APPENDIX Z

Sensitivity Analysis - With Neighbouring 60,000sqm Employment Uses

TRL LIMITED

CAPACITIES, QUEUES AND DELAYS AT ROUNDABOUTS

ARCADY 5.0 ANALYSIS PROGRAM
RELEASE 1.1 (MAY 2001)

ADAPTED FROM ARCADY/3 WHICH IS CROWN COPYRIGHT
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Run with file:-
"n:\South West Bicester\ANALYSIS\ARCADY\September 2006\Bypass Roundabout\
BypassRbout- Total Traffic Inc Browne AM Peak.vai"
(drive-on-the-left) at 11:39:37 on Wednesday, 27 September 2006

ROUNDABOUT CAPACITY AND DELAY

RUN TITLE

BypassRbout-Total Traffic Including Browne AM Peak

INPUT DATA

ARM A - A41 N
ARM B - Services
ARM C - A41 South
ARM D - Site

GEOMETRIC DATA

ARM	V (M)	E (M)	L (M)	R (M)	D (M)	PHI (DEG)	SLOPE	INTERCEPT (PCU/MIN)
ARM A	7.30	11.10	6.30	20.00	70.00	46.0	0.612	41.004
ARM B	3.50	10.50	14.20	20.00	70.00	45.0	0.507	29.756
ARM C	7.30	11.10	30.00	18.00	70.00	40.0	0.686	48.493
ARM D	3.50	6.90	17.80	20.00	70.00	46.0	0.477	26.758

V = approach half-width
E = entry width
L = effective flare length
R = entry radius
D = inscribed circle diameter
PHI = entry angle

TRAFFIC DEMAND DATA

TIME PERIOD BEGINS 08.00 AND ENDS 09.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

TIME	FROM/TO	ARM A	ARM B	ARM C	ARM D
08.00 - 09.00					
	ARM A	0.000	0.029	0.970	0.001
		0.0	4.8	161.4	0.2
		(0.0)	(0.0)	(0.0)	(0.0)
	ARM B	0.894	0.000	0.106	0.000
		14.4	0.0	1.7	0.0
		(0.0)	(0.0)	(0.0)	(0.0)
	ARM C	0.888	0.008	0.000	0.104
		187.6	1.7	0.0	22.0
		(0.0)	(0.0)	(0.0)	(0.0)
	ARM D	0.076	0.000	0.924	0.000
		2.5	0.0	30.3	0.0
		(0.0)	(0.0)	(0.0)	(0.0)

TURNING PROPORTIONS
TURNING COUNTS
(PERCENTAGE OF H.V.S)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
08.00-08.15								
ARM A	27.73	37.78	0.734		0.0	2.7	37.9	
ARM B	2.68	13.68	0.196		0.0	0.2	3.5	
ARM C	35.22	46.84	0.752		0.0	3.0	41.9	
ARM D	5.47	10.64	0.514		0.0	1.0	14.4	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
08.15-08.30								
ARM A	27.73	37.74	0.735		2.7	2.7	40.8	
ARM B	2.68	13.56	0.198		0.2	0.2	3.7	
ARM C	35.22	46.83	0.752		3.0	3.0	44.8	
ARM D	5.47	10.55	0.519		1.0	1.1	15.7	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
08.30-08.45								
ARM A	27.73	37.74	0.735		2.7	2.7	41.1	
ARM B	2.68	13.55	0.198		0.2	0.2	3.7	
ARM C	35.22	46.82	0.752		3.0	3.0	45.1	
ARM D	5.47	10.55	0.519		1.1	1.1	15.9	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
08.45-09.00								
ARM A	27.73	37.74	0.735		2.7	2.8	41.2	
ARM B	2.68	13.55	0.198		0.2	0.2	3.7	
ARM C	35.22	46.82	0.752		3.0	3.0	45.2	
ARM D	5.47	10.55	0.519		1.1	1.1	16.0	

QUEUE AT ARM A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.15	2.7	***
08.30	2.7	***
08.45	2.7	***
09.00	2.8	***

QUEUE AT ARM B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.2
08.30	0.2
08.45	0.2
09.00	0.2

QUEUE AT ARM C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.15	3.0	***
08.30	3.0	***
08.45	3.0	***
09.00	3.0	***

QUEUE AT ARM D

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.15	1.0	*
08.30	1.1	*
08.45	1.1	*
09.00	1.1	*

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

ARM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
A	1663.8	1663.8	161.1	0.10	161.2	0.10
B	160.8	160.8	14.6	0.09	14.6	0.09
C	2113.2	2113.2	177.0	0.08	177.1	0.08
D	328.2	328.2	62.1	0.19	62.2	0.19
ALL	4266.0	4266.0	414.7	0.10	415.0	0.10

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD.
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

****** ARCADY 5 run completed.

========== end of file ==========

[Printed at 13:53:17 on 27/09/2006]

TRL LIMITED

CAPACITIES, QUEUES AND DELAYS AT ROUNDABOUTS

ARCADY 5.0 ANALYSIS PROGRAM
RELEASE 1.1 (MAY 2001)

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"n:\South West Bicester\ANALYSIS\ARCADY\September 2006\Bypass Roundabout\
BypassRbout- Total Traffic Inc Browne PM Peak.vai"
(drive-on-the-left) at 11:39:42 on Wednesday, 27 September 2006

ROUNDABOUT CAPACITY AND DELAY

RUN TITLE

BypassRbout-Total Traffic Including Browne PM Peak

INPUT DATA

ARM A - A41 N
ARM B - Services
ARM C - A41 South
ARM D - Site

GEOMETRIC DATA

I ARM	I	V (M)	I	E (M)	I	L (M)	I	R (M)	I	D (M)	I	PHI (DEG)	I	SLOPE	I	INTERCEPT (PCU/MIN)
I ARM A	I	7.30	I	11.10	I	6.30	I	20.00	I	70.00	I	46.0	I	0.612	I	41.004
I ARM B	I	3.50	I	10.50	I	14.20	I	20.00	I	70.00	I	45.0	I	0.507	I	29.756
I ARM C	I	7.30	I	11.10	I	30.00	I	18.00	I	70.00	I	40.0	I	0.686	I	48.493
I ARM D	I	3.50	I	6.90	I	17.80	I	20.00	I	70.00	I	46.0	I	0.477	I	26.758

V = approach half-width L = effective flare length D = inscribed circle diameter
E = entry width R = entry radius PHI = entry angle

TRAFFIC DEMAND DATA

TIME PERIOD BEGINS 17.00 AND ENDS 18.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

TIME	FROM/TO	ARM A	ARM B	ARM C	ARM D
17.00 - 18.00					
	ARM A	0.000	0.041	0.948	0.012
		0.0	6.6	154.3	1.9
		(0.0)	(0.0)	(0.0)	(0.0)
	ARM B	0.963	0.000	0.037	0.000
		18.2	0.0	0.7	0.0
		(0.0)	(0.0)	(0.0)	(0.0)
	ARM C	0.829	0.011	0.000	0.160
		175.8	2.3	0.0	34.0
		(0.0)	(0.0)	(0.0)	(0.0)
	ARM D	0.009	0.000	0.991	0.000
		0.2	0.0	22.3	0.0
		(0.0)	(0.0)	(0.0)	(0.0)

TURNING PROPORTIONS
TURNING COUNTS
(PERCENTAGE OF H.V.S)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
17.00-17.15								
ARM A	27.13	38.52	0.704		0.0	2.3	33.2	
ARM B	3.15	14.78	0.213		0.0	0.3	3.9	
ARM C	35.35	46.21	0.765		0.0	3.2	44.6	
ARM D	3.75	11.23	0.334		0.0	0.5	7.1	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
17.15-17.30								
ARM A	27.13	38.50	0.705		2.3	2.4	35.3	
ARM B	3.15	14.69	0.214		0.3	0.3	4.1	
ARM C	35.35	46.19	0.765		3.2	3.2	48.0	
ARM D	3.75	11.14	0.337		0.5	0.5	7.5	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
17.30-17.45								
ARM A	27.13	38.50	0.705		2.4	2.4	35.5	
ARM B	3.15	14.69	0.214		0.3	0.3	4.1	
ARM C	35.35	46.19	0.765		3.2	3.2	48.4	
ARM D	3.75	11.14	0.337		0.5	0.5	7.6	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
17.45-18.00								
ARM A	27.13	38.50	0.705		2.4	2.4	35.6	
ARM B	3.15	14.69	0.214		0.3	0.3	4.1	
ARM C	35.35	46.19	0.765		3.2	3.2	48.5	
ARM D	3.75	11.14	0.337		0.5	0.5	7.6	

QUEUE AT ARM A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.15	2.3	**
17.30	2.4	**
17.45	2.4	**
18.00	2.4	**

QUEUE AT ARM B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.15	0.3
17.30	0.3
17.45	0.3
18.00	0.3

QUEUE AT ARM C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.15	3.2	***
17.30	3.2	***
17.45	3.2	***
18.00	3.2	***

QUEUE AT ARM D

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.15	0.5	
17.30	0.5	*
17.45	0.5	*
18.00	0.5	*

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

ARM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
A	1627.8	1627.8	139.6	0.09	139.7	0.09
B	189.0	189.0	16.1	0.09	16.1	0.09
C	2121.0	2121.0	189.5	0.09	189.7	0.09
D	225.0	225.0	29.7	0.13	29.8	0.13
ALL	4162.8	4162.8	375.0	0.09	375.2	0.09

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* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

****** ARCADY 5 run completed.

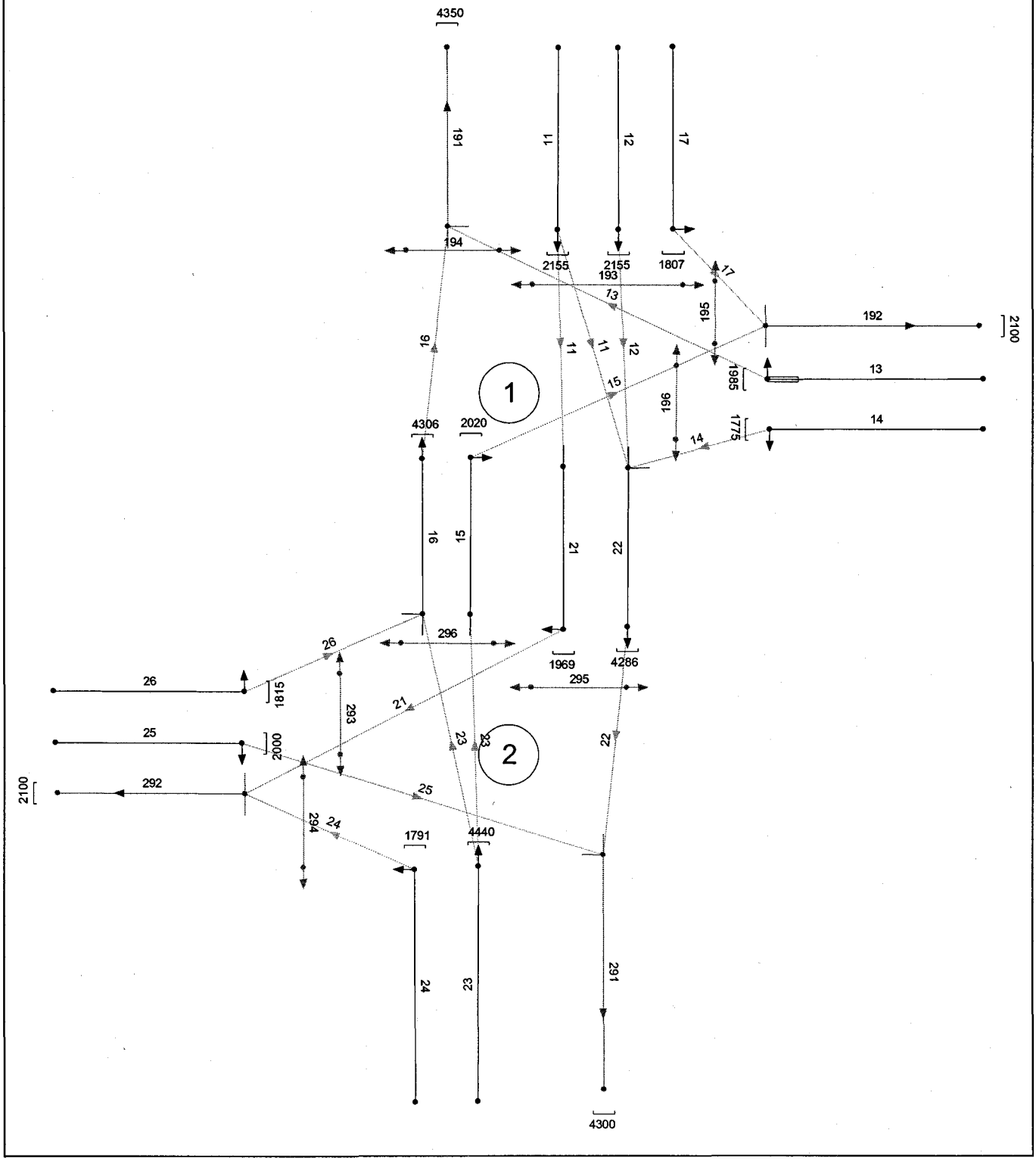
========== end of file ==========

[Printed at 13:53:42 on 27/09/2006]

2014 PM Peak Base + Whiteland Fm + Browne - Option A (NG)

Network Diagram

2014 PM Peak Whitelands + Browne



PRT File
2014 PM Peak Whitelands + Browne

1 _____ T R A N S Y T 12 _____

Traffic Network Study Tool

Analysis Program Release 3 (March 2004)
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RG45 6AU, UK. — Web: www.trlsoftware.co.uk

Run with file:- "SITE - BROWNE ACCESS STAGGER - OPTION A ALL BROWNE TRAFFIC ONE ACCESS (NG).DAT" at 10:30 on 27/09/06

TRANSYT 12.0

PARAMETERS CONTROLLING DIMENSIONS OF PROBLEM :

NUMBER OF NODES	= 2
NUMBER OF LINKS	= 25
NUMBER OF OPTIMISED NODES	= 2
MAXIMUM NUMBER OF GRAPHIC PLOTS	= 0
NUMBER OF STEPS IN CYCLE	= 90
MAXIMUM NUMBER OF SHARED STOPLINES	= 0
MAXIMUM NUMBER OF TIMING POINTS	= 5
MAXIMUM LINKS AT ANY NODE	= 11

CORE REQUESTED = 8835 WORDS
CORE AVAILABLE = 72000 WORDS

DATA INPUT :-

(1)= TITLE:-

CARD NO.	CARD TYPE	CYCLE TIME (SEC)	NO. OF STEPS PER CYCLE	TIME PERIOD 1-1200 MINS.	EFFECTIVE-GREEN DISPLACEMENTS START (SEC)	END (SEC)	EQUISAT 0=UNEQUAL SETTINGS 0=NO 1=YES	FLOW CYCLE 1=EQUAL CYCLE	SCALE 10-200 %	CRUISE-SPEEDS SCALE 50-200 %	CARD32 0=TIMES 1=SPEEDS	OPTIMISE 0=NONE 1=O/SET 2=FULL	EXTRA COPIES FINAL OUTPUT	HILL-CLIMB OUTPUT 1=FULL	DELAY VALUE P PER PCU-H	STOP VALUE P PER 100
2)=	1	90	90	60	2	3	0	1	100	100	1	1	0	0	1420	260

CARD NO.	CARD TYPE	LIST OF NODES TO BE OPTIMISED									
3)=	2	2	1	0	0	0	0	0	0	0	0

NODE CARDS: MINIMUM STAGE TIMES (WORKING)

CARD NO.	CARD TYPE	NODE NO.	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10
4)=	10	1	0	7	5	7						
5)=	10	2	7	7	5							

NODE CARDS: PRECEDING INTERSTAGE TIMES (WORKING)

CARD NO.	CARD TYPE	NODE NO.	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10
6)=	11	1	9	5	11	11						
7)=	11	2	0	9	12	7	5					

NODE CARDS: STAGE CHANGE TIMES (WORKING)

CARD NO.	CARD TYPE	NODE NO.	Sgl/Dbl Cycled	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10
8)=	12	1	1	0	43	55	72						
9)=	12	2	1	86	39	55	72	79					

LINK CARDS: FIXED DATA

CARD NO.	CARD TYPE	LINK NO.	EXIT NODE	FIRST GREEN START STAGE	FIRST GREEN START LAG	FIRST GREEN END STAGE	FIRST GREEN END LAG	SECOND GREEN START STAGE	SECOND GREEN START LAG	SECOND GREEN END STAGE	SECOND GREEN END LAG	LINK LENGTH	STOP WT.X100	SAT FLOW	DELAY WT.X100	DISPSN X100
10)=	31	11	1	4	7	2	0	0	0	0	0	200	0	2155	0	0
11)=	31	12	1	4	7	2	0	0	0	0	0	200	0	2155	0	0
12)=	31	13	1	3	5	4	0	0	0	0	0	200	0	1985	0	0
13)=	31	14	1	3	5	4	0	0	0	0	0	200	0	1775	0	0
14)=	31	15	1	2	5	3	0	0	0	0	0	166	0	2020	0	0
15)=	31	16	1	1	9	3	0	0	0	0	0	166	0	4306	0	0
16)=	31	17	1	4	7	2	0	0	0	0	0	200	0	1807	0	0
17)=	31	21	2	2	5	3	0	0	0	0	0	173	0	1969	0	0
18)=	31	22	2	1	0	3	0	0	0	0	0	173	0	4286	0	0
19)=	31	23	2	5	5	2	0	0	0	0	0	200	0	4440	0	0
20)=	31	24	2	4	7	2	0	0	0	0	0	200	0	1791	0	0
21)=	31	25	2	3	10	5	0	0	0	0	0	200	0	2000	0	0
22)=	31	26	2	3	10	5	0	0	0	0	0	200	0	1815	0	0
23)=	31	191	0	0	0	0	0	0	0	0	0	200	0	4350	0	0
24)=	31	192	0	0	0	0	0	0	0	0	0	200	0	2100	0	0
25)=	31	193	1	2	5	3	0	0	0	0	0	10	0	10000	0	0
26)=	31	194	1	4	11	1	0	0	0	0	0	10	0	10000	0	0
27)=	31	195	1	3	11	4	0	0	0	0	0	10	0	10000	0	0
28)=	31	196	1	1	0	2	0	0	0	0	0	10	0	10000	0	0
29)=	31	291	0	0	0	0	0	0	0	0	0	200	0	4300	0	0
30)=	31	292	0	0	0	0	0	0	0	0	0	200	0	2100	0	0
31)=	31	293	2	1	0	2	0	0	0	0	0	10	0	10000	0	0
32)=	31	294	2	3	12	4	0	0	0	0	0	10	0	10000	0	0
33)=	31	295	2	3	5	4	0	0	0	0	0	10	0	10000	0	0
34)=	31	296	2	2	9	3	0	0	0	0	0	10	0	10000	0	0

LINK CARDS: FLOW DATA

CARD NO.	CARD TYPE	LINK NO.	TOTAL FLOW	UNIFORM FLOW	ENTRY 1 LINK NO.	ENTRY 1 FLOW	ENTRY 1 CRUISE SPEED	ENTRY 2 LINK NO.	ENTRY 2 FLOW	ENTRY 2 CRUISE SPEED	ENTRY 3 LINK NO.	ENTRY 3 FLOW	ENTRY 3 CRUISE SPEED	ENTRY 4 LINK NO.	ENTRY 4 FLOW	ENTRY 4 CRUISE SPEED
35)=	32	11	787	0	0	0	32	0	0	0	0	0	0	0	0	0
36)=	32	12	656	0	0	0	32	0	0	0	0	0	0	0	0	0
37)=	32	13	263	0	0	0	32	0	0	0	0	0	0	0	0	0
38)=	32	14	171	0	0	0	32	0	0	0	0	0	0	0	0	0

39)=	32	15	15	0	23	15	32	0	0	0	0	0	0	0	0	0
40)=	32	16	1878	0	23	1765	32	26	110	32	0	0	0	0	0	0
41)=	32	17	23	0	0	0	32	0	0	0	0	0	0	0	0	0
42)=	32	21	131	0	11	131	32	0	0	0	0	0	0	0	0	0
43)=	32	22	1473	0	11	656	32	12	656	32	14	171	32	0	0	0
44)=	32	23	1765	0	0	0	32	0	0	0	0	0	0	0	0	0
45)=	32	24	176	0	0	0	32	0	0	0	0	0	0	0	0	0
46)=	32	25	131	0	0	0	32	0	0	0	0	0	0	0	0	0
47)=	32	26	110	0	0	0	32	0	0	0	0	0	0	0	0	0
48)=	32	191	2141	0	13	263	32	16	1878	32	0	0	0	0	0	0
49)=	32	192	38	0	15	15	32	17	23	32	0	0	0	0	0	0
50)=	32	193	10	0	0	0	5	0	0	0	0	0	0	0	0	0
51)=	32	194	10	0	0	0	5	0	0	0	0	0	0	0	0	0
52)=	32	195	10	0	0	0	5	0	0	0	0	0	0	0	0	0
53)=	32	196	10	0	0	0	5	0	0	0	0	0	0	0	0	0
54)=	32	291	1604	0	22	1473	32	25	131	32	0	0	0	0	0	0
55)=	32	292	279	0	21	131	32	24	176	32	0	0	0	0	0	0
56)=	32	293	10	0	0	0	5	0	0	0	0	0	0	0	0	0
57)=	32	294	10	0	0	0	5	0	0	0	0	0	0	0	0	0
58)=	32	295	10	0	0	0	5	0	0	0	0	0	0	0	0	0
59)=	32	296	10	0	0	0	5	0	0	0	0	0	0	0	0	0

LINK CARDS : FLARE SATURATION FLOW DATA

	CARD TYPE	LINK NO.	..LANE 1.. SAT. FLOW	CAPAC VEH.	..LANE 2.. SAT. FLOW	CAPAC VEH.	..LANE 3.. SAT. FLOW	CAPAC VEH.
60)=	33	13	2120	2	0	0	0	0

*****END OF SUBROUTINE TINPUT*****

90 SECOND CYCLE 90 STEPS

INITIAL SETTINGS
- (SECONDS)

NODE NO	NUMBER OF STAGES	STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 5	STAGE 6	STAGE 7	STAGE 8	STAGE 9	STAGE 10
1	4	0	43	55	72						
2	5	86	39	55	72	79					

LINK NUMBER	FLOW INTO LINK (PCU/H)	SAT FLOW (PCU/H)	DEGREE OF SAT (%)	MEAN TIMES PER PCU CRUISE (SEC)	DELAY (SEC)	DELAY UNIFORM (U+R+O=MEAN Q) (PCU-H/H)	RANDOM+ OVERSAT	COST OF DELAY ($/H)	STOPS MEAN STOPS /PCU (%)	COST OF STOPS ($/H)	QUEUE MEAN MAX. (PCU)	AVERAGE EXCESS (PCU)	PERFORMANCE INDEX. WEIGHTED SUM OF ( ) VALUES ($/H)	EXIT NODE	GREEN TIMES START END 1ST (SECONDS)	START END 2ND
11	787	2155	60	23.0	14.6	2.3 +	0.7	(43.8)	60	(6.7)	13		50.5	1	79	43
12	656	2155	50	23.0	13.0	1.8 +	0.5	(32.4)	54	(5.1)	10		37.4	1	79	43
13	263	2538f	72	23.0	53.0	2.6 +	1.2	(54.5)	108	(4.1)	7		58.5	1	60	72
14	171	1775	67	23.0	57.6	1.7 +	1.0	(38.5)	113	(2.8)	5		41.2	1	60	72
15	14	2020	8	19.2	32.1	0.1 +	0.0	(1.7)	92	(0.2)	0		1.9	1	48	55
16	1879	4306	84	19.2	8.2	1.5 +	2.5	(57.0)	22	(5.8)	15		62.8	1	9	55
17	23	1807	2	23.0	9.2	0.0 +	0.0	(0.8)	38	(0.1)	0		0.9	1	79	43
21	131	1969	50	20.0	39.5	0.9 +	0.5	(20.1)	103	(1.9)	4		22.1	2	44	55
22	1474	4286	52	20.0	4.6	1.1 +	0.5	(23.7)	18	(3.8)	7		27.5	2	86	55
23	1765	4440	78	23.0	21.9	8.8 +	1.7	(149.0)	80	(20.0)	37		169.0	2	84	39
24	176	1791	17	23.0	12.0	0.5 +	0.1	(8.0)	47	(1.2)	2		9.2	2	79	39
25	131	2000	39	23.0	42.8	1.2 +	0.3	(21.9)	95	(1.8)	3		23.7	2	65	79
26	110	1815	36	23.0	43.1	1.0 +	0.3	(18.5)	95	(1.5)	3		20.0	2	65	79
191	2142	4350	49	23.0	1.3	0.0 +	0.5	(6.9)	1	(0.3)	0		7.2			
192	37	2100	2	23.0	1.4	0.0 +	0.0	(0.1)	1	(0.0)	0		0.1			
193	10	10000	1	7.7	40.4	0.1 +	0.0	(1.6)	93	(0.0)	0		1.6	1	48	55
194	10	10000	1	7.7	40.4	0.1 +	0.0	(1.6)	93	(0.0)	0		1.6	1	83	0
195	10	10000	1	7.7	41.6	0.1 +	0.0	(1.6)	95	(0.0)	0		1.6	1	66	72
196	10	10000	0	7.7	12.9	0.0 +	0.0	(0.5)	51	(0.0)	0		0.5	1	0	43
291	1605	4300	37	23.0	1.2	0.0 +	0.3	(4.2)	1	(0.2)	0		4.4			
292	278	2100	13	23.0	1.5	0.0 +	0.1	(1.1)	1	(0.0)	0		1.1			
293	10	10000	0	7.7	12.9	0.0 +	0.0	(0.5)	51	(0.0)	0		0.5	2	86	39
294	10	10000	2	7.7	42.9	0.1 +	0.0	(1.7)	96	(0.0)	0		1.7	2	67	72
295	10	10000	1	7.7	35.1	0.1 +	0.0	(1.4)	87	(0.0)	0		1.4	2	60	72
296	10	10000	1	7.7	40.4	0.1 +	0.0	(1.6)	93	(0.0)	0		1.6	2	48	55

*** f - average saturation flow for flared link ***

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)	TOTAL COST OF STOPS ($/H)	PENALTY FOR EXCESS QUEUES ($/H)	TOTAL PERFORMANCE INDEX ($/H)	
2221.3	104.2	21.3	24.3	10.4	(492.5) +	(55.5) +	(0.0) =	548.0	TOTALS

****

	CRUISE LITRES PER HOUR		DELAY LITRES PER HOUR		STOPS LITRES PER HOUR		TOTALS LITRES PER HOUR
FUEL CONSUMPTION PREDICTIONS	136.6	+	39.9	+	25.3	=	201.8

NO. OF ENTRIES TO SUBPT = 1
NO. OF LINKS RECALCULATED= 25

90 SECOND CYCLE 90 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 13
- (SECONDS)

1	4	0	43	55	72	
2	5	86	39	55	72	79

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)	TOTAL COST OF STOPS ($/H)	PENALTY FOR EXCESS QUEUES ($/H)	TOTAL PERFORMANCE INDEX ($/H)	
2221.3	104.2	21.3	24.3	10.4	(492.5) +	(55.5) +	(0.0) =	548.0	TOTALS

NO. OF ENTRIES TO SUBPT = 5
NO. OF LINKS RECALCULATED= 94

90 SECOND CYCLE 90 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 13 36
- (SECONDS)

1	4	0	43	55	72	
2	5	86	39	55	72	79

TOTAL DISTANCE	TOTAL TIME	MEAN JOURNEY	TOTAL UNIFORM	TOTAL RANDOM+	TOTAL COST	TOTAL COST	PENALTY FOR	TOTAL PERFORMANCE

TRAVELLED (PCU-KM/H)	SPENT (PCU-H/H)	SPEED (KM/H)	DELAY (PCU-H/H)	OVERSAT DELAY (PCU-H/H)	OF DELAY ($/H)	OF STOPS ($/H)	EXCESS QUEUES ($/H)	INDEX ($/H)	
2221.3	104.2	21.3	24.3	10.4	(492.5) +	(55.5) +	(0.0) =	548.0	TOTALS

NO. OF ENTRIES TO SUBPT = 5
NO. OF LINKS RECALCULATED= 95

90 SECOND CYCLE 90 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 13 36 13
- (SECONDS)

1 4 0 43 55 72
2 5 86 39 55 72 79

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)	TOTAL COST OF STOPS ($/H)	PENALTY FOR EXCESS QUEUES ($/H)	TOTAL PERFORMANCE INDEX ($/H)	
2221.3	104.2	21.3	24.3	10.4	(492.5) +	(55.5) +	(0.0) =	548.0	TOTALS

NO. OF ENTRIES TO SUBPT = 5
NO. OF LINKS RECALCULATED= 97

90 SECOND CYCLE 90 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 13 36 13 36
- (SECONDS)

1 4 0 43 55 72
2 5 86 39 55 72 79

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)	TOTAL COST OF STOPS ($/H)	PENALTY FOR EXCESS QUEUES ($/H)	TOTAL PERFORMANCE INDEX ($/H)	
2221.3	104.2	21.3	24.3	10.4	(492.5) +	(55.5) +	(0.0) =	548.0	TOTALS

NO. OF ENTRIES TO SUBPT = 5
NO. OF LINKS RECALCULATED= 97

90 SECOND CYCLE 90 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 13 36 13 36 13
- (SECONDS)

1 4 0 43 55 72
2 5 86 39 55 72 79

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)	TOTAL COST OF STOPS ($/H)	PENALTY FOR EXCESS QUEUES ($/H)	TOTAL PERFORMANCE INDEX ($/H)	
2221.3	104.2	21.3	24.3	10.4	(492.5) +	(55.5) +	(0.0) =	548.0	TOTALS

NO. OF ENTRIES TO SUBPT = 5
NO. OF LINKS RECALCULATED= 99

90 SECOND CYCLE 90 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 13 36 13 36 13 1
- (SECONDS)

1 4 0 43 55 72
2 5 86 39 55 72 79

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)	TOTAL COST OF STOPS ($/H)	PENALTY FOR EXCESS QUEUES ($/H)	TOTAL PERFORMANCE INDEX ($/H)	
2221.3	104.2	21.3	24.3	10.4	(492.5) +	(55.5) +	(0.0) =	548.0	TOTALS

NO. OF ENTRIES TO SUBPT = 5
NO. OF LINKS RECALCULATED= 99

90 SECOND CYCLE 90 STEPS

FINAL SETTINGS OBTAINED WITH INCREMENTS :- 13 36 13 36 13 1 1
- (SECONDS)

NODE NO	NUMBER OF STAGES	STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 5	STAGE 6	STAGE 7	STAGE 8	STAGE 9	STAGE 10
1	4	0	43	55	72						
2	5	86	39	55	72	79					

LINK NUMBER	FLOW INTO LINK (PCU/H)	SAT FLOW (PCU/H)	DEGREE OF SAT (%)	MEAN TIMES PER PCU CRUISE (SEC)	DELAY (SEC)	DELAY UNIFORM (U+R+O=MEAN Q) (PCU-H/H)	DELAY RANDOM+ OVERSAT (PCU-H/H)	DELAY COST OF DELAY ($/H)	STOPS MEAN STOPS /PCU (%)	STOPS COST OF STOPS ($/H)	QUEUE MEAN MAX. (PCU)	QUEUE AVERAGE EXCESS (PCU)	PERFORMANCE INDEX. WEIGHTED SUM OF ( ) VALUES ($/H)	EXIT NODE	GREEN TIMES START 1ST	GREEN TIMES START END 2ND (SECONDS)
11	787	2155	60	23.0	14.6	2.3 +	0.7	(43.8)	60	(6.7)	13		50.5	1	79	43
12	656	2155	50	23.0	13.0	1.8 +	0.5	(32.4)	54	(5.1)	10		37.4	1	79	43
13	263	2538f	72	23.0	53.0	2.6 +	1.2	(54.5)	108	(4.1)	7		58.5	1	60	72
14	171	1775	67	23.0	57.6	1.7 +	1.0	(38.5)	113	(2.8)	5		41.2	1	60	72
15	14	2020	8	19.2	32.1	0.1 +	0.0	(1.7)	92	(0.2)	0		1.9	1	48	55
16	1879	4306	84	19.2	8.2	1.5 +	2.5	(57.0)	22	(5.8)	15		62.8	1	9	55
17	23	1807	2	23.0	9.2	0.0 +	0.0	(0.8)	38	(0.1)	0		0.9	1	79	43
21	131	1969	50	20.0	39.5	0.9 +	0.5	(20.1)	103	(1.9)	4		22.1	2	44	55
22	1474	4286	52	20.0	4.6	1.1 +	0.5	(23.7)	18	(3.8)	7		27.5	2	86	55
23	1765	4440	78	23.0	21.9	8.8 +	1.7	(149.0)	80	(20.0)	37		169.0	2	84	39
24	176	1791	17	23.0	12.0	0.5 +	0.1	(8.0)	47	(1.2)	2		9.2	2	79	39
25	131	2000	39	23.0	42.8	1.2 +	0.3	(21.9)	95	(1.8)	3		23.7	2	65	79
26	110	1815	36	23.0	43.1	1.0 +	0.3	(18.5)	95	(1.5)	3		20.0	2	65	79
191	2142	4350	49	23.0	1.3	0.0 +	0.5	(6.9)	1	(0.3)	0		7.2			
192	37	2100	2	23.0	1.4	0.0 +	0.0	(0.1)	1	(0.0)	0		0.1			
193	10	10000	1	7.7	40.4	0.1 +	0.0	(1.6)	93	(0.0)	0		1.6	1	48	55

194	10	10000	1	7.7	40.4	0.1	+	0.0	(1.6)	93	(0.0)	0		1.6	1	83 0
195	10	10000	1	7.7	41.6	0.1	+	0.0	(1.6)	95	(0.0)	0		1.6	1	66 72
196	10	10000	0	7.7	12.9	0.0	+	0.0	(0.5)	51	(0.0)	0		0.5	1	0 43
291	1605	4300	37	23.0	1.2	0.0	+	0.3	(4.2)	1	(0.2)	0		4.4		
292	278	2100	13	23.0	1.5	0.0	+	0.1	(1.1)	1	(0.0)	0		1.1		
293	10	10000	0	7.7	12.9	0.0	+	0.0	(0.5)	51	(0.0)	0		0.5	2	86 39
294	10	10000	2	7.7	42.9	0.1	+	0.0	(1.7)	96	(0.0)	0		1.7	2	67 72
295	10	10000	1	7.7	35.1	0.1	+	0.0	(1.4)	87	(0.0)	0		1.4	2	60 72
296	10	10000	1	7.7	40.4	0.1	+	0.0	(1.6)	93	(0.0)	0		1.6	2	48 55

*** f - average saturation flow for flared link ***

TOTAL DISTANCE TRAVELLED	TOTAL TIME SPENT	MEAN JOURNEY SPEED	TOTAL UNIFORM DELAY	TOTAL RANDOM+ OVERSAT DELAY	TOTAL COST OF DELAY		TOTAL COST OF STOPS		PENALTY FOR EXCESS QUEUES		TOTAL PERFORMANCE INDEX	
(PCU-KM/H)	(PCU-H/H)	(KM/H)	(PCU-H/H)	(PCU-H/H)	($/H)		($/H)		($/H)		($/H)	
2221.3	104.2	21.3	24.3	10.4	(492.5)	+	(55.5)	+	(0.0)	=	548.0	TOTALS

ROUTE

****

	CRUISE LITRES PER HOUR		DELAY LITRES PER HOUR		STOPS LITRES PER HOUR		TOTALS LITRES PER HOUR
FUEL CONSUMPTION PREDICTIONS	136.6	+	39.9	+	25.3	=	201.8

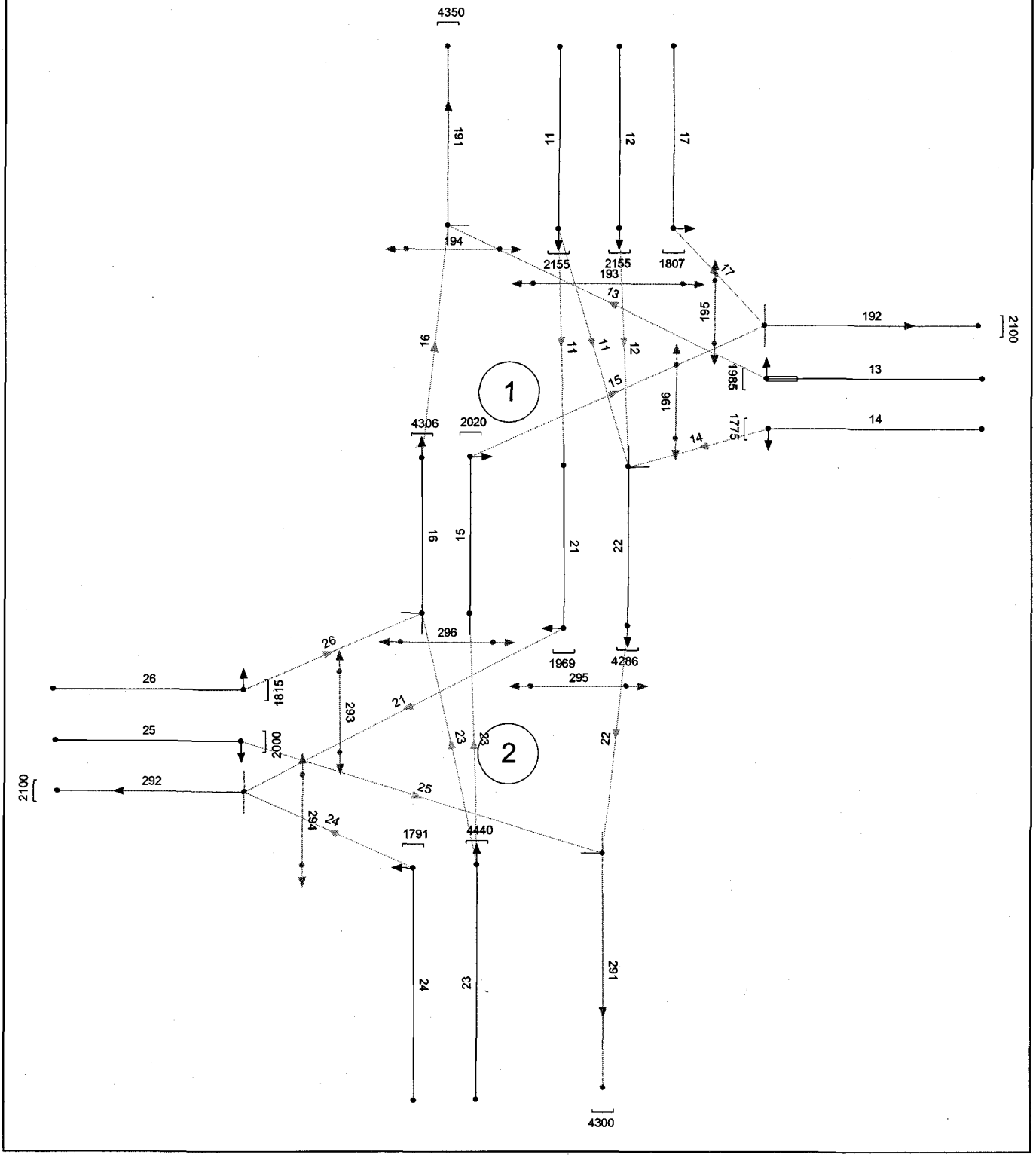
NO. OF ENTRIES TO SUBPT = 5
NO. OF LINKS RECALCULATED= 99

PROGRAM TRANSYT FINISHED

2014 AM Peak Base + Whiteland Fm + Browne - Option A (NG)

Network Diagram

2014 AM Peak Whitelands + Browne



PRT File
2014 AM Peak Whitelands + Browne

1 ——————— T R A N S Y T 12 ———————

Traffic Network Study Tool

Analysis Program Release 3 (March 2004)
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Run with file:- "SITE - BROWNE ACCESS STAGGER - OPTION A ALL BROWNE TRAFFIC ONE ACCESS (NG).DAT" at 10:17 on 27/09/06

TRANSYT 12.0

PARAMETERS CONTROLLING DIMENSIONS OF PROBLEM :

NUMBER OF NODES	= 2
NUMBER OF LINKS	= 25
NUMBER OF OPTIMISED NODES	= 2
MAXIMUM NUMBER OF GRAPHIC PLOTS	= 0
NUMBER OF STEPS IN CYCLE	= 90
MAXIMUM NUMBER OF SHARED STOPLINES	= 0
MAXIMUM NUMBER OF TIMING POINTS	= 6
MAXIMUM LINKS AT ANY NODE	= 11

CORE REQUESTED = 8862 WORDS
CORE AVAILABLE = 72000 WORDS

DATA INPUT :-

CARD NO.	CARD TYPE														
(1)=	TITLE:-														
CARD NO.	CARD TYPE	CYCLE TIME (SEC)	NO. OF STEPS PER CYCLE	TIME PERIOD 1-1200 MINS.	EFFECTIVE-GREEN DISPLACEMENTS START (SEC)	EFFECTIVE-GREEN DISPLACEMENTS END (SEC)	EQUISAT SETTINGS 0=NO 1=YES	0=UNEQUAL CYCLE 1=EQUAL CYCLE	FLOW SCALE 10-200 %	CRUISE-SPEEDS SCALE 50-200 %	CARD32 0=TIMES 1=SPEEDS	OPTIMISE 0=NONE 1=O/SET 2=FULL	EXTRA COPIES FINAL OUTPUT	HILL-CLIMB OUTPUT 1=FULL	DELAY VALUE P PER PCU-H	STOP VALUE P PER 100
2)=	1	90	90	60	2	3	0	1	100	100	1	1	0	0	1420	260
CARD NO.	CARD TYPE	LIST OF NODES TO BE OPTIMISED														
3)=	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0

NODE CARDS: MINIMUM STAGE TIMES (WORKING)

CARD NO.	CARD TYPE	NODE NO.	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10
4)=	10	1	7	7	0	5	7					
5)=	10	2	7	7	5							

NODE CARDS: PRECEDING INTERSTAGE TIMES (WORKING)

CARD NO.	CARD TYPE	NODE NO.	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10
6)=	11	1	0	5	0	11	11					
7)=	11	2	0	9	12	7	5					

NODE CARDS: STAGE CHANGE TIMES (WORKING)

CARD NO.	CARD TYPE	NODE NO.	Sgl/Dbl Cycled	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10
8)=	12	1	1	43	77	3	5	21	39				
9)=	12	2	1	32	77	3	20	27					

LINK CARDS: FIXED DATA

CARD NO.	CARD TYPE	LINK NO.	EXIT NODE	FIRST GREEN START STAGE	FIRST GREEN START LAG	FIRST GREEN END STAGE	FIRST GREEN END LAG	SECOND GREEN START STAGE	SECOND GREEN START LAG	SECOND GREEN END STAGE	SECOND GREEN END LAG	LINK LENGTH	STOP WT.X100	SAT FLOW	DELAY WT.X100	DISPSN X100
10)=	31	11	1	5	7	2	0	0	0	0	0	200	0	2155	0	0
11)=	31	12	1	5	7	2	0	0	0	0	0	200	0	2155	0	0
12)=	31	13	1	4	5	5	0	0	0	0	0	200	0	1985	0	0
13)=	31	14	1	4	5	5	0	0	0	0	0	200	0	1775	0	0
14)=	31	15	1	2	5	4	0	0	0	0	0	166	0	2020	0	0
15)=	31	16	1	1	0	4	0	0	0	0	0	166	0	4306	0	0
16)=	31	17	1	5	7	2	0	0	0	0	0	200	0	1807	0	0
17)=	31	21	2	2	5	3	0	0	0	0	0	173	0	1969	0	0
18)=	31	22	2	1	0	3	0	0	0	0	0	173	0	4286	0	0
19)=	31	23	2	5	5	2	0	0	0	0	0	200	0	4440	0	0
20)=	31	24	2	4	7	2	0	0	0	0	0	200	0	1791	0	0
21)=	31	25	2	3	10	5	0	0	0	0	0	200	0	2000	0	0
22)=	31	26	2	3	10	5	0	0	0	0	0	200	0	1815	0	0
23)=	31	191	0	0	0	0	0	0	0	0	0	200	0	4350	0	0
24)=	31	192	0	0	0	0	0	0	0	0	0	200	0	2100	0	0
25)=	31	193	1	2	5	3	0	0	0	0	0	10	0	10000	0	0
26)=	31	194	1	5	11	6	0	0	0	0	0	10	0	10000	0	0
27)=	31	195	1	4	11	5	0	0	0	0	0	10	0	10000	0	0
28)=	31	196	1	1	0	2	0	0	0	0	0	10	0	10000	0	0
29)=	31	291	0	0	0	0	0	0	0	0	0	200	0	4300	0	0
30)=	31	292	0	0	0	0	0	0	0	0	0	200	0	2100	0	0
31)=	31	293	2	1	0	2	0	0	0	0	0	10	0	10000	0	0
32)=	31	294	2	3	12	4	0	0	0	0	0	10	0	10000	0	0
33)=	31	295	2	3	5	4	0	0	0	0	0	10	0	10000	0	0
34)=	31	296	2	2	9	3	0	0	0	0	0	10	0	10000	0	0

LINK CARDS: FLOW DATA

CARD NO.	CARD TYPE	LINK NO.	TOTAL FLOW	UNIFORM FLOW	ENTRY 1 LINK NO.	ENTRY 1 FLOW	ENTRY 1 CRUISE SPEED	ENTRY 2 LINK NO.	ENTRY 2 FLOW	ENTRY 2 CRUISE SPEED	ENTRY 3 LINK NO.	ENTRY 3 FLOW	ENTRY 3 CRUISE SPEED	ENTRY 4 LINK NO.	ENTRY 4 FLOW	ENTRY 4 CRUISE SPEED
35)=	32	11	891	0	0	0	32	0	0	0	0	0	0	0	0	0
36)=	32	12	738	0	0	0	32	0	0	0	0	0	0	0	0	0
37)=	32	13	27	0	0	0	32	0	0	0	0	0	0	0	0	0
38)=	32	14	18	0	0	0	32	0	0	0	0	0	0	0	0	0

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39)=  32    15    228     0    23    228    32     0     0     0     0     0     0     0     0     0
40)=  32    16   1760     0    23   1634    32    26   126    32     0     0     0     0     0     0
41)=  32    17    349     0     0      0    32     0     0     0     0     0     0     0     0     0
42)=  32    21    153     0    11    153    32     0     0     0     0     0     0     0     0     0
43)=  32    22   1495     0    11    738    32    12   738    32    14    18    32     0     0     0
44)=  32    23   1862     0     0      0    32     0     0     0     0     0     0     0     0     0
45)=  32    24    183     0     0      0    32     0     0     0     0     0     0     0     0     0
46)=  32    25    170     0     0      0    32     0     0     0     0     0     0     0     0     0
47)=  32    26    126     0     0      0    32     0     0     0     0     0     0     0     0     0
48)=  32   191   1787     0    13     27    32    16  1760    32     0     0     0     0     0     0
49)=  32   192    577     0    15    228    32    17   349    32     0     0     0     0     0     0
50)=  32   193     10     0     0      0     5     0     0     0     0     0     0     0     0     0
51)=  32   194     10     0     0      0     5     0     0     0     0     0     0     0     0     0
52)=  32   195     10     0     0      0     5     0     0     0     0     0     0     0     0     0
53)=  32   196     10     0     0      0     5     0     0     0     0     0     0     0     0     0
54)=  32   291   1665     0    22   1495    32    25   170    32     0     0     0     0     0     0
55)=  32   292    336     0    21    153    32    24   183    32     0     0     0     0     0     0
56)=  32   293     10     0     0      0     5     0     0     0     0     0     0     0     0     0
57)=  32   294     10     0     0      0     5     0     0     0     0     0     0     0     0     0
58)=  32   295     10     0     0      0     5     0     0     0     0     0     0     0     0     0
59)=  32   296     10     0     0      0     5     0     0     0     0     0     0     0     0     0
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LINK CARDS : FLARE SATURATION FLOW DATA

```
                    ..LANE  1..      ..LANE  2..      ..LANE  3..
      CARD   LINK   SAT.     CAPAC   SAT.     CAPAC   SAT.     CAPAC
      TYPE    NO.   FLOW     VEH.    FLOW     VEH.    FLOW     VEH.
60)=  33      13    2120     2       0        0       0        0
```

*****END OF SUBROUTINE TINPUT*****

90 SECOND CYCLE 90 STEPS

INITIAL SETTINGS
- (SECONDS)

NODE NO	NUMBER OF STAGES	STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 5	STAGE 6	STAGE 7	STAGE 8	STAGE 9	STAGE 10
1	6	43	77	3	5	21	39				
2	5	32	77	3	20	27					

LINK NUMBER	FLOW INTO LINK (PCU/H)	SAT FLOW (PCU/H)	DEGREE OF SAT (%)	MEAN TIMES PER PCU CRUISE (SEC)	DELAY (SEC)	DELAY UNIFORM (U+R+O=MEAN Q) (PCU-H/H)	DELAY RANDOM+ OVERSAT (PCU-H/H)	DELAY COST OF DELAY ($/H)	STOPS MEAN STOPS /PCU (%)	STOPS COST OF STOPS ($/H)	QUEUE MEAN MAX. (PCU)	QUEUE AVERAGE EXCESS (PCU)	PERFORMANCE INDEX. WEIGHTED SUM OF ( ) VALUES ($/H)	EXIT NODE	GREEN TIMES START 1ST (SECONDS)	GREEN TIMES END 1ST (SECONDS)	GREEN TIMES START 2ND (SECONDS)	GREEN TIMES END 2ND (SECONDS)
11	891	2155	74	23.0	21.5	3.8 +	1.4	(73.7)	77	(9.7)	18		83.5	1	28	77		
12	738	2155	62	23.0	17.9	2.8 +	0.8	(50.7)	67	(7.0)	13		57.8	1	28	77		
13	27	2585f	8	23.0	40.4	0.3 +	0.0	(4.2)	90	(0.3)	1		4.6	1	10	21		
14	18	1775	8	23.0	43.0	0.2 +	0.0	(3.0)	93	(0.2)	0		3.3	1	10	21		
15	227	2020	72	19.2	39.5	1.2 +	1.3	(34.9)	111	(3.6)	7		38.5	1	82	5		
16	1761	4306	69	19.2	4.6	0.9 +	1.1	(28.6)	12	(3.0)	6		31.7	1	43	5		
17	349	1807	35	23.0	14.3	1.1 +	0.3	(19.0)	54	(2.7)	5		21.6	1	28	77		
21	153	1969	58	20.0	38.6	0.9 +	0.7	(23.0)	107	(2.3)	4		25.4	2	82	3		
22	1494	4286	51	20.0	2.9	0.5 +	0.5	(14.3)	7	(1.5)	3		15.7	2	32	3		
23	1862	4440	82	23.0	23.4	9.6 +	2.3	(168.2)	83	(22.2)	41		190.3	2	32	77		
24	183	1791	18	23.0	12.1	0.5 +	0.1	(8.4)	47	(1.2)	2		9.6	2	27	77		
25	170	2000	51	23.0	45.6	1.6 +	0.5	(30.2)	99	(2.4)	4		32.6	2	13	27		
26	126	1815	42	23.0	44.3	1.2 +	0.4	(21.7)	97	(1.7)	3		23.5	2	13	27		
191	1788	4350	41	23.0	1.2	0.0 +	0.3	(5.0)	1	(0.2)	0		5.2					
192	576	2100	27	23.0	1.7	0.0 +	0.2	(2.7)	1	(0.1)	0		2.8					
193	10	10000	1	7.7	36.1	0.1 +	0.0	(1.4)	88	(0.0)	0		1.4	1	82	3		
194	10	10000	1	7.7	40.4	0.1 +	0.0	(1.6)	93	(0.0)	0		1.6	1	32	39		
195	10	10000	2	7.7	42.9	0.1 +	0.0	(1.7)	96	(0.0)	0		1.7	1	16	21		
196	10	10000	0	7.7	18.1	0.0 +	0.0	(0.7)	61	(0.0)	0		0.7	1	43	77		
291	1664	4300	39	23.0	1.2	0.0 +	0.3	(4.5)	1	(0.2)	0		4.7					
292	336	2100	16	23.0	1.5	0.0 +	0.1	(1.4)	1	(0.1)	0		1.4					
293	10	10000	0	7.7	11.9	0.0 +	0.0	(0.4)	49	(0.0)	0		0.4	2	32	77		
294	10	10000	2	7.7	42.9	0.1 +	0.0	(1.7)	96	(0.0)	0		1.7	2	15	20		
295	10	10000	1	7.7	35.1	0.1 +	0.0	(1.4)	87	(0.0)	0		1.4	2	8	20		
296	10	10000	1	7.7	40.4	0.1 +	0.0	(1.6)	93	(0.0)	0		1.6	2	86	3		

*** f - average saturation flow for flared link ***

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)		TOTAL COST OF STOPS ($/H)		PENALTY FOR EXCESS QUEUES ($/H)		TOTAL PERFORMANCE INDEX ($/H)	
2361.7	109.4	21.6	25.1	10.4	(503.9)	+	(58.6)	+	(0.0)	=	562.5	TOTALS

	CRUISE LITRES PER HOUR		DELAY LITRES PER HOUR		STOPS LITRES PER HOUR		TOTALS LITRES PER HOUR
FUEL CONSUMPTION PREDICTIONS	145.2	+	40.8	+	26.7	=	212.8

NO. OF ENTRIES TO SUBPT = 1
NO. OF LINKS RECALCULATED= 25

90 SECOND CYCLE 90 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 13
- (SECONDS)

1	6	43	77	3	5	21	39
2	5	32	77	3	20	27	

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)		TOTAL COST OF STOPS ($/H)		PENALTY FOR EXCESS QUEUES ($/H)		TOTAL PERFORMANCE INDEX ($/H)	
2361.7	109.4	21.6	25.1	10.4	(503.9)	+	(58.6)	+	(0.0)	=	562.5	TOTALS

NO. OF ENTRIES TO SUBPT = 5
NO. OF LINKS RECALCULATED= 96

90 SECOND CYCLE 90 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 13 36
- (SECONDS)

1	6	43	77	3	5	21	39
2	5	32	77	3	20	27	

TOTAL DISTANCE	TOTAL TIME	MEAN JOURNEY	TOTAL UNIFORM	TOTAL RANDOM+	TOTAL COST	TOTAL COST	PENALTY FOR	TOTAL PERFORMANCE

TRAVELLED (PCU-KM/H)	SPENT (PCU-H/H)	SPEED (KM/H)	DELAY (PCU-H/H)	OVERSAT DELAY (PCU-H/H)	OF DELAY ($/H)	OF STOPS ($/H)	EXCESS QUEUES ($/H)	INDEX ($/H)	
2361.7	109.4	21.6	25.1	10.4	(503.9) + (	58.6) + (	0.0) =	562.5	TOTALS

NO. OF ENTRIES TO SUBPT = 5
NO. OF LINKS RECALCULATED= 99

90 SECOND CYCLE 90 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 13 36 13
- (SECONDS)

1	6	43	77	3	5	21	39
2	5	32	77	3	20	27	

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)	TOTAL COST OF STOPS ($/H)	PENALTY FOR EXCESS QUEUES ($/H)	TOTAL PERFORMANCE INDEX ($/H)	
2361.7	109.4	21.6	25.1	10.4	(503.9) + (	58.6) + (	0.0) =	562.5	TOTALS

NO. OF ENTRIES TO SUBPT = 5
NO. OF LINKS RECALCULATED= 99

90 SECOND CYCLE 90 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 13 36 13 36
- (SECONDS)

1	6	43	77	3	5	21	39
2	5	32	77	3	20	27	

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)	TOTAL COST OF STOPS ($/H)	PENALTY FOR EXCESS QUEUES ($/H)	TOTAL PERFORMANCE INDEX ($/H)	
2361.7	109.4	21.6	25.1	10.4	(503.9) + (	58.6) + (	0.0) =	562.5	TOTALS

NO. OF ENTRIES TO SUBPT = 5
NO. OF LINKS RECALCULATED= 99

90 SECOND CYCLE 90 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 13 36 13 36 13
- (SECONDS)

1	6	43	77	3	5	21	39
2	5	32	77	3	20	27	

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)	TOTAL COST OF STOPS ($/H)	PENALTY FOR EXCESS QUEUES ($/H)	TOTAL PERFORMANCE INDEX ($/H)	
2361.7	109.4	21.6	25.1	10.4	(503.9) + (	58.6) + (	0.0) =	562.5	TOTALS

NO. OF ENTRIES TO SUBPT = 5
NO. OF LINKS RECALCULATED= 99

90 SECOND CYCLE 90 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 13 36 13 36 13 1
- (SECONDS)

1	6	43	77	3	5	21	39
2	5	33	78	4	21	28	

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)	TOTAL COST OF STOPS ($/H)	PENALTY FOR EXCESS QUEUES ($/H)	TOTAL PERFORMANCE INDEX ($/H)	
2361.7	109.4	21.6	25.1	10.4	(503.9) + (	58.6) + (	0.0) =	562.5	TOTALS

NO. OF ENTRIES TO SUBPT = 5
NO. OF LINKS RECALCULATED= 99

90 SECOND CYCLE 90 STEPS

FINAL SETTINGS OBTAINED WITH INCREMENTS :- 13 36 13 36 13 1 1
- (SECONDS)

NODE NO	NUMBER OF STAGES	STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 5	STAGE 6	STAGE 7	STAGE 8	STAGE 9	STAGE 10
1	6	43	77	3	5	21	39				
2	5	33	78	4	21	28					

LINK NUMBER	FLOW INTO LINK (PCU/H)	SAT FLOW (PCU/H)	DEGREE OF SAT (%)	MEAN TIMES PER PCU CRUISE (SEC)	DELAY (SEC)	DELAY UNIFORM (U+R+O=MEAN Q) (PCU-H/H)	OVERSAT RANDOM+ OVERSAT (PCU-H/H)	COST OF DELAY ($/H)	MEAN STOPS /PCU (%)	COST OF STOPS ($/H)	MEAN MAX. (PCU)	AVERAGE EXCESS (PCU)	PERFORMANCE INDEX. WEIGHTED SUM OF ( ) VALUES ($/H)	EXIT NODE	GREEN TIMES START 1ST (SECONDS)	START END 2ND
11	891	2155	74	23.0	21.5	3.8 +	1.4	(73.7)	77	(9.7)	18		83.5	1	28	77
12	738	2155	62	23.0	17.9	2.8 +	0.8	(50.7)	67	(7.0)	13		57.8	1	28	77
13	27	2585f	8	23.0	40.4	0.3 +	0.0	(4.2)	90	(0.3)	1		4.6	1	10	21
14	18	1775	8	23.0	43.0	0.2 +	0.0	(3.0)	93	(0.2)	0		3.3	1	10	21
15	227	2020	72	19.2	39.1	1.2 +	1.3	(34.6)	110	(3.6)	7		38.2	1	82	5
16	1761	4306	69	19.2	4.8	1.0 +	1.1	(29.8)	13	(3.2)	6		33.0	1	43	5
17	349	1807	35	23.0	14.3	1.1 +	0.3	(19.0)	54	(2.7)	5		21.6	1	28	77
21	153	1969	58	20.0	38.9	0.9 +	0.7	(23.2)	108	(2.4)	4		25.5	2	83	4
22	1494	4286	51	20.0	2.7	0.4 +	0.5	(13.2)	6	(1.3)	2		14.5	2	33	4
23	1862	4440	82	23.0	23.4	9.6 +	2.3	(168.2)	83	(22.2)	41		190.3	2	33	78
24	183	1791	18	23.0	12.1	0.5 +	0.1	(8.4)	47	(1.2)	2		9.6	2	28	78
25	170	2000	51	23.0	45.6	1.6 +	0.5	(30.2)	99	(2.4)	4		32.6	2	14	28
26	126	1815	42	23.0	44.3	1.2 +	0.4	(21.7)	97	(1.7)	3		23.5	2	14	28
191	1788	4350	41	23.0	1.2	0.0 +	0.3	(5.0)	1	(0.2)	0		5.2			
192	576	2100	27	23.0	1.7	0.0 +	0.2	(2.7)	1	(0.1)	0		2.8			
193	10	10000	1	7.7	36.1	0.1 +	0.0	(1.4)	88	(0.0)	0		1.4	1	82	3

194	10	10000	1	7.7	40.4	0.1	+	0.0	(	1.6)	93	(	0.0)	0		1.6	1	32	39
195	10	10000	2	7.7	42.9	0.1	+	0.0	(	1.7)	96	(	0.0)	0		1.7	1	16	21
196	10	10000	0	7.7	18.1	0.0	+	0.0	(	0.7)	61	(	0.0)	0		0.7	1	43	77
291	1664	4300	39	23.0	1.2	0.0	+	0.3	(	4.5)	1	(	0.2)	0		4.7			
292	336	2100	16	23.0	1.5	0.0	+	0.1	(	1.4)	1	(	0.1)	0		1.4			
293	10	10000	0	7.7	11.9	0.0	+	0.0	(	0.4)	49	(	0.0)	0		0.4	2	33	78
294	10	10000	2	7.7	42.9	0.1	+	0.0	(	1.7)	96	(	0.0)	0		1.7	2	16	21
295	10	10000	1	7.7	35.1	0.1	+	0.0	(	1.4)	87	(	0.0)	0		1.4	2	9	21
296	10	10000	1	7.7	40.4	0.1	+	0.0	(	1.6)	93	(	0.0)	0		1.6	2	87	4

*** f - average saturation flow for flared link ***

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)		TOTAL COST OF STOPS ($/H)		PENALTY FOR EXCESS QUEUES ($/H)		TOTAL PERFORMANCE INDEX ($/H)	
2361.7	109.4	21.6	25.1	10.4	(503.9)	+	(58.6)	+	(0.0)	=	562.5	TOTALS

ROUTE

****

	CRUISE LITRES PER HOUR		DELAY LITRES PER HOUR		STOPS LITRES PER HOUR		TOTALS LITRES PER HOUR
FUEL CONSUMPTION PREDICTIONS	145.2	+	40.8	+	26.7	=	212.7

NO. OF ENTRIES TO SUBPT = 5
NO. OF LINKS RECALCULATED= 99

PROGRAM TRANSYT FINISHED

User	WSP - Basingstoke	Project				Page 1
Location		File	Site - Browne Access Cross Roads(a).LSG	SCN		Chkd	
Title				Controller	Generic	Appvd	

Phases

Phase Data					
Phase Name		Phase Type	Assoc Phase	Street Min	Cont Mln
A	A41 North Ahead	Traffic		7	7
B	A41 North Right	Traffic		7	7
C	Browne Access Left	Traffic		7	7
D	Browne Access Right Ahead	Traffic		7	7
E	A41 South Ahead Left	Traffic		7	7
F	A41 South Right	Traffic		7	7
G	Site Access Left Ahead	Traffic		7	7
H	Site Access Right	Traffic		7	7
I	Pedestrians across	Pedestrian		7	7
J	Pedestrians across	Pedestrian		7	7
K	Pedestrians across	Pedestrian		7	7
L	Pedestrians across	Pedestrian		5	5
M	Pedestrians across	Pedestrian		7	7
N	Pedestrians across	Pedestrian		5	5
O	A41 North Left	Traffic		7	7
P	Pedestrians across	Pedestrian		7	7

User	WSP - Basingstoke	Project				Page 2
Location		File	Site - Browne Access Cross Roads(a).LSG	SCN		Chkd	
Title				Controller	Generic	Appvd	

Phase Intergreens

From Phase	Phase Intergreens To Phase															
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
A			6	5		5	5	5	5							
B			5	5	7		5	5	5			9				
C	5	5			5	5		5				7	5			
D	5	5			5	5	5			10			5			
E		5	5	5			5	5		9		8				
F	7		5	5			5	5						10	9	
G	8	7		5	5	5				7	5			7	7	
H	6	5	5		5	6					5				7	
I	14	14														
J				10	10		10									
K							10	10								
L		7	7		7											
M			10	10												
N						7	7									
O						5	5	5								5
P															7	

User	WSP - Basingstoke	Project				Page 3
Location		File	Site - Browne Access Cross Roads(a).LSG	SCN	Chkd	
Title				Controller	Generic	Appvd	

Prohibited Moves and Interstage Lengths

From Stage	Prohibited Moves To Stage							
	1	2	3	4	5	6	7	8
1	X	0	9	5	6	6	10	10
2	0	X	9	5	6	6	8	5
3	10	10	X	0	10	10	10	10
4	9	9	0	X	10	9	9	5
5	14	14	14	14	X	0	7	7
6	5	5	10	5	0	X	7	5
7	8	8	7	7	10	10	X	0
8	8	8	7	7	7	7	0	X

User	WSP - Basingstoke	Project				Page 4
Location		File	Site - Browne Access Cross Roads(a).LSG	SCN	Chkd	
Title				Controller	Generic	Appvd	

Stages

Stage Data	
Stage	Phases In Stage
1	AEKO
2	AEO
3	BFJP
4	BF
5	CDINO
6	CDO
7	GHLM
8	GH

User	WSP - Basingstoke	Project				Page 5
Location		File	Site - Browne Access Cross Roads(a).LSG	SCN	Chkd	
Title				Controller	Generic	Appvd	

Links

Link Data							
Ref Num	Link	Type	Full Phase	Arrw Phase	Opposing Arm/Link	R Turn Storage	Max Turn
1/1	A41 North Ahead	U	A				
1/2	A41 North Right	O	B		3/1	2	2
1/3	A41 North Left	U	O				
2/1	Browne Access Left	U	C				
2/2	Browne Access Right Ahead	U	D				
3/1	A41 South Ahead Left	U	E				
3/2	A41 South Right	U	F				
4/1	Site Access Left Ahead	U	G				
4/2	Site Access Right	U	H				

User	WSP - Basingstoke	Project				Page 6
Location		File	Site - Browne Access Cross Roads(a).LSG	SCN	Chkd	
Title				Controller	Generic	Appvd	

Lanes

Lane Data								
Ref Num	Lane	Length (pcu)	Gradient (%)	Width (m)	Propn Turn(%)	Radius (m)	User Satn	RR67 Satn
1/1	A41 North Left	Inf	0.00	5.00	100	15.00	1800	1923
1/2	A41 North Ahead	Inf	0.00	4.50	0	Inf	1800	2205
1/3	A41 North Ahead	Inf	0.00	4.50	0	Inf	1800	2205
1/4	A41 North Right	Inf	0.00	4.00	100	17.00	1800	1980
2/1	Browne Access Left	Inf	0.00	3.65	100	12.00	1800	1760
2/2	Browne Access Right Ahead	Inf	0.00	3.65	100	16.00	1800	1938
2/3	Browne Access Right	5	0.00	3.65	100	16.00	1800	1938
3/1	A41 South Ahead Left	Inf	0.00	4.50	10	12.00	1800	2040
3/2	A41 South Ahead	Inf	0.00	4.50	0	Inf	1800	2205
3/3	A41 South Right	Inf	0.00	4.00	100	20.00	1800	2005
4/1	Site Access Left Ahead	Inf	0.00	3.65	100	12.00	1800	1760
4/2	Site Access Right	Inf	0.00	3.65	100	18.00	1800	1957

User	WSP - Basingstoke	Project				Page 7
Location		File	Site - Browne Access Cross Roads(a).LSG	SCN	Chkd	
Title				Controller	Generic	Appvd	

Traffic Flows

Traffic Flows												
Grp Num	Time Start	Time End	Title	Link Number								
				1/1	1/2	1/3	2/1	2/2	3/1	3/2	4/1	4/2
1	08:00	09:00	2014 AM Base+Whitelands+Browne	1475	153	349	18	27	1816	228	126	170
2	17:00	18:00	2014 PM Base+Whitelands+Browne	1301	131	23	171	263	1925	15	128	155

User	WSP - Basingstoke	Project				Page 8
Location		File	Site - Browne Access Cross Roads(a).LSG	SCN	Chkd	
Title				Controller	Generic	Appvd	

Parameters Selected

Parameters Selected	
Flow Group	2014 AM Base+Whitelands+Browne
Flow Group Period	08:00 to 09:00
Phase Minimum Type	Street
CycleTime	120
Flow Factor	1.00
Sat Flows Used	RR67

Stage Results

Stage Timings								
Stage Sequence	1	2	3	4	5	6	7	8
Stage Duration	54	3	7	5	5	2	8	2
Stage Change Point	86	28	31	47	52	67	69	84

User	WSP - Basingstoke	Project				Page 9
Location		File	Site - Browne Access Cross Roads(a).LSG	SCN	Chkd	
Title				Controller	Generic	Appvd	

Link Results

Link Results												
Link Ref	Link Name	Link Type	Full Phs	Arw Phs	Tot Grn (s)	Dem Flow pcu	Max Satn pcu/h	Cap pcu	Deg Sat %	Tot Del s/pcu	TDel pcuh	Que' pcu
1/1	A41 North Ahead	U	A		57	1475	4410	2132	69.2	26.5	10.9	25.8
1/2	A41 North Right	O	B		16	153	1980	281	54.5	56.2	2.4	4.6
1/3	A41 North Left	U	O		66	349	1923	1090	32.0	8.2	0.8	2.6
2/1	Browne Access Left	U	C		12	18	1760	191	9.4	50.0	0.3	0.5
2/2	Browne Access Right Ahead	U	D		12	27	3876	360	7.5	49.4	0.4	0.8
3/1	A41 South Ahead Left	U	E		60	1816	4245	2158	84.2	30.3	15.3	30.4
3/2	A41 South Right	U	F		16	228	2005	284	80.3	74.6	4.7	8.0
4/1	Site Access Left Ahead	U	G		12	126	1760	191	66.1	69.9	2.4	4.3
4/2	Site Access Right	U	H		12	170	1957	212	80.2	84.4	4.0	6.5
Cycle Time 120 s				PRC 6.9 %				Total Delay 41.1 PCUh				

Opposed Link Results

Opposed Movement Detail				
Link Ref	Link Name	Arr Grn	Gaps /cyc	Ign /cyc
1/2	A41 North Right	-	0.0	0.0

User	WSP - Basingstoke	Project				Page 10
Location		File	Site - Browne Access Cross Roads(a).LSG	SCN	Chkd	
Title				Controller	Generic	Appvd	

Parameters Selected

Parameters Selected	
Flow Group	2014 PM Base+Whitelands+Browne
Flow Group Period	17:00 to 18:00
Phase Minimum Type	Street
CycleTime	120
Flow Factor	1.00
Sat Flows Used	RR67

Stage Results

Stage Timings								
Stage Sequence	1	2	3	4	5	6	7	8
Stage Duration	55	3	7	5	6	2	6	2
Stage Change Point	86	29	32	48	53	69	71	84

User	WSP - Basingstoke	Project				Page 11
Location		File	Site - Browne Access Cross Roads(a).LSG	SCN	Chkd	
Title				Controller	Generic	Appvd	

Link Results

Link Results												
Link Ref	Link Name	Link Type	Full Phs	Arw Phs	Tot Grn (s)	Dem Flow pcu	Max Satn pcu/h	Cap pcu	Deg Sat %	Tot Del s/pcu	TDel pcuh	Que' pcu
1/1	A41 North Ahead	U	A		58	1301	4410	2168	60.0	23.8	8.6	22.4
1/2	A41 North Right	O	B		16	131	1980	281	46.7	53.6	2.0	3.8
1/3	A41 North Left	U	O		68	23	1923	1122	2.1	5.7	0.0	0.2
2/1	Browne Access Left	U	C		13	171	1760	205	83.3	91.1	4.3	6.9
2/2	Browne Access Right Ahead	U	D		13	263	3876	376	69.9	62.5	4.6	8.5
3/1	A41 South Ahead Left	U	E		61	1925	4245	2193	87.8	31.9	17.1	32.8
3/2	A41 South Right	U	F		16	15	2005	284	5.3	45.7	0.2	0.4
4/1	Site Access Left Ahead	U	G		10	128	1760	161	79.3	92.8	3.3	5.3
4/2	Site Access Right	U	H		10	155	1957	179	86.4	106.8	4.6	7.0
Cycle Time 120 s				PRC 2.5 %				Total Delay 44.6 PCUh				

Opposed Link Results

Opposed Movement Detail				
Link Ref	Link Name	Arr Grn	Gaps /cyc	Ign /cyc
1/2	A41 North Right	-	0.0	0.0

CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 3.0 (MAY 2001)

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Run with file:-
"n:\South West Bicester\ANALYSIS\PICADY\September 2006\North Eastern Site Access\NE site access-TotTraffic Inc Browne-AM Peak.vpi"
(drive-on-the-left) at 11:53:10 on Wednesday, 27 September 2006

RUN TITLE
****
North Eastern Site Access - Total traffic Incl Browne AM Peak

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY
****

INPUT DATA

MAJOR ROAD (ARM C) ---------- MAJOR ROAD (ARM A)
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS Middleton Stoney Road (E)
ARM B IS North Eastern Site Access
ARM C IS Middleton Stoney Road (W)

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B

STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C

ETC.

GEOMETRIC DATA

DATA ITEM	MINOR ROAD B
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W) 7.80 M.
CENTRAL RESERVE WIDTH	(WCR) 0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B) 3.90 M.
- VISIBILITY	(VC-B) 110.0 M.
- BLOCKS TRAFFIC	YES
MINOR ROAD - VISIBILITY TO LEFT	(VB-C) 90.0 M.
- VISIBILITY TO RIGHT	(VB-A) 90.0 M.
- LANE 1 WIDTH	(WB-C) 2.75 M.
- LANE 2 WIDTH	(WB-A) 0.00 M.

TRAFFIC DEMAND DATA

TIME PERIOD BEGINS 08.00 AND ENDS 09.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

TIME	FROM/TO	TURNING PROPORTIONS / TURNING COUNTS / (PERCENTAGE OF H.V.S) ARM A	ARM B	ARM C
08.00 - 09.00	ARM A	0.000	0.003	0.997
		0.0	1.0	389.0
		(0.0)	(0.0)	(0.0)
	ARM B	0.833	0.000	0.167
		5.0	0.0	1.0
		(0.1)	(0.0)	(0.1)
	ARM C	1.000	0.000	0.000
		797.0	0.0	0.0
		(0.0)	(0.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
08.00-08.15								
B-AC	0.10	6.39	0.016		0.0	0.0	0.2	
C-AB	0.00	10.27	0.000		0.0	0.0	0.0	
C-A	13.28							
A-B	0.01							
A-C	4.79							

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
08.15-08.30								
B-AC	0.10	6.39	0.016		0.0	0.0	0.2	
C-AB	0.00	10.27	0.000		0.0	0.0	0.0	
C-A	13.28							
A-B	0.01							
A-C	4.79							

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
08.30-08.45								
B-AC	0.10	6.39	0.016		0.0	0.0	0.2	
C-AB	0.00	10.27	0.000		0.0	0.0	0.0	
C-A	13.28							
A-B	0.01							
A-C	4.79							

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
08.45-09.00								
B-AC	0.10	6.39	0.016		0.0	0.0	0.2	
C-AB	0.00	10.27	0.000		0.0	0.0	0.0	
C-A	13.28							
A-B	0.01							
A-C	4.79							

WARNING THE JUNCTION MODELLED CAN CARRY HIGH-SPEED MAJOR ROAD TRAFFIC. (AG23 REF. 8.4.2(v)).

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND (VEH)	TOTAL DEMAND (VEH/H)	* QUEUEING * DELAY * (MIN)	* QUEUEING * DELAY * (MIN/VEH)	* INCLUSIVE QUEUEING * DELAY * (MIN)	* INCLUSIVE QUEUEING * DELAY * (MIN/VEH)
B-AC	6.0	6.0	0.9	0.16	0.9	0.16
C-AB	0.0	0.0	0.0	0.00	0.0	0.00
C-A	796.8	796.8				
A-B	0.7	0.7				
A-C	287.3	287.3				
ALL	1090.8	1090.8	0.9	0.00	0.9	0.00

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

****** PICADY 4 run completed.

========== end of file ==========

[Printed at 14:00:55 on 27/09/2006]

TRL LIMITED

CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 3.0 (MAY 2001)

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EMAIL: SoftwareBureau@trl.co.uk

Run with file:-
"n:\South West Bicester\ANALYSIS\PICADY\September 2006\North Eastern Site Access\NE site access-TotTraffic Inc Browne-PM Peak.vpi"
(drive-on-the-left) at 11:53:15 on Wednesday, 27 September 2006

RUN TITLE
****
North Eastern Site Access - Total traffic Incl Browne PM Peak

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY
****

INPUT DATA

MAJOR ROAD (ARM C) ---------- MAJOR ROAD (ARM A)
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS Middleton Stoney Road (E)
ARM B IS North eastern Site Access
ARM C IS Middleton Stoney Road (W)

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B

STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C

ETC.

GEOMETRIC DATA

DATA ITEM		MINOR ROAD B	
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W)	7.80 M.	
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.	
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	3.90 M.	
- VISIBILITY	(VC-B)	110.0 M.	
- BLOCKS TRAFFIC		YES	
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	90.0 M.	
- VISIBILITY TO RIGHT	(VB-A)	90.0 M.	
- LANE 1 WIDTH	(WB-C)	2.75 M.	
- LANE 2 WIDTH	(WB-A)	0.00 M.	

TRAFFIC DEMAND DATA

TIME PERIOD BEGINS 17.00 AND ENDS 18.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

TIME	FROM/TO	TURNING PROPORTIONS / TURNING COUNTS / (PERCENTAGE OF H.V.S) ARM A	ARM B	ARM C
17.00 - 18.00				
	ARM A	0.000	0.006	0.994
		0.0	5.0	833.0
		(0.0)	(0.0)	(0.0)
	ARM B	0.667	0.000	0.333
		2.0	0.0	1.0
		(0.1)	(0.0)	(0.1)
	ARM C	0.998	0.002	0.000
		472.0	1.0	0.0
		(0.0)	(0.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
17.00-17.15								
B-AC	0.05	5.37	0.009		0.0	0.0	0.1	
C-AB	0.03	14.09	0.002		0.0	0.0	0.0	
C-A	7.85							
A-B	0.08							
A-C	13.89							

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
17.15-17.30								
B-AC	0.05	5.37	0.009		0.0	0.0	0.1	
C-AB	0.03	14.09	0.002		0.0	0.0	0.0	
C-A	7.85							
A-B	0.08							
A-C	13.89							

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
17.30-17.45								
B-AC	0.05	5.37	0.009		0.0	0.0	0.1	
C-AB	0.03	14.09	0.002		0.0	0.0	0.0	
C-A	7.85							
A-B	0.08							
A-C	13.89							

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
17.45-18.00								
B-AC	0.05	5.37	0.009		0.0	0.0	0.1	
C-AB	0.03	14.09	0.002		0.0	0.0	0.0	
C-A	7.85							
A-B	0.08							
A-C	13.89							

WARNING THE JUNCTION MODELLED CAN CARRY HIGH-SPEED MAJOR ROAD TRAFFIC. (AG23 REF. 8.4.2(v)).

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.15	0.0
17.30	0.0
17.45	0.0
18.00	0.0

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.15	0.0
17.30	0.0
17.45	0.0
18.00	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND (VEH)	TOTAL DEMAND (VEH/H)	* QUEUEING * DELAY * (MIN)	* QUEUEING * DELAY * (MIN/VEH)	* INCLUSIVE QUEUEING * DELAY * (MIN)	* INCLUSIVE QUEUEING * DELAY * (MIN/VEH)
B-AC	3.0	3.0	0.6	0.19	0.6	0.19
C-AB	2.0	2.0	0.1	0.07	0.1	0.07
C-A	470.8	470.8				
A-B	5.0	5.0				
A-C	833.2	833.2				
ALL	1314.0	1314.0	0.7	0.00	0.7	0.00

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

****** PICADY 4 run completed.

========== end of file ==========

[Printed at 14:01:21 on 27/09/2006]

TRL LIMITED

CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 3.0 (MAY 2001)

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Run with file:-
"n:\South West Bicester\ANALYSIS\PICADY\September 2006\Northern Site Access\B4030 jc with100units-TotTraffInc Browne-AM Peak.vpi"
(drive-on-the-left) at 12:13:22 on Wednesday, 27 September 2006

RUN TITLE
****
B4030 jctwith100units-TotTraf IncBrowne-AM Peak.vpi

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY
****

INPUT DATA

MAJOR ROAD (ARM C) ---------- MAJOR ROAD (ARM A)
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS B4030(E)
ARM B IS Site Access
ARM C IS B4030(W)

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B

STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C

ETC.

GEOMETRIC DATA

DATA ITEM	MINOR ROAD B
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W) 7.30 M.
CENTRAL RESERVE WIDTH	(WCR) 0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B) 2.20 M.
- VISIBILITY	(VC-B) 160.0 M.
- BLOCKS TRAFFIC	YES
MINOR ROAD - VISIBILITY TO LEFT	(VB-C) 160.0 M.
- VISIBILITY TO RIGHT	(VB-A) 160.0 M.
- LANE 1 WIDTH	(WB-C) 3.65 M.
- LANE 2 WIDTH	(WB-A) 0.00 M.

TRAFFIC DEMAND DATA

TIME PERIOD BEGINS 08.00 AND ENDS 09.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

TIME	FROM/TO	TURNING PROPORTIONS / TURNING COUNTS / (PERCENTAGE OF H.V.S) ARM A	ARM B	ARM C
08.00 - 09.00	ARM A	0.000	0.018	0.982
		0.0	7.0	383.0
		(0.0)	(0.0)	(0.0)
	ARM B	0.906	0.000	0.094
		29.0	0.0	3.0
		(0.1)	(0.0)	(0.1)
	ARM C	0.999	0.001	0.000
		768.0	1.0	0.0
		(0.0)	(0.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
08.00-08.15								
B-AC	0.53	7.02	0.075		0.0	0.1	1.2	
C-AB	0.04	17.27	0.002		0.0	0.0	0.0	
C-A	12.78							
A-B	0.12							
A-C	6.38							

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
08.15-08.30								
B-AC	0.53	7.02	0.075		0.1	0.1	1.2	
C-AB	0.04	17.28	0.003		0.0	0.0	0.0	
C-A	12.78							
A-B	0.12							
A-C	6.38							

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
08.30-08.45								
B-AC	0.53	7.02	0.075		0.1	0.1	1.2	
C-AB	0.04	17.28	0.003		0.0	0.0	0.0	
C-A	12.78							
A-B	0.12							
A-C	6.38							

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
08.45-09.00								
B-AC	0.53	7.02	0.075		0.1	0.1	1.2	
C-AB	0.04	17.28	0.003		0.0	0.0	0.0	
C-A	12.78							
A-B	0.12							
A-C	6.38							

WARNING THE JUNCTION MODELLED CAN CARRY HIGH-SPEED MAJOR ROAD TRAFFIC. (AG23 REF. 8.4.2(v)).

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.1
08.30	0.1
08.45	0.1
09.00	0.1

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND (VEH)	TOTAL DEMAND (VEH/H)	* QUEUEING * DELAY * (MIN)	* QUEUEING * DELAY * (MIN/VEH)	* INCLUSIVE QUEUEING * DELAY * (MIN)	* INCLUSIVE QUEUEING * DELAY * (MIN/VEH)
B-AC	31.8	31.8	4.8	0.15	4.8	0.15
C-AB	2.6	2.6	0.2	0.06	0.2	0.06
C-A	766.6	766.6				
A-B	7.0	7.0				
A-C	383.0	383.0				
ALL	1191.0	1191.0	5.0	0.00	5.0	0.00

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

****** PICADY 4 run completed.

========== end of file ==========

[Printed at 14:02:39 on 27/09/2006]

CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 3.0 (MAY 2001)

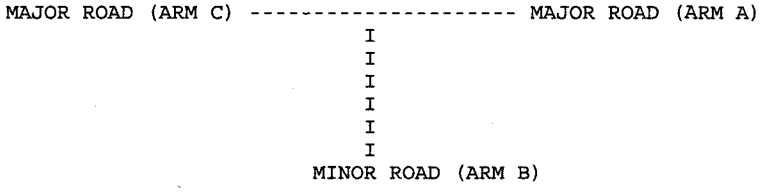
FOR SALES AND DISTRIBUTION INFORMATION,
PROGRAM ADVICE AND MAINTENANCE CONTACT:
TRL SOFTWARE BUREAU
TEL: CROWTHORNE (01344) 770758, FAX: 770864
EMAIL: SoftwareBureau@trl.co.uk

Run with file:-
"n:\South West Bicester\ANALYSIS\PICADY\September 2006\Northern Site Access\
B4030 jc with100units-TotTraffInc Browne-PM Peak.vpi"
(drive-on-the-left) at 12:13:29 on Wednesday, 27 September 2006

RUN TITLE
****
B4030 jctwith100units-TotTraf InclBrowne-PM Peak.vpi

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY
****

INPUT DATA



ARM A IS B4030(E)
ARM B IS Site Access
ARM C IS B4030(W)

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B

STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C

ETC.

GEOMETRIC DATA

DATA ITEM	MINOR ROAD B
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W) 7.30 M.
CENTRAL RESERVE WIDTH	(WCR) 0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B) 2.20 M.
- VISIBILITY	(VC-B) 160.0 M.
- BLOCKS TRAFFIC	YES
MINOR ROAD - VISIBILITY TO LEFT	(VB-C) 160.0 M.
- VISIBILITY TO RIGHT	(VB-A) 160.0 M.
- LANE 1 WIDTH	(WB-C) 3.65 M.
- LANE 2 WIDTH	(WB-A) 0.00 M.

TRAFFIC DEMAND DATA

TIME PERIOD BEGINS 17.00 AND ENDS 18.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

TIME	FROM/TO	TURNING PROPORTIONS / TURNING COUNTS / (PERCENTAGE OF H.V.S) ARM A	ARM B	ARM C
17.00 - 18.00	ARM A	0.000	0.036	0.964
		0.0	30.0	803.0
		(0.0)	(0.0)	(0.0)
	ARM B	0.929	0.000	0.071
		13.0	0.0	1.0
		(0.1)	(0.0)	(0.1)
	ARM C	0.994	0.006	0.000
		460.0	3.0	0.0
		(0.0)	(0.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
17.00-17.15								
B-AC	0.23	5.80	0.040		0.0	0.0	0.6	
C-AB	0.11	13.14	0.008		0.0	0.0	0.1	
C-A	7.61							
A-B	0.50							
A-C	13.38							

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
17.15-17.30								
B-AC	0.23	5.80	0.040		0.0	0.0	0.6	
C-AB	0.11	13.14	0.008		0.0	0.0	0.1	
C-A	7.61							
A-B	0.50							
A-C	13.38							

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
17.30-17.45								
B-AC	0.23	5.80	0.040		0.0	0.0	0.6	
C-AB	0.11	13.14	0.008		0.0	0.0	0.1	
C-A	7.61							
A-B	0.50							
A-C	13.38							

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
17.45-18.00								
B-AC	0.23	5.80	0.040		0.0	0.0	0.6	
C-AB	0.11	13.14	0.008		0.0	0.0	0.1	
C-A	7.61							
A-B	0.50							
A-C	13.38							

WARNING THE JUNCTION MODELLED CAN CARRY HIGH-SPEED MAJOR ROAD TRAFFIC. (AG23 REF. 8.4.2(v)).

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.15	0.0
17.30	0.0
17.45	0.0
18.00	0.0

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.15	0.0
17.30	0.0
17.45	0.0
18.00	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-AC	13.8	13.8	2.4	0.18	2.4	0.18
C-AB	6.4	6.4	0.5	0.08	0.5	0.08
C-A	456.8	456.8				
A-B	30.0	30.0				
A-C	802.8	802.8				
ALL	1309.8	1309.8	3.0	0.00	3.0	0.00

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

****** PICADY 4 run completed.

========== end of file ==========

[Printed at 14:03:07 on 27/09/2006]

TRL LIMITED

CAPACITIES, QUEUES AND DELAYS AT ROUNDABOUTS

ARCADY 5.0 ANALYSIS PROGRAM
RELEASE 1.1 (MAY 2001)

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EMAIL: SoftwareBureau@trl.co.uk

Run with file:-
"n:\South West Bicester\ANALYSIS\ARCADY\September 2006\Shakespeare Drive\
Shakespeare Drive Total Traffic Incl Browne AM.vai"
(drive-on-the-left) at 12:19:57 on Wednesday, 27 September 2006

ROUNDABOUT CAPACITY AND DELAY

RUN TITLE

Shakespeare Drive Total traffic Including Browne AM Peak

INPUT DATA

ARM A - Shakespeare Road
ARM B - Middleton Stoney Road (E)
ARM C - Site Access
ARM D - Middleton Stoney Road (W)

GEOMETRIC DATA

I ARM	I	V (M)	I	E (M)	I	L (M)	I	R (M)	I	D (M)	I	PHI (DEG)	I	SLOPE	I	INTERCEPT (PCU/MIN)
I ARM A	I	3.80	I	7.10	I	6.90	I	20.00	I	50.00	I	44.0	I	0.551	I	24.524
I ARM B	I	3.70	I	7.10	I	14.40	I	20.00	I	50.00	I	41.0	I	0.587	I	27.379
I ARM C	I	3.50	I	7.40	I	30.00	I	20.00	I	50.00	I	39.0	I	0.625	I	30.598
I ARM D	I	3.50	I	8.00	I	4.00	I	10.00	I	50.00	I	57.0	I	0.466	I	19.391

V = approach half-width L = effective flare length D = inscribed circle diameter
E = entry width R = entry radius PHI = entry angle

TRAFFIC DEMAND DATA

TIME PERIOD BEGINS 08.00 AND ENDS 09.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

TIME	FROM/TO	ARM A	ARM B	ARM C	ARM D
08.00 - 09.00					
	ARM A	0.000	0.662	0.043	0.294
		0.0	306.0	20.0	136.0
		(0.0)	(0.0)	(0.0)	(0.0)
	ARM B	0.153	0.000	0.117	0.731
		59.0	0.0	45.0	282.0
		(0.0)	(0.0)	(0.0)	(0.0)
	ARM C	0.173	0.423	0.000	0.404
		18.0	44.0	0.0	42.0
		(0.0)	(0.0)	(0.0)	(0.0)
	ARM D	0.042	0.841	0.116	0.000
		21.0	419.0	58.0	0.0
		(0.0)	(0.0)	(0.0)	(0.0)

TURNING PROPORTIONS
TURNING COUNTS
(PERCENTAGE OF H.V.S)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
08.00-08.15								
ARM A	7.70	19.77	0.390		0.0	0.6	9.2	
ARM B	6.43	25.30	0.254		0.0	0.3	5.0	
ARM C	1.73	25.65	0.067		0.0	0.1	1.1	
ARM D	8.30	18.45	0.450		0.0	0.8	11.6	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
08.15-08.30								
ARM A	7.70	19.74	0.390		0.6	0.6	9.5	
ARM B	6.43	25.29	0.254		0.3	0.3	5.1	
ARM C	1.73	25.63	0.068		0.1	0.1	1.1	
ARM D	8.30	18.45	0.450		0.8	0.8	12.2	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
08.30-08.45								
ARM A	7.70	19.74	0.390		0.6	0.6	9.6	
ARM B	6.43	25.29	0.254		0.3	0.3	5.1	
ARM C	1.73	25.63	0.068		0.1	0.1	1.1	
ARM D	8.30	18.45	0.450		0.8	0.8	12.2	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
08.45-09.00								
ARM A	7.70	19.74	0.390		0.6	0.6	9.6	
ARM B	6.43	25.29	0.254		0.3	0.3	5.1	
ARM C	1.73	25.63	0.068		0.1	0.1	1.1	
ARM D	8.30	18.45	0.450		0.8	0.8	12.2	

QUEUE AT ARM A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.15	0.6	*
08.30	0.6	*
08.45	0.6	*
09.00	0.6	*

QUEUE AT ARM B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.3
08.30	0.3
08.45	0.3
09.00	0.3

QUEUE AT ARM C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.15	0.1	
08.30	0.1	
08.45	0.1	
09.00	0.1	

QUEUE AT ARM D

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.15	0.8	*
08.30	0.8	*
08.45	0.8	*
09.00	0.8	*

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

ARM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
A	462.0	462.0	37.8	0.08	37.8	0.08
B	385.8	385.8	20.3	0.05	20.3	0.05
C	103.8	103.8	4.3	0.04	4.3	0.04
D	498.0	498.0	48.2	0.10	48.2	0.10
ALL	1449.6	1449.6	110.7	0.08	110.7	0.08

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD.
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

****** ARCADY 5 run completed.

========== end of file ==========

[Printed at 13:56:34 on 27/09/2006]

TRL LIMITED

CAPACITIES, QUEUES AND DELAYS AT ROUNDABOUTS

ARCADY 5.0 ANALYSIS PROGRAM
RELEASE 1.1 (MAY 2001)

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EMAIL: SoftwareBureau@trl.co.uk

Run with file:-
"n:\South West Bicester\ANALYSIS\ARCADY\September 2006\Shakespeare Drive\
Shakespeare Drive Total Traffic Incl Browne PM.vai"
(drive-on-the-left) at 12:20:02 on Wednesday, 27 September 2006

ROUNDABOUT CAPACITY AND DELAY

RUN TITLE

Shakespeare Drive Total traffic Including Browne PM Peak

INPUT DATA

ARM A - Shakespeare Road
ARM B - Middleton Stoney Road (E)
ARM C - Site Access
ARM D - Middleton Stoney Road (W)

GEOMETRIC DATA

I ARM	V (M)	E (M)	L (M)	R (M)	D (M)	PHI (DEG)	SLOPE	INTERCEPT (PCU/MIN)
ARM A	3.80	7.10	6.90	20.00	50.00	44.0	0.551	24.524
ARM B	3.70	7.10	14.40	20.00	50.00	41.0	0.587	27.379
ARM C	3.50	7.40	30.00	20.00	50.00	39.0	0.625	30.598
ARM D	3.50	8.00	4.00	10.00	50.00	57.0	0.466	19.391

V = approach half-width L = effective flare length D = inscribed circle diameter
E = entry width R = entry radius PHI = entry angle

TRAFFIC DEMAND DATA

TIME PERIOD BEGINS 17.00 AND ENDS 18.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

TIME	FROM/TO	ARM A	ARM B	ARM C	ARM D
17.00 - 18.00					
	ARM A	0.000	0.644	0.099	0.257
		0.0	123.0	19.0	49.0
		(0.0)	(0.0)	(0.0)	(0.0)
	ARM B	0.426	0.000	0.057	0.517
		343.0	0.0	46.0	416.0
		(0.0)	(0.0)	(0.0)	(0.0)
	ARM C	0.165	0.369	0.000	0.466
		17.0	38.0	0.0	48.0
		(0.0)	(0.0)	(0.0)	(0.0)
	ARM D	0.262	0.644	0.094	0.000
		123.0	302.0	44.0	0.0
		(0.0)	(0.0)	(0.0)	(0.0)

TURNING PROPORTIONS
TURNING COUNTS
(PERCENTAGE OF H.V.S)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
17.00-17.15								
ARM A	3.18	21.02	0.151		0.0	0.2	2.6	
ARM B	13.42	26.29	0.510		0.0	1.0	14.9	
ARM C	1.72	22.22	0.077		0.0	0.1	1.2	
ARM D	7.82	16.31	0.479		0.0	0.9	13.0	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
17.15-17.30								
ARM A	3.18	20.99	0.151		0.2	0.2	2.7	
ARM B	13.42	26.28	0.511		1.0	1.0	15.5	
ARM C	1.72	22.18	0.078		0.1	0.1	1.3	
ARM D	7.82	16.30	0.480		0.9	0.9	13.7	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
17.30-17.45								
ARM A	3.18	20.99	0.151		0.2	0.2	2.7	
ARM B	13.42	26.28	0.511		1.0	1.0	15.6	
ARM C	1.72	22.18	0.078		0.1	0.1	1.3	
ARM D	7.82	16.30	0.480		0.9	0.9	13.7	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
17.45-18.00								
ARM A	3.18	20.99	0.151		0.2	0.2	2.7	
ARM B	13.42	26.28	0.511		1.0	1.0	15.6	
ARM C	1.72	22.18	0.078		0.1	0.1	1.3	
ARM D	7.82	16.30	0.480		0.9	0.9	13.8	

QUEUE AT ARM A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.15	0.2	
17.30	0.2	
17.45	0.2	
18.00	0.2	

QUEUE AT ARM B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.15	1.0	*
17.30	1.0	*
17.45	1.0	*
18.00	1.0	*

QUEUE AT ARM C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.15	0.1	
17.30	0.1	
17.45	0.1	
18.00	0.1	

QUEUE AT ARM D

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.15	0.9	*
17.30	0.9	*
17.45	0.9	*
18.00	0.9	*

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

ARM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
A	190.8	190.8	10.6	0.06	10.6	0.06
B	805.2	805.2	61.6	0.08	61.7	0.08
C	103.2	103.2	5.0	0.05	5.0	0.05
D	469.2	469.2	54.2	0.12	54.2	0.12
ALL	1568.4	1568.4	131.5	0.08	131.5	0.08

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD.
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

****** ARCADY 5 run completed.

========== end of file ==========

[Printed at 13:56:57 on 27/09/2006]

TRL LIMITED

CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 3.0 (MAY 2001)

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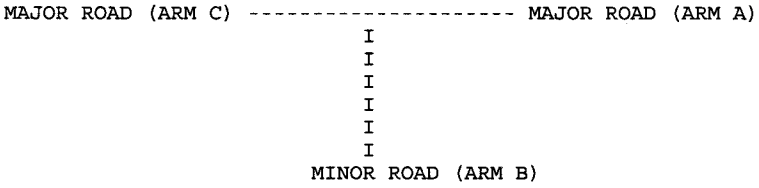
TRL SOFTWARE BUREAU
TEL: CROWTHORNE (01344) 770758, FAX: 770864
EMAIL: SoftwareBureau@trl.co.uk

Run with file:-
"n:\South West Bicester\ANALYSIS\PICADY\September 2006\Southern Site Access\
Bypass-S SiteAcc-TotTraffInc Browne-AM Peak.vpi"
(drive-on-the-left) at 12:32:17 on Wednesday, 27 September 2006

RUN TITLE
****
Bypass-S Site Acc-TotTraf IncBrowne-AM Peak.vpi

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY
****

INPUT DATA



ARM A IS Bypass West
ARM B IS Site Access
ARM C IS Bypass East

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B

STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C

ETC.

GEOMETRIC DATA

DATA ITEM	MINOR ROAD B
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W) 7.00 M.
CENTRAL RESERVE WIDTH	(WCR) 0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B) 3.50 M.
- VISIBILITY	(VC-B) 160.0 M.
- BLOCKS TRAFFIC	NO
MINOR ROAD - VISIBILITY TO LEFT	(VB-C) 160.0 M.
- VISIBILITY TO RIGHT	(VB-A) 160.0 M.
- LANE 1 WIDTH	(WB-C) 3.00 M.
- LANE 2 WIDTH	(WB-A) 0.00 M.

TRAFFIC DEMAND DATA

TIME PERIOD BEGINS 08.00 AND ENDS 09.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

TIME	FROM/TO	TURNING PROPORTIONS / TURNING COUNTS / (PERCENTAGE OF H.V.S) ARM A	ARM B	ARM C
08.00 - 09.00	ARM A	0.000	0.035	0.965
		0.0	6.0	164.0
		(0.0)	(0.0)	(0.0)
	ARM B	0.047	0.000	0.953
		8.0	0.0	164.0
		(0.1)	(0.0)	(0.1)
	ARM C	0.491	0.509	0.000
		109.0	113.0	0.0
		(0.0)	(0.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
08.00-08.15								
B-AC	2.87	11.14	0.258		0.0	0.3	5.0	
C-A	1.82							
C-B	1.88	11.88	0.158		0.0	0.2	2.7	
A-B	0.10							
A-C	2.73							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-AC	0.121	0.006	0.016	0.005	0.007
C-B	0.113	0.004		0.010	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
08.15-08.30								
B-AC	2.87	11.14	0.258		0.3	0.3	5.2	
C-A	1.82							
C-B	1.88	11.88	0.158		0.2	0.2	2.8	
A-B	0.10							
A-C	2.73							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-AC	0.121	0.006	0.016	0.005	0.007
C-B	0.113	0.004		0.010	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
08.30-08.45								
B-AC	2.87	11.14	0.258		0.3	0.3	5.2	
C-A	1.82							
C-B	1.88	11.88	0.158		0.2	0.2	2.8	
A-B	0.10							
A-C	2.73							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-AC	0.121	0.006	0.016	0.005	0.007
C-B	0.113	0.004		0.010	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
08.45-09.00								
B-AC	2.87	11.14	0.258		0.3	0.3	5.2	
C-A	1.82							
C-B	1.88	11.88	0.158		0.2	0.2	2.8	
A-B	0.10							
A-C	2.73							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-AC	0.121	0.006	0.016	0.005	0.007
C-B	0.113	0.004		0.010	

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.3
08.30	0.3
08.45	0.3
09.00	0.3

QUEUE FOR STREAM C-B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.2
08.30	0.2
08.45	0.2
09.00	0.2

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND (VEH)	TOTAL DEMAND (VEH/H)	* QUEUEING * DELAY * (MIN)	* QUEUEING * DELAY * (MIN/VEH)	* INCLUSIVE QUEUEING * DELAY * (MIN)	* INCLUSIVE QUEUEING * DELAY * (MIN/VEH)
B-AC	172.2	172.2	20.5	0.12	20.5	0.12
C-A	109.0	109.0				
C-B	113.0	113.0	11.2	0.10	11.2	0.10
A-B	6.0	6.0				
A-C	163.8	163.8				
ALL	564.0	564.0	31.6	0.06	31.7	0.06

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

****** PICADY 4 run completed.

========== end of file ==========

[Printed at 14:04:15 on 27/09/2006]

TRL LIMITED

CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 3.0 (MAY 2001)

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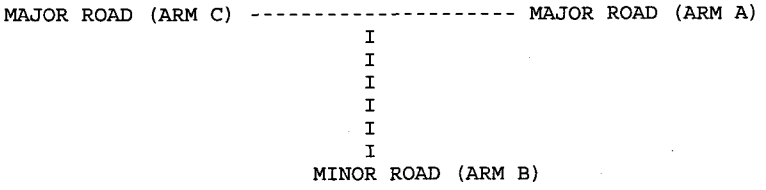
EMAIL: SoftwareBureau@trl.co.uk

Run with file:-
"n:\South West Bicester\ANALYSIS\PICADY\September 2006\Southern Site Access\
Bypass-S SiteAcc-TotTraffInc Browne-PM Peak.vpi"
(drive-on-the-left) at 12:32:22 on Wednesday, 27 September 2006

RUN TITLE
****
Bypass-S Site Acc-TotTraf IncBrowne-PM Peak.vpi

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY
****

INPUT DATA



ARM A IS Bypass West
ARM B IS Site Access
ARM C IS Bypass East

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B

STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C

ETC.

GEOMETRIC DATA

DATA ITEM		MINOR ROAD B
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W)	7.00 M.
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	3.50 M.
- VISIBILITY	(VC-B)	160.0 M.
- BLOCKS TRAFFIC		NO
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	160.0 M.
- VISIBILITY TO RIGHT	(VB-A)	160.0 M.
- LANE 1 WIDTH	(WB-C)	3.00 M.
- LANE 2 WIDTH	(WB-A)	0.00 M.

TRAFFIC DEMAND DATA

TIME PERIOD BEGINS 17.00 AND ENDS 18.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

TIME	FROM/TO	TURNING PROPORTIONS / TURNING COUNTS / (PERCENTAGE OF H.V.S) ARM A	ARM B	ARM C
17.00 - 18.00	ARM A	0.000	0.069	0.931
		0.0	9.0	122.0
		(0.0)	(0.0)	(0.0)
	ARM B	0.046	0.000	0.954
		5.0	0.0	103.0
		(0.1)	(0.0)	(0.1)
	ARM C	0.522	0.478	0.000
		188.0	172.0	0.0
		(0.0)	(0.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
17.00-17.15								
B-AC	1.80	11.28	0.160		0.0	0.2	2.7	
C-A	3.13							
C-B	2.87	12.07	0.238		0.0	0.3	4.5	
A-B	0.15							
A-C	2.03							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-AC	0.115	0.007	0.016	0.005	0.007
C-B	0.115	0.003		0.010	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
17.15-17.30								
B-AC	1.80	11.28	0.160		0.2	0.2	2.8	
C-A	3.13							
C-B	2.87	12.07	0.238		0.3	0.3	4.6	
A-B	0.15							
A-C	2.03							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-AC	0.115	0.007	0.016	0.005	0.007
C-B	0.115	0.003		0.010	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
17.30-17.45								
B-AC	1.80	11.28	0.160		0.2	0.2	2.8	
C-A	3.13							
C-B	2.87	12.07	0.238		0.3	0.3	4.7	
A-B	0.15							
A-C	2.03							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-AC	0.115	0.007	0.016	0.005	0.007
C-B	0.115	0.003		0.010	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
17.45-18.00								
B-AC	1.80	11.28	0.160		0.2	0.2	2.8	
C-A	3.13							
C-B	2.87	12.07	0.238		0.3	0.3	4.7	
A-B	0.15							
A-C	2.03							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-AC	0.115	0.007	0.016	0.005	0.007
C-B	0.115	0.003		0.010	

WARNING THE JUNCTION MODELLED CAN CARRY HIGH-SPEED MAJOR ROAD TRAFFIC. (AG23 REF. 8.4.2(v)).

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.15	0.2
17.30	0.2
17.45	0.2
18.00	0.2

QUEUE FOR STREAM C-B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.15	0.3
17.30	0.3
17.45	0.3
18.00	0.3

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND (VEH)	TOTAL DEMAND (VEH/H)	* QUEUEING * DELAY * (MIN)	* QUEUEING * DELAY * (MIN/VEH)	* INCLUSIVE QUEUEING * DELAY * (MIN)	* INCLUSIVE QUEUEING * DELAY * (MIN/VEH)
B-AC	108.0	108.0	11.3	0.10	11.3	0.10
C-A	188.0	188.0				
C-B	172.0	172.0	18.4	0.11	18.4	0.11
A-B	9.0	9.0				
A-C	121.8	121.8				
ALL	598.8	598.8	29.7	0.05	29.7	0.05

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

****** PICADY 4 run completed.

========== end of file ==========

[Printed at 14:04:39 on 27/09/2006]

TRL LIMITED

CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 3.0 (MAY 2001)

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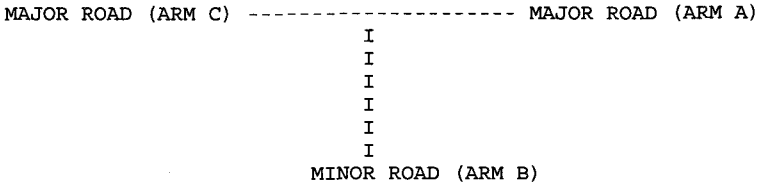
TRL SOFTWARE BUREAU
TEL: CROWTHORNE (01344) 770758, FAX: 770864
EMAIL: SoftwareBureau@trl.co.uk

Run with file:-
"n:\South West Bicester\ANALYSIS\PICADY\September 2006\Chesterton Priority\
Bypass-Chesterton-TotTraffInc Browne-AM Peak.vpi"
(drive-on-the-left) at 12:36:05 on Wednesday, 27 September 2006

RUN TITLE
****
Bypass-Chesterton-TotTraf IncBrowne-AM Peak.vpi

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY
****

INPUT DATA



ARM A IS Bypass South
ARM B IS Chesterton
ARM C IS Bypass North

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B

STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C

ETC.

GEOMETRIC DATA

DATA ITEM	MINOR ROAD B
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W) 7.00 M.
CENTRAL RESERVE WIDTH	(WCR) 0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B) 3.50 M.
- VISIBILITY	(VC-B) 160.0 M.
- BLOCKS TRAFFIC	NO
MINOR ROAD - VISIBILITY TO LEFT	(VB-C) 160.0 M.
- VISIBILITY TO RIGHT	(VB-A) 160.0 M.
- LANE 1 WIDTH	(WB-C) 3.65 M.
- LANE 2 WIDTH	(WB-A) 0.00 M.

TRAFFIC DEMAND DATA

TIME PERIOD BEGINS 08.00 AND ENDS 09.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

TIME	FROM/TO	TURNING PROPORTIONS / TURNING COUNTS / (PERCENTAGE OF H.V.S) ARM A	ARM B	ARM C
08.00 - 09.00	ARM A	0.000	0.000	1.000
		0.0	0.0	117.0
		(0.0)	(0.0)	(0.0)
	ARM B	0.000	0.000	1.000
		0.0	0.0	241.0
		(0.1)	(0.0)	(0.1)
	ARM C	0.239	0.761	0.000
		170.0	541.0	0.0
		(0.0)	(0.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
08.00-08.15								
B-AC	4.02	12.29	0.327		0.0	0.5	6.9	
C-A	2.83							
C-B	9.02	12.13	0.743		0.0	2.7	35.3	
A-B	0.00							
A-C	1.95							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-AC	0.087	0.014	0.016	0.004	0.005
C-B	0.116	0.003		0.011	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
08.15-08.30								
B-AC	4.02	12.29	0.327		0.5	0.5	7.2	
C-A	2.83							
C-B	9.02	12.13	0.743		2.7	2.8	41.1	
A-B	0.00							
A-C	1.95							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-AC	0.086	0.015	0.016	0.004	0.005
C-B	0.116	0.003		0.011	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
08.30-08.45								
B-AC	4.02	12.29	0.327		0.5	0.5	7.3	
C-A	2.83							
C-B	9.02	12.13	0.743		2.8	2.8	42.0	
A-B	0.00							
A-C	1.95							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-AC	0.086	0.015	0.016	0.004	0.005
C-B	0.116	0.003		0.011	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
08.45-09.00								
B-AC	4.02	12.29	0.327		0.5	0.5	7.3	
C-A	2.83							
C-B	9.02	12.13	0.743		2.8	2.8	42.4	
A-B	0.00							
A-C	1.95							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-AC	0.086	0.015	0.016	0.004	0.005
C-B	0.116	0.003		0.011	

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.15	0.5	
08.30	0.5	
08.45	0.5	
09.00	0.5	

QUEUE FOR STREAM C-B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.15	2.7	***
08.30	2.8	***
08.45	2.8	***
09.00	2.8	***

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND (VEH)	TOTAL DEMAND (VEH/H)	* QUEUEING * DELAY * (MIN)	* QUEUEING * DELAY * (MIN/VEH)	* INCLUSIVE QUEUEING * DELAY * (MIN)	* INCLUSIVE QUEUEING * DELAY * (MIN/VEH)
B-AC	241.2	241.2	28.7	0.12	28.7	0.12
C-A	170.0	170.0				
C-B	541.0	541.0	160.8	0.30	161.2	0.30
A-B	0.0	0.0				
A-C	117.0	117.0				
ALL	1069.2	1069.2	189.5	0.18	189.9	0.18

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

****** PICADY 4 run completed.

========== end of file ==========

[Printed at 13:58:41 on 27/09/2006]

TRL LIMITED

CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 3.0 (MAY 2001)

ADAPTED FROM PICADY/3 WHICH IS CROWN COPYRIGHT
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EMAIL: SoftwareBureau@trl.co.uk

Run with file:-
"n:\South West Bicester\ANALYSIS\PICADY\September 2006\Chesterton Priority\
Bypass-Chesterton-TotTraffInc Browne-PM Peak.vpi"
(drive-on-the-left) at 12:36:14 on Wednesday, 27 September 2006

RUN TITLE
****
Bypass-Chesterton-TotTraf IncBrowne-PM Peak.vpi

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY
****

INPUT DATA

MAJOR ROAD (ARM C) ---------- MAJOR ROAD (ARM A)
I
I
I
I
I
I
MINOR ROAD (ARM B)

ARM A IS Bypass South
ARM B IS Chesterton
ARM C IS Bypass North

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B

STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C

ETC.

GEOMETRIC DATA

DATA ITEM	MINOR ROAD B
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W) 7.00 M.
CENTRAL RESERVE WIDTH	(WCR) 0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B) 3.50 M.
- VISIBILITY	(VC-B) 160.0 M.
- BLOCKS TRAFFIC	NO
MINOR ROAD - VISIBILITY TO LEFT	(VB-C) 160.0 M.
- VISIBILITY TO RIGHT	(VB-A) 160.0 M.
- LANE 1 WIDTH	(WB-C) 3.65 M.
- LANE 2 WIDTH	(WB-A) 0.00 M.

TRAFFIC DEMAND DATA

TIME PERIOD BEGINS 17.00 AND ENDS 18.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

TIME	FROM/TO	TURNING PROPORTIONS / TURNING COUNTS / (PERCENTAGE OF H.V.S) ARM A	ARM B	ARM C
17.00 - 18.00	ARM A	0.000	0.000	1.000
		0.0	0.0	193.0
		(0.0)	(0.0)	(0.0)
	ARM B	0.000	0.000	1.000
		0.0	0.0	465.0
		(0.0)	(0.0)	(0.0)
	ARM C	0.332	0.668	0.000
		131.0	264.0	0.0
		(0.1)	(0.1)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
17.00-17.15								
B-AC	7.75	11.94	0.649		0.0	1.8	24.2	
C-A	2.18							
C-B	4.40	11.76	0.374		0.0	0.6	8.4	
A-B	0.00							
A-C	3.22							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-AC	0.111	0.009	0.016	0.005	0.007
C-B	0.112	0.004		0.010	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
17.15-17.30								
B-AC	7.75	11.94	0.649		1.8	1.8	26.9	
C-A	2.18							
C-B	4.40	11.76	0.374		0.6	0.6	8.9	
A-B	0.00							
A-C	3.22							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-AC	0.111	0.009	0.016	0.005	0.007
C-B	0.112	0.004		0.010	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
17.30-17.45								
B-AC	7.75	11.94	0.649		1.8	1.8	27.2	
C-A	2.18							
C-B	4.40	11.76	0.374		0.6	0.6	8.9	
A-B	0.00							
A-C	3.22							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-AC	0.111	0.009	0.016	0.005	0.007
C-B	0.112	0.004		0.010	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
17.45-18.00								
B-AC	7.75	11.94	0.649		1.8	1.8	27.4	
C-A	2.18							
C-B	4.40	11.76	0.374		0.6	0.6	8.9	
A-B	0.00							
A-C	3.22							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-AC	0.111	0.009	0.016	0.005	0.007
C-B	0.112	0.004		0.010	

WARNING THE JUNCTION MODELLED CAN CARRY HIGH-SPEED MAJOR ROAD TRAFFIC. (AG23 REF. 8.4.2(v)).

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.15	1.8	**
17.30	1.8	**
17.45	1.8	**
18.00	1.8	**

QUEUE FOR STREAM C-B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.15	0.6	*
17.30	0.6	*
17.45	0.6	*
18.00	0.6	*

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND (VEH)	TOTAL DEMAND (VEH/H)	* QUEUEING * DELAY * (MIN)	* QUEUEING * DELAY * (MIN/VEH)	* INCLUSIVE QUEUEING * DELAY * (MIN)	* INCLUSIVE QUEUEING * DELAY * (MIN/VEH)
B-AC	465.0	465.0	105.7	0.23	105.8	0.23
C-A	130.9	130.9				
C-B	263.9	263.9	35.1	0.13	35.1	0.13
A-B	0.0	0.0				
A-C	193.2	193.2				
ALL	1053.0	1053.0	140.8	0.13	140.9	0.13

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD .
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

****** PICADY 4 run completed.

========== end of file ==========

[Printed at 13:59:34 on 27/09/2006]

CAPACITIES, QUEUES AND DELAYS AT ROUNDABOUTS

ARCADY 5.0 ANALYSIS PROGRAM
RELEASE 1.1 (MAY 2001)

FOR SALES AND DISTRIBUTION INFORMATION,
PROGRAM ADVICE AND MAINTENANCE CONTACT:
TRL SOFTWARE BUREAU
TEL: CROWTHORNE (01344) 770758, FAX: 770864
EMAIL: SoftwareBureau@trl.co.uk

Run with file:-
"n:\South West Bicester\ANALYSIS\ARCADY\September 2006\Howes Lane Roundabout\Howes incl. Browne AM.vai"
(drive-on-the-left) at 12:46:37 on Wednesday, 27 September 2006

ROUNDABOUT CAPACITY AND DELAY

****

RUN TITLE
****
Howes Lane Rbout - Total traffic including Browne AM Peak

INPUT DATA
****
ARM A - Howes Lane
ARM B - Middleton Stoney Road (E)
ARM C - Perimeter Road
ARM D - Middleton Stoney Road (W)

GEOMETRIC DATA

I ARM	I	V (M)	I	E (M)	I	L (M)	I	R (M)	I	D (M)	I	PHI (DEG)	I	SLOPE	I	INTERCEPT (PCU/MIN)
I ARM A	I	2.90	I	7.10	I	21.60	I	20.00	I	54.00	I	55.0	I	0.532	I	25.315
I ARM B	I	3.50	I	6.90	I	7.50	I	20.00	I	54.00	I	48.0	I	0.515	I	23.140
I ARM C	I	3.50	I	7.10	I	11.30	I	25.00	I	54.00	I	31.0	I	0.575	I	26.846
I ARM D	I	3.50	I	7.10	I	13.70	I	20.00	I	54.00	I	41.0	I	0.559	I	26.499

V = approach half-width L = effective flare length D = inscribed circle diameter
E = entry width R = entry radius PHI = entry angle

TRAFFIC DEMAND DATA

TIME PERIOD BEGINS 08.00 AND ENDS 09.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

TURNING PROPORTIONS
TURNING COUNTS
(PERCENTAGE OF H.V.S)

TIME	FROM/TO	ARM A	ARM B	ARM C	ARM D
08.00 - 09.00	ARM A	0.000	0.230	0.656	0.114
		0.0	170.0	484.0	84.0
		(0.0)	(0.0)	(0.0)	(0.0)
	ARM B	0.172	0.000	0.400	0.428
		79.0	0.0	184.0	197.0
		(0.0)	(0.0)	(0.0)	(0.0)
	ARM C	0.609	0.288	0.000	0.103
		218.0	103.0	0.0	37.0
		(0.0)	(0.0)	(0.0)	(0.0)
	ARM D	0.197	0.672	0.131	0.000
		66.0	225.0	44.0	0.0
		(0.0)	(0.0)	(0.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
08.00-08.15								
ARM A	12.30	22.03	0.558		0.0	1.2	17.8	
ARM B	7.67	17.92	0.428		0.0	0.7	10.7	
ARM C	5.97	23.42	0.255		0.0	0.3	5.0	
ARM D	5.58	22.79	0.245		0.0	0.3	4.7	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
08.15-08.30								
ARM A	12.30	22.02	0.559		1.2	1.3	18.8	
ARM B	7.67	17.89	0.429		0.7	0.7	11.2	
ARM C	5.97	23.40	0.255		0.3	0.3	5.1	
ARM D	5.58	22.77	0.245		0.3	0.3	4.8	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
08.30-08.45								
ARM A	12.30	22.02	0.559		1.3	1.3	18.9	
ARM B	7.67	17.89	0.429		0.7	0.7	11.2	
ARM C	5.97	23.40	0.255		0.3	0.3	5.1	
ARM D	5.58	22.77	0.245		0.3	0.3	4.9	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
08.45-09.00								
ARM A	12.30	22.02	0.559		1.3	1.3	18.9	
ARM B	7.67	17.89	0.429		0.7	0.7	11.2	
ARM C	5.97	23.40	0.255		0.3	0.3	5.1	
ARM D	5.58	22.77	0.245		0.3	0.3	4.9	

QUEUE AT ARM A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.15	1.2	*
08.30	1.3	*
08.45	1.3	*
09.00	1.3	*

QUEUE AT ARM B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.15	0.7	*
08.30	0.7	*
08.45	0.7	*
09.00	0.7	*

QUEUE AT ARM C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.3
08.30	0.3
08.45	0.3
09.00	0.3

QUEUE AT ARM D

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.3
08.30	0.3
08.45	0.3
09.00	0.3

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

ARM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
A	738.0	738.0	74.4	0.10	74.4	0.10
B	460.2	460.2	44.3	0.10	44.3	0.10
C	358.2	358.2	20.4	0.06	20.4	0.06
D	334.8	334.8	19.3	0.06	19.3	0.06
ALL	1891.2	1891.2	158.3	0.08	158.3	0.08

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD.
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

****** ARCADY 5 run completed.

========== end of file ==========

[Printed at 13:54:53 on 27/09/2006]

TRL TRL VIEWER 2.0 AD N:\South West Bicester\ANALYSIS\ARCADY\September 2006\Howes Lane Roundabout\Howes

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CAPACITIES, QUEUES AND DELAYS AT ROUNDABOUTS

ARCADY 5.0 ANALYSIS PROGRAM
RELEASE 1.1 (MAY 2001)

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EMAIL: SoftwareBureau@trl.co.uk

Run with file:-
"n:\South West Bicester\ANALYSIS\ARCADY\September 2006\Howes Lane Roundabout\Howes incl. Browne PM.vai"
(drive-on-the-left) at 12:46:42 on Wednesday, 27 September 2006

ROUNDABOUT CAPACITY AND DELAY

RUN TITLE

Howes Lane Rbout - Total traffic including Browne PM Peak

INPUT DATA

ARM A - Howes Lane
ARM B - Middleton Stoney Road (E)
ARM C - Perimeter Road
ARM D - Middleton Stoney Road (W)

GEOMETRIC DATA

ARM	V (M)	E (M)	L (M)	R (M)	D (M)	PHI (DEG)	SLOPE	INTERCEPT (PCU/MIN)
ARM A	2.90	7.10	21.60	20.00	54.00	55.0	0.532	25.315
ARM B	3.50	6.90	7.50	20.00	54.00	48.0	0.515	23.140
ARM C	3.50	7.10	11.30	25.00	54.00	31.0	0.575	26.846
ARM D	3.50	7.10	13.70	20.00	54.00	41.0	0.559	26.499

V = approach half-width L = effective flare length D = inscribed circle diameter
E = entry width R = entry radius PHI = entry angle

TRAFFIC DEMAND DATA

TIME PERIOD BEGINS 17.00 AND ENDS 18.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

TURNING PROPORTIONS
TURNING COUNTS
(PERCENTAGE OF H.V.S)

TIME	FROM/TO	ARM A	ARM B	ARM C	ARM D
17.00 - 18.00					
	ARM A	0.000	0.190	0.618	0.192
		0.0	78.0	254.0	79.0
		(0.0)	(0.0)	(0.0)	(0.0)
	ARM B	0.277	0.000	0.240	0.483
		142.0	0.0	123.0	248.0
		(0.0)	(0.0)	(0.0)	(0.0)
	ARM C	0.754	0.184	0.000	0.062
		497.0	121.0	0.0	41.0
		(0.0)	(0.0)	(0.0)	(0.0)
	ARM D	0.173	0.775	0.052	0.000
		60.0	269.0	18.0	0.0
		(0.0)	(0.0)	(0.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
17.00-17.15								
ARM A	6.85	21.72	0.315		0.0	0.5	6.7	
ARM B	8.55	20.14	0.425		0.0	0.7	10.6	
ARM C	10.93	22.38	0.488		0.0	0.9	13.6	
ARM D	5.78	19.49	0.297		0.0	0.4	6.1	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
17.15-17.30								
ARM A	6.85	21.70	0.316		0.5	0.5	6.9	
ARM B	8.55	20.13	0.425		0.7	0.7	11.0	
ARM C	10.93	22.35	0.489		0.9	1.0	14.2	
ARM D	5.78	19.45	0.297		0.4	0.4	6.3	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
17.30-17.45								
ARM A	6.85	21.70	0.316		0.5	0.5	6.9	
ARM B	8.55	20.13	0.425		0.7	0.7	11.0	
ARM C	10.93	22.35	0.489		1.0	1.0	14.3	
ARM D	5.78	19.45	0.297		0.4	0.4	6.3	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
17.45-18.00								
ARM A	6.85	21.70	0.316		0.5	0.5	6.9	
ARM B	8.55	20.13	0.425		0.7	0.7	11.0	
ARM C	10.93	22.35	0.489		1.0	1.0	14.3	
ARM D	5.78	19.45	0.297		0.4	0.4	6.3	

QUEUE AT ARM A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.15	0.5	
17.30	0.5	
17.45	0.5	
18.00	0.5	

QUEUE AT ARM B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.15	0.7	*
17.30	0.7	*
17.45	0.7	*
18.00	0.7	*

QUEUE AT ARM C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.15	0.9	*
17.30	1.0	*
17.45	1.0	*
18.00	1.0	*

QUEUE AT ARM D

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.15	0.4
17.30	0.4
17.45	0.4
18.00	0.4

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

ARM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
A	411.0	411.0	27.4	0.07	27.4	0.07
B	513.0	513.0	43.7	0.09	43.7	0.09
C	655.8	655.8	56.4	0.09	56.5	0.09
D	346.8	346.8	25.1	0.07	25.1	0.07
ALL	1926.6	1926.6	152.5	0.08	152.6	0.08

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD.
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

****** ARCADY 5 run completed.

========== end of file ==========

[Printed at 13:55:19 on 27/09/2006]

TRL LIMITED

CAPACITIES, QUEUES AND DELAYS AT ROUNDABOUTS

ARCADY 5.0 ANALYSIS PROGRAM
RELEASE 1.1 (MAY 2001)

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Run with file:-
"n:\South West Bicester\ANALYSIS\ARCADY\September 2006\A41 Roundabout\
A41 Roundabout-Inc Browne PM Peak-No N Access.vai"
(drive-on-the-left) at 10:19:33 on Wednesday, 27 September 2006

ROUNDABOUT CAPACITY AND DELAY

RUN TITLE

A41 Roundbaout-Total Traffic Including Browne PM Peak-No N Access

INPUT DATA

ARM A - B4030 Oxford Road
ARM B - A41 East
ARM C - A41 South
ARM D - Services

GEOMETRIC DATA

I ARM	I	V (M)	I	E (M)	I	L (M)	I	R (M)	I	D (M)	I	PHI (DEG)	I	SLOPE	I	INTERCEPT (PCU/MIN)
I ARM A	I	7.30	I	11.20	I	30.00	I	18.00	I	64.00	I	40.0	I	0.729	I	48.736
I ARM B	I	3.00	I	6.00	I	7.60	I	59.00	I	64.00	I	41.0	I	0.468	I	21.716
I ARM C	I	8.00	I	12.00	I	30.00	I	41.00	I	64.00	I	44.0	I	0.778	I	53.275
I ARM D	I	7.70	I	9.10	I	1.70	I	14.00	I	64.00	I	40.0	I	0.623	I	38.557

V = approach half-width L = effective flare length D = inscribed circle diameter
E = entry width R = entry radius PHI = entry angle

TRAFFIC DEMAND DATA

TIME PERIOD BEGINS 17.00 AND ENDS 18.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

TIME	FROM/TO	ARM A	ARM B	ARM C	ARM D
17.00 - 18.00					
	ARM A	0.000	0.382	0.585	0.033
		0.0	42.9	65.6	3.7
		(0.0)	(0.0)	(0.0)	(0.0)
	ARM B	0.941	0.000	0.000	0.059
		45.9	0.0	0.0	2.9
		(0.0)	(0.0)	(0.0)	(0.0)
	ARM C	0.543	0.431	0.000	0.027
		116.2	92.2	0.0	5.7
		(0.0)	(0.0)	(0.0)	(0.0)
	ARM D	0.288	0.256	0.456	0.000
		3.6	3.2	5.7	0.0
		(0.0)	(0.0)	(0.0)	(0.0)

TURNING PROPORTIONS
TURNING COUNTS
(PERCENTAGE OF H.V.S)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
17.00-17.15								
ARM A	18.70	36.54	0.512		0.0	1.0	15.2	
ARM B	8.13	15.90	0.511		0.0	1.0	14.7	
ARM C	35.68	46.52	0.767		0.0	3.2	45.1	
ARM D	2.08	12.32	0.169		0.0	0.2	2.9	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
17.15-17.30								
ARM A	18.70	36.46	0.513		1.0	1.0	15.7	
ARM B	8.13	15.87	0.512		1.0	1.0	15.5	
ARM C	35.68	46.47	0.768		3.2	3.3	48.6	
ARM D	2.08	12.15	0.171		0.2	0.2	3.1	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
17.30-17.45								
ARM A	18.70	36.46	0.513		1.0	1.0	15.7	
ARM B	8.13	15.87	0.512		1.0	1.0	15.6	
ARM C	35.68	46.47	0.768		3.3	3.3	49.0	
ARM D	2.08	12.15	0.171		0.2	0.2	3.1	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
17.45-18.00								
ARM A	18.70	36.46	0.513		1.0	1.1	15.8	
ARM B	8.13	15.87	0.512		1.0	1.0	15.7	
ARM C	35.68	46.47	0.768		3.3	3.3	49.2	
ARM D	2.08	12.15	0.171		0.2	0.2	3.1	

QUEUE AT ARM A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.15	1.0	*
17.30	1.0	*
17.45	1.0	*
18.00	1.1	*

QUEUE AT ARM B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.15	1.0	*
17.30	1.0	*
17.45	1.0	*
18.00	1.0	*

QUEUE AT ARM C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.15	3.2	***
17.30	3.3	***
17.45	3.3	***
18.00	3.3	***

QUEUE AT ARM D

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.15	0.2
17.30	0.2
17.45	0.2
18.00	0.2

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

ARM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
A	1122.0	1122.0	62.3	0.06	62.4	0.06
B	487.8	487.8	61.5	0.13	61.5	0.13
C	2140.8	2140.8	191.9	0.09	192.0	0.09
D	124.8	124.8	12.2	0.10	12.2	0.10
ALL	3875.4	3875.4	327.9	0.08	328.1	0.08

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD.
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

****** ARCADY 5 run completed.

========== end of file ==========

[Printed at 13:52:11 on 27/09/2006]

TRL LIMITED

CAPACITIES, QUEUES AND DELAYS AT ROUNDABOUTS

ARCADY 5.0 ANALYSIS PROGRAM
RELEASE 1.1 (MAY 2001)

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EMAIL: SoftwareBureau@trl.co.uk

Run with file:-
"n:\South West Bicester\ANALYSIS\ARCADY\September 2006\A41 Roundabout\
A41 Roundabout-Inc Browne AM Peak-No N Access.vai"
(drive-on-the-left) at 10:19:23 on Wednesday, 27 September 2006

ROUNDABOUT CAPACITY AND DELAY

RUN TITLE

A41 Roundbaout-Total Traffic Including Browne AM Peak-No N Access

INPUT DATA

ARM A - B4030 Oxford Road
ARM B - A41 East
ARM C - A41 South
ARM D - Services

GEOMETRIC DATA

I ARM	I	V (M)	I	E (M)	I	L (M)	I	R (M)	I	D (M)	I	PHI (DEG)	I	SLOPE	I	INTERCEPT (PCU/MIN)
I ARM A	I	7.30	I	11.20	I	30.00	I	18.00	I	64.00	I	40.0	I	0.729	I	48.736
I ARM B	I	3.00	I	6.00	I	7.60	I	59.00	I	64.00	I	41.0	I	0.468	I	21.716
I ARM C	I	8.00	I	12.00	I	30.00	I	41.00	I	64.00	I	44.0	I	0.778	I	53.275
I ARM D	I	7.70	I	9.10	I	1.70	I	14.00	I	64.00	I	40.0	I	0.623	I	38.557

V = approach half-width L = effective flare length D = inscribed circle diameter
E = entry width R = entry radius PHI = entry angle

TRAFFIC DEMAND DATA

TIME PERIOD BEGINS 08.00 AND ENDS 09.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 15 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

TIME	FROM/TO	TURNING PROPORTIONS / TURNING COUNTS / (PERCENTAGE OF H.V.S) ARM A	ARM B	ARM C	ARM D
08.00 - 09.00	ARM A	0.000	0.294	0.681	0.025
		0.0	341.0	791.0	29.0
		(0.0)	(0.0)	(0.0)	(0.0)
	ARM B	0.878	0.000	0.000	0.122
		318.0	0.0	0.0	44.0
		(0.0)	(0.0)	(0.0)	(0.0)
	ARM C	0.422	0.543	0.000	0.035
		755.0	970.0	0.0	62.0
		(0.0)	(0.0)	(0.0)	(0.0)
	ARM D	0.314	0.307	0.379	0.000
		48.0	47.0	58.0	0.0
		(0.0)	(0.0)	(0.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
08.00-08.15								
ARM A	19.35	35.73	0.542		0.0	1.2	17.0	
ARM B	6.03	14.90	0.405		0.0	0.7	9.7	
ARM C	29.78	48.24	0.617		0.0	1.6	23.2	
ARM D	2.55	17.43	0.146		0.0	0.2	2.5	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
08.15-08.30								
ARM A	19.35	35.68	0.542		1.2	1.2	17.6	
ARM B	6.03	14.88	0.405		0.7	0.7	10.1	
ARM C	29.78	48.21	0.618		1.6	1.6	24.1	
ARM D	2.55	17.34	0.147		0.2	0.2	2.6	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
08.30-08.45								
ARM A	19.35	35.68	0.542		1.2	1.2	17.7	
ARM B	6.03	14.88	0.405		0.7	0.7	10.2	
ARM C	29.78	48.21	0.618		1.6	1.6	24.1	
ARM D	2.55	17.34	0.147		0.2	0.2	2.6	

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
08.45-09.00								
ARM A	19.35	35.68	0.542		1.2	1.2	17.7	
ARM B	6.03	14.88	0.405		0.7	0.7	10.2	
ARM C	29.78	48.21	0.618		1.6	1.6	24.2	
ARM D	2.55	17.34	0.147		0.2	0.2	2.6	

QUEUE AT ARM A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.15	1.2	*
08.30	1.2	*
08.45	1.2	*
09.00	1.2	*

QUEUE AT ARM B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.15	0.7	*
08.30	0.7	*
08.45	0.7	*
09.00	0.7	*

QUEUE AT ARM C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.15	1.6	**
08.30	1.6	**
08.45	1.6	**
09.00	1.6	**

QUEUE AT ARM D

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.15	0.2
08.30	0.2
08.45	0.2
09.00	0.2

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

ARM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
A	1161.0	1161.0	70.1	0.06	70.1	0.06
B	361.8	361.8	40.1	0.11	40.1	0.11
C	1786.8	1786.8	95.6	0.05	95.6	0.05
D	153.0	153.0	10.2	0.07	10.2	0.07
ALL	3462.6	3462.6	216.0	0.06	216.1	0.06

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD.
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

****** ARCADY 5 run completed.

========== end of file ==========

[Printed at 13:51:34 on 27/09/2006]