as part of the S278 process. Please can you also show the visibility for the primary access in the vertical plane on a plan to confirm that the vis is achievable.

Visibility to the left of the emergency access has only been demonstrated at 2.4m x 90m, this should be shown to 120m to reflect the visibility demonstrated to the right (commensurate with the 40mph speed limit on Bartons Road). The cycleway to the west has been annotated at 3m, however it is only effectively 2.5m wide with a 0.5m strip against the carriageway. This should be reflected in an amended drawing. Finally, as the gates are within the highway there will be a commuted sum payment, these could be relocated to within the site to avoid this (assuming this access will remain private).

- Traffic Distribution – The further clarification provided around the distribution of traffic from the site is now considered acceptable along with the committed development used within the junction modelling scenarios.
- Revised PIA Data - It is not agreed with the conclusions drawn within the PIA analysis regarding the accident pattern at the Bartons Road/Horndean Road junction and Bartons/New Lane. However, HCC's SET have implemented/are looking to implement safety schemes to reduce the number of incidents at these locations and therefore no further action is required.
- Junction Modelling Results – The model files provided in your email below have now been checked. The majority were considered acceptable, however the following amendments are required:
 - Bartons Road/Petersfield Road Signal Junction – This junction has previously been assessed as part of local developments in the area and is known to be sensitive to small variations in the measured length of the left turn lane flare. The junction has been modelled within your assessment with a flare of 24m (4 PCU's). The left turn lane should actually be measured at 18m (3 PCU's) which has been

requested through previous appraisals of the junction. This change should be reflected within an updated model with the outputs provided for review.

- Bartons Road/Horndean Road/Emsworth Common Road/Comley Hill Staggered Junction – The model files has been reviewed and the following geometric amendments should be made: the width of the carriageway for the major arms should not include elements of the minor arm carriageways, the visibility on Bartons Road is overestimated due to the presence of vegetation, the right turn bay stacking capacity is not considered in the model which ignores the fact that queuing greater than the stacking capacity on the right turn bay will block major arm through-traffic.

With regards the model file, we have recently received a S278 submission to implement the site access and offsite improvements for the Land South of Bartons Road works. One of the improvements due to be delivered involves the increased flaring of the two lane approach to the Bartons Road/Horndean Road junction. With this a committed scheme, I'd suggest running your development traffic + committed development flows through an amended model to understand the operation of the junction with this improvement.

- Travel Plan – The updated Travel Plan has been reviewed. The following minor changes are required:

Background

It is noted that both the developer and the consultant are included. In addition, it is expected to include a comment from the developer with regards to their position on travel planning / sustainable travel. Previous examples have included:

- A previous development where sustainable travel has been encouraged successfully;
- A statement from the developer in support of this TP

Site Audit

- Inclusion of infrastructure at the closest bus stop and rail station, including but not limited to;
 - Type and quantity of cycle parking
 - Number of car parking spaces
 - Description of waiting areas and facilities
 - Other provisions which may increase the appeal of the relevant public transport

The infrastructure noted above has not been referenced. A summary of these facilities should be included in the site audit.

Measures

- It is noted in section 7.22 that further incentives are a “potential”, for example bus taster tickets and discounts to cycle shops. What do these depend on and why would they not be included as standard?

- It is noted that events will be “considered if necessary”, when would these be considered necessary?
- Will information on local BUGs be included within the welcome pack?

Role and Responsibilities

It is noted that a Travel Plan Coordinator will be appointed. This is welcomed and encouraged. In addition to this information, we would expect the following:

- Start date of the TPC. Previous plans have provided a rough estimate, such as “to be established at least 3 months before first occupation for the duration of the travel plan”. The start date not sufficiently precise.
- Statement addressing the duration of the TPC.
- A breakdown of the TPC’s resources including;
 - Number of hours the TPC will spend on the site per week.
- Commitment to provide HCC’s development planning team with the date of first occupation and the TPC details as and when they are appointed.

I trust the above is clear, however I am happy to discuss any of the points further should you require clarification.

Kind Regards,

Chris Hirst
Assistant Transport Planner
01962 846877
Chris.Hirst@hants.gov.uk

Highways Development Planning
Hampshire County Council
2nd Floor Elizabeth II Court West
The Castle Winchester SO23 8UD



Hampshire County Council operates a pre-application highway advice service for developers.
Hampshire County Council welcomes and encourages discussions before a developer submits a planning application. Please follow this link for further information
[Pre-Application guidance for developers](#)

Appendix B LinSig Output Report

Basic Results Summary

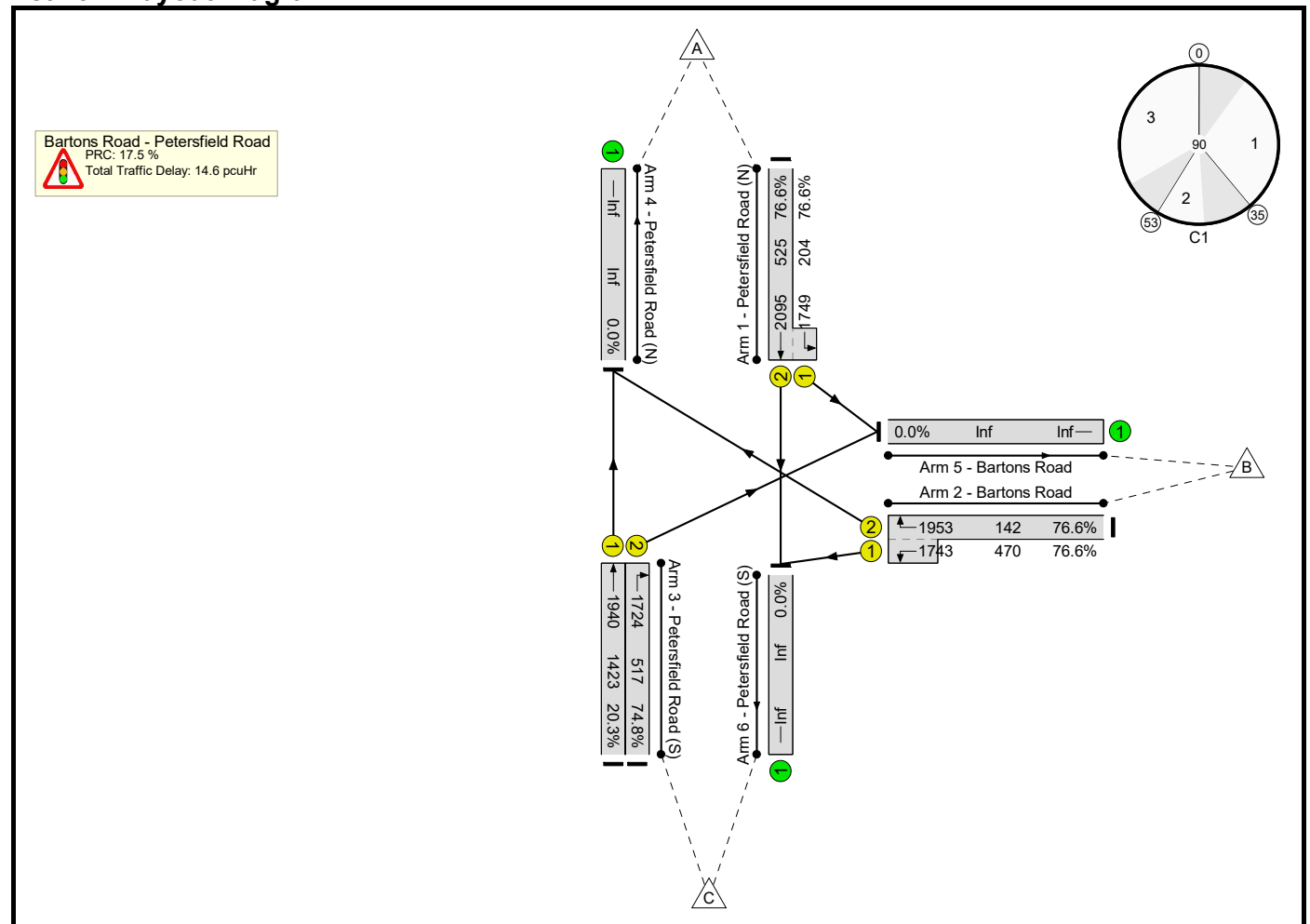
Basic Results Summary

User and Project Details

Project:	17-055 Camp Field
Title:	
Location:	
Design Layout Ref:	Existing Layout
Additional detail:	
File name:	2019-07-09 Bartons Road - Petersfield Road.lsg3x
Author:	TJMS
Company:	C&A
Address:	

Scenario 1: '2018 AM' (FG1: '2018 AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

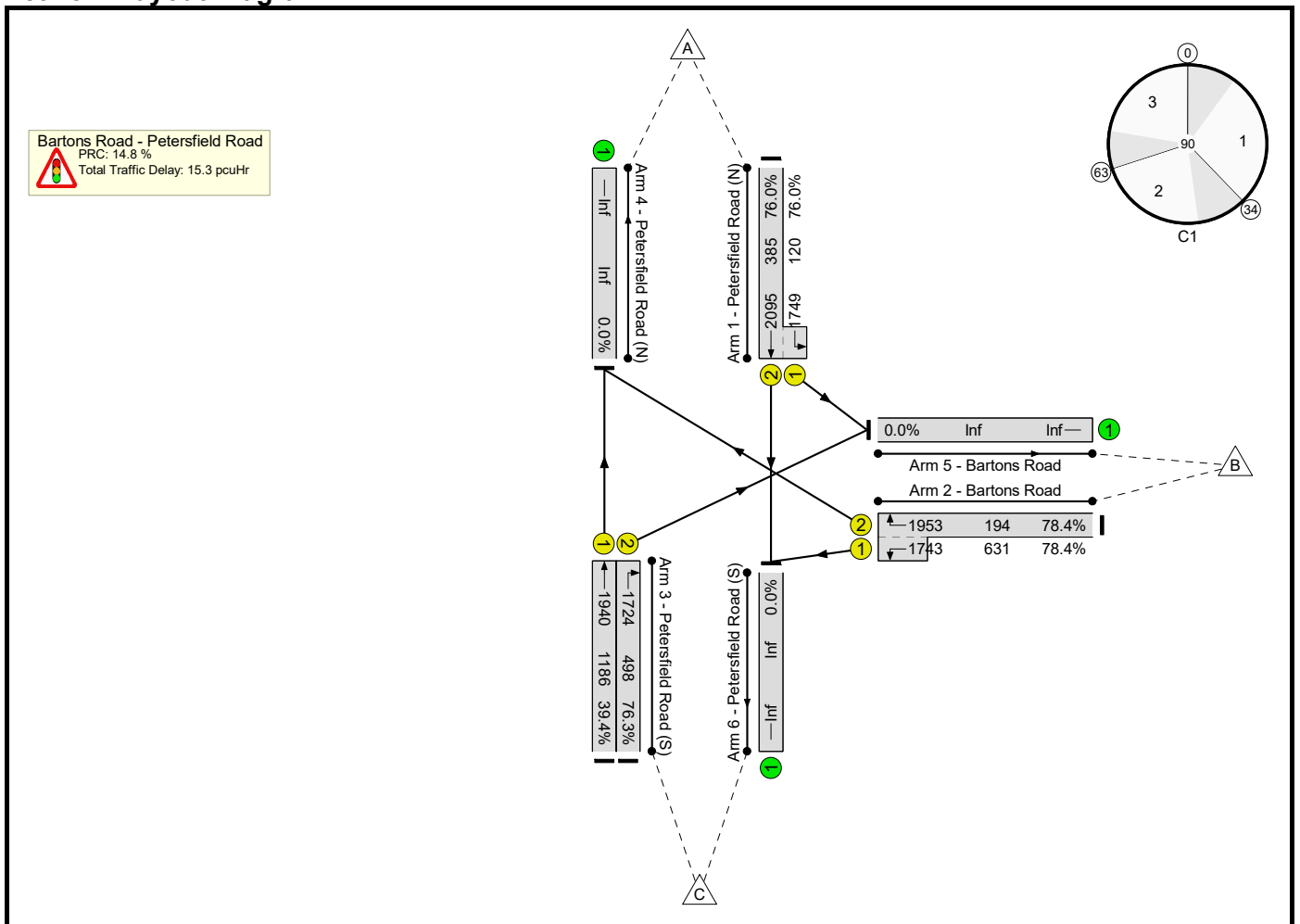
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	76.6%	0	0	0	14.6	-	-
Bartons Road - Petersfield Road	-	-	-		-	-	-	-	-	-	76.6%	0	0	0	14.6	-	-
1/2+1/1	Petersfield Road (N) Left Ahead	U	A C		1	30:35	-	558	2095:1749	525+204	76.6 : 76.6%	-	-	-	5.5	35.5	13.1
2/2+2/1	Bartons Road Right Left	U	B D		1	9:44	-	469	1953:1743	142+470	76.6 : 76.6%	-	-	-	4.2	32.0	8.2
3/1	Petersfield Road (S) Ahead	U	F		1	65	-	289	1940	1423	20.3%	-	-	-	0.4	5.4	2.4
3/2	Petersfield Road (S) Right	U	E		1	26	-	387	1724	517	74.8%	-	-	-	4.5	42.0	10.2
		C1	PRC for Signalled Lanes (%):		17.5		17.5		Total Delay for Signalled Lanes (pcuHr):		14.61		14.61		Cycle Time (s):		90
			PRC Over All Lanes (%):						Total Delay Over All Lanes(pcuHr):								

Basic Results Summary

Scenario 2: '2018 PM' (FG2: '2018 PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram

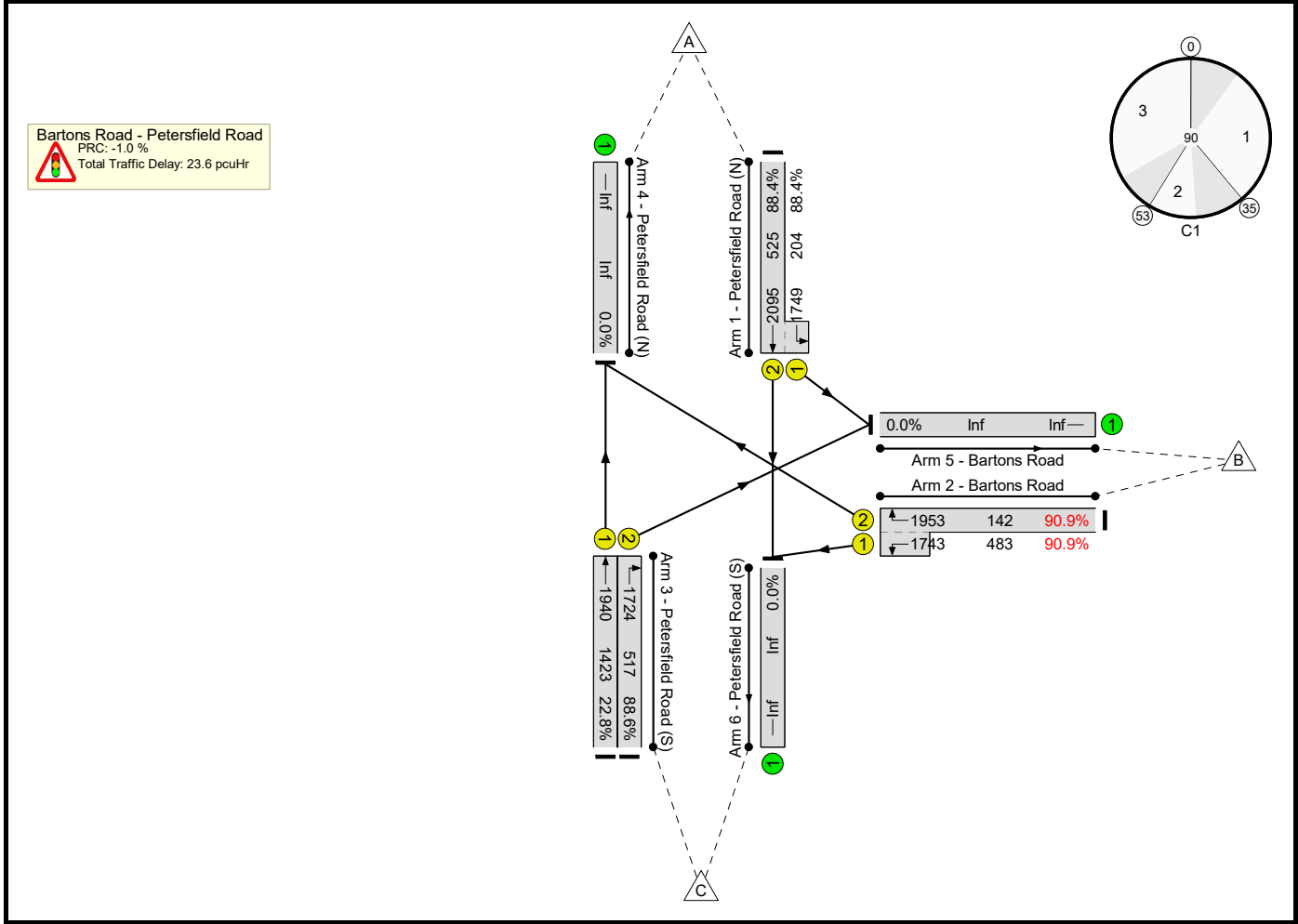


Basic Results Summary

Network Results

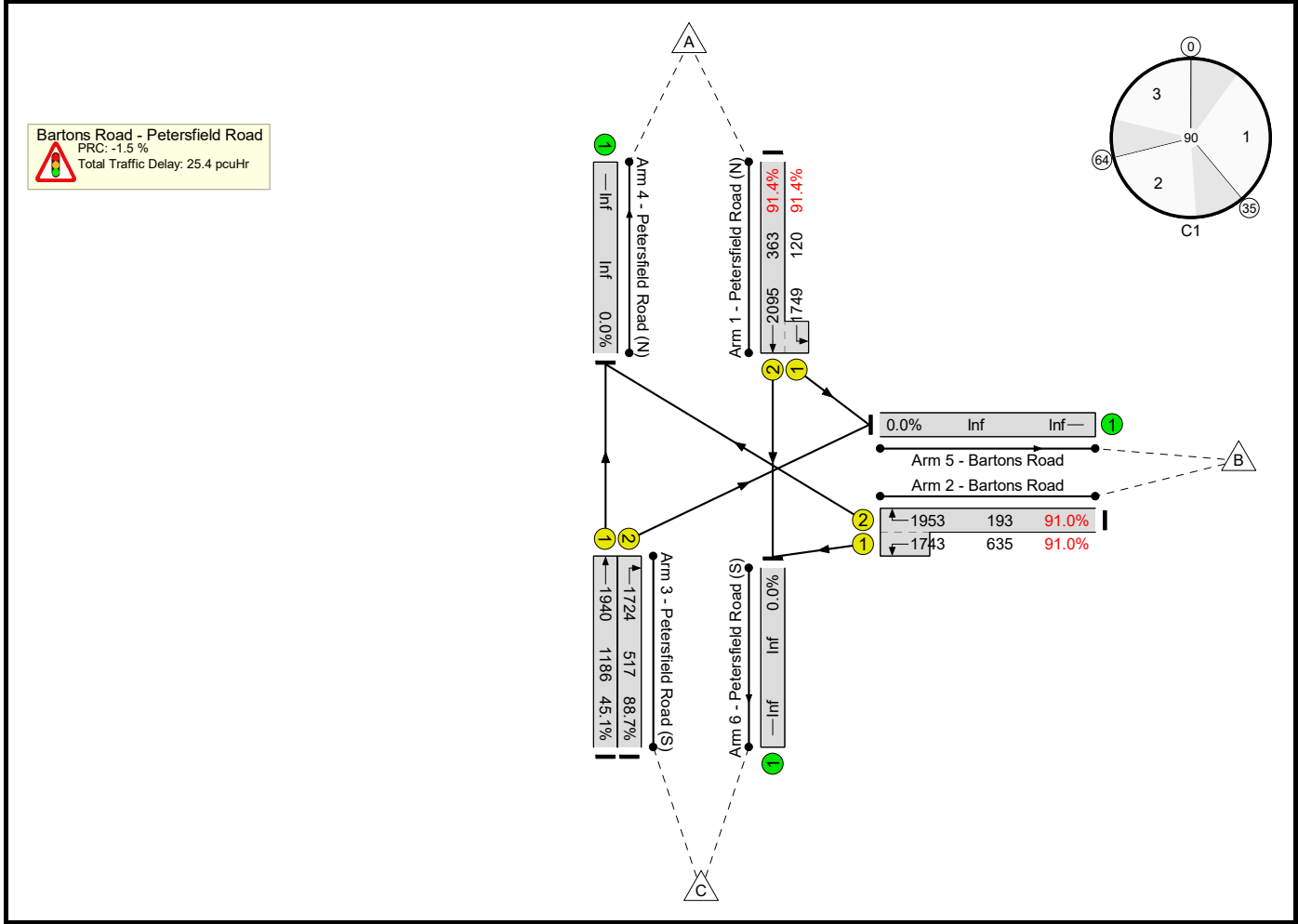
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	78.4%	0	0	0	15.3	-	-
Bartons Road - Petersfield Road	-	-	-		-	-	-	-	-	-	78.4%	0	0	0	15.3	-	-
1/2+1/1	Petersfield Road (N) Left Ahead	U	A C		1	20:25	-	384	2095:1749	385+120	76.0 : 76.0%	-	-	-	4.9	45.7	9.8
2/2+2/1	Bartons Road Right Left	U	B D		1	20:54	-	647	1953:1743	194+631	78.4 : 78.4%	-	-	-	4.3	24.1	10.0
3/1	Petersfield Road (S) Ahead	U	F		1	54	-	467	1940	1186	39.4%	-	-	-	1.5	11.5	6.3
3/2	Petersfield Road (S) Right	U	E		1	25	-	380	1724	498	76.3%	-	-	-	4.6	44.0	10.2
C1			PRC for Signalled Lanes (%):				14.8	Total Delay for Signalled Lanes (pcuHr):				15.34	Cycle Time (s):		90		
			PRC Over All Lanes (%):				14.8	Total Delay Over All Lanes(pcuHr):				15.34					

Network Layout Diagram



Network Results

Network Layout Diagram

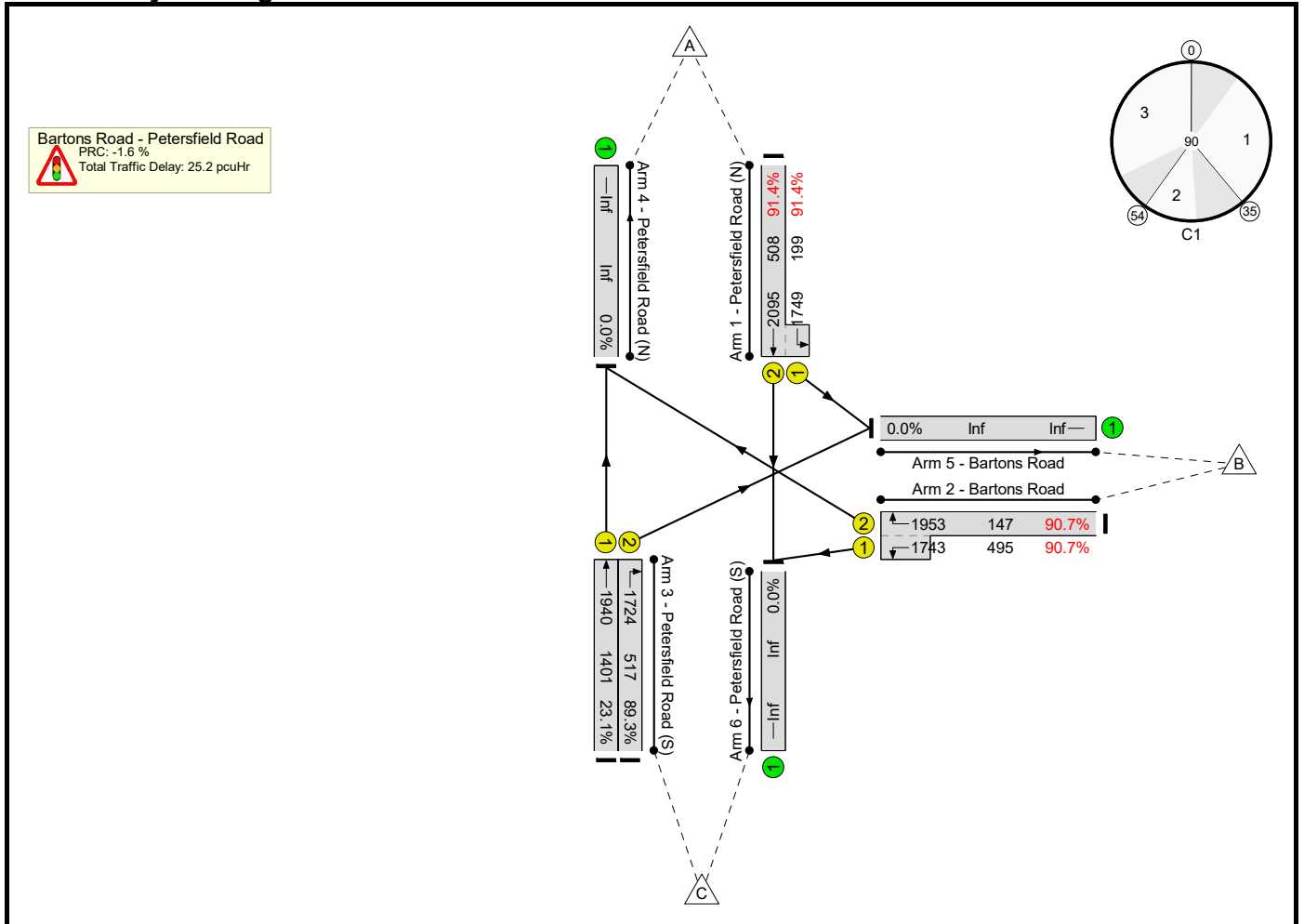


Network Results

Basic Results Summary

Scenario 5: '2023 Baseline + Development 72 Units AM' (FG5: '2023 + Committed + Dev AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram

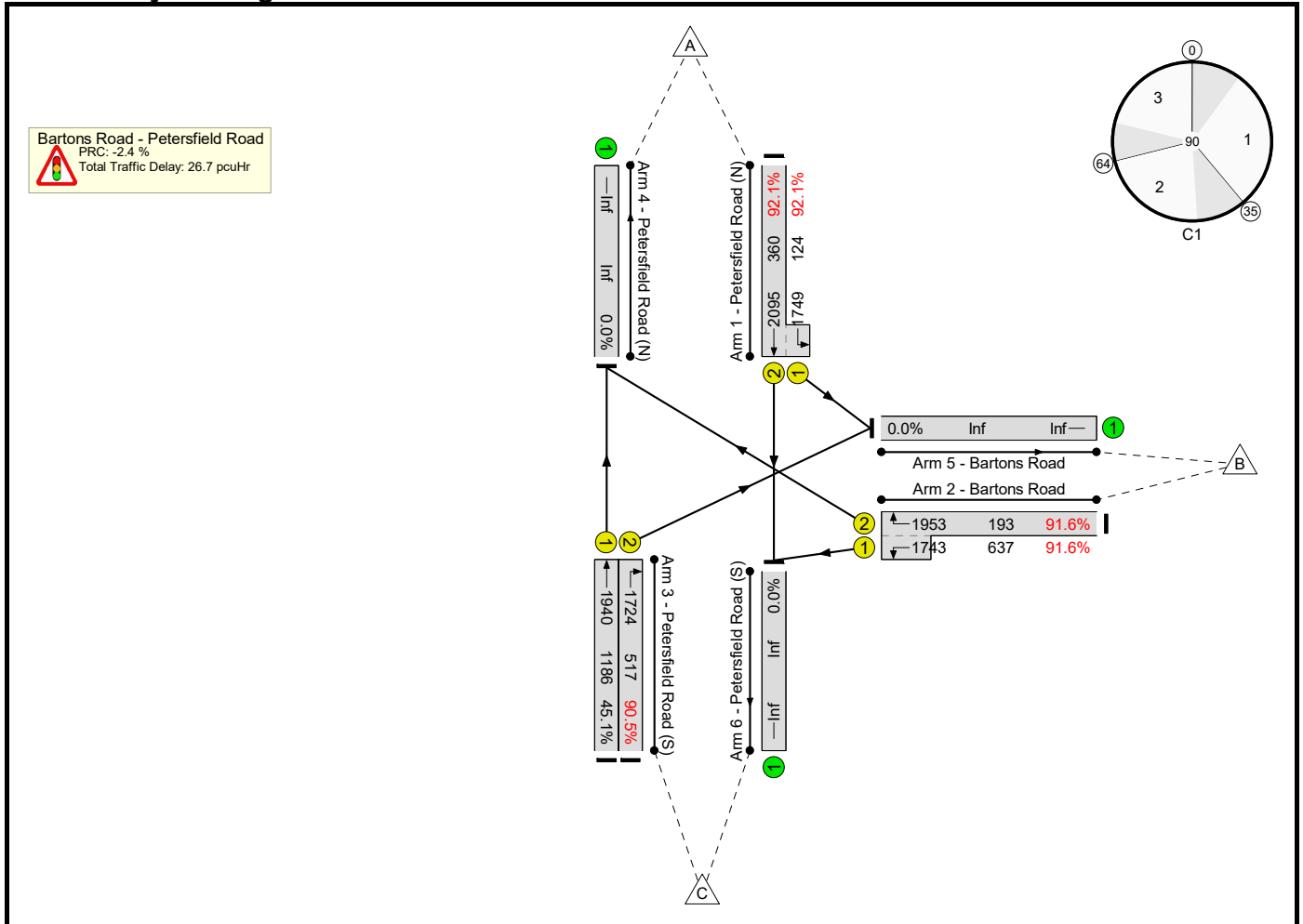


Network Results

Basic Results Summary

Scenario 6: '2023 Baseline + Development 72 Units PM' (FG6: '2023 + Committed + Dev PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram

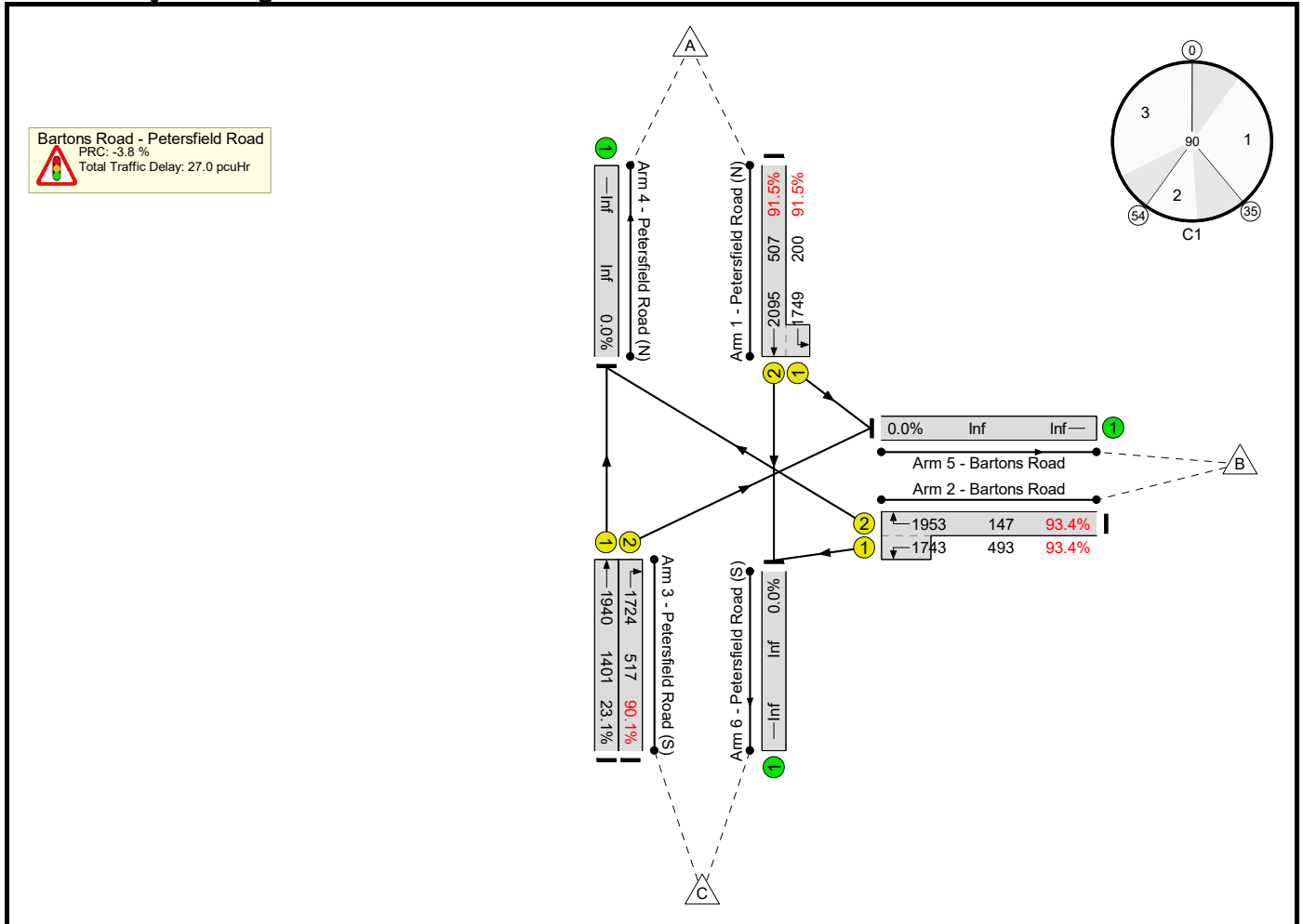


Network Results

Basic Results Summary

Scenario 7: '2023 Baseline + Sensitivity AM' (FG11: '2023 + Committed + Sensitivity AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram

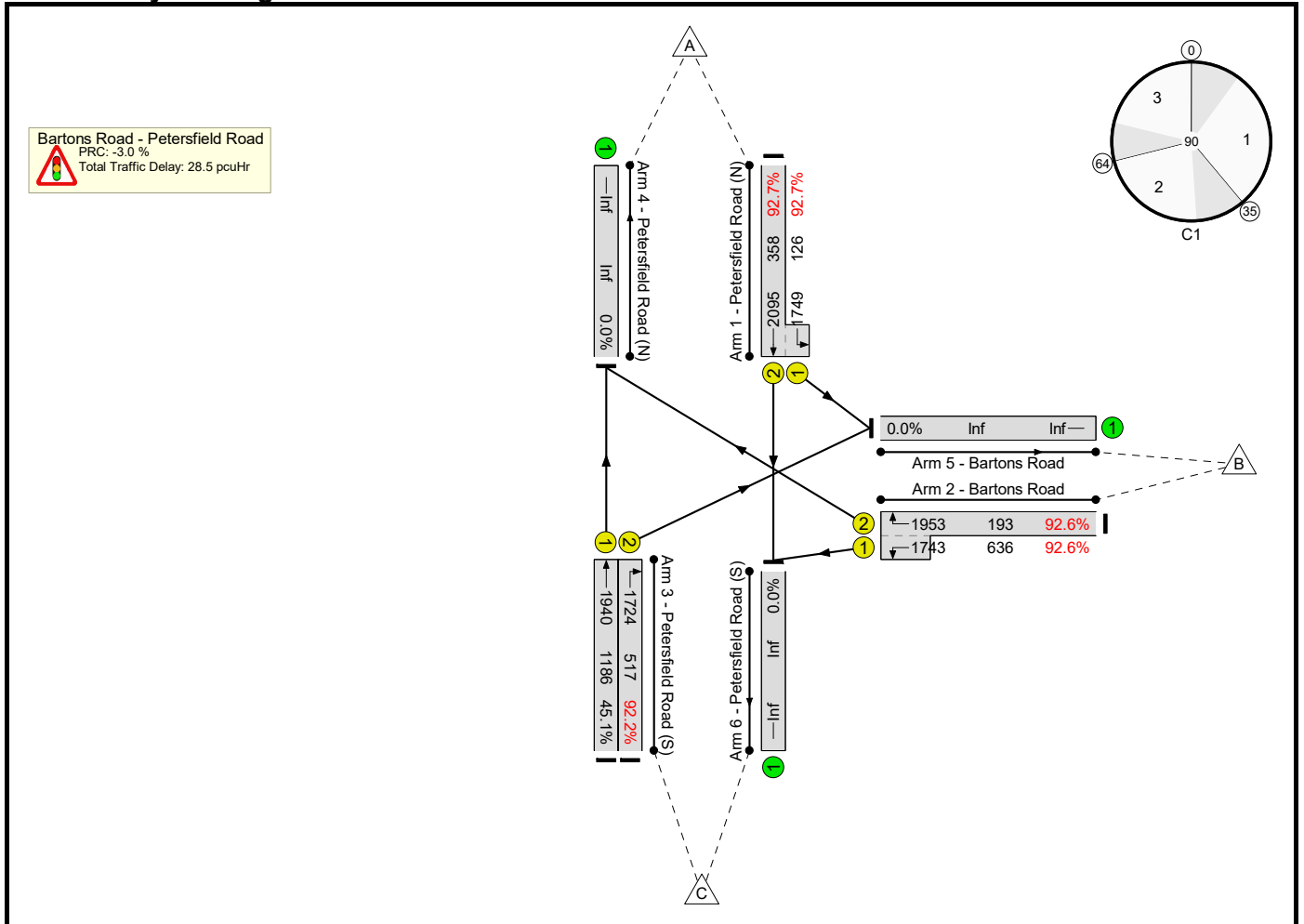


Network Results

Basic Results Summary

Scenario 8: '2023 Baseline + Sensitivity PM' (FG12: '2023 + Committed + Sensitivity PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



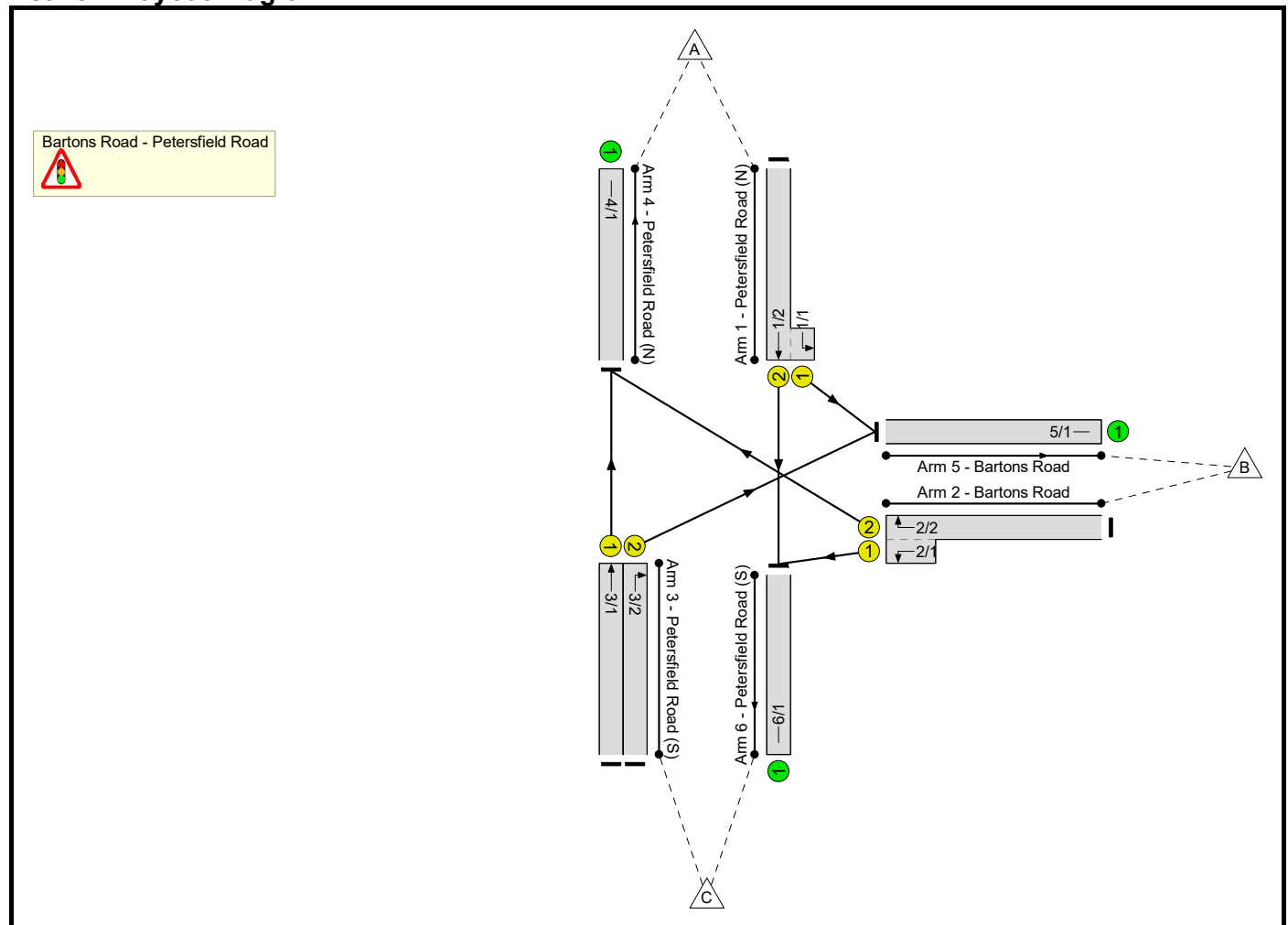
Network Results

Full Input Data And Results

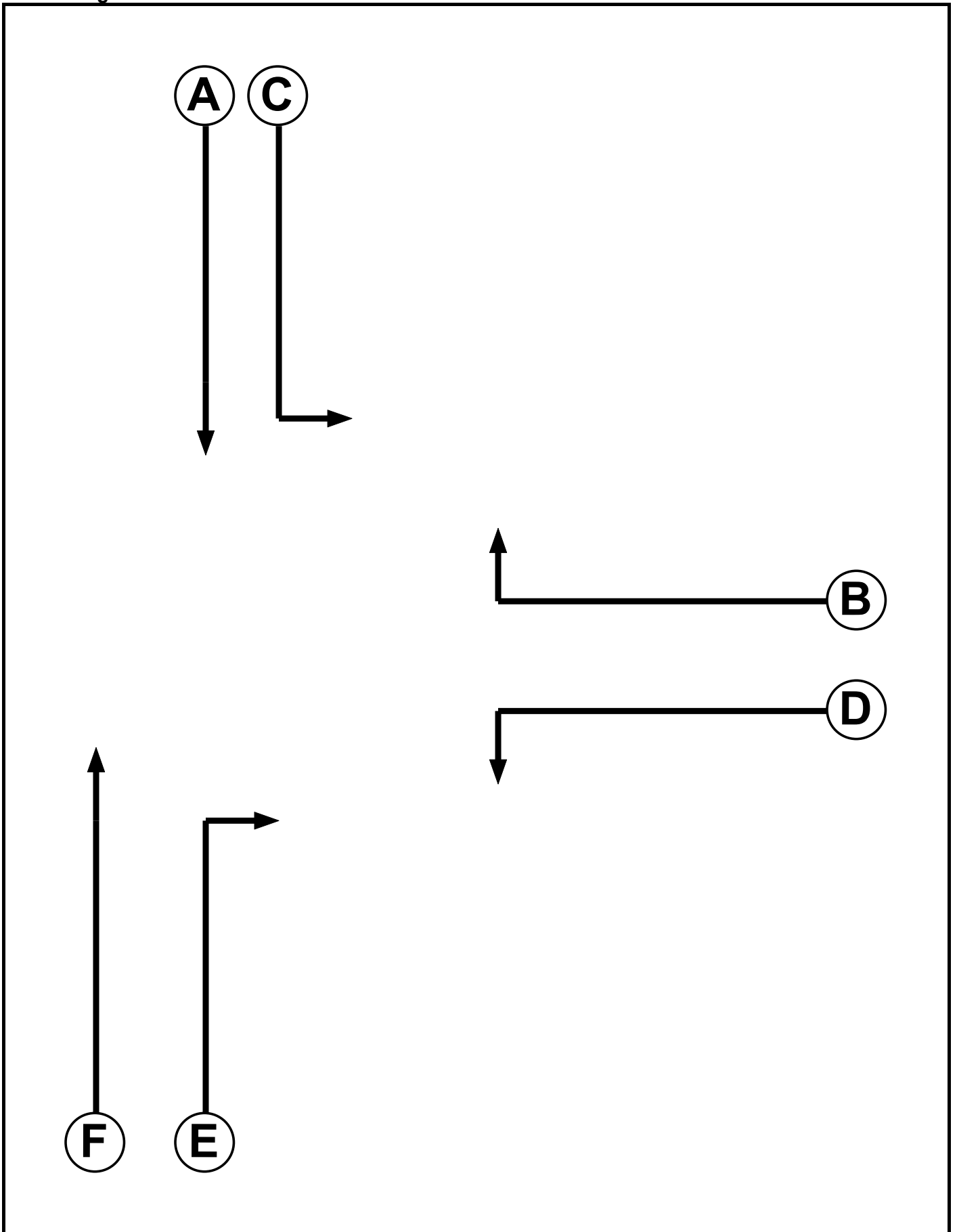
User and Project Details

Project:	17-055 Camp Field
Title:	
Location:	
Design Layout Ref:	Existing Layout
Additional detail:	
File name:	2019-07-09 Bartons Road - Petersfield Road.lsg3x
Author:	TJMS
Company:	C&A
Address:	

Network Layout Diagram



Phase Diagram



Full Input Data And Results

Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Traffic		7	7
F	Traffic		7	7

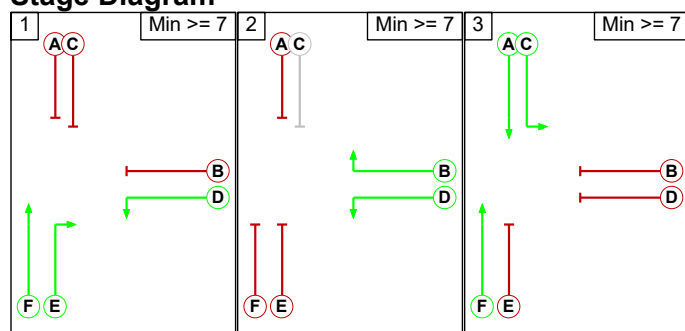
Phase Intergreens Matrix

	Starting Phase						
Terminating Phase	A	B	C	D	E	F	
	A	9	-	9	9	-	
	B	7	-	-	7	7	
	C	-	-	-	9	-	
	D	7	-	-	-	-	
	E	9	9	-	-	-	
	F	-	9	-	-	-	

Phases in Stage

Stage No.	Phases in Stage
1	D E F
2	B D
3	A C F

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

From Stage	To Stage		
	1	2	3
1		9	9
2	7		7
3	9	9	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Bartons Road - Petersfield Road
There are no Opposed Lanes in this Junction

Full Input Data And Results

Lane Input Data

Junction: Bartons Road - Petersfield Road												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Petersfield Road (N))	U	C	2	3	2.0	Geom	-	3.25	0.00	Y	Arm 5 Left	13.70
1/2 (Petersfield Road (N))	U	A	2	3	60.0	Geom	-	3.40	0.00	N	Arm 6 Ahead	Inf
2/1 (Bartons Road)	U	D	2	3	3.1	Geom	-	3.25	0.00	Y	Arm 6 Left	13.30
2/2 (Bartons Road)	U	B	2	3	60.0	Geom	-	3.25	0.00	N	Arm 4 Right	23.00
3/1 (Petersfield Road (S))	U	F	2	3	60.0	Geom	-	3.25	0.00	Y	Arm 4 Ahead	Inf
3/2 (Petersfield Road (S))	U	E	2	3	17.4	Geom	-	3.25	0.00	Y	Arm 5 Right	12.00
4/1 (Petersfield Road (N))	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1 (Bartons Road)	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (Petersfield Road (S))	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2018 AM'	07:45	08:45	01:00	
2: '2018 PM'	17:00	18:00	01:00	
3: '2023 + Committed AM'	07:45	08:45	01:00	
4: '2023 + Committed PM'	17:00	18:00	01:00	
5: '2023 + Committed + Dev AM'	07:45	08:45	01:00	
6: '2023 + Committed + Dev PM'	17:00	18:00	01:00	
7: '2028 + Committed AM'	07:45	08:45	01:00	
8: '2028 + Committed PM'	17:00	18:00	01:00	
9: '2028 + Committed + Dev AM'	07:45	08:45	01:00	
10: '2028 + Committed + Dev PM'	17:00	18:00	01:00	
11: '2023 + Committed + Sensitivity AM'	07:45	08:45	01:00	
12: '2023 + Committed + Sensitivity PM'	17:00	18:00	01:00	

Full Input Data And Results

Scenario 1: '2018 AM' (FG1: '2018 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
Origin		A	B	C	Tot.
	A	0	156	402	558
	B	109	0	360	469
	C	289	387	0	676
	Tot.	398	543	762	1703

Traffic Lane Flows

Lane	Scenario 1: 2018 AM
Junction: Bartons Road - Petersfield Road	
1/1 (short)	156
1/2 (with short)	558(In) 402(Out)
2/1 (short)	360
2/2 (with short)	469(In) 109(Out)
3/1	289
3/2	387
4/1	398
5/1	543
6/1	762

Lane Saturation Flows

Junction: Bartons Road - Petersfield Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Petersfield Road (N))	3.25	0.00	Y	Arm 5 Left	13.70	100.0 %	1749	1749
1/2 (Petersfield Road (N))	3.40	0.00	N	Arm 6 Ahead	Inf	100.0 %	2095	2095
2/1 (Bartons Road)	3.25	0.00	Y	Arm 6 Left	13.30	100.0 %	1743	1743
2/2 (Bartons Road)	3.25	0.00	N	Arm 4 Right	23.00	100.0 %	1953	1953
3/1 (Petersfield Road (S))	3.25	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1940	1940
3/2 (Petersfield Road (S))	3.25	0.00	Y	Arm 5 Right	12.00	100.0 %	1724	1724
4/1 (Petersfield Road (N) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Bartons Road Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Petersfield Road (S) Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 2: '2018 PM' (FG2: '2018 PM', Plan 1: 'Network Control Plan 1')**Traffic Flows, Desired****Desired Flow :**

Origin	Destination				
		A	B	C	Tot.
	A	0	91	293	384
	B	152	0	495	647
	C	467	380	0	847
	Tot.	619	471	788	1878

Traffic Lane Flows

Lane Saturation Flows

Junction: Bartons Road - Petersfield Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Petersfield Road (N))	3.25	0.00	Y	Arm 5 Left	13.70	100.0 %	1749	1749
1/2 (Petersfield Road (N))	3.40	0.00	N	Arm 6 Ahead	Inf	100.0 %	2095	2095
2/1 (Bartons Road)	3.25	0.00	Y	Arm 6 Left	13.30	100.0 %	1743	1743
2/2 (Bartons Road)	3.25	0.00	N	Arm 4 Right	23.00	100.0 %	1953	1953
3/1 (Petersfield Road (S))	3.25	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1940	1940
3/2 (Petersfield Road (S))	3.25	0.00	Y	Arm 5 Right	12.00	100.0 %	1724	1724
4/1 (Petersfield Road (N) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Bartons Road Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Petersfield Road (S) Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 3: '2023 Baseline AM' (FG3: '2023 + Committed AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	180	464	644
	B	129	0	439	568
	C	324	458	0	782
	Tot.	453	638	903	1994

Traffic Lane Flows

Lane	Scenario 3: 2023 Baseline AM
Junction: Bartons Road - Petersfield Road	
1/1 (short)	180
1/2 (with short)	644(In) 464(Out)
2/1 (short)	439
2/2 (with short)	568(In) 129(Out)
3/1	324
3/2	458
4/1	453
5/1	638
6/1	903

Lane Saturation Flows

Junction: Bartons Road - Petersfield Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Petersfield Road (N))	3.25	0.00	Y	Arm 5 Left	13.70	100.0 %	1749	1749
1/2 (Petersfield Road (N))	3.40	0.00	N	Arm 6 Ahead	Inf	100.0 %	2095	2095
2/1 (Bartons Road)	3.25	0.00	Y	Arm 6 Left	13.30	100.0 %	1743	1743
2/2 (Bartons Road)	3.25	0.00	N	Arm 4 Right	23.00	100.0 %	1953	1953
3/1 (Petersfield Road (S))	3.25	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1940	1940
3/2 (Petersfield Road (S))	3.25	0.00	Y	Arm 5 Right	12.00	100.0 %	1724	1724
4/1 (Petersfield Road (N) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Bartons Road Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Petersfield Road (S) Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 4: '2023 Baseline PM' (FG4: '2023 + Committed PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
Origin	A	0	110	332	442
	B	176	0	578	754
	C	535	459	0	994
	Tot.	711	569	910	2190

Traffic Lane Flows

Lane	Scenario 4: 2023 Baseline PM
Junction: Bartons Road - Petersfield Road	
1/1 (short)	110
1/2 (with short)	442(In) 332(Out)
2/1 (short)	578
2/2 (with short)	754(In) 176(Out)
3/1	535
3/2	459
4/1	711
5/1	569
6/1	910

Lane Saturation Flows

Junction: Bartons Road - Petersfield Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Petersfield Road (N))	3.25	0.00	Y	Arm 5 Left	13.70	100.0 %	1749	1749
1/2 (Petersfield Road (N))	3.40	0.00	N	Arm 6 Ahead	Inf	100.0 %	2095	2095
2/1 (Bartons Road)	3.25	0.00	Y	Arm 6 Left	13.30	100.0 %	1743	1743
2/2 (Bartons Road)	3.25	0.00	N	Arm 4 Right	23.00	100.0 %	1953	1953
3/1 (Petersfield Road (S))	3.25	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1940	1940
3/2 (Petersfield Road (S))	3.25	0.00	Y	Arm 5 Right	12.00	100.0 %	1724	1724
4/1 (Petersfield Road (N) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Bartons Road Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Petersfield Road (S) Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 5: '2023 Baseline + Development 72 Units AM' (FG5: '2023 + Committed + Dev AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
Origin	A	0	182	464	646
	B	133	0	449	582
	C	324	462	0	786
	Tot.	457	644	913	2014

Traffic Lane Flows

Lane	Scenario 5: 2023 Baseline + Development 72 Units AM
Junction: Bartons Road - Petersfield Road	
1/1 (short)	182
1/2 (with short)	646(In) 464(Out)
2/1 (short)	449
2/2 (with short)	582(In) 133(Out)
3/1	324
3/2	462
4/1	457
5/1	644
6/1	913

Lane Saturation Flows

Junction: Bartons Road - Petersfield Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Petersfield Road (N))	3.25	0.00	Y	Arm 5 Left	13.70	100.0 %	1749	1749
1/2 (Petersfield Road (N))	3.40	0.00	N	Arm 6 Ahead	Inf	100.0 %	2095	2095
2/1 (Bartons Road)	3.25	0.00	Y	Arm 6 Left	13.30	100.0 %	1743	1743
2/2 (Bartons Road)	3.25	0.00	N	Arm 4 Right	23.00	100.0 %	1953	1953
3/1 (Petersfield Road (S))	3.25	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1940	1940
3/2 (Petersfield Road (S))	3.25	0.00	Y	Arm 5 Right	12.00	100.0 %	1724	1724
4/1 (Petersfield Road (N) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Bartons Road Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Petersfield Road (S) Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 6: '2023 Baseline + Development 72 Units PM' (FG6: '2023 + Committed + Dev PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	114	332	446
	B	177	0	583	760
	C	535	468	0	1003
	Tot.	712	582	915	2209

Traffic Lane Flows

Lane	Scenario 6: 2023 Baseline + Development 72 Units PM
Junction: Bartons Road - Petersfield Road	
1/1 (short)	114
1/2 (with short)	446(In) 332(Out)
2/1 (short)	583
2/2 (with short)	760(In) 177(Out)
3/1	535
3/2	468
4/1	712
5/1	582
6/1	915

Lane Saturation Flows

Junction: Bartons Road - Petersfield Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Petersfield Road (N))	3.25	0.00	Y	Arm 5 Left	13.70	100.0 %	1749	1749
1/2 (Petersfield Road (N))	3.40	0.00	N	Arm 6 Ahead	Inf	100.0 %	2095	2095
2/1 (Bartons Road)	3.25	0.00	Y	Arm 6 Left	13.30	100.0 %	1743	1743
2/2 (Bartons Road)	3.25	0.00	N	Arm 4 Right	23.00	100.0 %	1953	1953
3/1 (Petersfield Road (S))	3.25	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1940	1940
3/2 (Petersfield Road (S))	3.25	0.00	Y	Arm 5 Right	12.00	100.0 %	1724	1724
4/1 (Petersfield Road (N) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Bartons Road Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Petersfield Road (S) Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 7: '2023 Baseline + Sensitivity AM' (FG11: '2023 + Committed + Sensitivity AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
Origin	A	0	183	464	647
	B	137	0	460	597
	C	324	466	0	790
	Tot.	461	649	924	2034

Traffic Lane Flows

Lane	Scenario 7: 2023 Baseline + Sensitivity AM
Junction: Bartons Road - Petersfield Road	
1/1 (short)	183
1/2 (with short)	647(In) 464(Out)
2/1 (short)	460
2/2 (with short)	597(In) 137(Out)
3/1	324
3/2	466
4/1	461
5/1	649
6/1	924

Lane Saturation Flows

Junction: Bartons Road - Petersfield Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Petersfield Road (N))	3.25	0.00	Y	Arm 5 Left	13.70	100.0 %	1749	1749
1/2 (Petersfield Road (N))	3.40	0.00	N	Arm 6 Ahead	Inf	100.0 %	2095	2095
2/1 (Bartons Road)	3.25	0.00	Y	Arm 6 Left	13.30	100.0 %	1743	1743
2/2 (Bartons Road)	3.25	0.00	N	Arm 4 Right	23.00	100.0 %	1953	1953
3/1 (Petersfield Road (S))	3.25	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1940	1940
3/2 (Petersfield Road (S))	3.25	0.00	Y	Arm 5 Right	12.00	100.0 %	1724	1724
4/1 (Petersfield Road (N) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Bartons Road Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Petersfield Road (S) Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 8: '2023 Baseline + Sensitivity PM' (FG12: '2023 + Committed + Sensitivity PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

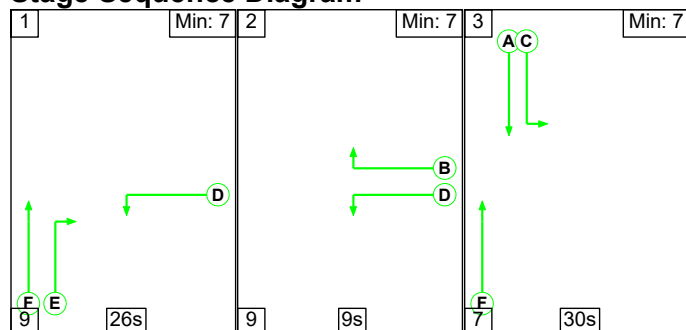
	Destination				
Origin		A	B	C	Tot.
	A	0	117	332	449
	B	179	0	589	768
	C	535	477	0	1012
	Tot.	714	594	921	2229

Traffic Lane Flows

Lane	Scenario 8: 2023 Baseline + Sensitivity PM
Junction: Bartons Road - Petersfield Road	
1/1 (short)	117
1/2 (with short)	449(In) 332(Out)
2/1 (short)	589
2/2 (with short)	768(In) 179(Out)
3/1	535
3/2	477
4/1	714
5/1	594
6/1	921

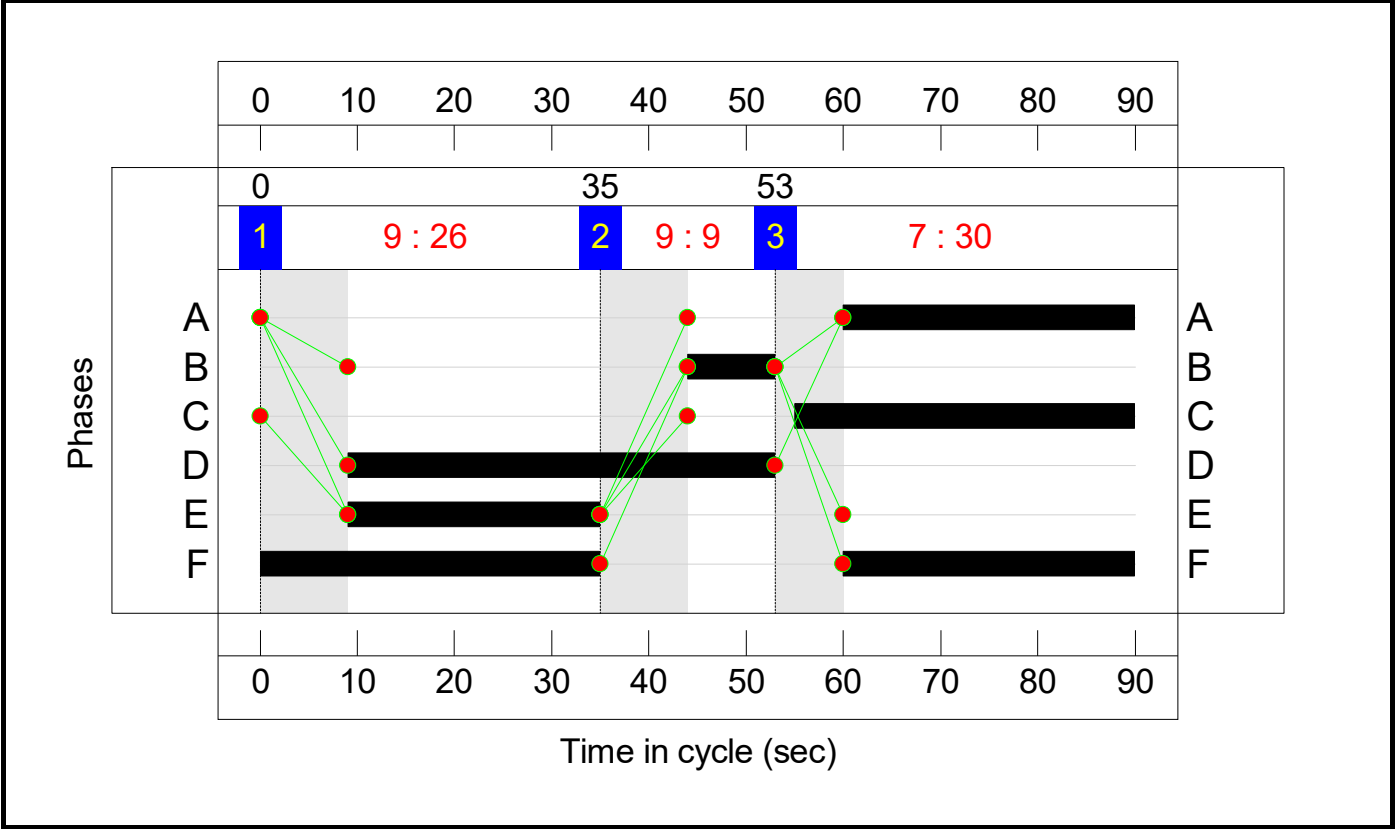
Lane Saturation Flows

Junction: Bartons Road - Petersfield Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Petersfield Road (N))	3.25	0.00	Y	Arm 5 Left	13.70	100.0 %	1749	1749
1/2 (Petersfield Road (N))	3.40	0.00	N	Arm 6 Ahead	Inf	100.0 %	2095	2095
2/1 (Bartons Road)	3.25	0.00	Y	Arm 6 Left	13.30	100.0 %	1743	1743
2/2 (Bartons Road)	3.25	0.00	N	Arm 4 Right	23.00	100.0 %	1953	1953
3/1 (Petersfield Road (S))	3.25	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1940	1940
3/2 (Petersfield Road (S))	3.25	0.00	Y	Arm 5 Right	12.00	100.0 %	1724	1724
4/1 (Petersfield Road (N) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Bartons Road Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Petersfield Road (S) Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 1: '2018 AM' (FG1: '2018 AM', Plan 1: 'Network Control Plan 1')**Stage Sequence Diagram****Stage Timings**

Stage	1	2	3
Duration	26	9	30
Change Point	0	35	53

Signal Timings Diagram

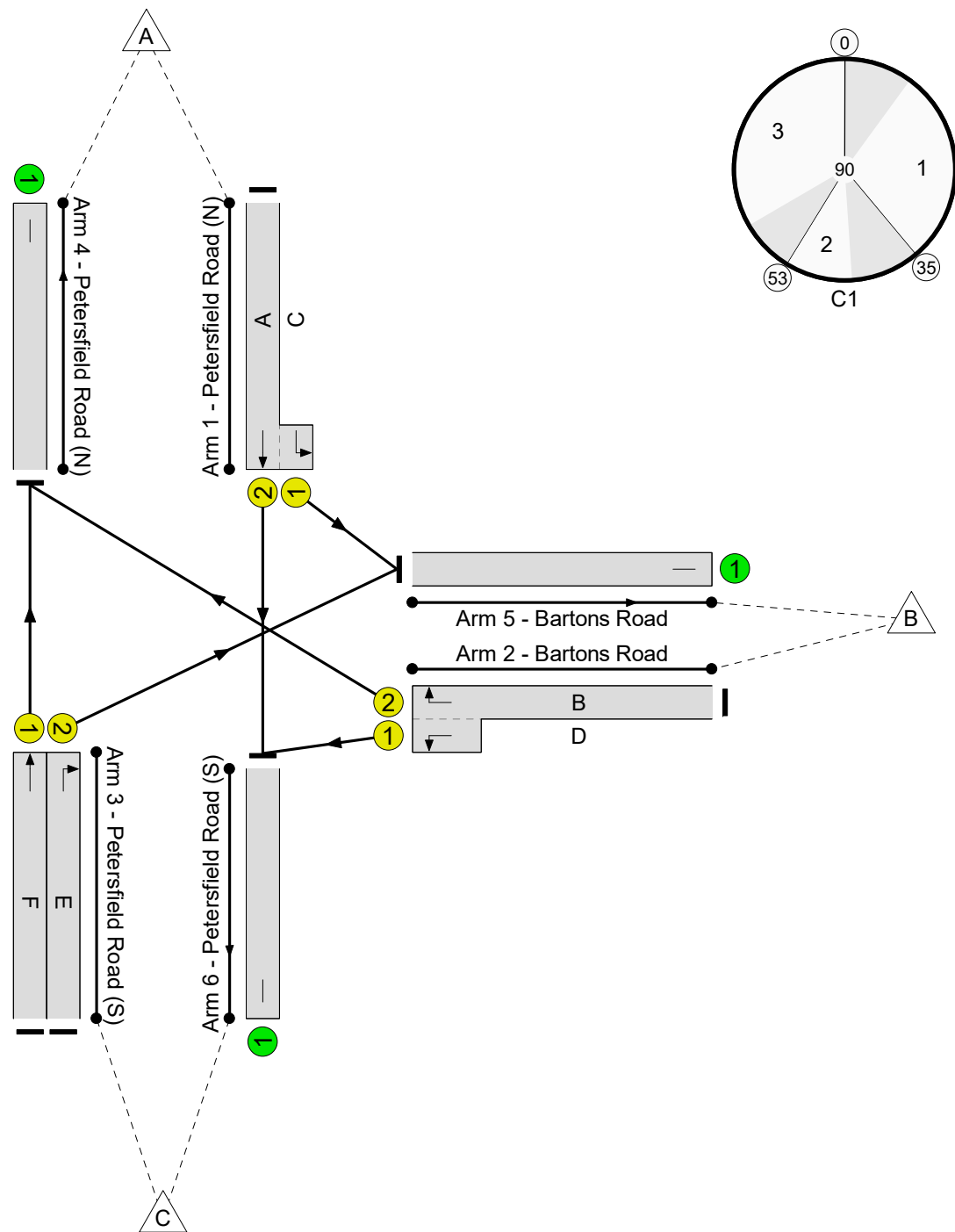




Bartons Road - Petersfield Road

PRC: 17.5 %

Total Traffic Delay: 14.6 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	76.6%
Bartons Road - Petersfield Road	-	-	N/A	-	-		-	-	-	-	-	-	76.6%
1/2+1/1	Petersfield Road (N) Left Ahead	U	N/A	N/A	A C		1	30:35	-	558	2095:1749	525+204	76.6 : 76.6%
2/2+2/1	Bartons Road Right Left	U	N/A	N/A	B D		1	9:44	-	469	1953:1743	142+470	76.6 : 76.6%
3/1	Petersfield Road (S) Ahead	U	N/A	N/A	F		1	65	-	289	1940	1423	20.3%
3/2	Petersfield Road (S) Right	U	N/A	N/A	E		1	26	-	387	1724	517	74.8%
4/1	Petersfield Road (N)	U	N/A	N/A	-		-	-	-	398	Inf	Inf	0.0%
5/1	Bartons Road	U	N/A	N/A	-		-	-	-	543	Inf	Inf	0.0%
6/1	Petersfield Road (S)	U	N/A	N/A	-		-	-	-	762	Inf	Inf	0.0%

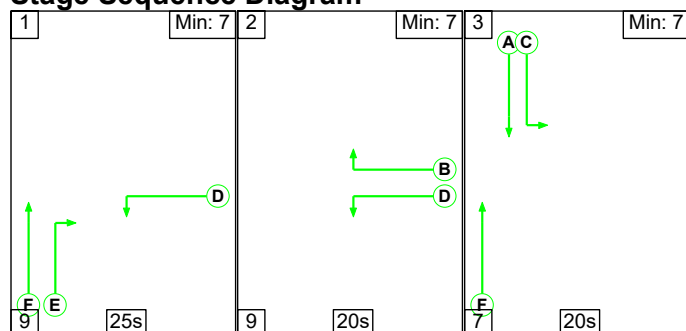
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	9.8	4.8	0.0	14.6	-	-	-	-
Bartons Road - Petersfield Road	-	-	0	0	0	9.8	4.8	0.0	14.6	-	-	-	-
1/2+1/1	558	558	-	-	-	3.9	1.6	-	5.5	35.5	11.5	1.6	13.1
2/2+2/1	469	469	-	-	-	2.6	1.6	-	4.2	32.0	6.6	1.6	8.2
3/1	289	289	-	-	-	0.3	0.1	-	0.4	5.4	2.2	0.1	2.4
3/2	387	387	-	-	-	3.1	1.5	-	4.5	42.0	8.7	1.5	10.2
4/1	398	398	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	543	543	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	762	762	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 17.5 Total Delay for Signalled Lanes (pcuHr): 14.61 Cycle Time (s): 90 PRC Over All Lanes (%): 17.5 Total Delay Over All Lanes(pcuHr): 14.61													

Full Input Data And Results

Scenario 2: '2018 PM' (FG2: '2018 PM', Plan 1: 'Network Control Plan 1')

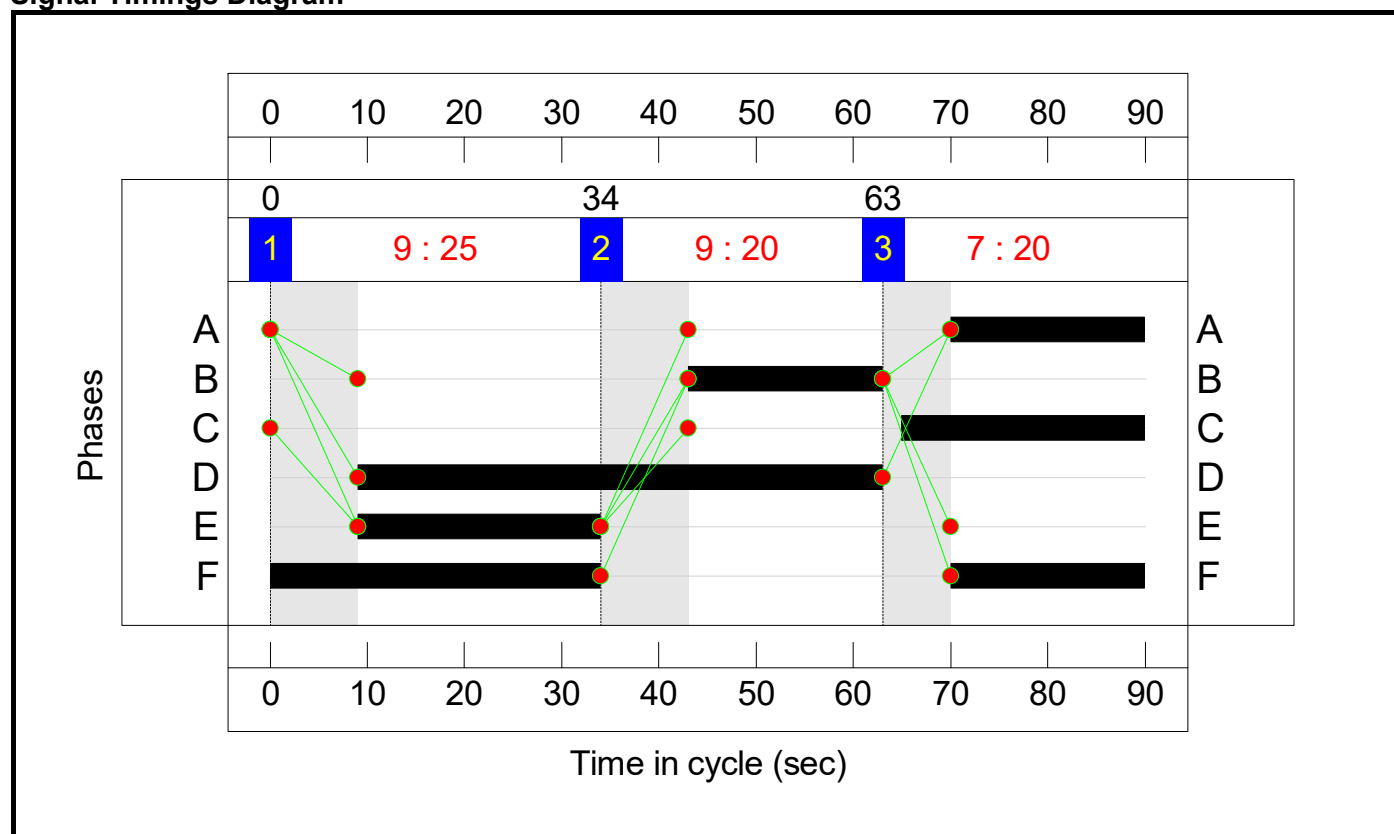
Stage Sequence Diagram



Stage Timings

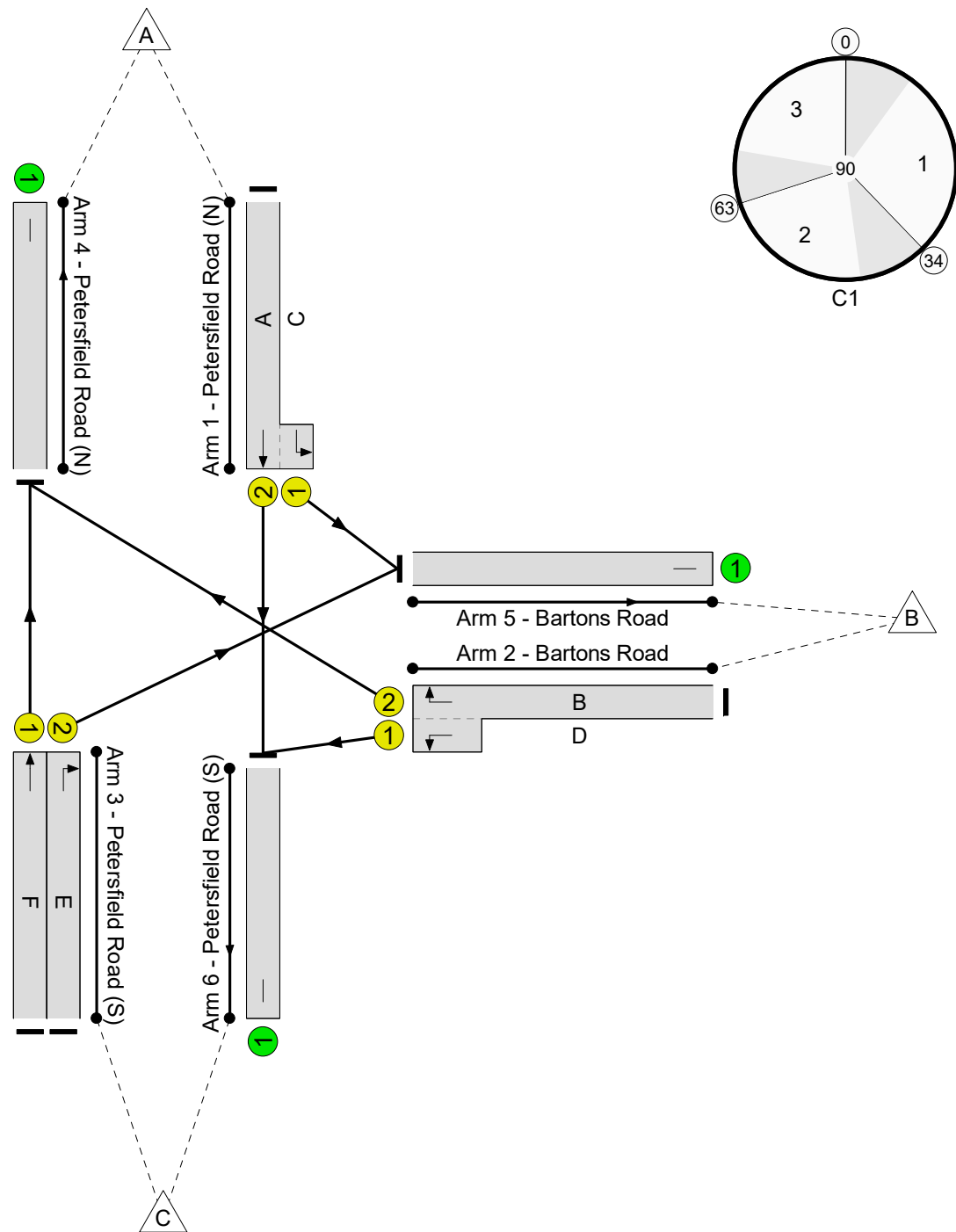
Stage	1	2	3
Duration	25	20	20
Change Point	0	34	63

Signal Timings Diagram



Bartons Road - Petersfield Road

PRC: 14.8 %
Total Traffic Delay: 15.3 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	78.4%
Bartons Road - Petersfield Road	-	-	N/A	-	-		-	-	-	-	-	-	78.4%
1/2+1/1	Petersfield Road (N) Left Ahead	U	N/A	N/A	A C		1	20:25	-	384	2095:1749	385+120	76.0 : 76.0%
2/2+2/1	Bartons Road Right Left	U	N/A	N/A	B D		1	20:54	-	647	1953:1743	194+631	78.4 : 78.4%
3/1	Petersfield Road (S) Ahead	U	N/A	N/A	F		1	54	-	467	1940	1186	39.4%
3/2	Petersfield Road (S) Right	U	N/A	N/A	E		1	25	-	380	1724	498	76.3%
4/1	Petersfield Road (N)	U	N/A	N/A	-		-	-	-	619	Inf	Inf	0.0%
5/1	Bartons Road	U	N/A	N/A	-		-	-	-	471	Inf	Inf	0.0%
6/1	Petersfield Road (S)	U	N/A	N/A	-		-	-	-	788	Inf	Inf	0.0%

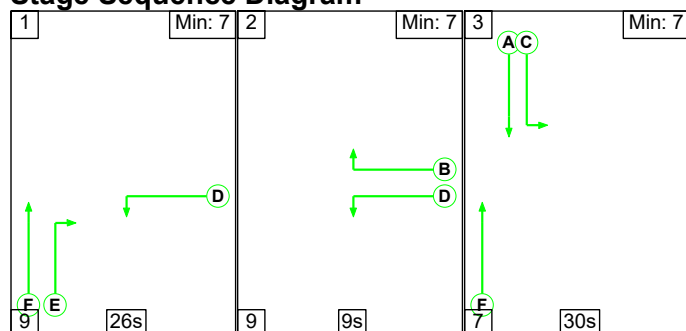
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	10.1	5.2	0.0	15.3	-	-	-	-
Bartons Road - Petersfield Road	-	-	0	0	0	10.1	5.2	0.0	15.3	-	-	-	-
1/2+1/1	384	384	-	-	-	3.3	1.5	-	4.9	45.7	8.2	1.5	9.8
2/2+2/1	647	647	-	-	-	2.6	1.8	-	4.3	24.1	8.2	1.8	10.0
3/1	467	467	-	-	-	1.2	0.3	-	1.5	11.5	6.0	0.3	6.3
3/2	380	380	-	-	-	3.1	1.6	-	4.6	44.0	8.7	1.6	10.2
4/1	619	619	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	471	471	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	788	788	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 14.8 Total Delay for Signalled Lanes (pcuHr): 15.34 Cycle Time (s): 90 PRC Over All Lanes (%): 14.8 Total Delay Over All Lanes(pcuHr): 15.34													

Full Input Data And Results

Scenario 3: '2023 Baseline AM' (FG3: '2023 + Committed AM', Plan 1: 'Network Control Plan 1')

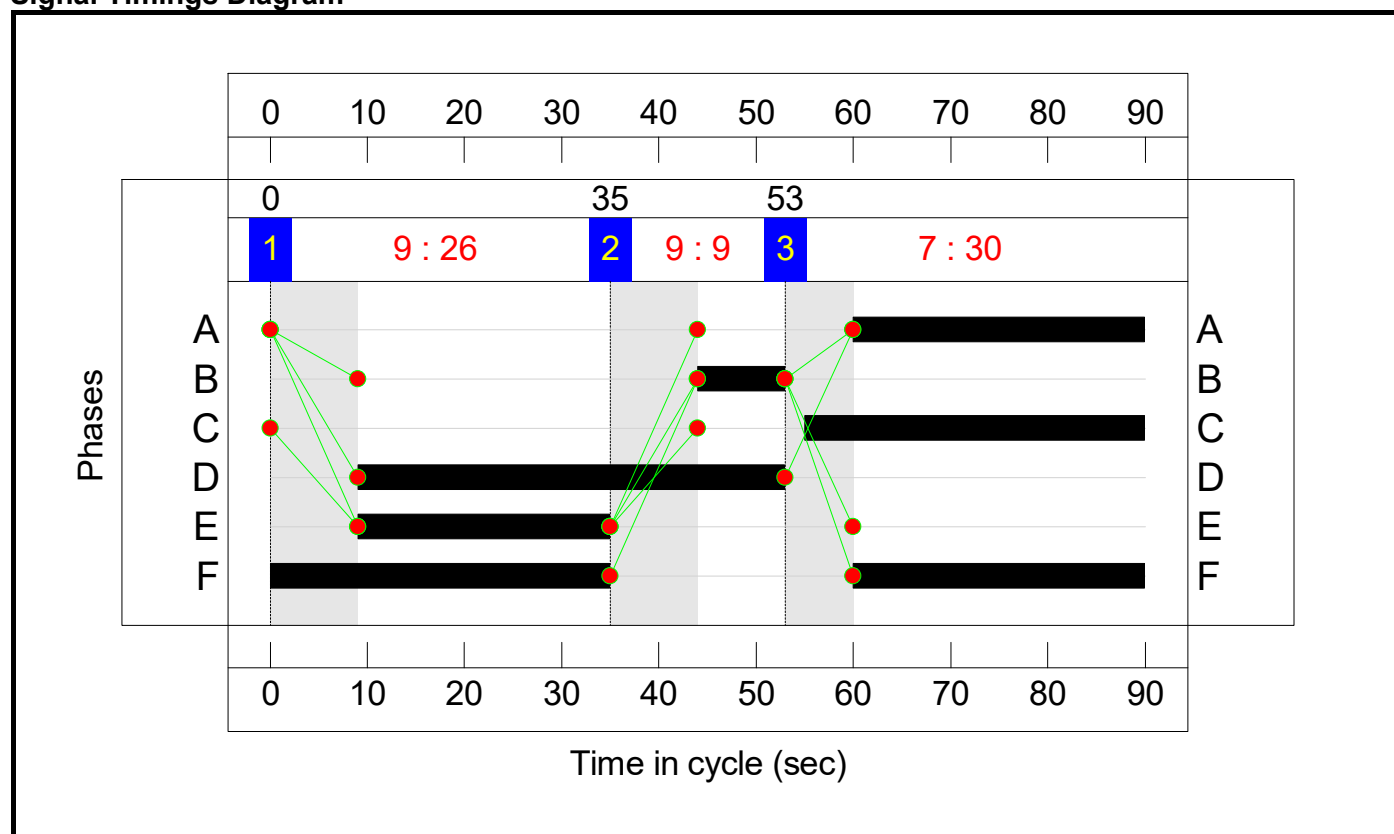
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	26	9	30
Change Point	0	35	53

Signal Timings Diagram



Full Input Data And Results

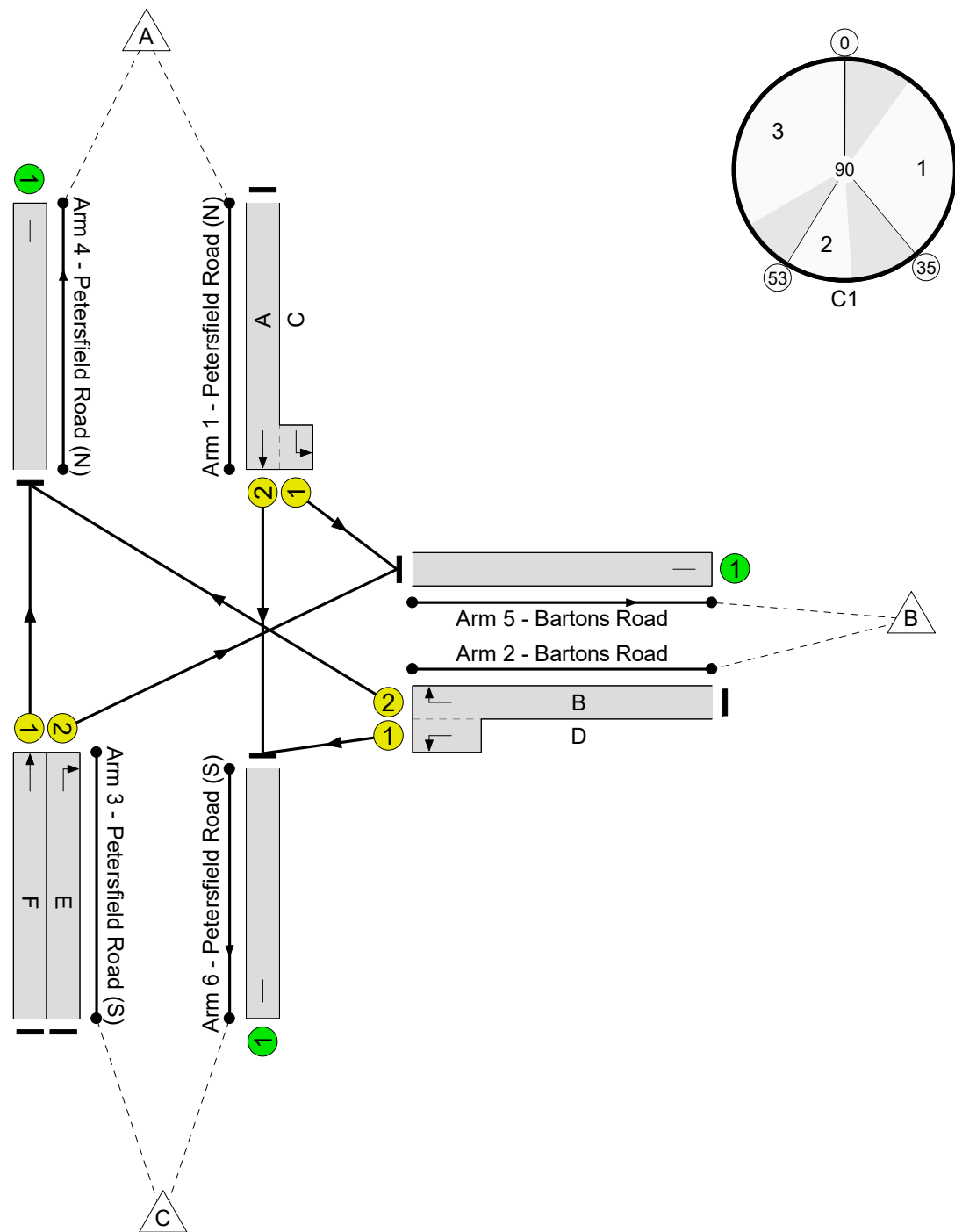
Network Layout Diagram

Bartons Road - Petersfield Road



PRC: -1.0 %

Total Traffic Delay: 23.6 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	90.9%
Bartons Road - Petersfield Road	-	-	N/A	-	-		-	-	-	-	-	-	90.9%
1/2+1/1	Petersfield Road (N) Left Ahead	U	N/A	N/A	A C		1	30:35	-	644	2095:1749	525+204	88.4 : 88.4%
2/2+2/1	Bartons Road Right Left	U	N/A	N/A	B D		1	9:44	-	568	1953:1743	142+483	90.9 : 90.9%
3/1	Petersfield Road (S) Ahead	U	N/A	N/A	F		1	65	-	324	1940	1423	22.8%
3/2	Petersfield Road (S) Right	U	N/A	N/A	E		1	26	-	458	1724	517	88.6%
4/1	Petersfield Road (N)	U	N/A	N/A	-		-	-	-	453	Inf	Inf	0.0%
5/1	Bartons Road	U	N/A	N/A	-		-	-	-	638	Inf	Inf	0.0%
6/1	Petersfield Road (S)	U	N/A	N/A	-		-	-	-	903	Inf	Inf	0.0%

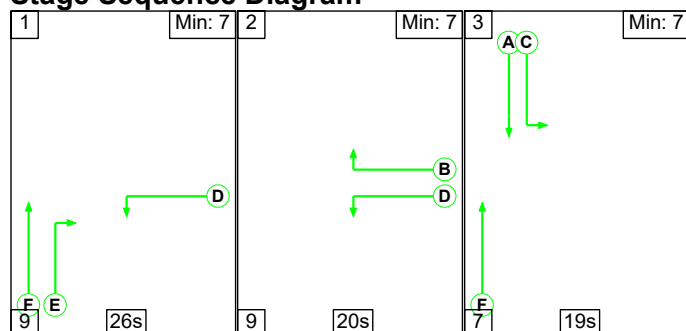
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	12.2	11.5	0.0	23.6	-	-	-	-
Bartons Road - Petersfield Road	-	-	0	0	0	12.2	11.5	0.0	23.6	-	-	-	-
1/2+1/1	644	644	-	-	-	4.8	3.5	-	8.3	46.4	14.3	3.5	17.8
2/2+2/1	568	568	-	-	-	3.2	4.3	-	7.6	48.0	9.0	4.3	13.4
3/1	324	324	-	-	-	0.3	0.1	-	0.5	5.5	2.5	0.1	2.7
3/2	458	458	-	-	-	3.8	3.5	-	7.3	57.3	10.8	3.5	14.3
4/1	453	453	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	638	638	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	903	903	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): -1.0 Total Delay for Signalled Lanes (pcuHr): 23.65 Cycle Time (s): 90 PRC Over All Lanes (%): -1.0 Total Delay Over All Lanes(pcuHr): 23.65													

Full Input Data And Results

Scenario 4: '2023 Baseline PM' (FG4: '2023 + Committed PM', Plan 1: 'Network Control Plan 1')

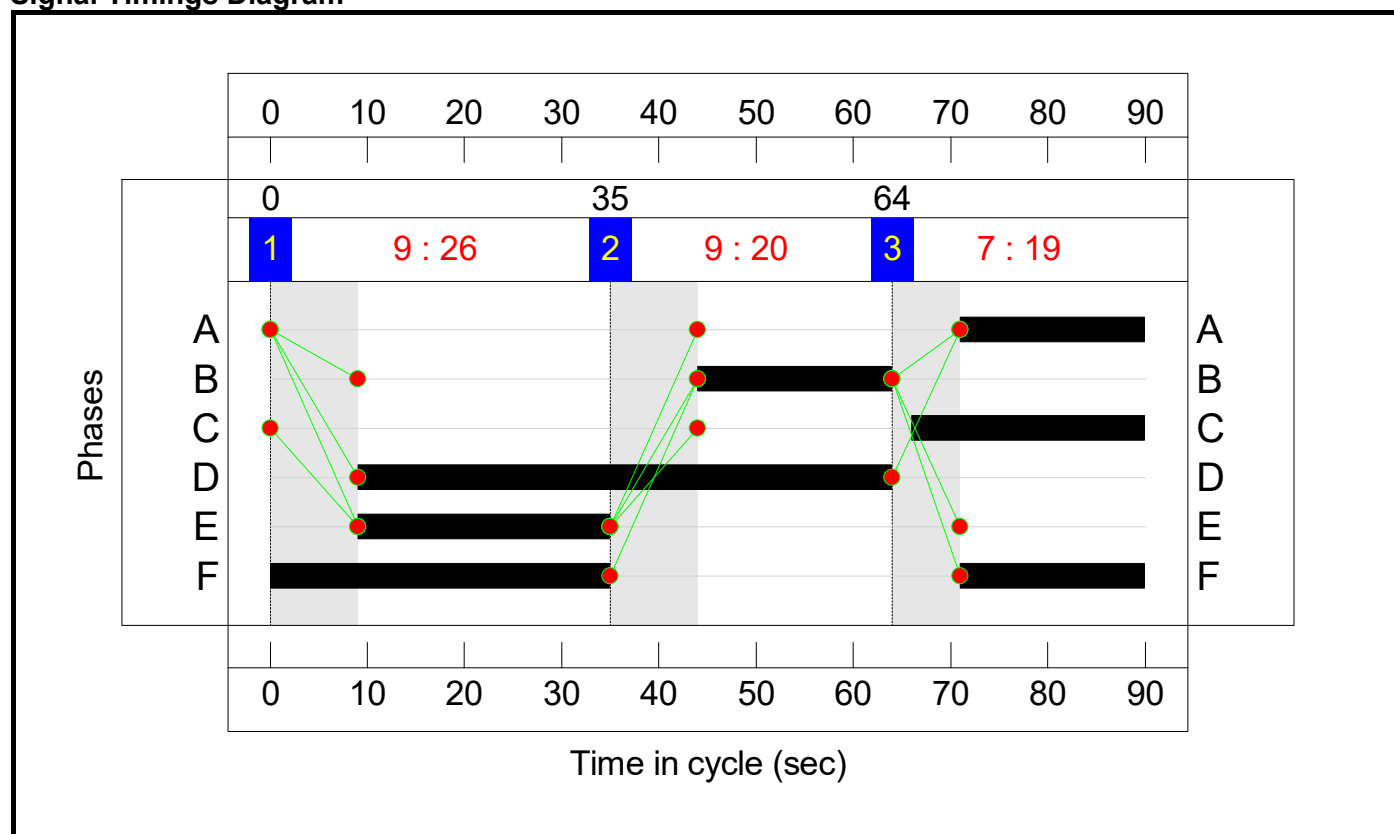
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	26	20	19
Change Point	0	35	64

Signal Timings Diagram

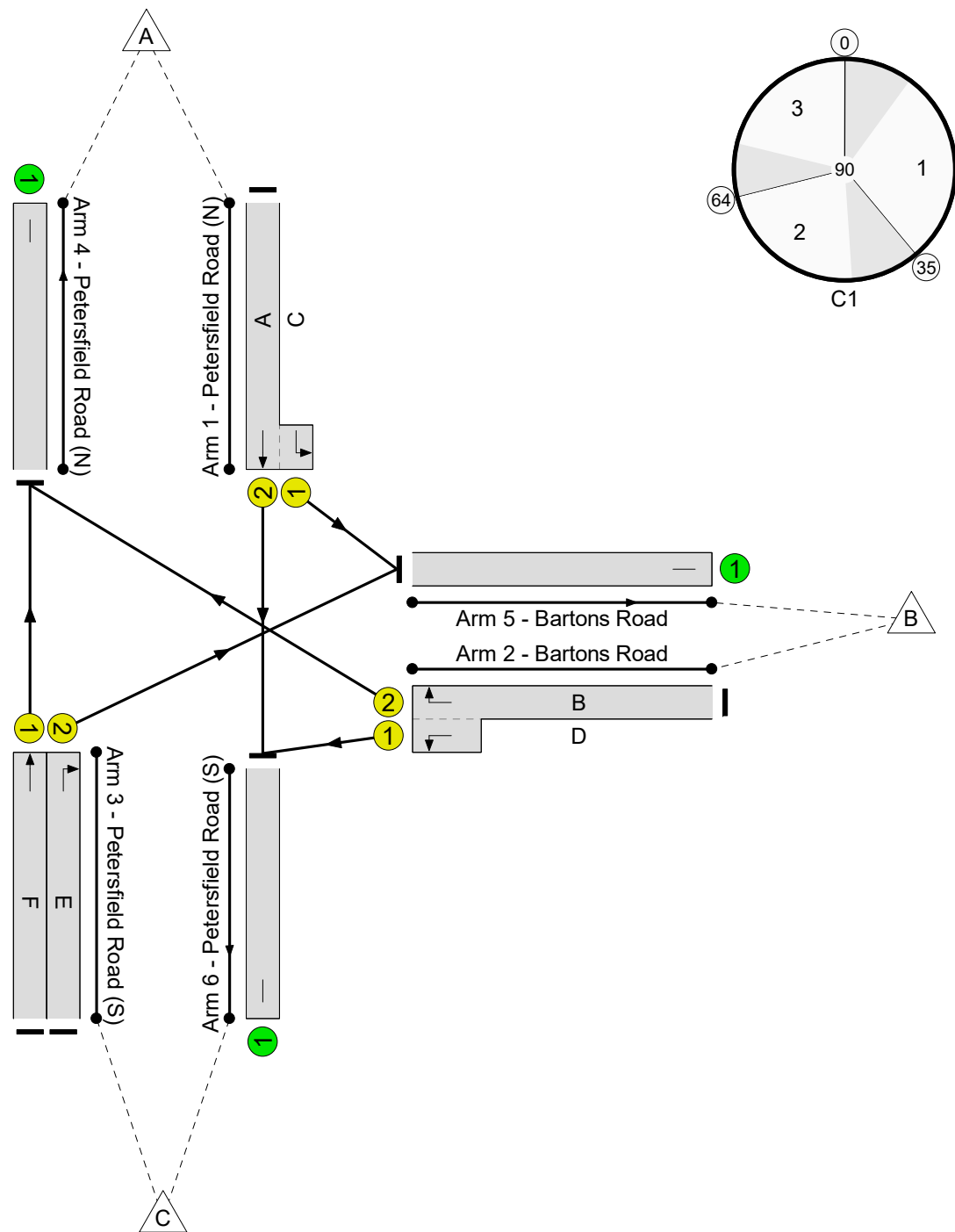




Bartons Road - Petersfield Road

PRC: -1.5 %

Total Traffic Delay: 25.4 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	91.4%
Bartons Road - Petersfield Road	-	-	N/A	-	-		-	-	-	-	-	-	91.4%
1/2+1/1	Petersfield Road (N) Left Ahead	U	N/A	N/A	A C		1	19:24	-	442	2095:1749	363+120	91.4 : 91.4%
2/2+2/1	Bartons Road Right Left	U	N/A	N/A	B D		1	20:55	-	754	1953:1743	193+635	91.0 : 91.0%
3/1	Petersfield Road (S) Ahead	U	N/A	N/A	F		1	54	-	535	1940	1186	45.1%
3/2	Petersfield Road (S) Right	U	N/A	N/A	E		1	26	-	459	1724	517	88.7%
4/1	Petersfield Road (N)	U	N/A	N/A	-		-	-	-	711	Inf	Inf	0.0%
5/1	Bartons Road	U	N/A	N/A	-		-	-	-	569	Inf	Inf	0.0%
6/1	Petersfield Road (S)	U	N/A	N/A	-		-	-	-	910	Inf	Inf	0.0%

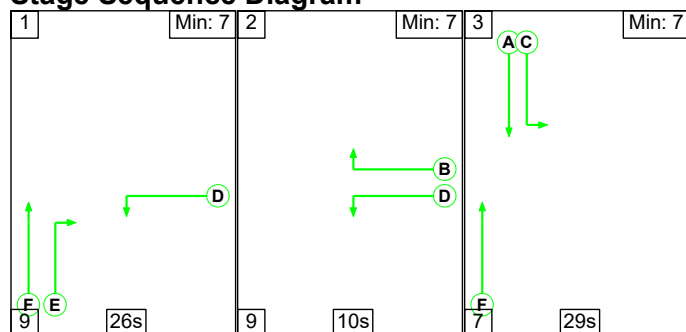
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	12.6	12.8	0.0	25.4	-	-	-	-
Bartons Road - Petersfield Road	-	-	0	0	0	12.6	12.8	0.0	25.4	-	-	-	-
1/2+1/1	442	442	-	-	-	4.1	4.4	-	8.5	68.9	10.0	4.4	14.4
2/2+2/1	754	754	-	-	-	3.3	4.5	-	7.8	37.1	10.6	4.5	15.1
3/1	535	535	-	-	-	1.4	0.4	-	1.8	12.2	7.1	0.4	7.5
3/2	459	459	-	-	-	3.8	3.5	-	7.3	57.6	10.8	3.5	14.4
4/1	711	711	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	569	569	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	910	910	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): -1.5 Total Delay for Signalled Lanes (pcuHr): 25.39 Cycle Time (s): 90 PRC Over All Lanes (%): -1.5 Total Delay Over All Lanes(pcuHr): 25.39													

Full Input Data And Results

Scenario 5: '2023 Baseline + Development 72 Units AM' (FG5: '2023 + Committed + Dev AM', Plan 1: 'Network Control Plan 1')

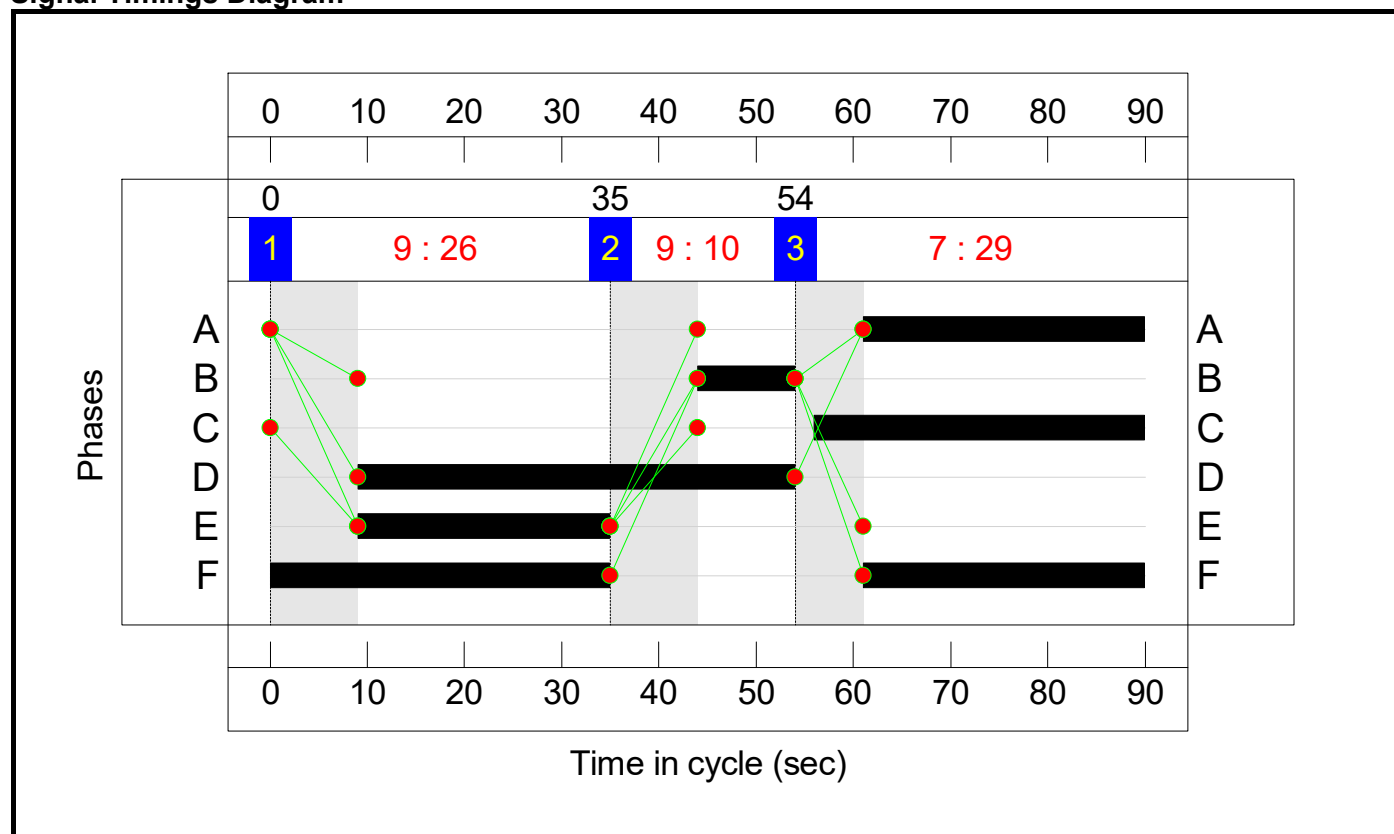
Stage Sequence Diagram



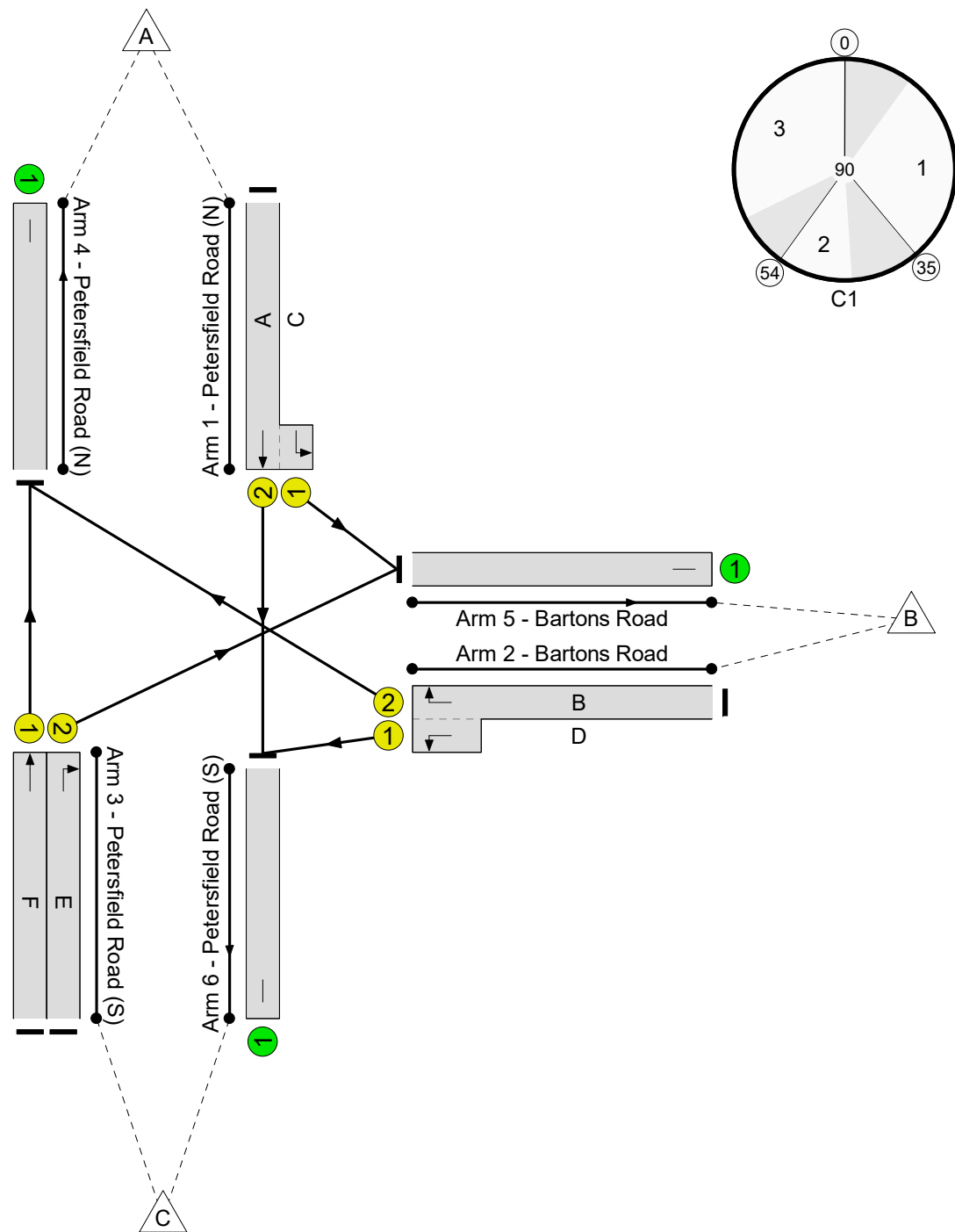
Stage Timings

Stage	1	2	3
Duration	26	10	29
Change Point	0	35	54

Signal Timings Diagram



Bartons Road - Petersfield Road
PRC: -1.6 %
Total Traffic Delay: 25.2 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	91.4%
Bartons Road - Petersfield Road	-	-	N/A	-	-		-	-	-	-	-	-	91.4%
1/2+1/1	Petersfield Road (N) Left Ahead	U	N/A	N/A	A C		1	29:34	-	646	2095:1749	508+199	91.4 : 91.4%
2/2+2/1	Bartons Road Right Left	U	N/A	N/A	B D		1	10:45	-	582	1953:1743	147+495	90.7 : 90.7%
3/1	Petersfield Road (S) Ahead	U	N/A	N/A	F		1	64	-	324	1940	1401	23.1%
3/2	Petersfield Road (S) Right	U	N/A	N/A	E		1	26	-	462	1724	517	89.3%
4/1	Petersfield Road (N)	U	N/A	N/A	-		-	-	-	457	Inf	Inf	0.0%
5/1	Bartons Road	U	N/A	N/A	-		-	-	-	644	Inf	Inf	0.0%
6/1	Petersfield Road (S)	U	N/A	N/A	-		-	-	-	913	Inf	Inf	0.0%

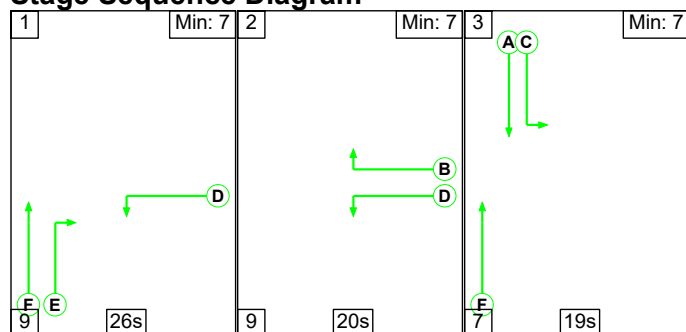
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	12.4	12.7	0.0	25.2	-	-	-	-
Bartons Road - Petersfield Road	-	-	0	0	0	12.4	12.7	0.0	25.2	-	-	-	-
1/2+1/1	646	646	-	-	-	5.0	4.6	-	9.6	53.5	14.5	4.6	19.1
2/2+2/1	582	582	-	-	-	3.2	4.3	-	7.5	46.5	9.1	4.3	13.4
3/1	324	324	-	-	-	0.4	0.2	-	0.5	5.8	2.7	0.2	2.9
3/2	462	462	-	-	-	3.9	3.7	-	7.6	58.9	11.0	3.7	14.7
4/1	457	457	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	644	644	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	913	913	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): -1.6 Total Delay for Signalled Lanes (pcuHr): 25.19 Cycle Time (s): 90 PRC Over All Lanes (%): -1.6 Total Delay Over All Lanes(pcuHr): 25.19													

Full Input Data And Results

Scenario 6: '2023 Baseline + Development 72 Units PM' (FG6: '2023 + Committed + Dev PM', Plan 1: 'Network Control Plan 1')

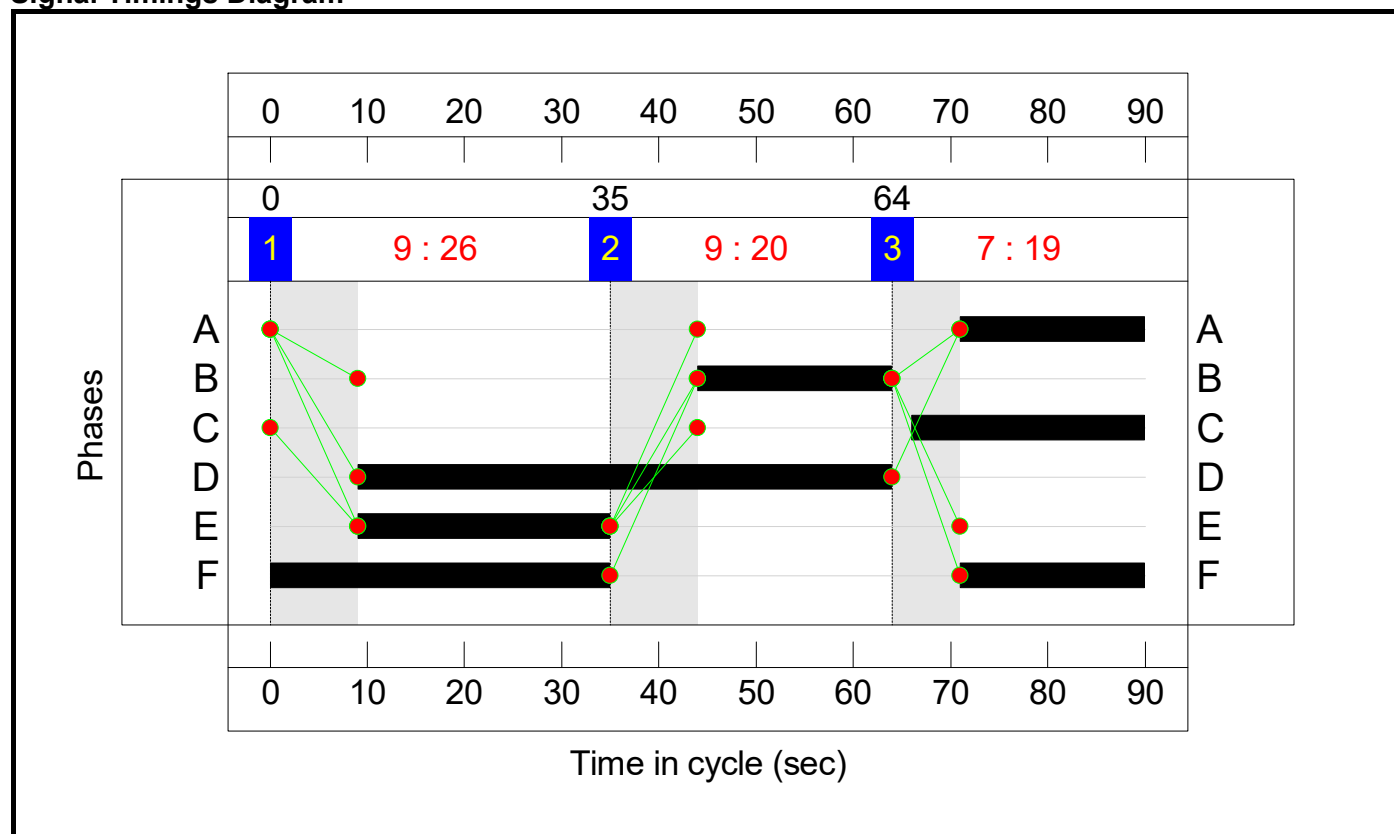
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	26	20	19
Change Point	0	35	64

Signal Timings Diagram



Full Input Data And Results

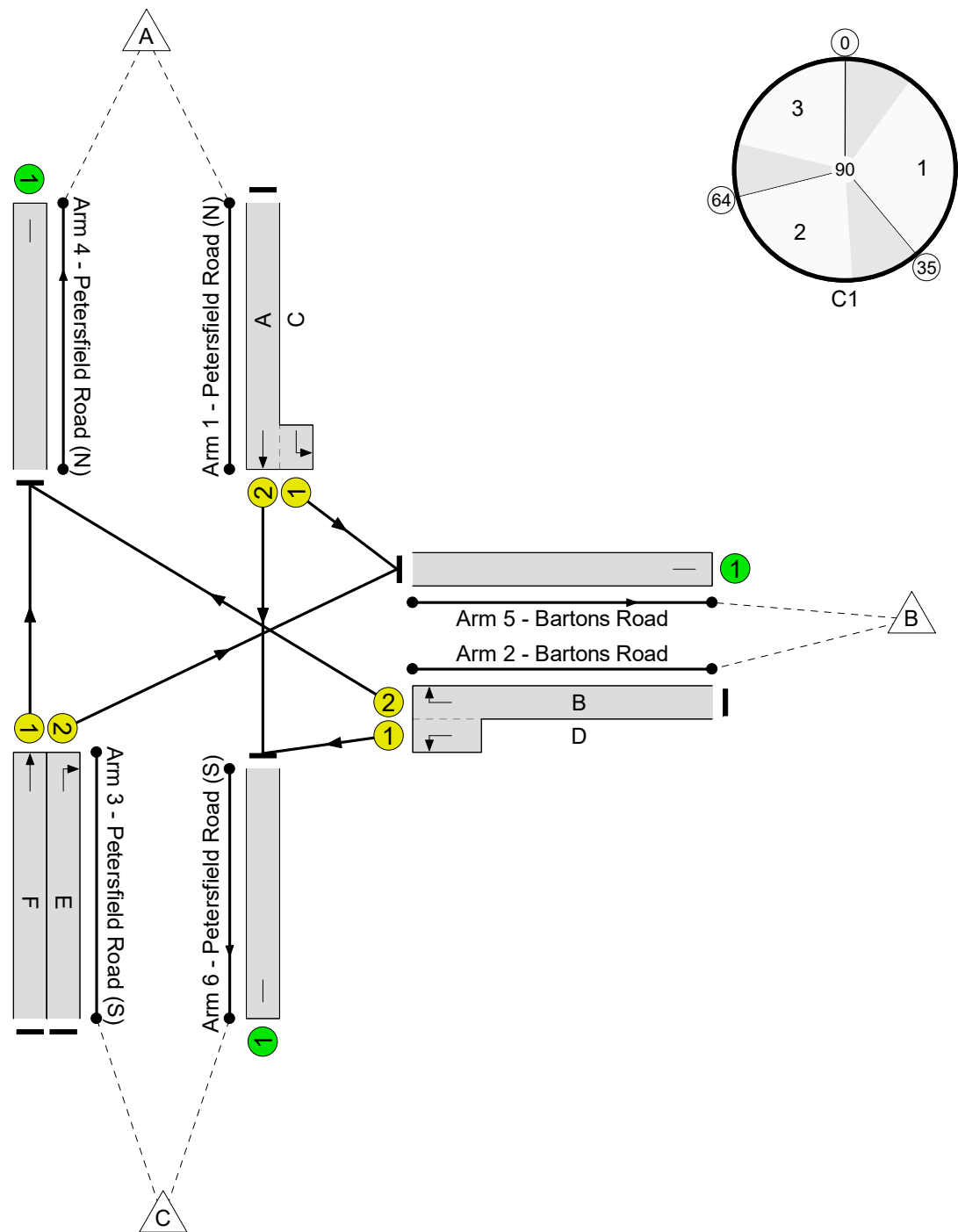
Network Layout Diagram



Bartons Road - Petersfield Road

PRC: -2.4 %

Total Traffic Delay: 26.7 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	92.1%
Bartons Road - Petersfield Road	-	-	N/A	-	-		-	-	-	-	-	-	92.1%
1/2+1/1	Petersfield Road (N) Left Ahead	U	N/A	N/A	A C		1	19:24	-	446	2095:1749	360+124	92.1 : 92.1%
2/2+2/1	Bartons Road Right Left	U	N/A	N/A	B D		1	20:55	-	760	1953:1743	193+637	91.6 : 91.6%
3/1	Petersfield Road (S) Ahead	U	N/A	N/A	F		1	54	-	535	1940	1186	45.1%
3/2	Petersfield Road (S) Right	U	N/A	N/A	E		1	26	-	468	1724	517	90.5%
4/1	Petersfield Road (N)	U	N/A	N/A	-		-	-	-	712	Inf	Inf	0.0%
5/1	Bartons Road	U	N/A	N/A	-		-	-	-	582	Inf	Inf	0.0%
6/1	Petersfield Road (S)	U	N/A	N/A	-		-	-	-	915	Inf	Inf	0.0%

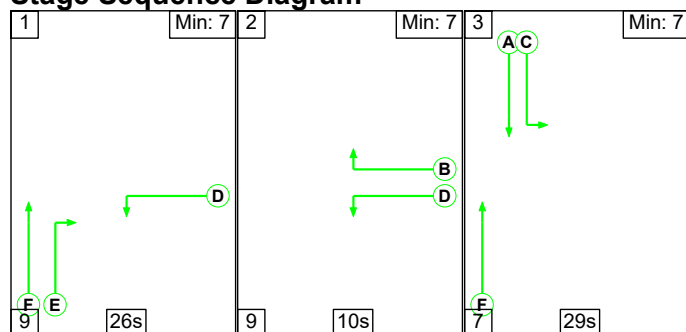
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	12.8	14.0	0.0	26.7	-	-	-	-
Bartons Road - Petersfield Road	-	-	0	0	0	12.8	14.0	0.0	26.7	-	-	-	-
1/2+1/1	446	446	-	-	-	4.1	4.7	-	8.8	71.2	10.1	4.7	14.8
2/2+2/1	760	760	-	-	-	3.3	4.8	-	8.1	38.4	10.7	4.8	15.5
3/1	535	535	-	-	-	1.4	0.4	-	1.8	12.2	7.1	0.4	7.5
3/2	468	468	-	-	-	3.9	4.1	-	8.0	61.7	11.2	4.1	15.3
4/1	712	712	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	582	582	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	915	915	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): -2.4 Total Delay for Signalled Lanes (pcuHr): 26.74 Cycle Time (s): 90 PRC Over All Lanes (%): -2.4 Total Delay Over All Lanes(pcuHr): 26.74													

Full Input Data And Results

Scenario 7: '2023 Baseline + Sensitivity AM' (FG11: '2023 + Committed + Sensitivity AM', Plan 1: 'Network Control Plan 1')

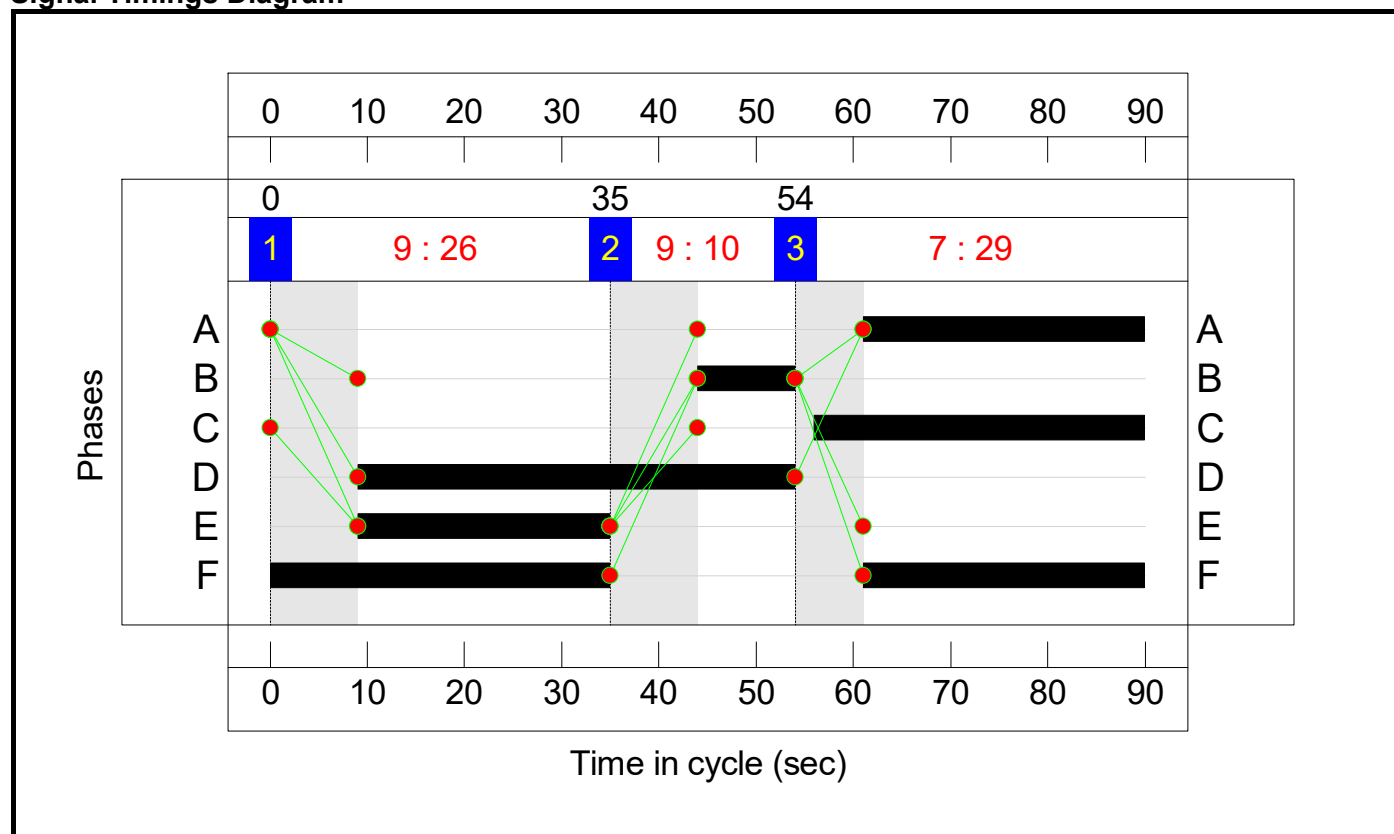
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	26	10	29
Change Point	0	35	54

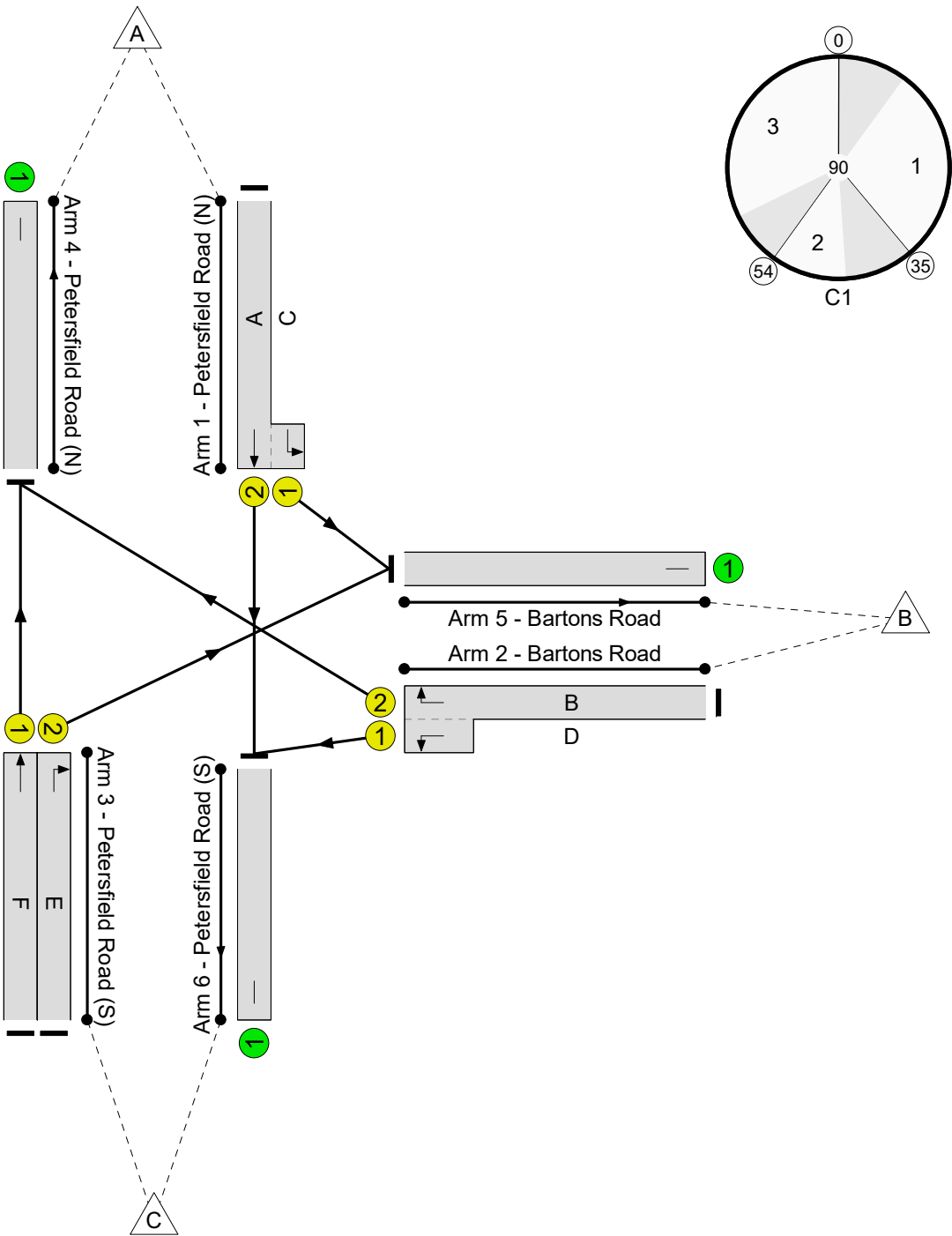
Signal Timings Diagram



Bartons Road - Petersfield Road



PRC: -3.8 %
Total Traffic Delay: 27.0 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	93.4%
Bartons Road - Petersfield Road	-	-	N/A	-	-		-	-	-	-	-	-	93.4%
1/2+1/1	Petersfield Road (N) Left Ahead	U	N/A	N/A	A C		1	29:34	-	647	2095:1749	507+200	91.5 : 91.5%
2/2+2/1	Bartons Road Right Left	U	N/A	N/A	B D		1	10:45	-	597	1953:1743	147+493	93.4 : 93.4%
3/1	Petersfield Road (S) Ahead	U	N/A	N/A	F		1	64	-	324	1940	1401	23.1%
3/2	Petersfield Road (S) Right	U	N/A	N/A	E		1	26	-	466	1724	517	90.1%
4/1	Petersfield Road (N)	U	N/A	N/A	-		-	-	-	461	Inf	Inf	0.0%
5/1	Bartons Road	U	N/A	N/A	-		-	-	-	649	Inf	Inf	0.0%
6/1	Petersfield Road (S)	U	N/A	N/A	-		-	-	-	924	Inf	Inf	0.0%

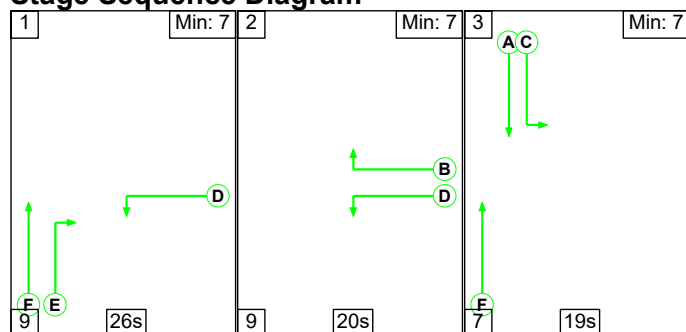
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	12.6	14.4	0.0	27.0	-	-	-	-
Bartons Road - Petersfield Road	-	-	0	0	0	12.6	14.4	0.0	27.0	-	-	-	-
1/2+1/1	647	647	-	-	-	5.0	4.7	-	9.7	53.8	14.5	4.7	19.2
2/2+2/1	597	597	-	-	-	3.4	5.6	-	8.9	54.0	9.5	5.6	15.1
3/1	324	324	-	-	-	0.4	0.2	-	0.5	5.8	2.7	0.2	2.9
3/2	466	466	-	-	-	3.9	3.9	-	7.9	60.7	11.1	3.9	15.1
4/1	461	461	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	649	649	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	924	924	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): -3.8 Total Delay for Signalled Lanes (pcuHr): 27.00 Cycle Time (s): 90 PRC Over All Lanes (%): -3.8 Total Delay Over All Lanes(pcuHr): 27.00													

Full Input Data And Results

Scenario 8: '2023 Baseline + Sensitivity PM' (FG12: '2023 + Committed + Sensitivity PM', Plan 1: 'Network Control Plan 1')

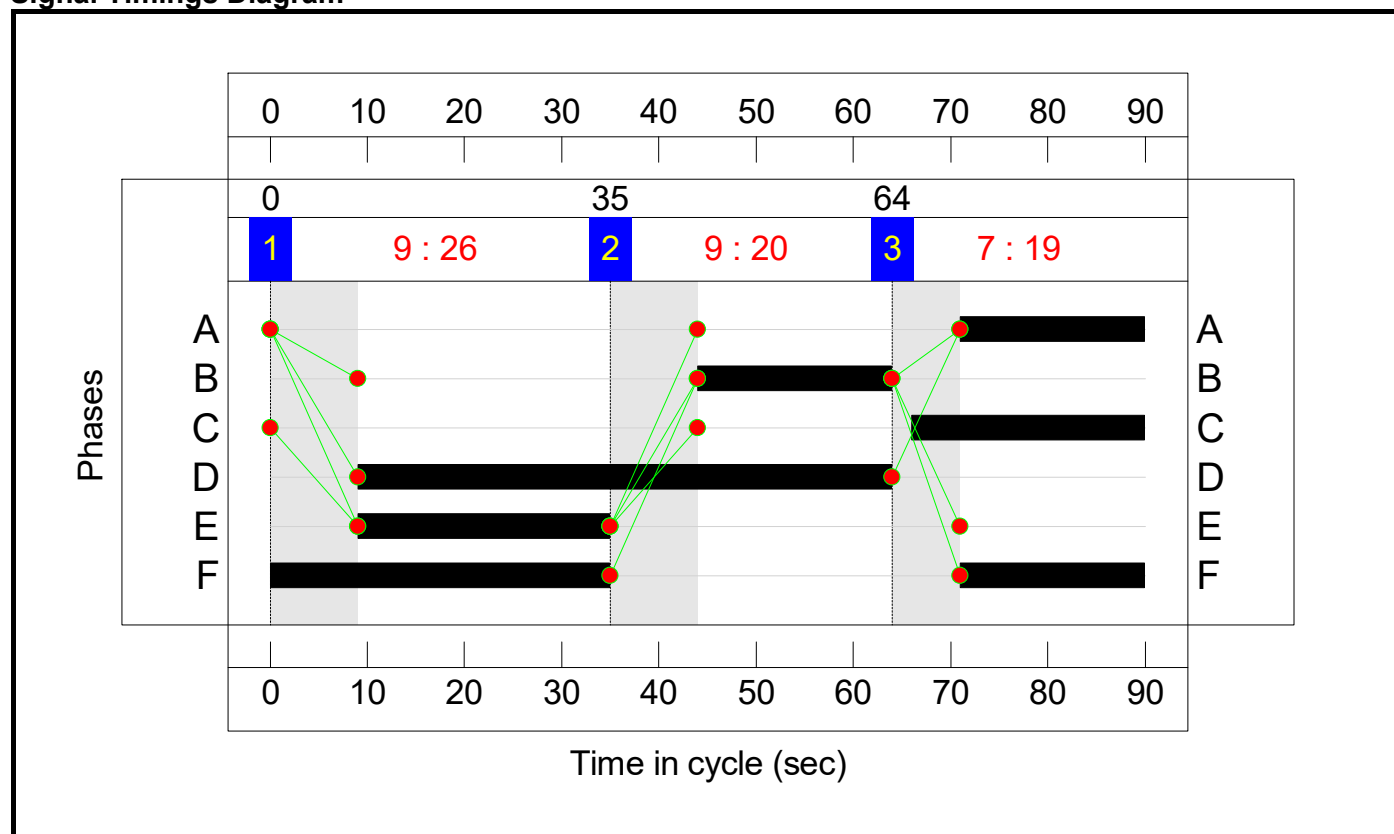
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	26	20	19
Change Point	0	35	64

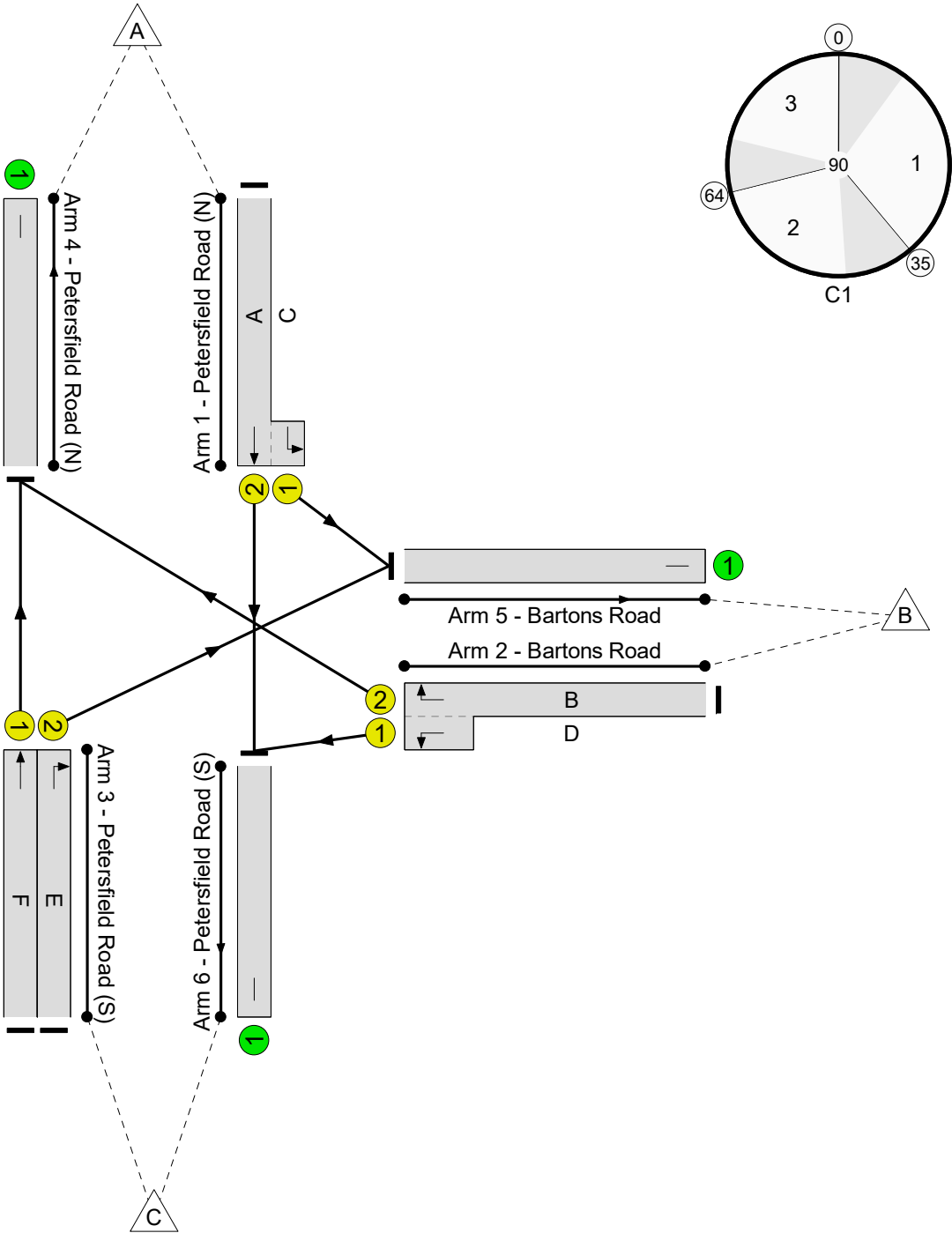
Signal Timings Diagram



Bartons Road - Petersfield Road



PRC: -3.0 %
Total Traffic Delay: 28.5 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	92.7%
Bartons Road - Petersfield Road	-	-	N/A	-	-		-	-	-	-	-	-	92.7%
1/2+1/1	Petersfield Road (N) Left Ahead	U	N/A	N/A	A C		1	19:24	-	449	2095:1749	358+126	92.7 : 92.7%
2/2+2/1	Bartons Road Right Left	U	N/A	N/A	B D		1	20:55	-	768	1953:1743	193+636	92.6 : 92.6%
3/1	Petersfield Road (S) Ahead	U	N/A	N/A	F		1	54	-	535	1940	1186	45.1%
3/2	Petersfield Road (S) Right	U	N/A	N/A	E		1	26	-	477	1724	517	92.2%
4/1	Petersfield Road (N)	U	N/A	N/A	-		-	-	-	714	Inf	Inf	0.0%
5/1	Bartons Road	U	N/A	N/A	-		-	-	-	594	Inf	Inf	0.0%
6/1	Petersfield Road (S)	U	N/A	N/A	-		-	-	-	921	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	13.0	15.5	0.0	28.5	-	-	-	-
Bartons Road - Petersfield Road	-	-	0	0	0	13.0	15.5	0.0	28.5	-	-	-	-
1/2+1/1	449	449	-	-	-	4.2	4.9	-	9.1	73.0	10.1	4.9	15.1
2/2+2/1	768	768	-	-	-	3.4	5.3	-	8.7	40.9	11.0	5.3	16.3
3/1	535	535	-	-	-	1.4	0.4	-	1.8	12.2	7.1	0.4	7.5
3/2	477	477	-	-	-	4.0	4.8	-	8.8	66.6	11.5	4.8	16.3
4/1	714	714	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	594	594	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	921	921	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): -3.0 Total Delay for Signalled Lanes (pcuHr): 28.46 Cycle Time (s): 90 PRC Over All Lanes (%): -3.0 Total Delay Over All Lanes(pcuHr): 28.46													

Appendix C PICADY Output Report

Junctions 9	
PICADY 9 - Priority Intersection Module	
Version: 9.5.0.6896 © Copyright TRL Limited, 2018	
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk	
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution	

Filename: Bartons Road Comley Hill Junction.j9

Path: P:\17-055 Camp Field Bartons Rd Havant\Trans\Picady\2019-07-15 Horndean Road Junction

Report generation date: 15/07/2019 12:21:56

-
- »(Default Analysis Set) - 2018, AM
 - »(Default Analysis Set) - 2018, PM
 - »(Default Analysis Set) - 2023 Baseline, AM
 - »(Default Analysis Set) - 2023 Baseline, PM
 - »(Default Analysis Set) - 2023 Baseline + Development 72 Dwellings, AM
 - »(Default Analysis Set) - 2023 Baseline + Development 72 Dwellings, PM
 - »(Default Analysis Set) - 2023 Baseline + Sensitivity Test 150 Dwellings, AM
 - »(Default Analysis Set) - 2023 Baseline + Sensitivity Test 150 Dwellings, PM

Summary of junction performance

	AM						PM					
	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS
	A1 - 2018											
Stream B-C	0.2	9.67	0.14	A	70.16	F	0.3	10.08	0.20	B	40.05	E
Stream B-AD	35.6	267.23	1.14	F			6.0	62.33	0.89	F		
Stream A-BCD	0.2	8.96	0.18	A			0.0	7.25	0.04	A		
Stream D-A	0.0	9.68	0.05	A			2.6	221.31	0.96	F		
Stream D-BC	1.7	24.99	0.63	C			9.8	85.73	0.95	F		
Stream C-ABD	0.3	8.68	0.20	A			0.2	8.59	0.15	A		
	A1 - 2023 Baseline											
Stream B-C	0.2	10.42	0.18	B	157.97	F	0.3	11.44	0.26	B	97.52	F
Stream B-AD	74.1	625.50	1.34	F			19.1	165.95	1.05	F		
Stream A-BCD	0.3	10.30	0.22	B			0.0	7.64	0.04	A		
Stream D-A	0.1	14.45	0.07	B			4.3	424.58	1.11	F		
Stream D-BC	3.1	43.66	0.78	E			30.7	222.13	1.11	F		
Stream C-ABD	0.3	9.51	0.24	A			0.3	9.75	0.20	A		
	A1 - 2023 Baseline + Development 72 Dwellings											
Stream B-C	0.2	10.55	0.19	B	161.83	F	0.3	11.53	0.26	B	99.73	F
Stream B-AD	75.8	640.72	1.34	F			20.0	172.14	1.06	F		
Stream A-BCD	0.3	10.34	0.22	B			0.0	7.65	0.04	A		
Stream D-A	0.1	14.60	0.07	B			4.3	428.95	1.12	F		
Stream D-BC	3.2	44.11	0.78	E			31.4	226.39	1.12	F		
Stream C-ABD	0.3	9.53	0.24	A			0.3	9.86	0.21	A		
	A1 - 2023 Baseline + Sensitivity Test 150 Dwellings											
Stream B-C	0.3	10.69	0.20	B	168.27	F	0.4	11.63	0.27	B	104.01	F
Stream B-AD	78.8	665.76	1.36	F			21.4	182.75	1.07	F		
Stream A-BCD	0.3	10.41	0.22	B			0.0	7.67	0.04	A		
Stream D-A	0.1	15.03	0.08	C			4.4	437.68	1.12	F		
Stream D-BC	3.3	45.31	0.78	E			32.8	234.90	1.12	F		
Stream C-ABD	0.3	9.60	0.25	A			0.3	10.02	0.22	B		

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages.

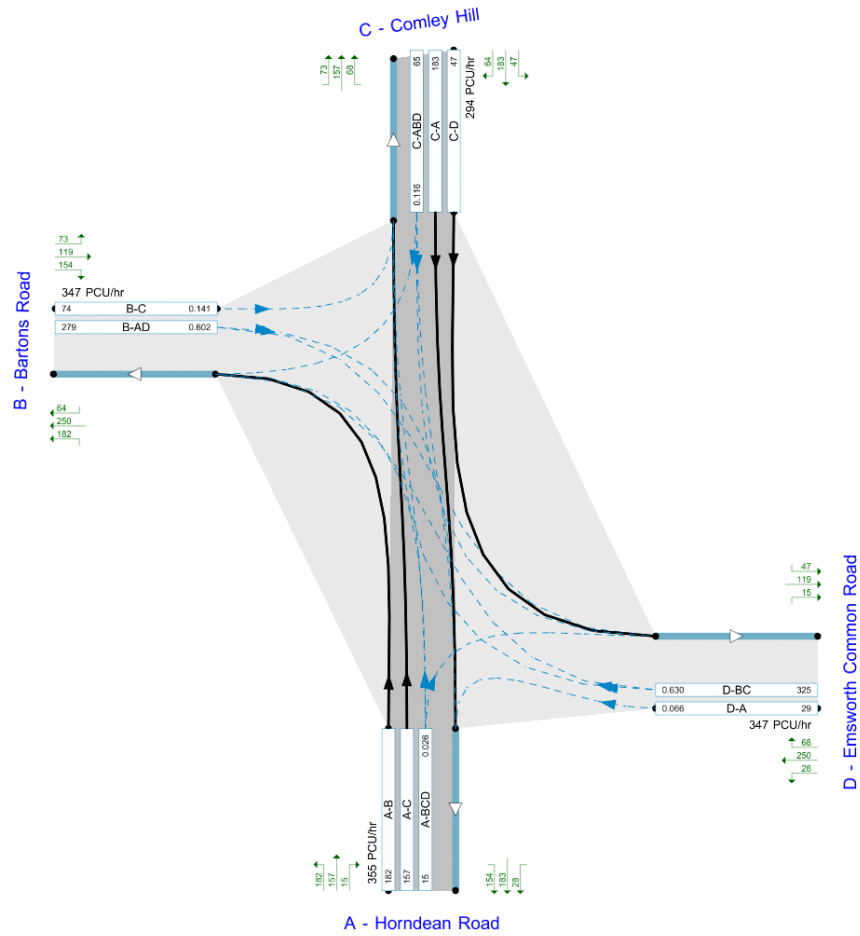
File summary

File Description

Title	Bartons Road / Horndean Road / EC Road
Location	Havant
Site number	
Date	02/11/2018
Version	
Status	
Identifier	
Client	White Farming Limited
Jobnumber	17-055
Enumerator	PL
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	PCU	perHour	s	-Min	perMin



Flows show modelled flow through junction (PCU/hr).
Streams (upstream end) show Total Demand (PCU/hr); Streams (downstream end) show RFC (%)
Time Segment: 16:15-16:30
The junction diagram reflects the last run of Junctions.

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
✓		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2018	AM	ONE HOUR	07:30	09:00	15
D2	2018	PM	ONE HOUR	16:15	17:45	15
D3	2023 Baseline	AM	ONE HOUR	07:30	09:00	15
D4	2023 Baseline	PM	ONE HOUR	16:15	17:45	15
D5	2023 Baseline + Development 72 Dwellings	AM	ONE HOUR	07:30	09:00	15
D6	2023 Baseline + Development 72 Dwellings	PM	ONE HOUR	16:15	17:45	15
D7	2023 Baseline + Sensitivity Test 150 Dwellings	AM	ONE HOUR	07:30	09:00	15
D8	2023 Baseline + Sensitivity Test 150 Dwellings	PM	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	(Default Analysis Set)	100.000

(Default Analysis Set) - 2018, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bartons Road / Horndean Road	Right-Left Stagger	Two-way		70.16	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Horndean Road		Major
B	Bartons Road		Minor
C	Comley Hill		Major
D	Emsworth Common Road		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
A - Horndean Road	8.34	✓	3.20	✓	3.20	130.0	✓	7.50
C - Comley Hill	9.14	✓	3.20	✓	3.20	126.0	✓	4.70

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Bartons Road	Two lanes	3.50	3.50								62	85
D - Emsworth Common Road	One lane plus flare			10.00	10.00	7.00	6.00	5.45	✓	3.00	42	85

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-B	Slope for D-C
1	A-D	720	-	-	-	0.251	0.251	0.251	-	0.251	-	-
1	B-AD	608	0.089	0.225	-	-	-	0.142	0.322	0.142	0.089	0.225
1	B-C	711	0.094	0.238	-	-	-	-	-	-	0.094	0.238
1	C-B	717	0.240	0.240	-	-	-	-	-	-	0.240	0.240
1	D-A	656	-	-	-	0.228	0.090	0.228	-	0.090	-	-
1	D-BC	686	0.167	0.167	0.378	0.265	0.105	0.265	-	0.105	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2018	AM	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Horndean Road		✓	571	100.000
B - Bartons Road		✓	459	100.000
C - Comley Hill		✓	402	100.000
D - Emsworth Common Road		✓	239	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		A - Horndean Road	B - Bartons Road	C - Comley Hill	D - Emsworth Common Road
From	A - Horndean Road	0	257	233	81
	B - Bartons Road	150	0	54	255
	C - Comley Hill	172	94	0	136
	D - Emsworth Common Road	17	162	60	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A - Horndean Road	B - Bartons Road	C - Comley Hill	D - Emsworth Common Road
From	A - Horndean Road	0	2	1	1
	B - Bartons Road	3	0	2	4
	C - Comley Hill	3	1	0	2
	D - Emsworth Common Road	0	2	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS
B-C	0.14	9.67	0.2	0.5	A
B-AD	1.14	267.23	35.6	70.8	F
A-BCD	0.18	8.96	0.2	0.8	A
A-B					
A-C					
D-A	0.05	9.68	0.0	0.5	A
D-BC	0.63	24.99	1.7	7.6	C
C-ABD	0.20	8.68	0.3	1.2	A
C-D					
C-A					

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	41	522	0.079	41	0.1	7.632	A
B-AD	316	471	0.671	308	2.0	21.974	C
A-BCD	62	581	0.106	61	0.1	6.986	A
A-B	197			197			
A-C	177			177			
D-A	13	520	0.025	13	0.0	7.095	A
D-BC	174	502	0.347	172	0.5	11.285	B
C-ABD	71	586	0.122	71	0.1	7.056	A
C-D	104			104			
C-A	133			133			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	50	478	0.104	49	0.1	8.564	A
B-AD	377	444	0.850	367	4.5	43.513	E
A-BCD	74	552	0.133	73	0.2	7.591	A
A-B	236			236			
A-C	212			212			
D-A	15	483	0.032	15	0.0	7.694	A
D-BC	208	465	0.447	207	0.8	14.456	B
C-ABD	85	560	0.153	85	0.2	7.661	A
C-D	125			125			
C-A	159			159			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	61	441	0.138	60	0.2	9.652	A
B-AD	462	407	1.135	396	21.0	139.158	F
A-BCD	90	512	0.176	90	0.2	8.599	A
A-B	289			289			
A-C	259			259			
D-A	19	409	0.046	19	0.0	9.232	A
D-BC	255	414	0.615	252	1.6	22.669	C
C-ABD	105	524	0.199	104	0.2	8.654	A
C-D	153			153			
C-A	195			195			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	61	440	0.138	61	0.2	9.667	A
B-AD	462	407	1.136	404	35.6	267.227	F
A-BCD	90	496	0.182	90	0.2	8.957	A
A-B	289			289			
A-C	259			259			
D-A	19	390	0.048	19	0.0	9.684	A
D-BC	255	403	0.632	254	1.7	24.988	C
C-ABD	105	523	0.200	105	0.3	8.678	A
C-D	153			153			
C-A	195			195			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	50	457	0.108	50	0.1	9.011	A
B-AD	377	443	0.851	431	22.2	244.587	F
A-BCD	74	519	0.142	74	0.2	8.178	A
A-B	236			236			
A-C	212			212			
D-A	15	459	0.033	15	0.0	8.121	A
D-BC	208	443	0.469	211	1.0	16.364	C
C-ABD	85	559	0.153	86	0.2	7.692	A
C-D	125			125			
C-A	159			159			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	41	492	0.084	42	0.1	8.161	A
B-AD	316	470	0.672	395	2.4	76.845	F
A-BCD	62	559	0.110	62	0.1	7.318	A
A-B	197			197			
A-C	177			177			
D-A	13	505	0.025	13	0.0	7.310	A
D-BC	174	487	0.357	176	0.6	12.081	B
C-ABD	71	585	0.122	72	0.1	7.087	A
C-D	104			104			
C-A	133			133			

Queue Variation Results for each time segment

07:30 - 07:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.09	0.00	0.00	0.09	0.09			N/A	N/A
B-AD	1.96	0.29	1.17	3.29	4.07			N/A	N/A
ABCD	0.12	0.00	0.00	0.12	0.12			N/A	N/A
D-A	0.03	0.00	0.00	0.03	0.03			N/A	N/A
D-BC	0.54	0.54	1.04	1.46	1.51			N/A	N/A
C-ABD	0.14	0.00	0.00	0.14	0.14			N/A	N/A

07:45 - 08:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.12	0.00	0.00	0.12	0.12			N/A	N/A
B-AD	4.49	0.16	2.24	10.56	14.35			N/A	N/A
ABCD	0.15	0.00	0.00	0.15	0.15			N/A	N/A
D-A	0.03	0.03	0.25	0.45	0.48			N/A	N/A
D-BC	0.82	0.15	0.94	1.46	1.53			N/A	N/A
C-ABD	0.18	0.00	0.00	0.18	0.18			N/A	N/A

08:00 - 08:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.16	0.03	0.26	0.47	0.50			N/A	N/A
B-AD	21.03	4.94	18.12	37.22	44.29			N/A	N/A
ABCD	0.21	0.03	0.26	0.47	0.49			N/A	N/A
D-A	0.05	0.03	0.25	0.46	0.48			N/A	N/A
D-BC	1.57	0.03	0.30	1.57	6.79			N/A	N/A
C-ABD	0.25	0.03	0.26	0.47	0.49			N/A	N/A

08:15 - 08:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.16	0.03	0.26	0.46	0.49			N/A	N/A
B-AD	35.60	10.62	31.80	60.42	70.75			N/A	N/A
ABCD	0.22	0.03	0.27	0.49	0.82			N/A	N/A
D-A	0.05	0.00	0.00	0.05	0.05			N/A	N/A
D-BC	1.70	0.03	0.31	1.70	7.62			N/A	N/A
C-ABD	0.25	0.03	0.29	0.80	1.17			N/A	N/A

08:30 - 08:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.13	0.00	0.00	0.13	0.13			N/A	N/A
B-AD	22.23	4.11	18.58	41.40	50.09			N/A	N/A
ABCD	0.17	0.00	0.00	0.17	0.17			N/A	N/A
D-A	0.03	0.00	0.00	0.03	0.03			N/A	N/A
D-BC	0.95	0.06	0.76	1.77	2.36			N/A	N/A
C-ABD	0.18	0.00	0.00	0.18	0.18			N/A	N/A

08:45 - 09:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.09	0.00	0.00	0.09	0.09			N/A	N/A
B-AD	2.42	0.03	0.32	3.16	11.73			N/A	N/A
A-BCD	0.13	0.00	0.00	0.13	0.13			N/A	N/A
D-A	0.03	0.00	0.00	0.03	0.03			N/A	N/A
D-BC	0.59	0.04	0.41	1.55	1.76			N/A	N/A
C-ABD	0.14	0.00	0.00	0.14	0.14			N/A	N/A

(Default Analysis Set) - 2018, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bartons Road / Horndean Road	Right-Left Stagger	Two-way		40.05	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2018	PM	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Horndean Road		✓	416	100.000
B - Bartons Road		✓	419	100.000
C - Comley Hill		✓	336	100.000
D - Emsworth Common Road		✓	424	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Horndean Road	B - Bartons Road	C - Comley Hill	D - Emsworth Common Road
From	A - Horndean Road	0	223	175	18
	B - Bartons Road	190	0	82	147
	C - Comley Hill	210	69	0	57
	D - Emsworth Common Road	36	303	85	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Horndean Road	B - Bartons Road	C - Comley Hill	D - Emsworth Common Road
From	A - Horndean Road	0	0	1	6
	B - Bartons Road	0	0	0	0
	C - Comley Hill	1	1	0	2
	D - Emsworth Common Road	0	2	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS
B-C	0.20	10.08	0.3	1.2	B
B-AD	0.89	62.33	6.0	30.9	F
A-BCD	0.04	7.25	0.0	0.5	A
A-B					
A-C					
D-A	0.96	221.31	2.6	3.6	F
D-BC	0.95	85.73	9.8	42.9	F
C-ABD	0.15	8.59	0.2	0.5	A
C-D					
C-A					

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	62	544	0.114	61	0.1	7.450	A
B-AD	254	481	0.527	249	1.1	15.253	C
A-BCD	14	605	0.024	14	0.0	6.456	A
A-B	168			168			
A-C	133			133			
D-A	27	469	0.058	27	0.1	8.133	A
D-BC	298	534	0.558	293	1.2	14.972	B
C-ABD	52	574	0.091	52	0.1	6.967	A
C-D	44			44			
C-A	160			160			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	74	507	0.145	74	0.2	8.304	A
B-AD	303	456	0.664	300	1.8	22.566	C
A-BCD	17	582	0.029	17	0.0	6.754	A
A-B	200			200			
A-C	159			159			
D-A	32	379	0.085	32	0.1	10.375	B
D-BC	356	503	0.707	352	2.3	23.543	C
C-ABD	63	545	0.115	63	0.1	7.541	A
C-D	52			52			
C-A	191			191			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	90	455	0.199	90	0.2	9.865	A
B-AD	371	422	0.880	358	5.1	48.808	E
A-BCD	21	551	0.038	21	0.0	7.205	A
A-B	246			246			
A-C	195			195			
D-A	40	105	0.379	38	0.6	52.493	F
D-BC	436	462	0.943	414	7.6	59.761	F
C-ABD	77	505	0.152	77	0.2	8.482	A
C-D	64			64			
C-A	234			234			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	90	447	0.202	90	0.3	10.084	B
B-AD	371	419	0.885	367	6.0	62.327	F
A-BCD	21	547	0.038	21	0.0	7.249	A
A-B	246			246			
A-C	195			195			
D-A	40	41	0.960	31	2.6	221.306	F
D-BC	436	460	0.948	427	9.8	85.729	F
C-ABD	77	500	0.154	77	0.2	8.592	A
C-D	64			64			
C-A	234			234			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	74	496	0.149	74	0.2	8.544	A
B-AD	303	452	0.670	318	2.2	29.294	D
A-BCD	17	577	0.030	17	0.0	6.814	A
A-B	200			200			
A-C	159			159			
D-A	32	323	0.100	42	0.1	13.273	B
D-BC	356	499	0.713	384	2.8	37.383	E
C-ABD	63	536	0.117	63	0.1	7.681	A
C-D	52			52			
C-A	191			191			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	62	540	0.114	62	0.1	7.538	A
B-AD	254	480	0.529	258	1.2	16.492	C
A-BCD	14	603	0.024	14	0.0	6.480	A
A-B	168			168			
A-C	133			133			
D-A	27	460	0.059	27	0.1	8.332	A
D-BC	298	532	0.560	304	1.3	16.459	C
C-ABD	52	571	0.092	53	0.1	7.018	A
C-D	44			44			
C-A	160			160			

Queue Variation Results for each time segment

16:15 - 16:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.13	0.00	0.00	0.13	0.13			N/A	N/A
B-AD	1.07	0.55	1.00	1.40	1.45			N/A	N/A
ABCD	0.03	0.00	0.00	0.03	0.03			N/A	N/A
D-A	0.06	0.00	0.00	0.06	0.06			N/A	N/A
D-BC	1.24	0.57	1.12	1.44	1.74			N/A	N/A
C-ABD	0.10	0.00	0.00	0.10	0.10			N/A	N/A

16:30 - 16:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.17	0.00	0.00	0.17	0.17			N/A	N/A
B-AD	1.85	0.09	1.25	3.96	5.46			N/A	N/A
ABCD	0.03	0.03	0.27	0.48	0.51			N/A	N/A
D-A	0.09	0.00	0.00	0.09	0.09			N/A	N/A
D-BC	2.27	0.09	1.33	5.28	7.40			N/A	N/A
C-ABD	0.13	0.00	0.00	0.13	0.13			N/A	N/A

16:45 - 17:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.24	0.03	0.26	0.46	0.49			N/A	N/A
B-AD	5.06	0.06	1.23	14.33	22.57			N/A	N/A
ABCD	0.04	0.03	0.27	0.48	0.51			N/A	N/A
D-A	0.56	0.03	0.27	0.56	1.64			N/A	N/A
D-BC	7.61	0.13	2.98	20.01	28.55			N/A	N/A
C-ABD	0.18	0.03	0.26	0.47	0.49			N/A	N/A

17:00 - 17:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.25	0.03	0.29	0.78	1.15			N/A	N/A
B-AD	5.95	0.05	0.45	16.71	30.91			N/A	N/A
ABCD	0.04	0.00	0.00	0.04	0.04			N/A	N/A
D-A	2.64	1.04	2.11	3.17	3.64			N/A	N/A
D-BC	9.78	0.08	2.14	27.91	42.85			N/A	N/A
C-ABD	0.18	0.03	0.26	0.46	0.49			N/A	N/A

17:15 - 17:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.18	0.00	0.00	0.18	0.18			N/A	N/A
B-AD	2.19	0.04	0.41	5.94	10.71			N/A	N/A
ABCD	0.03	0.00	0.00	0.03	0.03			N/A	N/A
D-A	0.11	0.03	0.25	0.45	0.48			N/A	N/A
D-BC	2.80	0.04	0.42	7.62	14.10			N/A	N/A
C-ABD	0.13	0.00	0.00	0.13	0.13			N/A	N/A

17:30 - 17:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.13	0.00	0.00	0.13	0.13			N/A	N/A
B-AD	1.16	0.03	0.32	2.21	5.92			N/A	N/A
A-BCD	0.03	0.00	0.00	0.03	0.03			N/A	N/A
D-A	0.06	0.03	0.25	0.45	0.48			N/A	N/A
D-BC	1.35	0.03	0.31	1.95	6.66			N/A	N/A
C-ABD	0.10	0.00	0.00	0.10	0.10			N/A	N/A

(Default Analysis Set) - 2023 Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bartons Road / Horndean Road	Right-Left Stagger	Two-way		157.97	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2023 Baseline	AM	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Horndean Road		✓	633	100.000
B - Bartons Road		✓	515	100.000
C - Comley Hill		✓	464	100.000
D - Emsworth Common Road		✓	259	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Horndean Road	B - Bartons Road	C - Comley Hill	D - Emsworth Common Road
From	A - Horndean Road	0	283	263	87
	B - Bartons Road	166	0	69	280
	C - Comley Hill	210	108	0	146
	D - Emsworth Common Road	18	177	64	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Horndean Road	B - Bartons Road	C - Comley Hill	D - Emsworth Common Road
From	A - Horndean Road	0	2	1	1
	B - Bartons Road	3	0	2	4
	C - Comley Hill	3	1	0	2
	D - Emsworth Common Road	0	2	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS
B-C	0.18	10.42	0.2	1.0	B
B-AD	1.34	625.50	74.1	121.0	F
A-BCD	0.22	10.30	0.3	1.2	B
A-B					
A-C					
D-A	0.07	14.45	0.1	0.5	B
D-BC	0.78	43.66	3.1	16.9	E
C-ABD	0.24	9.51	0.3	1.4	A
C-D					
C-A					

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	53	499	0.106	53	0.1	8.208	A
B-AD	348	454	0.767	336	3.0	29.374	D
A-BCD	66	564	0.117	66	0.1	7.290	A
A-B	217			217			
A-C	200			200			
D-A	14	500	0.027	13	0.0	7.393	A
D-BC	189	479	0.394	186	0.7	12.682	B
C-ABD	82	572	0.144	81	0.2	7.405	A
C-D	112			112			
C-A	163			163			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	63	450	0.141	63	0.2	9.498	A
B-AD	415	423	0.982	389	9.5	77.677	F
A-BCD	79	531	0.149	79	0.2	8.047	A
A-B	259			259			
A-C	239			239			
D-A	16	452	0.036	16	0.0	8.259	A
D-BC	226	437	0.516	224	1.1	17.445	C
C-ABD	98	543	0.181	98	0.2	8.163	A
C-D	134			134			
C-A	194			194			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	77	431	0.180	77	0.2	10.386	B
B-AD	509	382	1.333	379	42.0	265.995	F
A-BCD	97	482	0.201	96	0.3	9.419	A
A-B	318			318			
A-C	292			292			
D-A	20	327	0.061	20	0.1	11.714	B
D-BC	276	377	0.732	271	2.5	33.394	D
C-ABD	120	504	0.239	120	0.3	9.456	A
C-D	164			164			
C-A	238			238			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	77	430	0.180	77	0.2	10.416	B
B-AD	509	381	1.336	380	74.1	545.042	F
A-BCD	97	450	0.215	97	0.3	10.300	B
A-B	318			318			
A-C	292			292			
D-A	20	269	0.074	20	0.1	14.446	B
D-BC	276	356	0.776	274	3.1	43.661	E
C-ABD	120	503	0.239	120	0.3	9.506	A
C-D	164			164			
C-A	238			238			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	63	449	0.141	63	0.2	9.540	A
B-AD	415	422	0.985	416	74.1	625.496	F
A-BCD	79	459	0.172	79	0.2	9.573	A
A-B	259			259			
A-C	239			239			
D-A	16	390	0.042	16	0.0	9.651	A
D-BC	226	390	0.578	232	1.5	24.570	C
C-ABD	98	541	0.181	98	0.2	8.227	A
C-D	134			134			
C-A	194			194			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	53	463	0.114	53	0.1	8.965	A
B-AD	348	453	0.769	446	49.5	500.971	F
A-BCD	66	490	0.135	66	0.2	8.597	A
A-B	217			217			
A-C	200			200			
D-A	14	451	0.030	14	0.0	8.229	A
D-BC	189	430	0.439	192	0.8	15.861	C
C-ABD	82	570	0.144	82	0.2	7.451	A
C-D	112			112			
C-A	163			163			

Queue Variation Results for each time segment

07:30 - 07:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.12	0.00	0.00	0.12	0.12			N/A	N/A
B-AD	2.96	0.05	0.45	8.22	14.47			N/A	N/A
ABCD	0.13	0.00	0.00	0.13	0.13			N/A	N/A
D-A	0.03	0.00	0.00	0.03	0.03			N/A	N/A
D-BC	0.66	0.57	1.04	1.46	1.51			N/A	N/A
C-ABD	0.17	0.00	0.00	0.17	0.17			N/A	N/A

07:45 - 08:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.17	0.00	0.00	0.17	0.17			N/A	N/A
B-AD	9.48	0.22	4.90	23.51	32.22			N/A	N/A
ABCD	0.17	0.00	0.00	0.17	0.17			N/A	N/A
D-A	0.04	0.03	0.25	0.45	0.48			N/A	N/A
D-BC	1.07	0.10	1.00	1.73	2.04			N/A	N/A
C-ABD	0.22	0.00	0.00	0.22	0.22			N/A	N/A

08:00 - 08:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.22	0.03	0.26	0.47	0.50			N/A	N/A
B-AD	41.96	17.70	39.13	64.45	73.17			N/A	N/A
ABCD	0.25	0.03	0.26	0.47	0.49			N/A	N/A
D-A	0.06	0.03	0.26	0.47	0.49			N/A	N/A
D-BC	2.51	0.04	0.37	6.01	13.27			N/A	N/A
C-ABD	0.31	0.03	0.26	0.47	0.49			N/A	N/A

08:15 - 08:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.22	0.03	0.28	0.52	1.03			N/A	N/A
B-AD	74.10	40.80	71.32	103.56	114.18			N/A	N/A
ABCD	0.27	0.03	0.30	0.89	1.21			N/A	N/A
D-A	0.08	0.00	0.00	0.08	0.08			N/A	N/A
D-BC	3.14	0.04	0.35	6.80	16.89			N/A	N/A
C-ABD	0.32	0.03	0.32	1.11	1.41			N/A	N/A

08:30 - 08:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.17	0.00	0.00	0.17	0.17			N/A	N/A
B-AD	74.09	36.57	70.57	108.32	121.03			N/A	N/A
ABCD	0.21	0.00	0.00	0.21	0.21			N/A	N/A
D-A	0.04	0.00	0.00	0.04	0.04			N/A	N/A
D-BC	1.51	0.06	0.75	3.59	5.22			N/A	N/A
C-ABD	0.23	0.00	0.00	0.23	0.23			N/A	N/A

08:45 - 09:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.13	0.00	0.00	0.13	0.13			N/A	N/A
B-AD	49.50	14.95	44.41	84.24	98.63			N/A	N/A
A-BCD	0.16	0.00	0.00	0.16	0.16			N/A	N/A
D-A	0.03	0.00	0.00	0.03	0.03			N/A	N/A
D-BC	0.84	0.04	0.38	1.97	3.47			N/A	N/A
C-ABD	0.17	0.00	0.00	0.17	0.17			N/A	N/A

(Default Analysis Set) - 2023 Baseline, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bartons Road / Horndean Road	Right-Left Stagger	Two-way		97.52	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2023 Baseline	PM	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Horndean Road		✓	468	100.000
B - Bartons Road		✓	469	100.000
C - Comley Hill		✓	387	100.000
D - Emsworth Common Road		✓	461	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Horndean Road	B - Bartons Road	C - Comley Hill	D - Emsworth Common Road
From	A - Horndean Road	0	242	207	19
	B - Bartons Road	209	0	98	162
	C - Comley Hill	241	85	0	61
	D - Emsworth Common Road	38	332	91	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Horndean Road	B - Bartons Road	C - Comley Hill	D - Emsworth Common Road
From	A - Horndean Road	0	0	1	6
	B - Bartons Road	0	0	0	0
	C - Comley Hill	1	1	0	2
	D - Emsworth Common Road	0	2	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS
B-C	0.26	11.44	0.3	1.5	B
B-AD	1.05	165.95	19.1	52.3	F
A-BCD	0.04	7.64	0.0	0.5	A
A-B					
A-C					
D-A	1.11	424.58	4.3	16.3	F
D-BC	1.11	222.13	30.7	66.3	F
C-ABD	0.20	9.75	0.3	1.2	A
C-D					
C-A					

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	74	523	0.141	73	0.2	7.984	A
B-AD	279	464	0.602	274	1.4	18.404	C
A-BCD	15	592	0.026	15	0.0	6.611	A
A-B	182			182			
A-C	157			157			
D-A	29	432	0.066	28	0.1	8.911	A
D-BC	325	516	0.630	318	1.6	18.062	C
C-ABD	65	558	0.116	64	0.1	7.355	A
C-D	47			47			
C-A	183			183			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	88	480	0.183	88	0.2	9.163	A
B-AD	334	435	0.767	328	2.9	31.880	D
A-BCD	18	566	0.032	18	0.0	6.963	A
A-B	218			218			
A-C	188			188			
D-A	34	288	0.118	34	0.1	14.133	B
D-BC	388	481	0.806	380	3.6	33.864	D
C-ABD	77	525	0.147	77	0.2	8.106	A
C-D	56			56			
C-A	219			219			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	108	428	0.252	107	0.3	11.225	B
B-AD	408	396	1.033	372	11.9	93.779	F
A-BCD	22	530	0.042	22	0.0	7.508	A
A-B	266			266			
A-C	230			230			
D-A	42	38	1.112	29	3.3	293.230	F
D-BC	475	435	1.093	419	17.7	113.683	F
C-ABD	95	481	0.197	94	0.2	9.397	A
C-D	68			68			
C-A	268			268			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	108	422	0.255	108	0.3	11.443	B
B-AD	408	389	1.051	380	19.1	165.946	F
A-BCD	22	521	0.043	22	0.0	7.645	A
A-B	266			266			
A-C	230			230			
D-A	42	43	0.972	38	4.3	424.575	F
D-BC	475	427	1.112	423	30.7	222.132	F
C-ABD	95	467	0.202	95	0.3	9.750	A
C-D	68			68			
C-A	268			268			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	88	441	0.200	88	0.3	10.235	B
B-AD	334	421	0.792	390	5.1	112.515	F
A-BCD	18	548	0.033	18	0.0	7.200	A
A-B	218			218			
A-C	188			188			
D-A	34	47	0.727	37	3.7	320.489	F
D-BC	388	467	0.830	452	14.7	186.409	F
C-ABD	77	498	0.155	77	0.2	8.661	A
C-D	56			56			
C-A	219			219			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	74	509	0.145	74	0.2	8.285	A
B-AD	279	457	0.612	293	1.7	23.595	C
A-BCD	15	587	0.026	15	0.0	6.674	A
A-B	182			182			
A-C	157			157			
D-A	29	361	0.079	43	0.1	11.834	B
D-BC	325	511	0.636	376	1.9	36.206	E
C-ABD	65	544	0.119	65	0.1	7.596	A
C-D	47			47			
C-A	183			183			

Queue Variation Results for each time segment

16:15 - 16:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.16	0.00	0.00	0.16	0.16			N/A	N/A
B-AD	1.44	0.54	1.33	1.88	2.16			N/A	N/A
ABCD	0.03	0.00	0.00	0.03	0.03			N/A	N/A
D-A	0.07	0.00	0.00	0.07	0.07			N/A	N/A
D-BC	1.64	0.34	1.46	2.58	3.02			N/A	N/A
C-ABD	0.13	0.00	0.00	0.13	0.13			N/A	N/A

16:30 - 16:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.22	0.00	0.00	0.22	0.22			N/A	N/A
B-AD	2.87	0.10	1.13	6.84	9.53			N/A	N/A
ABCD	0.03	0.03	0.27	0.48	0.51			N/A	N/A
D-A	0.13	0.03	0.27	0.49	0.89			N/A	N/A
D-BC	3.58	0.11	1.46	8.75	12.21			N/A	N/A
C-ABD	0.17	0.00	0.00	0.17	0.17			N/A	N/A

16:45 - 17:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.33	0.03	0.26	0.46	0.49			N/A	N/A
B-AD	11.95	0.97	8.44	25.62	32.75			N/A	N/A
ABCD	0.05	0.03	0.27	0.48	0.51			N/A	N/A
D-A	3.29	0.09	1.06	8.34	11.94			N/A	N/A
D-BC	17.70	2.83	14.50	33.53	40.84			N/A	N/A
C-ABD	0.24	0.03	0.26	0.47	0.49			N/A	N/A

17:00 - 17:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.34	0.03	0.32	1.17	1.47			N/A	N/A
B-AD	19.12	1.16	13.92	41.04	52.28			N/A	N/A
ABCD	0.05	0.00	0.00	0.05	0.05			N/A	N/A
D-A	4.30	0.09	1.41	11.26	16.30			N/A	N/A
D-BC	30.74	6.98	26.48	55.51	66.34			N/A	N/A
C-ABD	0.25	0.03	0.29	0.79	1.16			N/A	N/A

17:15 - 17:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.25	0.00	0.00	0.25	0.25			N/A	N/A
B-AD	5.10	0.06	1.13	14.54	23.21			N/A	N/A
ABCD	0.04	0.00	0.00	0.04	0.04			N/A	N/A
D-A	3.66	1.01	2.94	5.33	6.09			N/A	N/A
D-BC	14.67	1.07	10.93	30.45	38.39			N/A	N/A
C-ABD	0.19	0.00	0.00	0.19	0.19			N/A	N/A

17:30 - 17:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.17	0.00	0.00	0.17	0.17			N/A	N/A
B-AD	1.66	0.03	0.30	2.01	7.91			N/A	N/A
A-BCD	0.03	0.00	0.00	0.03	0.03			N/A	N/A
D-A	0.09	0.03	0.25	0.46	0.48			N/A	N/A
D-BC	1.92	0.03	0.30	1.92	8.55			N/A	N/A
C-ABD	0.14	0.00	0.00	0.14	0.14			N/A	N/A

(Default Analysis Set) - 2023 Baseline + Development 72 Dwellings, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bartons Road / Horndean Road	Right-Left Stagger	Two-way		161.83	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2023 Baseline + Development 72 Dwellings	AM	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Horndean Road		✓	633	100.000
B - Bartons Road		✓	521	100.000
C - Comley Hill		✓	465	100.000
D - Emsworth Common Road		✓	259	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Horndean Road	B - Bartons Road	C - Comley Hill	D - Emsworth Common Road
From	A - Horndean Road	0	283	263	87
	B - Bartons Road	167	0	73	281
	C - Comley Hill	210	109	0	146
	D - Emsworth Common Road	18	177	64	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		A - Horndean Road	B - Bartons Road	C - Comley Hill	D - Emsworth Common Road
	A - Horndean Road	0	2	1	1
	B - Bartons Road	3	0	2	4
	C - Comley Hill	3	1	0	2
	D - Emsworth Common Road	0	2	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS
B-C	0.19	10.55	0.2	1.1	B
B-AD	1.34	640.72	75.8	123.1	F
ABCD	0.22	10.34	0.3	1.2	B
A-B					
A-C					
D-A	0.07	14.60	0.1	0.5	B
D-BC	0.78	44.11	3.2	17.1	E
C-ABD	0.24	9.53	0.3	1.4	A
C-D					
C-A					

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	56	499	0.112	56	0.1	8.275	A
B-AD	350	453	0.771	337	3.0	29.717	D
ABCD	66	563	0.117	66	0.1	7.296	A
A-B	217			217			
A-C	200			200			
D-A	14	500	0.027	13	0.0	7.397	A
D-BC	189	479	0.394	186	0.7	12.694	B
C-ABD	83	572	0.145	82	0.2	7.414	A
C-D	112			112			
C-A	163			163			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	67	450	0.149	67	0.2	9.587	A
B-AD	417	423	0.987	390	9.8	79.402	F
A-BCD	79	530	0.149	79	0.2	8.056	A
A-B	259			259			
A-C	239			239			
D-A	16	452	0.036	16	0.0	8.267	A
D-BC	226	437	0.517	224	1.1	17.475	C
C-ABD	99	543	0.182	99	0.2	8.178	A
C-D	134			134			
C-A	194			194			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	82	431	0.190	82	0.2	10.518	B
B-AD	511	381	1.341	379	42.9	271.772	F
A-BCD	97	481	0.201	96	0.3	9.440	A
A-B	318			318			
A-C	292			292			
D-A	20	326	0.061	20	0.1	11.760	B
D-BC	276	377	0.733	270	2.5	33.557	D
C-ABD	121	504	0.241	121	0.3	9.480	A
C-D	164			164			
C-A	238			238			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	82	430	0.191	82	0.2	10.550	B
B-AD	511	380	1.344	380	75.7	556.410	F
A-BCD	97	448	0.216	97	0.3	10.342	B
A-B	318			318			
A-C	292			292			
D-A	20	266	0.074	20	0.1	14.600	B
D-BC	276	355	0.778	274	3.2	44.114	E
C-ABD	121	503	0.241	121	0.3	9.533	A
C-D	164			164			
C-A	238			238			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	67	449	0.149	67	0.2	9.633	A
B-AD	417	421	0.990	417	75.8	640.725	F
A-BCD	79	457	0.173	79	0.2	9.625	A
A-B	259			259			
A-C	239			239			
D-A	16	388	0.042	16	0.0	9.701	A
D-BC	226	389	0.580	232	1.5	24.817	C
C-ABD	99	541	0.183	99	0.2	8.244	A
C-D	134			134			
C-A	194			194			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	56	463	0.121	56	0.1	9.035	A
B-AD	350	452	0.773	446	51.6	516.143	F
ABCD	66	487	0.136	66	0.2	8.639	A
A-B	217			217			
A-C	200			200			
D-A	14	450	0.030	14	0.0	8.257	A
D-BC	189	429	0.440	192	0.8	15.961	C
C-ABD	83	570	0.145	83	0.2	7.463	A
C-D	112			112			
C-A	163			163			

Queue Variation Results for each time segment

07:30 - 07:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.13	0.00	0.00	0.13	0.13			N/A	N/A
B-AD	3.02	0.04	0.44	8.34	15.01			N/A	N/A
ABCD	0.13	0.00	0.00	0.13	0.13			N/A	N/A
D-A	0.03	0.00	0.00	0.03	0.03			N/A	N/A
D-BC	0.66	0.57	1.04	1.46	1.51			N/A	N/A
C-ABD	0.17	0.00	0.00	0.17	0.17			N/A	N/A

07:45 - 08:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.18	0.00	0.00	0.18	0.18			N/A	N/A
B-AD	9.77	0.22	5.04	24.28	33.28			N/A	N/A
ABCD	0.18	0.00	0.00	0.18	0.18			N/A	N/A
D-A	0.04	0.03	0.25	0.45	0.48			N/A	N/A
D-BC	1.07	0.10	1.00	1.74	2.05			N/A	N/A
C-ABD	0.22	0.00	0.00	0.22	0.22			N/A	N/A

08:00 - 08:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.24	0.03	0.26	0.47	0.50			N/A	N/A
B-AD	42.88	18.15	40.02	65.80	74.67			N/A	N/A
ABCD	0.25	0.03	0.26	0.47	0.49			N/A	N/A
D-A	0.06	0.03	0.26	0.47	0.49			N/A	N/A
D-BC	2.52	0.04	0.37	6.07	13.34			N/A	N/A
C-ABD	0.32	0.03	0.26	0.47	0.49			N/A	N/A

08:15 - 08:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.24	0.03	0.29	0.74	1.15			N/A	N/A
B-AD	75.68	41.97	72.89	105.43	116.13			N/A	N/A
ABCD	0.27	0.03	0.30	0.89	1.22			N/A	N/A
D-A	0.08	0.00	0.00	0.08	0.08			N/A	N/A
D-BC	3.17	0.04	0.36	6.94	17.08			N/A	N/A
C-ABD	0.32	0.03	0.32	1.12	1.42			N/A	N/A

08:30 - 08:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.18	0.00	0.00	0.18	0.18			N/A	N/A
B-AD	75.76	37.77	72.24	110.32	123.09			N/A	N/A
A-BCD	0.21	0.00	0.00	0.21	0.21			N/A	N/A
D-A	0.04	0.00	0.00	0.04	0.04			N/A	N/A
D-BC	1.52	0.06	0.76	3.63	5.28			N/A	N/A
C-ABD	0.23	0.00	0.00	0.23	0.23			N/A	N/A

08:45 - 09:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.14	0.00	0.00	0.14	0.14			N/A	N/A
B-AD	51.59	16.12	46.50	87.04	101.62			N/A	N/A
A-BCD	0.16	0.00	0.00	0.16	0.16			N/A	N/A
D-A	0.03	0.00	0.00	0.03	0.03			N/A	N/A
D-BC	0.84	0.04	0.38	1.98	3.50			N/A	N/A
C-ABD	0.17	0.00	0.00	0.17	0.17			N/A	N/A

(Default Analysis Set) - 2023 Baseline + Development 72 Dwellings, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bartons Road / Horndean Road	Right-Left Stagger	Two-way		99.73	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2023 Baseline + Development 72 Dwellings	PM	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Horndean Road		✓	469	100.000
B - Bartons Road		✓	472	100.000
C - Comley Hill		✓	390	100.000
D - Emsworth Common Road		✓	462	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Horndean Road	B - Bartons Road	C - Comley Hill	D - Emsworth Common Road
From	A - Horndean Road	0	243	207	19
	B - Bartons Road	209	0	100	163
	C - Comley Hill	241	88	0	61
	D - Emsworth Common Road	38	333	91	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		A - Horndean Road	B - Bartons Road	C - Comley Hill	D - Emsworth Common Road
	A - Horndean Road	0	0	1	6
	B - Bartons Road	0	0	0	0
	C - Comley Hill	1	1	0	2
	D - Emsworth Common Road	0	2	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS
B-C	0.26	11.53	0.3	1.0	B
B-AD	1.06	172.14	20.0	53.1	F
ABCD	0.04	7.65	0.0	0.5	A
AB					
AC					
D-A	1.12	428.95	4.3	16.4	F
D-BC	1.12	226.39	31.4	67.0	F
C-ABD	0.21	9.86	0.3	1.2	A
C-D					
C-A					

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	75	523	0.144	75	0.2	8.019	A
B-AD	280	463	0.605	274	1.5	18.548	C
ABCD	15	592	0.026	15	0.0	6.613	A
AB	183			183			
AC	157			157			
D-A	29	431	0.066	28	0.1	8.931	A
D-BC	326	515	0.632	319	1.7	18.141	C
C-ABD	67	558	0.120	66	0.1	7.395	A
C-D	47			47			
C-A	183			183			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	90	480	0.187	90	0.2	9.223	A
B-AD	334	434	0.770	329	2.9	32.361	D
A-BCD	18	566	0.032	18	0.0	6.966	A
A-B	218			218			
A-C	188			188			
D-A	34	286	0.119	34	0.1	14.266	B
D-BC	389	481	0.808	381	3.6	34.165	D
C-ABD	80	525	0.152	80	0.2	8.160	A
C-D	56			56			
C-A	219			219			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	110	428	0.258	110	0.3	11.308	B
B-AD	410	394	1.039	372	12.3	96.211	F
A-BCD	22	530	0.042	22	0.0	7.513	A
A-B	268			268			
A-C	230			230			
D-A	42	38	1.116	29	3.3	295.075	F
D-BC	476	434	1.097	419	18.0	115.204	F
C-ABD	98	480	0.204	98	0.3	9.491	A
C-D	68			68			
C-A	268			268			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	110	422	0.261	110	0.3	11.533	B
B-AD	410	387	1.057	379	20.0	172.135	F
A-BCD	22	521	0.043	22	0.0	7.655	A
A-B	268			268			
A-C	230			230			
D-A	42	43	0.976	38	4.3	428.952	F
D-BC	476	427	1.116	423	31.4	226.385	F
C-ABD	98	467	0.210	98	0.3	9.860	A
C-D	68			68			
C-A	268			268			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	90	438	0.205	90	0.3	10.355	B
B-AD	334	420	0.797	393	5.4	120.346	F
A-BCD	18	547	0.033	18	0.0	7.211	A
A-B	218			218			
A-C	188			188			
D-A	34	47	0.731	37	3.7	324.565	F
D-BC	389	466	0.834	452	15.7	192.988	F
C-ABD	80	496	0.161	80	0.2	8.741	A
C-D	56			56			
C-A	219			219			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	75	507	0.148	76	0.2	8.345	A
B-AD	280	455	0.615	295	1.7	24.242	C
ABCD	15	587	0.026	15	0.0	6.679	A
AB	183			183			
AC	157			157			
D-A	29	353	0.081	43	0.1	12.182	B
D-BC	326	510	0.638	381	1.9	38.756	E
C-ABD	67	542	0.123	67	0.1	7.654	A
C-D	47			47			
C-A	183			183			

Queue Variation Results for each time segment

16:15 - 16:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.17	0.00	0.00	0.17	0.17			N/A	N/A
B-AD	1.45	0.54	1.34	1.91	2.29			N/A	N/A
ABCD	0.03	0.00	0.00	0.03	0.03			N/A	N/A
D-A	0.07	0.00	0.00	0.07	0.07			N/A	N/A
D-BC	1.66	0.33	1.46	2.62	3.06			N/A	N/A
C-ABD	0.14	0.00	0.00	0.14	0.14			N/A	N/A

16:30 - 16:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.23	0.00	0.00	0.23	0.23			N/A	N/A
B-AD	2.93	0.10	1.16	6.96	9.71			N/A	N/A
ABCD	0.03	0.03	0.27	0.48	0.51			N/A	N/A
D-A	0.13	0.03	0.27	0.49	0.90			N/A	N/A
D-BC	3.62	0.11	1.49	8.85	12.35			N/A	N/A
C-ABD	0.18	0.00	0.00	0.18	0.18			N/A	N/A

16:45 - 17:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.34	0.03	0.26	0.46	0.49			N/A	N/A
B-AD	12.34	1.12	8.89	26.11	33.20			N/A	N/A
ABCD	0.05	0.03	0.27	0.48	0.51			N/A	N/A
D-A	3.31	0.09	1.09	8.36	11.94			N/A	N/A
D-BC	18.01	3.02	14.83	33.91	41.23			N/A	N/A
C-ABD	0.26	0.03	0.26	0.47	0.49			N/A	N/A

17:00 - 17:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.35	0.03	0.32	1.02	1.02			N/A	N/A
B-AD	19.97	1.51	14.91	42.02	53.10			N/A	N/A
ABCD	0.05	0.00	0.00	0.05	0.05			N/A	N/A
D-A	4.34	0.09	1.45	11.33	16.37			N/A	N/A
D-BC	31.42	7.44	27.23	56.25	67.05			N/A	N/A
C-ABD	0.27	0.03	0.30	0.88	1.21			N/A	N/A

17:15 - 17:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.26	0.00	0.00	0.26	0.26			N/A	N/A
B-AD	5.42	0.06	1.32	15.36	24.11			N/A	N/A
A-BCD	0.04	0.00	0.00	0.04	0.04			N/A	N/A
D-A	3.74	1.03	3.02	5.45	6.25			N/A	N/A
D-BC	15.71	1.51	12.08	31.72	39.55			N/A	N/A
C-ABD	0.20	0.00	0.00	0.20	0.20			N/A	N/A

17:30 - 17:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.18	0.00	0.00	0.18	0.18			N/A	N/A
B-AD	1.69	0.03	0.30	2.04	8.02			N/A	N/A
A-BCD	0.03	0.00	0.00	0.03	0.03			N/A	N/A
D-A	0.09	0.03	0.25	0.46	0.48			N/A	N/A
D-BC	1.94	0.03	0.30	1.94	8.67			N/A	N/A
C-ABD	0.14	0.00	0.00	0.14	0.14			N/A	N/A

(Default Analysis Set) - 2023 Baseline + Sensitivity Test 150 Dwellings, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bartons Road / Horndean Road	Right-Left Stagger	Two-way		168.27	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2023 Baseline + Sensitivity Test 150 Dwellings	AM	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Horndean Road		✓	633	100.000
B - Bartons Road		✓	528	100.000
C - Comley Hill		✓	467	100.000
D - Emsworth Common Road		✓	260	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Horndean Road	B - Bartons Road	C - Comley Hill	D - Emsworth Common Road
From	A - Horndean Road	0	283	263	87
	B - Bartons Road	168	0	77	283
	C - Comley Hill	210	111	0	146
	D - Emsworth Common Road	18	178	64	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		A - Horndean Road	B - Bartons Road	C - Comley Hill	D - Emsworth Common Road
	A - Horndean Road	0	2	1	1
	B - Bartons Road	3	0	2	4
	C - Comley Hill	3	1	0	2
	D - Emsworth Common Road	0	2	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS
B-C	0.20	10.69	0.3	1.2	B
B-AD	1.36	665.76	78.8	126.9	F
A-BCD	0.22	10.41	0.3	1.2	B
A-B					
A-C					
D-A	0.08	15.03	0.1	0.5	C
D-BC	0.78	45.31	3.3	17.6	E
C-ABD	0.25	9.60	0.3	1.5	A
C-D					
C-A					

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	59	498	0.119	59	0.1	8.350	A
B-AD	352	453	0.777	339	3.1	30.287	D
A-BCD	66	563	0.118	66	0.1	7.305	A
A-B	217			217			
A-C	200			200			
D-A	14	499	0.027	13	0.0	7.407	A
D-BC	190	479	0.396	187	0.7	12.741	B
C-ABD	84	572	0.148	84	0.2	7.439	A
C-D	112			112			
C-A	163			163			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	71	449	0.157	70	0.2	9.681	A
B-AD	420	422	0.995	392	10.3	82.279	F
A-BCD	79	529	0.149	79	0.2	8.072	A
A-B	259			259			
A-C	239			239			
D-A	16	450	0.036	16	0.0	8.289	A
D-BC	227	436	0.519	225	1.1	17.586	C
C-ABD	101	543	0.186	101	0.2	8.216	A
C-D	134			134			
C-A	194			194			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	86	430	0.201	86	0.3	10.665	B
B-AD	515	380	1.353	378	44.4	281.443	F
A-BCD	97	480	0.202	96	0.3	9.473	A
A-B	318			318			
A-C	292			292			
D-A	20	322	0.062	20	0.1	11.910	B
D-BC	277	376	0.738	271	2.6	34.072	D
C-ABD	124	504	0.245	123	0.3	9.542	A
C-D	164			164			
C-A	238			238			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	86	430	0.201	86	0.3	10.691	B
B-AD	515	380	1.356	379	78.2	575.263	F
A-BCD	97	446	0.217	97	0.3	10.412	B
A-B	318			318			
A-C	292			292			
D-A	20	259	0.076	20	0.1	15.028	C
D-BC	277	353	0.785	275	3.3	45.308	E
C-ABD	124	502	0.246	124	0.3	9.596	A
C-D	164			164			
C-A	238			238			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	71	448	0.157	71	0.2	9.732	A
B-AD	420	421	0.999	418	78.8	665.759	F
A-BCD	79	454	0.174	79	0.2	9.711	A
A-B	259			259			
A-C	239			239			
D-A	16	384	0.042	16	0.0	9.809	A
D-BC	227	387	0.586	233	1.6	25.392	D
C-ABD	101	540	0.187	101	0.2	8.285	A
C-D	134			134			
C-A	194			194			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	59	463	0.128	59	0.2	9.105	A
B-AD	352	452	0.779	446	55.3	543.673	F
ABCD	66	484	0.137	66	0.2	8.713	A
A-B	217			217			
A-C	200			200			
D-A	14	447	0.030	14	0.0	8.309	A
D-BC	190	427	0.445	192	0.9	16.187	C
C-ABD	84	570	0.148	85	0.2	7.493	A
C-D	112			112			
C-A	163			163			

Queue Variation Results for each time segment

07:30 - 07:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.14	0.00	0.00	0.14	0.14			N/A	N/A
B-AD	3.10	0.04	0.42	8.45	15.77			N/A	N/A
ABCD	0.13	0.00	0.00	0.13	0.13			N/A	N/A
D-A	0.03	0.00	0.00	0.03	0.03			N/A	N/A
D-BC	0.67	0.57	1.04	1.46	1.51			N/A	N/A
C-ABD	0.17	0.00	0.00	0.17	0.17			N/A	N/A

07:45 - 08:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.19	0.00	0.00	0.19	0.19			N/A	N/A
B-AD	10.26	0.23	5.27	25.57	35.10			N/A	N/A
ABCD	0.18	0.00	0.00	0.18	0.18			N/A	N/A
D-A	0.04	0.03	0.25	0.45	0.48			N/A	N/A
D-BC	1.08	0.10	1.01	1.77	2.07			N/A	N/A
C-ABD	0.23	0.00	0.00	0.23	0.23			N/A	N/A

08:00 - 08:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.25	0.03	0.26	0.47	0.50			N/A	N/A
B-AD	44.38	18.89	41.44	67.99	77.12			N/A	N/A
ABCD	0.25	0.03	0.26	0.47	0.49			N/A	N/A
D-A	0.06	0.03	0.26	0.47	0.49			N/A	N/A
D-BC	2.57	0.04	0.37	6.29	13.60			N/A	N/A
C-ABD	0.32	0.03	0.26	0.47	0.49			N/A	N/A

08:15 - 08:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.25	0.03	0.30	0.87	1.23			N/A	N/A
B-AD	78.23	43.85	75.44	108.56	119.44			N/A	N/A
ABCD	0.28	0.03	0.30	0.90	1.22			N/A	N/A
D-A	0.08	0.00	0.00	0.08	0.08			N/A	N/A
D-BC	3.27	0.04	0.36	7.32	17.60			N/A	N/A
C-ABD	0.33	0.03	0.32	1.14	1.45			N/A	N/A

08:30 - 08:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.19	0.00	0.00	0.19	0.19			N/A	N/A
B-AD	78.82	40.02	75.30	113.97	126.91			N/A	N/A
A-BCD	0.22	0.00	0.00	0.22	0.22			N/A	N/A
D-A	0.04	0.00	0.00	0.04	0.04			N/A	N/A
D-BC	1.56	0.06	0.77	3.74	5.48			N/A	N/A
C-ABD	0.23	0.00	0.00	0.23	0.23			N/A	N/A

08:45 - 09:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.15	0.00	0.00	0.15	0.15			N/A	N/A
B-AD	55.31	18.36	50.26	91.88	106.72			N/A	N/A
A-BCD	0.16	0.00	0.00	0.16	0.16			N/A	N/A
D-A	0.03	0.00	0.00	0.03	0.03			N/A	N/A
D-BC	0.86	0.04	0.38	2.02	3.60			N/A	N/A
C-ABD	0.18	0.00	0.00	0.18	0.18			N/A	N/A

(Default Analysis Set) - 2023 Baseline + Sensitivity Test 150 Dwellings, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bartons Road / Horndean Road	Right-Left Stagger	Two-way		104.01	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2023 Baseline + Sensitivity Test 150 Dwellings	PM	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Horndean Road		✓	470	100.000
B - Bartons Road		✓	476	100.000
C - Comley Hill		✓	394	100.000
D - Emsworth Common Road		✓	464	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Horndean Road	B - Bartons Road	C - Comley Hill	D - Emsworth Common Road
From	A - Horndean Road	0	244	207	19
	B - Bartons Road	210	0	102	164
	C - Comley Hill	241	92	0	61
	D - Emsworth Common Road	38	335	91	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		A - Horndean Road	B - Bartons Road	C - Comley Hill	D - Emsworth Common Road
	A - Horndean Road	0	0	1	6
	B - Bartons Road	0	0	0	0
	C - Comley Hill	1	1	0	2
	D - Emsworth Common Road	0	2	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS
B-C	0.27	11.63	0.4	1.1	B
B-AD	1.07	182.75	21.4	54.6	F
ABCD	0.04	7.67	0.0	0.5	A
A-B					
A-C					
D-A	1.12	437.68	4.4	16.5	F
D-BC	1.12	234.90	32.8	68.4	F
C-ABD	0.22	10.02	0.3	1.3	B
C-D					
C-A					

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	77	522	0.147	76	0.2	8.063	A
B-AD	282	462	0.610	276	1.5	18.787	C
ABCD	15	592	0.026	15	0.0	6.618	A
A-B	184			184			
A-C	157			157			
D-A	29	429	0.067	28	0.1	8.972	A
D-BC	327	515	0.635	320	1.7	18.302	C
C-ABD	70	557	0.126	69	0.1	7.451	A
C-D	47			47			
C-A	183			183			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	92	478	0.192	91	0.2	9.296	A
B-AD	336	433	0.777	330	3.0	33.187	D
ABCD	18	565	0.032	18	0.0	6.972	A
A-B	219			219			
A-C	188			188			
D-A	34	281	0.122	34	0.1	14.558	B
D-BC	391	481	0.813	383	3.7	34.782	D
C-ABD	84	524	0.159	83	0.2	8.242	A
C-D	56			56			
C-A	219			219			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	112	427	0.263	112	0.4	11.395	B
B-AD	412	393	1.049	372	13.0	100.331	F
ABCD	22	529	0.042	22	0.0	7.522	A
A-B	269			269			
A-C	230			230			
D-A	42	37	1.123	29	3.3	298.420	F
D-BC	478	434	1.103	419	18.6	118.282	F
C-ABD	102	480	0.213	102	0.3	9.624	A
C-D	68			68			
C-A	268			268			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	112	422	0.266	112	0.4	11.633	B
B-AD	412	385	1.069	378	21.4	182.753	F
ABCD	22	519	0.043	22	0.0	7.674	A
A-B	269			269			
A-C	230			230			
D-A	42	42	0.985	37	4.4	437.676	F
D-BC	478	425	1.124	422	32.8	234.901	F
C-ABD	102	465	0.220	102	0.3	10.017	B
C-D	68			68			
C-A	268			268			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	92	436	0.210	92	0.3	10.488	B
B-AD	336	418	0.805	397	6.1	134.200	F
ABCD	18	545	0.033	18	0.0	7.238	A
A-B	219			219			
A-C	188			188			
D-A	34	46	0.740	36	3.9	332.628	F
D-BC	391	465	0.841	451	17.8	206.114	F
C-ABD	84	494	0.169	84	0.2	8.860	A
C-D	56			56			
C-A	219			219			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	77	504	0.152	77	0.2	8.432	A
B-AD	282	453	0.621	299	1.7	25.638	D
ABCD	15	586	0.026	15	0.0	6.692	A
A-B	184			184			
A-C	157			157			
D-A	29	335	0.085	44	0.1	12.984	B
D-BC	327	509	0.642	390	2.0	44.600	E
C-ABD	70	540	0.130	70	0.2	7.745	A
C-D	47			47			
C-A	183			183			

Queue Variation Results for each time segment

16:15 - 16:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.17	0.00	0.00	0.17	0.17			N/A	N/A
B-AD	1.48	0.53	1.36	1.95	2.46			N/A	N/A
ABCD	0.03	0.00	0.00	0.03	0.03			N/A	N/A
D-A	0.07	0.00	0.00	0.07	0.07			N/A	N/A
D-BC	1.68	0.30	1.47	2.70	3.24			N/A	N/A
C-ABD	0.14	0.00	0.00	0.14	0.14			N/A	N/A

16:30 - 16:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.23	0.00	0.00	0.23	0.23			N/A	N/A
B-AD	3.02	0.10	1.22	7.21	10.01			N/A	N/A
ABCD	0.03	0.03	0.27	0.48	0.51			N/A	N/A
D-A	0.14	0.03	0.27	0.49	0.92			N/A	N/A
D-BC	3.70	0.11	1.54	9.04	12.64			N/A	N/A
C-ABD	0.19	0.00	0.00	0.19	0.19			N/A	N/A

16:45 - 17:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.35	0.03	0.26	0.46	0.49			N/A	N/A
B-AD	13.03	1.41	9.67	26.97	33.99			N/A	N/A
ABCD	0.05	0.03	0.27	0.48	0.51			N/A	N/A
D-A	3.34	0.09	1.15	8.38	11.92			N/A	N/A
D-BC	18.63	3.35	15.50	34.62	41.90			N/A	N/A
C-ABD	0.27	0.03	0.26	0.47	0.49			N/A	N/A

17:00 - 17:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.36	0.03	0.32	1.15	1.15			N/A	N/A
B-AD	21.44	2.21	16.62	43.71	54.56			N/A	N/A
ABCD	0.05	0.00	0.00	0.05	0.05			N/A	N/A
D-A	4.42	0.09	1.54	11.48	16.50			N/A	N/A
D-BC	32.78	8.39	28.71	57.72	68.40			N/A	N/A
C-ABD	0.28	0.03	0.31	0.97	1.28			N/A	N/A

17:15 - 17:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.27	0.00	0.00	0.27	0.27			N/A	N/A
B-AD	6.13	0.08	1.39	17.10	25.94			N/A	N/A
A-BCD	0.04	0.00	0.00	0.04	0.04			N/A	N/A
D-A	3.89	1.08	3.18	5.66	6.52			N/A	N/A
D-BC	17.77	2.53	14.34	34.26	41.98			N/A	N/A
C-ABD	0.21	0.00	0.00	0.21	0.21			N/A	N/A

17:30 - 17:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.18	0.00	0.00	0.18	0.18			N/A	N/A
B-AD	1.74	0.03	0.30	2.10	8.27			N/A	N/A
A-BCD	0.03	0.00	0.00	0.03	0.03			N/A	N/A
D-A	0.09	0.03	0.25	0.46	0.48			N/A	N/A
D-BC	1.99	0.03	0.30	1.99	8.93			N/A	N/A
C-ABD	0.15	0.00	0.00	0.15	0.15			N/A	N/A

Appendix D Updated Travel Plan



'optimising development potential'

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C & A CONSULTING ENGINEERS

PROJECT	:	Land West of Havant Crematorium, Bartons Road
JOB NO.	:	17-055
NOTE TITLE	:	Framework Travel Plan Rev B Cover Sheet
AUTHOR	:	Prabin Limbu
APPROVED	:	GAC
DATE	:	18/07/2019

1.0 Summary of Changes

1.1 The changes in the Framework Travel Plan (FTP) Rev B from the original submission are listed below:

- Additional policy document included (Section 2.0)
- Referenced figures included with text
- Inclusion of infrastructure at the closest bus stop and rail station (4.12, 4.19)
- Provision of shared surface on the north side of Bartons Road (5.5) added
- Consideration for EV infrastructure (5.11)
- Target mode shift changed from 5% to 10% reduction in SOV (6.5)
- Mode shares for years 1 and 3 provided (Table 6.1)
- Justification for each mode share shifts (6.6 – 6.10)
- Commitment to provide the date of first occupation of the site and the TPC details (7.16)
- Local BUGs inclusion within the welcome pack (7.22)
- Commitment for the welcome packs to be approved by HCC prior to their distribution added (7.24)
- Revised action plan including timeframe and indicative cost (Table 8.1)
- Commitment for the TPC to liaise with local public transport operators and other TPCs in the area added (8.5)
- Commitment to submit an example survey to HCC for approval prior to its distribution included (9.5) in addition to the monitoring report submission period (9.7)
- Commitment for the TPC to enter talks with HCC, to determine the best course of actions for future measure, should the site fall short of targets (9.8)

- 1.2 It is acknowledged that the Travel Planning Team have requested further detailed information on travel plan measures including travel incentives and events and Travel Plan Coordinator's start date, duration and resources breakdown. Given the outline nature of this application, it is considered that these matters could be sufficiently dealt at the later detailed application stage through provision a Full Travel Plan. It is suggested that this could be dealt with by condition.
- 1.3 It should also be noted that the applicant is the land-owning farmer and will not be developing the site. It is the intention of the applicant to sell on to a developer who will be responsible for detailed planning application.
- 1.4 Given the developer is not decided yet, it is not possible to include a comment from the developer with regards to their position on travel planning / sustainable travel as requested by the Travel Planning Team. However, as above, this can be dealt when a developer is decided.
- 1.5 For the above reasons, it is considered that details on some of these matters requested are not currently essential for the purposes of this FTP; nor have been fully established at this stage.



Consulting Engineers Ltd

'optimising development potential'

**LAND WEST OF THE HAVANT CREMATORIUM
BARTONS ROAD, HAVANT**

**Framework Travel Plan
Rev B**

**Project No. 17-055
July 2019**



**LAND WEST OF THE HAVANT CREMATORIUM
BARTONS ROAD, HAVANT**

**Framework Travel Plan
Rev B**

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**Project No. 17-055
July 2019**

DOCUMENT CONTROL SHEET

REV	ISSUE PURPOSE	AUTHOR	CHECKED	REVIEWED	APPROVED	DATE
-	For Submission	PL	GAC	GAC	GAC	14/11/18
A	For Submission	PL	GAC	PL	GAC	14/05/19
B	For Submission	PL	GAC	PL	GAC	18/07/19

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DRAWINGS

Drawing No. 17-055-011 Proposed Site Access and Emergency Access

APPENDICES

Appendix A – TRACES Evaluation

Appendix B – Linden Homes Proposed Footway

Appendix C – Land South of Bartons Road Approved Access Arrangements

Appendix D – Havant Cycle Network 2017

Appendix E – Existing Bus/Train Timetables

Appendix F – Masterplan

Appendix G – Sample Travel Survey Questionnaire

Travel Plan**July 2019**

-
- 1.4 This application has the potential to be followed by a second application within the adjoining planning authority, East Hampshire District Council (EHDC) that will add a further circa 78 dwellings to the conurbation, as such this travel plan also covers this eventuality, should it occur.
- 1.5 This TP has been produced in accordance with HCC's Travel Plan guidance 'A Guide To Development Related Travel Plans' (January 2009). As such, it is to form part of the S106 Agreement for the site.
- 1.6 HCC's TP guidance recommends TPs to be assessed using the TRACES (**T**ransparent, **R**ealistic, **A**chievable, **C**ommitted, **E**nforceable and **S**ustainable) criteria. Therefore, this TP has been considered against these principles using the evaluation templated provided by HCC. The results of the evaluation are included within **Appendix A**.
- 1.7 This TP sets out site specific initiatives aimed at improving the availability and choice of travel modes to and from the development for all residents and visitors to the site. Together with the Transport Assessment (TA) submitted with this application, the TP will aim to be the mechanism by which overall travel demand will be managed and monitored.
- 1.8 The overall aims to be achieved through the implementation of a TP have been considered. Travel management objectives will focus on reducing trips made by car as well as considering resident's travel patterns. The overall travel management objectives will be:
- To minimise the number of single occupancy car trips to and from the site; and
 - To facilitate and promote walking, cycling and public transport trips to the site.

Report Structure

- 1.9 **Section 2.0** of this report sets out the policy and guidance context against which the proposal will be judged. **Section 3.0** details the aims and objectives of this TP.
- 1.10 **Section 4.0** provides a site audit which sets out the local context in terms of the highway network, along with a detailed review of the local accessibility and access to non-car modes of travel.
- 1.11 **Section 5.0** details the proposed development and the site access strategy. Following on from this, **Section 6.0** sets out the likely targets which will be confirmed once initial site surveys have been completed.
- 1.12 **Section 7.0** considers the measures that will be implemented, alongside the consultation and partnerships likely as part of the TP.
- 1.13 **Section 8.0** sets out the roles and responsibilities of the Travel Plan Co-ordinator (TPC) and an indicative action plan outlining the implementation programme and cost for the proposed measures.
- 1.14 **Section 9.0** provides information on when and how monitoring of the TP will be undertaken.
- 1.15 Finally, **Section 10.0** summarises the report.

2.0 POLICY CONTEXT

National Policy

National Planning Policy Framework (NPPF) 2019

- 2.1 The current National Planning Policy Framework (NPPF), published in February 2019, requires that all developments that generate significant amounts of movement should be required to provide a travel plan.
- 2.2 The current NPPF (2019) is centred on a presumption in favour of sustainable development and requires that, in considering development proposals applications for development should:
- give priority first to pedestrian and cycle movements;
 - address the needs of people with disabilities;
 - create places that are safe, secure and attractive;
 - allow for efficient delivery of goods and for emergency access; and
 - be designed to enable charging plug-in and other ultra-low emission vehicles.

Planning Practice Guidance

- 2.3 Planning Practice Guidance (NPPG) was published in March 2014 and sets out national guidance on a range of issues including Travel Plans. This guidance details when a Travel Plan is required, how the need for and scope of a TP should be established and what information should be included within a plan and how it should be monitored. Most importantly this includes:
- Benchmark travel data including trip generation databases.
 - Information concerning the nature of the proposed development and the forecast level of trips by all modes of transport likely to be associated with the development.
 - Relevant information about existing travel habits in the surrounding area.

- Proposals to reduce the need for travel to and from the site via all modes of transport.
- Provision of improved public transport services.

Regional Policy

- 2.4 Given the site's location within Hampshire, this TP has been produced in accordance with the HCC's guidance document 'A Guide to Development Related Travel Plans' published in January 2009.
- 2.5 This guidance document sets out that a "Full" Travel Plan is required where the likely end user of the development is known. It also highlights that all aspects outlined in Section 4.2 of the document should be included in a TP, and an evaluation criteria should be followed to ensure that the TP is compliant with local requirements.
- 2.6 The document highlights the three main purposes of having a travel plan as part of the development process. These are:
- Ensuring that development takes place in location and in ways that minimise the impact of this additional demand;
 - Increasing accessibility and ensuring that opportunities are provided for people to travel to and from the site in a variety of ways;
 - Reducing dependence on the use of the car.
- 2.7 The document also specifies five key guiding principles for an effective Travel Plan as follows:
- **Site specific** – every site is unique and the measures will be determined by the opportunities and constraints of the site itself, the nature of uses and occupation, the location of other facilities and the existing transport provision.
 - A combination of **hard measures** – site design, improved infrastructure and new services and **soft measures** – marketing, promotion, use of technology and improved information provision.

-
- A **holistic package** where individual measures are integrated into the new development as part of the design, marketing and occupation of the site.
 - One that includes measures to support and promote **walking, cycling** and the use of **public transport**.
 - One that addresses the issue of **parking provision**, its quantity, management and cost of the user.
- 2.8 A range of hard/physical measures and soft measures that should be considered in residential travel plans are provided within Appendix F of the guidance document. It includes a broad range of measures that need consideration from early development of the site layout and design such as pedestrian and cycle links and parking facilities to development of the TP such as target setting and Travel Plan Co-ordinator and management.

Local Policy

HBC Local Plan 2011

- 2.9 The Core Strategy was adopted by HBC in March 2011 and is one of the documents within the Havant Borough Local Development Framework. It is the principal document setting out the broad detail and direction of development in the borough. The Core Strategy describes the council's long-term vision and objectives for what the borough will be like as a place in 2026.
- 2.10 With regard to transport infrastructure, the Core Strategy sets out the following Development Management Policies relating to sustainable travel and the need of a Travel Plan:

DM11 Planning for More Sustainable Travel

The Council will seek to ensure that every opportunity is taken to increase integration of sustainable travel modes and availability of non-motorised modes by appropriate measures including:

1. *Securing on-site and/or off-site interventions that promote integrated travel and access by non-motorised modes.*
2. *Requiring safe and secure vehicular and cycle parking and turning facilities to adopted standards.*
3. *Securing appropriate improvements to public and community transport (including infrastructure requirements) in accordance with the Hampshire Local Transport Plan and (where applicable) the relevant sub-regional transport strategy.*
4. *Proposals for reducing opportunities for informal parking in the area surrounding the development where this would impact on the capacity, operation and safety of the local highway network and/or the amenity of the locality.*
5. *Ensuring that new developments are located and designed at the outset to encourage lower vehicle speeds and safe, permeable, inclusive layouts that integrate with existing pedestrian, cycle and public transport routes. This will facilitate and encourage short distance trips by cycle and walking, including to public transport interchanges.*

DM12 Mitigating the Impacts of Travel

New developments will be required to mitigate their travel impact, including the environmental impacts of travel (such as noise, air and visual pollution) and impacts on amenity, health and climate change by ensuring that, where relevant, the following criteria are met:

1. *Adequate provision is made for integrated and improved transport infrastructure or appropriate mitigation measures, through direct improvements and S106 contributions in accordance with the Hampshire County Council Transport Contributions Policy.*
2. *The submission of a transport assessment and **travel plan** alongside any planning application on proposals for major development or where a proposal is likely to have significant transport implications.*
3. *The submission of a transport statement must accompany planning applications to explain changes to travel demand.*
4. *A bond is provided which will be used to mitigate negative travel impacts of the development, should the travel plan fail to achieve its targets. This bond will be held by the relevant local transport authority.*

5. *In relation to outline planning applications, a framework for the preparation of travel assessments and **travel plans** will be submitted with the planning application proposals.*

EHDC Local Plan 2014

2.11 Local Plan: Joint Core Strategy was adopted by EHDC in June 2014 and is one of the documents within the East Hampshire Local Development Framework. It is the principal document providing a policy framework that plans for new development to deliver the vision what the district should be like by 2028.

2.12 With regard to transport, EHDC's Joint Core Strategy **Policy CP31** for Transport and Access sets out that a range of mitigating measures should be included within development proposals and, where appropriate, will be required to:

- a) enhance the quality, viability, availability, accessibility and frequency of public transport and alternative community transport provision, especially in rural areas, to ensure that those without access to a private car have access to services and facilities necessary for their well-being;*
- b) protect and provide safe and convenient cycle and pedestrian links that integrate with existing cycle and pedestrian networks, such as the South Downs Way and Shipwrights Way, and reflect the amenity and rural character of the area;*
- c) ensure that highway design and associated signing meets the needs of vehicular traffic and the need for safety whilst also placing a high priority on meeting the needs of pedestrians, cyclists and public transport users and without detriment to the quality of the environment;*
- d) plan for new highway infrastructure that will reduce congestion, improve highway safety, increase accessibility to the District's town and district centres and enhance economic prosperity of the District;*

- e) *improve access to rail stations at Rowlands Castle, Petersfield, Liss, Liphook, Alton and Bentley Station by sustainable modes of transport and, where appropriate, provide additional car and cycle parking at rail stations;*
- f) *provide adequate, convenient and secure vehicle and cycle parking in accordance with adopted standards;*
- g) *ensure that the type and volume of traffic generated would not harm the countryside or the rural character of local roads;*
- h) *protect sunken and rural/green lanes so that their convenience and safety are enhanced for their users, and their ecological, landscape and recreational value are enhanced;*
- i) *improve access for people with impaired mobility to all forms of transport and to all developments to which the public will reasonably expect to have access; and*
- j) *produce and implement transport assessments and travel plans for proposals that are likely to have significant transport implications;*
- k) *include measures, to be funded by the developer, that address the impact of the new development so as to ensure the continued safe and efficient operation of the strategic and local road networks.*

IHT's (2000) 'Guidelines for Providing Journeys on Foot'

2.13 IHT provides suggested acceptable walking distances to key destinations within its guidance document 'Guidelines for Providing Journeys of Foot'. These are provided in **Table 2.1** below.

Table 2.1: IHT's Suggested Acceptable Walking Distance

	Town Centres (m)	Commuting/School Sight-seeing (m)	Elsewhere (m)
Desirable	200	500	400
Acceptable	400	1000	800
Preferred maximum	800	2000	1200

- 2.14 The guidance document also recognises that due to site constraints, costs or other practicalities, the distances above are not always possible to achieve. Therefore, compromises must sometimes, rightly, be made.
- 2.15 **Section 4.0** of this report discusses key local facilities and amenities including schools, shops, etc. within the vicinity of the site and accessibility of these from the site by walking and cycling.

CITH's (2018) 'Buses in Urban Developments'

- 2.16 CITH's guidance document recommends maximum walking distances to bus stops for different situations as provided in **Table 2.2** below.

Table 2.2: Recommended Walking Distances to Bus Stops

Situation	Maximum Walking Distance (m)
Core bus corridors with two or more high-frequency services	500
Single high-frequency routes (every 12 minutes or better)	400
Less frequent routes	300
Town/city centres	250

Parking Standards

- 2.17 Car and cycle parking for the proposed development will be derived to meet the standards set out in HBC's Parking Supplementary Planning Document (SPD) dated 27th July 2016. EHDC's Vehicle Parking Standards SPD dated July 2018 will be reviewed for the potential future development at the adjoining land when it comes forward.
- 2.18 HBC's and EHDC's car and cycle parking requirements are provided in **Tables 2.3** and **2.4** below respectively.

Table 2.3: HBC's Parking Requirements

Size of dwelling	Car Parking Requirement		Cycle Parking Requirement	
	Minimum	Visitor	Per Unit	Visitor
1 Bed Unit	1 space	Additional 20% of unallocated parking	1 space	Additional 20% of the total cycle parking spaces
2 Bed Unit	2 spaces		2 spaces	
3 Bed Unit	2 spaces		2 spaces	
4+ Bed Unit	3 spaces		2 spaces	

Table 2.4: EHDC's Parking Requirements

Size of dwelling	Car Parking Requirement		Cycle Parking Requirement	
	Minimum	Visitor	Per Unit	Visitor
1 Bed Unit	1 space	1 space per 5 dwellings	1 space	Additional 10% of the total cycle parking spaces
2 Bed Unit	2 spaces		2 spaces	
3 Bed Unit	2 spaces		2 spaces	
4+ Bed Unit	3 spaces		2 spaces	

- 2.19 In-line with the prevailing national policies and acknowledging the ever-growing demand of electric cars and its contribution in sustainable travel, both of the councils encourage provision for Electric Vehicle (EV) within development. Although both of SPDs do not specify exact requirements on EV charging point, it is noted that EHDC's SPC states as "*a minimum all new development should ensure that the electricity infrastructure for the development is sufficient to enable supply to be provided for electric vehicle charging*".

3.0 AIMS AND OBJECTIVES

3.1 The main aim of this TP is to promote sustainable travel to future residents of the proposed development site from the day of occupation, setting sustainable travel patterns to and from the site from the outset. The core aim is supported by a number of sub aims, namely to:

- **Inform** all involved with the development (especially the future residents) of the sustainable travel choices available;
- **Influence** how journeys are made by marketing the sustainable travel choices available and making sustainable travel both easier and more attractive; and
- **Include** residents in the monitoring of travel behaviour and enabling feedback to the Developer and Local Highway Authority;

3.2 The overarching objective of this TP is to reduce the car dependency of future residents and visitors travelling to and from the proposed development. The key to achieving this is to influence the travel patterns through providing infrastructure and encouraging residents to make modal shift to sustainable modes of travel where possible.

3.3 The TP objectives set out below demonstrate how the above aims will be achieved:

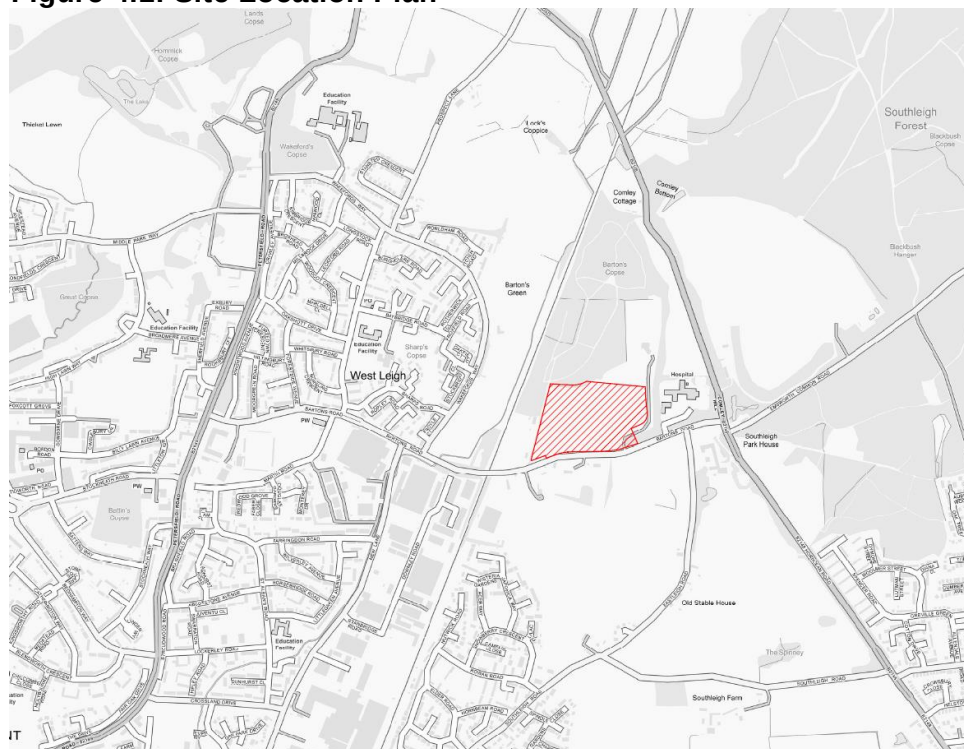
- To minimise the level of car travel, especially single occupancy vehicle use;
- Promote sustainable modes of travel such as walking, cycling and public transport use – including information on routes/facilities suitable for disabled access;
- To minimise the impact of the development on the local road network;
- To enable all residents of the development to have informed choice about their travel options.

3.4 The TP is a dynamic living document and requires regular monitoring, reviewing and adjustment to make sure that it is achieving its set targets. Therefore, the aims and objectives may also be reviewed over the period of the plan and updated in consultation with HCC.

4.0 SITE AUDIT

- 4.1 The proposed site is located on land west of the Havant Crematorium, north of Bartons Road as illustrated in **Figure 4.1**. The site is bordered to the west by the recent Bartons Rise residential development (housing allocation site UE3a), to the north and west by existing woodland and to the north east and east by Havant crematorium and its access road. At the time of writing the developable area of the site is located between Bartons Road and the borough boundary which crosses the site east to west.

Figure 4.1: Site Location Plan



- 4.2 The site audit of the existing conditions has been completed as part of the TA and is summarised in the following sections.

Walking and Cycling

- 4.3 Walking and cycling both have the potential to substitute short car trips, particularly those less than 2km for journeys on foot and 5km for journeys by bicycle. Both modes often form part of a longer journey by public transport particularly for ongoing journeys by rail. Considering

this, walking and cycling provisions available in the area are discussed below.

- 4.4 Bartons Road runs east west and is provided with verge to the north along the site frontage and an approximately 2m footway to the south opposite the site.
- 4.5 Bartons road also benefits from the recent footway improvement implemented in May 2017. These being implemented as part of the land north of Bartons road development built by Linden Homes. These works included the provision of a 2.5m wide footway just west of the site, connecting back in to the existing provision as well as the provision of dropped kerbs and tactile paving. Details of these are provided at **Appendix B** for information.
- 4.6 The development known as land south of Bartons road (APP/15/01435) has achieved planning consent. This development incorporates substantial improvements along the southern side of Bartons road with widening of the existing footway, to provide a shared footway cycle route between the western pedestrian / cycle access and New Lane to the west. These improvements are detailed at **Appendix C**.
- 4.7 The existing footways including recent and pending improvements to those on Bartons Road, provide the opportunity for connections to be made to the proposed site from the wider pedestrian and cycle network. These provide safe pedestrian and cycle access to the nearby bus stops and local facilities (discussed further below) and ultimately Havant town centre illustrated at **Figure 4.2**.

- 4.8 Local residential roads in the area, which are although not specifically designated as cycle routes, are considered to be safe routes for on road cycling.
- 4.9 The existing cycle network is illustrated at **Appendix D**. This provides useful routes via New Lane, Southlea Road, Wakeford Way along with further routes beyond these. There are currently a number of routes which do not provide contiguous routes between the site and these cycle routes. These connections have been improved or are to be improved by other local development as set out above.
- 4.10 National Cycle Network Route 22 can be accessed from Petersfield Road to the west and Route 2 from Southleigh Road to the south. These provide good quality cycling routes through to Havant town centre as well as Emsworth.
- 4.11 There are also a number of public rights of ways available close to the site as illustrated in **Figure 4.3**. This shows footpaths 26 and 63 linking Wakefords Way and Comley Hill to the north west of the site. Similarly, footpath 62 links Southleigh Road through to Stanbridge Road and Mill Lane to the south west of the site.

Figure 4.3: Public Rights of Way



Public Transport – Bus

- 4.12 Bus routes 20 and 21 run at a frequency of two services per hour during daytimes Monday to Saturday from bus stops located on Wakefords Way, 500m from the combined pedestrian cycle and emergency access. Both of the northbound and southbound bus stops are flag pole, however only the southbound bus stop has provision of shelter. These routes give access to Leigh Park, Farlington and Portsmouth.
- 4.13 Bus routes 27 and 28A serve eastbound and westbound bus stops on Southleigh Road, both flag poles, approximately 1.1km from the site. These are accessible via Land to the south of Bartons road and Japonica Way to the south of the site. Route 27 runs every two hours approximately during daytimes, between Rowlands Castle, Havant and Emsworth, Monday to Saturday. Route 28A is a school service and runs once per day in each direction on school days.
- 4.14 Full timetables and route maps for the above buses are provided within **Appendix E**.

Public Transport – Rail

- 4.15 Warblington railway station is within 2km of the site with Havant railway station 2.5km away. As shown on **Figure 4.2**, walking and cycling provide viable modes of travel to these stations.
- 4.16 Trains from Warblington run to Chichester and Littlehampton to the east and to Havant and onto Portsmouth & Southsea in the west. Services run in both directions at a frequency of two services per hour at peak times and at a frequency of one service per hour during off peak periods.
- 4.17 Services from Havant include those stopping at Warblington described above with additional services to Southampton, London Waterloo, Portsmouth and also direct trains to Brighton. The journey by rail between the two stations is approximately 2 to 3 minutes.

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- 4.18 Services to London Waterloo run at a frequency of four per hour during peak periods and at two per hour during off peak periods.
- 4.19 Havant station has provision of 92 sheltered sheffield cycle storage spaces and 286 car parking spaces including 8 accessible spaces. It can be accessed using bus service 20 and 21 combined with a short walk (approximately 15 minutes total journey time). The taxi rank is located outside the main station entrance. The station has facilities of waiting areas and ATM. Whereas, Warblington station has 30 cycle storage spaces provision and it can be accessed using bus service 27.
- 4.20 Pocket timetables for the AM and PM peak hours for the main services for both stations are provided at **Appendix E**.

Local Facilities

- 4.21 Planning guidance emphasises the integration of land use, transport and planning decisions. To ensure developments are sustainable, they should be accessible to local facilities, employment opportunities and public transport services.
- 4.22 Section 4.4 of Manual for Streets (MfS) describes “The walkable neighbourhood” as typically characterised by having a range of facilities within 10 minutes (about 800m). Furthermore, MfS also states that this is not an upper limit and also refers to the potential for walk trips up to 2km. (1.24Miles)
- 4.23 DfT Local Transport Note 1/04 – Policy, Planning and Design for walking and Cycling *para 3.10.3 states “the average length for walking journeys is approximately 1km (0.6 miles) and for cycling, it is 4km (2.4 miles), although journeys of up to three times these distances are not uncommon for regular commuters”.*
- 4.24 As such, there are a number of facilities and amenities within reasonable walking and cycling distances as described above or within reach by

public transport. The location of these relative to the site are illustrated on **Figure 4.2**, along with 800m and 2000m isochrones

- 4.25 The following sections provide tables of various amenities which are categorised into retail, education, healthcare, business park and recreation, giving approximate distances to these measured from the proposed site access on Bartons Road.

Retail

- 4.26 **Table 4.1** below lists local convenience stores and retails in the area, approximate distance and walking/cycling times relative to the site.

Table 4.1: List of Retail Establishments

Facility	Approx. dist(km)	Meet 2km target walk?	Approx . walk time (mins)	Meet 5km target cycle?	Approx . cycle time (mins)
Havant Garden Centre	0.5	✓	6	✓	2
The Co-Operative Food	1.4	✓	17	✓	5
Welcome Denvilles	1.4	✓	17	✓	5
Londis	1.5	✓	19	✓	6
Leigh Park Shopping Centre	2.0	✓	24	✓	7
The Meridian Centre	2.9		35	✓	9
Wickes & ALDI	3.0		36	✓	10
Solent Retail Park	3.6		42	✓	12

Education

- 4.27 The Department for education Home to School Travel and Transport Guidance, published in July 2014 sets out the statutory guidance for local authorities for the provision of free school transport for ages 5-16.
- 4.28 The guidance also defines eligible children as – those categories of children of compulsory school age (5-16) in an authority's area for whom free travel arrangements will be required. Local authorities are required to: provide free transport for all pupils of compulsory school age (5-16) if their nearest suitable school is:

- beyond 2 miles **(3.2km)** (if below the age of 8); or
- beyond 3 miles **(4.8km)** (if aged between 8 and 16)

4.29 The inference of this is that 2miles **(3.2km)** for under 8-year olds and 3 miles **(4.8km)** for 8 years plus is an acceptable walking or cycling distance for pupils removing the need for free travel to school.

4.30 A range of schools are available within close proximity of the site. Their distances to these schools from the site are provided in **Table 4.2** below.

Table 4.2: List of Education Institutions

Facility	Approx. dist(km)	Meet 2km target walk?	Approx . walk time (mins)	Meet 5km target cycle?	Approx . cycle time (mins)
Sharps Copse Primary School	1.4	✓	17	✓	5
Saint Alban's CoE Primary School	1.6	✓	18	✓	5
Fairfield Infant School	2.5		30	✓	7
Warblington School	2.7		33	✓	9
Trosnant Junior School	2.8		34	✓	9
Havant & South Downs College – Havant Campus	3.0		37	✓	10

It is noted that all of the above schools are within 2 miles 3.2km or 3 miles (4.8km) as such they would not result in a requirement for free travel as per Department for Education requirements.

Healthcare

4.31 A range of Health facilities are available close to the site. Their distances from the site are provided in **Table 4.3** below.

Table 4.3: List of Healthcare Centres

Facility	Approx. dist(km)	Meet 2km target walk?	Approx . walk time (mins)	Meet 5km target cycle?	Approx . cycle time (mins)
Spire Portsmouth Hospital (Private Hospital)	0.23	✓	3	✓	1

*Travel Plan**July 2019*

Oak Park Community Clinic	2.2		26	✓	6
Havant Health Centre	2.6		30	✓	8

Business Park

- 4.32 A number of business parks and places of employment are available within 2km walking and 5km cycling distances. **Table 4.4** below lists various employment centres and their respective distances measured from the proposed site access.

Table 4.4: List of Business Parks

Facility	Approx. dist(km)	Meet 2km target walk?	Approx . walk time (mins)	Meet 5km target cycle?	Approx . cycle time (mins)
Nest Business Park	1.2	✓	14	✓	4
Kenwood Business Park	2.0	✓	23	✓	6
Langstone Technology Park	4.0		48	✓	12
Endeavour Business Park	4.3		52	✓	14
New Lane	0.6 – 1.9	✓	22	✓	6
Downley Road	0.8-1.2	✓	14	✓	4

Recreation and Leisure

- 4.33 A number of recreation and leisure centres are available with walking and cycling distances as provided in **Table 4.5** below.

Table 4.5: List of Recreation and Leisure Centres

Facility	Approx. dist(km)	Meet 2km target walk?	Approx . walk time (mins)	Meet 5km target cycle?	Approx . cycle time (mins)
Bartons Green	1.1	✓	13	✓	4
My Fitness Hub Havant	1.6	✓	19	✓	5
Leigh Park Community Centre	2.4		28	✓	8
Horizon Gym	2.6		31	✓	8

- 4.34 In summary, as described in detail above, it is considered that the site is within range of a wide variety of facilities within both walking distance of 2km and cycling distance of 5km, it is therefore conveniently located to encourage sustainable and active forms of travel; as well as providing access to public transport for longer journeys.

Local Highway Network

- 4.35 The local highway network is shown in **Figure 1.1**. Bartons Road is approximately a 7.5-8m wide distributor road that runs west to east connecting to Petersfield Road to the west, in the form of a signalised junction and Comely Hill / Emsworth Road to the east leading to the centre of Emsworth.
- 4.36 To the west, Bartons Road is subject to 30mph speed limit as indicated by the signposts. Half way through Bartons Road, just before the rail line, the speed limit of the road changes to 40mph.
- 4.37 Bartons Road forms a signalised junction with Petersfield Road to the west, which is a link road running from the north into the centre of Havant and linking to the A27 further south. The A27 runs parallel, south of Bartons Road and is a major strategic route along the south coast linking the site to Portsmouth and the M27 leading to Southampton to the west, with Chichester and Brighton to the south.
- 4.38 From Petersfield Road, drivers can gain access to the A3 heading north towards Petersfield, Guildford and London via Stockheath Road and Purbrook Way.
- 4.39 To the east Bartons Road forms a ghost island priority junction with Eastleigh Road, which runs south connecting to Southleigh Road providing access to Warblington Railway station south of the site.
- 4.40 Further east of the junction with Eastleigh Road, Bartons Road forms a staggered priority crossroads with Comely Hill (B2148) running north,

Emsworth Common Road to the east and Horndean Road (B2148) heading south.

- 4.41 B2148 provides access to A3(M) to the north passing Rowlands Castle as well as Westbourne and Emsworth to the south east. Emsworth Common Road leads east towards Chichester via the rural settlements of Aldsworth, Funtington and East Ashling.

Existing Mode Share

- 4.42 The existing mode share for the local area has been determined with reference to the 2011 Journey to Work Census data for the Havant district area. The percentage mode share is set out in **Table 4.6**. This shows that 71% travel to work as a driver and 6% as a passenger, resulting in a single occupancy trip to be 65% of the total.

Table 4.6: Mode Share Percentage

Mode	Existing Havant Mode Share (%)
Train	3%
Bus, minibus or coach	5%
Taxi	1%
Motorcycle, scooter or moped	1%
Driving a car or van	71%
Passenger in a car or van	6%
Bicycle	4%
On Foot	9%
Total	100%

- 4.43 Although the northern aspect of the site (potential second application site) sits in EHDC, given the location of the site, it is anticipated that Havant's mode share would be applicable for this as well.

5.0 DEVELOPMENT PROPOSALS

- 5.1 This TP has been prepared in support of an outline planning application for a proposed residential development of up to 72 dwellings (1, 2, 3 and 4 bedroom) with all matters reserved except access. The final proposals will comprise a mixture of affordable rented, shared ownership and privately-owned houses.
- 5.2 An illustrative masterplan of the proposed development is provided by Stainsby Architect and is included in **Appendix F**.
- 5.3 As discussed in the main TA and above, there is a likelihood of further development to 78 additional dwellings to the northern sector of the site which is located within the planning area for EHDC. Although only a proposal at this stage, if this does come forward in the future, then it would make use of the proposed site access onto Bartons Road and the internal layout would likely be designed using the similar principles as that proposed for this current application, whilst also considering EHDC's requirements.

Site Access Design

- 5.4 The proposed access arrangement is illustrated in **Drawing No 17-055-011**. It includes revision of the existing crematorium access, upgrading this to provide a 6.75m carriageway with 10m Radii. 3m shared wide footway/cycleway is proposed on the western edge of the site access road and a crossing facility with dropped kerb and tactile paving leading to the existing footway to the south of Bartons Road.
- 5.5 3m wide shared footway/cycleway is also proposed along the eastern edge of the site access road which would continue to the east on the northern edge of Bartons Road and tie, via appropriate crossing facility incorporating refuge island, with the shared/footway cycleway proposed by the consented Southleigh House development.

- 5.6 An emergency access which is also serve as a shared pedestrian/cyclist access is also proposed to the south west corner of the site as illustrated within **Drawing No 17-055-011**. There would be a provision of padlocked staggered gates to prevent any unauthorised use of the emergency access. However, this would not prevent pedestrian and cyclist access including wheelchair users.
- 5.7 3m wide footway/cycleway is proposed from the above shared access to the west along the northern edge of Bartons Road leading to the existing footway facilities in front of Linden Homes development.

Internal Site Layout

- 5.8 Given the development application will be in outline, with all matters, except access, reserved, the masterplan for the site is only indicative.
- 5.9 The majority road within the site will comprise 2m footways on both sides of the carriageway as shown in the masterplan. Furthermore, the internal road layout will be designed to maintain low speed with built-in speed calming features. These on-site facilities in combination with the previously described off-site shared footway and cycleway infrastructures would encourage active sustainable forms of travel to and from the site.

Parking Provision

- 5.10 Appropriate car and cycle parking provision including for visitors will be provided in compliance with the HBC and EHDC parking standards discussed previously in **Section 2.0**.
- 5.11 Further details including the exact number of parking spaces, parking layout and the infrastructure for electric vehicles will be agreed at the detailed design stage of the planning process and will accord with the design principles set out in the HCC's Companion Guide for Manual for Streets.

6.0 TARGETS

6.1 Targets are a means to measure the achievement and effectiveness of the TP against the objectives set. These targets set need to be ‘SMART’ i.e. they must be:

- **Site-specific:** well defined and clear to those with basic knowledge of transport;
- **Measurable:** concrete criteria for measuring progress;
- **Achievable:** challenging and ability stretching, but still reasonable;
- **Realistic:** within the availability of resources, time and knowledge;
- **Time-related:** grounded within a timeframe.

6.2 In addition, Hampshire’s guidance suggests that there should be a mix of “action” and “aim” targets which are set out as follows and relate to each year of the funded TP:

- Reduce the number of single occupancy car journeys (“aim”);
- Increase the total journeys per year by bus and train (“aim”);
- Increase walk and cycle journeys (“aim”);
- Ensure awareness of the TP and its initiatives (“aim”)
- A Travel Plan Coordinator to be appointed prior to first occupation of the site (“action”)
- Annual monitoring survey (“action”)

6.3 Definitive targets for a new development site should be set once baseline residential travel surveys have been carried out. At this stage and without the baseline residential travel surveys, it is not possible to set definitive targets to establish the exact mode share for the development. This TP therefore sets out possible mode share targets on the existing mode data available for Havant Borough as a whole. Although the northern sector of the site sits in EHDC, given the location of the site and the site access leading on Bartons Road, it is anticipated that Havant’s mode share would be suitable for this as well.

6.4 The existing mode share for Havant Borough based on the existing Census 2011 Journey to Work data is tabulated in **Table 4.6**.

- 6.5 Census 2011 Journey to Work data provides a suitable estimate for the likely travel patterns from the site. Based on this, a possible target mode shift of 10% away from the use of the car, in particular single occupancy car use would be appropriate over a 5-year period. This is anticipated to be achieved by increasing mode share of alternative sustainable travel modes; walking, cycling and public transport.

Reduce single occupancy car journeys

- 6.6 The TP will endeavour to promote the reduction of single occupancy car journeys, through the promotion of alternative modes of travel. The overarching target of the plan is to reduce the number of single occupancy car journeys by 10% by the end of the 5-year travel plan period. This will be achieved by encouraging the residents to make modal shifts as described below and will be supported by a wide range of measures as described in the following **Section 7.0** of this plan.

Increase walk and cycle journeys

- 6.7 As discussed in the previous section, the development proposals include high-quality on-site and off-site infrastructures for walking and cycling which, in combination with the existing footways/cycleways and the proposed footways/cycleways as part of recently consented neighbouring applications in the area, would provide attractive and safe routes to key local destinations.

- 6.8 The TP will endeavour to promote these through travel information packs, personalised travel planning and events if necessary and encourage walking and cycling as a main mode of travel to nearby amenities and schools.

- 6.9 The target of the travel plan is to increase walk and cycle mode shares by 3% each by the end of 5-year period.

Increase public transport journeys

- 6.10 Bus stops on Wakefords Way to the west of the site providing frequent bus services to a number destination is easily accessible using the proposed footway/cycleway. Additionally, Warblington rail station can also

be accessed using Land south of Bartons Road proposed footway/cycleway and then via existing footways on Japonica Way, Snowberry Cres and Southleigh Road within 2km distance.

6.11 Although Havant rail station is slightly over 2km distance, it can be accessed using bus services available from Wakefords Way within journey time of 15 minutes when combined with a short walk trip. This has potential to serve commuter journeys to wider destinations.

6.12 Residents will be encouraged to make use of these public modes of transport through the provision of bus and train timetables and route maps as well as travel voucher incentives. The target of the plan is to increase the total journeys by bus by 2% and by train by 2% by the end of the 5-year period.

6.13 Based on the above, the possible development target mode shares for year 1, year 3 and final year 5 as well as the existing mode share are tabulated in **Table 6.1** below. These targets will be confirmed and agreed with HCC after completion of the first site specific travel survey.

Table 6.1: Possible Development Target Mode Share

Mode	Existing Havant Mode Share (%)	Possible Development Target Mode Shares (%)		
		Year 1	Year 3	Year 5
Train	3%	3%	4%	5%
Bus, minibus or coach	5%	5%	6%	7%
Taxi	1%	1%	1%	1%
Motorcycle, scooter or moped	1%	1%	1%	1%
Driving a car or van	71%	69%	65%	61%
Passenger in a car or van	6%	6%	6%	6%
Bicycle	4%	5%	6%	7%
On Foot	9%	10%	11%	12%
Total	100%	100%	100%	100%

6.14 When considering the number of trips which equates to, a summary of the expected two-way trips generated by the proposed development (72 dwellings) by mode based on the existing Havant Mode share and final year 5 possible development target is set out in **Table 6.2**. This is based on the modal split set out in **Table 6.1** and the daily two-way vehicle trip generation based on TRICS (refer to the TA Table 5.1 for trip rates).

Table 6.2: Expected Daily Two-Way Development Trips (72 dwellings)

Mode	Based on Existing Havant Borough mode share	Based on Potential Development Target mode share
Train	16	26
Bus, minibus or coach	27	37
Taxi	3	3
Motorcycle, scooter or moped	6	6
Driving a car or van	357	307
Passenger in a car or van	32	32
Bicycle	18	33
On Foot	43	58
Total	502	502

Note: Two-way trips are the arrival and departure trips combined. The above data therefore represents all trips to and from the site.

6.15 **Table 6.3** below provides a summary of the expected two-way trips in year 5 generated by the combined proposed development and potential development within EHDC (up to 150 dwellings) if it was to come forward.

Table 6.3: Expected Daily Two-Way Development Trips (150 dwellings)

Mode	Based on Existing Havant Borough mode share	Based on Potential Development Target mode share
Train	34	55
Bus, minibus or coach	56	77
Taxi	7	7

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Motorcycle, scooter or moped	14	14
Driving a car or van	744	639
Passenger in a car or van	67	67
Bicycle	37	68
On Foot	90	122
Total	1049	1049

Policy Context

6.16 The targets included in this TP (as set out above) are consistent with the HBC's and EHDC's Local Development Frameworks (LDF) and HCC's Local Transport Plan (LTP) objectives.

6.17 The emphasis of the LTP over the next 5-10 years is focussing on three main priorities to maximise the efficiency of the existing network to support the economy, maintenance and management.

6.18 It will be important to provide up to date information on sustainable modes to residents – particularly promoting new transport technologies or improved co-ordination between modes in line with HCC's LTP Policy Objectives 3 and 8; highlighting improvements to rail access (Policy Objective 6); and ensuring that new sustainable infrastructure or other measures invested in by HCC are publicised to the residents (Policy Objectives 12 and 13).

6.19 Reducing single occupancy car use and the need to travel will contribute towards improving air quality and national carbon targets (Policy Objective 10); and specifically relates to Policy Objective 11.

7.0 MEASURES

- 7.1 There will be a range of measures and actions which will be central to the delivery of the TP and meeting the targets set. The measures implemented will range from hard, physical measures which form part of the development to soft measures which can be altered to suit the needs of the residents.
- 7.2 These measures will be implemented throughout all stages of the development process, from the design and construction, marketing and occupation of the development in order to promote and support the use of sustainable travel modes including walking, cycling, public transport use and car sharing.
- 7.3 The range of measures are set out below. Although, at this stage, the development proposals only include southern aspect of the site for 72 dwellings, these measures would also be applicable if the further development were to come forward in the northern sector of the site.

Hard physical Measures

- 7.4 Hard measures represent elements of the scheme that are designed in from the outset, such as the provision of pedestrian and cycle routes and facilities (e.g. crossings, cycle storage, street lighting, etc). While these have scope to encourage modal shift, the primary role of such hard measures is to facilitate this by making facilities available to support the use of sustainable modes.
- 7.5 As set out in **Section 4**, the proposed site access will have provision of 2m footway and appropriate pedestrian crossing facility with tactile paving and dropped kerbs which would lead to the existing footway on the southern side of Bartons Road and wider footway network.
- 7.6 The internal site layout will be designed with a target maximum speed of 20mph. This, in conjunction with the use of shared surfaces and pedestrian footways, together with built-in traffic calming, will reduce the

dominance of the private car and support and encourage the use of other more sustainable modes of travel.

7.7 Additionally, the proposals also include provision of shared pedestrian and cyclist access point, also serves as an emergency access, and 3m footway/cycle from the emergency access heading westbound tying with the Linden Homes site access and from the main site access heading eastbound tying with the shared provision proposed by consented Southleigh House development.

7.8 The design of the development will encompass the key principles of good practice in highway design that have an implication on transport sustainability. The internal layout of the site will be designed to maximise the permeability of the site by foot making use of the two proposed access points onto Bartons Road as described above.

7.9 An appropriate level of car/cycle parking for the development will be provided in accordance to HBC's requirements.

7.10 Consideration will be given to ensure delivery vehicles can manoeuvre within the site so as to reduce the need to travel by allowing for internet shopping for residents.

Key Features

7.11 A summary of the key features which will be incorporated in the design of the development and which encourage sustainable transport is provided below:

- A general highway layout that constrains vehicle speeds;
- Use of shared surface areas on appropriate roads resulting in pedestrian/cycle dominated carriageways;
- Sufficient pedestrian footways and lightings on the respective on-site streets;
- Provision of cycle storage for each dwelling;
- A high degree of pedestrian/ cycle permeability;

-
- Consideration for deliveries to encourage internet shopping;
 - Provision of broadband internet connection to enable residents the ability to work from home and also make internet shopping easier.

Soft / Informative Measures

7.12 Soft measures are those that are implemented during the life of the TP which do not represent physical measures, such as those set out above. They include initiatives and campaigns to promote a shift in mode away from the private car to other, more sustainable modes.

7.13 The package of proposed measures will comprise the following:

- Appointment of a 'Travel Plan Coordinator' (TPC);
- Promotion of walking and cycling for leisure and commuting including routes suitable for disabled persons;
- Promotion of public transport services including details of facilities available for mobility impaired;
- Promotion of available taxi share services;
- Provision of Personal Travel Planning (PTP);
- Provision of bus vouchers;
- Liaison with local cycle retailers to obtain discounts for residents;
- Provision of a travel plan website;
- Promotion of car sharing;
- Promotion of walk / cycle to school and 'walking bus'; and
- Provision of information for inclusion in homeowners' packs.

Travel Plan Coordinator (TPC)

7.14 Prior to the occupation of the site, the developers will appoint a designated Travel Plan Co-ordinator (TPC) who will take responsibility for delivery of the above measures to cover the full 5-year period of the TP. The roles of TPC are discussed in more detail in following **Section 8**. After 5 years, it is likely that any continuation of the TP will be completed by a resident steering group or a management company.

- 7.15 The TPC role will change and adapt over the course of the TP period and will therefore be reviewed regularly throughout the period of the plan. Given the scale of the development, it is anticipated that the TPC role will be part time estimated to be around half a day a week.
- 7.16 HCC's development planning team will be provided with the date of first occupation of the site and the full contacts details of the TPC once the role has been appointed.

Publicity and Promotion

- 7.17 Fundamental to delivering any modal shift away from the private car is the provision of relevant and up-to-date sustainable travel information.
- 7.18 This will form the basis of the type of information that will be provided to residents in order to facilitate alternative travel opportunities. These measures support the overall aim and objectives set out in **Section 3**. Sustainable transport information provided to residents (including bus maps, timetabling information and walk and cycle route maps) can be presented to the target audience in a number of ways as discussed below:

i) Travel Plan Welcome Packs

- 7.19 It is now common for residents moving in to new-build housing to receive an *Information Pack* or *Welcome Pack* from the house-builder, comprising general information on the property. This would be used as a mechanism to deliver a range of travel information to the new residents, both to inform the travel opportunities and to encourage modal shift.
- 7.20 The TPC will ensure that the information for the welcome packs are prepared sufficiently in advance of occupation at the site, to ensure that residents receive such packs upon occupation.
- 7.21 A fundamental element of the information supplied will be the inclusion of bus maps/ timetables and maps of key destinations within walking and cycle distance of the site.

7.22 In addition to the above, the following information can also be included in the welcome packs issued to all dwellings at the site:

- Information relating to the benefits of using sustainable modes of transport – in particular active modes to promote the objective of improving the health and wellbeing of residents;
- Contact details of the TPC;
- Details on internet grocery shopping available in the area;
- Local Bicycle User Groups (BUGs);
- List of useful transport related resources such as:
 - Rail Travel Information: www.nationalrail.co.uk
 - Bus Travel Information: www.travelinesoutheast.org.uk;
 - General Travel Information: www.traveline.org.uk
 - Car Share: www.liftshare.com/uk/community/hants
 - Details of taxi firms and ranks available at train stations

7.23 There is also potential to offer further incentives to sustainable travel within the welcome packs, with inclusions of vouchers for bus travel, or discounts at local cycle retailers. The TPC will liaise with the local transport operators and retailers regarding this.

7.24 The welcome packs will be submitted to HCC for approval prior to their distribution.

ii) Personalised Travel Planning Service

7.25 The TPC will act as a contact point for those looking to gain a more detailed understanding of travel opportunities. In delivering this service, the TPC would ensure that all are aware of the sustainable travel options to and from the site. Individual residents will be able to request assistance from the TPC in planning journeys such that the most efficient and sustainable option can be selected.

iii) Promotional Events

7.26 If considered necessary as informed by the monitoring results, annual events will be promoted over the period of the TP to further encourage uptake sustainable travel – these are likely to include competition “give away”, fliers to highlight national events such as “Bike Week” or “Walk to

School Week” or local events in Hampshire focussed on active travel, or providing ad hoc information on walking routes in the area or health benefits of exercise.

iv) Website

7.27 A website is a straightforward way in which residents can access the most up to date travel information. A website link will be established which provides links to:

- Car Share database
- National Rail Time Tables
- Bus Timetables
- Taxi providers
- Information on cycle routes and cycling organisations
- Information on walking routes and local rambler groups

7.28 The above measures should allow the future residents of the proposed development to have sufficient knowledge of the sustainable modes of travel and facilities available to them and make informed decisions about their travel choices.

8.0 TRAVEL PLAN STRATEGY AND ACTION PLAN

Travel Plan Coordinator (TPC)

- 8.1 The TPC will be responsible in terms of ensuring that the TP is implemented and a series of measures and initiatives are delivered.
- 8.2 A critical part of the information gathering for the TPC will be to carry out a questionnaire survey of all occupiers to provide details of individual circumstances, travel patterns and preferences etc. The surveys can either be carried out online or in paper format. The survey will be organised by the TPC and the results set out in a monitoring report.
- 8.3 Prior to first occupation, the TPC will update and/or acquire all the supporting information needed, such as public transport timetables and cycle maps and review the overall contents of the TP document to ensure its accuracy and relevance.
- 8.4 The duties of the TPC will include but not limited to:
- Discussions with the sales staff to provide informal training and travel information relating to the site to promote the TP;
 - Overseeing the gathering of information, e.g. the travel questionnaire;
 - Providing new residents with travel information in the welcome pack to include details of sustainable travel options available to them including bus timetables, and any promotions such as introductory bus passes or other introductory incentives.
 - Information to new residents to explain the objectives and benefits of the TP to ensure awareness of the plan and to encourage participation;
 - Acting as a focal point for all transport, access and travel related issues in relation to the site;
 - Actively encouraging and promoting walking, cycling and public transport use to travel to and from the development, where possible. Hence, residents will be encouraged to be fully aware of different travel options which are available from the site;

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- Obtaining up to date details of the information required in the TP;
- Implementing, monitoring and reviewing the TP; and
- Provision of a report to the Council summarising the monitoring, targets and review of the TP and discussing the measures (as needed).

8.5 Where appropriate the TPC will look to develop partnerships with local shops / businesses to obtain discounts for residents, such as local cycle shops and bus operators. The TPC will also seek to liaise with other TPCs in the area; residential, business and schools, to establish and pursue collaboratively community wide sustainable travel goals.

Action Plan

8.6 A series of 'hard' and 'soft' measures will be implemented as discussed in **Section 7.0**. These will ensure that there is opportunity and incentive to travel by sustainable methods of travel.

8.7 An indicative action plan has been provided below in **Table 8.1** which sets out the intended measures, actions, responsibilities, timescale and indicative cost. Consultation on the contents of the action plan will be completed and agreed with HCC after the completion of the initial travel survey.

8.8 If the further development as described before were to come forward in northern sector of the site, then there would be need to revise the action plan, specifically the indicative cost.

Travel Plan

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Table 8.1: Action Plan

Action /Target	Measure	Task	Responsibility	Timescale	Indicative Cost
Implement Travel Plan	TPC	Appoint TPC	Developer	Prior to first occupation	£55,000
	Welcome Pack	Produce information for inclusion in welcome pack and organise distribution upon first occupation	TPC	Ongoing	£3,000
	Monitoring	Complete initial travel survey after 6 months of first occupation/annually afterwards	TPC	Ongoing	£2,400
	Targets	Agree final targets with HCC	TPC	6 months of first occupation i.e. initial survey	Included in TPC cost above
	Promotion of sustainable travel	Organise for website to be set up prior to first occupation	Developer / TPC	Prior to first occupation, then ongoing check information on website is up-to-date	£3,000
	Monitoring	Monitor and report on TP after travel survey	TPC	Annually	Included in TPC cost above
To reduce the proportion of single occupancy car trips	All of the measures below plus:				
	Promotion of car sharing	Produce information for inclusion in welcome pack	TPC	Check information is up to date - ongoing	Included in TPC and Welcome Pack cost above
To increase bus mode share	Provision of bus timetable/stop information	Produce information for inclusion in welcome pack	TPC	Check information is up to date - ongoing	Included in TPC and Welcome Pack cost above
	Bus taster	Offer bus voucher per household on occupation	TPC	Ongoing - scheme available up to 3 months post full occupation	£1,200*
To increase train mode share	Provision of bus timetable/stop information	Produce information for inclusion in welcome pack	TPC	Check information is up to date - ongoing	Included in TPC and Welcome Pack cost above

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Action /Target	Measure	Task	Responsibility	Timescale	Indicative Cost
	Train voucher	Offer train voucher per household on occupation	TPC	Ongoing - scheme available up to 3 months post full occupation	£1,200*
Increase cycle mode share	Provision of cycle storage spaces	Provide adequate level of secure cycle storage spaces upon occupation	Developer	Prior to occupation	-
	Cycle route information	Provide cycle route information in welcome pack	TPC	Check information is up to date - ongoing	Included in TPC and Welcome Pack cost above
	Cycle discount vouchers	Offer cycle voucher per household on occupation	TPC	Ongoing - scheme available up to 3 months post full occupation	£1,200*
Increase walk mode share	Improve pedestrian links	Ensure links with existing wider footway network and PROWs – determined as part of planning submission	Developer	-	-
	Provision of local pedestrian network Plan	Provide residents with information in welcome pack	TPC	Check information is up to date - ongoing	Included in TPC and Welcome Pack cost above
Personalised Travel Planning		Offer PTP to each household	TPC	Ongoing as required	£3,000

*assumes £50 vouchers with each household opting for either bus, train or cycle voucher.

9.0 MONITORING

9.1 A successful TP must have an appropriate monitoring programme that measures success (and failure) and reinvigorates the process where necessary. The development of an appropriate monitoring and review strategy will be the responsibility of the TPC.

9.2 Monitoring will be conducted using a questionnaire-based approach combined with automatic traffic counts at the site access.

9.3 Resident travel surveys will be carried out on an annual basis (year on year from the month of the baseline surveys being carried out) for a five-year period. An annual monitoring / review report will be prepared and submitted to HCC Highways as well as being made publicly available to residents if needed. Where this review reveals that targets are not being attained the TPC will consider additional measures which may be implemented to enhance the effectiveness of the TP.

9.4 The survey should include the following elements:

- How residents plan to or currently travel to work and other destinations.
- How residents prefer to travel for various journey purposes.
- Measures that would encourage residents to use sustainable modes.
- Work, school and main shopping destination(s) (typically by postcode area).
- Other travel needs.

9.5 The initial monitoring survey to establish the baseline for comparison will be completed 6 months from first occupation. The date of first occupation will be provided to HCC's development planning team. Then, surveys for comparison will be undertaken annually for a 5-year period. A sample travel survey questionnaire is attached as **Appendix G**. This will be

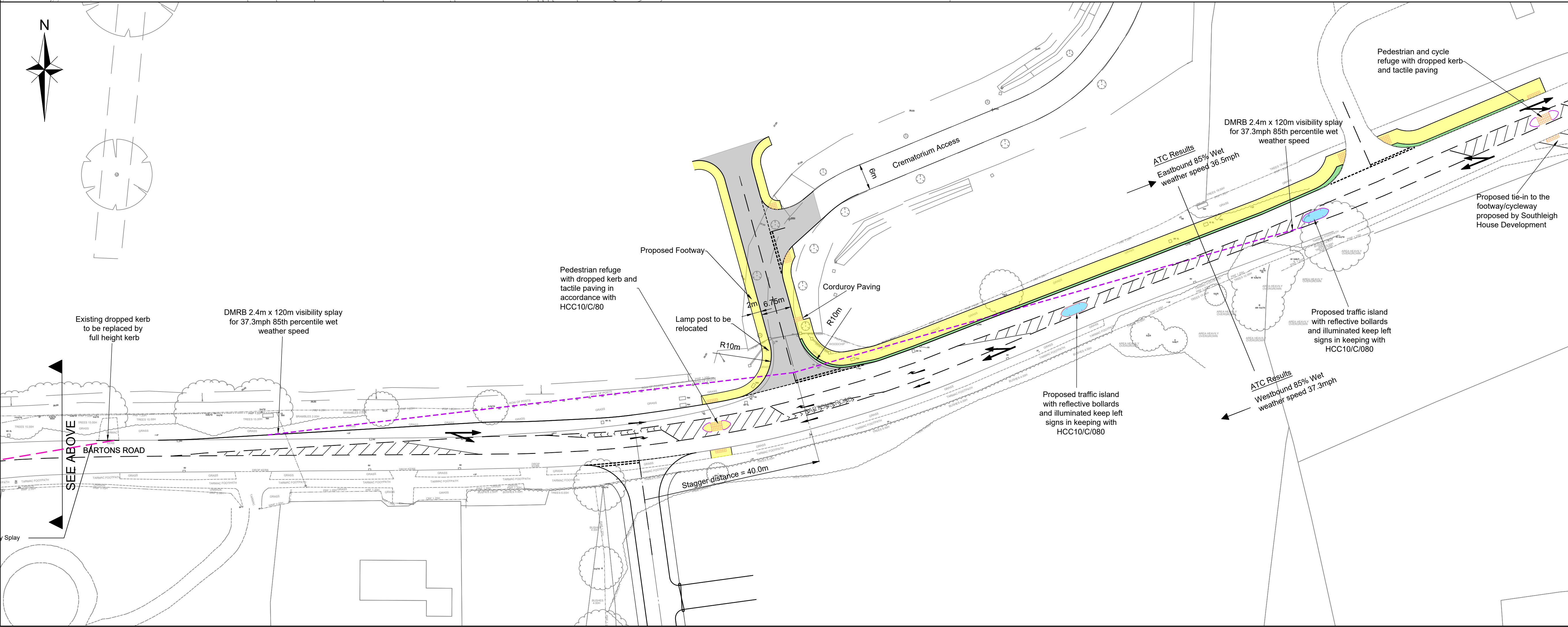
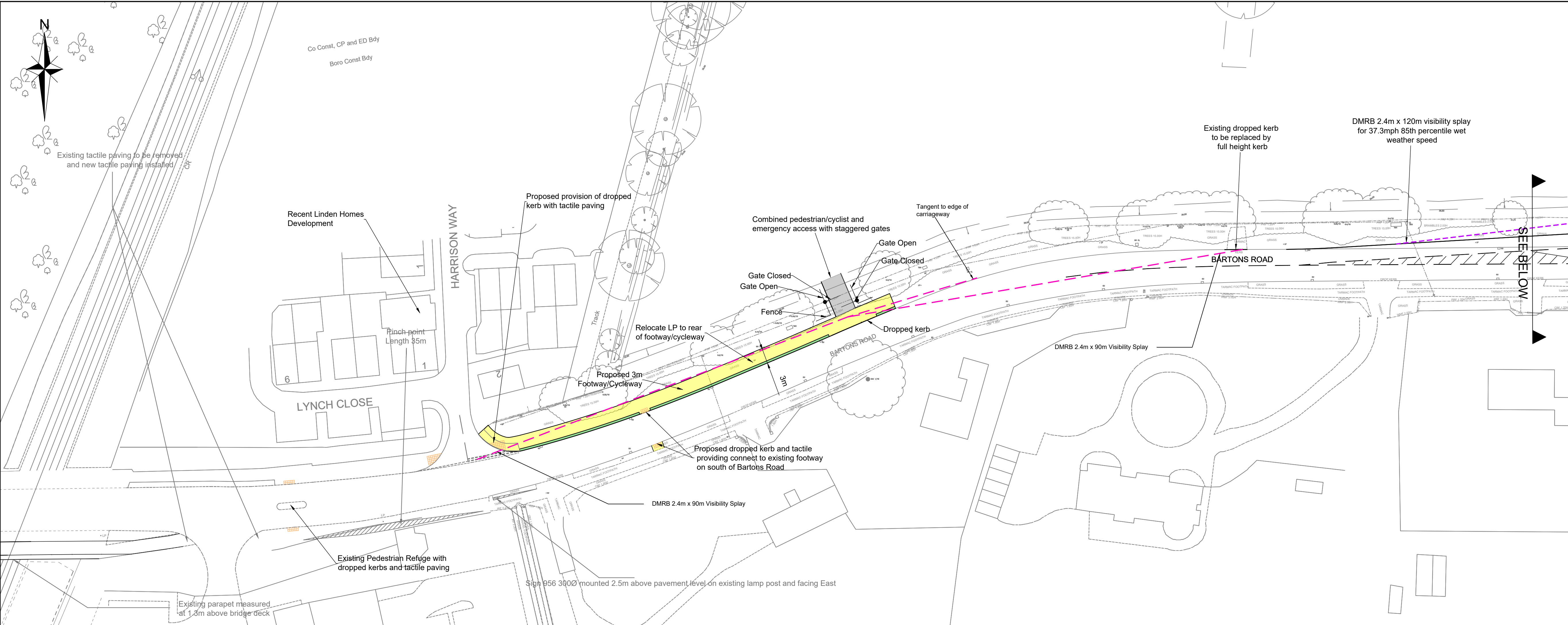
revised by the TPC if necessary, in accordance with HCC requirements and submitted to HCC for approval prior to distribution.

- 9.6 As set out in HCC guidance a 35% response rate will be aimed for from the monitoring surveys. There is a potential for responses to be encouraged through a prize incentive such as vouchers for retail or travel vouchers.
- 9.7 A monitoring report will be submitted to HCC within three months of the travel surveys completion, summarising the results and the effectiveness of the measures implemented in meeting the aims and targets set out in the TP. This report will be provided to both residents and HCC. An annual review will also be completed to determine if the measures and promotion of the TP need to be updated in order to achieve the targets.
- 9.8 In the event that targets are not met, the TPC will consult HCC to determine the best course of action for future measures as well as implement a number of sanctions as follows:
- marketing events will be undertaken to encourage sustainable travel;
 - encourage uptake in the bus pass incentive scheme and advertise the cycle discounts and personal travel planning by direct marketing through emails and via marketing events.
- 9.9 It is understood that HCC require £750 for the initial evaluation fee and £1,000 per annum for monitoring, a total of £5,750 for a 5-year TP.
- 9.10 The above methodology has been primarily prepared for the current application for 72 dwellings in southern sector of the site. However, if a further application were to come forward, subject to when it comes forward, the above schedule would be adjusted to suit the combined development upon consultation with HCC.

10.0 SUMMARY

- 10.1 This TP has been prepared by Charles & Associates Consulting Engineers Ltd (C&A), on behalf of White Farming Limited, to support the proposed residential development of Land West of Havant Crematorium, Bartons Road within HBC in Hampshire. The proposed development will contain up to 72 dwellings.
- 10.2 There may in the future be scope for further development of up to 78 additional dwellings within the northern sector of the site which is located within EHDC. As such, consideration has been given to this as necessary.
- 10.3 This TP sets out site specific initiatives aimed at improving the availability and choice of travel modes to and from the development. Together with the TA, this TP will aim to be the mechanism by which overall travel demand will be managed and monitored.
- 10.4 It has been produced in accordance with HCC's Travel Plan Guidance 'A Guide to Development Related Travel Plans'.
- 10.5 The aims and objectives, policy context and site audit of the existing travel conditions around the site are provided within this TP. The audit concludes that the site is located within reasonable travel distance by foot and cycle to local facilities, services and public transport. The proposals will include good quality footways/cycleways within the site and provide connections to existing pedestrian infrastructure and will include dedicated links for pedestrians and cycle user onto Bartons Road from the site.
- 10.6 The hard/physical and soft/informative measures that are to be implemented have been discussed, alongside details of the role of the TPC, targets set, monitoring and budget.
- 10.7 All of this information will be agreed with HCC, as Highway Authority, as part of the implementation of the TP and updated through the monitoring process.

DRAWINGS



NOTES

KEY

Note1 : The proposed layout assumes prior implementation of the access arrangements as approved for planning application (APP/15/01435) in drawing 14-018-002 and cycle provision improvements as shown in drawing 14-018-015.

- Proposed 2m Footway and 3m Footway/Cycleway
- Proposed Carriageway
- Proposed Traffic Island
- Proposed 0.5m Strip between Carriageway and Shared Footway/Cycleway

I	Amended as per HCC comments.	DK	SACGAC	Apr 19	
H	Job title and client amended.	PL	SACGAC	Nov 18	
G	Minor amendments.	PL	SACGAC	Oct 18	
F	Amended to suit the latest masterplan.	PL	SACGAC	Oct 18	
E	DMRB 2.4m x 120m visibility splays provided.	PL	TMSGAC	Sep 18	
D	Access narrowed to 5.5m.	PL	TMSGAC	Aug 18	
C	Text amended.	PL	TMSGAC	July 18	
B	Pedestrian crossing revised. Emergency access relocated.	PL	TMSGAC	June 18	
A	Minor amendments	DK	TMSGAC	May 18	
Rev	Amendments	Drm	Chk	App	Date

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Job Title
Land West of Havant Crematorium
Bartons Road, Havant

Drawing Title
Proposed Site Access and
Emergency Access

Client
White Farming Limited

Scale	Date	Designed
1:500@A1	Apr 18	PL
Drawn	Checked	Approved
PL	TMS	GAC
Job No	Drawing No	Rev
17-055	17-055-011	I

APPENDICES

APPENDIX A

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			Vfruh#	R xw#r#
Background			9	9
Name of residential development (developer/agent/speculative development status)	Section 1	T	1	1
Numbers and types of dwellings	Section 5	T	1	1
Are there other on site facilities? Customer/visitor movements	Residential only	T	1	1
Is the scope of the plan clear and does the plan relate to the different needs of all residents, visitors, deliveries, disabled access?	Section 1	T,R,A	2	2
Is there reference to the wider company ethos (if managed housing)	N/A	T,R	1	1
Physical description of the site and its location. To include on site infrastructure (e.g. car parking spaces) and off site infrastructure (e.g. public transport services)	Section 4	T	2	2
Is the plan clear about who has responsibility to deliver the travel plan (the developer or responsibility passed to the residents groups)	Section 8	T,R,C	1	1
Consultation and partnerships			5	7

Does the plan demonstrate that residents will be involved in the development of the plan. Have the opinions of the local community and stakeholders been included in the action plan.	Section 8	T,R	2	2
Is there agreement with the highway / transport authority on the measures relevant to them. Evidence of liaison with the local authority.	N/A – not at this stage. To be included in subsequent revisions as detailed TP developed.	T,R,A	1	2
Is there agreement with the local public transport operators on measures relevant to them	N/A – not at this stage. To be included in subsequent revisions as detailed TP developed.	T,R,A	1	2
Are any other key partnerships identified (e.g. cycle retailers, train operators) or is there membership of a commuter /local residents forum	Section 7 and 8	T,C,A	1	1
Site and travel surveys			10	10
Have site audits been undertaken	Section 4	T,C	1	1
Have surveys been carried out of existing transport links and public parking stock (i.e. is there potential for displaced parking to take place)	N/A for the site	T,C	1	1
Have travel surveys been planned. If so, what response rate / data quality is anticipated?	Section 9. 35%	T,C	2	2

Has an appropriate survey methodology been proposed and agreed including timescales	Section 8 and 9	T,A,C	1	1
Is a sample survey questionnaire provided	Appendix to TP	T,A,C	1	1
What level of data analysis has been used to inform the development of the action plan (reference to local or national data)	Site specific analysis from the TA	T,C	2	2
Are likely patterns of resident /visitor travel outlined?	Table 6.1 and 6.2	T	2	2
Visions, Objectives and Targets			9	10
Does the plan have clear and appropriate overall aims and objectives.	Section 3	T,R,A,C	1	1
does the plan have targets (related to the aims and objectives). Minimum of % SOV versus other modes	Section 6. Table 6.1		2	2
Are there 'aim' and 'action' type targets	Yes. Section 6	T,R,A,C	1	1
Is the plan clear about how the targets have been developed (e.g. are they based on evidence from similar sites)	Section 6	T,R,A	1	2
Are the targets SMART	Yes	T,R,A	1	1
Are indicators of success proposed	Table 6.1	T,R,A	1	1
Are the targets consistent with LDF and LTP objectives and policies	Yes, Section 6	T,R	2	2

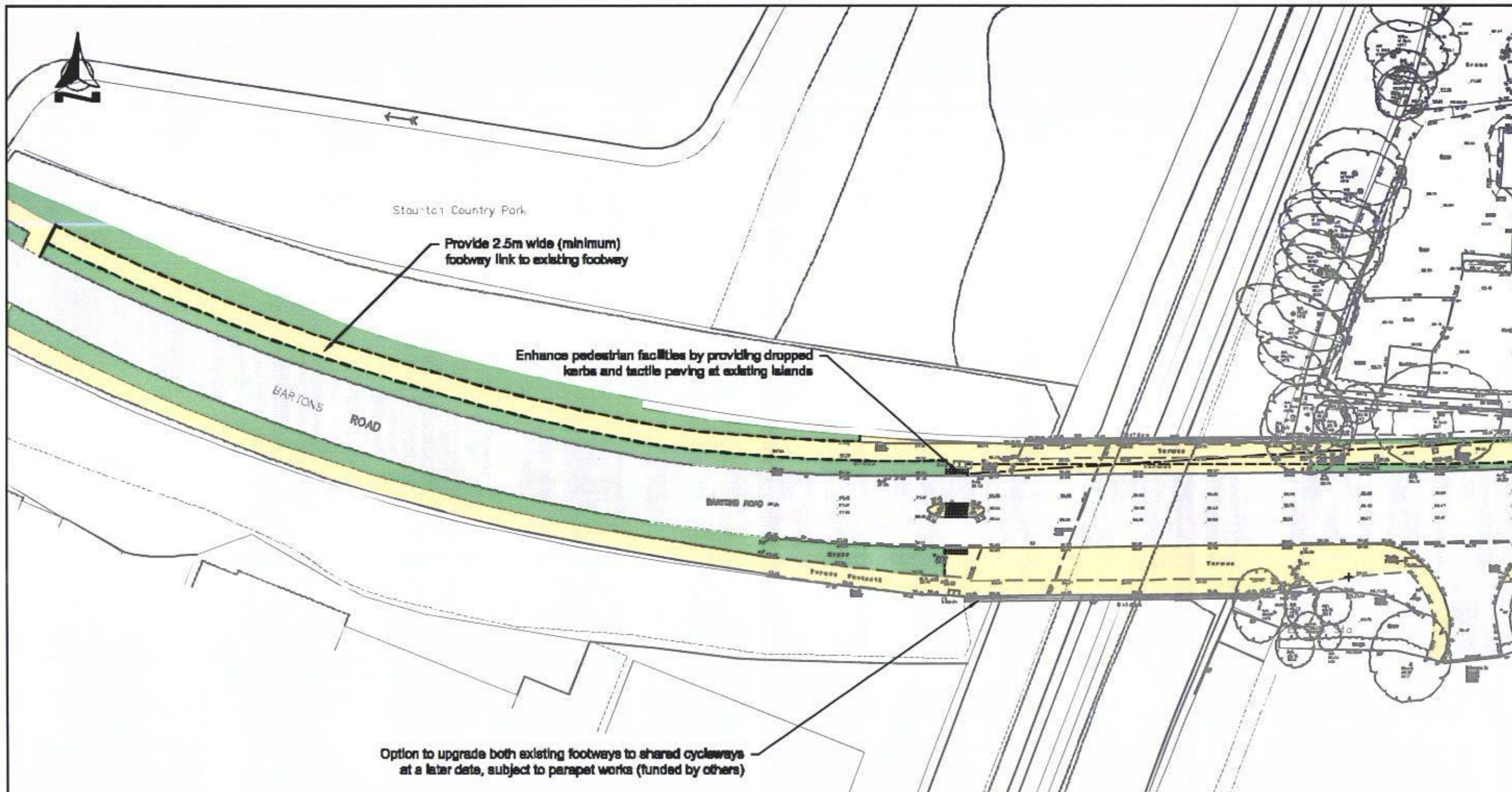
Action Plan			25	34
has an action plan been included?	Section 8, Table 8.1	T	1	1
Is it clear how initiatives and measures support the overall aims and objectives	Section 7	T,R	3	3
Are measures related to survey results or in line with over all aims and objectives	Yes	T,R	3	3
Do actions have defined and realistic timescales	Section 8, Table 8.1	T,R,A	3	4
Are a range of appropriate measures included in the site design	Section 5		2	3
Are initiatives and measures prioritised in the plan	Yes	R,A	2	3
Are there details of who is responsible for each action	Table 8.1 (TPC/Developer)	T,R,A	2	2
Are all modes of travel to and from the site considered (walking, cycling, bus, train, taxi, motorbike, multimodal journeys, car, car share, deliveries)	Yes	T,C	2	4
Are measures (physical and promotional) identified to assist all users of the site and all journey types	Section 7	T,C	2	3
provision of marketing / information for each mode	Section 7		1	2
provision of incentives for each mode	Section 7		2	2

Is there a strong car parking policy (e.g. to what extent is resident and visitor car parking managed)	N/A – no car parking management. Appropriate car parking provision provided as per HBC requirement, so no overspill anticipated	R,A,C	1	2
Are non transport solutions considered (e.g. are homes wired for broadband internet, are there opportunities to provide work hubs)	Section 7	R,A,C	1	2
Evaluation and Monitoring			5	7
Does the plan state when surveys will be undertaken	Section 9. Within 6 months of occupation. Every year afterwards	T,S	1	1
Are there mechanisms in place for reviewing and updating the plan in light of experience	Section 9 – TP updated following survey results	T,S	1	1
Are barriers to implementation discussed with amelioration measures proposed	Section 9 – measures discussed if target not met	T,R,A	1	2
Are proposals for long term monitoring included	5 years.	T,S	1	1
Are the proposals for implementing and managing the plan in the longer term (5-15years) clear? e.g residents groups	Section 7 – likely to be a residents group or a management company	T,S	1	2
Roles and responsibilities			5	5
Is there a steering / management group to over see the development of the plan	Section 8 – TPC / Developer	T,C	1	1

Have sales staff been trained and provided with information about promoting the travel plan	Section 8. Not at the moment, however commitment that they will be has been included.	T,C	1	1
Is a Travel plan co-ordinator in place or is there agreement on when a co-ordinator will be in place. Will it be a full or part time role?	Section 7. Part time	T,C	2	2
Are staffing implications of delivering the plan made clear especially if the developer will not have a continued presence on site	Section 8	T,A,C	1	1
Awareness, promotion and marketing			6	6
What measures are in place to ensure that the travel plan is promoted over a sustained period of time (e.g. newsletters., events, websites).	Section 7	A,C,S	3	3
Are promotional events coordinated with national and local events	Section 7	R,A	2	2
Is there a mechanism for disseminating results of the survey	Section 9	T	1	1
Funding			7	7
Are sources of funding (at an appropriate scale) identified for delivery of the action plan	Table 8.1	T,R,C	2	2
Is the funding of the travel plan co-ordinator role clear	Table 8.1	T,R,C	2	2

Is there funding allocated for promotional events and marketing	Table 8.1	T,R,C	2	2
is funding allocated for the requirement of ongoing monitoring of the plan	Table 8.1		1	1
Deliverability / Enforceability			5	10
Is a Section 106 agreement drafted which ensures delivery of the travel plan	N/A – TP assumes S106 will be entered into. Section 1.	T,E	1	2
Is there clarity on what needs to be done by when and appropriate incentives / sanctions in place to enforce the agreement	Table 8.1	T,E	1	3
Is the travel plan explicit in terms of objectives, management, monitoring and review?	Yes	T,E	2	4
Are any arrangements in place for change in ownership of properties	N/A – TPC role to cover all dwelling regardless of change in ownership	T,E,S	1	1
Total			86	105

APPENDIX B



Clover House
Western Lane
Odiham
Hampshire, RG28 7TU
Tel: 01256 703595
Fax: 01256 704834
Email: info@bellamyroberts.co.uk

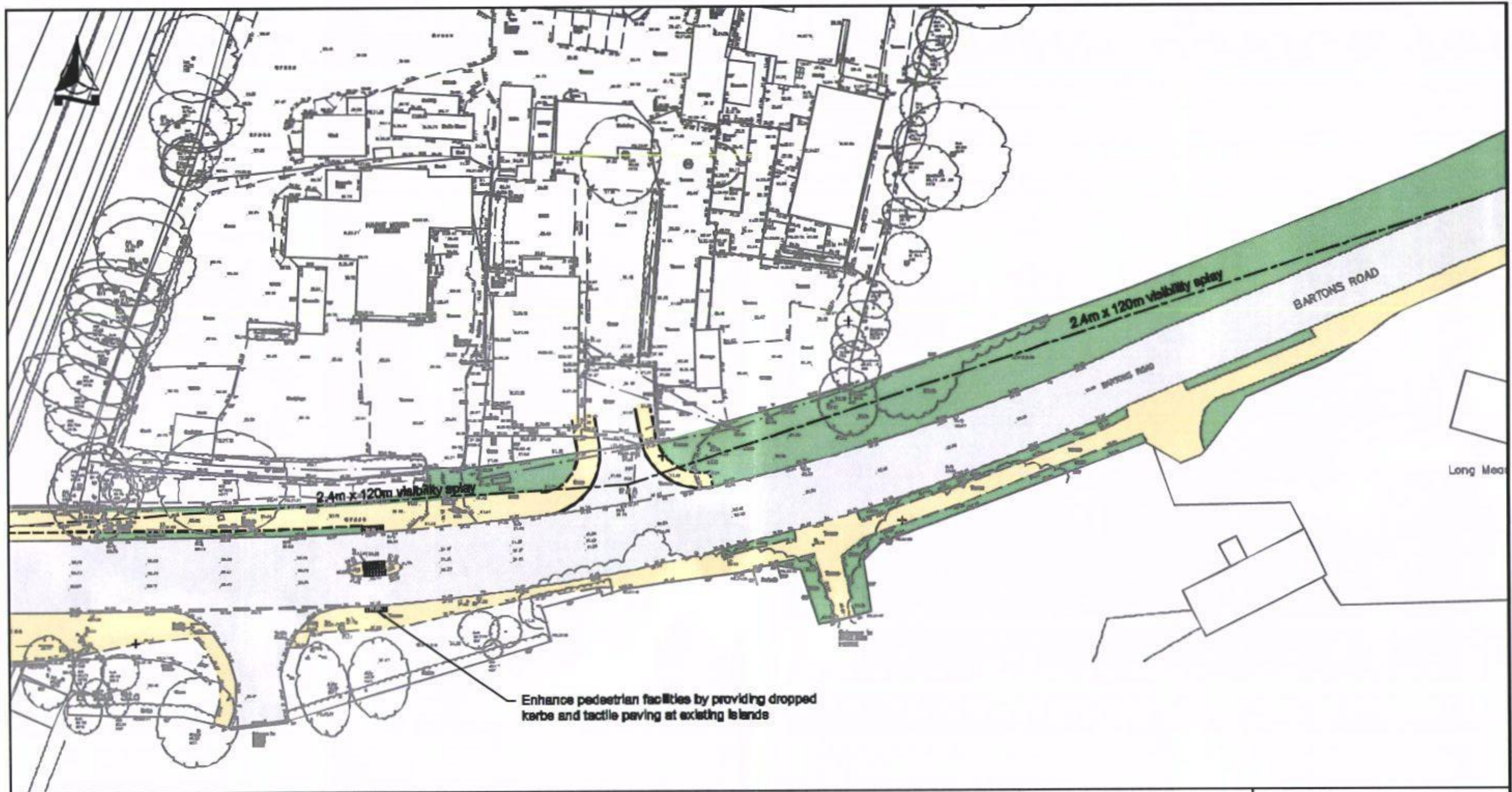
Client: Linden Homes

Project: Barton's Road, Havant

Drawn:

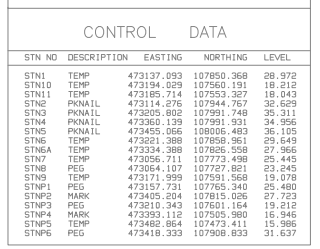
Proposed footway improvements

Project	GPW	GPW	ITR
Date	13/05/13	4327 / 001	
Scale	1:500 @ A3		



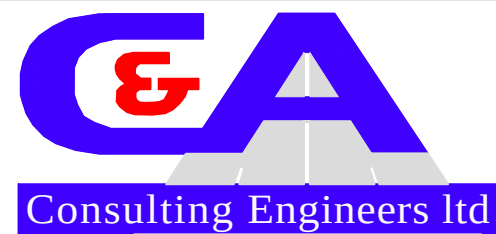
			Clover House Western Lane Odham Hampshire, RG28 1TU Tel: 01296 700285 Fax: 01296 704854 Email: info@bolleryroberts.co.uk		
Client Linden Homes			Project Barton's Road, Havant		
Title Proposed site access & pedestrian facilities			Date 13/05/13		
Drawn by GPW			Checked by GPW		
Scale 1:500 @ A3			Reference 4327 / 002		

APPENDIX C



-  HIGHWAY bOUNDARY

H	Layout amended	GS	GS	GC	May 16
G	Layout amended	TSH	GC	GC	Apr 16
F	Response to HCC comments	MP	SA	GC	Feb 16
E	Response to HCC comments	GH	SA	GC	Feb 16
D	Access tied into Topo	DD	SA	GC	Nov 15
C	Agricultural access added	DH	SA	GC	Oct 15
B	Access widened from 6.0m to 6.5m	DH	SA	GC	Oct 15
A	Topographical survey added	DS	SA	GC	09/20/15
Rev	Amendments	Trn	Chk	App	Date

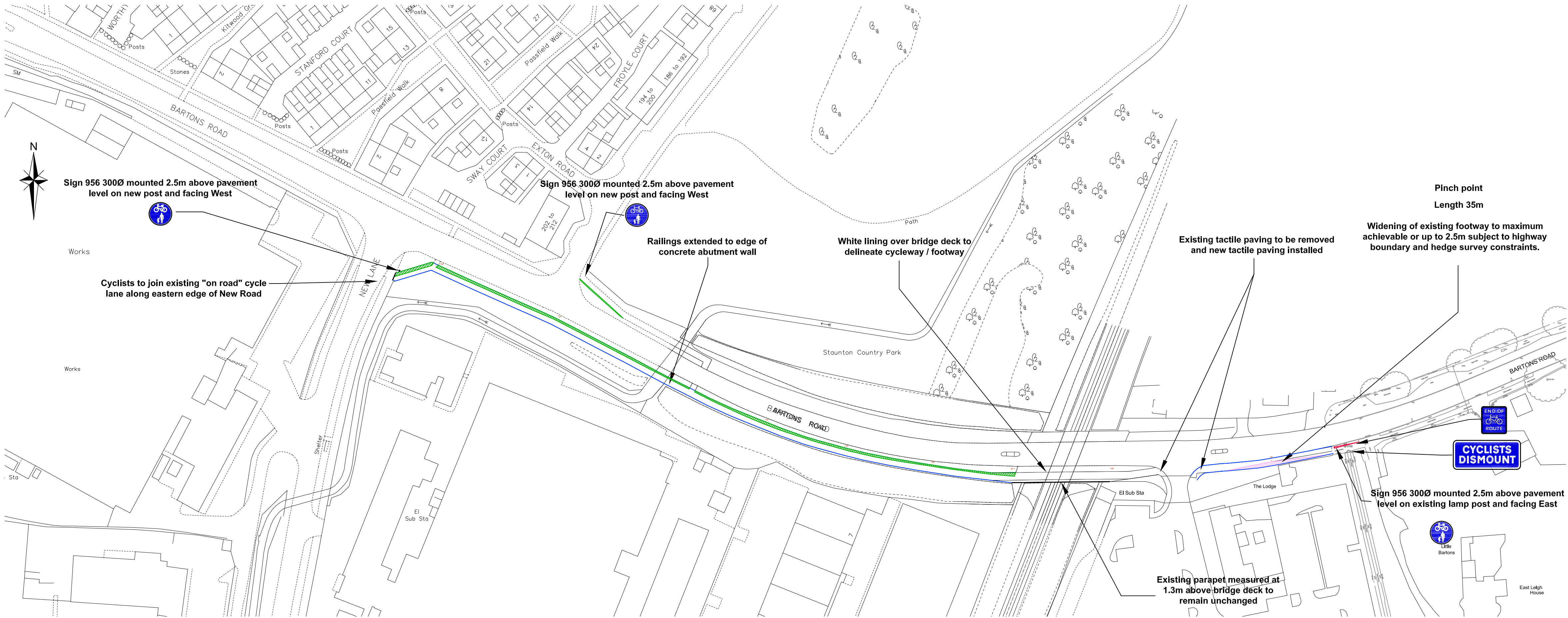


OFFICE 17
WEALDEN PLACE
BRADBOURNE VALE ROAD
SEVENOAKS KENT
TN13 3QQ

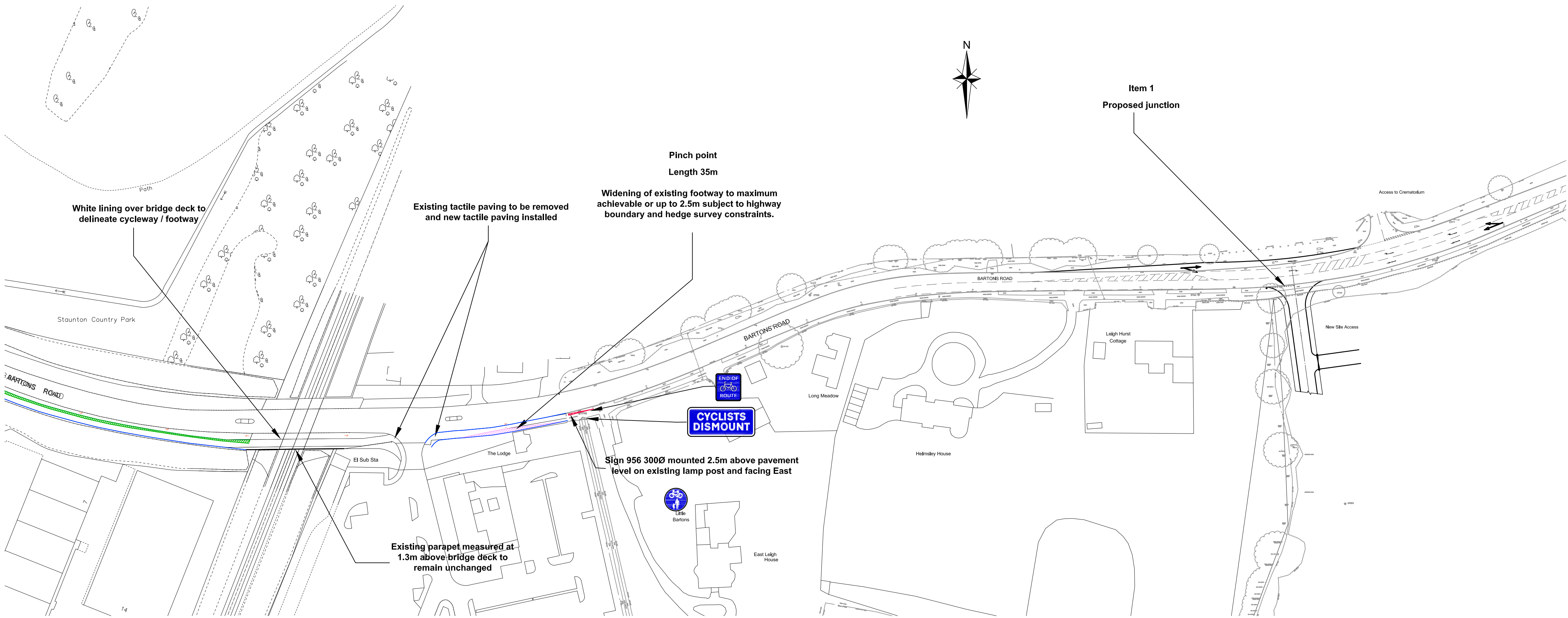
Telephone: 01732 448120
Fax: 01732 465026
Email: enquiries@c-a-uk.com
Web: www.c-a-uk.com

Drawing Title
Preliminary Site Access Plan

Scale 1:500@A1	Date Apr'15	Designed SB
Drawn SB	Checked GAC	Approved GAC
Job No 14-018	Drawing No 14-018-002	Rev H



Continued below



Continued above

NOTES

1. Do not scale from this drawing.

2. This drawing is based on OS base mapping and the Highway boundary has been added to this OS base map.

3. The location of the LP's are indicative ONLY and are subject to confirmation on site.

4. All works to the footpath widening to be undertaken within the Public Highway

LEGEND

Proposed edge of widened footway / cycleway.

Area of widening

Area where widening is not possible.

D. PROW amendment

C. Option B removed.

B. Hatching north of Barton's Road added.

A. Option B Hatching and updated Notes

TH GAC-GAC

BL TMS-GAC

BL TMS-GAC

BL TMS-GAC

Nov' 16

August 16

June 16

June 16

Rev

Amendments

Dm

Chk

App

Date

GA

Consulting Engineers Ltd

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Aldershot Enterprise Centre
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Aldershot Hampshire
GU11 2PW
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Office 17
Woolden Place
Bradbourne Vale Road
Sevenoaks
Kent
TN13 1QQ
01732 448120

Job Title

Land South of Barton's Road, Havant

Drawing Title

Proposed Shared Footway and Cycleway

Client

Chidden Farms

Scale

1:1000@A1

Date

June 16

Designed

GG

Drawn

GG

Checked

TMS

Approved

GAC

Job No

14-018

Drawing No

14-018-015

Rev

D

APPENDIX D

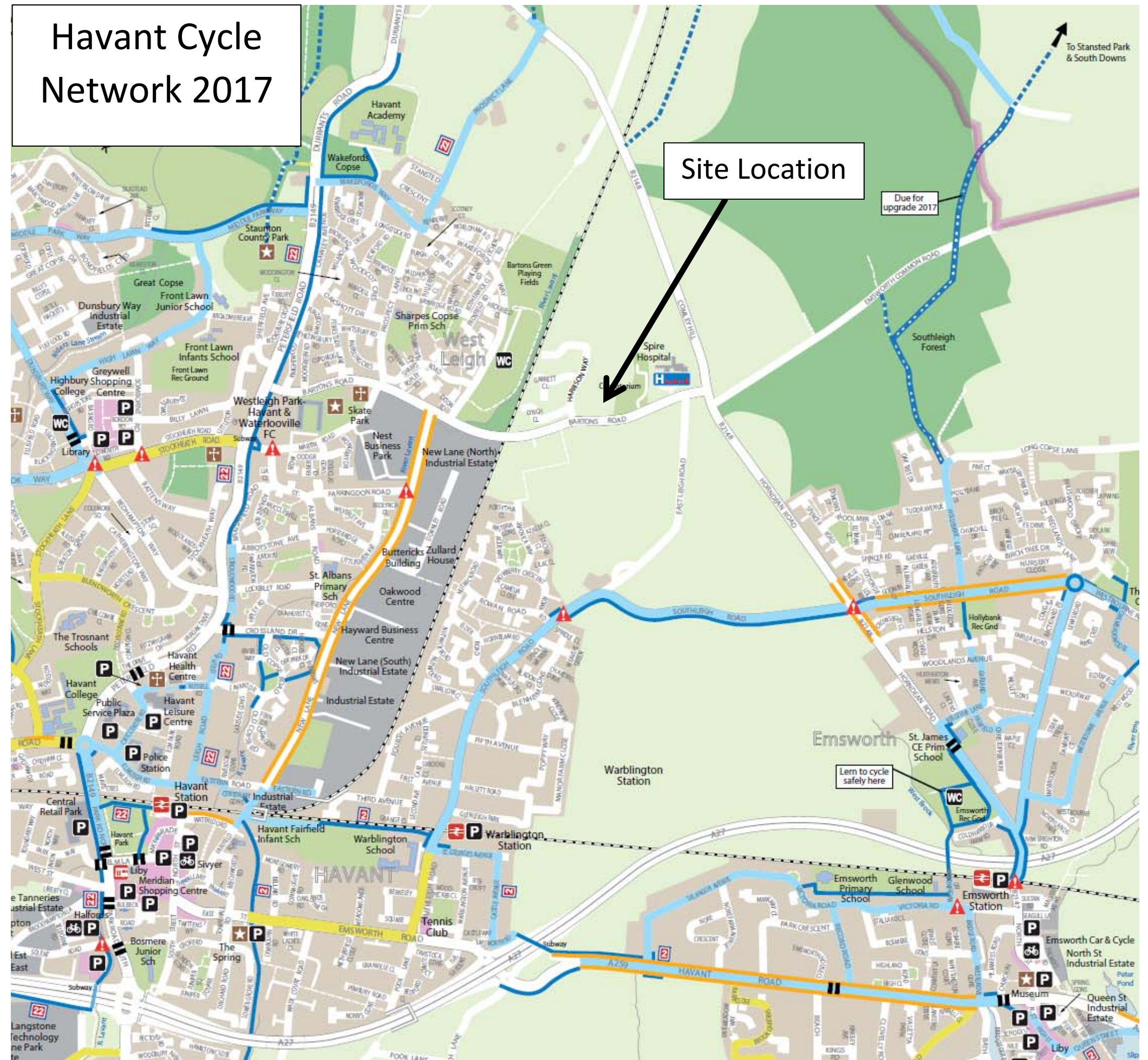
Signs and Lines

-  Off road cycle track (hard surfaced)
-  On-road cycle lane
-  Bus and cycle lane
-  Cycle network link (signposted)
-  Suggested link route (not signposted)
-  By-way open to all traffic (BOAT) or Bridleway or other track available for cyclist use (typically loose surfaced)
-  By-way open to all traffic (BOAT) or Bridleway or other track available for cyclist use (typically improved surfaced)
-  One way traffic INCLUDING CYCLISTS
-  Controlled crossing
-  Cyclists beware - Difficult junction, barriers or steps
-  Cycle parking
NB - All Stations and most public buildings have cycle parking facilities
-  Cycle Shop

Buildings and Places of interest

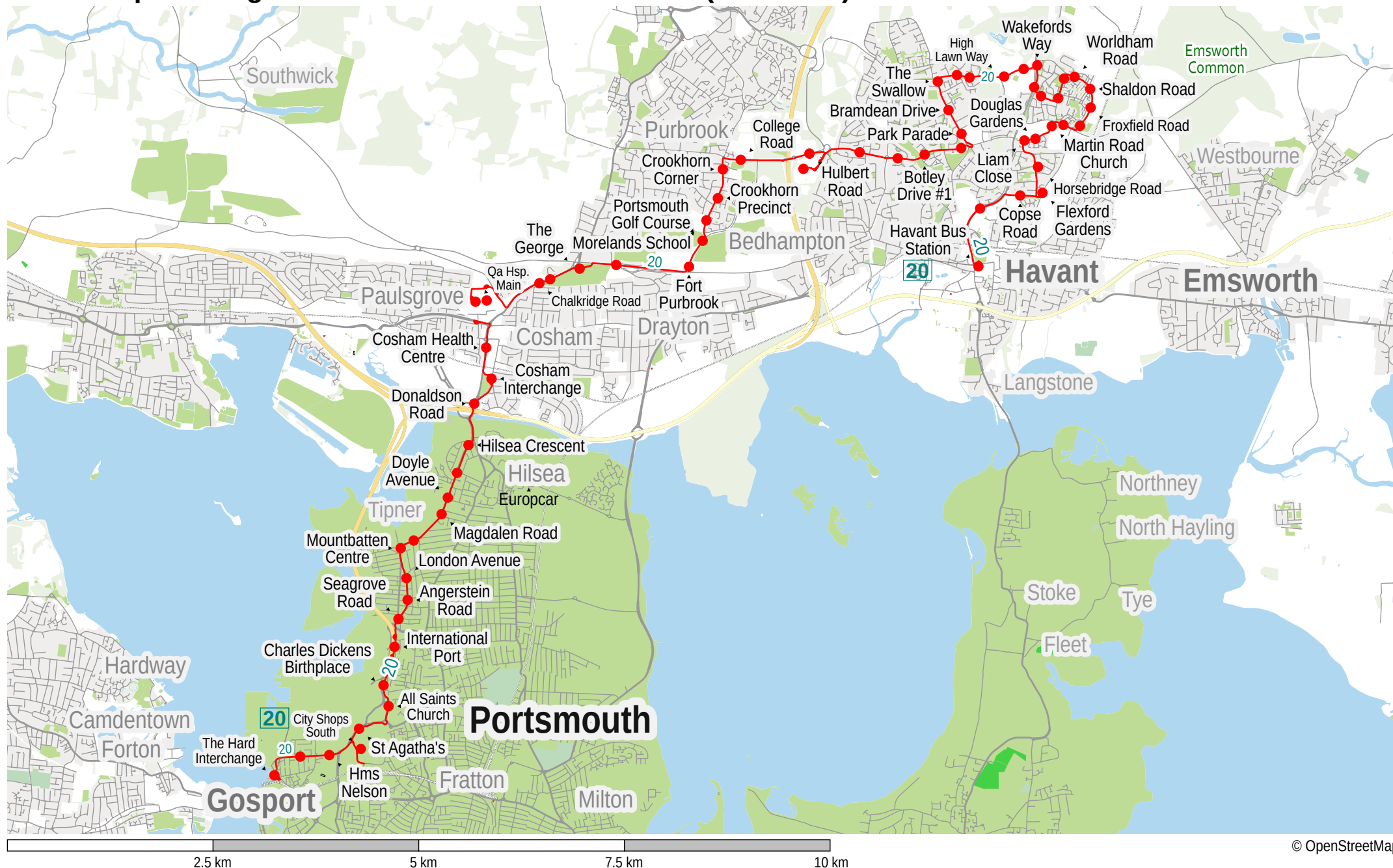
-  Public toilets
-  Church
-  Caravan site
-  Other places of interest
-  Mainline railway station
-  Narrow gauge railway station
-  Bus interchange
-  Ferry terminal
-  South Downs National Park boundary
-  Woods and forests
-  Parks and other open spaces
-  Countryside and arable
-  School or college
-  Shopping area/Retail park
-  Blue Flag beach

Havant Cycle Network 2017

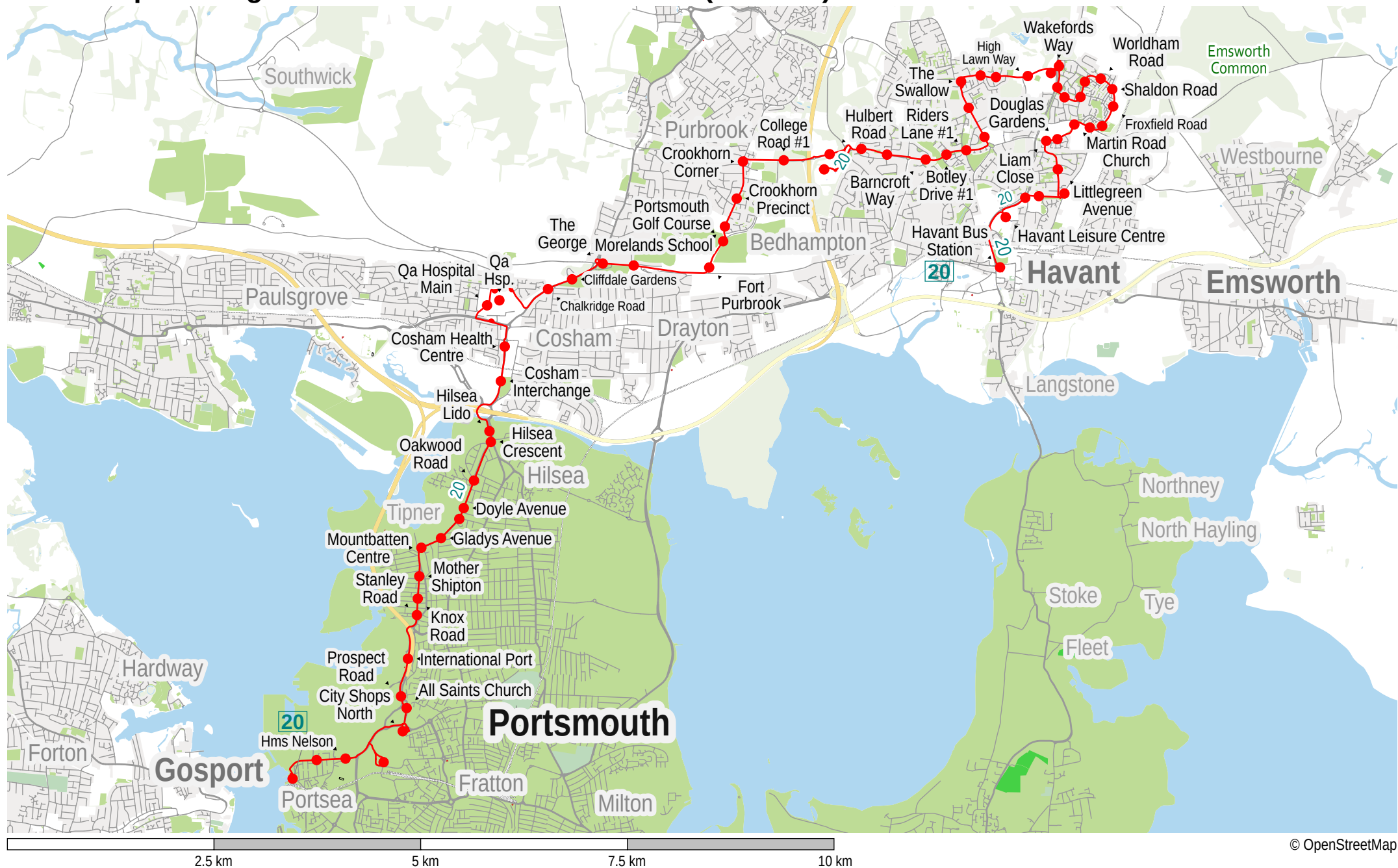


APPENDIX E

Route map for Stagecoach in Portsmouth service 20 (outbound)



Route map for Stagecoach in Portsmouth service 20 (inbound)





20

Havant - Portsmouth - The Hard

Stagecoach in Portsmouth

Timetable valid from 23/07/2017 until further notice.

Direction of stops: where shown (eg: W-bound) this is the compass direction towards which the bus is pointing when it stops

Mondays to Fridays

Havant, Bus Station (Stop G)	0615	0645	0715	0745	0815	0845	0915	0945	1015	1045	1115	1145	1215	1245	1315	1345	1415	1445
West Leigh, opp Worldham Road	0625	0655	0725	0757	0827	0857	0927	0957	1027	1057	1127	1157	1227	1257	1327	1357	1427	1457
Leigh Park, Park Parade (Stop A)	0635	0705	0735	0807	0838	0908	0938	1008	1038	1108	1138	1208	1238	1308	1338	1408	1438	1508
Bedhampton, Asda Hypermarket (W-bound)						0915	0945	1015	1045	1115	1145	1215	1245	1315	1345	1415	1445	1515
Purbrook, Crookhorn Precinct (S-bound)	0644	0714	0746	0819	0850	0921	0951	1021	1051	1121	1151	1221	1251	1321	1351	1421	1451	1521
QA Hospital, QA Hospital Main (Stop G)	0654	0724	0756	0829	0901	0932	1002	1032	1102	1132	1202	1232	1302	1332	1402	1432	1502	1532
Cosham, Health Centre (Stop F)	0659	0729	0801	0834	0906	0937	1007	1037	1107	1137	1207	1237	1307	1337	1407	1437	1507	1537
Hilsea, Gladys Avenue (W-bound)	0705	0737	0809	0842	0914	0945	1015	1045	1115	1145	1215	1245	1315	1345	1415	1445	1515	1545
City Centre, City Shops South (Stop G)	0715	0750	0822	0855	0925	0955	1025	1055	1125	1155	1225	1255	1325	1355	1425	1455	1525	1555
Portsmouth, The Hard Interchange (Stand G)	0720	0755	0827	0900	0930	1000	1030	1100	1130	1200	1230	1300	1330	1400	1430	1500	1530	1600

Mondays to Fridays

Havant, Bus Station (Stop G)	1515	1545	1615	1645	1715	1745	1815
West Leigh, opp Worldham Road	1527	1557	1627	1657	1727	1757	1825
Leigh Park, Park Parade (Stop A)	1538	1608	1638	1708	1738	1808	1835
Bedhampton, Asda Hypermarket (W-bound)							
Purbrook, Crookhorn Precinct (S-bound)	1548	1618	1648	1718	1748	1816	1842
QA Hospital, QA Hospital Main (Stop G)	1559	1629	1659	1729	1759	1825	1850
Cosham, Health Centre (Stop F)	1604	1634	1704	1734	1804	1829	1854
Hilsea, Gladys Avenue (W-bound)	1612	1642	1712	1742	1812	1835	1900
City Centre, City Shops South (Stop G)	1622	1652	1722	1752	1822	1844	1909
Portsmouth, The Hard Interchange (Stand G)	1627	1657	1727	1757	1827	1849	1914

Saturdays

0640	0715	0745	0815	0845	0915	0945	1015	1045	1115
0649	0724	0754	0827	0857	0927	0957	1027	1057	1127
0658	0733	0803	0838	0908	0938	1008	1038	1108	1138
				0915	0945	1015	1045	1115	1145
0705	0740	0811	0846	0921	0951	1021	1051	1121	1151
0713	0751	0822	0857	0932	1002	1032	1102	1132	1202
0718	0755	0827	0902	0937	1007	1037	1107	1137	1207
0726	0802	0835	0910	0945	1015	1045	1115	1145	1215
0735	0812	0845	0920	0955	1025	1055	1125	1155	1225
0740	0817	0850	0925	1000	1030	1100	1130	1200	1230

Saturdays

Havant, Bus Station (Stop G)	1145	1215	1245	1315	1345	1415	1445	1515	1545	1615	1645	1715	1745	1815
West Leigh, opp Worldham Road	1157	1227	1257	1327	1357	1427	1457	1527	1557	1627	1657	1727	1757	1825
Leigh Park, Park Parade (Stop A)	1208	1238	1308	1338	1408	1438	1508	1538	1608	1638	1708	1738	1808	1835
Bedhampton, Asda Hypermarket (W-bound)	1215	1245	1315	1345	1415	1445	1515							
Purbrook, Crookhorn Precinct (S-bound)	1221	1251	1321	1351	1421	1451	1521	1548	1618	1648	1718	1748	1816	1842
QA Hospital, QA Hospital Main (Stop G)	1232	1302	1332	1402	1432	1502	1532	1559	1629	1659	1729	1759	1825	1850
Cosham, Health Centre (Stop F)	1237	1307	1337	1407	1437	1507	1537	1604	1634	1704	1734	1804	1829	1854
Hilsea, Gladys Avenue (W-bound)	1245	1315	1345	1415	1445	1515	1545	1612	1642	1712	1742	1812	1835	1900
City Centre, City Shops South (Stop G)	1255	1325	1355	1425	1455	1525	1555	1622	1652	1722	1752	1822	1844	1909
Portsmouth, The Hard Interchange (Stand G)	1300	1330	1400	1430	1500	1530	1600	1627	1657	1727	1757	1827	1849	1914

Sundays

no service	no service	no service
no service	no service	no service



20

The Hard - Portsmouth - Havant

Stagecoach in Portsmouth

Timetable valid from 23/07/2017 until further notice.

Direction of stops: where shown (eg: W-bound) this is the compass direction towards which the bus is pointing when it stops

Mondays to Fridays

Portsmouth, The Hard Interchange (Stand G)	0605	0635	0705	0735	0805	0835	0905	0935	1005	1035	1105	1135	1205	1235	1305	1335	1405	1435
City Centre, City Shops South (Stop D)	0610	0641	0711	0741	0811	0841	0911	0941	1011	1041	1111	1141	1211	1241	1311	1341	1411	1441
Hilsea, Gladys Avenue (NE-bound)	0619	0651	0722	0752	0822	0852	0922	0952	1022	1052	1122	1152	1222	1252	1322	1352	1422	1452
Cosham, Health Centre (Stop B)	0624	0659	0732	0802	0832	0858	0928	0958	1028	1058	1128	1158	1228	1258	1328	1358	1428	1458
QA Hospital, QA Hospital Main (Stop A)	0627	0703	0736	0806	0836	0902	0932	1002	1032	1102	1132	1202	1232	1302	1332	1402	1432	1502
Purbrook, Crookhorn Precinct (NE-bound)	0636	0711	0745	0815	0845	0912	0942	1012	1042	1112	1142	1212	1242	1312	1342	1412	1442	1512
Bedhampton, Asda Hypermarket (W-bound)						0919	0949	1019	1049	1119	1149	1219	1249	1319	1349	1419	1449	1519
Leigh Park, Park Parade (Stop C)	0643	0721	0757	0827	0857	0927	0957	1027	1057	1127	1157	1227	1257	1327	1357	1427	1457	1527
West Leigh, adj Worldham Road	0650	0729	0807	0837	0907	0937	1007	1037	1107	1137	1207	1237	1307	1337	1407	1437	1507	1537
Havant, Bus Station (Stop G)	0700	0740	0820	0850	0920	0950	1020	1050	1120	1150	1220	1250	1320	1350	1420	1450	1520	1550

Mondays to Fridays

Portsmouth, The Hard Interchange (Stand G)	1505	1535	1605	1635	1715	1800	1840	1920
City Centre, City Shops South (Stop D)	1511	1541	1611	1641	1721	1806	1846	1926
Hilsea, Gladys Avenue (NE-bound)	1523	1553	1623	1653	1733	1817	1855	1934
Cosham, Health Centre (Stop B)	1530	1600	1630	1700	1740	1823	1901	1940
QA Hospital, QA Hospital Main (Stop A)	1534	1604	1634	1704	1744	1827	1905	1943
Purbrook, Crookhorn Precinct (NE-bound)	1545	1615	1645	1715	1755	1837	1913	1951
Bedhampton, Asda Hypermarket (W-bound)								
Leigh Park, Park Parade (Stop C)	1557	1627	1657	1727	1807	1847	1922	1957
West Leigh, adj Worldham Road	1607	1637	1707	1737	1817	1857	1930	2005
Havant, Bus Station (Stop G)	1620	1650	1720	1750	1830	1910	1940	2015

Saturdays

0635	0715	0755	0835	0905	0935	1005	1035	1105
0641	0721	0801	0841	0911	0941	1011	1041	1111
0650	0730	0810	0852	0922	0952	1022	1052	1122
0656	0736	0816	0858	0928	0958	1028	1058	1128
0700	0740	0820	0902	0932	1002	1032	1102	1132
0709	0749	0829	0912	0942	1012	1042	1112	1142
			0919	0949	1019	1049	1119	1149
0717	0757	0837	0927	0957	1027	1057	1127	1157
0727	0807	0847	0937	1007	1037	1107	1137	1207
0740	0820	0900	0950	1020	1050	1120	1150	1220

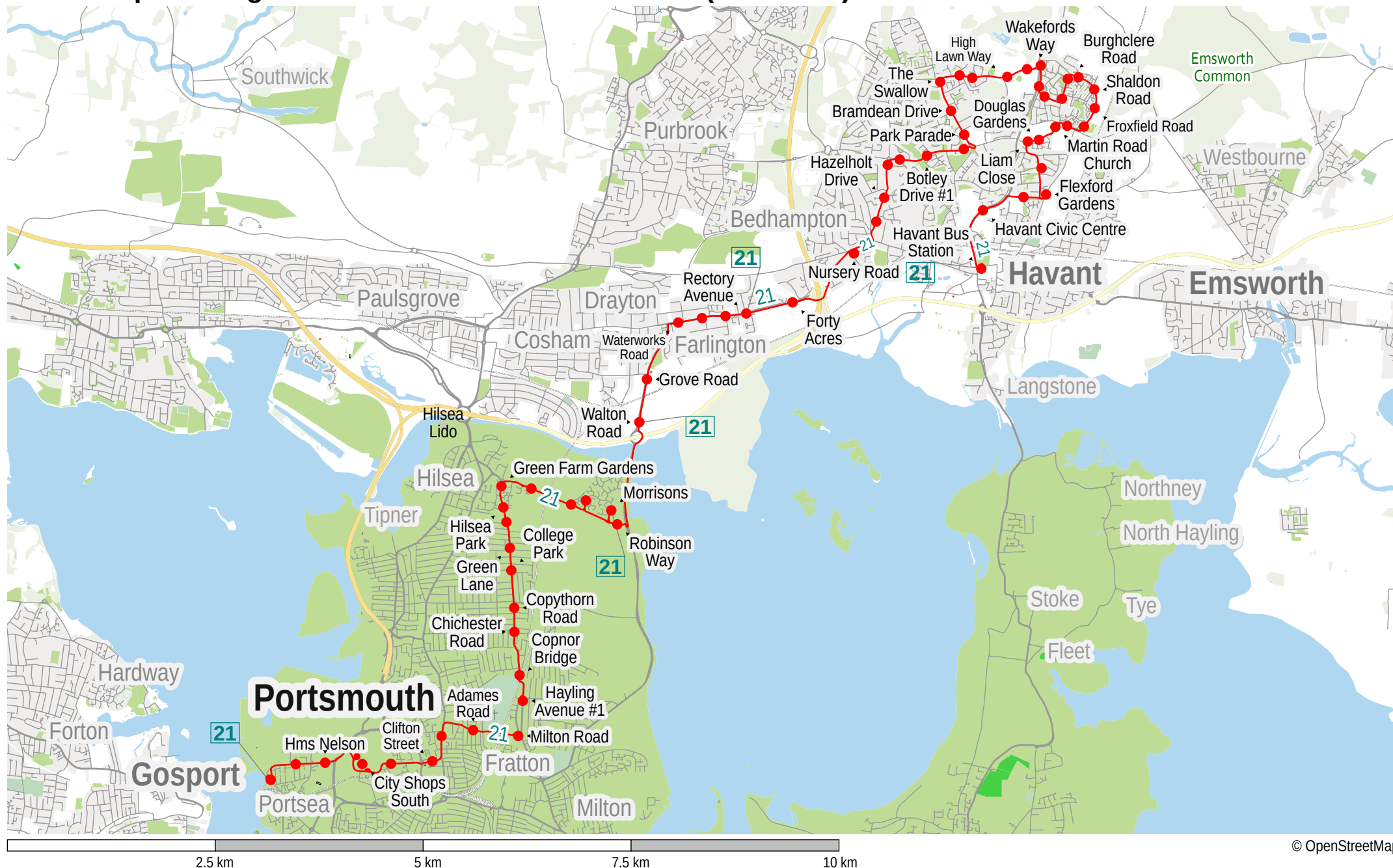
Saturdays

Portsmouth, The Hard Interchange (Stand G)	1135	1205	1235	1305	1335	1405	1435	1505	1535	1605	1635	1715	1800	1840	1920
City Centre, City Shops South (Stop D)	1141	1211	1241	1311	1341	1411	1441	1511	1541	1611	1641	1721	1806	1846	1926
Hilsea, Gladys Avenue (NE-bound)	1152	1222	1252	1322	1352	1422	1452	1523	1553	1623	1653	1733	1817	1855	1934
Cosham, Health Centre (Stop B)	1158	1228	1258	1328	1358	1428	1458	1530	1600	1630	1700	1740	1823	1901	1940
QA Hospital, QA Hospital Main (Stop A)	1202	1232	1302	1332	1402	1432	1502	1534	1604	1634	1704	1744	1827	1905	1943
Purbrook, Crookhorn Precinct (NE-bound)	1212	1242	1312	1342	1412	1442	1512	1545	1615	1645	1715	1755	1837	1913	1951
Bedhampton, Asda Hypermarket (W-bound)	1219	1249	1319	1349	1419	1449	1519								
Leigh Park, Park Parade (Stop C)	1227	1257	1327	1357	1427	1457	1527	1557	1627	1657	1727	1807	1847	1922	1957
West Leigh, adj Worldham Road	1237	1307	1337	1407	1437	1507	1537	1607	1637	1707	1737	1817	1857	1930	2005
Havant, Bus Station (Stop G)	1250	1320	1350	1420	1450	1520	1550	1620	1650	1720	1750	1830	1910	1940	2015

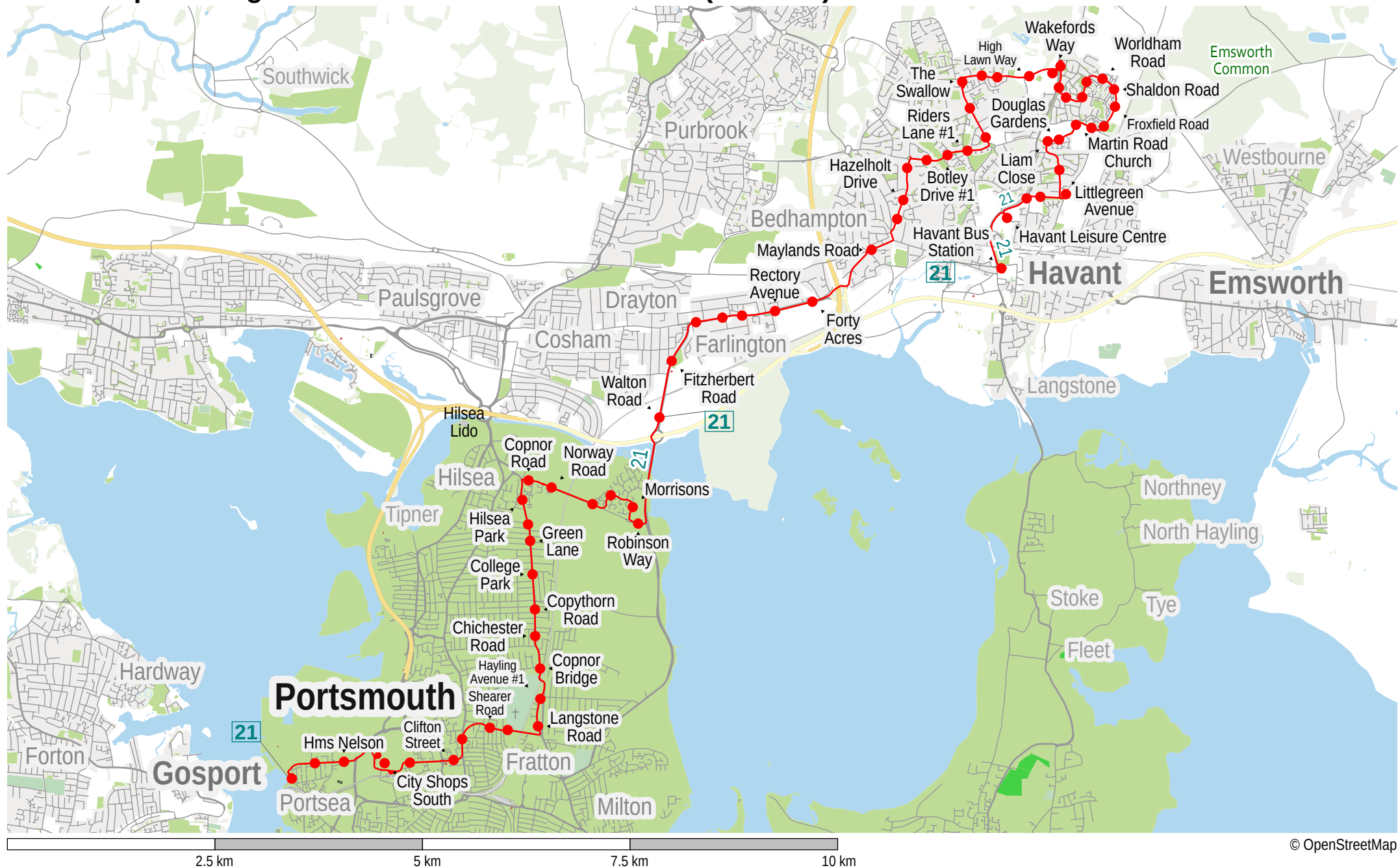
Sundays

no service	no service	no service
no service	no service	no service

Route map for Stagecoach in Portsmouth service 21 (outbound)



Route map for Stagecoach in Portsmouth service 21 (inbound)





21

Havant - Portsmouth

Stagecoach in Portsmouth

Timetable valid from 23/07/2017 until further notice.

Direction of stops: where shown (eg: W-bound) this is the compass direction towards which the bus is pointing when it stops

Mondays to Fridays

Havant, Bus Station (Stop G)	—	0525	—	0555	—	—	—	0635	—	0700	—	—	0730	—	—	0800	—	—
West Leigh, opp Worldham Road	—	0534	—	0604	—	—	—	0645	—	0710	—	—	0740	—	—	0812	—	—
Leigh Park, Park Parade (Stop A)	—	0543	—	0613	—	—	—	0655	—	0720	—	—	0750	—	—	0823	—	—
Bedhampton, Rectory Avenue (SW-bound)	—	0550	—	0620	0635	0645	0655	0705	0718	0730	0740	0750	0800	0810	—	0833	—	—
Farlington, Walton Road (S-bound)	0531	0556	0611	0626	0641	0652	0702	0712	0725	0737	0747	0757	0807	0817	—	0842	—	—
Anchorage Park, opp Morrisons	0535	0600	0615	0630	0645	0657	0708	0718	0731	0743	0753	0803	0813	0823	0837	0849	0859	0909
Hilsea, Green Lane (S-bound)	0540	0605	0620	0635	0650	0703	0715	0725	0738	0750	0800	0810	0820	0830	0843	0855	0905	0915
Baffins, Milton Road (NW-bound)	0547	0612	0627	0642	0657	0711	0724	0736	0749	0801	0811	0821	0831	0841	0852	0903	0913	0923
City Centre, City Shops South (Stop G)	0555	0620	0635	0650	0705	0719	0734	0749	0802	0814	0824	0834	0844	0854	0904	0914	0924	0934
Portsmouth, The Hard Interchange (Stand K)	0600	0625	0640	0655	0710	0725	0740	0755	0808	0820	0830	0840	0850	0900	0910	0920	0930	0940

Mondays to Fridays

Havant, Bus Station (Stop G)	0830	—	—	0900	—	—	0930	—	—	1000	—	—	1030	—	—	1100	—	—
West Leigh, opp Worldham Road	0842	—	—	0912	—	—	0942	—	—	1012	—	—	1042	—	—	1112	—	—
Leigh Park, Park Parade (Stop A)	0853	—	—	0923	—	—	0953	—	—	1023	—	—	1053	—	—	1123	—	—
Bedhampton, Rectory Avenue (SW-bound)	0903	—	—	0933	—	—	1003	—	—	1033	—	—	1103	—	—	1133	—	—
Farlington, Walton Road (S-bound)	0912	—	—	0942	—	—	1012	—	—	1042	—	—	1112	—	—	1142	—	—
Anchorage Park, opp Morrisons	0919	0929	0939	0949	0959	1009	1019	1029	1039	1049	1059	1109	1119	1129	1139	1149	1159	1209
Hilsea, Green Lane (S-bound)	0925	0935	0945	0955	1005	1015	1025	1035	1045	1055	1105	1115	1125	1135	1145	1155	1205	1215
Baffins, Milton Road (NW-bound)	0933	0943	0953	1003	1013	1023	1033	1043	1053	1103	1113	1123	1133	1143	1153	1203	1213	1223
City Centre, City Shops South (Stop G)	0944	0954	1004	1014	1024	1034	1044	1054	1104	1114	1124	1134	1144	1154	1204	1214	1224	1234
Portsmouth, The Hard Interchange (Stand K)	0950	1000	1010	1020	1030	1040	1050	1100	1110	1120	1130	1140	1150	1200	1210	1220	1230	1240

Mondays to Fridays

Havant, Bus Station (Stop G)	1130	—	—	1200	—	—	1230	—	—	1300	—	—	1330	—	—	1400	—	—
West Leigh, opp Worldham Road	1142	—	—	1212	—	—	1242	—	—	1312	—	—	1342	—	—	1412	—	—
Leigh Park, Park Parade (Stop A)	1153	—	—	1223	—	—	1253	—	—	1323	—	—	1353	—	—	1423	—	—
Bedhampton, Rectory Avenue (SW-bound)	1203	—	—	1233	—	—	1303	—	—	1333	—	—	1403	—	—	1433	—	—
Farlington, Walton Road (S-bound)	1212	—	—	1242	—	—	1312	—	—	1342	—	—	1412	—	—	1442	—	—
Anchorage Park, opp Morrisons	1219	1229	1239	1249	1259	1309	1319	1329	1339	1349	1359	1409	1419	1429	1439	1449	1459	1509
Hilsea, Green Lane (S-bound)	1225	1235	1245	1255	1305	1315	1325	1335	1345	1355	1405	1415	1425	1435	1445	1455	1505	1515
Baffins, Milton Road (NW-bound)	1233	1243	1253	1303	1313	1323	1333	1343	1353	1403	1413	1423	1433	1443	1453	1503	1513	1523
City Centre, City Shops South (Stop G)	1244	1254	1304	1314	1324	1334	1344	1354	1404	1414	1424	1434	1444	1454	1504	1514	1524	1534
Portsmouth, The Hard Interchange (Stand K)	1250	1300	1310	1320	1330	1340	1350	1400	1410	1420	1430	1440	1450	1500	1510	1520	1530	1540

Mondays to Fridays

Havant, Bus Station (Stop G)	1430	—	—	1500	—	—	1530	—	—	1600	—	—	1630	—	—	1700	1730	1800	1830	1900	—
West Leigh, opp Worldham Road	1442	—	—	1512	—	—	1542	—	—	1612	—	—	1642	—	—	1712	1742	1810	1839	1909	—
Leigh Park, Park Parade (Stop A)	1453	—	—	1523	—	—	1553	—	—	1623	—	—	1653	—	—	1723	1752	1820	1848	1918	—
Bedhampton, Rectory Avenue (SW-bound)	1503	—	—	1533	—	—	1603	—	—	1633	1648	1703	1718	1733	1800	1828	1855	1925	1955	—	—
Farlington, Walton Road (S-bound)	1512	—	—	1542	—	—	1612	—	—	1642	1657	1712	1727	1742	1808	1835	1901	1931	2001	—	—
Anchorage Park, opp Morrisons	1519	1529	1539	1549	1559	1609	1619	1634	1649	1704	1719	1734	1749	1815	1840	1905	1935	2005	—	—	—
Hilsea, Green Lane (S-bound)	1525	1535	1545	1555	1605	1615	1625	1640	1655	1710	1725	1740	1755	1820	1845	1910	1940	2010	—	—	—
Baffins, Milton Road (NW-bound)	1533	1543	1553	1603	1613	1623	1633	1648	1703	1718	1733	1748	1803	1827	1852	1917	1947	2017	—	—	—
City Centre, City Shops South (Stop G)	1544	1554	1604	1614	1624	1634	1644	1659	1714	1729	1744	1759	1814	1835	1900	1925	1955	2025	—	—	—
Portsmouth, The Hard Interchange (Stand K)	1550	1600	1610	1620	1630	1640	1650	1705	1720	1735	1750	1805	1820	1840	1905	1930	2000	2030	—	—	—

Mondays to Fridays

	Service Restrictions		NF	F	F
	Notes				*
Havant, Bus Station (Stop G)	2000	2100	—	2200	2300
West Leigh, opp Worldham Road	2009	2109	—	2209	2309
Leigh Park, Park Parade (Stop A)	2018	2118	—	2218	2318
Bedhampton, Rectory Avenue (SW-bound)	2025	2125	2225	2225	2325
Farlington, Walton Road (S-bound)	2031	2131	2231	2231	2331
Anchorage Park, opp Morrisons	2035	2135	2235	2235	2335
Hilsea, Green Lane (S-bound)	2040	2140	2240	2240	2340
Baffins, Milton Road (NW-bound)	2047	2147	2247	2247	2347
City Centre, City Shops South (Stop G)	2055	2155	2255	2255	2355
Portsmouth, The Hard Interchange (Stand K)	2100	2200	2300	2300	0000

Saturdays

—	—	0615	—	0650	—	0730	—	0800	—	—
—	—	0624	—	0659	—	0739	—	0809	—	—
—	—	0633	—	0708	—	0748	—	0818	—	—
—	—	0640	—	0715	—	0755	—	0825	—	0845
0601	0626	0647	0707	0722	0742	0802	—	0832	0842	0852
0605	0630	0652	0712	0729	0749	0809	0824	0839	0849	0859
0610	0635	0658	0718	0735	0755	0815	0830	0845	0855	0905
0617	0642	0705	0725	0743	0803	0823	0838	0853	0903	0913
0625	0650	0715	0735	0754	0814	0834	0849	0904	0914	0924
0630	0655	0720	0740	0800	0820	0840	0855	0910	0920	0930

Saturdays

Havant, Bus Station (Stop G)	—	0830	—	—	0900	—	—	0930	—	—	1000	—	—	1030	—	—	1100	—
West Leigh, opp Worldham Road	—	0842	—	—	0912	—	—	0942	—	—	1012	—	—	1042	—	—	1112	—
Leigh Park, Park Parade (Stop A)	—	0853	—	—	0923	—	—	0953	—	—	1023	—	—	1053	—	—	1123	—
Bedhampton, Rectory Avenue (SW-bound)	—	0903	—	—	0933	—	—	1003	—	—	1033	—	—	1103	—	—	1133	—
Farlington, Walton Road (S-bound)	—	0912	—	—	0942	—	—	1012	—	—	1042	—	—	1112	—	—	1142	—
Anchorage Park, opp Morrisons	0909	0919	0929	0939	0949	0959	1009	1019	1029	1039	1049	1059	1109	1119	1129	1139	1149	1159
Hilsea, Green Lane (S-bound)	0915	0925	0935	0945	0955	1005	1015	1025	1035	1045	1055	1105	1115	1125	1135	1145	1155	1205
Baffins, Milton Road (NW-bound)	0923	0933	0943	0953	1003	1013	1023	1033	1043	1053	1103	1113	1123	1133	1143	1153	1203	1213
City Centre, City Shops South (Stop G)	0934	0944	0954	1004	1014	1024	1034	1044	1054	1104	1114	1124	1134	1144	1154	1204	1214	1224
Portsmouth, The Hard Interchange (Stand K)	0940	0950	1000	1010	1020	1030	1040	1050	1100	1110	1120	1130	1140	1150	1200	1210	1220	1230

Saturdays

Havant, Bus Station (Stop G)	—	1130	—	—	1200	—	—	1230	—	—	1300	—	—	1330	—	—	1400	—
West Leigh, opp Worldham Road	—	1142	—	—	1212	—	—	1242	—	—	1312	—	—	1342	—	—	1412	—
Leigh Park, Park Parade (Stop A)	—	1153	—	—	1223	—	—	1253	—	—	1323	—	—	1353	—	—	1423	—
Bedhampton, Rectory Avenue (SW-bound)	—	1203	—	—	1233	—	—	1303	—	—	1333	—	—	1403	—	—	1433	—
Farlington, Walton Road (S-bound)	—	1212	—	—	1242	—	—	1312	—	—	1342	—	—	1412	—	—	1442	—
Anchorage Park, opp Morrisons	1209	1219	1229	1239	1249	1259	1309	1319	1329	1339	1349	1359	1409	1419	1429	1439	1449	1459
Hilsea, Green Lane (S-bound)	1215	1225	1235	1245	1255	1305	1315	1325	1335	1345	1355	1405	1415	1425	1435	1445	1455	1505
Baffins, Milton Road (NW-bound)	1223	1233	1243	1253	1303	1313	1323	1333	1343	1353	1403	1413	1423	1433	1443	1453	1503	1513
City Centre, City Shops South (Stop G)	1234	1244	1254	1304	1314	1324	1334	1344	1354	1404	1414	1424	1434	1444	1454	1504	1514	1524
Portsmouth, The Hard Interchange (Stand K)	1240	1250	1300	1310	1320	1330	1340	1350	1400	1410	1420	1430	1440	1450	1500	1510	1520	1530



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Havant - Portsmouth

Stagecoach in Portsmouth

Timetable valid from 23/07/2017 until further notice.

Direction of stops: where shown (eg: W-bound) this is the compass direction towards which the bus is pointing when it stops

Saturdays

Havant, Bus Station (Stop G)	—	1430	—	1500	—	1530	—	1600	—	1630	—	1700	1730	1800	1830	1900	—	2000
West Leigh, opp Worldham Road	—	1442	—	1512	—	1542	—	1612	—	1642	—	1712	1742	1810	1839	1909	—	2009
Leigh Park, Park Parade (Stop A)	—	1453	—	1523	—	1553	—	1623	—	1653	—	1723	1752	1820	1848	1918	—	2018
Bedhampton, Rectory Avenue (SW-bound)	—	1503	—	1533	—	1603	—	1633	—	1703	—	1733	1800	1828	1855	1925	1955	2025
Farlington, Walton Road (S-bound)	—	1512	—	1542	—	1612	—	1642	1657	1712	1727	1742	1808	1835	1901	1931	2001	2031
Anchorage Park, opp Morrisons	1509	1519	1534	1549	1604	1619	1634	1649	1704	1719	1734	1749	1815	1840	1905	1935	2005	2035
Hilsea, Green Lane (S-bound)	1515	1525	1540	1555	1610	1625	1640	1655	1710	1725	1740	1755	1820	1845	1910	1940	2010	2040
Baffins, Milton Road (NW-bound)	1523	1533	1548	1603	1618	1633	1648	1703	1718	1733	1748	1803	1827	1852	1917	1947	2017	2047
City Centre, City Shops South (Stop G)	1534	1544	1559	1614	1629	1644	1659	1714	1729	1744	1759	1814	1835	1900	1925	1955	2025	2055
Portsmouth, The Hard Interchange (Stand K)	1540	1550	1605	1620	1635	1650	1705	1720	1735	1750	1805	1820	1840	1905	1930	2000	2030	2100

Saturdays

	Notes	*
Havant, Bus Station (Stop G)	2100	2200 2300
West Leigh, opp Worldham Road	2109	2209 2309
Leigh Park, Park Parade (Stop A)	2118	2218 2318
Bedhampton, Rectory Avenue (SW-bound)	2125	2225 2325
Farlington, Walton Road (S-bound)	2131	2231 2331
Anchorage Park, opp Morrisons	2135	2235 2335
Hilsea, Green Lane (S-bound)	2140	2240 2340
Baffins, Milton Road (NW-bound)	2147	2247 2347
City Centre, City Shops South (Stop G)	2155	2255 2355
Portsmouth, The Hard Interchange (Stand K)	2200	2300 0000

Sundays

0730	—	0830	—	—	0930	—	—	1030	—	—	1130	—
0740	—	0840	—	—	0940	—	—	1040	—	—	1140	—
0750	—	0850	—	—	0950	—	—	1050	—	—	1150	—
0758	—	0858	—	—	0959	—	—	1059	—	—	1159	—
0802	—	0902	—	—	1005	—	—	1105	—	—	1205	—
0806	0836	0906	0930	0950	1010	1030	1050	1110	1130	1150	1210	1230
0811	0841	0911	0936	0956	1016	1036	1056	1116	1136	1156	1216	1236
0817	0847	0917	0944	1004	1024	1044	1104	1124	1144	1204	1224	1244
0825	0855	0925	0955	1015	1035	1055	1115	1135	1155	1215	1235	1255
0830	0900	0930	1000	1020	1040	1100	1120	1140	1200	1220	1240	1300

Sundays

Havant, Bus Station (Stop G)	—	1230	—	—	1330	—	—	1430	—	—	1530	—	—	1630	—	1730	1830	1930
West Leigh, opp Worldham Road	—	1240	—	—	1340	—	—	1440	—	—	1540	—	—	1640	—	1740	1840	1940
Leigh Park, Park Parade (Stop A)	—	1250	—	—	1350	—	—	1450	—	—	1550	—	—	1650	—	1750	1850	1950
Bedhampton, Rectory Avenue (SW-bound)	—	1259	—	—	1359	—	—	1459	—	—	1559	—	—	1659	—	1759	1859	1959
Farlington, Walton Road (S-bound)	—	1305	—	—	1405	—	—	1505	—	—	1605	—	—	1705	—	1803	1903	2003
Anchorage Park, opp Morrisons	1250	1310	1330	1350	1410	1430	1450	1510	1530	1550	1610	1630	1650	1710	1730	1807	1907	2007
Hilsea, Green Lane (S-bound)	1256	1316	1336	1356	1416	1436	1456	1516	1536	1556	1616	1636	1656	1716	1736	1811	1911	2011
Baffins, Milton Road (NW-bound)	1304	1324	1344	1404	1424	1444	1504	1524	1544	1604	1624	1644	1704	1724	1744	1817	1917	2017
City Centre, City Shops South (Stop G)	1315	1335	1355	1415	1435	1455	1515	1535	1555	1615	1635	1655	1715	1735	1755	1825	1925	2025
Portsmouth, The Hard Interchange (Stand K)	1320	1340	1400	1420	1440	1500	1520	1540	1600	1620	1640	1700	1720	1740	1800	1830	1930	2030

Sundays

Havant, Bus Station (Stop G)	—
West Leigh, opp Worldham Road	—
Leigh Park, Park Parade (Stop A)	—
Bedhampton, Rectory Avenue (SW-bound)	2109
Farlington, Walton Road (S-bound)	2113
Anchorage Park, opp Morrisons	2117
Hilsea, Green Lane (S-bound)	2121
Baffins, Milton Road (NW-bound)	2127
City Centre, City Shops South (Stop G)	2135
Portsmouth, The Hard Interchange (Stand K)	2140

no service

Notes: * - Part or all of this journey operates in the morning of the following day



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Portsmouth - Havant

Stagecoach in Portsmouth

Timetable valid from 23/07/2017 until further notice.

Direction of stops: where shown (eg: W-bound) this is the compass direction towards which the bus is pointing when it stops

Mondays to Fridays

Service Restrictions	SH	Sch
Portsmouth, The Hard Interchange (Stand K)	—	0540 0600 0615 0630 0645 0700 0715 0730 0730 0745 0800 0815 0827 0837 0847 0857 0907
City Centre, City Shops South (Stop A)	—	0546 0606 0621 0636 0652 0707 0722 0737 0737 0752 0807 0822 0834 0844 0854 0904 0914
Baffins, Langstone Road (N-bound)	—	0554 0614 0630 0645 0703 0718 0733 0748 0748 0803 0818 0833 0844 0854 0904 0914 0924
Hilsea, Green Lane (N-bound)	—	0600 0620 0637 0652 0711 0726 0741 0756 0756 0811 0826 0841 0851 0901 0911 0921 0931
Anchorage Park, nr Morrisons	—	0605 0625 0643 0658 0718 0733 0748 0803 0803 0818 0833 0848 0857 0907 0917 0927 0937
Farlington, Walton Road (N-bound)	0545	0610 0630 0649 0704 0724 0739 0754 0809 0809 0824 — 0854 — — 0923 — —
Bedhampton, Rectory Avenue (NE-bound)	0550	0615 0635 0654 0709 0729 0745 0801 0816 0816 0831 — 0901 — — 0930 — —
Leigh Park, Park Parade (Stop C)	0558	0623 — 0701 — 0737 — 0812 — 0842 — 0912 — — 0942 — —
West Leigh, adj Worldham Road	0605	0630 — 0709 — 0747 — 0822 — 0852 — 0922 — — 0952 — —
Havant, Bus Station (Stop G)	0615	0640 — 0720 — 0800 — 0835 — 0905 — 0935 — — 1005 — —
Purbrook, South Downs College (S-bound)	—	— — — — — — — 0822 — — — — — — —

Mondays to Fridays

Portsmouth, The Hard Interchange (Stand K)	0917	0927	0937	0947	0957	1007	1017	1027	1037	1047	1057	1107	1117	1127	1137	1147	1157	1207
City Centre, City Shops South (Stop A)	0924	0934	0944	0954	1004	1014	1024	1034	1044	1054	1104	1114	1124	1134	1144	1154	1204	1214
Baffins, Langstone Road (N-bound)	0934	0944	0954	1004	1014	1024	1034	1044	1054	1104	1114	1124	1134	1144	1154	1204	1214	1224
Hilsea, Green Lane (N-bound)	0941	0951	1001	1011	1021	1031	1041	1051	1101	1111	1121	1131	1141	1151	1201	1211	1221	1231
Anchorage Park, nr Morrisons	0947	0957	1007	1017	1027	1037	1047	1057	1107	1117	1127	1137	1147	1157	1207	1217	1227	1237
Farlington, Walton Road (N-bound)	0953	—	—	1023	—	—	1053	—	—	1123	—	—	1153	—	—	1223	—	—
Bedhampton, Rectory Avenue (NE-bound)	1000	—	—	1030	—	—	1100	—	—	1130	—	—	1200	—	—	1230	—	—
Leigh Park, Park Parade (Stop C)	1012	—	—	1042	—	—	1112	—	—	1142	—	—	1212	—	—	1242	—	—
West Leigh, adj Worldham Road	1022	—	—	1052	—	—	1122	—	—	1152	—	—	1222	—	—	1252	—	—
Havant, Bus Station (Stop G)	1035	—	—	1105	—	—	1135	—	—	1205	—	—	1235	—	—	1305	—	—
Purbrook, South Downs College (S-bound)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Service Restrictions: SH - Hampshire School Holidays
Sch - Hampshire School Days



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Portsmouth - Havant

Stagecoach in Portsmouth

Timetable valid from 23/07/2017 until further notice.

Direction of stops: where shown (eg: W-bound) this is the compass direction towards which the bus is pointing when it stops

Mondays to Fridays

Portsmouth, The Hard Interchange (Stand K)	1217	1227	1237	1247	1257	1307	1317	1327	1337	1347	1357	1407	1417	1427	1437	1447	1457	1507
City Centre, City Shops South (Stop A)	1224	1234	1244	1254	1304	1314	1324	1334	1344	1354	1404	1414	1424	1434	1444	1454	1504	1514
Baffins, Langstone Road (N-bound)	1234	1244	1254	1304	1314	1324	1334	1344	1354	1404	1414	1424	1434	1444	1454	1504	1514	1524
Hilsea, Green Lane (N-bound)	1241	1251	1301	1311	1321	1331	1341	1351	1401	1411	1421	1431	1441	1451	1501	1511	1521	1531
Anchorage Park, nr Morrisons	1247	1257	1307	1317	1327	1337	1347	1357	1407	1417	1427	1437	1447	1457	1507	1517	1527	1537
Farlington, Walton Road (N-bound)	1253	—	—	1323	—	—	1353	—	—	1423	—	—	1453	—	—	1523	—	—
Bedhampton, Rectory Avenue (NE-bound)	1300	—	—	1330	—	—	1400	—	—	1430	—	—	1500	—	—	1530	—	—
Leigh Park, Park Parade (Stop C)	1312	—	—	1342	—	—	1412	—	—	1442	—	—	1512	—	—	1542	—	—
West Leigh, adj Worldham Road	1322	—	—	1352	—	—	1422	—	—	1452	—	—	1522	—	—	1552	—	—
Havant, Bus Station (Stop G)	1335	—	—	1405	—	—	1435	—	—	1505	—	—	1535	—	—	1605	—	—
Purbrook, South Downs College (S-bound)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mondays to Fridays

Portsmouth, The Hard Interchange (Stand K)	1517	1527	1537	1547	1557	1607	1617	1627	1637	1647	1657	1712	1727	1742	1757	1812	1827	1847
City Centre, City Shops South (Stop A)	1524	1534	1544	1554	1604	1614	1624	1634	1644	1654	1704	1719	1734	1749	1804	1819	1834	1854
Baffins, Langstone Road (N-bound)	1534	1544	1554	1604	1614	1624	1636	1646	1656	1706	1716	1731	1746	1801	1816	1831	1846	1905
Hilsea, Green Lane (N-bound)	1541	1551	1601	1611	1621	1631	1643	1653	1703	1713	1723	1738	1753	1808	1823	1838	1853	1912
Anchorage Park, nr Morrisons	1547	1557	1607	1617	1627	1637	1650	1700	1710	1720	1730	1745	1800	1815	1830	1845	1900	1919
Farlington, Walton Road (N-bound)	1553	—	—	1623	—	—	1657	1707	1717	1727	1737	1752	1807	1822	1837	1852	1906	1924
Bedhampton, Rectory Avenue (NE-bound)	1600	—	—	1630	—	—	1704	1714	1724	1734	1744	1759	1814	1829	1844	1859	1912	1929
Leigh Park, Park Parade (Stop C)	1612	—	—	1642	—	—	1716	—	—	1746	—	1811	—	1837	—	1907	—	1937
West Leigh, adj Worldham Road	1622	—	—	1652	—	—	1726	—	—	1756	—	1821	—	1845	—	1915	—	1945
Havant, Bus Station (Stop G)	1635	—	—	1705	—	—	1739	—	—	1809	—	1834	—	1855	—	1925	—	1955
Purbrook, South Downs College (S-bound)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mondays to Fridays

Service Restrictions	NF		F	
Portsmouth, The Hard Interchange (Stand K)	1907	1937	2007	2037
City Centre, City Shops South (Stop A)	1913	1943	2013	2043
Baffins, Langstone Road (N-bound)	1921	1951	2021	2051
Hilsea, Green Lane (N-bound)	1927	1957	2027	2057
Anchorage Park, nr Morrisons	1932	2002	2032	2102
Farlington, Walton Road (N-bound)	1936	2006	2036	2106
Bedhampton, Rectory Avenue (NE-bound)	1941	2011	2041	2111
Leigh Park, Park Parade (Stop C)	—	—	2049	—
West Leigh, adj Worldham Road	—	—	2057	—
Havant, Bus Station (Stop G)	—	—	2107	—
Purbrook, South Downs College (S-bound)	—	—	—	—

Saturdays

0007	0617	0657	0727	0747	0807	0827	—	0847
0013	0622	0702	0734	0754	0814	0834	—	0854
0021	0630	0710	0744	0804	0824	0844	—	0904
0027	0636	0716	0751	0811	0831	0851	—	0911
0032	0641	0721	0757	0817	0837	0857	—	0917
0036	0646	0726	0804	—	0844	—	0859	0923
0041	0651	0731	0809	—	0849	—	0904	0930
—	0658	0738	0817	—	0857	—	0912	0942
—	0708	0748	0827	—	0907	—	0922	0952
—	0720	0800	0840	—	0920	—	0935	1005
—	—	—	—	—	—	—	—	—

Saturdays

Portsmouth, The Hard Interchange (Stand K)	0902	0917	0927	0937	0947	0957	1007	1017	1027	1037	1047	1057	1107	1117	1127	1137	1147	1157
City Centre, City Shops South (Stop A)	0904	0924	0934	0944	0954	1004	1014	1024	1034	1044	1054	1104	1114	1124	1134	1144	1154	1204
Baffins, Langstone Road (N-bound)	0914	0934	0944	0954	1004	1014	1024	1034	1044	1054	1104	1114	1124	1134	1144	1154	1204	1214
Hilsea, Green Lane (N-bound)	0921	0941	0951	1001	1011	1021	1031	1041	1051	1101	1111	1121	1131	1141	1151	1201	1211	1221
Anchorage Park, nr Morrisons	0927	0947	0957	1007	1017	1027	1037	1047	1057	1107	1117	1127	1137	1147	1157	1207	1217	1227
Farlington, Walton Road (N-bound)	—	0953	—	—	1023	—	—	1053	—	—	1123	—	—	1153	—	—	1223	—
Bedhampton, Rectory Avenue (NE-bound)	—	1000	—	—	1030	—	—	1100	—	—	1130	—	—	1200	—	—	1230	—
Leigh Park, Park Parade (Stop C)	—	1012	—	—	1042	—	—	1112	—	—	1142	—	—	1212	—	—	1242	—
West Leigh, adj Worldham Road	—	1022	—	—	1052	—	—	1122	—	—	1152	—	—	1222	—	—	1252	—
Havant, Bus Station (Stop G)	—	1035	—	—	1105	—	—	1135	—	—	1205	—	—	1235	—	—	1305	—
Purbrook, South Downs College (S-bound)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Saturdays

Portsmouth, The Hard Interchange (Stand K)	1207	1217	1227	1237	1247	1257	1307	1317	1327	1337	1347	1357	1407	1417	1427	1437	1447	1457
City Centre, City Shops South (Stop A)	1214	1224	1234	1244	1254	1304	1314	1324	1334	1344	1354	1404	1414	1424	1434	1444	1454	1504
Baffins, Langstone Road (N-bound)	1224	1234	1244	1254	1304	1314	1324	1334	1344	1354	1404	1414	1424	1434	1444	1454	1504	1514
Hilsea, Green Lane (N-bound)	1231	1241	1251	1301	1311	1321	1331	1341	1351	1401	1411	1421	1431	1441	1451	1501	1511	1521
Anchorage Park, nr Morrisons	1237	1247	1257	1307	1317	1327	1337	1347	1357	1407	1417	1427	1437	1447	1457	1507	1517	1527
Farlington, Walton Road (N-bound)	—	1253	—	—	1323	—	—	1353	—	—	1423	—	—	1453	—	—	1523	—
Bedhampton, Rectory Avenue (NE-bound)	—	1300	—	—	1330	—	—	1400	—	—	1430	—	—	1500	—	—	1530	—
Leigh Park, Park Parade (Stop C)	—	1312	—	—	1342	—	—	1412	—	—	1442	—	—	1512	—	—	1542	—
West Leigh, adj Worldham Road	—	1322	—	—	1352	—	—	1422	—	—	1452	—	—	1522	—	—	1552	—
Havant, Bus Station (Stop G)	—	1335	—	—	1405	—	—	1435	—	—	1505	—	—	1535	—	—	1605	—
Purbrook, South Downs College (S-bound)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Saturdays

Portsmouth, The Hard Interchange (Stand K)	1507	1517	1527	1537	1547	1557	1612	1627	1642	1657	1712	1727	1742	1757	1812	1827	1847	1907
City Centre, City Shops South (Stop A)	1514	1524	1534	1544	1554	1604	1619	1634	1649	1704	1719	1734	1749	1804	1819	1834	1854	1913
Baffins, Langstone Road (N-bound)	1524	1534	1544	1554	1604	1614	1629	1644	1659	1714	1729	1744	1759	1814	1829	1844	1904	1921
Hilsea, Green Lane (N-bound)	1531	1541	1551	1601	1611	1621	1636	1651	1706	1721	1736	1751	1806	1821	1836	1851	1911	1927
Anchorage Park, nr Morrisons	1537	1547	1557	1607	1617	1627	1642	1657	1712	1727	1742	1757	1812	1827	1842	1857	1917	1932
Farlington, Walton Road (N-bound)	—	1553	—	1613	—	—	1648	1703	1718	1733	1748	1803	1818	1833	1848	1903	1923	1936
Bedhampton, Rectory Avenue (NE-bound)	—	1600	—	—	1630	—	—	1710	—	—	1740	1754	1809	1824	1839	1854	1910	1929
Leigh Park, Park Parade (Stop C)	—	1612	—	—	1642	—	—	1720	—	—	1802	—	1832	—	1902	—	1937	—
West Leigh, adj Worldham Road	—	1622	—	—	1652	—	—	1730	—	—	1810	—	1840	—	1910	—	1945	—
Havant, Bus Station (Stop G)	—	1635	—	—	1705	—	—	1740	—	—	1820	—	1850	—	1920	—	1955	—
Purbrook, South Downs College (S-bound)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Service Restrictions: F - Fridays
NF - Not Friday



21

Portsmouth - Havant

Stagecoach in Portsmouth

Timetable valid from 23/07/2017 until further notice.

Direction of stops: where shown (eg: W-bound) this is the compass direction towards which the bus is pointing when it stops

Saturdays

Portsmouth, The Hard Interchange (Stand K)	1937	2007	2037	2107	2207	2307
City Centre, City Shops South (Stop A)	1943	2013	2043	2113	2213	2313
Baffins, Langstone Road (N-bound)	1951	2021	2051	2121	2221	2321
Hilsea, Green Lane (N-bound)	1957	2027	2057	2127	2227	2327
Anchorage Park, nr Morrisons	2002	2032	2102	2132	2232	2332
Farlington, Walton Road (N-bound)	2006	2036	2106	2136	2236	2336
Bedhampton, Rectory Avenue (NE-bound)	2011	2041	2111	2141	2241	2341
Leigh Park, Park Parade (Stop C)	—	2049	—	2149	—	—
West Leigh, adj Worldham Road	—	2057	—	2157	—	—
Havant, Bus Station (Stop G)	—	2107	—	2207	—	—
Purbrook, South Downs College (S-bound)	—	—	—	—	—	—

Sundays

0007	—	0835	0905	0935	1005	1030	1050	1110	1130	1150
0013	—	0840	0910	0940	1010	1036	1056	1116	1136	1156
0021	—	0848	0918	0948	1018	1046	1106	1126	1146	1206
0027	—	0855	0925	0955	1025	1053	1113	1133	1153	1213
0032	—	0900	0930	1000	1030	1059	1119	1139	1159	1219
0036	0754	0904	—	1004	—	1104	—	—	1204	—
0041	0759	0910	—	1010	—	1110	—	—	1210	—
—	0807	0919	—	1019	—	1119	—	—	1219	—
—	0815	0928	—	1028	—	1128	—	—	1228	—
—	0825	0940	—	1040	—	1140	—	—	1240	—
—	—	—	—	—	—	—	—	—	—	—

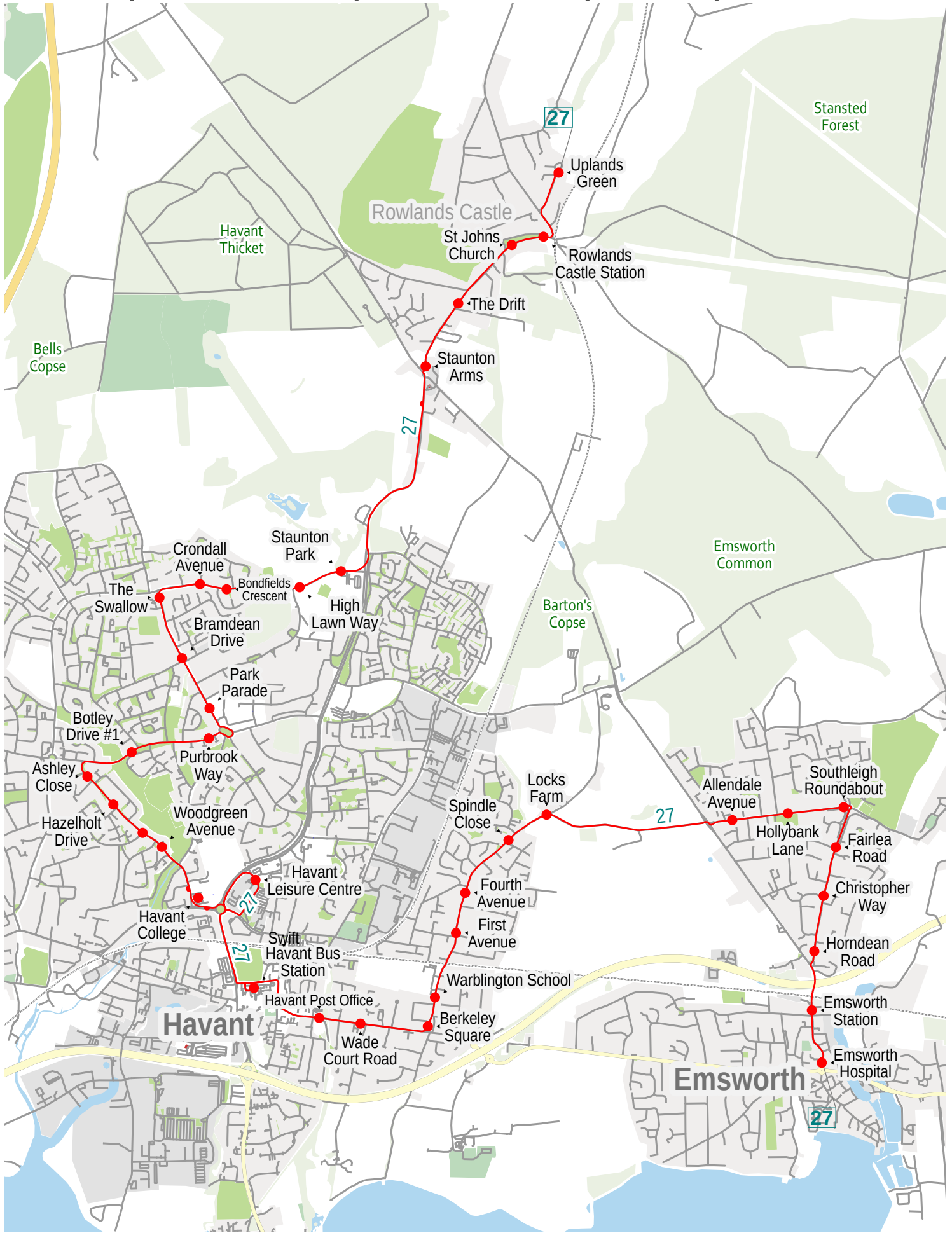
Sundays

Portsmouth, The Hard Interchange (Stand K)	1210	1230	1250	1310	1330	1350	1410	1430	1450	1510	1530	1550	1610	1630	1650	1710	1730	1750
City Centre, City Shops South (Stop A)	1216	1236	1256	1316	1336	1356	1416	1436	1456	1516	1536	1556	1616	1636	1656	1716	1736	1756
Baffins, Langstone Road (N-bound)	1226	1246	1306	1326	1346	1406	1426	1446	1506	1526	1546	1606	1626	1646	1706	1726	1746	1806
Hilsea, Green Lane (N-bound)	1233	1253	1313	1333	1353	1413	1433	1453	1513	1533	1553	1613	1633	1653	1713	1733	1753	1813
Anchorage Park, nr Morrisons	1239	1259	1319	1339	1359	1419	1439	1459	1519	1539	1559	1619	1639	1659	1719	1739	1759	1819
Farlington, Walton Road (N-bound)	—	1304	—	—	1404	—	—	1504	—	—	1604	—	—	1704	—	—	1804	—
Bedhampton, Rectory Avenue (NE-bound)	—	1310	—	—	1410	—	—	1510	—	—	1610	—	—	1710	—	—	1809	—
Leigh Park, Park Parade (Stop C)	—	1319	—	—	1419	—	—	1519	—	—	1619	—	—	1719	—	—	1817	—
West Leigh, adj Worldham Road	—	1328	—	—	1428	—	—	1528	—	—	1628	—	—	1728	—	—	1825	—
Havant, Bus Station (Stop G)	—	1340	—	—	1440	—	—	1540	—	—	1640	—	—	1740	—	—	1835	—
Purbrook, South Downs College (S-bound)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

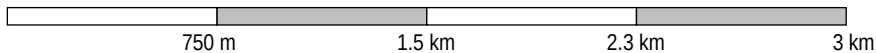
Sundays

Portsmouth, The Hard Interchange (Stand K)	1810	1835	1935	2035	2145														
City Centre, City Shops South (Stop A)	1816	1841	1941	2040	2150														
Baffins, Langstone Road (N-bound)	1826	1849	1949	2048	2158														
Hilsea, Green Lane (N-bound)	1833	1855	1955	2054	2204														
Anchorage Park, nr Morrisons	1839	1900	2000	2058	2208														
Farlington, Walton Road (N-bound)	—	1904	2004	2102	2212														
Bedhampton, Rectory Avenue (NE-bound)	—	1909	2009	2106	2216														
Leigh Park, Park Parade (Stop C)	—	1917	2017	—	—														
West Leigh, adj Worldham Road	—	1925	2025	—	—														
Havant, Bus Station (Stop G)	—	1935	2035	—	—														
Purbrook, South Downs College (S-bound)	—	—	—	—	—														
	no service					no service					no service								

Route map for First in Hampshire service 27 (outbound)



Route map for First in Hampshire service 27 (inbound)



**27****Rowlands Castle - Havant - Emsworth**

First in Hampshire

Timetable valid from 04/01/2015 until further notice.

Direction of stops: where shown (eg: W-bound) this is the compass direction towards which the bus is pointing when it stops

Mondays to Fridays

Rowlands Castle, Uplands Green (SW-bound)	0800	1000	1200	1400	1600
Durrants, Staunton Arms (S-bound)	0806	1006	1206	1406	1606
Leigh Park, Park Parade (Stop A)	0815	1015	1215	1415	1615
Havant, Leisure Centre (NW-bound)	0822	1022	1222	1422	1622
Havant, Bus Station (Stop A)	arr 0826	1026	1226	1426	1626
Havant, Bus Station (Stop A)	dep 0830	1030	1230	1430	1630
Denvilles, Spindle Close (NE-bound)	0838	1038	1238	1438	1638
New Brighton, Southleigh Roundabout (E-bound)	0844	1044	1244	1444	1644
Emsworth, Hospital (S-bound)	0849	1049	1249	1449	1649

Saturdays

0800	1000	1200	1400	1600
0806	1006	1206	1406	1606
0815	1015	1215	1415	1615
0822	1022	1222	1422	1622
0826	1026	1226	1426	1626
0830	1030	1230	1430	1630
0838	1038	1238	1438	1638
0844	1044	1244	1444	1644
0849	1049	1249	1449	1649

Sundaysno service
no service

no service

no service

**27****Emsworth - Havant - Rowlands Castle**

First in Hampshire

Timetable valid from 04/01/2015 until further notice.

Direction of stops: where shown (eg: W-bound) this is the compass direction towards which the bus is pointing when it stops

Mondays to Fridays

Emsworth, Hospital (N-bound)	0900	1100	1300	1500	1700
New Brighton, Southleigh Roundabout (W-bound)	0905	1105	1305	1505	1705
Denvilles, adj Spindle Close	0912	1112	1312	1512	1712
Havant, Bus Station (Stop A)	arr 0920	1120	1320	1520	1720
Havant, Bus Station (Stop A)	dep 0925	1125	1325	1525	1725
Havant, Leisure Centre (NW-bound)	0929	1129	1329	1529	1729
Leigh Park, Park Parade (Stop C)	0937	1137	1337	1537	1737
Durrants, Staunton Arms (N-bound)	0946	1146	1346	1546	1746
Rowlands Castle, Uplands Green (SW-bound)	0952	1152	1352	1552	1752

Saturdays

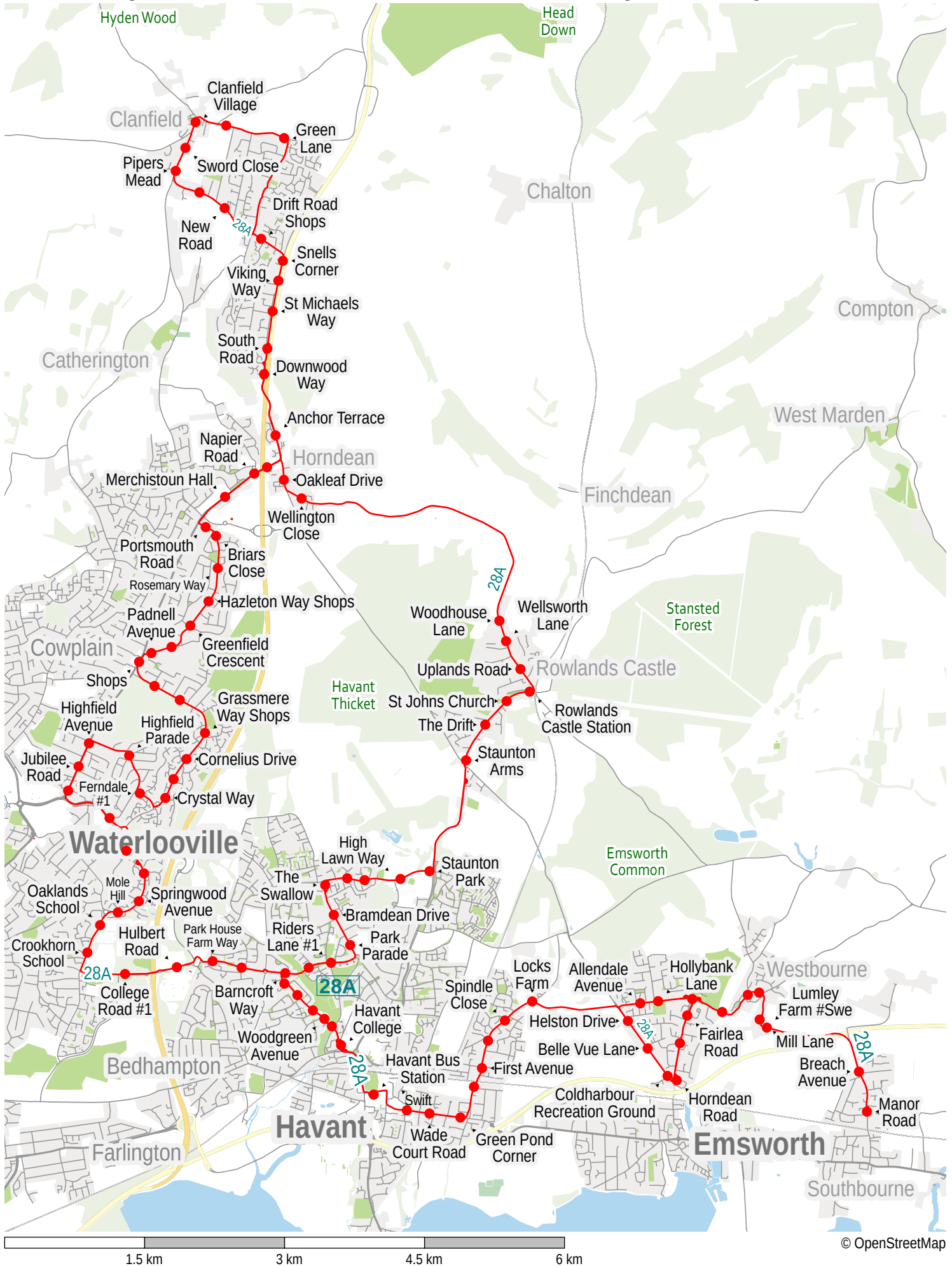
0900	1100	1300	1500	1700
0905	1105	1305	1505	1705
0912	1112	1312	1512	1712
0920	1120	1320	1520	1720
0925	1125	1325	1525	1725
0929	1129	1329	1529	1729
0937	1137	1337	1537	1737
0946	1146	1346	1546	1746
0952	1152	1352	1552	1752

Sundaysno service
no service

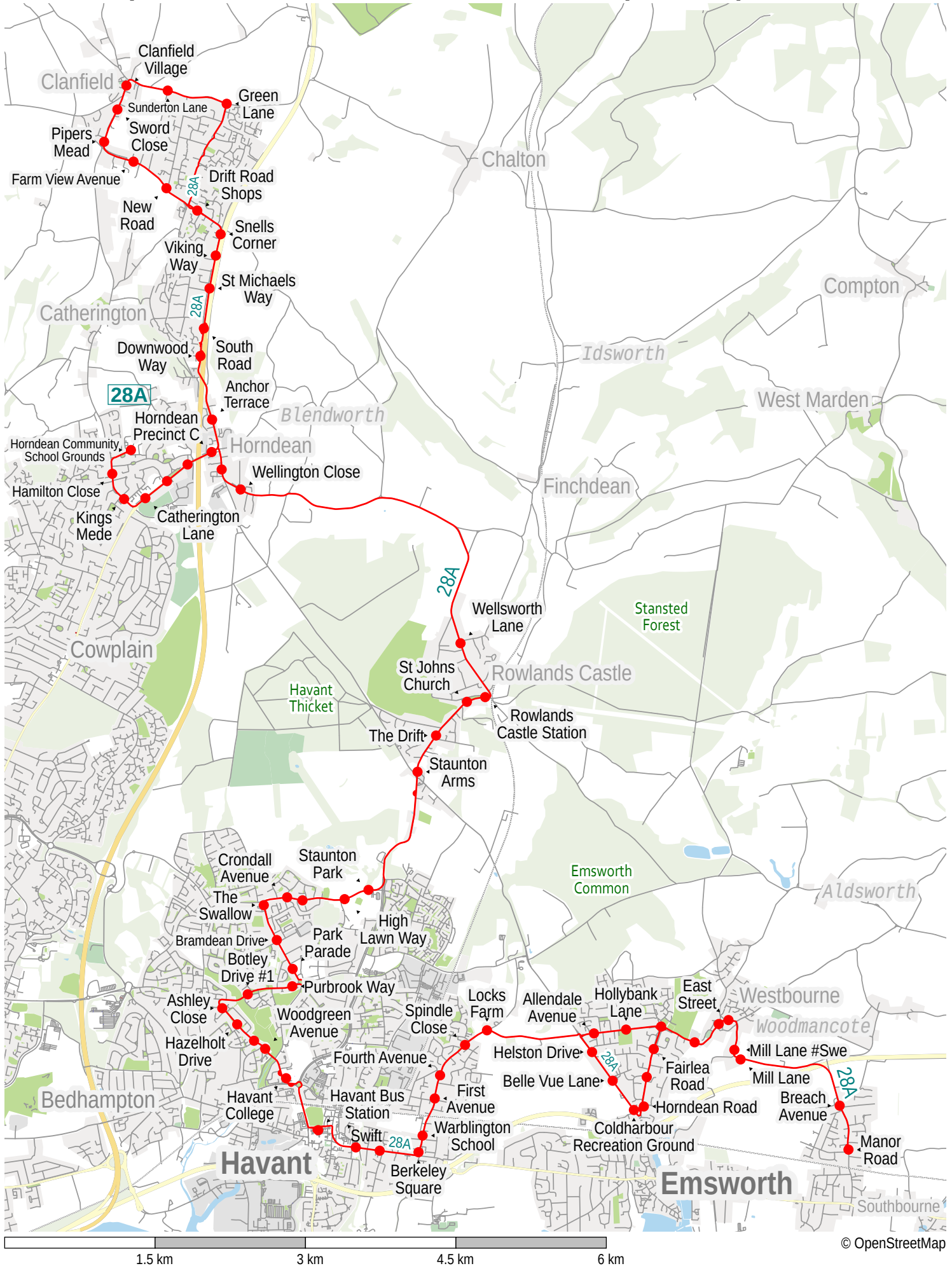
no service

no service

Route map for Emsworth & District service 28A (outbound)



Route map for Emsworth & District service 28A (inbound)



**28A****Southbourne - Clanfield - Horndean - Oaklands School - Havant College**

Emsworth & District

Timetable valid from 04/09/2018 until further notice.

Direction of stops: where shown (eg: W-bound) this is the compass direction towards which the bus is pointing when it stops

Mondays to Fridays

Service Restrictions	Sch
Southbourne, adj Manor Road	0705
Westbourne, adj The Square	0710
New Brighton, Allendale Avenue (W-bound)	0712
Emsworth, opp Coldharbour Recreation Ground	0715
New Brighton, Allendale Avenue (W-bound)	0718
Denvilles, adj Spindle Close	0720
Havant, Bus Station (Stop A)	0726
Havant, Havant College (N-bound)	0728
Leigh Park, Park Parade (Stop B)	0732
Durrants, Staunton Arms (N-bound)	0740
Rowlands Castle, adj St Johns Church	0745
Clanfield, Green Lane (W-bound)	0800
Clanfield, Clanfield Village (S-bound)	0802
Clanfield, Drift Road Shops (SE-bound)	0805
Causeway, Horndean Community School (S-bound)	0815
Cowplain, Hazleton Way Shops (SW-bound)	0819
Cowplain, Cowplain Shops (SW-bound)	0825
Waterlooville, Grassmere Way Shops (S-bound)	0826
Waterlooville, Highfield Parade (NW-bound)	0827
Stakes, Oaklands School (S-bound)	0835
Havant, Havant College (S-bound)	0845

Saturdays

no service

Sundays

no service

Service Restrictions: Sch - Hampshire School Days

**28A****Horndean - Clanfield - Havant - Southbourne**

Emsworth & District

Timetable valid from 04/09/2018 until further notice.

Direction of stops: where shown (eg: W-bound) this is the compass direction towards which the bus is pointing when it stops

Mondays to Fridays

Service Restrictions	Sch	TF	Sch
	MWTh		
Causeway, Horndean Community School (S-bound)	1420	1515	
Clanfield, Clanfield Village (N-bound)	1425	1520	
Clanfield, Green Lane (E-bound)	1427	1522	
Clanfield, Drift Road Shops (SE-bound)	1430	1525	
Rowlands Castle, nr St Johns Church	1445	1540	
Durrants, Staunton Arms (S-bound)	1450	1545	
Leigh Park, Park Parade (Stop A)	1458	1553	
Havant, Havant College (S-bound)	1501	1556	
Havant, Bus Station (Stop A)	1505	1600	
Denvilles, Spindle Close (NE-bound)	1511	1606	
New Brighton, Allendale Avenue (E-bound)	1514	1609	
Emsworth, Coldharbour Recreation Ground (NW-bound)	1517	1612	
New Brighton, Allendale Avenue (E-bound)	1520	1615	
Westbourne, opp The Square	1522	1617	
Southbourne, opp Manor Road	1530	1625	

Saturdays

no service

Sundays

no service

Service Restrictions: MWTh - Valid only Monday, Wednesday, Thursday
 Sch - Hampshire School Days
 TF - Valid only Tuesday, Friday

Your personal journey from Havant to Portsmouth Harbour, Southampton Central and London Waterloo

Valid from Monday 18 June 2018 to Sunday 24 June 2018

Monday to Friday always runs

Outward from Havant to Southampton Central

		SN	SN	SN	SN	SN	SN	SN	SN	GW	SN
Havant	dep.	06:22	06:42	07:20	07:39	08:00	08:39	09:23	09:40	09:58	10:21
Southampton Central	arr.	07:02	07:25	08:03	08:19	08:52	09:20	10:05	10:19	10:40	11:03
Duration		0:40	0:43	0:43	0:40	0:52	0:41	0:42	0:39	0:42	0:42
Changes		0	0	0	0	0	0	0	0	0	0
Seating Class		1st	1st	1st	1st	1st	1st	1st	1st	S	1st
Catering											

Monday to Friday always runs

Outward from Havant to London Waterloo

		GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
Havant	dep.	06:11	06:35	06:48	07:00	07:10	07:15	07:32	07:52	08:04	08:34	08:40	09:04	09:34	09:40
London Waterloo	arr.	07:45	07:54	08:24	08:32	08:41	09:13	08:54	09:43	09:31	09:55	10:13	10:29	10:54	11:13
Duration		1:34	1:19	1:36	1:32	1:31	1:58	1:22	1:51	1:27	1:21	1:33	1:25	1:20	1:33
Changes		0	0	0	0	0	0	0	0	0	0	0	0	0	0
Seating Class		1st	1st	1st	1st	1st	1st	1st	1st	1st	1st	1st	1st	1st	1st
Catering			☞		☞			☞		☞	☞		☞	☞	☞

Your personal journey from Havant to Portsmouth Harbour, Southampton Central and London Waterloo

Valid from Monday 18 June 2018 to Sunday 24 June 2018

Monday to Friday always runs

Outward from Havant to Portsmouth Harbour via Cosham

		GW	SN	SN	SN	GW	GW	GW	GW	SN	GW	SN	GW	GW	GW	SN	GW	SN	GW	GW
Havant	dep.	06:00	06:07	06:35	06:42		07:00	07:27	07:53	08:06	08:26	08:47	08:50	09:01	09:19	09:23		09:48	09:51	10:14
Cosham	arr.				06:49											09:29				
Cosham	dep.					07:00											09:36			
Portsmouth Harbour	arr.	06:20	06:24	06:57		07:17	07:21	07:51	08:13	08:23	08:48	09:04	09:08	09:22	09:36		09:51	10:04	10:08	10:32
Duration		0:20	0:17	0:22		0:35	0:21	0:24	0:20	0:17	0:22	0:17	0:18	0:21	0:17		0:28	0:16	0:17	0:18
Changes		0	0	0		1	0	0	0	0	0	0	0	0	0		1	0	0	0
Seating Class																				
Catering																				

Saturday always runs

Outward from Havant to Portsmouth Harbour

		GW	SN	SN	SN	GW	SN	SN	GW	SN	GW	SN	GW	SN	GW	SN
Havant	dep.	06:02	06:06	06:48	07:06	07:23	07:48	08:06	08:17	08:48	08:51	09:06	09:17	09:48	09:51	10:09
Portsmouth Harbour	arr.	06:22	06:25	07:04	07:22	07:43	08:04	08:24	08:38	09:04	09:08	09:22	09:34	10:04	10:08	10:26
Duration		0:20	0:19	0:16	0:16	0:20	0:16	0:18	0:21	0:16	0:17	0:16	0:17	0:16	0:17	0:17
Changes		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Seating Class																
Catering																

Your personal journey from Havant to Portsmouth Harbour, Southampton Central and London Waterloo

Valid from Monday 18 June 2018 to Sunday 24 June 2018

Saturday always runs

Outward from Havant to Southampton Central

		SN	SN	SN	SN	SN	SN	SN	SN	GW
Havant	dep.	06:21	06:39	07:20	07:39	08:21	08:39	09:21	09:39	10:02
Southampton Central	arr.	07:01	07:19	08:03	08:19	09:03	09:19	10:03	10:19	10:40
Duration		0:40	0:40	0:43	0:40	0:42	0:40	0:42	0:40	0:38
Changes		0	0	0	0	0	0	0	0	0
Seating Class		1st	1st	1st	1st	1st	1st	1st	1st	S
Catering										

Saturday always runs

Outward from Havant to London Waterloo

		GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
Havant	dep.	06:40	07:04	07:34	07:40	08:04	08:34	08:40	09:04	09:34	10:04
London Waterloo	arr.	08:13	08:23	08:51	09:13	09:23	09:51	10:13	10:23	10:51	11:23
Duration		1:33	1:19	1:17	1:33	1:19	1:17	1:33	1:19	1:17	1:33
Changes		0	0	0	0	0	0	0	0	0	0
Seating Class		1st	1st	1st	1st	1st	1st	1st	1st	1st	1st
Catering			1st	1st		1st	1st		1st	1st	1st

Sunday always runs

Outward from Havant to Portsmouth Harbour

		SN	SN	SN	SN	GW	GW	SN	SN	GW	SN	GW	SN
Havant	dep.	07:03	07:31	08:32	08:37	08:39	08:59	09:04	09:34	09:44	09:49	09:59	10:10
Portsmouth Harbour	arr.	07:31	07:59	09:00	09:05	08:57	09:16	09:32	10:02	10:04	10:17	10:16	10:38
Duration		0:28	0:28	0:28	0:28	0:18	0:17	0:28	0:28	0:20	0:28	0:17	0:28
Changes		0	0	0	0	0	0	0	0	0	0	0	0
Seating Class		S	S	S	S	1st	1st	S	S	1st	S	1st	S
Catering													

Your personal journey from Havant to Portsmouth Harbour, Southampton Central and London Waterloo

Valid from Monday 18 June 2018 to Sunday 24 June 2018

Sunday always runs

Outward from Havant to London Waterloo via Fratton

		SN	GW	SN	GW	SN	GW	GW
								
Havant	dep.	07:03		07:31		09:04		10:07
Fratton	arr.	07:19		07:47		09:20		
Fratton	dep.		07:26		08:26		09:26	
London Waterloo	arr.		09:41		10:39		11:39	11:49
Duration			2:38		3:08		2:35	1:42
Changes			1		1		1	0
Seating Class								
Catering								

Sunday always runs

Outward from Havant to Southampton Central via Fratton and Eastleigh

		SN	GW	GW	SN	GW	SN	GW	GW	SN	GW	GW	GW	SN	GW	GW	SN	GW	GW	GW	GW	SN	GW
																							
Havant	dep.	07:03			07:03		07:31			07:31		08:59		09:04			09:04		09:59			10:10	
Fratton	arr.	07:19			07:19		07:47			07:47		09:08		09:20			09:20		10:08			10:26	
Fratton	dep.		07:26			07:46		08:26			08:46		09:15		09:26			09:46		10:26			10:46
Eastleigh	arr.		08:04					09:04							10:04					11:04			
Eastleigh	dep.			08:21					09:22							10:22					11:22		
Southampton Central	arr.			08:32		08:40			09:34		09:40		09:54			10:34		10:40			11:34		11:40
Duration				1:29			1:37					2:03					1:30			1:36			1:30
Changes				2			1					2					1						1
Seating Class																							
Catering																							

Your personal journey from Havant to Portsmouth Harbour, Southampton Central and London Waterloo

Valid from Monday 18 June 2018 to Sunday 24 June 2018

Sunday always runs

Outward from Havant to London Waterloo via Haslemere and Guildford

		GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
																
Havant	dep.	06:07			07:07			08:07			08:50			09:09		10:07
Haslemere	arr.	06:41			07:41			08:41			09:16			09:43		
Haslemere	dep.		06:50			07:48			08:48			09:22			09:48	
Guildford	arr.		07:53			08:28			09:28			10:02			10:28	
Guildford	dep.			08:05			08:35			09:35			10:07			10:35
London Waterloo	arr.			08:50			09:16			10:14			10:46			11:14
Duration				2:43			2:09			2:07			1:56			2:05
Changes				2			2			2			2			2
Seating Class																
Catering																

Monday to Friday always runs

Return from Southampton Central to Havant

		SN	SN	SN	SN	SN	SN	SN	SN
								3	
Southampton Central	dep.	16:12	16:26	17:14	17:26	18:13	18:26	19:12	19:26
Havant	arr.	16:54	17:09	17:54	18:09	18:54	19:09	19:54	20:09
Duration		0:42	0:43	0:40	0:43	0:41	0:43	0:42	0:43
Changes		0	0	0	0	0	0	0	0
Seating Class									
Catering									

Your personal journey from Havant to Portsmouth Harbour, Southampton Central and London Waterloo

Valid from Monday 18 June 2018 to Sunday 24 June 2018

Monday to Friday always runs

Return from London Waterloo to Havant

		GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			OT		OT		OT		OT				OT		OT		OT	
London Waterloo	dep.	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45	18:00	18:15	18:30	18:45	19:00	19:15	19:30	19:45	20:00
Havant	arr.	17:17	18:01	17:49	18:29	18:18	19:01	18:52	19:28	19:17	19:43	19:52	20:27	20:17	21:00	20:51	21:29	21:18
Duration		1:17	1:46	1:19	1:44	1:18	1:46	1:22	1:43	1:17	1:28	1:22	1:42	1:17	1:45	1:21	1:44	1:18
Changes		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Seating Class		1st	1st	1st	1st	1st	1st	1st	1st	1st	1st	1st	1st	1st	1st	1st	1st	1st
Catering		⚡		⚡		⚡		⚡		⚡		⚡		⚡		⚡		⚡

Monday to Friday always runs

Return from Portsmouth Harbour to Havant via Portsmouth & Southsea

		SN	GW	GW	SN	GW	SN	GW	GW	GW	SN	GW	GW	SN	GW	GW	GW	SN	GW	SN	GW	GW	GW	SN
Portsmouth Harbour	dep.	16:11	16:15	16:23		16:45	17:11	17:15	17:19	17:23		17:45	17:59		18:15	18:19	18:23		18:45	19:11	19:15	19:19	19:23	
Portsmouth & Southsea	arr.			16:26	C					17:26	C		18:02	C			18:26	C					19:26	C
Portsmouth & Southsea	dep.				16:33						17:33			18:15			18:33						19:33	
Havant	arr.	16:27	16:32		16:45	17:03	17:27	17:33	17:39		17:45	18:03		18:27	18:33	18:39		18:46	19:03	19:27	19:33	19:39		19:45
Duration		0:16	0:17		0:22	0:18	0:16	0:18	0:20		0:22	0:18		0:28	0:18	0:20		0:23	0:18	0:16	0:18	0:20		0:22
Changes		0	0		1	0	0	0	0		1	0		1	0	0		1	0	0	0	0		1
Seating Class		1st	1st	S	S	1st	1st	1st	1st	S	S	1st	1st	1st	1st	1st	S	S	1st	1st	1st	1st	S	S
Catering			⚡	⚡		⚡		⚡		⚡		⚡			⚡		⚡		⚡					

Your personal journey from Havant to Portsmouth Harbour, Southampton Central and London Waterloo

Valid from Monday 18 June 2018 to Sunday 24 June 2018

Monday to Friday always runs

Return from Portsmouth Harbour to Havant via Portsmouth & Southsea
Continued

	GW	SN
Portsmouth Harbour dep.	19:45	20:11
Portsmouth & Southsea arr.		
Portsmouth & Southsea dep.		
Havant arr.	20:03	20:27
Duration	0:18	0:16
Changes	0	0
Seating Class	1st	1st
Catering		

Saturday always runs

Return from Southampton Central to Havant

		SN	SN	SN	SN	SN	SN	SN	SN
								3	
Southampton Central dep.	16:13	16:26	17:13	17:26	18:13	18:26	19:13	19:26	20:13
Havant arr.	16:54	17:09	17:54	18:09	18:54	19:09	19:54	20:09	20:54
Duration	0:41	0:43	0:41	0:43	0:41	0:43	0:41	0:43	0:41
Changes	0	0	0	0	0	0	0	0	0
Seating Class	1st	1st	1st	1st	1st	1st	1st	1st	1st
Catering									

Saturday always runs

Return from London Waterloo to Havant

	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
			OT			OT			OT			OT		
London Waterloo dep.	16:00	16:30	16:45	17:00	17:30	17:45	18:00	18:30	18:45	19:00	19:30	19:45	20:00	20:30
Havant arr.	17:17	17:51	18:26	18:17	18:51	19:26	19:17	19:51	20:26	20:17	20:51	21:26	21:17	21:44
Duration	1:17	1:21	1:41	1:17	1:21	1:41	1:17	1:21	1:41	1:17	1:21	1:41	1:17	1:14
Changes	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Seating Class	1st	1st	1st	1st	1st	1st	1st	1st	1st	1st	1st	1st	1st	1st
Catering	☒	☒		☒	☒		☒	☒		☒	☒			

Your personal journey from Havant to Portsmouth Harbour, Southampton Central and London Waterloo

Valid from Monday 18 June 2018 to Sunday 24 June 2018

Saturday always runs

Return from Portsmouth Harbour to Havant via Portsmouth & Southsea

		SN	GW	SN	GW	GW	GW	SN	GW	SN	GW	SN	GW	SN	GW	SN	GW	SN	GW	SN
Portsmouth Harbour	dep.	16:11	16:15	16:29	16:45	16:59		17:11	17:19	17:29	17:45	18:11	18:15	18:29	18:45	19:11	19:15	19:29	19:45	20:11
Portsmouth & Southsea	arr.					17:02														
Portsmouth & Southsea	dep.						17:08													
Havant	arr.	16:27	16:32	16:45	17:03		17:23	17:27	17:39	17:45	18:05	18:27	18:32	18:45	19:03	19:27	19:32	19:45	20:03	20:27
Duration		0:16	0:17	0:16	0:18		0:24	0:16	0:20	0:16	0:20	0:16	0:17	0:16	0:18	0:16	0:17	0:16	0:18	0:16
Changes		0	0	0	0		1	0	0	0	0	0	0	0	0	0	0	0	0	0
Seating Class																				
Catering																				

Sunday always runs

Return from Portsmouth Harbour to Havant

		SN	GW	GW	SN	SN	GW	GW	SN	SN	GW	GW	SN	SN	GW	GW	SN	GW
		 			 	 			 	 			 	 			 	 
Portsmouth Harbour	dep.	16:22	16:32	16:48	16:52	17:22	17:32	17:48	17:52	18:22	18:32	18:48	18:52	19:22	19:32	19:48	19:52	20:32
Havant	arr.	16:54	16:49	17:06	17:24	17:54	17:49	18:07	18:24	18:54	18:49	19:07	19:24	19:54	19:49	20:07	20:24	20:49
Duration		0:32	0:17	0:18	0:32	0:32	0:17	0:19	0:32	0:32	0:17	0:19	0:32	0:32	0:17	0:19	0:32	0:17
Changes		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Seating Class																		
Catering																		

Your personal journey from Havant to Portsmouth Harbour, Southampton Central and London Waterloo

Valid from Monday 18 June 2018 to Sunday 24 June 2018

Sunday always runs

Return from London Waterloo to Havant

		GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
London Waterloo	dep.	16:00	16:30	17:00	17:30	18:00	18:30	19:00	19:30	20:00	20:30
Havant	arr.	17:40	17:53	18:40	18:53	19:40	19:53	20:40	20:53	21:40	21:53
Duration		1:40	1:23	1:40	1:23	1:40	1:23	1:40	1:23	1:40	1:23
Changes		0	0	0	0	0	0	0	0	0	0
Seating Class											
Catering											

Sunday always runs

Return from Southampton Central to Havant via Fratton

		GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	
Southampton Central	dep.	16:04		16:35		17:04		17:35		18:04		18:35		19:04		19:35		20:04	
Fratton	arr.	16:42		17:30		17:42		18:30		18:42		19:30		19:42		20:29		20:40	
Fratton	dep.		16:56		17:41		17:57		18:41		18:57		19:41		19:57		20:41		20:57
Havant	arr.		17:06		17:49		18:07		18:49		19:07		19:49		20:07		20:49		21:07
Duration			1:02		1:14		1:03		1:14		1:03		1:14		1:03		1:14		1:03
Changes			1		1		1		1		1		1		1		1		1
Seating Class																			
Catering																			

Your personal journey from Havant to Portsmouth Harbour, Southampton Central and London Waterloo

Valid from Monday 18 June 2018 to Sunday 24 June 2018

Key

- 1 Every 60 Minutes until 13:40
- 2 Every 60 Minutes until 11:40
- 3 Every 60 Minutes until 20:26
- 4 Every 30 Minutes until 21:22
- 5 Every 60 Minutes until 22:32

Notes and symbols.

	Slow train.
	Change train.
	By request only stops.
	Scheduled bus service.
	Replacement bus service.
	Walk.
	Underground.
	Tram.
	Ferry.

Seating Class.

	Standard Class only.
	First Class available.

Sleeper Class.

	Sleeper service.
	Standard Class only.
	First Class available.
	First Class only.

Catering Code.

	Buffet.
	Hot food available.
	Trolley service.
	Restaurant.
	Restaurant for First Class passengers.
	Meal included for First Class passengers.
	Wheelchair only reservations.

Train Operating Companies

SN	Southern.
GW	South Western Railway.

ALERT ME - SMS Text Alerts

Be aware of any changes to your selected journeys by SMS Text Alert.

You can choose to receive an alert for a single journey or frequent alerts for regular journeys.

Click the 'ALERT ME' button on the Timetable Results page of the Journey Planner.

A maximum of 2 alerts will be sent per journey. You will only be charged for the first alert (25p) and a second alert will only be sent if your train is cancelled.

Call Train Tracker™ on 0345 7 48 49 50

Find out live train times for today and train timetables for the next three months.

TrainTracker™ uses speech recognition and then speaks the information to you.

Text departure and time to 8 49 50

Send a text to immediately find out when your next train is due to depart (e.g. send 'dep swindon' to 8 49 50)
(TrainTracker™ texts cost 25p for each successful response, plus usual text costs as charged by your operator)



Your personal journey from Warblington to Portsmouth & Southsea and Littlehampton

Valid from Monday 18 June 2018 to Sunday 24 June 2018

Monday to Friday always runs

Outward from Warblington to Littlehampton via Chichester

		SN	SN	SN	SN	SN	SN
Warblington	dep.	06:34	07:40		08:17	09:17	10:16
Chichester	arr.		07:58	C			
Chichester	dep.			08:02			
Littlehampton	arr.	07:15		08:19	08:53	09:53	10:53
Duration		0:41		0:39	0:36	0:36	0:37
Changes		0		1	0	0	0
Seating Class		S	S	S	S	S	S
Catering							

Monday to Friday always runs

Outward from Warblington to Portsmouth & Southsea via Havant

		SN	SN	SN	SN	SN	SN	SN
Warblington	dep.	06:32	07:28	07:57		08:30	09:31	10:31
Havant	arr.			07:59	Ⓢ			
Havant	dep.				08:06			
Portsmouth & Southsea	arr.	06:51	07:48		08:19	08:49	09:50	10:50

Duration		0:19	0:20		0:22	0:19	0:19	0:19
Changes		0	0		1	0	0	0
Seating Class		Ⓢ	Ⓢ	1st	Ⓢ	Ⓢ	Ⓢ	Ⓢ
Catering								

Monday to Friday always runs

Outward from Warblington to Littlehampton via Havant and Barnham

		SN	SN	SN	SN	SN	SN	SN	SN	SN	SN	SN
Warblington	dep.	06:34	07:40		08:17	08:30		09:17	09:31			10:16
Havant	arr.					08:32	☐		09:33	☐		
Havant	dep.						08:46			09:46		
Barnham	arr.		08:06	☐			09:08	☐		10:07	☐	
Barnham	dep.			08:10				09:12			10:12	
Littlehampton	arr.	07:15		08:19	08:53			09:23	09:53		10:23	10:53
Duration		0:41		0:39	0:36			0:53	0:36		0:52	0:37
Changes		0		1	0			2	0		2	0
Seating Class		S	S	S	S	S	S	S	S	S	S	S
Catering												

Your personal journey from Warblington to Portsmouth & Southsea and Littlehampton

Valid from Monday 18 June 2018 to Sunday 24 June 2018

Saturday always runs

Outward from Warblington to Portsmouth & Southsea

		SN	SN	SN	SN	SN
						1
Warblington	dep.	06:31	07:31	08:31	09:31	10:31
Portsmouth & Southsea	arr.	06:50	07:50	08:50	09:50	10:50
Duration		0:19	0:19	0:19	0:19	0:19
Changes		0	0	0	0	0
Seating Class		[S]	[S]	[S]	[S]	[S]
Catering						

Saturday always runs

Outward from Warblington to Littlehampton via Havant and Barnham

		SN	SN	SN	SN	SN	SN	SN	SN	SN	SN	SN	SN	SN	SN	SN	SN
Warblington	dep.	06:15	06:31			07:16	07:31			08:15	08:31			09:15	09:31		10:15
Havant	arr.		06:33	[C]			07:33	[C]			08:33	[C]			09:33	[C]	
Havant	dep.			06:46				07:46				08:46				09:46	
Barnham	arr.			07:07	[C]			08:07	[C]			09:07	[C]			10:07	[C]
Barnham	dep.				07:12				08:12				09:12				10:12
Littlehampton	arr.	06:53			07:23	07:53			08:23	08:53			09:23	09:53			10:23
Duration		0:38			0:52	0:37			0:52	0:38			0:52	0:38			0:52
Changes		0			2	0			2	0			2	0			2
Seating Class		[S]	[S]	[S]	[S]	[S]	[S]	[S]	[S]	[S]	[S]	[S]	[S]	[S]	[S]	[S]	[S]
Catering																	

Your personal journey from Warblington to Portsmouth & Southsea and Littlehampton

Valid from Monday 18 June 2018 to Sunday 24 June 2018

Sunday always runs

Outward from Warblington to Portsmouth & Southsea

		SN	SN	SN	SN	SN	SN	SN	SN
									
Warblington	dep.	06:59	07:27	08:28	08:33	09:00	09:30	09:45	10:06
Portsmouth & Southsea	arr.	07:24	07:52	08:53	08:58	09:25	09:55	10:10	10:31
Duration		0:25	0:25	0:25	0:25	0:25	0:25	0:25	0:25
Changes		0	0	0	0	0	0	0	0
Seating Class									
Catering									

Sunday always runs

Outward from Warblington to Littlehampton via Havant and Barnham

		SN	SN	SN	SN	SN	SN	SN	SN
									
Warblington	dep.	07:27			09:00			10:06	
Havant	arr.	07:31			09:04			10:10	
Havant	dep.		07:54			09:24			10:24
Barnham	arr.		08:34			10:04			11:04
Barnham	dep.			09:07			10:07		11:07
Littlehampton	arr.			09:16			10:16		11:16
Duration				1:49			1:16		1:10
Changes				2			2		2
Seating Class									
Catering									

Monday to Friday always runs

Return from Portsmouth & Southsea to Warblington

		SN	SN	SN	SN	SN
Portsmouth & Southsea	dep.	16:57	17:57	18:57	19:57	20:57
Warblington	arr.	17:15	18:16	19:15	20:15	21:15
Duration		0:18	0:19	0:18	0:18	0:18
Changes		0	0	0	0	0
Seating Class						
Catering						

Your personal journey from Warblington to Portsmouth & Southsea and Littlehampton

Valid from Monday 18 June 2018 to Sunday 24 June 2018

Monday to Friday always runs

Return from Littlehampton to Warblington via Barnham and Havant

		SN	SN	SN	SN	SN	SN	SN	SN	SN	SN	SN	SN
Littlehampton	dep.	16:10			16:55	17:10			17:55	18:55	19:55	20:14	
Barnham	arr.	16:22				17:22						20:24	
Barnham	dep.		16:29				17:29						20:29
Havant	arr.		16:47				17:54						20:47 
Havant	dep.			17:13				18:14					21:13
Warblington	arr.			17:15	17:31			18:16	18:31	19:31	20:31		21:15
Duration				1:05	0:36			1:06	0:36	0:36	0:36		1:01
Changes				2	0			2	0	0	0		2
Seating Class													
Catering													

Saturday always runs

Return from Portsmouth & Southsea to Warblington

		SN	SN	SN	SN	SN
Portsmouth & Southsea	dep.	16:57	17:57	18:57	19:57	20:57
Warblington	arr.	17:15	18:15	19:15	20:15	21:15
Duration		0:18	0:18	0:18	0:18	0:18
Changes		0	0	0	0	0
Seating Class						
Catering						

Your personal journey from Warblington to Portsmouth & Southsea and Littlehampton

Valid from Monday 18 June 2018 to Sunday 24 June 2018

Saturday always runs

Return from Littlehampton to Warblington via Barnham and Havant

		SN	SN	SN	SN	SN	SN	SN	SN	SN	SN	SN	SN	SN	SN	SN	SN	SN	SN
Littlehampton	dep.	16:10			16:55	17:10			17:55	18:10			18:55	19:10			19:55	20:10	
Barnham	arr.	16:22	Ⓢ			17:22	Ⓢ			18:22	Ⓢ			19:22	Ⓢ			20:22	Ⓢ
Barnham	dep.		16:29				17:29				18:29				19:29				20:29
Havant	arr.		16:47	Ⓢ			17:47	Ⓢ			18:47	Ⓢ			19:47	Ⓢ			20:47
Havant	dep.			17:13				18:13				19:13				20:13			21:13
Warblington	arr.			17:15	17:31			18:15	18:31			19:15	19:31			20:15	20:31		21:15
Duration				1:05	0:36			1:05	0:36			1:05	0:36			1:05	0:36		1:05
Changes				2	0			2	0			2	0			2	0		2
Seating Class		Ⓢ	1st	Ⓢ	Ⓢ	Ⓢ	1st	Ⓢ	Ⓢ	Ⓢ	1st	Ⓢ	Ⓢ	Ⓢ	1st	Ⓢ	Ⓢ	Ⓢ	1st
Catering																			

Sunday always runs

Return from Littlehampton to Warblington via Barnham

		SN	SN	SN	SN	SN	SN	SN	SN	SN
			Ⓢ		Ⓢ		Ⓢ		2	Ⓢ
Littlehampton	dep.	16:31		17:31		18:31		19:31		20:31
Barnham	arr.	16:41	Ⓢ	17:41	Ⓢ	18:41	Ⓢ	19:41	Ⓢ	20:41
Barnham	dep.		17:00		18:00		19:00		20:00	21:00
Warblington	arr.		17:30		18:30		19:30		20:30	21:30
Duration			0:59		0:59		0:59		0:59	0:59
Changes			1		1		1		1	1
Seating Class		1st	Ⓢ	1st	Ⓢ	1st	Ⓢ	1st	Ⓢ	Ⓢ
Catering										

Your personal journey from Warblington to Portsmouth & Southsea and Littlehampton

Valid from Monday 18 June 2018 to Sunday 24 June 2018

Sunday always runs

Return from Portsmouth & Southsea to Warblington via Havant and Chichester

		SN	SN	GW	SN	SN	SN	SN	SN	SN	SN	SN	SN	SN	SN	SN	SN	SN	SN	SN	SN	SN	SN	
		 							 							 							 	
Portsmouth & Southsea	dep.	16:29		16:37			16:59		17:29		17:37			17:59		18:29		18:37			18:59		19:29	
Havant	arr.			16:49							17:49							18:49						
Havant	dep.				16:54							17:54							18:54					
Chichester	arr.	17:14			17:14		17:44		18:14			18:14		18:44		19:14			19:14		19:44		20:14	
Chichester	dep.		17:20			17:20		17:50		18:20			18:20		18:50		19:20			19:20		19:50		20:20
Warblington	arr.		17:30			17:30		18:00		18:30			18:30		19:00		19:30			19:30		20:00		20:30
Duration			1:01			0:53		1:01		1:01			0:53		1:01		1:01			0:53		1:01		1:01
Changes			1			2		1		1			2		1		1			2		1		1
Seating Class																								
Catering																								

Sunday always runs

Return from Portsmouth & Southsea to Warblington via Havant and Chichester Continued

		GW	SN	SN	SN	SN	GW	SN	SN
					3 		4		
Portsmouth & Southsea	dep.	19:37			19:59		20:37		
Havant	arr.	19:49					20:49		
Havant	dep.		19:54					20:54	
Chichester	arr.		20:14		20:44			21:14	
Chichester	dep.			20:20		20:50			21:20
Warblington	arr.			20:30		21:00			21:30
Duration				0:53		1:01			0:53
Changes				2		1			2
Seating Class									
Catering									

Your personal journey from Warblington to Portsmouth & Southsea and Littlehampton

Valid from Monday 18 June 2018 to Sunday 24 June 2018

Key

- 1 Every 60 Minutes until 20:31
- 2 Every 60 Minutes until 21:31
- 3 Every 30 Minutes until 21:29
- 4 Every 60 Minutes until 21:37

Notes and symbols.

	Slow train.
	Change train.
	By request only stops.
	Scheduled bus service.
	Replacement bus service.
	Walk.
	Underground.
	Tram.
	Ferry.

Seating Class.

	Standard Class only.
	First Class available.

Sleeper Class.

	Sleeper service.
	Standard Class only.
	First Class available.
	First Class only.

Catering Code.

	Buffet.
	Hot food available.
	Trolley service.
	Restaurant.
	Restaurant for First Class passengers.
	Meal included for First Class passengers.
	Wheelchair only reservations.

Train Operating Companies

SN	Southern.
GW	South Western Railway.

ALERT ME - SMS Text Alerts

Be aware of any changes to your selected journeys by SMS Text Alert.

You can choose to receive an alert for a single journey or frequent alerts for regular journeys.

Click the 'ALERT ME' button on the Timetable Results page of the Journey Planner.

A maximum of 2 alerts will be sent per journey. You will only be charged for the first alert (25p) and a second alert will only be sent if your train is cancelled.

Call Train Tracker™ on 0345 7 48 49 50

Find out live train times for today and train timetables for the next three months.

TrainTracker™ uses speech recognition and then speaks the information to you.

Text departure and time to 8 49 50

Send a text to immediately find out when your next train is due to depart (e.g. send 'dep swindon' to 8 49 50)
(TrainTracker™ texts cost 25p for each successful response, plus usual text costs as charged by your operator)



APPENDIX F



Planning
STAINSBYARCHITECT

Master Plan
Camp Field, Havant

089 | PL | 04 | K

Scale 1:1000 @ A3 Oct 2018

Rev: Amendment: Date:

Do not scale from this drawing. Contractors to confirm all dimensions before commencing work on site or shop drawings. STAINSBYARCHITECT to be notified of any discrepancies.

Tab House, Tilford Road, Hindhead, Surrey, GU26 6RA T 01428 607808 M 07584 574626 www.stainsbyarchitect.com ©

APPENDIX G

Residential Travel Plan Snapshot Questionnaire

Date: _____

As part of the monitoring process for the Residential Travel Plan, we are currently conducting a Travel Survey. We would be grateful if all members of your household over the age of 18 could complete this brief survey to help us better understand your travel patterns, needs and how we may be able to assist with your travel requirements.

It will take about 5 minutes to complete and all responses will be treated confidentially.

If you have any queries about the survey, or for guidance on how to complete it, please do not hesitate to contact me at the details provided below:

(TPC to complete details)

Travel Plan Coordinator:

Telephone:

E-mail:

Section A: about you and your home

1. Are you:

Male

Female

2. Which age range do you fall into?

Under 25

25 – 34

35 – 44

45 – 54

55 – 64

65 or over

3. What is your home postcode?

4. Do you own a car?

Yes

No

Section B: about your travel to and from your home

5. How do you most frequently travel to and from your home for the following activities?
(choose the mode of travel that you use most often)

Reason for Travel	Walk	Cycle	Bus	Train	Car Share (driver)	Car Share (passenger)	Motorcycle / Scooter	Car (alone)	Other (please specify)
Work									
Shopping									
Education									

6. How often do you use the following modes of travel for journeys from your home?
(Tick all modes that you ever use, for all or part of a journey, choosing the frequency with which you use them)

Travel Mode	Very Often (7 or more in every 10 trips)	Quite Often (between 3 and 6 out of every 10 trips)	Occasionally (once or twice out of every 10 trips)	Never
Walk				
Cycle				
Bus				
Train				
Car Share (driver)				
Car Share (passenger)				
Motorcycle / Scooter				
Car (alone)				
Other (please specify)				

7. Have you changed your most common mode of transport since moving to this development?

Yes

No

If yes, what was the main reason for this change?

Section C: about your future journeys

8. Which of the following changes would most encourage you to cycle for journeys in the local area? (If you already cycle, which would you most like to see?)

Safer, better lit cycle paths
Improve cycle paths on the journey to town centre/ rail station
Improve cycle parking at this development
Improved crossing facilities
Improved cycle parking at local facilities (please state where)
None of the above
Other (please specify)

9. Which of the following changes would most encourage you to use public transport for your journeys in the local area? (If you already travel to by public transport, which would you most like to see).

More direct bus routes
More frequent bus services
More frequent train services
Better lighting at bus shelters and on footpaths
More convenient bus drop-off points
Better bus links to work from station
Public transport information
None of the above
Other (please specify)

10. Which of the following changes would most encourage you to walk for journeys in the local area? (If you already walk, which would you most like to see?)

Cleaner, better maintained workplace footpaths
Better lighting on workplace footpaths
More improved pedestrian crossing points
Higher presence of security around the site
Slower speed limits
Better street lighting in the local area
None
Other (please specify)

11. Which of the following changes would most encourage you to car share? (If you already car share, which would you most like to see?)

More help finding car share partners who have similar work patterns
Free taxi home if let down by car
More information regarding car sharing i.e. benefits and cost savings
None
Other (please specify)

12. Did you know this development operated a Travel Plan?

Yes
No

13. If yes, how did you know about the Travel Plan?

During the sales process

Word of mouth

Development publication/newsletter/noticeboard/website

Travel Plan Co-ordinator

Other (please specify)

14. Did you know about the discounts available to residents and have you signed up for any of them?

Yes, but I don't use them

Yes, I have obtained a discount on the purchase of a bike

Yes, I have obtained a discount on the purchase of a bus season ticket

Yes, I have obtained a discount on the purchase of a rail season ticket

No

15. Please use the following space to provide any comments you wish to make in relation to travel in the local area:

Thank you for your co-operation