

APPENDIX 13.3 MODELLING

<h1>Junctions 9</h1>
<h2>PICADY 9 - Priority Intersection Module</h2>
Version: 9.5.0.6896 © Copyright TRL Limited, 2018
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: Site 1 - Station road_R124.j9

Path: O:\21 Projects\21205 - Portmarnock Phase 1D\00.WIP\Mode\Traffic\TRL\Site 1

Report generation date: 20/04/2021 11:08:01

«Base Year 2021 - 2038 DS, PM

- »Junction Network
- »Arms
- »Traffic Demand
- »Origin-Destination Data
- »Vehicle Mix
- »Results

Summary of junction performance

	AM								PM							
	Queue (PCU)	95% Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (PCU)	95% Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
Base Year 2021 - 2021 Base																
Stream B-AC	5.0	26.8	61.85	0.85	F	16.99	C	-10 % [Stream B-AC]	27.5	61.6	235.49	1.10	F	69.02	F	-24 % [Stream B-AC]
Stream C-AB	1.8	8.7	12.17	0.54	B				2.0	10.1	11.69	0.56	B			

	AM								PM							
	Queue (PCU)	95% Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (PCU)	95% Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
Opening Year 2023 - 2023 DN																
Stream B-AC	14.8	47.4	149.09	1.01	F	39.72	E	-20 % [Stream B-AC]	52.8	88.8	455.57	1.25	F	133.44	F	-30 % [Stream B-AC]
Stream C-AB	2.1	10.4	13.50	0.58	B				2.8	13.9	14.21	0.64	B			
Opening Year 2023 - 2023 DS																
Stream B-AC	10.4	41.4	113.33	0.96	F	30.14	D	-17 % [Stream B-AC]	45.8	80.8	381.26	1.21	F	111.33	F	-29 % [Stream B-AC]
Stream C-AB	2.0	10.0	13.16	0.57	B				2.6	12.8	13.45	0.62	B			

	AM								PM							
	Queue (PCU)	95% Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (PCU)	95% Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
Opening Year 2038 - 2038 DN																
Stream B-AC	56.5	91.8	523.90	1.30	F	132.55	F	-31 % [Stream B-AC]	134.0	208.7	1231.06	1.62	F	357.24	F	-40 % [Stream B-AC]
Stream C-AB	4.5	24.3	22.11	0.75	C				6.4	34.8	26.36	0.81	D			
Opening Year 2038 - 2038 DS																
Stream B-AC	46.8	80.3	418.00	1.25	F	104.15	F	-29 % [Stream B-AC]	121.9	187.5	1126.62	1.57	F	324.82	F	-39 % [Stream B-AC]
Stream C-AB	4.2	23.0	21.14	0.74	C				5.6	30.6	23.24	0.78	C			

	AM								PM							
	Queue (PCU)	95% Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (PCU)	95% Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
Stress Test 2038 - Stress Test 2038 DS																
Stream B-AC	62.3	101.7	587.25	1.34	F	150.16	F	-32 % [Stream B-AC]	139.8	220.0	1282.14	1.65	F	372.78	F	-40 % [Stream B-AC]
Stream C-AB	4.6	24.8	22.49	0.75	C				6.8	36.9	28.10	0.82	D			

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

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

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

Filename: Site 2 - R106 Strand Road Roundabout.j9
Path: O:\21 Projects\21205 - Portmarnock Phase 1D\00.WIP\Mode\Traffic\TRL\Site 2
Report generation date: 09/04/2021 12:08:06

- «Baseline 2021 - 2021, AM
 - »Junction Network
 - »Arms
 - »Traffic Demand
 - »Origin-Destination Data
 - »Vehicle Mix
 - »Results

Summary of junction performance

	AM							PM								
	Queue (PCU)	95% Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (PCU)	95% Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
Baseline 2021 - 2021																
Arm 1	2.1	4.6	10.37	0.66	B	17.57	C	2 %	0.9	1.9	5.40	0.48	A	13.74	B	12 %
Arm 2	0.9	3.1	8.40	0.45	A				3.2	15.8	18.02	0.77	C			
Arm 3	5.4	28.7	30.92	0.84	D				2.4	10.9	18.54	0.71	C			

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

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

File summary

File Description

Title	
Location	
Site number	
Date	01/04/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	JBBARRY\TransportPC
Description	

<h1>Junctions 9</h1>
<h2>OSCADY 9 - Signalised Intersection Module</h2>
Version: 9.5.0.6896 © Copyright TRL Limited, 2018
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: Site 2 - R106 Strand Road Signalised.j9

Path: O:\21 Projects\21205 - Portmarnock Phase 1D\00.WIP\Mode\Traffic\TRL\Site 2

Report generation date: 20/04/2021 08:54:48

«Opening Year - 2023 - 2038 DS, PM

- »Junction Network
- »Arms
- »Signal Timings
- »Traffic Demand
- »Origin-Destination Data
- »Vehicle Mix
- »Results

Summary of junction performance

	AM								PM							
	Queue (PCU)	95% Queue (PCU)	Delay (s)	DOS	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (PCU)	95% Queue (PCU)	Delay (s)	DOS	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
Opening Year - 2023 - 2023 DN																
Arm A	10.3	?	25.74	0.79	C	30.30	C	-14 % [Arm B - Traffic Stream 1]	5.5	?	13.86	0.53	B	22.34	C	-3 % [Arm B - Traffic Stream 1]
Arm B	15.7	?	42.66	0.88	D				11.5	?	33.03	0.76	C			
Arm C	4.8	?	14.90	0.44	B				7.9	?	18.71	0.71	B			
Opening Year - 2023 - 2023 DS																
Arm A	9.3	?	23.34	0.76	C	27.95	C	-10 % [Arm B - Traffic Stream 1]	5.1	?	12.33	0.49	B	21.90	C	-8 % [Arm B - Traffic Stream 1]
Arm B	14.5	?	39.37	0.87	D				11.9	?	35.43	0.78	D			
Arm C	4.5	?	14.18	0.44	B				7.3	?	16.34	0.67	B			

	AM								PM							
	Queue (PCU)	95% Queue (PCU)	Delay (s)	DOS	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (PCU)	95% Queue (PCU)	Delay (s)	DOS	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
Design Year - 2038 - 2038 DN																
Arm A	53.5	?	141.44	1.02	F	123.86	F	-100 % [Arm B - Traffic Stream 1]	18.5	?	53.04	0.81	D	55.07	E	-100 % [Arm B - Traffic Stream 1]
Arm B	65.1	?	156.66	1.06	F				32.1	?	86.45	0.94	F			
Arm C	13.1	?	28.26	0.44	C				15.6	?	27.19	0.73	C			
Design Year - 2038 - 2038 DS																
Arm A	50.6	?	139.33	1.02	F	114.96	F	-100 % [Arm B - Traffic Stream 1]	17.7	?	52.40	0.80	D	52.56	D	-100 % [Arm B - Traffic Stream 1]
Arm B	57.3	?	136.90	1.03	F				29.5	?	80.10	0.92	F			
Arm C	12.8	?	28.68	0.45	C				15.1	?	26.94	0.72	C			

	AM								PM							
	Queue (PCU)	95% Queue (PCU)	Delay (s)	DOS	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (PCU)	95% Queue (PCU)	Delay (s)	DOS	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
Stress Test - 2038 - Stress Test 2038 DS																
Arm A	54.1	?	145.47	1.03	F	119.03	F	-100 % [Arm B - Traffic Stream 1]	18.0	?	52.65	0.80	D	55.47	E	-100 % [Arm B - Traffic Stream 1]
Arm B	59.2	?	140.30	1.03	F				32.2	?	88.82	0.95	F			
Arm C	13.3	?	29.34	0.44	C				15.1	?	26.34	0.72	C			

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

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

<h1>Junctions 9</h1>
<h2>PICADY 9 - Priority Intersection Module</h2>
Version: 9.5.0.6896 © Copyright TRL Limited, 2018
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: Site 3_R123 Moyne Road_R106 Coast road.j9

Path: O:\21 Projects\21205 - Portmarnock Phase 1D\00.WIP\Model\Traffic\TRL\Site 3

Report generation date: 20/04/2021 09:20:28

«Stress Test 2038 - 2038 DS, PM

- »Junction Network
- »Arms
- »Traffic Demand
- »Origin-Destination Data
- »Vehicle Mix
- »Results

Summary of junction performance

	AM								PM							
	Queue (PCU)	95% Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (PCU)	95% Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
Baseline 2021 - 2021																
Stream B-AC	2.0	9.6	29.76	0.67	D	6.83	A	3 % [Stream B-AC]	1.5	6.9	24.89	0.59	C	4.86	A	9 % [Stream B-AC]
Stream C-AB	2.5	13.3	8.86	0.59	A				1.1	4.7	8.00	0.38	A			

	AM								PM							
	Queue (PCU)	95% Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (PCU)	95% Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
Opening Year 2023 - 2023 DN																
Stream B-AC	2.8	15.1	42.60	0.74	E	9.72	A	-3 % [Stream B-AC]	2.0	9.8	30.94	0.66	D	5.83	A	3 % [Stream B-AC]
Stream C-AB	3.9	20.8	11.86	0.67	B				1.3	6.2	8.49	0.42	A			
Opening Year 2023 - 2023 DS																
Stream B-AC	5.0	26.2	65.35	0.85	F	13.96	B	-9 % [Stream B-AC]	2.5	12.7	36.05	0.71	E	7.04	A	-1 % [Stream B-AC]
Stream C-AB	3.5	18.8	11.30	0.65	B				1.4	6.9	8.95	0.44	A			

	AM								PM							
	Queue (PCU)	95% Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (PCU)	95% Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
Design Year 2038 - 2038 DN																
Stream B-AC	17.6	46.1	207.55	1.08	F	50.17	F	-17 % [Stream B-AC]	6.8	31.5	94.37	0.90	F	15.48	C	-12 % [Stream B-AC]
Stream C-AB	19.4	69.9	53.26	0.95	F				2.4	12.4	10.92	0.56	B			
Design Year 2038 - 2038 DS																
Stream B-AC	32.0	62.1	324.79	1.19	F	66.55	F	-21 % [Stream B-AC]	10.0	38.4	125.52	0.96	F	21.17	C	-14 % [Stream B-AC]
Stream C-AB	14.6	61.8	40.30	0.91	E				2.6	13.6	11.73	0.58	B			

	AM								PM							
	Queue (PCU)	95% Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (PCU)	95% Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
Stress Test 2038 - Stress Test 2038 DS																
Stream B-AC	59.8	92.7	572.32	1.41	F	122.27	F	-27 % [Stream B-AC]	21.8	51.9	230.35	1.09	F	39.40	E	-19 % [Stream B-AC]
Stream C-AB	20.4	71.4	57.98	0.96	F				3.2	17.3	13.81	0.64	B			

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

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

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

Filename: Site 4.j9
Path: O:\21 Projects\21205 - Portmarnock Phase 1D\00.WIP\Model\Traffic\TRL\Site 4
Report generation date: 09/04/2021 12:54:14

- «Base 2021 - 2021 , PM
 - »Junction Network
 - »Arms
 - »Traffic Demand
 - »Origin-Destination Data
 - »Vehicle Mix
 - »Results

Summary of junction performance

	AM								PM							
	Queue (PCU)	95% Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (PCU)	95% Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
Base 2021 - 2021																
Stream B-AC	5.9	29.9	72.19	0.89	F	15.94	C	-12 %	3.3	17.8	42.83	0.79	E	9.24	A	-4 %
Stream C-AB	0.2	1.1	4.71	0.09	A			[Stream B-AC]	0.2	1.1	5.81	0.09	A			[Stream B-AC]

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

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

File summary

File Description

Title	
Location	
Site number	
Date	09/04/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	JBBARRY\TransportPC
Description	

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

Filename: Site 5.j9
Path: O:\21 Projects\21205 - Portmarnock Phase 1D\00.WIP\Model\Traffic\TRL\Site 5
Report generation date: 09/04/2021 14:20:05

- «Baseline 2021 - 2021 , PM
 - »Junction Network
 - »Arms
 - »Traffic Demand
 - »Origin-Destination Data
 - »Vehicle Mix
 - »Results

Summary of junction performance

	AM							PM								
	Queue (PCU)	95% Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (PCU)	95% Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
Baseline 2021 - 2021																
Stream B-AC	4.0	21.6	52.88	0.82	F	10.81	B	-7 %	5.1	27.8	54.04	0.86	F	13.36	B	-8 %
Stream C-AB	1.6	8.3	8.47	0.49	A			[Stream B-AC]	0.0	~1	0.00	0.00	A			[Stream B-AC]

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

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

File summary

File Description

Title	
Location	
Site number	
Date	09/04/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	JBBARRY\TransportPC
Description	

TRANSPORT RESEARCH LABORATORY

(c) COPYRIGHT Transport Research Laboratory, 1998,1999
OPTIMISED SIGNAL CAPACITY AND DELAY

Visual OSCADY 4 ANALYSIS PROGRAM
RELEASE 2.1 (MAR 1999)

FOR SALES AND DISTRIBUTION INFORMATION,
PROGRAM ADVICE AND MAINTENANCE CONTACT:
TRL LTD
TEL: CROWTHORNE (01344) 770018, FAX: 770864

THE USER OF THIS COMPUTER PROGRAM FOR THE SOLUTION OF AN ENGINEERING PROBLEM IS IN
NO WAY RELIEVED OF HIS RESPONSIBILITY FOR THE CORRECTNESS OF THE SOLUTION

.Run with file:- "e:\Portmarnock Modelling\Phase 1D\H - 2023 AM DN (No Dev).voi" at 16:44:44 on Thursday, 27 February 2098

RUN TITLE

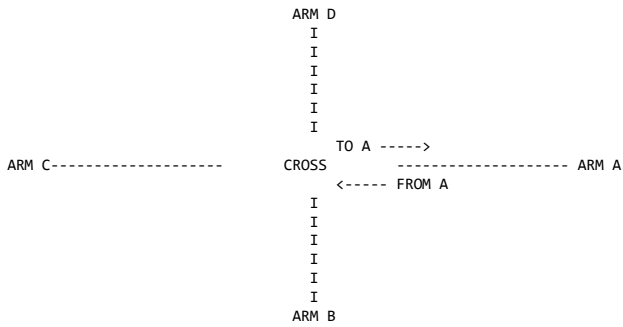
Phase 1D 2021

**** ERROR AND WARNING MESSAGES ****
=====

No errors or warnings in the data.

.TRAFFIC SIGNAL JUNCTION ANALYSIS

INPUT DATA



ARM A IS Arm A - Moyne Road East
ARM B IS Arm B - Hole in the Wall Rd
ARM C IS Arm C - Moyne Road West
ARM D IS Arm D - Drumnigh Rd

.GEOMETRIC DATA

Table with 9 columns: I, DATA ITEM, I, ARM A, I, ARM B, I, ARM C, I, ARM D, I. Rows include GRADIENT, NUMBER OF LANES, PERMITTED MOVEMENTS (LANE 1, LANE 2), TOTAL EXIT WIDTH FOR STRAIGHT-AHEAD VEHICLES FROM THIS ARM, LANE WIDTHS (LANE 1, LANE 2), LEFT TURN RADII (LANE 1), RIGHT TURN RADII (LANE 2), OPPOSING TRAFFIC MOVEMENTS FROM OPPOSITE ARM, STORAGE BEYOND STOPLINE (LANE 2).

.TRAFFIC DEMAND DATA

DEMAND PROFILES ARE SYNTHESISED USING THE ** ODTAB ** OPTION

DEMAND DATA SUPPLIED BETWEEN TIMES - 07.45 TO 09.15
 PERIOD OF INTEREST (FOR QUEUE AND DELAY CALCULATIONS) - 08.00 TO 09.00

THE FOLLOWING DATA HAS BEEN INPUT

TRAFFIC SCALING FACTOR HAS BEEN SET TO 100 %

TOTAL TRAFFIC DEMAND (VEHICLES / HOUR)									
FROM/TO	ARM A	ARM B	ARM C	ARM D					
ARM A	0.0	107.0	321.0	34.0					
ARM B	77.0	0.0	104.0	98.0					
ARM C	200.0	173.0	0.0	255.0					
ARM D	6.0	233.0	78.0	0.0					

TIME PERIOD	ARM	VEHICLE TYPE PROPORTIONS						
		CARS AND LIGHT	MEDIUM GOODS	HEAVY GOODS	BUSES AND COACHES	MOTOR CYCLES	PEDAL CYCLES	
08.00-09.00	A	1.000	0.000	0.000	0.000	0.000	0.000	0.000
	B	1.000	0.000	0.000	0.000	0.000	0.000	0.000
	C	1.000	0.000	0.000	0.000	0.000	0.000	0.000
	D	1.000	0.000	0.000	0.000	0.000	0.000	0.000

.DATA DETERMINED FOR USE IN SYNTHESIS OF DEMAND PROFILES ARE AS FOLLOWS-

ENTRY/EXIT FLOWS	ARM	TIME WHEN FLOW STARTS TO RISE	TIME WHEN TOP OF PEAK IS REACHED	TIME WHEN FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN)		
					BEFORE PEAK	AT TOP OF PEAK	AFTER PEAK
ENTRY	A	08.00	08.30	09.00	5.78	8.66	5.78
	B	08.00	08.30	09.00	3.49	5.23	3.49
	C	08.00	08.30	09.00	7.85	11.77	7.85
	D	08.00	08.30	09.00	3.96	5.94	3.96

.SIGNAL TIMING DETAILS FOR SIGNAL SET 1

TIMING OPTION- VEHICLE ACTUATED MODE

MAXIMUM CYCLE TIME- 120.0 SECONDS

GLOBAL EFFECTIVE GREEN DISPLACEMENTS - START = 1.4
 END = 2.9

DATA ITEM	STAGE 1	STAGE 2	STAGE 3
LANES ON GREEN: ARM A	1 2		
B	1 2		
C	1 2		
D	1 2		
MINIMUM GREEN TIME (SECS)	5.0	5.0	12.0
PRECEDING INTERSTAGE	5.0	5.0	5.0

.DEMAND AND CAPACITY INFORMATION FOR EACH 15 MINUTE TIME SEGMENT BETWEEN 08.00 AND 09.00

TIME	MOVEMENT	DEMAND (VEHS/MIN)	SAT FLOW (PCU/HR)	SAT FLOW (VEHS/MIN)	EFFECTIVE GREEN-TIME TRUE (SECS)	FLARE+NOTIONL (SECS)	CAPACITY (VEHS /MIN)
08.00-08.15							
A 1	L S	6.39	1931.7	32.20	26.5		13.40
A 2	R	0.51	814.0	13.57	26.5		5.65
B 1	L S	3.02	1883.1	31.38	13.1		6.48
B 2	R	1.15	1296.2	21.60	13.1		4.46
C 1	L S	6.79	1874.9	31.25	26.5		13.00
C 2	R	2.58	876.2	14.60	26.5		6.08
D 1	L S	3.57	1975.0	32.92	13.1		6.80
D 2	R	1.16	1367.8	22.80	13.1		4.71
08.15-08.30							
A 1	L S	7.82	1931.7	32.20	33.2		14.56
A 2	R	0.62	642.3	10.71	33.2		4.84
B 1	L S	3.69	1883.1	31.38	16.2		6.93

I	2		R	1.41	1040.9	17.35	16.2		3.83	I
I	C	1	L S	8.32	1874.9	31.25	33.2		14.13	I
I	2		R	3.16	698.4	11.64	33.2		5.26	I
I	D	1	L S	4.37	1975.0	32.92	16.2		7.27	I
I	2		R	1.43	1104.8	18.41	16.2		4.07	I

I 08.30-08.45										
I	A	1	L S	7.82	1931.7	32.20	33.2		14.56	I
I	2		R	0.62	642.3	10.71	33.2		4.84	I
I	B	1	L S	3.69	1883.1	31.38	16.2		6.93	I
I	2		R	1.41	1040.9	17.35	16.2		3.83	I
I	C	1	L S	8.32	1874.9	31.25	33.2		14.13	I
I	2		R	3.16	698.4	11.64	33.2		5.26	I
I	D	1	L S	4.37	1975.0	32.92	16.2		7.27	I
I	2		R	1.43	1104.8	18.41	16.2		4.07	I

I 08.45-09.00										
I	A	1	L S	6.39	1931.7	32.20	26.5		13.40	I
I	2		R	0.51	814.0	13.57	26.5		5.65	I
I	B	1	L S	3.02	1883.1	31.38	13.1		6.48	I
I	2		R	1.15	1296.2	21.60	13.1		4.46	I
I	C	1	L S	6.79	1874.9	31.25	26.5		13.00	I
I	2		R	2.58	876.2	14.60	26.5		6.08	I
I	D	1	L S	3.57	1975.0	32.92	13.1		6.80	I
I	2		R	1.16	1367.8	22.80	13.1		4.71	I

.QUEUE AND DELAY INFORMATION FOR EACH 15 MINUTE TIME SEGMENT BETWEEN 08.00 AND 09.00

I	TIME	MOVEMENT	DEMAND	CAPACITY	DEGREE	QUEUE AT END OF SEGMENT		QUEUEING	GEOMETRIC	I
I	ARM	LANES	EXCL	(VEHS/MIN)	OF SAT	MEAN (PHASE	MAXIMUM	DELAY	DELAY	I
I			2-WHEEL		(RFC)	AVERAGED)	(END OF RED)	(VEH.MIN/	(VEH.MIN/	I
I			(VEHS/MIN)			(VEHS/LANE)	(VEHS/LANE)	TIME SEGMENT)	TIME SEGMENT)	I

I 08.00-08.15										
I	A	1	L S	6.39	13.40	0.477	1.7	4.2	25.5	I
I	2		R	0.51	5.65	0.090	0.1	0.3	1.5	I
I	B	1	L S	3.02	6.48	0.465	1.4	2.8	20.2	I
I	2		R	1.15	4.46	0.258	0.5	1.0	6.9	I
I	C	1	L S	6.79	13.00	0.522	1.9	4.5	28.6	I
I	2		R	2.58	6.08	0.425	0.8	1.8	11.3	I
I	D	1	L S	3.57	6.80	0.525	1.7	3.3	25.0	I
I	2		R	1.16	4.71	0.247	0.5	1.0	6.9	I

I 08.15-08.30										
I	A	1	L S	7.82	14.56	0.538	2.3	5.6	34.1	I
I	2		R	0.62	4.84	0.128	0.1	0.4	2.0	I
I	B	1	L S	3.69	6.93	0.533	1.9	3.9	28.7	I
I	2		R	1.41	3.83	0.367	0.7	1.5	10.4	I
I	C	1	L S	8.32	14.13	0.589	2.6	6.1	38.7	I
I	2		R	3.16	5.26	0.601	1.3	2.6	19.7	I
I	D	1	L S	4.37	7.27	0.601	2.4	4.7	36.0	I
I	2		R	1.43	4.07	0.351	0.7	1.5	10.3	I

I 08.30-08.45										
I	A	1	L S	7.82	14.56	0.538	2.3	5.6	34.1	I
I	2		R	0.62	4.84	0.128	0.1	0.4	2.0	I
I	B	1	L S	3.69	6.93	0.533	1.9	3.9	28.8	I
I	2		R	1.41	3.83	0.367	0.7	1.5	10.5	I
I	C	1	L S	8.32	14.13	0.589	2.6	6.1	38.8	I
I	2		R	3.16	5.26	0.601	1.3	2.7	20.1	I
I	D	1	L S	4.37	7.27	0.601	2.4	4.7	36.2	I
I	2		R	1.43	4.07	0.351	0.7	1.5	10.3	I

I 08.45-09.00										
I	A	1	L S	6.39	13.40	0.477	1.7	4.2	25.5	I
I	2		R	0.51	5.65	0.090	0.1	0.3	1.5	I
I	B	1	L S	3.02	6.48	0.465	1.4	2.8	20.4	I
I	2		R	1.15	4.46	0.258	0.5	1.0	6.9	I
I	C	1	L S	6.79	13.00	0.522	1.9	4.5	28.7	I
I	2		R	2.58	6.08	0.425	0.8	1.8	11.5	I
I	D	1	L S	3.57	6.80	0.525	1.7	3.4	25.3	I
I	2		R	1.16	4.71	0.247	0.5	1.0	6.9	I

.QUEUES FOR ARM A

TIME	LANE	NUMBER OF VEHICLES IN QUEUE		
SEGMENT		MEAN	MAXIMUM	
ENDING		(PHASE	(AT END	
		AVERAGED)	OF RED)	
		*	+	
08.15	2	0.1	0.3	
	1	1.7	4.2	**++
08.30	2	0.1	0.4	
	1	2.3	5.6	**++++
08.45	2	0.1	0.4	
	1	2.3	5.6	**++++
09.00	2	0.1	0.3	
	1	1.7	4.2	**++

.QUEUES FOR ARM B

TIME SEGMENT ENDING	LANE	NUMBER OF VEHICLES IN QUEUE		
		MEAN (PHASE AVERAGED) *	MAXIMUM (AT END OF RED) +	
08.15	2	0.5	1.0	+
	1	1.4	2.8	*++
08.30	2	0.7	1.5	*
	1	1.9	3.9	**++
08.45	2	0.7	1.5	*
	1	1.9	3.9	**++
09.00	2	0.5	1.0	+
	1	1.4	2.8	*++

.QUEUES FOR ARM C

TIME SEGMENT ENDING	LANE	NUMBER OF VEHICLES IN QUEUE		
		MEAN (PHASE AVERAGED) *	MAXIMUM (AT END OF RED) +	
08.15	2	0.8	1.8	*+
	1	1.9	4.5	**+++
08.30	2	1.3	2.6	*++
	1	2.6	6.1	***+++
08.45	2	1.3	2.7	*++
	1	2.6	6.1	***+++
09.00	2	0.8	1.8	*+
	1	1.9	4.5	**+++

.QUEUES FOR ARM D

TIME SEGMENT ENDING	LANE	NUMBER OF VEHICLES IN QUEUE		
		MEAN (PHASE AVERAGED) *	MAXIMUM (AT END OF RED) +	
08.15	2	0.5	1.0	+
	1	1.7	3.3	**+
08.30	2	0.7	1.5	*
	1	2.4	4.7	**+++
08.45	2	0.7	1.5	*
	1	2.4	4.7	**+++
09.00	2	0.5	1.0	+
	1	1.7	3.4	**+

.QUEUEING DELAY INFORMATION OVER WHOLE PERIOD (08.00-09.00)

I STREAM I	I	TOTAL DEMAND I		* QUEUEING * I		I * INCLUSIVE QUEUEING * I	
		I (EXCL 2-WHEEL) I	I (VEH) (VEH/H) I	I * DELAY * I (MIN) (MIN/VEH) I	I * DELAY * I (MIN) (MIN/VEH) I		
I A-B I	I	106.6 I	106.6 I	29.8 I	0.28 I	29.8 I	0.28 I
I A-C I	I	319.8 I	319.8 I	89.3 I	0.28 I	89.4 I	0.28 I
I A-D I	I	33.9 I	33.9 I	7.0 I	0.21 I	7.0 I	0.21 I
I B-C I	I	103.6 I	103.6 I	50.5 I	0.49 I	50.6 I	0.49 I
I B-D I	I	97.6 I	97.6 I	47.6 I	0.49 I	47.7 I	0.49 I
I B-A I	I	76.7 I	76.7 I	34.6 I	0.45 I	34.7 I	0.45 I
I C-D I	I	254.0 I	254.0 I	75.5 I	0.30 I	75.6 I	0.30 I
I C-A I	I	199.2 I	199.2 I	59.2 I	0.30 I	59.3 I	0.30 I
I C-B I	I	172.3 I	172.3 I	62.5 I	0.36 I	62.6 I	0.36 I
I D-A I	I	6.0 I	6.0 I	3.1 I	0.51 I	3.1 I	0.52 I
I D-B I	I	232.1 I	232.1 I	119.5 I	0.51 I	119.7 I	0.52 I
I D-C I	I	77.7 I	77.7 I	34.3 I	0.44 I	34.4 I	0.44 I
I ALL I	I	1679.6 I	1679.6 I	613.1 I	0.37 I	613.8 I	0.37 I

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

* TOTAL GEOMETRIC DELAY INCLUDES DELAY SUFFERED BY VEHICLES STILL QUEUEING AT THE END OF THE WHOLE TIME PERIOD.
* THE SUM OF DELAYS FOR EACH SEGMENT AND THE TOTAL GEOMETRIC DELAY WILL BE SIGNIFICANTLY DIFFERENT ONLY IF THERE IS
* A LARGE QUEUE AT THE END OF THE TIME PERIOD.

.
***** OSCADY 4 run completed

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

T R A N S P O R T R E S E A R C H L A B O R A T O R Y

(c) COPYRIGHT Transport Research Laboratory, 1998,1999
OPTIMISED SIGNAL CAPACITY AND DELAY

Visual OSCADY 4 ANALYSIS PROGRAM
RELEASE 2.1 (MAR 1999)

| FOR SALES AND DISTRIBUTION INFORMATION, |
| PROGRAM ADVICE AND MAINTENANCE CONTACT: |
| TRL LTD |
TEL: CROWTHORNE (01344) 770018, FAX: 770864

THE USER OF THIS COMPUTER PROGRAM FOR THE SOLUTION OF AN ENGINEERING PROBLEM IS IN
NO WAY RELIEVED OF HIS RESPONSIBILITY FOR THE CORRECTNESS OF THE SOLUTION

.Run with file:- "e:\Portmarnock Modelling\Phase 1D\H - 2023 AM DS (With Dev).voi" at 20:57:41 on Friday, 28 February 2098

RUN TITLE

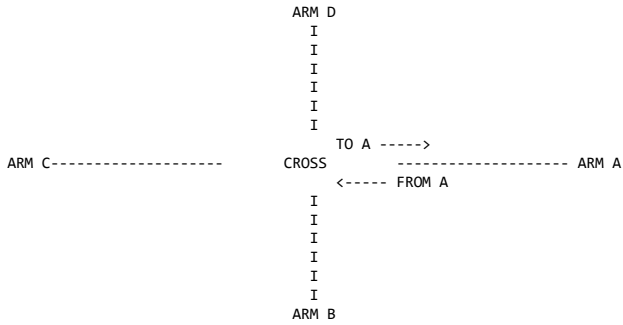
Phase 1D 2021

**** ERROR AND WARNING MESSAGES ****
=====

No errors or warnings in the data.

.TRAFFIC SIGNAL JUNCTION ANALYSIS

INPUT DATA



ARM A IS Arm A - Moyne Road East
ARM B IS Arm B - Hole in the Wall Rd
ARM C IS Arm C - Moyne Road West
ARM D IS Arm D - Drumnigh Rd

.GEOMETRIC DATA

I	DATA ITEM	I	ARM A	I	ARM B	I	ARM C	I	ARM D	I
I	GRADIENT	I	0.0 %	I	0.0 %	I	0.0 %	I	0.0 %	I
I	NUMBER OF LANES	I	2	I	2	I	2	I	2	I
I	PERMITTED MOVEMENTS	I	LS	I	LS	I	LS	I	LS	I
I		I	R	I	R	I	R	I	R	I
I	TOTAL EXIT WIDTH FOR STRAIGHT- AHEAD VEHICLES FROM THIS ARM	I	N/A	I	N/A	I	N/A	I	N/A	I
I	LANE WIDTHS	I	3.65 M	I	3.65 M	I	3.65 M	I	3.65 M	I
I		I	3.50 M	I	3.50 M	I	3.50 M	I	3.50 M	I
I	LEFT TURN RADII	I	15.0 M	I	15.0 M	I	15.0 M	I	15.0 M	I
I	RIGHT TURN RADII	I	20.0 M	I	20.0 M	I	20.0 M	I	20.0 M	I
I	OPPOSING TRAFFIC MOVEMENTS FROM OPPOSITE ARM	I	STRAIGHT	I	STRAIGHT	I	STRAIGHT	I	STRAIGHT	I
I		I	LEFT	I	LEFT	I	LEFT	I	LEFT	I
I	STORAGE BEYOND STOPLINE	I	3.0 VEHS	I	3.0 VEHS	I	3.0 VEHS	I	3.0 VEHS	I

.TRAFFIC DEMAND DATA

DEMAND PROFILES ARE SYNTHESISED USING THE ** ODTAB ** OPTION

DEMAND DATA SUPPLIED BETWEEN TIMES - 07.45 TO 09.15
 PERIOD OF INTEREST (FOR QUEUE AND DELAY CALCULATIONS) - 08.00 TO 09.00

THE FOLLOWING DATA HAS BEEN INPUT

TRAFFIC SCALING FACTOR HAS BEEN SET TO 100 %

TOTAL TRAFFIC DEMAND (VEHICLES / HOUR)									
FROM/TO	ARM A	ARM B	ARM C	ARM D					
ARM A	0.0	120.0	334.0	37.0					
ARM B	85.0	0.0	104.0	94.0					
ARM C	219.0	173.0	0.0	244.0					
ARM D	6.0	221.0	74.0	0.0					

TIME PERIOD	ARM	VEHICLE TYPE PROPORTIONS				MOTOR CYCLES	PEDAL CYCLES
		CARS AND LIGHT GOODS	MEDIUM GOODS	HEAVY GOODS	BUSES AND COACHES		
08.00-09.00	A	1.000	0.000	0.000	0.000	0.000	0.000
	B	1.000	0.000	0.000	0.000	0.000	0.000
	C	1.000	0.000	0.000	0.000	0.000	0.000
	D	1.000	0.000	0.000	0.000	0.000	0.000

.DATA DETERMINED FOR USE IN SYNTHESIS OF DEMAND PROFILES ARE AS FOLLOWS-

ENTRY/EXIT FLOWS	ARM	TIME WHEN FLOW STARTS TO RISE	TIME WHEN TOP OF PEAK IS REACHED	TIME WHEN FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN)		
					BEFORE PEAK	AT TOP OF PEAK	AFTER PEAK
ENTRY	A	08.00	08.30	09.00	6.14	9.21	6.14
	B	08.00	08.30	09.00	3.54	5.31	3.54
	C	08.00	08.30	09.00	7.95	11.92	7.95
	D	08.00	08.30	09.00	3.76	5.64	3.76

.SIGNAL TIMING DETAILS FOR SIGNAL SET 1

TIMING OPTION- VEHICLE ACTUATED MODE

MAXIMUM CYCLE TIME- 120.0 SECONDS

GLOBAL EFFECTIVE GREEN DISPLACEMENTS - START = 1.4
 END = 2.9

DATA ITEM	STAGE 1	STAGE 2	STAGE 3
LANES ON GREEN: ARM A	1 2		
B	1 2		
C	1 2		
D	1 2		
MINIMUM GREEN TIME (SECS)	5.0	5.0	12.0
PRECEDING INTERSTAGE	5.0	5.0	5.0

.DEMAND AND CAPACITY INFORMATION FOR EACH 15 MINUTE TIME SEGMENT BETWEEN 08.00 AND 09.00

TIME	MOVEMENT	DEMAND (VEHS/MIN)	SAT FLOW (PCU/HR)	SAT FLOW (VEHS/MIN)	EFFECTIVE GREEN-TIME TRUE (SECS)	FLARE+NOTIONL (SECS)	CAPACITY (VEHS /MIN)
08.00-08.15							
A 1	L S	6.78	1929.0	32.15	27.6		13.77
A 2	R	0.55	804.1	13.40	27.6		5.74
B 1	L S	2.96	1881.2	31.35	12.8		6.25
B 2	R	1.27	1327.3	22.12	12.8		4.41
C 1	L S	6.91	1880.9	31.35	27.6		13.42
C 2	R	2.58	834.7	13.91	27.6		5.96
D 1	L S	3.39	1974.8	32.91	12.8		6.56
D 2	R	1.10	1379.2	22.99	12.8		4.58
08.15-08.30							
A 1	L S	8.30	1929.0	32.15	34.9		14.99
A 2	R	0.68	632.9	10.55	34.9		4.92
B 1	L S	3.62	1881.2	31.35	16.0		6.68

I	2		R	1.55	1061.6	17.69	16.0		3.77	I
I	C 1	L	S	8.46	1880.9	31.35	34.9		14.61	I
I	2		R	3.16	660.5	11.01	34.9		5.13	I
I	D 1	L	S	4.15	1974.8	32.91	16.0		7.02	I
I	2		R	1.35	1108.1	18.47	16.0		3.94	I

I 08.30-08.45										
I	A 1	L	S	8.30	1929.0	32.15	34.9		14.99	I
I	2		R	0.68	632.9	10.55	34.9		4.92	I
I	B 1	L	S	3.62	1881.2	31.35	16.0		6.68	I
I	2		R	1.55	1061.6	17.69	16.0		3.77	I
I	C 1	L	S	8.46	1880.9	31.35	34.9		14.61	I
I	2		R	3.16	660.5	11.01	34.9		5.13	I
I	D 1	L	S	4.15	1974.8	32.91	16.0		7.02	I
I	2		R	1.35	1108.1	18.47	16.0		3.94	I

I 08.45-09.00										
I	A 1	L	S	6.78	1929.0	32.15	27.6		13.77	I
I	2		R	0.55	804.1	13.40	27.6		5.74	I
I	B 1	L	S	2.96	1881.2	31.35	12.8		6.25	I
I	2		R	1.27	1327.3	22.12	12.8		4.41	I
I	C 1	L	S	6.91	1880.9	31.35	27.6		13.42	I
I	2		R	2.58	834.7	13.91	27.6		5.96	I
I	D 1	L	S	3.39	1974.8	32.91	12.8		6.56	I
I	2		R	1.10	1379.2	22.99	12.8		4.58	I

.QUEUE AND DELAY INFORMATION FOR EACH 15 MINUTE TIME SEGMENT BETWEEN 08.00 AND 09.00

I	TIME	MOVEMENT	DEMAND	CAPACITY	DEGREE	QUEUE AT END OF SEGMENT		QUEUEING	GEOMETRIC	I
I	ARM	LANES	EXCL	(VEHS/MIN)	OF SAT	MEAN (PHASE	MAXIMUM	DELAY	DELAY	I
I			2-WHEEL		(RFC)	AVERAGED)	(END OF RED)	(VEH.MIN/	(VEH.MIN/	I
I			(VEHS/MIN)			(VEHS/LANE)	(VEHS/LANE)	TIME SEGMENT)	TIME SEGMENT)	I

I 08.00-08.15										
I	A 1	L	S	6.78	13.77	0.492	1.8	4.4	26.8	I
I	2		R	0.55	5.74	0.096	0.1	0.3	1.6	I
I	B 1	L	S	2.96	6.25	0.473	1.4	2.8	20.5	I
I	2		R	1.27	4.41	0.288	0.5	1.2	8.0	I
I	C 1	L	S	6.91	13.42	0.515	1.9	4.6	28.2	I
I	2		R	2.58	5.96	0.434	0.8	1.8	11.3	I
I	D 1	L	S	3.39	6.56	0.517	1.6	3.2	24.3	I
I	2		R	1.10	4.58	0.241	0.4	1.0	6.7	I

I 08.15-08.30										
I	A 1	L	S	8.30	14.99	0.554	2.4	5.9	36.0	I
I	2		R	0.68	4.92	0.138	0.1	0.5	2.1	I
I	B 1	L	S	3.62	6.68	0.542	2.0	3.9	29.4	I
I	2		R	1.55	3.77	0.412	0.8	1.7	12.4	I
I	C 1	L	S	8.46	14.61	0.579	2.5	6.1	38.0	I
I	2		R	3.16	5.13	0.616	1.4	2.7	20.3	I
I	D 1	L	S	4.15	7.02	0.591	2.3	4.6	35.1	I
I	2		R	1.35	3.94	0.344	0.7	1.4	10.0	I

I 08.30-08.45										
I	A 1	L	S	8.30	14.99	0.554	2.4	5.9	36.0	I
I	2		R	0.68	4.92	0.138	0.1	0.5	2.1	I
I	B 1	L	S	3.62	6.68	0.542	2.0	3.9	29.4	I
I	2		R	1.55	3.77	0.412	0.8	1.7	12.5	I
I	C 1	L	S	8.46	14.61	0.579	2.5	6.1	38.1	I
I	2		R	3.16	5.13	0.616	1.4	2.7	20.7	I
I	D 1	L	S	4.15	7.02	0.591	2.3	4.6	35.2	I
I	2		R	1.35	3.94	0.344	0.7	1.4	10.1	I

I 08.45-09.00										
I	A 1	L	S	6.78	13.77	0.492	1.8	4.4	26.9	I
I	2		R	0.55	5.74	0.096	0.1	0.3	1.6	I
I	B 1	L	S	2.96	6.25	0.473	1.4	2.8	20.7	I
I	2		R	1.27	4.41	0.288	0.5	1.2	8.0	I
I	C 1	L	S	6.91	13.42	0.515	1.9	4.6	28.3	I
I	2		R	2.58	5.96	0.434	0.8	1.8	11.5	I
I	D 1	L	S	3.39	6.56	0.517	1.6	3.3	24.6	I
I	2		R	1.10	4.58	0.241	0.4	1.0	6.7	I

.QUEUES FOR ARM A

TIME	LANE	NUMBER OF VEHICLES IN QUEUE		
SEGMENT		MEAN	MAXIMUM	
ENDING		(PHASE	(AT END	
		AVERAGED)	OF RED)	
		*	+	
08.15	2	0.1	0.3	
	1	1.8	4.4	**++
08.30	2	0.1	0.5	
	1	2.4	5.9	**++++
08.45	2	0.1	0.5	
	1	2.4	5.9	**++++
09.00	2	0.1	0.3	
	1	1.8	4.4	**++

.QUEUES FOR ARM B

TIME SEGMENT ENDING	LANE	NUMBER OF VEHICLES IN QUEUE		
		MEAN (PHASE AVERAGED)	MAXIMUM (AT END OF RED)	
		*	+	
08.15	2	0.5	1.2	*
	1	1.4	2.8	***
08.30	2	0.8	1.7	*+
	1	2.0	3.9	****
08.45	2	0.8	1.7	*+
	1	2.0	3.9	****
09.00	2	0.5	1.2	*
	1	1.4	2.8	***

.QUEUES FOR ARM C

TIME SEGMENT ENDING	LANE	NUMBER OF VEHICLES IN QUEUE		
		MEAN (PHASE AVERAGED)	MAXIMUM (AT END OF RED)	
		*	+	
08.15	2	0.8	1.8	*+
	1	1.9	4.6	*****
08.30	2	1.4	2.7	***
	1	2.5	6.1	*****
08.45	2	1.4	2.7	***
	1	2.5	6.1	*****
09.00	2	0.8	1.8	*+
	1	1.9	4.6	*****

.QUEUES FOR ARM D

TIME SEGMENT ENDING	LANE	NUMBER OF VEHICLES IN QUEUE		
		MEAN (PHASE AVERAGED)	MAXIMUM (AT END OF RED)	
		*	+	
08.15	2	0.4	1.0	+
	1	1.6	3.2	***
08.30	2	0.7	1.4	*
	1	2.3	4.6	*****
08.45	2	0.7	1.4	*
	1	2.3	4.6	*****
09.00	2	0.4	1.0	+
	1	1.6	3.3	***

.QUEUEING DELAY INFORMATION OVER WHOLE PERIOD (08.00-09.00)

I STREAM I	I	TOTAL DEMAND I		* QUEUEING * I		* INCLUSIVE QUEUEING * I	
		I (EXCL 2-WHEEL) I	I (VEH) (VEH/H) I	I * DELAY * I (MIN)	I (MIN/VEH) I	I * DELAY * I (MIN)	I (MIN/VEH) I
I A-B I	I	119.5 I	119.5 I	33.2 I	0.28 I	33.3 I	0.28 I
I A-C I	I	332.7 I	332.7 I	92.5 I	0.28 I	92.6 I	0.28 I
I A-D I	I	36.9 I	36.9 I	7.5 I	0.20 I	7.5 I	0.20 I
I B-C I	I	103.6 I	103.6 I	52.6 I	0.51 I	52.7 I	0.51 I
I B-D I	I	93.6 I	93.6 I	47.5 I	0.51 I	47.6 I	0.51 I
I B-A I	I	84.7 I	84.7 I	40.9 I	0.48 I	40.9 I	0.48 I
I C-D I	I	243.1 I	243.1 I	69.9 I	0.29 I	69.9 I	0.29 I
I C-A I	I	218.2 I	218.2 I	62.7 I	0.29 I	62.8 I	0.29 I
I C-B I	I	172.3 I	172.3 I	63.7 I	0.37 I	63.8 I	0.37 I
I D-A I	I	6.0 I	6.0 I	3.1 I	0.53 I	3.2 I	0.53 I
I D-B I	I	220.2 I	220.2 I	115.9 I	0.53 I	116.1 I	0.53 I
I D-C I	I	73.7 I	73.7 I	33.5 I	0.45 I	33.5 I	0.45 I
I ALL I	I	1704.5 I	1704.5 I	623.1 I	0.37 I	623.8 I	0.37 I

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

* TOTAL GEOMETRIC DELAY INCLUDES DELAY SUFFERED BY VEHICLES STILL QUEUEING AT THE END OF THE WHOLE TIME PERIOD.
* THE SUM OF DELAYS FOR EACH SEGMENT AND THE TOTAL GEOMETRIC DELAY WILL BE SIGNIFICANTLY DIFFERENT ONLY IF THERE IS
* A LARGE QUEUE AT THE END OF THE TIME PERIOD.

.
***** OSCADY 4 run completed

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