



PMcL/3167.03

4th August 2015Mr J Rand
Strategic Planning
West Sussex County Council
Ground Floor,
Northleigh
County Hall
Chichester
PO19 1RH

Dear Mr Rand,

Mixed use development, A259 New Road, Rustington - Ref: A/23/15/OUT

Please find enclosed amended information:

- Appendix A – PICADY outputs. The results of the peak hour assessments for the 2016, 2020 and 2025 scenarios are shown in **Table 1.0**, **Table 2.0** and **Table 3.0**:

Table 1.0**Proposed Site Access Year of Opening 2016 + Committed Development + Development**

Arm	Friday PM Peak		Saturday Peak	
	Max RFC	Max Queue	Max RFC	Max Queue
Site Access Left Out	0.25	0.33	0.22	0.28

Table 2.0**Proposed Site Access Horizon Year 2020 + Committed Development + Development**

Arm	Friday PM Peak		Saturday Peak	
	Max RFC	Max Queue	Max RFC	Max Queue
³¹⁶⁷ Site Access Left Out	0.26	0.34	0.22	0.29

Table 3.0**Proposed Site Access Horizon Year 2025 + Committed Development + Development**

Arm	Friday PM Peak		Saturday Peak	
	Max RFC	Max Queue	Max RFC	Max Queue
³¹⁶⁷ Site Access Left Out	0.26	0.35	0.23	0.30

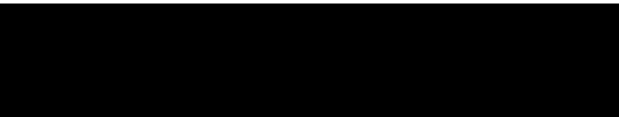


Tables 1.0 to Table 3.0 show that the proposed site access with the amended trip rates applied will operate well within capacity for the Year of Opening 2016, Horizon Year 2020 and Future Year 2025 traffic scenarios. The junction experiences a maximum RFC of 0.19 during both Saturday peak hours for all years with a maximum theoretical queue rounded up to 1 vehicle during each peak hour.

2. Appendix B –Design Audit of the site access. Please note we have increased the merge taper length to 130m so that it complies with a full 120kph design speed. The Departure from Standard for this element of the design is therefore withdrawn
3. Appendix C – Design Audit of the shared footpath cyclepath route
4. Drawings - PICADY input parameters on Drawing No. REDW-3167-409
5. Drawings - Updated Site Plan REDW-3167-110-Rev C
6. Drawings - Updated Shared Footpath/Cyclepath REDW-3167-111-Rev B

We trust this information is sufficient for your purposes. Please do not hesitate to contact the writer if you require any further clarification.

Yours Sincerely



P McLaughlin
for The Redwood Partnership
Encs.

Cc

Mr J Marshall – Commercial Development Projects Limited
Mr E Ledwidge – Blue Sky Planning
Mr H Dennis – Add Architects
Mr D McEwan – Arun District Council
Mr D Smith – West Sussex County Council

APPENDIX A

Junctions 8	
PICADY 8 - Priority Intersection Module	
Version: 8.0.4.487 [15039,24/03/2014] © Copyright TRL Limited, 2015	
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Filename: Import of 3167P105 Friday 2016.arc8
Path: \\Main\d\Projects\3167 Littlehampton-M&S\Documents\Reports
Report generation date: 21/07/2015 15:00:07

- » Scenario 1, AM
- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
Scenario 1					
Stream B-AC	0.33	8.54	0.25	A	92 % [Stream B-AC]
Stream C-A	-	-	-	-	
Stream C-B	0.00	0.00	0.00	A	
Stream A-B	-	-	-	-	
Stream A-C	-	-	-	-	

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

"D1 - Scenario 1, AM " model duration: 16:30 - 18:00

Run using Junctions 8.0.4.487 at 21/07/2015 15:00:06

File summary

Title	3167P105 Friday PM 2016 + committed + development
Location	A259/Site egress
Site Number	
Date	20/07/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75		✓	Delay	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	Veh	Veh	perMin	s	-Min	perMin

Scenario 1, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
	N/A		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relations
Scenario 1, AM	Scenario 1	AM	PM Peak Hour	Varies by Arm	16:30	18:00	90	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	A,B,C		8.54	A

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	92	Stream B-AC

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	A259 East		Major
B	B	Site egress		Minor
C	C	A259 West		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	18.00		0.00		2.20	0.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	4.00										0	120

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/min)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	9.822	0.051	0.130	0.082	0.185
1	B-C	12.825	0.056	0.142	-	-
1	C-B	9.566	0.106	0.106	-	-

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

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

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
			✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	23.37	100.000
B	ONE HOUR	✓	2.13	100.000
C	ONE HOUR	✓	0.00	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

	To			
		A	B	C
From	A	0.000	2.250	21.117
	B	0.000	0.000	2.133
	C	0.000	0.000	0.000

Turning Proportions (Veh) - Junction 1 (for whole period)

	To			
		A	B	C
From	A	0.00	0.10	0.90
	B	0.00	0.00	1.00
	C	0.33	0.33	0.33

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

	To			
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

	To			
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
B-A	0.25	8.54	0.33	A	1.96	176.18	22.33	7.61	0.25	22.33	7.61
C-A	-	-	-	-	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	2.06	185.82	-	-	-	-	-
A-C	-	-	-	-	19.38	1743.93	-	-	-	-	-

Main Results for each time segment

Main results: (16:30-16:45)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-A	1.61	24.09	1.59	0.00	10.46	0.153	0.00	0.18	6.756	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.70	0.000	0.00	0.00	0.000	A
A-B	1.69	25.41	1.69	0.00	-	-	-	-	-	-
A-C	15.90	238.47	15.90	0.00	-	-	-	-	-	-

Main results: (16:45-17:00)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-A	1.92	28.77	1.91	0.00	10.01	0.192	0.18	0.23	7.411	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.33	0.000	0.00	0.00	0.000	A
A-B	2.02	30.34	2.02	0.00	-	-	-	-	-	-
A-C	18.98	284.75	18.98	0.00	-	-	-	-	-	-

Main results: (17:00-17:15)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-A	2.35	35.23	2.34	0.00	9.37	0.251	0.23	0.33	8.527	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	6.83	0.000	0.00	0.00	0.000	A
A-B	2.48	37.16	2.48	0.00	-	-	-	-	-	-
A-C	23.25	348.75	23.25	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-A	2.35	35.23	2.35	0.00	9.37	0.251	0.33	0.33	8.542	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	6.83	0.000	0.00	0.00	0.000	A
A-B	2.48	37.16	2.48	0.00	-	-	-	-	-	-
A-C	23.25	348.75	23.25	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-A	1.92	28.77	1.92	0.00	10.01	0.192	0.33	0.24	7.431	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.33	0.000	0.00	0.00	0.000	A
A-B	2.02	30.34	2.02	0.00	-	-	-	-	-	-
A-C	18.98	284.75	18.98	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-A	1.61	24.09	1.61	0.00	10.46	0.153	0.24	0.18	6.781	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.70	0.000	0.00	0.00	0.000	A
A-B	1.69	25.41	1.69	0.00	-	-	-	-	-	-
A-C	15.90	238.47	15.90	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (16:30-16:45)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-A	2.61	0.17	6.756	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (16:45-17:00)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-A	3.44	0.23	7.411	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-A	4.81	0.32	8.527	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-A	4.97	0.33	8.542	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	3.69	0.25	7.431	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	2.81	0.19	6.781	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Junctions 8				
PICADY 8 - Priority Intersection Module				
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- » Scenario 1, AM
- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
Scenario 1					
Stream B-AC	0.28	8.04	0.22	A	108 % [Stream B-AC]
Stream C-A	-	-	-	-	
Stream C-B	0.00	0.00	0.00	A	
Stream A-B	-	-	-	-	
Stream A-C	-	-	-	-	

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

"D1 - Scenario 1, AM " model duration: 11:45 - 13:15

Run using Junctions 8.0.4.487 at 21/07/2015 15:01:32

File summary

Title	3167P106 Saturday PM 2016 + committed + development
Location	A259/Site egress
Site Number	
Date	20/07/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75		✓	Delay	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	Veh	Veh	perMin	s	-Min	perMin

Scenario 1, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
	N/A		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relations
Scenario 1, AM	Scenario 1	AM	PM Peak Hour	Varies by Arm	11:45	13:15	90	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	A,B,C		8.04	A

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	108	Stream B-AC

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	A259 East		Major
B	B	Site egress		Minor
C	C	A259 West		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	18.00		0.00		2.20	0.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	4.00										0	120

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/min)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	9.822	0.051	0.130	0.082	0.185
1	B-C	12.825	0.056	0.142	-	-
1	C-B	9.566	0.106	0.106	-	-

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

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

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
			✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	22.13	100.000
B	ONE HOUR	✓	1.92	100.000
C	ONE HOUR	✓	0.00	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

	To			
		A	B	C
From	A	0.000	2.267	19.867
	B	0.000	0.000	1.917
	C	0.000	0.000	0.000

Turning Proportions (Veh) - Junction 1 (for whole period)

	To			
		A	B	C
From	A	0.00	0.10	0.90
	B	0.00	0.00	1.00
	C	0.33	0.33	0.33

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

	To			
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

	To			
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
B-A-C	0.22	8.04	0.28	A	1.76	158.29	19.14	7.26	0.21	19.14	7.26
C-A	-	-	-	-	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	2.08	187.19	-	-	-	-	-
A-C	-	-	-	-	18.23	1640.70	-	-	-	-	-

Main Results for each time segment

Main results: (11:45-12:00)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-A	1.44	21.64	1.43	0.00	10.60	0.136	0.00	0.16	6.540	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.80	0.000	0.00	0.00	0.000	A
A-B	1.71	25.60	1.71	0.00	-	-	-	-	-	-
A-C	14.96	224.35	14.96	0.00	-	-	-	-	-	-

Main results: (12:00-12:15)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-A	1.72	25.85	1.72	0.00	10.17	0.170	0.16	0.20	7.103	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.45	0.000	0.00	0.00	0.000	A
A-B	2.04	30.57	2.04	0.00	-	-	-	-	-	-
A-C	17.86	267.90	17.86	0.00	-	-	-	-	-	-

Main results: (12:15-12:30)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-A	2.11	31.65	2.11	0.00	9.57	0.221	0.20	0.28	8.034	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	6.98	0.000	0.00	0.00	0.000	A
A-B	2.50	37.43	2.50	0.00	-	-	-	-	-	-
A-C	21.87	328.10	21.87	0.00	-	-	-	-	-	-

Main results: (12:30-12:45)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-A	2.11	31.65	2.11	0.00	9.57	0.221	0.28	0.28	8.045	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	6.98	0.000	0.00	0.00	0.000	A
A-B	2.50	37.43	2.50	0.00	-	-	-	-	-	-
A-C	21.87	328.10	21.87	0.00	-	-	-	-	-	-

Main results: (12:45-13:00)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-A	1.72	25.85	1.73	0.00	10.17	0.170	0.28	0.21	7.117	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.45	0.000	0.00	0.00	0.000	A
A-B	2.04	30.57	2.04	0.00	-	-	-	-	-	-
A-C	17.86	267.90	17.86	0.00	-	-	-	-	-	-

Main results: (13:00-13:15)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-A	1.44	21.64	1.45	0.00	10.60	0.136	0.21	0.16	6.560	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.80	0.000	0.00	0.00	0.000	A
A-B	1.71	25.60	1.71	0.00	-	-	-	-	-	-
A-C	14.96	224.35	14.96	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (11:45-12:00)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-A	2.27	0.15	6.540	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (12:00-12:15)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-A	2.97	0.20	7.103	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (12:15-12:30)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-A	4.09	0.27	8.034	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (12:30-12:45)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-A	4.21	0.28	8.045	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (12:45-13:00)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	3.17	0.21	7.117	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (13:00-13:15)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	2.44	0.16	6.560	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Junctions 8	
PICADY 8 - Priority Intersection Module	
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- » Scenario 1, AM
- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
Scenario 1					
Stream B-AC	0.34	8.77	0.26	A	86 % [Stream B-AC]
Stream C-A	-	-	-	-	
Stream C-B	0.00	0.00	0.00	A	
Stream A-B	-	-	-	-	
Stream A-C	-	-	-	-	

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

"D1 - Scenario 1, AM " model duration: 16:30 - 18:00

Run using Junctions 8.0.4.487 at 21/07/2015 15:02:27

File summary

Title	3167P107 Friday PM 2020 + committed + development
Location	A259/Site egress
Site Number	
Date	20/07/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75		✓	Delay	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	Veh	Veh	perMin	s	-Min	perMin

Scenario 1, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
	N/A		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relations
Scenario 1, AM	Scenario 1	AM	PM Peak Hour	Varies by Arm	16:30	18:00	90	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	A,B,C		8.77	A

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	86	Stream B-AC

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	A259 East		Major
B	B	Site egress		Minor
C	C	A259 West		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	18.00		0.00		2.20	0.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	4.00										0	120

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/min)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	9.822	0.051	0.130	0.082	0.185
1	B-C	12.825	0.056	0.142	-	-
1	C-B	9.566	0.106	0.106	-	-

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

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

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
			✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	24.55	100.000
B	ONE HOUR	✓	2.13	100.000
C	ONE HOUR	✓	0.00	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

	To			
		A	B	C
From	A	0.000	2.250	22.300
	B	0.000	0.000	2.133
	C	0.000	0.000	0.000

Turning Proportions (Veh) - Junction 1 (for whole period)

	To			
		A	B	C
From	A	0.00	0.09	0.91
	B	0.00	0.00	1.00
	C	0.33	0.33	0.33

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

	To			
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

	To			
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
B-AC	0.26	8.77	0.34	A	1.96	176.18	22.81	7.77	0.25	22.81	7.77
C-A	-	-	-	-	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	2.06	185.82	-	-	-	-	-
A-C	-	-	-	-	20.46	1841.66	-	-	-	-	-

Main Results for each time segment

Main results: (16:30-16:45)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-A	1.61	24.09	1.59	0.00	10.34	0.155	0.00	0.18	6.852	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.60	0.000	0.00	0.00	0.000	A
A-B	1.69	25.41	1.69	0.00	-	-	-	-	-	-
A-C	16.79	251.83	16.79	0.00	-	-	-	-	-	-

Main results: (16:45-17:00)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-A	1.92	28.77	1.91	0.00	9.85	0.195	0.18	0.24	7.552	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.22	0.000	0.00	0.00	0.000	A
A-B	2.02	30.34	2.02	0.00	-	-	-	-	-	-
A-C	20.05	300.71	20.05	0.00	-	-	-	-	-	-

Main results: (17:00-17:15)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-A	2.35	35.23	2.34	0.00	9.19	0.256	0.24	0.34	8.756	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	6.69	0.000	0.00	0.00	0.000	A
A-B	2.48	37.16	2.48	0.00	-	-	-	-	-	-
A-C	24.55	368.29	24.55	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-A	2.35	35.23	2.35	0.00	9.19	0.256	0.34	0.34	8.774	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	6.69	0.000	0.00	0.00	0.000	A
A-B	2.48	37.16	2.48	0.00	-	-	-	-	-	-
A-C	24.55	368.29	24.55	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-A	1.92	28.77	1.92	0.00	9.85	0.195	0.34	0.24	7.574	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.22	0.000	0.00	0.00	0.000	A
A-B	2.02	30.34	2.02	0.00	-	-	-	-	-	-
A-C	20.05	300.71	20.05	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-AC	1.61	24.09	1.61	0.00	10.34	0.155	0.24	0.19	6.879	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.60	0.000	0.00	0.00	0.000	A
A-B	1.69	25.41	1.69	0.00	-	-	-	-	-	-
A-C	16.79	251.83	16.79	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (16:30-16:45)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	2.64	0.18	6.852	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (16:45-17:00)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	3.50	0.23	7.552	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	4.94	0.33	8.756	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	5.11	0.34	8.774	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	3.76	0.25	7.574	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	2.85	0.19	6.879	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

« »

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- » Scenario 1, AM
- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
Scenario 1					
Stream B-AC	0.29	8.23	0.22	A	102 % [Stream B-AC]
Stream C-A	-	-	-	-	
Stream C-B	0.00	0.00	0.00	A	
Stream A-B	-	-	-	-	
Stream A-C	-	-	-	-	

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

"D1 - Scenario 1, AM " model duration: 11:45 - 13:15

Run using Junctions 8.0.4.487 at 21/07/2015 15:04:06

File summary

Title	3167P108 Saturday PM 2016 + committed + development
Location	A259/Site egress
Site Number	
Date	20/07/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75		✓	Delay	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	Veh	Veh	perMin	s	-Min	perMin

Scenario 1, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
	N/A		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relations
Scenario 1, AM	Scenario 1	AM	PM Peak Hour	Varies by Arm	11:45	13:15	90	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	A,B,C		8.23	A

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	102	Stream B-AC

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	A259 East		Major
B	B	Site egress		Minor
C	C	A259 West		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	18.00		0.00		2.20	0.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	4.00										0	120

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/min)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	9.822	0.051	0.130	0.082	0.185
1	B-C	12.825	0.056	0.142	-	-
1	C-B	9.566	0.106	0.106	-	-

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

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

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
			✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	23.18	100.000
B	ONE HOUR	✓	1.92	100.000
C	ONE HOUR	✓	0.00	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

	To			
		A	B	C
From	A	0.000	2.267	20.917
	B	0.000	0.000	1.917
	C	0.000	0.000	0.000

Turning Proportions (Veh) - Junction 1 (for whole period)

	To			
		A	B	C
From	A	0.00	0.10	0.90
	B	0.00	0.00	1.00
	C	0.33	0.33	0.33

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

	To			
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

	To			
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
B-A	0.22	8.23	0.29	A	1.76	158.29	19.48	7.38	0.22	19.48	7.39
C-A	-	-	-	-	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	2.08	187.19	-	-	-	-	-
A-C	-	-	-	-	19.19	1727.41	-	-	-	-	-

Main Results for each time segment

Main results: (11:45-12:00)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-A	1.44	21.64	1.43	0.00	10.49	0.138	0.00	0.16	6.621	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.71	0.000	0.00	0.00	0.000	A
A-B	1.71	25.60	1.71	0.00	-	-	-	-	-	-
A-C	15.75	236.21	15.75	0.00	-	-	-	-	-	-

Main results: (12:00-12:15)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-A	1.72	25.85	1.72	0.00	10.03	0.172	0.16	0.21	7.219	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.35	0.000	0.00	0.00	0.000	A
A-B	2.04	30.57	2.04	0.00	-	-	-	-	-	-
A-C	18.80	282.05	18.80	0.00	-	-	-	-	-	-

Main results: (12:15-12:30)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-A	2.11	31.65	2.10	0.00	9.40	0.224	0.21	0.29	8.215	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	6.85	0.000	0.00	0.00	0.000	A
A-B	2.50	37.43	2.50	0.00	-	-	-	-	-	-
A-C	23.03	345.45	23.03	0.00	-	-	-	-	-	-

Main results: (12:30-12:45)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-A	2.11	31.65	2.11	0.00	9.40	0.224	0.29	0.29	8.227	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	6.85	0.000	0.00	0.00	0.000	A
A-B	2.50	37.43	2.50	0.00	-	-	-	-	-	-
A-C	23.03	345.45	23.03	0.00	-	-	-	-	-	-

Main results: (12:45-13:00)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-A	1.72	25.85	1.73	0.00	10.03	0.172	0.29	0.21	7.233	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.35	0.000	0.00	0.00	0.000	A
A-B	2.04	30.57	2.04	0.00	-	-	-	-	-	-
A-C	18.80	282.05	18.80	0.00	-	-	-	-	-	-

Main results: (13:00-13:15)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-AC	1.44	21.64	1.45	0.00	10.49	0.138	0.21	0.16	6.639	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.71	0.000	0.00	0.00	0.000	A
A-B	1.71	25.60	1.71	0.00	-	-	-	-	-	-
A-C	15.75	236.21	15.75	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (11:45-12:00)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	2.30	0.15	6.621	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (12:00-12:15)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	3.01	0.20	7.219	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (12:15-12:30)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	4.18	0.28	8.215	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (12:30-12:45)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	4.31	0.29	8.227	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (12:45-13:00)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	3.22	0.21	7.233	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (13:00-13:15)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	2.47	0.16	6.639	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Junctions 8	
PICADY 8 - Priority Intersection Module	
Version: 8.0.4.487 [15039,24/03/2014] © Copyright TRL Limited, 2015	
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Filename: Import of 3167P109 Friday 2025.arc8
Path: \\Main\d\Projects\3167 Littlehampton-M&S\Documents\Reports
Report generation date: 21/07/2015 15:05:23

- » Scenario 1, AM
- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
Scenario 1					
Stream B-AC	0.35	9.09	0.26	A	79 % [Stream B-AC]
Stream C-A	-	-	-	-	
Stream C-B	0.00	0.00	0.00	A	
Stream A-B	-	-	-	-	
Stream A-C	-	-	-	-	

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

"D1 - Scenario 1, AM " model duration: 16:30 - 18:00

Run using Junctions 8.0.4.487 at 21/07/2015 15:05:22

File summary

Title	3167P109 Friday PM 2025 + committed + development
Location	A259/Site egress
Site Number	
Date	20/07/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75		✓	Delay	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	Veh	Veh	perMin	s	-Min	perMin

Scenario 1, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
	N/A		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relations
Scenario 1, AM	Scenario 1	AM	PM Peak Hour	Varies by Arm	16:30	18:00	90	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	A,B,C		9.09	A

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	79	Stream B-AC

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	A259 East		Major
B	B	Site egress		Minor
C	C	A259 West		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	18.00		0.00		2.20	0.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	4.00										0	120

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/min)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	9.822	0.051	0.130	0.082	0.185
1	B-C	12.825	0.056	0.142	-	-
1	C-B	9.566	0.106	0.106	-	-

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

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

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
			✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	26.07	100.000
B	ONE HOUR	✓	2.13	100.000
C	ONE HOUR	✓	0.00	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

	To			
		A	B	C
From	A	0.000	2.250	23.817
	B	0.000	0.000	2.133
	C	0.000	0.000	0.000

Turning Proportions (Veh) - Junction 1 (for whole period)

	To			
		A	B	C
From	A	0.00	0.09	0.91
	B	0.00	0.00	1.00
	C	0.33	0.33	0.33

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

	To			
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

	To			
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
B-AC	0.26	9.09	0.35	A	1.96	176.18	23.45	7.98	0.26	23.45	7.98
C-A	-	-	-	-	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	2.06	185.82	-	-	-	-	-
A-C	-	-	-	-	21.85	1966.91	-	-	-	-	-

Main Results for each time segment

Main results: (16:30-16:45)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-A	1.61	24.09	1.59	0.00	10.17	0.158	0.00	0.19	6.982	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.48	0.000	0.00	0.00	0.000	A
A-B	1.69	25.41	1.69	0.00	-	-	-	-	-	-
A-C	17.93	268.96	17.93	0.00	-	-	-	-	-	-

Main results: (16:45-17:00)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-A	1.92	28.77	1.91	0.00	9.66	0.199	0.19	0.25	7.741	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.08	0.000	0.00	0.00	0.000	A
A-B	2.02	30.34	2.02	0.00	-	-	-	-	-	-
A-C	21.41	321.16	21.41	0.00	-	-	-	-	-	-

Main results: (17:00-17:15)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-A	2.35	35.23	2.34	0.00	8.95	0.262	0.25	0.35	9.070	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	6.52	0.000	0.00	0.00	0.000	A
A-B	2.48	37.16	2.48	0.00	-	-	-	-	-	-
A-C	26.22	393.34	26.22	0.00	-	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-A	2.35	35.23	2.35	0.00	8.95	0.262	0.35	0.35	9.090	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	6.52	0.000	0.00	0.00	0.000	A
A-B	2.48	37.16	2.48	0.00	-	-	-	-	-	-
A-C	26.22	393.34	26.22	0.00	-	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-A	1.92	28.77	1.92	0.00	9.66	0.199	0.35	0.25	7.763	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.08	0.000	0.00	0.00	0.000	A
A-B	2.02	30.34	2.02	0.00	-	-	-	-	-	-
A-C	21.41	321.16	21.41	0.00	-	-	-	-	-	-

Main results: (17:45-18:00)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-A	1.61	24.09	1.61	0.00	10.17	0.158	0.25	0.19	7.008	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.48	0.000	0.00	0.00	0.000	A
A-B	1.69	25.41	1.69	0.00	-	-	-	-	-	-
A-C	17.93	268.96	17.93	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (16:30-16:45)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-A	2.69	0.18	6.982	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (16:45-17:00)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-A	3.59	0.24	7.741	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:00-17:15)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-A	5.11	0.34	9.070	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:15-17:30)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-A	5.29	0.35	9.090	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:30-17:45)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	3.86	0.26	7.763	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (17:45-18:00)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	2.91	0.19	7.008	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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Junctions 8				
PICADY 8 - Priority Intersection Module				
Version: 8.0.4.487 [15039,24/03/2014]				
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Filename: Import of 3167P110 Saturday 2025.arc8
Path: \\Main\d\Projects\3167 Littlehampton-M&S\Documents\Reports
Report generation date: 21/07/2015 15:09:36

- » Scenario 1, AM
- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

Summary of junction performance

	AM				
	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
Scenario 1					
Stream B-AC	0.30	8.47	0.23	A	94 % [Stream B-AC]
Stream C-A	-	-	-	-	
Stream C-B	0.00	0.00	0.00	A	
Stream A-B	-	-	-	-	
Stream A-C	-	-	-	-	

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

"D1 - Scenario 1, AM " model duration: 11:45 - 13:15

Run using Junctions 8.0.4.487 at 21/07/2015 15:09:36

File summary

Title	3167P110 Saturday PM 2025 + committed + development
Location	A259/Site egress
Site Number	
Date	20/07/2015
Version	
Status	Final Version
Identifier	
Client	Commercial Development Projects Ltd
Jobnumber	3167
Enumerator	PMcL
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75		✓	Delay	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	Veh	Veh	perMin	s	-Min	perMin

Scenario 1, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set(s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
	N/A		✓				100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relations
Scenario 1, AM	Scenario 1	AM	PM Peak Hour	Varies by Arm	11:45	13:15	90	15				✓		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	A,B,C		8.47	A

Junction Network Options

Driving Side	Lighting	Network Residual Capacity (%)	First Arm Reaching Threshold
Left	Normal/unknown	94	Stream B-AC

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	A259 East		Major
B	B	Site egress		Minor
C	C	A259 West		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	18.00		0.00		2.20	0.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	4.00										0	120

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/min)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	9.822	0.051	0.130	0.082	0.185
1	B-C	12.825	0.056	0.142	-	-
1	C-B	9.566	0.106	0.106	-	-

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

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

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
			✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (Veh/min)	Flow Scaling Factor (%)
A	ONE HOUR	✓	24.53	100.000
B	ONE HOUR	✓	1.92	100.000
C	ONE HOUR	✓	0.00	100.000

Turning Proportions

Turning Counts / Proportions (Veh/min) - Junction 1 (for whole period)

	To			
		A	B	C
From	A	0.000	2.267	22.267
	B	0.000	0.000	1.917
	C	0.000	0.000	0.000

Turning Proportions (Veh) - Junction 1 (for whole period)

	To			
		A	B	C
From	A	0.00	0.09	0.91
	B	0.00	0.00	1.00
	C	0.33	0.33	0.33

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

	To			
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

	To			
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/min)	Total Junction Arrivals (Veh)	Total Queueing Delay (Veh-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (Veh-min/min)	Inclusive Total Queueing Delay (Veh-min)	Inclusive Average Queueing Delay (s)
B-AC	0.23	8.47	0.30	A	1.76	158.29	19.94	7.56	0.22	19.94	7.56
C-A	-	-	-	-	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-B	-	-	-	-	2.08	187.19	-	-	-	-	-
A-C	-	-	-	-	20.43	1838.91	-	-	-	-	-

Main Results for each time segment

Main results: (11:45-12:00)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-A	1.44	21.64	1.43	0.00	10.34	0.140	0.00	0.16	6.727	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.60	0.000	0.00	0.00	0.000	A
A-B	1.71	25.60	1.71	0.00	-	-	-	-	-	-
A-C	16.76	251.45	16.76	0.00	-	-	-	-	-	-

Main results: (12:00-12:15)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-A	1.72	25.85	1.72	0.00	9.86	0.175	0.16	0.21	7.368	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.22	0.000	0.00	0.00	0.000	A
A-B	2.04	30.57	2.04	0.00	-	-	-	-	-	-
A-C	20.02	300.26	20.02	0.00	-	-	-	-	-	-

Main results: (12:15-12:30)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-A	2.11	31.65	2.10	0.00	9.19	0.230	0.21	0.29	8.460	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	6.70	0.000	0.00	0.00	0.000	A
A-B	2.50	37.43	2.50	0.00	-	-	-	-	-	-
A-C	24.52	367.74	24.52	0.00	-	-	-	-	-	-

Main results: (12:30-12:45)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-A	2.11	31.65	2.11	0.00	9.19	0.230	0.29	0.30	8.473	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	6.70	0.000	0.00	0.00	0.000	A
A-B	2.50	37.43	2.50	0.00	-	-	-	-	-	-
A-C	24.52	367.74	24.52	0.00	-	-	-	-	-	-

Main results: (12:45-13:00)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-A	1.72	25.85	1.73	0.00	9.86	0.175	0.30	0.21	7.387	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.22	0.000	0.00	0.00	0.000	A
A-B	2.04	30.57	2.04	0.00	-	-	-	-	-	-
A-C	20.02	300.26	20.02	0.00	-	-	-	-	-	-

Main results: (13:00-13:15)

Stream	Total Demand (Veh/min)	Junction Arrivals (Veh)	Entry Flow (Veh/min)	Pedestrian Demand (Ped/min)	Capacity (Veh/min)	RFC	Start Queue (Veh)	End Queue (Veh)	Delay (s)	LOS
B-AC	1.44	21.64	1.45	0.00	10.34	0.140	0.21	0.16	6.750	A
C-A	0.00	0.00	0.00	0.00	-	-	-	-	-	-
C-B	0.00	0.00	0.00	0.00	7.60	0.000	0.00	0.00	0.000	A
A-B	1.71	25.60	1.71	0.00	-	-	-	-	-	-
A-C	16.76	251.45	16.76	0.00	-	-	-	-	-	-

Queueing Delay Results for each time segment

Queueing Delay results: (11:45-12:00)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	2.33	0.16	6.727	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (12:00-12:15)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	3.08	0.21	7.368	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (12:15-12:30)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	4.29	0.29	8.460	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (12:30-12:45)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	4.43	0.30	8.473	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (12:45-13:00)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	3.29	0.22	7.387	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

Queueing Delay results: (13:00-13:15)

Stream	Queueing Total Delay (Veh-min)	Queueing Rate Of Delay (Veh-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-AC	2.51	0.17	6.750	A	A
C-A	-	-	-	-	-
C-B	0.00	0.00	0.000	A	A
A-B	-	-	-	-	-
A-C	-	-	-	-	-

APPENDIX B



Major/Minor Priority Junction Audit

TD42/95 – Geometric Design of Major / Minor Priority Junctions

Project: 3167 Land south of A259 New Road & east of Brook Lane, Rustington, West Sussex

Client: Commercial Development Projects Limited

Junction Location: New site access to development from A259 New Road

Drawing Reference: REDW-3167-110-Rev C

Design Speed: 120 kph (70 mph)

Prepared by: PMcL

Date: August 2015

Key:



Advice only



Mandatory Section – Detailed design action



Departure/relaxation from standard required

TD42/95 Para	Design Standard	Comply Y/N	Design check comment	Departure from standard required
2.11	Choice of major/minor in Table 2/1 shows suitable junction arrangements	Y	No comment	
2.26	Priority junction may be used on dual carriageway. Option discounted	Y	No comment	
3.4	Horizontal alignment Should not be sited on sharp curves	Y	The major road has a radius of approximately 800 metres which will not adversely affect visibility	
3.6	Vertical alignment Best location for junctions on level ground not greater than 2% fall	Y	Major road gradient is less than 2%	
3.7	Where minor road joins junction on uphill gradient motorists may wrongly perceive junction form requiring longer gap to pull out into main road	Y	The site beneath the mini roundabout will be filled to raise levels. The minor road will approach the A259 on an uphill gradient but will incorporate a flat section adjacent to the merge lane	
5.2	Major/minor roads presents hazard for cyclists. Cyclists to be provided with safe passage through junction	Y	Cyclists will be diverted through the site before reaching the new junction	
5.12	Pedestrian facilities The requirements of pedestrians should be carefully considered	Y	No pedestrian activity is proposed at the new junction	
5.16	Guardrails should be provided to prevent indiscriminate crossing of the carriageway	Y	Guardrail provided at end of footpath/cyclepath to guide pedestrians into site and prevent cyclists cycling onto carriageway	
6.1	Landscaping The design of landscaping shall be agreed with Highway Authority. Shall not compromise visibility	Y	Landscaping shall be agreed with Highway Authority	



7.2	Design Speed Geometric standards for junctions are related to the traffic speed of the major road	Y	The acceleration lane length has been designed for the 85 th ile speed measured on the A259 New Road. This speed has been measured as 65mph (105kph). The acceleration taper length of 130m is sufficient for a design speed of 120kph	
7.3	Visibility Minor road traffic has to join or cross major road. It is therefore essential that minor road users have adequate visibility in each directions	Y	No right turn from junction. A visibility splay of 9x160m is achievable	
7.4	Drivers approaching a major/minor priority junction from both the major road and minor road shall have unobstructed visibility as indicated in the following sections. The envelope of visibility for driver's eye height is as set out in TD9 (DMRB 6.1.1.2.2)	Y	160m forward visibility is achievable on the main road. Minor road junction levels will be raised to meet the major road levels and will be subject to detailed design	
7.5	Visibility – Major Road Drivers approaching the major/minor priority junction along the major road approaches shall be able to see the minor road entry from a distance corresponding to the Desirable Minimum Stopping Sight Distance (SSD) for the design speed of the major road	Y	160m forward visibility is achievable on the main road.	
7.6(a)	Visibility – Minor Road The principle of providing the required visibility for drivers approaching the junction from the minor road has three distinct features: a) Approaching drivers shall have unobstructed visibility corresponding to the Desirable Minimum Stopping Sight Distance (SSD) for the design speed of the minor road	Y	Visibility in excess of 90m is achievable for the minor road for a design speed of 30mph (48kph). Traffic will be negotiating an exit radius prior to entry to the acceleration lane. Minor road junction levels will be raised to meet the major road levels and will be subject to detailed design	
7.6(b)	b) From a point 15m back along the centre line of the minor road measured from the nearside edge of the major road, an approaching driver shall be able to see clearly the junction form and those peripheral elements of the junction layout	Y	Visibility from 15m back is achievable	
7.6(c)	c) The distance back along the minor road from which the full visibility is measured is known as the 'x' distance	Y	9m x 160m is achievable measured on offside kerb edge of egress	
7.7	If the line of vision lies partially within the major road carriageway. It shall be made tangential to the nearer edge of the major road	Y	Visibility is achievable	
7.8	In difficult situations the 'x' distance may be taken as a relaxation from 9m to 4.5m	Y	9mx160m to the right is achievable	
7.9	Similarly, although the 'y' distance	Y	9mx160m to the right is achievable	



	shall always be provided, there is little advantage in increasing it			
7.10	These visibility standards apply to new junctions and to improvements to existing junctions	Y	9mx160m to the right is achievable	
7.11	Where the major road is a dual carriageway with a central reserve of adequate width	n/a	No right turns possible at site entrance	
7.14	Design Vehicle Allowance shall be made for the swept turning paths of long vehicles where they can reasonably be expected to use the junction	Y	Track swept paths for a 16.5m articulated lorry have been produced. Junction is of sufficient size to provide access for this vehicle	
7.22	At dual carriageway junctions the through lane widths should be maintained	Y	Lane widths remote from junction will be maintained	
7.25	Carriageway widths around curves Where carriageway widths are taken around short radius corners, added width shall be provided to cater for the swept path of larger goods vehicles	Y	Track swept paths for a 16.5m articulated lorry have been produced. Junction is of sufficient size to provide access for this vehicle	
7.45	Traffic islands and refuges Traffic islands should be provided in the mouth of the minor road at major/minor junctions	Y	Traffic island is provided	
7.46	Physical islands shall have an area of at least 4.5sqm	Y	Larger island is provided	
7.47	Where a traffic island serves as a refuge for pedestrians it shall be at least 1.5m wide and have dropped kerbs	Y	No pedestrians/cyclists proposed at new access although island is large enough to cater for pedestrians/cyclists at a future date if required	
7.52(a)	Diverging tapers and lanes Nearside diverging tapers shall not be provided at simple junctions. They shall be provided where left turning traffic is greater than 600 vehicles AADT	Y	Diverge taper provided	
7.54	Nearside diverging tapers shall be formed by a direct increase to a width of 3.5m contiguous to the corner into the minor road (preferably of radius at least 20m where the main road design is 85 kph and at least 40m above this speed). The width around the radius will depend on the radius selected. A give way line shall be provided so that left turning traffic gives way to traffic turning right	N	Entry radius is reduced due to site constraints. The width of carriageway is sufficient for 16.5m articulated vehicles	The radius is not a speed reducing feature as the detail shows traffic giving way, therefore potentially stopped. Advance signing and hazard signing has been introduced to highlight presence of junction. Table 7.2 shows that smaller entry radii are acceptable
7.55	The desirable length of the nearside diverging taper shall be as Table 7/5a and Table 7.5b	Y	Adequate nearside diverging taper has been provided	
7.59	Merging tapers shall only be used at dual carriageway junctions. They shall be provided where a B road junction joins an A dual carriageway road having a design speed of 85 kph or above	Y	Merging taper has been provided	



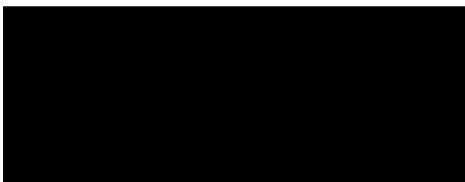
7.61	A separate turning lane , preferably of radius at least 25m where the main road design speed is 85kph and at least 30m above this speed shall be used to introduce the merging taper from the minor road. The initial width of the lane which will depend on the radius of the turning lane determined from Table 7/2 should be decreased at a constant taper depending on the design speed (Fig 7/13)	Y	30m radius provided between minor road and merging lane	
7.62	The length of the taper to be used are given in Table 7/6. The minimum initial width of a merging taper shall be 3.5m	Y	A 130m taper has been provided to accord with a 120kph design speed	
7.72	For the left turn merge to the main road, the minor road channelising islands shown in Figs 7/18 and 7/19 shall be designed so as to provide a constant width of turn into the major road. Width in accordance with Table 7/2. If there is a taper as shown on Figs 7/13 and 7/19, the widths shall be as set out in paras 7.58-7.62. Hatched markings as Figs 7/18 and 7/19	Y	Constant width on exit provided. Width complies with Table 7/2	
7.73	For the left turn diverge from the major road, the channelising island described in para.7.72 and shown in figs 7/18 and 7/19 shall be designed so as to provide a constant width around the turn to the minor road. The width shall be determined from Table 7/2. Hatched markings as Figs 7/18 and 7/19	Y	Constant width on exit provided. Width complies with Table 7/2	
7.76	Drainage and crossfall From considerations of surface water drainage and driver comfort. The road camber on the major road shall be maintained through the junction and the minor road graded into the channel line of the major road. Checks to be made for flat areas	Y	The junction levels and drainage shall be designed to comply with this requirement at detailed design stage	
7.77	Traffic Signs and Road Markings The need for, and layout of, traffic signs and road markings is an integral part of the design process and no junction design is complete without these features having been included	Y	Details of road markings and advance direction signs will be provided at detailed design stage. The planning layouts show the markings proposed together with advanced roundabout signs and hazard boards	
7.78	The policy and detailed guidance on these aspects are given in the Traffic Signs Manual	Y	Road markings and signs to be in accordance with TSRGDs and TSMs	



Lead design engineer: Mr Paul McLaughlin BSc CEng MICE MCIHT:
Date: 4th August 2015
Signed:



Checked: Mr Robert Watts CEng MICE MCIHT:
Date: 4th August 2015
Signed:



APPENDIX C



Design Audit of Proposed shared footpath/cyclepath TD90/05 – The Geometric Design of Pedestrian, Cycle & Equestrian Routes

Project: 3167 Land south of A259 New Road & east of Brook Lane, Rustington, West Sussex

Client: Commercial Development Projects Limited

Junction Location: New site access to development from A259 New Road

Drawing Reference: REDW-3167-110-Rev C & REDW-3167-111-B

Design Speed: 30 kph reduced to 10kph at bends

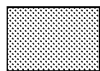
Prepared by: PMcL

Date: August 2015

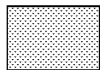
Key:



Advice only



Detailed design action



Departure/relaxation from standard required

TD90/05 Para	Design Standard	Comply Y/N	Design check comment	Departure from standard required
1.6	As with all highway design, there is a need to balance issues of safety and practicality. This advice Note provides 'preferred' and 'acceptable' minimum values based upon the best available evidence, but in exceptional circumstances it may be appropriate to apply some flexibility in using these figures over short distances and where other measures are used such as 'SLOW' markings to encourage lower speeds	Y	Due to site constraints the shared footpath/cyclepath has a reduced SSD of 10m (10kph) at the bends into the site. This reduction is acceptable and in accordance with Table 3.2. Additional 'SLOW' markings proposed for this short length	
2.4	A design speed of 30kph should be most off-site cycle routes. However, where the cyclist would expect to slow down the design speed may be reduced to 10kph over short distances	Y	Reduction in design speed to 10kph required at bends where will slow down in any event	
2.5	Design speeds appropriate for different route types: Acceptable minimum = 10kph General provision = 30kph	Y		
3.2	Visibility SSD is the distance for a rider to perceive, react and stop safely in adverse conditions SSDs for cyclists are given in Table 3.1	Y	Reduced design speed on bends required and permitted in Table 3.1	
3.3	Eye and object heights Designers should ensure that an object at the minimum SSD is visible from a range of heights of 1.0m to 2.2m	Y	Shared route is level and vertical visibility is achievable	



3.5	Momentary Obstructions Street furniture, trees & shrubs should be located outside of the envelope of the SSD	Y	The visibility envelope will be kept clear	
3.6	Any crossing of a trafficked road should be located such that drivers of vehicles have full visibility of NMUs	Y	Proposed shared path does not cross carriageways	
3.7	A visibility splay should be provided for NMUs approaching crossings	Y	No crossings are proposed	
4.2	Alignment Changes in horizontal alignment should normally be via simple circular curves rather than straight sections	Y	Circular curves are proposed at bends	
4.4	The preferred minimum radius for cycle routes is 25m. For sections of route where the design speed is 10kph, a preferred minimum radius of 4m should be provided and consideration should be given to widening the track and providing warning signs	Y	A minimum 4m radius is provided on bends. The route is widened to 3.5m at the first bend on entry to site with additional 'SLOW' markings added	
4.5	Vertical Severe crest curves are unlikely to occur along cycle tracks and hence achieving adequate forward visibility in the vertical direction will rarely cause difficulties. However, this should be checked	Y	The shared route is flat	
6.1	Crossfall HD39 (DMRB 7.2.5) considers footway crossfalls. For cycle and equestrian facilities, the values used for footways may be adopted up to a maximum of 5%. Crossfalls greater than 3% can create difficulties for cyclists when the surface is icy	Y	Design crossfall to be limited to 2.5% (1/40)	
6.2	Crossfall can be either to one side of cambered. However on bends, adverse crossfall should be avoided	Y	Adverse crossfall to be avoided on bends	
7.16	Cross-Section Shared & Adjacent Use Routes for NMUs Shared use facilities should generally be restricted to where flows of either cyclists or pedestrians are low and hence the potential for conflict is low. Unsegregated shared facilities have operated satisfactorily down to 2m wide with combined pedestrian and cycle use of up to 200 per hour. However, the preferred minimum width for an unsegregated facility is 3.0m	Y	The shared route adjacent to the A259 New Road is 3.0m.	
7.21	Boundary Treatments	Y	The route within the site narrows is 3.3m between east boundary fence and proposed service yard wall. Para 7.21 suggest a 0.25m 'kerb shyness' distance of 0.5m for a route bounded on both sides. This	



			reduces the effective width of route on the site to 2.3m which is deemed acceptable for this short straight length of shared footpath/cyclepath	
7.22	It is desirable to provide physical separation between NMU routes and carriageways. For pedestrians and cyclists the preferred separation between the NMU route and the carriageway is 1.5m, with an acceptable separation of 0.5m. The higher value of 1.5m should, where possible, be used on roads with speed limits in excess of 40mph	Y	A distance separation between the NMU route and the A259 main carriageway is 1.5m	
7.24	Hazards Adjacent to NMU Routes Where an NMU route is adjacent to hazards such as a ditch or embankment slopes steeper than 1:3 a separation greater than that in paragraphs 7.22 and 7.23 should be considered	Y	Route adjacent to A259 New Road does not have large level differences or ditches present	

Lead design engineer: Mr Paul McLaughlin BSc CEng MICE MCIHT:

Date: 4th August 2015

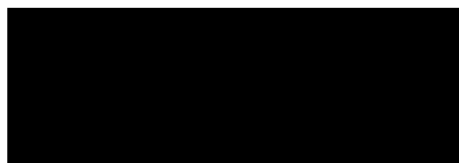
Signed:



Checked: Mr Robert Watts CEng MICE MCIHT:

Date: 4th August 2015

Signed:



DRAWINGS

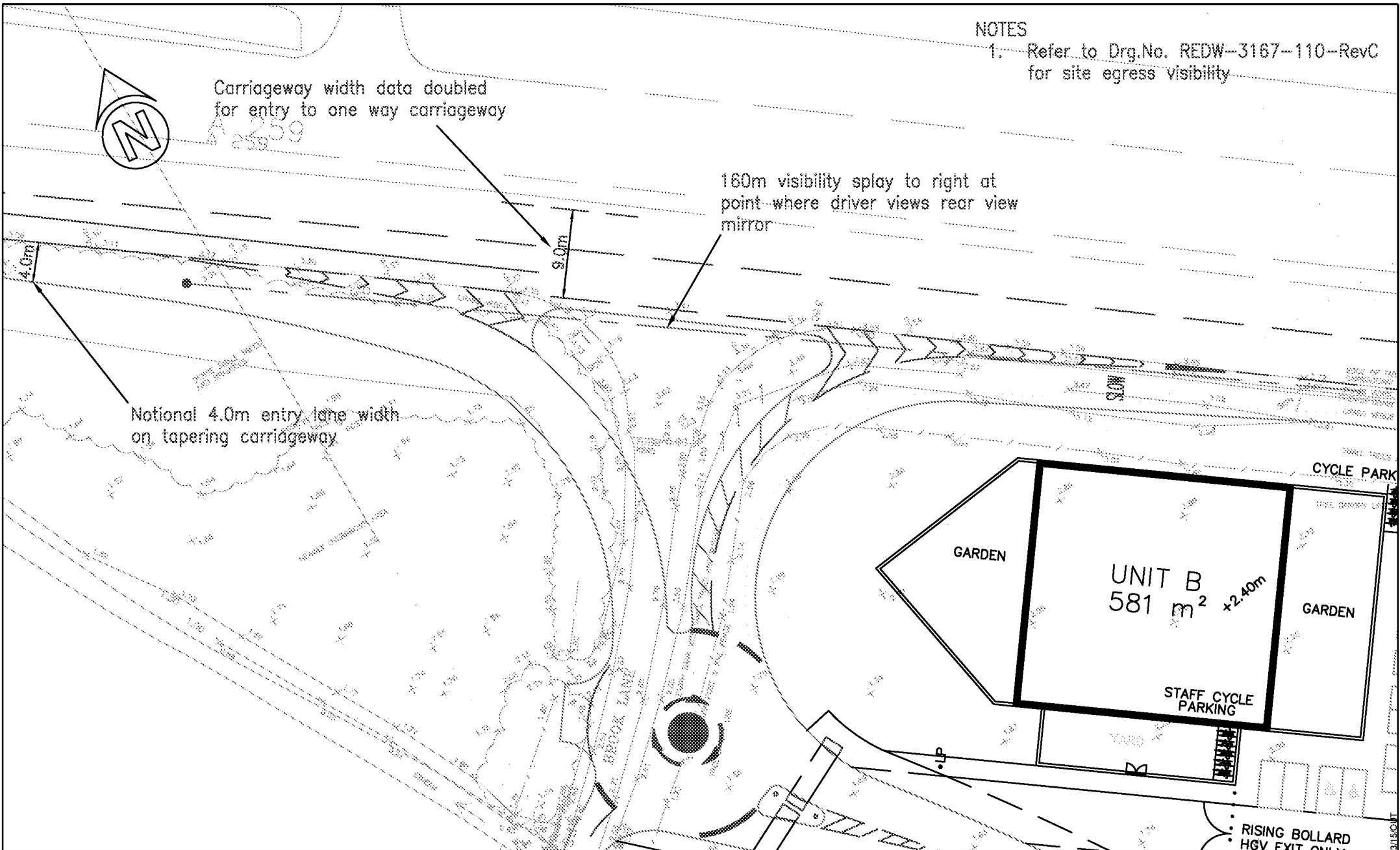
NOTES

1. Refer to Drg.No. REDW-3167-110-RevC for site egress visibility

Carriageway width data doubled for entry to one way carriageway

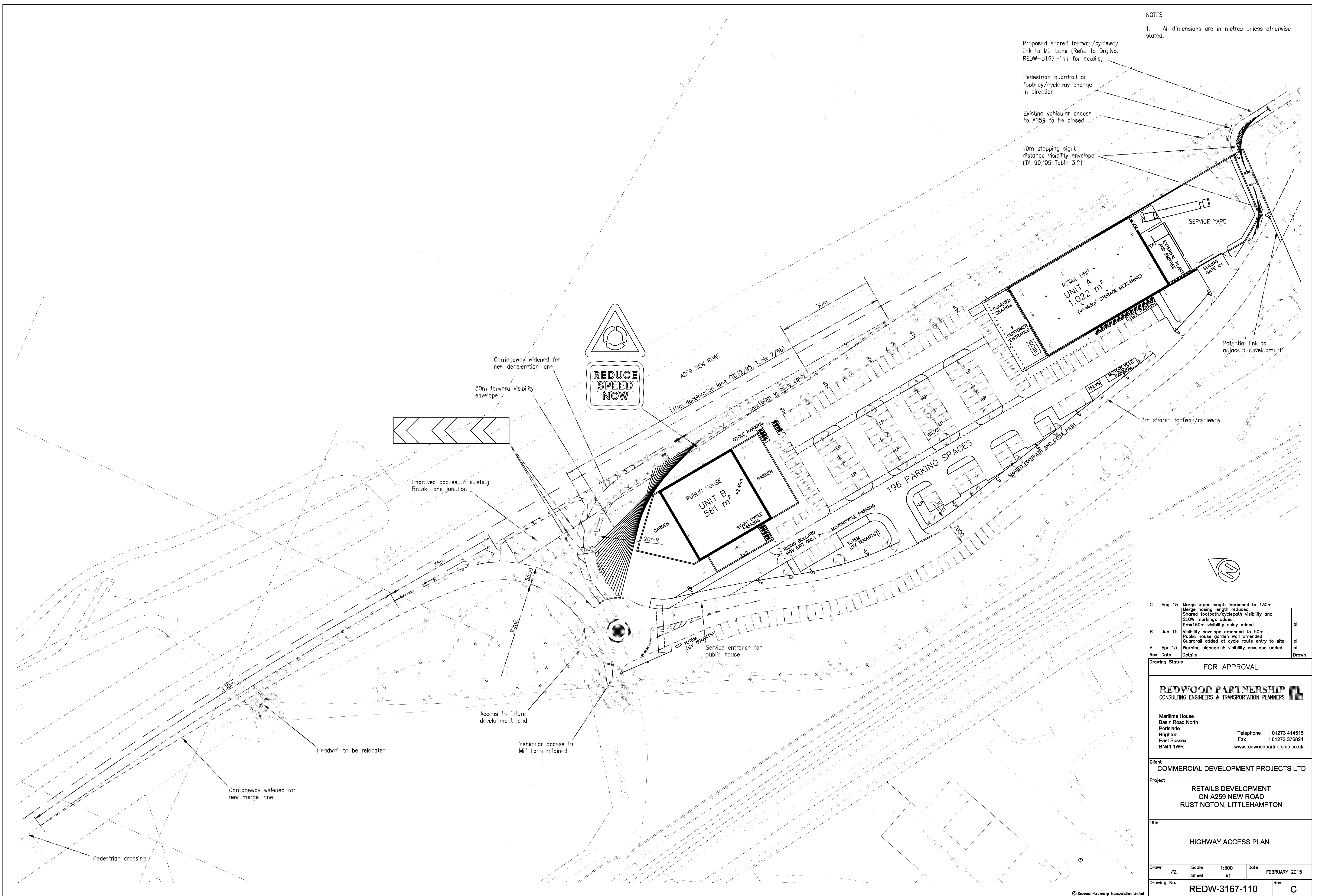
160m visibility splay to right at point where driver views rear view mirror

Notional 4.0m entry lane width on tapering carriageway



Client COMMERCIAL DEVELOPMENT PROJECTS LTD	Scheme MIXED USE DEVELOPMENT, A259 NEW ROAD, RUSTINGTON, WEST SUSSEX				
	Drawing Title PICADY PARAMETERS – A259 SITE EGRESS				
	Drawn PL	Scale 1: 500	Sheet A4	Date JUL 2015	Drawing No. REDW-3167-409

REDWOOD PARTNERSHIP
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Maritime House, Basin Road North, Portslade, Brighton, BN41 1WR
Telephone : 01273 414515 www.redwoodpartnership.co.uk



NOTES

1. All dimensions are in metres unless otherwise stated.

Proposed shared footway/cycleway
link to Mill Lane (Refer to Drg.No.
REDW-3167-111 for details)

Pedestrian guardrail at
footway/cycleway change
in direction

Existing vehicular access
to A259 to be closed

10m stopping sight
distance visibility envelope
(TA 90/05 Table 3.2)

SERVICE YARD

Potential link to adjacent development

C	Aug 15	Merge taper length increased to 130m Merge nosing length reduced Shared footpath/cyclepath visibility and SLOW markings added 9mx160m visibility splay added	pl
B	Jun 15	Visibility envelope amended to 50m Public house garden wall amended Guardrail added at cycle route entry to site	pl
A	Apr 15	Warning signage & visibility envelope added	pl
Rev	Date	Details	Drawn

Drawing Status FOR APPROVAL

REDWOOD PARTNERSHIP
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Client
COMMERCIAL DEVELOPMENT PROJECTS LTD

Project

RETAILS DEVELOPMENT
ON A259 NEW ROAD
RUSTINGTON, LITTLEHAMPTON

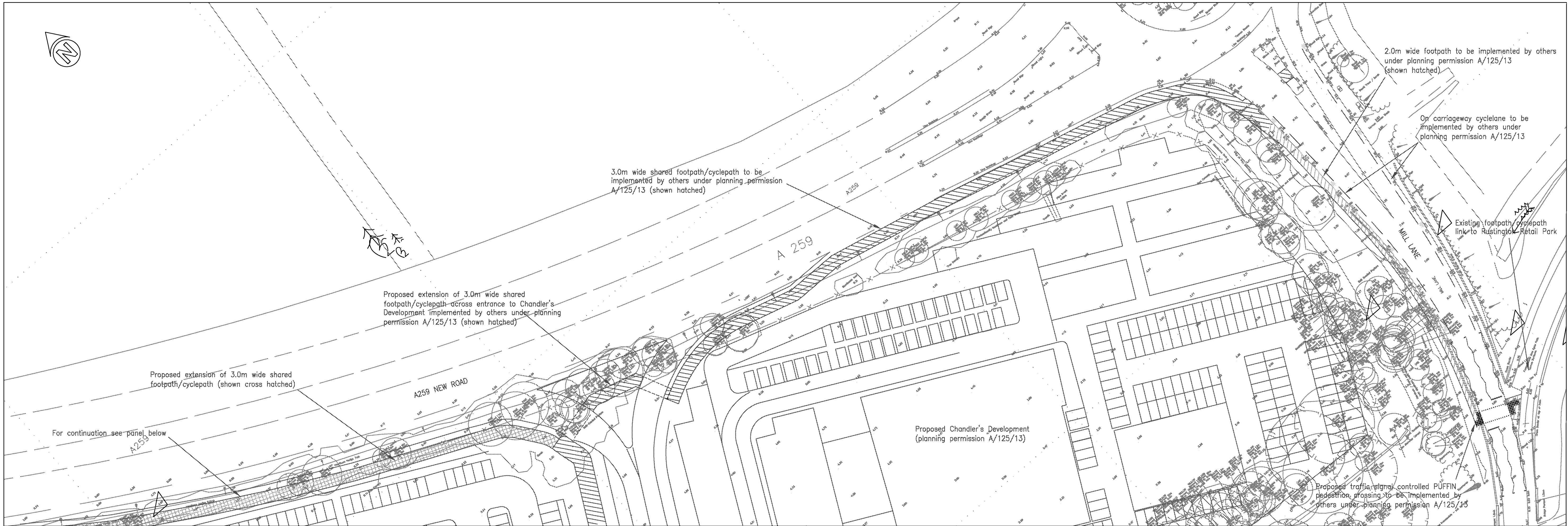
Title	HIGHWAY ACCESS PLAN
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Drawn <i>PL</i>	Scale	1:500	Date FEBRUARY 2015
	Sheet	A1	

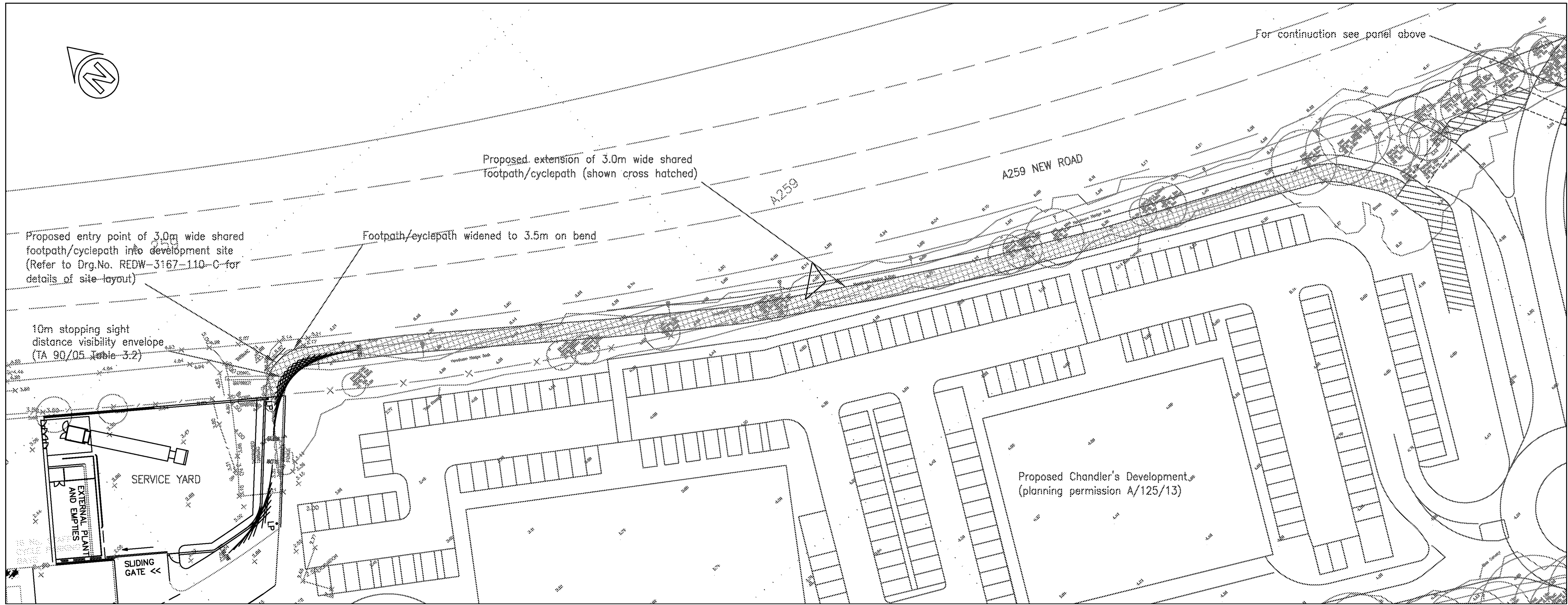
Drawing No.	REDW-3167-110	Rev	C
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NOTES

1. All dimensions are in metres unless otherwise stated



CHANDLERS DEVELOPMENT OFF-SITE FOOTPATH/CYCLEPATH LINK



PROPOSED OFF-SITE FOOTPATH/CYCLEPATH LINK

B	Aug 15	Shared footpath/cyclepath amended at site entrance. Visibility envelope added	pl
A	Jun 15	Limit of new footway/cycleway amended	pl
Rev	Date	Details	Drawn

Drawing Status FOR APPROVAL

REDWOOD PARTNERSHIP
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Project
**RETAILS DEVELOPMENT
ON A259 NEW ROAD
RUSTINGTON, LITTLEHAMPTON**

Title
**HIGHWAY ACCESS PLAN
OFF-SITE FOOTPATH / CYCLEPATH**

Drawn *PL* Scale 1:500 Date FEBRUARY 2015
Sheet A1

Drawing No. **REDW-3167-111** Rev **B**