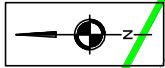
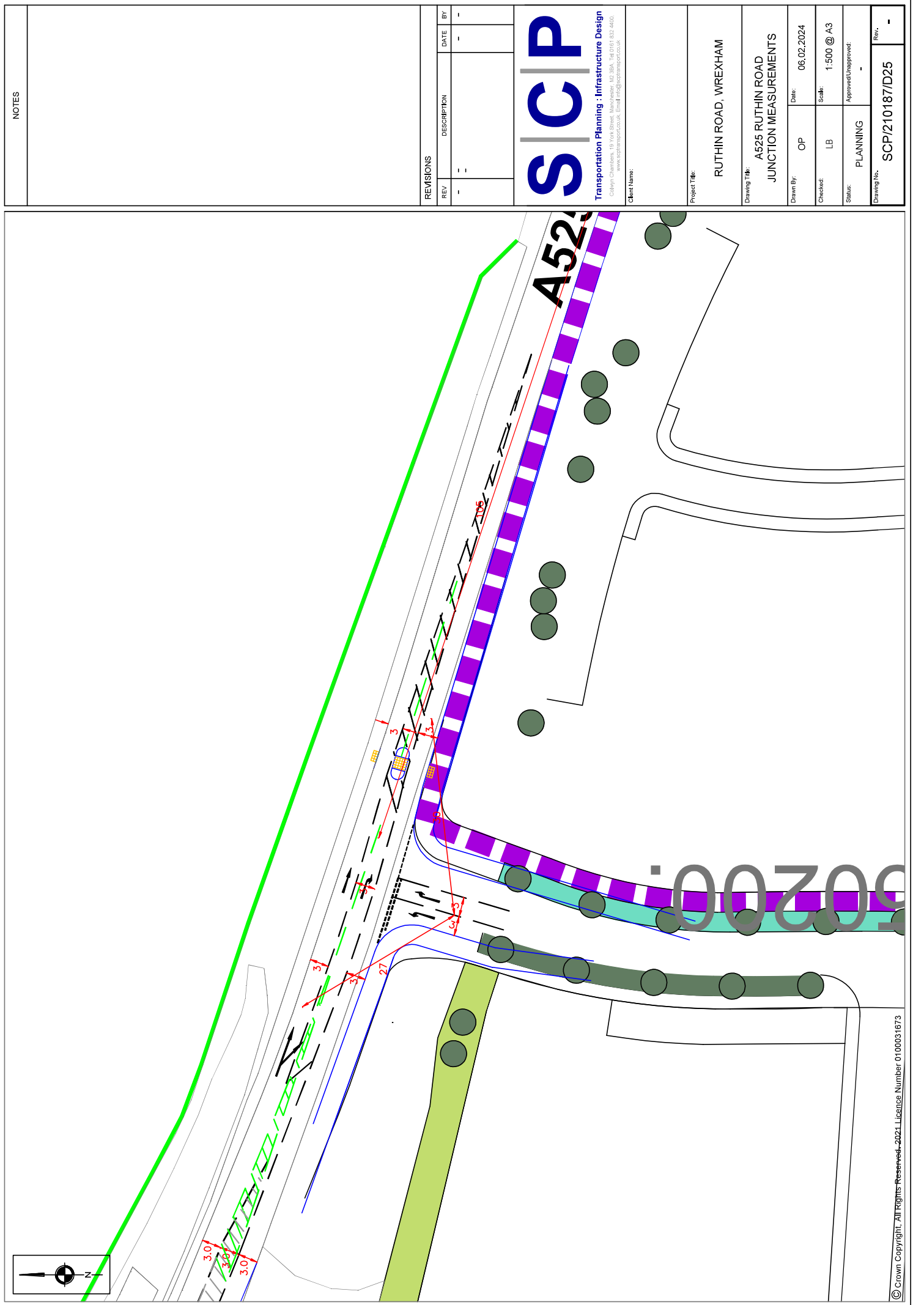


S|C|P

APPENDIX L



NOTES

REVISIONS

REV	DESCRIPTION	DATE	BY
-	-	-	-

SCP

Transportation Planning : Infrastructure Design

Colwyn Chambers, 19 York Street, Manchester, M2 3BA, Tel: 0161 832 4600, www.scpmap.co.uk, Email: info@scpmap.co.uk

Client Name:

Project Title:

RUTHIN ROAD, WREXHAM

Drawing Title:
A525 RUTHIN ROAD
JUNCTION MEASUREMENTS

Drawn By:	OP	Date:	06.02.2024
Checked:	LB	Scale:	1:500 @ A3
Status:	PLANNING	Approved/Unapproved:	-

Drawing No.	SCP/210187/D25	Rev.	-
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Junctions 9				
PICADY 9 - Priority Intersection Module				
Version: 9.5.2.1013 © Copyright TRL Limited, 2019				
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk				
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution				

Filename: 12. Right Turn Lane Ruthin Rd Site Access.j9

Path: Z:\Job Library\2021\210187 - Ruthin Road, Wrexham\Traffic Data\PICADY - Jan 2024 Update

Report generation date: 06/02/2024 09:51:32

»2028 Assess Re-dist, AM

»2028 Assess Re-dist , PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
2028 Assess Re-dist										
Stream B-C	D7	2.3	27.60	0.69	D	D8	1.2	19.26	0.52	C
Stream B-A		0.9	49.80	0.46	E		0.3	30.82	0.22	D
Stream C-B		0.4	9.85	0.27	A		0.8	14.51	0.42	B

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	Right Turn Lane Site Access
Location	
Site number	
Date	01/12/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	SCP\abbie.moore
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2028 Assess Re-dist	AM	ONE HOUR	07:45	09:15	15
D8	2028 Assess Re-dist	PM	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2028 Assess Re-dist, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Right Turn Lane Site Access	T-Junction	Two-way		5.67	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	A525 Ruthin Road East		Major
B	Site Access South		Minor
C	A525 Ruthin Road West		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	6.00		✓	3.00	100.0		-

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

Minor Arm Geometry

Arm	Minor arm type	Lane Width (Left) (m)	Lane Width (Right) (m)	Visibility to left (m)	Visibility to right (m)
B	Two lanes	3.00	3.00	27	30

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	501	0.091	0.231	0.145	0.330
B-C	643	0.099	0.249	-	-
C-B	687	0.266	0.266	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2028 Assess Re-dist	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	476	100.000
B		✓	347	100.000
C		✓	1336	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
From		A	B	C
	A	0	44	432
	B	61	0	286
	C	1204	132	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A	B	C
	A	0	10	10
	B	10	0	10
	C	10	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.69	27.60	2.3	D
B-A	0.46	49.80	0.9	E
C-A				
C-B	0.27	9.85	0.4	A
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	215	534	0.403	212	0.7	12.218	B
B-A	46	259	0.177	45	0.2	18.451	C
C-A	906			906			
C-B	99	592	0.168	98	0.2	8.017	A
A-B	33			33			
A-C	325			325			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	257	506	0.508	256	1.1	15.691	C
B-A	55	211	0.259	54	0.4	25.108	D
C-A	1082			1082			
C-B	119	573	0.207	118	0.3	8.707	A
A-B	40			40			
A-C	388			388			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	315	459	0.687	310	2.2	25.949	D
B-A	67	146	0.459	65	0.9	47.780	E
C-A	1326			1326			
C-B	145	547	0.265	145	0.4	9.827	A
A-B	48			48			
A-C	476			476			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	315	457	0.689	314	2.3	27.602	D
B-A	67	146	0.460	67	0.9	49.796	E
C-A	1326			1326			
C-B	145	547	0.265	145	0.4	9.848	A
A-B	48			48			
A-C	476			476			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	257	505	0.509	262	1.2	16.581	C
B-A	55	211	0.260	57	0.4	25.951	D
C-A	1082			1082			
C-B	119	573	0.207	119	0.3	8.733	A
A-B	40			40			
A-C	388			388			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	215	533	0.404	217	0.8	12.604	B
B-A	46	258	0.178	47	0.2	18.750	C
C-A	906			906			
C-B	99	592	0.168	100	0.2	8.056	A
A-B	33			33			
A-C	325			325			

2028 Assess Re-dist , PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Right Turn Lane Site Access	T-Junction	Two-way		4.36	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2028 Assess Re-dist	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	726	100.000
B		✓	233	100.000
C		✓	765	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	48	678
	B	32	0	201
	C	582	183	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	10	10
	B	10	0	10
	C	10	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.52	19.26	1.2	C
B-A	0.22	30.82	0.3	D
C-A				
C-B	0.42	14.51	0.8	B
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	151	501	0.302	149	0.5	11.214	B
B-A	24	271	0.089	24	0.1	15.981	C
C-A	438			438			
C-B	138	541	0.254	136	0.4	9.740	A
A-B	36			36			
A-C	510			510			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	181	471	0.384	180	0.7	13.563	B
B-A	29	226	0.127	29	0.2	20.045	C
C-A	523			523			
C-B	165	513	0.321	164	0.5	11.321	B
A-B	43			43			
A-C	610			610			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	221	427	0.518	219	1.1	18.903	C
B-A	35	164	0.215	35	0.3	30.505	D
C-A	641			641			
C-B	201	474	0.425	200	0.8	14.403	B
A-B	53			53			
A-C	746			746			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	221	427	0.519	221	1.2	19.257	C
B-A	35	164	0.215	35	0.3	30.822	D
C-A	641			641			
C-B	201	474	0.425	201	0.8	14.513	B
A-B	53			53			
A-C	746			746			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	181	471	0.384	183	0.7	13.831	B
B-A	29	225	0.128	29	0.2	20.250	C
C-A	523			523			
C-B	165	513	0.321	166	0.5	11.430	B
A-B	43			43			
A-C	610			610			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	151	500	0.302	152	0.5	11.399	B
B-A	24	270	0.089	24	0.1	16.111	C
C-A	438			438			
C-B	138	541	0.254	138	0.4	9.838	A
A-B	36			36			
A-C	510			510			