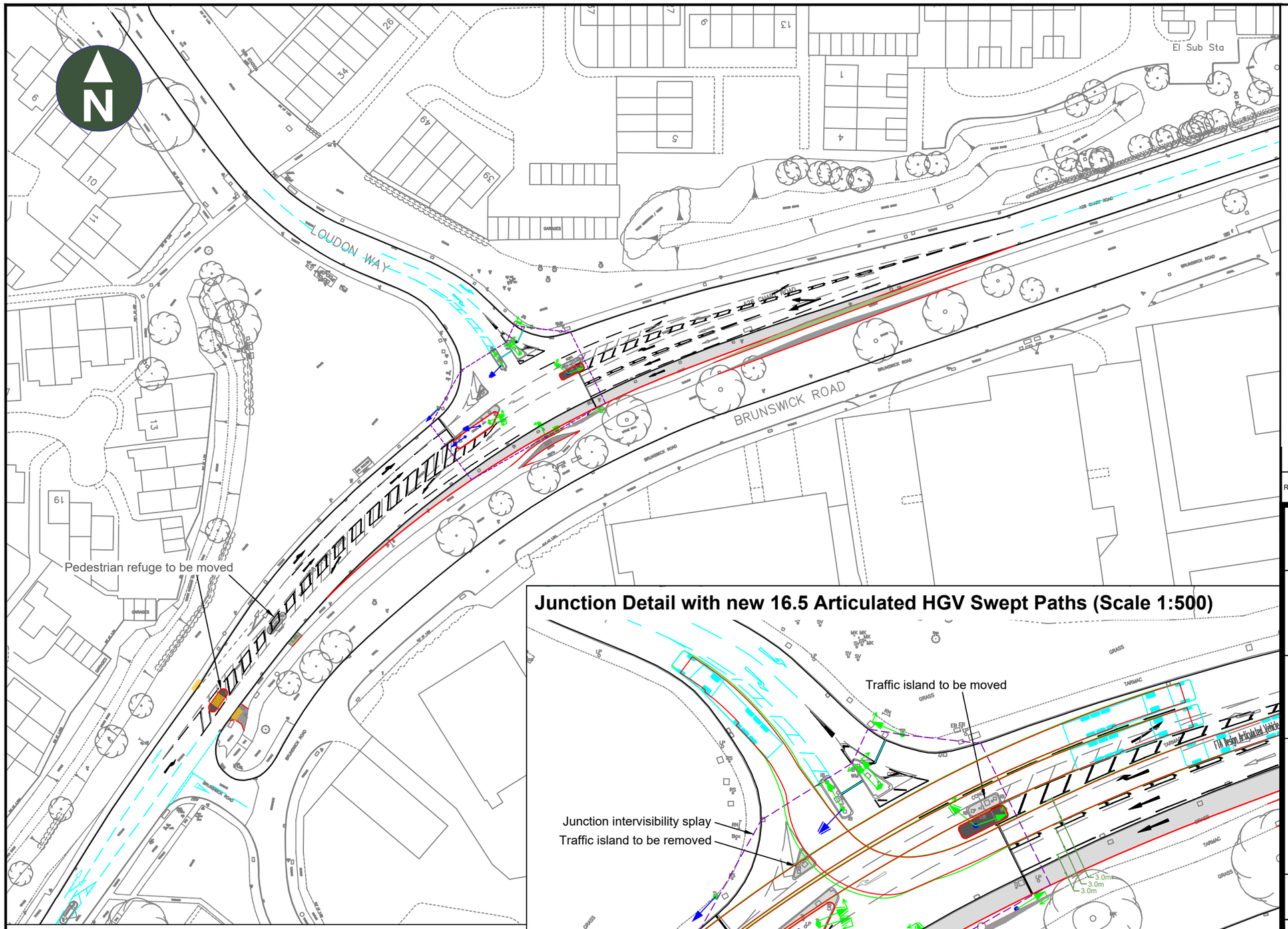
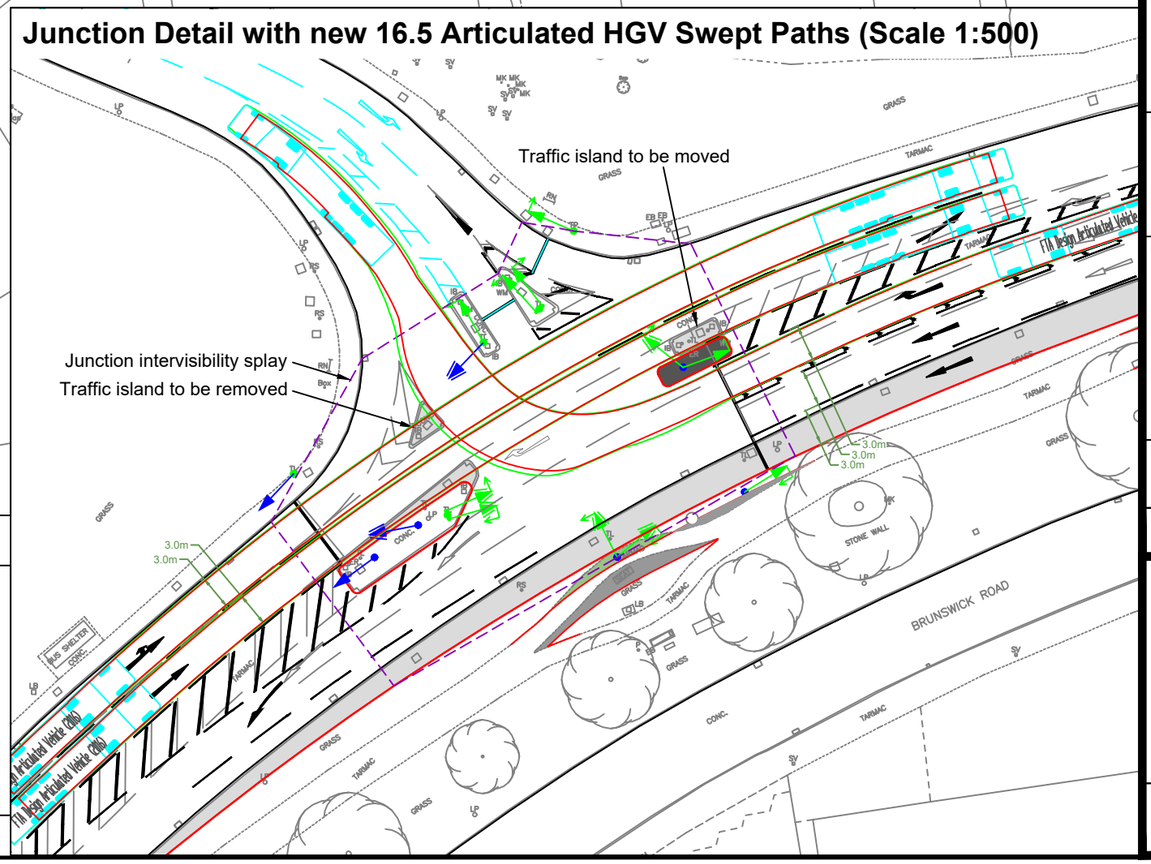


Junction Detail with new 16.5 Articulated HGV Swept Paths (Scale 1:500)



Signal Sequence

1	2	3
A28 Chart Road	A28 Right Turn	Loudon Way

Key

- Existing verge/footway to be carriageway construction
- Existing carriageway to have new footway construction
- Existing verge to be cycleway/footway construction
- Extent of footway to reinstate to verge
- Proposed kerblines
- Existing road marking to remain
- Proposed road marking
- Existing signals to be retained
- Proposed new traffic signal equipment

REV.	DETAILS	DRAWN	CHECKED	DATE

STATUS:
INFORMATION ONLY

CLIENT:
Hodson Homes

PROJECT:
Possingham Farm

DRAWING TITLE:
A28 Chart Rd / Loudon Way
Junction Improvement
Preliminary Design

SCALES:
1:1000 at A3

DRAWN:	CHECKED:	DATE:
RB	ID	28.08.24

SLR

DRAWING NUMBER: 226730/PD02
REVISION: -

Appendix ID14 Matalan Road Improvement Scheme

Land North of Possingham Farmhouse, Ashford, Great Chart, Kent

Hodson Development Ltd
SLR Project No.: 425.001542.00001

10 September 2024

Key

- Existing Verge/Splitter Island to be converted to Carriageway
- Existing Carriageway to be converted to Splitter Island
- Existing Verge to be converted to Cycleway/Footway
- Extent of Public Highway
- Extent of footway to reinstate to verge

REV.	DETAILS	DRAWN	CHECKED	DATE
A	Proposals modified on SW & NW arms.	JM	DSN	29.08.2024
B	NE A28 Entry geometry updated.	RB	ID	30.08.2024
C	NE A28 Entry geometry updated.	RB	ID	04.09.2024

INFORMATION ONLY

Notes:

1. This is not a construction drawing and is intended for illustrative purposes only.
2. White lining is indicative only.

Possingham Farm

Hodson Homes

Proposed Capacity Improvements to A28/Brookfield Road Roundabout

SLR

DRAWN:	CHECKED:	DATE:	SCALES:	DRAWING NUMBER:	REVISION:
JM	ID	15.03.2024	1:500 at A3	226730/PD01	C

Appendix ID15 Louden Way Traffic Signals – Stage 1 Road Safety Audit

Land North of Possingham Farmhouse, Ashford, Great Chart, Kent

Hodson Development Ltd
SLR Project No.: 425.001542.00001

10 September 2024

Stage 1 Road Safety Audit

Loudon Way, Ashford

Hodson Developments

Prepared by:

SLR Consulting Limited

Ground Floor Helmont House , Churchill Way, Cardiff,
CF10 2HE

SLR Project No.: 425.001542.00001

Client Reference No: XXXX

5 September 2024

Revision: 02

Revision Record

Revision	Date	Prepared By	Checked By	Authorised By
01	28 August 2024	Alastair Pike	Ian Medd	Alastair Pike
02	5 September 2024	Alastair Pike	Ian Medd	Alastair Pike
	Click to enter a date.			
	Click to enter a date.			
	Click to enter a date.			

Basis of Report

This document has been prepared by SLR Consulting Limited (SLR) with reasonable skill, care and diligence, and taking account of the timescales and resources devoted to it by agreement with Hodson Developments (the Client) as part or all of the services it has been appointed by the Client to carry out. It is subject to the terms and conditions of that appointment.

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This document may contain information of a specialised and/or highly technical nature and the Client is advised to seek clarification on any elements which may be unclear to it.

Information, advice, recommendations and opinions in this document should only be relied upon in the context of the whole document and any documents referenced explicitly herein and should then only be used within the context of the appointment.

Table of Contents

Appendices

Acronyms and Abbreviations

RSA	Road Safety Audit
SRA	Safety Risk Assessment
DMRB	Design Manual for Roads and Bridges
MfS	Manual for Streets
PIC	Personal Injury Collisions
DfS	Departures from Standards
SPA	Swept Path Analysis
HGV	Heavy Goods Vehicle

1.0 Introduction

1.1 This report results from a Stage 1 Road Safety Audit carried out on Wednesday 28th August 2024. The RSA was carried out on behalf of Hodson Developments. The Overseeing Organisation for this Stage 1 RSA is Kent County Council.

1.2 An Audit Brief was prepared by Daragh Crowe of SLR Consulting Ltd on 27th August 2024. The brief was accepted by the RSA team on the same date. This brief was updated to reflect a resubmitted design change on 28th August 2024.

1.3 This Road Safety Audit team was as follows:

Alastair Pike, MICE, MCIHT, MSoRSA, HE Approved Cert. Comp.
Audit Team Leader
Head of Road Safety
SLR Consulting Ltd

Ian Medd, MCIHT, FSoRSA
Audit Team Member
Independent Road Safety Auditor

1.4 A site visit was undertaken by the Audit Team on Tuesday 27th August 2024, between the hours of 13.00am and 15.00pm. The weather at the time of the visit was fine and bright and the carriageway surface was dry. Vehicular traffic levels were considered to be moderate. There were no pedestrian and no cyclist movements observed during this time.

1.5 A site location plan can be found at **Appendix A** of this report.

1.6 The terms of reference of the Road Safety Audit are as described in the Design Manual for Roads and Bridges (DMRB) Standard, GG119 Road Safety Audit.

1.7 The Audit Team has examined and reported only on the road safety implications of the scheme as presented and has not examined or verified the compliance of the designs to any other criteria. However, to clearly explain a safety problem or the recommendation to resolve a problem the Audit Team may, on occasion, have referred to a design standard without touching on technical audit.

1.8 A table of documents submitted for this Stage 1 RSA can be found in **Appendix B**

1.9 The scheme subject to Stage 1 RSA seeks to change highway arrangements The existing signalised junction of Loudon Way / Chart Road. Improvements proposed include;

- Change from left only and ahead only lanes north east bound, to ahead and left and ahead only lanes.
- Removal of traffic island.
- Relocation of existing uncontrolled crossing to the south.
- Refresh of all road markings.
- Widening of the south west bound traffic lanes.

1.10 A submitted design drawing has been annotated to show the locations of any problems identified during this Stage 1 RSA. This plan can be found at **Appendix C**.

1.11 Whilst recommendations have been made within this report, there may be equally satisfactory alternatives. The Audit Team will be pleased to consider alternatives if required

Departures from Standards

1.12 The Audit Team were not informed of any Departure from Standards (DfS) associated with the design proposals.

2.0 Matters arising from this Stage 1 RSA.

Drawing No. 226730_PD02 A28 - Loudon Way Improvement

2.1 Problem.

Location: Widened traffic lane, north east bound.

Summary: Lack of merge road markings / additional signage may lead to side swipe type collisions between vehicles.

Design drawings show amendments to the north east bound traffic lane providing an extended merge facility for the new ahead lane. This merge facility is not shown to drivers in advance of the junction potentially leading to late lane changes resulting in side swipe type collisions between vehicles.

Recommendation

It is recommended that the additional merge road markings and signage is provided in advance of the merge facility such that drivers can make assimilate the information as early as possible.

2.2 Problem.

Location: Widened traffic lane, north east bound.

Summary: Removal of traffic island leads to a wide swathe of empty road surface which may give rise to increased vehicle speeds into the minor arm of the junction potentially creating speed related collisions.

Design drawings show widening works and the removal of an existing splitter traffic island on Chart Road. The removal of this traffic island and road markings leaves a large area of road surface which may lead to drivers taking wider lines at higher speeds when entering the minor arm of the junction potentially leading to speed related collisions.

Recommendation

It is that guiding road markings are reintroduced to guide vehicles into the correct position and to visually reduce the carriageway width.

2.3 Problem.

Location: Widened traffic lane, south west bound.

Summary: Lack of merge road markings / additional signage may lead to side swipe type collisions between vehicles.

Design drawings show amendments to the south west bound traffic lane providing an extended merge facility. This merge facility is not shown to drivers in advance of the junction potentially leading to late lane changes resulting in side swipe type collisions between vehicles.

Recommendation

It is recommended that the additional merge road markings and signage is provided in advance of the merge facility such that drivers can make assimilate the information as early as possible.

2.4 Problem.

Location: Southern uncontrolled crossing.

Summary: Existing facility segregates pedestrians and cyclists, proposals are shown as shared without the required tactile paving indicating the change between shared and segregated which may in turn lead to collisions between pedestrians and vehicular traffic.

Design drawings show amendments to the existing uncontrolled crossing to create a single shared use path from the carriageway into the existing segregated footway cycleway. There are no ladder or tramline tactile paving arrangements shown to indicate the change from shared to segregated use and this arrangement in turn may lead to confusion for road users and cause collisions between cyclists and pedestrians.

Recommendation

It is recommended that the appropriate tactile paving and signage provisions are made to ensure the shared / segregated transition is clear.

3.0 Audit Team Statement

3.1 We certify that this Audit has been carried out in accordance with the requirements of GG119.

Road Safety Audit Team Leader

Name: Alastair Pike

Signed: [redacted]

Position: Head of Road Safety
Organisation: SLR Consulting Ltd
Date: 5 September 2024

Road Safety Audit Team Member

Name: Ian Medd

Signed: [redacted]

Position: Consultant
Organisation: Independent Road Safety Consultant
Date: 5 September 2024

Appendix A Site Location Plan

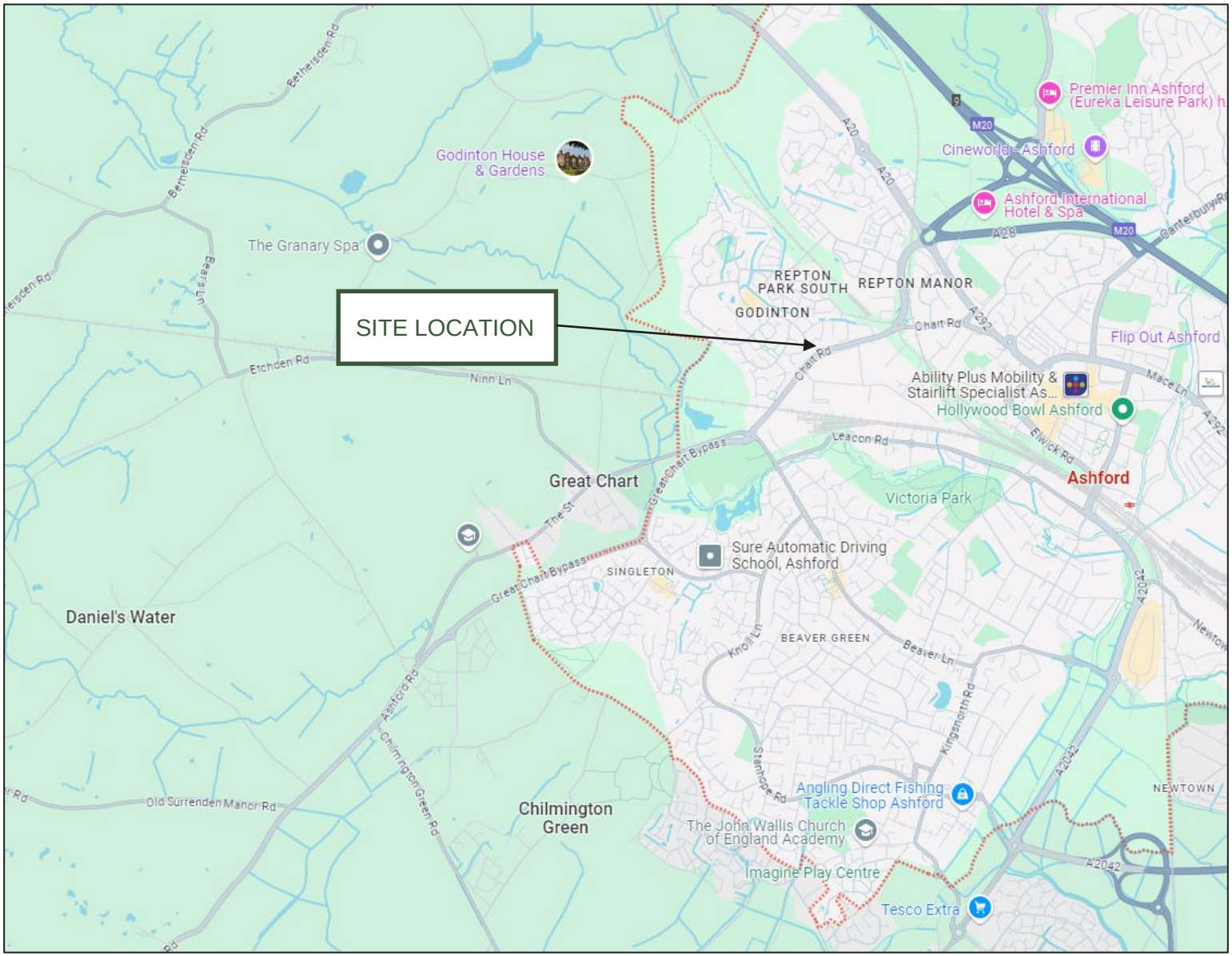
Stage 1 Road Safety Audit

Loudon Way, Ashford

Hodson Developments

SLR Project No.: 425.001542.00001

5 September 2024


SITE LOCATION
Godinton House & Gardens
The Granary Spa
Premier Inn Ashford (Eureka Leisure Park) h
Cineworld - Ashford
Ashford International Hotel & Spa
REPTON PARK SOUTH
REPTON MANOR
GODINTON
Flip Out Ashford
Ability Plus Mobility & Stairlift Specialist As...
Hollywood Bowl Ashford
Great Chart
Ashford
Victoria Park
Sure Automatic Driving School, Ashford
SINGLETON
Daniel's Water
BEAVER GREEN
Chilmington Green
Angling Direct Fishing Tackle Shop Ashford
The John Wallis Church of England Academy
Imagine Play Centre
Tesco Extra
NEWTOWN
Etchden Rd
Ninn Ln
Leacon Rd
Elwick Rd
Mace Ln
Chart Rd
Chalt Rd
Great Chart Bypass
The St
Ashford Rd
Chilmington Green Rd
Old Surrenden Manor Rd
Knoll Ln
Beaver Ln
Kingsnorth Rd
Stanhope Rd
Canterbury Rd
M20
A20
A28
A292
A2042

Appendix B Submitted Documents

Stage 1 Road Safety Audit

Loudon Way, Ashford

Hodson Developments

SLR Project No.: 425.001542.00001

5 September 2024

Submitted Documents

Document	Document Title
Design Drawings RSA Brief	226730_PD02 A28 - Loudon Way Improvement SLR RSA Brief (Loudon Way Mitigation)

Appendix C Problem Location Plan

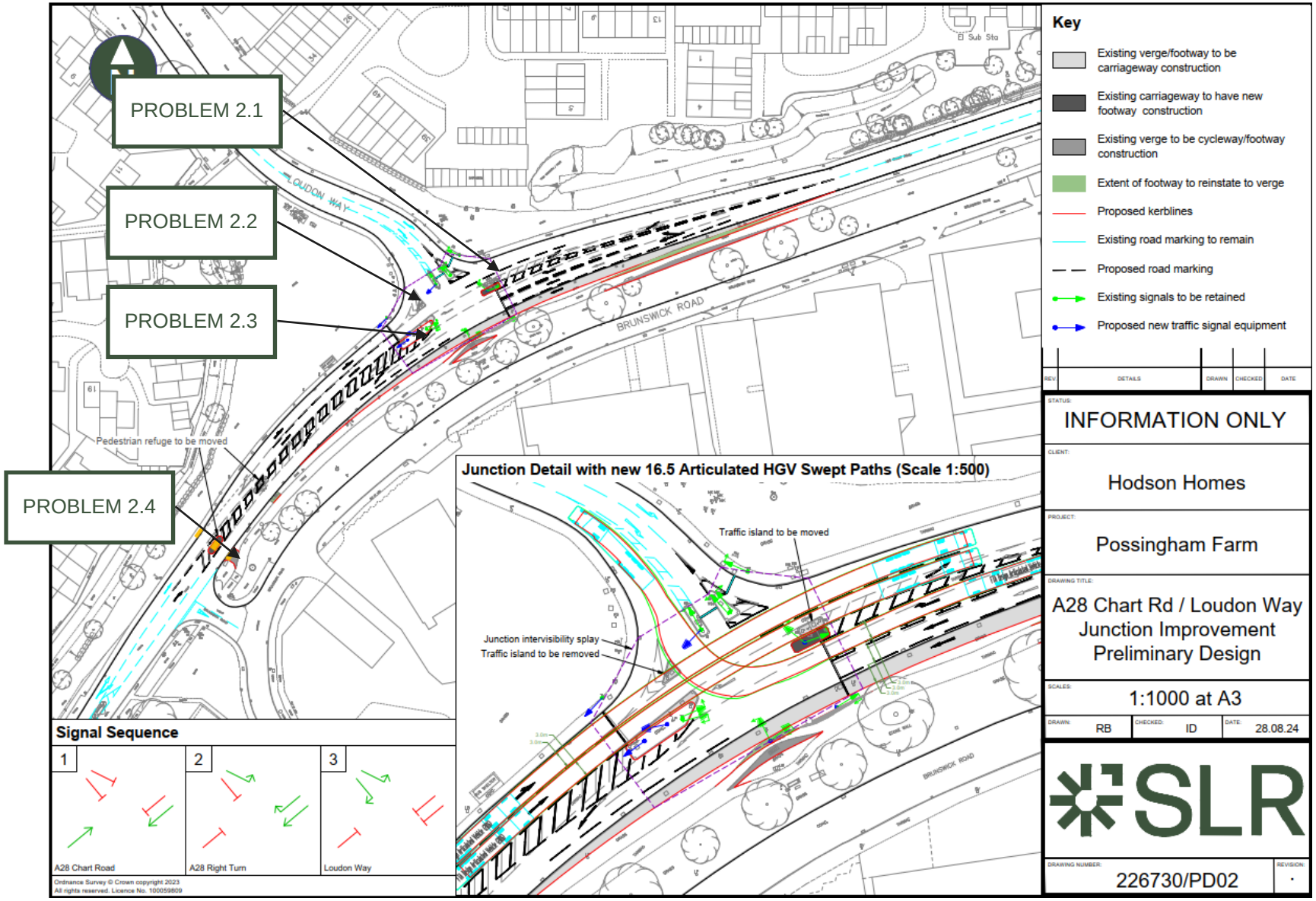
Stage 1 Road Safety Audit

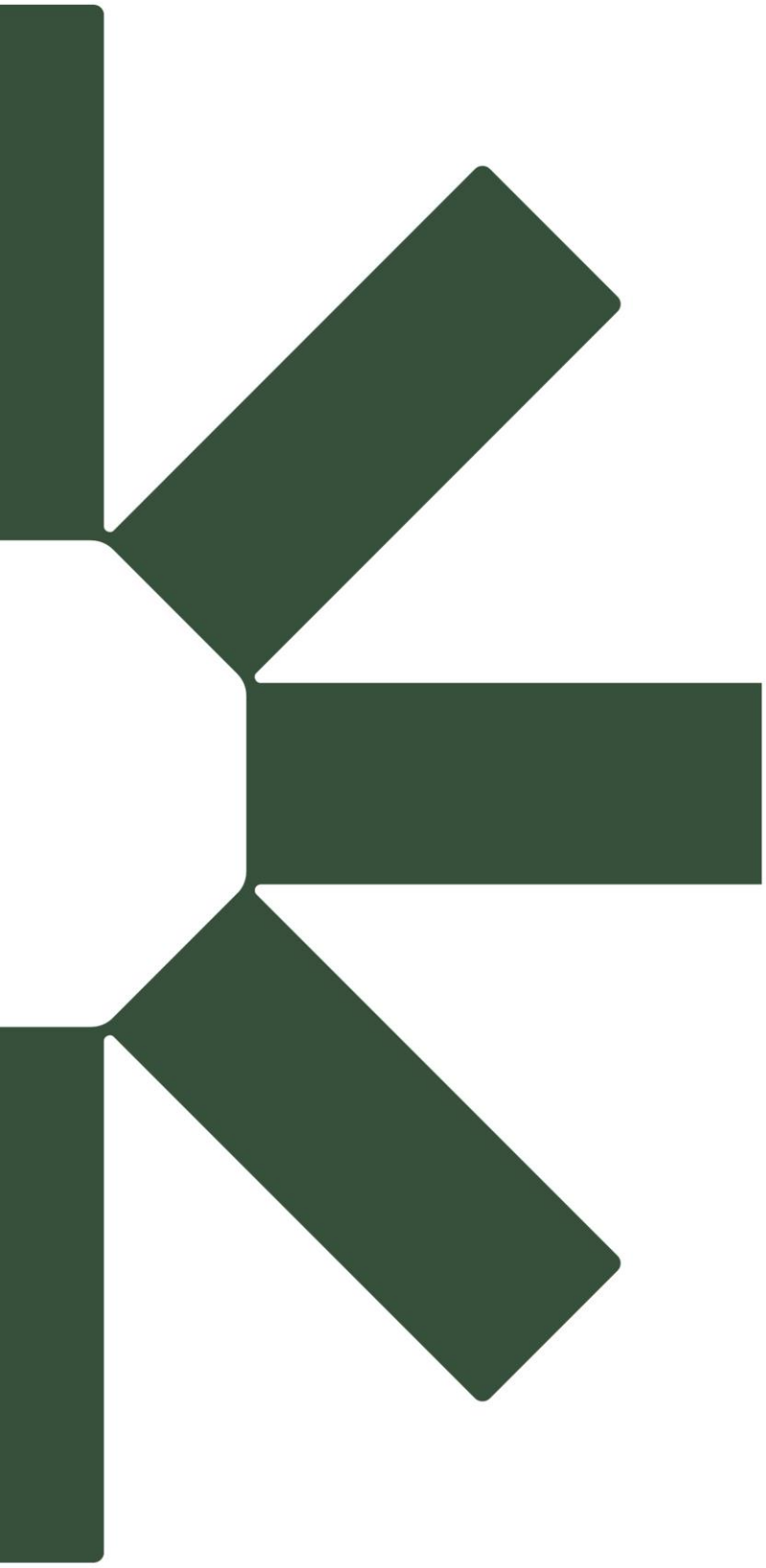
Loudon Way, Ashford

Hodson Developments

SLR Project No.: 425.001542.00001

5 September 2024


PROBLEM 2.1
PROBLEM 2.2
PROBLEM 2.3
PROBLEM 2.4
LOUDON WAY
BRUNSWICK ROAD
Pedestrian refuge to be moved
Junction Detail with new 16.5 Articulated HGV Swept Paths (Scale 1:500)
Traffic island to be moved
Junction intervisibility splay
Traffic island to be removed
Signal Sequence
1
2
3
A28 Chart Road
A28 Right Turn
Loudon Way
Ordnance Survey © Crown copyright 2023
All rights reserved. Licence No. 100059809
Key
Existing verge/footway to be carriageway construction
Existing carriageway to have new footway construction
Existing verge to be cycleway/footway construction
Extent of footway to reinstate to verge
Proposed kerblines
Existing road marking to remain
Proposed road marking
Existing signals to be retained
Proposed new traffic signal equipment
REV
DETAILS
DRAWN
CHECKED
DATE
STATUS:
INFORMATION ONLY
CLIENT:
Hodson Homes
PROJECT:
Possingham Farm
DRAWING TITLE:
A28 Chart Rd / Loudon Way
Junction Improvement
Preliminary Design
SCALES:
1:1000 at A3
DRAWN:
RB
CHECKED:
ID
DATE:
28.08.24
SLR
DRAWING NUMBER:
226730/PD02
REVISION:
-



Making Sustainability Happen

RSA Designers Response

Land North of Possingham Farmhouse Site Access Junctions

Hodson Developments

Prepared by:

SLR Consulting Limited

3rd Floor, Summit House, 12 Red Lion Square, London WC1R 4QH

SLR Project No.: 425.001542.00001

6 September 2024

Revision: 01

1 Project Summary

RSA REPORT TITLE	LAND NORTH OF POSSINGHAM FARMHOUSE – LOUDON WAY TRAFFIC SIGNAL CONTROLLED JUNCTION
Date	05.09.24
Document Reference and Revision:	425.001542.00001 Loudon Way RSAS1.01
Prepared by:	Alastair Pike and Ian Medd
On behalf of:	SLR and Independent Safety Auditor
AUTHORISATION SHEET	
Project:	425.001542.00001
Report Title	Land North of Possingham Farm Site Access Junctions
DESIGNERS RESPONSE PREPARED BY	
Name:	Richard Bishop
Signed:	[redacted]
Organisation:	SLR
Date:	06.09.24

2 General Details

GENERAL DETAILS:				
Highway scheme name and road number:	**A28**			
Type of scheme:	Improvement of Existing Traffic Signal Controlled Junction			
RSA Stage:	☒ Stage 1	☐ Stage 2	☐ Stage 3	☐ Stage 4
	Interim			
Overseeing Organisation details:	Kent County Council			
Design organisation details:	SLR			
Police contact details:	N/A			
Maintaining agent contact details:	N/A			
RSA team membership:	Alastair Pike and Ian Medd			
Terms of reference:	Stage 1 Road Safety Audit			

3 Road Safety Audit Decision Log

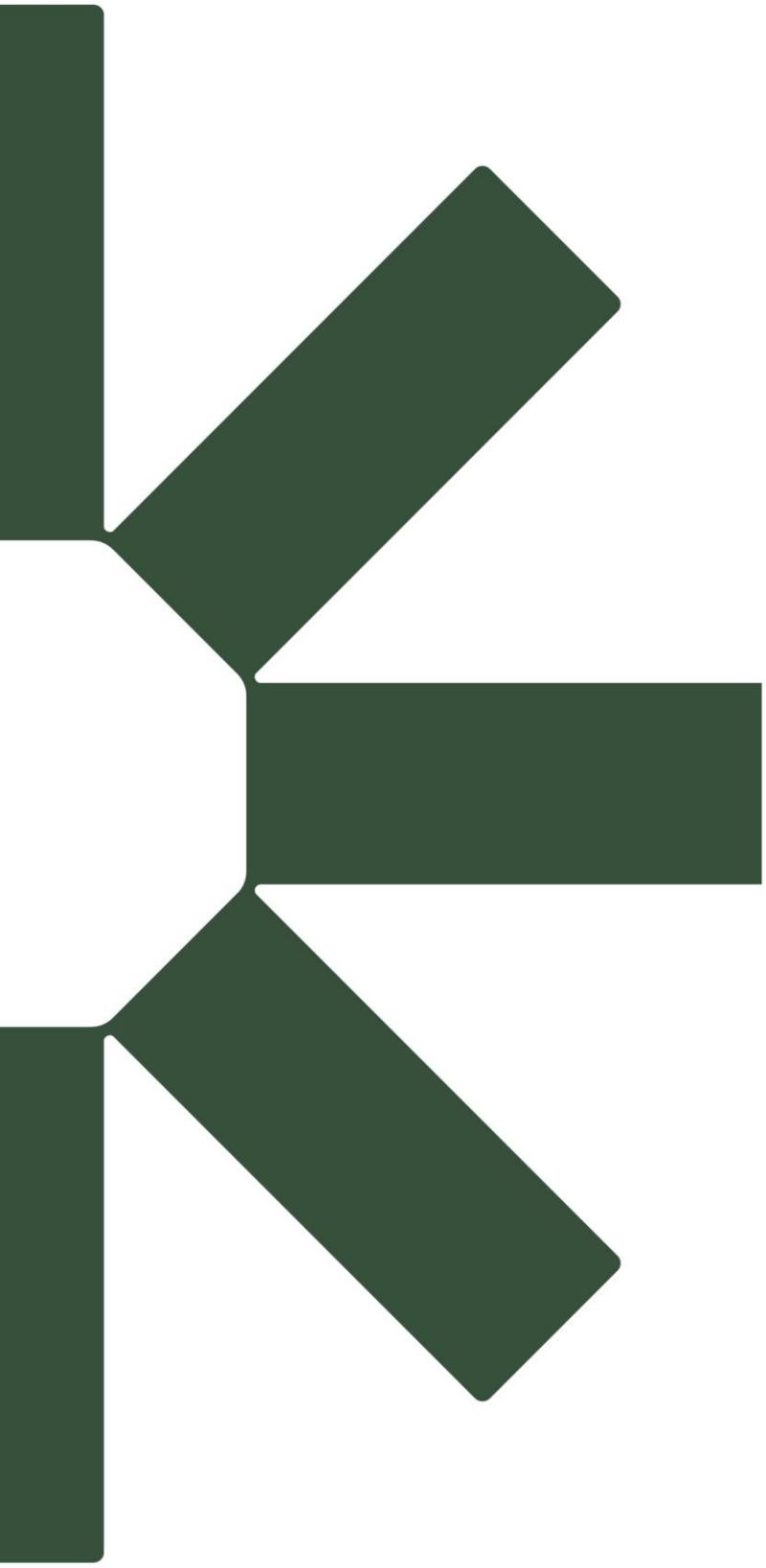
Drawing No. 226730_PD02 A28 - Loudon Way Improvement

RSA PROBLEM	RSA RECOMMENDATION	DESIGN ORGANISATION RESPONSE	OVERSEEING ORGANISATION RESPONSE	AGREED RSA ACTION
2.1	It is recommended that the additional merge road markings and signage is provided in advance of the merge facility such that drivers can make assimilate the information as early as possible.	Accepted		This will be taken forward during the detailed design stage.
2.2	It is that guiding road markings are reintroduced to guide vehicles into the correct position and to visually reduce the carriageway width.	Accepted		This will be taken forward during the detailed design stage.
2.3	It is recommended that the additional merge road markings and signage is provided in advance of the merge facility such that drivers can make assimilate the information as early as possible.	Accepted		This will be taken forward during the detailed design stage.
2.4	It is recommended that the appropriate tactile paving and signage provisions are made to ensure the shared / segregated transition is clear.	Accepted		This will be taken forward during the detailed design stage.

4 Design Organisation and Overseeing Organisation Statements

ON BEHALF OF THE DESIGN ORGANISATION I CERTIFY THAT: THE RSA ACTIONS IDENTIFIED IN RESPONSE TO THE ROAD SAFETY AUDIT PROBLEMS IN THE ROAD SAFETY AUDIT HAVE BEEN DISCUSSED AND AGREED WITH THE OVERSEEING ORGANISATION.	
Name	Ian Dix
Signed	[redacted]
Position	Associate Director
Organisation	SLR
Date	06.09.24

ON BEHALF OF THE OVERSEEING ORGANISATION I CERTIFY THAT: THE RSA ACTIONS IDENTIFIED IN RESPONSE TO THE ROAD SAFETY AUDIT PROBLEMS IN THE ROAD SAFETY AUDIT HAVE BEEN DISCUSSED AND AGREED WITH THE DESIGN ORGANISATION; AND THE AGREED RSA ACTIONS WILL BE PROGRESSED.	
Name	
Signed	
Position	
Organisation	
Date	



Making Sustainability Happen

Appendix ID16 Matalan Roundabout Improvement Scheme – Stage 1 Road Safety Audit

Land North of Possingham Farmhouse, Ashford, Great Chart, Kent

Hodson Development Ltd
SLR Project No.: 425.001542.00001

10 September 2024

Stage 1 Road Safety Audit

Brookfield (Matalan) Roundabout, Ashford

Hodson Developments

Prepared by:

SLR Consulting Limited

Ground Floor Helmont House , Churchill Way, Cardiff,
CF10 2HE

SLR Project No.: 425.001542.00001

Client Reference No: XXXX

5 September 2024

Revision: 02

Revision Record

Revision	Date	Prepared By	Checked By	Authorised By
01	28 August 2024	Alastair Pike	Ian Medd	Alastair Pike
02	5 September 2024	Alastair Pike	Ian Medd	Alastair Pike
	Click to enter a date.			
	Click to enter a date.			
	Click to enter a date.			

Basis of Report

This document has been prepared by SLR Consulting Limited (SLR) with reasonable skill, care and diligence, and taking account of the timescales and resources devoted to it by agreement with Hodson Developments (the Client) as part or all of the services it has been appointed by the Client to carry out. It is subject to the terms and conditions of that appointment.

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Appendices

Acronyms and Abbreviations

RSA	Road Safety Audit
SRA	Safety Risk Assessment
DMRB	Design Manual for Roads and Bridges
MfS	Manual for Streets
PIC	Personal Injury Collisions
DfS	Departures from Standards
SPA	Swept Path Analysis
HGV	Heavy Goods Vehicle

1.0 Introduction

1.1 This report results from a Stage 1 Road Safety Audit carried out on Wednesday 28th August 2024. The RSA was carried out on behalf of Hodson Developments. The Overseeing Organisation for this Stage 1 RSA is Kent County Council.

1.2 An Audit Brief was prepared by Ella Groves of SLR Consulting Ltd on 27th August 2024. The brief was accepted by the RSA team on the same date. This brief was updated to reflect a resubmitted design change on 30th August 2024.

1.3 This Road Safety Audit team was as follows:

Alastair Pike, MICE, MCIHT, MSoRSA, HE Approved Cert. Comp.
Audit Team Leader
Head of Road Safety
SLR Consulting Ltd

Ian Medd, MCIHT, FSoRSA
Audit Team Member
Independent Road Safety Auditor

1.4 A site visit was undertaken by the Audit Team on Tuesday 27th August 2024, between the hours of 13.00am and 15.00pm. The weather at the time of the visit was fine and bright and the carriageway surface was dry. Vehicular traffic levels were considered to be moderate. There were no pedestrian and no cyclist movements observed during this time.

1.5 A site location plan can be found at **Appendix A** of this report.

1.6 The terms of reference of the Road Safety Audit are as described in the Design Manual for Roads and Bridges (DMRB) Standard, GG119 Road Safety Audit.

1.7 The Audit Team has examined and reported only on the road safety implications of the scheme as presented and has not examined or verified the compliance of the designs to any other criteria. However, to clearly explain a safety problem or the recommendation to resolve a problem the Audit Team may, on occasion, have referred to a design standard without touching on technical audit.

1.8 A table of documents submitted for this Stage 1 RSA can be found in **Appendix B**

1.9 The scheme subject to Stage 1 RSA seeks to change highway arrangements at Brookfield Roundabout, Ashford. Changes proposed include realignment of the north eastern arms to widen and increase the approach land and exit lane width. This proposal includes updates to the existing uncontrolled crossing located on the splitter island.

1.10 A submitted design drawing has been annotated to show the locations of any problems identified during this Stage 1 RSA. This plan can be found at **Appendix C**.

1.11 Whilst recommendations have been made within this report, there may be equally satisfactory alternatives. The Audit Team will be pleased to consider alternatives if required.

Departures from Standards

1.12 The Audit Team were not informed of any Departure from Standards (DfS) associated with the design proposals.

2.0 Matters arising from this Stage 1 RSA.

Drawing No. 226730_PD01 Rev C - Proposed Capacity Improvements to A28-Brookfield Road Roundabout

2.1 Problem.

Location: Roundabout north eastern exit arm, uncontrolled crossing facility.

Summary: Existing facility segregates pedestrians and cyclists, proposals are shown as shared without the required tactile paving which may in turn lead to collisions between pedestrians and vehicular traffic.

Design drawings show amendments to the existing uncontrolled crossing to create a single shared use path from the carriageway into the existing segregated footway cycleway. There are no ladder or tramline tactile paving arrangements shown to indicate the change from shared to segregated use and this arrangement in turn may lead to confusion for road users and cause collisions between cyclists and pedestrians.

Recommendation

It is recommended that the appropriate tactile paving and signage provisions are made to ensure the shared / segregated transition is clear.

2.2 Problem.

Location: Roundabout north eastern exit arm, uncontrolled crossing facility.

Summary: Widening of the exit arm has resulted in the northern footway / cycleway being relocated further back into the tree line. This may lead to collisions between cyclists / pedestrians and vehicular traffic.

Design drawings show widening works to the existing uncontrolled crossing to the north of the exit arm. These works will result in the uncontrolled crossing moving further north into the existing treeline. This arrangement leads to the obstruction of intervisibility between vehicles and active travel users and may in turn lead to injudicious crossing movements resulting in collisions between these user groups.

Recommendation

It is recommended that trees are removed and cut back as required to ensure visibility splays are achievable at all crossing points

3.0 Audit Team Statement

3.1 We certify that this Audit has been carried out in accordance with the requirements of GG119.

Road Safety Audit Team Leader

Name:	Alastair Pike
Signed:	[redacted]
Position:	Head of Road Safety
Organisation:	SLR Consulting Ltd
Date:	5 September 2024

Road Safety Audit Team Member

Name:	Ian Medd
Signed:	[redacted]
Position:	Consultant
Organisation:	Independent Road Safety Consultant
Date:	5 September 2024

Appendix A Site Location Plan

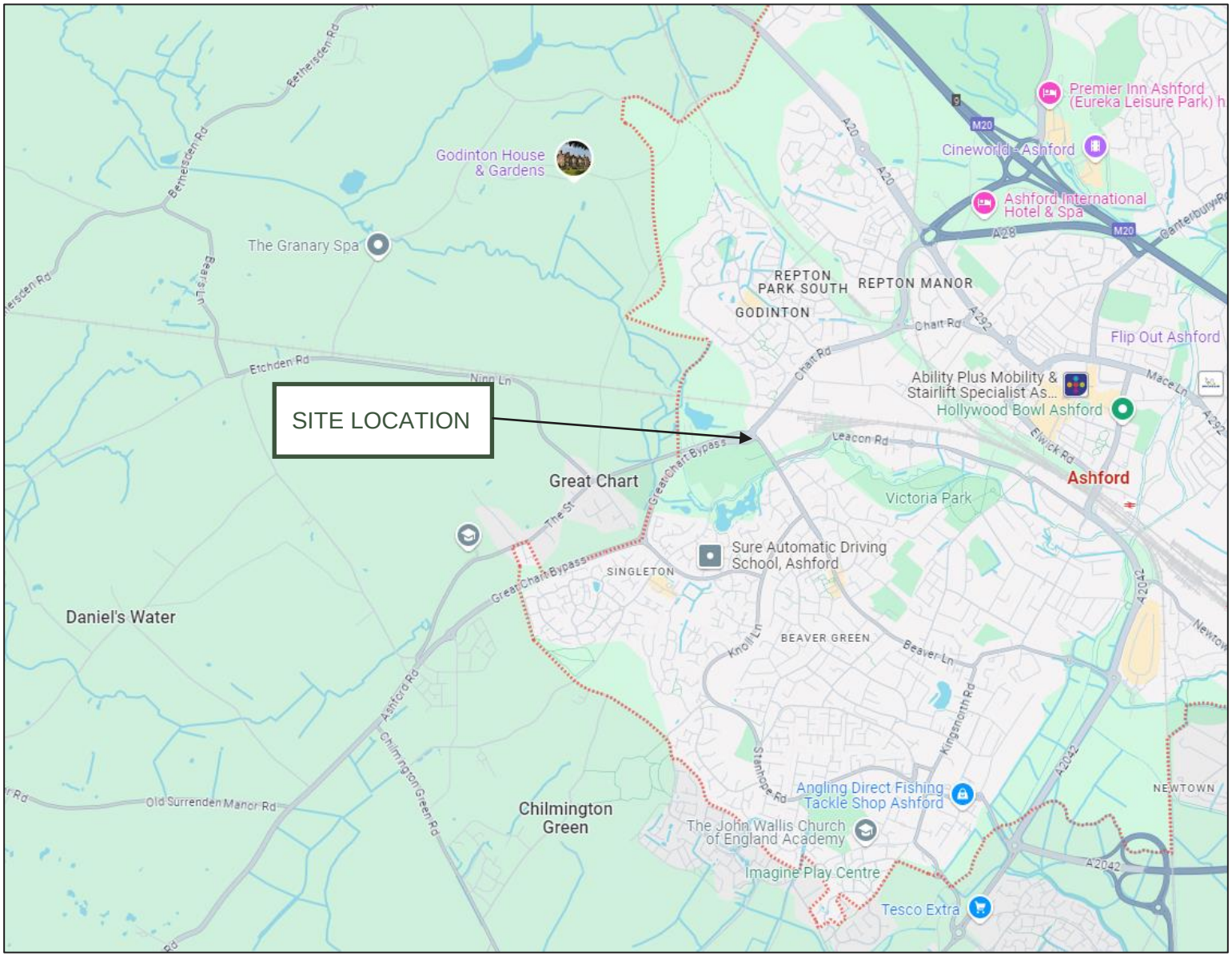
Stage 1 Road Safety Audit

Brookfield (Matalan) Roundabout, Ashford

Hodson Developments

SLR Project No.: 425.001542.00001

5 September 2024


SITE LOCATION
Godinton House & Gardens
The Granary Spa
Premier Inn Ashford (Eureka Leisure Park) h
Cineworld - Ashford
Ashford International Hotel & Spa
REPTON PARK SOUTH
REPTON MANOR
GODINTON
Flip Out Ashford
Ability Plus Mobility & Stairlift Specialist As...
Hollywood Bowl Ashford
Great Chart
Victoria Park
Ashford
Sure Automatic Driving School, Ashford
SINGLETON
Daniel's Water
BEAVER GREEN
Chilmington Green
Angling Direct Fishing Tackle Shop Ashford
The John Wallis Church of England Academy
Imagine Play Centre
Tesco Extra
NEWTOWN
Old Surrenden Manor Rd
Etchden Rd
Leacon Rd
Chart Rd
Ashford Rd
Chilmington Green Rd
Great Chart Bypass
Knoll Ln
Beaver Ln
Kingsnorth Rd
Stanhope Rd
Elwick Rd
Mace Ln
A20
M20
A28
A292
A2042

Appendix B Submitted Documents

Stage 1 Road Safety Audit

Brookfield (Matalan) Roundabout, Ashford

Hodson Developments

SLR Project No.: 425.001542.00001

5 September 2024

Submitted Documents

Document	Document Title
Design Drawings	226730_PD01 Rev C - Proposed Capacity Improvements to A28-Brookfield Road Roundabout 226730_PD01_AT01 Rev B - A28-Brookfield Road Rbt - Car SPA 226730_PD01_AT02 Rev B - A28-Brookfield Road Rbt - HGV SPA
RSA Brief	SLR RSA Brief (Matalan Roundabout Mitigation)

Appendix C Problem Location Plan

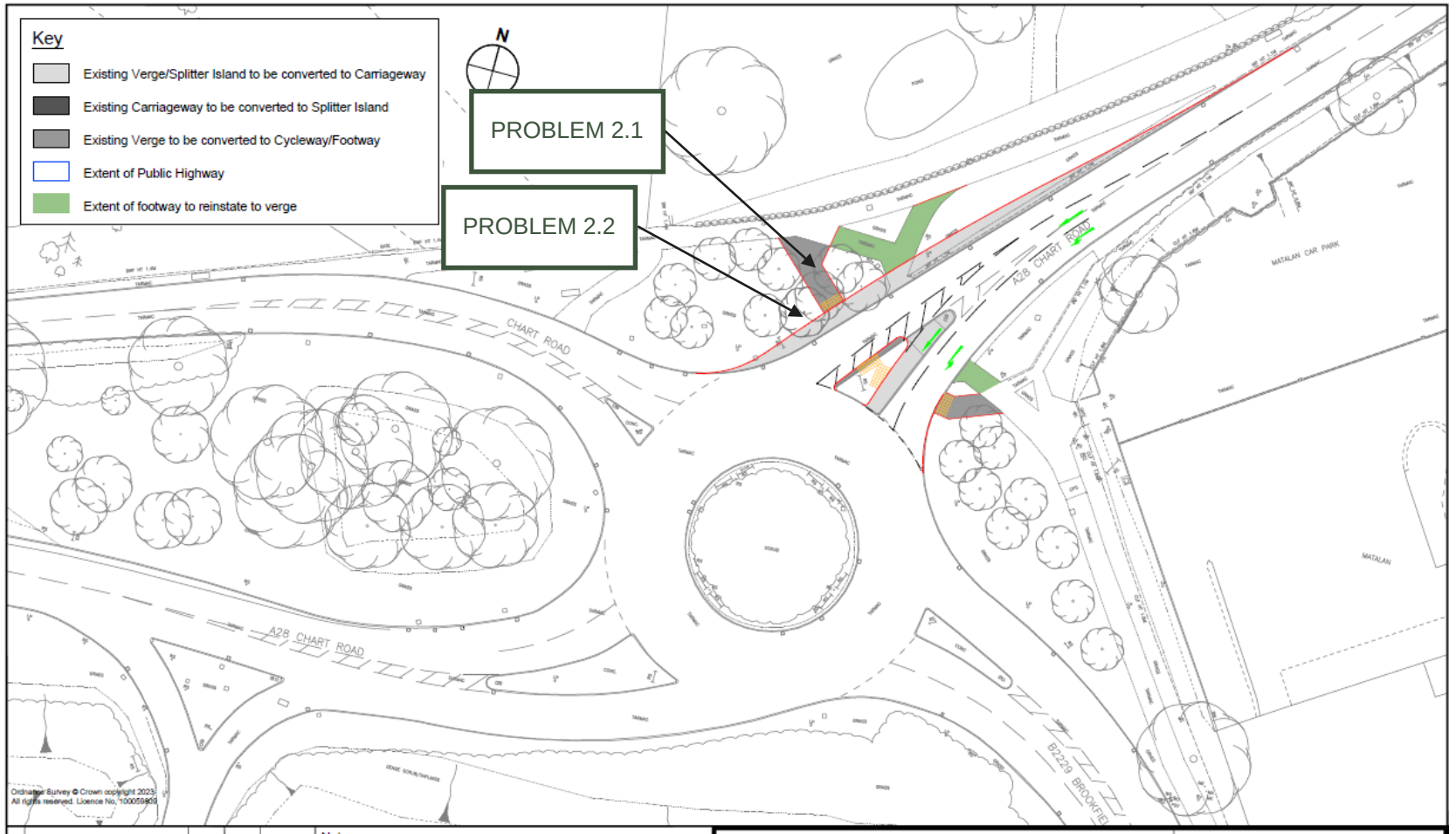
Stage 1 Road Safety Audit

Brookfield (Matalan) Roundabout, Ashford

Hodson Developments

SLR Project No.: 425.001542.00001

5 September 2024



REV	DETAILS	DRAWN	CHECKED	DATE
A	Proposals modified on SW & NW arms.	JM	DSN	29.08.2024
B	NE A28 Entry geometry updated.	RB	ID	30.08.2024
C	NE A28 Entry geometry updated.	RB	ID	04.09.2024

INFORMATION ONLY

Notes:

1. This is not a construction drawing and is intended for illustrative purposes only.
2. White lining is indicative only.

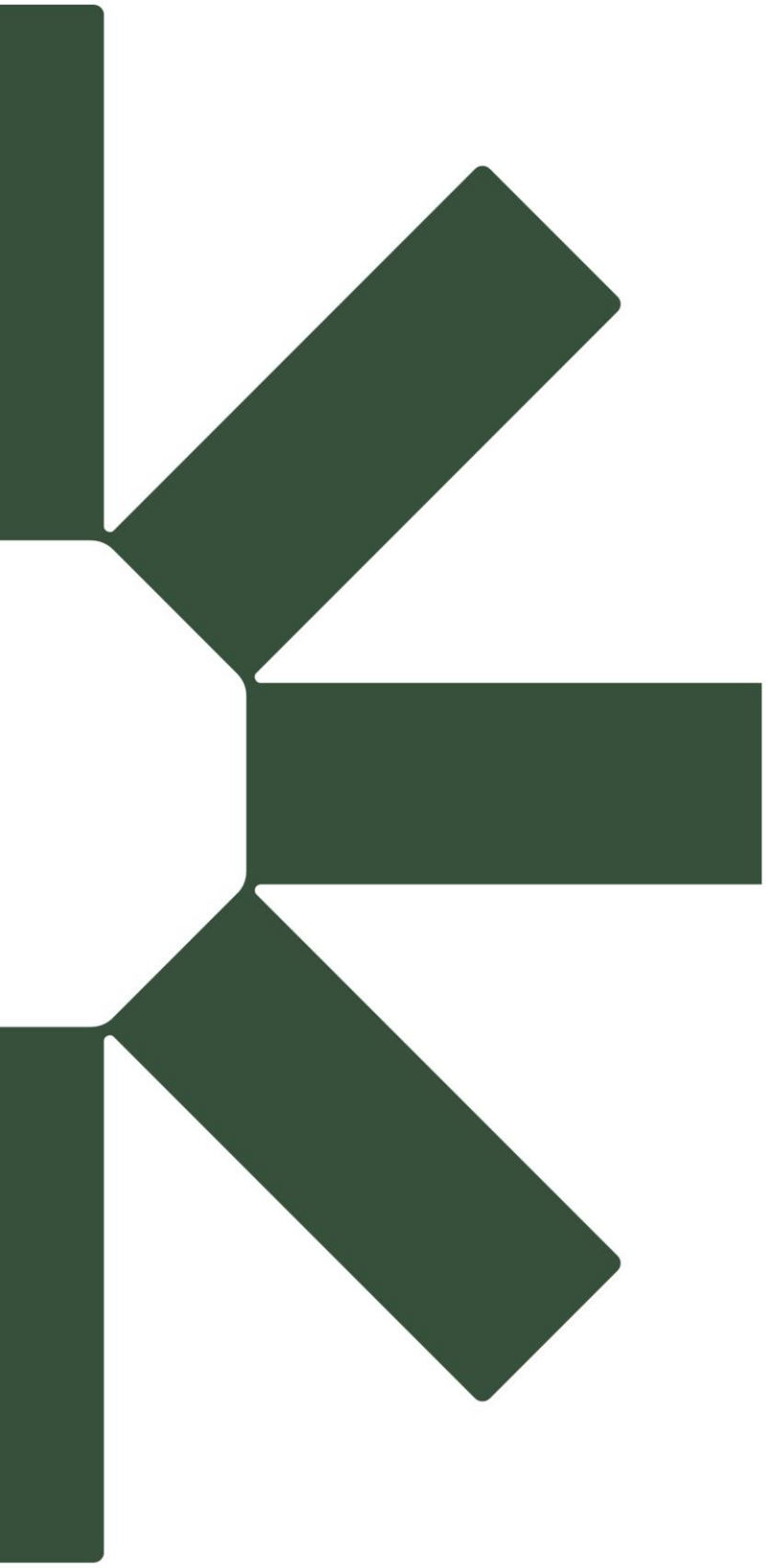
Possingham Farm

Hodson Homes

Proposed Capacity Improvements to A28/Brookfield Road Roundabout

SLR

DRAWN:	CHECKED:	DATE:	SCALES:	DRAWING NUMBER:	REVISION:
JM	ID	15.03.2024	1:500 at A3	226730/PD01	C



Making Sustainability Happen

RSA Designers Response

Land North of Possingham Farmhouse Site Access Junctions

Hodson Developments

Prepared by:

SLR Consulting Limited

3rd Floor, Summit House, 12 Red Lion Square, London WC1R 4QH

SLR Project No.: 425.001542.00001

6 September 2024

Revision: 01

1 Project Summary

RSA REPORT TITLE	LAND NORTH OF POSSINGHAM FARMHOUSE – BROOKFIELD (MATALAN) ROUNDABOUT
Date	05.09.24
Document Reference and Revision:	425.001542.00001 Brookfield Roundabout RSAS1.01
Prepared by:	Alastair Pike and Ian Medd
On behalf of:	SLR and Independent Safety Auditor
AUTHORISATION SHEET	
Project:	425.001542.00001
Report Title	Land North of Possingham Farm Site Access Junctions
DESIGNERS RESPONSE PREPARED BY	
Name:	Richard Bishop
Signed:	[redacted]
Organisation:	SLR
Date:	06.09.24

2 General Details

GENERAL DETAILS:				
Highway scheme name and road number:	**A28**			
Type of scheme:	Improvement of Existing Roundabout			
RSA Stage:	☒ Stage 1	☐ Stage 2	☐ Stage 3	☐ Stage 4
	Interim			
Overseeing Organisation details:	Kent County Council			
Design organisation details:	SLR			
Police contact details:	N/A			
Maintaining agent contact details:	N/A			
RSA team membership:	Alastair Pike and Ian Medd			
Terms of reference:	Stage 1 Road Safety Audit			

3 Road Safety Audit Decision Log

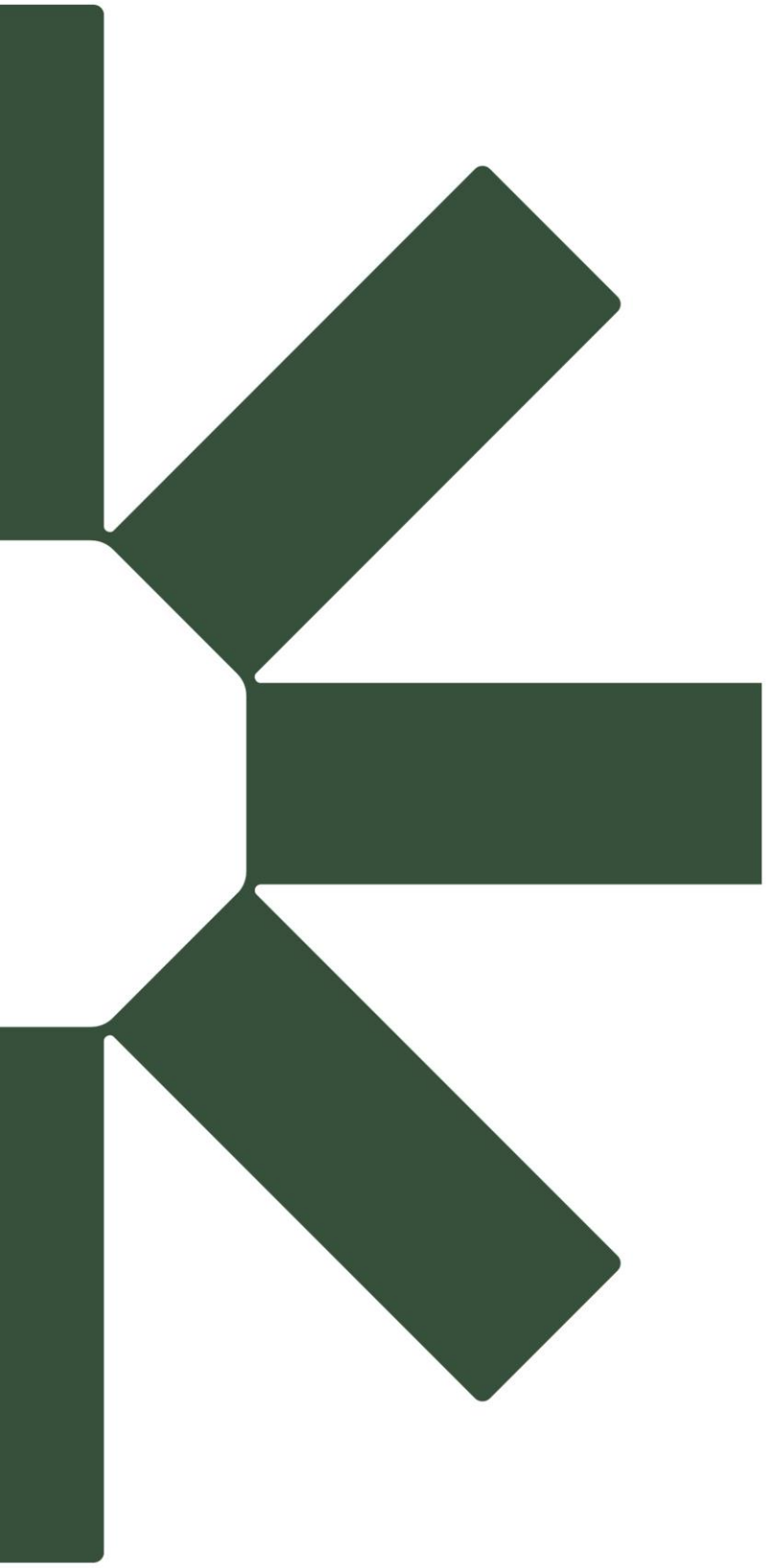
Drawing No. 226730_PD01 Rev C - Proposed Capacity Improvements to A28-Brookfield Road Roundabout

RSA PROBLEM	RSA RECOMMENDATION	DESIGN ORGANISATION RESPONSE	OVERSEEING ORGANISATION RESPONSE	AGREED RSA ACTION
2.1	It is recommended that the appropriate tactile paving and signage provisions are made to ensure the shared / segregated transition is clear.	Accepted		This will be taken forward during the detailed design stage.
2.2	It is recommended that trees are removed and cut back as required to ensure visibility splays are achievable at all crossing points	Accepted		The trees are within the public highway and can be cut back as needed to maintain visibility splays for all the crossings.

4 Design Organisation and Overseeing Organisation Statements

ON BEHALF OF THE DESIGN ORGANISATION I CERTIFY THAT: THE RSA ACTIONS IDENTIFIED IN RESPONSE TO THE ROAD SAFETY AUDIT PROBLEMS IN THE ROAD SAFETY AUDIT HAVE BEEN DISCUSSED AND AGREED WITH THE OVERSEEING ORGANISATION.	
Name	Ian Dix
Signed	[redacted]
Position	Associate Director
Organisation	SLR
Date	06.09.24

ON BEHALF OF THE OVERSEEING ORGANISATION I CERTIFY THAT: THE RSA ACTIONS IDENTIFIED IN RESPONSE TO THE ROAD SAFETY AUDIT PROBLEMS IN THE ROAD SAFETY AUDIT HAVE BEEN DISCUSSED AND AGREED WITH THE DESIGN ORGANISATION; AND THE AGREED RSA ACTIONS WILL BE PROGRESSED.	
Name	
Signed	
Position	
Organisation	
Date	



Making Sustainability Happen

Appendix ID17 Louden Way Traffic Signals Modelling

Land North of Possingham Farmhouse, Ashford, Great Chart, Kent

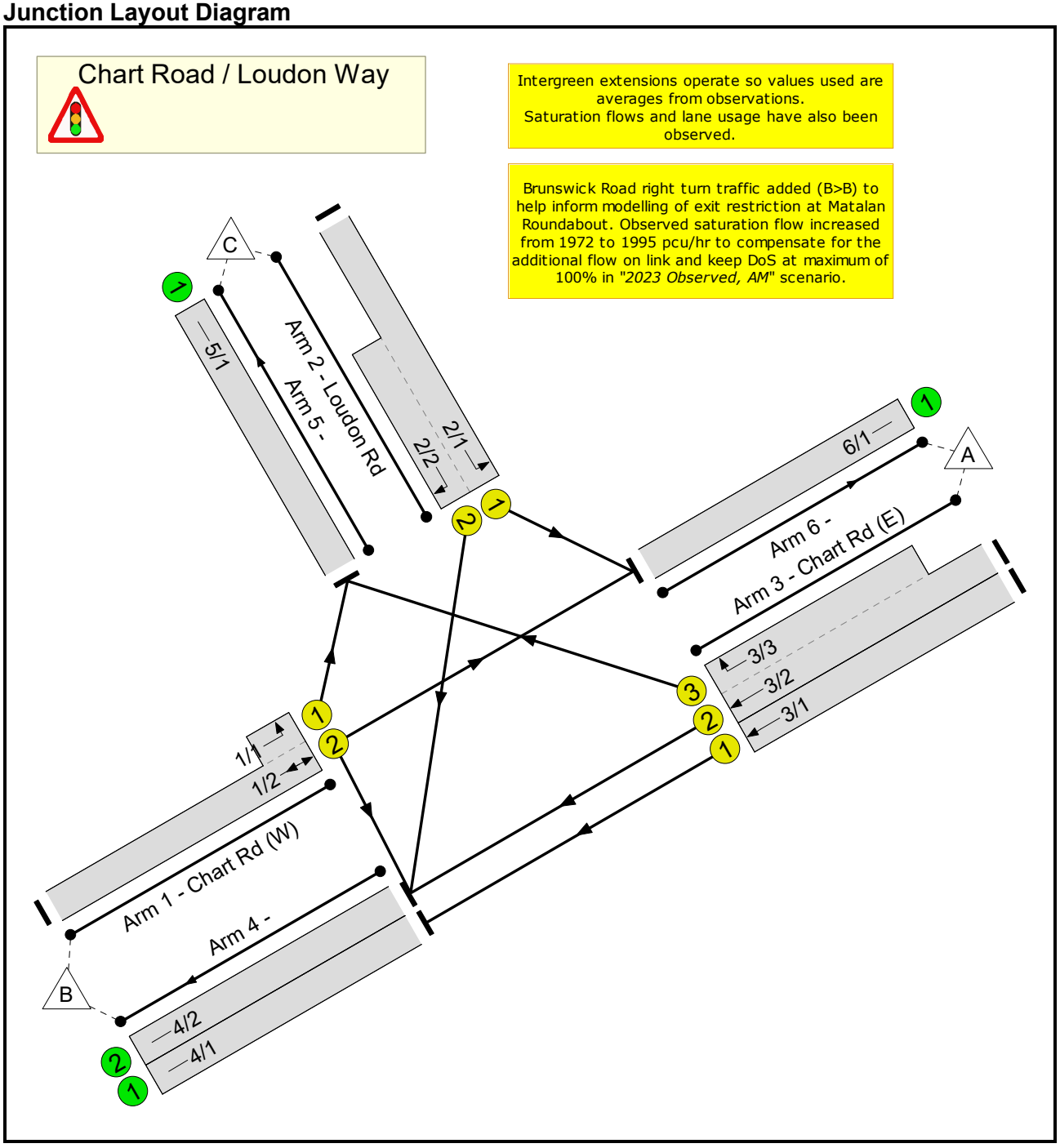
Hodson Development Ltd
SLR Project No.: 425.001542.00001

10 September 2024

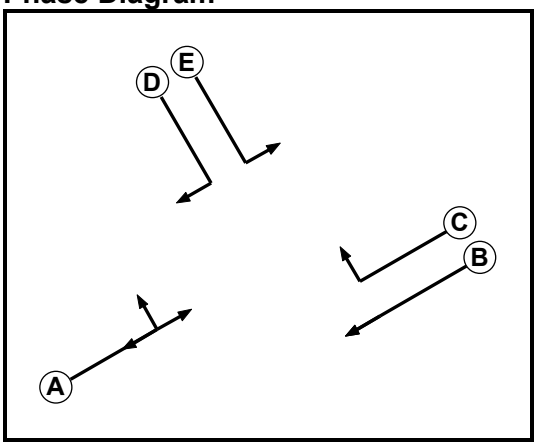
User and Project Details

Project:	**Possingham Farm, Ashford**
Title:	**A28 Chart Road / Loudon Way Junction**
Design Layout Ref:	Existing Junction Layout
Model Assumptions:	Intergreens are observed averages
Flow Details:	Observed flows from surveys of Tuesday, 28th March 2023
File name:	A28_Loudon (Existing) v3.0.lsg3x
Author:	David Noyce
Company:	Vectos / SLR
Address:	Summit House, 12 Red Lion Square, London WC1R 4QH

Junction Layout Diagram



Phase Diagram



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

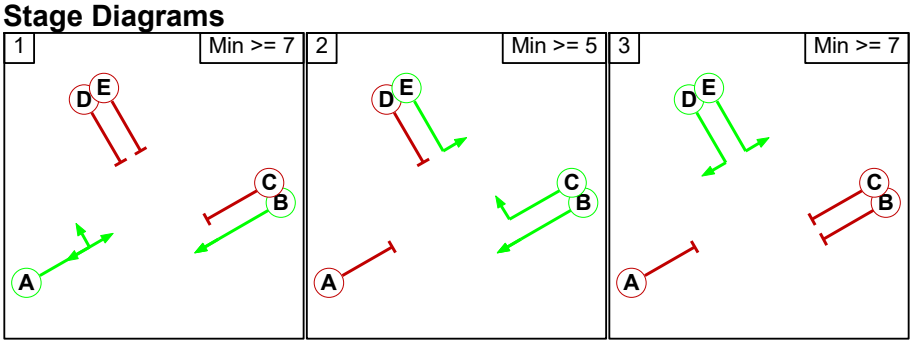
Intergreens

Terminating Phase	Starting Phase A	B	C	D	E
A		-	6	8	8
B	-		-	8	-
C	5	-		8	-
D	5	5	5		-
E	5	-	-	-	

Stage Data

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

Stage Diagrams



Phase Delays

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

Lane Input Data

Junction: Chart Road / Loudon Way												
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 (Chart Rd (W))	U	A	2	3	11.1	Geom	-	3.00	0.00	Y	Arm 5 Left	16.50
1/2 (Chart Rd (W))	U	A	2	3	98.3	User	1995	-	-	-	-	-
2/1 (Loudon Rd)	U	E	2	3	60.0	User	1890	-	-	-	-	-
2/2 (Loudon Rd)	U	D	2	3	8.0	User	2012	-	-	-	-	-
3/1 (Chart Rd (E))	U	B	2	3	73.9	User	1859	-	-	-	-	-
3/2 (Chart Rd (E))	U	B	2	3	14.6	User	1859	-	-	-	-	-
3/3 (Chart Rd (E))	U	C	2	3	14.6	User	1846	-	-	-	-	-

Junction: Chart Road / Loudon Way		
Lane	Custom Occupancy per Flow Group (PCU)	
	AM Peak Hour	PM Peak Hour
1/1 (Chart Rd (W) Lane 1)	2.1	2.2

Give-Way Lane Input Data

Junction: Chart Road / Loudon Way
There are no Opposed Lanes in this Junction

Scenario 1: '2023 Observed, AM'
(FG5: '2023 Observed, AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

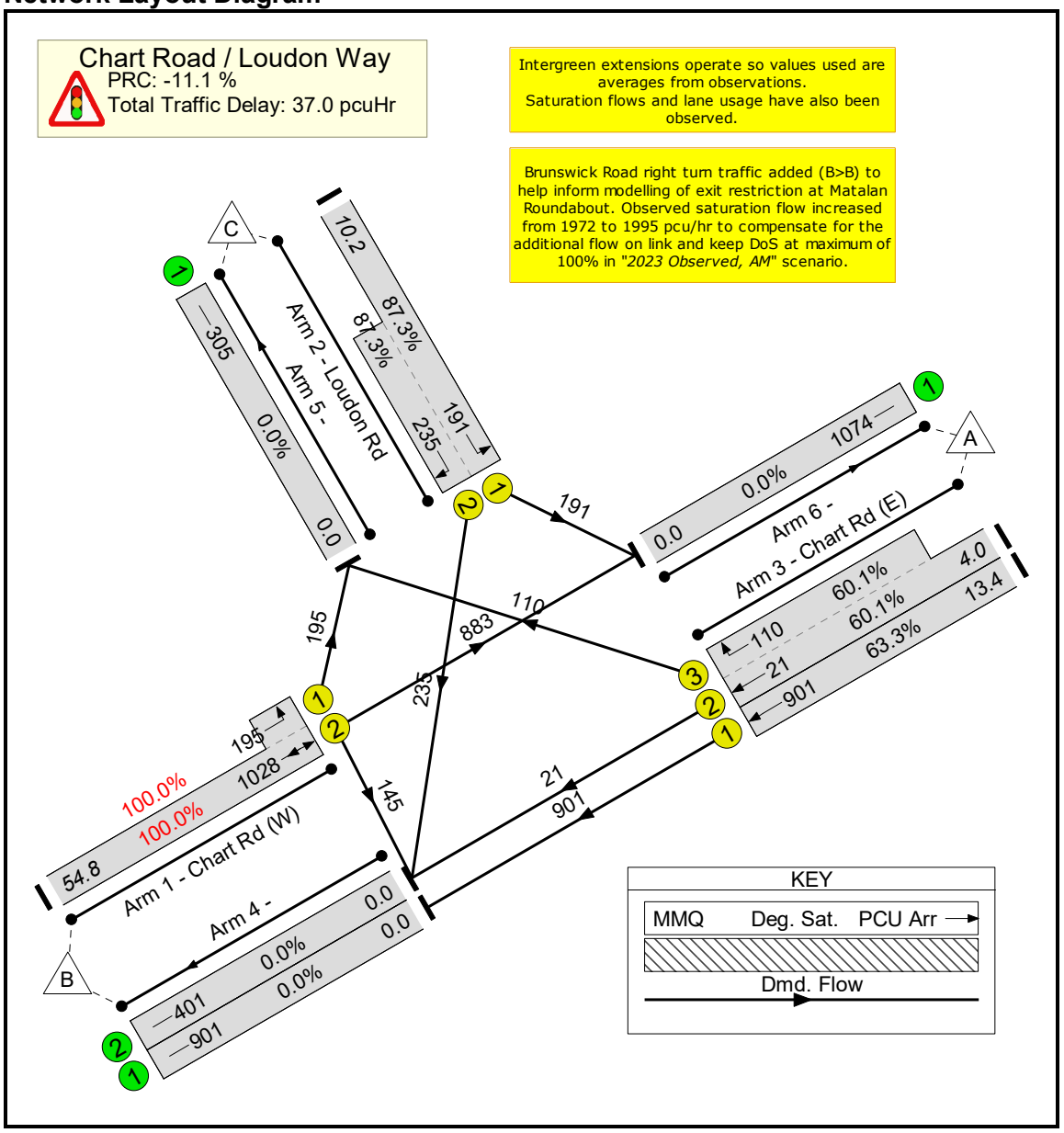
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	922	110	1032
	B	883	145	195	1223
	C	191	235	0	426
	Tot.	1074	1302	305	2681

Stage Timings

Stage	1	2	3
Duration	68	8	14
Change Point	0	73	89

Network Layout Diagram



Link Results

Item	Lane Description	Full Phase	Total Green (s)	Start Green (s)	End Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: A28 Chart Road / Loudon Way Junction	-	-	-	-	-	-	-	-	**100.0%**	-	-
Chart Road / Loudon Way	-	-	-	-	-	-	-	-	**100.0%**	-	-
1/2+1/1	Chart Rd (W) U-Turn Left Ahead	A	68	5	73	1223	1995:1755	1028+195	100.0 : 100.0%	72.3	54.8
2/1+2/2	Loudon Rd Right Left	E D	30:14	81:97	0	426	1890:2012	219+269	87.3 : 87.3%	66.7	10.2
3/1	Chart Rd (E) Ahead	B	84	5	89	901	1859	1424	63.3%	9.3	13.4
3/2+3/3	Chart Rd (E) Ahead Right	B C	84:10	5:79	89	131	1859:1846	35+183	60.1 : 60.1%	61.1	4.0

C1 PRC for Signalled Lanes (%): -11.1 Total Delay for Signalled Lanes (pcuHr): 37.02 Cycle Time (s): 111
PRC Over All Lanes (%): -11.1 Total Delay Over All Lanes(pcuHr): 37.02

Scenario 2: '2023 Observed, PM'
(FG6: '2023 Observed, PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

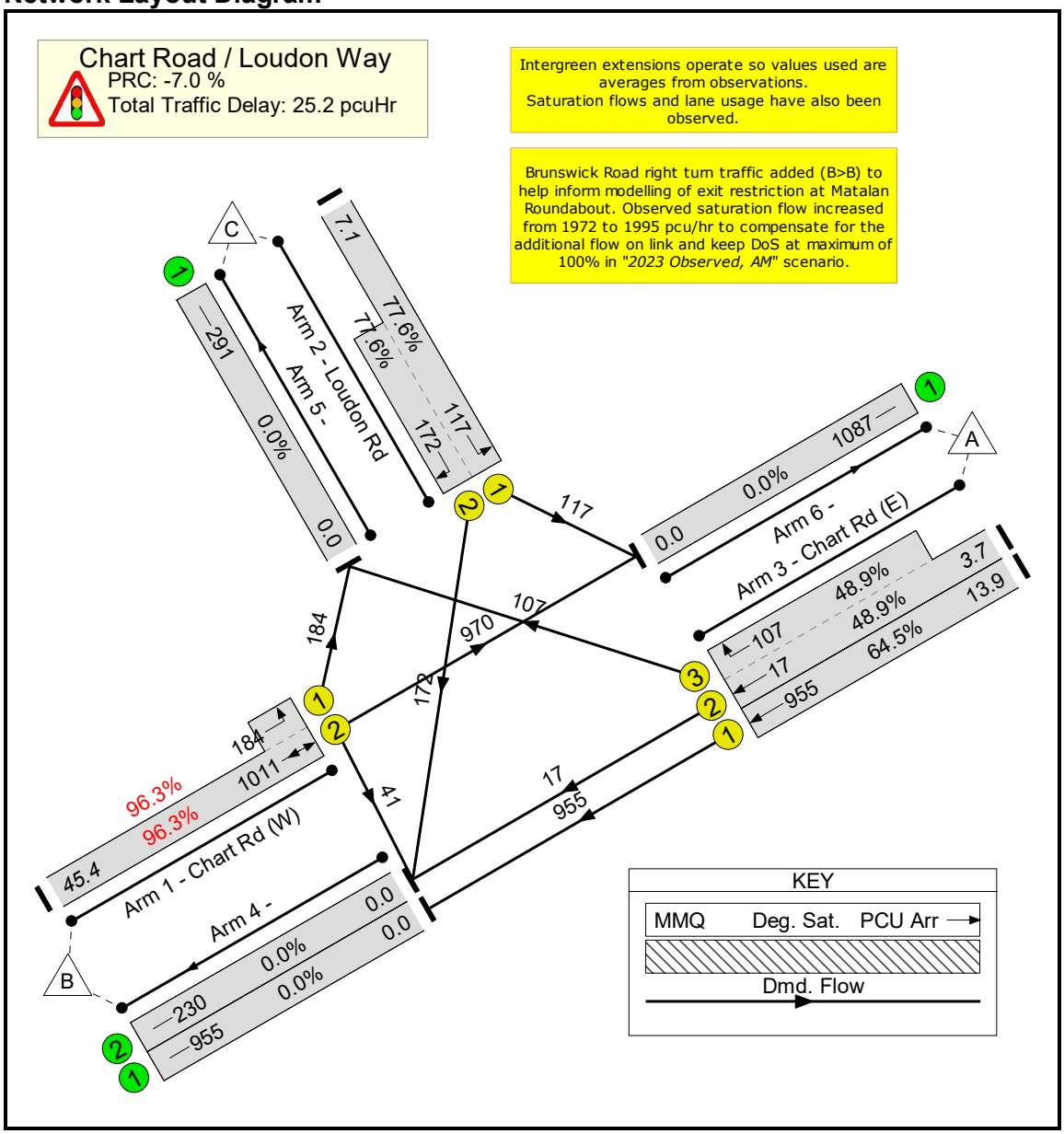
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	972	107	1079
	B	970	41	184	1195
	C	117	172	0	289
	Tot.	1087	1185	291	2563

Stage Timings

Stage	1	2	3
Duration	74	11	12
Change Point	0	79	98

Network Layout Diagram



Link Results

Item	Lane Description	Full Phase	Total Green (s)	Start Green (s)	End Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: A28 Chart Road / Loudon Way Junction	-	-	-	-	-	-	-	-	**96.3%**	-	-
Chart Road / Loudon Way	-	-	-	-	-	-	-	-	**96.3%**	-	-
1/2+1/1	Chart Rd (W) U-Turn Left Ahead	A	74	5	79	1195	1972:1755	1050+191	96.3 : 96.3%	47.8	45.4
2/1+2/2	Loudon Rd Right Left	E D	31:12	87:106	0	289	1890:2012	151+222	77.6 : 77.6%	64.7	7.1
3/1	Chart Rd (E) Ahead	B	93	5	98	955	1859	1481	64.5%	8.4	13.9
3/2+3/3	Chart Rd (E) Ahead Right	B C	93:13	5:85	98	124	1859:1846	35+219	48.9 : 48.9%	56.1	3.7

C1 PRC for Signalled Lanes (%): -7.0 Total Delay for Signalled Lanes (pcuHr): 25.23 Cycle Time (s): 118
PRC Over All Lanes (%): -7.0 Total Delay Over All Lanes(pcuHr): 25.23

Scenario 4: '2023 Obs + Cttd, AM'
(FG13: '2023 Obs + Committed, AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

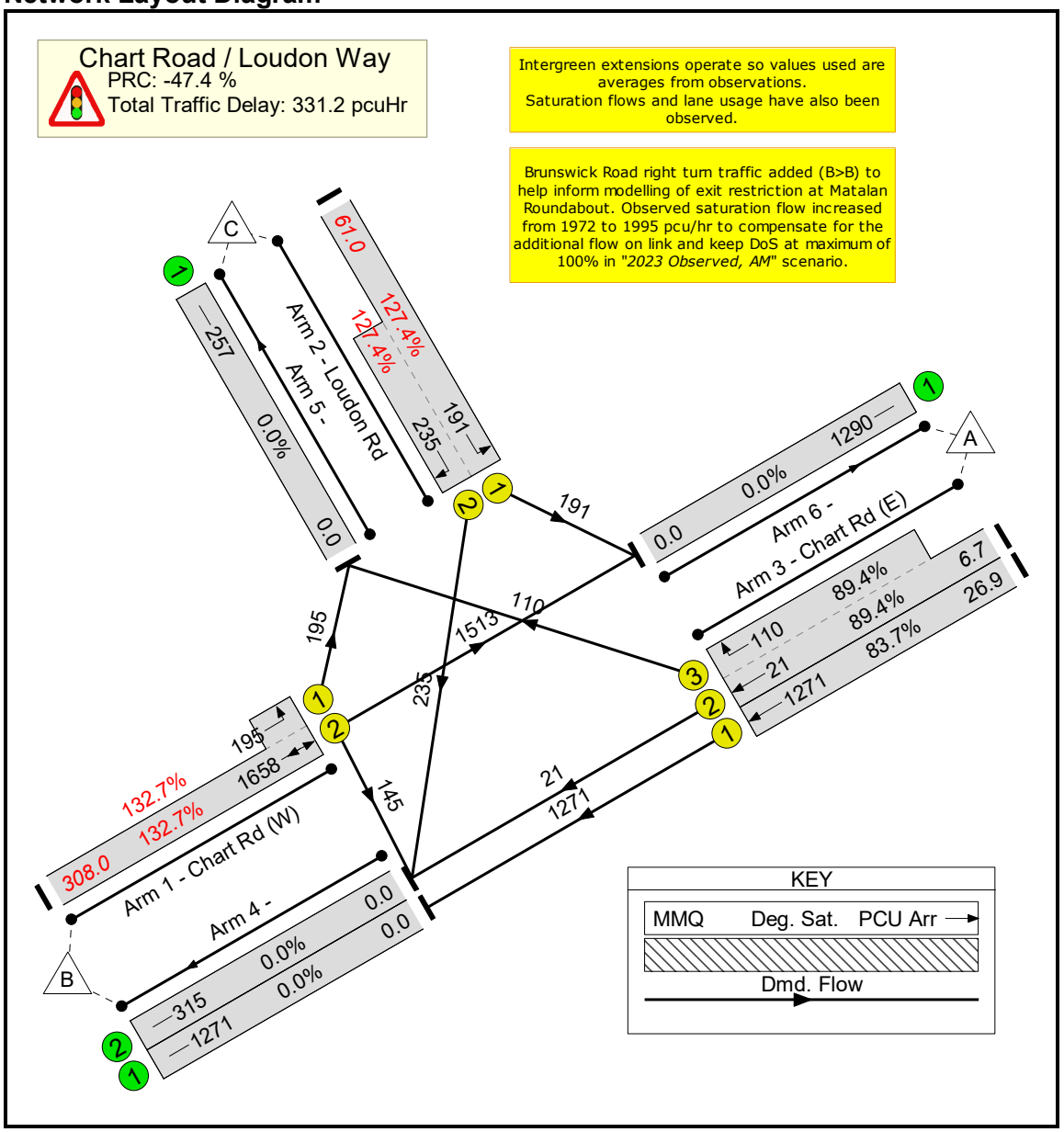
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	1292	110	1402
	B	1513	145	195	1853
	C	191	235	0	426
	Tot.	1704	1672	305	3681

Stage Timings

Stage	1	2	3
Duration	84	5	10
Change Point	0	89	102

Network Layout Diagram



Link Results

Item	Lane Description	Full Phase	Total Green (s)	Start Green (s)	End Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: A28 Chart Road / Loudon Way Junction	-	-	-	-	-	-	-	-	**132.7%**	-	-
Chart Road / Loudon Way	-	-	-	-	-	-	-	-	**132.7%**	-	-
1/2+1/1	Chart Rd (W) U-Turn Left Ahead	A	84	5	89	1853	1995:1755	1250+147	132.7 : 132.7%	511.9	308.0
2/1+2/2	Loudon Rd Right Left	E D	23:10	97:110	0	426	1890:2012	150+184	127.4 : 127.4%	491.8	61.0
3/1	Chart Rd (E) Ahead	B	97	5	102	1271	1859	1518	83.7%	13.5	26.9
3/2+3/3	Chart Rd (E) Ahead Right	B C	97:7	5:95	102	131	1859:1846	23+123	89.4 : 89.4%	130.3	6.7

C1 PRC for Signalled Lanes (%): -47.4 Total Delay for Signalled Lanes (pcuHr): 331.18 Cycle Time (s): 120
PRC Over All Lanes (%): -47.4 Total Delay Over All Lanes(pcuHr): 331.18

Scenario 5: '2023 Obs + Cttd, PM'
(FG14: '2023 Obs + Committed, PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

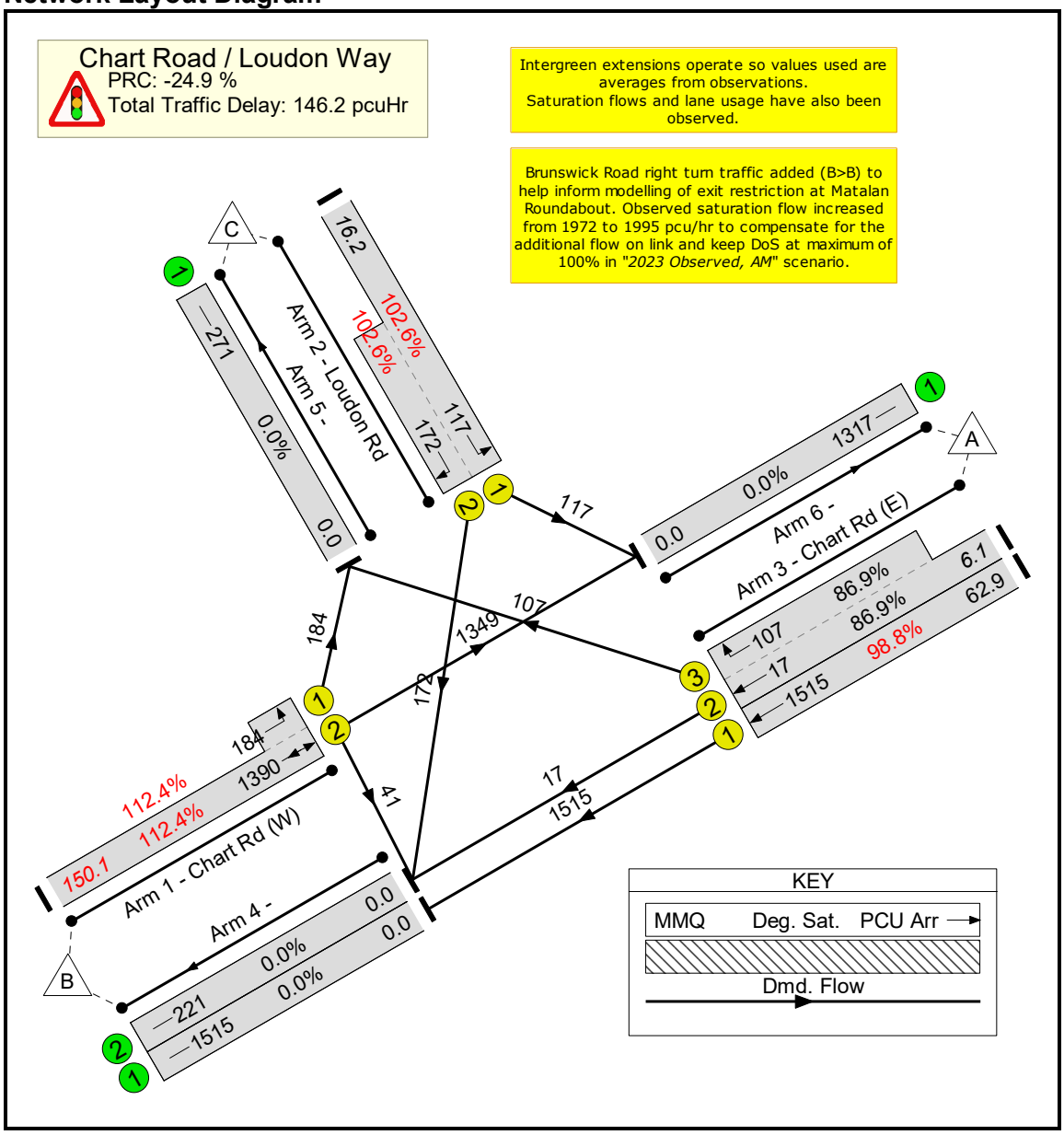
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	1532	107	1639
	B	1349	41	184	1574
	C	117	172	0	289
	Tot.	1466	1745	291	3502

Stage Timings

Stage	1	2	3
Duration	85	5	9
Change Point	0	90	103

Network Layout Diagram



Link Results

Item	Lane Description	Full Phase	Total Green (s)	Start Green (s)	End Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: A28 Chart Road / Loudon Way Junction	-	-	-	-	-	-	-	-	**112.4%**	-	-
Chart Road / Loudon Way	-	-	-	-	-	-	-	-	**112.4%**	-	-
1/2+1/1	Chart Rd (W) U-Turn Left Ahead	A	85	5	90	1574	1972:1755	1236+164	112.4 : 112.4%	246.5	150.1
2/1+2/2	Loudon Rd Right Left	E D	22:9	98:111	0	289	1890:2012	114+168	102.6 : 102.6%	182.5	16.2
3/1	Chart Rd (E) Ahead	B	98	5	103	1515	1859	1534	98.8%	46.4	62.9
3/2+3/3	Chart Rd (E) Ahead Right	B C	98:7	5:96	103	124	1859:1846	20+123	86.9 : 86.9%	123.7	6.1

C1 PRC for Signalled Lanes (%): -24.9 Total Delay for Signalled Lanes (pcuHr): 146.20 Cycle Time (s): 120
PRC Over All Lanes (%): -24.9 Total Delay Over All Lanes(pcuHr): 146.20

Scenario 6: '2023 Obs + Cttd + Dev, AM'
(FG15: '2023 Obs + Committed + Dev, AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

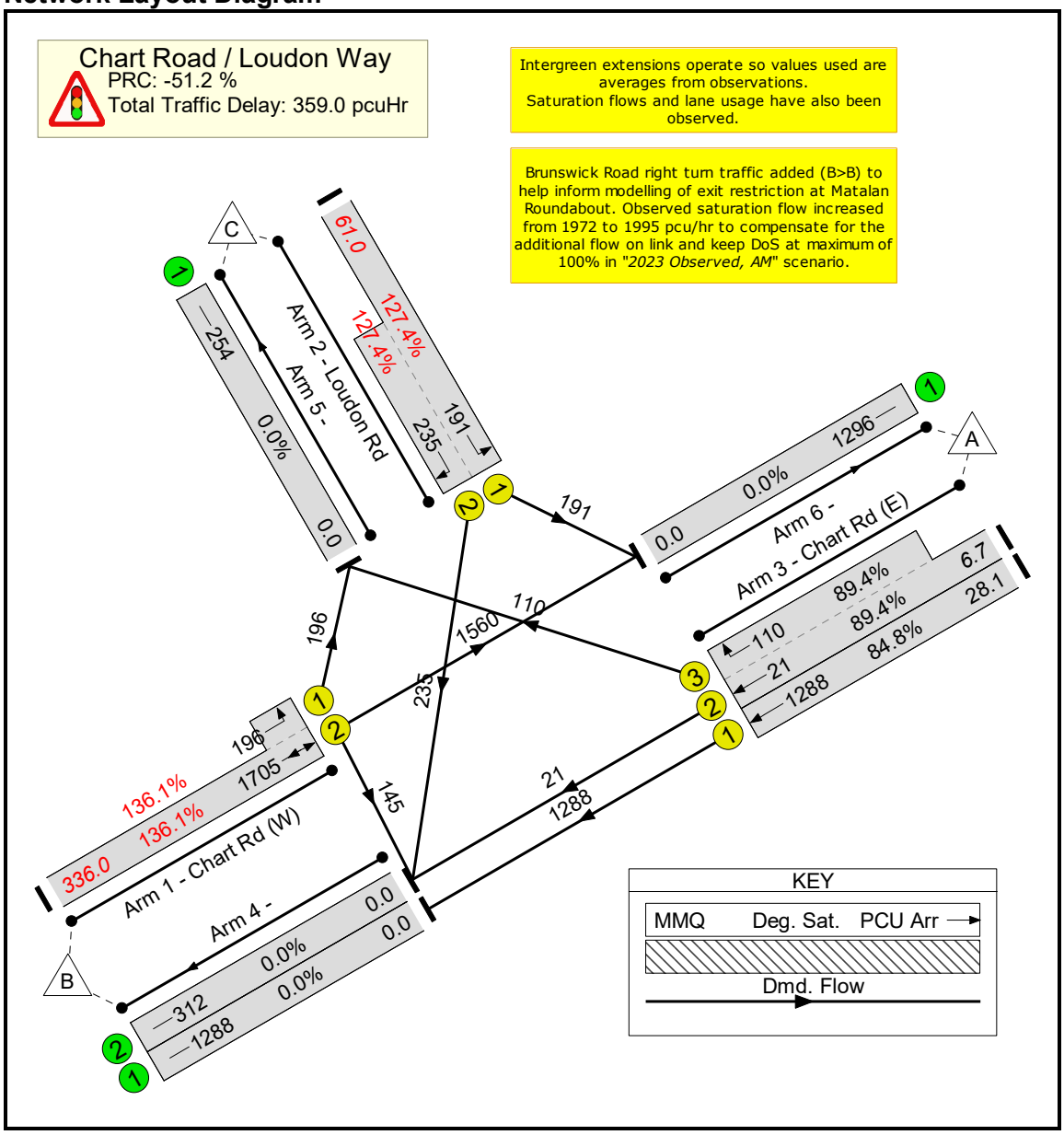
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	1309	110	1419
	B	1560	145	196	1901
	C	191	235	0	426
	Tot.	1751	1689	306	3746

Stage Timings

Stage	1	2	3
Duration	84	5	10
Change Point	0	89	102

Network Layout Diagram



Link Results

Item	Lane Description	Full Phase	Total Green (s)	Start Green (s)	End Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: A28 Chart Road / Loudon Way Junction	-	-	-	-	-	-	-	-	**136.1%**	-	-
Chart Road / Loudon Way	-	-	-	-	-	-	-	-	**136.1%**	-	-
1/2+1/1	Chart Rd (W) U-Turn Left Ahead	A	84	5	89	1901	1995:1755	1253+144	136.1 : 136.1%	551.0	336.0
2/1+2/2	Loudon Rd Right Left	E D	23:10	97:110	0	426	1890:2012	150+184	127.4 : 127.4%	491.8	61.0
3/1	Chart Rd (E) Ahead	B	97	5	102	1288	1859	1518	84.8%	14.2	28.1
3/2+3/3	Chart Rd (E) Ahead Right	B C	97:7	5:95	102	131	1859:1846	23+123	89.4 : 89.4%	130.3	6.7

C1 PRC for Signalled Lanes (%): -51.2 Total Delay for Signalled Lanes (pcuHr): 358.98 Cycle Time (s): 120
PRC Over All Lanes (%): -51.2 Total Delay Over All Lanes(pcuHr): 358.98

Scenario 7: '2023 Obs + Cttd + Dev, PM'
(FG16: '2023 Obs + Committed + Dev, PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

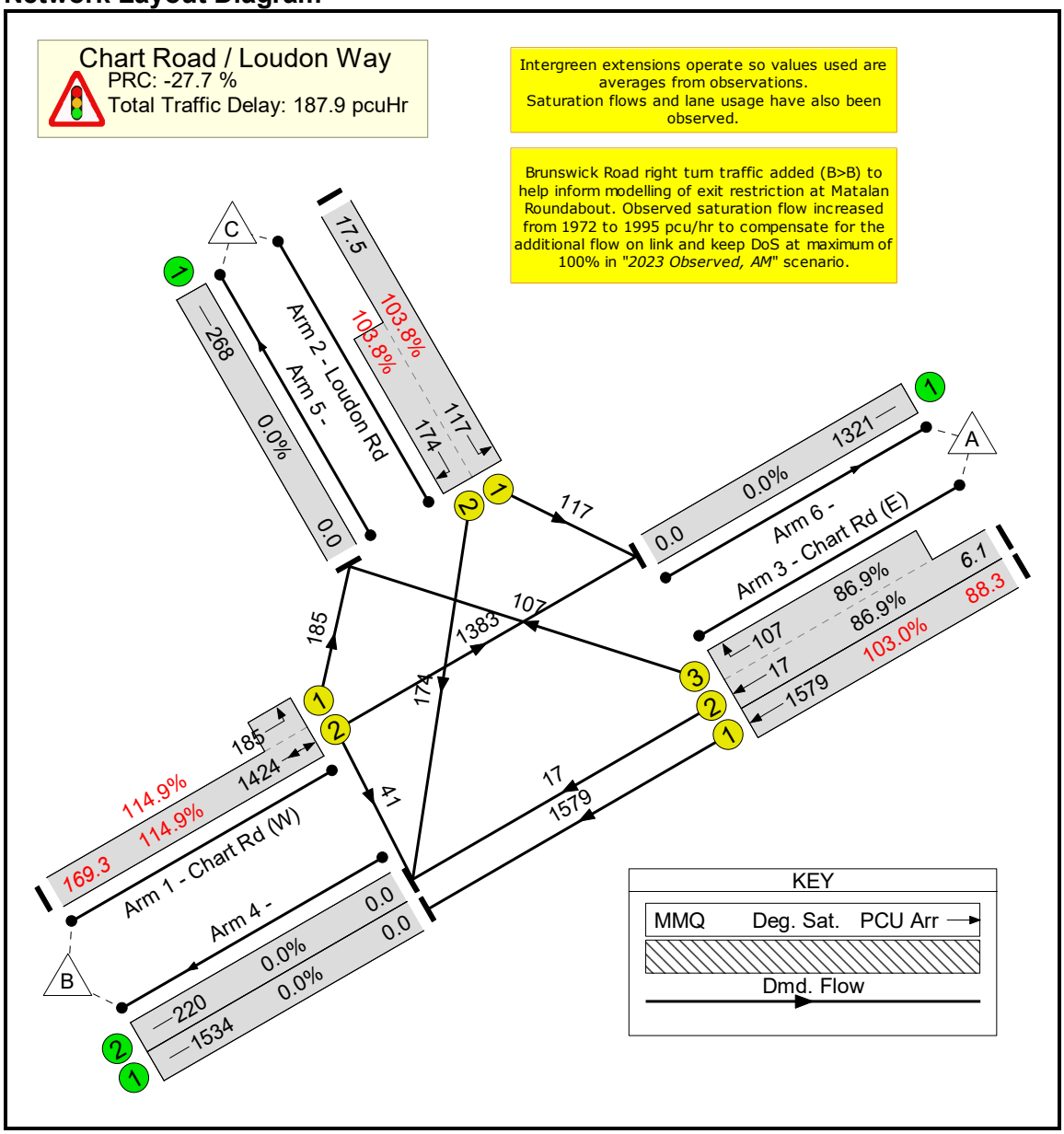
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	1596	107	1703
	B	1383	41	185	1609
	C	117	174	0	291
	Tot.	1500	1811	292	3603

Stage Timings

Stage	1	2	3
Duration	85	5	9
Change Point	0	90	103

Network Layout Diagram



Link Results

Item	Lane Description	Full Phase	Total Green (s)	Start Green (s)	End Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: A28 Chart Road / Loudon Way Junction	-	-	-	-	-	-	-	-	**114.9%**	-	-
Chart Road / Loudon Way	-	-	-	-	-	-	-	-	**114.9%**	-	-
1/2+1/1	Chart Rd (W) U-Turn Left Ahead	A	85	5	90	1609	1972:1755	1239+161	114.9 : 114.9%	283.3	169.3
2/1+2/2	Loudon Rd Right Left	E D	22:9	98:111	0	291	1890:2012	113+168	103.8 : 103.8%	196.4	17.5
3/1	Chart Rd (E) Ahead	B	98	5	103	1579	1859	1534	103.0%	93.8	88.3
3/2+3/3	Chart Rd (E) Ahead Right	B C	98:7	5:96	103	124	1859:1846	20+123	86.9 : 86.9%	123.7	6.1

C1 PRC for Signalled Lanes (%): -27.7 Total Delay for Signalled Lanes (pcuHr): 187.89 Cycle Time (s): 120
PRC Over All Lanes (%): -27.7 Total Delay Over All Lanes(pcuHr): 187.89

Scenario 8: '2023 Obs + Cttd + Dev (Sens.Test), AM'
(FG17: '2023 Obs + Committed + Dev (Sens.Test), AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

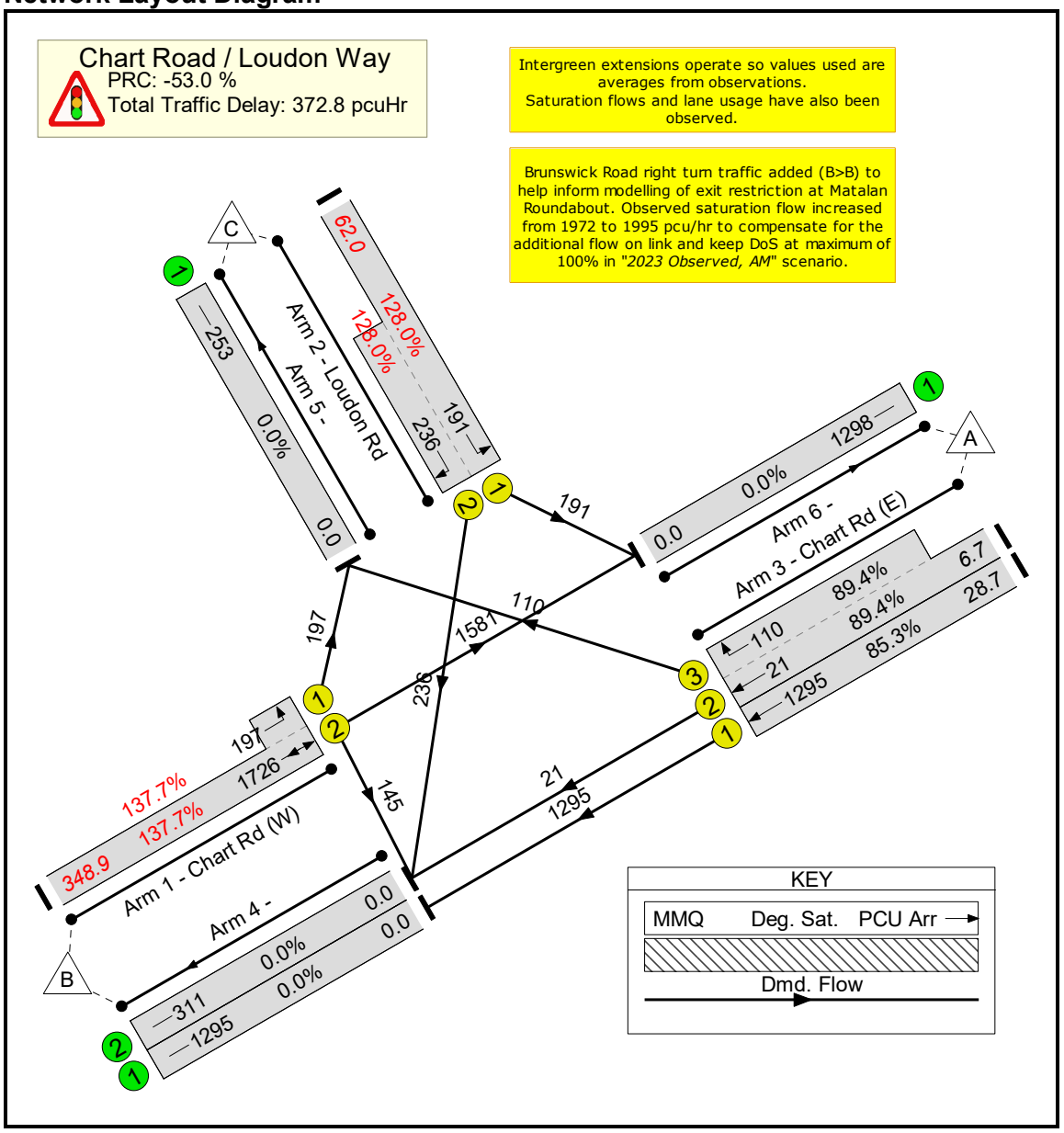
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	1316	110	1426
	B	1581	145	197	1923
	C	191	236	0	427
	Tot.	1772	1697	307	3776

Stage Timings

Stage	1	2	3
Duration	84	5	10
Change Point	0	89	102

Network Layout Diagram



Link Results

Item	Lane Description	Full Phase	Total Green (s)	Start Green (s)	End Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: A28 Chart Road / Loudon Way Junction	-	-	-	-	-	-	-	-	**137.7%**	-	-
Chart Road / Loudon Way	-	-	-	-	-	-	-	-	**137.7%**	-	-
1/2+1/1	Chart Rd (W) U-Turn Left Ahead	A	84	5	89	1923	1995:1755	1254+143	137.7 : 137.7%	568.5	348.9
2/1+2/2	Loudon Rd Right Left	E D	23:10	97:110	0	427	1890:2012	149+184	128.0 : 128.0%	498.4	62.0
3/1	Chart Rd (E) Ahead	B	97	5	102	1295	1859	1518	85.3%	14.5	28.7
3/2+3/3	Chart Rd (E) Ahead Right	B C	97:7	5:95	102	131	1859:1846	23+123	89.4 : 89.4%	130.3	6.7

C1 PRC for Signalled Lanes (%): -53.0 Total Delay for Signalled Lanes (pcuHr): 372.77 Cycle Time (s): 120
PRC Over All Lanes (%): -53.0 Total Delay Over All Lanes(pcuHr): 372.77

Scenario 9: '2023 Obs + Cttd + Dev (Sens.Test), PM'
(FG18: '2023 Obs + Committed + Dev (Sens.Test), PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

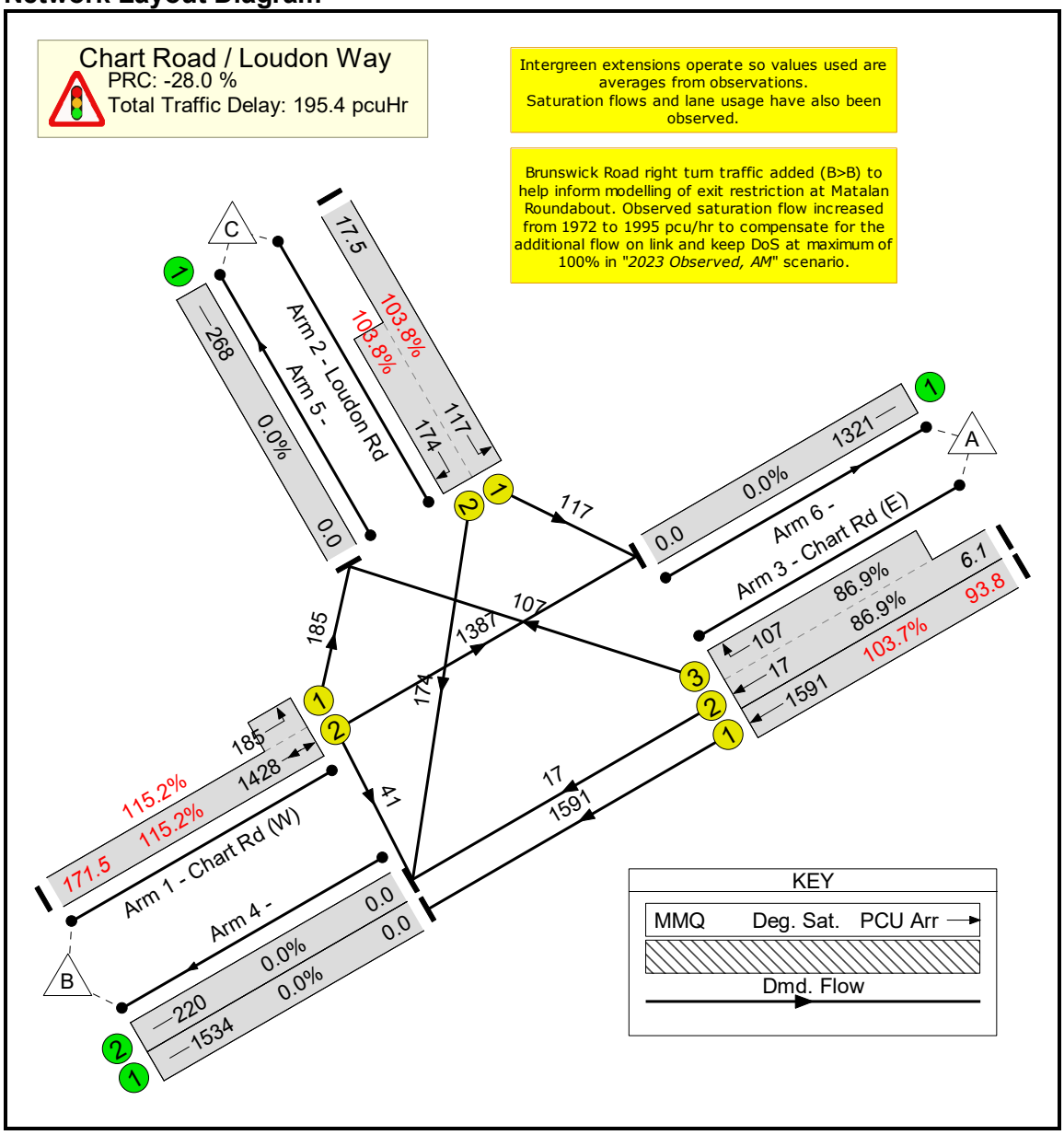
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	1608	107	1715
	B	1387	41	185	1613
	C	117	174	0	291
	Tot.	1504	1823	292	3619

Stage Timings

Stage	1	2	3
Duration	85	5	9
Change Point	0	90	103

Network Layout Diagram



Link Results

Item	Lane Description	Full Phase	Total Green (s)	Start Green (s)	End Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: A28 Chart Road / Loudon Way Junction	-	-	-	-	-	-	-	-	**115.2%**	-	-
Chart Road / Loudon Way	-	-	-	-	-	-	-	-	**115.2%**	-	-
1/2+1/1	Chart Rd (W) U-Turn Left Ahead	A	85	5	90	1613	1972:1755	1240+161	115.2 : 115.2%	287.4	171.5
2/1+2/2	Loudon Rd Right Left	E D	22:9	98:111	0	291	1890:2012	113+168	103.8 : 103.8%	196.4	17.5
3/1	Chart Rd (E) Ahead	B	98	5	103	1591	1859	1534	103.7%	105.1	93.8
3/2+3/3	Chart Rd (E) Ahead Right	B C	98:7	5:96	103	124	1859:1846	20+123	86.9 : 86.9%	123.7	6.1

C1 PRC for Signalled Lanes (%): -28.0 Total Delay for Signalled Lanes (pcuHr): 195.38 Cycle Time (s): 120
PRC Over All Lanes (%): -28.0 Total Delay Over All Lanes(pcuHr): 195.38

Scenario 11: '2032 Base + Cttd, AM'
(FG22: '2032 Base + Committed, AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

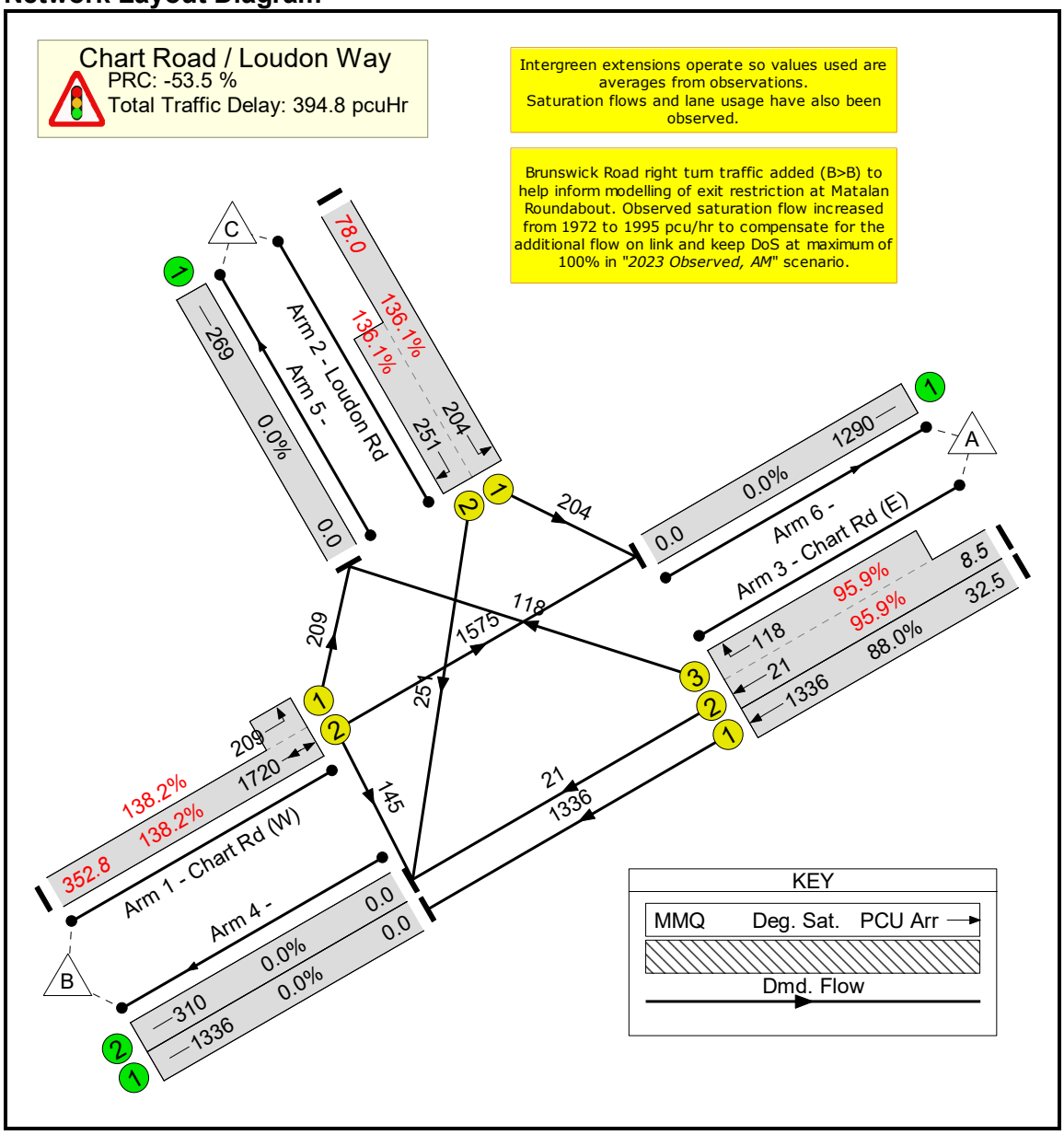
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	1357	118	1475
	B	1575	145	209	1929
	C	204	251	0	455
	Tot.	1779	1753	327	3859

Stage Timings

Stage	1	2	3
Duration	84	5	10
Change Point	0	89	102

Network Layout Diagram



Link Results

Item	Lane Description	Full Phase	Total Green (s)	Start Green (s)	End Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: A28 Chart Road / Loudon Way Junction	-	-	-	-	-	-	-	-	**138.2%**	-	-
Chart Road / Loudon Way	-	-	-	-	-	-	-	-	**138.2%**	-	-
1/2+1/1	Chart Rd (W) U-Turn Left Ahead	A	84	5	89	1929	1995:1755	1245+151	138.2 : 138.2%	573.9	352.8
2/1+2/2	Loudon Rd Right Left	E D	23:10	97:110	0	455	1890:2012	150+184	136.1 : 136.1%	590.9	78.0
3/1	Chart Rd (E) Ahead	B	97	5	102	1336	1859	1518	88.0%	16.7	32.5
3/2+3/3	Chart Rd (E) Ahead Right	B C	97:7	5:95	102	139	1859:1846	22+123	95.9 : 95.9%	166.6	8.5

C1 PRC for Signalled Lanes (%): -53.5 Total Delay for Signalled Lanes (pcuHr): 394.81 Cycle Time (s): 120
PRC Over All Lanes (%): -53.5 Total Delay Over All Lanes(pcuHr): 394.81

Scenario 12: '2032 Base + Cttd, PM'
(FG23: '2032 Base + Committed, PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

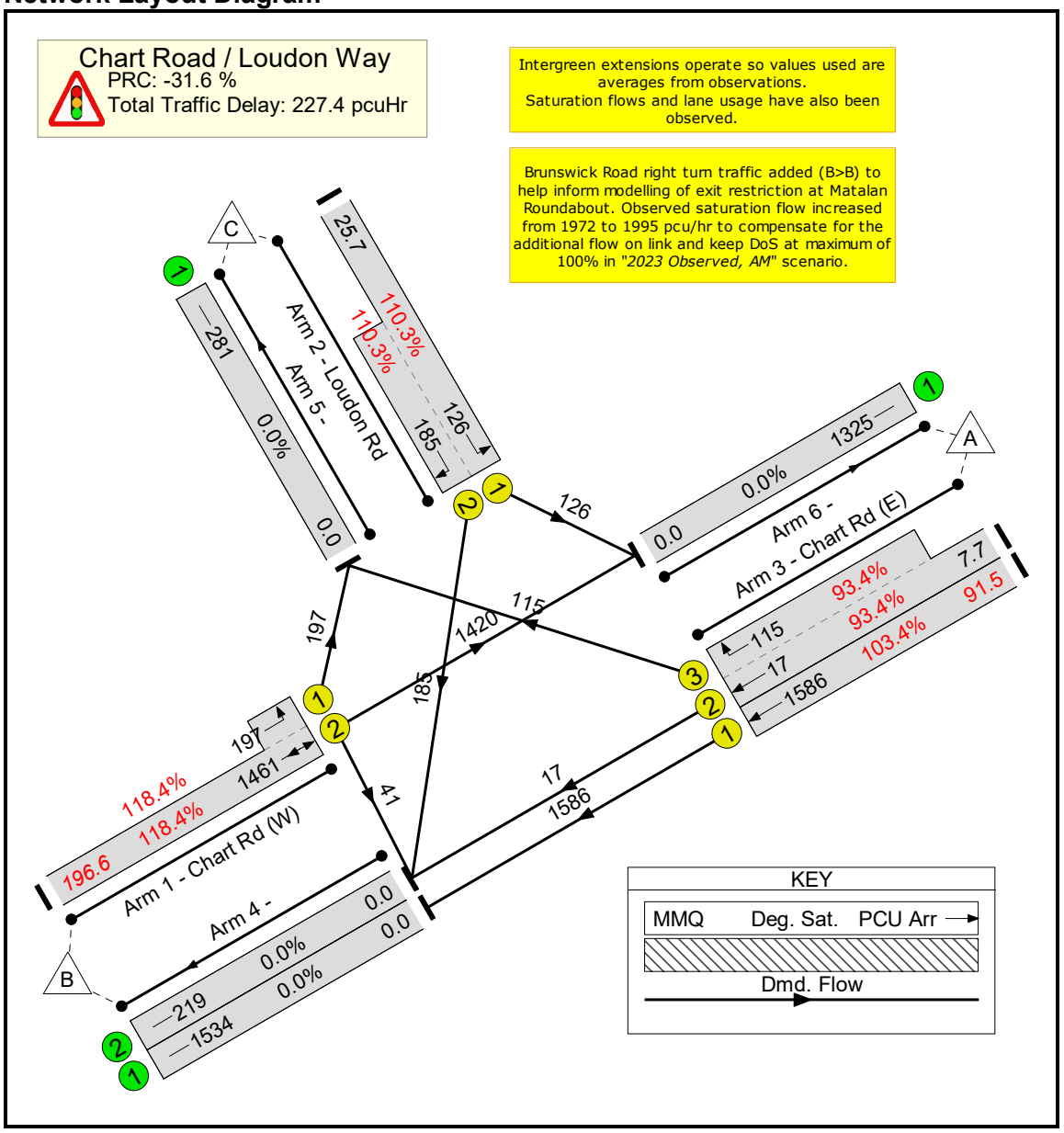
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	1603	115	1718
	B	1420	41	197	1658
	C	126	185	0	311
	Tot.	1546	1829	312	3687

Stage Timings

Stage	1	2	3
Duration	85	5	9
Change Point	0	90	103

Network Layout Diagram



Link Results

Item	Lane Description	Full Phase	Total Green (s)	Start Green (s)	End Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: A28 Chart Road / Loudon Way Junction	-	-	-	-	-	-	-	-	**118.4%**	-	-
Chart Road / Loudon Way	-	-	-	-	-	-	-	-	**118.4%**	-	-
1/2+1/1	Chart Rd (W) U-Turn Left Ahead	A	85	5	90	1658	1972:1755	1234+166	118.4 : 118.4%	333.3	196.6
2/1+2/2	Loudon Rd Right Left	E D	22:9	98:111	0	311	1890:2012	114+168	110.3 : 110.3%	278.2	25.7
3/1	Chart Rd (E) Ahead	B	98	5	103	1586	1859	1534	103.4%	100.3	91.5
3/2+3/3	Chart Rd (E) Ahead Right	B C	98:7	5:96	103	132	1859:1846	18+123	93.4 : 93.4%	154.6	7.7

C1 PRC for Signalled Lanes (%): -31.6 Total Delay for Signalled Lanes (pcuHr): 227.42 Cycle Time (s): 120
PRC Over All Lanes (%): -31.6 Total Delay Over All Lanes(pcuHr): 227.42

Scenario 13: '2032 Base + Cttd + Dev, AM'
(FG24: '2032 Base + Committed + Dev, AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

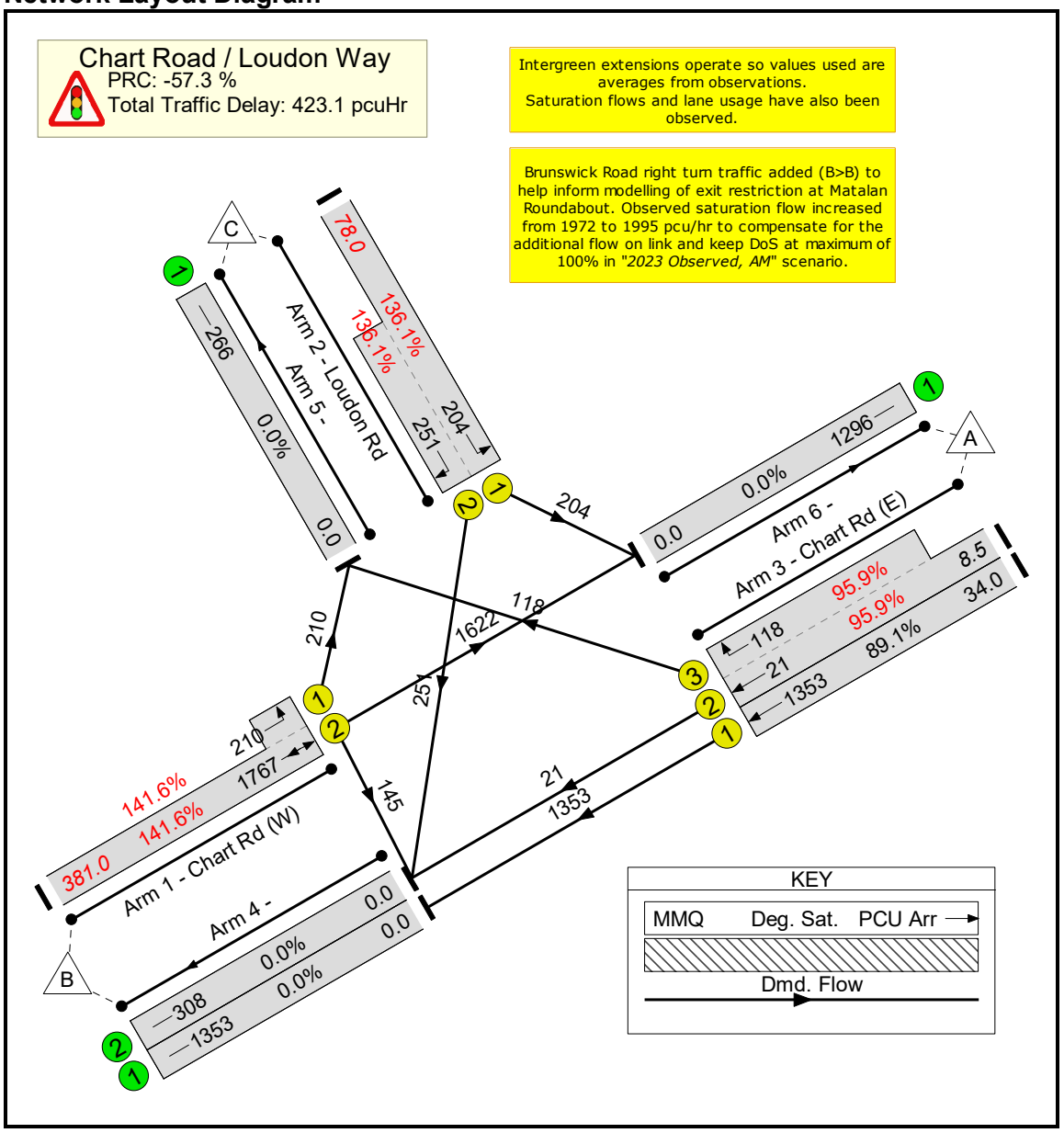
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	1374	118	1492
	B	1622	145	210	1977
	C	204	251	0	455
	Tot.	1826	1770	328	3924

Stage Timings

Stage	1	2	3
Duration	84	5	10
Change Point	0	89	102

Network Layout Diagram



Link Results

Item	Lane Description	Full Phase	Total Green (s)	Start Green (s)	End Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: A28 Chart Road / Loudon Way Junction	-	-	-	-	-	-	-	-	**141.6%**	-	-
Chart Road / Loudon Way	-	-	-	-	-	-	-	-	**141.6%**	-	-
1/2+1/1	Chart Rd (W) U-Turn Left Ahead	A	84	5	89	1977	1995:1755	1248+148	141.6 : 141.6%	610.5	381.0
2/1+2/2	Loudon Rd Right Left	E D	23:10	97:110	0	455	1890:2012	150+184	136.1 : 136.1%	590.9	78.0
3/1	Chart Rd (E) Ahead	B	97	5	102	1353	1859	1518	89.1%	17.8	34.0
3/2+3/3	Chart Rd (E) Ahead Right	B C	97:7	5:95	102	139	1859:1846	22+123	95.9 : 95.9%	166.6	8.5

C1 PRC for Signalled Lanes (%): -57.3 Total Delay for Signalled Lanes (pcuHr): 423.07 Cycle Time (s): 120
PRC Over All Lanes (%): -57.3 Total Delay Over All Lanes(pcuHr): 423.07

Scenario 14: '2032 Base + Cttd + Dev, PM'
(FG25: '2032 Base + Committed + Dev, PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

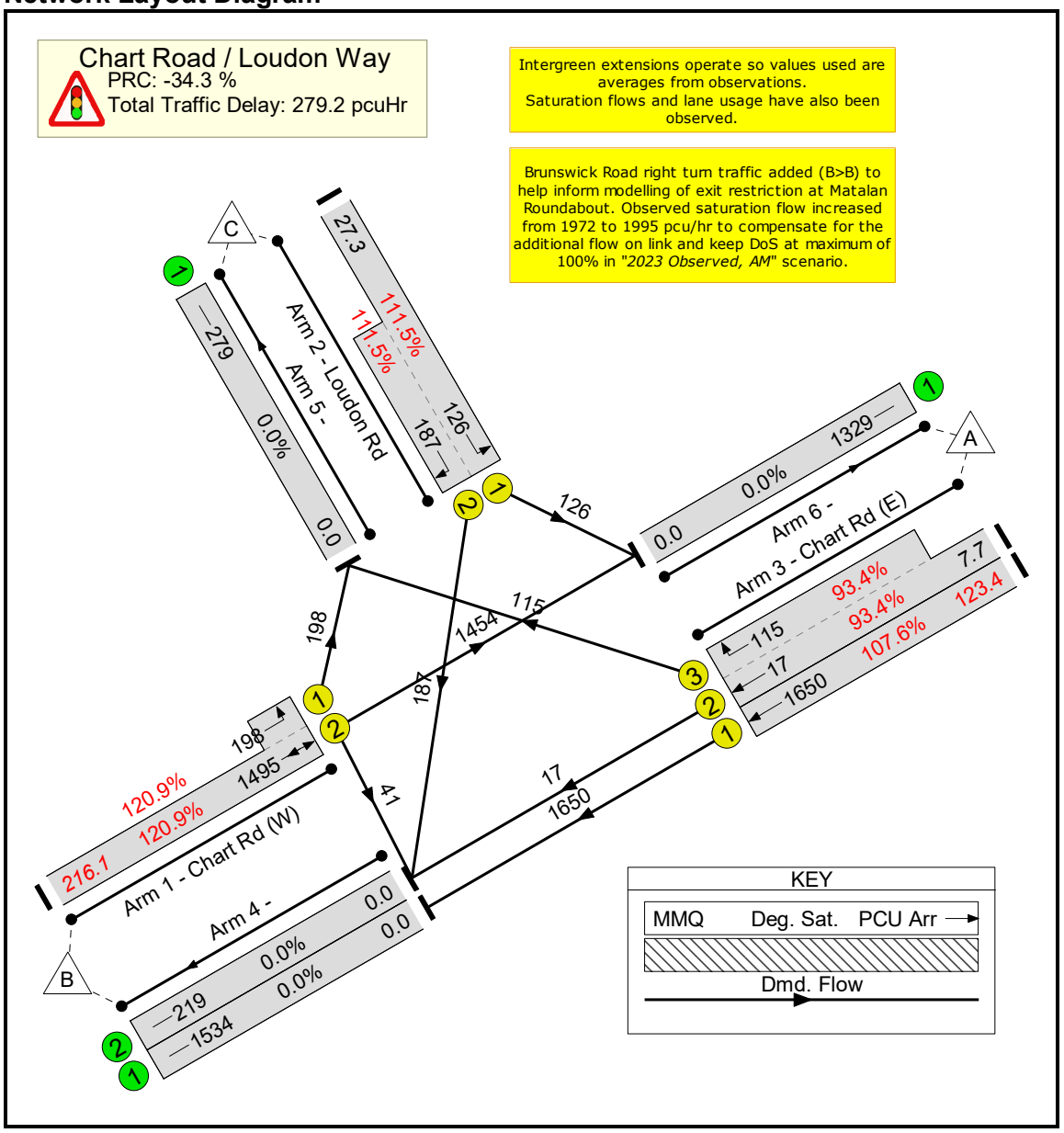
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	1667	115	1782
	B	1454	41	198	1693
	C	126	187	0	313
	Tot.	1580	1895	313	3788

Stage Timings

Stage	1	2	3
Duration	85	5	9
Change Point	0	90	103

Network Layout Diagram



Link Results

Item	Lane Description	Full Phase	Total Green (s)	Start Green (s)	End Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: A28 Chart Road / Loudon Way Junction	-	-	-	-	-	-	-	-	**120.9%**	-	-
Chart Road / Loudon Way	-	-	-	-	-	-	-	-	**120.9%**	-	-
1/2+1/1	Chart Rd (W) U-Turn Left Ahead	A	85	5	90	1693	1972:1755	1236+164	120.9 : 120.9%	367.1	216.1
2/1+2/2	Loudon Rd Right Left	E D	22:9	98:111	0	313	1890:2012	113+168	111.5 : 111.5%	293.9	27.3
3/1	Chart Rd (E) Ahead	B	98	5	103	1650	1859	1534	107.6%	164.3	123.4
3/2+3/3	Chart Rd (E) Ahead Right	B C	98:7	5:96	103	132	1859:1846	18+123	93.4 : 93.4%	154.6	7.7

C1 PRC for Signalled Lanes (%): -34.3 Total Delay for Signalled Lanes (pcuHr): 279.19 Cycle Time (s): 120
PRC Over All Lanes (%): -34.3 Total Delay Over All Lanes(pcuHr): 279.19

Scenario 15: '2032 Base + Cttd + Dev (Sens.Test), AM'
(FG26: '2032 Base + Committed + Dev (Sens.Test), AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

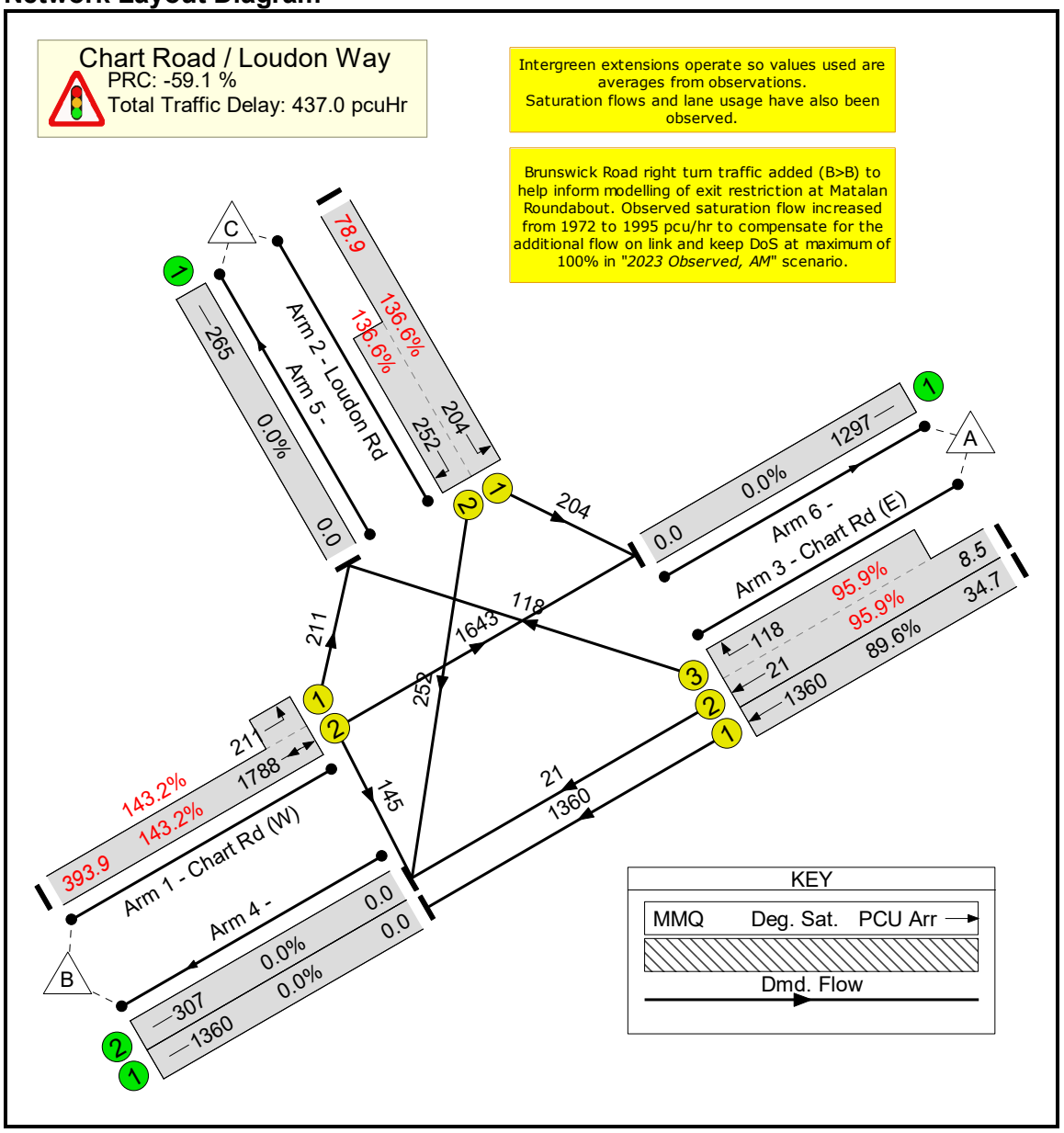
Desired Flow :

Origin \ Destination	A	B	C	Tot.
A	0	1381	118	1499
B	1643	145	211	1999
C	204	252	0	456
Tot.	1847	1778	329	3954

Stage Timings

Stage	1	2	3
Duration	84	5	10
Change Point	0	89	102

Network Layout Diagram



Link Results

Item	Lane Description	Full Phase	Total Green (s)	Start Green (s)	End Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: A28 Chart Road / Loudon Way Junction	-	-	-	-	-	-	-	-	**143.2%**	-	-
Chart Road / Loudon Way	-	-	-	-	-	-	-	-	**143.2%**	-	-
1/2+1/1	Chart Rd (W) U-Turn Left Ahead	A	84	5	89	1999	1995:1755	1249+147	143.2 : 143.2%	626.7	393.9
2/1+2/2	Loudon Rd Right Left	E D	23:10	97:110	0	456	1890:2012	149+184	136.6 : 136.6%	596.8	78.9
3/1	Chart Rd (E) Ahead	B	97	5	102	1360	1859	1518	89.6%	18.3	34.7
3/2+3/3	Chart Rd (E) Ahead Right	B C	97:7	5:95	102	139	1859:1846	22+123	95.9 : 95.9%	166.6	8.5

C1 PRC for Signalled Lanes (%): -59.1 Total Delay for Signalled Lanes (pcuHr): 436.95 Cycle Time (s): 120
PRC Over All Lanes (%): -59.1 Total Delay Over All Lanes(pcuHr): 436.95

Scenario 16: '2032 Base + Cttd + Dev (Sens.Test), PM'
(FG27: '2032 Base + Committed + Dev (Sens.Test), PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

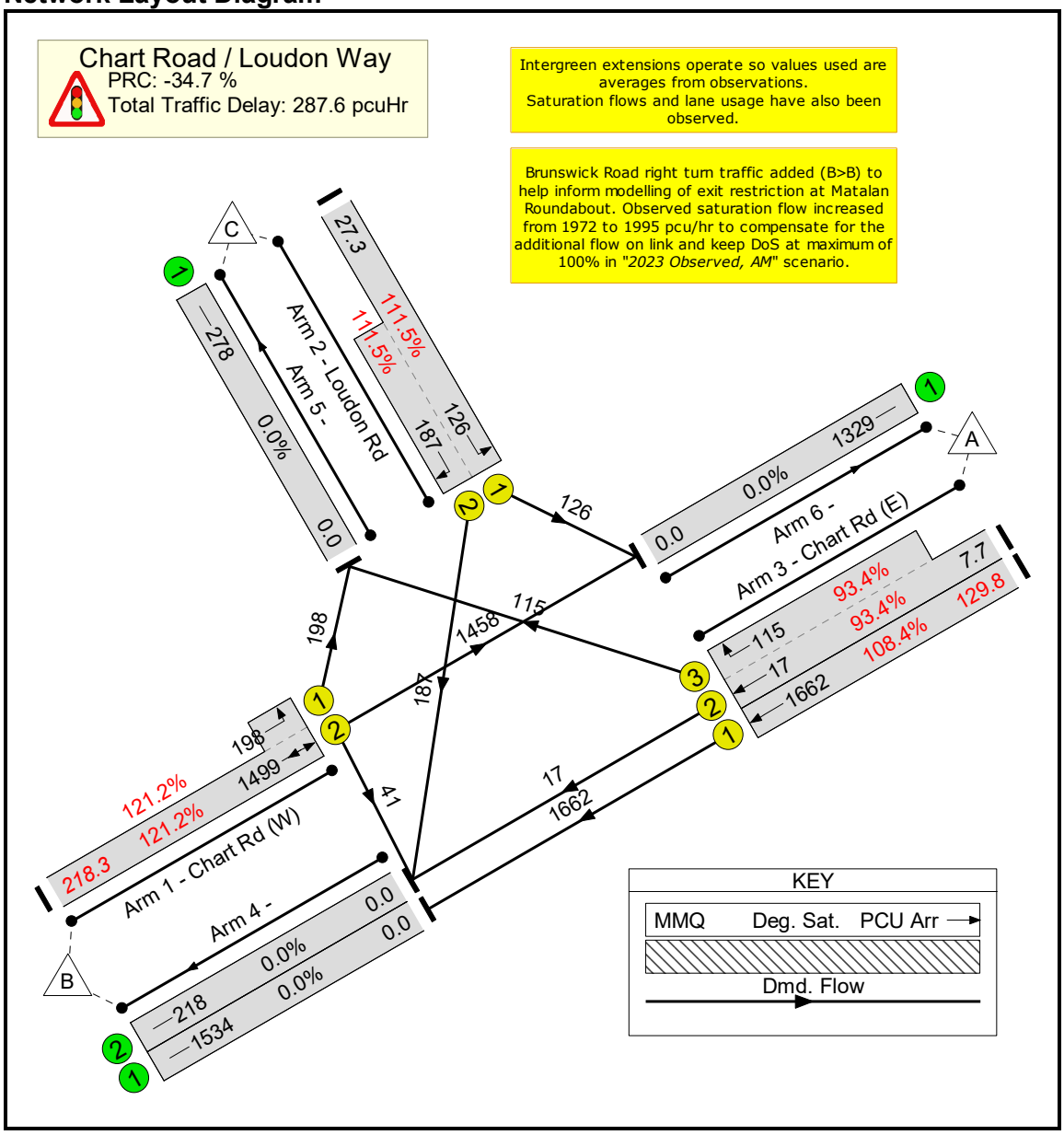
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	1679	115	1794
	B	1458	41	198	1697
	C	126	187	0	313
	Tot.	1584	1907	313	3804

Stage Timings

Stage	1	2	3
Duration	85	5	9
Change Point	0	90	103

Network Layout Diagram



Link Results

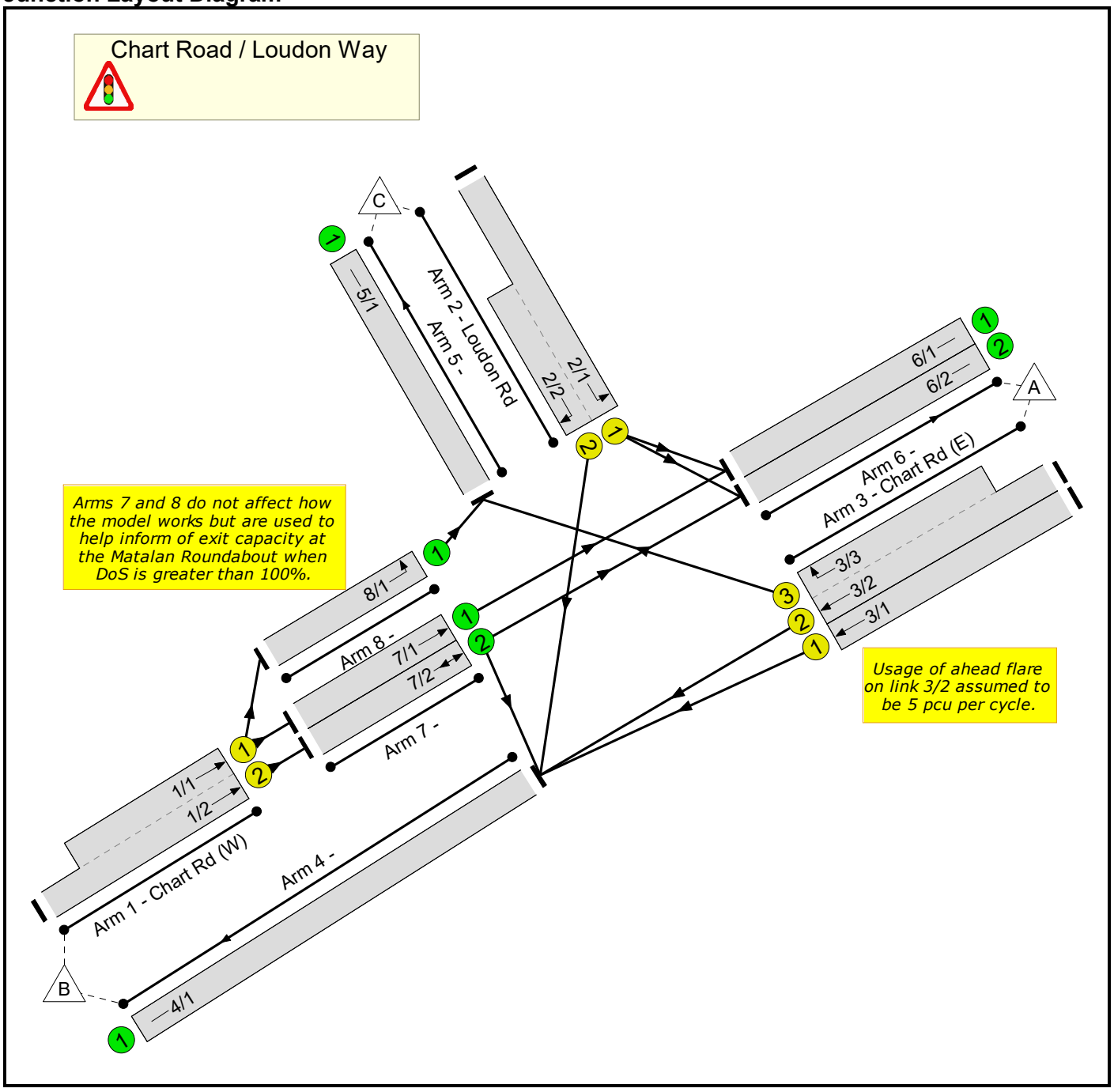
Item	Lane Description	Full Phase	Total Green (s)	Start Green (s)	End Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: A28 Chart Road / Loudon Way Junction	-	-	-	-	-	-	-	-	**121.2%**	-	-
Chart Road / Loudon Way	-	-	-	-	-	-	-	-	**121.2%**	-	-
1/2+1/1	Chart Rd (W) U-Turn Left Ahead	A	85	5	90	1697	1972:1755	1237+163	121.2 : 121.2%	370.9	218.3
2/1+2/2	Loudon Rd Right Left	E D	22:9	98:111	0	313	1890:2012	113+168	111.5 : 111.5%	293.9	27.3
3/1	Chart Rd (E) Ahead	B	98	5	103	1662	1859	1534	108.4%	176.5	129.8
3/2+3/3	Chart Rd (E) Ahead Right	B C	98:7	5:96	103	132	1859:1846	18+123	93.4 : 93.4%	154.6	7.7

C1 PRC for Signalled Lanes (%): -34.7 Total Delay for Signalled Lanes (pcuHr): 287.56 Cycle Time (s): 120
PRC Over All Lanes (%): -34.7 Total Delay Over All Lanes(pcuHr): 287.56

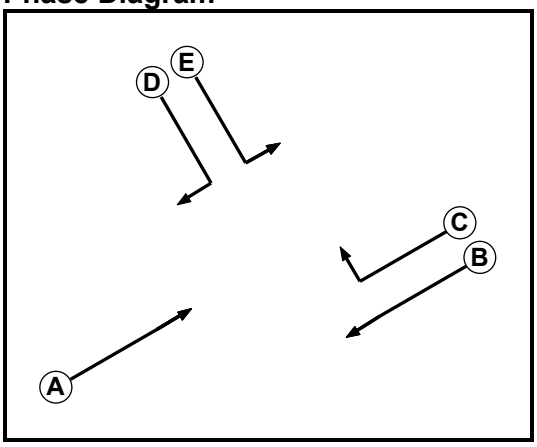
User and Project Details

Project:	**Possingham Farm, Ashford**
Title:	**A28 Chart Road / Loudon Way Junction**
Design Layout Ref:	Proposed Junction Layout
Model Assumptions:	Intergreens are observed averages
Flow Details:	Observed flows from surveys of Tuesday, 28th March 2023
File name:	A28_Loudon (Proposed) v3.0.lsg3x
Author:	David Noyce
Company:	Vectos / SLR
Address:	Summit House, 12 Red Lion Square, London WC1R 4QH

Junction Layout Diagram



Phase Diagram



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

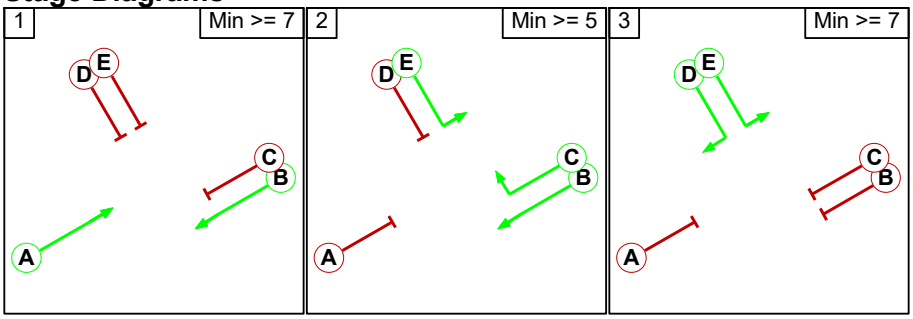
Intergreens

Terminating Phase	Starting Phase A	B	C	D	E
A		-	6	8	8
B	-		-	8	-
C	5	-		8	-
D	5	5	5		-
E	5	-	-	-	

Stage Data

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

Stage Diagrams



Phase Delays

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

Lane Input Data

Junction: Chart Road / Loudon Way												
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 (Chart Rd (W))	U	A	2	3	11.1	Geom	-	3.00	0.00	Y	Arm 7 Ahead	Inf
											Arm 8 Ahead	16.50
1/2 (Chart Rd (W))	U	A	2	3	98.3	User	1995	-	-	-	-	-
2/1 (Loudon Rd)	U	E	2	3	60.0	User	1890	-	-	-	-	-
2/2 (Loudon Rd)	U	D	2	3	8.0	User	2012	-	-	-	-	-
3/1 (Chart Rd (E))	U	B	2	3	73.9	User	1859	-	-	-	-	-
3/2 (Chart Rd (E))	U	B	2	3	15.0	User	1859	-	-	-	-	-
3/3 (Chart Rd (E))	U	C	2	3	15.0	User	1846	-	-	-	-	-

Give-Way Lane Input Data

Junction: Chart Road / Loudon Way
There are no Opposed Lanes in this Junction

Scenario 1: '2023 Obs + Cttd + Dev, AM'
(FG15: '2023 Obs + Committed + Dev, AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

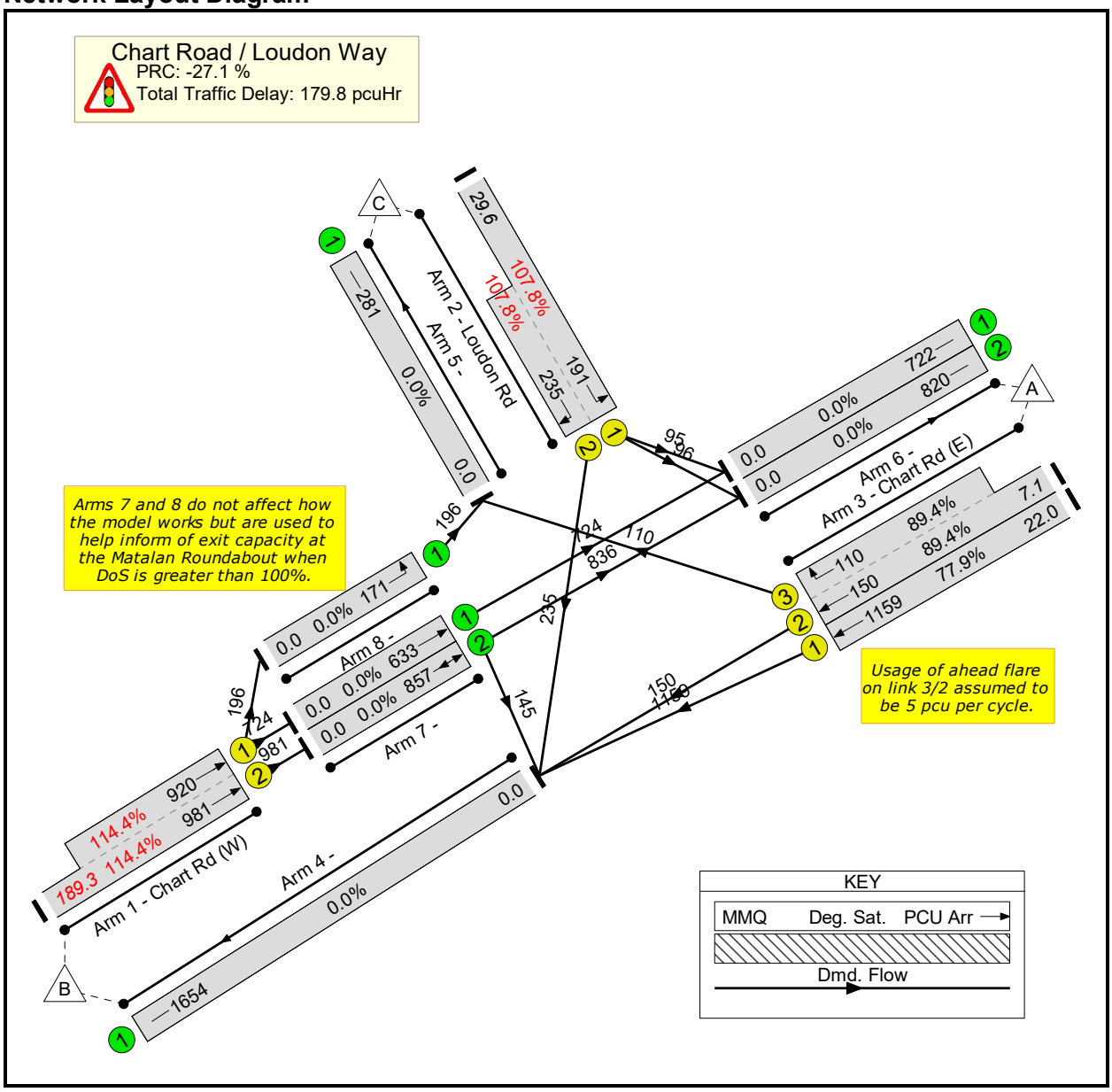
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	1309	110	1419
	B	1560	145	196	1901
	C	191	235	0	426
	Tot.	1751	1689	306	3746

Stage Timings

Stage	1	2	3
Duration	82	5	12
Change Point	0	87	100

Network Layout Diagram



Link Results

Item	Lane Description	Full Phase	Total Green (s)	Start Green (s)	End Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: A28 Chart Road / Loudon Way Junction	-	-	-	-	-	-	-	-	**114.4%**	-	-
Chart Road / Loudon Way	-	-	-	-	-	-	-	-	**114.4%**	-	-
1/2+1/1	Chart Rd (W) Ahead Ahead2	A	82	5	87	1901	1995:1879	857+804	114.4 : 114.4%	271.5	189.3
2/1+2/2	Loudon Rd Right Left	E D	25:12	95:108	0	426	1890:2012	177+218	107.8 : 107.8%	231.1	29.6
3/1	Chart Rd (E) Ahead	B	95	5	100	1159	1859	1487	77.9%	11.8	22.0
3/2+3/3	Chart Rd (E) Ahead Right	B C	95:7	5:93	100	260	1859:1846	168+123	89.4 : 89.4%	72.7	7.1

C1 PRC for Signalled Lanes (%): -27.1 Total Delay for Signalled Lanes (pcuHr): 179.76 Cycle Time (s): 120
PRC Over All Lanes (%): -27.1 Total Delay Over All Lanes(pcuHr): 179.76

Scenario 2: '2023 Obs + Cttd + Dev, PM'
(FG16: '2023 Obs + Committed + Dev, PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

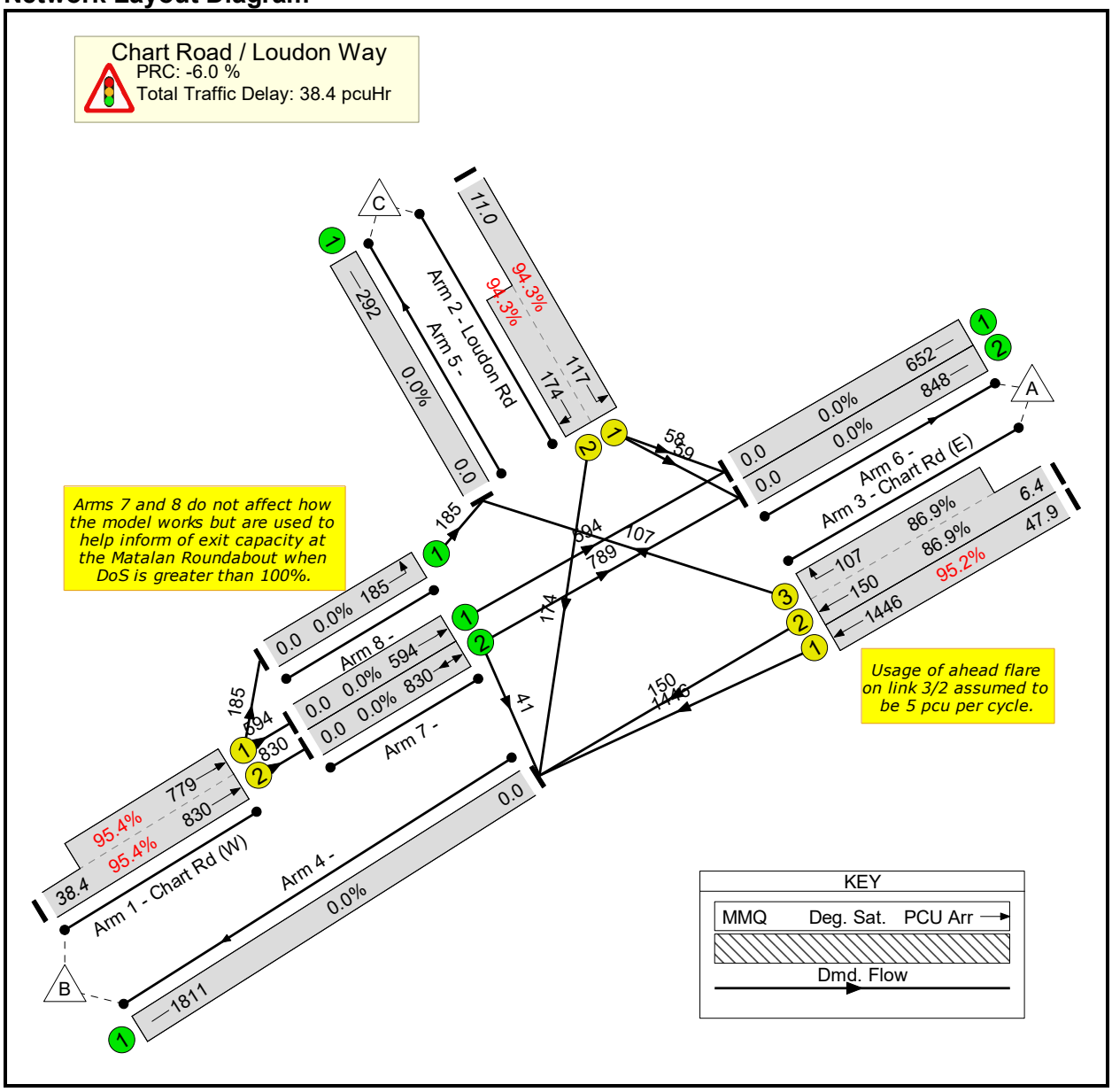
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	1596	107	1703
	B	1383	41	185	1609
	C	117	174	0	291
	Tot.	1500	1811	292	3603

Stage Timings

Stage	1	2	3
Duration	84	5	10
Change Point	0	89	102

Network Layout Diagram



Link Results

Item	Lane Description	Full Phase	Total Green (s)	Start Green (s)	End Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: A28 Chart Road / Loudon Way Junction	-	-	-	-	-	-	-	-	**95.4%**	-	-
Chart Road / Loudon Way	-	-	-	-	-	-	-	-	**95.4%**	-	-
1/2+1/1	Chart Rd (W) Ahead Ahead2	A	84	5	89	1609	1972:1875	870+817	95.4 : 95.4%	28.6	38.4
2/1+2/2	Loudon Rd Right Left	E D	23:10	97:110	0	291	1890:2012	124+184	94.3 : 94.3%	113.4	11.0
3/1	Chart Rd (E) Ahead	B	97	5	102	1446	1859	1518	95.2%	29.4	47.9
3/2+3/3	Chart Rd (E) Ahead Right	B C	97:7	5:95	102	257	1859:1846	173+123	86.9 : 86.9%	64.9	6.4

C1 PRC for Signalled Lanes (%): -6.0 Total Delay for Signalled Lanes (pcuHr): 38.42 Cycle Time (s): 120
PRC Over All Lanes (%): -6.0 Total Delay Over All Lanes(pcuHr): 38.42

Scenario 3: '2023 Obs + Cttd + Dev (Sens.Test), AM'
(FG17: '2023 Obs + Committed + Dev (Sens.Test), AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

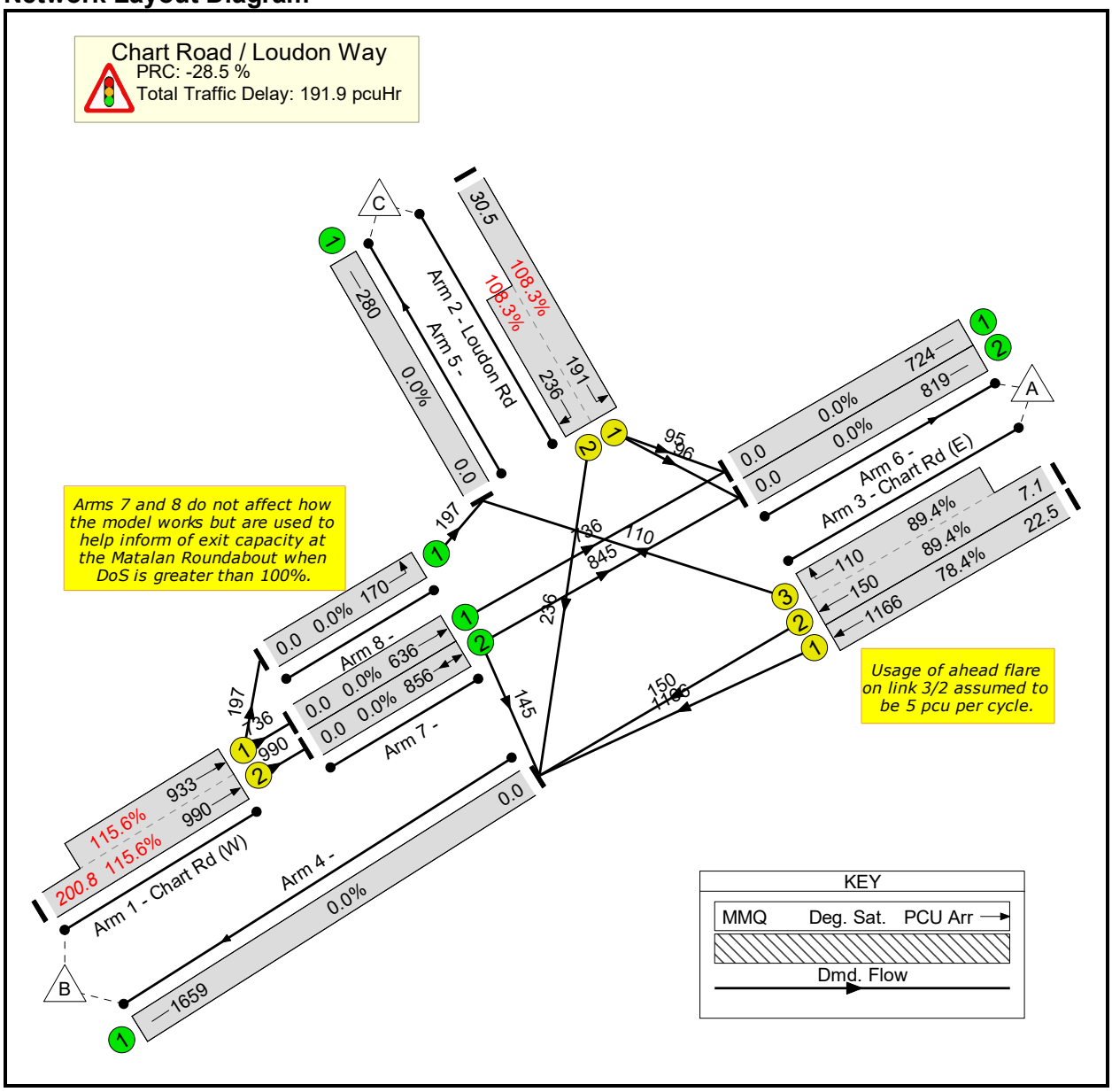
Desired Flow :

Origin \ Destination	A	B	C	Tot.
A	0	1316	110	1426
B	1581	145	197	1923
C	191	236	0	427
Tot.	1772	1697	307	3776

Stage Timings

Stage	1	2	3
Duration	82	5	12
Change Point	0	87	100

Network Layout Diagram



Link Results

Item	Lane Description	Full Phase	Total Green (s)	Start Green (s)	End Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: A28 Chart Road / Loudon Way Junction	-	-	-	-	-	-	-	-	**115.6%**	-	-
Chart Road / Loudon Way	-	-	-	-	-	-	-	-	**115.6%**	-	-
1/2+1/1	Chart Rd (W) Ahead Ahead2	A	82	5	87	1923	1995:1879	856+807	115.6 : 115.6%	289.4	200.8
2/1+2/2	Loudon Rd Right Left	E D	25:12	95:108	0	427	1890:2012	176+218	108.3 : 108.3%	237.7	30.5
3/1	Chart Rd (E) Ahead	B	95	5	100	1166	1859	1487	78.4%	12.0	22.5
3/2+3/3	Chart Rd (E) Ahead Right	B C	95:7	5:93	100	260	1859:1846	168+123	89.4 : 89.4%	72.7	7.1

C1 PRC for Signalled Lanes (%): -28.5 Total Delay for Signalled Lanes (pcuHr): 191.90 Cycle Time (s): 120
PRC Over All Lanes (%): -28.5 Total Delay Over All Lanes(pcuHr): 191.90

Scenario 4: '2023 Obs + Cttd + Dev (Sens.Test), PM'
(FG18: '2023 Obs + Committed + Dev (Sens.Test), PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

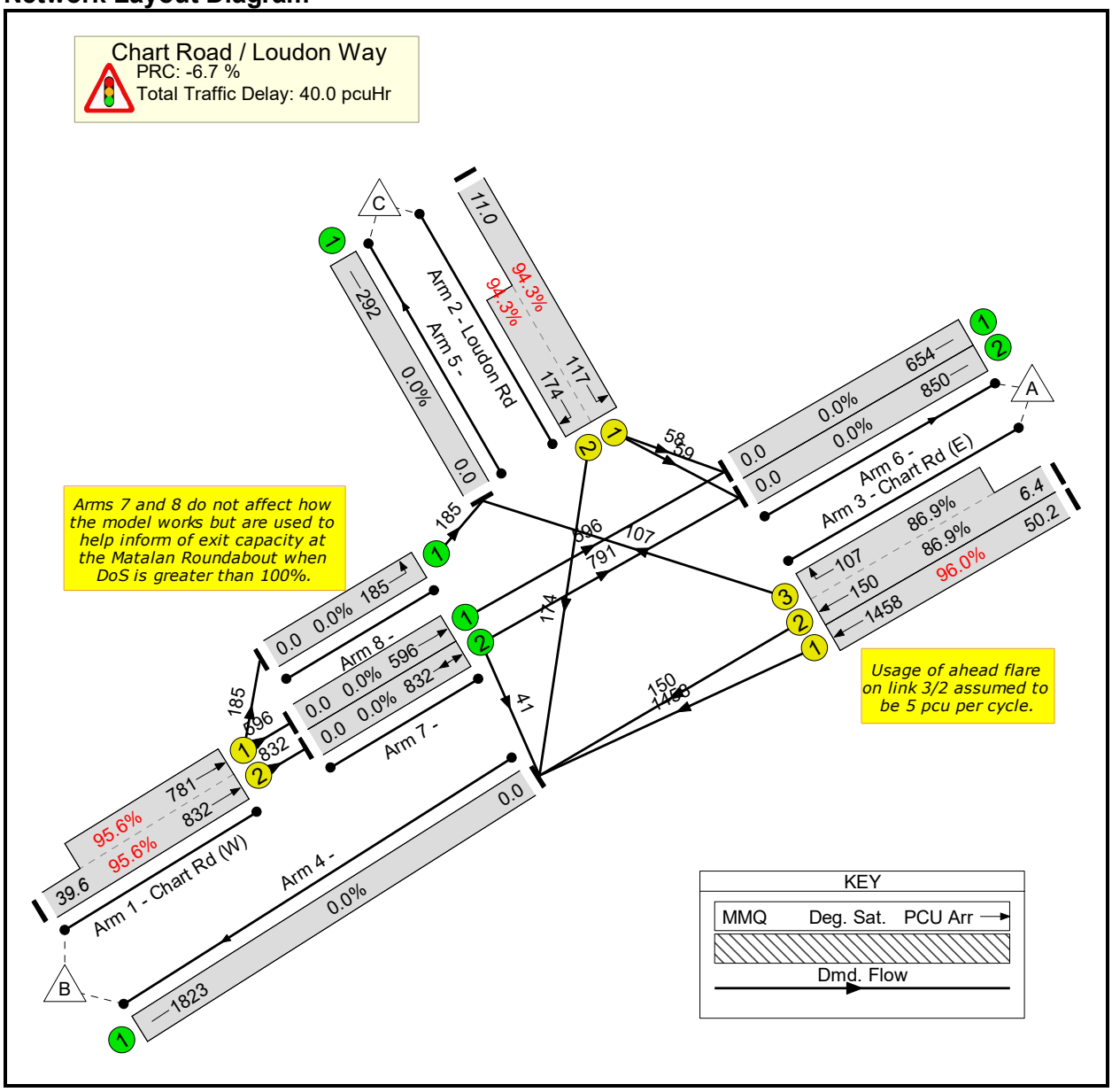
Desired Flow :

Origin \ Destination	A	B	C	Tot.
A	0	1608	107	1715
B	1387	41	185	1613
C	117	174	0	291
Tot.	1504	1823	292	3619

Stage Timings

Stage	1	2	3
Duration	84	5	10
Change Point	0	89	102

Network Layout Diagram



Link Results

Item	Lane Description	Full Phase	Total Green (s)	Start Green (s)	End Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: A28 Chart Road / Loudon Way Junction	-	-	-	-	-	-	-	-	**96.0%**	-	-
Chart Road / Loudon Way	-	-	-	-	-	-	-	-	**96.0%**	-	-
1/2+1/1	Chart Rd (W) Ahead Ahead2	A	84	5	89	1613	1972:1875	870+817	95.6 : 95.6%	29.4	39.6
2/1+2/2	Loudon Rd Right Left	E D	23:10	97:110	0	291	1890:2012	124+184	94.3 : 94.3%	113.4	11.0
3/1	Chart Rd (E) Ahead	B	97	5	102	1458	1859	1518	96.0%	32.2	50.2
3/2+3/3	Chart Rd (E) Ahead Right	B C	97:7	5:95	102	257	1859:1846	173+123	86.9 : 86.9%	64.9	6.4

C1 PRC for Signalled Lanes (%): -6.7 Total Delay for Signalled Lanes (pcuHr): 40.03 Cycle Time (s): 120
PRC Over All Lanes (%): -6.7 Total Delay Over All Lanes(pcuHr): 40.03

Scenario 6: '2032 Base + Cttd + Dev, AM'
(FG24: '2032 Base + Committed + Dev, AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

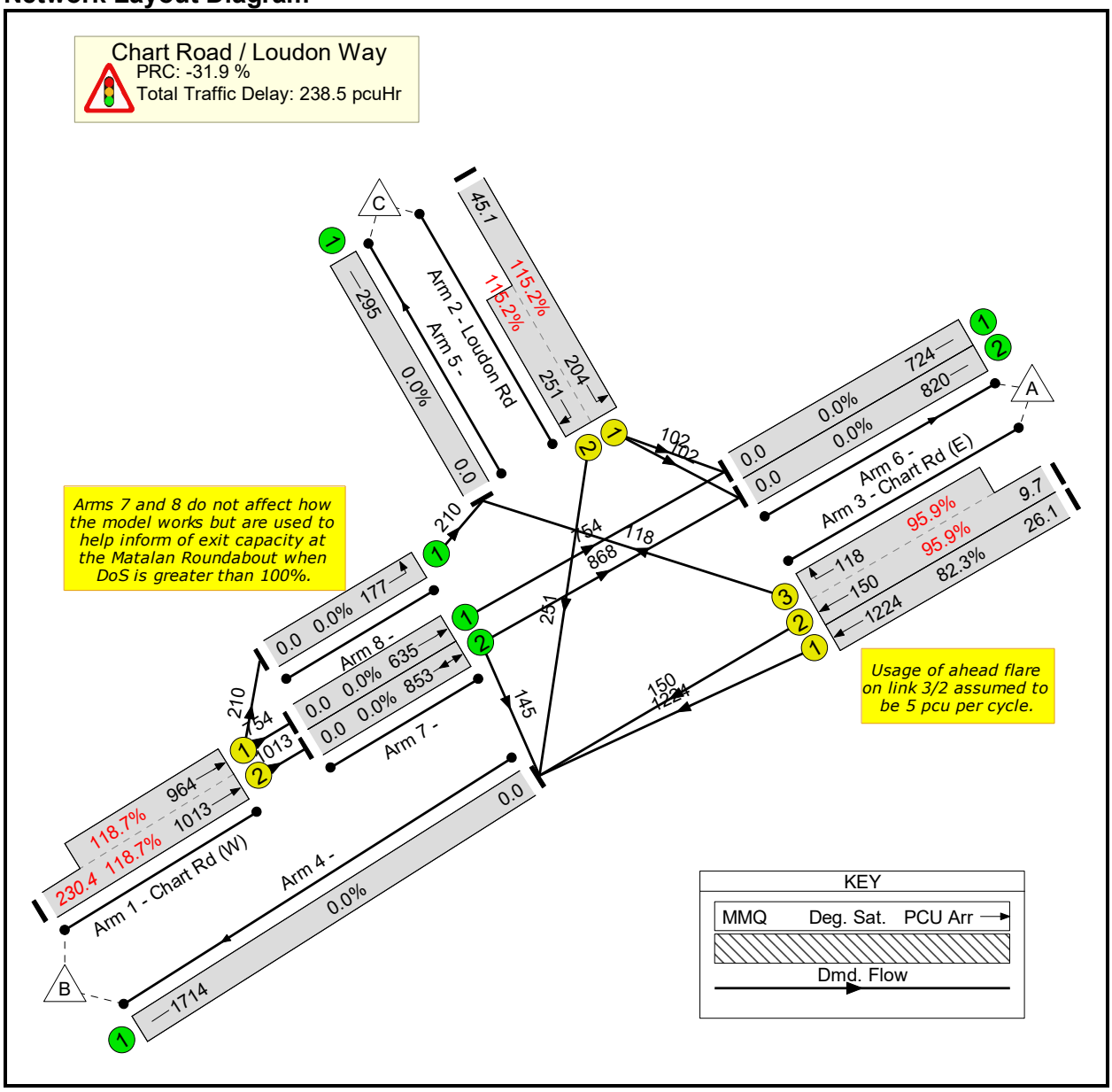
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	1374	118	1492
	B	1622	145	210	1977
	C	204	251	0	455
	Tot.	1826	1770	328	3924

Stage Timings

Stage	1	2	3
Duration	82	5	12
Change Point	0	87	100

Network Layout Diagram



Link Results

Item	Lane Description	Full Phase	Total Green (s)	Start Green (s)	End Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: A28 Chart Road / Loudon Way Junction	-	-	-	-	-	-	-	-	**118.7%**	-	-
Chart Road / Loudon Way	-	-	-	-	-	-	-	-	**118.7%**	-	-
1/2+1/1	Chart Rd (W) Ahead Ahead2	A	82	5	87	1977	1995:1878	853+812	118.7 : 118.7%	334.5	230.4
2/1+2/2	Loudon Rd Right Left	E D	25:12	95:108	0	455	1890:2012	177+218	115.2 : 115.2%	335.9	45.1
3/1	Chart Rd (E) Ahead	B	95	5	100	1224	1859	1487	82.3%	13.7	26.1
3/2+3/3	Chart Rd (E) Ahead Right	B C	95:7	5:93	100	268	1859:1846	156+123	95.9 : 95.9%	104.0	9.7

C1 PRC for Signalled Lanes (%): -31.9 Total Delay for Signalled Lanes (pcuHr): 238.55 Cycle Time (s): 120
PRC Over All Lanes (%): -31.9 Total Delay Over All Lanes(pcuHr): 238.55

Scenario 7: '2032 Base + Cttd + Dev, PM'
(FG25: '2032 Base + Committed + Dev, PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

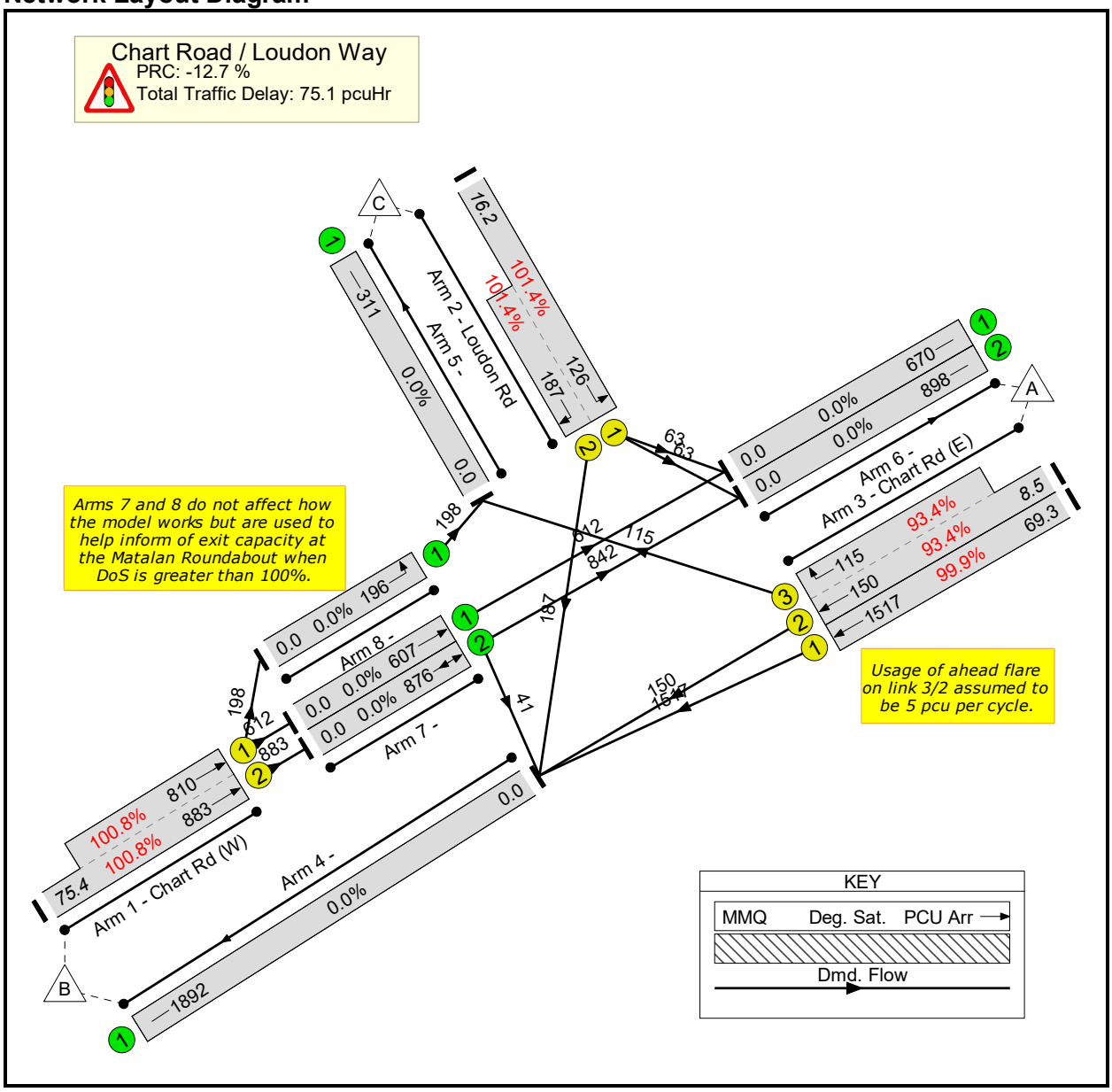
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	1667	115	1782
	B	1454	41	198	1693
	C	126	187	0	313
	Tot.	1580	1895	313	3788

Stage Timings

Stage	1	2	3
Duration	84	5	10
Change Point	0	89	102

Network Layout Diagram



Link Results

Item	Lane Description	Full Phase	Total Green (s)	Start Green (s)	End Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: A28 Chart Road / Loudon Way Junction	-	-	-	-	-	-	-	-	**101.4%**	-	-
Chart Road / Loudon Way	-	-	-	-	-	-	-	-	**101.4%**	-	-
1/2+1/1	Chart Rd (W) Ahead Ahead2	A	84	5	89	1693	1972:1873	876+804	100.8 : 100.8%	64.5	75.4
2/1+2/2	Loudon Rd Right Left	E D	23:10	97:110	0	313	1890:2012	124+184	101.4 : 101.4%	165.0	16.2
3/1	Chart Rd (E) Ahead	B	97	5	102	1517	1859	1518	99.9%	56.5	69.3
3/2+3/3	Chart Rd (E) Ahead Right	B C	97:7	5:95	102	265	1859:1846	161+123	93.4 : 93.4%	89.6	8.5

C1 PRC for Signalled Lanes (%): -12.7 Total Delay for Signalled Lanes (pcuHr): 75.06 Cycle Time (s): 120
PRC Over All Lanes (%): -12.7 Total Delay Over All Lanes(pcuHr): 75.06

Scenario 8: '2032 Base + Cttd + Dev (Sens.Test), AM'
(FG26: '2032 Base + Committed + Dev (Sens.Test), AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

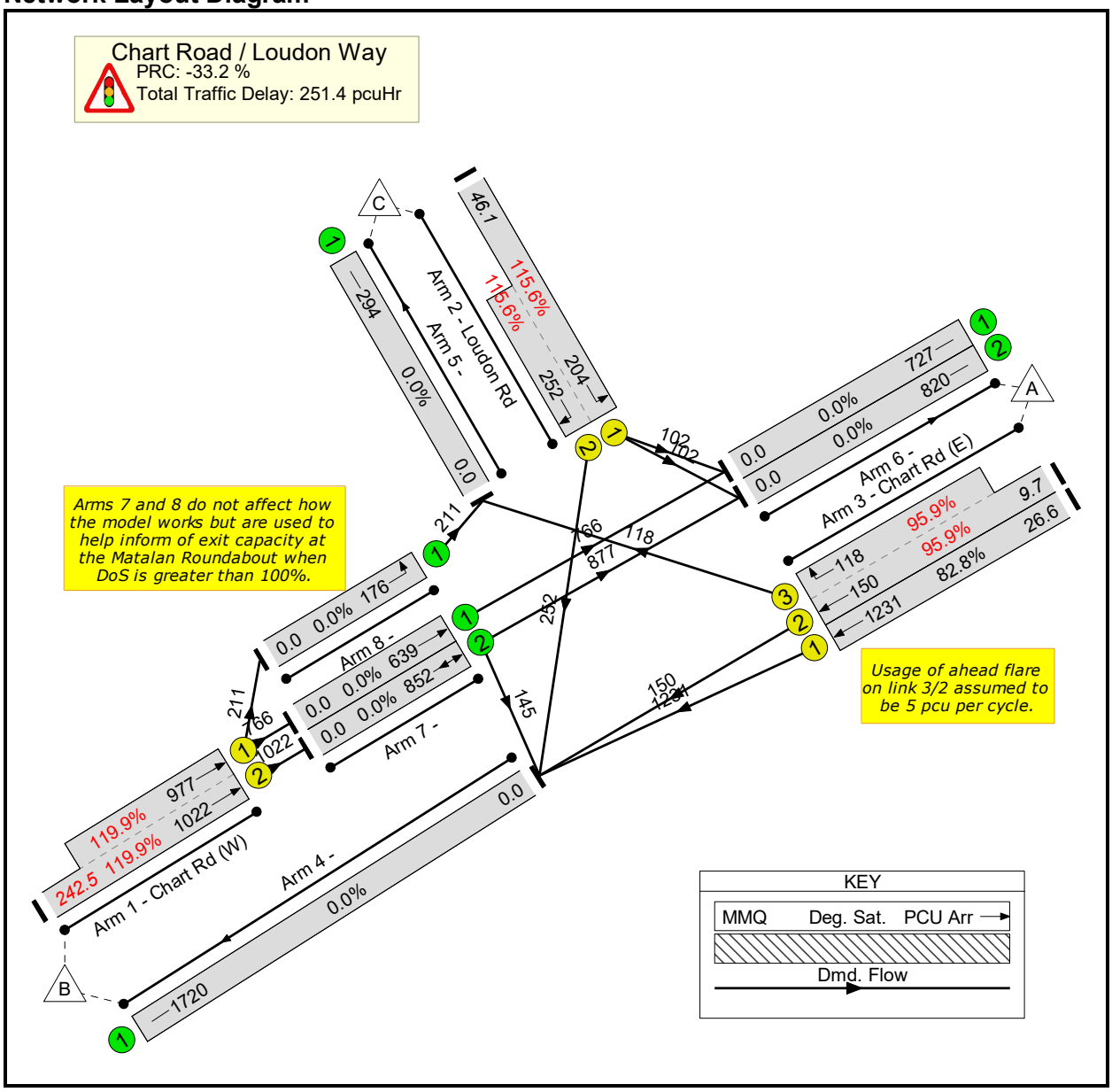
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	1381	118	1499
	B	1643	145	211	1999
	C	204	252	0	456
	Tot.	1847	1778	329	3954

Stage Timings

Stage	1	2	3
Duration	82	5	12
Change Point	0	87	100

Network Layout Diagram



Link Results

Item	Lane Description	Full Phase	Total Green (s)	Start Green (s)	End Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: A28 Chart Road / Loudon Way Junction	-	-	-	-	-	-	-	-	**119.9%**	-	-
Chart Road / Loudon Way	-	-	-	-	-	-	-	-	**119.9%**	-	-
1/2+1/1	Chart Rd (W) Ahead Ahead2	A	82	5	87	1999	1995:1878	852+815	119.9 : 119.9%	352.1	242.5
2/1+2/2	Loudon Rd Right Left	E D	25:12	95:108	0	456	1890:2012	176+218	115.6 : 115.6%	342.4	46.1
3/1	Chart Rd (E) Ahead	B	95	5	100	1231	1859	1487	82.8%	14.0	26.6
3/2+3/3	Chart Rd (E) Ahead Right	B C	95:7	5:93	100	268	1859:1846	156+123	95.9 : 95.9%	104.0	9.7

C1 PRC for Signalled Lanes (%): -33.2 Total Delay for Signalled Lanes (pcuHr): 251.43 Cycle Time (s): 120
PRC Over All Lanes (%): -33.2 Total Delay Over All Lanes(pcuHr): 251.43

Scenario 9: '2032 Base + Cttd + Dev (Sens.Test), PM'
(FG27: '2032 Base + Committed + Dev (Sens.Test), PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

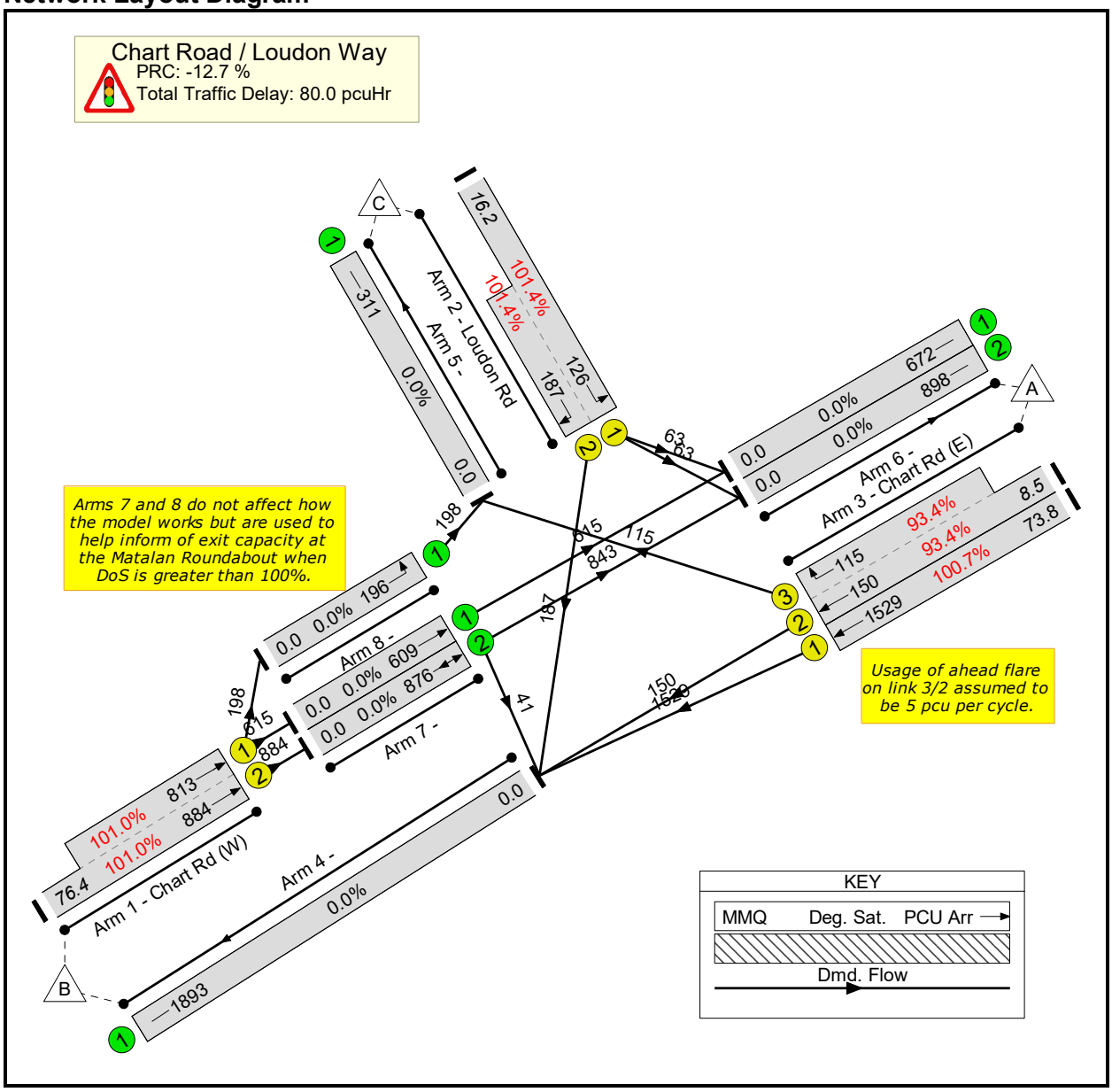
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	1679	115	1794
	B	1458	41	198	1697
	C	126	187	0	313
	Tot.	1584	1907	313	3804

Stage Timings

Stage	1	2	3
Duration	84	5	10
Change Point	0	89	102

Network Layout Diagram



Link Results

Item	Lane Description	Full Phase	Total Green (s)	Start Green (s)	End Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: A28 Chart Road / Loudon Way Junction	-	-	-	-	-	-	-	-	**101.4%**	-	-
Chart Road / Loudon Way	-	-	-	-	-	-	-	-	**101.4%**	-	-
1/2+1/1	Chart Rd (W) Ahead Ahead2	A	84	5	89	1697	1972:1874	875+805	101.0 : 101.0%	66.5	76.4
2/1+2/2	Loudon Rd Right Left	E D	23:10	97:110	0	313	1890:2012	124+184	101.4 : 101.4%	165.0	16.2
3/1	Chart Rd (E) Ahead	B	97	5	102	1529	1859	1518	100.7%	65.1	73.8
3/2+3/3	Chart Rd (E) Ahead Right	B C	97:7	5:95	102	265	1859:1846	161+123	93.4 : 93.4%	89.6	8.5

C1 PRC for Signalled Lanes (%): -12.7 Total Delay for Signalled Lanes (pcuHr): 79.97 Cycle Time (s): 120
PRC Over All Lanes (%): -12.7 Total Delay Over All Lanes(pcuHr): 79.97

Appendix ID18 Tank Roundabout Modelling

Land North of Possingham Farmhouse, Ashford, Great Chart, Kent

Hodson Development Ltd

SLR Project No.: 425.001542.00001

10 September 2024

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.1.1.1905

For sales and distribution information, program advice and maintenance, contact TRL Software:
+44 (0)1344 379777 software@trl.co.uk trlsoftware.com

Filename: Tank Roundabout (Existing) v2.0.j10
Path: X:\Projects\220000\226730 - Possingham Farm\Modelling\Modelling in Response to KCC
Report generation date: 02/09/2024 10:51:04

Summary of junction performance

	AM		
	Queue (PCU)	Delay (s)	RFC
	AM - 2023 Observed		
1 - A28 (NE) Templer Way	16.8	60.54	0.96
2 - Chart Road (East)	13.5	128.70	0.97
3 - Carlton Way (South)	4.7	121.67	0.81
4 - A28 (SW) Chart Road	5.6	19.01	0.85
5 - Sir Henry Brackenbury Road (NW)	2.4	78.31	0.72
	AM - 2023 Obs + Cttd		
1 - A28 (NE) Templer Way	236.8	630.21	1.19
2 - Chart Road (East)	65.5	632.33	1.18
3 - Carlton Way (South)	29.8	822.92	1.22
4 - A28 (SW) Chart Road	387.4	923.24	1.29
5 - Sir Henry Brackenbury Road (NW)	74.4	6068.73	2.94
	AM - 2023 Obs + Cttd + Dev		
1 - A28 (NE) Templer Way	253.4	679.75	1.21
2 - Chart Road (East)	69.7	660.24	1.19
3 - Carlton Way (South)	28.9	793.48	1.20
4 - A28 (SW) Chart Road	434.3	1034.37	1.33
5 - Sir Henry Brackenbury Road (NW)	74.9	6172.54	2.97
	AM - 2023 Obs + Cttd + Dev (Sens.Test)		
1 - A28 (NE) Templer Way	261.0	702.55	1.22

2 - Chart Road (East)	72.2	677.82	1.20
3 - Carlton Way (South)	28.5	782.74	1.20
4 - A28 (SW) Chart Road	455.2	1083.89	1.34
5 - Sir Henry Brackenbury Road (NW)	75.1	6217.36	2.98
	AM - 2032 Base + Cttd		
1 - A28 (NE) Templer Way	317.1	845.71	1.26
2 - Chart Road (East)	89.4	845.50	1.26
3 - Carlton Way (South)	37.4	998.34	1.28
4 - A28 (SW) Chart Road	494.1	1204.32	1.38
5 - Sir Henry Brackenbury Road (NW)	67.4	3932.02	2.24
	AM - 2032 Base + Cttd + Dev		
1 - A28 (NE) Templer Way	333.0	895.41	1.28
2 - Chart Road (East)	94.1	875.08	1.27
3 - Carlton Way (South)	36.5	967.91	1.27
4 - A28 (SW) Chart Road	541.2	1318.67	1.42
5 - Sir Henry Brackenbury Road (NW)	67.8	3984.84	2.26
	AM - 2032 Base + Cttd + Dev (Sens.Test)		
1 - A28 (NE) Templer Way	340.3	918.27	1.29
2 - Chart Road (East)	96.8	893.49	1.27
3 - Carlton Way (South)	36.2	956.67	1.26
4 - A28 (SW) Chart Road	562.1	1369.58	1.43
5 - Sir Henry Brackenbury Road (NW)	68.0	4007.63	2.26

	PM		
	Queue (PCU)	Delay (s)	RFC
	PM - 2023 Observed		
1 - A28 (NE) Templer Way	8.3	34.02	0.90
2 - Chart Road (East)	4.8	56.24	0.84
3 - Carlton Way (South)	6.3	115.71	0.89
4 - A28 (SW) Chart Road	11.4	37.62	0.93
5 - Sir Henry Brackenbury Road (NW)	1.3	82.73	0.59
	PM - 2023 Obs + Cttd		
1 - A28 (NE) Templer Way	412.4	1215.69	1.38
2 - Chart Road (East)	31.6	365.05	1.08
3 - Carlton Way (South)	51.3	1030.14	1.32
4 - A28 (SW) Chart Road	234.8	574.17	1.18
5 - Sir Henry Brackenbury Road (NW)	16.0	1199.84	1.32
	PM - 2023 Obs + Cttd + Dev		
1 - A28 (NE) Templer Way	447.4	1328.38	1.42
2 - Chart Road (East)	60.0	648.44	1.18
3 - Carlton Way (South)	52.8	1066.96	1.32
4 - A28 (SW) Chart Road	264.5	643.73	1.20
5 - Sir Henry Brackenbury Road (NW)	16.8	1276.85	1.35
	PM - 2023 Obs + Cttd + Dev (Sens.Test)		
1 - A28 (NE) Templer Way	453.1	1346.18	1.42
2 - Chart Road (East)	66.2	710.62	1.21
3 - Carlton Way (South)	53.1	1073.83	1.32
4 - A28 (SW) Chart Road	267.8	651.18	1.20
5 - Sir Henry Brackenbury Road (NW)	16.9	1289.28	1.36
	PM - 2032 Base + Cttd		
1 - A28 (NE) Templer Way	483.7	1430.49	1.45
2 - Chart Road (East)	50.0	551.15	1.15
3 - Carlton Way (South)	66.1	1310.93	1.41
4 - A28 (SW) Chart Road	339.9	841.60	1.26
5 - Sir Henry Brackenbury Road (NW)	11.4	726.90	1.13

	PM - 2032 Base + Cttd + Dev		
1 - A28 (NE) Templer Way	518.2	1543.20	1.49
2 - Chart Road (East)	80.9	857.85	1.26
3 - Carlton Way (South)	66.8	1327.42	1.41
4 - A28 (SW) Chart Road	370.5	914.30	1.29
5 - Sir Henry Brackenbury Road (NW)	12.1	772.76	1.15
	PM - 2032 Base + Cttd + Dev (Sens.Test)		
1 - A28 (NE) Templer Way	523.9	1561.05	1.49
2 - Chart Road (East)	87.3	922.17	1.28
3 - Carlton Way (South)	67.0	1332.69	1.41
4 - A28 (SW) Chart Road	373.8	922.04	1.29
5 - Sir Henry Brackenbury Road (NW)	12.2	779.68	1.16

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.

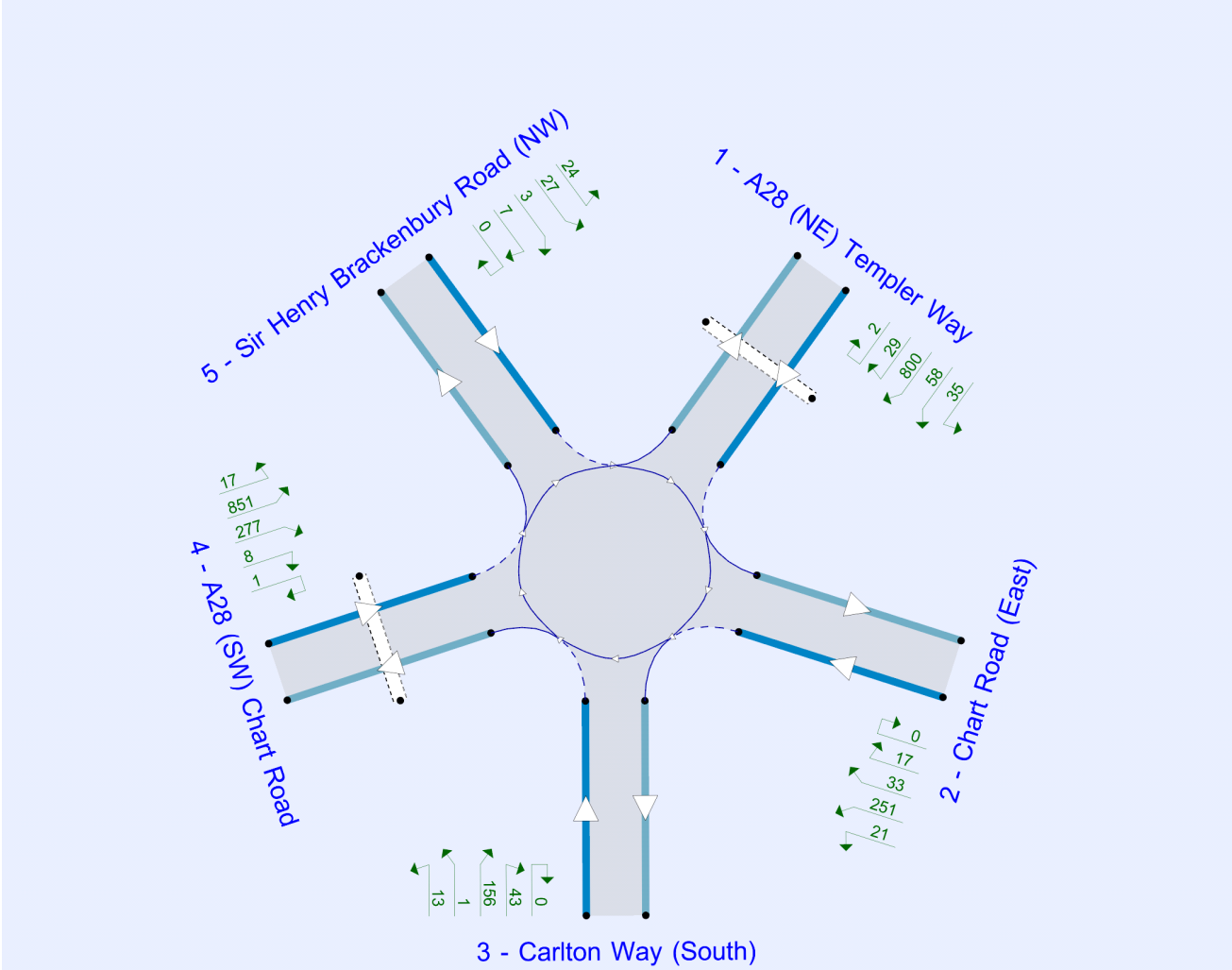
File summary

File Description

Title	Possingham Farm, Ashford
Location	Tank Roundabout
Site number	
Date	02/09/2024
Version	
Status	Existing Junction Layout
Identifier	
Client	
Jobnumber	
Enumerator	David Noyce
Description	Observed flows from surveys of Tuesday, 28th March 2023. Calibrated to surveyed average queue lengths

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	PCU	PCU	perHour	s	-Min	perMin



Flows show original traffic demand (PCU/hr).

The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75						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 period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D1	2023 Observed	AM	FLAT	08:00	09:00	60	15	✓		
D2	2023 Observed	PM	FLAT	16:30	17:30	60	15	✓		
D3	: Committed	AM	FLAT	08:00	09:00	60	15			
D4	: Committed	PM	FLAT	16:30	17:30	60	15			
D5	: Dev	AM	FLAT	08:00	09:00	60	15			
D6	: Dev	PM	FLAT	16:30	17:30	60	15			
D7	: Dev (Sens.Test)	AM	FLAT	08:00	09:00	60	15			
D8	: Dev (Sens.Test)	PM	FLAT	16:30	17:30	60	15			
D10	2023 Obs + Cttd	AM	FLAT	08:00	09:00	60	15	✓	Simple	D1+D3
D11	2023 Obs + Cttd	PM	FLAT	16:30	17:30	60	15	✓	Simple	D2+D4
D12	2023 Obs + Cttd + Dev	AM	FLAT	08:00	09:00	60	15	✓	Simple	D1+D3+D5
D13	2023 Obs + Cttd + Dev	PM	FLAT	16:30	17:30	60	15	✓	Simple	D2+D4+D6
D14	2023 Obs + Cttd + Dev (Sens.Test)	AM	FLAT	08:00	09:00	60	15	✓	Simple	D1+D3+D7
D15	2023 Obs + Cttd + Dev (Sens.Test)	PM	FLAT	16:30	17:30	60	15	✓	Simple	D2+D4+D8
D20	2032 Base	AM	FLAT	08:00	09:00	60	15		Simple	D1*1.070
D21	2032 Base	PM	FLAT	16:30	17:30	60	15		Simple	D2*1.073
D22	2032 Base + Cttd	AM	FLAT	08:00	09:00	60	15	✓	Simple	D20+D3
D23	2032 Base + Cttd	PM	FLAT	16:30	17:30	60	15	✓	Simple	D21+D4
D24	2032 Base + Cttd + Dev	AM	FLAT	08:00	09:00	60	15	✓	Simple	D20+D3+D5
D25	2032 Base + Cttd + Dev	PM	FLAT	16:30	17:30	60	15	✓	Simple	D21+D4+D6
D26	2032 Base + Cttd + Dev (Sens.Test)	AM	FLAT	08:00	09:00	60	15	✓	Simple	D20+D3+D7
D27	2032 Base + Cttd + Dev (Sens.Test)	PM	FLAT	16:30	17:30	60	15	✓	Simple	D21+D4+D8

AM - 2023 Observed, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D22 - 2032 Base + Cttd, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	AM	✓	✓	D1,D10,D12,D14,D22,D24,D26	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tank Roundabout	Standard Roundabout		1, 2, 3, 4, 5	58.21	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	58.21	F

Arms

Arms

Arm	Name	Description	No give-way line
1	A28 (NE) Templer Way		
2	Chart Road (East)		
3	Carlton Way (South)		
4	A28 (SW) Chart Road		
5	Sir Henry Brackenbury Road (NW)		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - A28 (NE) Templer Way	7.30	8.82	4.0	25.0	51.0	39.0		
2 - Chart Road (East)	3.00	6.57	26.3	11.0	51.0	46.0		
3 - Carlton Way (South)	3.75	6.47	4.6	12.0	51.0	43.0		
4 - A28 (SW) Chart Road	6.75	9.16	13.0	13.0	51.0	53.0		
5 - Sir Henry Brackenbury Road (NW)	3.65	4.61	4.3	45.0	51.0	27.0		

Pelican/Puffin Crossings

Arm	Space between crossing and junc. entry (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
1 - A28 (NE) Templer Way	10.00	3.00	2.90	2.00	5.00	8.00	7.00
4 - A28 (SW) Chart Road	1.00	3.00	2.90	2.00	5.00	8.00	7.00

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
1 - A28 (NE) Templer Way	Direct	Calibrated to average surveyed queues	-960
2 - Chart Road (East)	Direct	Calibrated to average surveyed queues	-541
3 - Carlton Way (South)	Direct	Calibrated to average surveyed queues	-523
4 - A28 (SW) Chart Road	Direct	Calibrated to average surveyed queues	-802
5 - Sir Henry Brackenbury Road (NW)	Direct	Calibrated to average surveyed queues	-500

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A28 (NE) Templer Way	0.723	1408
2 - Chart Road (East)	0.540	963
3 - Carlton Way (South)	0.509	788
4 - A28 (SW) Chart Road	0.675	1436
5 - Sir Henry Brackenbury Road (NW)	0.544	824

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2023 Observed	AM	FLAT	08:00	09:00	60	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A28 (NE) Templer Way		FLAT	✓	1059	100.000
2 - Chart Road (East)		FLAT	✓	400	100.000
3 - Carlton Way (South)		FLAT	✓	150	100.000
4 - A28 (SW) Chart Road		FLAT	✓	1084	100.000
5 - Sir Henry Brackenbury Road (NW)		FLAT	✓	115	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
1 - A28 (NE) Templer Way	[FLAT]	13.00
2 - Chart Road (East)		
3 - Carlton Way (South)		
4 - A28 (SW) Chart Road	[FLAT]	19.00
5 - Sir Henry Brackenbury Road (NW)		

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - A28 (NE) Templer Way	2 - Chart Road (East)	3 - Carlton Way (South)	4 - A28 (SW) Chart Road	5 - Sir Henry Brackenbury Road (NW)
From	1 - A28 (NE) Templer Way	0	61	157	827	14
	2 - Chart Road (East)	15	0	61	296	28
	3 - Carlton Way (South)	107	25	0	14	4
	4 - A28 (SW) Chart Road	759	308	8	0	9
	5 - Sir Henry Brackenbury Road (NW)	41	57	1	16	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To				
		1 - A28 (NE) Templer Way	2 - Chart Road (East)	3 - Carlton Way (South)	4 - A28 (SW) Chart Road	5 - Sir Henry Brackenbury Road (NW)
From	1 - A28 (NE) Templer Way	0	2	24	6	0
	2 - Chart Road (East)	0	0	5	3	0
	3 - Carlton Way (South)	40	13	0	17	33
	4 - A28 (SW) Chart Road	4	2	29	0	0
	5 - Sir Henry Brackenbury Road (NW)	0	0	0	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A28 (NE) Templer Way	0.96	60.54	16.8	F	1059	1059
2 - Chart Road (East)	0.97	128.70	13.5	F	400	400
3 - Carlton Way (South)	0.81	121.67	4.7	F	150	150
4 - A28 (SW) Chart Road	0.85	19.01	5.6	C	1084	1084
5 - Sir Henry Brackenbury Road (NW)	0.72	78.31	2.4	F	115	115

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsig lev ser
1 - A28 (NE) Templer Way	1059	265	403	13.00	1116	0.949	1015	897	0.0	10.9	31.002	
2 - Chart Road (East)	400	100	981		434	0.923	374	438	0.0	6.5	50.280	
3 - Carlton Way (South)	150	38	1139		208	0.720	139	216	0.0	2.7	62.054	
4 - A28 (SW) Chart Road	1084	271	180	19.00	1285	0.843	1064	1098	0.0	5.0	15.675	
5 - Sir Henry Brackenbury Road (NW)	115	29	1192		175	0.657	108	52	0.0	1.6	50.627	

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsig lev ser
1 - A28 (NE) Templer Way	1059	265	413	13.00	1109	0.955	1047	917	10.9	13.9	49.999	
2 - Chart Road (East)	400	100	1011		417	0.959	388	448	6.5	9.6	90.625	
3 - Carlton Way (South)	150	38	1176		190	0.791	146	223	2.7	3.7	97.448	
4 - A28 (SW) Chart Road	1084	271	188	19.00	1280	0.847	1083	1134	5.0	5.3	18.550	
5 - Sir Henry Brackenbury Road (NW)	115	29	1216		162	0.711	113	54	1.6	2.1	71.048	

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi le se
1 - A28 (NE) Templer Way	1059	265	414	13.00	1108	0.956	1052	919	13.9	15.7	56.560	
2 - Chart Road (East)	400	100	1016		414	0.965	391	450	9.6	11.8	112.575	
3 - Carlton Way (South)	150	38	1183		186	0.807	148	225	3.7	4.3	112.736	
4 - A28 (SW) Chart Road	1084	271	190	19.00	1279	0.848	1083	1141	5.3	5.5	18.873	
5 - Sir Henry Brackenbury Road (NW)	115	29	1219		160	0.717	114	54	2.1	2.3	76.220	

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi le se
1 - A28 (NE) Templer Way	1059	265	414	13.00	1108	0.956	1054	920	15.7	16.8	60.542	
2 - Chart Road (East)	400	100	1019		413	0.968	393	450	11.8	13.5	128.703	
3 - Carlton Way (South)	150	38	1186		184	0.815	148	225	4.3	4.7	121.667	
4 - A28 (SW) Chart Road	1084	271	191	19.00	1278	0.848	1084	1144	5.5	5.6	19.008	
5 - Sir Henry Brackenbury Road (NW)	115	29	1220		160	0.720	115	54	2.3	2.4	78.312	

AM - 2023 Obs + Cttd, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	1 - A28 (NE) Templer Way - Pedestrian crossing	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	4 - A28 (SW) Chart Road - Pedestrian crossing	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Demand Set Relationship	D22 - 2032 Base + Cttd, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	AM	✓	✓	D1,D10,D12,D14,D22,D24,D26	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tank Roundabout	Standard Roundabout		1, 2, 3, 4, 5	934.16	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	934.16	F

Arms

Arms

Arm	Name	Description	No give-way line
1	A28 (NE) Templer Way		
2	Chart Road (East)		
3	Carlton Way (South)		
4	A28 (SW) Chart Road		
5	Sir Henry Brackenbury Road (NW)		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - A28 (NE) Templer Way	7.30	8.82	4.0	25.0	51.0	39.0		
2 - Chart Road (East)	3.00	6.57	26.3	11.0	51.0	46.0		
3 - Carlton Way (South)	3.75	6.47	4.6	12.0	51.0	43.0		
4 - A28 (SW) Chart Road	6.75	9.16	13.0	13.0	51.0	53.0		
5 - Sir Henry Brackenbury Road (NW)	3.65	4.61	4.3	45.0	51.0	27.0		

Pelican/Puffin Crossings

Arm	Space between crossing and junc. entry (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
1 - A28 (NE) Templer Way	10.00	3.00	2.90	2.00	5.00	8.00	7.00
4 - A28 (SW) Chart Road	1.00	3.00	2.90	2.00	5.00	8.00	7.00

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
1 - A28 (NE) Templer Way	Direct	Calibrated to average surveyed queues	-960
2 - Chart Road (East)	Direct	Calibrated to average surveyed queues	-541
3 - Carlton Way (South)	Direct	Calibrated to average surveyed queues	-523
4 - A28 (SW) Chart Road	Direct	Calibrated to average surveyed queues	-802
5 - Sir Henry Brackenbury Road (NW)	Direct	Calibrated to average surveyed queues	-500

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A28 (NE) Templer Way	0.723	1408
2 - Chart Road (East)	0.540	963
3 - Carlton Way (South)	0.509	788
4 - A28 (SW) Chart Road	0.675	1436
5 - Sir Henry Brackenbury Road (NW)	0.544	824

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D10	2023 Obs + Cttd	AM	FLAT	08:00	09:00	60	15	✓	Simple	D1+D3

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A28 (NE) Templer Way		FLAT	✓	1429	100.000
2 - Chart Road (East)		FLAT	✓	400	100.000
3 - Carlton Way (South)		FLAT	✓	150	100.000
4 - A28 (SW) Chart Road		FLAT	✓	1714	100.000
5 - Sir Henry Brackenbury Road (NW)		FLAT	✓	115	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
1 - A28 (NE) Templer Way	[FLAT]	0.00
2 - Chart Road (East)		
3 - Carlton Way (South)		
4 - A28 (SW) Chart Road	[FLAT]	0.00
5 - Sir Henry Brackenbury Road (NW)		

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - A28 (NE) Templer Way	2 - Chart Road (East)	3 - Carlton Way (South)	4 - A28 (SW) Chart Road	5 - Sir Henry Brackenbury Road (NW)
From	1 - A28 (NE) Templer Way	0	61	157	1197	14
	2 - Chart Road (East)	15	0	61	296	28
	3 - Carlton Way (South)	107	25	0	14	4
	4 - A28 (SW) Chart Road	1389	308	8	0	9
	5 - Sir Henry Brackenbury Road (NW)	41	57	1	16	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To				
		1 - A28 (NE) Templer Way	2 - Chart Road (East)	3 - Carlton Way (South)	4 - A28 (SW) Chart Road	5 - Sir Henry Brackenbury Road (NW)
From	1 - A28 (NE) Templer Way	0	2	24	4	0
	2 - Chart Road (East)	0	0	5	3	0
	3 - Carlton Way (South)	40	13	0	17	33
	4 - A28 (SW) Chart Road	2	2	29	0	0
	5 - Sir Henry Brackenbury Road (NW)	0	0	0	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A28 (NE) Templer Way	1.19	630.21	236.8	F	1429	1429
2 - Chart Road (East)	1.18	632.33	65.5	F	400	400
3 - Carlton Way (South)	1.22	822.92	29.8	F	150	150
4 - A28 (SW) Chart Road	1.29	923.24	387.4	F	1714	1714
5 - Sir Henry Brackenbury Road (NW)	2.94	6068.73	74.4	F	115	115

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi le se
1 - A28 (NE) Templer Way	1429	357	291	0.00	1197	1.194	1177	1180	0.0	62.9	104.109	
2 - Chart Road (East)	400	100	1140		348	1.151	329	329	0.0	17.8	119.269	
3 - Carlton Way (South)	150	38	1282		135	1.109	117	186	0.0	8.3	177.220	
4 - A28 (SW) Chart Road	1714	429	153	0.00	1333	1.286	1319	1246	0.0	98.7	140.388	
5 - Sir Henry Brackenbury Road (NW)	115	29	1427		47	2.442	45	45	0.0	17.6	856.412	

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi l s
1 - A28 (NE) Templer Way	1429	357	291	0.00	1198	1.193	1197	1190	62.9	121.0	284.313	
2 - Chart Road (East)	400	100	1158		338	1.183	336	330	17.8	33.9	299.841	
3 - Carlton Way (South)	150	38	1304		124	1.207	120	189	8.3	15.7	414.845	
4 - A28 (SW) Chart Road	1714	429	157	0.00	1330	1.289	1330	1267	98.7	194.8	403.106	
5 - Sir Henry Brackenbury Road (NW)	115	29	1441		40	2.909	39	45	17.6	36.5	2571.410	

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi l s
1 - A28 (NE) Templer Way	1429	357	291	0.00	1198	1.193	1197	1190	121.0	178.9	456.972	
2 - Chart Road (East)	400	100	1158		338	1.184	337	330	33.9	49.7	466.199	
3 - Carlton Way (South)	150	38	1305		124	1.214	122	189	15.7	22.8	621.473	
4 - A28 (SW) Chart Road	1714	429	158	0.00	1329	1.290	1329	1269	194.8	291.1	662.736	
5 - Sir Henry Brackenbury Road (NW)	115	29	1442		39	2.930	39	46	36.5	55.4	4326.620	

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi l s
1 - A28 (NE) Templer Way	1429	357	291	0.00	1198	1.193	1197	1190	178.9	236.8	630.213	
2 - Chart Road (East)	400	100	1158		338	1.185	337	330	49.7	65.5	632.333	
3 - Carlton Way (South)	150	38	1306		123	1.216	122	190	22.8	29.8	822.917	
4 - A28 (SW) Chart Road	1714	429	159	0.00	1329	1.290	1329	1269	291.1	387.4	923.237	
5 - Sir Henry Brackenbury Road (NW)	115	29	1442		39	2.937	39	46	55.4	74.4	6068.734	

AM - 2023 Obs + Cttd + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	1 - A28 (NE) Templer Way - Pedestrian crossing	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	4 - A28 (SW) Chart Road - Pedestrian crossing	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Demand Set Relationship	D22 - 2032 Base + Cttd, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	AM	✓	✓	D1,D10,D12,D14,D22,D24,D26	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tank Roundabout	Standard Roundabout		1, 2, 3, 4, 5	1006.59	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1006.59	F

Arms

Arms

Arm	Name	Description	No give-way line
1	A28 (NE) Templer Way		
2	Chart Road (East)		
3	Carlton Way (South)		
4	A28 (SW) Chart Road		
5	Sir Henry Brackenbury Road (NW)		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - A28 (NE) Templer Way	7.30	8.82	4.0	25.0	51.0	39.0		
2 - Chart Road (East)	3.00	6.57	26.3	11.0	51.0	46.0		
3 - Carlton Way (South)	3.75	6.47	4.6	12.0	51.0	43.0		
4 - A28 (SW) Chart Road	6.75	9.16	13.0	13.0	51.0	53.0		
5 - Sir Henry Brackenbury Road (NW)	3.65	4.61	4.3	45.0	51.0	27.0		

Pelican/Puffin Crossings

Arm	Space between crossing and junc. entry (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
1 - A28 (NE) Templer Way	10.00	3.00	2.90	2.00	5.00	8.00	7.00
4 - A28 (SW) Chart Road	1.00	3.00	2.90	2.00	5.00	8.00	7.00

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
1 - A28 (NE) Templer Way	Direct	Calibrated to average surveyed queues	-960
2 - Chart Road (East)	Direct	Calibrated to average surveyed queues	-541
3 - Carlton Way (South)	Direct	Calibrated to average surveyed queues	-523
4 - A28 (SW) Chart Road	Direct	Calibrated to average surveyed queues	-802
5 - Sir Henry Brackenbury Road (NW)	Direct	Calibrated to average surveyed queues	-500

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A28 (NE) Templer Way	0.723	1408
2 - Chart Road (East)	0.540	963
3 - Carlton Way (South)	0.509	788
4 - A28 (SW) Chart Road	0.675	1436
5 - Sir Henry Brackenbury Road (NW)	0.544	824

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D12	2023 Obs + Cttd + Dev	AM	FLAT	08:00	09:00	60	15	✓	Simple	D1+D3+D5

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A28 (NE) Templer Way		FLAT	✓	1435	100.000
2 - Chart Road (East)		FLAT	✓	410	100.000
3 - Carlton Way (South)		FLAT	✓	150	100.000
4 - A28 (SW) Chart Road		FLAT	✓	1761	100.000
5 - Sir Henry Brackenbury Road (NW)		FLAT	✓	115	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
1 - A28 (NE) Templer Way	[FLAT]	0.00
2 - Chart Road (East)		
3 - Carlton Way (South)		
4 - A28 (SW) Chart Road	[FLAT]	0.00
5 - Sir Henry Brackenbury Road (NW)		

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - A28 (NE) Templer Way	2 - Chart Road (East)	3 - Carlton Way (South)	4 - A28 (SW) Chart Road	5 - Sir Henry Brackenbury Road (NW)
From	1 - A28 (NE) Templer Way	0	61	157	1203	14
	2 - Chart Road (East)	15	0	61	306	28
	3 - Carlton Way (South)	107	25	0	14	4
	4 - A28 (SW) Chart Road	1407	337	8	0	9
	5 - Sir Henry Brackenbury Road (NW)	41	57	1	16	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To				
		1 - A28 (NE) Templer Way	2 - Chart Road (East)	3 - Carlton Way (South)	4 - A28 (SW) Chart Road	5 - Sir Henry Brackenbury Road (NW)
From	1 - A28 (NE) Templer Way	0	2	24	4	0
	2 - Chart Road (East)	0	0	5	3	0
	3 - Carlton Way (South)	40	13	0	17	33
	4 - A28 (SW) Chart Road	2	2	29	0	0
	5 - Sir Henry Brackenbury Road (NW)	0	0	0	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A28 (NE) Templer Way	1.21	679.75	253.4	F	1435	1435
2 - Chart Road (East)	1.19	660.24	69.7	F	410	410
3 - Carlton Way (South)	1.20	793.48	28.9	F	150	150
4 - A28 (SW) Chart Road	1.33	1034.37	434.3	F	1761	1761
5 - Sir Henry Brackenbury Road (NW)	2.97	6172.54	74.9	F	115	115

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi le se
1 - A28 (NE) Templer Way	1435	359	306	0.00	1186	1.210	1168	1166	0.0	66.8	110.626	
2 - Chart Road (East)	410	103	1131		353	1.163	334	343	0.0	18.9	122.809	
3 - Carlton Way (South)	150	38	1281		136	1.103	117	184	0.0	8.2	174.959	
4 - A28 (SW) Chart Road	1761	440	153	0.00	1333	1.321	1321	1246	0.0	110.1	155.406	
5 - Sir Henry Brackenbury Road (NW)	115	29	1429		46	2.496	44	44	0.0	17.8	879.550	

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi l s
1 - A28 (NE) Templer Way	1435	359	306	0.00	1187	1.209	1186	1175	66.8	129.1	304.838	
2 - Chart Road (East)	410	103	1147		344	1.193	341	344	18.9	36.0	311.208	
3 - Carlton Way (South)	150	38	1302		125	1.196	121	187	8.2	15.4	404.987	
4 - A28 (SW) Chart Road	1761	440	157	0.00	1330	1.324	1329	1266	110.1	218.0	449.747	
5 - Sir Henry Brackenbury Road (NW)	115	29	1442		39	2.938	39	45	17.8	36.8	2622.308	

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi l s
1 - A28 (NE) Templer Way	1435	359	306	0.00	1187	1.209	1186	1175	129.1	191.3	491.994	
2 - Chart Road (East)	410	103	1148		343	1.194	342	344	36.0	52.9	485.732	
3 - Carlton Way (South)	150	38	1303		125	1.202	123	187	15.4	22.2	602.144	
4 - A28 (SW) Chart Road	1761	440	159	0.00	1329	1.325	1329	1267	218.0	326.1	741.632	
5 - Sir Henry Brackenbury Road (NW)	115	29	1442		39	2.958	39	45	36.8	55.9	4404.183	

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi l s
1 - A28 (NE) Templer Way	1435	359	306	0.00	1187	1.209	1187	1176	191.3	253.4	679.746	
2 - Chart Road (East)	410	103	1148		343	1.194	343	344	52.9	69.7	660.238	
3 - Carlton Way (South)	150	38	1303		125	1.204	123	187	22.2	28.9	793.481	
4 - A28 (SW) Chart Road	1761	440	159	0.00	1328	1.326	1328	1267	326.1	434.3	1034.369	
5 - Sir Henry Brackenbury Road (NW)	115	29	1443		39	2.966	39	45	55.9	74.9	6172.542	

AM - 2023 Obs + Cttd + Dev (Sens.Test), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	1 - A28 (NE) Templer Way - Pedestrian crossing	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	4 - A28 (SW) Chart Road - Pedestrian crossing	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Demand Set Relationship	D22 - 2032 Base + Cttd, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	AM	✓	✓	D1,D10,D12,D14,D22,D24,D26	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tank Roundabout	Standard Roundabout		1, 2, 3, 4, 5	1039.86	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1039.86	F

Arms

Arms

Arm	Name	Description	No give-way line
1	A28 (NE) Templer Way		
2	Chart Road (East)		
3	Carlton Way (South)		
4	A28 (SW) Chart Road		
5	Sir Henry Brackenbury Road (NW)		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - A28 (NE) Templer Way	7.30	8.82	4.0	25.0	51.0	39.0		
2 - Chart Road (East)	3.00	6.57	26.3	11.0	51.0	46.0		
3 - Carlton Way (South)	3.75	6.47	4.6	12.0	51.0	43.0		
4 - A28 (SW) Chart Road	6.75	9.16	13.0	13.0	51.0	53.0		
5 - Sir Henry Brackenbury Road (NW)	3.65	4.61	4.3	45.0	51.0	27.0		

Pelican/Puffin Crossings

Arm	Space between crossing and junc. entry (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
1 - A28 (NE) Templer Way	10.00	3.00	2.90	2.00	5.00	8.00	7.00
4 - A28 (SW) Chart Road	1.00	3.00	2.90	2.00	5.00	8.00	7.00

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
1 - A28 (NE) Templer Way	Direct	Calibrated to average surveyed queues	-960
2 - Chart Road (East)	Direct	Calibrated to average surveyed queues	-541
3 - Carlton Way (South)	Direct	Calibrated to average surveyed queues	-523
4 - A28 (SW) Chart Road	Direct	Calibrated to average surveyed queues	-802
5 - Sir Henry Brackenbury Road (NW)	Direct	Calibrated to average surveyed queues	-500

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A28 (NE) Templer Way	0.723	1408
2 - Chart Road (East)	0.540	963
3 - Carlton Way (South)	0.509	788
4 - A28 (SW) Chart Road	0.675	1436
5 - Sir Henry Brackenbury Road (NW)	0.544	824

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D14	2023 Obs + Cttd + Dev (Sens.Test)	AM	FLAT	08:00	09:00	60	15	✓	Simple	D1+D3+D7

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A28 (NE) Templer Way		FLAT	✓	1438	100.000
2 - Chart Road (East)		FLAT	✓	415	100.000
3 - Carlton Way (South)		FLAT	✓	150	100.000
4 - A28 (SW) Chart Road		FLAT	✓	1782	100.000
5 - Sir Henry Brackenbury Road (NW)		FLAT	✓	115	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
1 - A28 (NE) Templer Way	[FLAT]	0.00
2 - Chart Road (East)		
3 - Carlton Way (South)		
4 - A28 (SW) Chart Road	[FLAT]	0.00
5 - Sir Henry Brackenbury Road (NW)		

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - A28 (NE) Templer Way	2 - Chart Road (East)	3 - Carlton Way (South)	4 - A28 (SW) Chart Road	5 - Sir Henry Brackenbury Road (NW)
From	1 - A28 (NE) Templer Way	0	61	157	1206	14
	2 - Chart Road (East)	15	0	61	311	28
	3 - Carlton Way (South)	107	25	0	14	4
	4 - A28 (SW) Chart Road	1415	350	8	0	9
	5 - Sir Henry Brackenbury Road (NW)	41	57	1	16	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To				
		1 - A28 (NE) Templer Way	2 - Chart Road (East)	3 - Carlton Way (South)	4 - A28 (SW) Chart Road	5 - Sir Henry Brackenbury Road (NW)
From	1 - A28 (NE) Templer Way	0	2	24	4	0
	2 - Chart Road (East)	0	0	5	3	0
	3 - Carlton Way (South)	40	13	0	17	33
	4 - A28 (SW) Chart Road	2	2	29	0	0
	5 - Sir Henry Brackenbury Road (NW)	0	0	0	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A28 (NE) Templer Way	1.22	702.55	261.0	F	1438	1438
2 - Chart Road (East)	1.20	677.82	72.2	F	415	415
3 - Carlton Way (South)	1.20	782.74	28.5	F	150	150
4 - A28 (SW) Chart Road	1.34	1083.89	455.2	F	1782	1782
5 - Sir Henry Brackenbury Road (NW)	2.98	6217.36	75.1	F	115	115

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi le se
1 - A28 (NE) Templer Way	1438	360	313	0.00	1182	1.217	1164	1160	0.0	68.6	113.648	
2 - Chart Road (East)	415	104	1127		355	1.170	337	350	0.0	19.5	124.989	
3 - Carlton Way (South)	150	38	1281		136	1.102	117	183	0.0	8.2	174.285	
4 - A28 (SW) Chart Road	1782	446	153	0.00	1333	1.337	1321	1245	0.0	115.2	162.138	
5 - Sir Henry Brackenbury Road (NW)	115	29	1430		46	2.518	43	44	0.0	17.9	889.045	

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi l s
1 - A28 (NE) Templer Way	1438	360	312	0.00	1182	1.217	1181	1169	68.6	132.8	314.318	
2 - Chart Road (East)	415	104	1143		346	1.199	344	351	19.5	37.2	318.293	
3 - Carlton Way (South)	150	38	1301		126	1.192	122	186	8.2	15.3	401.581	
4 - A28 (SW) Chart Road	1782	446	157	0.00	1330	1.340	1329	1265	115.2	228.4	470.579	
5 - Sir Henry Brackenbury Road (NW)	115	29	1442		39	2.950	39	45	17.9	37.0	2643.653	

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi l s
1 - A28 (NE) Templer Way	1438	360	312	0.00	1182	1.217	1182	1169	132.8	196.9	508.135	
2 - Chart Road (East)	415	104	1143		346	1.200	345	351	37.2	54.7	498.009	
3 - Carlton Way (South)	150	38	1302		125	1.198	123	186	15.3	22.0	595.200	
4 - A28 (SW) Chart Road	1782	446	159	0.00	1329	1.341	1329	1266	228.4	341.7	776.810	
5 - Sir Henry Brackenbury Road (NW)	115	29	1443		39	2.971	39	45	37.0	56.0	4437.433	

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi l s
1 - A28 (NE) Templer Way	1438	360	312	0.00	1182	1.217	1182	1169	196.9	261.0	702.554	
2 - Chart Road (East)	415	104	1143		346	1.200	345	351	54.7	72.2	677.819	
3 - Carlton Way (South)	150	38	1303		125	1.200	124	186	22.0	28.5	782.744	
4 - A28 (SW) Chart Road	1782	446	159	0.00	1328	1.342	1328	1267	341.7	455.2	1083.886	
5 - Sir Henry Brackenbury Road (NW)	115	29	1443		39	2.979	39	45	56.0	75.1	6217.363	

AM - 2032 Base + Cttd, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D22 - 2032 Base + Cttd, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	AM	✓	✓	D1,D10,D12,D14,D22,D24,D26	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tank Roundabout	Standard Roundabout		1, 2, 3, 4, 5	1106.92	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1106.92	F

Arms

Arms

Arm	Name	Description	No give-way line
1	A28 (NE) Templer Way		
2	Chart Road (East)		
3	Carlton Way (South)		
4	A28 (SW) Chart Road		
5	Sir Henry Brackenbury Road (NW)		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - A28 (NE) Templer Way	7.30	8.82	4.0	25.0	51.0	39.0		
2 - Chart Road (East)	3.00	6.57	26.3	11.0	51.0	46.0		
3 - Carlton Way (South)	3.75	6.47	4.6	12.0	51.0	43.0		
4 - A28 (SW) Chart Road	6.75	9.16	13.0	13.0	51.0	53.0		
5 - Sir Henry Brackenbury Road (NW)	3.65	4.61	4.3	45.0	51.0	27.0		

Pelican/Puffin Crossings

Arm	Space between crossing and junc. entry (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
1 - A28 (NE) Templer Way	10.00	3.00	2.90	2.00	5.00	8.00	7.00
4 - A28 (SW) Chart Road	1.00	3.00	2.90	2.00	5.00	8.00	7.00

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
1 - A28 (NE) Templer Way	Direct	Calibrated to average surveyed queues	-960
2 - Chart Road (East)	Direct	Calibrated to average surveyed queues	-541
3 - Carlton Way (South)	Direct	Calibrated to average surveyed queues	-523
4 - A28 (SW) Chart Road	Direct	Calibrated to average surveyed queues	-802
5 - Sir Henry Brackenbury Road (NW)	Direct	Calibrated to average surveyed queues	-500

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A28 (NE) Templer Way	0.723	1408
2 - Chart Road (East)	0.540	963
3 - Carlton Way (South)	0.509	788
4 - A28 (SW) Chart Road	0.675	1436
5 - Sir Henry Brackenbury Road (NW)	0.544	824

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D22	2032 Base + Cttd	AM	FLAT	08:00	09:00	60	15	✓	Simple	D20+D3

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A28 (NE) Templer Way		FLAT	✓	1503	100.000
2 - Chart Road (East)		FLAT	✓	428	100.000
3 - Carlton Way (South)		FLAT	✓	161	100.000
4 - A28 (SW) Chart Road		FLAT	✓	1790	100.000
5 - Sir Henry Brackenbury Road (NW)		FLAT	✓	123	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
1 - A28 (NE) Templer Way	[FLAT]	13.00
2 - Chart Road (East)		
3 - Carlton Way (South)		
4 - A28 (SW) Chart Road	[FLAT]	19.00
5 - Sir Henry Brackenbury Road (NW)		

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - A28 (NE) Templer Way	2 - Chart Road (East)	3 - Carlton Way (South)	4 - A28 (SW) Chart Road	5 - Sir Henry Brackenbury Road (NW)
From	1 - A28 (NE) Templer Way	0	65	168	1255	15
	2 - Chart Road (East)	16	0	65	317	30
	3 - Carlton Way (South)	114	27	0	15	4
	4 - A28 (SW) Chart Road	1442	330	9	0	10
	5 - Sir Henry Brackenbury Road (NW)	44	61	1	17	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To				
		1 - A28 (NE) Templer Way	2 - Chart Road (East)	3 - Carlton Way (South)	4 - A28 (SW) Chart Road	5 - Sir Henry Brackenbury Road (NW)
From	1 - A28 (NE) Templer Way	0	2	24	4	0
	2 - Chart Road (East)	0	0	5	3	0
	3 - Carlton Way (South)	40	13	0	17	33
	4 - A28 (SW) Chart Road	2	2	29	0	0
	5 - Sir Henry Brackenbury Road (NW)	0	0	0	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A28 (NE) Templer Way	1.26	845.71	317.1	F	1503	1503
2 - Chart Road (East)	1.26	845.50	89.4	F	428	428
3 - Carlton Way (South)	1.28	998.34	37.4	F	161	161
4 - A28 (SW) Chart Road	1.38	1204.32	494.1	F	1790	1790
5 - Sir Henry Brackenbury Road (NW)	2.24	3932.02	67.4	F	123	123

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi le se
1 - A28 (NE) Templer Way	1503	376	301	13.00	1190	1.263	1175	1158	0.0	82.0	132.415	
2 - Chart Road (East)	428	107	1139		348	1.229	334	337	0.0	23.6	147.001	
3 - Carlton Way (South)	161	40	1284		135	1.191	119	189	0.0	10.3	203.319	
4 - A28 (SW) Chart Road	1790	447	156	19.00	1301	1.376	1290	1247	0.0	124.9	179.137	
5 - Sir Henry Brackenbury Road (NW)	123	31	1401		61	2.006	58	45	0.0	16.3	589.836	

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi l s
1 - A28 (NE) Templer Way	1503	376	301	13.00	1190	1.263	1189	1166	82.0	160.4	373.663	
2 - Chart Road (East)	428	107	1152		341	1.255	340	338	23.6	45.6	387.365	
3 - Carlton Way (South)	161	40	1300		126	1.273	123	191	10.3	19.5	489.473	
4 - A28 (SW) Chart Road	1790	447	160	19.00	1298	1.379	1298	1264	124.9	247.8	522.121	
5 - Sir Henry Brackenbury Road (NW)	123	31	1412		55	2.229	55	46	16.3	33.3	1700.527	

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi l s
1 - A28 (NE) Templer Way	1503	376	301	13.00	1190	1.263	1190	1166	160.4	238.8	609.379	
2 - Chart Road (East)	428	107	1152		341	1.256	340	339	45.6	67.6	616.084	
3 - Carlton Way (South)	161	40	1301		126	1.277	125	192	19.5	28.5	745.411	
4 - A28 (SW) Chart Road	1790	447	161	19.00	1297	1.380	1297	1264	247.8	371.0	862.877	
5 - Sir Henry Brackenbury Road (NW)	123	31	1413		55	2.237	55	46	33.3	50.3	2817.194	

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi l s
1 - A28 (NE) Templer Way	1503	376	301	13.00	1190	1.263	1190	1167	238.8	317.1	845.708	
2 - Chart Road (East)	428	107	1153		341	1.256	341	339	67.6	89.4	845.501	
3 - Carlton Way (South)	161	40	1301		126	1.278	125	192	28.5	37.4	998.344	
4 - A28 (SW) Chart Road	1790	447	162	19.00	1297	1.380	1297	1265	371.0	494.1	1204.317	
5 - Sir Henry Brackenbury Road (NW)	123	31	1413		55	2.240	55	46	50.3	67.4	3932.016	

AM - 2032 Base + Cttd + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D22 - 2032 Base + Cttd, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	AM	✓	✓	D1,D10,D12,D14,D22,D24,D26	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tank Roundabout	Standard Roundabout		1, 2, 3, 4, 5	1180.68	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1180.68	F

Arms

Arms

Arm	Name	Description	No give-way line
1	A28 (NE) Templer Way		
2	Chart Road (East)		
3	Carlton Way (South)		
4	A28 (SW) Chart Road		
5	Sir Henry Brackenbury Road (NW)		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - A28 (NE) Templer Way	7.30	8.82	4.0	25.0	51.0	39.0		
2 - Chart Road (East)	3.00	6.57	26.3	11.0	51.0	46.0		
3 - Carlton Way (South)	3.75	6.47	4.6	12.0	51.0	43.0		
4 - A28 (SW) Chart Road	6.75	9.16	13.0	13.0	51.0	53.0		
5 - Sir Henry Brackenbury Road (NW)	3.65	4.61	4.3	45.0	51.0	27.0		

Pelican/Puffin Crossings

Arm	Space between crossing and junc. entry (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
1 - A28 (NE) Templer Way	10.00	3.00	2.90	2.00	5.00	8.00	7.00
4 - A28 (SW) Chart Road	1.00	3.00	2.90	2.00	5.00	8.00	7.00

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
1 - A28 (NE) Templer Way	Direct	Calibrated to average surveyed queues	-960
2 - Chart Road (East)	Direct	Calibrated to average surveyed queues	-541
3 - Carlton Way (South)	Direct	Calibrated to average surveyed queues	-523
4 - A28 (SW) Chart Road	Direct	Calibrated to average surveyed queues	-802
5 - Sir Henry Brackenbury Road (NW)	Direct	Calibrated to average surveyed queues	-500

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A28 (NE) Templer Way	0.723	1408
2 - Chart Road (East)	0.540	963
3 - Carlton Way (South)	0.509	788
4 - A28 (SW) Chart Road	0.675	1436
5 - Sir Henry Brackenbury Road (NW)	0.544	824

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D24	2032 Base + Cttd + Dev	AM	FLAT	08:00	09:00	60	15	✓	Simple	D20+D3+D5

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A28 (NE) Templer Way		FLAT	✓	1509	100.000
2 - Chart Road (East)		FLAT	✓	438	100.000
3 - Carlton Way (South)		FLAT	✓	161	100.000
4 - A28 (SW) Chart Road		FLAT	✓	1837	100.000
5 - Sir Henry Brackenbury Road (NW)		FLAT	✓	123	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
1 - A28 (NE) Templer Way	[FLAT]	13.00
2 - Chart Road (East)		
3 - Carlton Way (South)		
4 - A28 (SW) Chart Road	[FLAT]	19.00
5 - Sir Henry Brackenbury Road (NW)		

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - A28 (NE) Templer Way	2 - Chart Road (East)	3 - Carlton Way (South)	4 - A28 (SW) Chart Road	5 - Sir Henry Brackenbury Road (NW)
From	1 - A28 (NE) Templer Way	0	65	168	1261	15
	2 - Chart Road (East)	16	0	65	327	30
	3 - Carlton Way (South)	114	27	0	15	4
	4 - A28 (SW) Chart Road	1460	359	9	0	10
	5 - Sir Henry Brackenbury Road (NW)	44	61	1	17	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To				
		1 - A28 (NE) Templer Way	2 - Chart Road (East)	3 - Carlton Way (South)	4 - A28 (SW) Chart Road	5 - Sir Henry Brackenbury Road (NW)
From	1 - A28 (NE) Templer Way	0	2	24	4	0
	2 - Chart Road (East)	0	0	5	3	0
	3 - Carlton Way (South)	40	13	0	17	33
	4 - A28 (SW) Chart Road	2	2	29	0	0
	5 - Sir Henry Brackenbury Road (NW)	0	0	0	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A28 (NE) Templer Way	1.28	895.41	333.0	F	1509	1509
2 - Chart Road (East)	1.27	875.08	94.1	F	438	438
3 - Carlton Way (South)	1.27	967.91	36.5	F	161	161
4 - A28 (SW) Chart Road	1.42	1318.67	541.2	F	1837	1837
5 - Sir Henry Brackenbury Road (NW)	2.26	3984.84	67.8	F	123	123

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi le se
1 - A28 (NE) Templer Way	1509	377	315	13.00	1180	1.279	1166	1145	0.0	85.9	139.155	
2 - Chart Road (East)	438	110	1130		353	1.240	339	351	0.0	24.8	150.738	
3 - Carlton Way (South)	161	40	1282		135	1.185	120	187	0.0	10.2	200.415	
4 - A28 (SW) Chart Road	1837	459	156	19.00	1301	1.412	1291	1246	0.0	136.4	194.865	
5 - Sir Henry Brackenbury Road (NW)	123	31	1402		61	2.031	57	45	0.0	16.5	600.665	

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi l s
1 - A28 (NE) Templer Way	1509	377	315	13.00	1180	1.279	1179	1152	85.9	168.3	394.534	
2 - Chart Road (East)	438	110	1142		346	1.265	345	352	24.8	48.0	399.472	
3 - Carlton Way (South)	161	40	1298		127	1.262	124	189	10.2	19.2	478.431	
4 - A28 (SW) Chart Road	1837	459	161	19.00	1298	1.415	1298	1262	136.4	271.2	570.459	
5 - Sir Henry Brackenbury Road (NW)	123	31	1413		55	2.244	55	45	16.5	33.6	1725.653	

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi l s
1 - A28 (NE) Templer Way	1509	377	315	13.00	1180	1.279	1180	1153	168.3	250.7	644.670	
2 - Chart Road (East)	438	110	1143		346	1.266	346	352	48.0	71.1	636.887	
3 - Carlton Way (South)	161	40	1299		127	1.266	126	189	19.2	27.9	724.869	
4 - A28 (SW) Chart Road	1837	459	162	19.00	1297	1.416	1297	1263	271.2	406.1	944.235	
5 - Sir Henry Brackenbury Road (NW)	123	31	1413		55	2.253	55	46	33.6	50.7	2856.278	

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi l s
1 - A28 (NE) Templer Way	1509	377	315	13.00	1180	1.279	1180	1153	250.7	333.0	895.406	
2 - Chart Road (East)	438	110	1143		346	1.266	346	352	71.1	94.1	875.077	
3 - Carlton Way (South)	161	40	1299		127	1.267	126	189	27.9	36.5	967.907	
4 - A28 (SW) Chart Road	1837	459	162	19.00	1297	1.416	1297	1263	406.1	541.2	1318.670	
5 - Sir Henry Brackenbury Road (NW)	123	31	1414		55	2.256	55	46	50.7	67.8	3984.844	

AM - 2032 Base + Cttd + Dev (Sens.Test), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D22 - 2032 Base + Cttd, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	AM	✓	✓	D1,D10,D12,D14,D22,D24,D26	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tank Roundabout	Standard Roundabout		1, 2, 3, 4, 5	1214.57	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1214.57	F

Arms

Arms

Arm	Name	Description	No give-way line
1	A28 (NE) Templer Way		
2	Chart Road (East)		
3	Carlton Way (South)		
4	A28 (SW) Chart Road		
5	Sir Henry Brackenbury Road (NW)		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - A28 (NE) Templer Way	7.30	8.82	4.0	25.0	51.0	39.0		
2 - Chart Road (East)	3.00	6.57	26.3	11.0	51.0	46.0		
3 - Carlton Way (South)	3.75	6.47	4.6	12.0	51.0	43.0		
4 - A28 (SW) Chart Road	6.75	9.16	13.0	13.0	51.0	53.0		
5 - Sir Henry Brackenbury Road (NW)	3.65	4.61	4.3	45.0	51.0	27.0		

Pelican/Puffin Crossings

Arm	Space between crossing and junc. entry (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
1 - A28 (NE) Templer Way	10.00	3.00	2.90	2.00	5.00	8.00	7.00
4 - A28 (SW) Chart Road	1.00	3.00	2.90	2.00	5.00	8.00	7.00

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
1 - A28 (NE) Templer Way	Direct	Calibrated to average surveyed queues	-960
2 - Chart Road (East)	Direct	Calibrated to average surveyed queues	-541
3 - Carlton Way (South)	Direct	Calibrated to average surveyed queues	-523
4 - A28 (SW) Chart Road	Direct	Calibrated to average surveyed queues	-802
5 - Sir Henry Brackenbury Road (NW)	Direct	Calibrated to average surveyed queues	-500

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A28 (NE) Templer Way	0.723	1408
2 - Chart Road (East)	0.540	963
3 - Carlton Way (South)	0.509	788
4 - A28 (SW) Chart Road	0.675	1436
5 - Sir Henry Brackenbury Road (NW)	0.544	824

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D26	2032 Base + Cttd + Dev (Sens.Test)	AM	FLAT	08:00	09:00	60	15	✓	Simple	D20+D3+D7

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A28 (NE) Templer Way		FLAT	✓	1512	100.000
2 - Chart Road (East)		FLAT	✓	443	100.000
3 - Carlton Way (South)		FLAT	✓	161	100.000
4 - A28 (SW) Chart Road		FLAT	✓	1858	100.000
5 - Sir Henry Brackenbury Road (NW)		FLAT	✓	123	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
1 - A28 (NE) Templer Way	[FLAT]	13.00
2 - Chart Road (East)		
3 - Carlton Way (South)		
4 - A28 (SW) Chart Road	[FLAT]	19.00
5 - Sir Henry Brackenbury Road (NW)		

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - A28 (NE) Templer Way	2 - Chart Road (East)	3 - Carlton Way (South)	4 - A28 (SW) Chart Road	5 - Sir Henry Brackenbury Road (NW)
From	1 - A28 (NE) Templer Way	0	65	168	1264	15
	2 - Chart Road (East)	16	0	65	332	30
	3 - Carlton Way (South)	114	27	0	15	4
	4 - A28 (SW) Chart Road	1468	372	9	0	10
	5 - Sir Henry Brackenbury Road (NW)	44	61	1	17	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To				
		1 - A28 (NE) Templer Way	2 - Chart Road (East)	3 - Carlton Way (South)	4 - A28 (SW) Chart Road	5 - Sir Henry Brackenbury Road (NW)
From	1 - A28 (NE) Templer Way	0	2	24	4	0
	2 - Chart Road (East)	0	0	5	3	0
	3 - Carlton Way (South)	40	13	0	17	33
	4 - A28 (SW) Chart Road	2	2	29	0	0
	5 - Sir Henry Brackenbury Road (NW)	0	0	0	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A28 (NE) Templer Way	1.29	918.27	340.3	F	1512	1512
2 - Chart Road (East)	1.27	893.49	96.8	F	443	443
3 - Carlton Way (South)	1.26	956.67	36.2	F	161	161
4 - A28 (SW) Chart Road	1.43	1369.58	562.1	F	1858	1858
5 - Sir Henry Brackenbury Road (NW)	2.26	4007.63	68.0	F	123	123

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi le se
1 - A28 (NE) Templer Way	1512	378	321	13.00	1176	1.286	1162	1139	0.0	87.6	142.266	
2 - Chart Road (East)	443	111	1126		355	1.247	341	357	0.0	25.4	153.054	
3 - Carlton Way (South)	161	40	1281		136	1.182	120	186	0.0	10.1	199.458	
4 - A28 (SW) Chart Road	1858	464	156	19.00	1301	1.428	1292	1246	0.0	141.5	201.893	
5 - Sir Henry Brackenbury Road (NW)	123	31	1403		60	2.041	57	44	0.0	16.6	605.172	

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi l s
1 - A28 (NE) Templer Way	1512	378	321	13.00	1175	1.287	1175	1146	87.6	171.9	404.153	
2 - Chart Road (East)	443	111	1138		348	1.271	347	358	25.4	49.3	406.992	
3 - Carlton Way (South)	161	40	1298		128	1.258	125	188	10.1	19.0	474.487	
4 - A28 (SW) Chart Road	1858	464	161	19.00	1298	1.432	1298	1261	141.5	281.6	592.009	
5 - Sir Henry Brackenbury Road (NW)	123	31	1413		55	2.250	55	45	16.6	33.7	1736.310	

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi l s
1 - A28 (NE) Templer Way	1512	378	321	13.00	1175	1.287	1175	1147	171.9	256.1	660.915	
2 - Chart Road (East)	443	111	1139		348	1.272	348	358	49.3	73.1	649.833	
3 - Carlton Way (South)	161	40	1298		127	1.261	126	188	19.0	27.7	717.356	
4 - A28 (SW) Chart Road	1858	464	162	19.00	1297	1.432	1297	1262	281.6	421.8	980.474	
5 - Sir Henry Brackenbury Road (NW)	123	31	1414		54	2.259	54	45	33.7	50.8	2873.052	

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi l s
1 - A28 (NE) Templer Way	1512	378	321	13.00	1175	1.287	1175	1147	256.1	340.3	918.272	
2 - Chart Road (East)	443	111	1139		348	1.272	348	358	73.1	96.8	893.493	
3 - Carlton Way (South)	161	40	1298		127	1.262	126	188	27.7	36.2	956.666	
4 - A28 (SW) Chart Road	1858	464	162	19.00	1297	1.433	1297	1262	421.8	562.1	1369.580	
5 - Sir Henry Brackenbury Road (NW)	123	31	1414		54	2.262	54	45	50.8	68.0	4007.626	

PM - 2023 Observed, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D22 - 2032 Base + Cttd, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	PM	✓	✓	D2,D11,D13,D15,D23,D25,D27	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tank Roundabout	Standard Roundabout		1, 2, 3, 4, 5	45.87	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	45.87	E

Arms

Arms

Arm	Name	Description	No give-way line
1	A28 (NE) Templer Way		
2	Chart Road (East)		
3	Carlton Way (South)		
4	A28 (SW) Chart Road		
5	Sir Henry Brackenbury Road (NW)		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - A28 (NE) Templer Way	7.30	8.82	4.0	25.0	51.0	39.0		
2 - Chart Road (East)	3.00	6.57	26.3	11.0	51.0	46.0		
3 - Carlton Way (South)	3.75	6.47	4.6	12.0	51.0	43.0		
4 - A28 (SW) Chart Road	6.75	9.16	13.0	13.0	51.0	53.0		
5 - Sir Henry Brackenbury Road (NW)	3.65	4.61	4.3	45.0	51.0	27.0		

Pelican/Puffin Crossings

Arm	Space between crossing and junc. entry (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
1 - A28 (NE) Templer Way	10.00	3.00	2.90	2.00	5.00	8.00	7.00
4 - A28 (SW) Chart Road	1.00	3.00	2.90	2.00	5.00	8.00	7.00

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
1 - A28 (NE) Templer Way	Direct		-1075
2 - Chart Road (East)	Direct		-631
3 - Carlton Way (South)	Direct		-493
4 - A28 (SW) Chart Road	Direct		-786
5 - Sir Henry Brackenbury Road (NW)	Direct		-485

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A28 (NE) Templer Way	0.723	1293
2 - Chart Road (East)	0.540	873
3 - Carlton Way (South)	0.509	818
4 - A28 (SW) Chart Road	0.675	1452
5 - Sir Henry Brackenbury Road (NW)	0.544	839

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	2023 Observed	PM	FLAT	16:30	17:30	60	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A28 (NE) Templer Way		FLAT	✓	924	100.000
2 - Chart Road (East)		FLAT	✓	322	100.000
3 - Carlton Way (South)		FLAT	✓	213	100.000
4 - A28 (SW) Chart Road		FLAT	✓	1154	100.000
5 - Sir Henry Brackenbury Road (NW)		FLAT	✓	61	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
1 - A28 (NE) Templer Way	[FLAT]	14.00
2 - Chart Road (East)		
3 - Carlton Way (South)		
4 - A28 (SW) Chart Road	[FLAT]	14.00
5 - Sir Henry Brackenbury Road (NW)		

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - A28 (NE) Templer Way	2 - Chart Road (East)	3 - Carlton Way (South)	4 - A28 (SW) Chart Road	5 - Sir Henry Brackenbury Road (NW)
From	1 - A28 (NE) Templer Way	2	35	58	800	29
	2 - Chart Road (East)	17	0	21	251	33
	3 - Carlton Way (South)	156	43	0	13	1
	4 - A28 (SW) Chart Road	851	277	8	1	17
	5 - Sir Henry Brackenbury Road (NW)	24	27	3	7	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To				
		1 - A28 (NE) Templer Way	2 - Chart Road (East)	3 - Carlton Way (South)	4 - A28 (SW) Chart Road	5 - Sir Henry Brackenbury Road (NW)
From	1 - A28 (NE) Templer Way	0	3	40	2	0
	2 - Chart Road (East)	0	0	16	0	0
	3 - Carlton Way (South)	3	2	0	8	0
	4 - A28 (SW) Chart Road	2	1	75	0	0
	5 - Sir Henry Brackenbury Road (NW)	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A28 (NE) Templer Way	0.90	34.02	8.3	D	924	924
2 - Chart Road (East)	0.84	56.24	4.8	F	322	322
3 - Carlton Way (South)	0.89	115.71	6.3	F	213	213
4 - A28 (SW) Chart Road	0.93	37.62	11.4	E	1154	1154
5 - Sir Henry Brackenbury Road (NW)	0.59	82.73	1.3	F	61	61

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsig lev ser
1 - A28 (NE) Templer Way	924	231	353	14.00	1038	0.890	897	1012	0.0	6.6	23.422	
2 - Chart Road (East)	322	81	882		397	0.811	308	368	0.0	3.5	36.583	
3 - Carlton Way (South)	213	53	1103		257	0.830	199	87	0.0	3.5	55.342	
4 - A28 (SW) Chart Road	1154	289	265	14.00	1253	0.921	1120	1037	0.0	8.6	23.537	
5 - Sir Henry Brackenbury Road (NW)	61	15	1307		127	0.479	58	77	0.0	0.8	49.651	

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsig lev ser
1 - A28 (NE) Templer Way	924	231	363	14.00	1031	0.897	920	1040	6.6	7.6	31.704	
2 - Chart Road (East)	322	81	904		385	0.836	319	379	3.5	4.3	51.240	
3 - Carlton Way (South)	213	53	1133		241	0.884	207	89	3.5	5.0	91.526	
4 - A28 (SW) Chart Road	1154	289	275	14.00	1246	0.926	1148	1066	8.6	10.1	33.793	
5 - Sir Henry Brackenbury Road (NW)	61	15	1343		108	0.566	60	79	0.8	1.1	72.581	

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi le se
1 - A28 (NE) Templer Way	924	231	364	14.00	1029	0.898	922	1045	7.6	8.1	33.297	
2 - Chart Road (East)	322	81	906		384	0.839	321	380	4.3	4.6	54.745	
3 - Carlton Way (South)	213	53	1137		239	0.891	210	90	5.0	5.8	106.986	
4 - A28 (SW) Chart Road	1154	289	278	14.00	1244	0.928	1151	1069	10.1	10.9	36.303	
5 - Sir Henry Brackenbury Road (NW)	61	15	1349		105	0.582	61	80	1.1	1.3	79.634	

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi le se
1 - A28 (NE) Templer Way	924	231	365	14.00	1029	0.898	923	1047	8.1	8.3	34.023	
2 - Chart Road (East)	322	81	907		383	0.840	321	381	4.6	4.8	56.239	
3 - Carlton Way (South)	213	53	1138		239	0.893	211	90	5.8	6.3	115.707	
4 - A28 (SW) Chart Road	1154	289	279	14.00	1243	0.928	1152	1070	10.9	11.4	37.617	
5 - Sir Henry Brackenbury Road (NW)	61	15	1351		104	0.589	61	80	1.3	1.3	82.734	

PM - 2023 Obs + Cttd, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	1 - A28 (NE) Templer Way - Pedestrian crossing	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	4 - A28 (SW) Chart Road - Pedestrian crossing	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Demand Set Relationship	D22 - 2032 Base + Cttd, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	PM	✓	✓	D2,D11,D13,D15,D23,D25,D27	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tank Roundabout	Standard Roundabout		1, 2, 3, 4, 5	856.47	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	856.47	F

Arms

Arms

Arm	Name	Description	No give-way line
1	A28 (NE) Templer Way		
2	Chart Road (East)		
3	Carlton Way (South)		
4	A28 (SW) Chart Road		
5	Sir Henry Brackenbury Road (NW)		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - A28 (NE) Templer Way	7.30	8.82	4.0	25.0	51.0	39.0		
2 - Chart Road (East)	3.00	6.57	26.3	11.0	51.0	46.0		
3 - Carlton Way (South)	3.75	6.47	4.6	12.0	51.0	43.0		
4 - A28 (SW) Chart Road	6.75	9.16	13.0	13.0	51.0	53.0		
5 - Sir Henry Brackenbury Road (NW)	3.65	4.61	4.3	45.0	51.0	27.0		

Pelican/Puffin Crossings

Arm	Space between crossing and junc. entry (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
1 - A28 (NE) Templer Way	10.00	3.00	2.90	2.00	5.00	8.00	7.00
4 - A28 (SW) Chart Road	1.00	3.00	2.90	2.00	5.00	8.00	7.00

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
1 - A28 (NE) Templer Way	Direct		-1075
2 - Chart Road (East)	Direct		-631
3 - Carlton Way (South)	Direct		-493
4 - A28 (SW) Chart Road	Direct		-786
5 - Sir Henry Brackenbury Road (NW)	Direct		-485

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A28 (NE) Templer Way	0.723	1293
2 - Chart Road (East)	0.540	873
3 - Carlton Way (South)	0.509	818
4 - A28 (SW) Chart Road	0.675	1452
5 - Sir Henry Brackenbury Road (NW)	0.544	839

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D11	2023 Obs + Cttd	PM	FLAT	16:30	17:30	60	15	✓	Simple	D2+D4

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A28 (NE) Templer Way		FLAT	✓	1484	100.000
2 - Chart Road (East)		FLAT	✓	322	100.000
3 - Carlton Way (South)		FLAT	✓	213	100.000
4 - A28 (SW) Chart Road		FLAT	✓	1533	100.000
5 - Sir Henry Brackenbury Road (NW)		FLAT	✓	61	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
1 - A28 (NE) Templer Way	[FLAT]	0.00
2 - Chart Road (East)		
3 - Carlton Way (South)		
4 - A28 (SW) Chart Road	[FLAT]	0.00
5 - Sir Henry Brackenbury Road (NW)		

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - A28 (NE) Templer Way	2 - Chart Road (East)	3 - Carlton Way (South)	4 - A28 (SW) Chart Road	5 - Sir Henry Brackenbury Road (NW)
From	1 - A28 (NE) Templer Way	2	35	58	1360	29
	2 - Chart Road (East)	17	0	21	251	33
	3 - Carlton Way (South)	156	43	0	13	1
	4 - A28 (SW) Chart Road	1230	277	8	1	17
	5 - Sir Henry Brackenbury Road (NW)	24	27	3	7	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To				
		1 - A28 (NE) Templer Way	2 - Chart Road (East)	3 - Carlton Way (South)	4 - A28 (SW) Chart Road	5 - Sir Henry Brackenbury Road (NW)
From	1 - A28 (NE) Templer Way	0	3	40	1	0
	2 - Chart Road (East)	0	0	16	0	0
	3 - Carlton Way (South)	3	2	0	8	0
	4 - A28 (SW) Chart Road	1	1	75	0	0
	5 - Sir Henry Brackenbury Road (NW)	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A28 (NE) Templer Way	1.38	1215.69	412.4	F	1484	1484
2 - Chart Road (East)	1.08	365.05	31.6	F	322	322
3 - Carlton Way (South)	1.32	1030.14	51.3	F	213	213
4 - A28 (SW) Chart Road	1.18	574.17	234.8	F	1533	1533
5 - Sir Henry Brackenbury Road (NW)	1.32	1199.84	16.0	F	61	61

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi le se
1 - A28 (NE) Templer Way	1484	371	300	0.00	1076	1.379	1066	1183	0.0	104.6	182.559	
2 - Chart Road (East)	322	81	1055		303	1.062	278	310	0.0	11.0	96.145	
3 - Carlton Way (South)	213	53	1265		174	1.222	161	69	0.0	12.9	177.861	
4 - A28 (SW) Chart Road	1533	383	217	0.00	1305	1.174	1284	1209	0.0	62.1	94.596	
5 - Sir Henry Brackenbury Road (NW)	61	15	1437		57	1.075	45	64	0.0	3.9	232.962	

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi le se
1 - A28 (NE) Templer Way	1484	371	302	0.00	1074	1.382	1074	1198	104.6	207.1	528.785	
2 - Chart Road (East)	322	81	1063		299	1.077	292	313	11.0	18.5	206.368	
3 - Carlton Way (South)	213	53	1286		164	1.302	162	70	12.9	25.6	465.297	
4 - A28 (SW) Chart Road	1533	383	220	0.00	1303	1.176	1302	1228	62.1	119.8	258.628	
5 - Sir Henry Brackenbury Road (NW)	61	15	1456		46	1.316	44	66	3.9	8.2	586.761	

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi le se
1 - A28 (NE) Templer Way	1484	371	303	0.00	1074	1.382	1074	1199	207.1	309.8	871.880	
2 - Chart Road (East)	322	81	1063		299	1.077	295	313	18.5	25.2	288.258	
3 - Carlton Way (South)	213	53	1288		162	1.312	162	70	25.6	38.4	746.004	
4 - A28 (SW) Chart Road	1533	383	220	0.00	1303	1.176	1303	1230	119.8	177.3	416.126	
5 - Sir Henry Brackenbury Road (NW)	61	15	1457		46	1.322	45	66	8.2	12.1	899.245	

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi l s
1 - A28 (NE) Templer Way	1484	371	303	0.00	1073	1.383	1073	1199	309.8	412.4	1215.693	
2 - Chart Road (East)	322	81	1063		299	1.077	296	314	25.2	31.6	365.054	
3 - Carlton Way (South)	213	53	1289		162	1.317	161	70	38.4	51.3	1030.140	
4 - A28 (SW) Chart Road	1533	383	220	0.00	1303	1.176	1303	1231	177.3	234.8	574.165	
5 - Sir Henry Brackenbury Road (NW)	61	15	1457		46	1.323	46	67	12.1	16.0	1199.837	

PM - 2023 Obs + Cttd + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	1 - A28 (NE) Templer Way - Pedestrian crossing	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	4 - A28 (SW) Chart Road - Pedestrian crossing	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Demand Set Relationship	D22 - 2032 Base + Cttd, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	PM	✓	✓	D2,D11,D13,D15,D23,D25,D27	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tank Roundabout	Standard Roundabout		1, 2, 3, 4, 5	957.65	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	957.65	F

Arms

Arms

Arm	Name	Description	No give-way line
1	A28 (NE) Templer Way		
2	Chart Road (East)		
3	Carlton Way (South)		
4	A28 (SW) Chart Road		
5	Sir Henry Brackenbury Road (NW)		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - A28 (NE) Templer Way	7.30	8.82	4.0	25.0	51.0	39.0		
2 - Chart Road (East)	3.00	6.57	26.3	11.0	51.0	46.0		
3 - Carlton Way (South)	3.75	6.47	4.6	12.0	51.0	43.0		
4 - A28 (SW) Chart Road	6.75	9.16	13.0	13.0	51.0	53.0		
5 - Sir Henry Brackenbury Road (NW)	3.65	4.61	4.3	45.0	51.0	27.0		

Pelican/Puffin Crossings

Arm	Space between crossing and junc. entry (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
1 - A28 (NE) Templer Way	10.00	3.00	2.90	2.00	5.00	8.00	7.00
4 - A28 (SW) Chart Road	1.00	3.00	2.90	2.00	5.00	8.00	7.00

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
1 - A28 (NE) Templer Way	Direct		-1075
2 - Chart Road (East)	Direct		-631
3 - Carlton Way (South)	Direct		-493
4 - A28 (SW) Chart Road	Direct		-786
5 - Sir Henry Brackenbury Road (NW)	Direct		-485

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A28 (NE) Templer Way	0.723	1293
2 - Chart Road (East)	0.540	873
3 - Carlton Way (South)	0.509	818
4 - A28 (SW) Chart Road	0.675	1452
5 - Sir Henry Brackenbury Road (NW)	0.544	839

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D13	2023 Obs + Cttd + Dev	PM	FLAT	16:30	17:30	60	15	✓	Simple	D2+D4+D6

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A28 (NE) Templer Way		FLAT	✓	1511	100.000
2 - Chart Road (East)		FLAT	✓	359	100.000
3 - Carlton Way (South)		FLAT	✓	213	100.000
4 - A28 (SW) Chart Road		FLAT	✓	1567	100.000
5 - Sir Henry Brackenbury Road (NW)		FLAT	✓	61	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
1 - A28 (NE) Templer Way	[FLAT]	0.00
2 - Chart Road (East)		
3 - Carlton Way (South)		
4 - A28 (SW) Chart Road	[FLAT]	0.00
5 - Sir Henry Brackenbury Road (NW)		

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - A28 (NE) Templer Way	2 - Chart Road (East)	3 - Carlton Way (South)	4 - A28 (SW) Chart Road	5 - Sir Henry Brackenbury Road (NW)
From	1 - A28 (NE) Templer Way	2	35	58	1387	29
	2 - Chart Road (East)	17	0	21	288	33
	3 - Carlton Way (South)	156	43	0	13	1
	4 - A28 (SW) Chart Road	1244	297	8	1	17
	5 - Sir Henry Brackenbury Road (NW)	24	27	3	7	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To				
		1 - A28 (NE) Templer Way	2 - Chart Road (East)	3 - Carlton Way (South)	4 - A28 (SW) Chart Road	5 - Sir Henry Brackenbury Road (NW)
From	1 - A28 (NE) Templer Way	0	3	40	1	0
	2 - Chart Road (East)	0	0	16	0	0
	3 - Carlton Way (South)	3	2	0	8	0
	4 - A28 (SW) Chart Road	1	1	75	0	0
	5 - Sir Henry Brackenbury Road (NW)	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A28 (NE) Templer Way	1.42	1328.38	447.4	F	1511	1511
2 - Chart Road (East)	1.18	648.44	60.0	F	359	359
3 - Carlton Way (South)	1.32	1066.96	52.8	F	213	213
4 - A28 (SW) Chart Road	1.20	643.73	264.5	F	1567	1567
5 - Sir Henry Brackenbury Road (NW)	1.35	1276.85	16.8	F	61	61

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi le se
1 - A28 (NE) Templer Way	1511	378	311	0.00	1068	1.415	1058	1173	0.0	113.2	198.145	
2 - Chart Road (East)	359	90	1048		307	1.169	290	321	0.0	17.2	129.489	
3 - Carlton Way (South)	213	53	1272		170	1.249	159	66	0.0	13.6	188.563	
4 - A28 (SW) Chart Road	1567	392	211	0.00	1309	1.197	1291	1220	0.0	69.1	103.452	
5 - Sir Henry Brackenbury Road (NW)	61	15	1440		55	1.103	45	62	0.0	4.1	244.965	

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi le se
1 - A28 (NE) Templer Way	1511	378	314	0.00	1066	1.418	1066	1187	113.2	224.5	576.537	
2 - Chart Road (East)	359	90	1056		303	1.184	301	324	17.2	31.8	316.619	
3 - Carlton Way (South)	213	53	1289		162	1.316	161	67	13.6	26.7	489.883	
4 - A28 (SW) Chart Road	1567	392	214	0.00	1307	1.199	1306	1235	69.1	134.3	287.028	
5 - Sir Henry Brackenbury Road (NW)	61	15	1458		45	1.341	43	63	4.1	8.5	618.134	

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi le se
1 - A28 (NE) Templer Way	1511	378	314	0.00	1065	1.418	1065	1188	224.5	336.0	952.124	
2 - Chart Road (East)	359	90	1055		303	1.184	302	324	31.8	46.0	482.985	
3 - Carlton Way (South)	213	53	1290		161	1.321	161	67	26.7	39.8	777.861	
4 - A28 (SW) Chart Road	1567	392	215	0.00	1307	1.199	1307	1236	134.3	199.4	465.038	
5 - Sir Henry Brackenbury Road (NW)	61	15	1458		45	1.349	44	63	8.5	12.7	952.353	

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi l s
1 - A28 (NE) Templer Way	1511	378	315	0.00	1065	1.419	1065	1188	336.0	447.4	1328.382	
2 - Chart Road (East)	359	90	1055		303	1.184	303	325	46.0	60.0	648.436	
3 - Carlton Way (South)	213	53	1291		161	1.322	161	67	39.8	52.8	1066.960	
4 - A28 (SW) Chart Road	1567	392	215	0.00	1307	1.199	1307	1236	199.4	264.5	643.734	
5 - Sir Henry Brackenbury Road (NW)	61	15	1458		45	1.351	45	63	12.7	16.8	1276.849	

PM - 2023 Obs + Cttd + Dev (Sens.Test), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	1 - A28 (NE) Templer Way - Pedestrian crossing	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	4 - A28 (SW) Chart Road - Pedestrian crossing	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Demand Set Relationship	D22 - 2032 Base + Cttd, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	PM	✓	✓	D2,D11,D13,D15,D23,D25,D27	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tank Roundabout	Standard Roundabout		1, 2, 3, 4, 5	974.31	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	974.31	F

Arms

Arms

Arm	Name	Description	No give-way line
1	A28 (NE) Templer Way		
2	Chart Road (East)		
3	Carlton Way (South)		
4	A28 (SW) Chart Road		
5	Sir Henry Brackenbury Road (NW)		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - A28 (NE) Templer Way	7.30	8.82	4.0	25.0	51.0	39.0		
2 - Chart Road (East)	3.00	6.57	26.3	11.0	51.0	46.0		
3 - Carlton Way (South)	3.75	6.47	4.6	12.0	51.0	43.0		
4 - A28 (SW) Chart Road	6.75	9.16	13.0	13.0	51.0	53.0		
5 - Sir Henry Brackenbury Road (NW)	3.65	4.61	4.3	45.0	51.0	27.0		

Pelican/Puffin Crossings

Arm	Space between crossing and junc. entry (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
1 - A28 (NE) Templer Way	10.00	3.00	2.90	2.00	5.00	8.00	7.00
4 - A28 (SW) Chart Road	1.00	3.00	2.90	2.00	5.00	8.00	7.00

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
1 - A28 (NE) Templer Way	Direct		-1075
2 - Chart Road (East)	Direct		-631
3 - Carlton Way (South)	Direct		-493
4 - A28 (SW) Chart Road	Direct		-786
5 - Sir Henry Brackenbury Road (NW)	Direct		-485

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A28 (NE) Templer Way	0.723	1293
2 - Chart Road (East)	0.540	873
3 - Carlton Way (South)	0.509	818
4 - A28 (SW) Chart Road	0.675	1452
5 - Sir Henry Brackenbury Road (NW)	0.544	839

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D15	2023 Obs + Cttd + Dev (Sens.Test)	PM	FLAT	16:30	17:30	60	15	✓	Simple	D2+D4+D8

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A28 (NE) Templer Way		FLAT	✓	1516	100.000
2 - Chart Road (East)		FLAT	✓	366	100.000
3 - Carlton Way (South)		FLAT	✓	213	100.000
4 - A28 (SW) Chart Road		FLAT	✓	1571	100.000
5 - Sir Henry Brackenbury Road (NW)		FLAT	✓	61	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
1 - A28 (NE) Templer Way	[FLAT]	0.00
2 - Chart Road (East)		
3 - Carlton Way (South)		
4 - A28 (SW) Chart Road	[FLAT]	0.00
5 - Sir Henry Brackenbury Road (NW)		

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - A28 (NE) Templer Way	2 - Chart Road (East)	3 - Carlton Way (South)	4 - A28 (SW) Chart Road	5 - Sir Henry Brackenbury Road (NW)
From	1 - A28 (NE) Templer Way	2	35	58	1392	29
	2 - Chart Road (East)	17	0	21	295	33
	3 - Carlton Way (South)	156	43	0	13	1
	4 - A28 (SW) Chart Road	1246	299	8	1	17
	5 - Sir Henry Brackenbury Road (NW)	24	27	3	7	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To				
		1 - A28 (NE) Templer Way	2 - Chart Road (East)	3 - Carlton Way (South)	4 - A28 (SW) Chart Road	5 - Sir Henry Brackenbury Road (NW)
From	1 - A28 (NE) Templer Way	0	3	40	1	0
	2 - Chart Road (East)	0	0	16	0	0
	3 - Carlton Way (South)	3	2	0	8	0
	4 - A28 (SW) Chart Road	1	1	75	0	0
	5 - Sir Henry Brackenbury Road (NW)	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A28 (NE) Templer Way	1.42	1346.18	453.1	F	1516	1516
2 - Chart Road (East)	1.21	710.62	66.2	F	366	366
3 - Carlton Way (South)	1.32	1073.83	53.1	F	213	213
4 - A28 (SW) Chart Road	1.20	651.18	267.8	F	1571	1571
5 - Sir Henry Brackenbury Road (NW)	1.36	1289.28	16.9	F	61	61

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi le se
1 - A28 (NE) Templer Way	1516	379	312	0.00	1067	1.421	1058	1172	0.0	114.6	200.612	
2 - Chart Road (East)	366	92	1048		307	1.191	292	322	0.0	18.6	136.960	
3 - Carlton Way (South)	213	53	1273		170	1.254	158	66	0.0	13.8	190.511	
4 - A28 (SW) Chart Road	1571	393	210	0.00	1310	1.199	1292	1222	0.0	69.9	104.389	
5 - Sir Henry Brackenbury Road (NW)	61	15	1440		55	1.107	44	61	0.0	4.1	246.434	

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi le se
1 - A28 (NE) Templer Way	1516	379	315	0.00	1065	1.423	1065	1186	114.6	227.4	584.088	
2 - Chart Road (East)	366	92	1055		304	1.206	302	325	18.6	34.7	341.210	
3 - Carlton Way (South)	213	53	1290		162	1.318	160	67	13.8	26.9	494.213	
4 - A28 (SW) Chart Road	1571	393	213	0.00	1308	1.201	1307	1237	69.9	135.9	290.056	
5 - Sir Henry Brackenbury Road (NW)	61	15	1458		45	1.345	43	62	4.1	8.6	622.814	

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi le se
1 - A28 (NE) Templer Way	1516	379	315	0.00	1065	1.424	1065	1187	227.4	340.2	964.804	
2 - Chart Road (East)	366	92	1055		304	1.205	303	325	34.7	50.5	526.143	
3 - Carlton Way (South)	213	53	1291		161	1.322	161	67	26.9	40.0	783.576	
4 - A28 (SW) Chart Road	1571	393	214	0.00	1307	1.202	1307	1237	135.9	201.8	470.264	
5 - Sir Henry Brackenbury Road (NW)	61	15	1459		45	1.354	44	63	8.6	12.8	960.776	

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi l s
1 - A28 (NE) Templer Way	1516	379	316	0.00	1064	1.424	1064	1187	340.2	453.1	1346.181	
2 - Chart Road (East)	366	92	1055		304	1.205	303	325	50.5	66.2	710.623	
3 - Carlton Way (South)	213	53	1291		161	1.323	161	67	40.0	53.1	1073.829	
4 - A28 (SW) Chart Road	1571	393	214	0.00	1307	1.202	1307	1237	201.8	267.8	651.178	
5 - Sir Henry Brackenbury Road (NW)	61	15	1459		45	1.356	44	63	12.8	16.9	1289.277	

PM - 2032 Base + Cttd, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D22 - 2032 Base + Cttd, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	PM	✓	✓	D2,D11,D13,D15,D23,D25,D27	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tank Roundabout	Standard Roundabout		1, 2, 3, 4, 5	1081.36	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1081.36	F

Arms

Arms

Arm	Name	Description	No give-way line
1	A28 (NE) Templer Way		
2	Chart Road (East)		
3	Carlton Way (South)		
4	A28 (SW) Chart Road		
5	Sir Henry Brackenbury Road (NW)		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - A28 (NE) Templer Way	7.30	8.82	4.0	25.0	51.0	39.0		
2 - Chart Road (East)	3.00	6.57	26.3	11.0	51.0	46.0		
3 - Carlton Way (South)	3.75	6.47	4.6	12.0	51.0	43.0		
4 - A28 (SW) Chart Road	6.75	9.16	13.0	13.0	51.0	53.0		
5 - Sir Henry Brackenbury Road (NW)	3.65	4.61	4.3	45.0	51.0	27.0		

Pelican/Puffin Crossings

Arm	Space between crossing and junc. entry (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
1 - A28 (NE) Templer Way	10.00	3.00	2.90	2.00	5.00	8.00	7.00
4 - A28 (SW) Chart Road	1.00	3.00	2.90	2.00	5.00	8.00	7.00

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
1 - A28 (NE) Templer Way	Direct		-1075
2 - Chart Road (East)	Direct		-631
3 - Carlton Way (South)	Direct		-493
4 - A28 (SW) Chart Road	Direct		-786
5 - Sir Henry Brackenbury Road (NW)	Direct		-485

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A28 (NE) Templer Way	0.723	1293
2 - Chart Road (East)	0.540	873
3 - Carlton Way (South)	0.509	818
4 - A28 (SW) Chart Road	0.675	1452
5 - Sir Henry Brackenbury Road (NW)	0.544	839

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D23	2032 Base + Cttd	PM	FLAT	16:30	17:30	60	15	✓	Simple	D21+D4

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A28 (NE) Templer Way		FLAT	✓	1551	100.000
2 - Chart Road (East)		FLAT	✓	346	100.000
3 - Carlton Way (South)		FLAT	✓	229	100.000
4 - A28 (SW) Chart Road		FLAT	✓	1617	100.000
5 - Sir Henry Brackenbury Road (NW)		FLAT	✓	65	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
1 - A28 (NE) Templer Way	[FLAT]	14.00
2 - Chart Road (East)		
3 - Carlton Way (South)		
4 - A28 (SW) Chart Road	[FLAT]	14.00
5 - Sir Henry Brackenbury Road (NW)		

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - A28 (NE) Templer Way	2 - Chart Road (East)	3 - Carlton Way (South)	4 - A28 (SW) Chart Road	5 - Sir Henry Brackenbury Road (NW)
From	1 - A28 (NE) Templer Way	2	38	62	1418	31
	2 - Chart Road (East)	18	0	23	269	35
	3 - Carlton Way (South)	167	46	0	14	1
	4 - A28 (SW) Chart Road	1292	297	9	1	18
	5 - Sir Henry Brackenbury Road (NW)	26	29	3	8	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To				
		1 - A28 (NE) Templer Way	2 - Chart Road (East)	3 - Carlton Way (South)	4 - A28 (SW) Chart Road	5 - Sir Henry Brackenbury Road (NW)
From	1 - A28 (NE) Templer Way	0	3	40	1	0
	2 - Chart Road (East)	0	0	16	0	0
	3 - Carlton Way (South)	3	2	0	8	0
	4 - A28 (SW) Chart Road	1	1	75	0	0
	5 - Sir Henry Brackenbury Road (NW)	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A28 (NE) Templer Way	1.45	1430.49	483.7	F	1551	1551
2 - Chart Road (East)	1.15	551.15	50.0	F	346	346
3 - Carlton Way (South)	1.41	1310.93	66.1	F	229	229
4 - A28 (SW) Chart Road	1.26	841.60	339.9	F	1617	1617
5 - Sir Henry Brackenbury Road (NW)	1.13	726.90	11.4	F	65	65

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi le se
1 - A28 (NE) Templer Way	1551	388	304	14.00	1073	1.446	1064	1168	0.0	121.9	211.750	
2 - Chart Road (East)	346	86	1054		304	1.136	285	314	0.0	15.1	118.854	
3 - Carlton Way (South)	229	57	1268		172	1.326	162	70	0.0	16.6	216.465	
4 - A28 (SW) Chart Road	1617	404	219	14.00	1282	1.261	1268	1211	0.0	87.4	130.238	
5 - Sir Henry Brackenbury Road (NW)	65	16	1421		65	1.003	51	66	0.0	3.6	191.726	

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi le se
1 - A28 (NE) Templer Way	1551	388	308	14.00	1070	1.450	1070	1180	121.9	242.4	619.027	
2 - Chart Road (East)	346	86	1060		301	1.149	297	318	15.1	27.1	279.721	
3 - Carlton Way (South)	229	57	1286		163	1.398	163	72	16.6	33.1	585.234	
4 - A28 (SW) Chart Road	1617	404	222	14.00	1281	1.263	1280	1227	87.4	171.6	370.184	
5 - Sir Henry Brackenbury Road (NW)	65	16	1435		58	1.132	54	67	3.6	6.5	413.555	

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi l s
1 - A28 (NE) Templer Way	1551	388	309	14.00	1069	1.451	1069	1181	242.4	363.0	1024.375	
2 - Chart Road (East)	346	86	1060		301	1.148	299	319	27.1	38.7	416.499	
3 - Carlton Way (South)	229	57	1287		163	1.404	162	72	33.1	49.6	946.939	
4 - A28 (SW) Chart Road	1617	404	222	14.00	1281	1.263	1281	1228	171.6	255.8	605.591	
5 - Sir Henry Brackenbury Road (NW)	65	16	1435		58	1.133	55	67	6.5	9.1	578.741	

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi l s
1 - A28 (NE) Templer Way	1551	388	310	14.00	1069	1.452	1069	1181	363.0	483.7	1430.492	
2 - Chart Road (East)	346	86	1060		301	1.148	300	319	38.7	50.0	551.153	
3 - Carlton Way (South)	229	57	1288		163	1.406	162	72	49.6	66.1	1310.930	
4 - A28 (SW) Chart Road	1617	404	222	14.00	1281	1.263	1281	1228	255.8	339.9	841.596	
5 - Sir Henry Brackenbury Road (NW)	65	16	1435		58	1.133	56	67	9.1	11.4	726.903	

PM - 2032 Base + Cttd + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D22 - 2032 Base + Cttd, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	PM	✓	✓	D2,D11,D13,D15,D23,D25,D27	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tank Roundabout	Standard Roundabout		1, 2, 3, 4, 5	1184.70	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1184.70	F

Arms

Arms

Arm	Name	Description	No give-way line
1	A28 (NE) Templer Way		
2	Chart Road (East)		
3	Carlton Way (South)		
4	A28 (SW) Chart Road		
5	Sir Henry Brackenbury Road (NW)		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - A28 (NE) Templer Way	7.30	8.82	4.0	25.0	51.0	39.0		
2 - Chart Road (East)	3.00	6.57	26.3	11.0	51.0	46.0		
3 - Carlton Way (South)	3.75	6.47	4.6	12.0	51.0	43.0		
4 - A28 (SW) Chart Road	6.75	9.16	13.0	13.0	51.0	53.0		
5 - Sir Henry Brackenbury Road (NW)	3.65	4.61	4.3	45.0	51.0	27.0		

Pelican/Puffin Crossings

Arm	Space between crossing and junc. entry (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
1 - A28 (NE) Templer Way	10.00	3.00	2.90	2.00	5.00	8.00	7.00
4 - A28 (SW) Chart Road	1.00	3.00	2.90	2.00	5.00	8.00	7.00

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
1 - A28 (NE) Templer Way	Direct		-1075
2 - Chart Road (East)	Direct		-631
3 - Carlton Way (South)	Direct		-493
4 - A28 (SW) Chart Road	Direct		-786
5 - Sir Henry Brackenbury Road (NW)	Direct		-485

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A28 (NE) Templer Way	0.723	1293
2 - Chart Road (East)	0.540	873
3 - Carlton Way (South)	0.509	818
4 - A28 (SW) Chart Road	0.675	1452
5 - Sir Henry Brackenbury Road (NW)	0.544	839

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D25	2032 Base + Cttd + Dev	PM	FLAT	16:30	17:30	60	15	✓	Simple	D21+D4+D6

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A28 (NE) Templer Way		FLAT	✓	1578	100.000
2 - Chart Road (East)		FLAT	✓	383	100.000
3 - Carlton Way (South)		FLAT	✓	229	100.000
4 - A28 (SW) Chart Road		FLAT	✓	1651	100.000
5 - Sir Henry Brackenbury Road (NW)		FLAT	✓	65	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
1 - A28 (NE) Templer Way	[FLAT]	14.00
2 - Chart Road (East)		
3 - Carlton Way (South)		
4 - A28 (SW) Chart Road	[FLAT]	14.00
5 - Sir Henry Brackenbury Road (NW)		

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - A28 (NE) Templer Way	2 - Chart Road (East)	3 - Carlton Way (South)	4 - A28 (SW) Chart Road	5 - Sir Henry Brackenbury Road (NW)
From	1 - A28 (NE) Templer Way	2	38	62	1445	31
	2 - Chart Road (East)	18	0	23	306	35
	3 - Carlton Way (South)	167	46	0	14	1
	4 - A28 (SW) Chart Road	1306	317	9	1	18
	5 - Sir Henry Brackenbury Road (NW)	26	29	3	8	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To				
		1 - A28 (NE) Templer Way	2 - Chart Road (East)	3 - Carlton Way (South)	4 - A28 (SW) Chart Road	5 - Sir Henry Brackenbury Road (NW)
From	1 - A28 (NE) Templer Way	0	3	40	1	0
	2 - Chart Road (East)	0	0	16	0	0
	3 - Carlton Way (South)	3	2	0	8	0
	4 - A28 (SW) Chart Road	1	1	75	0	0
	5 - Sir Henry Brackenbury Road (NW)	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A28 (NE) Templer Way	1.49	1543.20	518.2	F	1578	1578
2 - Chart Road (East)	1.26	857.85	80.9	F	383	383
3 - Carlton Way (South)	1.41	1327.42	66.8	F	229	229
4 - A28 (SW) Chart Road	1.29	914.30	370.5	F	1651	1651
5 - Sir Henry Brackenbury Road (NW)	1.15	772.76	12.1	F	65	65

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi le se
1 - A28 (NE) Templer Way	1578	395	315	14.00	1065	1.482	1057	1159	0.0	130.4	227.447	
2 - Chart Road (East)	383	96	1047		308	1.244	294	324	0.0	22.1	155.821	
3 - Carlton Way (South)	229	57	1273		170	1.346	160	68	0.0	17.1	224.175	
4 - A28 (SW) Chart Road	1651	413	214	14.00	1286	1.284	1272	1220	0.0	94.7	139.849	
5 - Sir Henry Brackenbury Road (NW)	65	16	1423		64	1.020	51	63	0.0	3.7	198.209	

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi le se
1 - A28 (NE) Templer Way	1578	395	319	14.00	1062	1.486	1062	1171	130.4	259.6	666.923	
2 - Chart Road (East)	383	96	1053		305	1.256	303	328	22.1	41.9	401.283	
3 - Carlton Way (South)	229	57	1287		163	1.404	162	69	17.1	33.7	599.866	
4 - A28 (SW) Chart Road	1651	413	217	14.00	1284	1.286	1284	1232	94.7	186.6	400.391	
5 - Sir Henry Brackenbury Road (NW)	65	16	1437		57	1.149	53	64	3.7	6.8	431.775	

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi l s
1 - A28 (NE) Templer Way	1578	395	320	14.00	1061	1.487	1061	1172	259.6	388.8	1104.703	
2 - Chart Road (East)	383	96	1053		305	1.255	304	329	41.9	61.4	629.528	
3 - Carlton Way (South)	229	57	1288		163	1.406	162	69	33.7	50.3	963.038	
4 - A28 (SW) Chart Road	1651	413	217	14.00	1284	1.286	1284	1233	186.6	278.5	657.027	
5 - Sir Henry Brackenbury Road (NW)	65	16	1437		57	1.152	55	64	6.8	9.5	610.143	

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi l s
1 - A28 (NE) Templer Way	1578	395	320	14.00	1061	1.488	1061	1172	388.8	518.2	1543.199	
2 - Chart Road (East)	383	96	1052		305	1.255	305	329	61.4	80.9	857.855	
3 - Carlton Way (South)	229	57	1288		163	1.406	162	69	50.3	66.8	1327.417	
4 - A28 (SW) Chart Road	1651	413	218	14.00	1284	1.286	1284	1233	278.5	370.5	914.304	
5 - Sir Henry Brackenbury Road (NW)	65	16	1437		57	1.153	55	64	9.5	12.1	772.757	

PM - 2032 Base + Cttd + Dev (Sens.Test), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Set Relationship	D22 - 2032 Base + Cttd, AM	Demand Set relationships are chained. This may slow down the file.

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	PM	✓	✓	D2,D11,D13,D15,D23,D25,D27	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tank Roundabout	Standard Roundabout		1, 2, 3, 4, 5	1201.58	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1201.58	F

Arms

Arms

Arm	Name	Description	No give-way line
1	A28 (NE) Templer Way		
2	Chart Road (East)		
3	Carlton Way (South)		
4	A28 (SW) Chart Road		
5	Sir Henry Brackenbury Road (NW)		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - A28 (NE) Templer Way	7.30	8.82	4.0	25.0	51.0	39.0		
2 - Chart Road (East)	3.00	6.57	26.3	11.0	51.0	46.0		
3 - Carlton Way (South)	3.75	6.47	4.6	12.0	51.0	43.0		
4 - A28 (SW) Chart Road	6.75	9.16	13.0	13.0	51.0	53.0		
5 - Sir Henry Brackenbury Road (NW)	3.65	4.61	4.3	45.0	51.0	27.0		

Pelican/Puffin Crossings

Arm	Space between crossing and junc. entry (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
1 - A28 (NE) Templer Way	10.00	3.00	2.90	2.00	5.00	8.00	7.00
4 - A28 (SW) Chart Road	1.00	3.00	2.90	2.00	5.00	8.00	7.00

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
1 - A28 (NE) Templer Way	Direct		-1075
2 - Chart Road (East)	Direct		-631
3 - Carlton Way (South)	Direct		-493
4 - A28 (SW) Chart Road	Direct		-786
5 - Sir Henry Brackenbury Road (NW)	Direct		-485

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A28 (NE) Templer Way	0.723	1293
2 - Chart Road (East)	0.540	873
3 - Carlton Way (South)	0.509	818
4 - A28 (SW) Chart Road	0.675	1452
5 - Sir Henry Brackenbury Road (NW)	0.544	839

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically	Relationship type	Relationship
D27	2032 Base + Cttd + Dev (Sens.Test)	PM	FLAT	16:30	17:30	60	15	✓	Simple	D21+D4+D8

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A28 (NE) Templer Way		FLAT	✓	1583	100.000
2 - Chart Road (East)		FLAT	✓	390	100.000
3 - Carlton Way (South)		FLAT	✓	229	100.000
4 - A28 (SW) Chart Road		FLAT	✓	1655	100.000
5 - Sir Henry Brackenbury Road (NW)		FLAT	✓	65	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
1 - A28 (NE) Templer Way	[FLAT]	14.00
2 - Chart Road (East)		
3 - Carlton Way (South)		
4 - A28 (SW) Chart Road	[FLAT]	14.00
5 - Sir Henry Brackenbury Road (NW)		

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - A28 (NE) Templer Way	2 - Chart Road (East)	3 - Carlton Way (South)	4 - A28 (SW) Chart Road	5 - Sir Henry Brackenbury Road (NW)
From	1 - A28 (NE) Templer Way	2	38	62	1450	31
	2 - Chart Road (East)	18	0	23	313	35
	3 - Carlton Way (South)	167	46	0	14	1
	4 - A28 (SW) Chart Road	1308	319	9	1	18
	5 - Sir Henry Brackenbury Road (NW)	26	29	3	8	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To				
		1 - A28 (NE) Templer Way	2 - Chart Road (East)	3 - Carlton Way (South)	4 - A28 (SW) Chart Road	5 - Sir Henry Brackenbury Road (NW)
From	1 - A28 (NE) Templer Way	0	3	40	1	0
	2 - Chart Road (East)	0	0	16	0	0
	3 - Carlton Way (South)	3	2	0	8	0
	4 - A28 (SW) Chart Road	1	1	75	0	0
	5 - Sir Henry Brackenbury Road (NW)	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A28 (NE) Templer Way	1.49	1561.05	523.9	F	1583	1583
2 - Chart Road (East)	1.28	922.17	87.3	F	390	390
3 - Carlton Way (South)	1.41	1332.69	67.0	F	229	229
4 - A28 (SW) Chart Road	1.29	922.04	373.8	F	1655	1655
5 - Sir Henry Brackenbury Road (NW)	1.16	779.68	12.2	F	65	65

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi le se
1 - A28 (NE) Templer Way	1583	396	316	14.00	1064	1.488	1056	1158	0.0	131.8	229.935	
2 - Chart Road (East)	390	97	1047		308	1.265	295	325	0.0	23.6	163.836	
3 - Carlton Way (South)	229	57	1274		169	1.350	160	68	0.0	17.2	225.738	
4 - A28 (SW) Chart Road	1655	414	213	14.00	1287	1.286	1273	1221	0.0	95.5	140.864	
5 - Sir Henry Brackenbury Road (NW)	65	16	1424		64	1.022	51	62	0.0	3.7	199.036	

16:45 - 17:00

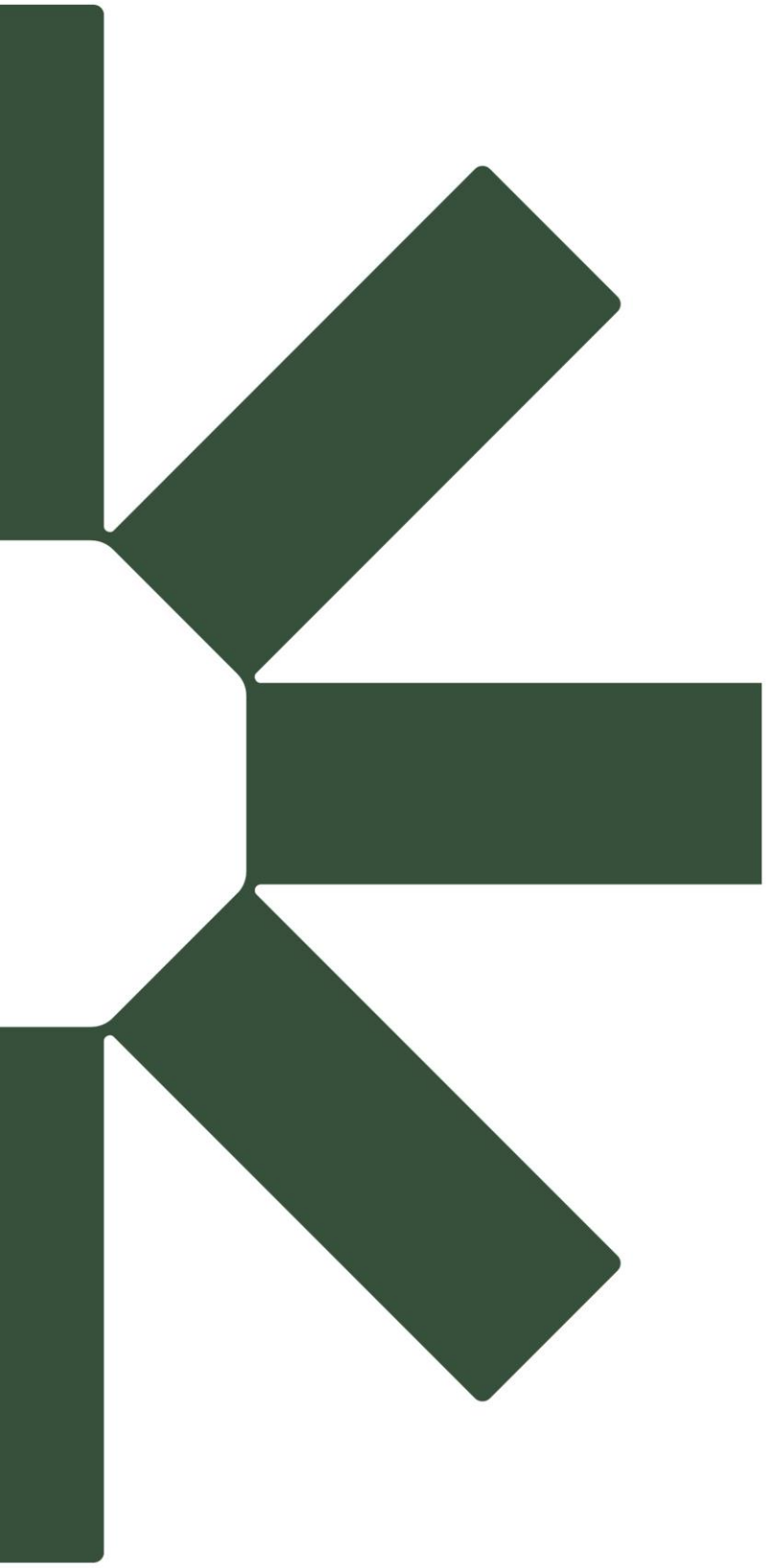
Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi le se
1 - A28 (NE) Templer Way	1583	396	320	14.00	1061	1.492	1061	1170	131.8	262.4	674.512	
2 - Chart Road (East)	390	97	1052		305	1.277	304	329	23.6	45.0	427.282	
3 - Carlton Way (South)	229	57	1288		163	1.405	162	69	17.2	33.9	603.171	
4 - A28 (SW) Chart Road	1655	414	216	14.00	1285	1.289	1284	1233	95.5	188.3	403.598	
5 - Sir Henry Brackenbury Road (NW)	65	16	1437		57	1.152	53	63	3.7	6.8	434.430	

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi l s
1 - A28 (NE) Templer Way	1583	396	321	14.00	1061	1.493	1061	1171	262.4	393.1	1117.428	
2 - Chart Road (East)	390	97	1052		305	1.276	305	330	45.0	66.2	674.585	
3 - Carlton Way (South)	229	57	1288		162	1.407	162	69	33.9	50.5	967.375	
4 - A28 (SW) Chart Road	1655	414	217	14.00	1284	1.289	1284	1234	188.3	281.0	662.497	
5 - Sir Henry Brackenbury Road (NW)	65	16	1437		57	1.155	55	63	6.8	9.6	614.858	

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsi l s
1 - A28 (NE) Templer Way	1583	396	321	14.00	1060	1.493	1060	1171	393.1	523.9	1561.048	
2 - Chart Road (East)	390	97	1052		305	1.276	305	330	66.2	87.3	922.167	
3 - Carlton Way (South)	229	57	1288		162	1.407	162	69	50.5	67.0	1332.687	
4 - A28 (SW) Chart Road	1655	414	217	14.00	1284	1.289	1284	1234	281.0	373.8	922.042	
5 - Sir Henry Brackenbury Road (NW)	65	16	1437		57	1.156	55	63	9.6	12.2	779.682	



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