

Appendix 13-1-4

Run Analysis

PICADY

GUI Version: 5.1 AD
Analysis Program Release: 4.0 (SEPT 2008)

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The user of this computer program for the solution of an engineering problem is in no way relieved of their responsibility for the correctness of the solution

Run Analysis

Parameter	Values
File Run	C:\AL Traffic jobs\Picady - Timahoe\PM 2021 with dev.vpi
Date Run	10 December 2018
Time Run	14:40:39
Driving Side	Drive On The Left

Arm Names and Flow Scaling Factors

Arm	Arm Name	Flow Scaling Factor (%)
Arm A	R402 east	100
Arm B	L5025	100
Arm C	R402 west	100

Stream Labelling Convention

Stream A-B contains traffic going from A to B etc.

Run Information

Parameter	Values
Run Title	Timahoe North Project EIAR
Location	R402 / L5025 junction
Date	23 August 2018
Enumerator	adl [ADL-PC]
Job Number	5290
Status	TIA
Client	Bord na Mona
Description	-

Errors and Warnings

Parameter	Values
Warning	No Errors Or Warnings

Geometric Data

Geometric Parameters

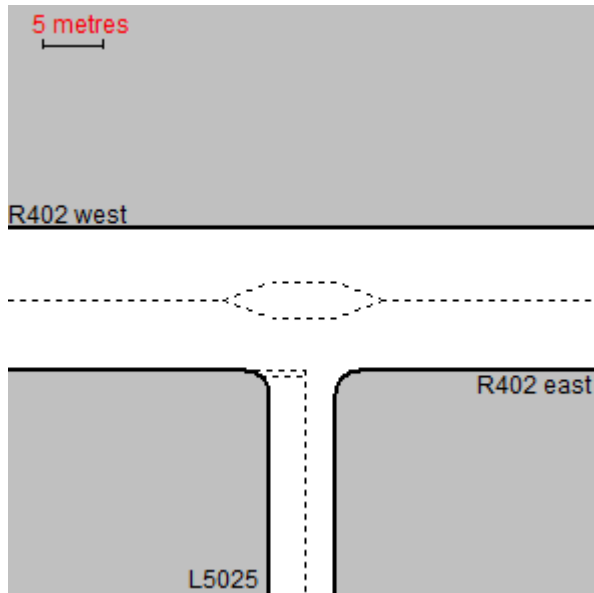
Parameter	Minor Arm B
Major Road Carriageway Width (m)	9.00
Major Road Kerbed Central Reserve Width (m)	0.00
Major Road Right Turning Lane Width (m)	3.00
Minor Road First Lane Width (m)	3.00
Minor Road Visibility To Right (m)	50
Minor Road Visibility To Left (m)	50
Major Road Right Turn Visibility (m)	100
Major Road Right Turn Blocks Traffic	No

Slope and Intercept Values

Stream	Intercept for Stream B-A	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	518.507	0.082	0.208	0.131	0.296
B-C	655.413	0.087	0.221	-	-
C-B	686.890	0.231	0.231	-	-

Note: Streams may be combined in which case capacity will be adjusted
 These values do not allow for any site-specific corrections

Junction Diagram



Demand Data

Modelling Periods

Parameter	Period	Duration (min)	Segment Length (min)
First Modelling Period	16:45-18:15	90	15

ODTAB Turning Counts

Demand Set: Timahoe North Solar
Modelling Period: 16:45-18:15

From/To	Arm A	Arm B	Arm C
Arm A	0.0	30.0	542.0

Arm B	55.0	0.0	79.0
Arm C	172.0	24.0	0.0

ODTAB Synthesised Flows

Demand Set: Timahoe North Solar
Modelling Period: 16:45-18:15

Arm	Rising Time	Rising Flow (veh/min)	Peak Time	Peak Flow (veh/min)	Falling Time	Falling Flow (veh/min)
Arm A	17:00	7.150	17:30	10.725	18:00	7.150
Arm B	17:00	1.675	17:30	2.512	18:00	1.675
Arm C	17:00	2.450	17:30	3.675	18:00	2.450

Heavy Vehicles Percentages

Demand Set: Timahoe North Solar
Modelling Period: 16:45-18:15

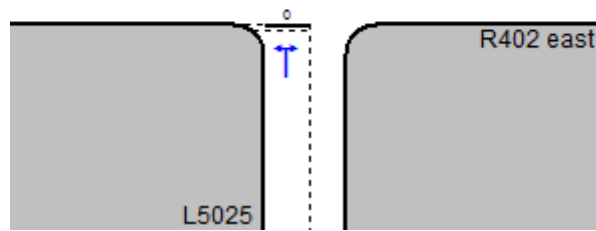
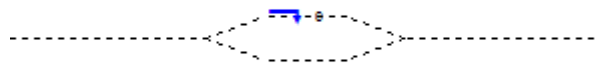
From/To	Arm A	Arm B	Arm C
Arm A	-	10.0	10.0
Arm B	10.0	-	10.0
Arm C	10.0	10.0	-

Default proportions of heavy vehicles are used

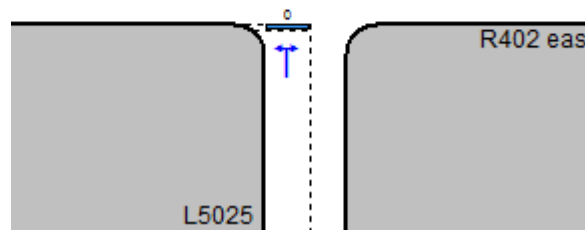
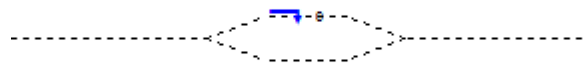
Queue Diagrams

Demand Set: Sum of Demand Sets for Modelling Period: 16:45 - 18:15
Modelling Period: 16:45-18:15
View Extent: 40m

Queue Interval 1: 16:45-17:00



Queue Interval 2: 17:00-17:15



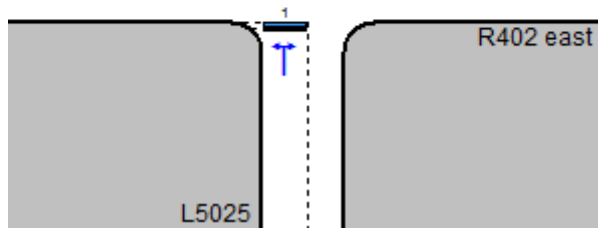
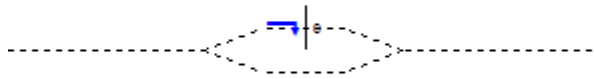
Queue Interval 3: 17:15-17:30

Queue Interval 4: 17:30-17:45

5 metres

17:30

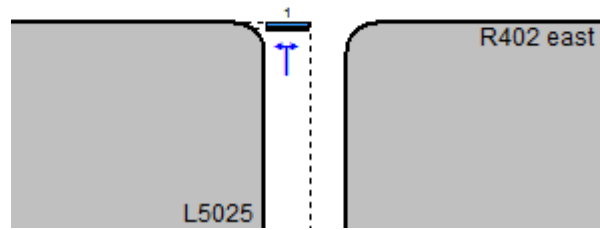
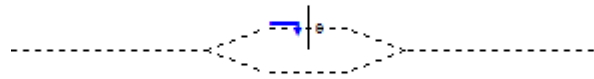
R402 west



5 metres

17:45

R402 west

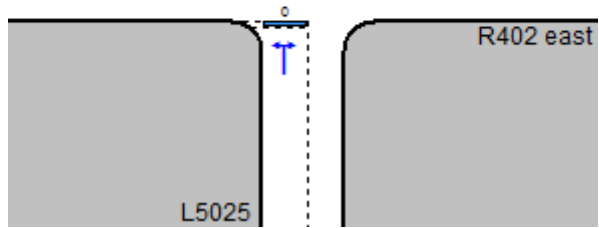
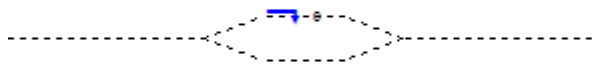


Queue Interval 5: 17:45-18:00

5 metres

18:00

R402 west

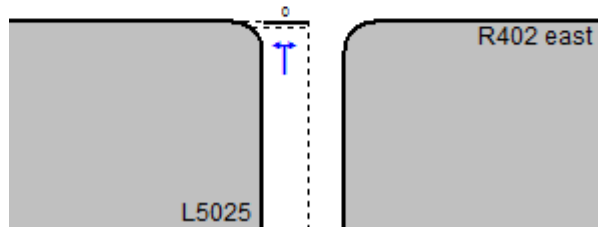
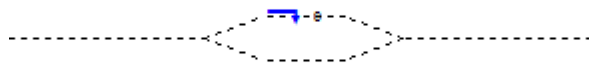


Queue Interval 6: 18:00-18:15

5 metres

18:15

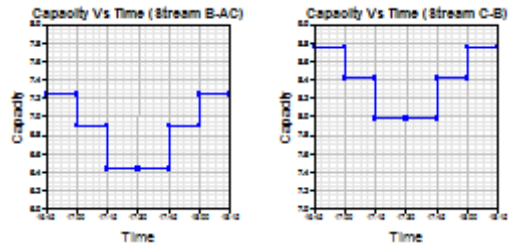
R402 west



Capacity Graph

Demand Set: Sum of Demand Sets for Modelling Period: 16:45 - 18:15

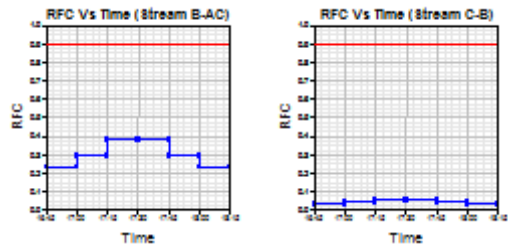
Modelling Period: 16:45-18:15



RFC Graph

Demand Set: Sum of Demand Sets for Modelling Period: 16:45 - 18:15

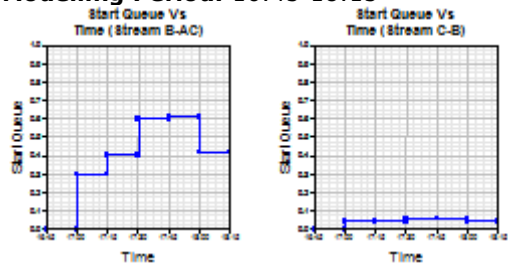
Modelling Period: 16:45-18:15



Start Queue Graph

Demand Set: Sum of Demand Sets for Modelling Period: 16:45 - 18:15

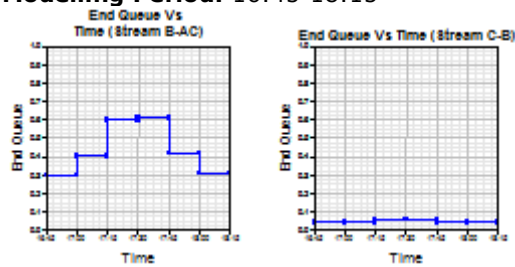
Modelling Period: 16:45-18:15



End Queue Graph

Demand Set: Sum of Demand Sets for Modelling Period: 16:45 - 18:15

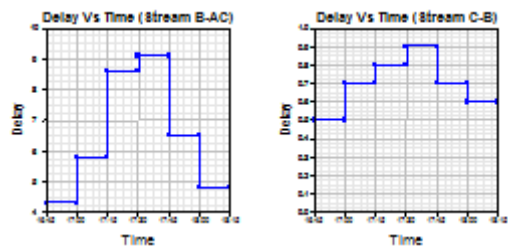
Modelling Period: 16:45-18:15



Delay Graph

Demand Set: Sum of Demand Sets for Modelling Period: 16:45 - 18:15

Modelling Period: 16:45-18:15



Segment	Stream	Demand(veh/min)	Capacity(veh/min)	RFC	Ped.Flow(ped/min)	Start Queue(veh)	End Queue(veh)	Geometric Delay(veh.min/segment)	Delay(veh.min/segment)	Mean Arriving Vehicle Delay(min)
18:00-18:15	B-AC	1.68	7.24	0.232	-	0.42	0.31	-	4.8	0.18
	C-A	2.16	-	-	-	-	-	-	-	-
	C-B	0.30	8.75	0.034	-	0.04	0.04	-	0.6	0.12
	A-B	0.38	-	-	-	-	-	-	-	-
	A-C	6.80	-	-	-	-	-	-	-	-

Entry capacities marked with an '(X)' are dominated by a pedestrian crossing in that time segment.

In time segments marked with a '(B)', traffic leaving the junction may block back from a crossing so impairing normal operation of the junction.

Delays marked with '###' could not be calculated.

Overall Queues & Delays

Queueing Delay Information Over Whole Period

Demand Set: Sum of Demand Sets for Modelling Period: 16:45 - 18:15

Modelling Period: 16:45-18:15

Stream	Total Demand (veh)	Total Demand (veh/h)	Queueing Delay (min)	Queueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-AC	184.4	123.0	39.2	0.2	39.2	0.2
C-A	236.7	157.8	-	-	-	-
C-B	33.0	22.0	4.1	0.1	4.1	0.1
A-B	41.3	27.5	-	-	-	-
A-C	746.0	497.3	-	-	-	-
All	1241.5	827.7	43.3	0.0	43.3	0.0

Delay is that occurring only within the time period.

Inclusive delay includes delay suffered by vehicles which are still queuing 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.

PICADY 5 Run Successful