

GEOMETRIC DATA

DATA ITEM	MINOR ROAD B	MINOR ROAD D
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W) 6.00 M.	(W) 6.00 M.
CENTRAL RESERVE WIDTH	(WCR) 0.00 M.	(WCR) 0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B) 2.20 M.	(WA-D) 2.20 M.
- VISIBILITY	(VC-B) 90.0 M.	(VA-D) 90.0 M.
- BLOCKS TRAFFIC	YES	YES
MINOR ROAD - VISIBILITY TO LEFT	(VB-C) 23.0 M.	(VD-A) 27.0 M.
- VISIBILITY TO RIGHT	(VB-A) 20.0 M.	(VD-C) 16.0 M.
- LANE 1 WIDTH	(WB-C) 2.50 M.	(WD-A) 2.20 M.
- LANE 2 WIDTH	(WB-A) 0.00 M.	(WD-C) 0.00 M.

SLOPES AND INTERCPET

(NB:Streams may be combined, in which case capacity will be adjusted)

B-C Stream

Intercept For Stream B-C	Slope For Opposing Stream A-C	Slope For Opposing Stream A-B
604.66	0.23	0.09

D-A Stream

Intercept For Stream D-A	Slope For Opposing Stream C-A	Slope For Opposing Stream C-D
583.23	0.23	0.09

B-A Stream

Intercept For Stream B-A	Slope For Opposing Stream A-C	Slope For Opposing Stream A-D	Slope For Opposing Stream D-A	Slope For Opposing Stream D-B
470.11	0.22	0.22	0.22	0.22

Slope For Opposing Stream A-B	Slope For Opposing Stream C-A	Slope For Opposing Stream C-B	Slope For Opposing Stream D-C
0.09	0.14	0.31	0.11

D-C Stream

Intercept For Stream D-C	Slope For Opposing Stream C-A	Slope For Opposing Stream C-B	Slope For Opposing Stream B-C	Slope For Opposing Stream B-D
454.63	0.21	0.21	0.21	0.21

Slope For Opposing Stream C-D	Slope For Opposing Stream A-C	Slope For Opposing Stream A-D	Slope For Opposing Stream B-A
0.08	0.13	0.30	0.10

C-B Stream

Intercept For Stream C-B	Slope For Opposing Stream A-C	Slope For Opposing Stream A-D
626.08	0.24	0.35

A-D Stream

Intercept For Stream A-D	Slope For Opposing Stream D-A
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I Stream A-D	Stream C-A	Stream C-B	I
I626.08	0.24	0.35	I

B-D Stream From Left Hand Lane

I Intercept For I Stream B-D	Slope For Opposing Stream A-C	Slope For Opposing Stream A-D	Slope For Opposing Stream A-B	Slope For Opposing Stream C-B	I
I470.11	0.22	0.22	0.09	0.31	I
I	Slope For Opposing Stream C-A	Slope For Opposing Stream C-D	Slope For Opposing	Slope For Opposing	I
I	0.14	0.14			I

B-D Stream From Right Hand Lane

I Intercept For I Stream B-D	Slope For Opposing Stream A-C	Slope For Opposing Stream A-D	Slope For Opposing Stream A-B	Slope For Opposing Stream C-B	I
I470.11	0.22	0.22	0.09	0.31	I
I	Slope For Opposing Stream C-A	Slope For Opposing Stream C-D	Slope For Opposing	Slope For Opposing	I
I	0.14	0.14			I

D-B Stream From Left Hand Lane

I Intercept For I Stream D-B	Slope For Opposing Stream C-A	Slope For Opposing Stream C-B	Slope For Opposing Stream D-C	Slope For Opposing Stream A-D	I
I454.63	0.21	0.21	0.08	0.30	I
I	Slope For Opposing Stream A-C	Slope For Opposing Stream A-B	Slope For Opposing	Slope For Opposing	I
I	0.13	0.13			I

D-B Stream From Right Hand Lane

I Intercept For I Stream D-B	Slope For Opposing Stream C-A	Slope For Opposing Stream C-B	Slope For Opposing Stream C-D	Slope For Opposing Stream A-D	I
I454.63	0.21	0.21	0.08	0.30	I
I	Slope For Opposing Stream A-C	Slope For Opposing Stream A-B	Slope For Opposing	Slope For Opposing	I
I	0.13	0.13			I

TRAFFIC DEMAND 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)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.00-08.15									
B-ACD	0.40	7.76	0.052		0.04	0.05	0.8		0.14
A-BCD	0.04	10.97	0.003		0.00	0.00	0.1		0.09
A-B	0.09								
A-C	1.66								
D-ABC	0.36	6.94	0.052		0.04	0.05	0.8		0.15
C-ABD	0.13	11.60	0.011		0.01	0.01	0.2		0.09
C-D	0.06								
C-A	2.36								

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)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.15-08.30									
B-ACD	0.50	7.61	0.065		0.05	0.07	1.0		0.14
A-BCD	0.05	11.09	0.004		0.00	0.00	0.1		0.09
A-B	0.11								
A-C	2.03								
D-ABC	0.44	6.78	0.065		0.05	0.07	1.0		0.16
C-ABD	0.17	11.87	0.014		0.01	0.02	0.2		0.09
C-D	0.07								
C-A	2.88								

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)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.30-08.45									
B-ACD	0.50	7.61	0.065		0.07	0.07	1.0		0.14
A-BCD	0.05	11.09	0.004		0.00	0.00	0.1		0.09
A-B	0.11								
A-C	2.03								
D-ABC	0.44	6.78	0.065		0.07	0.07	1.0		0.16
C-ABD	0.17	11.87	0.014		0.02	0.02	0.2		0.09
C-D	0.07								
C-A	2.88								

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)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.45-09.00									
B-ACD	0.40	7.76	0.052		0.07	0.06	0.9		0.14
A-BCD	0.04	10.97	0.003		0.00	0.00	0.1		0.09
A-B	0.09								
A-C	1.66								
D-ABC	0.36	6.94	0.052		0.07	0.06	0.8		0.15
C-ABD	0.13	11.60	0.011		0.02	0.01	0.2		0.09
C-D	0.06								
C-A	2.36								

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)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
09.00-09.15									
B-ACD	0.34	7.88	0.043		0.06	0.05	0.7		0.13
A-BCD	0.03	10.88	0.003		0.00	0.00	0.0		0.09
A-B	0.08								
A-C	1.39								
D-ABC	0.30	7.06	0.043		0.06	0.04	0.7		0.15
C-ABD	0.11	11.41	0.009		0.01	0.01	0.2		0.09
C-D	0.05								
C-A	1.98								

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

QUEUE FOR STREAM B-ACD

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.00	0.0
08.15	0.1
08.30	0.1
08.45	0.1
09.00	0.1
09.15	0.0

QUEUE FOR STREAM A-BCD

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.00	0.0
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0
09.15	0.0

QUEUE FOR STREAM D-ABC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.00	0.0
08.15	0.1
08.30	0.1
08.45	0.1
09.00	0.1
09.15	0.0

QUEUE FOR STREAM C-ABD

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.00	0.0
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0
09.15	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I	STREAM	I	TOTAL	DEMAND	I	* QUEUEING *	I	* INCLUSIVE QUEUEING *	I
I	I	I	I	I	I	* DELAY *	I	* DELAY *	I
I	I	I	I	I	I	I	I	I	I
I	I	I	(VEH)	(VEH/H)	I	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
I	B-ACD	I	37.2	I 24.8	I	5.0	I 0.14	I 5.0	I 0.14
I	A-BCD	I	3.3	I 2.2	I	0.3	I 0.09	I 0.3	I 0.09
I	A-B	I	8.2	I 5.5	I	I	I	I	I
I	A-C	I	152.3	I 101.5	I	I	I	I	I
I	D-ABC	I	33.0	I 22.0	I	5.0	I 0.15	I 5.0	I 0.15
I	C-ABD	I	12.3	I 8.2	I	1.2	I 0.10	I 1.2	I 0.10
I	C-D	I	5.4	I 3.6	I	I	I	I	I
I	C-A	I	216.3	I 144.2	I	I	I	I	I
I	ALL	I	468.0	I 312.0	I	11.5	I 0.02	I 11.5	I 0.02

* 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

.SLOPES AND INTERCPET

(NB:Streams may be combined, in which case capacity

will be adjusted)

B-C Stream

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream B-C	Stream A-C	Stream A-B	I
I	604.66	0.23	0.09	I

D-A Stream

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream D-A	Stream C-A	Stream C-D	I
I	583.23	0.23	0.09	I

B-A Stream

I	Intercept For	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing	I
I	Stream B-A	Stream A-C	Stream A-D	Stream D-A	Stream D-B	I
I	470.11	0.22	0.22	0.22	0.22	I

I	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing	I
I	Stream A-B	Stream C-A	Stream C-B	Stream D-C	I
I	0.09	0.14	0.31	0.11	I

D-C Stream

I	Intercept For	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing	I
I	Stream D-C	Stream C-A	Stream C-B	Stream B-C	Stream B-D	I
I	454.63	0.21	0.21	0.21	0.21	I

I	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing	I
I	Stream C-D	Stream A-C	Stream A-D	Stream B-A	I
I	0.08	0.13	0.30	0.10	I

C-B Stream

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream C-B	Stream A-C	Stream A-D	I
I	626.08	0.24	0.35	I

A-D Stream

I	Intercept For	Slope For Opposing	Slope For Opposing	I
I	Stream A-D	Stream C-A	Stream C-B	I
I	626.08	0.24	0.35	I

B-D Stream From Left Hand Lane

I	Intercept For	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing	I
I	Stream B-D	Stream A-C	Stream A-D	Stream A-B	Stream C-B	I
I	470.11	0.22	0.22	0.09	0.31	I
I		Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing	I
I		Stream C-A	Stream C-D			I
I		0.14	0.14			I

B-D Stream From Right Hand Lane

I	Intercept For	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing	I
I	Stream B-D	Stream A-C	Stream A-D	Stream A-B	Stream C-B	I
I	470.11	0.22	0.22	0.09	0.31	I
I		Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing	I
I		Stream C-A	Stream C-D			I
I		0.14	0.14			I

D-B Stream From Left Hand Lane

I	Intercept For	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing	I
I	Stream D-B	Stream C-A	Stream C-B	Stream D-C	Stream A-D	I
I	454.63	0.21	0.21	0.08	0.30	I
I		Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing	I
I		Stream A-C	Stream A-B			I
I		0.13	0.13			I

D-B Stream From Right Hand Lane

I	Intercept For	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing	I
I	Stream D-B	Stream C-A	Stream C-B	Stream C-D	Stream A-D	I
I	454.63	0.21	0.21	0.08	0.30	I
I		Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing	I
I		Stream A-C	Stream A-B			I
I		0.13	0.13			I

TRAFFIC DEMAND 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)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.00-17.15									
B-ACD	0.36	8.12	0.044		0.04	0.05	0.7		0.13
A-BCD	0.09	11.07	0.008		0.01	0.01	0.1		0.09
A-B	0.01								
A-C	1.52								
D-ABC	0.22	7.80	0.029		0.02	0.03	0.4		0.13
C-ABD	0.03	11.07	0.003		0.00	0.00	0.0		0.09
C-D	0.09								
C-A	1.46								

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)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.15-17.30									
B-ACD	0.44	8.00	0.055		0.05	0.06	0.8		0.13
A-BCD	0.11	11.22	0.010		0.01	0.01	0.2		0.09
A-B	0.02								
A-C	1.85								
D-ABC	0.28	7.69	0.036		0.03	0.04	0.5		0.13
C-ABD	0.04	11.22	0.004		0.00	0.00	0.1		0.09
C-D	0.11								
C-A	1.79								

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)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.30-17.45									
B-ACD	0.44	8.00	0.055		0.06	0.06	0.9		0.13
A-BCD	0.11	11.22	0.010		0.01	0.01	0.2		0.09
A-B	0.02								
A-C	1.85								
D-ABC	0.28	7.69	0.036		0.04	0.04	0.6		0.13
C-ABD	0.04	11.22	0.004		0.00	0.00	0.1		0.09
C-D	0.11								
C-A	1.79								

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)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.45-18.00									
B-ACD	0.36	8.12	0.044		0.06	0.05	0.7		0.13
A-BCD	0.09	11.07	0.008		0.01	0.01	0.1		0.09
A-B	0.01								
A-C	1.52								
D-ABC	0.22	7.80	0.029		0.04	0.03	0.5		0.13
C-ABD	0.03	11.07	0.003		0.00	0.00	0.0		0.09
C-D	0.09								
C-A	1.46								

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)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
18.00-18.15									
B-ACD	0.30	8.20	0.037		0.05	0.04	0.6		0.13
A-BCD	0.07	10.96	0.006		0.01	0.01	0.1		0.09
A-B	0.01								
A-C	1.27								
D-ABC	0.19	7.88	0.024		0.03	0.02	0.4		0.13
C-ABD	0.03	10.96	0.003		0.00	0.00	0.0		0.09
C-D	0.08								
C-A	1.23								

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

QUEUE FOR STREAM B-ACD

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.00	0.0
17.15	0.0
17.30	0.1
17.45	0.1
18.00	0.0
18.15	0.0

QUEUE FOR STREAM A-BCD

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.00	0.0
17.15	0.0
17.30	0.0
17.45	0.0
18.00	0.0
18.15	0.0

QUEUE FOR STREAM D-ABC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.00	0.0
17.15	0.0
17.30	0.0
17.45	0.0
18.00	0.0
18.15	0.0

QUEUE FOR STREAM C-ABD

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.00	0.0
17.15	0.0
17.30	0.0
17.45	0.0
18.00	0.0
18.15	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I	STREAM	I	TOTAL DEMAND	I	* QUEUEING *	I	* INCLUSIVE QUEUEING *	I
I	I	I	I	I	* DELAY *	I	* DELAY *	I
I	I	I	I	I	I	I	I	I
I	I	I	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
I	B-ACD	I	33.0	I 22.0	I 4.2	I 0.13	I 4.2	I 0.13
I	A-BCD	I	8.0	I 5.4	I 0.8	I 0.10	I 0.8	I 0.10
I	A-B	I	1.4	I 0.9	I	I	I	I
I	A-C	I	139.3	I 92.8	I	I	I	I
I	D-ABC	I	20.6	I 13.8	I 2.7	I 0.13	I 2.7	I 0.13
I	C-ABD	I	3.2	I 2.1	I 0.3	I 0.09	I 0.3	I 0.09
I	C-D	I	8.2	I 5.5	I	I	I	I
I	C-A	I	134.5	I 89.6	I	I	I	I
I	ALL	I	348.2	I 232.2	I 8.0	I 0.02	I 8.0	I 0.02

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 * 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

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